

AnyScan[®] TRIO SPECT/CT TheraMAX^{*}

Theranostic and Diagnostic Imaging with
MAXimum Performance



Explore new horizons with the AnyScan[®] TRIO SPECT/CT, TheraMAX featuring extreme sensitivity with uncompromised image quality even at high energies. Transform your clinical routine with ultra-fast quantitative total-body scans in the era of theranostics. A versatile SPECT/CT system designed with the endeavour of serving the clinical needs of Nuclear Medicine and Molecular Imaging.





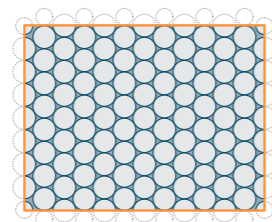
Ultra-fast quantitative Total-body SPECT/CT

Extreme sensitivity of 1620 kcps/(MBq/cm³) for ^{99m}Tc measured as Total System Response is delivered by the 15.9 mm scintillator crystal thickness of the Triple-Nal-Detectors. The continuous detector movements provide seamless SPECT acquisition, while the 40 cm Long Axial-FOV enables 2 meters SPECT/CT imaging in only five bed positions. Advanced features of the TheraMAX lead to ultra-fast quantitative total-body scans with acquisition time less than 10 minutes.

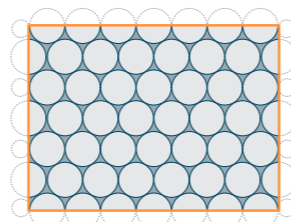


MAXimized Performance

Standard Performance



123 PMTs



60 PMTs

MAXimized Image Quality and Quantitative Accuracy

Our signature parallel-hole collimators are available for low-, medium-, high- and ultra-high energies. Novel Multi-pinhole technology provides focused imaging for brain and cardiac applications with PET-like image quality and unveils dynamic SPECT applications. Tera-Tomo™ 3D SPECT-Q is the ultimate quantitative image reconstruction solution, featuring Monte Carlo based physical modelling of particle-level gamma photon interactions running on high-performance GPUs.

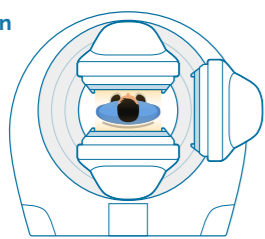
MAXimized Performance for Theranostics

The novel detector technology of the TheraMAX delivers uncompromised image quality even at high energies. The 15.9 mm NaI scintillator crystal thickness supports theranostic applications with isotope energies up to 640 keV, while providing remarkable detector sensitivity gain of 30% for ¹⁷⁷Lu, 80% for ¹³¹I and ²²⁵Ac when compared to 9.5 mm NaI crystal based detector. The intrinsic spatial resolution is maintained to 3.3 mm (FWHM) by the high number of photo-multiplier tubes (123 PMTs).

From General Purpose to Organ Focus Imaging

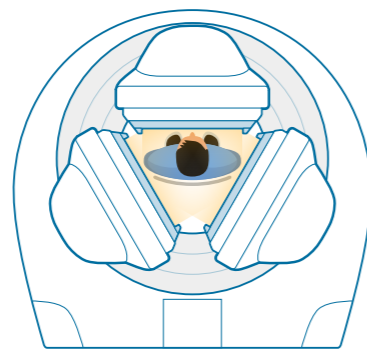
TheraMAX is a versatile SPECT/CT system offering five imaging modes using Transformable™ Gantry and simple collimator exchange procedures. Total-Body mode unveils ultra-fast quantitative total-body SPECT/CT by all three detectors surrounding the patient. Brain focus imaging is possible with the dedicated MPH-Brain collimator for superior image quality DAT SPECT and Brain Perfusion SPECT. Cardiac focus imaging with the MPH-Cardiac collimator delivers extreme tomographic sensitivity enabling fast myocardial perfusion or amyloid scans and even dynamic SPECT acquisition. Dual detector modes provide real planar and SPECT imaging options.

180° configuration with parallel-hole collimators

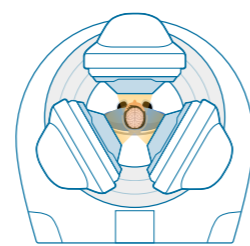


Dual-detector Planar imaging

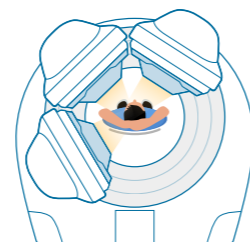
Total-Body SPECT/CT Imaging



120° configuration with parallel-hole collimators for Theranostic and Diagnostic applications

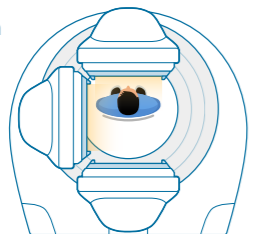


Brain Focus Imaging



Cardiac Focus Imaging

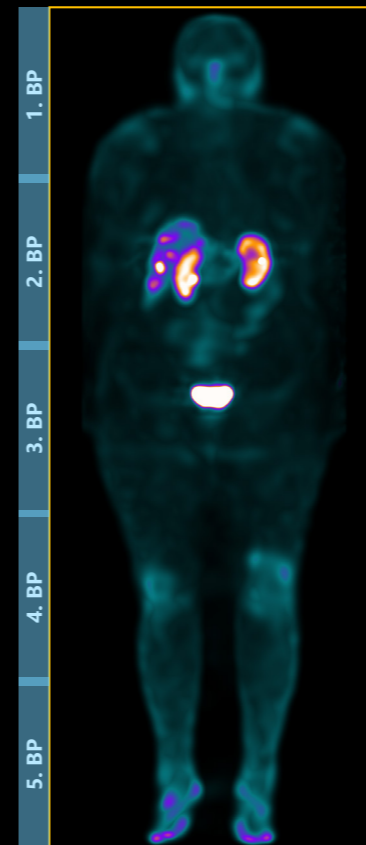
90° configuration with parallel-hole collimators



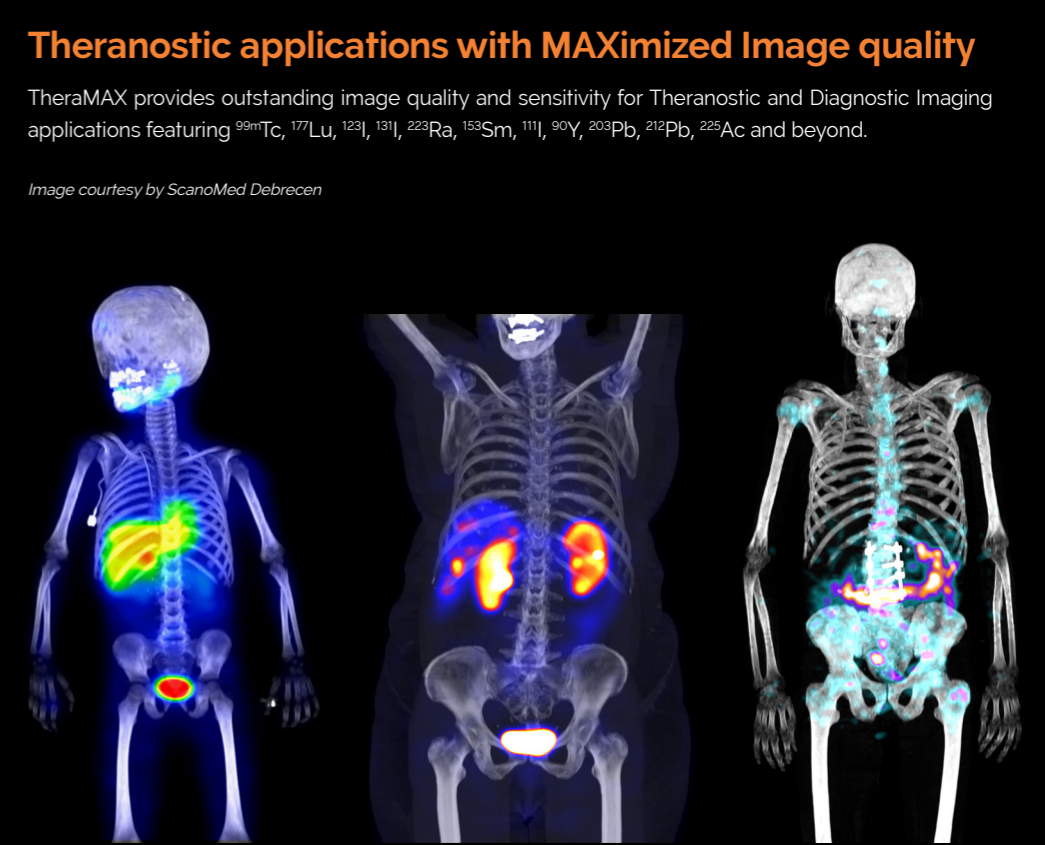
Dual-detector SPECT imaging

120° configuration with MPH-Brain collimator

75° configuration with MPH-Cardiac collimator



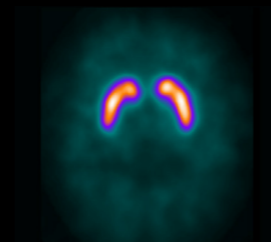
¹⁷⁷Lu-DOTATATE, 208 keV only
Non-AC SPECT 6865 MBq, MEHR-HS, 6 min 40 sec



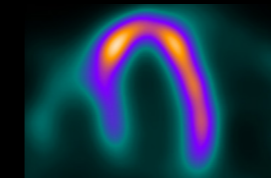
¹²³I-MIBG
67 MBq, MEHR-HS, 4 min

¹⁷⁷Lu-DOTATATE
6865 MBq, 208 keV only
MEHR-HS, 6 min 40 sec

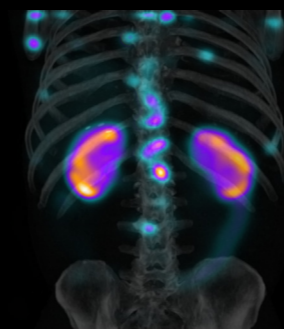
²²³Ra-Dichloride
3.03 MBq, MEHR-HS, 36 min



180 MBq of ¹²³I-lobetane
MPH-Brain, 12 min

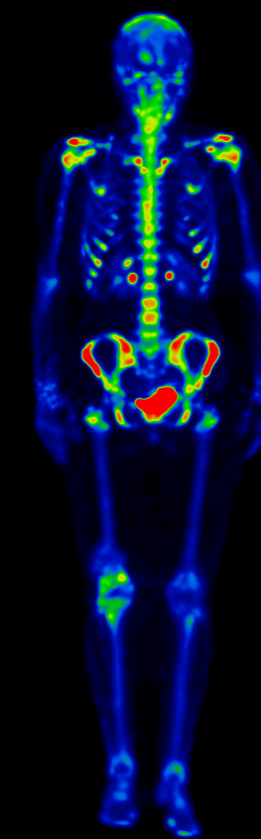


340 MBq of ^{99m}Tc-sestamibi
MPH-Cardiac, 4 min



7581 MBq of ¹⁷⁷Lu-PSMA-617,
208 keV only, MEHR-HS collimator, 2 min

Image courtesy by University Hospital Regensburg



Non-AC SPECT



AI-predicted SyCT
from SPECT raw data



SyCT-AC SPECT
with SyCT

500 MBq of ^{99m}Tc-HDP, LEHR-HS collimator
Image courtesy by University Hospital Regensburg

Theranostic applications with MAXimized Image quality

TheraMAX provides outstanding image quality and sensitivity for Theranostic and Diagnostic Imaging applications featuring ^{99m}Tc, ¹⁷⁷Lu, ¹²³I, ¹³¹I, ²²³Ra, ¹⁵³Sm, ¹¹¹In, ⁹⁰Y, ²⁰³Pb, ²¹²Pb, ²²⁵Ac and beyond.

Image courtesy by ScanoMed Debrecen



First global installation of the AnyScan® TRIO SPECT/CT TheraMAX

“The AnyScan® TRIO SPECT/CT, TheraMAX will boost our diagnostic and theranostic workflow and targeted radionuclide therapy, leading to better patient care and it also opens new possibilities in clinical research.” said Professor Dr. Dirk Hellwig, the head of the Department of Nuclear Medicine at University Hospital Regensburg, Germany.

Triple-Performance CT

High power CT with up to 400 mA in diagnostic mode, 0.5 sec rotation speed, 0.625 mm resolution while offering on-the-fly dose modulation. Iterative Image Reconstruction with Tera-Tomo™ 3D CT-IR and advanced corrections for Motion- and Metal Artefact Reduction. Further improvement is possible with AI-based CT image quality enhancement solution. 16 slice diagnostic CT with 32-slice reconstruction offering three performance levels:

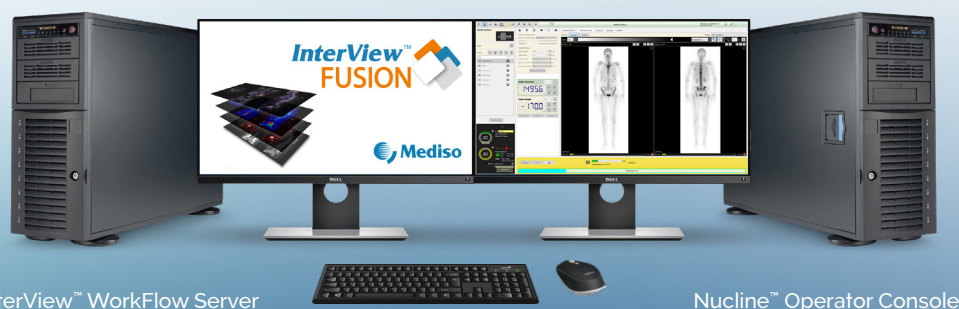
1. Standard Low Dose protocols for diagnostic CT applications
2. Ultra-Low Dose CT with sub-mSv effective dose for attenuation correction and localization
3. AI-Powered Synthetic CT (SyCT)** offering attenuation correction with Zero Effective Dose for quantitative ^{99m}Tc bone scans

SyCT** – the AI-Powered Synthetic CT

Experience the innovation of AI-Powered Synthetic CT (SyCT), offering zero-dose CT imaging for quantitative SPECT analysis. Specifically designed for ^{99m}Tc bone scans, including total-body imaging, SyCT ensures precise attenuation correction and anatomical localization. Free from the effective dose and artifacts associated with traditional CT scans, it eliminates motion and registration mismatches between SPECT and CT. Streamline your workflow with a solution that removes the need for dual-modality imaging.

InterView™ WorkFlow Server

The powerful InterView™ WorkFlow Server offers the centralized solution for reconstruction, data processing and review. The always available system provides the fast access through thin clients regardless the time, location or device for up to 12 simultaneous users. Maximizing the efficiency, the operator can control the entire image workflow on a dual monitor workstation without any additional hardware.



InterView™ WorkFlow Server

Nucline™ Operator Console



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*TheraMAX is the configuration name of MAX-123/15.9 detector
**For research purpose only

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