System Space Requirements
Suite Size: 12 ft x 17 ft (3.7 m x 5.2 m) minimum floor space

Ergo™ Patient Chair and Ottoman
Type: Manually positioned, free-floating cushioned chair with lock-in position brakes, adjustable seat and back inclination, and easily moveable ottoman.
Weight Support: Up to 350-lb (159-kg) patient

Magnet System
Type: Superconducting, passive shims
Field Strength: 1.5T active shield
Fringe Field: 0.5mT line
1.85m axial x 1.15m radial
Helium Capacity: < 60 liters liquid helium
Size: 518mm long, 683mm OD, 285mm ID
Helium Fills: Normally not required
Field Stability: < 0.1 ppm/hr
Magnet Weight: < 745lbs (339kg)
Compressor Weight: 350lbs (159kg)

Gradient System
Strength: 70mT/m
Slew Rate: 200T/m/s

RF Transmit / Receive
Frequency: 63.8 MHz ±500 kHz
RF Power: 2500W peak rms, 75W average
Image BW: Variable 5kHz –118kHz
Preamp Noise Fig: < 0.5dB

RF Coils
180mm RF Coil: The 180mm diameter coil is used for routine lower extremity imaging of the foot, ankle, leg and knee.

160mm RF Coil: The 160mm diameter coil is a specialty coil that offers up to a 40% increase in SNR (signal-noise ratio) for imaging medium- to small-sized knees and feet and larger-sized elbows and hands.

145mm RF Coil (Optional): The 145mm RF coil is primarily used for imaging feet and ankles, as well as elbows. For smaller patients, it can also be used for knee imaging.

123mm RF Coil: The 123mm diameter coil is used for routine upper extremity imaging of the hand, wrist, forearm and elbow, and for high-resolution imaging of small feet, ankles and knees.

100mm RF Coil (Optional): The 100mm RF coil is used for routine upper extremity imaging of hands and wrists. It can also be used for imaging elbows on smaller patients.

80mm RF Coil (Optional): The 80mm RF coil is used for routine imaging of the hands and wrists.

Type: All removable quadrature volume transmit and receive coils.

Patient Access: All coils are cylindrical in design with either 180mm, 160mm, 145mm, 123mm, 100mm or 80mm diameter in the center, flared to 200mm at the patient entrance.

Computer System
Host Computer: PC based; Core 2 duo processor, 2.4GHz min; 80GB removable hard drive; 400W power supply
OP System: Windows XP Embedded
Data Storage: DVD-R/W, 9.4GB total (4.7GB each side), cased type
Display: 19-inch LCD panel
Data Transfer and Handling (HIS/RIS): DICOM 3.0 send/receive and DICOM Worklist
Camera Support: DICOM Print, most popular direct digital camera protocols
Reconstruction:
2D < 200 msec/image
3D < .25 sec/plane, 256 x 128 x 64

Imaging Capabilities
Sequences: Spin Echo, Fast Spin Echo, 2D and 3D gradient Echo
Imaging Options: Inversion Recovery, Driven Equilibrium,predefined protocols, single and double oblique imaging with use of graphical slice selection, RF Spoiling, Slice Interleave, Fat Suppression, Min TE, No Phase Wrap, Partial Data, Spatial Saturation, Flow Compensation, Magnetization Transfer, Rectangular FOV
FOV: 4cm –16cm, variable in 1 mm increments
Slice Thickness:
2D: 2mm - 10mm, variable in 0.1 mm increments
3D: 0.5mm - 10mm, variable in 0.1 mm increments
Matrix:
2D: Phase and Frequency variable separately in steps of 2 from 64 to 512, and in Z in steps of 1 from 1 to 64.
3D: Phase and Frequency variable separately in steps of 2 from 64 to 512, and in Z in steps of 2 from 8 to 256. (some multiples of prime numbers not allowed)

Image Review
Features: Auto display, window/level, pan/zoom, multiple image display, ROI, annotate, measurements, multi-planar reformat, and simultaneity of scan, reconstruction, image display, filming, archiving and DICOM transfer

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The Power of Choice

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ONI Medical Systems
The Power of Choice

MSK Extreme® 1.5T

*70 mT/m gradient strength at 200 T/m/s slew rate revolutionizes MSK imaging

MOST POWERFUL* MRI

MSK Extreme® 1.5T

ONI Medical Systems provides innovative MRI solutions

Our dedication and experience enables us to deliver unique MR concepts to our customers for improved patient outcomes and financial success.

ONI has revolutionized MSK imaging. Our newest dedicated 1.5T MRI system offers hospitals and private practices the ability to increase image quality, patient comfort, and return on investment.

The Power of Extreme Image Quality

An extraordinary combination of three proprietary innovations creates an image quality advantage with the MSK Extreme® 1.5T:

- 2x higher gradient strength for superior cartilage visualization
- v-SPEC™ coil technology improves accuracy of diagnosis
- Sweet Spot Imaging provides control to ensure efficient, iso-centric positioning

Six dedicated coils

The Power of v-SPEC™ Technology

Optimizing the SNR of the acquisition and reducing motion.

The Power of Extreme Optimization

Most optimal imaging for wrists, hands, elbows, knees, feet and ankles.

The World's Most Powerful* 1.5T MRI System

From image quality to patient comfort to overall workflow, the MSK Extreme® 1.5T MRI system has it all. It is a powerful yet cost effective solution for imaging MSK patients.

The Power of Financial Returns

Greater financial returns than a typical 1.5T whole body MRI system.

- Generate profit after 2-3 patients per day
- Reduce patient wait times
- Expand whole body MRI capacity

The Power of Patient Comfort

Creates a unique patient experience.

- Non-claustrophobic open design
- Quiet operation

The Power of Efficient Space

Address highly constrained hospital and office locations.

- Minimize space required – only 200+ ft^2
- Lower siting costs by 60%
- Position virtually anywhere with magnet weight < 745 lbs

*70 mT/m gradient strength at 200 T/m/s slew rate revolutionizes MSK imaging

Knee – Proton Density FSE, 512x256, 3mm slice thickness, 145mm coil, Scan time 3:51

Wrist – Proton Density FSE, 512X256, 2mm slice thickness, 100mm coil, Scan time 3:19

MOST POWERFUL*

Typical Space Layout