

C型超级开放磁共振成像系统

"C"Shape Super Open Permanent
MRI System



全新开放式磁体设计

- **磁体** i_Open的磁场强度达到了永磁MRI中前所未有的0.36T, 极大地提高了图像质量
i_Open采用C型开放式磁体, 与传统磁体相比, 有效地增加了使用空间
i_Open的磁体有一流的工程师设计, 经万东先进的制造工艺精心打造, 磁场均匀度高
空腔大, 体积小, 重量轻。磁体独特的纳米防涡流材料最大限度的降低了涡流的影响

- **Magnet** The Magnetic Field of i_Open MRI System with up to 0.36T greatly improves Image Quality.

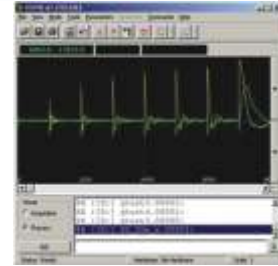
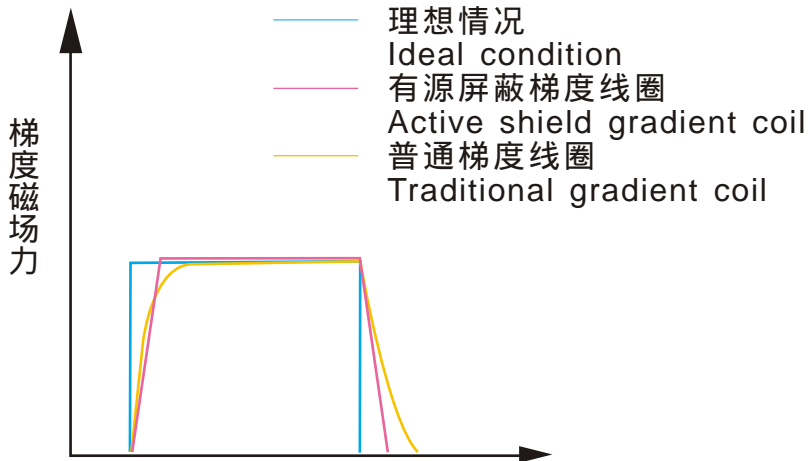
i_Open MRI System introduces a "C" shape Open Magnet with Increased Patient Space which is obvious when compared with traditional ones.

Designed by professional engineers and manufactured by advanced Technology, the i_Open Magnet has the advantages of High Homogeneity, Large Gap Space, small size and light weight.

The Eddy Current is reduced to the minimum through the use of Special High Resistance Materials.



专利的梯度系统



普通梯度系统在几百毫秒后仍不能采集到核磁共振信号
 No NMR signal can be acquired even after hundreds of milliseconds using traditional gradient .



有源屏蔽梯度系统在一毫秒以内就可以采集到核磁共振信号
 Very good NMR signal can be acquired within one millisecond using active shield gradient .

■ 梯度系统

i_Open的梯度系统采用了国际上最先进的反演设计,确保了梯度磁场极高的线性度和切换率,使图像具有很好的分辨率。
 i_Open突破性地采用了动态有源屏蔽梯度系统,彻底消除了困扰永磁MRI的涡流,成像质量获得了极大改善。

■ Gradient System

The Advanced Design of the Inversion Method provides the Gradient System with Very High Linearity and Slew Rate, and insures the Highest Image Resolution.

i_Open's Unique design of the Active Shield Flat Gradient System decreases the Eddy Current to a very minimum and completely avoid the problem of Eddy Current that trouble most of the Permanent MRI Systems. Image quality is improved greatly over similar Open Magnet Systems.

高效的发射系统

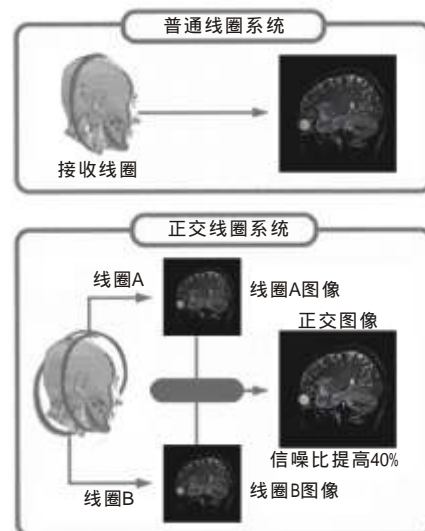
■ 发射系统

i_Open采用平面正交设计的射频发射线圈,射频均匀度好,发射效率高,开放度大,脉冲发射功率高达6kw,

■ RF Transmitter System

Quadrature Design of Flat Transmitter Coil has contributed to improved uniformity and efficiency of the System and makes the System Unique as a fully open type MRI.

The pulse transmitting power is up to 6KW.



灵敏的接收系统

■ 接收系统

i_Oper特有的正交接收线圈，有效地提高了图像信噪比。
i_Oper接收线圈中内置的低噪声前置放大器，将信号的衰减和噪声的影响降低到最小。

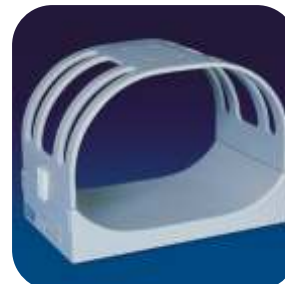
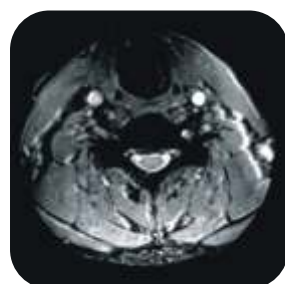
i_oper的计算机自动调谐系统使得操作大大简化，确保系统始终工作在最佳状态。

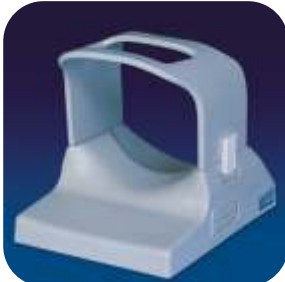
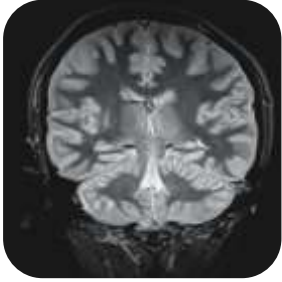
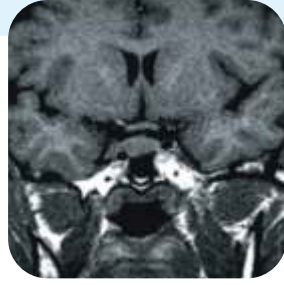
■ RF Receiving System

The Special design of Quadrature Receiving Coil Greatly Improves the signal to noise ratio.

Low noise build-in preamplifiers in the Coils reduce the signal attenuation, this in terms reduces the effect of noise greatly.

Auto Tuning simplifies the System's operation and keeps the System working in the best condition.





友好的界面 便捷的操作

Friendly Interface & Easy operating



功能强大的扫描软件

i_Open 强大的扫描控制软件使得完成扫描变得轻松自如：快捷的菜单式参数设置；导向扫描精确定位；成像序列快速选择；自动调节中心频率；自动调整增益；自动匀场；扫描过程实时监控。

内容丰富的图像处理软件

i_Open应用了先进的计算机技术，具有强大的图像处理能力：多窗口显示；窗宽窗位调节；图像缩放；图像旋转；距离测量；感兴趣区处理；图像增强；图像平滑；背景噪声消除；文字注释；参数显示；DICOM3.0接口；三维最大强度投影（MIP）及多平面重建（MPR）。

免费提供软件的升级

i_Open的软件可无限升级，为您着想，如您所愿。

Powerful scanning software

i_Open provides Scan Control Software to help the customer easily set up Imaging Scans and Monitor the scans in a easy and friendly way: Easy and well designed menu are provided to set up scan parameters; Pilot scans allow you to precisely set slice positions; Easy menu also allows you to select Imaging Sequences: Auto adjustment of Resonance Frequency; Auto adjustment of Receiver and Transmitter Gain; Auto adjustment of Shimming; And Scan Process Monitoring in real time is also included.

Plenty of imaging processing functions

i_Open MRI system provides the most powerful Image Display and Process Software available on any Present Open MRI: Multi-Window Display; Display Window Adjustment; Image Zoom; Image Rotating; Distance Measurement; Angle Measurement; Region of Interesting Process; Image Enhancement; Image Smooth; Background Noise Eliminating; Image Text Note; Image Parameter Display; DICOM 3.0 Interface; MIP and MPR of 3D Images.

Software update: Free upgrading of Software are provided within Time Frame determined at Time of Purchase.

快捷周到的服务

Prompt and comprehensive service



■ 快捷周到的服务

万东遍及全国的40余家服务网点
高效专业的服务
24小时服务热线

■ Prompt and Comprehensive Service

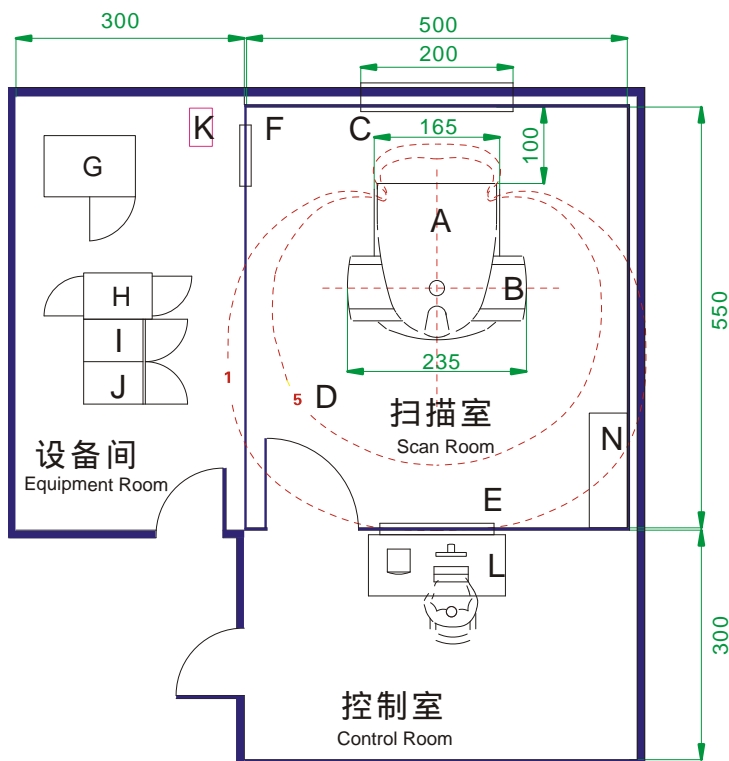
First Line Service will be provided by your Local Dealer. This Service will be supplement by a complete Distributor's Service Operation.
Further service support as required will be provided by Wandong, China.
Efficient and Professional Service will be provided
24 Hours Service Hot-Line will be available

■ 极高的性价比

低成本运行
低场地要求
低环境要求

■ High Performance/Price Ratio, Includes:

Low Running Cost
Compact Installation Space
Low Environmental Requirement



Configuration

Magnet

Field strength	0.005T±0.36
Shimming	Passive + Digital shimming
Dimension	1.8m (L) × 1.3m (W) × 1.8m (H)
Net weight	16T
Patient gap	400mm
Homogeneity	5ppm (V rms)/40cmDSV

Gradient system

Gradient strength	15mT/m
Slew rate	55mT/m/ms
Gradient linearity	<5%
Eddy current prevent	Active shield
Cooling mode	water

Receiving coils

Low noise build-in preamplifier	
Noise figure	<0.5dB
High isolation and low insertion loss build-in combiner	
Quadrature coil	

RF system

Pulse transmitting power	6kw
Center frequency	0.25MHz±15.3MHz
High isolation and low insertion loss power splitter	

Sequence

Spin-Echo (SE)
 Gradient-Echo (GE)
 Inversion Recovery (IR)
 Fast Spin-Echo (FSE)
 Fast Gradient-Echo (FGE)
 Magnetic Resonance Angiography (MRA)
 Short Inversion Time Recovery (STIR)
 Flow Attenuation Inversion Recovery (FLAIR)
 Magnetization Transfer Contrast (MTC)
 Magnetic Resonance Cholepancreatography (MRCP)

Image

T1\T2, Mixture Weighted, Proton Density, MRA, Water/Fat Imaging
 Max Fov 400mm; Min Fov 20mm
 Min 2Ds slice thickness 1.5mm; Min 3D slice thickness 0.5mm
 Max Square Matrix 1024 × 1024



Spectrometer and Electronics

Sampling rate	400MHz in 16bits
16 bits Gradient Wave Form and Digital Pre-emphasis	
16 bits Arbitrary Wave Form	
Standard TCP/IP Ethernet Connection	
CPU	2.8g P4
Memory	1G
Hard disk	160G
Display	LCD Color MonitorTFT"18
Archives	WCD-R
Operating System	TM XPWindows

Space requirement

Scan Room	20m2
Control Room	10m2
Equipment Room	10m2

Option

Advanced MRA Software Package
 Advanced 3D MRI Software Package
 Independent Medical Imaging Processing Workstation
 Image Processing, Database, DICOM hardcopy, Documents

Treasure Life Ensure Health

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Note: The manufacturer reserves the right to improve the design and specifications without notice.