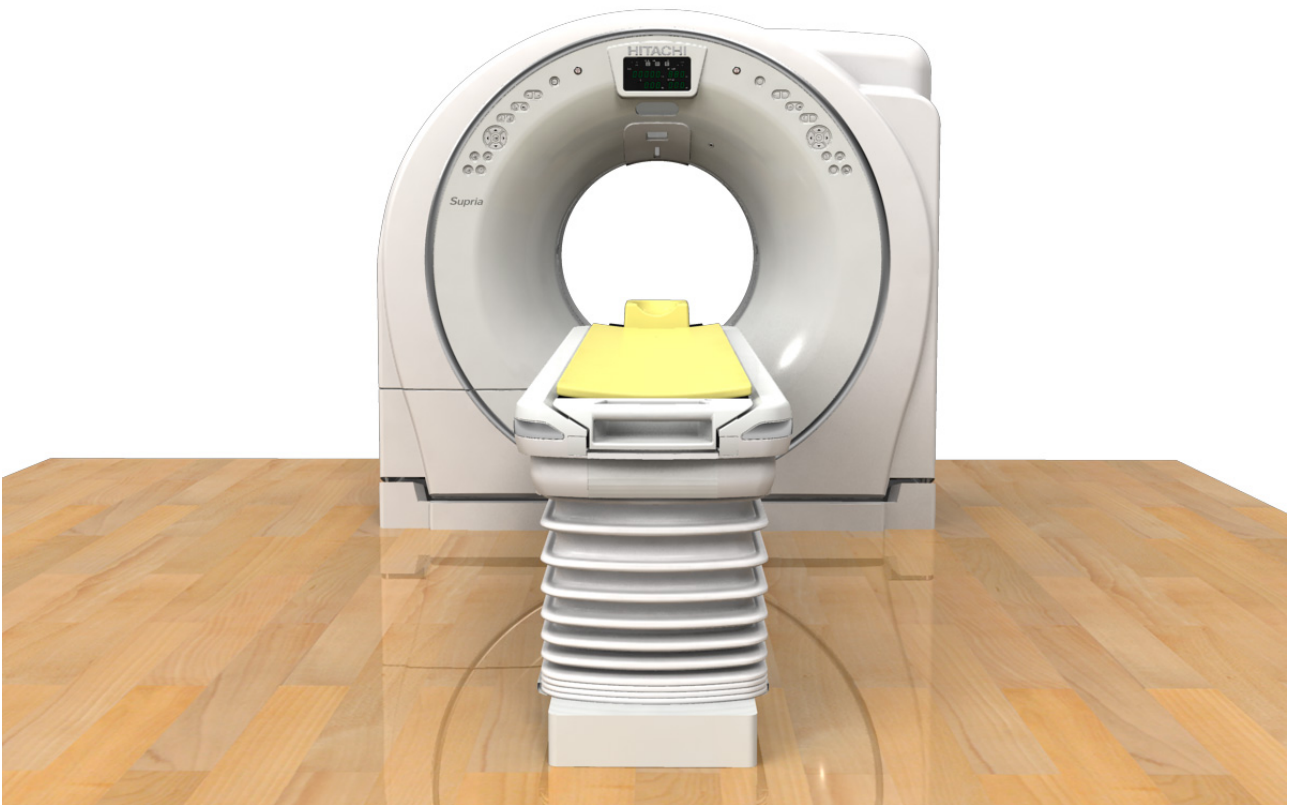


Whole-body X-ray CT System
- OPEN & COMPACT 16ch CT -

Supria

Product Specification (5MHU)



 **Hitachi Medical Corporation**

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1. Product Overview

Open Access and Compact Design, with the latest technologies. New “Supria” CT meets your future needs.

The needs for faster and more accurate diagnosis are increasing every day in the front-line of medical practice. Supria is designed to answer in one CT all the demands for various routine applications, compact size, useful results and ease of use without any compromise.

Supria CT is your answer to take off to the next clinical and technology standard.

Supria Open & Compact

75cm wide gantry bore with compact foot-print

Supria Performance

Newest technologies for high image quality

Supria Low Dose

State of the art technologies for low dose are integrated as standard

Supria Easy Operation

Intuitive GUI design with 24-inch wide monitor

2. System configuration

Standard configuration

- | | | |
|-------------------------|------|--|
| 1. Scanner gantry | 1 | |
| 2. Patient table | 1 | |
| 3. Operator's console | 1 | Console unit
24" Wide LCD monitor
Keyboard
Mouse
Intercom |
| 4. Standard functions | 1set | DICOM 3.0
DICOM Print
DICOM Dose SR
Predict Scan
Intelli IP (Advanced)
IntelliEC (SD-mode)
CEV-CPR
Auto MPR |
| 5. Standard accessories | 1set | Head rest 1(without arm rest)
Head/Chin band
Patient belt
Patient mat
Patient fixing parts
Speaker (for CT room) |
| 6. Instruction manual | 1set | |



Options for scanning

1. Breath-Navi display : 3 displays on the gantry bore
2. Light localizer : for preparatory position
3. Foot switch : 2 switches on each side of the patient table (for PRESET/HOME)
4. Table accessories :
 - Armrest HF
 - Headrest 2 (for Armrest HF)
 - Chinrest (for Armrest HF)
 - Foot mat
 - Extended tabletop
 - Touch switch (for Extended tabletop)
 - Foot mat (for Extended tabletop)
 - Armrest FF
 - Headrest 3 (for Armrest FF)
 - Spacer 1
 - Spacer 2
 - Triangle mattress
 - Infant fixing tool
 - IV pole
5. UPS : for console
6. Remote Service : Additional contract required. Please contact local sales representatives.

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System configuration

Options for image processing & DICOM

1. Hyper Q-Net R(*1) : Image analysis software (network-compatible)
2. fatPointer : Body fat analysis software
3. riskPointer : LAA analysis software
4. CT Colonoscopy : Colon analysis software
5. Dental Analysis(*2) : Tooth-jaw analysis software
6. Lung Analysis : Lung field analysis software
7. Perfusion Analysis : Cerebral blood flow analysis software
8. DICOM MWM(*3) : Modality Worklist Management
9. DICOM MPPS : Modality Performed Procedure Step
10. DICOM Q/R : DICOM Query/Retrieve

(*1) This includes software only, and PC(Windows 7 – 64bit type) shall be procured by customer.

(*2) Hyper Q-Net R required.

(*3) Including IHE/SWF

3. Specification

Scanner gantry

1. Object for scanning : Whole body including head
2. Scanning time : 0.75 / 1.0 / 1.5 / 2.0 sec
3. Maximum number of slice : 16 slices/scan
4. Gantry Opening : 750mm
5. Effective field of view (FOV) : 500mm
6. Gantry tilt angle : Forward tilt 30°~backward tilt 30°
7. Setting scan position : Light Localizer

Patient table

1. Material of tabletop : Carbon fiber
2. Table height : 450~1,000mm
3. Tabletop width : 400mm
4. Maximum scannable range (with extended tabletop) : 1,200mm (1,500mm)
5. Maximum load (supportable load) : 180kg

X-ray generator/detector

1. X-ray tube : 5 MHU
2. Maximum output : 48kW (400mA@120kV)
3. Tube voltage : 80 / 100 / 120 / 140kV
4. Tube current : 10~400mA
5. Detector type : Solid state detector
6. Elements per row : 880 ch
7. Number of rows : 16 rows

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Specification

Scanning Function

1. Scanogram
 - Maximum scanable range : 1,500mm with extended tabletop
 - Measurement slice thickness : 0.625mm x 8
2. Normal scan
 - Scan time : 0.75 / 1.0 / 1.5 / 2.0 sec
 - Image slice thickness : 0.625 / 1.25 / 2.5 / 3.75 / 5 / 7.5 / 10mm
3. Dynamic scan
 - Scan time : 0.75 / 1.0 / 1.5 / 2.0 sec
 - Image slice thickness : 0.625 / 1.25 / 2.5 / 3.75 / 5 / 7.5 / 10mm
4. Volume scan
 - Scan time : 0.75 / 1.0 / 1.5 sec
 - Image slice thickness : 0.625 / 1.25 / 2.5 / 3.75 / 5 / 7.5 / 10mm
 - View rate : 1,200view/sec
 - Volume pitch : 0.563~1.563
 - Reconstruction method : CORE(3D image reconstruction algorithm)

Image display/process

- Display monitor : 24-inch LCD monitor
- Reconstruction matrix : 512 x 512
- Reconstruction time : Max. 10 images /sec
- Display matrix : 1,920 x 1,200
- Magnetic disk unit
 - Storage Image : 200,000 images or more
 - Storage Raw Data : 6,000 scans or more
- Archival storage : DVD drive (CD-R, DVD-R)
- Display gray scale : 256 levels
- Window level : Standard: -2,000~+4,000
: Extended: -32,768~+32,767
- Window width : Standard: 1~6,000
: Extended: 1~32,767
- Data display : Patient name, Birthday, Sex, Patient ID No., Slice thickness, Tube voltage, Tube current, Slice position, State of contrast, and others

Image display/
process

Window process

- (a) Window level/width adjustment
- (b) Black-white contrast reversal
- (c) Linear/nonlinear window
- (d) Double window
- (e) Level detection

Image display process

- (a) Multi-frame display
- (b) Magnification (real-time, etc.)
- (c) Image rotation
- (d) Left-right inversion
- (e) Correction
- (f) Comment display
- (g) Cine display
- (h) Subtraction/Addition
- (i) Edge enhancement/Smoothing
- (j) Multi-slice image addition

Image analysis process

- (a) Distance and angle measurement
- (b) Profile of CT value
- (c) Setting ROI
 - Shape: Oval, Free
 - Process: Area, Mean value of CT #
 - Display: Up to 4 ROIs can be displayed
 - Control: Size, Position, Rotation
- (d) Histogram
- (e) Display of CT value
- (f) Scale display
- (g) Volume calculation

3D image display

- (a) MPR (SAG, COR, OBL, CURVE)
- (b) MIP, MinIP, RaySum display
- (c) Surface rendering
- (d) Volume rendering (VT method)
- (e) Multi angle reconstruction plan (MARP)
- (f) Movie display
- (g) Perspective method

4. Environmental requirements

Environmental requirements

No.	System	Mean heat dissipation* ¹		Temperature (°C)	Degree of humidity (%)
		(W)	(kcal/h)		
1	Scanner gantry	2,650	2,273	20~28* ³	35~80
2	Patient table			(-5~33)* ²	
3	Operator's console	350	300	10~28 (-5~33)* ²	

(*1) Measurement condition of mean heat dissipation

- # of scan : 150 scan/hour
- Scan condition : 120kV、200mA、1 sec x 30 continuous scans

(*2) Humidity in () shows the condition while the equipment is not in use. System shall be prevented from the dew condensation.

(*3) The fluctuation of room temperature during operation time shall be within the range of "±2°C"

Power supply facility

Mains voltage	3 phase 200VAC (*1)
Mains frequency	50 / 60Hz
Power supply capacity	75kVA
Grounding resistance	100Ω or less

(*1) If the power supply voltage at site is not 200VAC use the system transformer (Option).

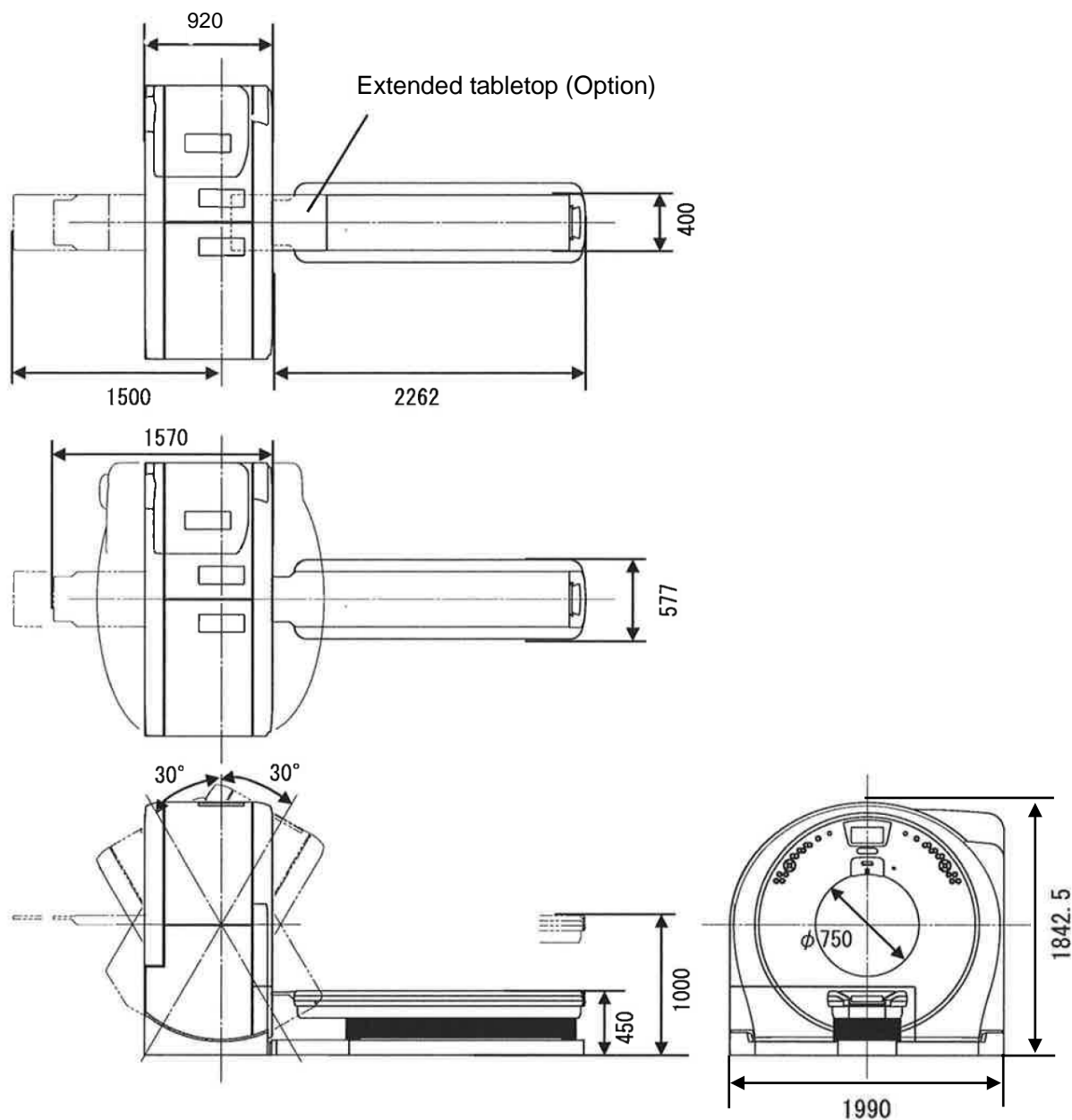
If the power supply voltage at site is 380/400/415/480VAC the grounding should be less than 10 Ω.

5. Outside dimension and mass

Outside
dimension
and mass

Unit	Width(mm)	Depth(mm)	Height(mm)	Mass(kg)
Scanner gantry	1,990	920	1,842.5	1,600
Patient table	577	2,262	450~1,000	324
Operator's console				
Main unit	400	745	660	76
Intercom	470	85	52	1.2
Monitor	568.5	217	426~550	9
Keyboard	440	130	40	0.1

6. Dimensions of system units

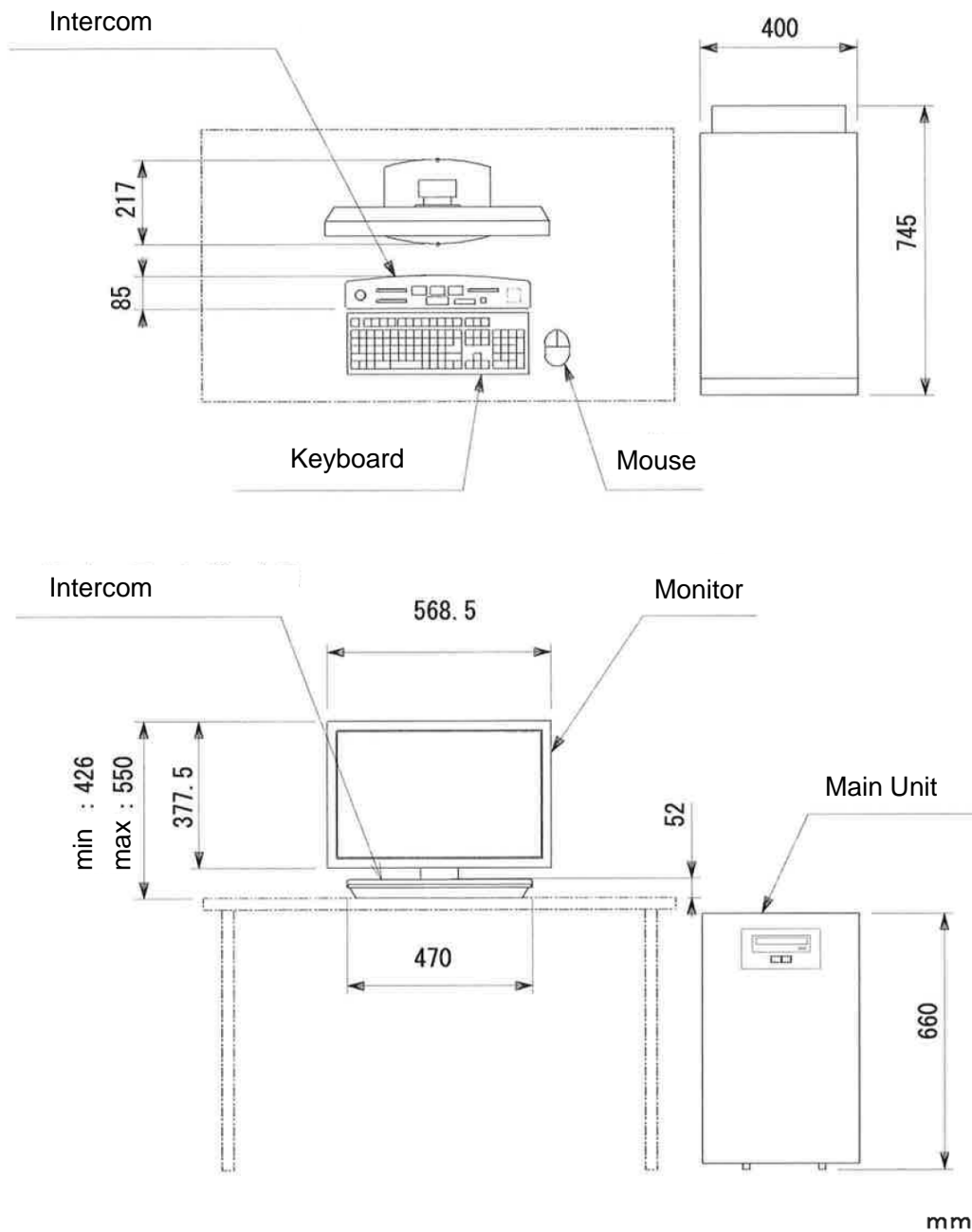


Scanner gantry / patient table

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Dimensions of system units



Operator's console

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Specifications and physical appearance may be changed without prior notice.

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