



MAGNETOM Aera
A Tim+Dot System

MAGNETOM Aera

Transforming 1.5T economics.

www.usa.siemens.com/Aera

SIEMENS

The image shows the interior of a 70 cm Tim+Dot MRI system. The view is from the patient's perspective, looking into the large, circular bore of the magnet. The interior is a clean, light-colored metal. On the right side, a control panel is visible, featuring a circular dial with a plus sign and other markings. The overall lighting is soft and even, highlighting the smooth curves and metallic texture of the machine.

We're talking profound change.

The pressure to deliver a better bottom line, while still providing the best care, has never been greater. It's clear that technology innovation can, and should, play an enormous role in improving healthcare economics across all measures.

MAGNETOM® Aera, the first 70 cm Tim+Dot system is a breakthrough advance in 1.5T imaging that will significantly increase your productivity, and as a result, transform every part of your day. The benefits will be nothing less than profound.



Tim + Dot

Tim[®] (Total imaging matrix) technology advances MR imaging — again — with 4G flexibility, accuracy, and speed.

It's Siemens ultimate innovation technology that unlocks imaging power like never before. Tim's newly designed ultra high-density coils are combined with the highest channel configurations ever offered.

And, with Tim's new patient-adaptive technology, image quality and acquisition speed go to a whole new level.

Think more exams per day. Every day.

Dot[™] (Day optimizing throughput) engine offers a customizable framework for patient personalization, user guidance, and exam automation to help optimize every part of your MR workflow.

From reduction in your exam times and improved clinical workflows to enhanced staff efficiencies. Exam by exam, patient by patient, Dot helps to take away the complexity of MR scanning. Dot multiplies the power of Tim resulting in greater image consistency and diagnostic confidence, greater ease of use, and a day that's more productive than ever before.

MAGNETOM Aera will fundamentally **transform the way you work** with MR. Through the groundbreaking integration of Tim 4G and Dot, MAGNETOM Aera sets a new standard of efficiency, ease of use, and care which will help you **harness a new level of productivity**. Tim 4G gives you the power you need for superb image quality. And Dot helps to take away the complexity inherent in MR scanning that may slow you down. With MAGNETOM Aera you'll significantly **optimize your resources**. Reduce staff workload. Radically improve your return on investment (ROI). And, most importantly, deliver excellent quality of care to your patients – regardless of patient condition. Today, when healthcare is under pressure from all sides, **MAGNETOM Aera delivers. Clinically. Economically. Easily.** So you can do more, more easily than ever before.



Choose color or wood panel for MAGNETOM Aera.
Or, our new illumination MoodLight™ design to make the panel any color you want.
You can also customize the scanner with your own engraved logo.



Introducing MAGNETOM Aera

The world's first 70 cm **Tim+Dot** system.

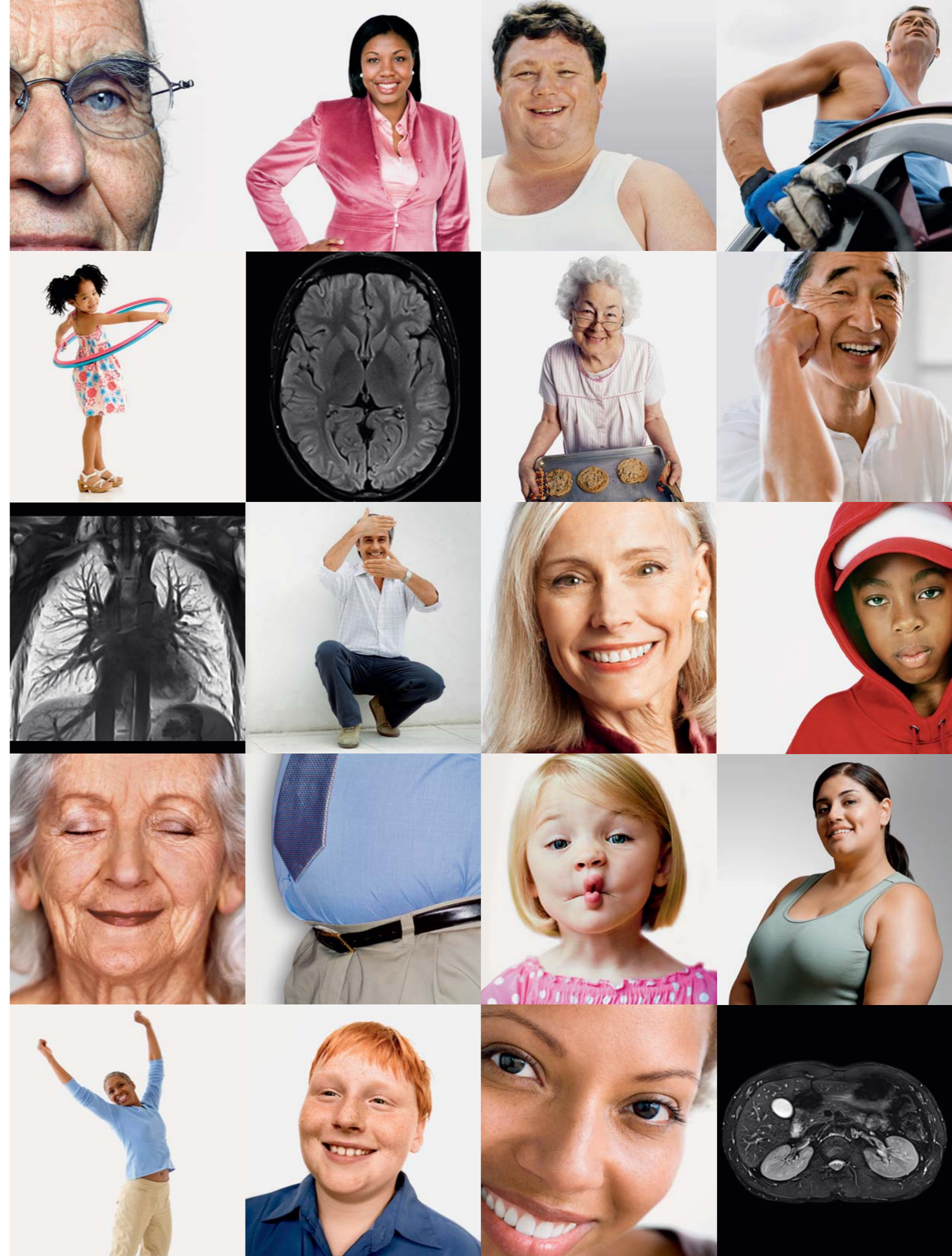
Tim + Dot = patient-centered care

Perfect scanning. Perfectly easy.

MAGNETOM Aera makes MR exams easier and more comfortable than ever before. The roominess of our 70 cm Open Bore will accommodate a large variety of patient sizes, shapes and conditions. And the super-short magnet allows many studies to be completed with the patient's head outside the bore while still supporting a full 45 cm Field of View (FoV). But, you don't have to compromise image quality for comfort. Tim's newly designed, ultra high-density array enables higher spatial and temporal resolution and an imaging distance of up to 205 cm with no patient repositioning. Now up to 204 coil elements deliver more signal than ever before. Which enables the most flexible Parallel Imaging and supports the most demanding applications.

The personalized scanning of Dot allows you to get the best scan for each individual patient. Dot Engines give you uniquely tailored, optimized scans configurable to patient condition or clinical question.

Tim+Dot, together in MAGNETOM Aera, will help you realize a marked improvement in productivity, while allowing your patients enjoy a most comfortable scan experience.





Tim 4G flexibility.

- Now you never have to wonder if you have enough channels to support ultra-high density coils. Tim 4G offers flexibility for the future with up to 64 channels.
- Tim DirectConnect™ cableless coils are easier and faster to handle. And they're ultra-lightweight so they're easy on patients, too.
- Select exams, not coils, for extensive coverage of the patient's anatomy. Tim's lightweight coils can be seamlessly integrated to support large anatomic coverage, for instance combining head, neck, body and spine coil elements to create a neurovascular array.



New Tim Dockable Table accelerates patient set-up.

- Patients can be prepared for an exam outside the scanner room and wheeled in when ready.
- Totally Tim-ready with integrated, removable Spine 32-channel coil.
- Holds up to 250 kg / 550 lb to accommodate more patients.
- Enjoy fast patient preparation, easy patient transport, comfort for immobile patients, and flexibility in emergency situations.



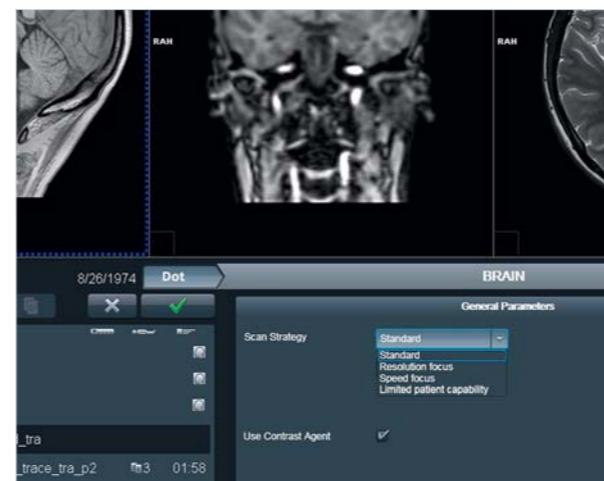
MAGNETOM Aera's 70 cm Open Bore.

- The preferred design by claustrophobic patients. But all patients will enjoy the extra room, too.
- Captures sharper images due to less anxiety-related movement.
- Reduces sedation rates.
- Covers an extensive patient range: pediatric*, critically ill, obese, and kyphotic to name a few.

MAGNETOM Aera's 145 cm short system design.

- Reduces patient fear and anxiety.
- Offers more head-out exams.
- A 50 x 50 x 45 cm FoV covers most applications.
- Leads to higher throughput and more referrals.
- And now with TrueForm magnet and gradient design.

* MR scanning has not been established as safe for imaging fetuses and infants under two years of age. The responsible physician has to decide about the benefit of the MRI examination in comparison to other imaging procedures.

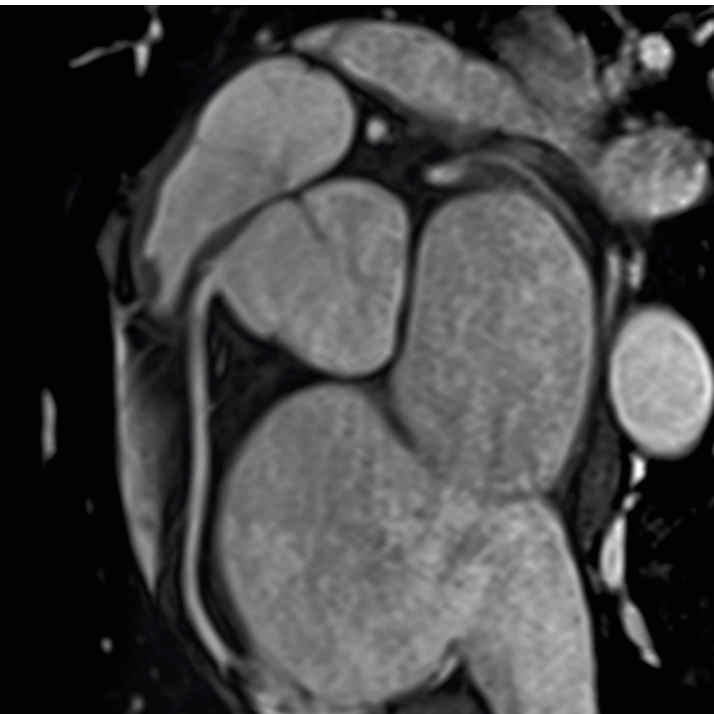


Dot is personalized — for every patient and user.

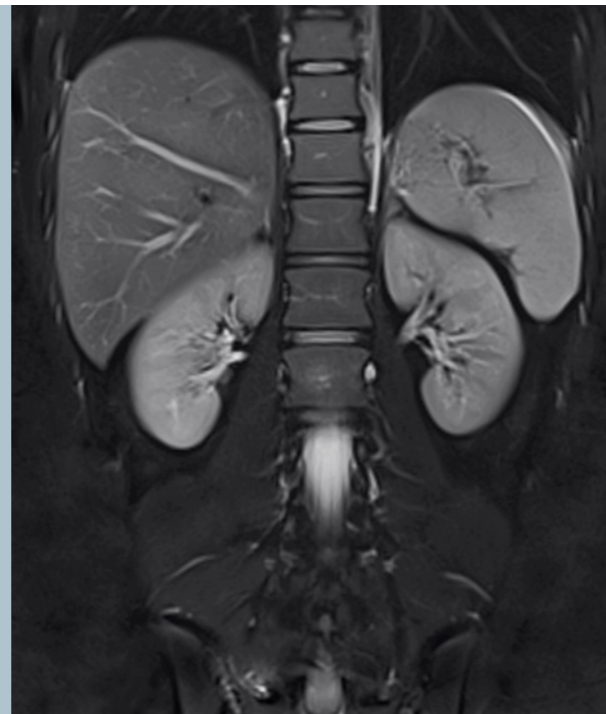
- Exam strategies can be designed based on patient condition and clinical indication. Just confirm and start scanning.
- Scanning is personalized for individual breath-hold capacity to help eliminate motion artifacts.
- High quality exams are easily reproduced, even when conditions change.
- Customize Dot to your practice; to your standards of care.
- AutoVoiceCommands in multiple languages make exams more personalized.

Tim + Dot = expert-level scans

Expert-level scans.



Thanks to Dot's on-board guidance and the increased SNR of Tim 4G, now you can perform cardiac exams day and night. The Cardiac Dot Engine eliminates one of the biggest challenges in cardiac MR by simplifying complete cardiac localization down to just a few clicks. Tim's TrueForm design offers excellent fat saturation and high image homogeneity.



Tim+Dot mean easy scanning of any body shape or size. Tim's TrueForm design lets you use the full 50 x 50 x 45 cm FoV. For scans with contrast media, Dot helps to synchronize bolus timing. Real-time graphics and AutoVoiceCommands assist the user in organizing the ideal timing of breathing, scanning, and contrast media.

The real power of Tim+Dot in MAGNETOM Aera is all about consistency. With the accuracy of Tim 4G integrated with the unique on-board guidance of Dot, you will achieve excellent image quality with fewer repeats.

Tim's new ultra high-density array, with up to 204 coil elements, combines with a new RF design, with up to 64 RF channels, for an SNR increase of up to 20%*. This enables high-resolution imaging that holds up even when zooming in on multi-station images. So you can scan everywhere. Zoom anywhere.

* Data on file



A complete view of the whole spine is made easy in just two steps. With Tim, there's no repositioning of your patient. Multi-step exams of the spine can be fused automatically using Inline Composing giving you a complete view of the whole CNS with consistently excellent image quality.

**Dot Engines make scanning faster,
easier, and consistent.**



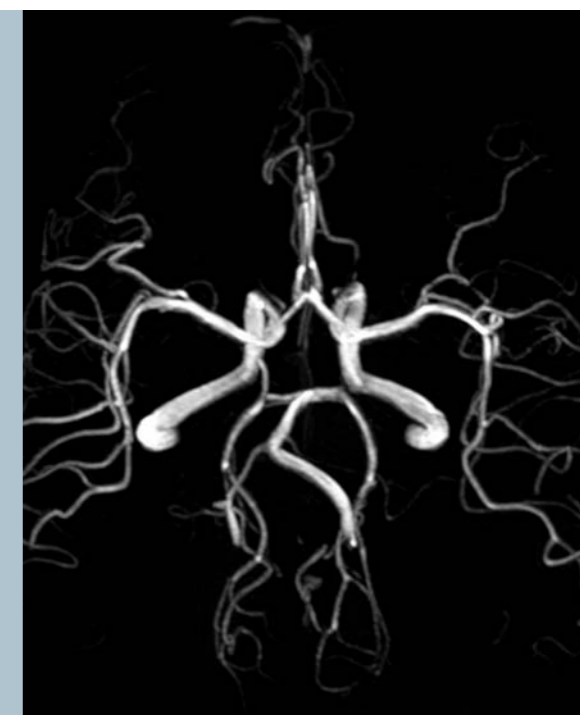
It's a new way to plan and perform orthopedic exams. Tim's new ultra high-density coils for MSK imaging improve SNR and anatomic coverage. Dot's customizable knee workflow with AutoAlign, offers step-by-step user guidance including guided slice and MPR planning for fast 3D measurements and Inline 3D processing.



1.5T Brain studies have never been faster. Tim's 20-channel Head/Neck coil offers increased SNR and the new architecture of Tim 4G coils maximize the capability of every channel.



MAGNETOM Aera and Tim's new ultra-high density coils make it possible to acquire exquisite images of the chest and lungs. And, with a 205 cm scan range, you can perform high-resolution images anywhere in the body without repositioning the patient. With MAGNETOM Aera, you will realize consistently excellent image quality.



Excellent time-of-flight imaging of the brain and Circle of Willis is made possible by the Tim 4G Head/Neck 20 coil. With high SNR and parallel imaging possible in all directions, Tim 4G offers great advantages for brain imaging.

We've applied our advanced magnet and gradient design to MAGNETOM Aera. Originally optimized for 3T systems, TrueForm design provides more imaging volume and homogenous images that are clear and sharp all the way to the edges of the 50 x 50 x 45 cm FoV. In addition, Tim's new all digital-in/digital-out design integrates all RF transmit and receive components at the magnet, eliminating analog cables for true signal purity.

And Dot makes it all so easy. Your customized guidance navigates the user through each exam, indicating critical decision points along the way. Dot offers

the following workflow engines: cardiac, abdomen, knee, and brain. Each can be tailored to your clinical needs in a way that literally takes the complexity out of MR exams – even cardiac and abdomen. Now, decisions can be made more confidently and scanning can be done more reliably.

The result is greater efficiency at all levels and a dramatic improvement in consistency.



Mobility done right. The Tim Dockable Table offers an innovative multi-directional navigation wheel for easier handling and 360 degree flexibility.



Tim Dockable Table gives you easy docking integrated right into the scanner. The receiving port guides the table for easy alignment. Nothing could be easier.



New DirectConnect coils. Eliminate the hassle and inefficiency of cables. With no attenuating cable, you'll also enjoy an improvement in SNR.

Now you can do more exams per day.

The economics of 1.5T have never looked smarter. Now you can equip your staff with the productivity-boosting tools they need to efficiently handle a full day's patient load and more. From patient prep and exam set-up, to image acquisition and processing, MAGNETOM Aera with Tim 4G and Dot can help you realize a significant productivity increase and enhance value across the entire MRI workflow. The speed of Tim 4G dramatically shortens acquisition time, while your customized Dot workflows make set-up and scanning nearly effortless. Now, even the most complex exams such as cardiac and abdomen can be performed confidently.

Reach out to new patient populations.

- Obese patients
- Pediatric patients*
- ICU patients or those dependent on medical equipment

Better accommodate difficult-to-scan patients.

- Kyphosis
- Respiratory problems
- Pain and mobility issues
- Claustrophobia
- Anxiety

Start realizing value from your MAGNETOM Aera scanner faster than ever.

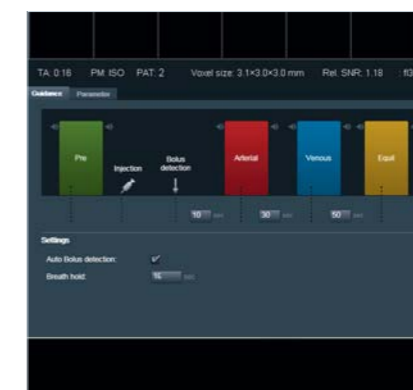
- Fast installation
- Fast and easy training for most MR users
- Familiar UI for all modalities means faster user acceptance

MAGNETOM Aera will be good to your bottom line. MAGNETOM Aera has low operational costs and is easy to site. There's no need for a large, dedicated computer room because the all-digital Tim 4G technology is concentrated at the magnet. Its lifecycle costs are reduced due to its optimized cooling system and Zero Helium boil off. With MAGNETOM Aera, it's a whole new day in MR.

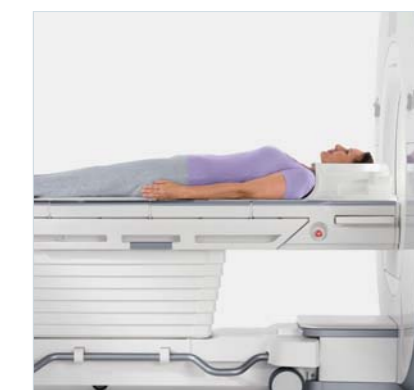
Get the most out of your system—throughout the life of your system. Visit our information packed website, MAGNETOM World, for current clinical information to optimize your daily MR examinations (www.siemens.com/magnetom-world). In addition, *syngo* Remote Assist, our interactive help line that connects Siemens Healthcare professionals with our customers, allowing for using your system's full capabilities to boost productivity. And, *syngo* Evolve, our obsolescence protection program, keeps you on the cutting edge of technology.



Dot Engines. Dot means that scans can be completed faster and more easily, with less chance of errors or repeats.



Timing is synchronized. Dot integrates AutoVoiceCommands into your scan process for synchronized timing of breathing and scanning. Contrast timing is more accurate with AutoBolusDetection.



syngo TimCT moves MRI forward. Literally. Offering continuous table move for CT-like scanning. Now you can acquire up to whole body planning scans in a single, continuous move.

* MR scanning has not been established as safe for imaging fetuses and infants under two years of age. The responsible physician has to decide about the benefit of the MRI examination in comparison to other imaging procedures.



MAGNETOM Aera. It's transforming economics.

MAGNETOM Aera ushers in a new day in 1.5T economics. Designed to bring extraordinary value across the entire imaging process, MAGNETOM Aera makes it possible for most users to realize the total power of MR. To deliver robust image quality, consistently. To significantly increase productivity. To radically improve return on investment (ROI) anywhere MRI is used. It's the next era in MR, and once again Siemens is a world leader.

MAGNETOM Aera delivers patient-centered care.

- Higher patient comfort with 70 cm Open Bore and short system design with a full FoV.
- Tim's all-new innovative coil architecture unlocks higher element configurations and higher SNR.
- Personalized and easier exams with Dot.

MAGNETOM Aera enables expert-level scans.

- High image quality, consistently, with Tim+Dot.
- Optimize all resources day in and out.
- TrueForm design optimizes the full FoV.

MAGNETOM Aera transforms the day.

- Achieve more exams per day.
- Attract more referrals and improve marketability.
- Low operational costs with one of lowest energy and siting costs and Zero Helium boil-off.

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