LEADING INNOVATION

For more than 130 years, Toshiba has been a world leader in developing technology to improve the quality of life. Some 50,000 global patents demonstrate that rich history of leading innovation. It might surprise you to learn some of the things we’ve invented.

1875 | Founding of Toshiba
1915 | First X-ray tube
1989 | First helical CT scanner
1993 | First one-million-pixel CCD
1997 | First open, superconducting magnet
1998 | Quasar 1.5T MRI System
1998 | First generation of non-contrast MRA
1999 | First all-digital multipurpose x-ray
2000 | 2nd generation of non-contrast MRA
2001 | First 64 slice CT scanner
2003 | Ultra-short 1.5T MRI system
2006 | First 128 element MRI system
2006 | 4th generation of non-contrast MRA
2007 | First dynamic volume CT scanner
2007 | First 71 cm aperture in an open MRI

AWARD-WINNING SERVICE AND SUPPORT

Developed with customer input, Toshiba’s innovative support programs have resulted in greater satisfaction when using our MR systems as reflected in customer surveys time after time.

InTouch Center™
A centralized service facility that provides applications and service support expertise for Titan customers 24 hours a day, seven days a week.

InnerVision® Plus
Monitored around the clock, remote system diagnostics help identify problems and provide potential solutions before care is interrupted or an engineer can arrive.

InTouch Agreements
Tailored to meet specific customer requirements, these range from an a la carte approach that helps manage risk to full security agreements that provide complete system protection.

Technical Assistance
Customer support specialists are available 24/7 to identify and resolve technical issues in real time. Application specialists are also available to assist staff with protocol and image quality issues.

Local Customer Teams
A single call mobilizes a local team of Toshiba Customer Engineers. Averaging 10 years of experience with Toshiba and 105 hours of specialized training per year, they can quickly resolve almost any performance issue.

Parts Support
A complete inventory of Vantage Titan 3T product parts is ready for shipment when and where they’re needed, any time day or night.

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True comfort and flexibility with the power of 3T.

With a large 71 cm aperture and the quietest exams in the industry, the Vantage Titan 3T is the most comfortable 3T MRI system for all of your patients. The Atlas integrated coils give operators a wide range of flexibility and offer unique capabilities when coupled with the most evolved non-contrast MRA package available. This advanced system design is the result of listening to and building for doctors and the patients they serve. And for those concerned about the major leap to 3T, the Vantage Titan can be configured to grow along with your clinical needs.
Successful exams begin with comfortable patients.

The Vantage Titan 3T is designed to maximize image quality without compromising patient comfort. Its 71 cm aperture and expansive open bore allow you to image even your largest patients to maximize efficiency and throughput. Vantage Titan 3T’s spacious interior minimizes claustrophobia, which is a common issue with conventional bore MRI systems.

Ultra-Short Open Bore Design
The 71 cm aperture gives you more room and flexibility for easy off isocenter imaging.

Comfortable for Large Patients
Wide shoulders and large midsections can still fit comfortably in the expansive bore of the Vantage Titan 3T.

Feet First Imaging
The 40-element Atlas SPEEDER™ Spine Coil is integrated into the patient table and can be positioned at either end. This allows for feet-first positioning, minimizing feelings of claustrophobia and increasing patient comfort.
Its most unique feature is one you may never hear.

MR acoustic noise is one of the major complaints of patients and medical staff. Toshiba’s patented Pianissimo™ technology significantly reduces the noise in and around the MRI environment, making exams more comfortable and easier to complete. With Pianissimo, MRI no longer needs to be loud and disruptive.

Vantage Titan 3T reduces acoustic noise in three different ways.

**Vacuum Chamber**

The gradient coil is vacuum sealed, which significantly reduces acoustic noise.

**Sound-Dampening Material**

Special insulation between the vacuum vessel and the magnet dampens sound and minimizes the vibrations transmitted to the magnet.

**Silent Pulse Sequences**

Vantage Titan 3T also offers special sequences that further reduce gradient noise. These allow even the most sensitive patients to have a pleasant exam experience.
Unique technologies provide you more uniformity and coverage.

**Multi-phase Transmission**
Toshiba's Vantage Titan 3T is equipped with advanced radio frequency transmission technology to eliminate fundamental depth penetration issues that have always been problematic for 3T imaging.

Due to the shortening of wavelengths at higher frequencies, signal drop-off occurs and causes inhomogeneity in images, known as dielectrical effects. The design of the Vantage Titan 3T virtually eliminates these dielectrical effects. Toshiba's Multi-phase Transmission technology utilizes four points of RF transmission, combined with automatic adjustments in phase and amplitude, to guarantee optimal RF distribution and homogeneity in all body regions.

Multi-phase Transmission improves 3T image quality without the use of time consuming pre-scans, leading to a more confident diagnosis and an increase in overall system productivity.

**Conform**
Conventional MR systems utilize a spherical volume to image. The Vantage Titan 3T uses a unique combination of shim techniques to form a cylindrical shape that better corresponds to the human form. Conform technology gives the Titan a very homogeneous, full field-of-view at 50 cm x 50 cm x 45 cm.

**M-Power user interface**
M-Power is an intuitive new user interface built for all levels of users. It allows an efficient use of the Vantage Titan 3T for optimized workflow and productivity. M-Power uses advanced hardware and software for ultra fast image reconstruction and advanced post processing applications.

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**Scan planning**

**Viewing**

**Advanced post-processing**
High quality, non-contrast MRA minimizes patient risk.

An increasing awareness of the potential risks associated with gadolinium-based contrast agents has revealed the need for alternative, contrast-free MRA techniques. We provide clinicians four generations of unique, non-contrast MRA sequences that minimize risk to patients while producing exceptional images. These images are often better than those acquired with conventional contrast enhanced techniques.

**FBI: Fresh Blood Imaging**
Acquires angigrams and venograms in one acquisition with exceptional sensitivity of the natural blood flow.

**CIA: Contrast-free Improved Angiography**
Superior imaging of smaller vessels to expand the window of opportunity for evaluating early disease states.

**Time-SLIP: Spatial Labeling Inversion Pulse**
Evaluates hemodynamic velocity, functional assessments, and visualization of vascular structures.

**TSA: Time Space Angiography**
Utilizes variable BB-T1 times to create non-contrast, time-resolved images with high temporal resolution.
Atlas technology powers the efficient technologist.

Engineered for ease of use and patient comfort while increasing operational workflow, Atlas coils are lightweight and easy to position. Compared to conventional coils, Atlas coil technology utilizes a unique combination of smaller elements, which deliver a higher signal-to-noise ratio, with larger elements for greater penetration. By simultaneously integrating up to 128 elements, Vantage Titan 3T provides better image quality throughout the imaging volume.

POSITIONING FLEXIBILITY

- Multiple coils can be used simultaneously creating flexibility for operators and comfort for patients
- Convenient port locations mean that a large segment of exams can be performed feet first
- 205 cm of table movement coupled with a sliding spine coil provides maximum flexibility for operators and greater comfort for patients

Integrated Workflow Solution

Atlas coils are uniquely designed to improve workflow and patient comfort. Vantage Titan 3T easily handles multiple studies by allowing you to position the patient and utilize the coils you need in one easy step.
Clinical Image Gallery

- Multi-slab Time-of-Flight non-contrast MRA with 0.3 mm resolution
- Flow Sensitive Black Blood MRA
- T2W sagittal cervical spine with 0.3 mm resolution
- T1W axial cervical spine with 0.3 mm resolution
- T2W sagittal cervical spine with 0.3 mm resolution
- T2W and T1W thoracic images with 0.3 mm high resolution imaging depicting the smallest of details
- T2W sagittal female pelvis with JET
- T2W coronal male pelvis
- Fat Free T1W coronal elbow
Clinical Image Gallery

- T1W axial abdomen
- T2* sagittal shoulder
- Homogenous off-center Fat Free coronal shoulder
- T2* axial shoulder
- T1W axial brain
- Complete fat saturation male pelvis
- T1W Fat Free axial abdomen
- T1W sagittal ankle
Enhance workflow and networking with exceptional performance.

Vantage Titan 3T is designed to embrace open network standards to facilitate easy integration in the widest variety of network environments. Vantage Titan 3T systems comply with DICOM standards to assure optimum communications between network systems.

HOSPITAL NETWORK INTEGRATION
Toshiba has voluntarily implemented the communications of its medical imaging systems with Integrating the Healthcare Enterprise (IHE). This allows the user to boost clinical efficiency with universal IHE connectivity for simple access and distribution of data across any size hospital or physician network.

IHE PROFILES SUPPORTED
- Scheduled Workflow
- Portable Data for Imaging
- Consistent Presentation of Images
- Presentation of Grouped Procedures
- Patient Information Reconciliation
- Charge Posting