

New 3-Tesla MRI system unveiled by Siemens

MAGNETOM Prisma from Siemens Healthcare designed to explore new frontiers in MRI

Siemens Healthcare has presented the MAGNETOM® Prisma MRI system at the 98th Congress of the Radiological Society of North America (RSNA) 2012 with planned European availability in the second half of 2013. The 3-Tesla MAGNETOM Prisma will offer a new level of MRI imaging, combining high gradient strength and fast gradient slew rates.

Based on the same technology platform as the 3-Tesla MAGNETOM Skyra, the MAGNETOM Prisma is capable of high spatial and temporal resolution to achieve excellent image quality, especially with demanding advanced research applications. In order to also provide existing customers with enhancements, Siemens will offer an upgrade path for the 3-Tesla system MAGNETOM Trio to the MAGNETOM Prisma's latest technology. This is another innovation under the Agenda 2013 initiative from Siemens Healthcare.

With the MAGNETOM Prisma, Siemens further enhances its 3-Tesla portfolio with advanced gradient performance combining 80mT/m and a slew rate of 200T/m/s simultaneously. The system's combination of high gradient strength and fast gradient switching speed allows for increased image quality in areas such as diffusion imaging, capturing minor diffusion effects with high gradient strength. To make full use of this potential, the new Diffusion Spectrum Imaging (DSI) application makes it possible to resolve fine anatomical details of the brain, such as crossing white-matter fibres by using up to 514 diffusion encoding directions.

In addition to revealing new insights into brain function, the MAGNETOM Prisma has great potential in the research fields of body physiology, organ morphometry, tissue metabolism and quantitative MRI. The system's excellent image quality is derived from not only the gradient strength, but also advanced

shimming solutions that allow for fine and effective compensation of patient-induced field disturbances.

The MAGNETOM Prisma is based on a single technological platform with the 3-Tesla system the MAGNETOM Skyra. The Prisma is designed primarily for clinical research, for instance in neurology, while the Skyra is for advanced clinical imaging. Both systems are equipped with TimTX TrueShape parallel transmit technology and *syngo* ZOOMit, providing better image quality and shorter examination times.

The MAGNETOM Prisma is equipped with Tim 4G, the fourth generation of Siemens' integrated coil technology. With a new head-neck coil with 64 receive channels for this system as well as for the MAGNETOM Skyra, users can combine up to 84 receive channels in a single scan when combining it with the standard body and spine coils – the highest number of receive channels currently available on the market. Supported by 64 or 128 receive channels, image quality can be substantially increased while reducing scan time.

The MAGNETOM Prisma can perform challenging research examinations at a consistently high level. Besides zero helium boil-off technology, users benefit from Dot™ (day optimising throughput) technology, which makes it possible to select the most appropriate scanning strategy, depending on the indication. Dot increases scan consistency and reproducibility. Predefined Dot workflows facilitate the repetition of measurements for a given patient at different time points or the ability to compare examinations obtained at different sites, such as during the course of multi-site research projects.

“We are proud to introduce our latest 3-Tesla MRI system at RSNA 2012,” states Jane Kilkenny, MRI Product Manager at Siemens Healthcare. “The MAGNETOM Prisma features excellent image quality and further benefits from the inclusion of a number of technologies such as TimTX TrueShape and *syngo* ZOOMit for detailed incite of specific parts of the body. We look forward to releasing it to the European healthcare market.”

For additional information on the MAGNETOM Prisma, please visit: www.siemens.com/prisma.

Notes to editor

Agenda 2013 is a **global initiative** to further **strengthen** Healthcare Sector's **innovative power and competitiveness**. Four fields of action have been defined: **Innovation, Competitiveness, Regional Footprint, and People Development**, with specific measures to be implemented over the next year.

The MAGNETOM Prisma, TimTX TrueShape, Diffusion Spectrum Imaging (DSI), the head-neck coil, and syngo ZOOMit are currently under development. They are not for sale and their future availability cannot be guaranteed.

- ends -

About Siemens Healthcare

The **Siemens Healthcare Sector** is one of the world's largest suppliers to the healthcare industry and a trendsetter in medical imaging, laboratory diagnostics, medical information technology and hearing aids. Siemens offers its customers products and solutions for the entire range of patient care from a single source – from prevention and early detection to diagnosis, and on to treatment and aftercare. By optimising clinical workflows for the most common diseases, Siemens also makes healthcare faster, better and more cost-effective. Siemens Healthcare employs some 51,000 employees worldwide and operates around the world. For further information please visit: <http://www.siemens.co.uk/healthcare>.

Approximately 570 words

5 February 2013

For more information or images please contact:

Marc Gossage / Jon Wilcox
Media Safari
T: 01225 471202
E: jonw@mediasafari.co.uk

Siemens Healthcare
Laura Bennett
T: 01276 696374
E: laura.bennett@siemens.com
W: <http://www.siemens.co.uk/healthcare>

Picture caption:

Siemens Healthcare has presented the MAGNETOM® Prisma MRI system with planned European availability in the second half of 2013. The 3-Tesla MAGNETOM Prisma will offer a new level of MRI imaging, combining high gradient strength and fast gradient slew rates.

