Omni Legend

ANSWERS AT THE SPEED OF SIGHT

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This is the start of a whole new era of PET/CT

Omni Legend is the first system we're introducing on our all-new, all-digital Omni platform. The remarkable digital detector design at its core enables an unparalleled increase in true NEMA sensitivity, delivering the highest sensitivity per centimeter in the market.[1] Greater sensitivity may not only lead to fast scan times and lower dose, but also lesion detectability that is better than the top-of-the-line digital platform.[2]

- SEE SMALL LESIONS[2]
- HIGHEST SENSITIVITY[1]
- ULTRA-FAST SCANNING

Beyond its exceptional detector design, Omni Legend also delivers vast improvements to the entire PET/CT scanning process

- All-new Precision DL* image processing technology enabled by deep learning
- AI-enhanced workflow solutions to improve operational efficiency and patient comfort
- Ability to image the diagnostics portion of theranostics as well as short life tracers and dynamic protocols[3]

NEW PLATFORM

The one and future PET/CT platform

Given the rapidly changing healthcare landscape, the time has come for an all-new PET/CT platform designed to surpass both your clinical challenges today, and well into the future.

Every component of Omni is entirely new. It was built on a foundation formed by decades of longstanding technological leadership and clinical collaborations with a wide array of innovative enhancements incorporated at every aspect of the scan experience.

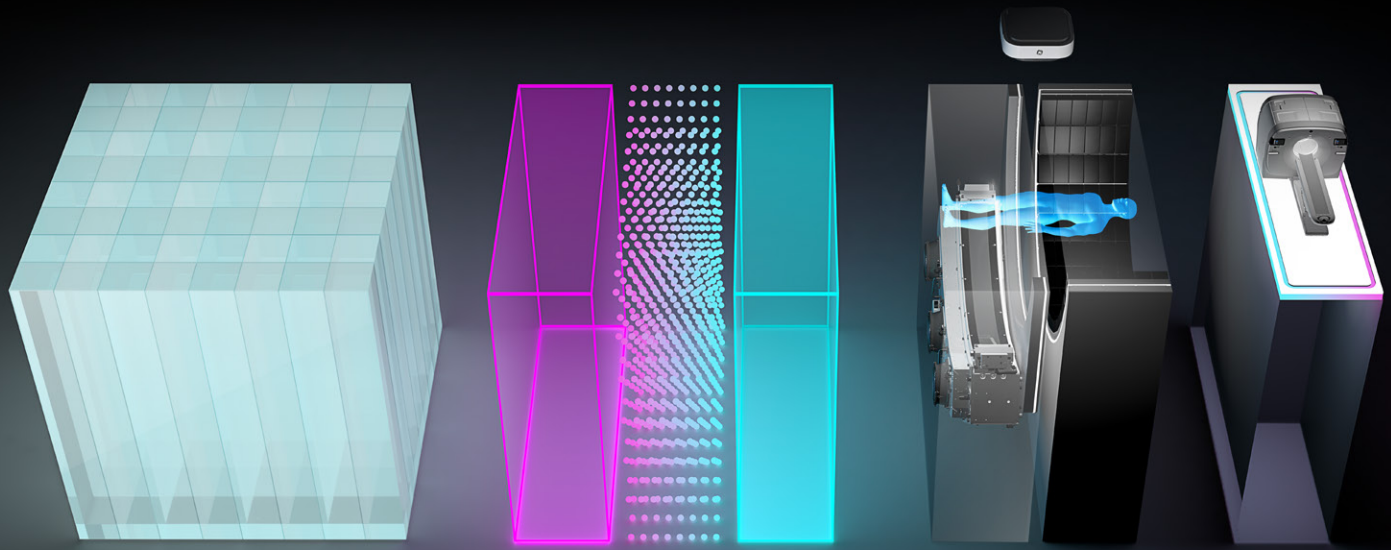
We call it Omni because its potential is limitless and we believe it is the future of PET/CT

ULTRA-HIGH SENSITIVITY

ALL-DIGITAL

ENHANCED WORKFLOW

SINGLE PLATFORM



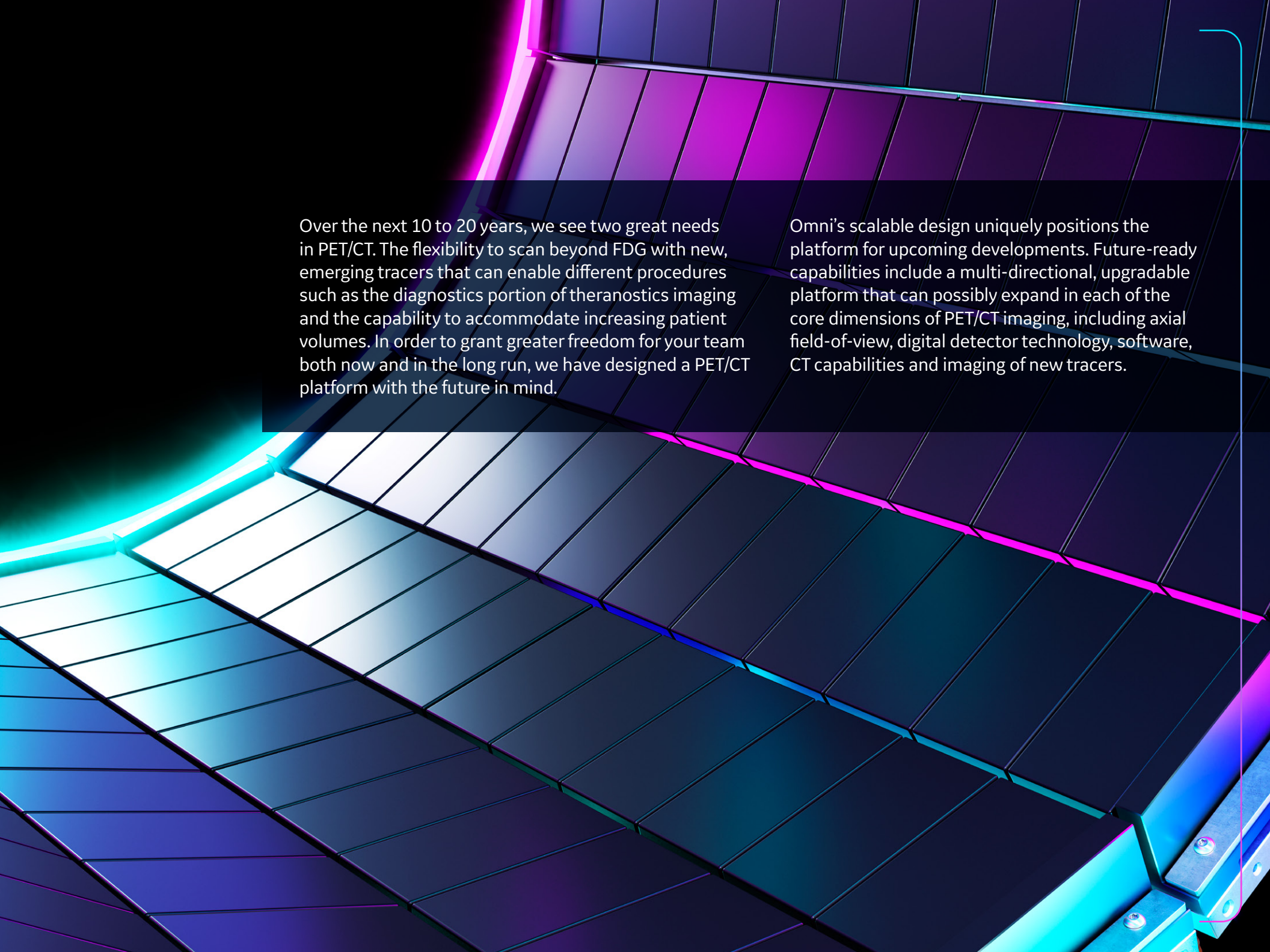
Diagnostic & treatment confidence

Innovative detector design

Deep learning image processing*

Improved patient experience

Multi-dimensional clinical flexibility

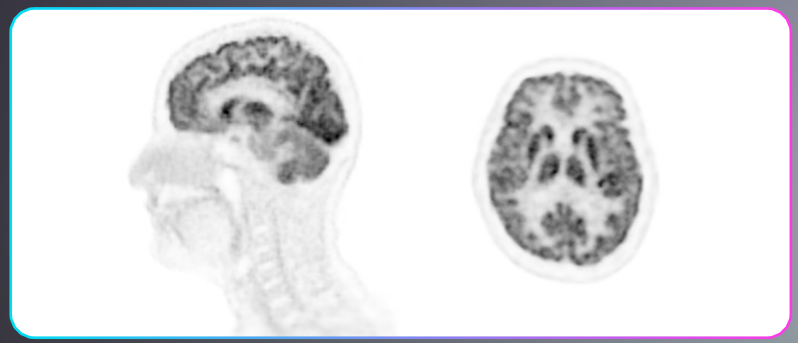


Over the next 10 to 20 years, we see two great needs in PET/CT. The flexibility to scan beyond FDG with new, emerging tracers that can enable different procedures such as the diagnostics portion of theranostics imaging and the capability to accommodate increasing patient volumes. In order to grant greater freedom for your team both now and in the long run, we have designed a PET/CT platform with the future in mind.

Omni's scalable design uniquely positions the platform for upcoming developments. Future-ready capabilities include a multi-directional, upgradable platform that can possibly expand in each of the core dimensions of PET/CT imaging, including axial field-of-view, digital detector technology, software, CT capabilities and imaging of new tracers.

See it all.
In an all-new digital light.

We built Omni Legend from the ground up to harness the power of dBGO, an innovative detector material with a small crystal size capable of producing high resolution images and exceptional image quality. This creates a brand-new category of detector technology that delivers more than two times the sensitivity than prior digital scanners,[4] enabling fast scans[5] at a lower dose.[6] The end result is a remarkable design that's more accessible to more people today and with a detector assembly engineered for future upgrades that allows for an axial field-of-view scalable up to 128 cm.



As PET/CT continues to grow into clinical areas outside of oncology, the need for a PET/CT solution that makes digital detection more ubiquitous and accessible becomes increasingly more important.

Image obtained from investigational device, limited by U.S. law to investigational use. Precision DL is 510(k)-pending with the U.S. FDA. Not available for sale in the U.S.

This changes everything

The detector material at the core of the Omni Digital Detector takes PET/CT to the next level. Its high density and stopping power along with a 30 mm crystal depth make it possible to achieve an astronomical increase in NEMA sensitivity with up to 46 cps/kBq across a 32 cm axial field-of-view.[4]

This extreme rise in sensitivity goes beyond just providing for a higher quality image. Along with an exceptionally high NECR curve, it's what may enable you to image high count rate tracers beyond FDG with the potential to increase the number of procedures your staff can execute, including procedures beyond oncology such as cardiac and neuro imaging.

Up to 46 cps/kBq
NEMA sensitivity[4]

30 mm crystal depth
with high stopping power

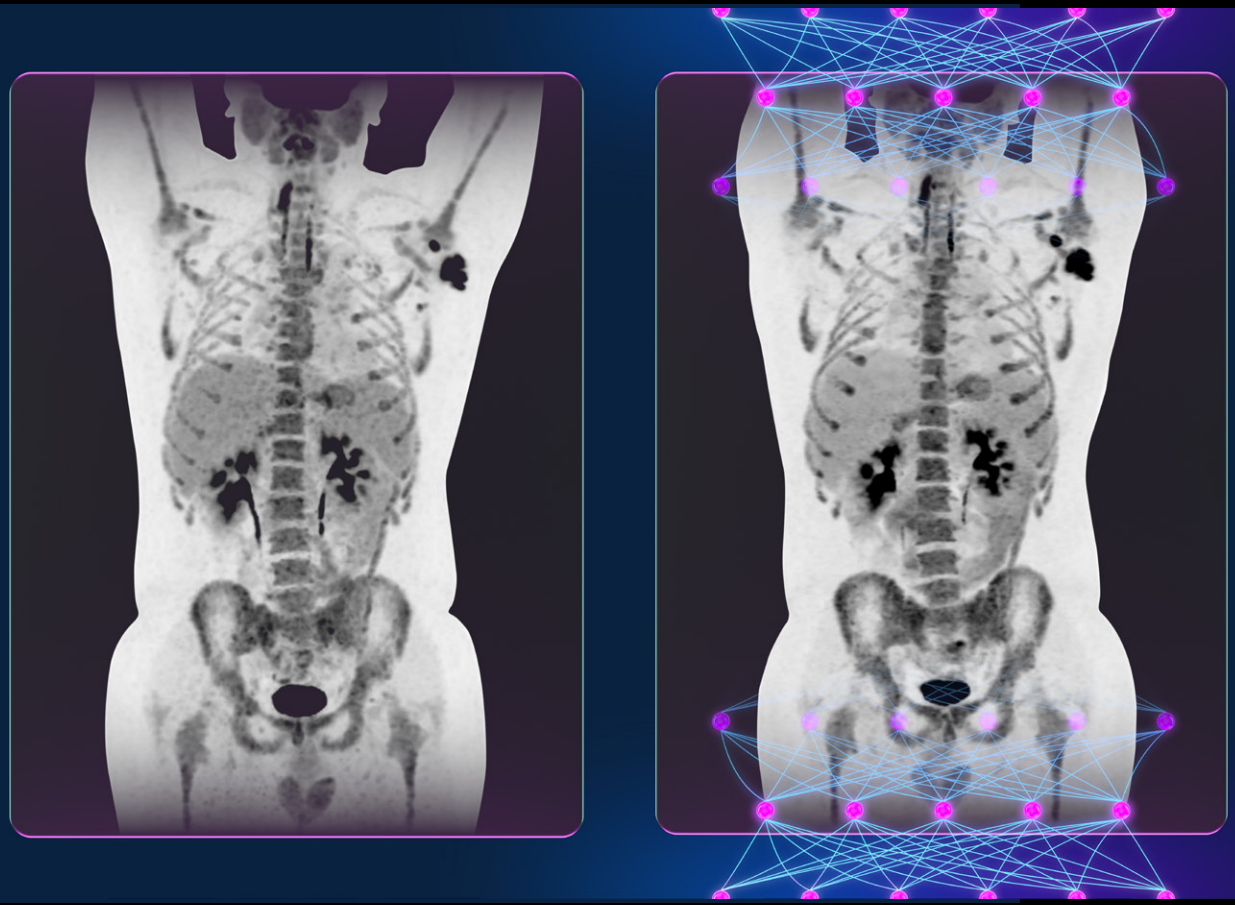
SOFTWARE

Enhance your imaging with deep learning

The technological advancements achieved by Omni Legend don't stop with the hardware. Omni Legend is all-digital and uniquely designed with innovative Precision DL* technology.

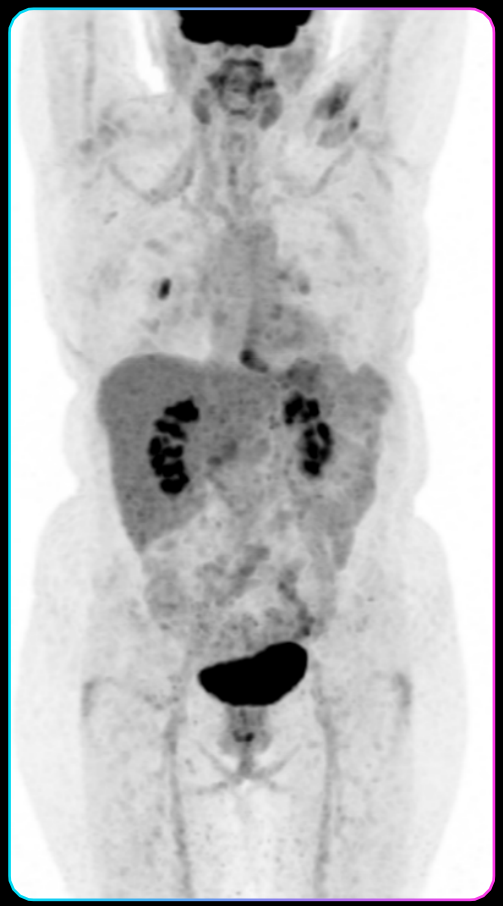
More than a new processing technique, Precision DL* is engineered with a sophisticated deep neural network trained on thousands of images made with multiple reconstruction methods. The intent is to provide the benefits most associated with hardware-based Time-of-Flight, better contrast-to-noise ratio and contrast recovery.

This combination of Precision DL* and the dBGO-based Omni Digital Detector's ultra-high sensitivity inside Omni Legend enables our vision for the future of PET/CT image quality.

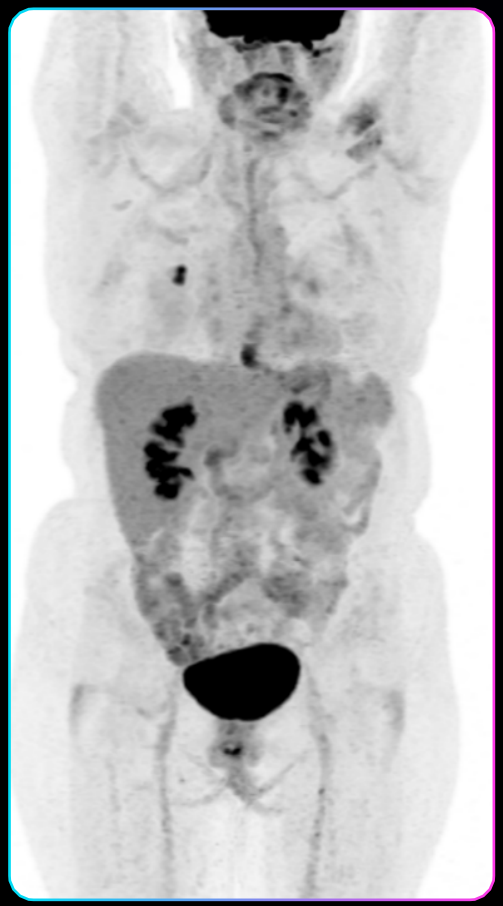


TIME-OF-FLIGHT

PRECISION DL*



TIME-OF-FLIGHT



PRECISION DL*

There is no longer a need to invest in hardware to deliver Time-of-Flight-quality images

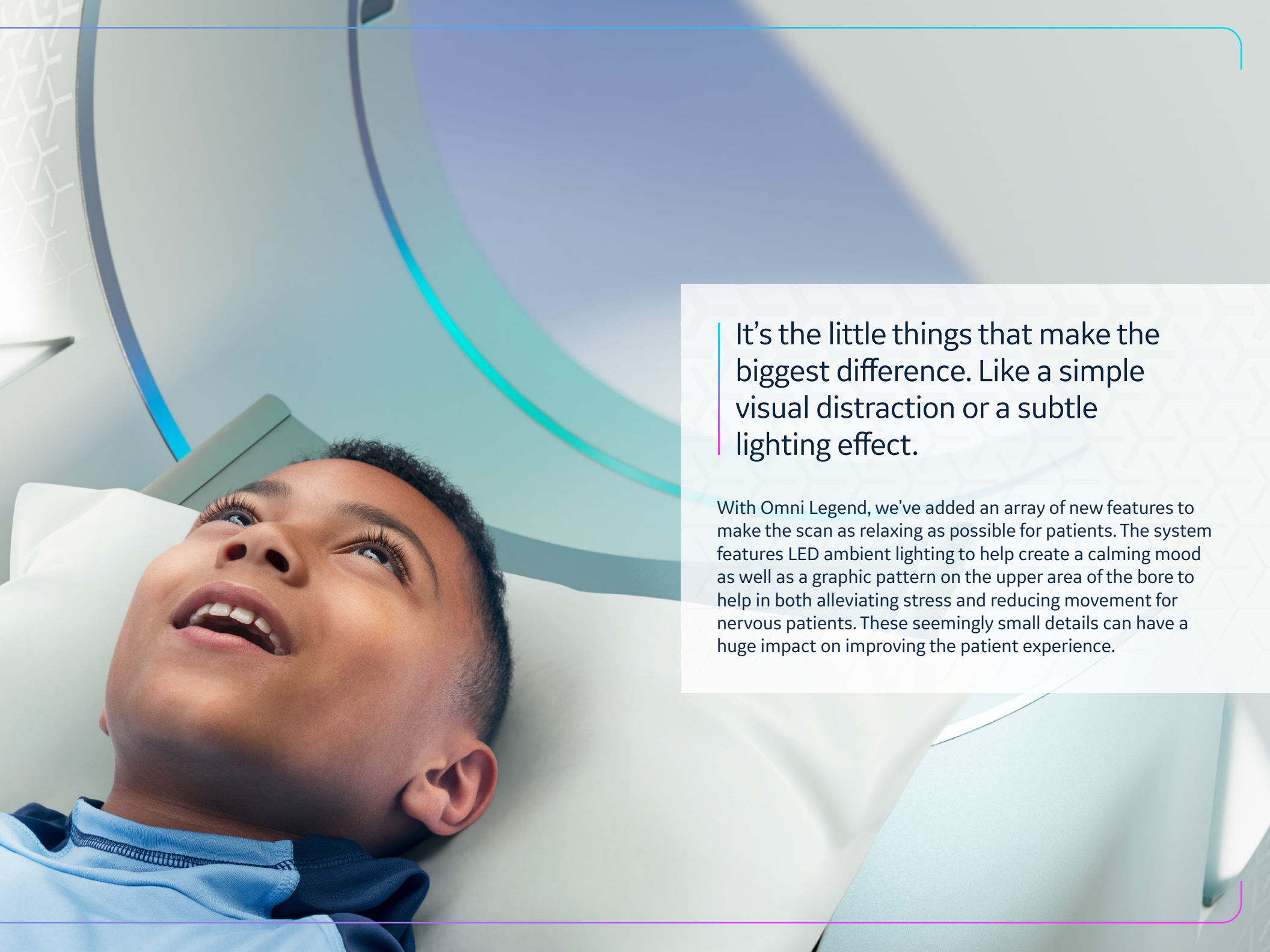
Omni Legend takes the possibilities of Precision DL* even further because it also includes Q.Clear image reconstruction technology (BSREM) and MotionFree, our proven, deviceless respiratory motion correction technology. Q.Clear helps to ensure reliable quantification, while MotionFree operates seamlessly in the background to correct respiratory motion artifacts for all patient types.

Omni Legend utilizes breakthroughs in deep learning designed to help deliver clearer images and greater diagnostic confidence. With Precision DL*, you get software engineered to provide better small, low-contrast lesion detectability than found on our conventional Time-of-Flight scanner.[7]

Image obtained from investigational device, limited by U.S. law to investigational use.
Precision DL is 510(k)-pending with the U.S. FDA. Not available for sale in the U.S.

Surroundings they can take comfort in

We recognize that patient comfort is important to you. It's a top priority for us too, which is why we are always looking for new ways to improve the overall PET/CT patient experience.



It’s the little things that make the biggest difference. Like a simple visual distraction or a subtle lighting effect.

With Omni Legend, we’ve added an array of new features to make the scan as relaxing as possible for patients. The system features LED ambient lighting to help create a calming mood as well as a graphic pattern on the upper area of the bore to help in both alleviating stress and reducing movement for nervous patients. These seemingly small details can have a huge impact on improving the patient experience.

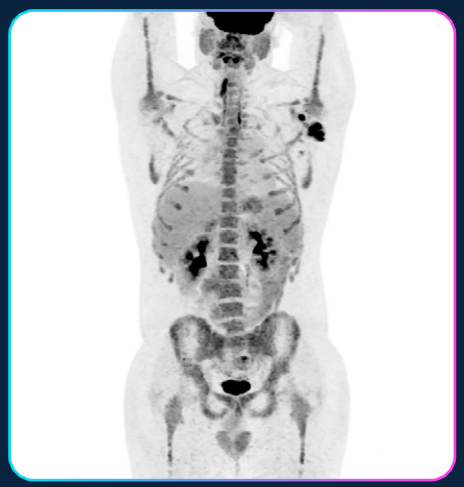
Full speed ahead

Operational efficiency continues to be a top barrier to growing PET/CT procedure volumes.[1] Omni Legend overcomes this barrier with a collection of intuitive workflow solutions enhanced by AI.

- Intuitive Auto Positioning creates a hands-free positioning experience by aligning the patient with the isocenter of the bore
- Fast data quality assurance process saves time with streamlined calibration
- Simplified protocol selection on the gantry touchscreen
- New user interface enables an easy PET/CT process from start to finish

Precision and flexibility without compromise

PET/CT imaging is constantly evolving. We have built a system that can evolve along with it. Omni Legend is built on a platform designed with the future in mind, so it can provide the flexibility your hospital needs to help protect your investment into the future.

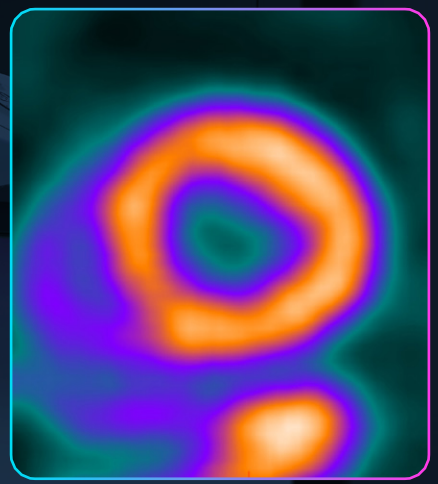


Ultra-fast, four-minute whole-body scan.

Sample clinical scan. Required scan time may vary per case.

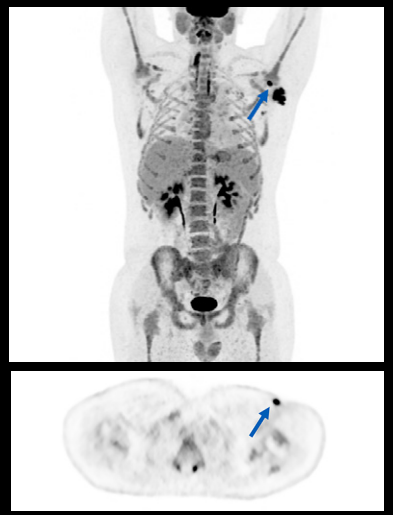
Your Omni Legend system can be updated and reliable for years to come

The highest sensitivity per cm in the market[1] and scalability enable your PET/CT system to be optimized for both current and emerging tracers as well as for procedures beyond oncology such as cardiac and neuro imaging.



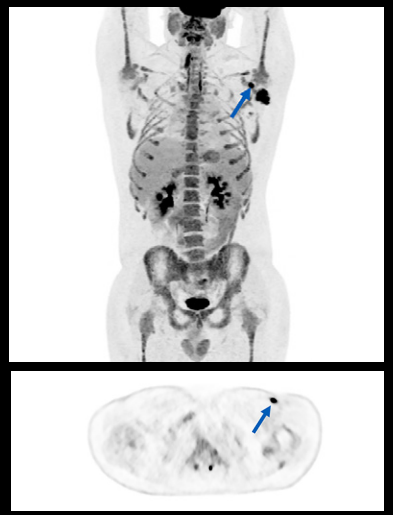
Omni Legend with Precision DL* – excellent lesion detectability and contrast of diaphragm, spinal cord.

Discovery™ MI 25 cm, Time-of-Flight, Q.Clear



Axial view

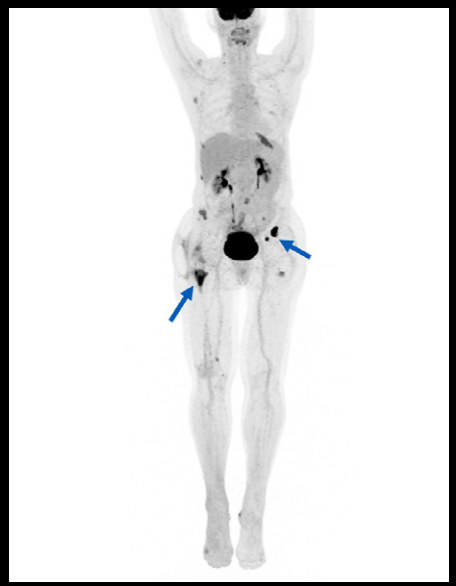
Omni Legend, Precision DL* – High Strength



Axial view

Hodgkin's lymphoma: assessment response to treatment. Pathological findings in the left axillary lymph nodes.

Omni Legend whole-body scan with Q.Clear – outstanding image quality, small lesion detectability.



Breast cancer – restaging. Pathological findings in skeleton, pelvic bone.

Omni Legend with Precision DL* – ultra-high sensitivity. Excellent lesion sharpness, conspicuity.

Pathological findings in the chest area - surgical bed (blue arrow). Inflammation in left tendon (orange arrow).

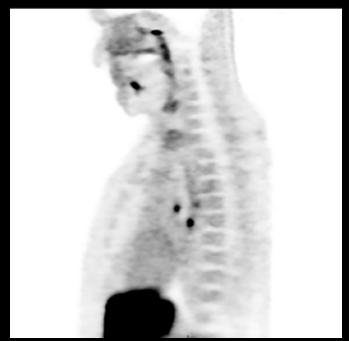
Omni Legend – great contrast and resolution. Exceptional image quality, high definition.

Axial view

Sagittal view

Female patient with Dementia (suspected Alzheimer's disease). Pathological findings: non-pathologic.

Omni Legend – ultra-high sensitivity, small lesion detectability and conspicuity. Excellent image quality.

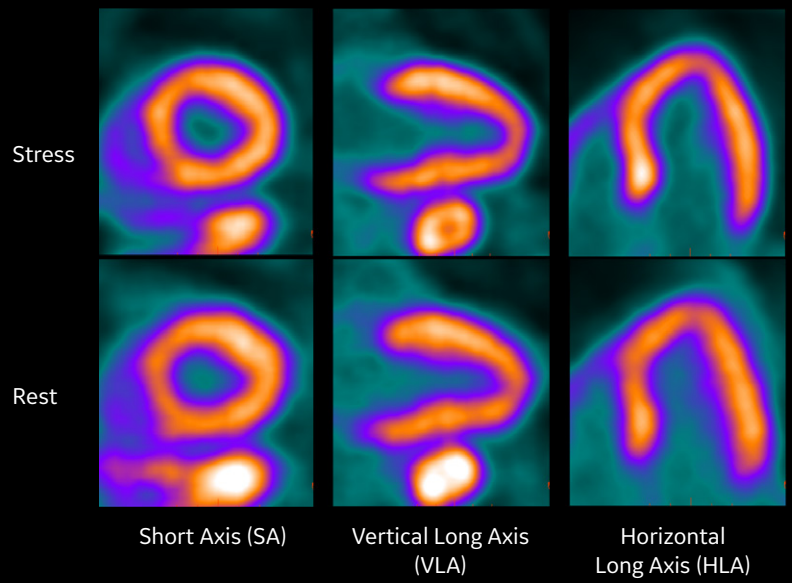


Theranostics ^{18}F-PSMA case: after prostate removal, suspected recurrence due to elevated markers. No pathological findings at surgery area.

Omni Legend with Precision DL* – multiple lesions detected. Excellent image quality. Abdominal structures show excellent contrast.

Hodgkin's lymphoma follow up. Pathological findings in the axillary lymph nodes (blue arrows) and lymph nodes at pelvic area (orange arrow).

Omni Legend – excellent high count rate performance demonstrated in great image quality of cardiac scans.



^{82}Rb cardiac imaging – left ventricle walls and cavity show very clearly in both rest and stress imaging.

Omni Legend – highest sensitivity[2] and improved small lesion detectability.[1] Outstanding image quality of multiple lesions.

Theranostics ^{68}Ga-PSMA case: prostate cancer assessment response to treatment. Pathological findings in the lymph nodes at pelvic area.

Images courtesy of Rambam Medical Center, Haifa, Israel.

Grow your practice in any direction with Omni Legend

Omni Legend is built with innovative capabilities to make it an industry-leading PET/CT platform, enabling exemplary diagnostic confidence for your team now and in the future. We designed Omni Legend with theranostics in mind by utilizing ultra-high sensitivity, Q.Clear and MotionFree to help personalize dose as well as imaging ^{68}Ga for diagnosis, staging or restaging. The first-of-its-kind Omni Digital Detector and Precision DL* are designed to reach new levels of sensitivity and detectability for incredibly clear images. And the brand-new Omni platform gives you exceptional control over the future of your PET/CT capability going forward.

About GE Healthcare:

GE Healthcare is the $18 billion healthcare business of GE (NYSE: GE). As a leading global medical technology and digital solutions innovator, GE Healthcare enables clinicians to make faster, more informed decisions through intelligent devices, data analytics, applications and services, supported by its Edison intelligence platform. With over 100 years of healthcare industry experience and around 50,000 employees globally, the company operates at the center of an ecosystem working toward precision health, digitizing healthcare, helping drive productivity and improve outcomes for patients, providers, health systems and researchers around the world.

Follow us on Facebook, LinkedIn, Twitter, and Insights for the latest news, or visit our website www.gehealthcare.com for more information.

*Omni Legend and Precision DL are CE marked. Omni Legend is 510(k)-cleared by the U.S. FDA. Precision DL is 510(k)-pending with the U.S. FDA. Not available for sale in the United States. Any clinical image shown that was processed with Precision DL was obtained from an investigational device, limited by U.S. law to investigational use.

[1]Data on file.

[2]Omni Legend 32 cm increases small lesion detectability 16% on average and up to 20%, as compared to Discovery MI 25 cm with matched scan time/injected dose, as demonstrated in phantom testing using a model observer with 4 mm lesions; average of different reconstruction methods.

[3]Short life tracers such as Rubidium-82 used in PET cardiology scans. For dynamic protocols such as Whole Body Dynamic Acquisition, the Dynamic IQ processing application is required. Dynamic IQ is CE marked. It is 510(k)-pending with the U.S. FDA. Not cleared or approved by the U.S. FDA. Not for sale in the US.

[4]Omni Legend 32 cm has up to a 2.2 times increase in system sensitivity as compared to Discovery MI 25 cm. Measurement follows NEMA NU 2-2018.

[5]Up to 53% reduction of PET scan time on Omni Legend 32 cm compared to Discovery MI 25 cm, as demonstrated in phantom testing.

[6]Up to 60% reduction in PET dose with Omni Legend 32 cm compared to Discovery MI 25 cm, as demonstrated in phantom testing.

[7]Omni Legend 32 cm with Precision DL* increases small, low-contrast lesion detectability by 42% on average as compared to a premium digital ToF PET/CT at matched scan time and injected dose.

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