



It's Here...

The wait is over – realize your true potential with the system that provides the power and precision to break traditional 3.0T MR boundaries: the Signa® MR750.

Go ahead. Pinch yourself. Because if you've ever wondered how you could extend your capabilities and reach the next level in MR, be it faster exams, additional functions or enhanced image quality – this is your day. GE Healthcare has developed a new 3.0T MR system designed to deliver the power and precision you need – so you can make the routine exams faster and the advanced exams routine. So you can do MR. Your way.

Simply powerful technology innovations

"It's invigorating to see 'what if' from a few years ago come to life with the technology this system delivers," says Charlie Giordano, General Manager for MR Engineering, GE Healthcare. "The promise of tomorrow's innovations requires a platform that's built for the future. And that's what this system delivers."



Starting with the industry's most powerful whole-body gradient system, the Signa® MR750 combines the eXtreme Gradient Resonance Module (XRM) and eXtreme Gradient Driver (XGD), which provides 50mT/m amplitude and 200 T/m/s slew-rate on each axis at 48 cm field-of-view to deliver up to 60 percent additional anatomical coverage and resolution unit per time.

With its advanced Thermal Management System, the Signa MR750 delivers up to five times the performance over previous generations, thus increasing the freedom for advanced application development. The newly designed RF Transmit system maximizes performance with a 17 percent gain in scanning efficiency and is uniquely optimized for each patient.

In addition, the system includes the GE-exclusive Optical RF Technology, OpTix, that adds up to 27 percent higher signal-to-noise ratio (SNR) over conventional, non-optical MR receivers by reducing electrical noise and increasing signal detection. The Signa MR750 Optical RF receivers are located on the magnet system inside the shielded scan room, isolated from external noise sources.

And for exceptional acceleration technology, ARC™ (Autocalibrating Reconstruction for Cartesian imaging) parallel imaging technique is combined with new High Definition coils to enable high acceleration factors, keeping advanced applications within clinically acceptable scan times. Plus, reconstruction processing performance gains with the Volume Reconstruction Engine (VRE) 2.0 open the door to emerging data-intensive studies.

It's true. Engineered to unleash the power of MR, the Signa MR750 provides exceptional precision for academic studies and pushes the physics of MR, extending advanced applications performance to enable new capabilities for exploring function and anatomy. What's more, it provides spectacular imaging detail in clinically practical exam times as well as:

- Up to 60 percent greater coverage;
- Up to 60 percent higher resolution;
- Significant improvement in image uniformity; and
- Accelerated acquisition and reconstruction speed.

Powerfully simple

The story began when GE approached MR users inquiring about the inefficiencies of a typical MR clinical workflow. The rest, as they say, is history.

"MR users told us that they want to be able to provide the most advanced clinical applications to serve their communities, such as a complete liver exam in a 15-minute slot, routine fMRI with shorter paradigms and greater activation and a breast images you need in only two sequences, but they need to be able to reproduce these exams very quickly and easily – every time. The Signa MR750 puts the most powerful MR technology at their fingertips to use in a very simple way so they can focus on patients. It's exactly what our customers have asked us to build," explains David Handler, General Manager, Global MR Product Marketing. "The ability to deliver their vision is extremely exciting."

"The Signa MR750 was designed around clinical workflow needs with a strong focus on improving productivity," says Bryan Mock, Global 3.0T Product Manager for GE Healthcare. "Thanks to the collaborations we maintain with our customers, we were able to provide an extremely efficient scanner built on a foundation of industry-leading technology."

Built with input from customers, the system includes operational efficiencies such as the newly designed detachable Express Patient Table patient table and iROC in-room operator console. In addition, the IntelliTouch one-touch patient positioning feature enables technologists to quickly and accurately landmark patients. Together, these features enable complete in room setup time in as little as 30 sec.; additionally, the newly designed user interface reduces the number of steps by as much as 68 percent.

The following pages are packed with information explaining in detail how the Signa MR750 can provide solutions that you can put to immediate use, including:

- Information on extended advanced application performance;
- How routine and advanced exams can become faster;
- Improvements in patient workflow from positioning to reading; and
- GE Healthcare's growth platform for future expansion.

And that's just the beginning, so stop pinching yourself. The future is here. The future is now. ■