GE HealthCare

Definium Tempo Pro/ Definium Tempo

Pre-Installation

GENERAL SERVICE DOCUMENTATION

Direction 5743002-1EN
Revision 11
US English

LEGAL NOTES

TRADEMARKS

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Contact Information

Definium Tempo Pro/ Definium Tempo

Definium Tempo Pro/ Definium Tempo Systems can be sold by the below names and be manufactured by the below manufactures.

Model Name	Definium Tempo Pro/Definium Tempo	
Manufacturer (*)	GE Hualun Medical Systems Co., Ltd.	
Manufacturer address	No. 1, Yong Chang North Road, Beijing Economic Technological Development Zone, 100176 Beijing P.R. China	
Manufacturing site	GE Hualun Medical Systems Co., Ltd.	GE MEDICAL SYSTEMS MONTERREY, MEXICO S.A. DE C.V.
Manufacturing site address	No. 1, Yong Chang North Road, Beijing Economic Technological Development Zone, 100176 Beijing P.R. China	Calle Espana N°300, Parque Industrial Huinalà, Apodaca NUEVO LEON CP 66645 MEXICO

Language Policy

DOC0371395 - Global Language Procedure

PARALAJMËRIM (SQ-AL)	Ky manual është i disponueshëm në disa gjuhë. • Nëse një ofrues shërbimi klientësh kërkon një gjuhë të ndryshme nga ato që mundësohen në Portalin e dokumentacionit të klientit, është përgjegjësia e klientit që të ofrojë shërbime përkthimi. • Mos u përpiqni të kryeni shërbime në pajisje, pa lexuar dhe kuptuar paraprakisht manualin e shërbimit. • Mosrespektimi i këtij paralajmërimi mund të çojë në lëndim të ofruesit të shërbimit, operatorit ose pacientit si pasojë e goditjes elektrike, mekanike ose një rreziku tjetër.
تحذير (AR-SA)	هذا الدليل متوفر بعدة لغات • إذا كان مقدم الخدمة التابع للعميل يطلب لغة غير تلك المتوفرة في بوابة توثيق العميل، فإنه يقع على عاتق العميل مسؤولية تقديم خدمات الترجمة • لا تحاول صيانة الجهاز ما لم تتم استشارة دليل الخدمة هذا وفهمه • قد يؤدي عدم مراعاة هذا التحذير إلى إصابة مقدم الخدمة أو المشغل أو المريض من جراء الصدمات الكهربائية أو المخاطر الميكانيكية أو غيرها من المخاطر

ПРЕДУПРЕЖДЕНИЕ (BG)	Това ръководство е налично на няколко езика. • Ако доставчикът на услуги на даден клиент изисква език, който е различен от осигурените в портала с документация за клиенти, отговорност на клиента е да предостави преводачески услуги. • Не се опитвайте да обслужвате оборудването, освен ако не сте се консултирали с това сервизно ръководство и сте го разбрали. • Несъблюдаването на това предупреждение може да доведе до нараняване на предоставящия услугите, оператора или пациента вследствие на токов удар, механична или други опасности.
警告 (ZH-CN)	本手册有多种语言版本。 • 如果客户的服务提供商要求使用 Customer Documentation Portal（客户文档门户）未提供的其他语言，则客户有责任提供相应的翻译服务。 • 请勿尝试检修设备，除非已明确参考并理解本检修手册。 • 不遵循此警告可能会导致检修服务提供者、操作员或患者受到触电、机械或其他危害的损伤。
警告 (ZH-HK)	本手冊備有多個語言版本。 • 若客戶的服務提供者所需語言版本不在 Customer Documentation Portal（客戶文件入口網站）所列語言之中，客戶需自行負責提供翻譯服務。 • 除非已查閱並理解本檢修手冊，否則，請勿嘗試檢修設備。 • 不遵循此警告可能會導致服務提供者、操作員或患者因為觸電、機械或其他危險而受傷。
警告 (ZH-TW)	本手冊備有多個語言版本。 • 若客戶的服務提供者所需語言版本不在 Customer Documentation Portal（客戶文件入口網站）所列語言之中，客戶需自行負責提供翻譯服務。 • 除非已查閱並理解本檢修手冊，否則，請勿嘗試檢修設備。 • 不遵循此警告可能會導致服務提供者、操作員或患者因為觸電、機械或其他危險而受傷。
UPOZORENJE (HR)	Ovaj je priručnik dostupan na nekoliko jezika. • Ako serviser klijenta zahtijeva jezik koji nije jedan od jezika dostupnih na portalu s korisničkom dokumentacijom (Customer Documentation Portal), odgovornost je klijenta pružiti uslugu prevođenja. • Nemojte pokušavati servisirati opremu ako niste proučili i razumjeli ovaj servisni priručnik. • Nepoštovanje ovog upozorenja može izazvati ozljede servisera, rukovatelja ili pacijenta kao posljedicu strujnog udara, mehaničkih ili drugih opasnosti.
VÝSTRAHA (CS)	Tato příručka je k dispozici v několika jazycích. • Pokud zákazníkův poskytovatel služeb vyžaduje jiný jazyk než jazyky, které jsou k dispozici na portálu s uživatelskou dokumentací, je odpovědností zákazníka poskytnout překladatelské služby. • Nepokoušejte se provádět servis zařízení, aniž byste prostudovali tuto servisní příručku a porozuměli jí. • Nedodržení tohoto varování může vést ke zranění poskytovatele služeb, obsluhy nebo pacienta, způsobenému úrazem elektrickým proudem či mechanickým nebo jiným nebezpečím.
ADVARSEL (DA)	Denne vejledning fås på flere sprog. • Hvis en kundes tjenesteudbyder kræver et andet sprog end dem, der er til rådighed i Kundedokumentationsportalen, er det kundens ansvar at levere oversættelsestjenester. • Undgå at forsøge at udføre service på udstyret, medmindre du har læst og forstået denne servicevejledning. • Hvis du undlader at overholde denne advarsel, kan det føre til skader på servicemedarbejderen, operatøren eller patienten på grund af elektrisk stød, mekaniske eller andre farer.

WAARSCHUWING (NL)	Deze handleiding is in verschillende talen beschikbaar. • Als de serviceprovider van een klant een andere taal vereist dan de talen die beschikbaar worden gesteld in het Customer Documentation Portal (Klantdocumentatieportaal), is het de verantwoordelijkheid van de klant om vertaalservices te leveren. • Probeer geen service op de apparatuur uit te voeren zonder de servicehandleiding te hebben gelezen en begrepen. • Het negeren van deze waarschuwing kan leiden tot letsel bij de serviceprovider, de operator of de patiënt door elektrische schokken, mechanische of andere gevaren.
WARNING (EN)	This manual is available in several languages. • If a customer's service provider requires a language other than those provided in the Customer Documentation Portal, it is the customer's responsibility to provide translation services. • Do not attempt to service the equipment unless this service manual has been consulted and is understood. • Failure to heed this warning may result in injury to the service provider, operator or patient from electric shock, mechanical or other hazards.
HOIATUS (ET)	Käesolev juhend on saadaval mitmes keeles. • Kui kliendi teenusepakkuja vajab juhendit mõnes muus keeles, mida pole kliendidokumentatsiooni portaalis, on kliendi kohustuseks tõlketeenuste osutamine. • Ärge hakake seda seadet hooldama enne, kui olete käesolevat hooldusjuhendit lugenud ja selle sisu mõistnud. • Selle hoiatuse eiramine võib põhjustada hooldusteenuse pakkujale, operaatorile või patsiendile elektrilöögist, mehhaanilistest või muudest ohtudest tulenevaid vigastusi.
VAROITUS (FI)	Tämä opas on saatavilla useilla kielillä. • Jos asiakkaan palveluntarjoaja edellyttää muita kuin asiakkaan asiakirjaportaalissa saatavilla olevia kieliä, käännöspalveluiden tarjoaminen on asiakkaan vastuulla. • Lue huolto-opas huolellisesti ennen laitteen huoltotoimenpiteiden suorittamista. • Tämän varoituksen huomiotta jättäminen voi johtaa huollon suorittajan, laitteen käyttäjän tai potilaan loukkaantumiseen sähköiskun, mekaanisen vaaran tai muun vaaran vuoksi.
ATTENTION (FR)	Ce manuel est disponible en plusieurs langues. • Si le prestataire de services d'un client nécessite que le manuel soit rédigé dans une autre langue que celles fournies sur le Portail de Documentation Client, il incombe au client de le faire traduire. • Ne pas essayer d’assurer la maintenance de l’équipement sans avoir au préalable consulté et compris les informations contenues dans ce manuel. • Le non-respect de cet avertissement peut entraîner chez le technicien, l’opérateur ou le patient des blessures dues à des dangers électriques, mécaniques ou autres.
WARNUNG (DE)	Dieses Handbuch ist in mehreren Sprachen erhältlich. • Wenn ein Dienstleister des Kunden dieses in einer anderen Sprache als der im Kundendokumentationsportal verfügbaren benötigt, liegt es in der Verantwortung des Kunden, Übersetzungsdienstleistungen zu erbringen. • Wartungsarbeiten am Gerät dürfen nur durchgeführt werden, nachdem dieses Wartungshandbuch gelesen und verstanden wurde. • Andernfalls besteht Verletzungsgefahr für den Dienstleister, Bediener oder Patienten durch Stromschlag, mechanische Gefahren oder andere Gefahren.

ΠΡΟΕΙΔΟΠΟΙΗΣΗ (EL)	Αυτό το εγχειρίδιο διατίθεται σε διάφορες γλώσσες. • Εάν ο πάροχος υπηρεσιών συντήρησης ενός πελάτη χρειάζεται διαφορετική γλώσσα από αυτές που διατίθενται στο Customer Documentation Portal (Πύλη τεκμηριώσεων πελάτη), ο πελάτης είναι υπεύθυνος για την παροχή υπηρεσιών μετάφρασης. • Μην επιχειρήσετε να εκτελέσετε συντήρηση του εξοπλισμού, εάν δεν έχετε διαβάσει και κατανοήσει το παρόν εγχειρίδιο συντήρησης. • Εάν δεν τηρήσετε αυτήν την προειδοποίηση, μπορεί να προκληθεί τραυματισμός του παρόχου υπηρεσιών συντήρησης, του χειριστή ή του ασθενούς λόγω ηλεκτροπληξίας, μηχανικής βλάβης ή άλλου κινδύνου.
אזהרה (HE)	מדריך זה זמין במספר שפות • אם ספק שירות של לקוח זקוק לשפה שאינה מסופקת ב-Customer Documentation Portal (פורטל תיעוד באחריות הלקוח לספק את שירותי התרגום, ללקוחות) • אסור לנסות להעניק שירות לציוד לפני עיון במדריך שירות זה והבנת התוכן שלו • פעולה שלא בהתאם לאזהרה זו עלולה לגרום לפציעה של ספק השירות, המפעיל או המטופל כתוצאה מהתחשמלות, סיכונים מכניים או סיכונים אחרים
FIGYELMEZTETÉS (HU)	Ez a kézikönyv több nyelven is rendelkezésre áll. • Ha az ügyfél szervizszolgáltatója azoktól eltérő nyelvű kézikönyvet szeretne, mint amelyeket az Ügyféldokumentációs portálon biztosítunk, akkor az ügyfél feladata, hogy gondoskodjon a megfelelő fordításról. • Ne próbálkozzon a berendezés szervizelésével anélkül, hogy a jelen szervizkézikönyvet elolvasta és megértette volna. • Ennek a figyelmeztetésnek a figyelmen kívül hagyása áramütés, mechanikai vagy egyéb veszélyek következtében a szervizszolgáltató, a kezelő vagy a páciens sérülését okozhatja.
AÐVÖRUN (IS)	Þessi handbók er fáanleg á mörgum tungumálum. • Ef þjónustuaðili viðskiptavinar þarfnast annars tungumáls en þessara tungumála er það á ábyrgð viðskiptavinarins að veita þýðingarþjónustu. • Ekki reyna að þjónusta búnaðinn fyrr en búið er að lesa og skilja þessa þjónustuhandbók. • Sé ekki farið eftir þessari viðvörun getur það valdið meiðslum á þjónustuaðila, notanda eða sjúklingi af völdum raflosts, vélrænna áverka eða annarar hættu.
PERINGATAN (IN)	Manual ini tersedia dalam beberapa bahasa. • Jika penyedia layanan pelanggan membutuhkan bahasa selain dari yang disediakan dalam Portal Dokumentasi Pelanggan, merupakan tanggung jawab pelanggan untuk menyediakan layanan penerjemahan. • Jangan berupaya untuk melakukan servis pada peralatan sebelum menyimak manual servis dan memahami isinya. • Jika peringatan ini tidak ditaati, ini dapat menyebabkan cedera penyedia layanan, operator, atau pasien, akibat sengatan listrik, bahaya mekanis, atau bahaya lainnya.
AVVERTENZA (IT)	Il presente manuale è disponibile in varie lingue. • Qualora un fornitore di servizi del cliente richieda una lingua diversa da quelle fornite nel Portale con la documentazione per il cliente, sarà responsabilità del cliente fornire il servizio di traduzione corrispondente. • Non tentare di riparare l'apparecchiatura se non si è prima consultato e compreso il presente manuale di servizio. • Il mancato rispetto di questa avvertenza può provocare lesioni per il fornitore dei servizi, per l'operatore o per il paziente, a causa di scosse elettriche, meccaniche o altri pericoli.

警告 (JA)	本マニュアルは多言語で提供されています。 • お客様のサービスプロバイダが、お客様ドキュメントポータルページで使用されていない言語を必要とする場合は、お客様の責任で翻訳サービスを提供してください。 • 機器の保守を行う場合は、必ず本サービスマニュアルを読み理解した上で行ってください。 • この警告に従わない場合は、サービスプロバイダー、オペレータ、または患者が、感電、機械的異常、またはその他の有害要因によって負傷する恐れがあります。
경고 (KO)	이 설명서는 여러 언어로 제공됩니다. • 고객의 서비스 제공자가 고객 문서 포털에 제공된 언어가 아닌 다른 언어를 요구하는 경우 번역 서비스를 제공하는 것은 고객의 책임입니다. • 이 서비스 설명서를 참고했고 이해하지 않는 한은 해당 장비를 수리하려고 시도하지 마십시오. • 이 경고를 지키지 않으면 감전, 기계상의 위험 또는 다른 위험으로부터 서비스 제공자, 사용자 또는 환자가 다칠 수 있습니다.
BRĪDINĀJUMS (LV)	Šī rokasgrāmata ir pieejama vairākās valodās. • Ja klientu apkalpošanas speciālistam ir nepieciešama cita valoda, kas nav piedāvāta klientu dokumentācijas portālā, klienta pienākums ir nodrošināt tulkošanas pakalpojumus. • Nemēģiniet veikt aprīkojuma apkopi, kamēr nav izlasīta un izprasta apkopes rokasgrāmata. • Ja šis brīdinājums netiek ņemts vērā, pakalpojumu sniedzējs, operators vai pacients var tikt savainots elektriskās strāvas trieciena, mehāniskas vai citas bīstamības rezultātā.
ĮSPĖJIMAS (LT)	Šis vadovas yra išverstas į keletą kalbų. • Jei kliento paslaugų teikėjui reikalingas vertimas į kitą kalbą, kurios nėra kliento dokumentacijos portale, už vertimo paslaugų suteikimą atsako klientas. • Neatlikite įrangos techninės priežiūros, kol neperžiūrėjote ir neišsiaiškinote šio techninės priežiūros vadovo. • Nepaisant šio įspėjimo dėl elektros smūgio, mechaninio arba kitokio pavojaus gali būti sužalotas paslaugų teikėjas, operatorius arba pacientas.
TWISSIJA (MT)	Dan il-manwal huwa disponibbli f'diversi lingwi. • Jekk fornitur tas-servizz ta' klijent ikun jeħtieġ lingwa għajr dawk ipprovduti fil-Portal tad-Dokumentazzjoni tal-Klijent, hija r-responsabbiltà tal-klijent li jipprovdi servizzi ta' traduzzjoni. • Tippruvax tagħmel service fuq it-tagħmir sakemm ma jkunx ġie kkonsultat u mifhum dan il-manwal għas-service. • Jekk wieħed jonqos milli josserva din it-twissija, dan jista' jwassal f'korriment lill-fornitur tas-servizz, lill-operatur jew lill-pazjent minn xokk elettriku, mekkaniku, jew perikli oħra.
ADVARSEL (NO)	Denne håndboken er tilgjengelig på flere språk. • Hvis en kundes tjenesteleverandør krever et annet språk enn de som finnes i dokumentasjonsportalen for kunder, er det kundens ansvar å levere en oversettelsestjeneste. • Ikke prøv å utfør service på utstyret med mindre man har konsultert og forstått servicehåndboken. • Om denne advarselen ikke følges kan det føre til skade på tjenesteleverandør, operatør eller pasient fra elektrisk støt, mekanisk eller annen fare.
OSTRZEŻENIE (PL)	Niniejszy podręcznik jest dostępny w kilku językach. • Jeżeli serwisant klienta wymaga języka, który nie został udostępniony w portalu dokumentacji klienta, obowiązkiem klienta jest zapewnienie usług tłumaczeniowych. • Nie podejmować prób serwisowania urządzenia bez uprzedniego zapoznania się z niniejszym podręcznikiem serwisowym i zrozumienia jego treści. • Nieprzestrzeganie tego ostrzeżenia może spowodować obrażenia u serwisanta, operatora lub pacjenta, spowodowane porażeniem prądem, zagrożeniami mechanicznymi lub innymi.

ATENÇÃO (PT-BR)	Este manual está disponível em vários idiomas. • Se o prestador de serviços de um cliente necessitar de um idioma diferente dos fornecidos no Portal da Documentação do Cliente, o fornecimento dos serviços de tradução é de responsabilidade do cliente. • Não tente realizar manutenção do equipamento a menos que o manual de serviço tenha sido consultado e seja entendido. • O não cumprimento deste aviso resultará em lesões ao provedor de serviço, operador ou paciente de choque elétrico, mecânico ou outros riscos.
ATENÇÃO (PT-PT)	Este manual está disponível em vários idiomas. • Se o fornecedor de serviços de um cliente necessitar de um idioma diferente dos fornecidos no Portal de Documentação do Cliente, é da responsabilidade do cliente assegurar os serviços de tradução. • Não experimente reparar o equipamento sem primeiro consultar, e compreender, o presente manual de assistência. • O incumprimento deste aviso pode resultar em ferimentos para o técnico de reparação, o operador ou o paciente decorrentes de perigos de eletrocussão, mecânicos ou outros.
ATENŢIE (RO)	Acest manual este disponibil în mai multe limbi. • Dacă furnizorul de servicii al unui client necesită o limbă diferită de cele furnizate în Customer Documentation Portal (Portalul cu documentaţie pentru clienţi), este responsabilitatea clientului să furnizeze servicii de traducere. • Nu încercaţi să efectuaţi întreţinerea echipamentului decât dacă aţi consultat şi aţi înţeles acest manual de service. • Nerespectarea acestei avertizări poate duce la rănirea furnizorului de servicii, a operatorului sau a pacientului din cauza şocurilor electrice, mecanice sau a altor pericole.
ПРЕДУПРЕЖДЕНИЕ (RU)	Это руководство доступно на нескольких языках. • Если поставщику услуг заказчика требуется языковая версия, отличная от предложенных на портале документации для заказчиков, перевод руководства на необходимый язык осуществляется стороной заказчика. • Не начинайте эксплуатацию оборудования без предварительного надлежащего ознакомления с этим руководством. • Если вы проигнорируете это предупреждение, поставщик услуг, оператор или пациент могут получить механические травмы, травмы вследствие поражения электрическим током или другие увечья.
UPOZORENJE (SR)	Ovaj priručnik je dostupan na nekoliko jezika. • Ako korisnikov serviser zahteva neki drugi jezik osim onih koji su dostupni na portalu sa korisničkom dokumentacijom (Customer Documentation Portal), klijent mora da obezbedi prevod. • Nemojte pokušavati da servisirate opremu ako niste proučili i razumeli ovaj priručnik za servisiranje. • Nepoštovanje ovog upozorenja može da izazove povrede servisera, operatera ili pacijenta kao posledicu strujnog udara, mehaničkih ili drugih opasnosti.
UPOZORNENIE (SK)	Táto príručka je k dispozícii v niekoľkých jazykoch. • Ak poskytovateľ služieb daného zákazníka požaduje jazyk odlišný od jazykov dostupných na portáli s dokumentáciou pre zákazníkov, za prekladateľské služby zodpovedá zákazník. • Nepokúšajte sa vykonávať servis na zariadení, pokiaľ ste si neprečítali a nepochopili pokyny v servisnej príručke. • Nedodržanie tohto varovania môže byť príčinou úrazu poskytovateľa servisu, obsluhy alebo pacienta v dôsledku zásahu elektrickým prúdom alebo v dôsledku mechanických alebo iných nebezpečenstiev.

OPOZORILO (SL)	Ta priročnik je na voljo v več jezikih. • Če ponudnik storitev stranke potrebuje priročnik v jeziku, ki ni na voljo na portalu z dokumentacijo stranke, mora stranka zagotoviti prevod. • Opreme ne poskušajte servisirati, če niste prebrali in razumeli tega servisnega priročnika. • V primeru neupoštevanja tega opozorila lahko pride do telesnih poškodb ponudnika storitev, upravljavca ali pacienta zaradi električnega udara, mehanskih ali drugih nevarnosti.
ADVERTENCIA (ES)	Este manual se encuentra disponible en varios idiomas. • Si el proveedor de servicios de un cliente requiere un idioma distinto de los proporcionados en el Customer Documentation Portal (Portal de documentación para clientes), es responsabilidad del cliente proporcionar los servicios de traducción. • No intente realizar el mantenimiento del sistema a menos que haya consultado y comprendido este manual de servicio. • El incumplimiento de esta advertencia puede causar lesiones al suministrador de servicios, el operador o el paciente debido a descarga eléctrica, mecánica u otros riesgos.
VARNING (SV)	Denna manual är tillgänglig på flera språk. • Om en kunds tjänsteleverantör behöver ett annat språk än de som tillgängliggjorts på portalen för kunddokumentation är det kundens ansvar att erbjuda översättningstjänster. • Försök inte att reparera utrustningen utan att först rådfråga och förstå denna servicehandbok. • Om denna varning inte beaktas kan det leda till skada för tjänsteleverantör, operatör eller patient genom elektrisk stöt, mekaniska eller andra faror.
DİKKAT (TR)	Bu kılavuz birden fazla dilde sunulmaktadır. • Bir müşterinin servis sağlayıcısı Müşteri Belgeleri Portalı'nda sağlananlardan farklı bir dil talep ederse çeviri hizmeti sağlamak müşterinin sorumluluğundadır. • Bu servis kılavuzuna başvurmadan ve içeriğini anlamadan ekipman üzerinde servis işlemi yapmayı denemeyin. • Bu uyarıya uyulmaması; elektrik çarpması, mekanik tehlikeler veya başka tehlikelerden ötürü servis sağlayıcı, operatör veya hastanın yaralanmasıyla sonuçlanabilir.
ПОПЕРЕДЖЕННЯ (UK)	Цей посібник доступний кількома мовами. • Якщо постачальник послуг замовника використовує мову, яку не вказано на порталі з документацією для замовників, послуги з перекладу має забезпечити замовник. • Не починайте роботу з обладнанням без попереднього належного ознайомлення з посібником із використання. • Якщо ви проігноруєте це попередження, постачальник послуг, оператор або пацієнт можуть зазнати механічних травм, ураження електричним струмом або інших тілесних ушкоджень.
CẢNH BAO (VI)	Tài liệu hướng dẫn này có sẵn ở một số ngôn ngữ. • Nếu nhà cung cấp dịch vụ của khách hàng yêu cầu ngôn ngữ khác với ngôn ngữ được cung cấp trong Cổng Thông Tin Tài Liệu Khách Hàng, khách hàng có trách nhiệm cung cấp dịch vụ dịch thuật. • Không cố bảo dưỡng thiết bị trừ khi đã tham khảo và hiểu rõ hướng dẫn sử dụng này. • Việc không chú ý đến cảnh báo này có thể dẫn đến thương tích cho nhà cung cấp dịch vụ, người vận hành hoặc bệnh nhân do điện giật, nguy hiểm cơ học hoặc các mối nguy hiểm khác.

Revision History

Rev	Date	Reason For Change
1	Aug 25, 2020	Initial Release.
2	July 19, 2021	Updated contents.

Rev	Date	Reason For Change
3	Sep 9, 2021	Updated contents.
4	Nov 29, 2021	Updated contents.
5	Apr 12, 2022	Added Seismis section in Chapter 2. Updated content of Table 2-2, Table 2-8 and Table 2-9 Added pictures of Figure 2-10 and 2-9, updated Figure 2-58, Figure 2-10 and Figure 2-9 related table contents.

Rev	Date	Reason For Change
6	Nov 08, 2022	Updated: 1. Chapter 1 General Requirements • 1.3.3 Shipping Fixtures and Carts 2. Chapter 2 Equipment • 2.1.1 System Components • 2.1.2.3.2 Floor Requirements When Using Provided Typical Floor Anchors • 2.1.2.3.4 PC Floor Mounting Requirement for Seismic Region • 2.1.2.4 Ceiling Requirements • 2.1.2.4.1 Rail & Bridge and Room Heights • 2.1.2.4.2 Room structure Requirements • 2.1.2.4.3 Modify Bridge Length • 2.1.2.4.5 Universal Rail requirements • 2.2.1 Dimensions • 2.2.3 Table • 2.2.5 Over-Head Tube Support (OTS) • 2.2.6 Wall Stands • 2.2.10 Weights, Floor/Ceiling Loading and Recommended Mounting Methods • 2.2.11 Longitudinal Rails • 2.3.1 Required Service Access Clearance • 2.3.3.3 Typical room template • 2.4.2 Calculations • 2.4.3.1 G4 Table (GCTBL-C4) • 2.4.3.2 Detector BIN 5765692 • 2.4.3.3 Tether Interface Box • 2.4.3.4 HP Z4G4 Workstation • 2.4.3.5 AP Assembly • 2.4.3.6 Grid Box • 2.4.3.7 G3 Wall Stand GCWS-C3 • 2.4.3.8 G3 Extended Wall Stand GCEWS-C3 • 2.4.3.9 Non-tilting Wall stand GCWS-C5 • 2.4.3.10 VCP Cabinet GCC-C4 • 2.4.3.11 OTS With Bridge 3. Chapter 4 HVAC-Environmental Requirements • 4.4 Heat Output • 4.5 EMC Requirement 4. Chapter 5 Electrical • 5.5.1 System Equipment Cable Entrance 5. Chapter 7 System Cable Information • 7.2.1 OTS • 7.2.2 Table Standard Length MIS Cable 5496118-2 • 7.2.3 Table Long Length MIS Cables 5496119-2 • 7.2.4 Standard WS Length Version 5862240 • 7.2.5 Ext WS Length Version 5862239 • 7.3 System Master Interconnect Schematic (MIS Map)

Rev	Date	Reason For Change
7	Jul 20, 2023	1. Add MTY MFG in Contact Information. 2. Update graphic title to "VCP System Cabinet" in 2.3.1 Required Service Access Clearance. 3. Update 5848159 information in 7.2.1 OTS. 4. Update USABLE LENGTH of 5368672-4 in 7.2.2 Table Standard Length MIS Cable 5496118-2 and 7.2.3 Table Long Length MIS Cables 5496119-2. 5. Update USABLE LENGTH of 5368670 in 7.2.4 Standard WS Length Version 5862240 and 7.2.5 Ext WS Length Version 5862239. 6. Update UPS info in 2.2.1 Dimensions, 2.2.9 UPS, 2.2.10 Weights, Floor/Ceiling Loading and Recommended Mounting Methods. 7. Update table data and images in 2.3.3 Configurations and option. 8. Update NOTICE content in 2.1.2.3.2 Floor Requirements When Using Provided Typical Floor Anchors. 9. Add CAUTION in 2.1.2.4.2 Room structure Requirements. 10. Update graphic of Table views in 2.2.3 Table.
8	Mar 01, 2024	Updated "GE, GE Healthcare, GEHC" to "GE HealthCare" Updated content: • 2.1.1 System Components • 2.1.1.1 Optional components and change section 2.1.1.1 to section 2.1.2 • 2.1.3.4.5 Universal Rail requirements • 2.2.1 Dimensions • 2.2.2 FlashPad HD Detector • 2.2.7 Stretcher Tables • 2.2.10 Weights, Floor/Ceiling Loading and Recommended Mounting Methods • 7.2.6 TIB
9	Sep 05, 2024	Only update PN revision, no manual contents update.
10	Nov 08, 2024	1. Updated "HP Z4G4 Workstation" to "HP Z4G4 & Z4G5 Workstation" on section "Calculations". 2. Updated topic "HP Z4G4 Workstation" to "HP Workstation" and the name of Fig 2-67. 3. Updated formation of Table Assembly from "M8x135" to "M12x140" on section "Weights, Floor/Ceiling Loading and Recommended Mounting Methods" 4. Updated fig "WS only with 3m bridge" on section "Configurations and option" 5. Updated fig 2-59 on section "Typical room template".

Rev	Date	Reason For Change
11	Apr 27, 2025	Updated contents in: • Chapter 2 Equipment 1.1. Updated spec in Section: 2.1.3.3.1 Floor Levelness Specifications 1.2. Updated strength of concrete to C30. 1.3. Added item "Z4G5" & "Z4G4" in Section: 2.2.10 Weights, Floor/Ceiling Loading and Recommended Mounting Methods 1.4. Updated 3rd data in Section: 2.2.11 Longitudinal Rails • Chapter 4 HVAC-Environmental Requirements 2.1. Added item "Z4G5 + Monitor + RCIM" in Section: 4.4 Heat Output • Chapter 5 Electrical 3.1. Updated 2 notes in Section: 5.2.1 Generator Electrical Requirements • Chapter 7 System Cable Information 4.1. Updated 2 figs in Section: 7.3 System Master Interconnect Schematic (MIS Map)

Contents

Preface Publication Convention

Standardized conventions for representing information is a uniform way of communicating information to a reader in a consistent manner. Conventions are used so that the reader can easily recognize the actions or decisions that must be made. There are a number of character and paragraph styles used in this publication to accomplish this task. Please become familiar with them before proceeding forward.

It is important that you read and understand hazard statements, and not just ignore them.

Safety & Hazard Information

Proper product safety labeling allows a person to safely use or service a product. The format and style for safety communications reflected in this publication represents the harmonization of IEC/ISO 3864 and ANSI Z535 standards.

Within this publication, different paragraph and character styles are used to indicate potential hazards. Paragraph prefixes, such as hazard, caution, danger and warning, are used to identify important safety information. Text (Hazard) styles are applied to the paragraph contents that are applicable to each specific safety statement.

Repair parts weighting more than 35 lbs or require more than 35lbs of mechanical effort shall have written procedures defining lifting assistance tools/features or document that it is a two or more person operation.

Hazard Messages

Any action that will, or could potentially cause personal injury will be preceded by the safety alert symbol and an appropriate signal word. The safety alert symbol is the triangle with an exclamation mark within it. It is always used next to the signal word to indicate the severity of the hazard. Together, they are used to indicate a hazard exists.

Signal words describe the severity of possible human injuries that may be encountered. The alert symbol and signal word are placed immediately before any paragraph they affect. Safety information includes:

1. Signal Word - The seriousness level of the hazard.
2. Symbol or Pictorial - The consequence of interaction with the hazard.
3. Word Message:
    3.1. The nature of the hazard (i.e. the type of hazard).
    3.2. How to avoid the hazard.

    The safety alert symbol is not used when an action can only cause equipment damage.

Text Format of Signal Words

DANGER - INDICATES AN IMMINENTLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, WILL RESULT IN DEATH OR SERIOUS INJURY. THIS SIGNAL WORD IS TO BE LIMITED TO THE MOST EXTREME SITUATIONS.

WARNING - INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN DEATH OR SERIOUS INJURY.

Caution - Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTICE - Indicates information or a company policy that relates directly or indirectly to the safety of personnel or protection of property. This signal word is associated directly with a hazard or hazardous situation and is used in place of 'DANGER,' 'WARNING,' or 'CAUTION.' It can include:

- **Destruction of a disk drive**
- **Potential for internal mechanical damage, such as to a X-ray tube**

Symbols and Pictorials Used

The following Symbols and Pictorials may be used in this publication. These graphical icons (symbols) may be used to make you aware of specific types of hazards that could possibly cause harm.

Equipment Classifications

The following equipment classifications are applicable to the product:

- Equipment classification with respect to protection from electric shock: Class I
- Degree of protection from electric shock: Type B
- Degree of protection against ingress of liquids: Not classified
- Equipment not suitable for use in the presence of a flammable anesthetic mixture with air or with nitrous oxide
- Mode of operation: Continuous operation with intermittent loading

Publication Conventions

General Paragraph and Character Styles

Prefixes are used to highlight important non-safety related information. Paragraph prefixes (such as Purpose, Example, Comment or Note) are used to identify important but non-safety related information. Text styles are also applied to text within each paragraph modified by the specific prefix.

EXAMPLES OF PREFIXES USED FOR GENERAL INFORMATION:

Purpose:

Introduces and provides meaning as to the information contained within the chapter, section or subsection (such as used at the beginning this chapter, for example).

> **NOTE**
> Conveys information that should be considered important to the reader.

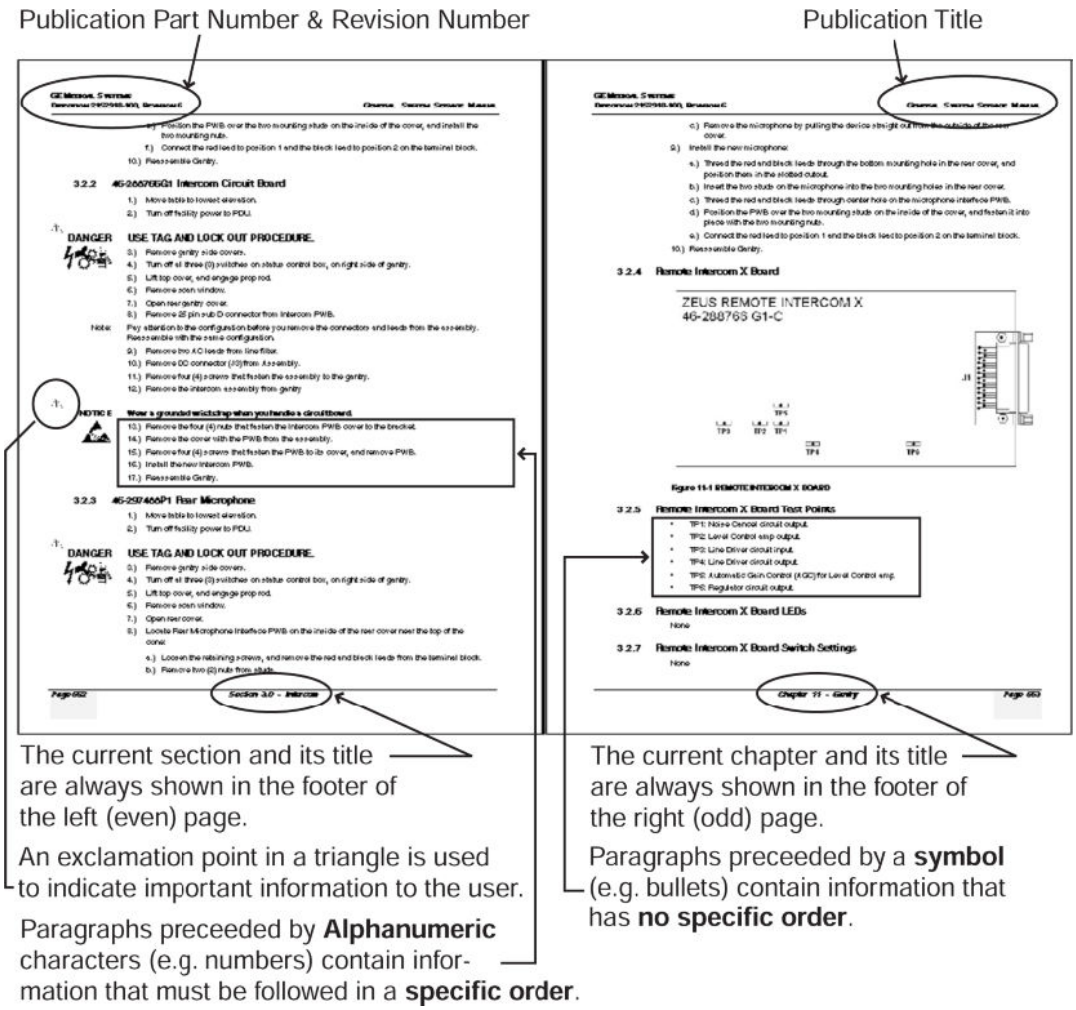
Example:

Used to make the reader aware that the paragraph(s) that follow are examples of information possibly stated previously.

Comment:

Represents "additional" information that may or may not be relevant to your situation.

Page Layout



Headers and footers in this publication are designed to allow you to quickly identify your location. The document part number and revision number appear in every header on every page. Odd numbered page footers indicate the current chapter, its title and current page number. Even numbered page footers show the current section and its title, as well as the current page number.

Computer Screen Output/Input Text Character Styles

Within this publication, mono-spaced character styles (fonts) are used to indicate computer text that is either screen input or output. Mono-spaced fonts, such courier, are used to indicated text direction. When you type at your keyboard, you are generating computer input. Occasionally you will see the math operator “greater-than” and “less-than” symbols used to indicate the start and finish of variable output. When reading text generated by the computer, you are reading it as computer generated output. In addition to direction, characters are italicized (e.g. *italics*) to indicate information specific to your system or site.

Example: Fixed Output

```
This paragraph’s font represents computer generated screen “fixed” output. Its
output is fixed from the sense that it does not vary from application to
application. It is the most commonly used style used to indicate filenames,
paths and text that do not change from system to system. The character style
used is a fixed width such as courier.
```

Example: Variable Output

This paragraph's font represents computer screen output that is "variable". It is used to represent output that varies from application to application or system to system. Variable output is sometimes found placed between greater-than and less-than operators for clarification. For example: <variable_ouput> or <3.45.120.3>. In both cases, the < and > operators are not part of the actual input.

Example: Fixed Input

This paragraph's font represents fixed input. It is computer input that is typed-in via the keyboard. Typed input that does not vary from application to application or system to system. Fixed text the user is required to supply as input. For example: cd /usr/3p

Example: Variable Input

This paragraph's font represents computer input that can vary from application to application or system to system. With variable text, the user is required to supply system dependent input or information. Variable input sometimes is placed between greater-than and less-than operators. For example: <variable_input>. In these cases, the (<>) operators would be dropped prior to input. For example: **ypcat hosts | grep <*3.45.120.3*> would be typed into the computer as**

ypcat hosts | grep *3.45.120.3*

without the greater-than and less-than operators.

Buttons, Switches and Keyboard Inputs (Hard & Soft Keys)

Different character styles are used to indicate actions requiring the reader to press either a hard or soft button, switch or key. Physical hardware, such as buttons and switches, are called hard keys because they are hard wired or mechanical in nature. A keyboard or on/off switch would be a hard key. Software or computer generated buttons are called soft keys because they are software generated. Software driven menu buttons are an example of such keys. Soft and hard keys are represented differently in this publication.

Example: Hard Keys

A power switch **ON/OFF** or a keyboard key like **ENTER** is indicated by applying a character style that uses both over and under-lined bold text. This is a hard key.

Example: Soft Keys

Whereas the computer **MENU** button that you would click with your mouse or touch with your hand uses over and under-lined regular text. This is a soft key.

1 General Requirements

1.1 Objectives and Overview Summary

1.1.1 Objective and Scope of This Manual

This document is intended as a guide and informational resource for planning and properly preparing a location for the installation of Definium Tempo Pro/ Definium Tempothis system.

1.1.2 Summary

The purchaser is responsible for completion of “Pre-Installation.” This includes the procurement and installation of all required materials and services to get the room ready for installation of the product. This responsibility includes providing:

- A clean and safe work environment for installation of the product (finished floor, ceiling, walls, and proper room lighting).
- A location suitable for the installation of the product.
- Suitable support structures in the floor, walls, or ceiling necessary for the mounting of the product and/or its components.
- Installation of conduit, ducts and/or raceways necessary to route cables safely.
- Electrical power and grounds of specified quality and reliability.
- Electrical power of the required voltage, including an Emergency-Off safety switch in the room. Power and ground cables to the PDU.
- Properly installed and sized junction boxes, including covers and fittings at locations required and called out in architectural drawings.
- Use GE HealthCare recommended wires and cables as defined in this document.

1.1.3 Site Readiness Checklist

For the site readiness please refer to DOC1809666 Glaobal site readiness checklist, (This document is from the GE HealthCare Siting team) for example as below.

Global Site Readiness Checklist (DI)	
Customer Name:	PMI Name:
GON Number :	Field Service Name:
Equipment:	Country / City or City/State:
Site Visit Date for SRC:	SRC Status:
Site Ready Checks at Installation	Requirement met

General Site Planning	
Room dimensions, including ceiling height, for all Exam, Equipment/Technical & Control rooms meets GE HealthCare specifications.	
Ceiling support structure, if on the GE HealthCare drawing, is at correct location and height according to the drawing specifications. Levelness and spacing has been measured. Overhead support Structure has been confirmed with contractor to meet GE HealthCare criteria.	
Rooms that will contain equipment, including staging areas if applicable, are construction debris free. Precautions must be taken to prevent debris from entering rooms containing equipment.	
Finished ceiling is installed. If applicable ceiling tiles installed per PMI discretion.	
Delivery route from truck to installation space has been reviewed, all communications have occurred, arrangements made for special handling (if needed). Floors along delivery route will support weight of the equipment, reinforcements arranged if needed.	
System power & grounding (PDB/MDP) is available as per GE HealthCare specifications, installed at point of final connection and ready to use. Lock Out Tag Out is available.	
System power and grounded audit has been scheduled to be completed during installation of equipment. (If Required) GE HealthCare PM to confirmed if needed.	
Adequate room illumination installed and working.	
Cableways (floor, wall, ceiling, etc.) ready for GE HealthCare cables and are of correct length and diameter. Cableways routed per GE HealthCare Final drawings and access openings installed as determined by GE HealthCare PM. Surface floor duct installed at time of system installation.	
HVAC systems Installed, and the site meets minimum environmental operational system requirements.	
Network outlets installed and computer network available and working.	
Hospital IT/connectivity contacts have been engaged and information has been added to Project management tool. (If Required)	
Floor levelness/flatness is measured and within tolerance, and there are no visible defects per GE HealthCare specifications. Floor Strength and thickness have been discussed with customer/contractor and they have confirmed GE HealthCare requirements are met.	
Customer supplied countertops where GE HealthCare equipment will be installed are in place.	
Specific for CT & X-ray	
Doors and windows complete or scheduled to be installed. If applicable, radiation protection (shielding) finished & radioprotection regulatory approval for installation obtained.	
PMI Signature:	
Customer Signature:	
FS Signature: optional	

1.2 Common Product Requirements

1.2.1 Dimensions and Layout

Carefully check room layouts for adequate radiographic coverage, necessary clearances and provision for related equipment. Good judgement is required to avoid compromising important features. There must be ample maneuvering space allowed for the hospital cart and for personnel around the table.

1.3 Delivery Requirements

1.3.1 Door Size Requirements

Minimum door sizes also apply to hallway and elevator.

Door Height: The minimum door height accommodated is 190cm (75in) when the Wall Stand is tilted on the dolly.

Door Width:

- The minimum door width to accommodate the Table is: 95cm (37.5in).
- The minimum door width is calculated based on a straight-in approach requiring a 2.5 m (8 ft) wide corridor. Minimum widths will change based on narrower corridors.
- The minimum door width to accommodate the Image Paste Barrier is 1.1m (44in) wide x 2.1m (82in) high.

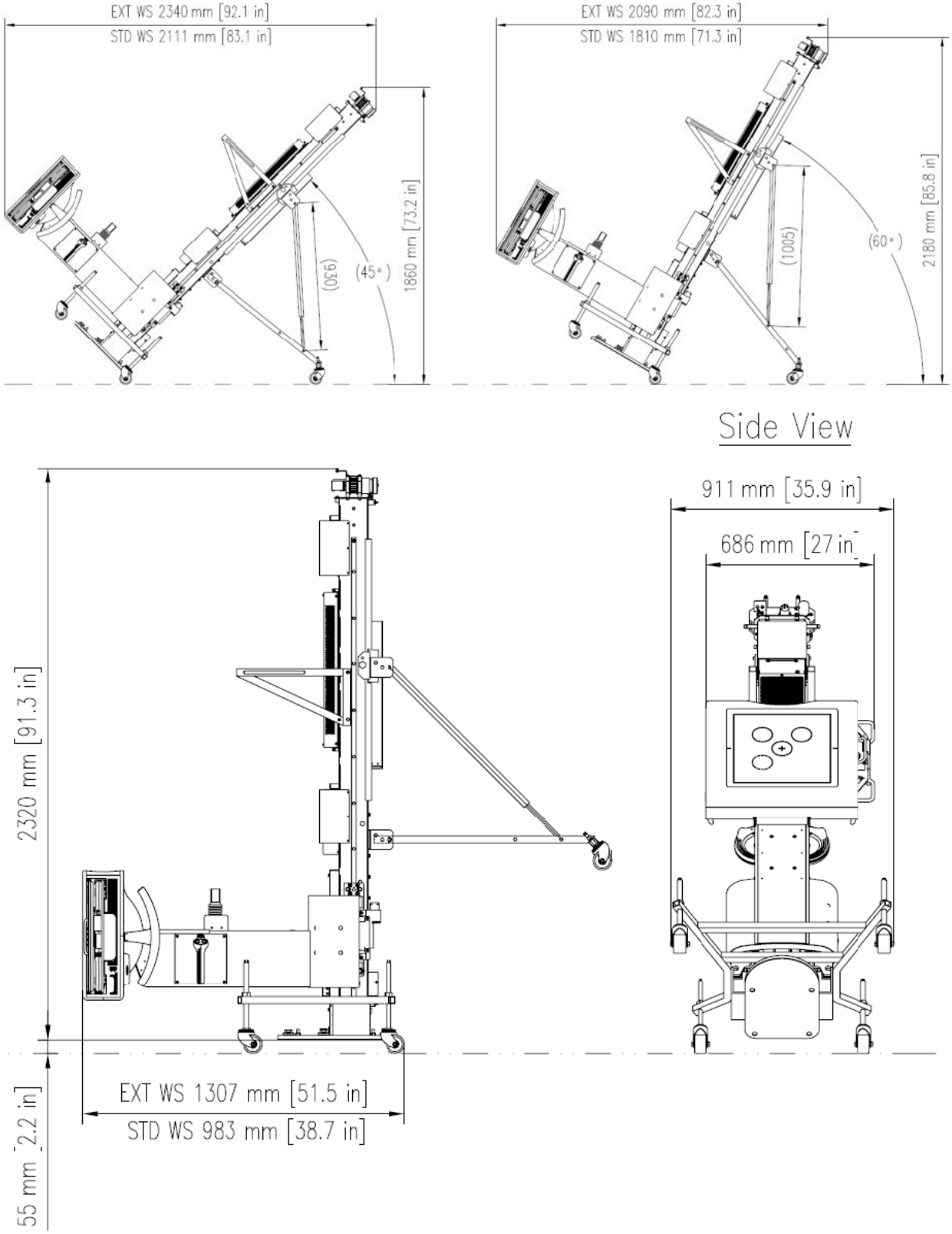
1.3.2 Minimum Elevator Depth Requirements

The minimum elevator depth to accommodate is 2.45m (96.46in) when the Wall Stand is tilted on the dolly.

1.3.3 Shipping Fixtures and Carts

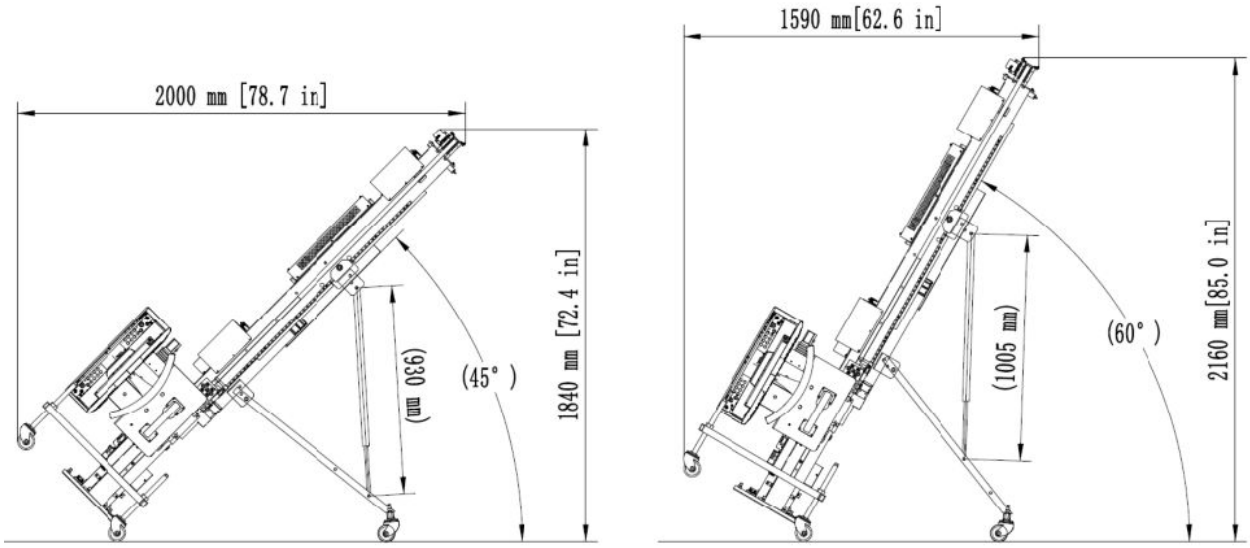
The Extened & Standard WS is delivered on a fixture.

Figure 1-1 EXT & STD WS Site In-Transit Dimensions



Non-Tilting WS is delivered on a fixture.

Figure 1-2 Non-Tilting WS Trasit Dimensions



Cabinet

NOTICE

THE CABINET CAN PASS UP A MAXIMUM SLOPE OF 10 DEGREES AND PASS OVER A MAXIMUM BARRIER ON THE FLOOR OF 25MM (0.98 IN).

Figure 1-3 Cabinet with its wheels in transit

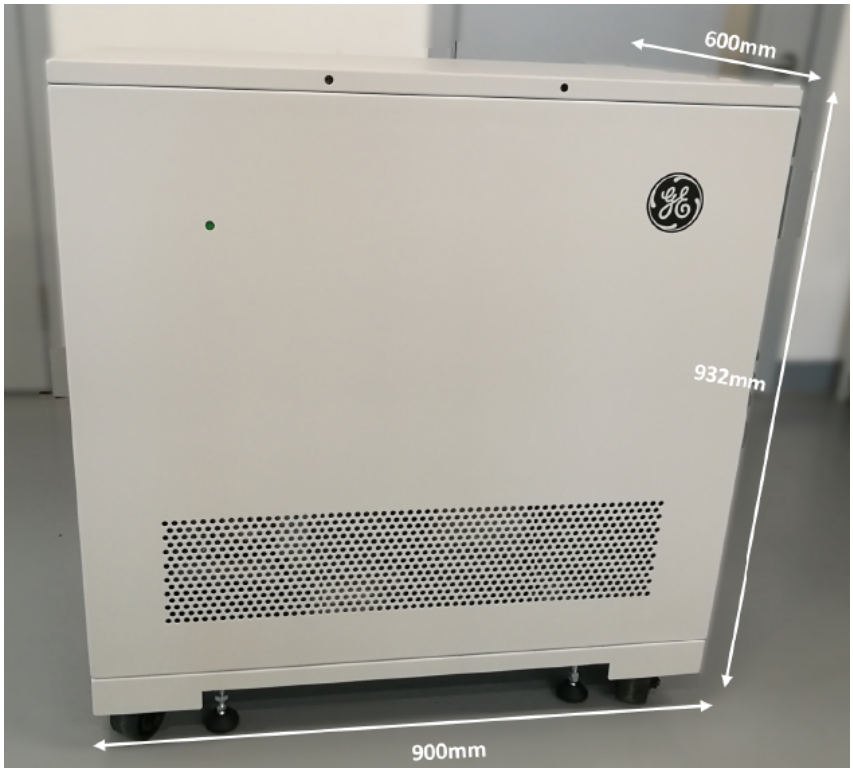
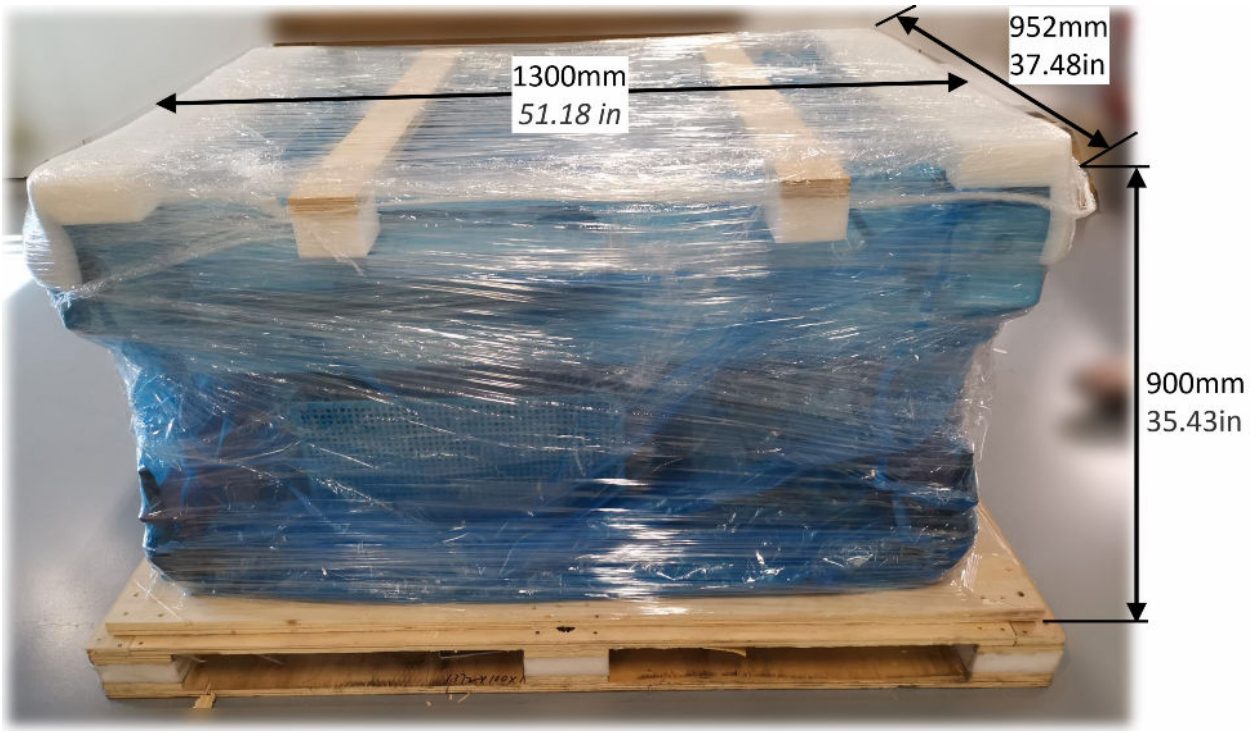


Figure 1-4 Definium Tempo Pro/ Definium Tempo Table in-transit dimensions



Lean Carts

Some system components are packed into one “Lean Carts”.

Figure 1-5 Control and Options Lean Cart

NOTICE

THE DIMENSION OF SYSTEM ACCESSORY PACKING BOX MADE IN GEHL IS 1400*1350*1050

1.3.4 Shipping Dimensions and Weights

SHIPPING DATA

Component	Shipping Data				
	Shipping Dimensions (Approx)			SHIPPING WEIGHT (approx)	SHIPPING METHOD
	Length	Width	Height		
Stationary Rail (4m)(set of 2 rails)	4400mm(14.4ft)	62.5mm(2.46in)	84.3mm(3.32in)	48Kg(106lbs)	Box
2 Meter Bridge and longitudincal belt assembly, lateral chain bracket	3248mm(127.87inch)	822mm(32.36inch)	429mm(16.89inch)	224Kg(493.8lbs.)	box/skid
3 Meter Bridge and longitudincal belt assembly, lateral chain bracket	3248mm(127.87inch)	822mm(32.36inch)	429mm(16.89inch)	194Kg(427.7lbs.)	box/skid
OTS MIS Cable	880mm(34.65inch)	860mm(33.86inch)	600mm(23.62inch)	50Kg(110.2lbs.)	Box
Cable chain Rail and Support	813mm(32.01inch)	584mm(22.99inch)	230mm(9.06inch)	50Kg(110.2lbs.)	Box
Cabinet Assembly in Package	1100mm(43.31inch)	840mm(33.07inch)	1130mm(44.49inch)	247Kg(544.5lbs.)	Box
Cabinet in Transit	900mm(35.43inch)	600mm(23.62inch)	932mm(36.69inch)	198Kg(436.5lbs.)	Skid
Standard Wall Stand	2560mm(100.79inch)	1110mm(43.7inch)	1350mm(53.15inch)	450Kg(992.1lbs.)	Crate/skid
Standard Wall Stand in Transit	2111mm(83.11inch)	911mm(35.87inch)	1860mm(73.23inch)	260Kg(573.2lbs.)	dolly
Extended Wall Stand	2560mm(100.79inch)	1110mm(43.7inch)	1670mm(65.75inch)	469Kg(1034lbs.)	Crate/skid
Extended Wall Stand in Transit	2340mm(92.13inch)	911mm(35.87inch)	1860mm(73.23inch)	280Kg(617.3lbs.)	dolly
Non-tilting Wala Stand	2560mm(100.79inch)	1110mm(43.7inch)	1900mm(74.8inch)	450Kg(992.1lbs.)	Crate/skid
Non-tilting Wall Stand in Transit	2000mm(78.74inch)	911mm(35.87inch)	1840mm(72.44inch)	260Kg(573.2lbs.)	dolly
Table assembly in Package and cover	1372mm(54.02inch)	1000mm(39.37inch)	1360mm(53.54inch)	431Kg(950.2lbs.)	Crate/skid
Table assembly in Transit	1300mm(51.18inch)	950mm(37.4inch)	900mm(35.43inch)	137Kg(302lbs.)	dolly
Tabletop in package	2440mm(96.06inch)	947mm(37.28inch)	251mm(9.88inch)	164Kg(361.6lbs.)	Box

Overhead Tube Suspension (OTS) assembly in Package	1260mm(49.61inch)	870mm(34.25inch)	1300mm(51.18inch)	385Kg(848.8lbs.)	box/crate
Overhead Tube Suspension (OTS) in transit	1260mm(49.61inch)	870mm(34.25inch)	1250mm(49.21inch)	350Kg(771.6lbs.)	box/crate
Radiographic Stretcher (Option)	2188mm(86.14inch)	917mm(36.1inch)	750mm(29.53inch)	164Kg(361.6lbs.)	Skid
Stretcher: Carbon Fiber Non-elevating (Option)	2200mm(86.61inch)	650mm(25.59inch)	700mm(27.56inch)	70Kg(154.3lbs.)	Skid
GST-2 Stretcher Table (Option)	2004mm(78.9inch)	640mm(25.2inch)	696mm(27.4inch)	50Kg(110.2lbs.)	Skid
Detector 17X17 in Package	711mm(27.99inch)	661mm(26.02inch)	280mm(11.02inch)	18Kg(39.7lbs.)	Crate
Detector 14X17 in Package	711mm(27.99inch)	661mm(26.02inch)	280mm(11.02inch)	16Kg(35.3lbs.)	Crate
Detector 10X12 in Package	623mm(24.53inch)	483mm(19.02inch)	280mm(11.02inch)	9.6Kg(21.2lbs.)	Crate
Exam Room Lean Cart	2134mm84.02inch)	762mm30inch)	1524mm60inch)	Varies	wheeled cart
Control & Options Lean Cart	1308mm51.5inch)	762mm30inch)	1297mm51.06inch)	Varies	wheeled cart
Detector Bin	540mm(21.26inch)	360mm(14.17inch)	120mm(4.72inch)	15Kg(33.1lbs.)	Crate
Patient Barrier	1000mm(39.37inch)	600mm(23.62inch)	1800mm(70.87inch)	80Kg(176.4lbs.)	Eati
410mm Footstool for Patient Barrier	1040mm(40.94inch)	850mm(33.46inch)	550mm(21.65inch)	17Kg(37.5lbs.)	Mootstoo-la0m

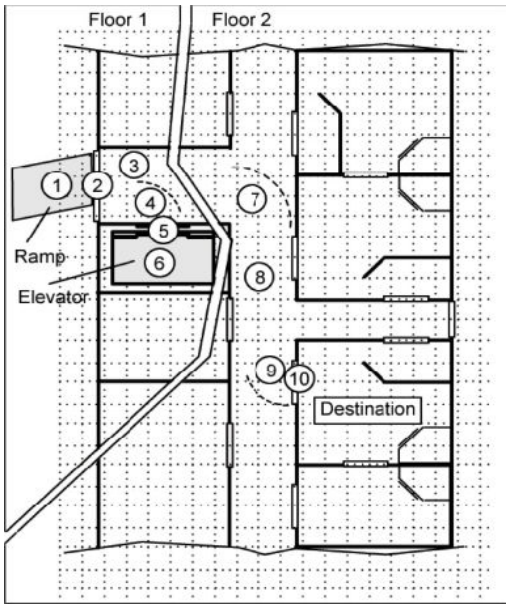
1.3.5 Preparing the Delivery Route

1. Sketch out the Route

   Begin preparing Route Survey by sketching the area of the hospital or clinic which will receive the equipment. Include all areas on the delivery route from outside of building to destination. See sample sketch below in.

   NOTICE
   The reference numbers in circles refer to the Route Survey data shown in Figure 1-6 Sample Route on page 29. The Route Survey is a form on which site data is listed.

Figure 1-6 Sample Route



2. Survey the Route

   Record all loading capacities, corridor widths, door openings, turning radii, flooring materials, elevator sizes, obstructions and so on for reference.

3. Check the Route

   Verify equipment can actually be transported via the route determined.

2 Equipment

2.1 System Components

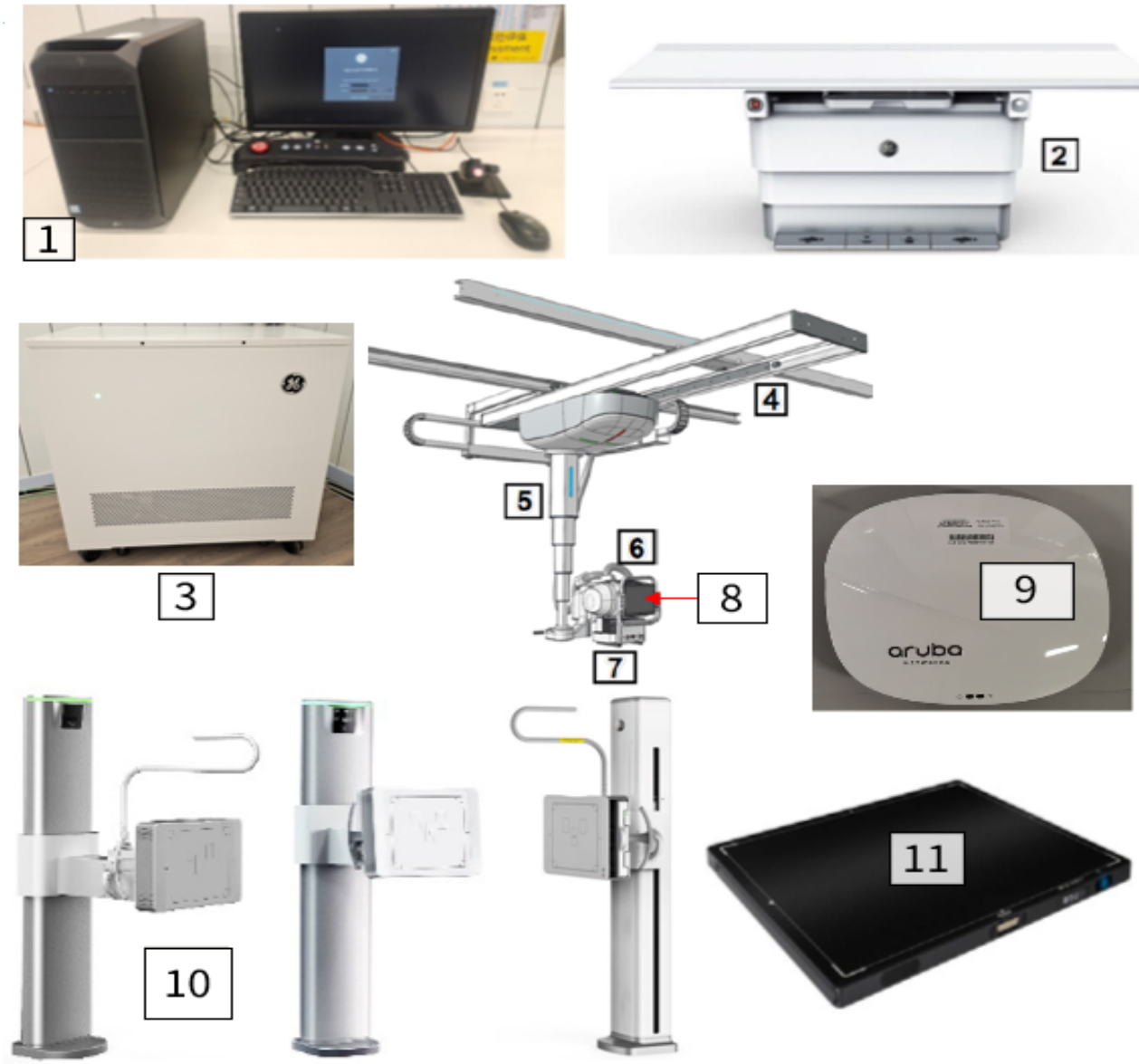
2.1.1 System Components

This system may consist of the following main components:

1. Operator Console
   (PC:Z4G4/Z4G5, Monitor, Keyboard, Mouse, RCIM2 and Hand switch)
2. Elevating Table with a Flash Pad HD Detector (G4 Table)
3. VCP Cabinet
4. Bridge
5. Overhead Tube Support (G4 OTS)
6. X-Ray Tube
7. Collimator
8. THC Console
9. AP Assembly (without AP in Non wireless system)
10. Wall Stand (GlobalG3Std.WS/Globalg3Ext.WS/G4 WS)
11. Flash Pad HD Detector

NOTE
The PC cannot be put on the ground directly.

Figure 2-1 System Components



2.1.2 Optional components

The system can include the following free-standing components, which can be purchased as options:

1. Fixed Height Carbon Fiber Top Stretcher Table (US market only)
2. Fixed Height High-Capacity Mobile Stretcher (can’t go to USA, Netherland)
3. Fixed Height Mobile Stretcher (GST-2) (can’t go to USA, Netherland)
4. Grid Holder
5. Detector Charging Bin
6. Detector Battery / Higher Capacity Battery charger with cable
7. Uninterruptible Power Supply (UPS)

8. Image Paste Barrier
9. Detector Grid Handle
10. Detector Weight Bearing Cover (Detector WBC)
11. Barcode Reader with Holder
12. IQST Phantom
13. Clip-on Grid
14. Wall Stand Foot Pedal Kit
15. Table Rear Foot Pedal
16. External DVD Driver
17. Foot stool
18. Infrared Remote Control

NOTE
Higher Capacity Battery charger (item6) cover two type batteries (10X12 & 14X17). Power supply integrated in Charger. Power switch could be on or off when needed. The dust cover protects the charger connector. Dimension is 328*145*150. Charging time is within 2.5h to 3h.

Figure 2-2 Optional System Component Identification

2.1.3 Room Requirements

2.1.3.1 Acoustic Output

Table 2-1 System Acoustic Output

COMPONENT	SOUND OUTPUT (dBA)	
	IN-USE (measured 1m from any point in system)	STAND-BY (measured 1m from any point in system)
System	<65	<60

2.1.3.2 Room lighting requirements

The lighting of the room should ensure patient exposure use and GE HealthCare normal service. Depend on different applicable scenery, highly recommended provide different room light source, as Table 2-2.

Table 2-2

Light Source	Illuminance (lux/lx)	Recommended Equivalent (W)	Applicable scenery
LED lamp	75~350	15~60	Patient exposure
Fluorescent lamp		30~90	
LED lamp	350~800	60~150	GE HealthCare service
Fluorescent lamp		90~300	

NOTE

1.Spotlights are not suggested to be installed in exam room, it may interfere with infrared components in the system.

2.Suggest adding the Anti-IR coating to fluorescent lamp. The anti-IR coating should be able to filter IR signal with 940nm wavelength. Otherwise, it's possible to lead to the IR controller cannot work normally sometimes.

Table 2-3 For the electronic ballast of fluorescent lamp in exam room, the operating frequency should be above 42KHz. For reference:

Priority	Manufacture	Type		Manufactory Product number	Operating frequency	Remarks
1	OSRAM	T5	QTi2X35/49/80	4008321174291	45...70KHZ	Except OTIS e3x36/220-240 CW

2.1.3.3 Floor Requirements

The preferred method of installing the wall stand is to use the provided typical floor anchors (Non-Seismic ONLY).

2.1.3.3.1 Floor Levelness Specifications

Critical Specifications

Accurate patient positioning during scanning depends on proper alignment of the OTS and the table/ Wallstand.

The floor levelness specification in Table 2-4 ensure that the table and Wallstand height adjusters have enough range to allow proper leveling of the system.

Table 2-4 Critical specification for floor levelness

Specification	Metric(minimum)	English(minimum)
Levelness	6mm maximum variance over 3048mm	¼ in. maximum variance over 10 ft

2.1.3.3.2 Floor Requirements When Using Provided Typical Floor Anchors

NOTE

It is the responsibility of the customer/contractor/Structural engineer to design/ provide/and install an alternate solution for anchoring if the anchors supplied by GE HealthCare can't be used.

CAUTION

CONCRETE AREA FOR WALL STAND INSTALLATION SHOULD BE 1 M2 (39.37 IN2).

Anchors must be a minimum of 90 mm (3.54 in) from any concrete edge including ducts and cracks. In addition, the general condition of the concrete in the immediate mounting area should be inspected to ensure that anchors will be set in good quality concrete.

NOTICE

RECOMMENDED CONCRETE STRENGTH IS C30.

The floor bearing the system is recommended to be concrete and the thickness to be determined by a Structural Engineer to properly support the equipment loads. The supplied anchors require a minimum embedment of 90 mm (3.54 in) into the concrete. If the floor thickness is less than 95 mm (3.74 in), it is recommended that the unit be secured using a through-bolt method with a reinforcement plate on the back side.

Figure 2-3 Typical Floor Anchors

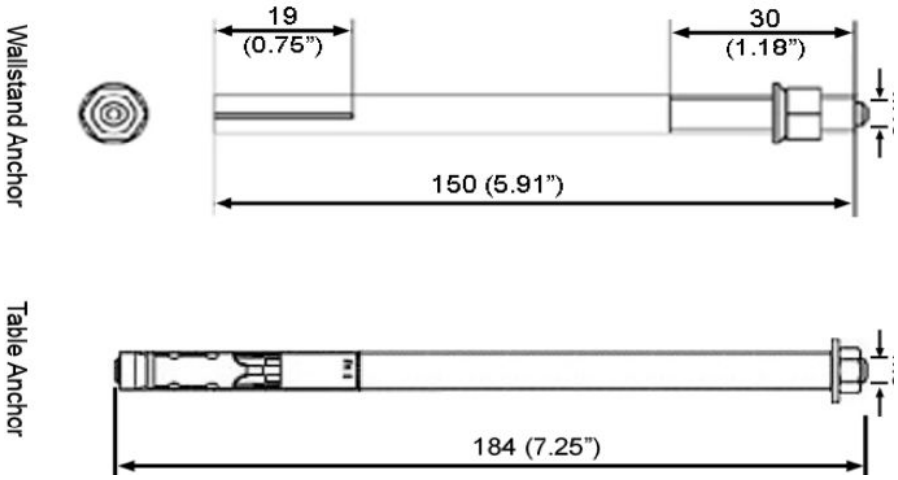
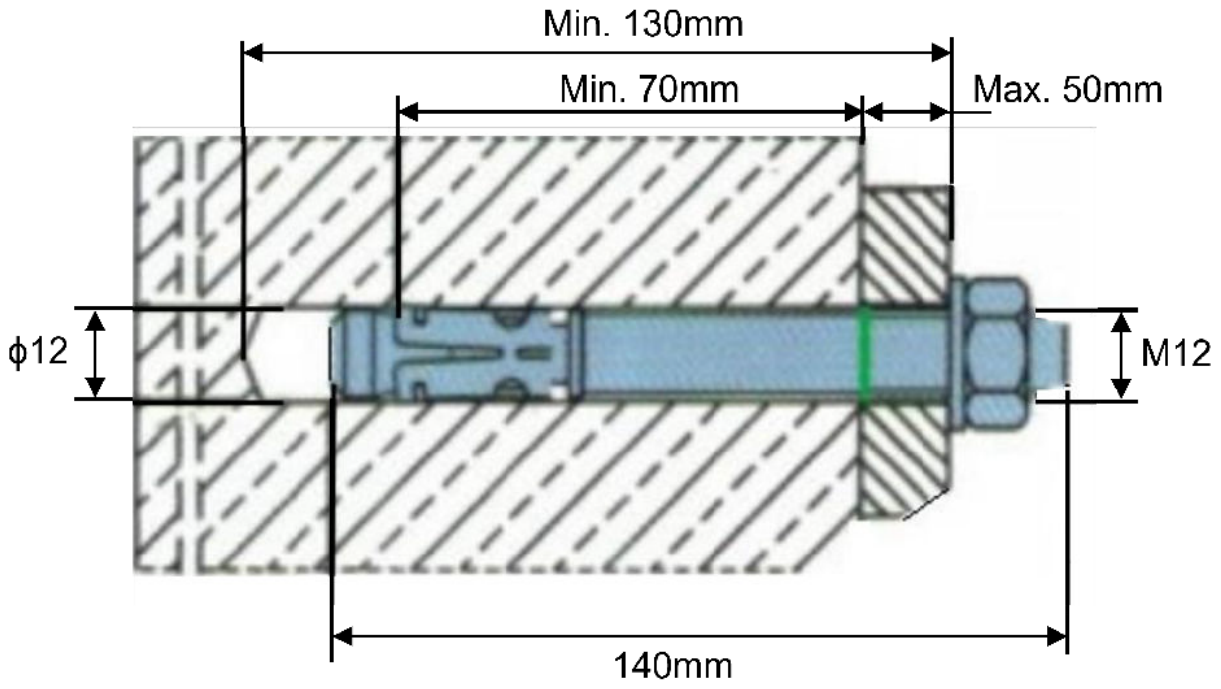


Figure 2-4 Optimized anchor bolts

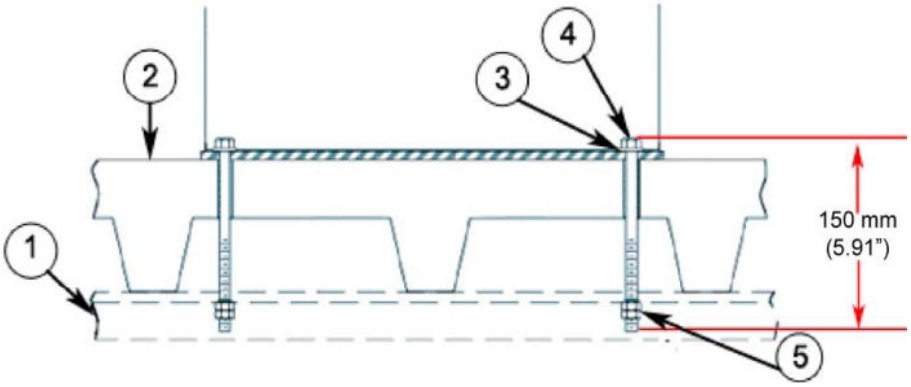
Stainless Steel A2-70 with Hex Nut (GB/T 6170 M12) and large plain washer (GB/T 96.1 12)



2.1.3.3.3 Pan-Type Floor Construction Requirement

For pan-type floor construction, steel channels must be designed by a local structural engineer to span floor joists.See Figure 2-5 Thru-Bolt Floor Mounting (Pan-Type Floor Construction) on page 35.

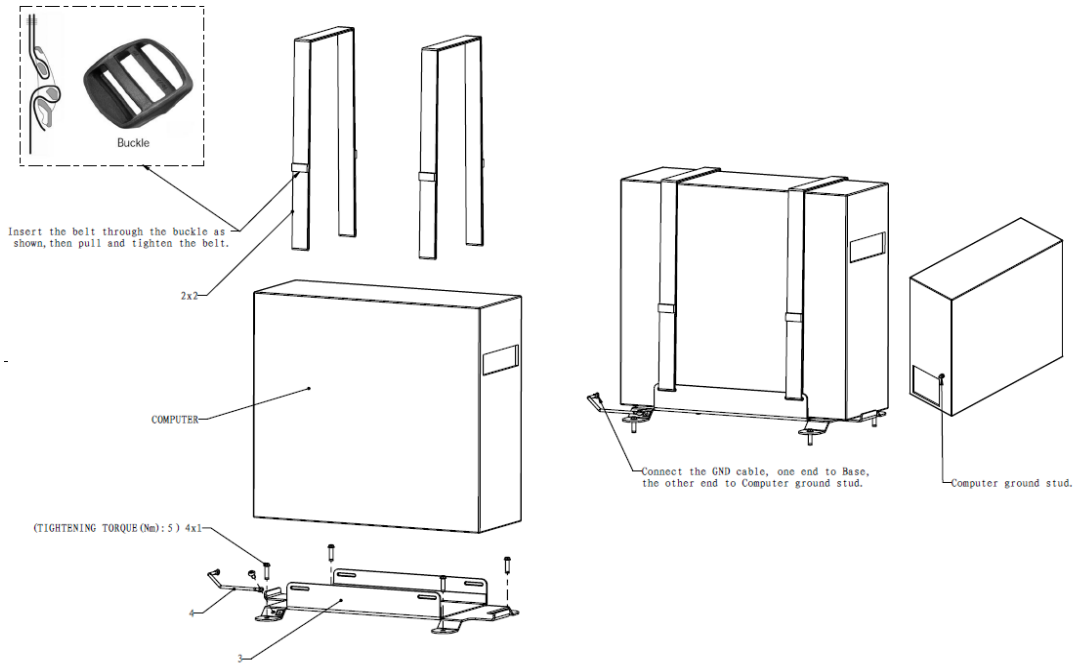
Figure 2-5 Thru-Bolt Floor Mounting (Pan-Type Floor Construction)



Item	Description
1	For Pan-Type Floor Construction Joists Must Be Spanned With Steel Channels (Customer Furnished)
2	Floor
3	Flat Washer
4	Thru Bolt for 16 mm (Hole Of Appropriate Length.)
5	2-Hex Nuts

2.1.3.3.4 PC Floor Mounting Requirement for Seismic Region

1. Drill four holes on the floor per below base plate dimension, depth≥30mm.
2. Mount the base pate with four anchors, tighten the anchor nuts (torque reference, 5Nm), and do marks.
3. Put the computer on the base plate and fix it with the belts, refer to below picture.
4. Connect the GND cable with base plate and computer ground stud.



2.1.3.4 Ceiling Requirements

NOTE

- To allow installation of the stationary rail cross-members, clearance is required between the ends of the stationary rails and the walls.
- It is recommended that sprinkler heads not be placed between the stationary rails.

  All sprinkler heads should be mounted so they do not extend downward more than 1/4” (6.35 mm) from the ceiling while in the ’resting’ position.
- In addition, there should not be anything mounted in the ceiling (i.e. lights, A/C returns, etc) between the stationary rails. This is because the OTS longitudinal drive belt assembly is located on the movable bridge, approximately centered between the two stationary rails, and may come into contact with those ceiling-mounted items during normal use.

2.1.3.4.1 Rail & Bridge and Room Heights

Complete details of room dimensions must be known when planning an installation. Work with the architect or building engineer and obtain approval from the customer before proceeding with the layout plan.

Methods of support that will permit attachment to structural steel or through bolts in concrete construction should be favored. Do not use anchors in direct tension.

Each rail has mounting holes on 660.4mm (26 in) centers with the first hole located 55 mm (2 in) from the rail mount end. The last hole is located either 55mm (2in) from the other end with a variable space of less than 660.4mm (26in) between it and the second last hole.

The OTS column to tube has an adapter, can adjust the height of focal-spot to ceiling, please follow below Table to decide what ceiling height is best choice.

Table 2-5 Recommended and Minimum Room Heights (Floor to Top of Longitudinal Rail)

Config		Specification	Ceiling/mm
Wall Stand Type	WS Position		
Table + Extend WS	WS at foot side	Recommend	2860(112.6")
		Range	2715(106.89")-2887(113.66")
	WS at head side	Recommend	2860(112.6")
		Range	2587(101.85")-2887(113.66")
Table + Standard WS	WS at foot side	Recommend	2860(112.6")
		Range	2587(101.85")-2887(113.66")
	WS at head side, but column turn 180 degree for horizontal mode.Refer to Figure 2-61 Standard WS at head side typical room that manual rotate column 180 degree for horizontal mode on page 102	Range	2587(101.85")-2855(112.4")
	WS at head side (normal use)	Recommend	2860(112.6")
		Range	2855(112.4")-2887(113.66")
Table + Non-tilting WS	WS at foot side/head side	Recommend	2860(112.6")
		Range	2587(101.85")-2887(113.66")
	WS at front side/rear side	Recommend	2860(112.6")
		Range	2715(106.89")-2887(113.66")

NOTE

If the WS center line layout under the rail, to avoid the WS lateral patient bar conflict rail, the minimum ceiling height should be 2715mm(106.9").

If the ceiling height lowest than 2628mm(103.46"), please add wording to drawing as below:

“Please pay attention to the WS patient lateral bar, it has risk to hit the rail when lift WS to maximum height.”

There has 3 adapter for tube installation, the manufacture default is the ‘long’ one, but if the ceiling height is not applicable for default adapter, should change the other one refer below Table 2.

Adapter	Applicable ceiling height
Long	2587(101.85")-2687(105.29")(include) or lower than 2587(101.85")
Medium	2687(105.29")-2787(109.72")(include)
Short	2787(109.72")-2887(113.66")(include) or higher than 2887(113.66")

Please add the adapt length information basis on the final room ceiling.

Room ceiling height calculation formula:

The principle is to ensure OTS can align to WS center during the whole travel range (1500mm)(59.06").

Without footstool:

Highest room ceiling = largest focal spot to ceiling minimum distance (1002mm) + OTS travel range (1600mm) + lowest WS center line to ground (285mm) = 2887mm(113.66")

Lowest room ceiling = smallest focal spot to ceiling minimum distance (802mm) + WS travel range (1500mm) + lowest WS center line to ground (285mm) = 2587mm(101.85")

Figure 2-6 Wallstand at Foot position Ceiling interference status

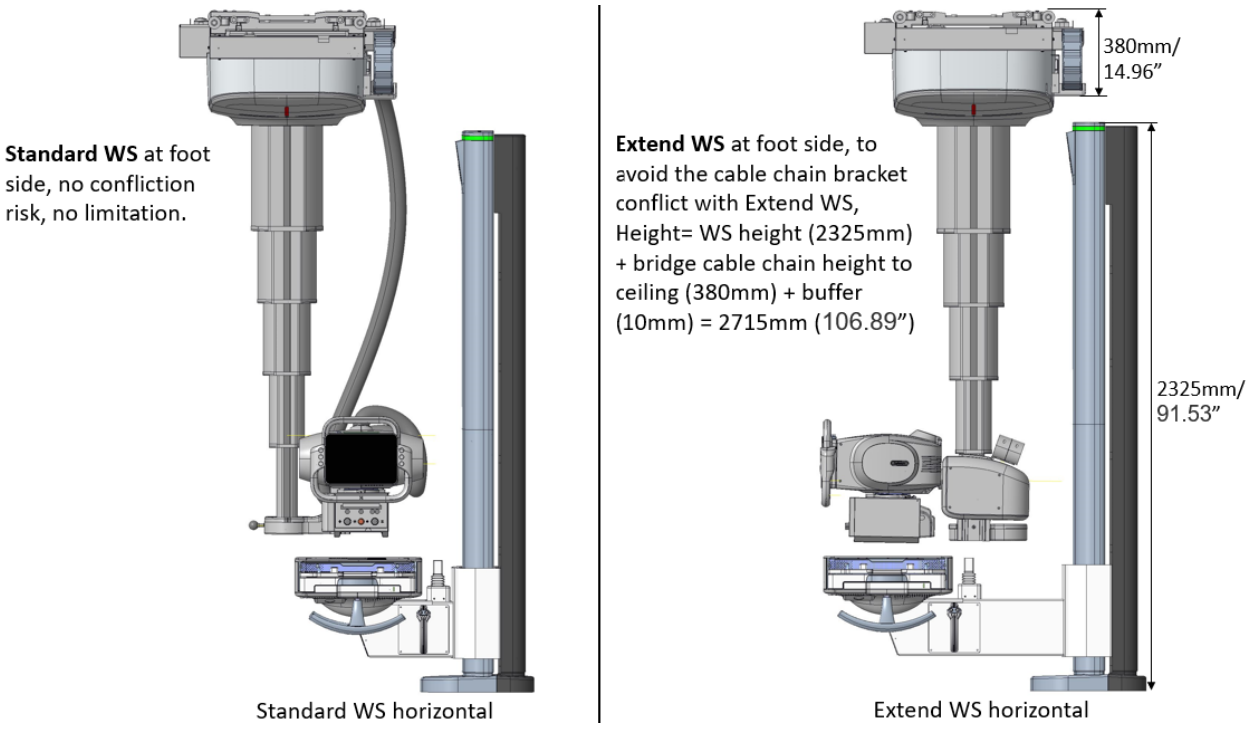


Figure 2-7 Wallstand at head position interference status

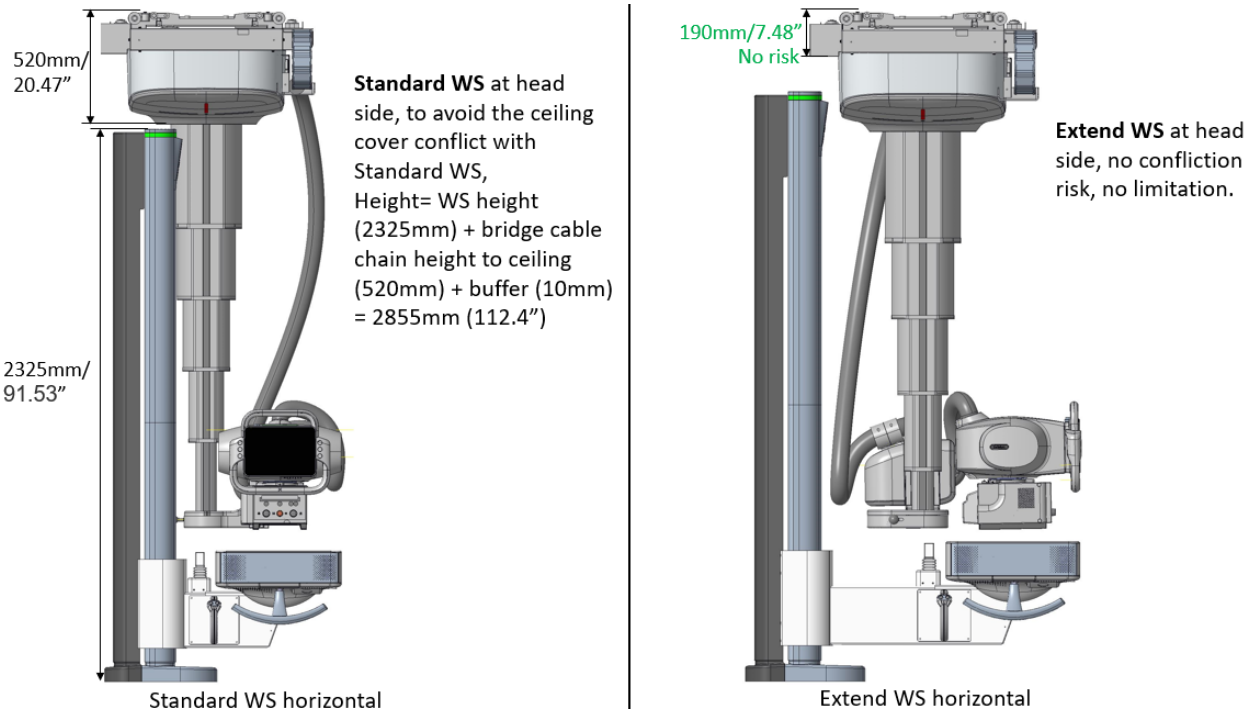
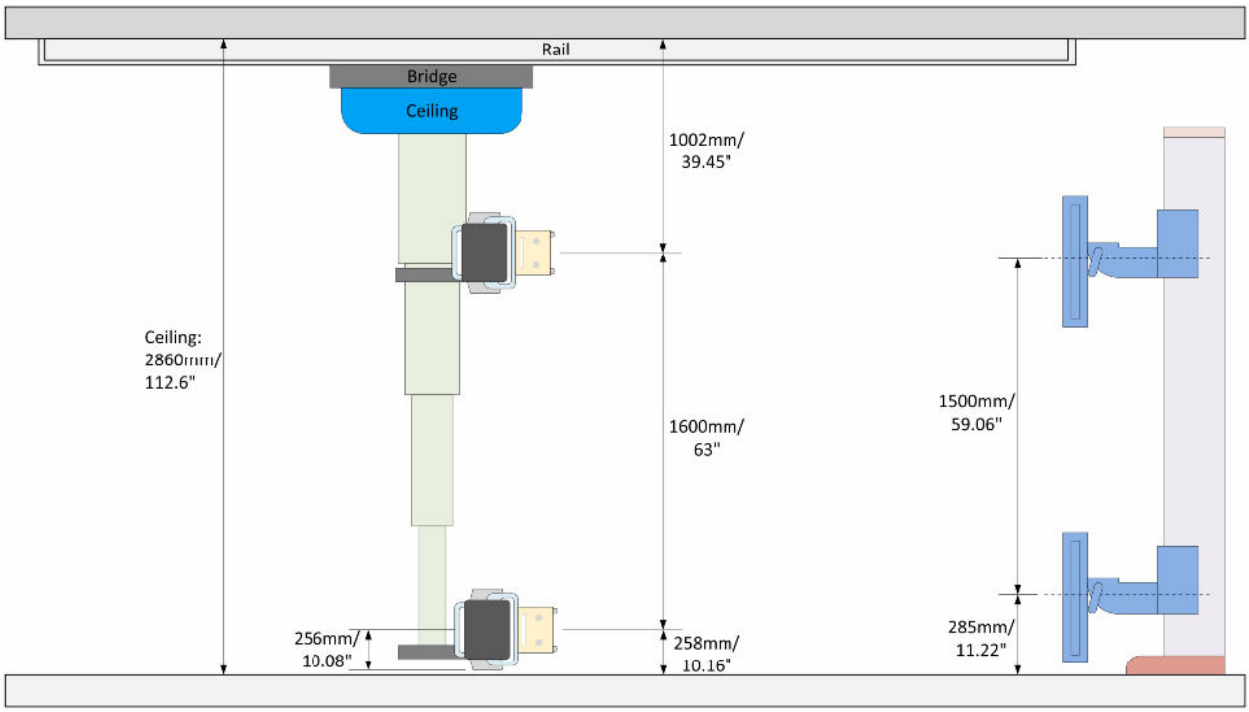


Figure 2-8 Recommended Ceiling Height 2860 mm (112.6'')



- Lowest point of OTS could touch floor

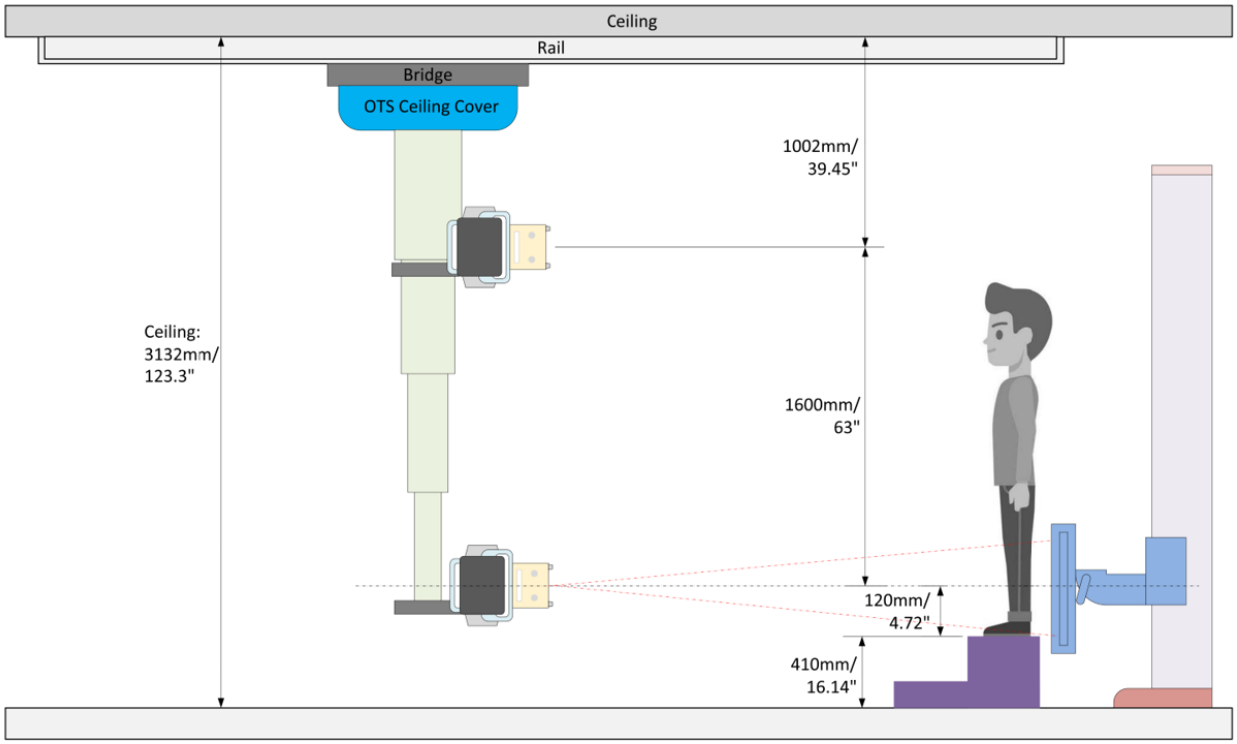
  Tube focal spot lowest Height=2860-1002-1600=258mm(10.16")＜ WS lowest position(285mm)(11.22")

- Tube focal spot highest height=2860-1002=1858mm(73.15")＞ WS highest position(1500mm+285mm=1785mm)(70.28")

With footstool:

Assuming, customer using the highest footstool is 410mm(the other is 170mm or 267mm).

Then, highest room ceiling = footstool height (410mm) + WS center to footstool surface (120mm) + OTS travel range (1600mm) +largest focal spot to ceiling minimum distance (1002mm) = 3132mm(123.31").



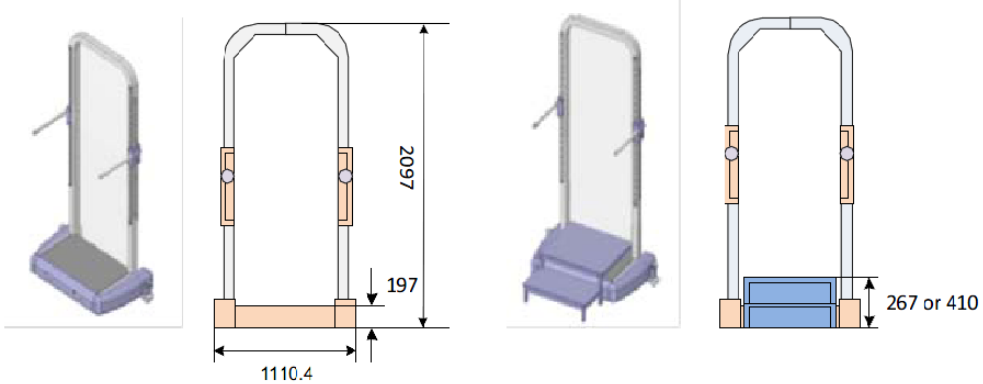
NOTE

After calculated image pasting scenario based on software package and new patient barrier (19.7cm height platform), the relationship between ceiling height and footstool was shown in below table.

Table 2-6 Ceiling Height With Footstool

Ceiling Height (mm)	Comments
2587 ~ 2919 (101.85” ~ 114.92”)	Patient barrier platform (197mm) only, No need for footstool
2919 ~ 2989 (114.92” ~ 117.68”)	Need 267mm footstool
2989 ~ 3132 (117.68” ~ 123.31”)	Need 410mm footstool

Figure 2-9 Patient Barrier Platform With Footstool



2.1.3.4.2 Room structure Requirements

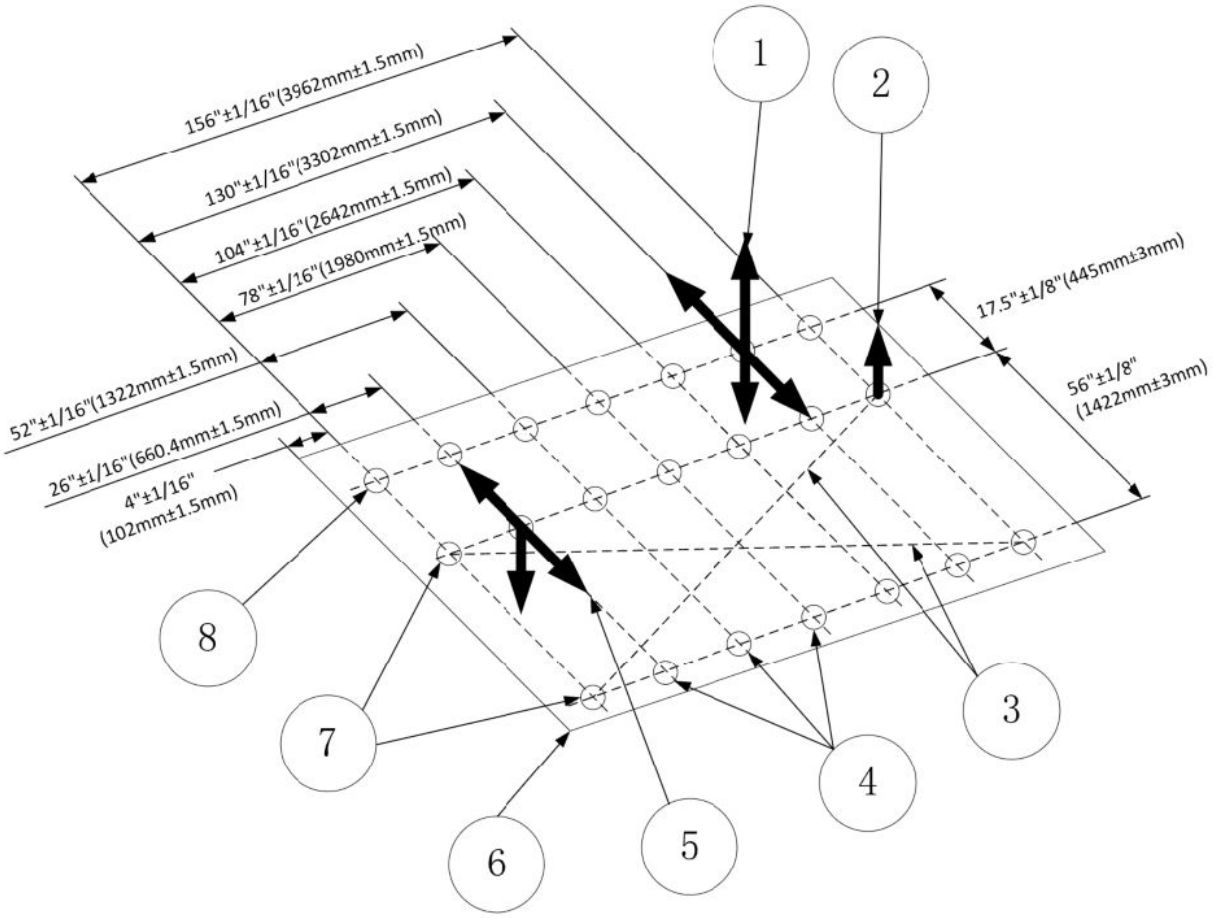
NOTICE

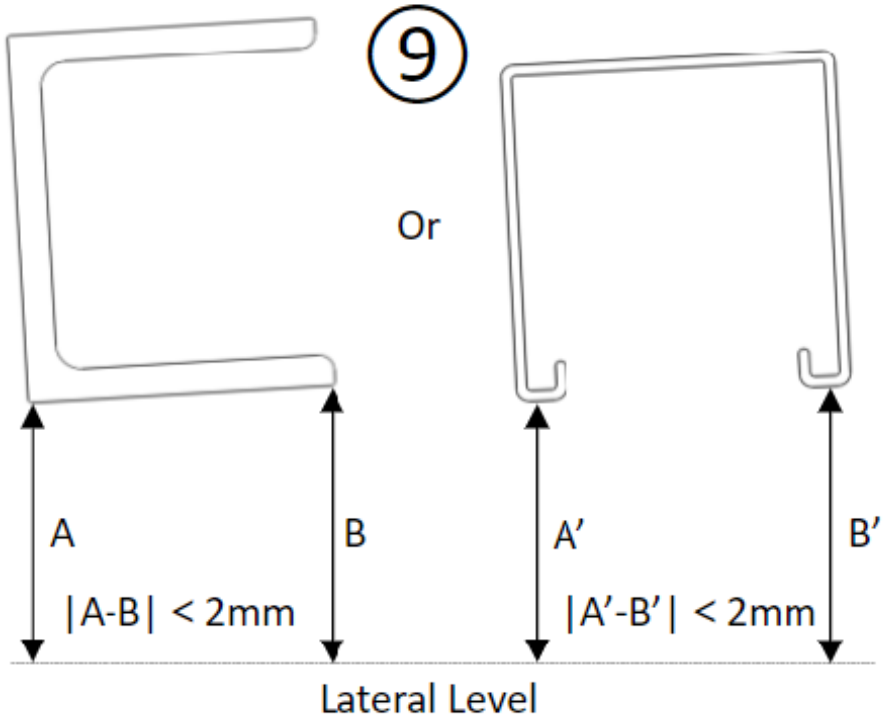
FOR UNISTRUT STRUCTURE: REFERRING TO THE LAYOUT DRAWINGS, THE ± 3 MM (1/8 INCH) REQUIREMENT FOR PARALLELISM OF THE STATIONARY RAIL IS CRITICAL. THEREFORE, GREAT CARE MUST BE EXERCISED IN LOCATING THE MOUNTING POINTS. FIGURE 2-11 SPECIFICATIONS FOR A TYPICAL 4115MM (13’- 6") STATIONARY RAIL MOUNTING INTERFACE (BOTH RAILS CEILING MOUNTED) WITH 3M BRIDGE ON PAGE 45 THROUGH FIGURE 2-10 SPECIFICATIONS FOR A TYPICAL 4115MM (13’- 6") STATIONARY RAIL MOUNTING INTERFACE (BOTH RAILS CEILING MOUNTED) WITH 2M BRIDGE ON PAGE 43 OUTLINE REQUIREMENTS THAT THE STATIONARY RAIL MOUNTING INTERFACE MUST MEET.

For site planning, please refer to the Illustrations in the section 2.2 System Component Dimensions and Weights on page 61

For low ceiling height: the stationary rails may be mounted directly to the ceiling slab or to flush mounted Unistrut or similar structure. For higher rooms in which a false ceiling is to be used, the stationary rails may be attached to rigid vertical members hung from the ceiling slab. A supplementary channel may be secured to the bottom of the vertical members to facilitate provision for mounting holes. A Unistrut system or equivalent is a convenient type of support to employ.

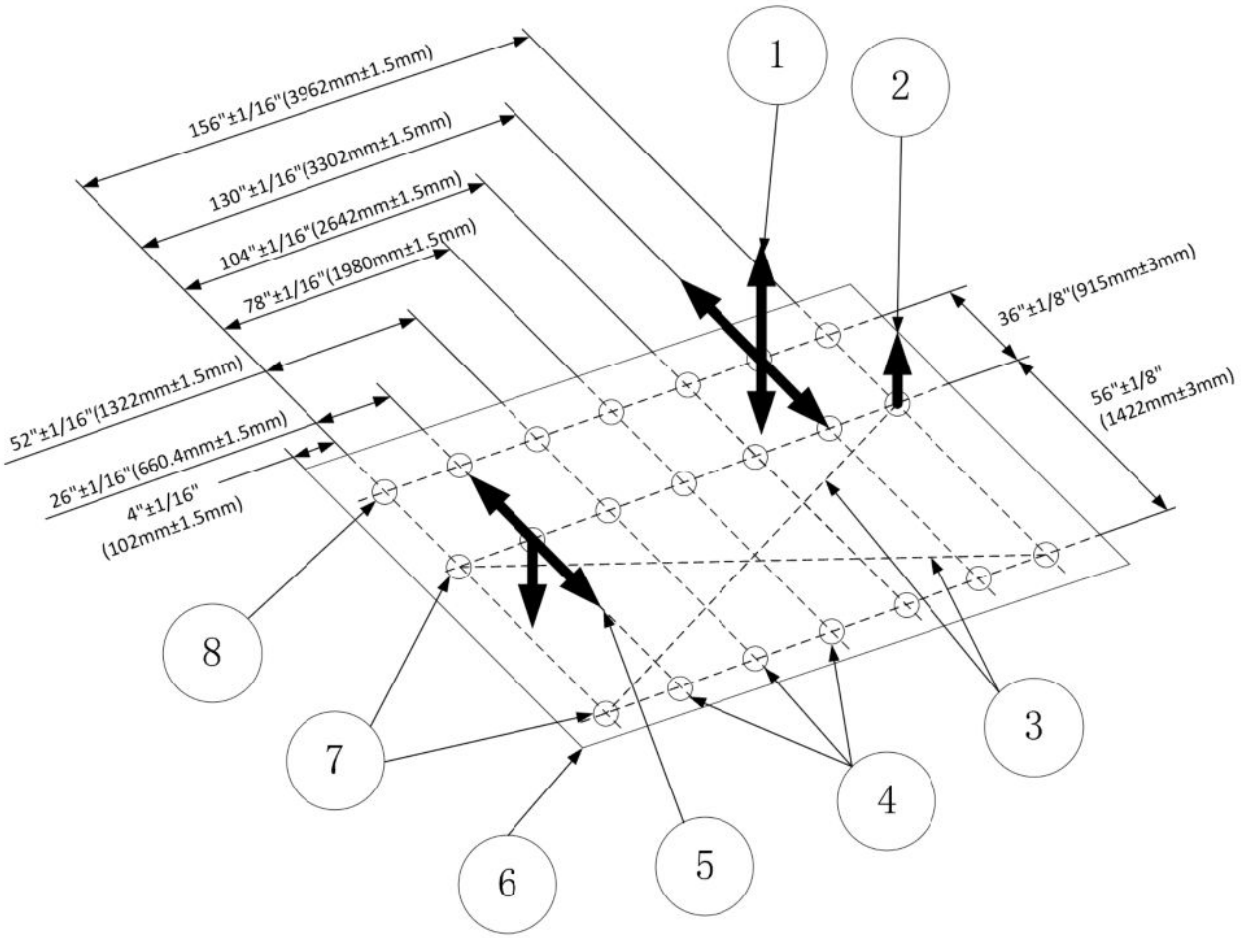
Figure 2-10 Specifications for a Typical 4115mm (13’- 6") Stationary Rail Mounting Interface (Both Rails Ceiling Mounted) with 2M Bridge

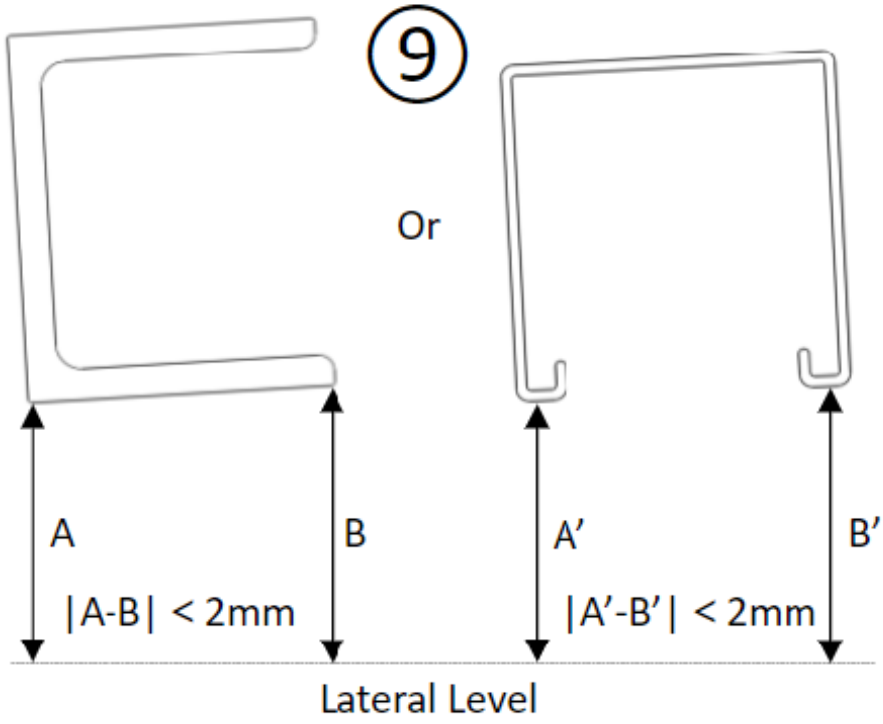




Item	Description
1	When a 50 lb. (22.7 kg) force is applied vertically upward, vertically downward, or horizontally at any support rail mounting point, the attachment interface must not deflect more than 1/16” (1.5 mm).
2	When a 100 lb. (45.4 kg) force is applied vertically upward at any stationary rail mounting point, the attachment interface MUST not deflect more than 1/16” (1.5 mm).
3	Diagonals must be equal within ±1/16" (1.5mm).
4	All mounting points must be located on a common centerline within ±1/16” (1.5 mm).
5	When a 300 lb. (136 kg) load is applied vertically downward or horizontally at any stationary rail mounting point, the attachment interface MUST not deflect more than 1/16” (1.5 mm).
6	All mounting points must be in the same horizontal plane within ±1/16" (1.5mm)
7	Stationary rail mounting points must be parallel within ±1/16" (1.5mm)
8	The bottom surface of stationary rail and cable support rail must be flat, no obvious protrusions large than 1mm. (only applied for non-Unistrut construction)
9	The bottom surface of the stationary rail and cable support rail must be horizontal, the height difference between each support rail edge along the lateral direction must be less than 2 mm (or angle with level along lateral direction must less than 2 degree).

Figure 2-11 Specifications for a Typical 4115mm (13’- 6") Stationary Rail Mounting Interface (Both Rails Ceiling Mounted) with 3M Bridge





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6	All mounting points must be in the same horizontal plane within ±1/16" (1.5mm)
7	Stationary rail mounting points must be parallel within ±1/16" (1.5mm)
8	The bottom surface of stationary rail and cable support rail must be flat, no obvious protrusions large than 1mm. (only applied for non-Unistrut construction)
9	The bottom surface of the stationary rail and cable support rail must be horizontal, the height difference between each support rail edge along the lateral direction must be less than 2 mm (or angle with level along lateral direction must less than 2 degree).

CAUTION

Potential for injury and/or Equipment Damage:

Maximum load per screw is 160kg (353lb), however, each mounting screw must not "Pull Out" or otherwise fail under a vertically downward dead load of 635kg (1400lb).

Figure 2-12 Suggested UNISTRUT Structure for OTS Suspension with 2 m Bridge

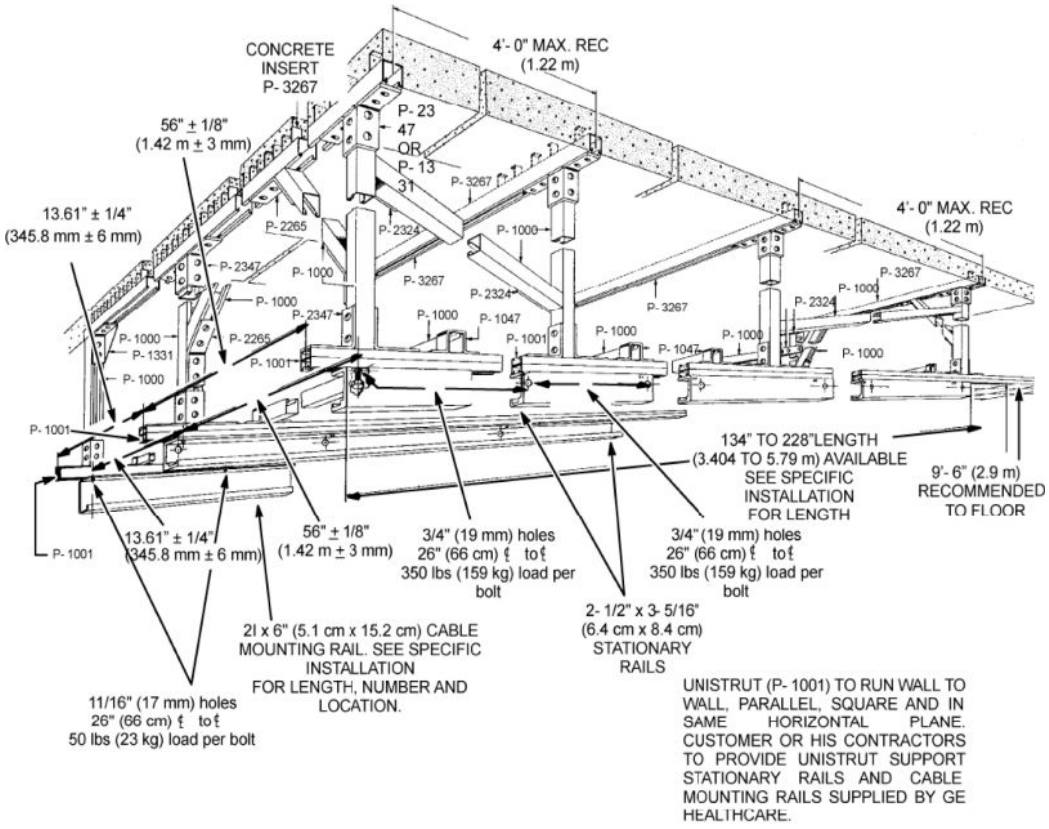


Figure 2-13 Suggested UNISTRUT Structure for OTS Suspension with 3 m Bridge

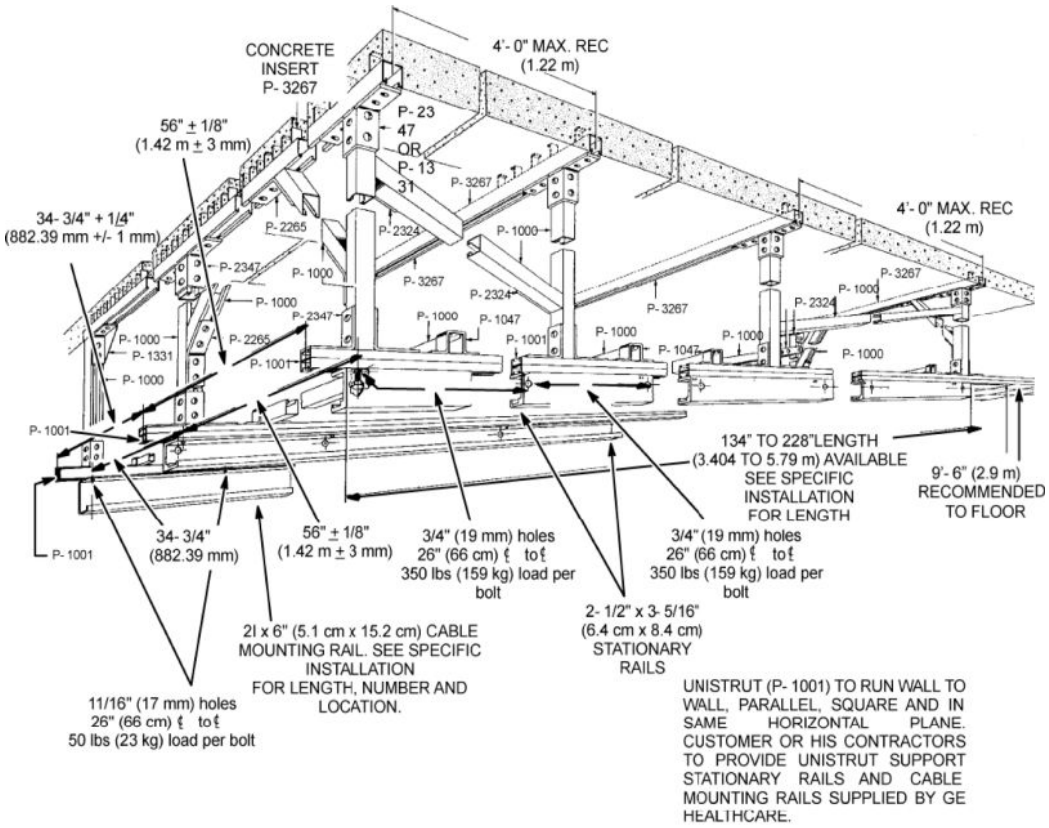


Figure 2-14 Stationary Rail Mounting Locations and Clearances with 2M Bridge

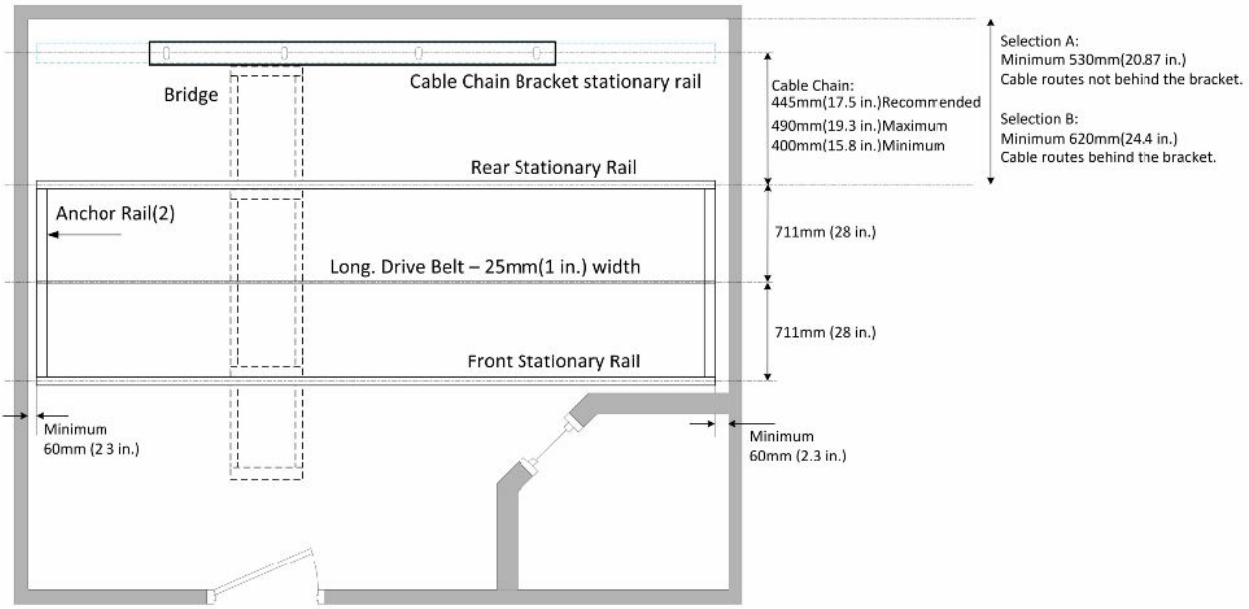
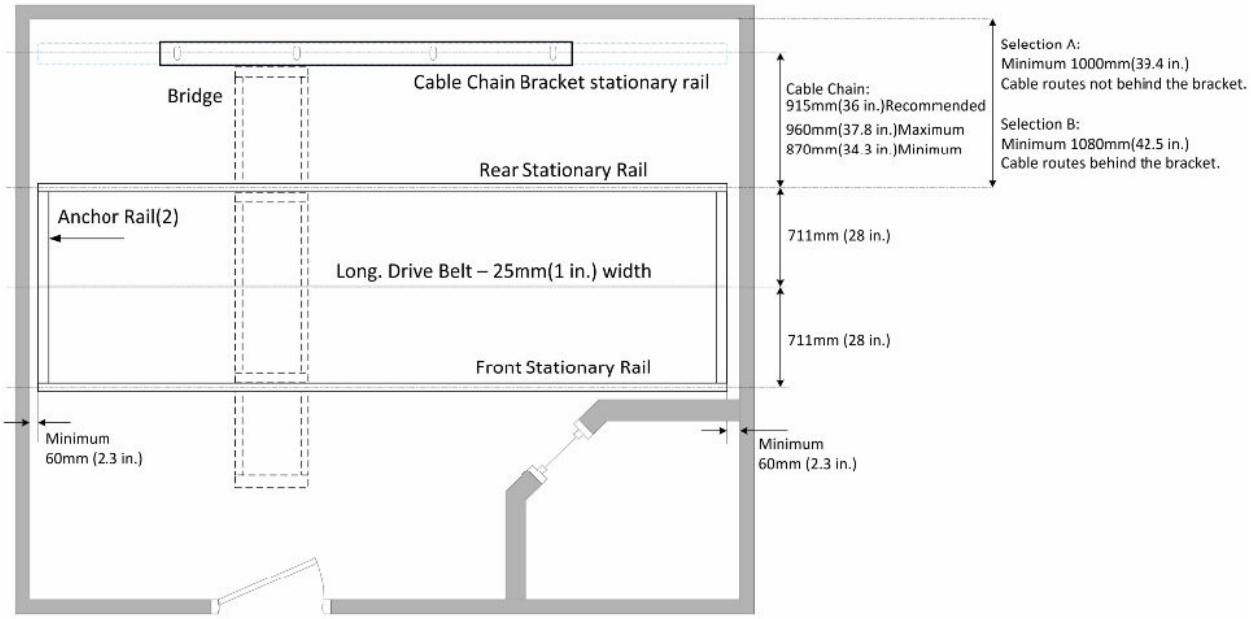
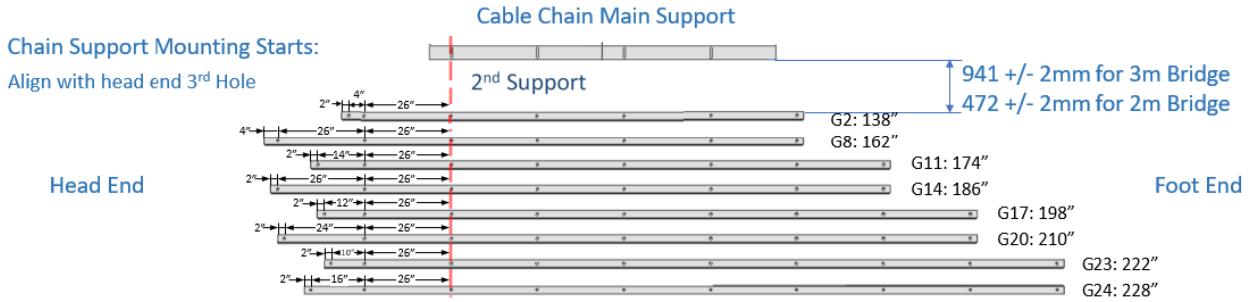


Figure 2-15 Stationary Rail Mounting Locations and Clearances with 3M Bridge

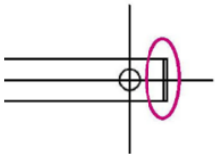


Cable Chain Support Location

- For the chable chain configuration, the cable chain installed position need to meet the requirements with diffrent lenght rail.
- For the cable drape configuration, please skip this section.



There is a 0.2” plate on each side of the rail end, used for fix bumpers, so finally the rail length should be = rail length + 0.4”



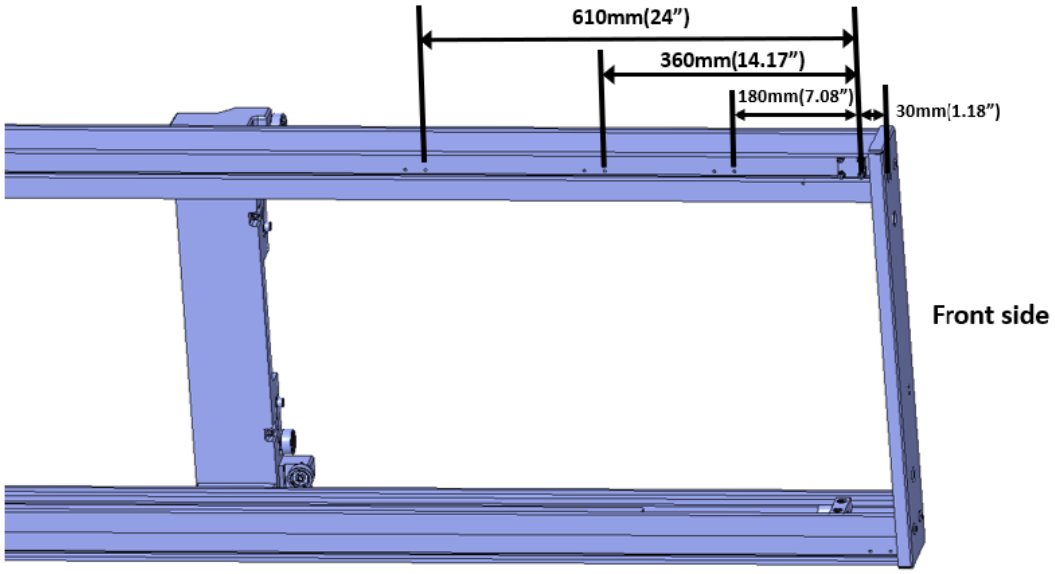
2.1.3.4.3 Modify Bridge Length

NOTE

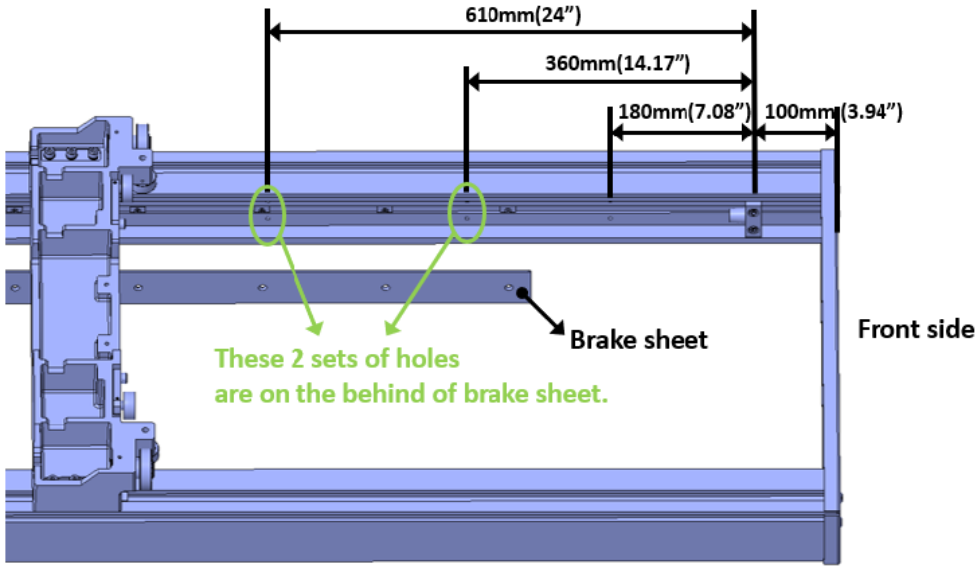
For some special room, the front stationary rail is close to wall, so we have to cut bridge, only the front side can be cut and the cut length must not exceed 650mm(25.6"), (only applied for Tempo 3m bridge). Otherwise it will impact installation.

1. The Tempo/Tempo Pro 3m bridge provide additional 3 sets of mounting holes for OTS lateral travel range bumper and lateral belt fixed mounting block, if the bridge cutting length is 7.08” (180mm), 14.17”(360mm) or 24.2”(610mm), we can reuse these holes, as below:

   - Additional holes for lateral belt fixed mounting block at bridge front side:



   - Additional holes for lateral travel range bumper at bridge front side:



2. If the bridge cutting length is not same with the 7.08” (180mm), 14.17”(360mm) or 24.2”(610mm), FE have to re-drill all the mounting holes for lateral travel range bumper, lateral belt fixed mounting block, bridge end cap. The detail re-drill mounting holes procedure refer to installation manual, section “Modify bridge length”.

2.1.3.4.4 12m Rail Mounting Requirement

Figure 2-16 Specifications for a 12M Rail (12.192m (40ft)) Stationary Rail Mounting Interface (Both Rails Ceiling Mounted) with 2M/3M Bridge

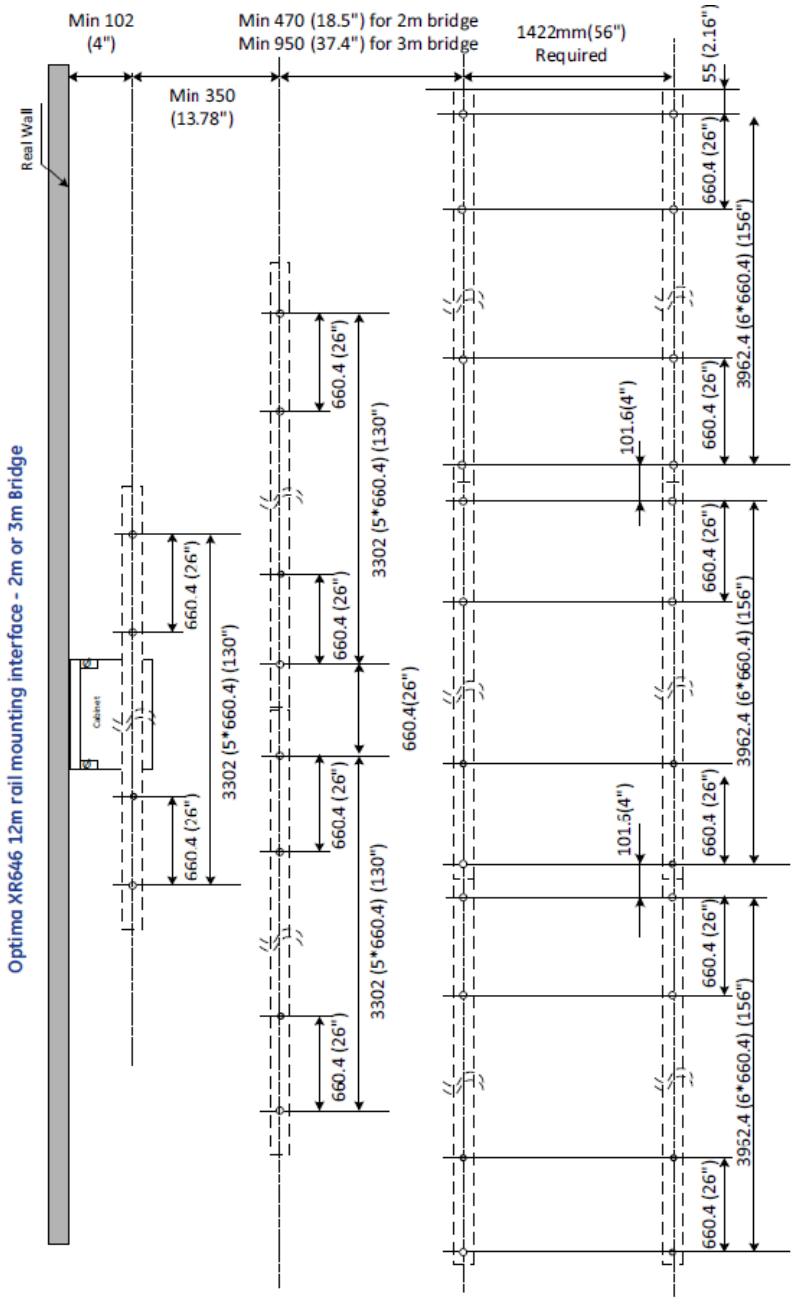


Figure 2-17 OTS Cable Drape Routing

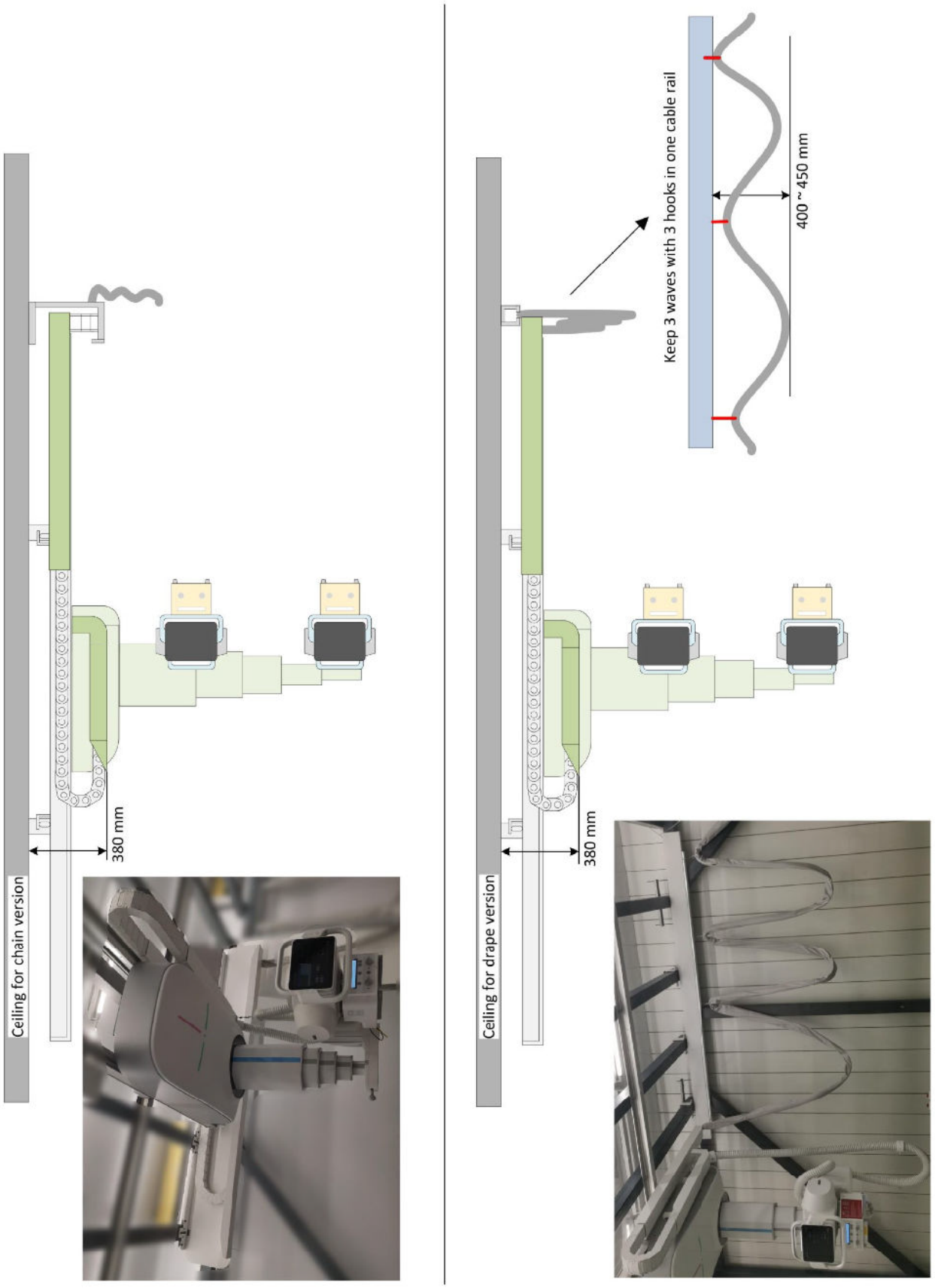
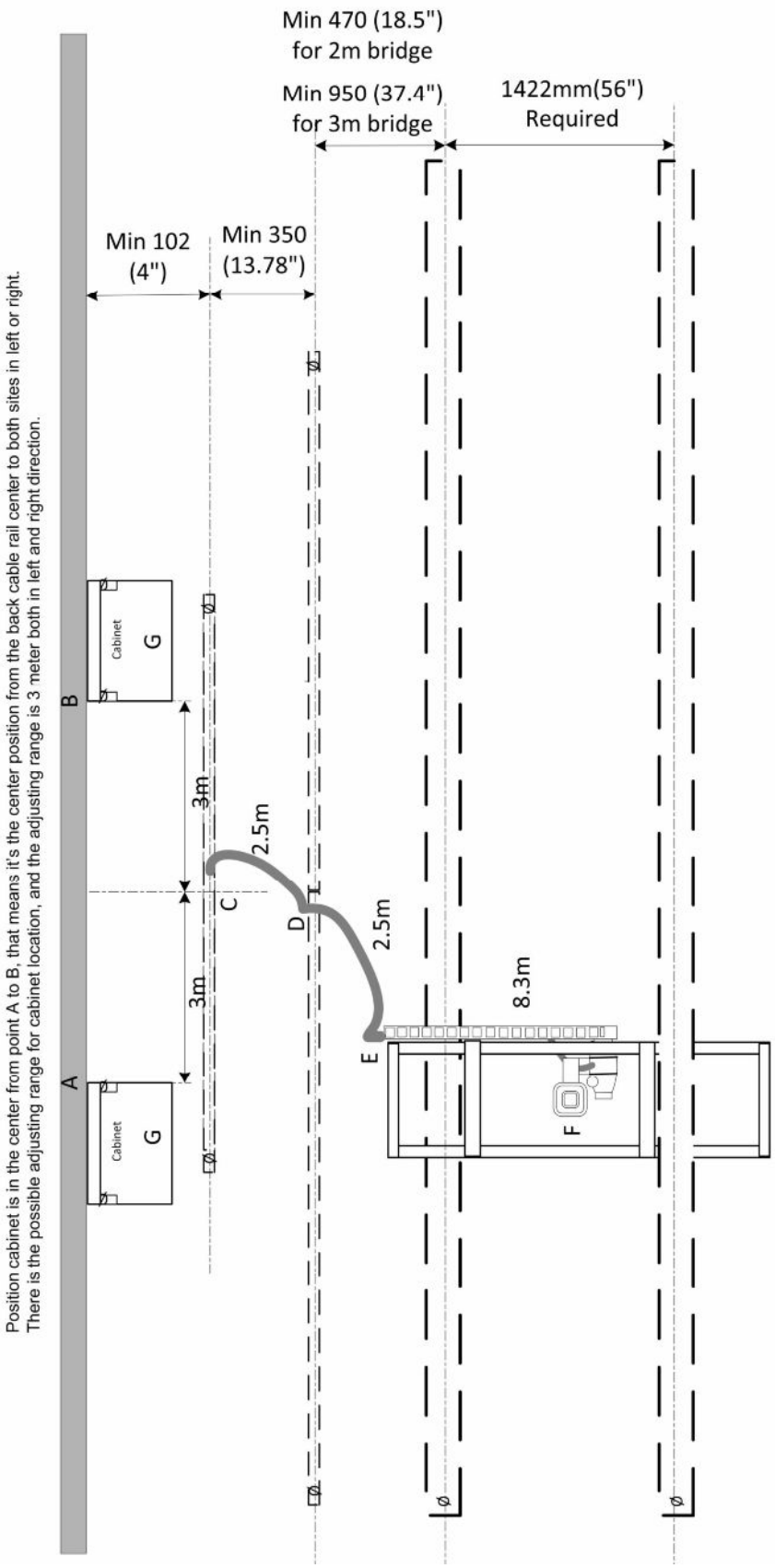


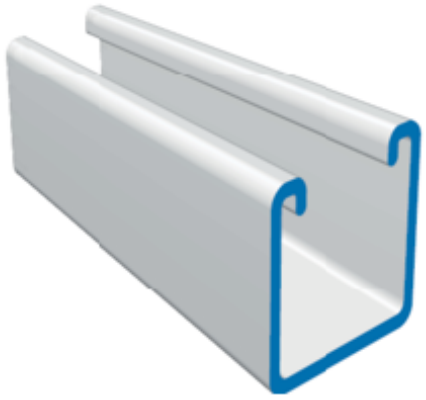
Figure 2-18 12 Meter Rail Cable Routing

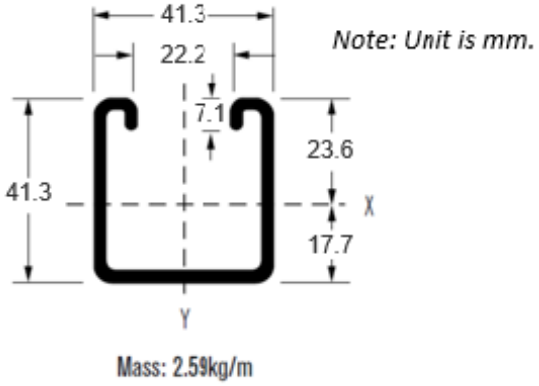


2.1.3.4.5 Universal Rail requirements

Universal Rail is an optional typical rail that can replace the normal stationary rail, stationary rail and Universal rail can only be installed one of two.

1. The Universal Rail only applied for typical Unistrut ceiling structure, the Unistrut should perpendicular to Universal Rail, the Unistrut type as below:

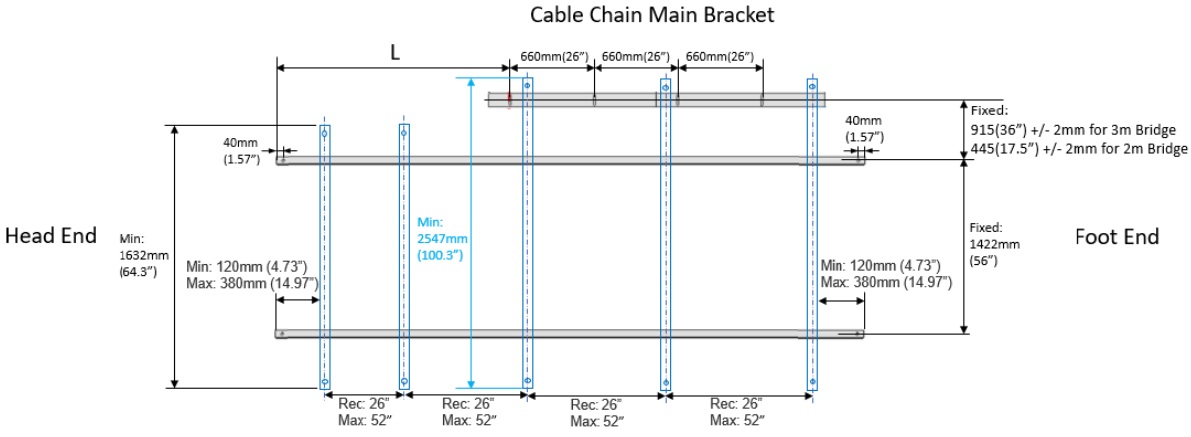




2. The universal rail length selections are all same with formal production rails.
3. The Unistrut requirements could refer to Figure 2-10 Specifications for a Typical 4115mm (13’- 6") Stationary Rail Mounting Interface (Both Rails Ceiling Mounted) with 2M Bridge on page 43 and Figure 2-11 Specifications for a Typical 4115mm (13’- 6") Stationary Rail Mounting Interface (Both Rails Ceiling Mounted) with 3M Bridge on page 45
4. When the Unistrut is not enough to support longitudinal cable chain bracket, **we should ask customer re-build additional mounting point** to install the bracket, the Universal Rail Unistrut position requirements as below:

   The dimension “L” is same with formal production rail requirements, refer below:

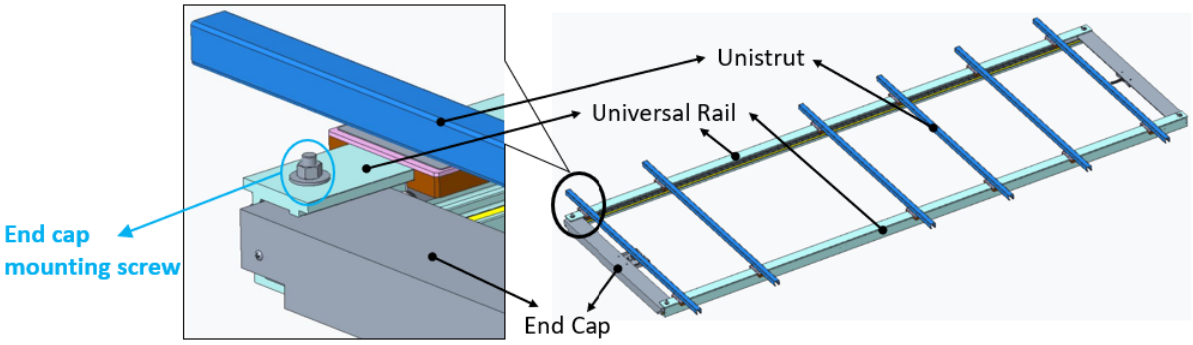
Rail length	G2: 138”	G8: 162”	G11: 174”	G14: 186”	G17: 198”	G20: 210”	G23: 222”	G24: 228”
“L” is	32”	56”	42“	54“	40“	52“	38“	44“



NOTE

If the dimension 2547mm(100.3”) (blue color) can’t meet, need provide additional Unistrut for longitudinal cable installation.

5. The Longitudinal Cable bracket mounting point requirements can refer to Figure 2-11 Specifications for a Typical 4115mm (13’- 6") Stationary Rail Mounting Interface (Both Rails Ceiling Mounted) with 3M Bridge on page 45or Figure 2-10 Specifications for a Typical 4115mm (13’- 6") Stationary Rail Mounting Interface (Both Rails Ceiling Mounted) with 2M Bridge on page 43
6. There are 2 holes at the end of universal rail need to insert to ceiling, due to install the “end cap” mounting screws should cross the Universal rail, need provide holes for the screws’ installation. As below:



2.1.3.5 Wall Requirements

TIB, Detector BIN and AP should be installed on a suitable wall can afford the ASSY.

2.1.3.5.1 Tether Interface Box (TIB)

Provide a wall space to hang the TIB in the exam room, see Figure 2-19 TIB structure overview on page 55 and Figure 2-20 TIB rear cover (wallmount) on page 55. Expanding plastic sleeves are provided for the wall screws which are designed to expand into the drywall.

NOTE

1. The stuff of wall is concrete and the thickness is more than 80mm, drill two 12mm diameter holes 50mm(1.97") deep with masonry drill, fix the anchor in the holes, the height between the bottom of the TIB and the floor is no more than 70cm(27.56"), mount the TIB on the wall.
2. Tightening torque for preload 20Nm
3. Thread locker: Loctite 243.
4. Add painted mark on anchor heads

Figure 2-19 TIB structure overview

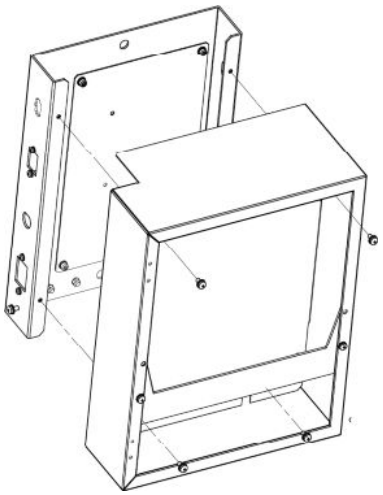
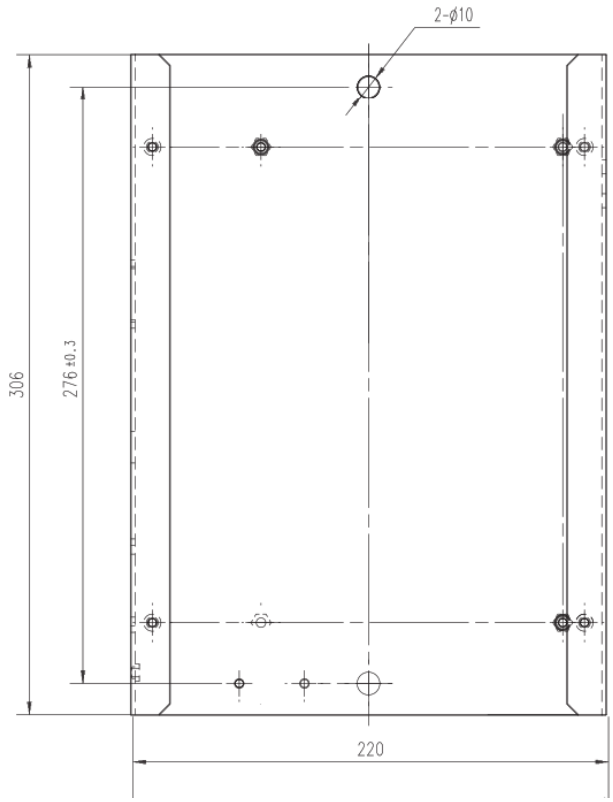


Figure 2-20 TIB rear cover (wallmount)



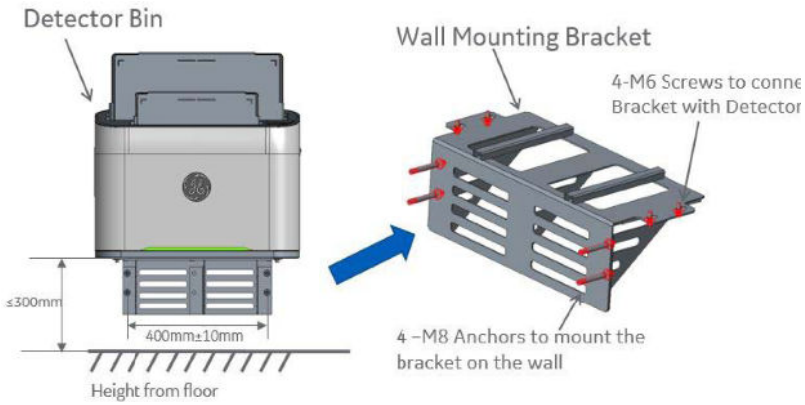
2.1.3.5.2 Detector BIN

Wall Mounting

NOTE

Detector BIN should be installed < or = 300mm (11.8in) height from the Detector Bin bottom to the floor.

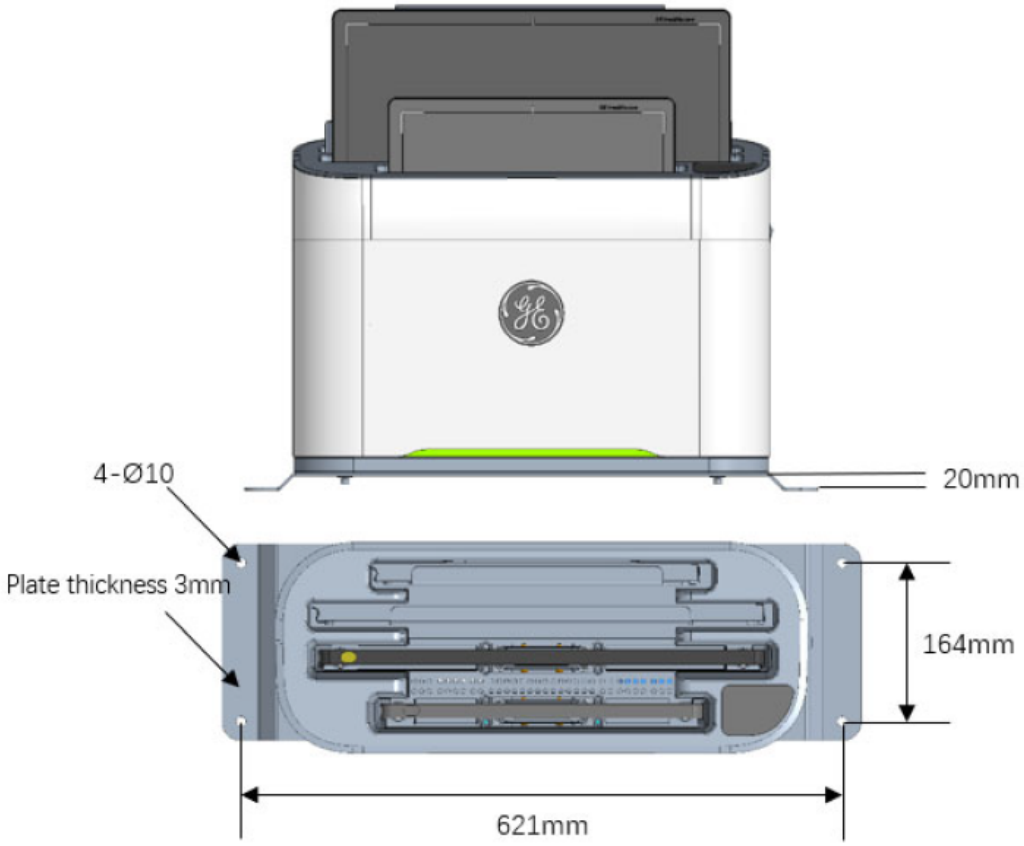
Figure 2-21 Detector Bin Location and Wall Mount Braket



NOTE

1. if the stuff of wall is concrete and the thickness is more than 80mm, drill four 12mm diameter holes 50 mm deep with masonry drill, fix the anchor in the holes firstly, the recommended height between the bottom of the Detector bin and the floor is no more than 30cm, mount the bin on the wall; or else, mount the bin on the floor.
2. Tightening torque for preload: a) Anchor heads, 20Nm, b) M6 Screws, 8 Nm.
3. Thread locker: Loctite 243.
4. Add painted mark on 4 anchor heads and 4-M6 screws

Floor Mounting

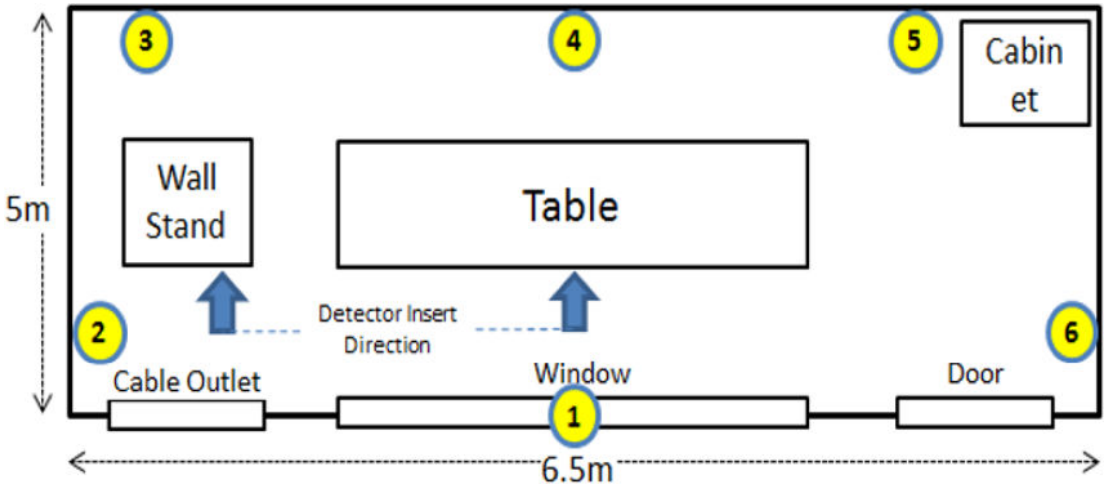


Floor Mounting

2.1.3.5.3 AP Assembly

Refer to below pictures to find out the AP position. There are 6 different positions is available to AP wall-mounting.

Figure 2-22 AP Wall-mounting position



NOTE

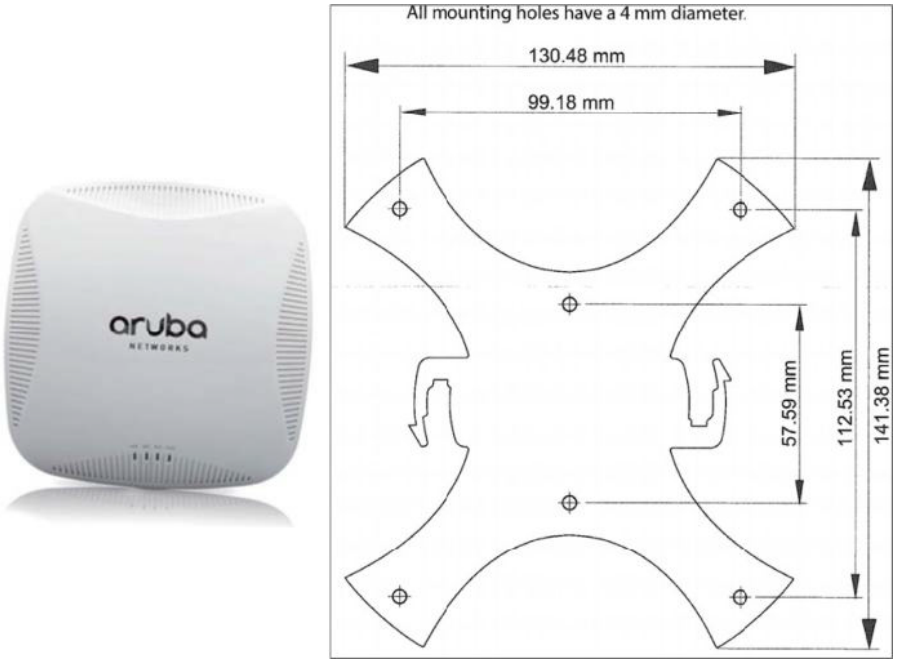
Wall Mounted: 2.5m Height to avoid potential blocking from human or other obstacles

The AP power cables length is listed as follows. Please figure out the AP installation location by considering the cable length.

- AP power cable (from AP power supply inside system cabinet to AP): about 20m
- AP Ethernet cable (from Magic PC to AP): about 25m

Use the image below as template for mounting AP Wall Mount Kit.

Figure 2-23 All mounting holes have a 4 mm diameter



NOTE

AP is only be provided for wireless system. that is not including in Non Wireless Configuration system.

2.1.3.5.4 Grid Holder

NOTE

1. The stuff of wall is concrete and the thickness is more than 80mm, drill four 12mm diameter holes 50 mm deep with masonry drill, fix the anchor in the holes firstly, the recommended height between the bottom of the Grid box and the floor is no more than 30cm, mount the Grid box on the wall, or else, mount the bin on the floor.
2. Tightening torque for preload: a) Anchor heads, 20Nm, b) M6 Screws, 8Nm.
3. Thread locker: Loctite 243.
4. Add painted mark on 4 anchor heads and 4-M6 screws.

Figure 2-24 Grid Holder overview

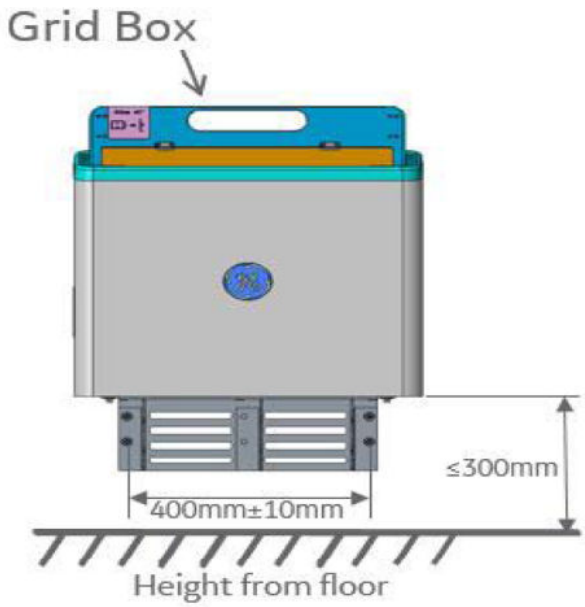
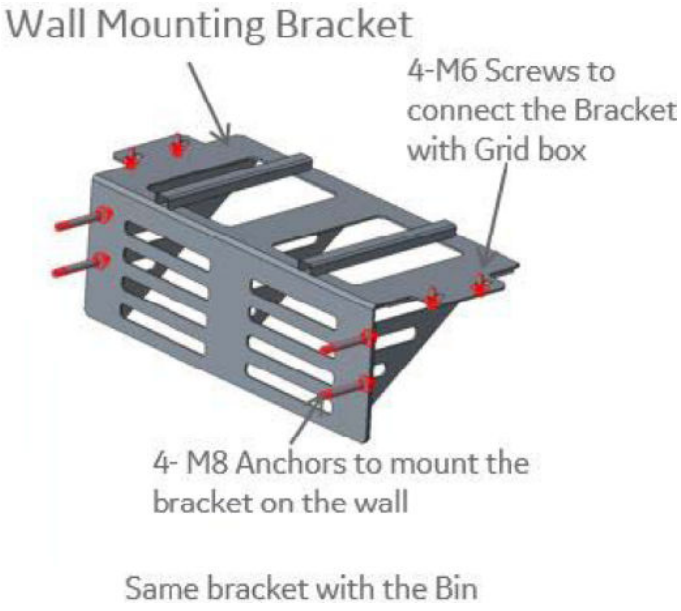


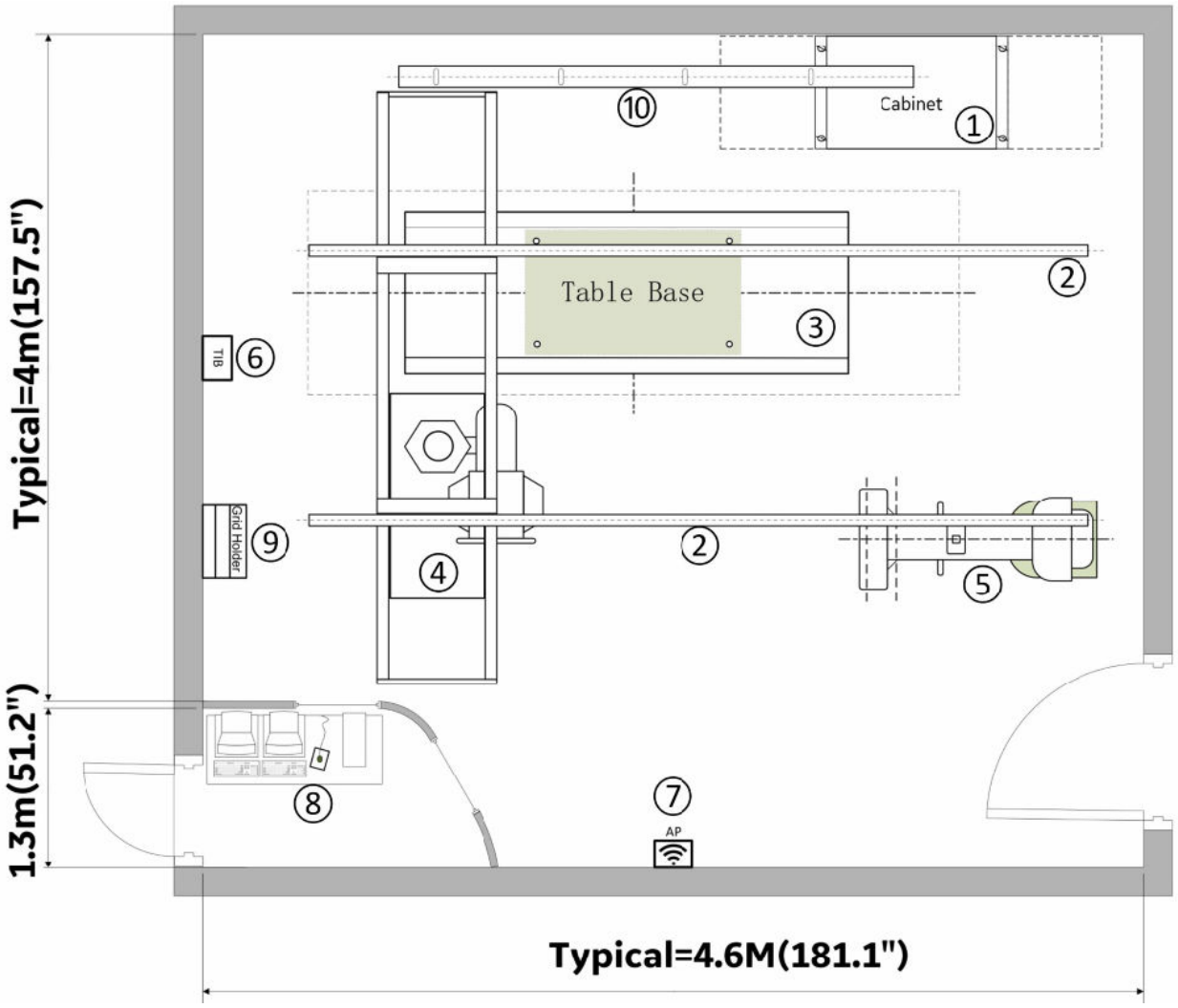
Figure 2-25 Grid Holder Wall Panel



2.1.3.6 Exam Room Size

In normal circumstances, the size of the exam room at least to meet the following requirements

Figure 2-26 3m Bridge typical room



NOTE

If the control room is layout out in exposure room, the typical room size should adjust basis on the control room size.

Table 2-7 Exam Room Size

No	Description
1	System Cabinet
2	Longitudinal Stationary Rails
3	Table + Detector
4	OTS & Bridge
5	Wallstand + Detector
6	Tether Interface Box
7	Access Point
8	Magic PC & Monitors
9	Grid Holder

Table 2-7 Exam Room Size (Table continued)

No	Description
10	Cable Rail

2.2 System Component Dimensions and Weights

2.2.1 Dimensions

Table 2-8 Product Physical Characteristics (Width / Depth / Height)

PRODUCT OR COMPONENT	DIMENSIONS			References
	Width	Depth	Height	
Operator Console: PC HP Z4G4/Z4G5 Monitor (Touch) RCIM2	 168 mm (6.6 in) 569 mm (22.3 in) 451 mm (17.8 in)	 445 mm (17.5 in) 220 mm (8.66 in) 135 mm (5.3 in)	 390 mm (15.4 in) 490 mm (19.3 in) 70 mm (2.8 in)	
2 Meter Bridge	2158 mm (84.96 in)	659 mm (26 in)	169 mm (6.66 in)	See Figure 2-33 OTS Suspension Focal Spot Travel Range - 2M Bridge on page 70
3 Meter Bridge	3148 mm (123.94 in)	659 mm (26 in)	169 mm (6.66 in)	See Figure 2-34 OTS Suspension Focal Spot Travel Range - 3M Bridge on page 71
Definium Tempo Pro/ Definium Tempo Table Table Assembly	2340 mm (92.12 in)	854 mm (33.62 in)	585 - 900 mm (23.03 - 35.43 in)	See Figure 2-28 Table Views on page 66
Definium Tempo Pro/ Definium Tempo Table Table Top Movement Dimension	680 mm±10 mm (26.77in±0.39 in)	280mm±10 mm (11.02in±0.39 in)	NA	See Figure 2-29 Table Top Movement Dimensions on page 67
Stretchers (optional): Non-elevating Non-elevating (carbon fiber)	2159 mm (85 in) 2200 mm (86.6 in)	870 mm (34.25 in) 650 mm (25.5 in)	705 mm (27.75 in) 700 mm (27.5 in)	See Figure 2-41 S3921KA Radiographic Stretcher Dimensions (optional) on page 77 See Figure 2-42 S1700JM Carbon Fiber Stretcher Dimensions (optional) on page 78
Stationary Rail (each)	4115~5791 mm (13.6~19ft)	62.5mm (2.46 in)	84.3 mm (3.32 in)	See Table 2-10 Longitudinal Rails on page 82

Table 2-8 Product Physical Characteristics (Width / Depth / Height) (Table continued)

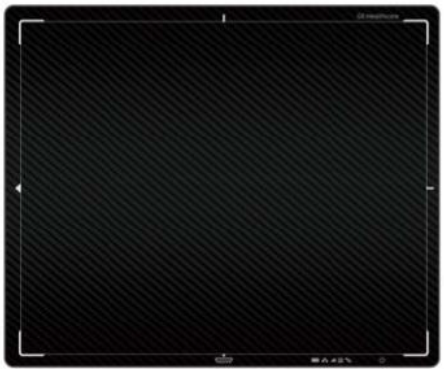
PRODUCT OR COMPONENT	DIMENSIONS			References
	Width	Depth	Height	
Overhead Tube Support Includes: carriage, collimator, tube, and UIF	607 mm (23.89 in)	1016 mm (40 in)	889 mm (35 in)	See Figure 2-32 OTS Side view on page 69 See Figure 2-32 OTS Side view on page 69 and Figure 2-33 OTS Suspension Focal Spot Travel Range - 2M Bridge on page 70 and Figure 2-34 OTS Suspension Focal Spot Travel Range - 3M Bridge on page 71
System Cabinet	900 mm (35.43 in)	600 mm (23.62 in)	932 mm (36.69 in)	See Figure 2-30 System Cabinet Dimensions (Front, Top, Left) on page 67 and Figure 2-31 System Cabinet Wall-Mount Bracket on page 68
Tether Interface Box	255 mm (10 in)	145 mm (5.7 in)	310 mm (12.2 in)	See Figure 2-19 TIB structure overview on page 55 and Figure 2-20 TIB rear cover (wall-mount) on page 55
Standard Wall Stand	686~1266 mm (27~49.8 in)	1344 mm (52.91 in)	2628 mm (103.46 in)	See Figure 2-35 Wall Stand Dimensions (0 and 90 degrees) on page 72 and Figure 2-36 Wall Stand Base Plate Dimensions on page 73 and Figure 2-37 Wall Stand Base Plate and its Cover Dimensions on page 74

Table 2-8 Product Physical Characteristics (Width / Depth / Height) (Table continued)

PRODUCT OR COMPONENT	DIMENSIONS			References
	Width	Depth	Height	
Extended Wall Stand	686~1266 mm (27~49.8 in)	1668 mm (65.67 in)	2628 mm (103.46 in)	See Figure 2-35 Wall Stand Dimensions (0 and 90 degrees) on page 72 and Figure 2-36 Wall Stand Base Plate Dimensions on page 73 and Figure 2-37 Wall Stand Base Plate and its Cover Dimensions on page 74
Non-tilting Wall Stand	686~1266 mm (27~49.8 in)	1026 mm (40.39 in)	2628 mm (103.46 in)	see Figure 2-35 Wall Stand Dimensions (0 and 90 degrees) on page 72 and Figure 2-36 Wall Stand Base Plate Dimensions on page 73
Image Pasting Barrier with Footstool (option)	1110.4 mm (43.71 in)	656.76 mm (25.86 in)	2070 mm (81.5 in)	See Figure 2-44 Image Pasting Barrier Dimensions (Optional) on page 79
Detector BIN	550 mm (21.7 in)	220 mm (8.6 in)	390 mm (15.4 in)	See 2.1.3.5.2 Detector BIN on page 55 and Figure 2-21 Detector Bin Location and Wall Mount Braket on page 56
AP Assembly	140 mm (5.5 in)	140 mm (5.5 in)	20 mm (0.8 in)	See Figure 2-23 All mounting holes have a 4 mm diameter on page 58
FlashPad HD Detector 14X17 In 10X12 In 17X17 In	460 mm(18 in) 332 mm(13 in) 460 mm(18 in)	384 mm(15 in) 282 mm(11 in) 460 mm(18 in)	16 mm(0.6 in)	See Figure 2-27 FlashPad Detector overview on page 64
Grid Holder	511.8 mm (20.15 in)	202.4 mm (7.97 in)	504.5 mm (19.86 in)	See Figure 2-24 Grid Holder overview on page 59 and Figure 2-25 Grid Holder Wall Panel on page 59
UPS (option)	160 mm (6.3 in)	357 mm (14.1 in)	252 mm (9.9 in)	See Figure 2-45 UPS Dimensions (Optional) on page 79

2.2.2 FlashPad HD Detector

Figure 2-27 FlashPad Detector overview



Dimensions: 14X17: L 460 mm, H 384 mm, T 16 mm
10X12: L 332 mm, H 282 mm, T 16 mm

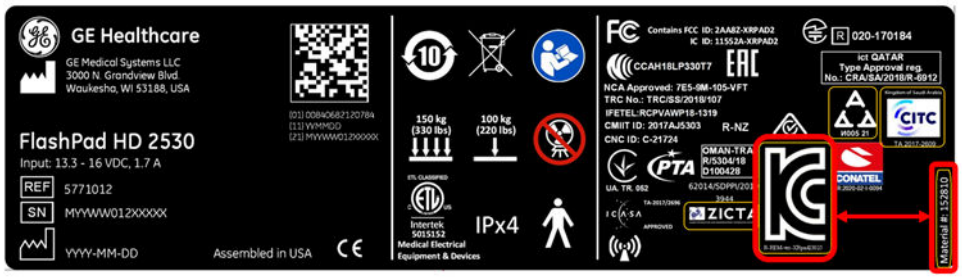
- Battery or tether operated. Includes two rechargeable and exchangeable batteries and 7 m cable (4 m or 10 m optional) for optimal connectivity and power
- Desktop battery pack charger

1. 5781012-9M, the material # is 152819.

2. 5781417-9M, the material # is 152815.

3. 5781717-9M, the material # is 152820.

4. 5781012-9, the material # is 152810.



5. 5781417-9, the material # is 152814

6. 5781717-9, the material # is 152821.

2.2.3 Table

Definium Tempo Pro/ Definium Tempo Table

Figure 2-28 Table Views

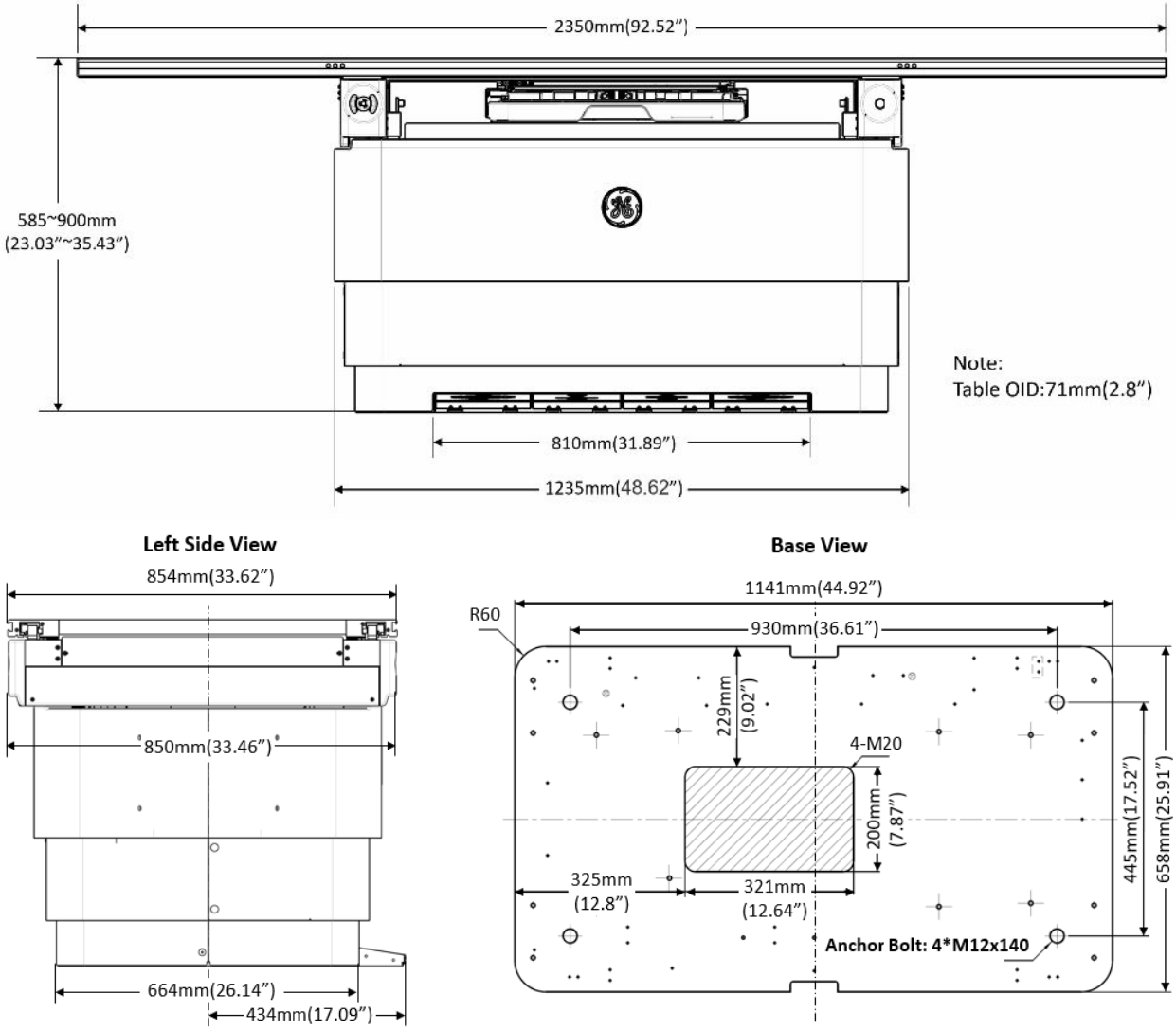
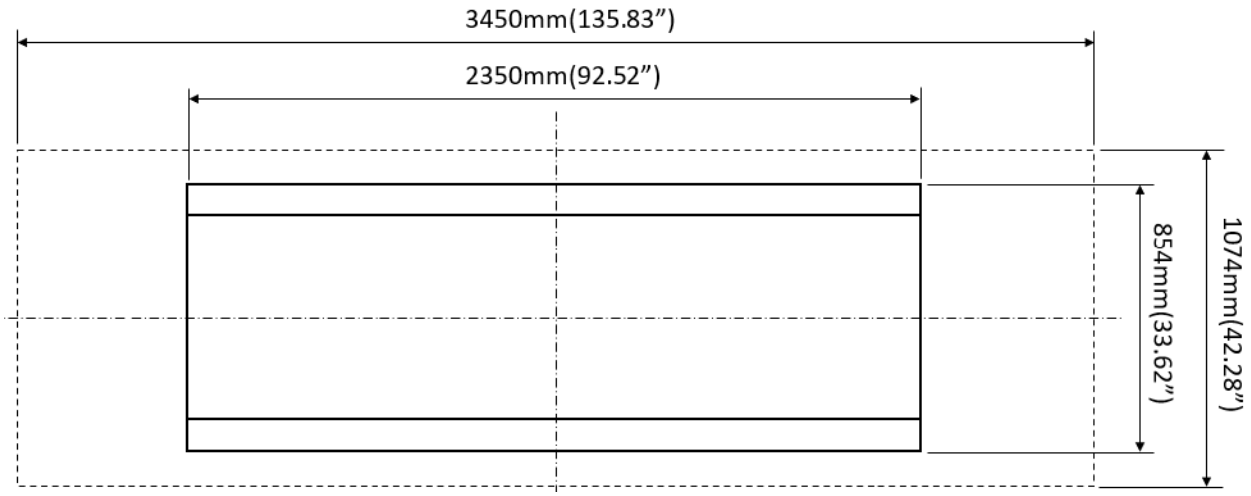


Figure 2-29 Table Top Movement Dimensions



2.2.4 System Cabinet

Figure 2-30 System Cabinet Dimensions (Front, Top, Left)

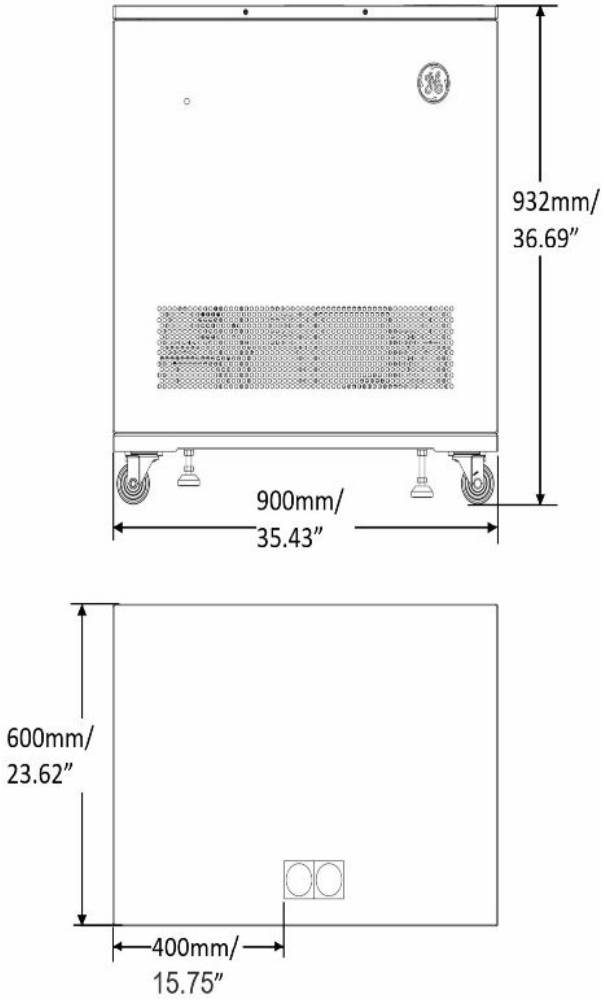
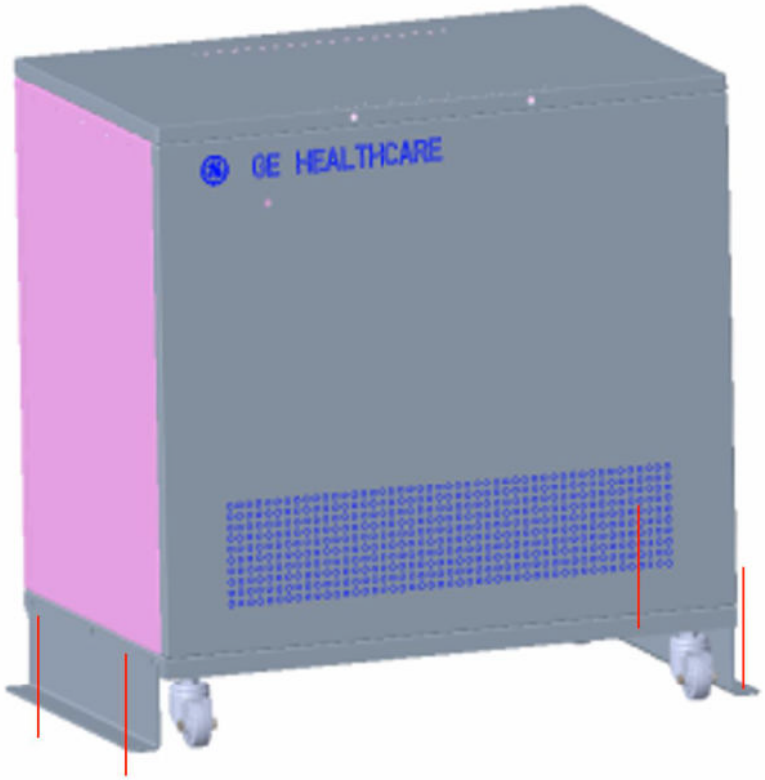


Figure 2-31 System Cabinet Wall-Mount Bracket

Recommended seismic mounting locations (in red circles)



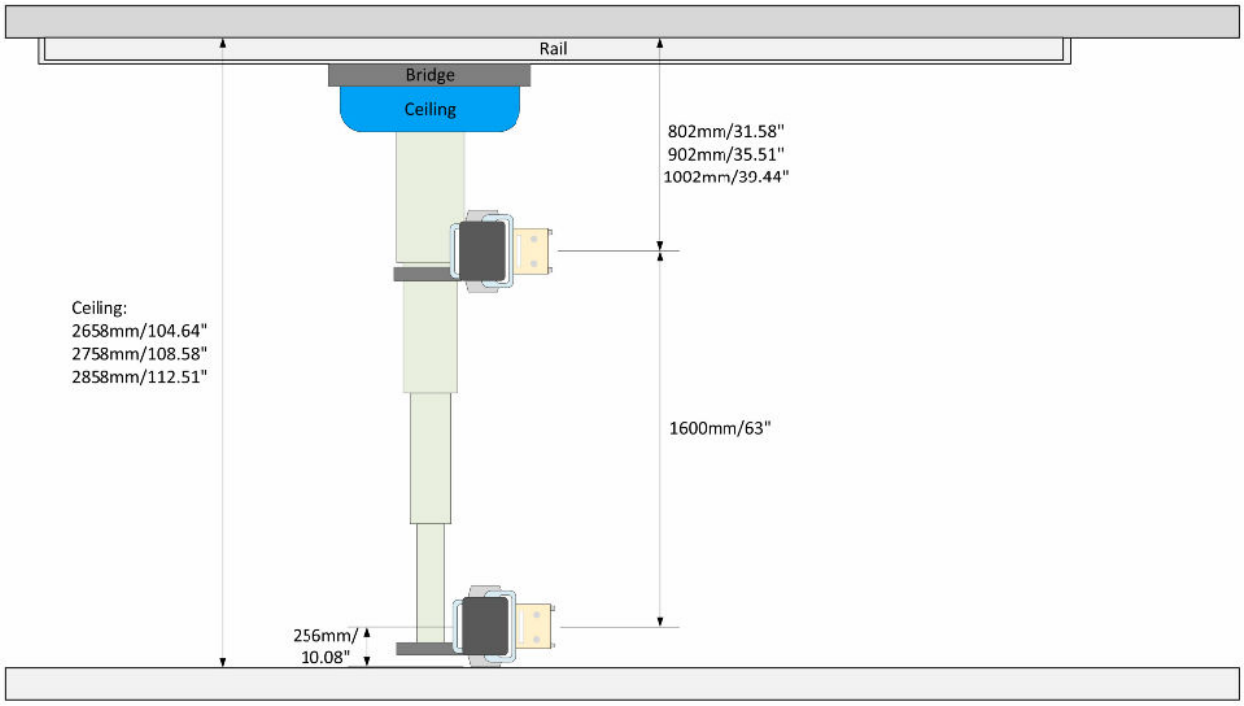
2.2.5 Over-Head Tube Support (OTS)

The OTS comprises a system for suspending and supporting an X-ray tube unit and collimator. It employs a spring counterpoise mechanism to balance these loads. The OTS's main components are the stationary rails, the bridge and the support column.

The OTS has 3 adapter for tube installation, it is related to the minimum distance from focal spot to ceiling(rail installation surface). Below calculation use 902mm(35.51") for example, it also can be 802mm(31.58") or 1002mm(39.45“).

- When Lowest point of OTS could touch floor, Height=902+1600+256=2758mm(108.58")
- When OTS center is parallel to WS center at lowest position of OTS, OTS travel range=1600mm(63"), Height=902+1600+285=2787mm(109.72")
- When OTS center is parallel to WS center at highest position of WS, keep WS travel range=1500mm(59.05"), Height=902+1500+285=2687mm(105.79")

Figure 2-32 OTS Side view



NOTE

The dimension from surface of ceiling to bottom surface of rail is 84.3mm (3.3 in).

Figure 2-33 OTS Suspension Focal Spot Travel Range - 2M Bridge

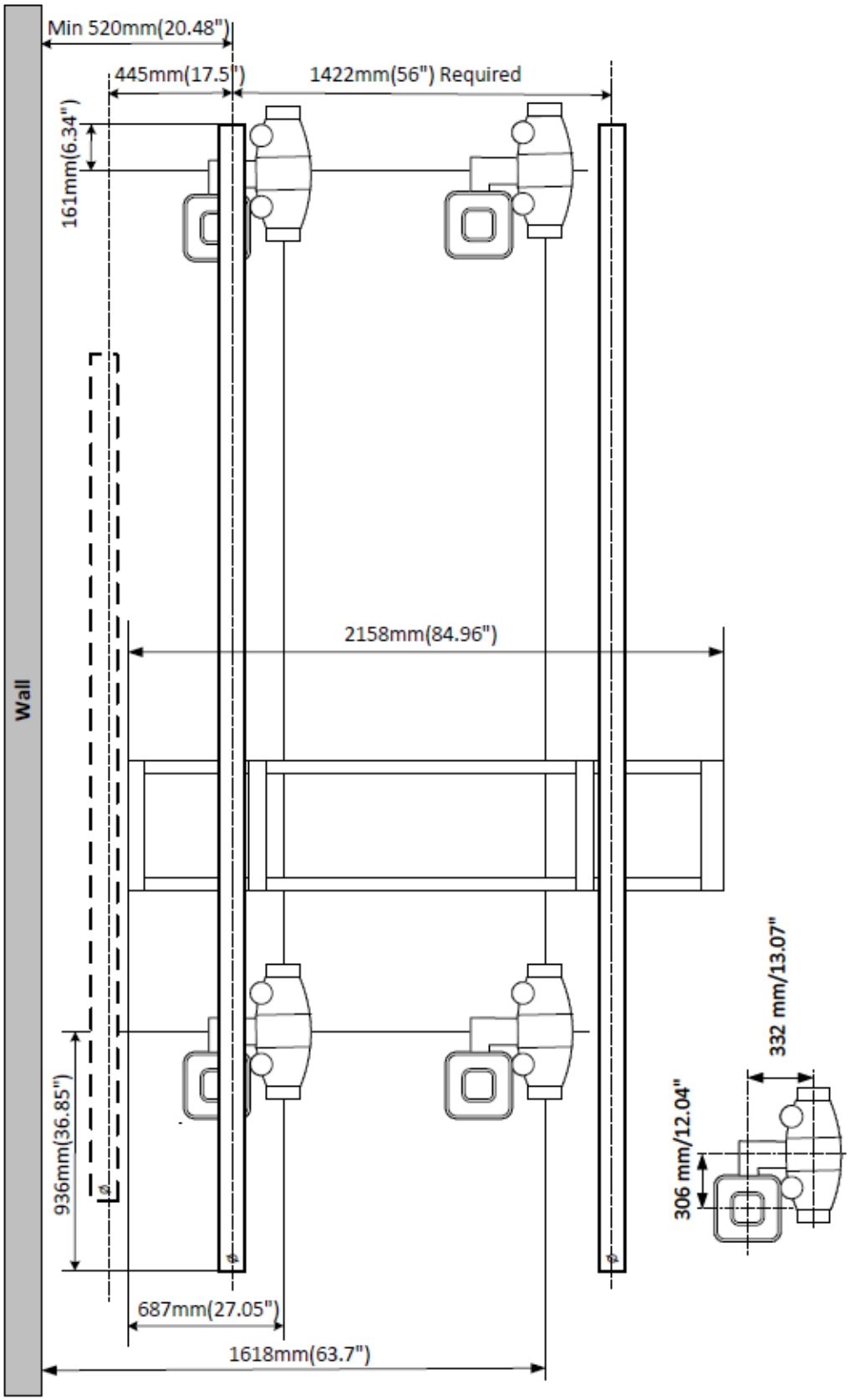
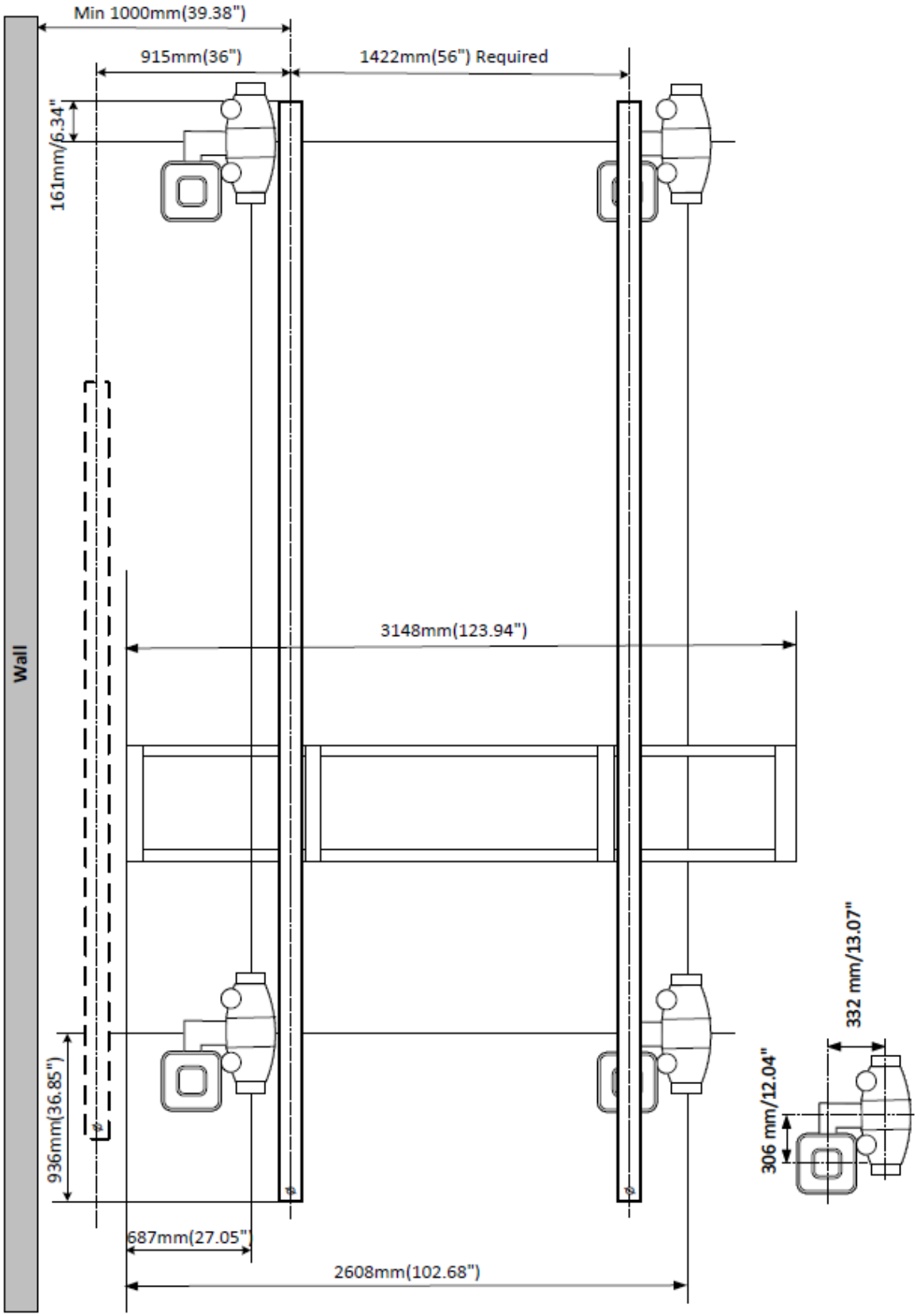


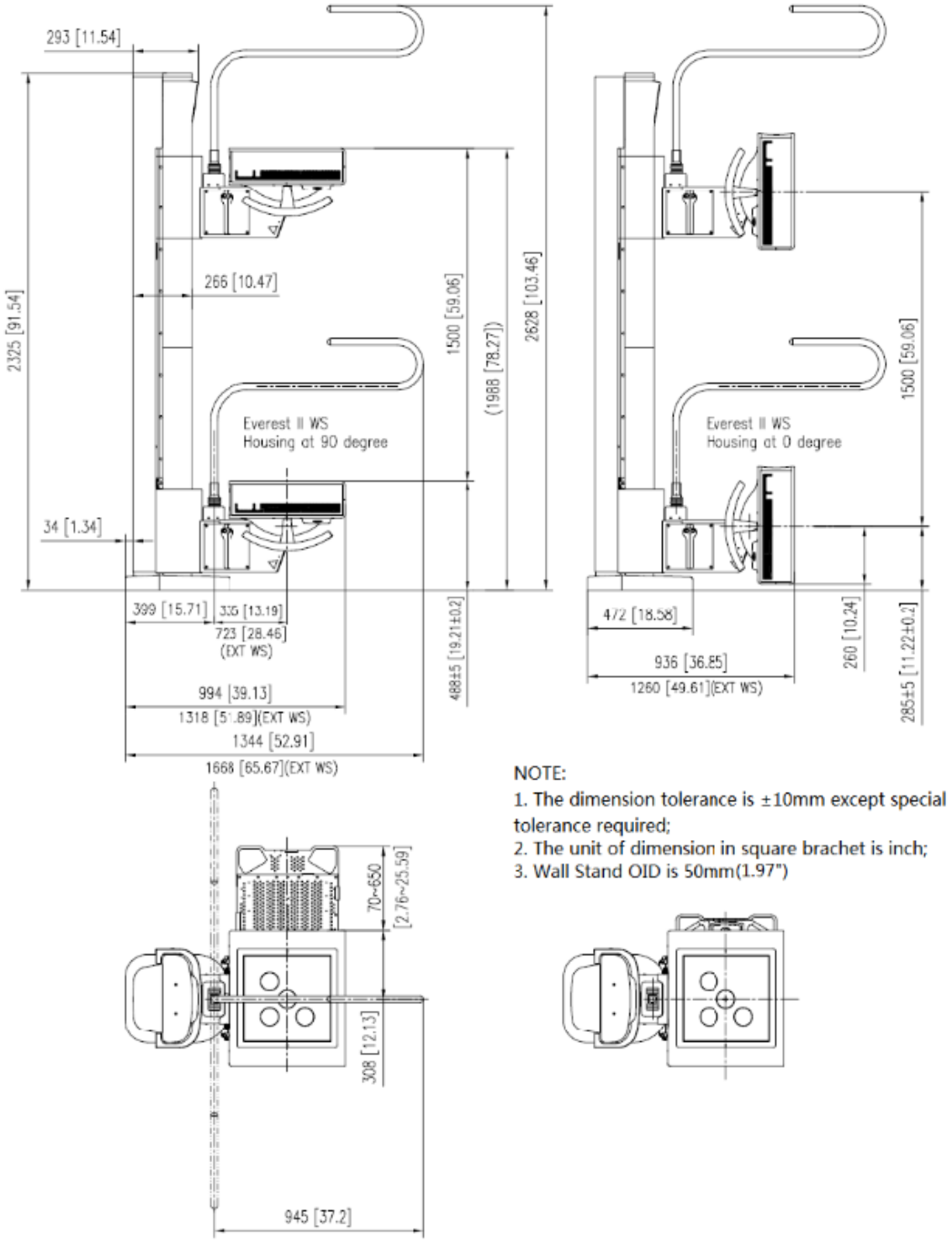
Figure 2-34 OTS Suspension Focal Spot Travel Range - 3M Bridge



2.2.6 Wall Stands

Standard WS & Extended WS

Figure 2-35 Wall Stand Dimensions (0 and 90 degrees)



NOTE:

1. The dimension tolerance is ±10mm except special tolerance required;
2. The unit of dimension in square brachet is inch;
3. Wall Stand OID is 50mm(1.97")

Figure 2-36 Wall Stand Base Plate Dimensions

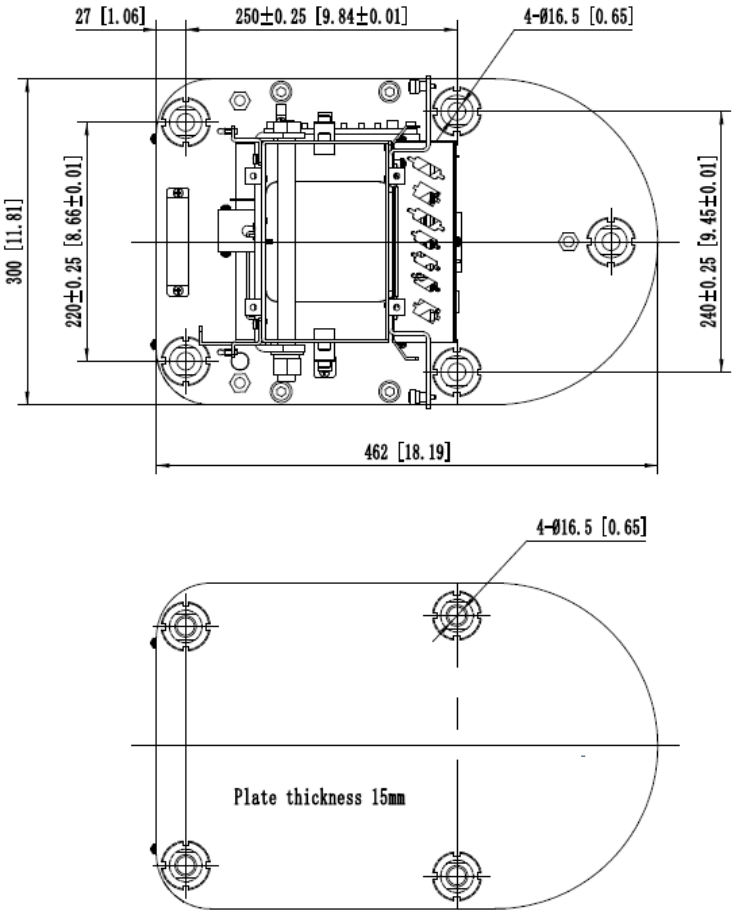
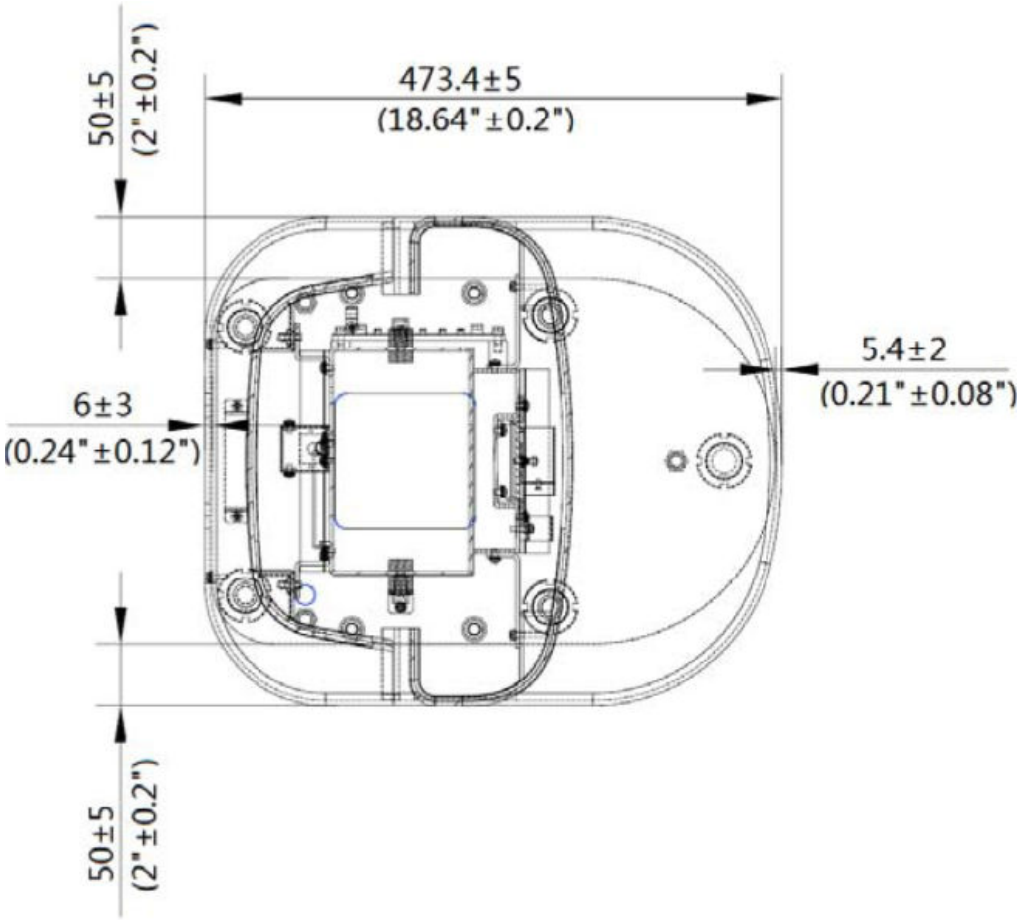


Figure 2-37 Wall Stand Base Plate and its Cover Dimensions



Non-tilting WS

Figure 2-38 Wall Stand Dimensions

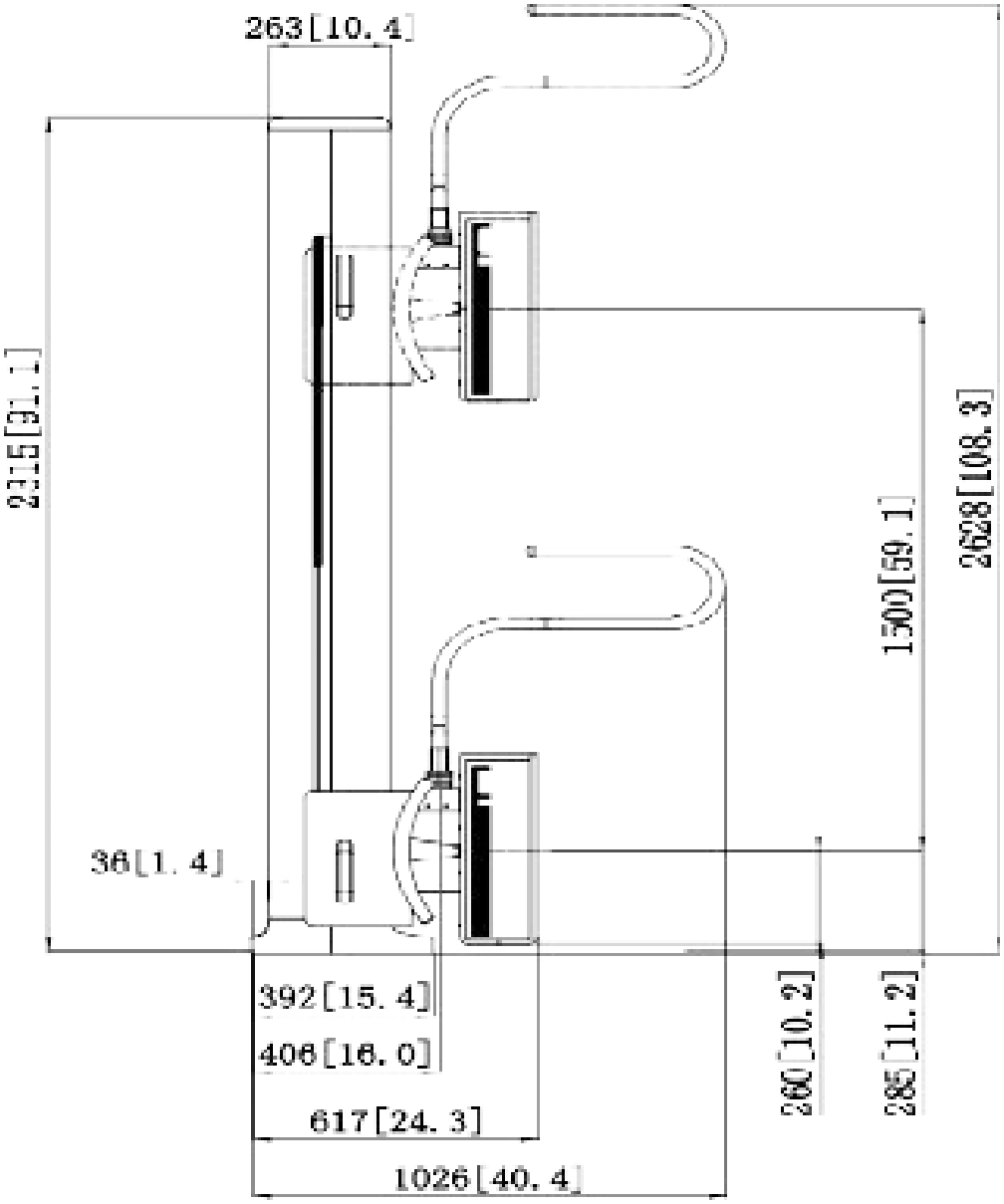


Figure 2-39 Wall Stand Base Plate Dimensions

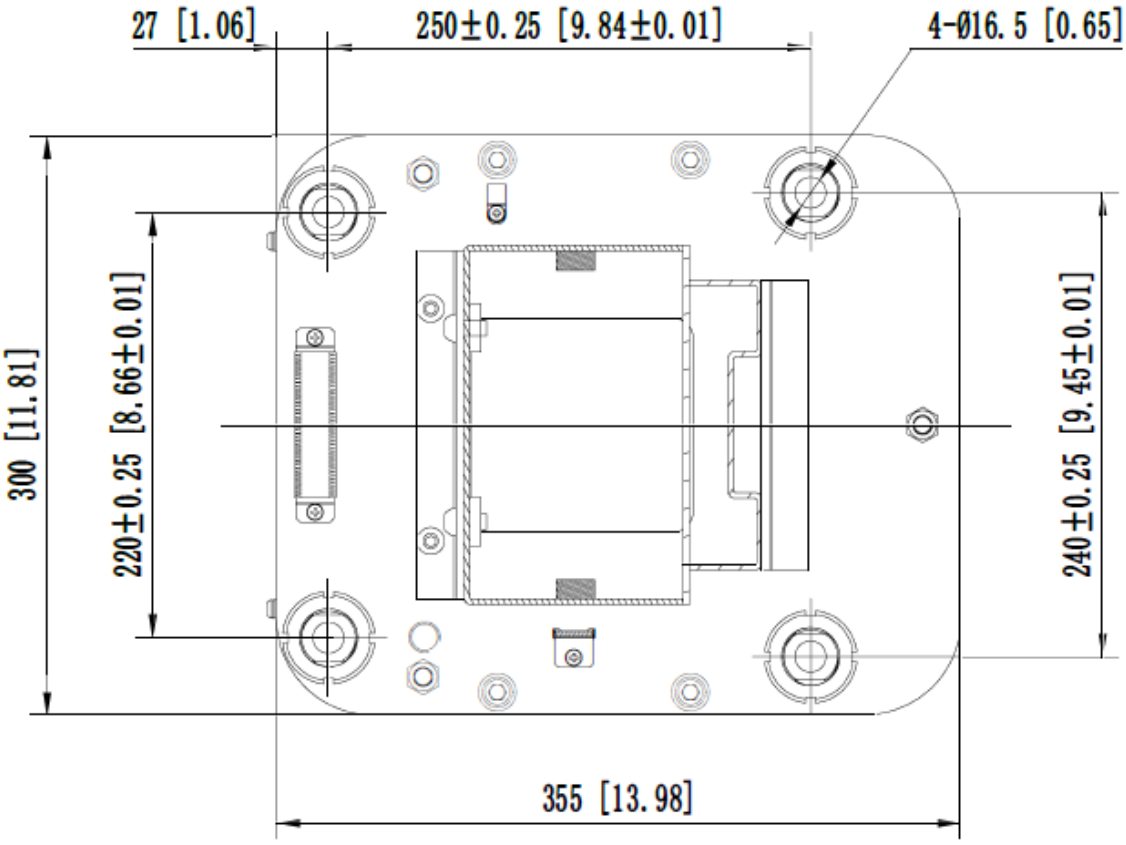
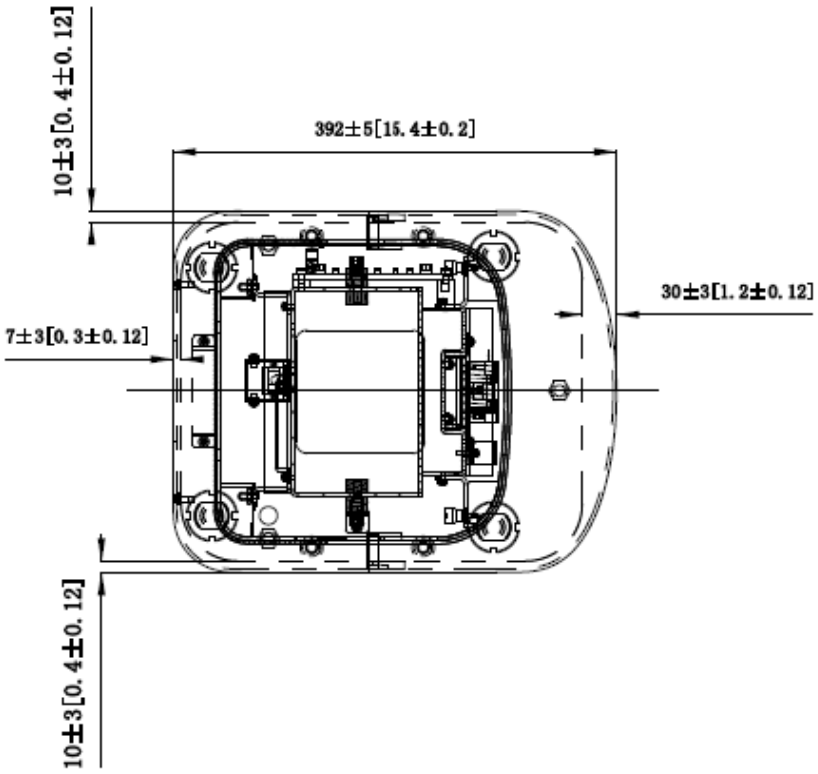
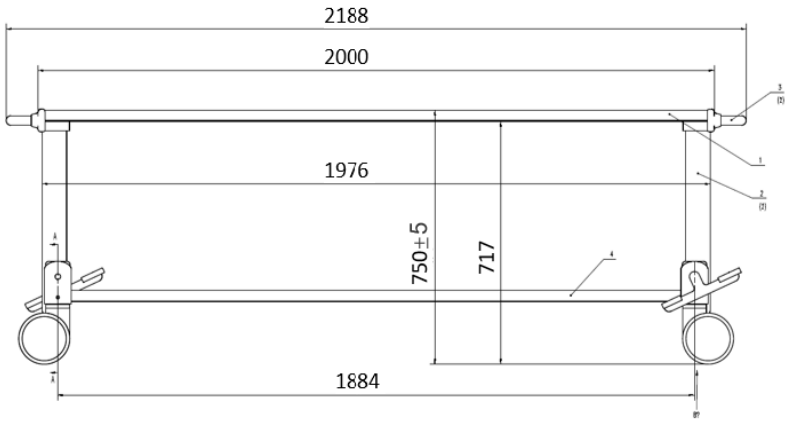


Figure 2-40 Wall Stand Base Plate and its Cover Dimensions



2.2.7 Stretcher Tables

Figure 2-41 S3921KA Radiographic Stretcher Dimensions (optional)



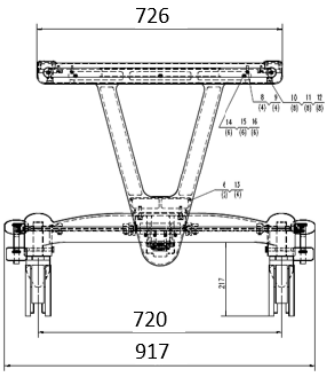


Figure 2-42 S1700JM Carbon Fiber Stretcher Dimensions (optional)

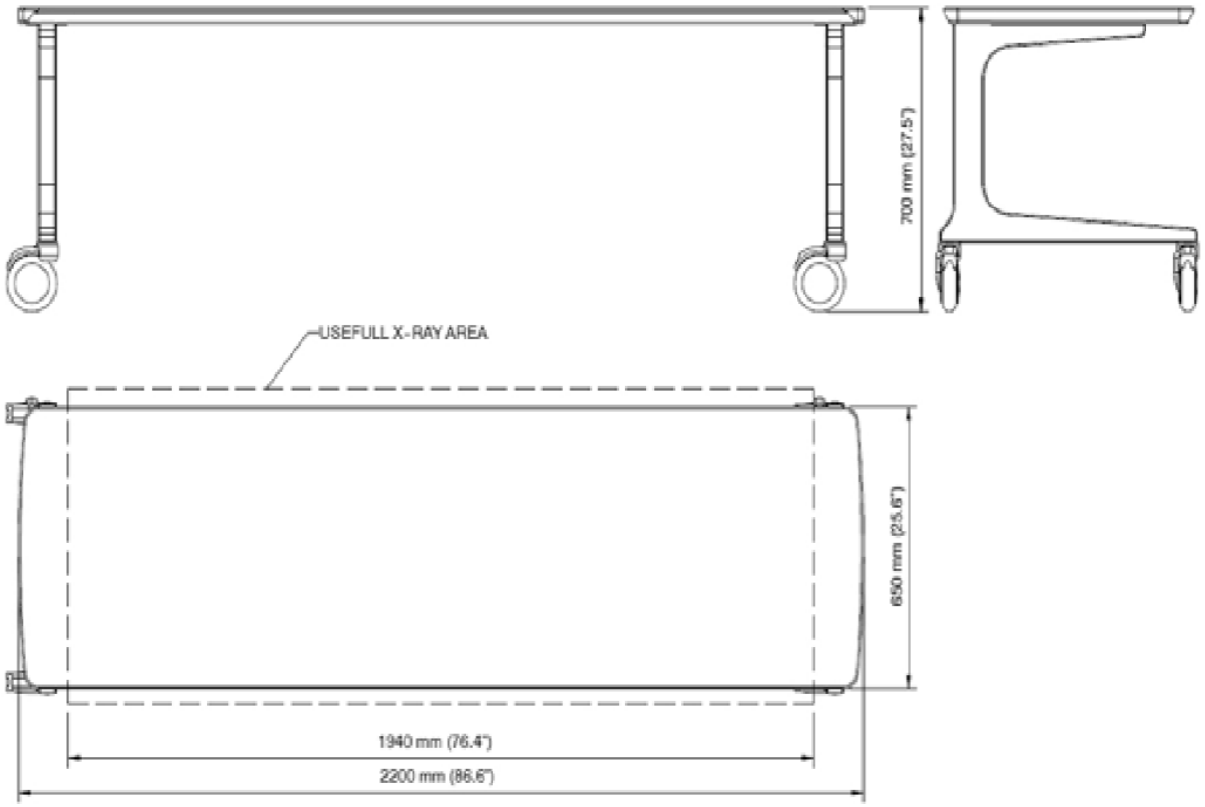
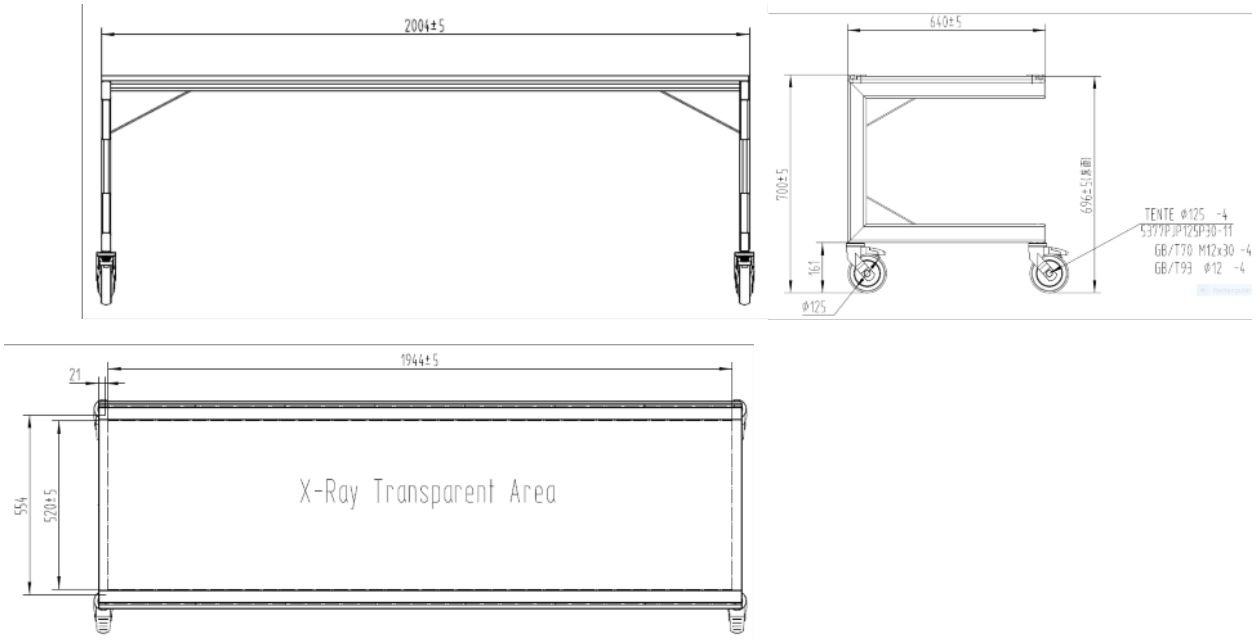
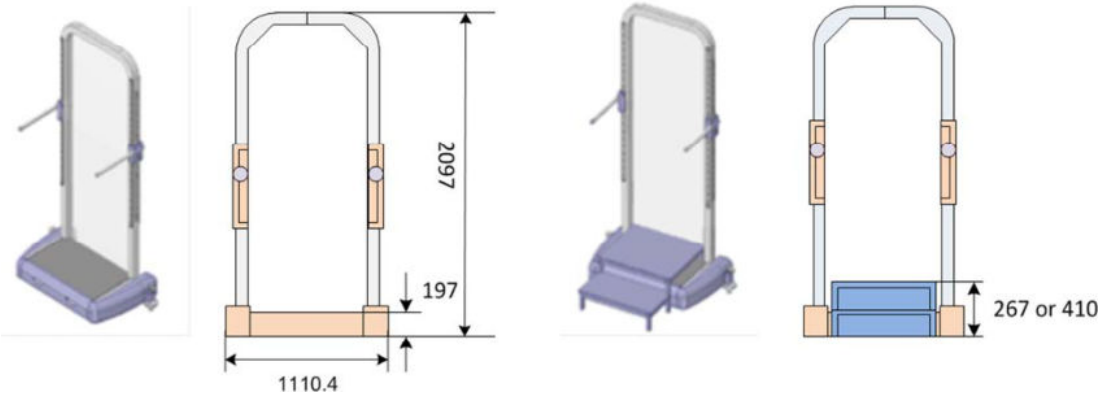


Figure 2-43 S2202ATBL Stretcher Table GST-2 Dimensions (Optional)



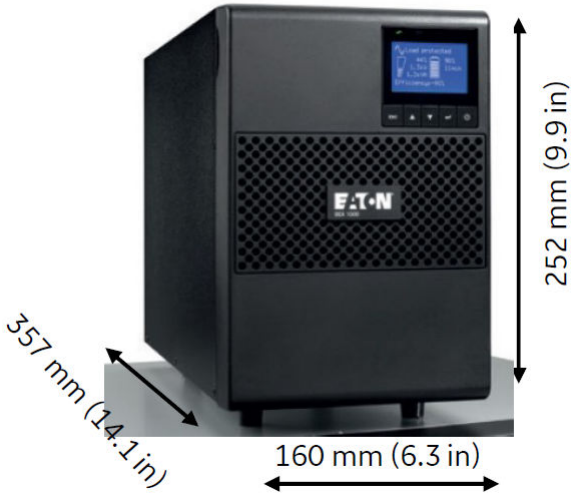
2.2.8 Image Pasting Barrier

Figure 2-44 Image Pasting Barrier Dimensions (Optional)



2.2.9 UPS

Figure 2-45 UPS Dimensions (Optional)



NOTICE

If the UPS grounding impedance exceeds 0.2ohm, UPS will alarm with site wiring fault and this could be disabled through UPS “User Settings”, but not recommended

2.2.10 Weights, Floor/Ceiling Loading and Recommended Mounting Methods

Table 2-9 Product Physical Characteristics (weight)

PRODUCT OR COMPONENT	WEIGHT	LOAD BEARING AREA ft2 (m2)	WEIGHT/OCCUPIED AREA kg/m2(lb./ft2)	RECOMMENDED MOUNTING INFORMATION
Operator Console: PC HP Z4G4 PC HP Z4G5 Monitor (Non-touch) Monitor (Touch) RCIM2	 10.6 Kg (23.4 lbs) 10.6 Kg (23.4 lbs) 8 Kg (17.6 lbs) 9.6 Kg (21.2 lbs) 0.91 Kg (2 lbs)		NA NA	Shelf or table mounted but not anchored.
Definium Tempo Pro/ Definium Tempo Table Assembly	385kg (848.8 lbs)	0.68 m2 (7.32 ft2)	566.2 kg/m2 (116 1lbs/ft.2)	Floor mounting Recommendation: 4*M12x140mm anchors (5890428, supplied)
Definium Tempo Pro/ Definium Tempo Table Assembly with a maximum patient weight of 320kg (705lbs)	710 kg (1565.3 lbs)	0.68 m2 (7.32 ft2)	1044.1 kg/m2 (213.8 lbs/ft.2)	NA
Stretchers (optional): Non-elevating Non-elevating (carbon fiber)	102 kg (225 lbs) 32 kg (70.5 lbs)		25.5(56.25)point contact 8 (17.63) point contact	Not anchored Not anchored
Standard Wall Stand	284 kg (624.4 lbs)	0.129 m2	2202 kg/m2	Bossard 4*M12x140 anchors to floor (supplied)
Extended Wall Stand	292kg (642 lbs)	0.129 m2	2264 kg/m2	Bossard 4*M12x140 anchors to floor (supplied)
Non-tilting Wall Stand	244 kg (537.9 lbs)	0.129 m2	1891 kg/m2	Bossard 4*M12x140 anchors to floor (supplied)
Stationary Rail (5.79 m)	62.6 kg (138 lbs) pair		NA	Bossard 20*M12x50 Bolts to ceiling
2 Meter Bridge (include Anti-backlash)	52 kg (114.6 lbs)		NA	
3 Meter Bridge (include Anti-backlash)	67.1 kg (148 lbs)		NA	
2 Meter Cable Chain/Drape Assembly	61Kg/54Kg (134.5 lbs/119 lbs)		NA	

Table 2-9 Product Physical Characteristics (weight) (Table continued)

PRODUCT OR COMPONENT	WEIGHT	LOAD BEARING AREA ft2 (m2)	WEIGHT/OCCUPIED AREA kg/m2(lb./ft2)	RECOMMENDED MOUNTING INFORMATION
3 Meter Cable Chain/Drape Assembly	63 Kg/54 Kg (139 lbs/119 lbs)		NA	
Cable chain lateral bracket	17 kg (37.5 lbs)			
Cable Chain Longitudinal bracket	33.3 Kg (73.4 lbs)		NA	
Cable Drape longitudinal Support	29.5 kg (65 lbs)		NA	
Cable Drape track	3.3Kg (7.28 lbs)			
Overhead Tube Support (includes X-ray Tube), Collimator, Console	237kg (522.5 lbs)		NA	
OTS ceiling Covers	9.5 kg (21 lbs)		NA	
Collimator	9 kg (19.8 lbs)		NA	
UIF	3.5 kg (7.7 lbs)		NA	
Longitudinal Drive	15 Kg (33.1 lbs)		NA	
2 Meter and 3 Meter Longitudinal Drive Belt Kit	17.5 kg (38.6 lbs)		NA	
Anti-backlash Kits	2kg (4.4 lbs)		NA	
System Cabinet	208Kg (458.6lbs)	0.46 m2 (5 ft.2)	452.1 kg/m2 (91.7 lbs/ ft.2ft)	
Grid Holder Assembly	13.8 kg (30.42 lbs)		NA	Mount on wall
Image Pasting Barrier with Footstool (option)	54.44 kg (120 lbs)		NA	Floor mounted but not anchored. Located near Wall Stand base.
Detector BIN	11.8 kg (26lbs)	NA	NA	Floor mounting (not anchored) or wall mount
Tether Interface Box	6 Kg (13.4 lbs)	NA	NA	wall mount
AP Assembly	0.6 Kg (1.3 lbs)	NA	NA	wall mount
FlashPad HD Detector With Battery 14X17 in 10X12 in 17X17 in	 3.3 kg (7.3 lbs) 2.0 kg (4.4 lbs) 4.0 kg (8.82 lbs)	NA	NA	
Detector Battery	0.18kg (0.40 lbs)	NA		
UPS	11.5 Kg (25.4 lbs)	0.08774 m2 (0.944 ft2)	393.21 kg/m2 (80.57 lb./ft2)	

2.2.11 Longitudinal Rails

Kit B0002LD contains the bumpers and the longitudinal belt.

Table 2-10 Longitudinal Rails

Item	Rail Length	Cat Number	Longitudinal focal spot travel
1	3505mm/138 in	B0138JA	2390 mm/94.1 in
2	4115 mm/162 in	B0162JA	3000 mm/118.1 in
3	4420 mm/174 in	B0174JA	3305 mm/130.1 in
4	4720 mm/186 in	B0186JA	3605 mm/141.9 in
5	5030 mm/198 in	B0198JA	3915 mm/154.1 in
6	5330 mm/210 in	B0210JA	4215 mm/165.9 in
7	5640 mm/222 in	B0222JA	4525 mm/178.1 in
8	5790 mm/228 in	B0228JA	4675mm/184.1 in

2.3 Room Layout

2.3.1 Required Service Access Clearance

Allow appropriate space for service access of equipment. Illustrations are shown below indicating the required access space for servicing the equipment.

NOTE
The right side space for service can be moved to the left side also.

Figure 2-46 VCP System Cabinet

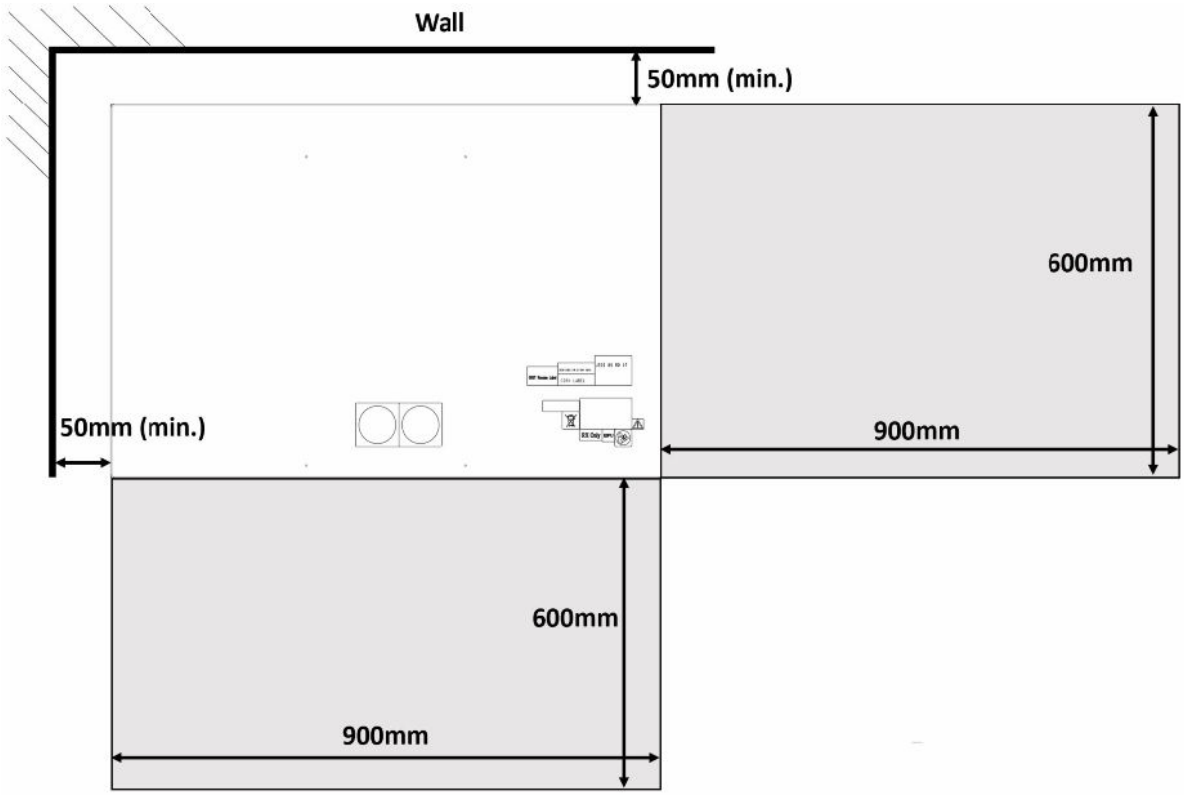
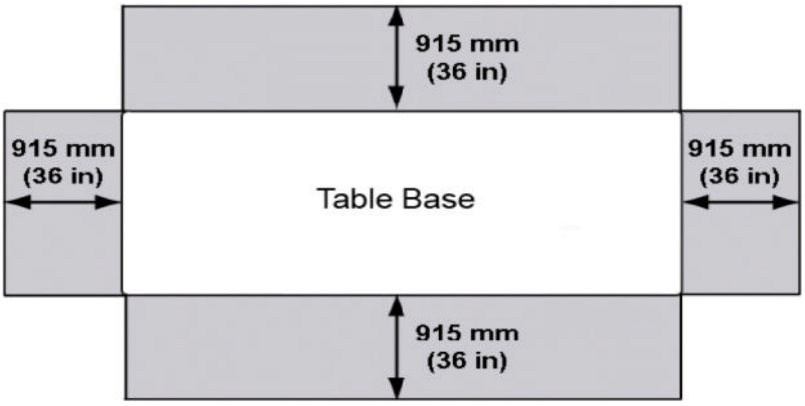


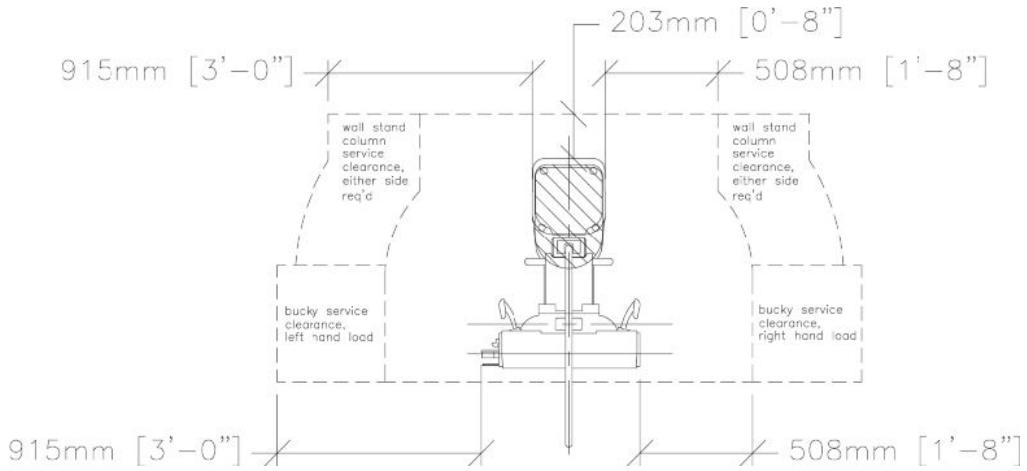
Figure 2-47 Table



Recommended Required Service Access Clearance is 36 in.

Minimum Required Service Access Clearance is 24 in

Figure 2-48 Wall Stand



2.3.2 Clinical Access

Make sure that you plan the room with the following clinical access requirements:

- Provide easy access to the patient table. Stretchers and other mobile hospital equipment must reach the table quickly.
- Table cannot be installed at 90 degrees to the ceiling stationary rails.
- When installing an extended-arm Wall Stand, the Wall Stand should be positioned directly in the center of the 3-meter bridge if full tube aligning capabilities are to be achieved.
- The Wall Stand can be configured to allow grid insertion direction from either the left or the right. Workflow and room dimensions should be considered.

2.3.3 Configurations and option

In Table below, Room configurations supported for the System are selected.

Table 2-11 Definium Tempo Pro/ Definium Tempo System Configuration

System Configuration	Wall Stand Type	Bridge Length, Wall Stand Position							
		2M Bridge				3M Bridge			
		Front	Back	Head	Foot	Front	Back	Head	Foot
TABLE + WS	Extend/Standard			✓	✓			✓	✓
TABLE + WS	Non-Tilting	✓	✓	✓	✓	✓	✓	✓	✓
WS Only	All			✓	✓			✓	✓
Table Only	NA	✓				✓			
OTS Only	NA	✓				✓			

Drawings for these room configurations are shown in the following pages. They include dimensional requirements between components and show Image Pasting applications (purchasable options) can be used in a room that meets those dimensional requirements.

Figure 2-49 Table and Standard/Extended Wall Stand at Foot with 3M Bridge

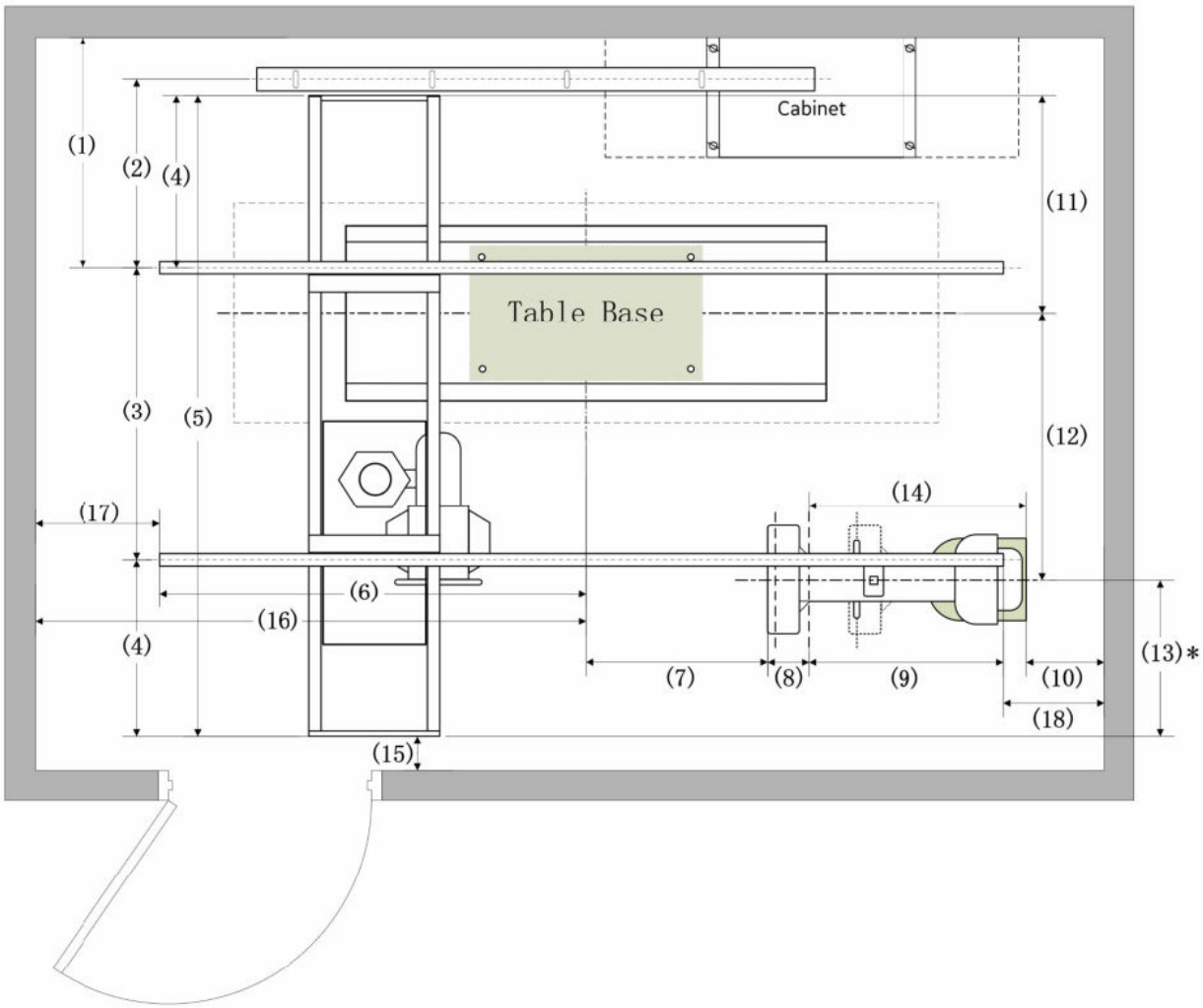


Table 2-12 Table and Standard/Extended Wall Stand at Foot with 3M Bridge

Item	Config	Limit Diension			Description
		Type	mm	in	
1	Cable drape	Min.	1000	39.37	Rear stationary rail center line to room wall
	Cable chain	Min.	1000	39.37	Rear stationary rail center to Wall without space for cable routing behind bracket
		Min.	1080	42.52	Rear stationary rail center to Wall with space for cable routing behind bracket
		Rec.	1245	49.02	
2	Cable drape	Min.	889	35.0	Longitude cable drape bracket 'UNISTRUT Structure' center line to rear stationary rail center line
	Cable chain	Range	870~960	34.25~37.8	Longitude cable chain bracket 'UNISTRUT Structure' center line to rear stationary rail center line can be accepted between 870~960, but cable chain bracket center to rear stationary center should be 915 fixed after installation.
		Rec.	915	36.0	
3	All	Fix	1422	56.0	Distance between stationary rails center.

Table 2-12 Table and Standard/Extended Wall Stand at Foot with 3M Bridge (Table continued)

4	All	Fix	863	34.0	Each stationary rail center to bridge front(or back) end surface
5	All	Fix	3148	123.94	Length of 3m bridge.
6	All	Min.	1344	52.91	Table center line to head side rail end [Min. = (Min. of Tube center to rail foot end) 944/161 + (half of housing travel range) 370/2 + (half of detector width) 430/2 = 1344/561]. **The tabletop floating travel range could exceeding the rail end, but should confirm the tabletop won't conflict to wall, refer Item (16).**
		Rec.	1720	67.72	
7	Without Stretcher	Min.	2844 - (6)	111.97 - (6)	This value depends on Item(6), WS patient panel to table center line. [Min.= (SID) 1800 + (Min. of Tube center to rail head end) 944 - Item (6) + Margin: 100 = 2844 - Item (6)].
	With Stretcher	Min.	1370	53.94	WS patient panel to table center line. [Min.= (Tabletop right range to table base center) 620 + (Strectcher table width X): 640/650 **Default**/726 + Margin: 100].
8	All	Fix	202	7.95	WS patient panel to tilting center line
9	Std. WS	Min.	271	10.67	WS tilting center line to rail foot end
	Ext. WS		909	35.79	
10	All	Min.	102	4.0	WS back end to foot side wall, space for service.
11	All	Min.	754	29.69	Table center line to bridge rear end surface, but cabinet out of tabletop travel range
			2100-(1)	82.68-(1)	Table center line to bridge rear end surface, cabinet in the rear of tabletop travel range. (This value should also bigger than 754.)
		Rec.	1143	45.00	Recommend cabinet on the rear of tabletop.
12	All	Min.	1143	45.0	Table center line to WS center line.[Min.=(focal spot to rear cover) 560+(tabletop width/2) 427+cable 106+margin 50]
		Rec.	1320	51.97	Larger than Rec. value can support good auto position feature.
13*	Std. WS	Min.	630	24.80	WS center to the bridge front surface. **It should equal to (5)-(11)-(12)**. This is a reference dimension need to check after item(11) and (12) define.
	Ext. WS	Min.	656	25.83	
14	Std. WS	Fix	734	28.9	WS tilting center line to WS back end
	Ext. WS	Fix	1058	41.65	
15	All	Min.	60	2.36	Bridge front end surface to Wall
		Rec.	480	18.90	
16	All	Min.	1800	70.87	Table center line to head side Wall. [Min.= (tabletop floating half) 1720 + Margin: 80 = 1800]
17	All	Min.	60	2.36	Bridge end surface to wall, space for installation.
18	All	Min.	140	5.51	Bridge end surface to wall, tueb cover won't conflict to wall.

Figure 2-50 Table and Standard/Extended Wall Stand at Head with 3M Bridge

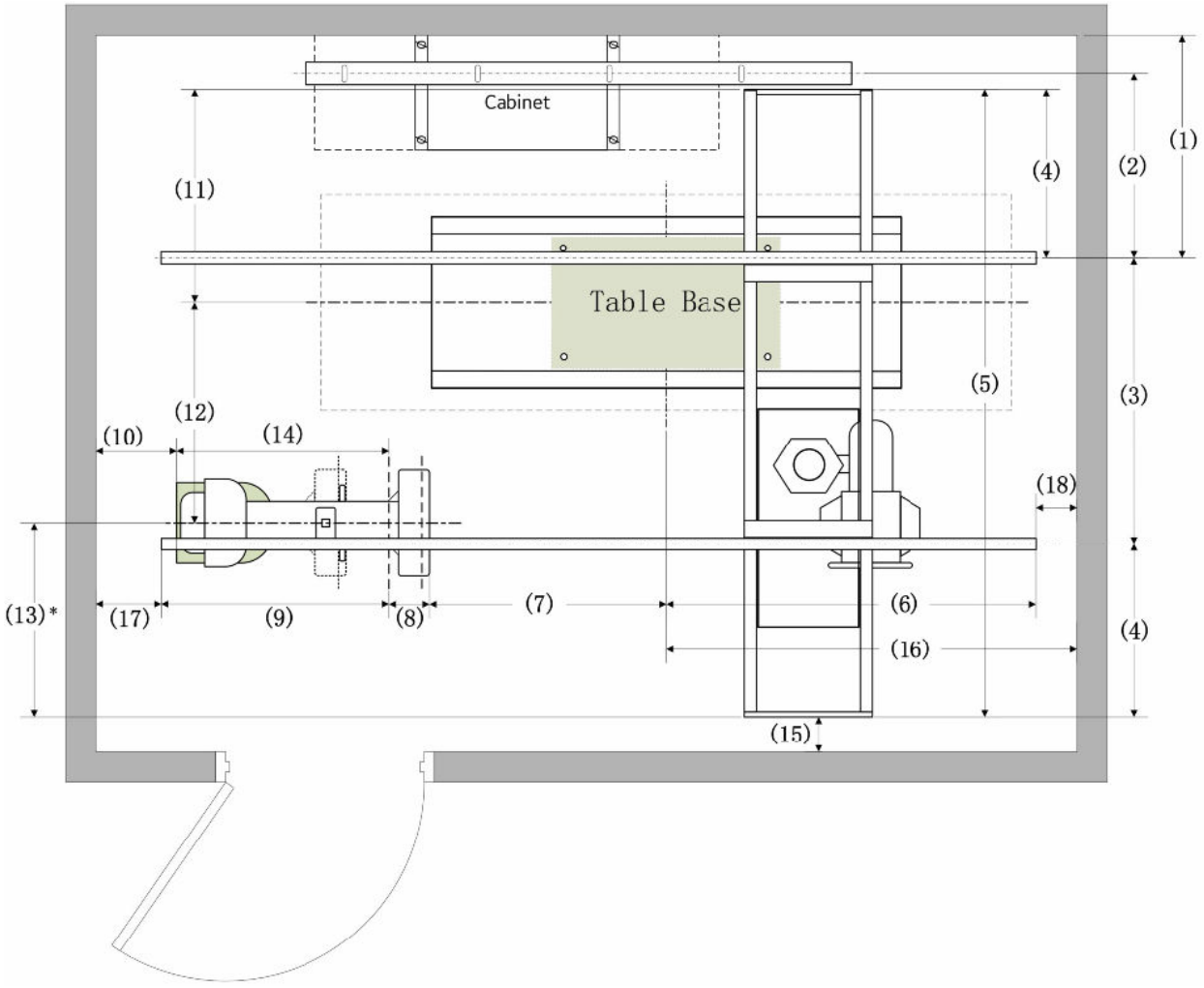


Table 2-13 Table and Standard/Extended Wall Stand at Head with 3M Bridge

Item	Config	Limit Diension			Description
		Type	mm	in	
1	Cable drape	Min.	1000	39.37	Rear stationary rail center line to room wall
	Cable chain	Min.	1000	39.37	Rear stationary rail center to Wall without space for cable routing behind bracket
		Min.	1080	42.52	Rear stationary rail center to Wall with space for cable routing behind bracket
		Rec.	1245	49.02	
2	Cable drape	Min.	889	35.0	Longitude cable drape bracket 'UNISTRUT Structure' center line to rear stationary rail center line
	Cable chain	Range	870~960	34.25~37.8	Longitude cable chain bracket 'UNISTRUT Structure' center line to rear stationary rail center line can be accepted between 870~960, but cable chain bracket center to rear stationary center should be 915 fixed after installation.
		Rec.	915	36.0	
3	All	Fix	1422	56.0	Distance between stationary rails center.
4	All	Fix	863	34.0	Each stationary rail center to bridge front(or back) end surface

Table 2-13 Table and Standard/Extended Wall Stand at Head with 3M Bridge (Table continued)

5	All	Fix	3148	123.94	Length of 3m bridge.
6	All	Min.	561	22.09	Table center line to head side rail end [Min. = (Min. of Tube center to rail foot end) 161 + (half of housing travel range) 370/2 + (half of detector width) 430/2 = 561] The tabletop floating travel range could exceeding the rail end, but should confirm the tabletop won't conflict to wall, refer Item (16).
		Rec.	1720	67.72	
7	Without Stretcher	Min.	2061-(6)	81.14 - (6)	This value depends on Item(6), WS patient panel to table center line. [Min.= (SID) 1800 + (Min. of Tube center to rail foot end) 161 - Item (6) + Margin: 100 = 2061 - Item (6)].
	With Stretcher	Min.	1370	53.94	WS patient panel to table center line. [Min.=(Tabletop right range to table base center) 620 + (Strectcher table width X): 640/650 Default/726 + Margin: 100].
8	All	Fix	202	7.95	WS patient panel to tilting center line
9	Std. WS	Min.	1044	41.10	WS tilting center line to rail head end
	Ext. WS		1070	42.13	
10	All	Min.	102	4.0	WS back end to head side wall, space for service.
11	All	Min.	754	29.69	Table center line to bridge rear end surface, but cabinet out of tabletop travel range
			2100-(1)	82.68-(1)	Table center line to bridge rear end surface, cabinet in the rear of tabletop travel range. (**This value should also bigger than 754.**)
		Rec.	1143	45.00	Recommend cabinet on the rear of table (**Extend WS can't reach this dimension**).
12	All	Min.	1143	45.0	Table center line to WS center line.[Min.=(focal spot to rear cover) 560+(tabletop width/2) 427+ Cable 106 + Margin: 50].
		Rec.	1320	51.97	Larger than Rec. value could support good auto position feature. (Extend WS can't reach this dimension).
13	Std. WS	Min.	630	24.80	WS center to the bridge front surface. It should equal to (5)-(11)-(12). This is a reference dimension need to check after item(11) and (12) define.
	Ext. WS	Min.	1168	45.98	
14	Std. WS	Fix	734	28.9	WS tilting center line to WS back end
	Ext. WS	Fix	1058	41.65	
15	All	Min.	60	2.36	Bridge front end surface to Wall
		Rec.	480	18.90	
16	All	Min.	1800	70.87	Table center line to head side Wall. [Min.= (tabletop floating half) 1720 + Margin: 80 = 1800]
17	All	Min.	60	2.36	Bridge end surface to wall, space for installation.
18	All	Min.	140	5.51	Bridge end surface to wall, tueb cover won't conflict to wall.

Figure 2-51 Table and Non-tilting WS at head/foot side with 3m bridge

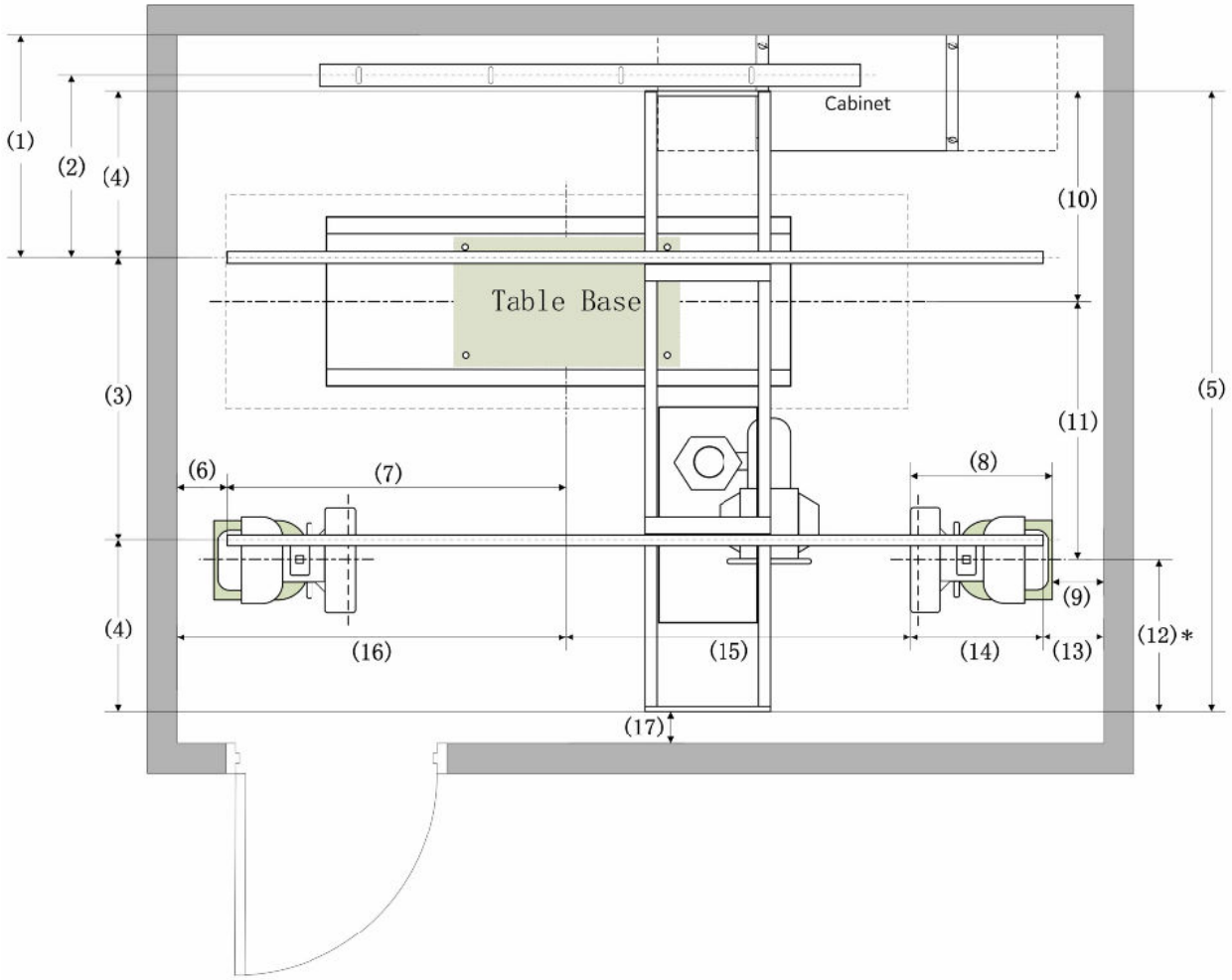


Table 2-14 Table and Non-tilting WS at head/foot side with 3m bridge

Item	Config	Limit Diension			Description
		Type	mm	in	
1	Cable drape	Min.	1000	39.37	Rear stationary rail center line to room wall
	Cable chain	Min.	1000	39.37	Rear stationary rail center to Wall without space for cable routing behind bracket
		Min.	1080	42.52	Rear stationary rail center to Wall with space for cable routing behind bracket
		Rec.	1245	49.02	
2	Cable drape	Min.	889	35.0	Longitude cable drape bracket 'UNISTRUT Structure' center line to rear stationary rail center line
	Cable chain	Range	870~960	34.25~37.8	Longitude cable chain bracket 'UNISTRUT Structure' center line to rear stationary rail center line can be accepted between 870~960, but cable chain bracket center to rear stationary center should be 915 fixed after installation.
		Rec.	915	36.0	
3	All	Fix	1422	56.0	Distance between stationary rails center.
4	All	Fix	863	34.0	Each stationary rail center to bridge front(or back) end surface
5	All	Fix	3148	123.94	Length of 3m bridge.

Table 2-14 Table and Non-tilting WS at head/foot side with 3m bridge (Table continued)

6	All	Min.	60	2.36	Bridge end surface to Wall.	
7	WS at foot side	Min.	1344	52.91	Table center line to head side rail end [Min. = (Min. of Tube center to rail foot end) 944/161 + (half of housing travel range) 370/2 + (half of detector width) 430/2 = 1344/561]. The tabletop floating travel range could exceeding the rail end, but should confirm the tabletop won't conflict to wall, refer Item (16).	
	WS at head side	Min.	561	22.09		
	All	Rec.	1720	67.72		
8	Non-tilting WS	Fix	619	24.37	WS patient panel to WS back end	
9	All	Min.	102	4.0	WS back end to head side wall	
10	All	Min.	754	29.69	Table center line to bridge rear end surface, but cabinet out of tabletop travel range	
			2100-(1)	82.68-(1)	Table center line to bridge rear end surface, cabinet in the rear of tabletop travel range. (This value should also bigger than 754.)	
		Rec.	1143	45.00	Recommend cabinet on the rear of table	
11	All	Min.	1143	45.0	Table center line to WS center line.[Min.=(focal spot to rear cover) 560+(tabletop width/2) 427+cable 106+margin 50]	
		Rec.	1320	51.97	Larger than Rec. value could support good auto position feature.	
12	Non-tilting WS	Min.	630	24.80	WS center to the bridge front surface. It should equal to (5)-(11)-(12). This is a reference dimension need to check after item(11) and (12) define.	
13	All	Min.	140	5.51	Bridge end surface to Wall.	
14	WS at foot side	Min.	0	0	WS patient panel to rail end, ensure WS 0 degree calibration.	
	WS at head side	Min.	294	11.57		
15	WS at head side	Min.	351	13.82	Without stretcher table, the table center line to WS patient panel distance	should = SID(1800) + 171 - (6)1720 + margin 100
	WS at foot side	Min.	1124	44.25		should = SID(1800) + 944 - (6)1720 + margin 100
16	All	Min.	1800	70.87	Table center line to head side Wall. [Min.= (tabletop floating half) 1720 + Margin: 80 = 1800]	
17	Non-tilting WS	Min.	60	2.36	Bridge front end surface to Wall.	
		Rec.	480	18.90		

Figure 2-52 Table and Non-tilting WS at front side with 3m bridge

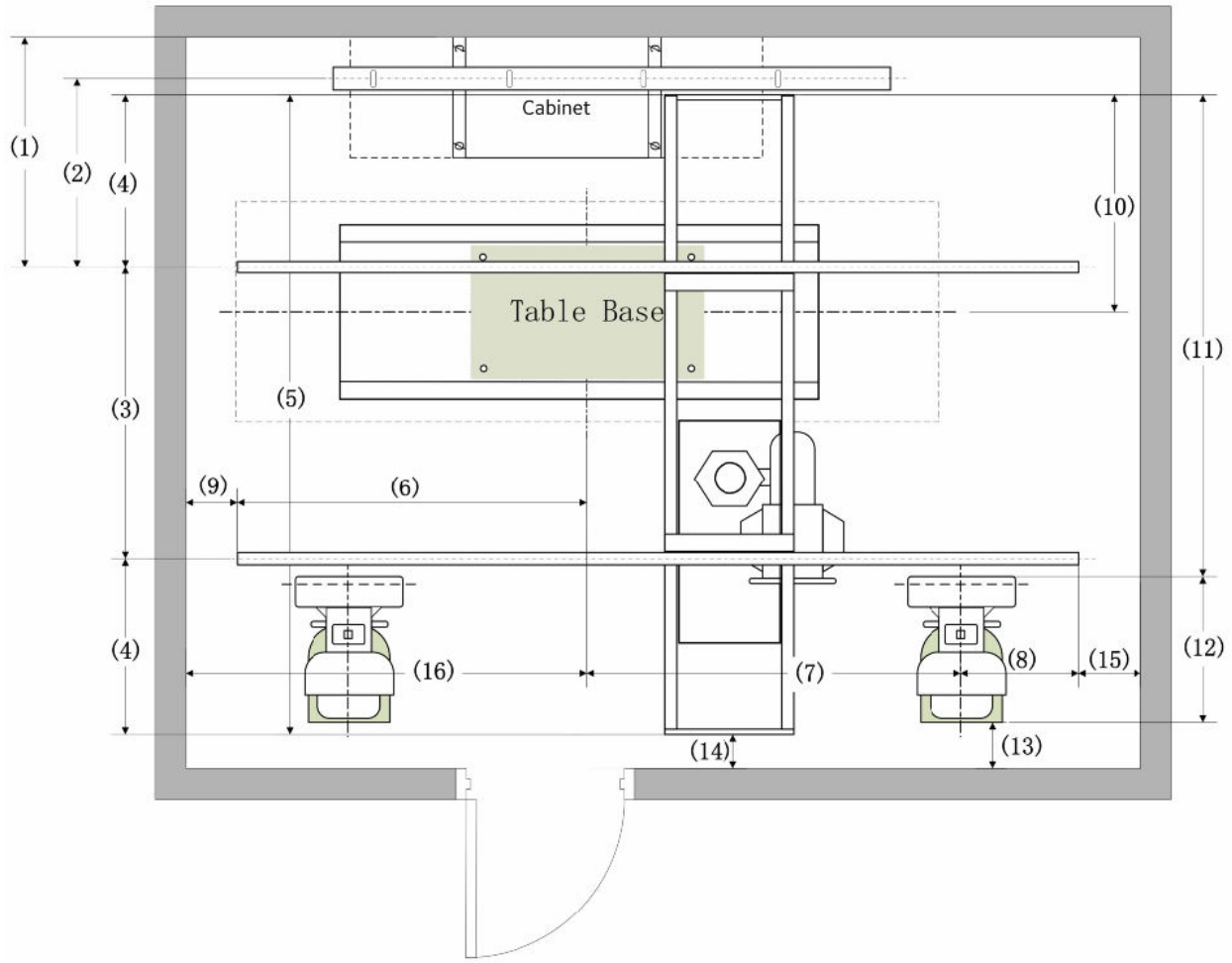


Table 2-15 Table and Non-tilting WS at front side with 3m bridge

Item	Config	Limit Diension			Description
		Type	mm	in	
1	Cable drape	Min.	1000	39.37	Rear stationary rail center line to room wall
	Cable chain	Min.	1000	39.37	Rear stationary rail center to Wall without space for cable routing behind bracket
		Min.	1080	42.52	Rear stationary rail center to Wall with space for cable routing behind bracket
		Rec.	1245	49.02	
2	Cable drape	Min.	889	35.0	Longitude cable drape bracket 'UNISTRUT Structure' center line to rear stationary rail center line
	Cable chain	Range	870~960	34.25~37.8	Longitude cable chain bracket 'UNISTRUT Structure' center line to rear stationary rail center line (cable chain bracket center to rear stationary center should be 915 fixed.)
		Rec.	915	36.0	
3	All	Fix	1422	56.0	Distance of stationary rail center
4	All	Fix	863	34.0	Each stationary rail center to bridge front(or back) end surface
5	All	Fix	3148	123.94	Length of bridge

Table 2-15 Table and Non-tilting WS at front side with 3m bridge (Table continued)

6	WS near foot side	Min.	1344	52.91	Table center line to head side rail end [Min. = (Min. of Tube center to rail foot end) 944/161 + (half of housing travel range) 370/2 + (half of detector width) 430/2 = 1344/561]. The tabletop floating travel range could exceeding the rail end, but should confirm the tabletop won't conflict to wall, refer Item (16).
	WS near head side	Min.	561	22.09	
	All	Rec.	1720	67.72	
7	THC toward TBL	Min.	1700	66.93	Without stretcher table, the table center line to WS center line. Min=620+800+280
	THC toward Wall	Min.	1230	48.43	Without stretcher table, the table center line to WS center line. Rec=620+560+50
8	WS near foot side	Min.	909	35.79	WS center line to bridge head side end. 171+332+306+100
	WS near head side	Min.	1070	42.13	WS center line to bridge foot side end. 944-306+332+100
9	All	Min.	60	2.4	Rail end to Wall
10	All	Min.	754	29.69	Table center line to bridge rear end surface, but cabinet out of tabletop travel range
			2100-(1)	82.68-(1)	Table center line to bridge rear end surface, cabinet in the rear of tabletop travel range. (This value should also bigger than 754.)
		Rec.	1143	45.00	Recommend cabinet on the rear of table
11	column 90 degree clockwise	Min.	2528	99.5	WS patient panel to bridge rear end. 1800+654-332+306+100 margin
		Max.	3152	124.1	WS patient panel to bridge rear end. 3148-520+650-332+306-100 margin
	column -90 degree anticlockwise	Min.	1916	75.4	WS patient panel to bridge rear end. 1800+654-332-306+100 margin
		Max.	2540	100.0	WS patient panel to bridge rear end. 3148-520+650-332-306-100 margin
12	Non-tilting WS	Fix	619	24.37	WS patient panel to tilting center line.
13	All	Min.	102	4.02	WS back side to Wall
14	All	Min.	60	2.36	Bridge front end surface to Wall
15	All	Min.	140	5.51	Rail end to Wall
16	All	Min.	1800	70.87	Table center line to Wall. [Min.= (tabletop floating half) 1720 + Margin: 80 = 1800]

Figure 2-53 Table and Non-tilting WS at rear side with 3m bridge

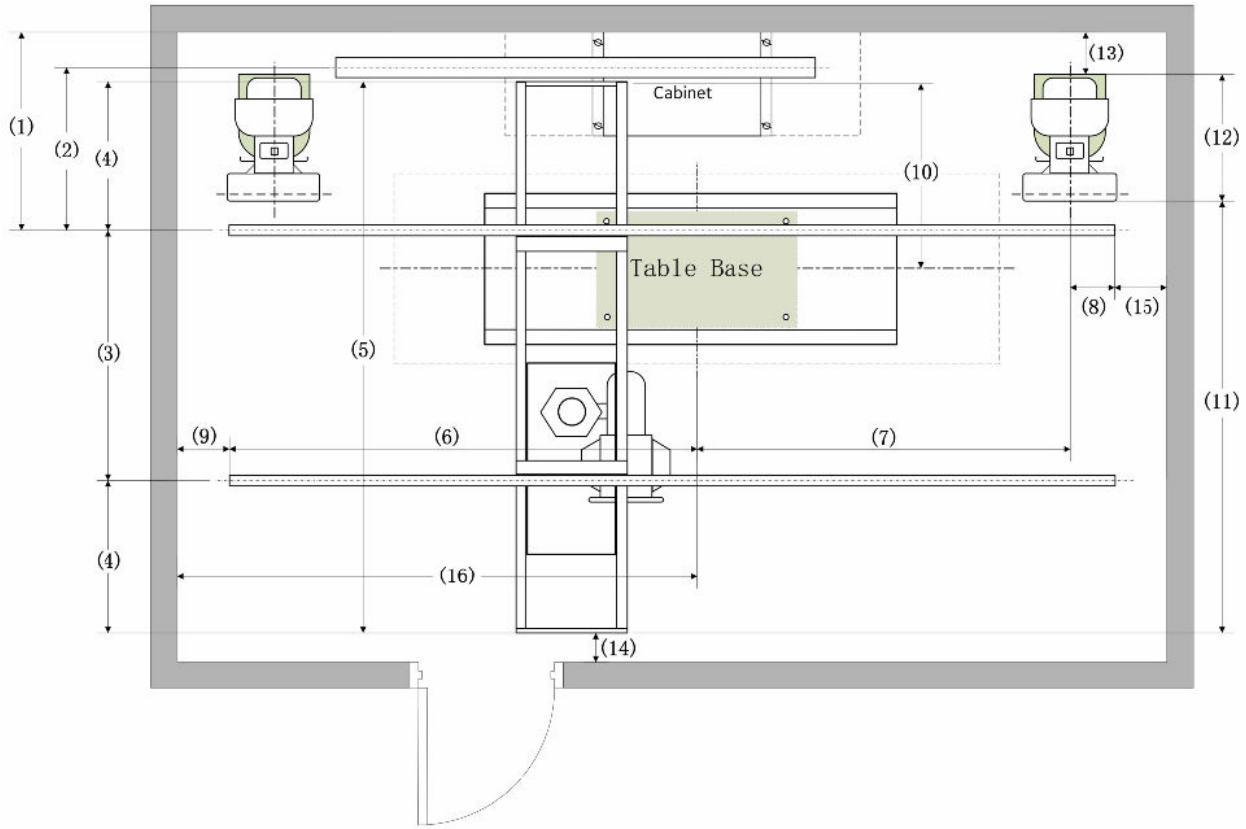


Table 2-16 Table and Non-tilting WS at rear side with 3m bridge

Item	Config	Limit Diension			Description
		Type	mm	in	
1	Cable drape	Min.	1000	39.37	Rear stationary rail center line to room wall
	Cable chain	Min.	1000	39.37	Rear stationary rail center to Wall without space for cable routing behind bracket
		Min.	1080	42.52	Rear stationary rail center to Wall with space for cable routing behind bracket
		Rec.	1245	49.02	
2	Cable drape	Min.	889	35.0	Longitude cable drape bracket 'UNISTRUT Structure' center line to rear stationary rail center line
	Cable chain	Range	870~960	34.25~37.8	Longitude cable chain bracket 'UNISTRUT Structure' center line to rear stationary rail center line (cable chain bracket center to rear stationary center should be 915 fixed.)
		Rec.	915	36.0	
3	All	Fix	1422	56.0	Distance of stationary rail center
4	All	Fix	863	34.0	Each stationary rail center to bridge front(or back) end surface
5	All	Fix	3148	123.94	Length of bridge
6	WS near foot side	Min.	1344	52.91	Table center line to head side rail end [Min. = (Min. of Tube center to rail foot end) 944/161 + (half of housing travel range) 370/2 + (half of detector width) 430/2 = 1344/561]. The tabletop floating travel range could exceeding the rail end, but should confirm the tabletop won't conflict to wall, refer Item (16).
	WS near head side	Min.	561	22.09	
	All	Rec.	1720	67.72	

Table 2-16 Table and Non-tilting WS at rear side with 3m bridge (Table continued)

7	THC toward TBL	Min.	1700	66.93	The table center line to WS center line. Min=620+800+280(**Recommend for clinical use**)
	THC toward Wall	Min.	1230	48.43	The table center line to WS center line. Rec=620+560+50(**Need check the operation space**)
8	WS near foot side	Min.	909	35.79	WS center line to bridge head side end. 171+332+306+100
	WS near head side	Min.	1070	42.13	WS center line to bridge foot side end. 944-306+332+100
9	All	Min.	60	2.4	Rail end to Wall
10	All	Min.	754	29.69	Table center line to bridge rear end surface, but cabinet out of tabletop travel range
			2100-(1)	82.68-(1)	Table center line to bridge rear end surface, cabinet in the rear of tabletop travel range. (**This value should also bigger than 754**.)
		Rec.	1143	45.00	Recommend cabinet on the rear of table
11	column 90 degree clockwise	Min.	2556	100.6	WS patient panel to bridge rear end. 1800+530+332-306+100 margin.
		Max.	3070	120.9	WS patient panel to bridge rear end. 3148-654+650+332-306-100 margin
	column -90 degree anticlockwise	Min.	3068	120.8	WS patient panel to bridge rear end. 1800+530+332+306+100 margin.
		Max.	3682	144.96	WS patient panel to bridge rear end. 3148-654+650+332+306-100 margin.
12	Non-tilting WS	Fix	619	24.37	WS patient panel to tilting center line.
13	All	Min.	102	4.02	WS back side to Wall
14	All	Min.	60	2.36	Bridge front end surface to Wall
15	All	Min.	140	5.5	Rail end to Wall
16	All	Min.	1800	70.87	Table center line to Wall. [Min.= (tabletop floating half) 1720 + Margin: 80 = 1800].

Figure 2-54 WS only with 3m bridge

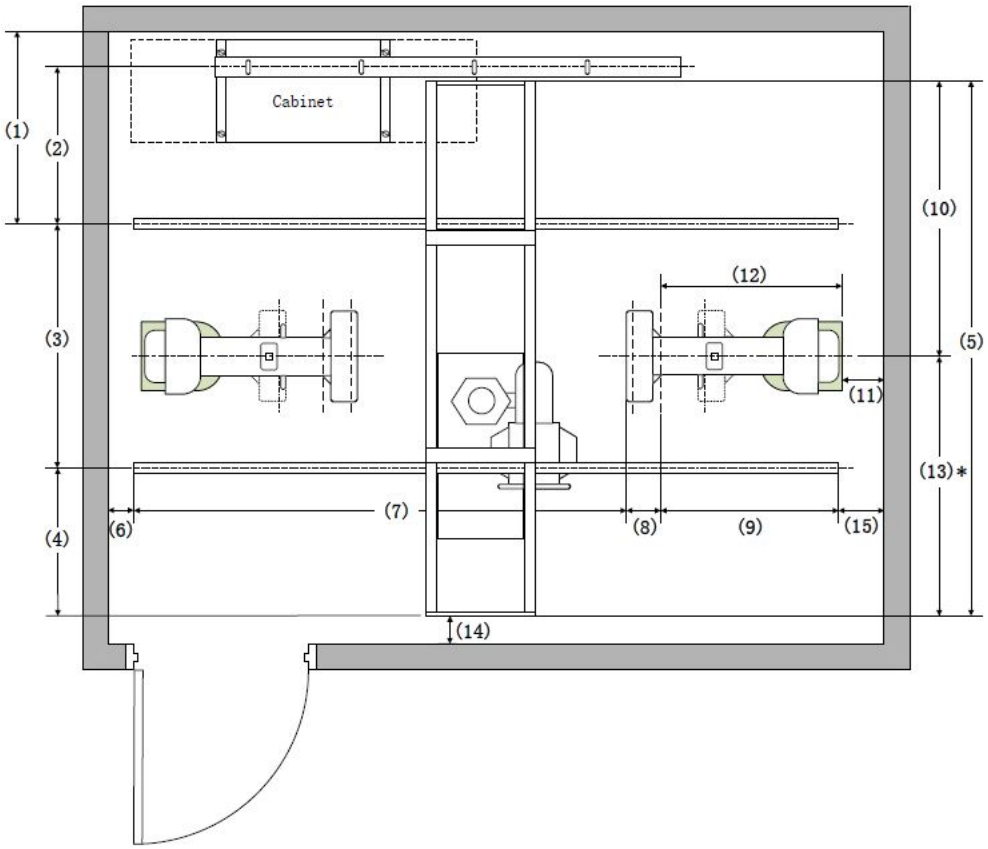


Table 2-17 WS only with 3m bridge

Item	Config	Limit Diension			Description
		Type	mm	in	
(1)	Cable drape	Min.	1000	39.37	Rear stationary rail center line to room wall
	Cable chain	Min.	1000	39.37	Rear stationary rail center to Wall without space for cable routing behind bracket
		Min.	1080	42.52	Rear stationary rail center to Wall with space for cable routing behind bracket
		Rec.	1245	49.02	
(2)	Cable drape	Min.	889	35.00	Longitude cable drape bracket 'UNISTRUT Structure' center line to rear stationary rail center line
	Cable chain	Range	870~960	34.26~37.79	Longitude cable chain bracket 'UNISTRUT Structure' center line to rear stationary rail center line (cable chain bracket center to rear stationary center should be 445 fixed.)
		Rec.	915	36.0	
(3)	All	Fix	1422	56.0	Distance of stationary rail center
(4)	All	Fix	863	34.0	Each stationary rail center to bridge front(or back) end surface
(5)	All	Fix	3148	123.94	Length of bridge
(6)	All	Min.	60	2.36	Rail end to Wall
(7)	WS at head side	Min.	2071	81.54	WS patient panel to rail end 1800+171+100 margin

Table 2-17 WS only with 3m bridge (Table continued)

	WS at foot side	Min.	2844	111.97	WS patient panel to rail end. 1800+944+100 margin
(8)	All	Fix	202	7.95	WS patient panel to tilting center line
(9)	Std. WS at head side	Min.	1044	41.10	WS tilting center line to rail end
	Std. WS at foot side	Min.	271	10.67	
	Ext. WS at head side	Min.	1070	42.13	
	Ext. WS at foot side	Min.	909	35.79	
(10)	All	Min.	754	29.69	OTS algin to WS center line
		Rec.	1575	62.01	WS center line to bridge rear end. (Recommend half of bridge length, except Ext.WS)
(11)	All	Min.	102	4.0	WS back end to Wall
(12)	Std. WS	Fix	734	28.9	WS tilting center line to WS back end surface
	Ext. WS		1058	41.65	
(13)*	Std. WS	Min.	630	24.80	WS center line to bridge front end. Note: This is a reference dimension need to check after item(10) define.
	Ext. WS at head side	Min.	1268	49.92	
	Ext. WS at foot side	Min.	656	25.83	
(14)	All	Min.	60	2.36	Bridge front end to Wall. If dimension (13) is small, should double confirm the customer operation sapce on the front of console.
(15)	All	Min.	140	5.51	Rail end to Wall

Figure 2-55 Std./Ext. WS only at head/foot side with 2m bridge

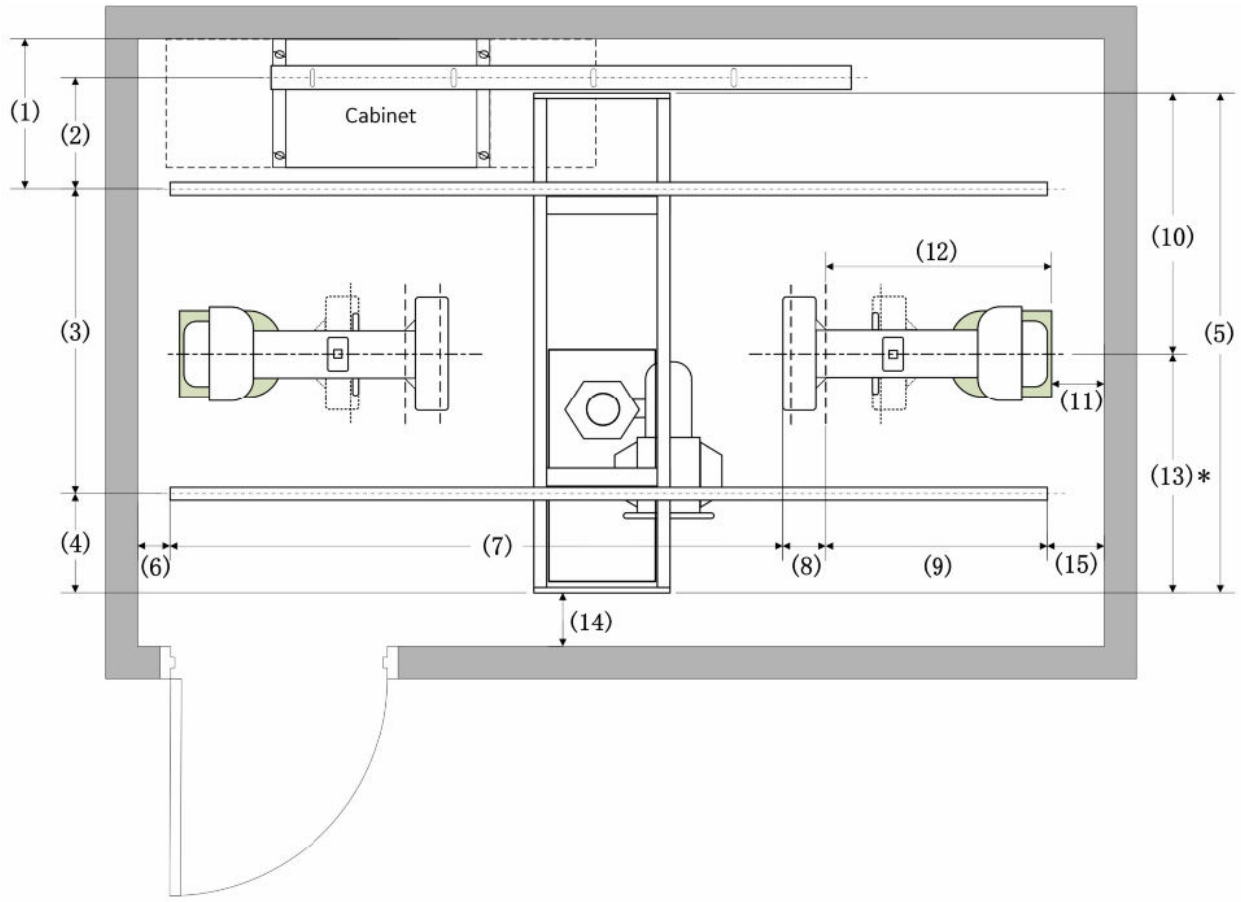


Table 2-18 Std./Ext. WS only at head/foot side with 2m bridge

Item	Config	Limit Diension			Description
		Type	mm	in	
1	Cable drape	Min.	515	20.28	Rear stationary rail center line to room wall
	Cable chain	Min.	530	20.87	Rear stationary rail center to Wall without space for cable routing behind bracket
		Min.	620	24.41	Rear stationary rail center to Wall with space for cable routing behind bracket
		Rec.	815	32.09	
2	Cable drape	Min.	413	16.26	Longitude cable drape bracket 'UNISTRUT Structure' center line to rear stationary rail center line
	Cable chain	Range	400~490	15.75~19.29	Longitude cable chain bracket 'UNISTRUT Structure' center line to rear stationary rail center line (cable chain bracket center to rear stationary center should be 445 fixed.)
		Rec.	445	17.5	
3	All	Fix	1422	56.0	Distance of stationary rail center
4	All	Fix	368	14.5	Each stationary rail center to bridge front(or back) end surface
5	All	Fix	2158	84.96	Length of bridge
6	All	Min.	60	2.36	Rail end to Wall
7	WS at head side	Min.	2071	81.54	WS patient panel to rail end 1800+171+100 margin

Table 2-18 Std./Ext. WS only at head/foot side with 2m bridge (Table continued)

	WS at foot side	Min.	2844	111.97	WS patient panel to rail end. 1800+944+100 margin
8	All	Fix	202	7.95	WS patient panel to tilting center line
9	Std. WS at head side	Min.	1044	41.10	WS tilting center line to rail end
	Std. WS at foot side	Min.	271	10.67	
	Ext. WS at head side	Min.	1070	42.13	
	Ext. WS at foot side	Min.	909	35.79	
10	All	Min.	754	29.69	OTS algin to WS center line
		Rec.	1080	42.52	WS center line to bridge rear end. (Recommend half of bridge length, except Ext.WS)
11	All	Min.	102	4.0	WS back end to Wall
12	Std. WS	Fix	734	28.9	WS tilting center line to WS back end surface
	Ext. WS		1058	41.65	
13	Std. WS	Min.	630	24.80	WS center line to bridge front end. Note: This is a reference dimension need to check after item(10) define.
	Ext. WS at head side	Min.	1268	49.92	
	Ext. WS at foot side	Min.	656	25.83	
14	All	Min.	60	2.36	Bridge front end to Wall. If dimension (13) is small, should double confirm the customer operation sapce on the front of console.
15	All	Min.	140	5.51	Rail end to Wall

2.3.3.1 Room Layout Analysis for Table & WS at Foot (or Head)

Cabinet layout on foot (or head) side could meet smaller room size than on the rear of tabletop travel range.

2.3.3.2 Minimum Room Size Summary Result:

Table 2-19 Minimum Room Size Summary Result

Config (Without Control Room)	WS type	Without stretcher table	With stretcher table width 650	Width
TBL + Std. WS + 3m bridge	WS head side	3560(140.16")	4536(178.59")	3595(141.54")
	WS foot side	3942(155.2")	4188(164.89")	3595(141.54")
TBL + Ext. WS + 3m bridge	WS head side	3573(140.67")	4592(180.79")	3595(141.54")
	WS foot side	4266(167.96")	4512(177.64")	3595(141.54")
LengthWidth	WS head side	3560(140.16")	NA	3595(141.54")
	WS foot side	3623(142.64")	NA	3595(141.54")
	WS front side	4690(184.65")	NA	3466(136.46")

Table 2-19 Minimum Room Size Summary Result (Table continued)

Config (Without Control Room)	WS type	Without stretcher table	With stretcher table width 650	Width
	WS rear side	4690(184.65")	NA	3849(151.54")
WS only + 2m bridge	Std. WS at head	3517(138.47")		2470(97.25")
	Std. WS at foot	3492(155.2")		2470(97.25")
	Ext. WS at head	3573(140.67")		2470(97.25")
	Ext. WS at foot	4266(167.96")		2470(97.25")

Stretcher Table Model	H	L	W
Radiographic	750	2188	726
S1700JM Carbon Fiber	700	2200	650
GST-2	700	2004	640

NOTE

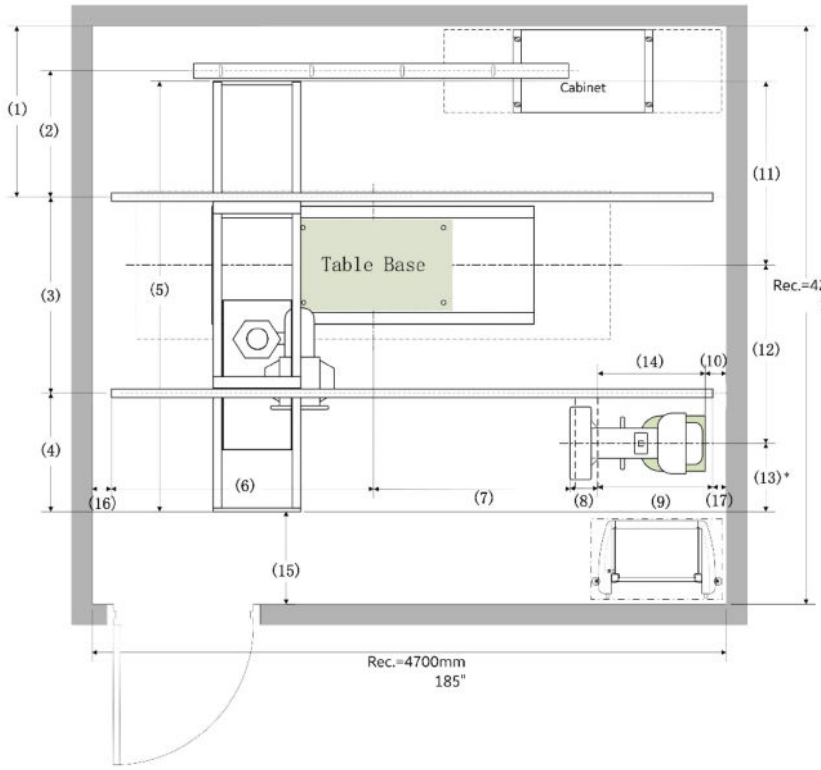
1. All the room width is default cable chain version, this is recommend configuration. But the drape version room width can minus 80mm if the room size is needed.
2. Above data are MIN size with precise positioning, the recommended room size is 5000*4200.
3. Above room Min size not consider control room space. If the control room should layout in exposure room, should add the room width at least 1000mm(depends on the control room width, assuming width 1300mm).

2.3.3.3 Typical room template

Assumption:

1. Below drawings are some typical rooms according to previous room layout analysis, only for reference and understanding help. Need design room layout per real site room size and system configuration.
2. No considering room door position and control room, only considering main system layout.
3. Please **choose a rail that length as large as possible according to the room size**, adjust the rail nearer to head side to guarantee OTS travel range could cover the whole tabletop travel range. On the other hand, ensure the distance between end of rail and tilting detector center is almost minimum dimension in the template, so the operation space will be larger.

Figure 2-56 TBL + Std. WS at foot side fully space room



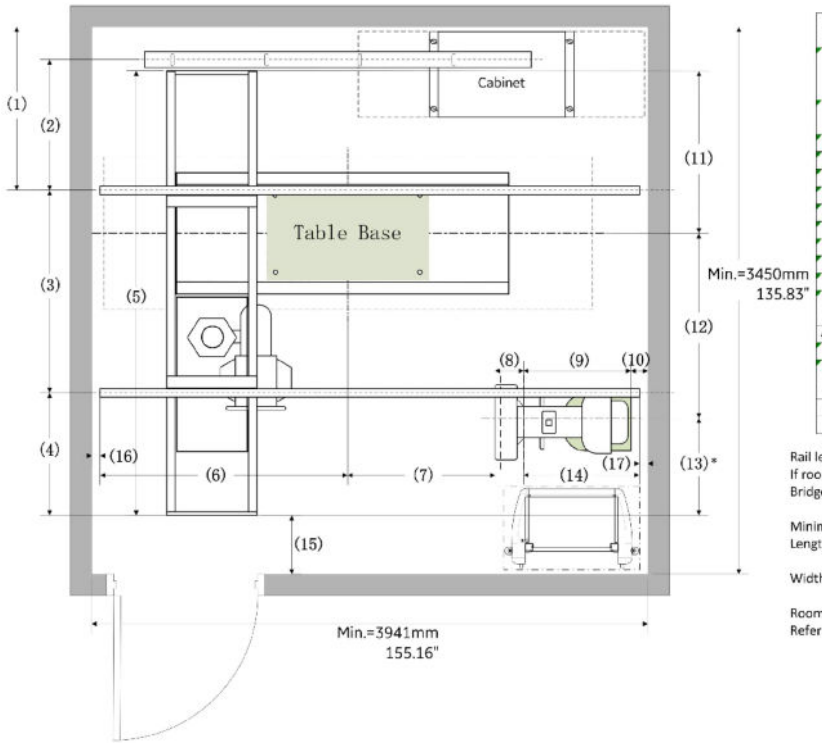
Item	Config	Limit Diension		
		Type	mm	in
(1)	Cable drape	Min.	1000	39.37
	Cable chain	Min.	1080	42.52
	All	Rec.	1245	49.02
(2)	Cable drape	Min.	889	35.0
	Cable chain	Fix	915	36.0
(3)	All	Fix	1422	56.0
(4)	All	Fix	863	34.0
(5)	All	Fix	3148	123.94
(6)	All	Min.	1720	67.72
		Rec.	2020	79.53
(7)	~~Without Stretcher~~	~~Min.~~	~~1124~~	~~44.25~~
	With Stretcher	Min.	1370	53.94
	All	Rec.	1550	61.02
(8)	All	Fix	201	7.91
(9)	Std. WS	Min.	271	10.67
(10)	All	Min.	102	4.0
(11)	All	Rec.	1143	45.00
(12)	All	Rec.	1320	51.97
(13)*	All	Min.	630	24.80
(14)	Std. WS	Fix	734	28.90
(15)	All	Min.	230	9.06
		Rec.	670	26.38
(16)	All	Min.	60	2.36
(17)	All	Min.	140	5.51

Rail length=4419.6 mm (174")
Bridge: 3m

Recommend Room size:
Length = (16)+(6)+(7)+(8)+(14)+(10) = 60+2020+1550+201+734+102
= 4667 mm + 33mm buffer = 4700mm (181.88")
Width= (1)+(3)+(4)+(15) = 1245+1422+863+670 = 4200 mm (165.35")

Room ceiling:
Refer room ceiling section

Figure 2-57 TBL + Std. WS at foot side minimum space room



Item	Config	Limit Diension		
		Type	mm	in
(1)	Cable drape	Min.	1000	39.37
	Cable chain	Min.	1080	42.52
	All	Rec.	1245	49.02
(2)	Cable drape	Min.	889	35.0
	Cable chain	Fix	915	36.0
(3)	All	Fix	1422	56.0
(4)	All	Fix	863	34.0
(5)	All	Fix	3148	123.94
(6)	All	Min.	1720	67.72
(7)	Without Stretcher	Min.	1124	44.25
(8)	All	Fix	201	7.91
(9)	Std. WS	Fix	734	28.90
(10)	All	Min.	102	4.0
(11)	All	Rec.	1143	45.00
(12)	All	Min.	1143	45.00
		Rec.	1320	51.97
~~(13)*~~	~~All~~	~~Min.~~	~~630~~	~~24.80~~
(14)	Std. WS	Min.	271	10.67
(15)	All	Min.	60	2.36
		Rec.	230	9.06
(16)	All	Min.	60	2.36
(17)	All	Min.	140	5.51

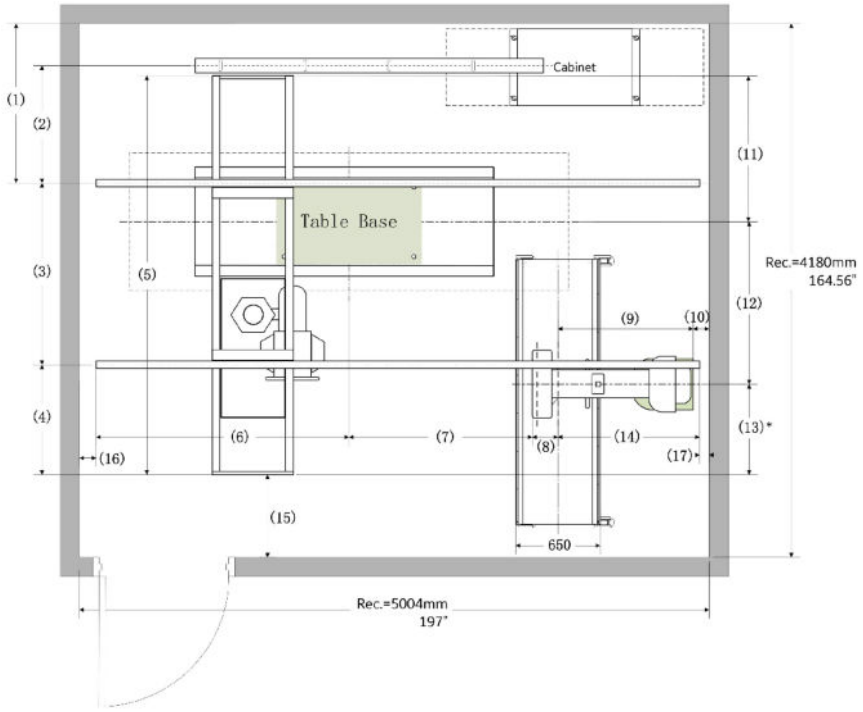
With patient barrier position as shown

Rail length=4114.5 mm (162")
If room length is minimum, should cut rail to 147".
Bridge: 3m

Minimum Room size:
Length = (16)+(6)+(7)+(8)+(9)+(10) = 60+1720+1124+201+734+102
= 3941 mm(155.16")
Width= (1)+(3)+(4)+(15)+buffer = 1080+1422+863+60+25= 3450 mm(135.83")

Room ceiling:
Refer the ceiling height section

Figure 2-58 TBL + Ext. WS at foot side fully space room



Item	Config	Limit Diension		
		Type	mm	in
(1)	Cable drape	Min.	1000	39.37
	Cable chain	Min.	1080	42.52
	All	Rec.	1245	49.02
(2)	Cable drape	Min.	889	35.0
	Cable chain	Fix	915	36.0
(3)	All	Fix	1422	56.0
(4)	All	Fix	863	34.0
(5)	All	Fix	3148	123.94
(6)	All	Min.	1720	67.72
		Rec.	2020	79.53
(7)	With Stretcher	Min.	1370	53.94
		Rec.	1550	61.02
(8)	All	Fix	201	7.91
(9)	Ext. WS	Fix	1058	41.65
(10)	All	Min.	102	4.0
(11)	All	Rec.	1143	45.00
(12)	All	Rec.	1320	51.97
~~(13)*~~	~~All~~	~~Min.~~	~~656~~	~~25.83~~
(14)	Ext. WS	Min.	909	35.79
(15)	All	Min.	480	18.90
		Rec.	650	25.59
(16)	All	Min.	60	2.36
(17)	All	Min.	140	5.51

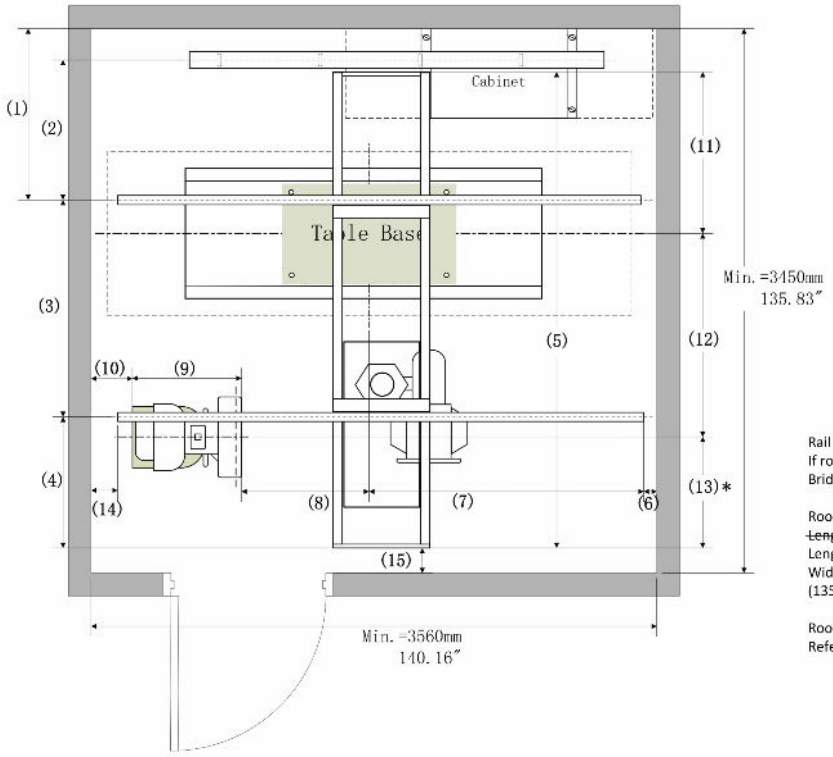
Rail length=4724.4 mm (186")
Bridge: 3m

Recommend Room size:
Length = (16)+(6)+(7)+(8)+(9)+(10) = 60+2020+1550+202+1058+102
= 4992 mm + 12mm buffer= 5004mm (197")
Width= (1)+(3)+(4)+(15) = 1245+1422+863+650 = 4180 mm (164.56")

Min:
Length = (16)+(6)+(7)+(8)+(9)+(10) = 60+1720+1370+202+1058+102
= 4512 mm (177.64")
Width= (1)+(3)+(4)+(15) = 1080+1422+863+480 = 3845 mm (151.38")

Room ceiling:
Refer room ceiling height section

Figure 2-59 TBL + Non-tilting WS at head side minimum space room



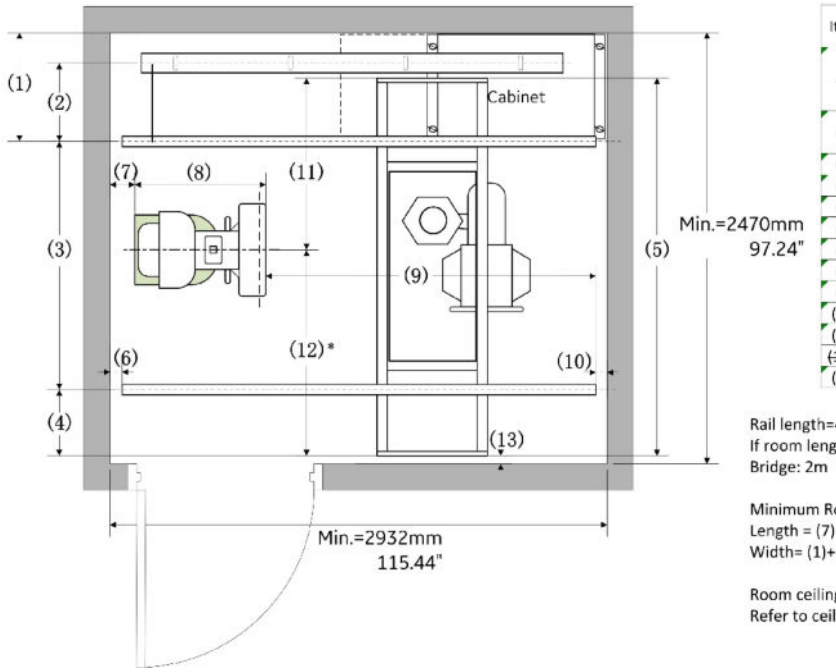
Item	Config	Limit Diension		
		Type	mm	in
(1)	Cable drape	Min.	1000	39.37
	Cable chain	Min.	1080	42.52
	All	Rec.	1120	44.09
(2)	Cable drape	Min.	889	35.0
	Cable chain	Fix	915	36.0
(3)	All	Fix	1422	56.0
(4)	All	Fix	863	34.0
(5)	All	Fix	3148	123.94
(6)	All	Min.	140	5.51
(7)	All	Min.	1720	67.72
(8)	Without Stretcher	Min.	351	13.82
(9)	Non-tilting WS	Fix	619	24.37
(10)	All	Min.	102	4.02
(11)	All	Min.	1143	45.00
(12)	All	Min.	1143	45.00
~~(13)*~~	~~All~~	~~Min.~~	~~630~~	~~24.80~~
(14)	All	Min.	140	5.51
(15)	All	Min.	60	2.36
		Rec.	230	9.06

Rail length=4114.5 mm (162")
If room length is minimum, should cut rail to 132".
Bridge: 3m

Room size Minimum:
~~Length = (6)+(7)+(8)+(9)+(10) = 140+1720+351+619+102 = 2932 mm~~
Length = Table travel range + 60*2 = 3560 mm (140.16")
Width= (1)+(3)+(4)+(15)+buffer= 1080+1422+863+60+25 = 3450 mm (135.83")

Room ceiling:
Refer to ceiling height section

Figure 2-60 Non-tilting WS only + 2m bridge tiny room



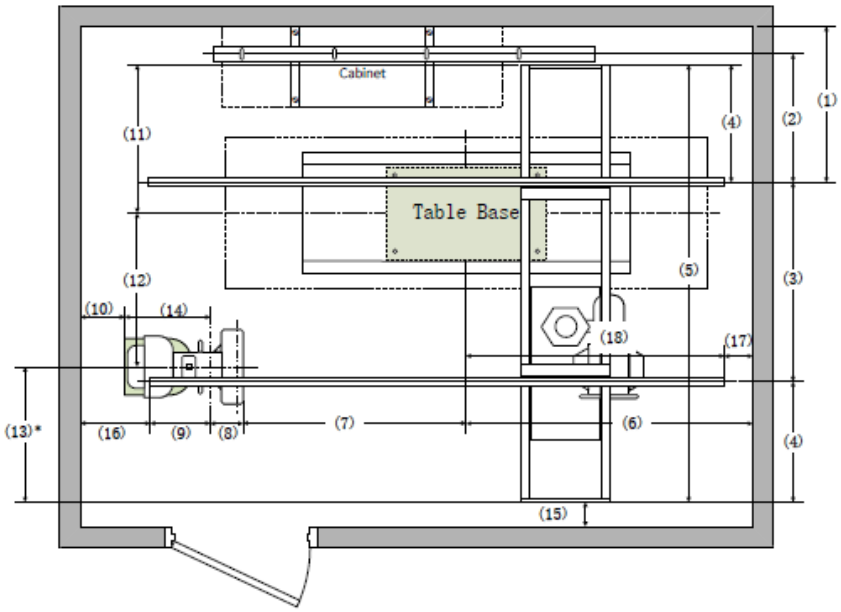
Item	Config	Limit Diension		
		Type	mm	in
(1)	Cable drape	Min.	530	20.87
	Cable chain	Min.	620	24.41
	All	Rec.	760	29.92
(2)	Cable drape	Min.	400	15.7
	Cable chain	Fix	445	17.5
(3)	All	Fix	1422	56.0
(4)	All	Fix	368	14.5
(5)	All	Fix	2158	84.96
(6)	All	Min.	60	2.36
(7)	All	Min.	102	4.02
(8)	Non-tilt WS	Fix	619	24.37
(9)	Without stretcher	Min.	2071	81.54
(10)	All	Min.	140	5.51
(11)	All	Rec.	1080	42.5
~~(12)*~~	~~All~~	~~Min.~~	~~630~~	~~24.80~~
(13)	Min	Min.	60	2.36

Rail length=4114.5 mm (162")
If room length is minimum, should cut rail to 107.5".
Bridge: 2m

Minimum Room size:
Length = (7)+(8)+(9)+(10) = 102+619+2071+140 = 2932 mm (115.44")
Width= (1)+(3)+(4)+(13) = 620+1422+368+60 = 2470 mm (97.24")

Room ceiling:
Refer to ceiling height section

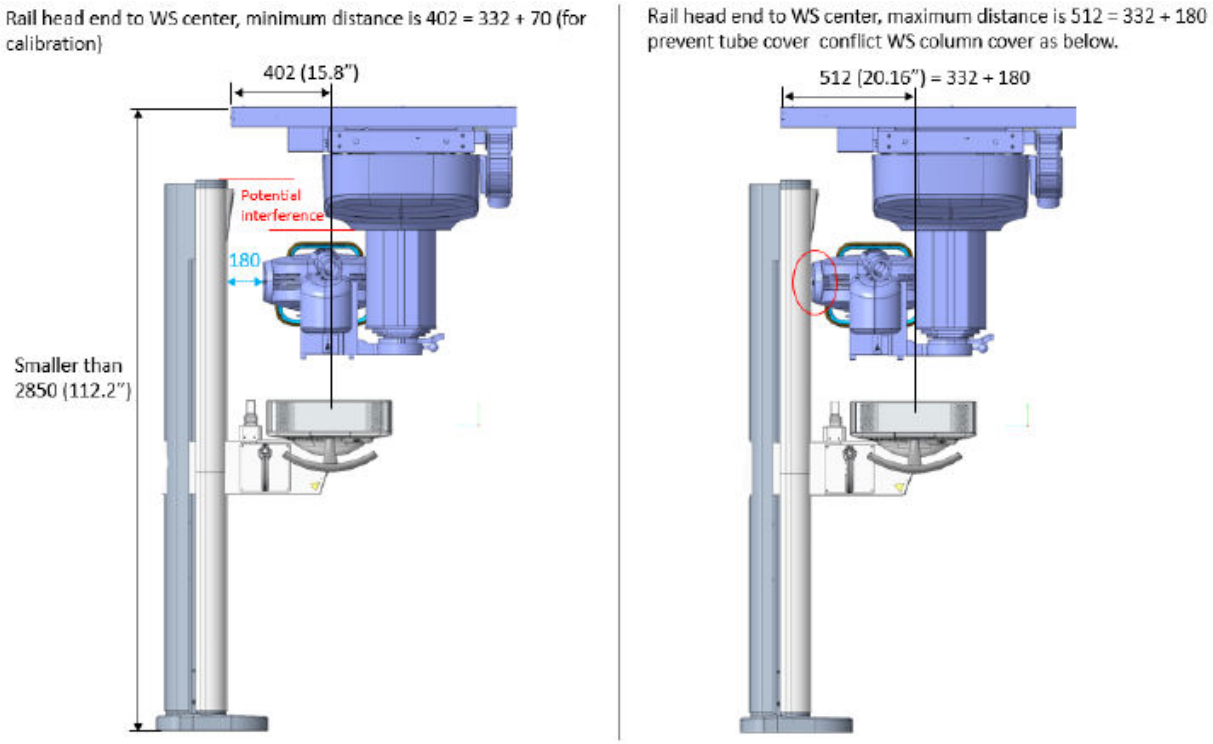
Figure 2-61 Standard WS at head side typical room that manual rotate column 180 degree for horizontal mode



Item	Config	Limit Diension		
		Type	mm	In
(1)	Cable drape	Min.	1000	39.37
	Cable chain	Min.	1080	42.52
		Rec.	1290	50.79
(2)	Cable drape	Min.	889	35.0
	Cable chain	Range	870~960	34.25~37.8
		Rec.	915	36.0
(3)	All	Fix	1422	56.0
(4)	All	Fix	863	34.0
(5)	All	Fix	3148	123.94
(6)	All	Min.	1800	70.87
		Rec.	2100	82.68
(7)	Without Stretcher	Min.	1140	44.88
	With Stretcher	Min.	1370	53.94
(8)	All	Fix	202	7.95
(9)	Std. WS	Min.	402	15.83
		Max. Rec.	512	20.16
(10)	All	Min.	102	4.0
(11)	All	Min. Rec.	754	29.69
		Max.	811	31.93
(12)	All	Min. Rec.	1143	45.0
		Max.	1200	47.24
(13)*	Std. WS	Min.	1194	47.01
(14)	Std. WS	Fix	734	28.9
(15)	All	Min.	60	2.36
		Rec.	480	18.90
(16)	All	Min.	60	2.36
(17)	All	Min.	140	5.51
(18)	All	Min.	620	24.41

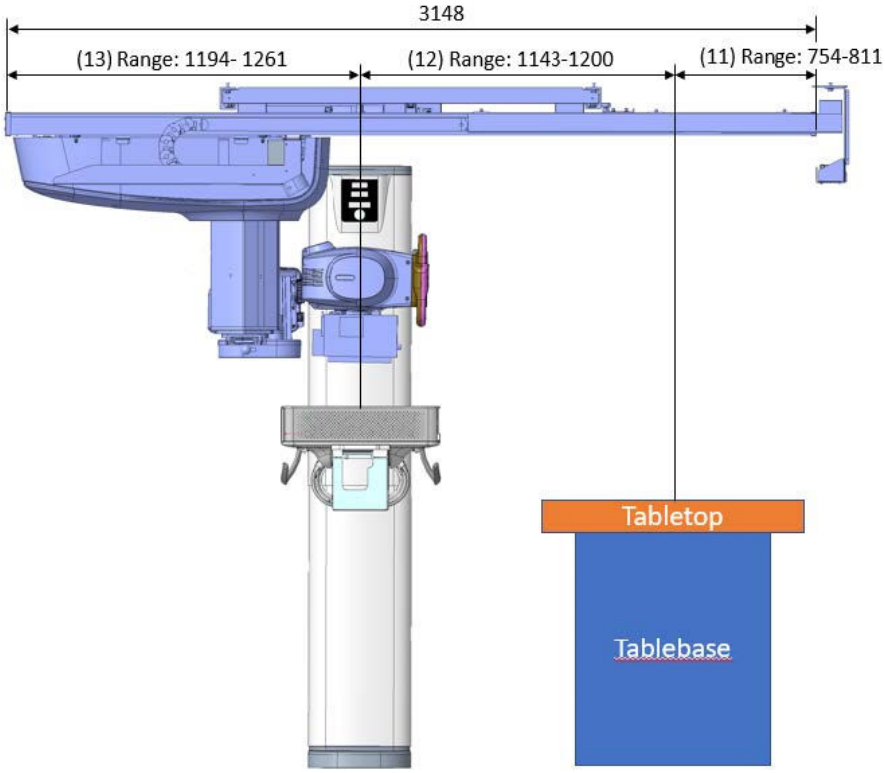
(See next page)

Figure 2-62 Standard WS at head side typical room, rotate OTS column 180 Degree detail:



Lateral view and requirement when rotate OTS column 180 Degree:

All item (11), (12), (13) should in the range.



2.4 Seismic

2.4.1 Overview

Seismic requirements are determined and specified by the hospital/Design Professional of record and may require approval by the specific state or country agency.

Seismic attachment hardware shown on seismic calculations may differ from hardware supplied with system. Any additional hardware that is required will be the responsibility of the institution and/or their contractor. Contact your local GE HealthCare representative to obtain seismic calculations.

Seismic calculations are per California Building Code (CBC) and International Building Code (IBC).

2.4.2 Calculations

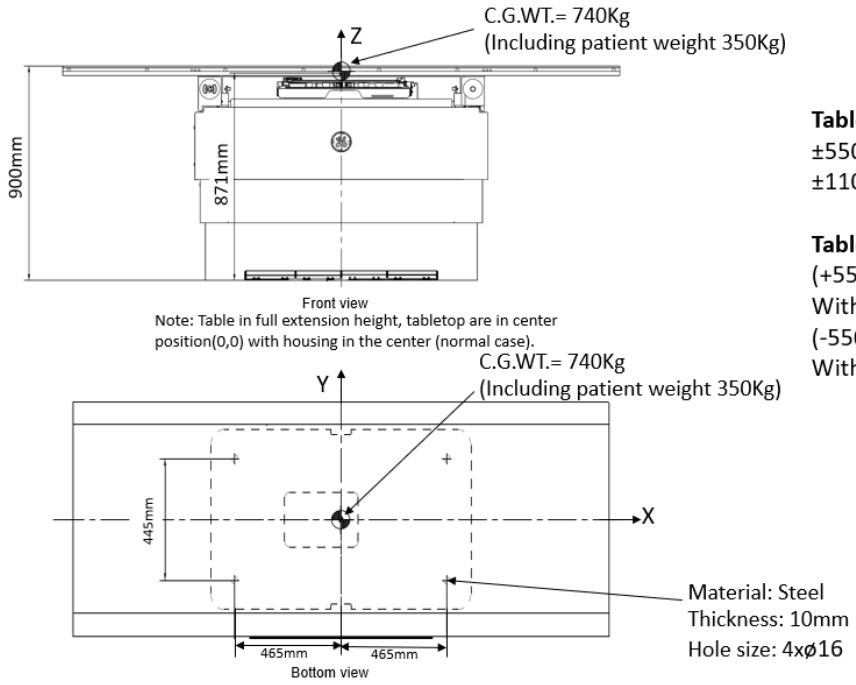
Seismic calculations can be obtained for the following:

- G4 Table (GCTBL-C4)
- Detector BIN
- Tether Interface Box
- HP Z4G4 & Z4G5 Workstation
- AP Assembly
- Grid Box
- G3 Wall Stand GCWS-C3
- G3 Extended Wall Stand GCEWS-C3
- G4 Non-tilting Wall Stand GCWS-C5
- VCP Cabinet GCC-C4
- OTS 2m Bridge
- OTS 3m Bridge

2.4.3 Center of Gravity Information

2.4.3.1 G4 Table (GCTBL-C4)

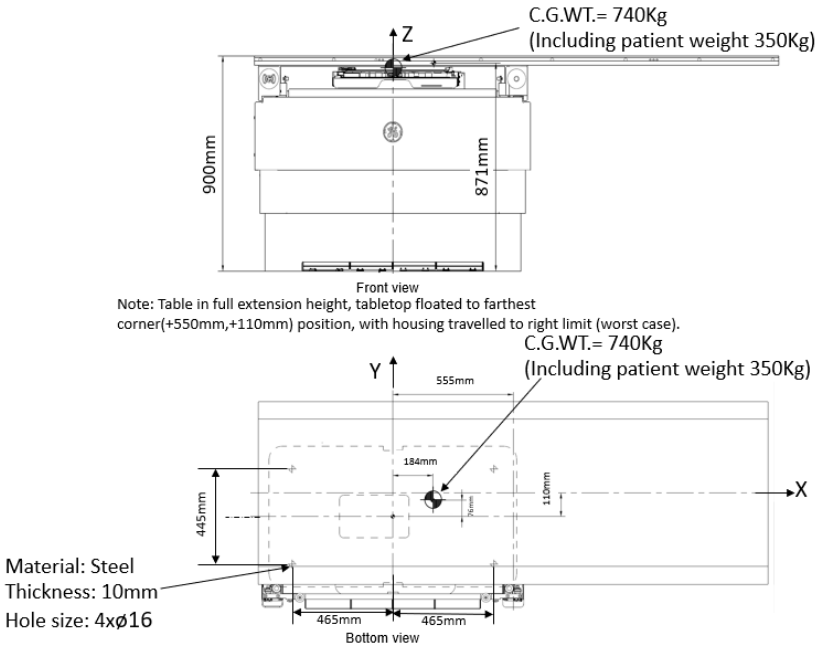
Figure 2-63 Floor mounting C. G. WT. =740Kg (including patient weight 350Kg)



Tabletop Floating range:
±550mm in X direction
±110mm in y direction

Tabletop can Float to four limit position:
(+550mm,-110mm), (+550mm,+110mm)
With housing travelled to right limit;
(-550mm,-110mm), (-550mm,+110mm)
With housing travelled to left limit

Figure 2-64



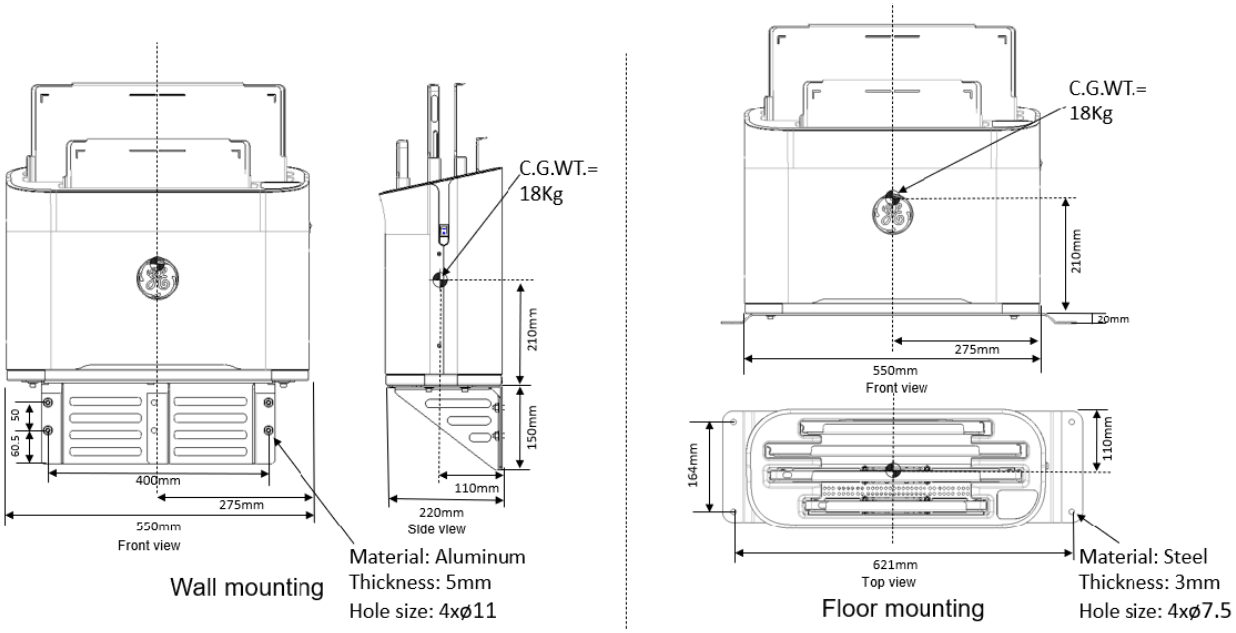
Tabletop Floating range:
±550mm in X direction
±110mm in y direction

Tabletop can Float to four limit position:
(+550mm,-110mm), (+550mm,+110mm)
With housing travelled to right limit;
(-550mm,-110mm), (-550mm,+110mm)
With housing travelled to left limit

2.4.3.2 Detector BIN 5765692

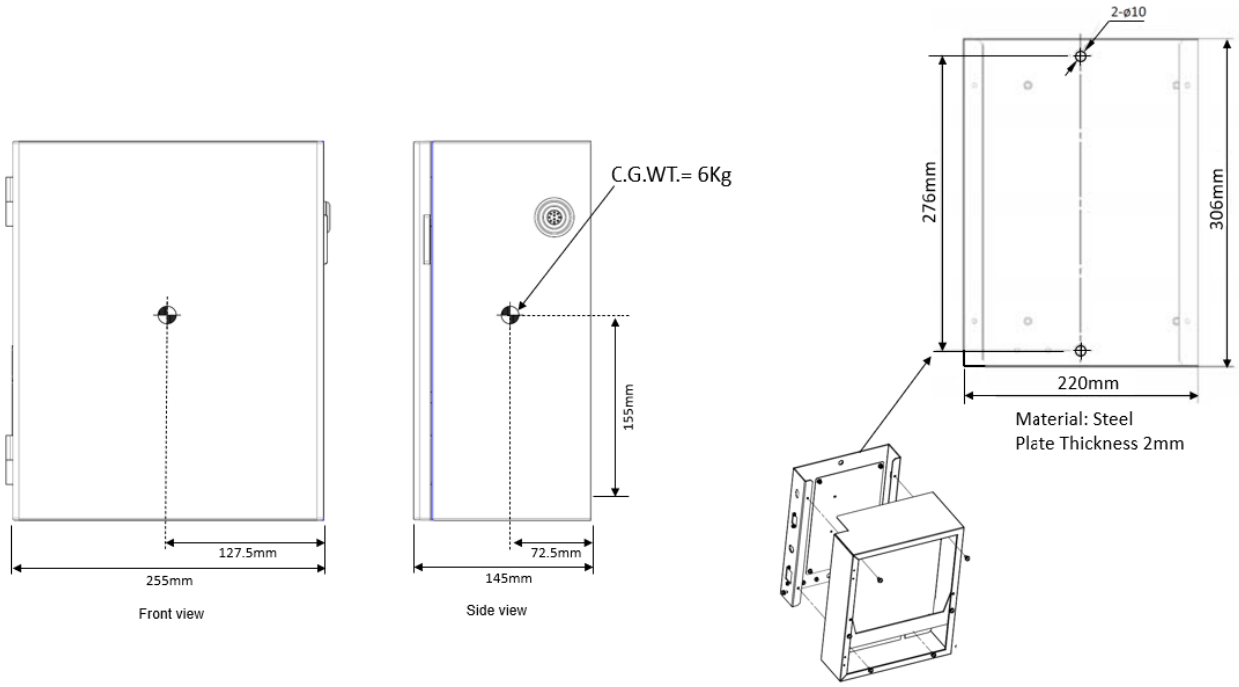
Wall mounting (Default) or Floor mounting (Bracket GE HealthCare PN: 5816733)

Figure 2-65 C. G. WT. =18Kg with both 17x17 and 10x12 detectors



2.4.3.3 Tether Interface Box 5876669

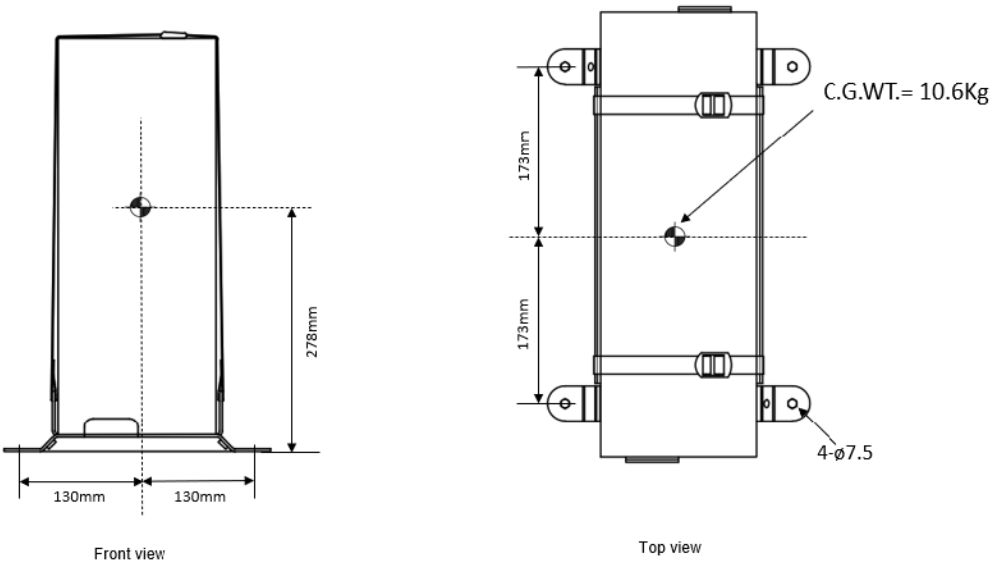
Figure 2-66 Wall mounting C. G. WT. =6Kg



2.4.3.4 HP Workstation

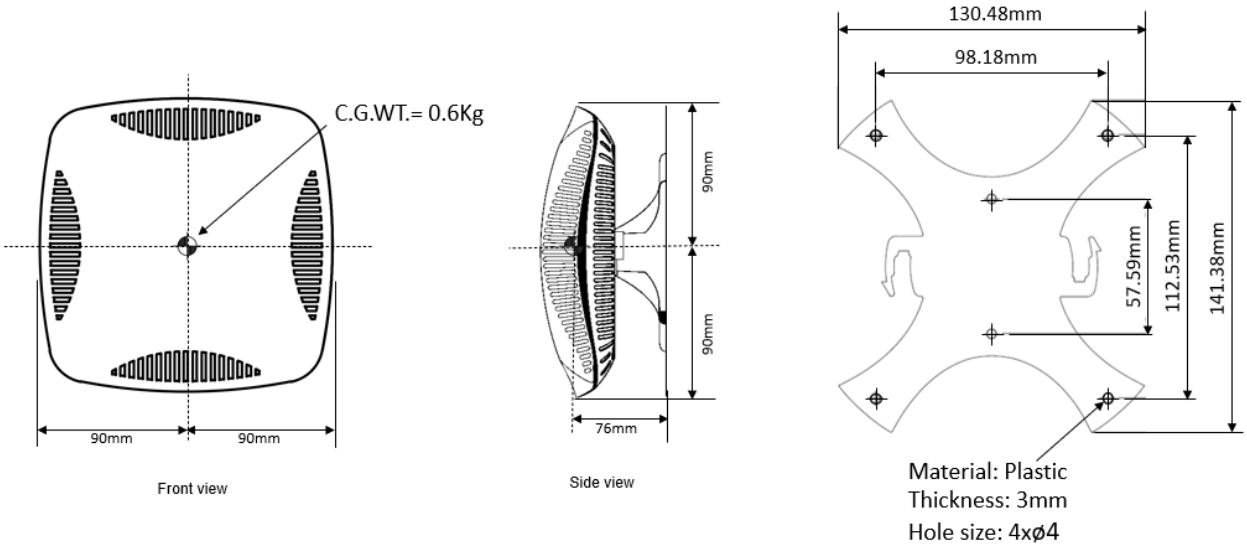
Computer Seismic mounting bracket GE HealthCare PN 5813338 (Steel, Thickness 3mm)

Figure 2-67 Floor Mounting Weight: Z4G4 (8770000-W27) & Z4G5 (8790000-W04): 10.6Kg max.



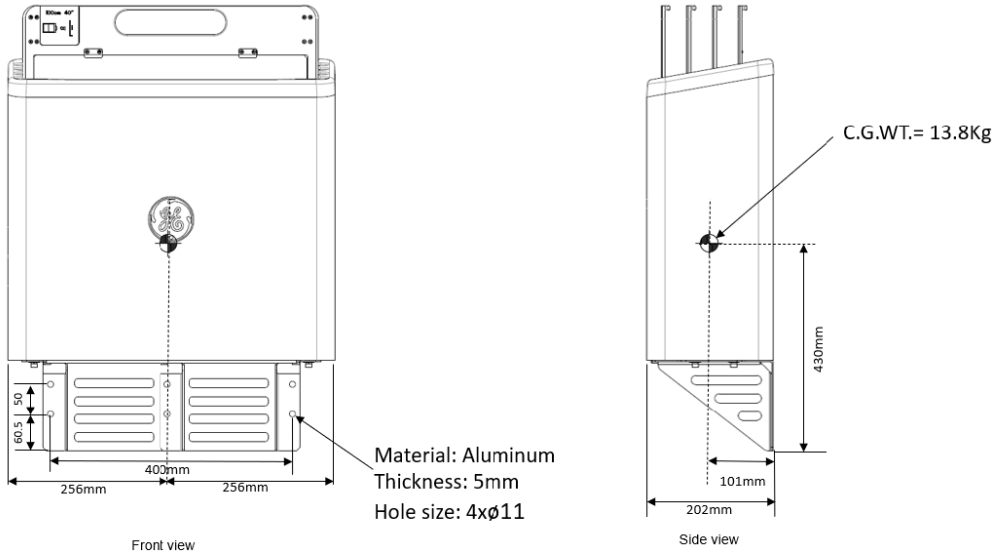
2.4.3.5 AP Assembly

Figure 2-68 Wall mounting Weight: 0.6Kg



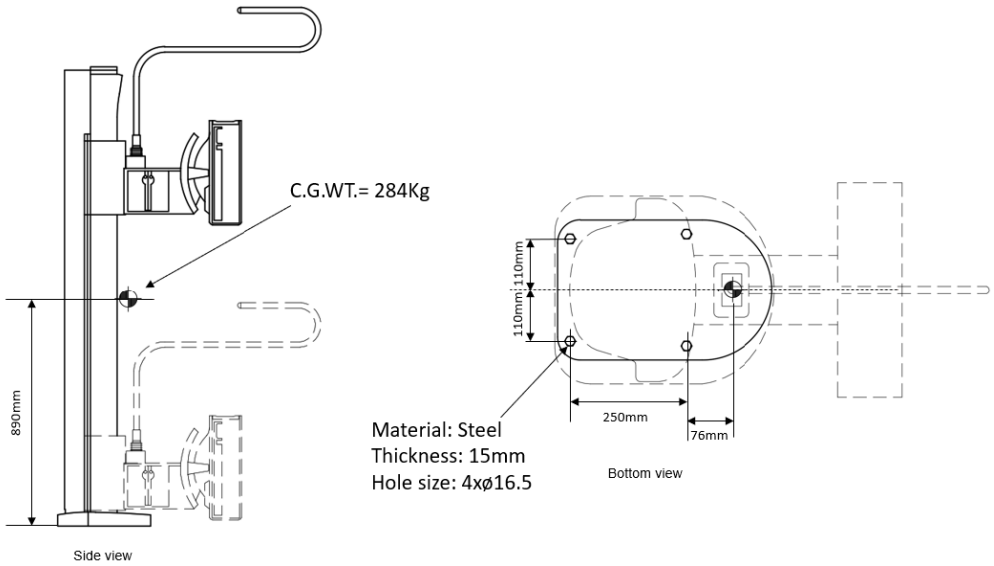
2.4.3.6 Grid Box

Figure 2-69 Wall mounting Weight: 13.8Kg Totally Mechanical part, only used to store Grids



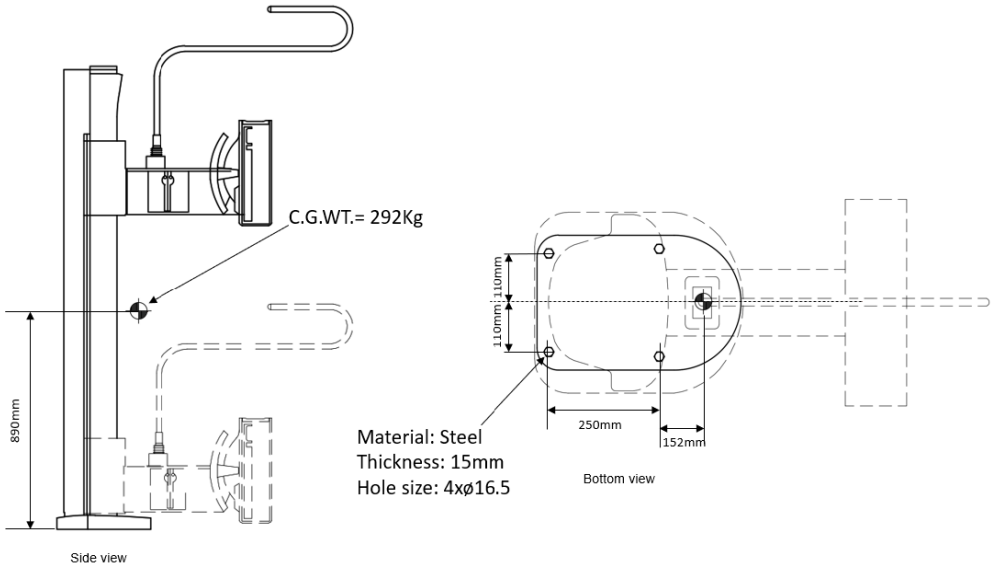
2.4.3.7 G3 Wall Stand GCWS-C3

Figure 2-70 Floor mounting Weight: 284kg



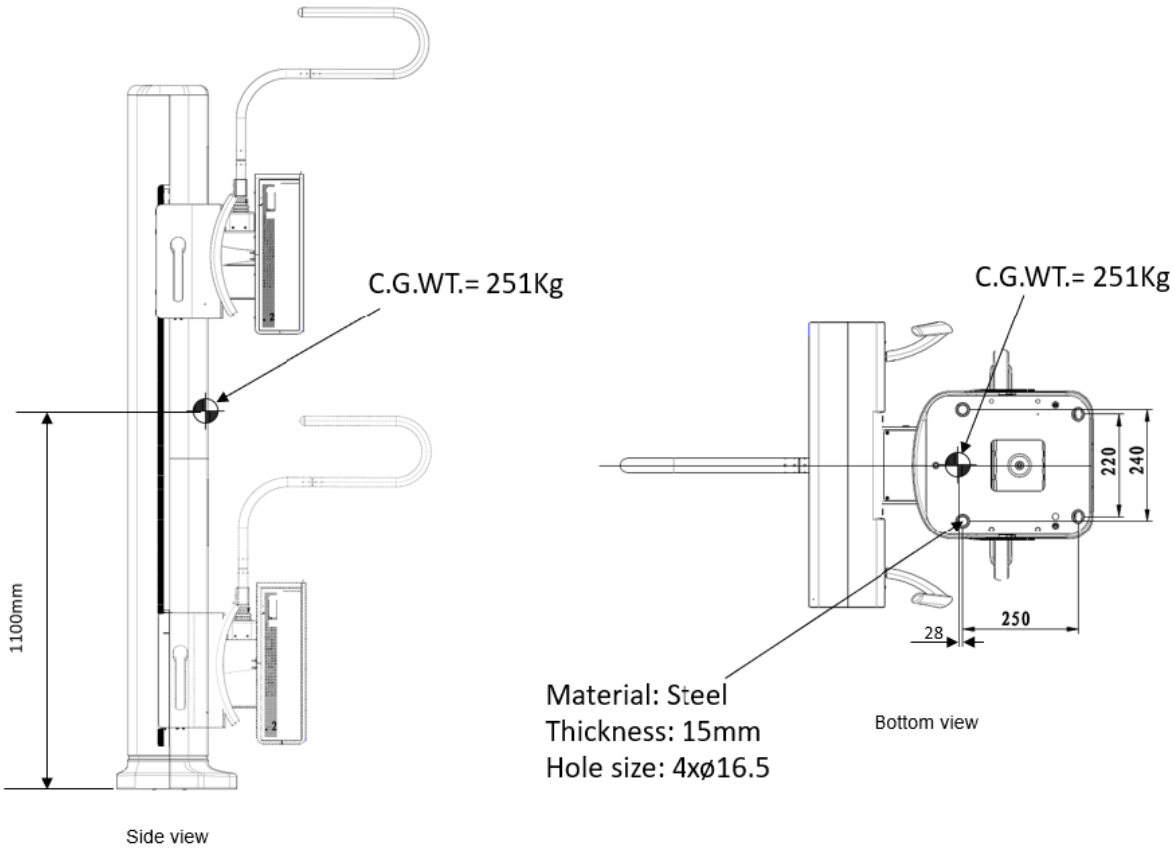
2.4.3.8 G3 Extended Wall Stand GCEWS-C3

Figure 2-71 Floor mounting Weight: 292kg



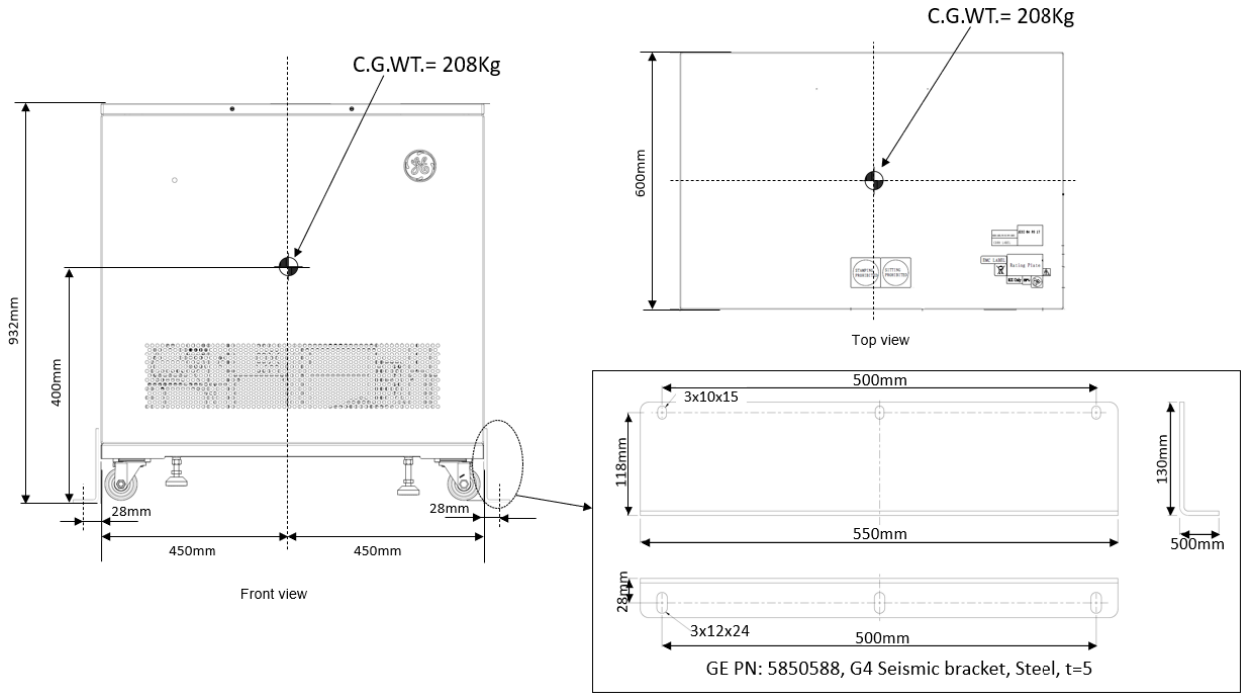
2.4.3.9 Non-tilting Wall stand GCWS-C5

Figure 2-72 Floor mounting Weight: 251Kg max



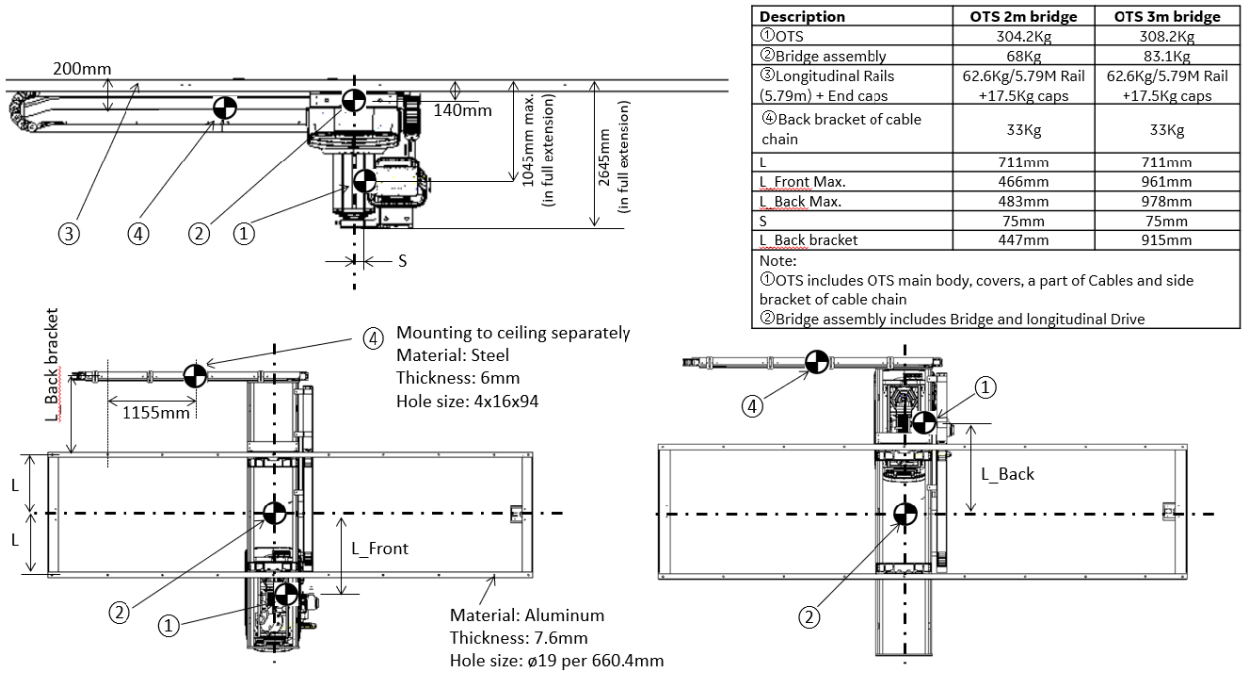
2.4.3.10 VCP Cabinet GCC-C4

Figure 2-73 Floor Mounting Weight: 208Kg



2.4.3.11 OTS With Bridge

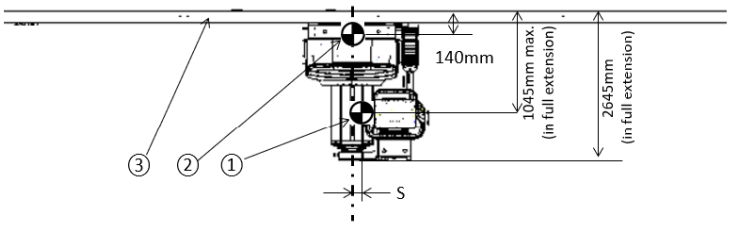
Figure 2-74 OTS (5822306) with 2m bridge (5823488) / 3m bridge (5823489) cable chain version



Description	OTS 2m bridge	OTS 3m bridge
①OTS	304.2Kg	308.2Kg
②Bridge assembly	68Kg	83.1Kg
③Longitudinal Rails (5.79m) + End caps	62.6Kg/5.79M Rail +17.5Kg caps	62.6Kg/5.79M Rail +17.5Kg caps
④Back bracket of cable chain	33Kg	33Kg
L	711mm	711mm
L_Front Max.	466mm	961mm
L_Back Max.	483mm	978mm
S	75mm	75mm
L_Back bracket	447mm	915mm

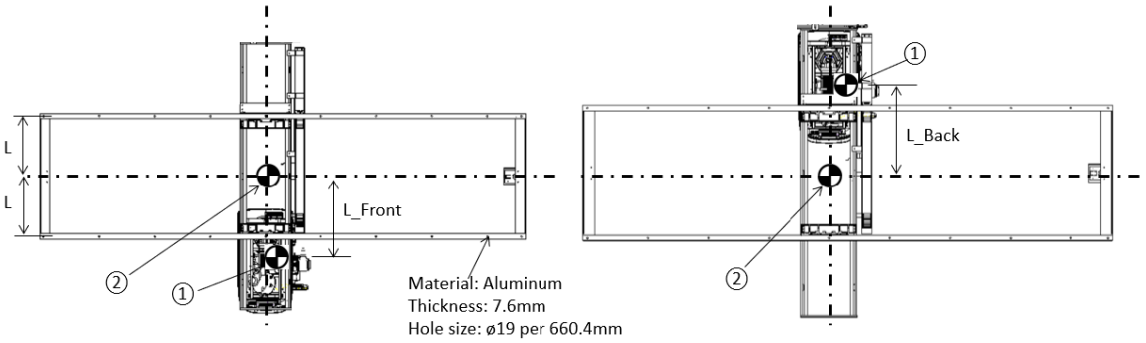
Note:
①OTS includes OTS main body, covers, a part of Cables and side bracket of cable chain
②Bridge assembly includes Bridge and longitudinal Drive

Figure 2-75 OTS 5822306 with 2m bridge 5823488 / 3m bridge 5823489 (drape version)



Description	OTS 2m bridge	OTS 3m bridge
①OTS	304.2Kg	308.2Kg
②Bridge assembly	68Kg	83.1Kg
③Longitudinal Rails (5.79m) + End caps	62.6Kg/5.79M Rail +17.5Kg caps	62.6Kg/5.79M Rail +17.5Kg caps
L	711mm	711mm
L_Front Max.	466mm	961mm
L_Back Max.	483mm	978mm
S	75mm	75mm

Note:
①OTS includes OTS main body, covers, a part of Cables and side bracket of cable chain
②Bridge assembly includes Bridge and longitudinal Drive



3 Special Construction

3.1 Radiation Protection

Because X-ray equipment produces radiation, special precautions may need to be taken or special site modifications may be required. The General Electric Company does not make recommendations regarding radiation protection. It is the purchasers responsibility to consult a radiation physicist for advice on radiation protection in X-ray rooms.

4 HVAC-Environmental Requirements

4.1 Relative Humidity and Temperature

This section provides information for the environmental requirements for the storage of the system.

NOTICE

STORAGE VALUES ONLY REFER TO EQUIPMENT THAT IS STILL IN SHIPPING CONTAINERS.

If the equipment is partially or completely installed, refer to IN-USE values

The operating environment is the environmental requirements for the normal use of the device during the expected service life. It dose not apply to the short term manufacturing testing and the like.

Product or Component	RELATIVE HUMIDITY (Non-Condensing)		Temperature	
	IN-USE		IN-USE	
	MIN	MAX	MIN.	MAX.
Detector	20%	75%	15° C(59° F)	32° C (89.6° F)
Wall Stand Std. & Ext.	20%	75%	15° C(59° F)	32° C (89.6° F)
Table (TBL)	20%	75%	15° C(59° F)	32° C (89.6° F)
OTS	20%	75%	15° C(59° F)	32° C (89.6° F)
System Cabinet(SKL1)	20%	75%	15° C(59° F)	32° C (89.6° F)
Maxiray 100-09 X-ray Tube	20%	75%	15° C(59° F)	32° C (89.6° F)
Radiographic Stretcher Table (optional)	20%	75%	15° C(59° F)	32° C (89.6° F)
Operator Console:				
PC	20%	75%	15° C(59° F)	32° C (89.6° F)
Monitor	20%	75%	15° C(59° F)	32° C (89.6° F)

Limits for rates of change:

In-Use	Storage
<10 degree C / hour	<20 degree C / hour
<30% / hour	<30% / hour

4.2 Altitude and Atmospheric Pressure

Table 4-1 Environmental Requirements - (Altitude & Atmospheric Pressure)

Product or Component	ALTITUDE		ATMOSPHERIC PRESSURE	
Total System Limits	IN-USE	STORAGE	IN-USE	STORAGE

Table 4-1 Environmental Requirements - (Altitude & Atmospheric Pressure) (Table continued)

Product or Component	ALTITUDE				ATMOSPHERIC PRESSURE			
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
	-30 m (-98.43 ft)	3000 m (9843 ft)	-30 m (-98.43 ft)	3000 m (9843 ft)	70 kPa	106 kPa	70 kPa	106 kPa

Limits for rates of change:

In-Use Storage

< 1.8 kPA / hour < 76 kPA / hour

NOTICE

STORAGE VALUES ONLY REFER TO EQUIPMENT THAT IS STILL IN SHIPPING CONTAINERS. IF THE EQUIPMENT IS PARTIALLY OR COMPLETELY INSTALLED, REFER TO IN-USE VALUES.

The operating environment is the environmental requirements for the normal use of the device during the expected service life. It dose not apply to the short term manufacturing testing and the like.

4.3 Non-operating Environment

4.3.1 Temperature

The non-operating ambient temperature range of the packaged system (except detector) shall be -20 degrees centigrade to +60 degrees centigrade.

The transportation non-operating ambient temperature range of the packaged detector shall be -5 to 50 degrees centigrade and for exceptions the shipping containers should be labeled.

The long term non-operating ambient temperature range of the detector shall be 5 to 25 degrees centigrade.

4.3.2 Humidity

The non-operating ambient humidity range of the packaged system shall be 10% to 85% relative humidity, non-condensing. Exceptions should have the shipping containers labeled.

4.3.3 Atmospheric Pressure

The non-operating ambient atmospheric pressure range of the packaged system shall be 106 kPa down to 70kPa.

4.3.4 Altitude

The non-operating altitude range of the packaged system shall be -30 meters up to 3000 meters to support transport at high altitude and for exceptions the shipping containers should be labeled.

4.4 Heat Output

The standby and in-use heat output of each system component are provided below.

Table 4-2 Heat Outputs

Product component	Heat Output			
	Stand By		In Use	
WallStand	0.035 Kilowatt	119.4 BTU/h	0.072 Kilowatt	245.7 BTU/h
WS detector power	0.015 Kilowatt	51.2 BTU/h	0.045 Kilowatt	153.5 BTU/h
Table	0.071 Kilowatt	242.3 BTU/h	0.253 Kilowatt	863.3 BTU/h
Table detector power	0.015 Kilowatt	51.2 BTU/h	0.045 Kilowatt	153.5 BTU/h
OTS & Collimator	0.058 Kilowatt	197.9 BTU/h	0.159 Kilowatt	542.5 BTU/h
Tube	0	0	0.222 Kilowatt	757.5 BTU/h
System Cabinet	0.591 Kilowatt	2016.6 BTU/h	1.18 Kilowatt	4026.3 BTU/h
Z4G4 + Monitor + RCIM	0.14 Kilowatt	477.7 BTU/h	0.24 Kilowatt	818.9 BTU/h
Z4G5 + Monitor + RCIM	0.14 Kilowatt	477.7 BTU/h	0.24 Kilowatt	818.9 BTU/h
AP	0.017 Kilowatt	58 BTU/h	0.017 Kilowatt	58 BTU/h
UPS	0.01 Kilowatt	34.1 BTU/h	0.178 Kilowatt	607.4 BTU/h
Charge Bin	0	0	0.073 Kilowatt	249.1 BTU/h
Battery Charger	0	0	0.035 Kilowatt	119.4 BTU/h

4.5 EMC Requirement

Refer to the 5743005-1EN, Definium Tempo Pro/ Definium Tempo Specification, Chapter 2- EMC Compliance Statement

5 Electrical

5.1 System Facility Power and Grounds

5.1.1 Introduction

The purpose of this section is to ensure that the product is properly powered and grounded, thus ensuring the proper operation of the product installed. The information in this section should be adhered to, unless there are written deviations approved by GE HealthCare.

This section gives the sizes and procedures on how to power and ground your system. If these power and grounding instructions are not adhered to, proper operation cannot be guaranteed. Any cost associated and found to be a result of non-conformity, as stated in this section, may result in additional cost charged back to the institution and/or their contractor.

NOTICE

ALL SYSTEM AND SUB-SYSTEM POWER CONNECTIONS SHALL BE MADE ONLY TO POWER OUTLETS THAT ARE CONNECTED TO THE SYSTEM.

5.1.2 Power Quality

The electrical power, from its origination to the system, must adhere to the wire size and transformer sizes as prescribed in the installation drawings. The feeder voltage-drops, as well as the supplying power, must be within the given parameters. Sizing for feeder is usually calculated for a maximum of 2% voltage drop at the minimum voltage range. The actual feeder sizing may vary from the installation drawing for a facilities voltage.

Calculate feeder losses before you begin. Total feeder losses must be calculated to ensure that the losses are less than those specified in the installation drawings. Calculating the recommended minimum transformer sizing for feeding a system ensures the transformer losses are less than half of the maximum regulation for the system.

Regulation is the calculated voltage losses for the entire power distribution system (No-Load Voltage minus Full-Load Voltage) divided by the no-load voltage minus the system losses (Full- Load Voltage):

$$\text{Regulation} = \frac{\text{NoLoadVoltage} - \text{FullLoadVoltage}}{\text{FullLoadVoltage}} \times 100$$

In the X-ray room, there must be a lockable facility power disconnect. It must be installed electrically before the equipment, for the purpose of locking out the power. This must be done before service to the high voltage system is performed.

5.1.3 Electrical Grounds

5.1.3.1 System and Facility Grounds

The ground for this system must originate at the system's power source and be continuous (i.e., transformer or first access point of power into a facility, and be continuous to the system power disconnect in the room). Ground connection at the power source must be at the grounding point of the "Neutral/Ground" if a "Wye" transformer is used, or typical grounding points of a separately derived system. In the case of an external facility, it must be bonded to the facility ground point at the electrical service entrance.

The "system" ground can be spliced using "High Compression Fittings" but must be properly terminated at each distribution panel it passes through. When it is terminated, it must be connected into an approved grounding block. Incoming and outgoing grounds must terminate at this same grounding block. Grounds must only be terminated to approved grounding blocks. Grounds must never connect directly to the panels, frames or other materials in a cabinet or distribution panel.

5.1.3.2 Recommended Ground Wire Sizes

The ground wire impedance from the system disconnect (including the ground rod) measured to earth, must not exceed 2 ohms (as measured by one of the applicable techniques described in Section 4 of ANSI/IEEE Standard 142 - 1982).

NOTE
For general system grounding requirements and information on establishing an equipotential

grounding system, refer to:

- Direction 46-014505, Electrical Safety - Equipment Grounding
- Direction 46-014546, Electrical Safety - Leakage Currents

5.2 Electrical Requirements

5.2.1 Generator Electrical Requirements

All system components obtain their power from the Power Distribution Unit (PDU) in the System Cabinet.**Providing power and ground wires to the PDU are the responsibility of the customer**. As an aid, wire sizes for various lengths of the power supply cable are shown in the following tables.

NOTE
The length of stripped wires should be longer than 25 mm (1in), and tinned.

NOTE
Shunt trip circuit breaker required. The main circuit breaker supplied by the customer must be sized in accordance with local regulations. The Customer's Mains Disconnect Panel/ PDB must supply the LOTO capability.

Generator Power Specifications

Table 5-1 JEDI Generator Power Specifications

Input Voltage	380/400/415/440/460/480 VAC Wye 3-Phase and ground without neutral
Daily Voltage variations	+/- 10% (VAC) In this range, the generator will operate without any de-rating in accuracy

Table 5-1 JEDI Generator Power Specifications (Table continued)

Nominal line frequency (Hz)	50 Hz / 60 Hz
Daily frequency variation (Hz)	+/- 3 Hz
Line Impedance	The apparent line impedance guaranteed by the customer should be equal or less than the values indicated below, according to the voltage value and the commercial power of the system. **Voltage range (V) Line Impedance (ohms)** **3 phase 50kW 65kW 80kW** 380 0.15 0.118 0.096 400 0.16 0.131 0.1 415 0.18 0.138 0.113 440 0.2 0.154 0.125 480 0.24 0.185 0.15 **NOTE** 400-480 VAC impedance values are based on IEC 601-2-7 standard. Values are interpolated from values in standard.
Inrush current	1000 Amps. Genetrator needs a 165Amps and the fuse is a part of PDU. 1000Amps is rating at 3 phase at system I/P, for generator 1000Amps current may not be required. The max current raquired for generator is during start-up ((capacitor changing) and during peak power exposure for long durationns.
HV cable type	USA: 22mm DSI (<= 165 pF/m) HV cable connector = Federal standard
Ground Wire	Same as power cable

5.2.2 System Wire Sizes & kVA Load Characteristics

- Calculations based upon nominal voltage, wire size in AWG. To convert to mm2, refer to Table 5-2.
- Recommended feeder sizes from distribution transformer to the power cabinet.
- Neutral must be terminated inside the main disconnect panel and not at any GE HealthCare cabinet.
- The grounding conductor will be of same size as the feeder wires. This ground will run from equipment back to the facility power source / main grounding point and always travel in the same conduit with the feeders and neutral.

Table 5-2 AWG Wire Size Conversion to mm^2

American Wire Gauge (AWG)	Diameter (Inches)	Diameter (mm)	Cross Sectional Area (mm^2)
6	0.1620	4.11	13.30
5	0.1819	4.62	16.77
4	0.2043	5.19	21.15
3	0.2294	5.83	26.65
2	0.2576	6.54	33.61

Table 5-2 AWG Wire Size Conversion to mm^2 (Table continued)

American Wire Gauge (AWG)	Diameter (Inches)	Diameter (mm)	Cross Sectional Area (mm^2)
1	0.2893	7.35	42.39
1/0	0.3249	8.25	53.46
2/0	0.3648	9.27	67.40
3/0	0.4096	10.40	84.97
4/0	0.46	11.68	107.16
250M	0.575	14.6	126.68
300M	0.630	16.0	152.0
350M	0.681	17.3	177.35
400M	0.728	18.49	202.68

5.2.2.1 JEDI Generator 3-Phase 50 kW System - Minimum Wire Size

WIRE RUN LENGTH	INPUT VOLTAGE (VAC)					
	380	400	420	440	460	480
	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%
15m (50 ft.)	*6	*6	*6	*6	*6	*6
30m (100 ft.)	5	5	*6	*6	*6	*6
46m (150 ft.)	4	4	4	4	4	4
61m (200 ft.)	3	4	4	4	4	4
77 m (250 ft)	2	2	2	3	3	4
92 m (300 ft)	1/0	1	1	2	2	2
107m (350ft)	2/0	2/0	1/0	1	1	1
122m (400 ft)	3/0	2/0	2/0	1/0	1/0	1/0
138m (450 ft)	4/0	3/0	3/0	2/0	2/0	1/0
* minimum wire size for circuit breaker, based on recommended overcurrent protection.						

5.2.2.2 kVA Load Characteristics 50KW

Table 5-3 kVA Load Characteristics 50KW

Phase	THREE PHASE					
Nominal Line Voltage (Vac)	380	400	420	440	460	480
Voltage Range (Vac)	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%
Momentary Line Current (Amp)	110	105	100	95	92	88
Continuous Line Current (Amp)	7	6.7	6.2	6	5.7	5.5
Power Demand (kVA)	70	70	70	70	70	70
Frequency	47/53Hz and 57/63Hz					

5.2.2.3 JEDI Generator 3-Phase 65 kW and System - Minimum Wire Size

Table 5-4 JEDI Generator 3-Phase 65 kW System - Minimum Wire Size

WIRE RUN LENGTH	INPUT VOLTAGE (VAC)					
	380	400	420	440	460	480
	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%
15m (50 ft.)	*4	*4	*4	*4	*4	*4
30m (100 ft.)	3	*4	*4	*4	*4	*4
46m (150 ft.)	2	2	2	3	3	*4
61m (200 ft.)	1/0	1	1	2	2	2
77 m (250 ft)	2/0	2/0	1/0	1	1	1
92 m (300 ft)	3/0	2/0	2/0	1/0	1/0	1/0
107m (350ft)	4/0	3/0	3/0	2/0	2/0	1/0
122m (400 ft)	250M	4/0	4/0	3/0	3/0	2/0
138m (450 ft)	300M	250M	4/0	4/0	3/0	3/0
* minimum wire size for circuit breaker, based on recommended overcurrent protection.						

5.2.2.4 kVA Load Characteristics 65KW

Table 5-5 kVA Load Characteristics 65 kW

Phase	THREE PHASE					
Nominal Line Voltage (Vac)	380	400	420	440	460	480
Voltage Range (Vac)	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%
Momentary Line Current (Amp)	147	140	133	127	122	117
Continuous Line Current (Amp)	7	6.7	6.2	6	5.7	5.5
Power Demand (kVA)	97	97	97	97	97	97
Frequency	47/53Hz and 57/63Hz					

5.2.2.5 JEDI Generator 3-Phase 80 kW and System - Minimum Wire Size

Table 5-6 JEDI Generator 3-Phase 80 kW System - Minimum Wire Size

WIRE RUN LENGTH	INPUT VOLTAGE (VAC)					
	380	400	420	440	460	480
	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%
15m (50 ft.)	*2	*2	*2	*2	*2	*2
30m (100 ft.)	*2	*2	*2	*2	*2	*2
46m (150 ft.)	1/0	1	1	*2	*2	*2
61m (200 ft.)	2/0	2/0	1/0	1/0	1	1
77 m (250 ft)	3/0	3/0	2/0	2/0	1/0	1/0
92 m (300 ft)	4/0	4/0	3/0	3/0	2/0	2/0

Table 5-6 JEDI Generator 3-Phase 80 kW System - Minimum Wire Size (Table continued)

WIRE RUN LENGTH	INPUT VOLTAGE (VAC)					
	380	400	420	440	460	480
	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%
107m (350ft)	300M	250M	4/0	4/0	3/0	3/0
122m (400 ft)	350M	300M	250M	4/0	4/0	3/0
138m (450 ft)	400M	350M	300M	250M	250M	4.0
* minimum wire size for circuit breaker, based on recommended overcurrent protection.						

5.2.2.6 kVA Load Characteristics 80KW

Table 5-7 kVA Load Characteristics 80 kW

Phase	THREE PHASE					
Nominal Line Voltage (Vac)	380	400	420	440	460	480
Voltage Range (Vac)	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%
Momentary Line Current (Amp)	190	180	170	163	156	150
Continuous Line Current (Amp)	7	6.7	6.2	6	5.7	5.5
Power Demand (kVA)	125	125	125	125	125	125
Frequency	47/53Hz and 57/63Hz					

5.2.3 Recommended Wall “Circuit-Breaker” Ratings

Table 5-8 Wall Breaker Parameter (Theoretical Current Values)

Power / Voltage	50 kW	65 kW	80 kW
380 V	55 A / 600 V	74 A / 600 V	95 A / 600 V
400 V	52 A / 600 V	70 A / 600 V	90 A / 600 V
415 V	50 A/ 600 V	67 A / 600 V	85 A / 600 V
440 V	47 A / 600 V	64 A / 600 V	82 A / 600 V
460 V	45 A/ 600 V	61 A / 600 V	78 A / 600 V
480 V	43 A / 600 V	59A / 600 V	75 A / 600 V

5.2.4 Wiring Electrical Power and Disconnects

This section provides additional data regarding power circuits the customer must provide, and internal electrical circuits necessary to supply the correct power to the system. Figure 5-1 Room Power Supply (refer to Table 5-8 for Legend) on page 122 shows the room power supply installed.

5.2.4.1 Room Power Supply

Figure 5-1 Room Power Supply (refer to Table 5-8 for Legend)

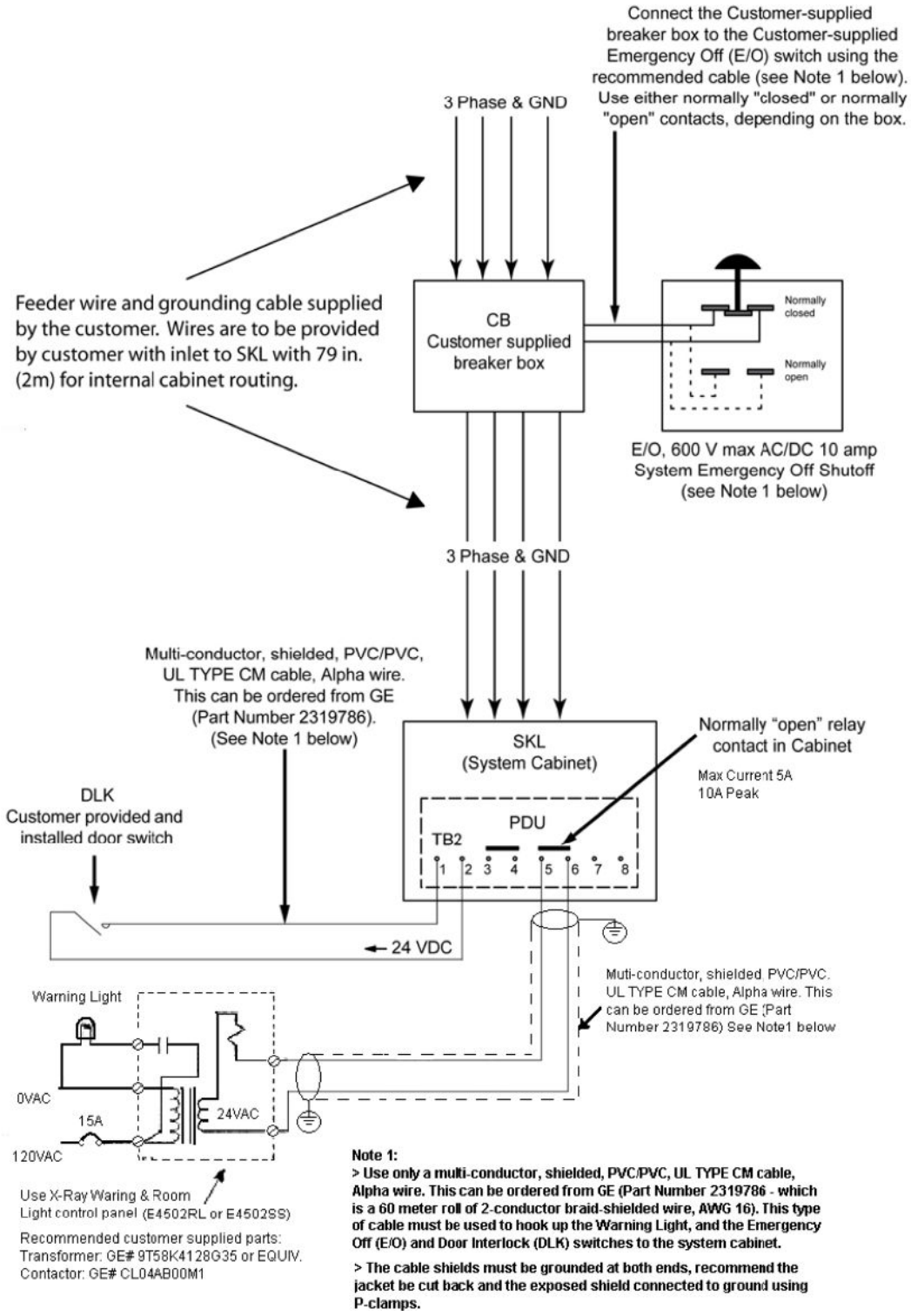


Table 5-9 Legend for Illustration above

United States Key	Description
Feeder Wires and Grounding Cable	Feeder wire and grounding cable supplied by the customer. Wires are to be provided by customer with inlet to SKL with 2 meters for internal cabinet routing).
E/O (see Note below)	Emergency Off switch located near room access door. The switch is supplied by the Hospital. The recommended distance above the floor is 1.5 meters. Use only a multi-conductor, shielded cable to connect to System Cabinet.
XRL	Yellow X-ray emission indicator lamp above the room access door. 220 V in Europe/120 V in USA with 25 W max. bulb (per local regulations). Wires and light fixtures supplied by customer.
DLK (see Note below)	Open-door detector (per local regulations). SKL provides 24 VDC.
CB	Circuit breaker with remote trip (shunt) capabilities supplied by customer.

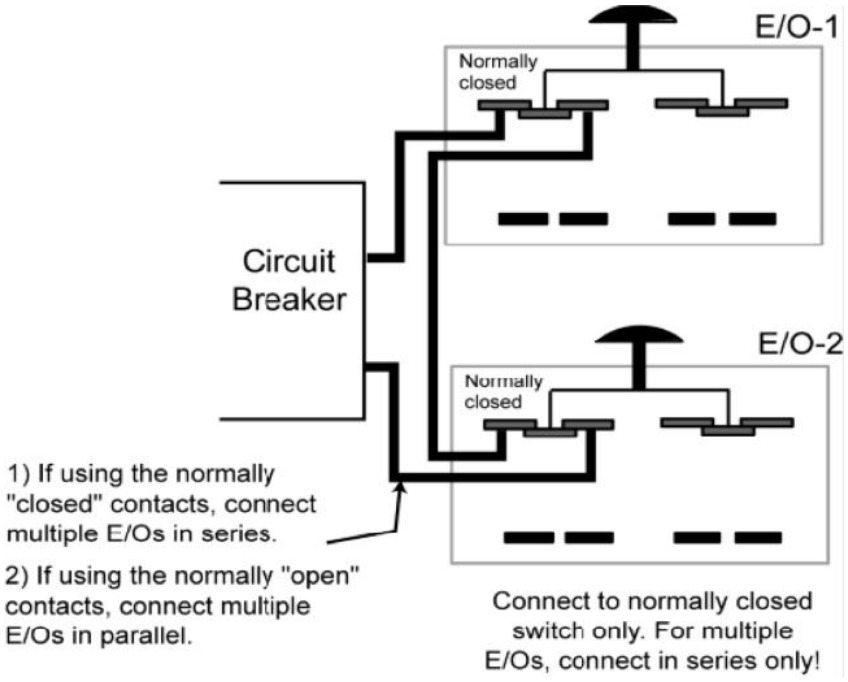
NOTE

Use only a multi-conductor, shielded, PVC/PVC, UL TYPE CM cable, Alpha wire. The cable shield must be grounded at both ends.with the system cabinet grounding, avoid make wireless transmission unintelligible by causing interference.

5.2.4.2 Multiple Emergency "OFF" Switches

The facility designer determines the quantity and locations of the Emergency OFF (E/O) switches. GE HealthCare recommends placing at least one Emergency OFF switch near the doorway of every room in the system scan suite.

Figure 5-2 Wiring Multiple "Emergency OFF" (E/O) Switches



5.3 Routing Cables

5.3.1 General

These wires must be kept separated from each other:

- High voltage and power cables must be separated from other cables
- Separate conduits must be used for power and signal wires

  Use a separate trough in the duct system, or use a separate conduit.

  Minimize cable length between the line disconnect and the System Cabinet power unit to reduce voltage regulation problems and wiring costs.

5.3.1.1 Electrical Ducts (Recommended)

It is important that electrical ducts have separate compartments for power and signal wires. These wires must be kept separated from each other for proper system operation.

Electrical ducts have advantages, when used with a single room or two adjacent rooms. Electrical ducts combine cabling in a neat and functional appearance, with accessibility and room for expansion.

5.3.1.2 Conduit

If conduit is used make sure the conduit is large enough to pull the cable and connector through with all the other cables all ready in the conduit.

The use of conduit is recommended for cables running overhead between rooms, especially when a diagonal run provides the shortest cable path.

5.3.2 Power Distribution

The system power distribution consists of two major components that must either be customer

supplied or GE HealthCare supplied. These are:

- Feeder power from Hospital distribution center to the System Cabinet load power unit (SKL).
- Feeder power must be provided via a WYE transformer only with dedicated ground. Neutral is not used.
- Power distribution from the System Cabinet load power unit (SKL) to all the components in the system room.

Usually the feeder power from the Hospital distribution center is customer supplied and the power distribution within the system is supplied by GE HealthCare.

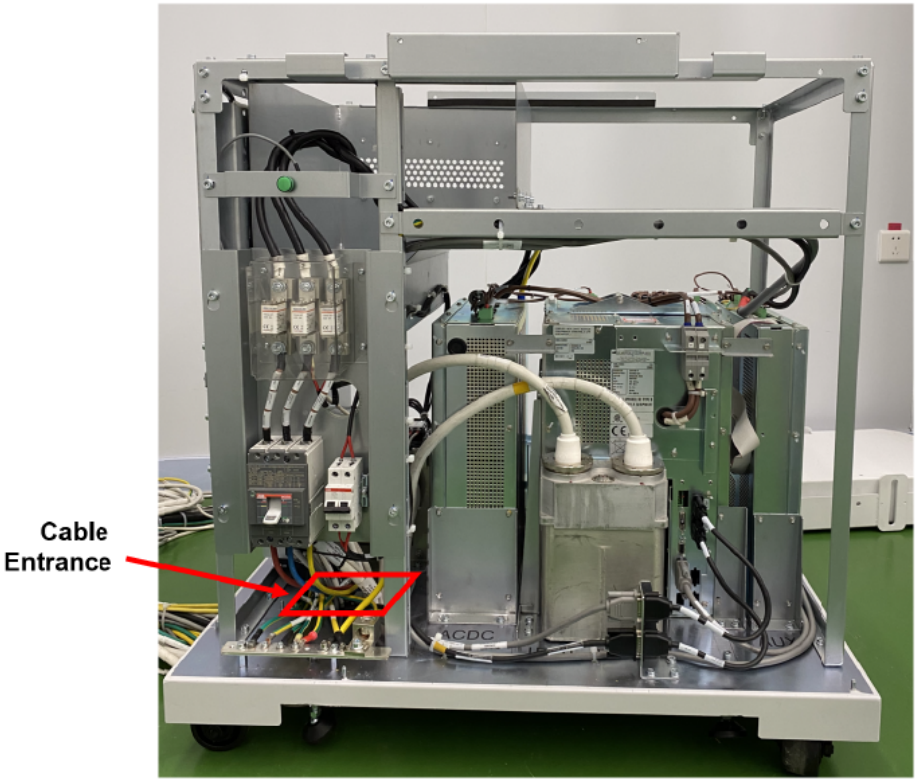
5.4 Light Specification

The monitor screen is adjusted for an optimum ambient light level of 50 lux.

5.5 Dimensioned Figures and Drawings

5.5.1 System Equipment Cable Entrance

Figure 5-3 System Cabinet Cable Entrances



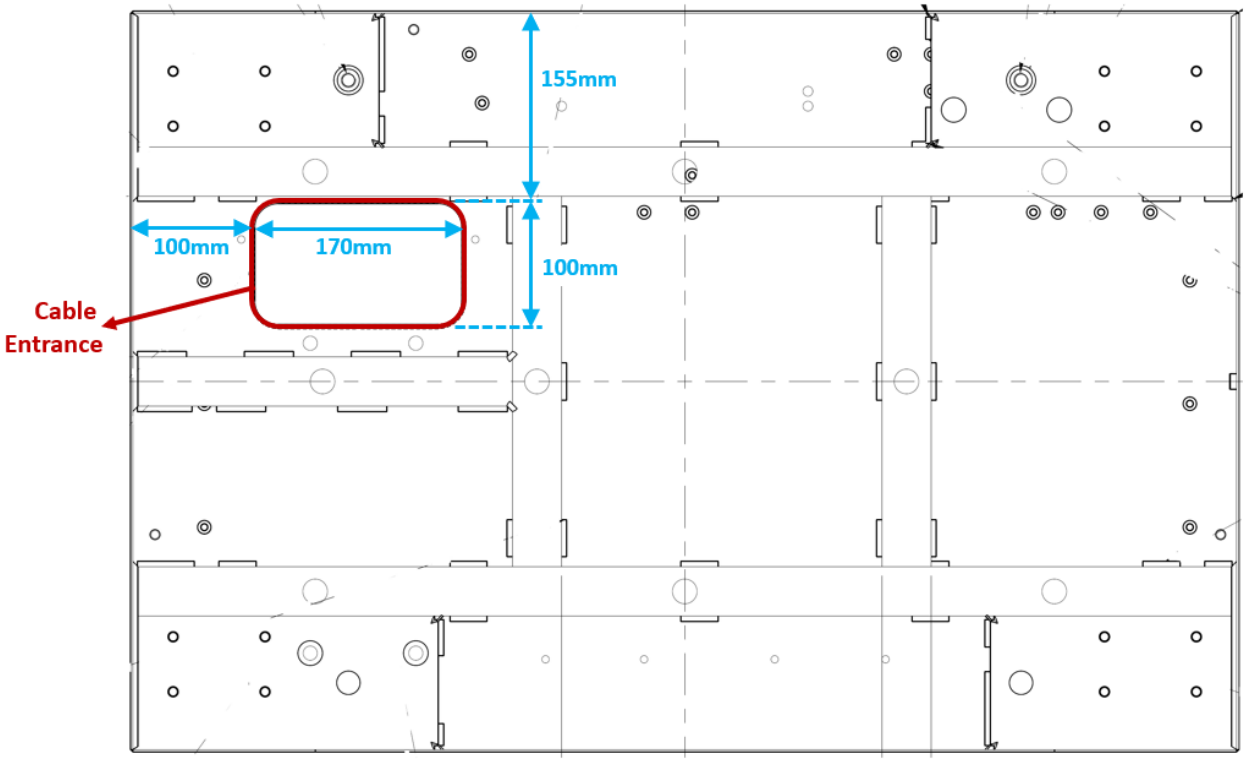
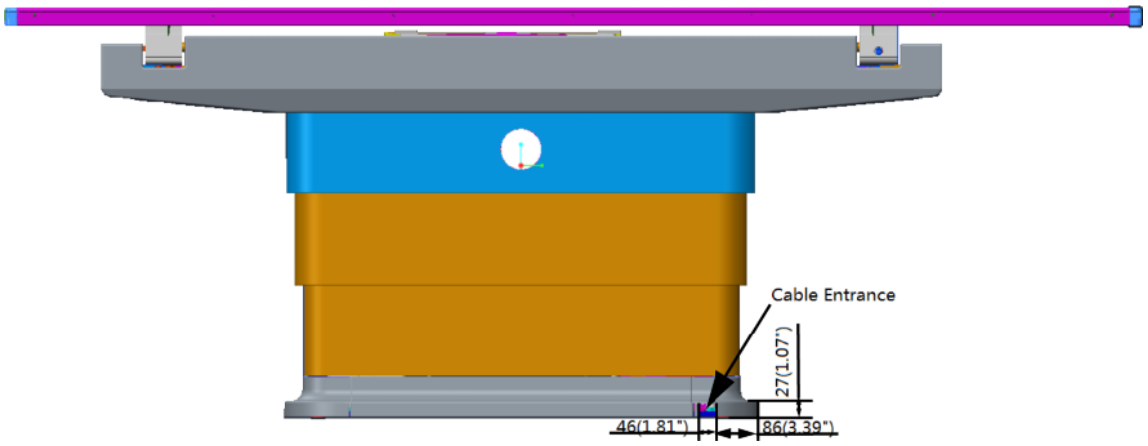


Figure 5-4 Definium Tempo Pro/ Definium TempoTable Cable Entrance



NOTE

This is the back side of the table

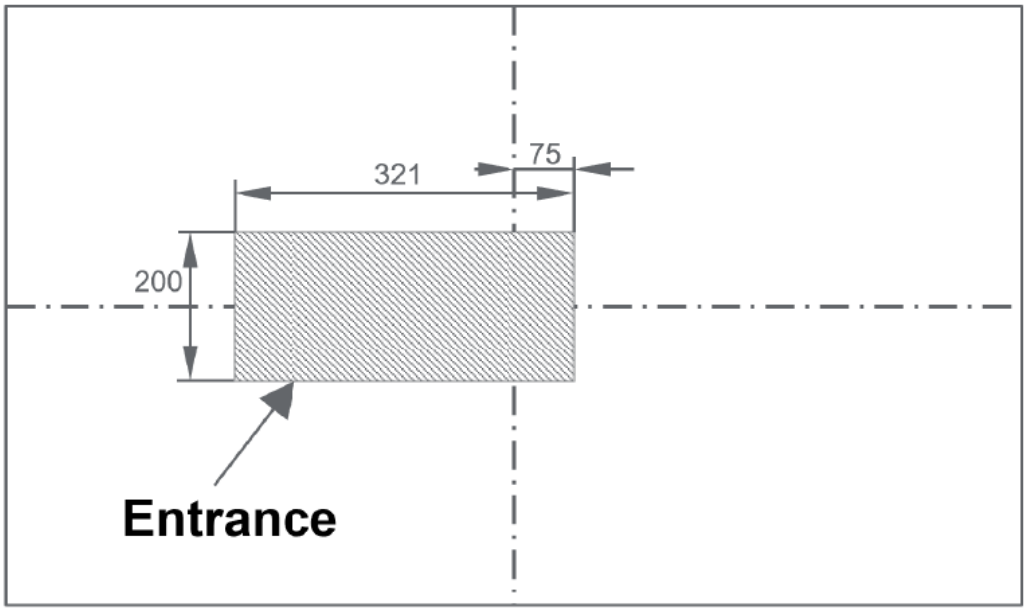
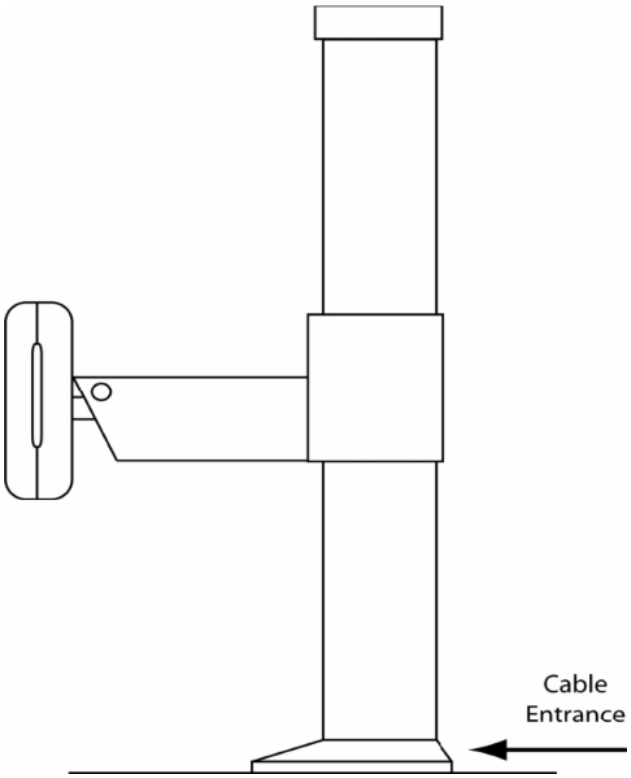


Table Base View

Figure 5-5 Wall Stand Cable Entrance



5.5.2 Power and cables requirements for TIB

The System cabinet distribute the power 120VAC to TIB J1 through PN#5402662 and TIB Ground cable PN# 5789055, TIB output 15VDC by tether cable PN# 5736526 to Detector and Tether Ethernet cable PN# 5777037 to PC. See System MIS Chart.

Figure 5-6 TIB Power input and output

5.5.3 Power and cables requirements for Chargers BIN

Need a 110/220VAC power distribute by hospital and two Ethernet cables connect to PC. See System MIS Chart.

6 Communications/Networking

6.1 Hospital Network

6.1.1 Broadband Network Connection

The system is equipped with Broadband fast Ethernet hardware for Service diagnostics. Systems equipped with Digital Imaging are capable of placing electronic images on the Hospital image Ethernet Network. It is the purchasers responsibility to provide the Ethernet connection (rated at 100Mb/sec transfer rate for optimal performance) within 3 feet (0.91 meters) of the Operator Console.

The network connection is made at the Operator Console.

- 100BaseT network connection is preferred
- 10BaseT network connection is acceptable

NOTE
If using GE HealthCare PACS LITE BOX software, the GE HealthCare PACS LITE BOX software revision must be 6.1d02 or greater. Older versions will not work with the system.

NOTE
1. Connection of the product to a network that includes other equipment could result in previously unidentified risks to patients, operators or third parties;

2. The responsible organization should identify, analyze, evaluate and control these risks;

3. Subsequent changes to the network could introduce new risk and require additional analysis; and

* Changes to the network include:

* Changes in network configuration;

* Connection of additional items to the network;

* Disconnecting items from the network;

* Update of equipment connected to the network;

* Upgrade of equipment connected to the network.

NOTE
The means required to present the images for diagnostic purpose shall comply with the requirements of DICOM standards.

6.1.2 Phone Line(s) - Voice

It is recommended that phone line(s) be installed within 3 feet (0.91 meters) of the Operator Console and be operational prior to installation.

6.1.3 Remote Services Broadband Pre-Installation Requirements for Europe

- To enable an easier installation and to benefit from remote support (service and engineering teams), equipment should be Insite connected at installation.
- Thus the connectivity solution to implement should be decided during pre installation and all related data should be available before installation starts.
- For all installations make sure that you have at least one RJ45 dedicated to connect the new equipment on the LAN. In case of Broadband, this connection will also be used for the remote service of the equipment.
- GE HealthCare offers a wide range of connectivity solutions: From full GE HealthCare package (GE HealthCare supplies Router and customer buys the line) to customized solutions (GE HealthCare adapts to customer infrastructure).
- Network devices (like CISCO Routers for instance) can be shipped with the equipment only if the Sales Representative has added the connectivity item in the order.
- For complete descriptions of these connectivity solutions, please refer to the Broadband Solutions catalogue available through your local GE HealthCare sales and service representative.
- Connectivity Process and pre-installations checklists are available in the Broadband Connectivity Pre-Installation Manual (PIM) available through your local GE HealthCare sales and service representative.
- For each solution selected by the customer the pre-installation checklist must be fulfilled by site IT manager in order to get connectivity information (site IT manager contacts, IP address...) available at installation.

  NOTE
  Connection of the product to a network that includes other equipment could result in previously unidentified risks to patients, operators or third parties;
- The responsible organization should identify, analyze, evaluate and control these risks;
- Subsequent changes to the network could introduce new risk and require additional analysis; and
  - Changes to the network include;
  - Changes in network configuration;
  - Connection of additional items to the network;
  - Disconnecting items from the network;
  - Update of equipment connected to the network;
  - Upgrade of equipment connected to the network.

6.2 Networkflow Audit

Understanding how your facility leverages its network investment through our Networkflow process will help us better integrate the Definium Tempo Pro/ Definium Tempo system into your operations. The following is intended to identify the various ways the system can fit into your workflow and the ramifications of selecting one path or another. We would like to start at the beginning, with the patient

arriving at your facility, going through registration/admittance/patient scheduling and proceed all the way to the read images being archived.

6.2.1 What is the Networkflow Audit

This audit was designed to collect information on your network, your DICOM equipment, your workflow and your dataflow. Once this information is collected, it will be used to determine the best way the system can fit into your facility. The information will also be used to ease and speed the integration of the system into your facility .This audit is intended to be performed before the system is quoted to you. With all facts uncovered, GE HealthCare can prepare a more accurate quote and minimize "surprises" at the time of install.

You should fill this out with the GE HealthCare representative. They will be able to answer any questions you may have.

6.2.2 Facility Information

☐ Name of facility:

☐ Workflow contact:

☐ Network Infrastructure contact:

☐ DICOM Device contact:

☐ Other contact:

☐ GE HealthCare Sales Representative:

☐ GE HealthCare Auditor:

☐ Room #:

☐ Phone:

☐ Phone:

☐ Phone:

☐ Phone:

6.2.3 Workflow Analysis

When the patient arrives in the system room for the exam, how is the patient data entered into the system?

☐	Manually typed	☐	Entered via barcode reader Barcode format:_____	☐	Downloaded from HIS/RIS

If the patient information was downloaded from a HIS/RIS system, how would the query be structured? (Pick all that apply)

☐	By date	☐	By modality	☐	By patient information
☐	Other method - Please explain:	_____			

In retrieving patient schedule information, do you query

☐	Once at the start of the shift	☐	Several times during a shift	☐	Before each patient

What percent of images acquired are reviewed via softcopy? _____%

What percent of images acquired are printed? _____%

Once the digital diagnostic images are acquired, what is your facility's default workflow? (Pick one)

☐	Manually send	☐	Automatically push

(Pick all that apply)

☐	Review station(s)	☐	Archive system(s)	☐	Printer(s)

When images are configured for automatic push, what would you like to be sent to PACS/archive/review stations?

☐	Raw	☐	Processed	☐	Raw and Processed

When images are printed, on what device is the print command originated? (Pick all that apply)

☐	The system	☐	A review workstation	☐	A PACS system

How soon after the images are acquired is the first image quality check done?

☐	Before the next image is shot	☐	Before the patient leaves	☐	After patient leaves

When it comes to image quality, would you prefer to;

☐	Consider all images good unless marked bad
☐	Consider all images bad unless marked good

6.2.4 The Physical Network

Physical infrastructures vary widely from institution to institution. GE HealthCare tried to pick the most popular networking connection to ease integration into your facility's network.

In the system room, this facility;

☐	Has 100baseT installed	☐	Has 10baseT installed	☐	Has a different network installed
☐	Will have 100baseT installed	☐	Will have 10baseT installed	☐	We don't have a network installed

Do you segment your network using subnets?

☐	Yes	☐	No

Our equipment's IP addresses are:

☐	Static	☐	Acquired via DHCP	☐	A combination of both methods

6.2.5 System Parameters

The Definium Tempo Pro/ Definium Tempo system default uses the following IP Addresses internally:

- 192.168.1.1 eth0
- 192.168.2.1 eth1
- 192.168.3.1 br0 (eth2/3)
- 192.168.1.30 detector IP before detector boot
- 192.168.1.50 detector IP after boot in table
- 192.168.2.45 detector IP after boot in WS
- 192.168.3.50 detector IP after boot in Tether/wireless

NOTICE

If the hospital network uses 192.168.x.x, there will be a conflict. If this conflict occurs, you must contact your GE HealthCare Service Representative to change the internal IP Addresses used by the system.

Definium Tempo Pro/ Definium Tempo System

Host Name: _____

Network (IP) Address: _ _ _ . _ _ _ . _ _ _ . _ _ _

Subnet Mask: _ _ _ . _ _ _ . _ _ _ . _ _ _

Router IP: _ _ _ . _ _ _ . _ _ _ . _ _ _

Scheduled Station AE Title: _____

The Host Name is the network's name for the Definium Tempo Pro/ Definium Tempo system.

IP addresses uniquely identify a device on a network. IP addresses are constructed of 32 bits, usually displayed as four numbers separated by a period. Please indicate the Network (IP) Address that will be assigned to the system.

Subnets are a method of logically dividing a network into smaller blocks. This is usually done based upon locality, functionality or security requirements. If your facility will place the system on a subnet, please list the Subnet Mask and Router IP.

The Scheduled Station AE (Application Entity) Title is the name your HIS/RIS system will use to send work-list information to the Definium Tempo Pro/ Definium Tempo system.

Table 6-1 Remote Host Data

Remote Hosts	**Include a DICOM Compliance Statement for each device**				
This remote Host is a:	☐Review Work Station ☐Archival Device ☐PACS System ☐MPPS Server	☐Review Work Station ☐Archival Device ☐PACS System ☐MPPS Server	☐Review Work Station ☐Archival Device ☐PACS System ☐MPPS Server		Information on Definium Tempo Pro/ Definium Tempo The system allows you to configure only 1 HIS/RIS server. The system allows you to configure only 1 MPPS server. The system allows configuration of multiple printers and multiple PACS/ archive/review stations. The Host Name of all the nodes configured on the system should be unique within the system.
Manufacturer/Model:					
Software/Firmware version:					

Table 6-1 Remote Host Data (Table continued)

Remote Hosts	Include a DICOM Compliance Statement for each device				
Network (IP) Address: DICOM Compliance Level: Image Types Supported: Supports Multi-framing: Host Name:	_ _ _ . _ _ _ . _ _ _ . _ _ _ _ ☐1.0 ☐2.0 ☐3.0 ☐Not DICOM Compliant ☐DX ☐CR ☐Yes ☐No	_ _ _ . _ _ _ . _ _ _ . _ _ _ _ ☐1.0 ☐2.0 ☐3.0 ☐Not DICOM Compliant ☐DX ☐CR ☐Yes ☐No	_ _ _ . _ _ _ . _ _ _ . _ _ _ _ ☐1.0 ☐2.0 ☐3.0 ☐Not DICOM Compliant ☐DX ☐CR ☐Yes ☐No		
Do you plan to use this device as a: Remote Host Server? AE Title:	☐Yes ☐No If "yes" provide:	☐Yes ☐No If "yes" provide:	☐Yes ☐No If "yes" provide:		
Port Number:					

Remote Hosts	Include a DICOM Compliance Statement for each device				
Query/Retrieve? Query/Retrieve AE Title:	☐Yes ☐No If "yes" provide:	☐Yes ☐No If "yes" provide:	☐Yes ☐No If "yes" provide:		
Port Number:					
Query/Retrieve by:	☐Study ☐Patient	☐Study ☐Patient	☐Study ☐Patient		
Storage Commitment? Storage Commitment AE Title:	☐Yes ☐No If "yes" provide:	☐Yes ☐No If "yes" provide:	☐Yes ☐No If "yes" provide:		
Port Number:					
Network (IP) Address:	_ _ _ . _ _ _ . _ _ _ . _ _ _ _ . _ _ _ . _ _ _ . _ _ _ _ _ . _ _ _ . _				
MPPS Server? AE Title:	☐Yes ☐No If "yes" provide:	☐Yes ☐No If "yes" provide:	☐Yes ☐No If "yes" provide:		
Port Number:					
Network (IP) Address:	_ _ _ . _ _ _ . _ _ _ . _ _ _	_ _ _ . _ _ _ . _ _ _ . _ _ _	_ _ _ . _ _ _ . _ _ _ . _ _ _		

6.2.6 Devices & Services Audit

Use the following narrative to complete the form on the previous page.

REMOTE HOSTS: Remote hosts are DICOM devices to which the Definium Tempo Pro/ Definium Tempo system can push an image. Remote hosts can be review workstations, archival devices, or PACS systems.Please indicate the type of remote host. Now indicate the manufacturer and model name or number.

Compatibility can vary with software versions, please indicate the version of device firmware/software the device will be running.

List the device's **IP address.**

The answers to the next several items can be found in the device's DCS (DICOM Conformance Statement).

Please indicate the highest level of **DICOM conformance**for this device. If the device is not DICOM compliant, please indicate so and move on to the next device.

If the device does have some level of DICOM conformance please return a copy of the DICOM Conformance Statement with this completed form.

DICOM supports a number of **image types**. Please indicate if this device supports the DX and/or the CR image types.

The **host name**is the name that will appear on the screen and users will use to indicate this device. Please list the host name.

The next four sections address the four services that remote host devices may offer. Each of the services will have its own AE (application entity) title and port number. The AE title is the name given to a service or application provided by a DICOM device. The

port number is a logical designation within the device. These pieces of information are available in the device's DCS.

Being a **remote host server**allows the Definium Tempo Pro/ Definium Tempo system to push images to other devices. If you want the device to accept this service, check yes and provide the AE title and port number. Being a `query/retrieve`service class provider allows the Definium Tempo Pro/ Definium Temposystem to query this device and retrieve images stored there. If you want this device to provide these services to the Definium Tempo Pro/ Definium Temposystem check yes and fill in the requested items.

The `query/retrieve`by study or patient controls how much the user is able to retrieve at one time. For study, the user may retrieve studies, series, images. For patient, the user may retrieve all of the study attributes plus a patient's entire image collection.

A **storage commitment**provider confirms that images sent by the Definium Tempo Pro/ Definium Tempo system to an archival system were received and stored. Note - This option is only available when the Definium Tempo Pro/ Definium Temposystem is sending DX type images. If your device supports both DX image types and storage commitment check yes and provide the AE title, the port number and the network (IP) address.

The**MPPS server**receives the messages sent by the Definium Tempo Pro/ Definium Temposystem. These messages consist of information such as when the exam started and closed, how many images were acquired, dose information, etc. This information is then updated on the Hospital Scheduling system. If the site has an MPPS server, provide the AE Title, IP address and port number.

Printers	**Include a DICOM Compliance Statement for each printer**	
Manufacturer/Model:		
Software/Firmware Version:	☐Yes ☐No	☐Yes ☐No
Prints via Spooler:	___.___.___.___	___.___.___.___
Network (IP) Address:	☐1.0	☐1.0
DICOM Compliance Level:	☐2.0	☐2.0
Host Name:	☐3.0	☐3.0
Printer AE Title:	☐Not DICOM Compliant	☐Not DICOM Compliant
Port Number:		

Printers: As with the remote hosts, please list the manufacturer and the model name/number. The software/firmware version should also be entered. Next, supply the IP address of the printer. Indicate the DICOM compliance level of the printer. If it is not DICOM compatible, please indicate so.	DICOM compatibility does not guarantee all functions will work properly.**Include every unique printer's DICOM Compliance Statement.** Supply the Host name for the printer. Look in the DCS for the printer's AE title and port number.

RIS Systems	**Include a DICOM Compliance Statement for each device**	
Manufacturer/Model:		
Software/Firmware Version:	_ _ _ . _ _ _ . _ _ _ . _ _ _	_ _ _ . _ _ _ . _ _ _ . _ _ _
Network (IP) Address:	☐1.0 ☐2.0 ☐3.0	☐1.0 ☐2.0 ☐3.0
DICOM Compliance Level:	☐Not DICOM Compliant	☐Not DICOM Compliant
Host Name:		
HIS/RIS AE Title:	☐DX ☐CR	☐DX ☐CR
Port Number:		
Modality used for Scheduling:		

RIS Systems: As with the remote hosts please list the manufacturer and the model name/number. The software/firmware version should also be entered. Indicate the IP address the device is using as well as the DICOM compliance level. Please include the DCS for the RIS with this completed form.	Fill in the Host name. Look in the DCS for the AE title and port number. Please indicate if this device supports the DX and/or the CR image types. This information should also be in the device's DCS.

6.2.7 Data Flow Analysis

Now that we have outlined the way your facility works and the devices you work with, we would like to define how the images flow through your network.

The Definium Tempo Pro/ Definium Tempo system is an acquisition-only device. Because of that fact you will need to move acquired images off the system and into your work/data flow. Please use the chart below to describe your data flow. As an example, if your facility reviewed images as the first step after acquisition, the review box would be checked in the first column of the Task row (shaded) and the review workstation would be checked in the first column of the Device row. You should use each of the functions once.

1st step after acquisition	**2nd step after acquisition**	**3rd step after acquisition**
☐Archive	☐Archive	☐Archive
☐Print	☐Print	☐Print
☐Review	☐Review	☐Review
☐Archive device	☐Archive device	☐Archive device
☐PACS	☐PACS	☐PACS
☐Printer	☐Printer	☐Printer
☐Review Workstation	☐Review Workstation	☐Review Workstation
☐Spooler =>Printer(s)	☐Spooler =>Printer(s)	☐Spooler =>Printer(s)
☐Spooler =>Review Workstation(s)	☐Spooler =>Review Workstation(s)	☐Spooler =>Review Workstation(s)

Printing: It is important to us to understand the path your images follow before they are printed. We are now looking to answer the question of what road an image most typically travels on its way to be printed regardless if that is the first step in your process or not. Please try to find in the list below the path that best describes the path the image takes from acquisition to printing.

☐XR System =>Printer

☐XR System =>Spooler =>Printer(s)

☐XR System =>Archive Device =>Printer

☐XR System =>Archive Device =>Spooler =>Printer (s)

☐XR System =>Archive Device =>Review Workstation =>Printer

☐XR System =>Archive Device =>Review Workstation =>Spooler =>Printer

☐XR System =>PACS =>Printer

☐XR System =>PACS =>Spooler =>Printer

☐XR System =>Review Workstation =>Printer

☐XR System =>Review Workstation =>Spooler =>Printer

☐XR System =>Other: _____ =>Printer(s)

Image Review: Now let's trace the path from acquisition to image review. Again, pick the item below that best describes how the image flows from the Definium Tempo Pro/ Definium Tempo system to the radiologist.

☐XR System =>Printer =>Printed Film =>Radiologist

☐XR System =>Review Workstation =>Radiologist

☐XR System =>Archive Device =>Review Workstation =>Radiologist

☐XR System =>PACS =>Radiologist

☐XR System =>PACS =>Review Workstation =>Radiologist

☐XR System =>Other: _____=>Radiologist

Archive: The final part of this triad is archiving images. Pick the item below that best describes the flow of images to be archived.

☐XR System =>Archive Device

☐XR System =>PACS

☐XR System =>Printer =>Printed Film =>Filing System

☐XR System =>Review Workstation =>Archive Device

☐XR System =>Review Workstation =>PACS

☐XR System =>Other: _____ =>Archive Device

6.2.8 What Will Happen Next?

Next, your completed audit sheet will be analyzed by your GE HealthCare representative and any issues identified.

6.3 Remote Configuration

Contact Security Administrator for information on outbound traffic allowance and to start connectivity workflows. The Definium Tempo Pro/ Definium Tempo (Definium Tempo Pro/ Definium Tempo Software) can connect to GE HealthCare Back Office / Online Center, this allows for remote health monitoring, diagnostics, and can help facilitate troubleshooting customer problems. Site information is required for configuration, see below. A site may require the System ID and System IP Address to begin workflow. The following URLs will need to be accepted by the site for outbound traffic to GE HealthCare:

- https://insite.gehealthcare.com:443
- https://as1-insite.gehealthcare.com:443
- https://as2-insite.gehealthcare.com:443

For EU Sites:

- https://insite-eu.gehealthcare.com:443
- https://as1-insite-eu.gehealthcare.com:443
- https://as2-insite-eu.gehealthcare.com:443

The Definium Tempo Pro/ Definium Tempo (Definium Tempo Pro/ Definium Tempo Software) can connect to GE HealthCare Back office / OLC. This allows for remote diagnostic and help to facilitate troubleshooting customer problems. Site information is required for configuration, see

Table 6-2 InSite Configuration Information

Can the device communicate on port 443/SSL?	• Yes • No
Is a proxy needed for outbound traffic	• Yes (Proceed with the following) • No (stop)
Proxy IP Address (XXX.XXX.XXX.XXX):	
Proxy Port Number:	
Does proxy require authentication?	• Yes (Proceed with the following) • No (stop)
Proxy Username:	
Proxy Password:	

NOTE

The vpn tunnel can be used for sites that were previously configured for insite 1 vpn connections. Enter the IP port for the server in the proxy details in the SUIF (Configuration -> Remote Connectivity -> Proxy)

Proxy Server Address: 150.2.1.251

Proxy Server Port: 8002

Open a case with RSVP team to map the new system in the back office to RSVP: http:// supportcentral.ge.com/ProcessMaps/ form_new_request.asp?prod_id=24026&form_id=249959&node_id=463500&map_id=&reference

_id=&reference_type=

7 System Cable Information

7.1 Introduction

The following information is provided as an aid to make the physical installation of system cables easy and efficient. In the tables that follow, the physical characteristics of each cable and its associated connectors is provided. Thus making it easier to plan cable paths and clearances in advance. Physical characteristics are given for each available cable length. Review cable lengths carefully and choose lengths appropriate for your installation prior to the equipment arriving, to avoid unnecessary installation delays.

Remember, it is up to you to make sure that all cables are routed and connected in accordance with all regulatory laws that may apply.

7.2 Cable Information

7.2.1 OTS

OTS – 2m bridge

Item	Part Number	Part Description	LENGTH	USABLE LENGTH	RATING VOLTAGE	CONNECTOR SIZE (MM) L*W*D	CONNEC-TIONS	SHIELD-ED
1	5823490	G4 OTS cable assembly, 2m bridge.	NA	NA	NA	NA	NA	NA
2	5160469-1	FeiTian HV cable-Anode	25M (82.02FT)	24.5M (80.38FT)	75KV	190 X 80 X 80	Cabinet to Tube	Shield
3	5160469-2	Fei Tian HV Cable-cathode	25M (82.02FT)	24.5M (80.38FT)	75KV	190 X 80 X 80	Cabinet to Tube	Shield
4	5146500-8	FeiTian OTS Ground Cable	20M (65.62FT)	19.5M (63.98FT)	75350ACV 500DVC	ϕ10 X 35	Cabinet to OTS Carriage	Non-Shield
5	5829498	Angulation axis drive cable, G4 OTS	4.95M (16.24FT)	4.45M (14.6FT)	DC24V	52x72x16	Big control box to angulation axis	Shield
6	5829497	Cuckoo board dual axis interface cable	1.38M (4.53FT)	0.88M (2.89FT)	DC5V	50x55x15	Big control box to small control box	Shield
7	5837404	CAN MIS Cable, G4 OTS	23.5M (75.10FT)	23M (75.46FT)	DC12V	41X32X15	Cabinet to OTS big control box	Shield
8	5829500	G4 OTS infrared receiver communication cable	15M (49.21FT)	13.8M (45.27FT)	350ACV 500VDC	41X32X15	Big control box to IR board	Shield

9	5848159	G4 OTS Camera Ethernet Cable	35M (114.8FT)	35M (114.8FT)	500V	27x11.8x7.1	Magic PC to OTS Console	Shield
10	5842599	G4 OTS logic board ground cable	1.44M (4.72FT)	0.94M (3.08FT)	0V	23x10x5	Carriage to big control box	Non-shield
11	5842602	G4 OTS Angulation Ground Cable	4.45M (14.6FT)	3.95M (12.96FT)	0V	0x11x5	Carriage to Tube	Non-shield
12	5826602	G4 OTS power cable，system power	20M (65.62FT)	19.5M (63.98FT)	AC110V/ AC220V	86x27x20	Cabinet to OTS Carriage	Non-shield
13	5826603	G4 OTS power cable, motor power	20M (65.62FT)	19.5M (63.98FT)	AC110V/ AC220V	86x27x20	Cabinet to OTS Carriage	Non-shield
14	5829502	Collimator and UIF communication cable	5.93M (19.45FT)	5.43M (17.81FT)	DC24V	50x55x15	Big control box to UIF and Collimator	Shield
15	5842598-2	G4 OTS longitude ground cable, 2m bridge.	3.662M (12FT)	3.162M (10.37FT)	0V	30x11x5	Carriage to longitude axis	Non-shield
16	5146500-9-ROHS	FeiTian Tube Stator,Fan and Pressure Switch Cable - ROHS compliant.	25M (82.02FT)	24.5M (80.38FT)	350AVC 500DVC	40X30X30	Cabinet to Tube	Shield
17	5829510-2	G4 OTS longitude axis drive cable, 2m bridge.	3.862M (12.67FT)	3.362M (11.03FT)	DC24V	52x72x16	Small control box to longitude axis	Shield
18	5823490-12	G4 OTS cable assembly, 2m bridge, 12m cable drape	NA	NA	NA	NA	NA	NA

OTS – 3m bridge

Item	Part Number	Part Description	LENGTH	USABLE LENGTH	RATING VOLTAGE	CONNECTOR SIZE (MM) L*W*D	CONNECTIONS	SHIELDED
1	5849519	G4 OTS cable assembly, 3m bridge.	NA	NA	NA	NA	NA	NA
2	5160469-1	FeiTian HV cable-Anode	25M (82.02FT)	24.5M (80.38FT)	75KV	190 X 80 X 80	Cabinet to Tube	Shield
3	5160469-2	Fei Tian HV Cable-cathode	25M (82.02FT)	24.5M (80.38FT)	75KV	190 X 80 X 80	Cabinet to Tube	Shield
4	5146500-8	FeiTian OTS Ground Cable	20M (65.62FT)	19.5M (63.98FT)	75350ACV 500DVC	ϕ10 X 35	Cabinet to OTS Carriage	Non-shield
5	5829498	Angulation axis drive cable, G4 OTS	4.95M (16.24FT)	4.45M (14.6FT)	DC24V	52x72x16	Big control box to angulation axis	Shield

6	5829497	Cuckoo board dual axis interface cable	1.38M (4.53FT)	0.88M (2.89FT)	DC5V	50x55x15	Big control box to small control box	Shield
7	5829500	G4 OTS infrared receiver communication cable	26M (85.30FT)	25.5M (83.66FT)	350ACV 500VDC	41X32X15	Big control box to IR board	Shield
8	5842598	G4 OTS longitude ground cable	4.3M (14.1FT)	3.8M (12.47FT)	0V	30x11x5	Carriage to longitude axis	Non-shield
9	5826602	G4 OTS power cable，system power	20M (65.62FT)	19.5M (63.98FT)	AC110V/ AC220V	86x27x20	Carriage to Tube	Non-shield
10	5837404	CAN MIS Cable, G4 OTS	23.5M (75.10FT)	23M (75.46FT)	DC12V	41X32X15	Cabinet to OTS big control box	Shield
11	5829510	Longitude axis drive cable, G4 OTS	4.5M (14.76FT)	4M (13.12FT)	DC24V	52x72x16	Small control box to longitude axis	Shield
12	5848159	G4 OTS Camera Ethernet Cable,	35M (114.8FT)	35M (114.8FT)	500V	27×11.8×7.1	Magic PC to OTS console	Shield
13	5829502	Collimator and UIF communication cable	5.93M (19.45FT)	5.43M (17.81FT)	DC24V	50x55x15	Big control box to UIF and Collimator	Shield
14	5826603	G4 OTS power cable, motor power	20M (65.62FT)	19.5M (63.98FT)	AC110V/ AC220V	86x27x20	Cabinet to OTS Carriage	Non-shield
15	5826602	G4 OTS power cable，system power	20M (65.62FT)	19.5M (63.98FT)	AC110V/ AC220V	86x27x20	Cabinet to OTS Carriage	Non-shield
16	5146500-9-ROHS	FeiTian Tube Stator,Fan and Pressure Switch Cable - ROHS compliant.	25M (82.02FT)	24.5M (80.38FT)	350AVC 500DVC	40X30X30	Cabinet to Tube	Shield
17	5842599	G4 OTS logic board ground cable	1.44M (4.72FT)	0.94M (3.08FT)	0V	23x10x5	Carriage to big control box	Non-shield
18	5849519-12	G4 OTS cable assembly, 3m bridge, 12m cable drape	NA	NA	NA	NA	NA	NA

7.2.2 Table Standard Length MIS Cable 5496118-2

ITEM	PART NO.	DESCRIPTION	LENGTH	USABLE LENGTH	RATING VOLTAGE	(MM) L*W*D	CONNECTION	SHIELDED
1	5307318-4	Table Ion chamber MIS cable	16M(52.49FT)	15.5M(50.85FT)	350ACV500VDC	45 x 20 x 45	Cabinet to Table	Shield

ITEM	PART NO.	DESCRIP-TION	LENGTH	USABLE LENGTH	RATING VOLT-AGE	(MM) L*W*D	CON-NEC-TION	SHIELD-ED
2	5336729-4	Table Power MIS cable	16M(52.49FT)	15.5M(50.85FT)	350ACV500VDC	30 x 25 x 30	Cabinet to Table	Non-shield
3	5336730-4	Table DPS MIS cable	16M(52.49FT)	15.5M(50.85FT)	350ACV500VDC	30 x 21 x 87	Cabinet to Table	Non-shield
4	5336731-4	Table Can MIS cable	16M(52.49FT)	15.5M(50.85FT)	350ACV500VDC	35 x 20 x 45	Cabinet to Table	shield
5	5336736-4	Table Ground MIS cable	16M(52.49FT)	15.5M(50.85FT)	300V	ϕ10 X 35	Cabinet to Table	Non-shield
6	5336737-4	Table Emergency Stop MIS cable	16M(52.49FT)	15.5M(50.85FT)	350ACV500VDC	35 x 20 x 45	Cabinet to Table	shield
7	5368672-4	Table De-tector Ethernet MIS cable	30M(98.42FT)	29.5M(96.78FT)	350ACV500VDC	20x12x40	Magic PC to Table	shield

7.2.3 Table Long Length MIS Cables 5496119-2

ITEM	PART NO.	DESCRIP-TION	LENGTH	USABLE LENGTH	RATING VOLT-AGE	CONNEC-TORSIZE (MM) L*W*D	CON-NEC-TION	SHIELD-ED
1	5307318-5	Table Ion chamber MIS cable	21M(68.90FT)	20.5M(67.26FT)	350ACV500VDC	45 x 20 x 45	Cabinet to Table	Shield
2	5336729-5	Table Power MIS cable	21M(68.90FT)	20.5M(67.26FT)	350ACV500VDC	30 x 25 x 30	Cabinet to Table	Non-shield
3	5336730-5	Table DPS MIS cable	21M(68.90FT)	20.5M(67.26FT)	350ACV500VDC	30 x 21 x 87	Cabinet to Table	Non-shield
4	5336731-5	Table Can MIS cable	21M(68.90FT)	20.5M(67.26FT)	350ACV500VDC	35 x 20 x 45	Cabinet to Table	shield
5	5336736-5	Table Ground MIS cable	21M(68.90FT)	20.5M(67.26FT)	300V	ϕ10 X 35	Cabinet to Table	Non-shield
6	5336737-5	Table Emergency Stop MIS cable	21M(68.90FT)	20.5M(67.26FT)	350ACV500VDC	35 x 20 x 45	Cabinet to Table	shield
7	5368672-4	Table De-tector Ethernet MIS cable	30M(98.42FT)	29.5M(96.78FT)	350ACV500VDC	20x12x40	Magic PC to Table	shield

7.2.4 Standard WS Length Version 5862240

ITEM	PART NO.	DESCRIP-TION	LENGTH	USABLE LENGTH	RATING VOLT-AGE	CONNEC-TORSIZE (MM) L*W*D	CONNEC-TION	SHIELD-ED
1	5336717-2	WS CAN Cable	15M(49.21FT)	14.5M(47.57FT)	350ACV500VDC	35 x 20 x 45	CABINET TO WS	SHIELD
2	5336733-2	WS ION Chamber Cable	15M(49.21FT)	14.5M(47.57FT)	350ACV500VDC	45 x 20 x 45	CABINET TO WS	NON-SHIELD
3	5336732-2	WS DPS Power Cable	15M(49.21FT)	14.5M(47.57FT)	350ACV500VDC	30 x 21 x 87	CABINET TO WS	NON-SHIELD
4	5336722-2	WS Power Cable	15M(49.21FT)	14.5M(47.57FT)	350ACV500VDC	30 x 21 x 87	CABINET TO WS	SHIELD
5	5336738-2	WS Ground Cable	15M(49.21FT)	14.5M(47.57FT)	300V	ϕ10 X 35	CABINET TO WS	NON-SHIELD
6	5368670	FT3 WS Net cable	30M(98.42FT)	29.5M(96.78FT)	300V	39 x 33x 16	MAGIC GbE Card TO WS	SHIELD

7.2.5 Ext WS Length Version 5862239

ITEM	PART NO.	DESCRIP-TION	LENGTH	USABLE LENGTH	RATING VOLT-AGE	CONNEC-TORSIZE (MM) L*W*D	CONNEC-TION	SHIELD-ED
1	5336717	WS CAN Cable	20M(65.62FT)	19.5M(63.98FT)	350ACV500VDC	35 x 20 x 45	CABINET TO WS	SHIELD
2	5336733	WS ION Chamber Cable	20M(65.62FT)	19.5M(63.98FT)	350ACV500VDC	45 x 20 x 45	CABINET TO WS	NON-SHIELD
3	5336732	WS DPS Power Cable	20M(65.62FT)	19.5M(63.98FT)	350ACV500VDC	30 x 21 x 87	CABINET TO WS	NON-SHIELD
4	5336722	WS Power Cable	20M(65.62FT)	19.5M(63.98FT)	350ACV500VDC	30 x 21 x 87	CABINET TO WS	SHIELD
5	5336738	WS Ground Cable	20M(65.62FT)	19.5M(63.98FT)	300V	ϕ10 X 35	CABINET TO WS	NON-SHIELD
6	5368670	FT3 WS Net cable	30M(98.42FT)	29.5M(96.78FT)	300V	39 x 33x 16	MAGIC GbE Card TO WS	SHIELD

7.2.6 TIB

ITEM	PART NO.	DESCRIP-TION	LENGTH	USABLE LENGTH	RATING VOLTAGE	CONNECTOR-SIZE (MM) L*W*D	CONNEC-TION	SHIELD-ED
1	5402662	TIB Power Cable	20M(65.62FT)	19.5M(63.98FT)	350ACV500VDC	35 x 40 x 87	Cabinet J7 to TIB J1	Non-shield
2	5777037	TIB Ethernet Cable	25M(82.02FT)	24.5M(80.38FT)	350ACV500VDC	20 x 12 x 40	ISOLATOR 5775965 to TIB	Shield
3	5736528-10	Tether Cable with 10 m length	10M(32.81FT)	9.5M(31.17FT)	350ACV500VDC	100 x 28 x 110	detector to tether	Shield
4	5789055	TIB ground-ing MIS Cable	16M(52.49FT)	15.5M(50.85FT)	300V	ϕ10 X 35	NA	NA

7.2.7 AP

ITEM	PART NO.	Descrip-tion	LENGTH	USABLE LENGTH	RATING VOLT-AGE	CONNEC-TORSIZE (MM) L*W*D	CONNEC-TION	SHIELD-ED
1	5772927	Wireless AP Power MIS Cable	20M(65.62FT)	19.5M(63.98FT)	300V	ϕ35 X 50	Cabinet to AP power	Non-shield
2	5772928	Wireless AP Ether-net MIS Cable	25M(82.02FT)	24.5M(80.38FT)	350ACV500VDC	20 x 12 x 40	PC to AP	Shield
3	5851609	AP315 power cable	0.3M(0.98FT)	0.25M(0.82FT)	500V DC	20 x 12 x 40	AP power to AP	Non-shield

7.2.8 Control Room-Computer

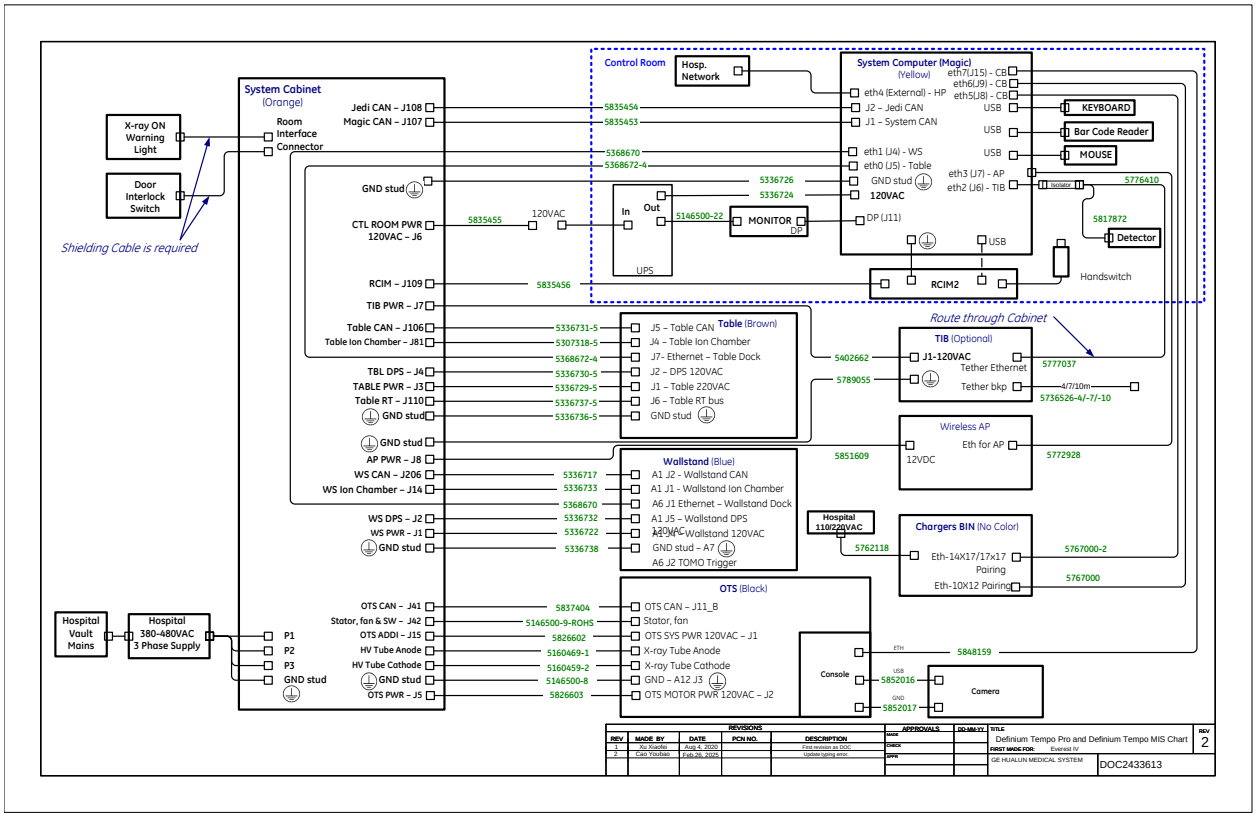
ITEM	PART NO.	DESCRIPTION	LENGTH	USABLE LENGTH	RATING VOLT-AGE	CON-NEC-TOR-SIZE (MM)	CON-NEC-TION	SHIELD-ED
1	5146500-22	FeiTian Image Monitor Cable (Viewer Moni-tor)	3M(9.84FT)	2.8M(9.19FT)	350ACV500VDC	35 x 42 x 60	Monitor to Cabi-net	Non-shield
2	5835455	PC, Monitor Power Cable	20M(65.61FT)	19.5M(63.98FT)	350ACV500VDC	35 x 40 x 60	Monitor to Cabi-net	Non-shield
3	5835454	Jedi CAN, PC to Cabinet	20M(65.61FT)	19.5M(63.98FT)	350ACV500VDC	35 x 20 x 45	Magic PC to Cabinet	Shield

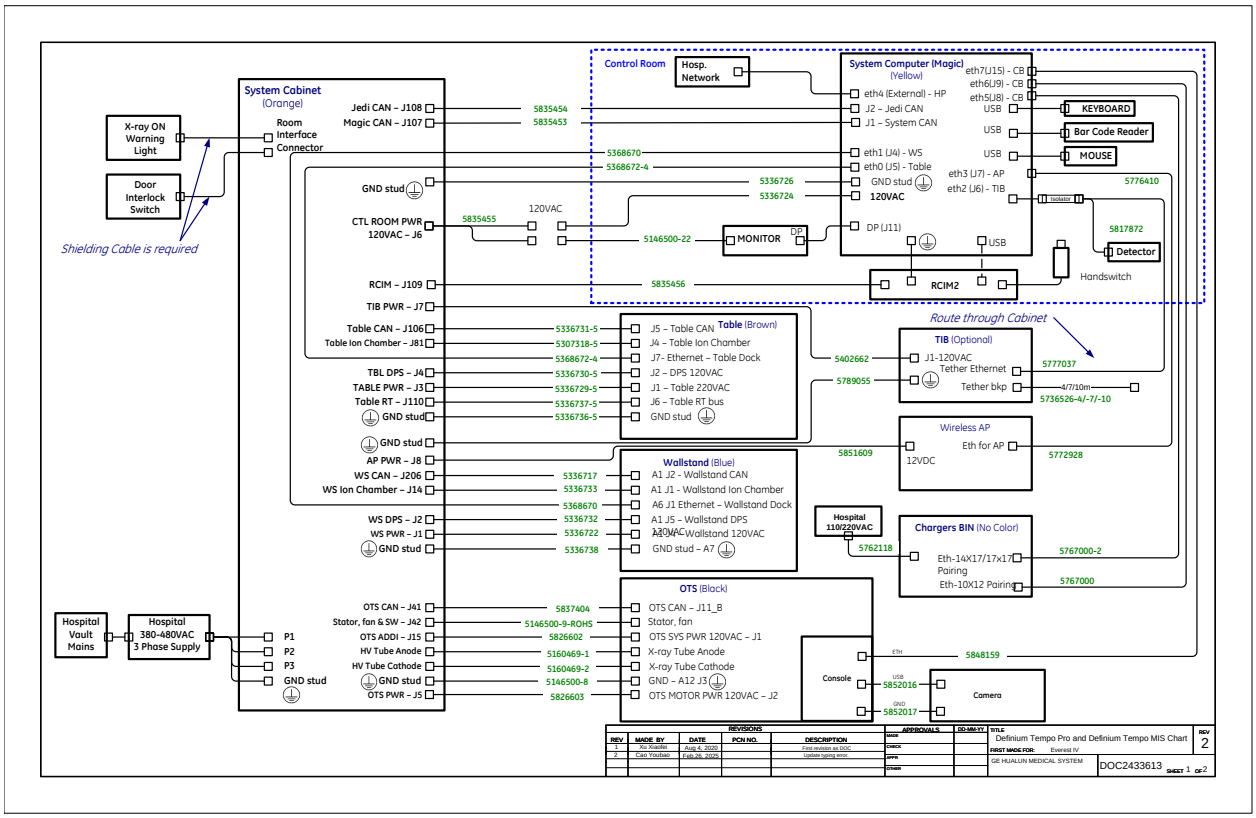
ITEM	PART NO.	DESCRIPTION	LENGTH	USABLE LENGTH	RATING VOLTAGE	CONNECTOR-SIZE (MM)	CONNECTION	SHIELDED
4	5835453	System CAN, PC to Cabinet	20M(65.61FT)	19.5M(63.98FT)	350ACV500VDC	35 x 20 x 45	Magic PC to Cabinet	Shield
5	5336726	Substitute 5146500-24 for Rohs compliance, FeiTian Magic PC Ground Cable	20M(65.61FT)	19.5M(63.98FT)	300V	ϕ10 X 35	Magic PC to Cabinet	Non-shield
6	5336724	Substitute 5146500-21 for Rohs compliance, FeiTian II Magic PC Power Cable	3M(9.84FT)	2.8M(9.19FT)	350ACV500VDC	35 x 40 x 60	Magic PC to Cabinet	Non-shield

7.2.9 Control Room-RCIM II

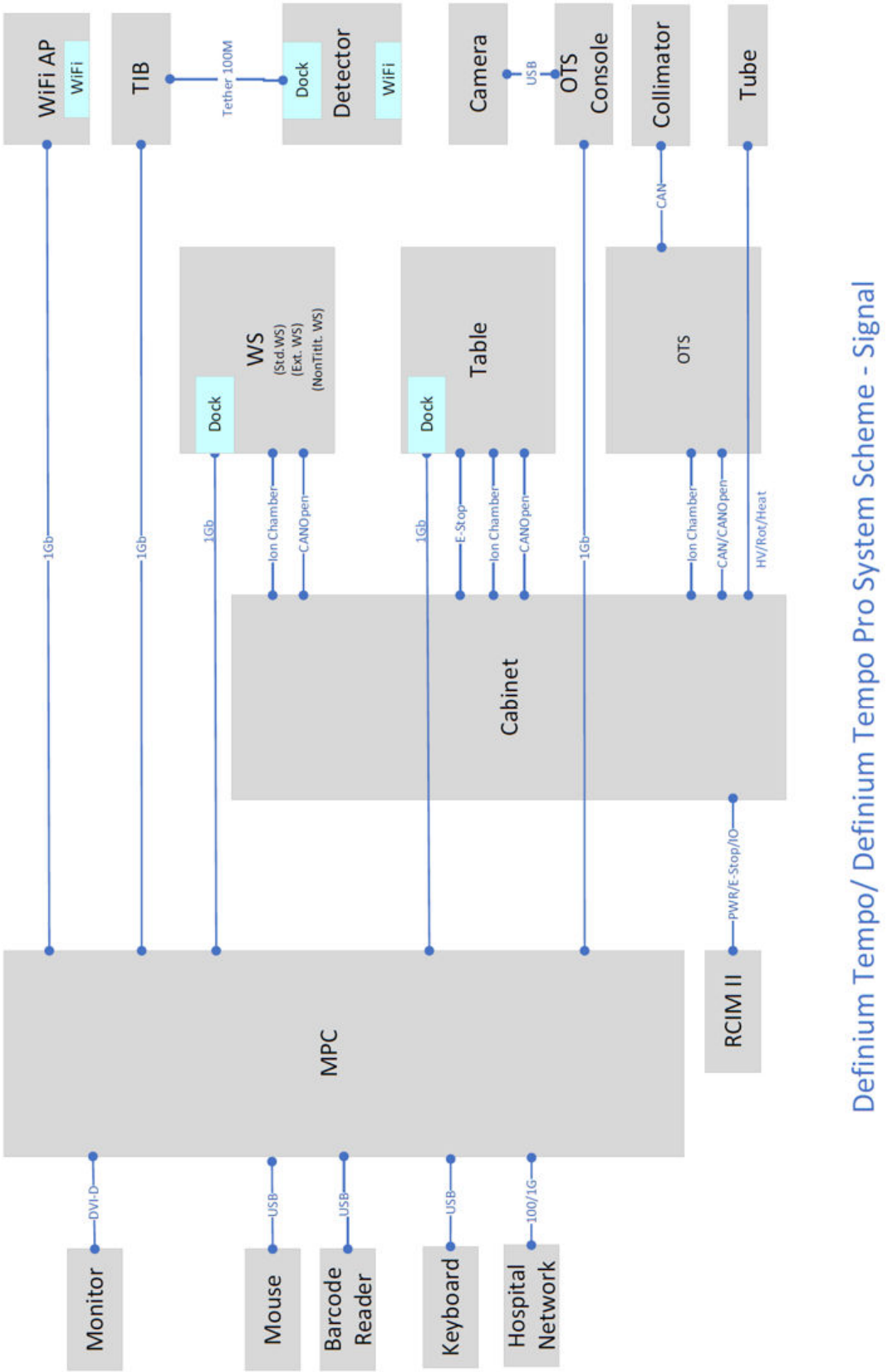
ITEM	PART NO.	DESCRIPTION	LENGTH	USABLE LENGTH	RATING VOLTAGE	CONNECTORSIZE (MM) L*W*D	CONNECTION	SHIELDED
1	5835456	RCIM, PC to Cabinet	20M(65.62FT)	19.5M(63.98FT)	350ACV500VDC	45 x 20 x 45	RCIM2 to Cabinet	Shield

7.3 System Master Interconnect Schematic (MIS Map)

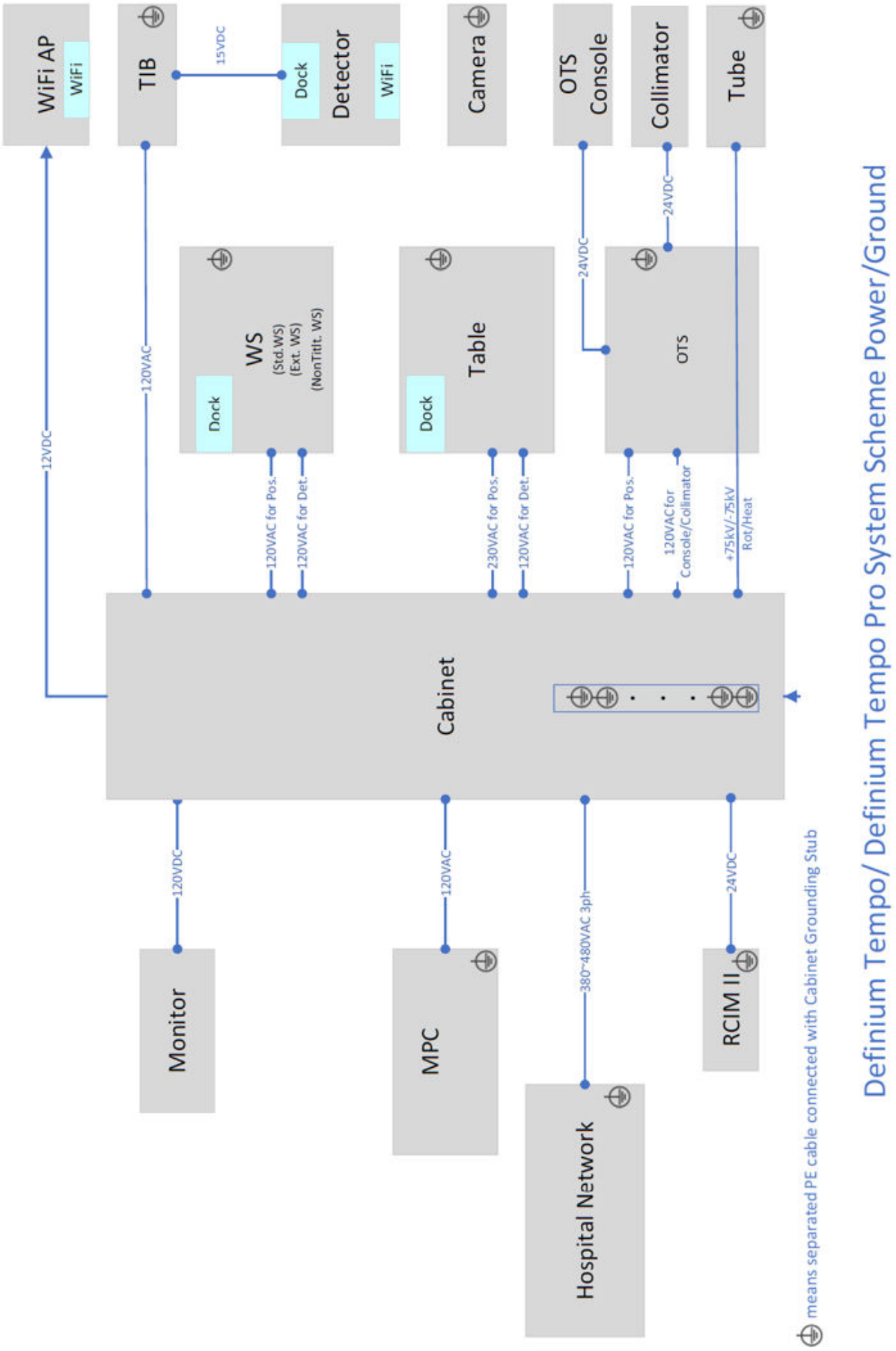




7.4 System Architecture



Definium Tempo/ Definium Tempo Pro System Scheme - Signal


Definium Tempo/ Definium Tempo Pro System Scheme Power/Ground
WiFi AP
WiFi
TIB
15VDC
Dock
Detector
WiFi
Camera
OTS Console
Collimator
Tube
12VDC
120VAC
24VDC
24VDC
Dock
WS
(Std.WS)
(Ext. WS)
(NonTitlt. WS)
Dock
Table
OTS
120VAC for Pos.
120VAC for Det.
230VAC for Pos.
120VAC for Det.
120VAC for Pos.
120VAC for Console/Collimator
+75kV/-75kV Rot/Heat
Cabinet
120VDC
120VAC
380~480VAC 3ph
24VDC
Monitor
MPC
Hospital Network
RCIM II
means separated PE cable connected with Cabinet Grounding Stub

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