

Shanghai United Imaging Medical Technology Co., Ltd.

Shanghai United Imaging Healthcare Co., Ltd.



High-end 3.0T

dynamic multipole

superconducting magnetic resonance



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$uMR\ 770\ 3.0T\ Dynamic\ Multipolar\ Magnetic\ Resonance\ System\ with\ dual\ independent\ actuation$ $State-of-the-art\ multi-pole\ RF\ transmitter\ architecture,\ with\ all-bit\ dynamic\ and\ precise\ shimming\ technology$ It can improve the consistency of RF shimming among patients with individual differences, in realizing the great Aperture while ensuring high performance indicators, which is very challenging at the technical level war. United Imaging through its consistent technical accumulation and excellent system engineering design The optimal combination of high-performance components has been found, allowing the uMR 770 to take into account Best-in-class performance metrics and comfortable patient examination space uMR 770 is a new generation of high-end 3.0T superconducting magnetic resonance system with Combine all bits B0+B1 for precise shimming, bringing subdivided and professional experience bed application, creating a new horizon for MR high-definition imaging.

Industry's top technology

Professional system design

Full-link independent dual-channel RF architecture, amplitude, phase, waveform dynamic

State intelligent optimization, multi-pole free emission, to achieve optimal RF shimming,

Solve the dielectric artifact effect of traditional 3T magnetic resonance from the root, with

The industry's highest 5-channel high-order shimming, achieving fine B0+B1 shimming

Adjustment optimization, magnetic field uniformity highly meets comprehensive clinical needs;

World-leading gradient performance provides the basis for sharper imaging.

Rapid Imaging Platform

24/32*/48* independent receiver RF channel design and coil channel height

Matching, with parallel acquisition FAST technology, to achieve zero data transmission

damage; with United Imaging's original universal software platform for the entire line of imaging products,

Easily realize unified application interaction of imaging products; "patient-centric"

workflow, enabling parallel inspections and improving the quality of image inspection workers

daily work habits. Two-sided large-screen touch, taking into account comfort and high confidence

Noise ratio receiver coil, adhering to the ergonomic design concept, brings

Good user experience.

Comprehensive advanced application

Specialized application components cover the imaging of various systems of the whole body, according to the inspection

Site customization optimizes scan sequences and application techniques. The best 3.0T technology

technology, rich advanced applications, to meet the needs of more imaging workers for clinical

and research needs.

 $[\]star$ Remarks: 32/48 channel RF receiving system (optional configuration)

magnet system

uMR 770 3.0T superconducting magnet, 170cm long magnet cavity design

It has a balance of high uniformity and comfort. Classic Niobium Titanium

Magnetic material, precision and dense superconducting coil winding, long-term verification by customers

uMR 770 3.0T magnet

Unmatched uniformity and stability for high definition for clinical diagnosis

Imaging Basics. At the same time, it provides a solid foundation for various clinical applications: such as

Off-center scan, large-scale fat suppression, multi-site EPI

astigmatism, etc.

Magnet parameters

Magnet Type

Magnetic field strength

3.0T

Dimensions (LxWxH)

170cm x 212cm x 221cm

weight

5900kg (including liquid helium)

5 Gaussian line range

4.7mx 2.6mx 2.6m

shielding method

Active shielding, EIS technology

Magnet Stability

<0.1ppm/h

coolant

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Coolant type liquid helium Liquid helium capacity 1400L Liquid helium consumption* Zero

Magnet Uniformity*

Magnetic Field Technology	Active and passive shimming + five-channel high-order shimming
Anti-electromagnetic interference	have
@50cm DSV	1.142ppm
@45cm DSV	0.382ppm
@40cm DSV	0.156ppm
@30cm DSV	0.050ppm
@20cm DSV	0.014ppm
@10cm DSV	0.002ppm

^{*} Remarks: Measured by V-RMS 24 plane plot method, all are typical values

RF system

Advanced dual-channel, high-power digital RF transmission technology eliminates high Field dielectric artifacts, improving image quality. The industry's top dual radio frequency function Amplifier, flexible and adjustable RF excitation pulse, effectively enhance the graph Like the signal-to-noise ratio. uMR 770 3.0T provides 24/32*/48* reception The road configuration scheme opens the era of "highway" for data transmission. Complete High-precision spectrometer with digital input and output, high sampling rate with high Receive bandwidth, maximize effective signal acquisition, easy to detect tiny lesions.

RF emission

RF reception

24/32*/48*
1MHz
100MHz
All-digital quadrature demodulation and all-digital filtering technology
32-bit
th) 160dB
<0.5dB

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^{*} Remarks: Zero liquid helium consumption refers to liquid helium consumption under normal use

^{*} Note: 32/48 channel RF receiving system (optional configuration)

computer system

The computer system of the uMR 770 3.0T uses a powerful quad-core or more

Processor and large-capacity memory, fast multi-threaded processing of massive data,

Efficiently deal with multi-threaded work such as patient scanning, image reconstruction, and post-processing

do. Massive high-speed hard drives, allowing more than 600,000 images to be stored at the same time

image (512 pixel matrix), can last for more than 1 month without needing to delete

In addition to data troubles, let you experience free, smooth and clear data management.

24-inch medical widescreen, providing more information display, operation from now on

Take it easy, take it easy.

host computer

processor Quad-core, 3.6GHz

Memory Capacity 24GB

Hard drive capacity 500GB x 2

Image storage 600,000 frames (512 x 512 matrix)

monitor 24 inches

display resolution 1920 x 1200 pixels

operating system Windows Embedded

Standard 7, 64-bit

Parallel scan and store have
DICOM Camera Digital Interface have
Connecting to the PACS network have

control rebuild computer

processor 2 quad cores above 3.0 GHz

Memory Capacity $\geq 32GB$

Hard drive capacity 1TB

image reconstruction 10,000 fps (256 x 256 matrix full FOV)

55,000 fps (256 x 256 matrix full FOV)*

Maximum acquisition matrix 1024 x 1024

aximum reconstruction matrix 2048 x 2048 (interpolated)

operating system Debian Linux, 64-bit

arallel scan and reconstruction have

* Note: Optional GPU



user experience

uMR 770 3.0T Professional Ergonomic Design Provides Better Patient Comfort Moderation, security, and efficient workflow. Suitable for different patients

Group's 65cm aperture design for optimal patient comfort with optimal performance experience. Coil co-imaging and automatic shifting for higher coil element densities

The bed function makes the workflow experience such as patient positioning and scanning operation better.

Great improvement. Provides a large-size touch screen on both sides to display the confirmation of the patient

Check basic information and coil connection status, and provide man-machine communication

Mutual help information. The system is equipped with anti-magnetic earphones and an in-aperture microphone,

Facilitates two-way communication between patient and operator. United Imaging uMR

The 770 shows meticulous care for patients in every detail.

Check the environment

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Aperture size	65cm
Aperture length	170cm
Aperture Illumination	LED brightness adjustable light source
Aperture ventilation	Comfortable and adjustable
voice interaction	two-way communication
Physiological Signal Monitoring Unit	wireless
Patient emergency call device	have

Scanning table

weight capacity 250kg

Dimensions (LxWxH) 262cm x 64cm x 88cm

Minimum bed height 52cm

izontal movement maximum speed 20cm/s

Support scan range 150cm, 205cm (optional)

- The scanning examination table can move automatically, with a maximum load of 250kg,

Support the safety inspection of larger patients;

- Coil slots are integrated into the scanning table to speed up patient preparation;
- The coil cable and the patient will not be displaced relative to the patient during the bed transfer process to ensure patient comfort;
- Head and Neck Coil-24 and Spine Coil-32 are fixed in scan examination

 The bed can meet most scans and speed up the workflow;
- The infusion stand is integrated on the scanning examination bed to facilitate the scanning of infusion patients;
- Motion emergency stop buttons on both sides of the bed for emergency beds **Stop.**

foot switch

In the case of hand-push contrast injection, such as perfusion or dynamic scanning, it can be Start the scan with the foot switch while pushing the syringe.

Physiological Signal Monitoring Unit

Scan triggering through physiological signals (ECG, pulse, respiration),

Motion artifacts due to breathing and cardiac motion can be reduced. sensing

The device is wireless and equipped with a rechargeable battery to make operation easier.

MR Control Box

An MR control box is available on the scanning console, including:

- Intercom system: listen to the patient's call and give instructions to the patient.

Comfort the patient and make him cooperate with the examination

- Start and stop scanning and one-click bed shift to improve user scanning accuracy $% \left(1\right) =\left(1\right) \left(1$

freedom of operation;

- Music playback function to improve patient examination comfort.

High Density Coil Joint

- High-density coil combination technology, coils can be used in combination to optimize work

process;

- Ultra-light coil design ensures better patient comfort;
- High-density coil unit ensures better image quality;
- Multi-site scanning without repositioning and coil replacement;

control panel

Control panels are integrated on both sides of the front panel of the system enclosure to help

The user positions the patient and controls the scan, and its main functions include:

- Couch control: a) in and out of the couch at two speeds, b)

One key to center, c) One key to move the bed;

- Turn on and off the laser positioning light;
- Alarm ball call release;
- Adjust the comfort scheme: headphone volume, speaker volume, aperture pass

 Air volume and aperture lighting brightness;
- Scan control to start and stop scanning on the control panel.

Multi-function touch screen

The multi-function touch screen is integrated above the control panel of the double-sided housing, which is convenient for

Operators can see the information they need up close and easily by touch

Information switching or function adjustment:

- Display of patient information to facilitate operator verification of patient identity between magnets,

Avoid mistaken scans of patients in busy scenes;

- Display the location information of the examination bed;
- Display coil connection status;
- display of physiological signals;
- adjustment comfort program;
- Provide user guides including coils, physiological signal units, etc. to help

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The operator operates.

software operation

uExceed™-MR (Superior) software operating system is a
With the core concept of "patient center", it can carry out
Multi-patient multi-task parallel workflow mode, complete such as patient information
Administration, Patient Registration, Examination, Image Viewing, Advanced Analysis, Glue
Full-process functional operations such as film printing and archiving.

patient management

The patient management interface realizes the management of patient data. The main functions include:

- Inspection list area: display and query basic inspection information, configurable and sorting display items;
- Image sequence information area: describe the image sequence information in text form (below call a "sequence of images" a "sequence");
- Sequence list area: use list mode or image mode to display sequences

 Information, configurable display items;
- Image preview area: use list mode or image mode to display the sequence

 The corresponding image, and can perform image panning, zooming, window adjustment, etc. single operation;
- Function operation area: realize data source selection, time range definition,

 Search, archive, import, protect/unprotect, check information disassembly

 Divide and merge, modify, delete and other functions;
- Application button: realize the entrance guidance to other functional interfaces,
 For example: new exam, patient exam, image browsing, film printing,
 Advanced Analytics.

patient registration

The patient registration interface realizes the registration of the patient information to be examined. Key features include:

- Patient data area: enter basic patient information;
- Inspection data area: display and input inspection-related information;
- Examination protocol area: select the examination site and the examination in the form of a picture or a list $\,$
- Check the agreement, that is, choose the check body position;
- After completing the registration, enter the inspection interface.

an examinatio

The inspection interface is the core function of the software operating system and is responsible for completing the

The image acquisition process of MR scan, the main functions include:

- Graphical positioning interface: complete image quick browsing and slice positioning,

Provide a variety of positioning tools and positioning methods;

- Checklist: Displays protocol loading and protocol properties, controls scan progress program, display protocol running status, display reconstruction status, protocol operation, etc.;

- Protocol editing area: complete the editing and modification of protocol parameters; support high

Efficient work, the operator can adjust the agreement in the same direction through simple operation.

Linking or copying, and uniformly modifying the protocol coil;

- Scanning online monitoring: real-time display of new images reconstructed from scans, viewing

Historical images, control scan progress, monitor patient safety indicators (SAR, dB/dt);

- Time progress display area: including progress overview and current scanning protocol progress degree display;
- Physiological signal display area: can be configured to display ECG signal, respiratory signal and pulse signal;
- Patient comfort adjustment: Configurable interface controls table movement to
 and headphone volume, speaker volume, ventilation, lighting and other comfort settings;
 Protocol Manager: Complete all protocols, protocol groups and protocol parameters
 browse, edit and manage;
- Pre-scan: Pre-scan is done automatically or manually, in the official Center frequency, RF amplitude, general shimming before protocol imaging to calibrate;

- Automatic online processing: After the scan is completed, the protocol will be embedded automatically processing to speed up the inspection process. For example: ADC, eADC, silhouette $MIP,\ MinP,\ etc.$

In addition to the above inspection workflow functions, the inspection interface can also complete other

Some special workflow operations, such as: physiological trigger scan, breath-hold scan,

Enhanced scanning, large FOV bed-moving scanning.

image browsing

Image browsing is divided into two-dimensional (2D) and three-dimensional (3D) modes.

It mainly completes the browsing and evaluation of images and assists doctors in making diagnosis conclusions.

Determine the role, its main functions include:

- Browsing layout switching;
- movie playback;
- Basic image manipulation tools: select/page, image zoom, image

 Panning, window width and level adjustment, length and angle measurement, text or arrows

 Basic functions such as header annotation and area of interest statistics;
- Advanced image processing tools: image addition and subtraction, guide lines, color
 Display, section information display, histogram, 3D cropping, tissue cutting
 Advanced functions such as cuts, multi-angle volume reconstruction, multi-layer reconstruction, surfaces
 reconstruction;
- Image sending for printing.

Film printing

The image obtained from the inspection can be printed on film or on paper
, used to generate documents and reports, its main functions include: Sequence
Select, display images, control panel adjustment tools, and more.

sequence

- Spin echo sequence (SE)
- Fast Spin Echo Sequence (FSE)
- Single Shot Fast Spin Echo Sequence (FSE_ssh)
- Motion Suppressed Fast Spin Echo Sequences (FSE_arms)*
- 3D echo chain modulation sequence (FSE_3D MATRIX)
- Inversion recovery sequence (IR)
- Fast Inversion Recovery Sequence (FIR)
- Spoiler gradient echo sequence (GRE_sp)
- Fast Spoiler Gradient Echo Sequence (GRE_fsp)
- Steady-state free precession gradient echo sequence (GRE_ssfp)
- Balanced steady-state free precession gradient echo sequence (GRE_bssfp)
- 3D Fast Spoiler Gradient Echo Sequence (GRE_quick)
- Contrast-enhanced angiography gradient echo sequence (GRE_ceMRA)
- Time-of-flight gradient echo sequence (GRE_tof)
- Phase contrast gradient echo sequence (GRE_pc)
- Multi-echo merged gradient echo sequence (GRE_geti)
- echo plane imaging sequence based on free induction decay (EPI_fid)
- Spin echo based echo plane imaging sequence (EPI_se)
- Echo Planar Imaging Sequence for Diffusion Weighted Imaging (EPI_dwi)

Acquisition and reconstruction techniques

- Inversion recovery technique for multiple contrasts
 - STIR short TI inversion recovery inhibits fat signaling
- T1 FLAIR inhibits water signal while obtaining T1 contrast of brain tissue
- T2 FLAIR inhibits water signal while obtaining T2 contrast of brain tissue
- Real IR augments gray matter with inversion recovery pulses and real-part reconstruction
 Contrast with white matter
- Black blood inversion recovery technology suppresses flowing blood signal
- 3 IR technology, i.e. using STIR and black blood together while suppressing
 Blood and Fat Signals
- Multi-layer block multi-angle technology, the same scan sequence advances in multiple directions

 Perform multiple slice acquisitions for localization imaging scans or multiple spinal intervertebral vertebrae
- Radial slice positioning for multi-angle scanning such as MRCP
- The interface can select sequential and staggered slice acquisition
- Interface selectable center or linear phase encoding reordering
- Variable receiving bandwidth, the acquisition sequence bandwidth can be adjusted freely
- Dynamic gain adjustment technology, which can be selected according to the strength of the MR signal
- Select the receive gain setting to avoid signal saturation

- Fat saturation using frequency selective RF pulses by modulating

 Pulse flip angle, which can control the degree of fat suppression. There are two modes

 Type optional: strong pressure grease, weak pressure grease
- Precise frequency selection fat saturation technology, no effect on RF field inhomogeneity

 Sensitive, evenly fat-reducing effect
- Rapid Fat Saturation Technology, after one fat saturation pulse, perform multiple acquisitions to reduce scan time $\frac{1}{2} \frac{1}{2} \frac{1}{2$
- Water excitation technology, using combined pulses to selectively excite water signals, suppress

fat signal

- Frequency search mode, the system automatically searches for the main frequency through the fitting operation,
 Divided into water, fat, silica gel search frequency, mainly used for breast examination
 Outer averaging technique can reduce the operation time without increasing the scan time
 Motion and Flow Artifacts
- Spatial pre-saturation technology to suppress flow and transport through radio frequency saturation pulses motion artifact
 - Free Saturation Band: Set the saturation band arbitrarily as required, up to 8
 saturation bands, which can be set in any direction
 - Parallel saturation bands: saturation bands are located at both ends of the lamella group, saturated
 blond flow across the plane.
 - Follow Saturation Bands and Follow Slices (Slice Blocks): For Vein and/or Arterial flow saturation for 2D/3D TOF MRA imaging

hair, the flip angle increases along the direction of blood flow, and the variable flip angle is used to compensate

The saturation effect of slow blood flow in 3D TOF makes the blood signal more uniform

smoothing to remove edge artifacts at vascular junctions between different slices

- Flow compensation technology, using multiple gradients to optimize the combined flow

Dispersion caused by the linear part reduces flow artifacts. Layer selection,

Phase and frequency encoding three-direction flow compensation

- Physiological signal trigger scanning technology, through ECG, pulse, respiration

Signal-triggered scanning to suppress physiological motion artifacts such as beating and breathing

- Multiple breath-hold technology, the 2D protocol for multi-layer acquisition is divided into multiple breath-holds

- TONE technology, using spatially variable flip angle pulses for slice excitation

- FAST Parallel Imaging Technology

Finish

- Rectangular field of view technology, by reducing the number of phase codes and obtaining a rectangular field of view to reduce scan time while maintaining intra-slice resolution
- Partial Fourier technique for partial acquisition of K-space, shortening the scan time
- Partial echo technique, only a part of the echo is acquired to shorten the TE
- Image filtering to enhance and denoise the captured images

Scan time without affecting image spatial resolution

- Variable reconstruction matr
- Image homogenization correction (normal homogenization, advanced homogenization)

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* Note: FSE_arms is optional

nerve

Neural application components are sequences optimized for nervous system scans,

Protocols and Workflows. According to the patient's degree of cooperation, specially developed

High resolution and fast protocol. This component includes:

- T1 FLAIR, suppression of the cerebrospinal on the basis of T1-weighted imaging fluid signal and increase gray-white matter contrast;
- High-resolution fast imaging based on FSE sequence, repulsion balance and flow compensation technology to help increase the brightness of CSF;
- T2 FLAIR, suppression of the cerebrospinal on the basis of T2-weighted imaging
 Fluid signal, highlighting lesions within the brain parenchyma;
- T1-weighted images with good gray-white contrast based on SE sequences,
 Flow compensation technology reduces vascular pulsation artifacts after enhancement;
- Read IR, based on fast spin echo sequences, using inversion recovery pulses

 Reconstruction of red and real parts to increase gray and white matter contrast;

- Diffusion-weighted EPI to obtain high-quality conventional head diffusion-weighted maps

- Dynamic enhancement protocols optimized for pituitary imaging;
- image, and is equipped with automatic post-processing technology, which is automatically calculated and obtained after scanning ADC and eADC plots. The technique can be used to detect acute and hyperacute

ADC and eADC plots. The technique can be used to detect acute and hyperacute cerebral infarction;

- *Perfusion perfusion imaging optimized protocol, based on free induction decay

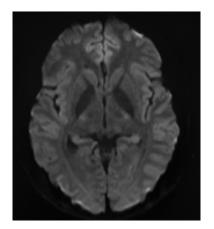
 Dynamic scanning of the echo plane imaging sequence (EPI_fid) set

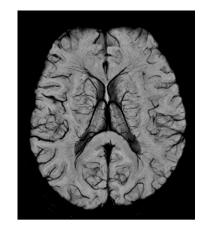
 protocol for performing cerebral perfusion imaging;
- * BOLD optimized protocol, based on echo plane formation of free induction decay

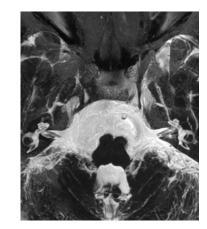
 Dynamic scanning protocol set like sequence (EPI_fid) for brain

 functional imaging studies;
- 3D T1 IR FSP sequence for isotropic volume imaging of the brain;
- The dynamic acquisition of EPI using Dynamic Evaluation software
- T2* data were analyzed to obtain a negative enhancement parameter map;
- *Using SWI susceptibility-weighted imaging to achieve high-resolution 3D imaging;
- * DTI, DTT nerve fiber tractography technology realizes the whole brain fiber running,
- Automatic bed-moving multi-step full spine imaging; large field of view spine imaging;
- Dynamic scanning protocol of sacroiliac joints;
- T2*-weighted imaging with flow compensation technology for cervical spine

 The cross-sectional examination of the cerebrospinal fluid can improve the contrast between the cerebrospinal fluid and the spinal cord;
- Magnetic resonance myelography based on 3D single-shot FSE;
- Full spine stitching using Stitching software;
- *Note: Perfusion imaging optimized protocol, BOLD optimized protocol, DTI, DTT and Post-processing is configured in R&D







body

Body application components are sequences, protocols optimized for body scans and workflow for chest, abdomen, pelvic exams. mainly includes:

- Movement suppression using breath-holding techniques or breath-triggering techniques;
- Single or double echo with anti-phase T1 based on 2D GRE sequence weighted imaging;
- Breath-hold or breath-triggered based on 2D GRE FSP sequence
 T1-weighted rapid imaging;
- FSE-based and single-shot FSE acquisition under breath-hold or breath-triggered

 Obtain T2-weighted imaging;
- MRCP and MRU, single-shot FSE-based thick slice breath-hold scan tracing; or based on 3D FSE MATRIX with breath-triggered technology
- Dynamic contrast-enhanced scan of abdomen based on T1 QUICK 3D;
- Fat and no fat T1 optimized for the pelvic cavity of men and women

 Weighted and T2-weighted high-resolution scanning protocols;
- Diffusion imaging of the body;
- Positively enhanced motion using Dynamic Evaluation software

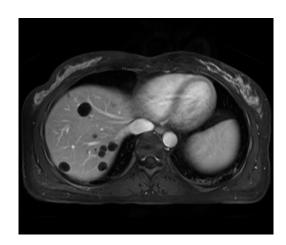
 The state curve analysis was performed to obtain a positive enhancement parameter map.

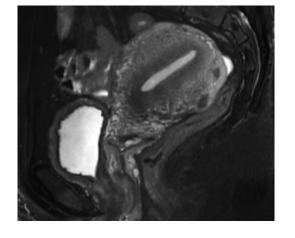
tumor

Oncology application components are sequences, protocols optimized for tumor scanning and workflow. This component includes: $\frac{1}{2} \left(\frac{1}{2} \right) = \frac{1}{2} \left(\frac{1}{2} \right) \left(\frac{1}{2}$

- STIR, GRE and anti-phase protocol with high tumor sensitivity;
- Dynamic imaging to help localization and characterization of lesions;
- Diffusion imaging of the body to improve tumor identification;
- Dynamic enhancement based on fast spoiler gradient echo GRE_quick;
- Positively enhanced motion using Dynamic Evaluation software

The state curve analysis was performed to obtain a positive enhancement parameter map.





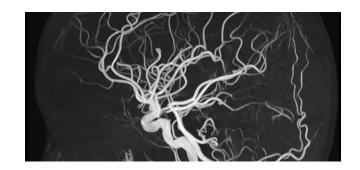
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Blood vessel

Vascular application components are sequences, protocols optimized for vascular scanning and workflow to ensure fast, high-resolution unenhanced and enhanced blood Tube inspection. mainly includes:

- Non-enhanced vascular imaging techniques, including TOF and PC;
- 2D TOF and 3D TOF for motion of head and neck vessels
 Imaging of arteries and veins;
- Suppression of arterial or venous signal by following saturation band technique
- Use of TONE pulses to reduce boundary artifacts due to flow saturation shadow and improve the contrast-to-noise ratio;
- 2D/3D PC for arterial and venous scanning;
- Rapid blood vessel localization image scan based on PC sequence;
- VENC within the PC sequence can be freely adjusted in multiple directions;
- Enhanced Vascular Imaging Technology:
- 3D Fast Spoiler Gradient Echo Sequence Optimized for CE-MRA
 Column, can be combined with FAST, partial echo, center sort

 The iso-sequence technology ensures a high contrast-to-noise ratio and achieves rapid acquisition;



- Bolus Tracking Workflow: 1. Use the bolus tracking protocol for fast

 Rapid dynamic scanning, resulting in dynamic images and intra-arterial

 ROI helps users to judge the arrival time of contrast agent; 2. In use

 Heart-sorted CE-MRA protocol to obtain the

 Contrast contrast agent to avoid venous contamination; 3. Scan progress display area

 The image shows the scanning process;
- The bolus testing workflow utilizes small doses for bolus testing, helping

 Help users decide the delay time of group betting;
- Automatic bed moving workflow with dedicated scan sequences, high density
 The receiving coil realizes peripheral vascular imaging;
- Auto SUB and Auto MIP, enhanced before and after scans

 Automatic silhouette, and automatic MIP to the image after silhouette;
- Vessel display with silhouette, MIP, VRT and SSD;
 Using Stitching software to perform multi-segment vascular splicing to display the periphery
 Blood vessel.



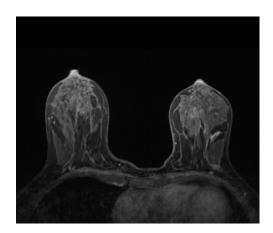
breast

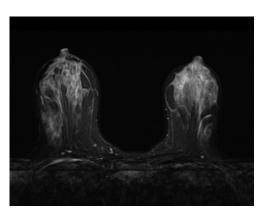
Breast Application Components are sequences, protocols optimized for breast scanning and workflow, mainly including:

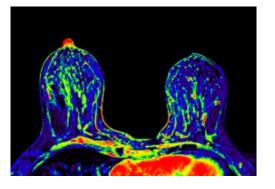
- FSE-based T1, T2 high-resolution scanning protocol;
- High-resolution dynamic enhanced scans based on T1 QUICK 3D sequences agreement to obtain a uniform fat reduction effect;
- For fatty breast and silicone implants, the system searches for different models according to different frequency models.
 mode, automatically find the water peak;
- Frequency confirmation workflow, which allows users to confirm frequency before initiating a scan;
- Breast diffusion imaging;
- Auto SUB and Auto MIP, the images before and after scanning are enhanced automatically

 Move the silhouette, and automatically MIP the image after the silhouette;
- Silhouette, MPR, MIP and MinP, etc;
- Positively enhanced motion using Dynamic Evaluation software

The state curve analysis was performed to obtain a positive enhancement parameter map.







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bone joint

Orthopedic Application Components are sequences, protocols optimized for joint scanning

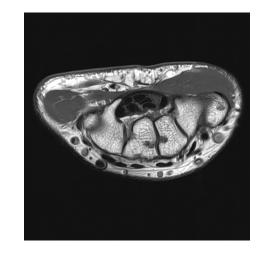
And workflow, with high-density coil to obtain high-quality orthopedic images.

This component includes:

- T1, PD and T2 high with or without 2D FSE-based fat-suppression resolution protocol;
- High-resolution fat reduction imaging based on T1 QUICK 3D sequences;
- GRE-based 3D T2* high-resolution imaging;
- 3D high-resolution imaging based on FSE;
- Good eccentric pressure grease;

- Different degrees of fat reduction with strong and weak;

- Multi-directional observation of isotropically acquired data using MPR.









Advanced application and post-processing capabilities

The following includes optional configurable advanced application and post-processing functions:

- ARMS: Motion artifact correction technology using motion-insensitive amplifiers

Radial k-space filling method. ARMS contains K nulls per acquisition

Inter-central data, reuse the common information of the signal.

- Significantly reduces image motion artifacts;
- Significantly reduce image susceptibility artifacts;
- For patients and children with involuntary movements, ARMS is more effective than any
 Traditional artifact suppression techniques have a more dramatic effect.
- Dynamic evaluation: Dynamic analysis software can be used to

 Dynamic data is analyzed to provide reference for doctors. The software has

 The following features:
 - Time signal tracing of the selected ROI;
 - Symmetrical structure mirror measurement;
 - For negative enhancement data, the following parametric plots can be obtained: Negative
 Enhancement integration, average enhancement time, time to peak, signal increase
 Intensity ratio, maximum falling slope;
 - For positivity augmented data, the following parametric plots can be obtained: positivity
 Enhanced integration, time to peak, signal enhancement ratio, maximum rise
 slope;
 - Support different formats of display and filming;
 - Basic measurements.

- SWI: susceptibility-weighted imaging SWI for tiny magnetic field inhomogeneities

 ${\sf Sex} \ ({\sf cerebral} \ {\sf hemorrhage}, {\sf vascular} \ {\sf malformations} \ {\sf and} \ {\sf other} \ {\sf diseases}) \ {\sf has} \ {\sf a} \ {\sf very} \ {\sf high} \ {\sf sensitivity}.$

The technology is based on the GRE 3D sequence and has the following characteristics:

- Realize high-resolution 3D imaging of the head;
- Showing trace magnetic susceptibility changes in brain tissue;
- Supports amplitude map, phase map, thin-layer fast MinP reconstruction, etc.

The calculation results are displayed.

- Stitching: Advanced post-processing for image stitching

 Overlapping MR volume data and MIP projection data generated by

 Complete stitched image. The software has the following features:
 - Display and store the complete stitching of multiple overlapping images
 Composite images, such as spine, blood vessels;
 - Special stitching algorithms are used separately for spine and blood vessels;
 It can be used for multi-segment images with different parameters (such as different FOV, resolution, matrix, layer thickness) for splicing;
 - Stitching MIP images;
 - Original image, detail image, stitched image available in different formats to display;
 - Support different formats for filming;
 - Basic measurement functions.

 $f{\star}$ Note: Stitching, ARMS are optional configurations

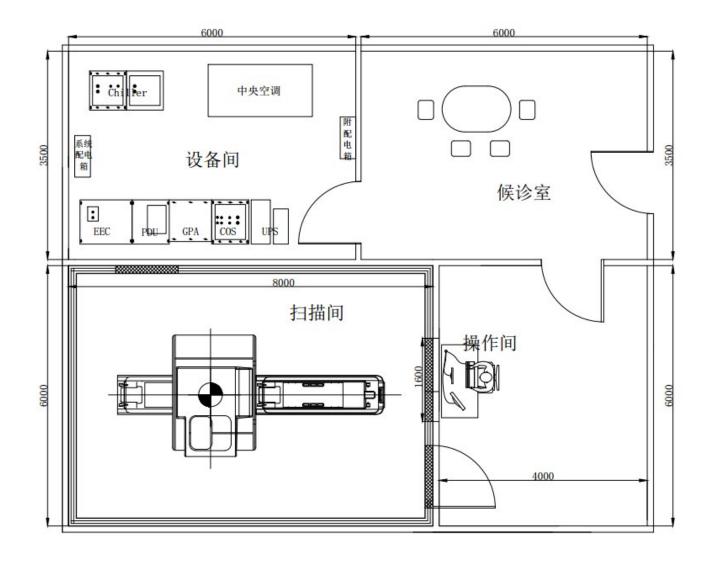
Product size and weight

room name	The main components	Width (cm)	Depth (cm)	Height (cm)	Weight (kg)
scan room	3.0T magnet (including gradient coil and RF transmitter coil)	221.2±0.5	170.0±0.3	221±1	5900
	examination bed	64	262	88	500
	Coil cabinet (including coil)	231	60	188	520
Operating room	Operation console (including host computer and monitor)	190	88	82	80
equipment room	Electronic Cabinet	100	85	207	650
	Gradient amplifier cabinet	80	81.3	195	544
	Heat Exchanger Cabinet	71	85	195	460

electrical installation requirements			Minimum room installation size				
Supply Voltage and Tolerable Floating Range	380/400/415/440/460/480	room name	Width (m) Depth (m	n) Height (m)) Area (m)²)	
	VAC 3~ + independently; ±10%	scan room	3.8	6.0	2.85	22.8	
Supply Frequency and Tolerable Floating Range	50/60Hz; ±1Hz	Operating room	2.3	2.5	2.4	5.8	
Power supply rating (standby)	20KVA	equipment room	2.0	2.5	2.4	5.0	
Power supply rating (average)	30KVA						
Power supply rating (peak)	92KVA						

Recommended room installation size

room name	Width (n	n) Depth (m	n) Height (m) Area (m) ²)
scan room	6.0	8.0	3.4	48.0
Operating room	4.0	6.0	2.8	24.0
equipment room	3.5	6.0	2.8	21.0



Warranty Regulations

respected user:

Thank you for your concern and use of United Imaging Medical products, such as using United Imaging Medical

If you have any questions during the treatment of products, please call United Imaging Medical Services

Service Hotline 4006-866-088. The company reserves the right to carry out product failures $\ensuremath{\mathsf{N}}$

The right of identification and the right to amend this Ordinance at any time.

follow the standard

Products are designed, manufactured and sold in accordance with ISO13485 requirements

post-service, in compliance with all applicable medical device safety standards, such as

IEC60601-1, IEC60601-2-33 and EMC related requirements.



United Imaging's official WeChat account: lianyingyiliao

Scan and follow United Imaging WeChat



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