

## MAGNETOM C! Specifications

MODEL	MAGNETOM C!
CONFIGURATION OPTIONS	
Range of magnetic field strength (CONFIGURATION OPTIONS)	< 0.59 Tesla
Magnet Configuration (CONFIGURATION OPTIONS)	Open bore - vertical/upright
Coil options (CONFIGURATION OPTIONS)	Body, Head, Knee, Neck, Pelvic, Shoulder, Spine, Wrist, Flex Array, Phased Array
Gating Options (CONFIGURATION OPTIONS)	Cardiac/ECG, Peripheral, Prospective with PACE, Respiratory
Are hardware/software modules available individually or are features available only as a system purchase (CONFIGURATION OPTIONS)	Yes, modules can be purchased separately
TECHNICAL SPECIFICATIONS	
Current release version (TECHNICAL SPECIFICATIONS)	2004 software
Gantry_Styles (TECHNICAL SPECIFICATIONS)	Open_C Shaped
Magnet field strength (TECHNICAL SPECIFICATIONS)	0.35 Tesla
Gradient Strength (millitesla per meter) (TECHNICAL SPECIFICATIONS)	24 (effective 39) m T/M
FOV (Min, Max) (TECHNICAL SPECIFICATIONS)	0.5 - 40 cm
Reconstruction time - Single Slice (@ 256x256) (TECHNICAL SPECIFICATIONS)	355 recons per second (256square FFT, full FOV) 3226 recons per sec (256 square FFT, 25% recFOV) seconds
Reconstruction time - Multislice (40 slices @ 256x256) (TECHNICAL SPECIFICATIONS)	355 recons per second (256square FFT, full FOV) 3226 recons per sec (256 square FFT, 25% recFOV) seconds
Reconstruction time - Volume (@ 256x256) (TECHNICAL SPECIFICATIONS)	355 recons per second (256square FFT, full FOV) 3226 recons per sec (256 square FFT, 25% recFOV) seconds
Spin echo time (Specify matrix size) (TECHNICAL SPECIFICATIONS)	min TE with SE 7.6ms (128 matrix ) 7.8ms (256 matrix) msec
Repetition time in msec (Specify matrix size) (TECHNICAL SPECIFICATIONS)	2.81 ms (128 matrix) 3.27 ms (256 matrix) msec
Inversion time in msec ( Specify matrix size ) (TECHNICAL SPECIFICATIONS)	N/A msec
On-line image storage capacity (TECHNICAL SPECIFICATIONS)	110,000 (256 matrix) Images
Cryogen use (TECHNICAL SPECIFICATIONS)	N/A with permanent magnet L/hour
Table weight limit [lbs] (TECHNICAL SPECIFICATIONS)	440 lbs.
Unit dimensions with service space (TECHNICAL SPECIFICATIONS)	137cm (W) + 209cm (D) + 189 (H)
Minimum room size requirements (Length x Width x Height) (TECHNICAL SPECIFICATIONS)	325 sq feet total install. Magnet room 16
Power requirements (VAC, Amps)	Line voltage:380, 400, 420, 440, 480 V, 15 kVA
Heat output (TECHNICAL SPECIFICATIONS)	Cooling requirement: (BTU/ hr.) 15.6 kW BTU

Installed weight (TECHNICAL SPECIFICATIONS)	35 lbs ( 1 lbs = .45 Kg)
INTERFACE CAPABILITY AND SPECIFICATION	
DICOM storage class user/provider	Yes
DICOM storage commit compliant (INTERFACE CAPABILITY AND SPECIFICATION)	Yes
DICOM modality worklist function (INTERFACE CAPABILITY AND SPECIFICATION)	Yes
DICOM print class user/provider (INTERFACE CAPABILITY AND SPECIFICATION)	Yes
DICOM Conformance URL (INTERFACE CAPABILITY AND SPECIFICATION)	www.siemensmedical.com
WARRANTY/SERVICE	
Uptime Guarantee % (WARRANTY/SERVICE)	97% with Gold contract %
Availability of remote diagnostic services (WARRANTY/SERVICE)	Available
Technical assistance hotline number (WARRANTY/SERVICE)	1-800-767-2313
Warranty length for software [Month(s)] (WARRANTY/SERVICE)	12 Months
Warranty length on parts[Month(s)] (WARRANTY/SERVICE)	12 Months
Warranty length on labor [Month(s)] (WARRANTY/SERVICE)	12 Months
APPLICATIONS TRAINING	
Quantity of applications training per installation (APPLICATIONS TRAINING)	Standard: 4 days off site syngo training for 2 tech. 4 days hands-on at clinical facility, 6 days on site training. Additional support available for fee per installation
Applications_training_locale (APPLICATIONS TRAINING)	Off-site, On-site
Includes CME/CEU credits (APPLICATIONS TRAINING)	Yes
MARKET DATA/PRODUCT AVAILABILITY	
Systems available/Qty. installed in US (MARKET DATA/PRODUCT AVAILABILITY)	Aug. 2004; one installed and running
Systems available/Qty. installed in Europe (MARKET DATA/PRODUCT AVAILABILITY)	July 2004; one installed and running
Systems available/Qty. installed in Asia (MARKET DATA/PRODUCT AVAILABILITY)	June 2004; >5 installed and running
Systems available/Qty installed in ROW (MARKET DATA/PRODUCT AVAILABILITY)	N/A
High and low range of unit/licenses price (APPLICATIONS TRAINING)	N/A
Year product introduced (MARKET DATA/PRODUCT AVAILABILITY)	2004
MODEL	Siemens Magnetom C!
MAGNET SPECIFICATION	
RF frequency MHz (MAGNET SPECIFICATION)	14.6
Type (CONFIGURATION)	Permanent
Shielding (MULTIPLE USE COMPONENTS)	Passive

Homogeneity (5-GAUSS FRINGE FIELD)	<4
40 cm DSV ppm	(36cm DSV)
Number of measurement planes (MAGNET SPECIFICATION)	15
Number of points per plane (MAGNET SPECIFICATION)	24
Field stability ppm/hr (MAGNET SPECIFICATION)	<±1.2/10min
COOLING SYSTEM (SYSTEMS)	Heating system to stabilize permanent magnet
Patient aperture:	
Width cm (Patient aperture at narrowest:)	137(side loading)
Depth cm (Patient aperture:)	137(side loading)
Height (pole to pole) cm (Patient aperture:)	42
Height(couch to pole) cm (Patient aperture:)	39
Magnet length with covers cm (Patient aperture:)	215
Scanner length cm	210 (table)
Patient couch:	
Min. height cm (Patient couch:)	82
Max. height cm (Patient couch:)	82
Table top width cm (Patient couch:)	79
Body mass limit (full movement) kg (Patient couch:)	200
Mass: magnet only tonnes (MAGNET INSTALLATION DETAILS)	16
total tonnes (Patient couch:)	16.73
Depth (with covers) (y) cm (Patient couch:)	209
Width (with covers) (x) cm (MAGNET INSTALLATION DETAILS)	137
Height (with covers) (z) cm (Patient couch:)	189
Horizontal (x,y) 0.5 mT fringe field m (Patient couch:)	2.2x2.2
Vertical (z) 0.5 mT fringe field m (Patient couch:)	2.7
Minimum installed area m2* (MAGNET INSTALLATION DETAILS)	30
Minimum ceiling height cm* (MAGNET INSTALLATION DETAILS)	225
To include 0.5 mT fringe field	
ELECTRONICS CABINETS	
Number (STAINING POSTS)	1
Total width cm (ELECTRONICS CABINETS)	97
Maximum depth cm (ELECTRONICS CABINETS)	66
Maximum height cm (ELECTRONICS CABINETS)	196
COOLING SYSTEM (SYSTEMS)	Air
RF SYSTEM SPECIFICATION	
Name/type/ version of the system (RF SYSTEM SPECIFICATION)	
Number of independent RF receiver channels (standard/ optional) (RF SYSTEM SPECIFICATION)	2/4
Bandwidth of each independent RF receiver channel (MHz) (RF SYSTEM SPECIFICATION)	0.5

Number of Analog-to-Digital Converters for each independent RF channel (RF SYSTEM SPECIFICATION) 1 (reads out amplitude and phase)

Sampling frequency of each Analog-to-Digital Converter (MHz) (RF SYSTEM SPECIFICATION) 10

GRADIENT SYSTEM SPECIFICATION

Shielding (MULTIPLE USE COMPONENTS) Active

Single axis maximum amplitude

x mT/m (Single axis maximum amplitude) 24

y mT/m (Single axis maximum amplitude) 24

z mT/m (Single axis maximum amplitude) 24

Single axis slew rate (Single axis maximum amplitude)

x mT/m/ms (Single axis maximum amplitude) 55

y mT/m/ms (Single axis maximum amplitude) 55

z mT/m/ms (Single axis maximum amplitude) 55

Duty cycle at max amplitude (Single axis maximum amplitude) 1

Amplitude @100% duty cycle mT/m (RF SYSTEM SPECIFICATION) 24

Minimum TR ms (GRADIENT SYSTEM SPECIFICATION) 17

Spin echo\*

Minimum TR ms (GRADIENT SYSTEM SPECIFICATION) 3.2

2D gradient echo\*

Minimum TR ms (GRADIENT SYSTEM SPECIFICATION) 2.81

3D gradient echo\*

Minimum echo ms spacing (3D gradient echo\*) 3.76

Turbo spin echo\*

Minimum echo ms spacing (3D gradient echo\*) 0.72

Echo planar imaging

Minimum TE ms (Echo planar imaging ) 82

Single-shot diffusion imaging with b-value of 1000 mm<sup>2</sup>/s

\* For 256x256 matrix

For 128x128 matrix

RESOLUTION PARAMETERS

Minimum FOV mm (RESOLUTION PARAMETERS) 5

Maximum imaging matrix (RESOLUTION PARAMETERS) 512x512 1024x1024

Minimum 2D slice thickness mm (RESOLUTION PARAMETERS) 1.7

Minimum 3D slice thickness mm (RESOLUTION PARAMETERS)