

Shanghai United Imaging Healthcare Co., Ltd.
Copyright © Shanghai United Imaging Healthcare Co., Ltd. All Rights Reserved.

Shanghai, China
2258 Chengbei Rd., Jiading District, Shanghai, 201807.

Email | info.global@united-imaging.com
Business Consultation | +86 (21) - 67076666
After-sales Service | 4006 - 866 - 088

Edition ID | 88000196 - MPD - BRU - 01



*uAI*F*I*inside

uMR Omega

Ultra-wide Bore 3.0T MR

Think BIG.

ABOUT UIH

At United Imaging, we develop and produce advanced medical products, digital healthcare solutions, and intelligent solutions that cover the entire process of imaging diagnosis and treatment. Founded in 2011 with global headquarters in Shanghai, our company has subsidiaries and R&D centers across China, the United States, and other parts of the world. With a cutting-edge digital portfolio and a mission of broader access to healthcare for all, we help drive industry progress and bold change.

To learn more, visit <https://www.united-imaging.com>

uMR Omega | **uAiFl**inside

Think Big

| *Innovative technology*

| *New experience*

| *Full capability*



Grow MRI Utilization By Providing Expanded Access



As the population grows older and disease states such as obesity, stroke, cancer, and cardiac issues become more endemic, MRI has been slow to adapt. Many patients who need an MRI simply are not being served. For example, there has been little change in MRI hardware since the 2004 introduction of the 70cm bore size, while obesity rates have increased steadily.

In addition, the limited space and relatively long exam times of existing MR technology can limit access for patients who suffer from claustrophobia or feelings of anxiety. In sum, many patients with a clinical need today do not have access to MRI, which is critical to their health.



uMR Omega is designed to provide greater access for patients with the world's first 75cm, ultra-wide bore 3T MRI. The uMR Omega has an industry-leading table weight capacity of 680 lbs. and good image quality provided by its world-class homogeneity.

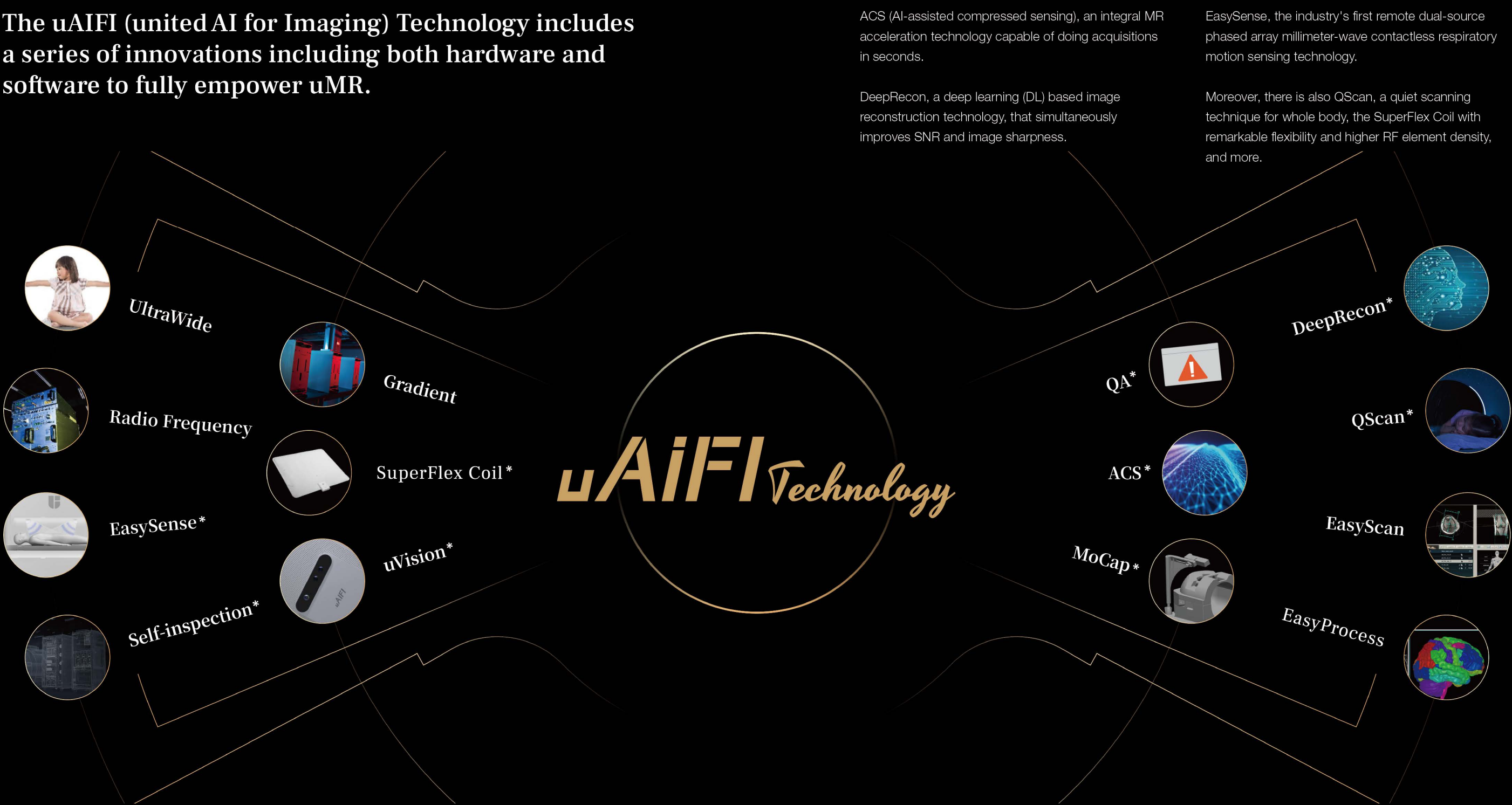
Together, these two factors enable uMR Omega to better accommodate bariatric patients and greatly improve the patient experience overall.

With uCS^{2.0} imaging techniques, 2D, 3D, and 4D acquisitions across all anatomy can be performed with up to 16x acceleration. This acceleration enables faster exams for your patients and creates opportunity for added time slots and advanced diagnostics.

uMR Omega is your platform for growth.



The uAiFI (united AI for Imaging) Technology includes a series of innovations including both hardware and software to fully empower uMR.



ACS (AI-assisted compressed sensing), an integral MR acceleration technology capable of doing acquisitions in seconds.

DeepRecon, a deep learning (DL) based image reconstruction technology, that simultaneously improves SNR and image sharpness.

EasySense, the industry's first remote dual-source phased array millimeter-wave contactless respiratory motion sensing technology.

Moreover, there is also QScan, a quiet scanning technique for whole body, the SuperFlex Coil with remarkable flexibility and higher RF element density, and more.

* FDA 510(k) pending and not CE marked, not commercially available in the U.S. or the EU.

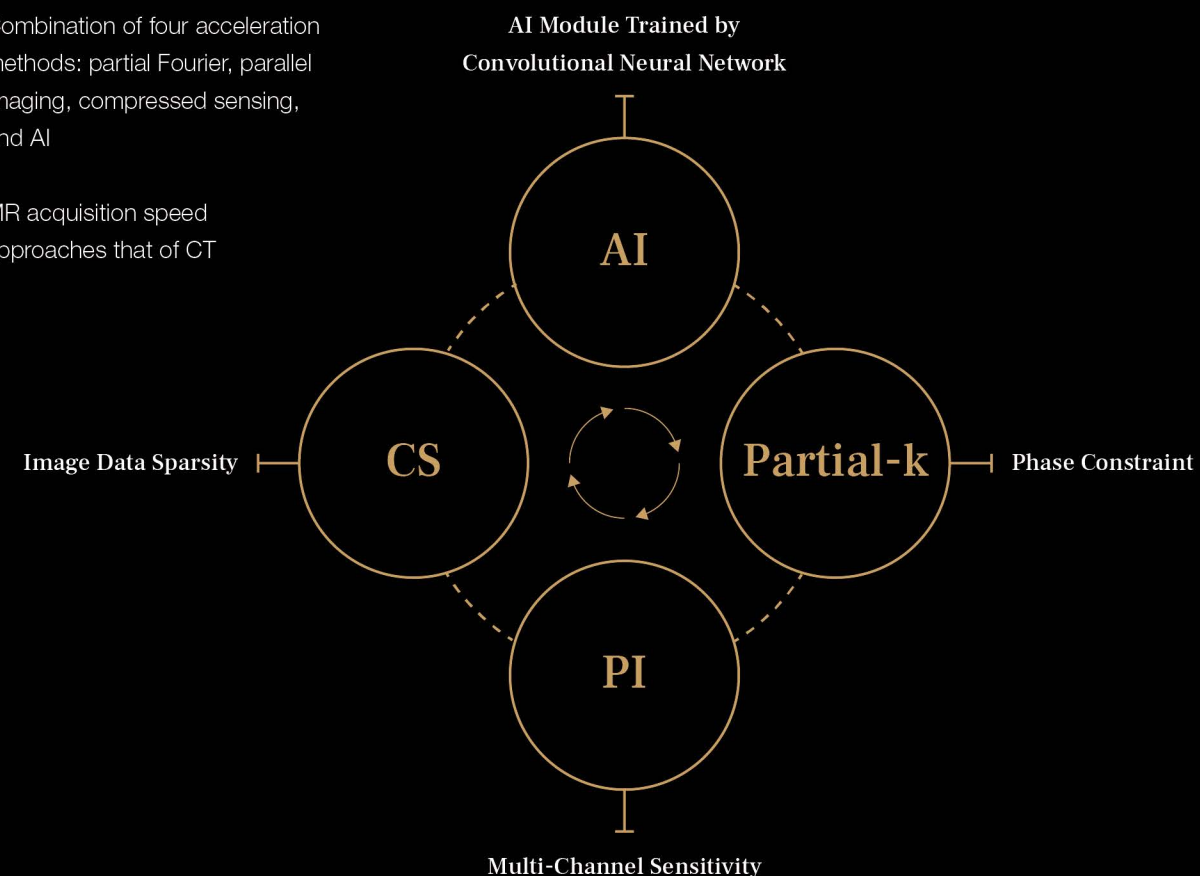
ACS (AI-assisted Compressed Sensing) is United Imaging's exclusive MR acceleration solution to best balance speed and image quality, combining CS, HF and PI and innovatively introducing the state-of-the-art deep learning neural network as the AI module into the reconstruction procedure.

For the first time, ACS yields:

Historical prior knowledge &
AI-assisted technology

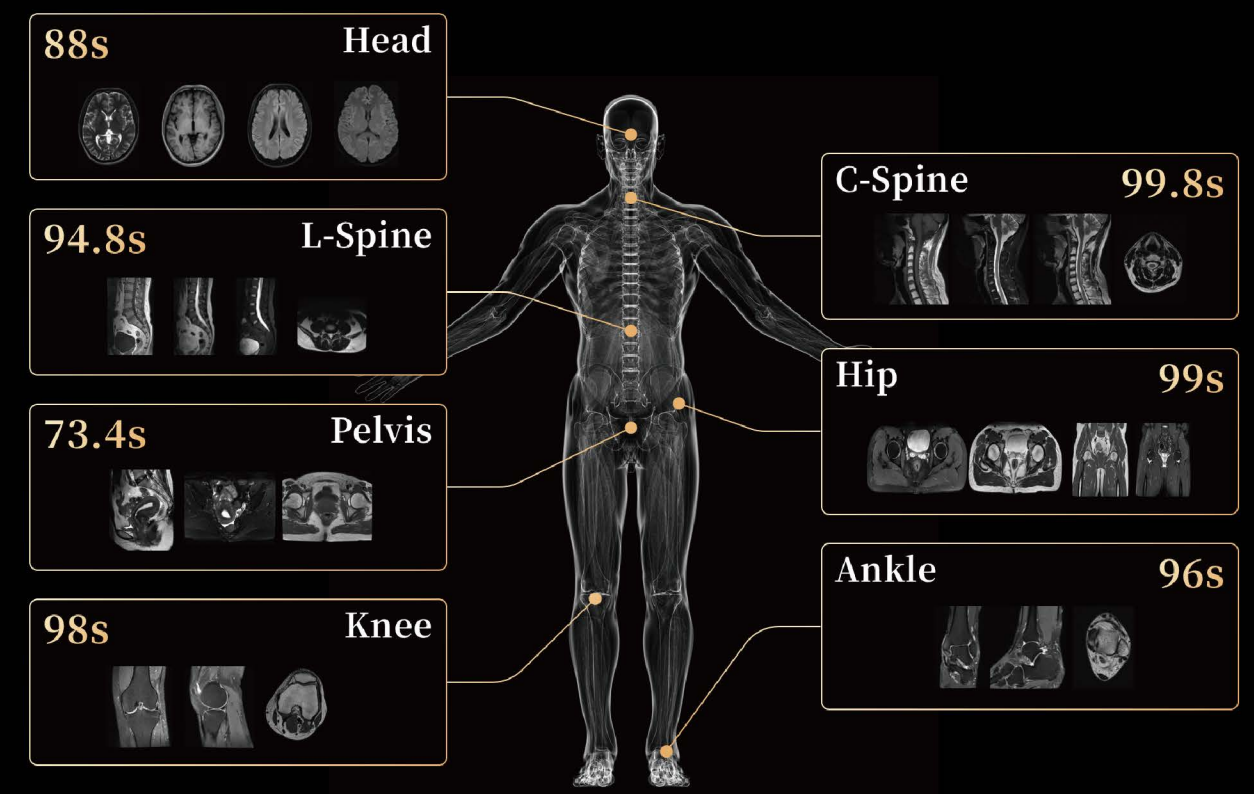
Combination of four acceleration methods: partial Fourier, parallel imaging, compressed sensing, and AI

MR acquisition speed approaches that of CT



Optimized Coverage:

ACS can be used on all anatomies

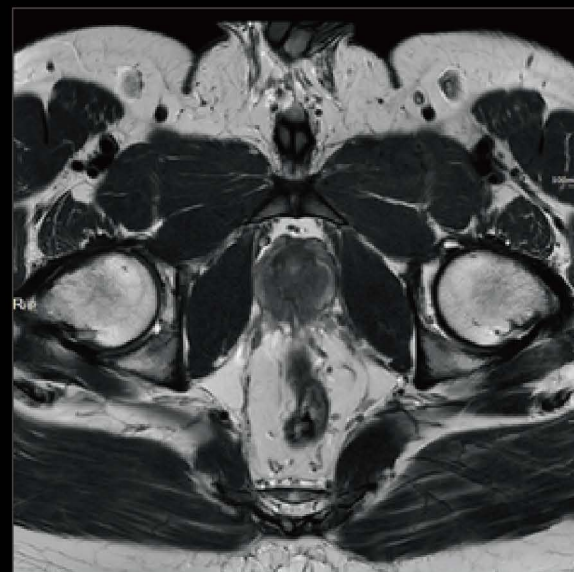


* Not CE marked, and not commercially available in the EU.

AI-assisted Compressed Sensing

ACS (AI-assisted Compressed Sensing) empowers users to achieve either improved image quality without prolonging imaging time, or reduced imaging time without sacrificing image quality, allowing more complete examinations but also enriching radiologists' confidence and enhancing patient comfort.

Higher Resolution, Shorter Scan Time

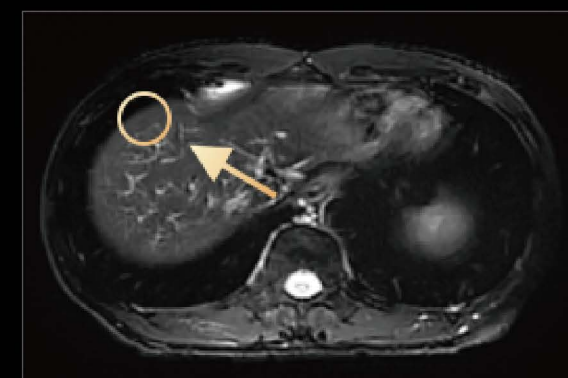


Conventional
AD: 5:51min
0.6×0.6×3mm³

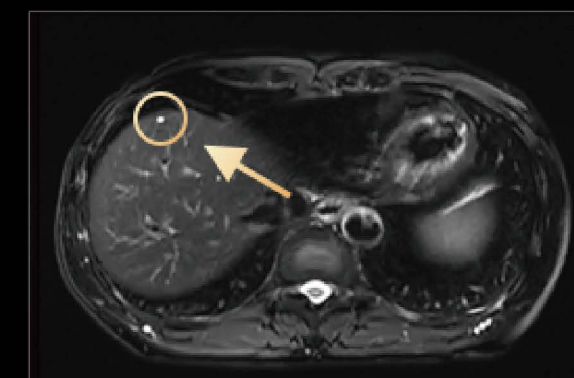


ACS
AD: 2:39min
0.4×0.4×2mm³

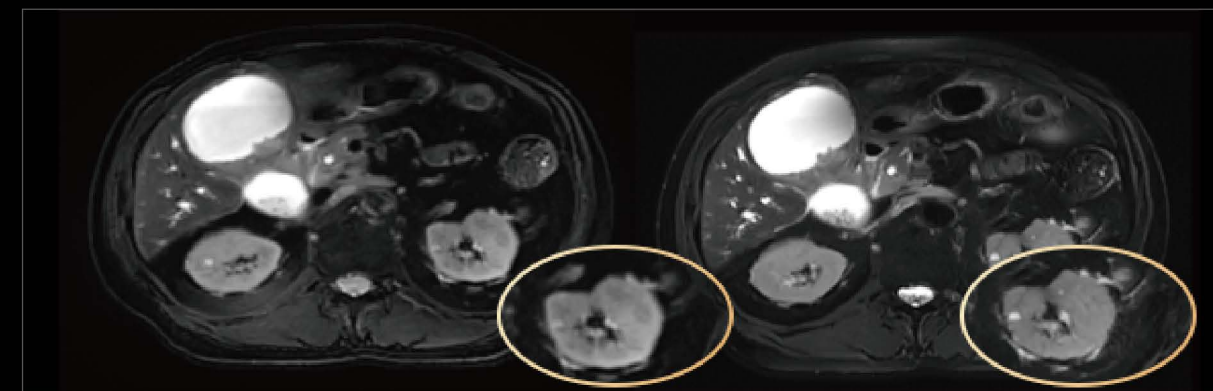
Improve Lesion Detection



Multi breath hold
AD: 3×16s



ACS Single breath hold
AD: 15s

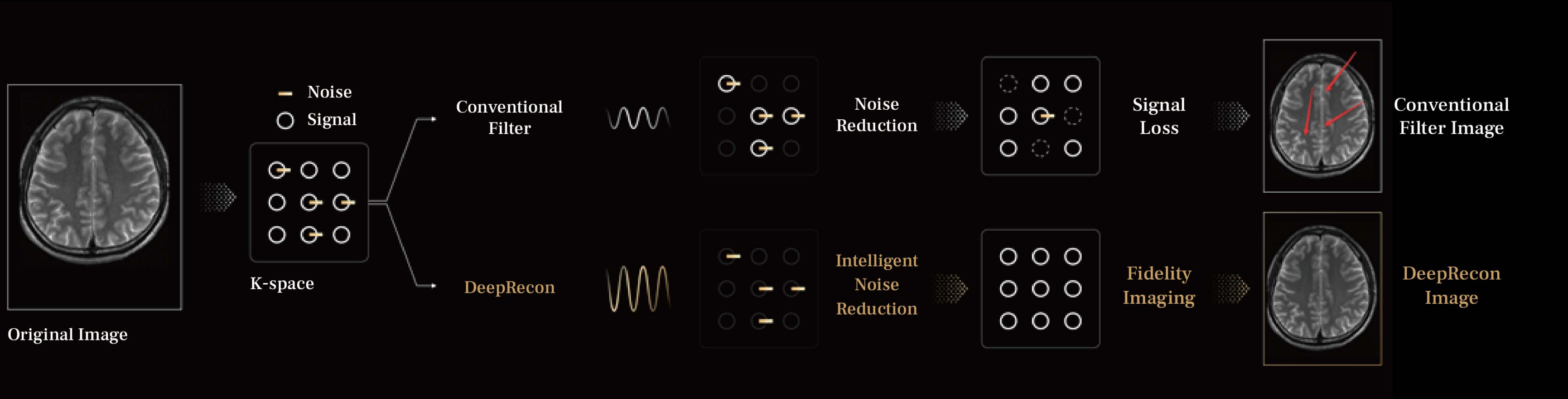


Multi breath hold
AD: 3×16s

ACS Single breath hold
AD: 15s

AiFI Technology DeepRecon*

Deep Learning based image reconstruction,
simultaneously improve SNR and image sharpness.



*FDA 510(k) pending and not CE marked, not commercially available in the U.S. or the EU.

uAiFI Technology DeepRecon*

Deep Learning based image reconstruction,
simultaneously improve SNR and image sharpness.



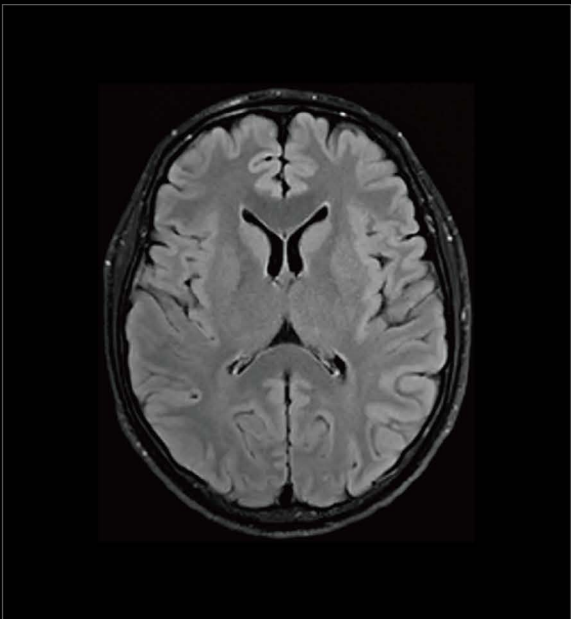
Conventional

T2 FSE COR
0.40x0.40x3.0 mm³
AD: 3:29min



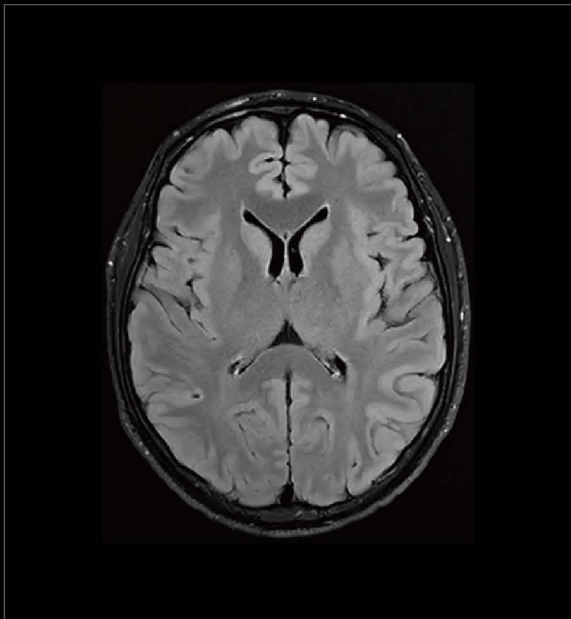
DeepRecon

T2 FSE COR
0.20x0.20x3.0 mm³
AD: 3:29min



Conventional

T2 FSE FLAIR TRA FS
0.90x0.90x5 mm³
AD: 2:56min



DeepRecon

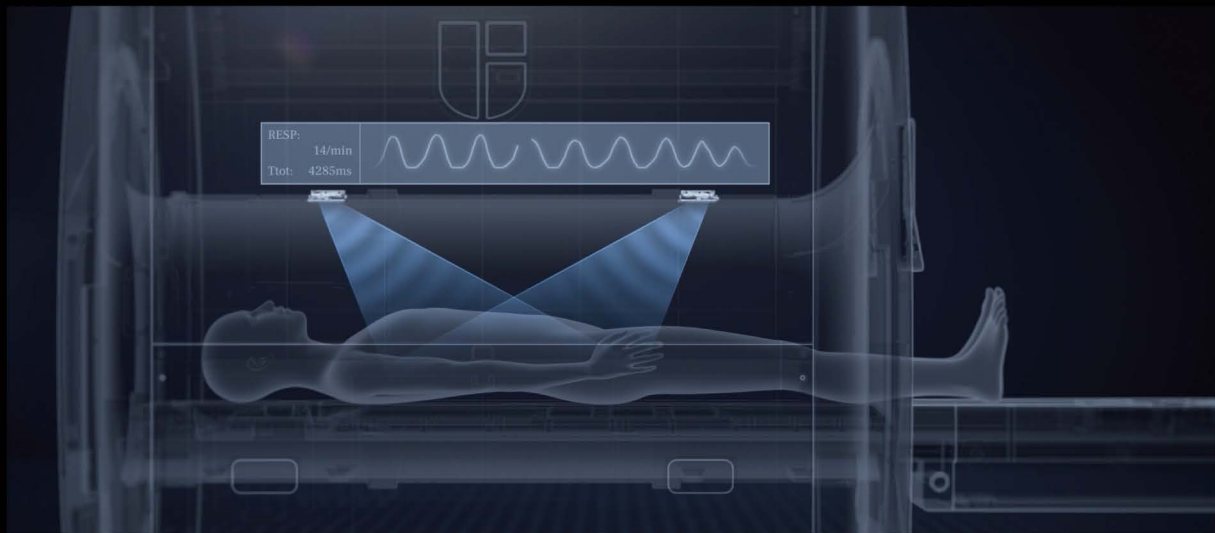
T2 FSE FLAIR TRA FS
0.60x0.60x5 mm³
AD: 1:52min

*FDA 510(k) pending and not CE marked, not commercially available in the U.S. or the EU.

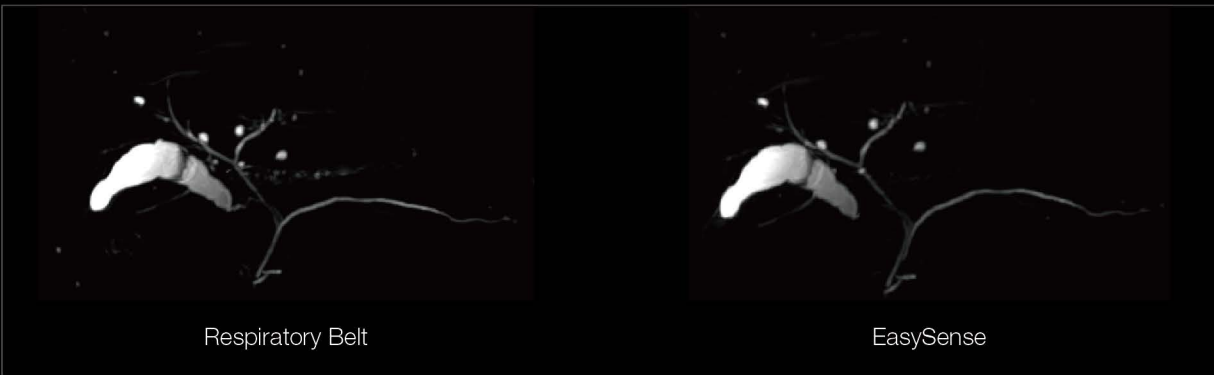
uAiFI Technology EasySense*

Industry's First **Contactless Dual-source** phased-array

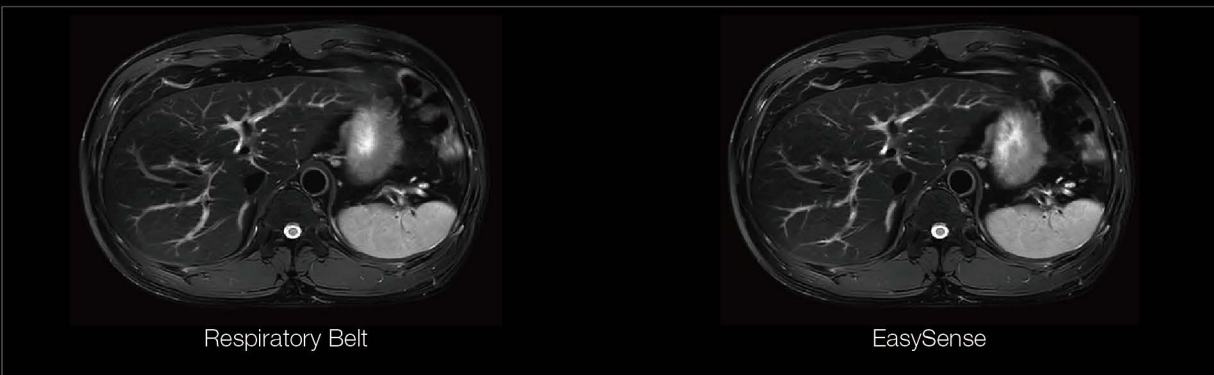
Millimeter-wave Radar Solution for respiratory-triggered scans



Free-breathing scanning without the need for the application of respiratory belt or a navigator setup



3D MRCP



T2W FS TRA

*FDA 510(k) pending and not CE marked, not commercially available in the U.S. or the EU.

Technology SuperFlex Coil*

Soft, Comfortable, and Form Fitting



SuperFlex Body Coil - 24



SuperFlex Coil Small/Large - 12



Soft, Comfortable, and Form Fitting

Made of innovative conductive polymer composite material

Easy Positioning

Flexibly adapts to patient's body contour

New Decoupling Technology

No coil coupling effect for high-density coil unit arrangement

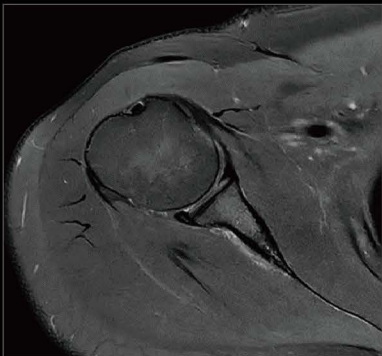
New Integrated Preamplifier

Reduced power consumption and thickness

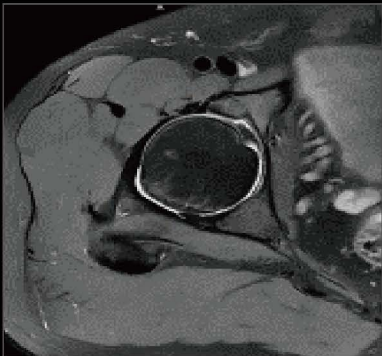
*FDA 510(k) pending and not CE marked, not commercially available in the U.S. or the EU.

AIFI Technology SuperFlex Coil*

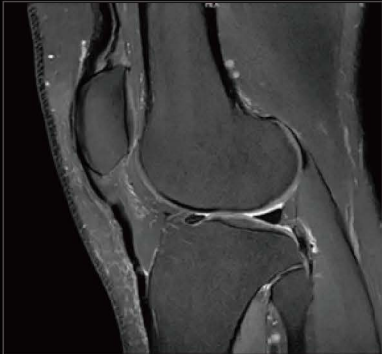
Soft, Comfortable, and Form Fitting



PD FSE FS



PD FSE FS



PD FSE FS



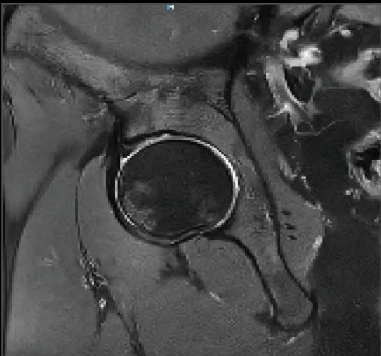
PD FSE FS



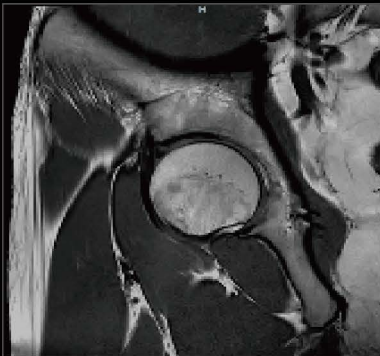
T2 FSE FS



T1 FSE COR



PD FSE



T1 FSE



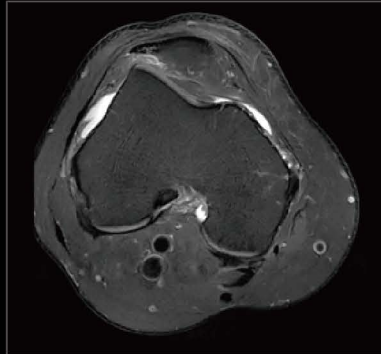
PD FSE



T2 FSE



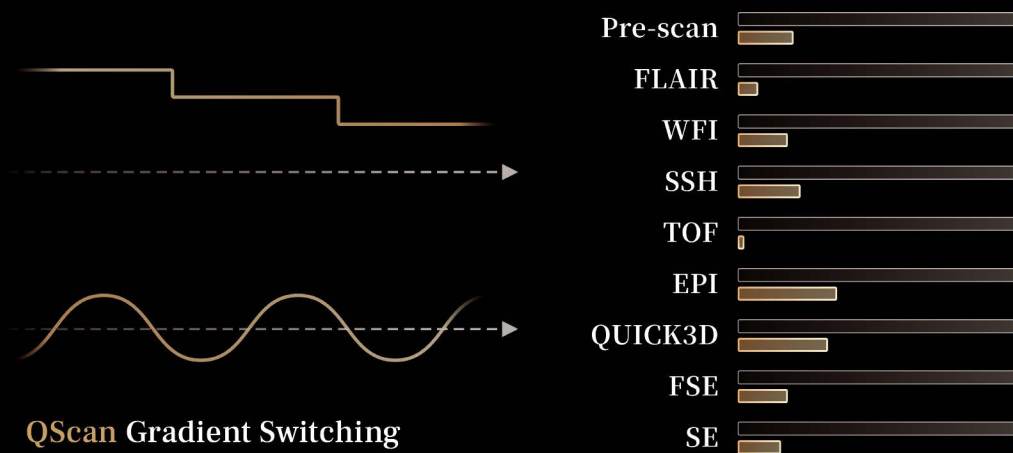
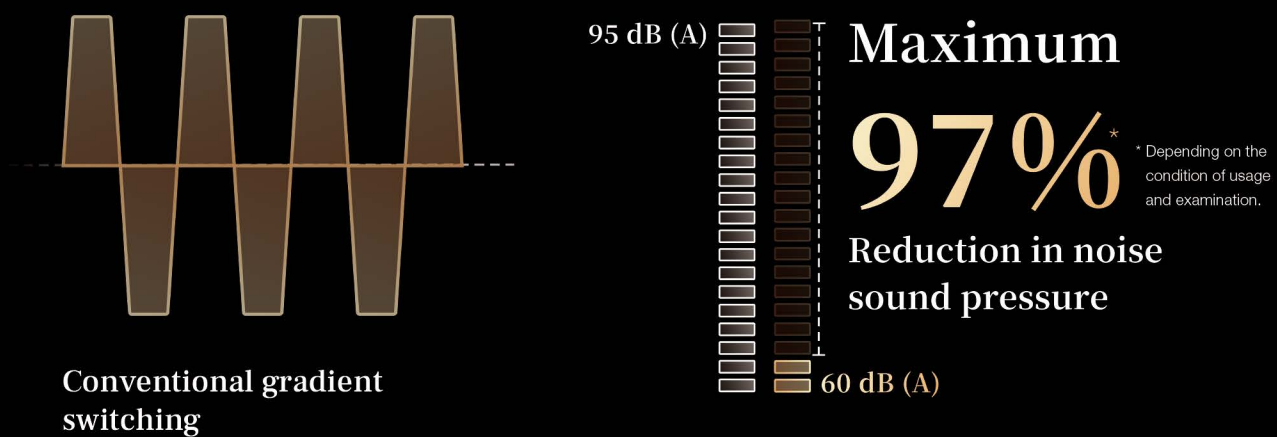
PD FSE FS



PD FSE FS

*FDA 510(k) pending and not CE marked, not commercially available in the U.S. or the EU.

Quiet scanning for better patient satisfaction



Up to 97% Reduction in Sound Pressure**

- Suppresses the noise from the source by intelligently optimizing and smoothing the gradient trajectory.

Improved Patient Comfort and Satisfaction

Quiet scanning is provided during whole time of the scan including pre-scan and scout imaging.

Across a Broad Range of Sequences

Available for 2D/3D anatomical imaging as well as DWI, SWI, and MRS.

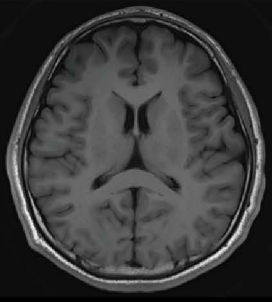
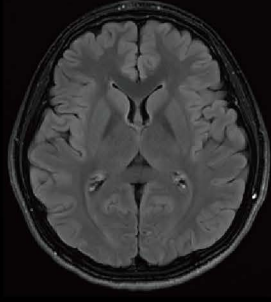
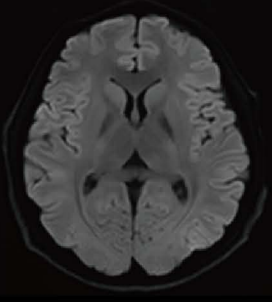
Covers Complete Clinical Examinations

Supports the whole body including brain, musculoskeletal, cardiac, abdomen, pelvis, angiography, and more.

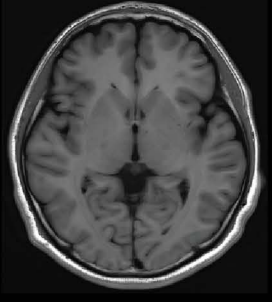
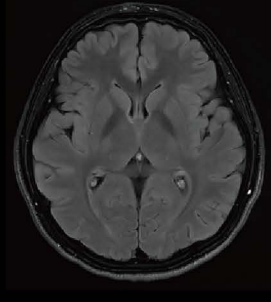
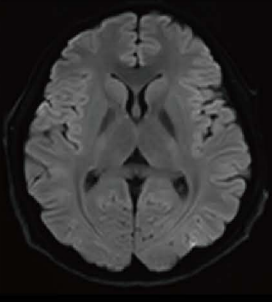
AIFI Technology ACS × QScan*

**Quiet Scanning Without Compromising
Scanning Speed**

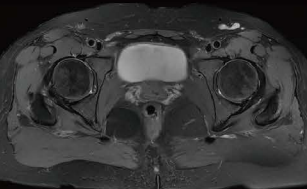
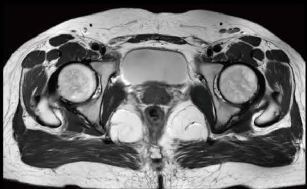
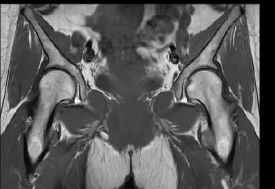
Brain Conventional AD: 8:18 min

			
T2 FSE FOV: 200*220 mm² AD: 1:50 min	T1 FSE FLAIR FOV: 200*230 mm² AD: 2:48 min	T2 FSE FLAIR FS FOV: 200*220 mm² AD: 2:20 min	EPI DWI b1000 FOV: 220*230 mm² AD: 1:20 min

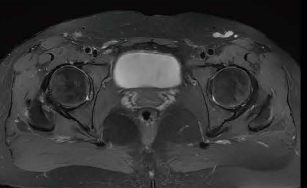
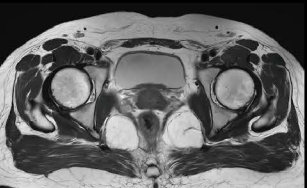
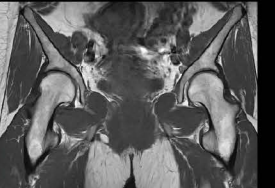
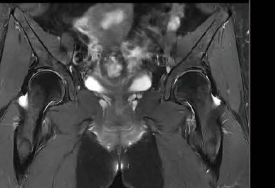
Brain ACS × QScan AD: 5:20 min

			
T2 FSE FOV: 200*220 mm² AD: 1:14 min	T1 FSE FLAIR FOV: 200*230 mm² AD: 1:30 min	T2 FSE FLAIR FS FOV: 200*220 mm² AD: 1:16 min	EPI DWI b1000 FOV: 220*230 mm² AD: 1:20 min

Brain Conventional AD: 13:26 min

			
PD FSE FS FOV: 350*250 mm² AD: 3:44 min	T2 FSE FOV: 350*250 mm² AD: 3:37 min	T1 FSE FOV: 350*250 mm² AD: 3:00 min	T2 FSE SPAIR FOV: 350*250 mm² AD: 3:05 min

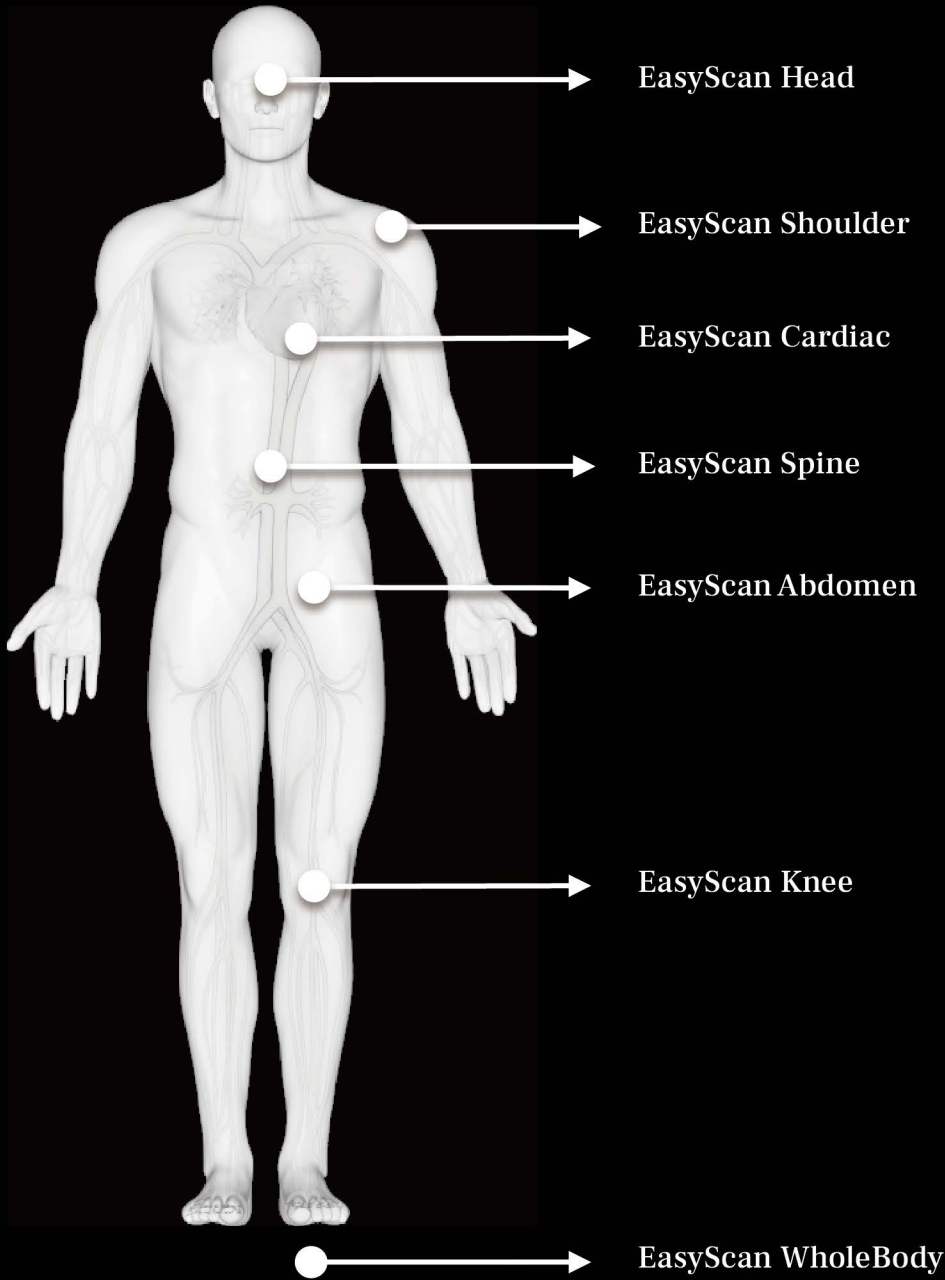
Brain ACS × QScan AD: 5:38 min

			
PD FSE FS FOV: 350*250 mm² AD: 1:33 min	T2 FSE FOV: 350*250 mm² AD: 1:24 min	T1 FSE FOV: 350*250 mm² AD: 1:00 min	T2 FSE SPAIR FOV: 350*250 mm² AD: 1:41 min

*FDA 510(k) pending and not CE marked, not commercially available in the U.S. or the EU.

uAiFI Technology EasyScan & EasyPlan

Simplified Workflow



EasyPlan

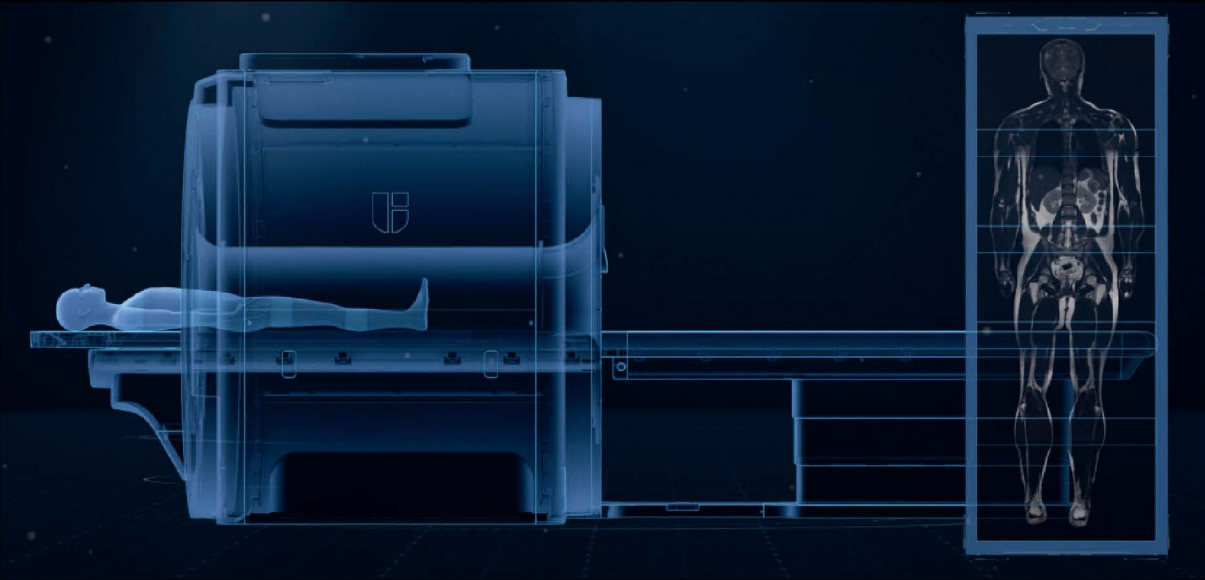
Automatic multi-step scan planning and image stitching with ONE-click

EasyScan

Intelligent, automatic, and consistent anatomical orientation

EasyScan Cardiac

One 3D breath hold scout for 7 views.



Simplified Workflow

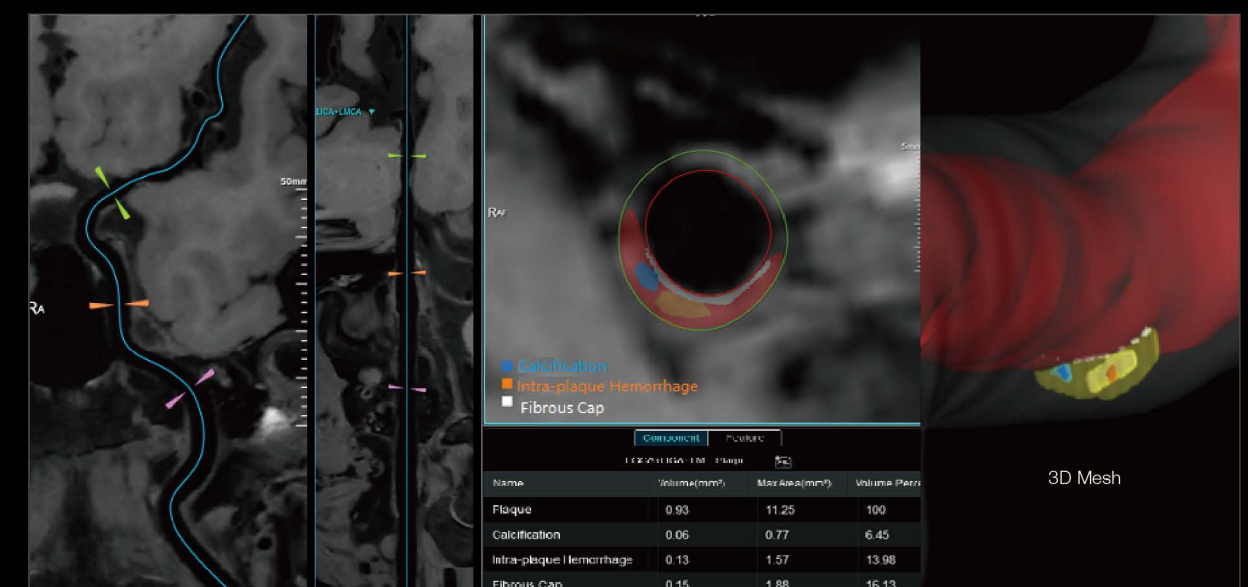
Vessel Wall Analysis

One-click intelligent post-processing for vessel wall analysis.



PlaqueTool

One-click post-processing for plaque identification and analysis



Think BIG.
Well-Equipped



Innovative Magnet Technology

uMR OMEGA is thoughtfully designed to expand current access to MRI by combining many breakthrough innovations that provide additional diagnostic information throughout the 60 x 60 x 50 cm field of view and high homogeneity.

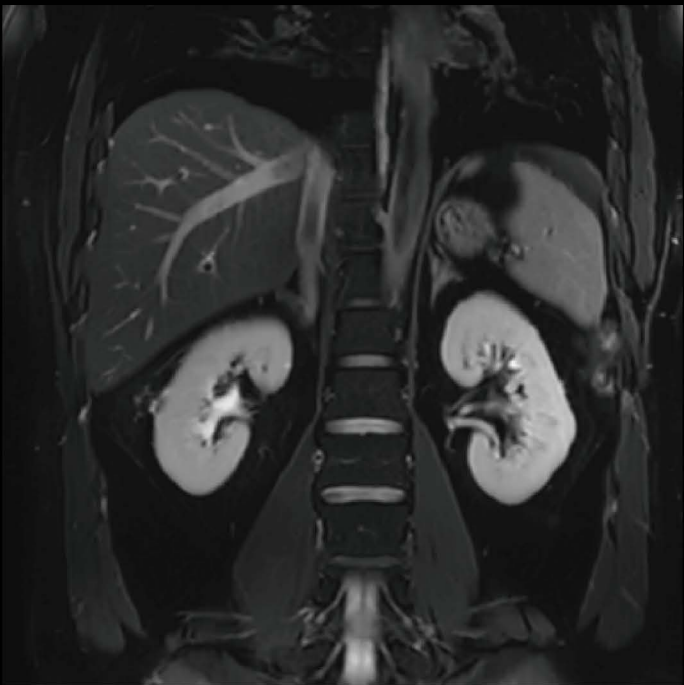
New 3T magnet design with a 75-cm bore size

60×60×50 cm Max FOV

High homogeneity providing excellent image quality

Uniform magnet

60×60×50cm	4.40ppm*
55×55×50cm	2.00ppm*
30×30×30cm	0.029ppm*



T2 FSE FS

*Typical value are measured by V-RMS 24 planet plot.

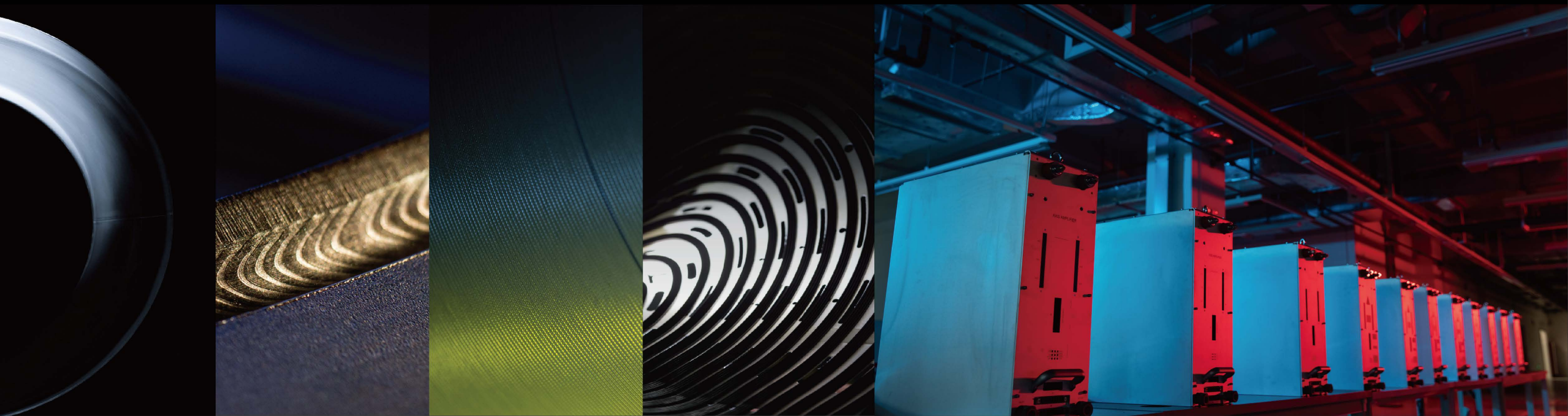
Innovative Gradient Technology

Based on the world's first 3.5MW GPA, uMR OMEGA can achieve the high gradient performance of 45mT/m & 200mT/m/s, and the big FOV of 60cm in the 75cm bore size.

Next generation GPA with 3.5MW peak power

Optimized gradient design to meet 60×60×50cm FOV imaging

High gradient performance with 45mT/m & 200T/m/s



Ultra-wide Bore with 75cm

Think *Big*
Access *More*

|—————| 75 cm |—————|

Improve Patient Experience

Starlight Design

Lighting experience helps
patients feel more comfortable.



Reduce Claustrophobic Feeling

The 75cm, ultra-wide bore helps reduce claustrophobic feeling, while the lighting experience expands the environment and gives patients a pattern to focus on so they feel more comfortable.

uMR Omega can help to recapture lost revenue from halted and missed exams due to anxiety and claustrophobia.

75_{cm}

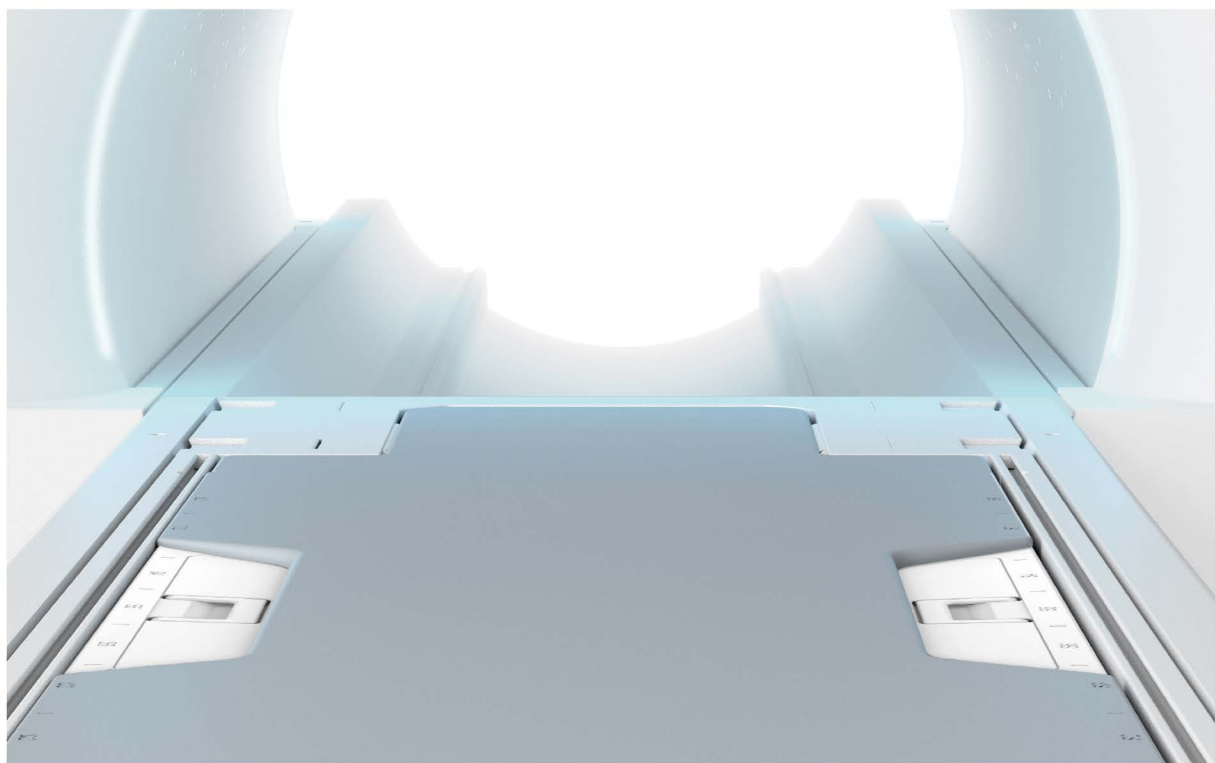
25% extra more space*.
More comfortable experience.



* Based on internal test and data on file.

Expanded Capacity for MRI

Expanded Bariatric Imaging Capabilities



75cm, ultra-wide bore is designed for more elbow room.

Expanded capacity table can lift up to 310kgs.

Extended field of view (60 x 60 x 50cm) can capture more anatomy.



Expanded Capacity for MRI

Coils Designed for
Comfort and Coverage



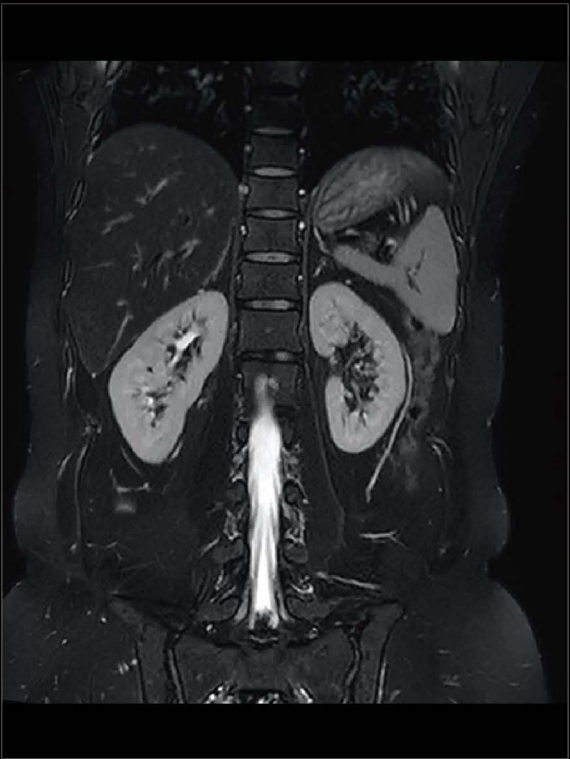
Extended Body Array Coil – 24 channels with wide coverage of 70x50cm to fit large body sizes.

High homogeneity with 60x60x50cm FOV enables a more complete picture of patient anatomy and provides excellent image quality.

Male, 48Y, BMI 44



T2 FSE



T2 FSE FS

Expanded Capacity for MRI

Off-Center Exams with
Comfortable Anatomical Alignment

Shoulder Examinations



Hip Examinations



Knee Examinations

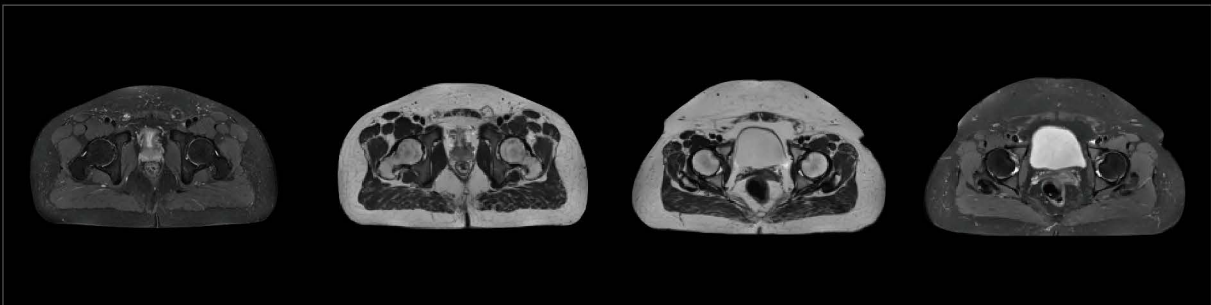


The 75cm aperture design allows for comfortable patient positioning when performing off-center examinations.

World-class homogeneity with ACS Imaging platform leads to faster and higher resolution off-center images.



PD FSE FS T2 FSE T1 FSE PD FSE FS



PD FSE FS T2 FSE T2 FSE PD FSE FS



PD FSE FS PD FSE FS PD FSE FS T1 FSE

Expanded Special Positioning

Lateral Position



T1 FSE
0.7mm×0.7mm



T2 FSE
0.7mm×0.7mm



T2 FSE FS
0.8mm×0.8mm

Flexed Elbow Position



T1 FSE
0.52mm×0.41mm



T2 FSE
0.52mm×0.41mm

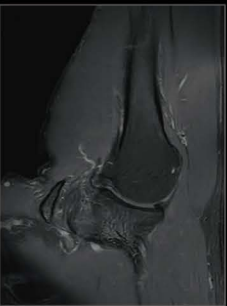


PD FSE
0.5mm×0.4mm

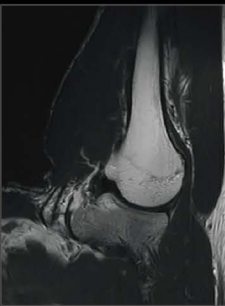


T2 FSE FS
0.55mm×0.45mm

External Shoulder Joint Position



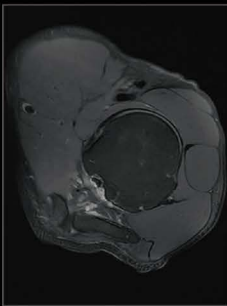
PD FSE FS
0.9mm×0.7mm



T2 FSE
0.9mm×0.7mm



T2 FSE
0.9mm×0.7mm



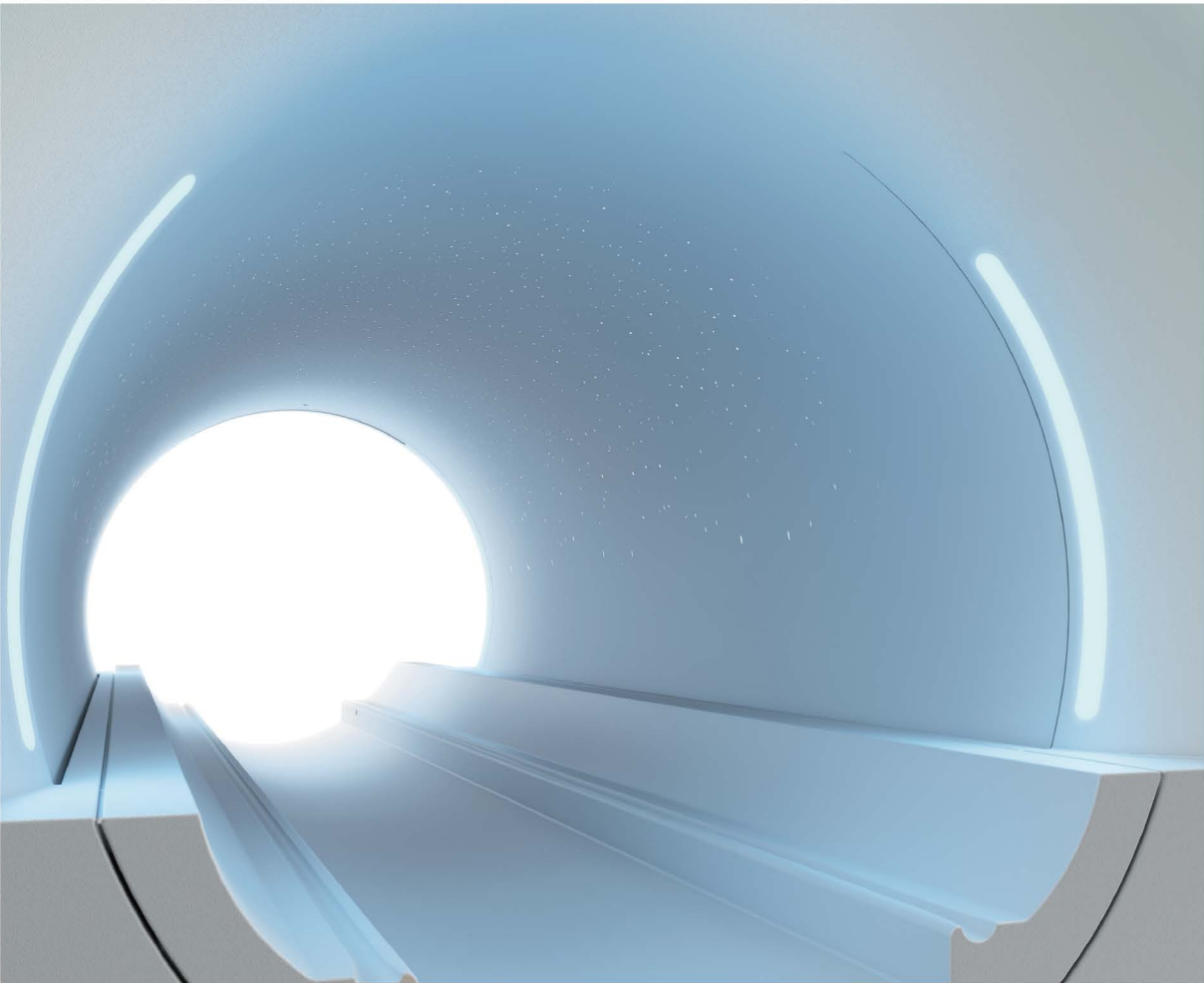
PD FSE FS
0.8mm×0.6mm



T1 QUICK3D FS
0.6mm×0.6mm

Human-Centered Design

Focusing on user experience, uMR Omega combines accurate operation with a lightweight and artistic design. We bring aesthetic enjoyment and ease of use to the technology, delivering care, trust and respect through our design.



Pleasing Aesthetics

Our design scheme integrates oriental aesthetics with minimalism, presenting a seamless fusion of traditional and modern styling.

User-Friendly Design

The product design delivers comfort, safety, efficiency and ease-of-use. By applying ergonomic principles the uMR Omega combines innovative design with optimal functionality in order to provide a better possible user experience, optimizing patient comfort during the examination.

Sophisticated Craftsmanship

Driven by the tenets of precision design, we fine-tune every technological detail to embody the spirit of craftsmanship in every product.