The power of flexible choice

PET/CT + MR Trimodality Imaging
Unlocking new possibilities with PET/CT + MR

The exquisite soft-tissue-contrast of 3.0T MR. The exceptional metabolic insight of PET imaging. The precise anatomical reference of CT.

Fusing these three powerful modalities is not only financially responsible, it holds tremendous clinical promise. This opens up exciting new possibilities in the management of cancer, neurodegenerative and cardiac diseases. It all adds up to one very important idea: a smarter path to tomorrow’s care.

1 May not be available for sale in all markets.
The power of flexible choice.

Our flexible Trimodality system is designed to allow for the independent and simultaneous use of two next-generation scanners.

Our Trimodality imaging system is designed to capture high-quality images from PET/CT and MR scanners, then fuse them with Integrated Registration software. You can utilize leading-edge PET, CT and MRI technologies— together or individually— providing unparalleled choice, flexibility and clinical value.

Researchers and clinicians can access new technology to potentially improve image quality. See fine vessel detail. Visualize cardiac anatomy and function. Detect small lesions. Monitor response to therapy. And forge a smarter path from clinical research to patient care.

Combining mature, robust technologies with new breakthroughs, Trimodality imaging is intended to be one of the best investments available for researchers and multi-specialty hospitals. That's why we celebrate it as another step toward helping you make the best decisions for your patients.

Start with industry-leading PET/CT.

The Discovery series of PET/CT systems delivers exceptional detail and precision to help increase diagnostic confidence and enhance clinical decision-making. We offer you the power of choice in selecting from the Discovery PET/CT 610 or 710 imaging systems, depending on the needs of your care environment.

Add a new hover table for patient transfer and registration.

The new lateral-docking Trimodality patient transporter utilizes an air hover technique to smoothly transfer a patient between a Discovery PET/CT and MR750w or Optima MR450w with GEM— all while keeping the patient in the same position relative to the board. Best of all, the hover table does not require any software changes to your PET/CT or MR systems and can be operated by one person with ease.

Combine with more advanced, comfortable MR.

Built around our trusted superconducting 3.0T magnet, the new wide-bore Discovery MR750w 3.0T delivers the power, resolution, speed and stability required for confident imaging, even in your most challenging, high-performance applications. And with its new, widened bore and soft, flexible GEM coils, it’s never been more comfortable for patients. Alternatively, the Optima MR450w offers comparable comfort and performance at 1.5T.

Precisely fuse PET/CT and MR images.

Once the PET/CT and MR images are acquired, Integrated Registration software on the Advantage Workstation* produces high-quality fused images with a single click of a mouse.

Building upon leading-edge technologies.

GE Healthcare PET/CT + MR Trimodality Imaging
Fusing clarity with insight for superior results.

By blending a deep understanding of metabolic function with a view of anatomy high in spatial resolution and contrast, we help you see closer.
Extraordinary performance for more personalized care.

With PET/CT imaging, you have an invaluable tool for tailoring a regimen of therapies to fit your patients’ individual needs.

For any PET/CT imaging system to realize the full potential of both modalities, it must be founded on three principles: meaningful quantitation tools, high sensitivity and low dose. Each plays a critical role. Managing variability and achieving greater accuracy allows clinicians to capture relevant, reliable and consistent data. Seeing greater anatomical detail and detecting the smallest of lesions impacts early diagnosis and treatment plans. Providing low exposure to both radiation and injected dose maximizes patient care.

In the end, delivering better, more personalized care depends upon possessing the right combination of qualities and capabilities—a combination we deliver in our portfolio of PET/CT imaging systems.

A breakthrough in quantitative PET.

Every variable in workflow—from your patient’s respiratory motion to the imaging system’s settings and protocols—can interfere with your ability to capture relevant, reliable and consistent data. With Q Suite, we offer eight technologies to neutralize and manage variability, enabling repeatable accuracy for every SUV measurement, from one exam to the next.

Delivering fast and detailed scans.

The focus is always on creating the best image quality possible. This starts with having a platform that delivers high sensitivity to collect the greatest number of counts. With our Discovery PET/CT 610, you’ll have the only system on the market that’s achieved an absolute sensitivity of 10.0 cps/kBq.2

Low dose for patient care.

We share patients’ and caregivers’ concerns about exposure to dose. No one should have to choose between patient care and diagnostic confidence. That’s why our Discovery PET/CT systems deliver a host of features designed for low dose without compromising image quality.

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2 Represents typical system performance, measured according to NEMA Standards Publication NU2-2007. Sensitivity is defined as the number of counts per unit time detected by the device for each unit of activity present in a source, based on the average of measurements at 0 and 10 cm.
Patient-tailored real-time SAR management. New optical RF technology. Fast reconstructions. With the Discovery MR750w and Optima MR450w, we’ve successfully combined what you desire with what your patients deserve: the insight from the power of 3.0T and 1.5T magnets combined with the open architecture of a wider, ergonomically designed 70 cm wide bore.

Deliver new levels of patient and caregiver comfort.

The Geometry Embracing Method (GEM) suite is designed to bring a new level of comfort to patients, minimizing anxiety and motion during the exam. Crafted to embrace the patient, these flexible coils help focus the energy of MR to produce a clear image. In addition to their wide bore and soft, flexible coils, the Discovery MR750w and Optima MR450w table surfaces have been completely redesigned to help alleviate pressure points for a more comfortable, relaxing exam. Technologists will appreciate the ergonomically designed interface, which mimics the same consumer-facing devices they use every day, allowing them to focus their attention where it belongs—on their patients.

Go beyond radiology.

Being ready for the future means having a system that can grow beyond its original capabilities. The Discovery MR750w and Optima MR450w were designed with the ability to go beyond the traditional boundaries of radiology, from imaging during surgical procedures and assisting with radiation therapy planning. Our InSite, InSite OnWatch and iLinq services safeguard the future performance of the Discovery MR750w and Optima MR450w with digital services that fix issues quickly and even stop problems before they happen.
Hover board ensures smooth patient transfer and registration.

The lateral Trimodality transfer system is designed to enable the safe transfer of a patient between PET/CT and MR scanners. This side-docking, space-saving patient transfer board is designed to utilize air hover techniques to ensure safe operation and transfer, and includes indexing features to allow for repeatable patient positioning for accurate image registration.

Make the most of your PET/CT + MR information on the multi-modality Advantage Workstation.

One of the most widely used 3D visualization and analysis systems, the Advantage Workstation (AW) performs fast, clinically effective post-processing tasks. AW technology gives you the ability to visualize large-volume, thin-slice data to enhance your diagnostic capabilities. You can review, compare and process multi-modality images with ease. Powerful AW software includes the Volume Viewer Plus 3D package and a multi-modality 2D image viewer.

And with VolumeShare, results are just a click away. Its clinical and diagnostic tools enable intuitive features for fast review of routine cases.

Integrated Registration facilitates accurate image fusion.

Integrated Registration on the AW provides multi-modality image fusion in one application. It allows high-quality PET/CT and MR images to be captured separately and then registered precisely and automatically to produce high-quality fused images.

Using a simple “drag-and-drop” technique, you can easily combine, correlate and compare 3D anatomical images in volumetric acquisitions from PET/CT and MR. Multiple MR sequences are auto-propagated and images are automatically registered and fused in seconds. These techniques are optimized for brain and body imaging.

From maintaining a patient’s position to precisely fusing PET/CT and MR images, GE’s Trimodality system is intended to help ensure imaging accuracy throughout the process.
The responsible choice.

GE has been a leader in imaging for 80 years. We were the first to introduce a commercial PET/CT system to the market. Since that time, we have focused our vision of the future on the pillars of responsible care, meaningful collaboration and sustainable advancement. Today, we continue moving forward with significant ongoing research into the clinical viability of PET/CT + MR.

Our fusion of three imaging modalities provides technology that is both clinically and financially responsible. It is designed to allow each system to be used independently for clinical imaging, while also providing the right technology to enable advanced and integrated PET/CT + MR investigations. And with the flexible choices our Trimodality system offers, you’ll be able to evolve your offering as the needs of your practice change, as our platforms are designed for appropriate upgrades as you deem necessary.

Learn more at www.gehealthcare.com/petctmr-trimodality or subscribe for SmartMail at www3.gehealthcare.com/en/About_Us/Subscribe_to_SmartMail

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**Supported Patient Height**
- Up to 187 cm

**Supported Patient Weight**
- Up to 400 lbs

**Compatible PET/CT System**
- Discovery PET/CT systems
- Optima PET/CT systems

**Compatible MR System**
- Discovery MR750w with GEM
- Optima MR450w with GEM

**Transfer Board Dimensions**
- 135 cm x 135 cm x 15 cm

**PET/CT Flat Table Top Dimensions**
- H 6 cm, L 215 cm, W 53 cm

**PET/CT Flat Table Insert Dimensions**
- H 3.5 cm, L 215 cm, W 53 cm

**Transfer Board Weight**
- 11.8 kg (26 lbs)

**Flat Table Top Weight**
- 12.5 kg (27.5 lbs)

**Air Blower Siting**
- Side of the PET/CT system close to accessory power outlets
  - H 130 cm, W 40 cm, D 30 cm

**Storage**
- Wall mount provided

**Power Requirements**
- Provided through existing power outlet at the PET/CT gantry

*The cleat on the flat table top will interfere with other table mounting devices, such as a radiation therapy table or 2-meter extender board.*
About GE Healthcare
GE Healthcare provides transformational medical technologies and services that are shaping a new age of patient care. Our broad expertise in medical imaging and information technologies, medical diagnostics, patient monitoring systems, drug discovery, biopharmaceutical manufacturing technologies, performance improvement and performance solutions services help our customers to deliver better care to more people around the world at a lower cost. In addition, we partner with healthcare leaders, striving to leverage the global policy change necessary to implement a successful shift to sustainable healthcare systems.

Our “healthymagination” vision for the future invites the world to join us on our journey as we continuously develop innovations focused on reducing costs, increasing access and improving quality around the world. Headquartered in the United Kingdom, GE Healthcare is a unit of General Electric Company (NYSE: GE). Worldwide, GE Healthcare employees are committed to serving healthcare professionals and their patients in more than 100 countries. For more information about GE Healthcare, visit our website at www.gehealthcare.com.

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