GENESIS Edition
Transforming CT
Transforming clinical confidence
Transforming patient experience
Transforming your workspace

GENESIS Edition
Transforming CT

Brought to you by the leaders in area detector technology
Aquilion ONE™ / GENESIS Edition goes beyond the evolution of
dynamic volume CT. Intensive clinically focused research and
breakthrough technological developments have culminated in a CT
system with industry-leading spatial resolution and reduced radiation
dose requirements.

GENESIS Edition maximizes the patient experience during CT
examinations, and through intelligent examination protocols, provides
excellent image quality with low radiation and contrast dose tailored
to each and every patient.

Intelligent technology for increased patient safety and
superior patient care.
Transforming clinical confidence
GENESIS Edition transforms routine imaging to new levels of image detail and low contrast resolution – balanced for each clinical question at the right dose.

A completely redesigned X-ray system from photon generation to beam distribution and detection is the basis of PUREViSION Optics. This results in a better balance between image quality and dose. Adaptive scatter correction removes scatter through intelligent modeling that preserves more primary photons for reconstruction as compared to a hardware-based approach.

PUREViSION Optics – Delivering excellent brain image quality.

PUREViSION Detector – High-precision manufacturing produces a scintillator with 40% greater light output.

The right balance between image quality and dose for every patient, from the youngest to the largest.

Eliminating the workflow challenges of MBIR®

Integrating, easy to use, and fast.

GENESIS Edition provides sharper image detail and lower patient dose with the world’s first fully integrated MBIR solution. FIRST® utilizes forward projection iterations to deliver high-quality images with up to 82% dose reduction. A full volumetric reconstruction for routine clinical use can be obtained in just 3 minutes.

Following Toshiba’s longstanding philosophy of minimizing dose while maintaining efficient clinical workflow, FIRST integrates seamlessly into your daily clinical practice.

**Model-Based Iterative Reconstruction**

**Option**

FIRST – Forward projection model-based iterative reconstruction optimized for routine clinical application and immediate implementation.
The right application for a confident diagnosis
Automated, reliable, and robust

GENESIS Edition offers a comprehensive suite of Adaptive Diagnostic solutions to make complex exams easier and to improve diagnostic precision and reproducibility.

Subtraction CTA
Iodine Mapping
SURECardio
TAVR
SEMAR
DE Tissue Characterization

Superior visualization in CTA with true subtraction of bone and calcification.
Clearly-defined perfusion with color blood-flow maps as a result of advanced registration and subtraction.
The robust solution for coronary imaging with ONE shot volume imaging and arrhythmia scanning.
Easily combined gated and non-gated acquisition for fast and low-dose TAVR exams.
Improved visualization of bone and soft tissue—Single energy raw data based metal artifact reduction.
Tissue Characterization with easy-to-use Dual Energy scanning.

*Option
Dynamic Volume CT – Simply efficient

More than a decade of clinical partnerships with leading institutions sets Toshiba apart as the industry leader in dynamic volume CT. Together, we have developed new procedures for better patient care, automated workflows, and refined reconstruction technology to make the remarkable routine.

Aquillon ONE / GENESIS Edition – A new standard in CT based on 10 years of clinical know-how
There is no substitute for experience.
GENESIS Edition has been designed with a unique flared gantry, providing a calming, wide-open space for a better patient experience. The short bore is safer, with improved access to the patient from the front and rear of the gantry. During trauma and interventional procedures, patients can easily be cared for from the front and rear of the gantry.

Patient-centric design

GENESIS Edition has been designed with a unique flared gantry, providing a calming, wide-open space for a better patient experience. The short bore is safer, with improved access to the patient from the front and rear of the gantry. During trauma and interventional procedures, patients can easily be cared for from the front and rear of the gantry.
Tech Assist Lateral Slide ensures safety and comfort by providing a tool to mechanically move the patient to the correct position with the push of a button. Tech Assist Lateral Slide reduces the risk of injury to the patient and the technologist.

Gantry tilt is a fundamental feature of CT systems, permitting angled scanning at your desired reading plane and avoiding direct exposure to radiosensitive organs. Precision engineering equips GENESIS Edition with bidirectional gantry tilt. Highly advanced reconstruction technology overcomes the mathematical complexity of angled scanning for helical and volumetric acquisition, with no compromise in image quality.

No need to accept a premium CT system without gantry tilt

Once on the table, perfect positioning - No push, no pull.
Thanks to GENESIS Edition, CT scans can now be performed with the simplicity of conventional X-ray. Laser collimation allows the field of view and scan range to be set directly on the gantry. Patients are positioned more comfortably. Examinations are performed faster and with reduced radiation dose.
Transforming your workspace
GENESIS Edition is smaller, lighter, and requires less power than any other premium CT system. Designed for an installation space of just 19 m², GENESIS Edition can be installed in most existing CT rooms, avoiding costly renovations.

The compact design also provides more in-room space for trauma or interventional procedures.

Economize on space, not on performance
GENESIS Edition helps to make complex exams easier, reducing dose and improving diagnostic accuracy and reproducibility. All steps from exam planning to reconstruction and postprocessing can be combined in the same protocol. So simply selecting from the wide range of pre- or user-defined protocols is all that’s needed to achieve rapid and robust results.
Superb brain image quality with clear grey-white matter differentiation and significantly reduced artifacts thanks to PUREVISION optics.

Whole-brain perfusion* with Dynamic Volume CT.
Chest Imaging

ONE volume chest scan of newborns: ultra-fast scan, ultra-low dose Enhanced clinical confidence with SURESubtraction™ Lung

ONE beat cardiac CT* with high spatial resolution at only 0.26 mSv
Excellent image detail and low contrast resolution in the abdomen

Increased lesion detectability with 131Iodine Mapping

*Option
SEMAR  Single Energy Metal Artifact Reduction

Original  SEMAR

Original  SEMAR
**Main specifications**

**Detector**
- PUREVision detector
- 320 rows, 0.5 mm
- Rotation time: Min. 0.275 s*, 0.35 s
- Bore size: 78 cm
- Bore depth: 187 mm
- SUV: ± 0.5

**Gantry**
- Load: 220–315 kg*
- Max. scan range: 150–200 cm*

**Patient couch**
- Load: 220–315 kg*
- Max. scan range: 150–200 cm*

**Reconstruction speed**
- Helical: Max. 80 fps
- Iterative reconstruction: AIDR 3D*, Enhanced MBIR* FIRST*

**Reconstruction**
- Iterative reconstruction: AIDR 3D*, Enhanced MBIR* FIRST*
- MARS: 3D0*

**Installation**
- Power capacity: 125 kVA*, 100 kVA
- Space: Min. 19 m² (short couch)

---

1. Option
2. Depend on system configuration
3. Adaptive Iterative Dose Reduction 3D

---

---
GENESIS Edition
Transforming CT
WARNING: Any reference to x-ray exposure, intravenous contrast dosage, and other medication is intended as a reference guideline only. The guidelines in this document do not substitute for the judgment of a healthcare provider. Each scan requires medical judgment by the healthcare provider about exposing the patient to ionizing radiation. Use the As Low As Reasonably Achievable (ALARA) radiation dose principle to balance factors such as the patient’s condition, size and age, region to be imaged; and diagnostic task.

Disclaimer: In clinical practice, the use of the AIDR 3D and FIRST feature may reduce CT patient dose depending on the clinical task, patient size, anatomical location and clinical practice. A consultation with a radiologist and a physicist should be made to determine the appropriate dose to obtain diagnostic image quality for the particular clinical task. Due to local regulatory processes, this product may not be available in each country. Please contact your local Toshiba sales representative for the most current information.