

NeuViz 16 Classic Technical Brochure

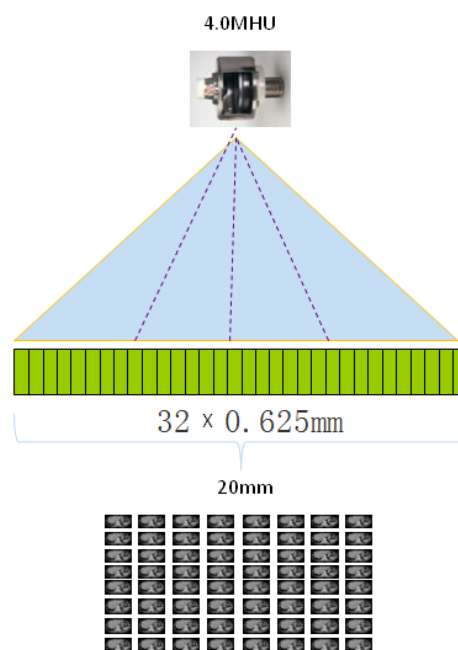


High cost-performance, from new platform

NeuViz 16 Classic comes from essence of Neusoft CT innovation and advanced technology. Offers cost-effective 16-slice acquisition with multi-detector capabilities for maximum patient throughput in an exceptionally compact design.

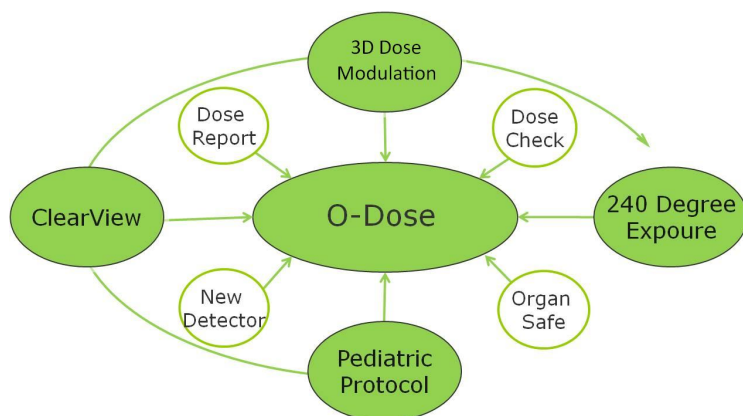
Highlights

- the 4th generation 16-slice CT
- 32-row/20mm wide detector, high efficiency
- Powerful 4.0MHU tube affords continuous exposure
- 1024 x 1024 large matrix for high definition imaging
- O-Dose: Low-dose technology and solution
- AVW: Advanced imaging workstation for any applicaitons



O-Dose Low dose technologies and solutions

Offers full low dose solutions for all automatic modulation aspects.



32-row detector with coverage 20mm, especially 10mm sub-millimeter of 0.625mm enables high definition imaging.

Hardware Configuration

Gantry

Aperture:	70 cm
Scan Field:	45.6 cm
Gantry Tilt:	±30°
Scan Speed (360°):	0.78s, 1.0s, 1.5s, 2.0s
Scan Collimation:	16 x 1.25mm, 16 x 0.625mm, 8 x 0.625mm, 4 x 0.625mm, 2 x 0.625mm
Scan Localizer:	Sagittal, transverse, coronal laser positioning lamp

X-ray tube

Focal Spots:	0.4mm × 0.7mm (small) 0.6mm × 1.3mm (large)
ISO Center to Focal Spot Distance:	570mm
Anode Heat Capacity:	4.0MHU

Generator

Range of mA Output:	10mA - 233mA
KV switch:	80kV, 100kV, 120kV, 140kV
Max. Output:	28kW

Detector

Detector Type:	GOS solid
Detector Number:	608 × 32
Detector Channels of Per Row:	608
Data Transmit:	Digital transmitting
Number of Projection:	2,320 views

Patient Table

Range of Horizontal Movement:	1550mm
Horizontal Movement Speed:	1.0 - 100.0mm/s
Range of Vertical Movement:	430mm - 970mm
Vertical Movement Speed:	9-15mm/s
Scannable Range:	0-1550mm
Max. Load Capacity:	205 kg /452 lbs



Host Computer System

Image Matrix:	512 × 512, 768 × 768, 1024 × 1024
Display Matrix:	1024 × 1024
Max. Image Recon Time:	Up to 12 ips
Range of CT Number:	[-32,768, +32,767]
CPU Frequency:	≥2.4GHz (multi-core)
Memory:	24GB
Hard Disk Capability:	500GB
Max. Storage Capacity of Image:	≥ 960,000 images, 512 × 512
DVD-RW Driver:	8,400 images of 512 × 512 per 4.7GB
Monitor:	23" LCD
Monitor Resolution:	1920 × 1080
DICOM 3.0 Configuration:	Print, Query/Retrieve Storage, Storage Commitment
MPPS	
Modality Worklist (HIS/RIS)	
Auto Voice	
Auto Film	

System Configuration

Standard Applications

Auto Film

Automatic print images in preset layout format after ending study.

Auto Voice

A standard set of commands for patient communication: before, during and after scanning.

3-D SSD

Real-time manipulation of 3-D images includes zoom, pan, rotation around any axis, and cutting of the organs with a user-defined viewing aperture to expose underlying tissues. Making a tissue transparent enables viewing of underlying organs.

MIP/minIP

CT Angiography Maximum Intensity Projection (MIP) images, from a volumetric set of images, can be quickly reconstructed to demonstrate enhanced vascular structures. The projection images can be interactively generated in any arbitrary viewing angle, and can be windowed, zoomed and panned.

MPR

Real-time reformation of axial images into any user-defined plane-coronal, sagittal or general oblique-or curved plane. Zoom, pan, leaf and window are available at any time. User-defined series of reformations covering the clinically relevant organ can be performed, archived and filmed.

Curved MPR

Defines MPR curved cuts along vascular structures on MIP or Volume-rendered images for panoramic and cross-sectional views.

Virtual Endoscopy

Fly-through images within and around hollow organs. Clinical applications include virtual colonoscopy, bronchoscopy, and angioscopy.

CT Angiography

Specified protocol for different vessels

Volume Rendering

3-D visualization software provides unique simultaneous visualization of vasculature, soft tissue and bone.

Bolus Tracking

Bolus Tracking is an automated injection planning technique that permits the user to monitor actual contrast enhancement and initiate scanning at a pre-determined enhancement level. Combine with the SAS option for full automation and efficacy.

Worklist

Provides HIS/RIS interface through DICOM modality worklist service class; enhances clinical workflow by importing patient demographics and study information from an information management system.

MPPS

Enhances system performance DICOM Modality Worklist service class interface to hospital HIS/RIS system. Modality Worklist automatically imports patient demographics and study information from the HIS/RIS system thereby improving speed and eliminating data entry errors. DICOM Modality PPS (Performed Procedure Step) can record patient information during the scan, and send them to HIS/RIS archive.

Spiral Auto Start

Spiral Auto Start integrates the injector with the scanner, allowing the technologist to monitor the contrast injection to check for extravasation, and to initiate the scan (with the predetermined delay) while in the scan room.

CT Reporting

User can create and distribute comprehensive one-page reports of key results and findings.



System Configuration

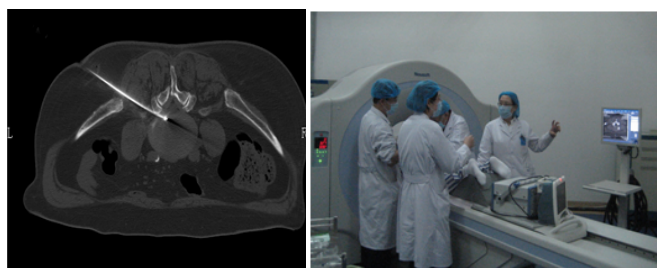
Optional Applications

AVW Workstation

AVW provides imaging solutions for all kinds of routine and advanced applications.

CCT

CCT is a scanning mode that allows the physician to perform extended, low-dose scans while performing a biopsy.



Dual-screen

Dual-screen provides flexible operation balance of scan planning and image processing.

Dental Analysis

The Dental Planning is used to create true-size film images of the Mandible and the Maxilla for assisting oral surgeons in planning implantation of prostheses.



Nerve System DSA

CTDSA completely removes bone from CT studies providing a clear view of vasculature.

Brain Perfusion

For early Brain stroke evaluation. Calculate CBF, CBV, MTT, TTP Map, ROI and TDC display

Body Perfusion

For early abdomen organ perfusion evaluation.

Calculate CBF, CBV, MTT, TTP Map, ROI and TDC display

Lung Density Evaluation

Pneumonia and Emphysema can be screened and monitored over time. Aid the clinician in developing a comprehensive treatment plan.

Lung Nodule Analysis

The Lung Nodule Analysis assists radiologist with the detection and quantification of pulmonary nodules and lesions.

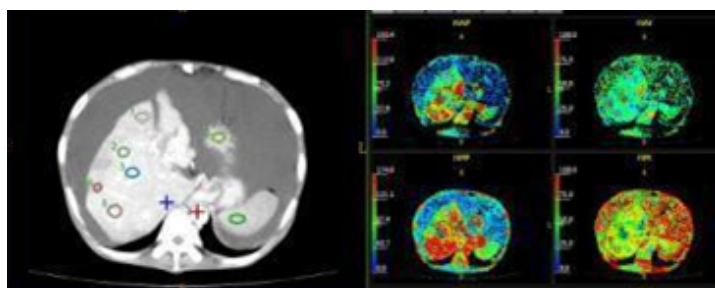
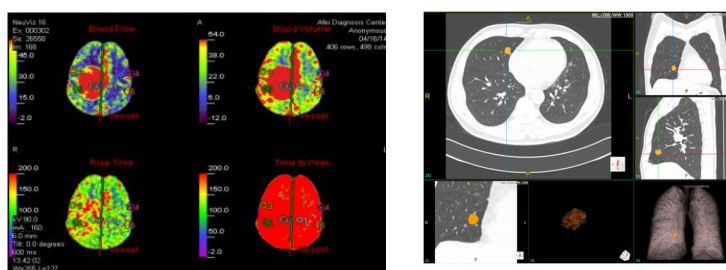
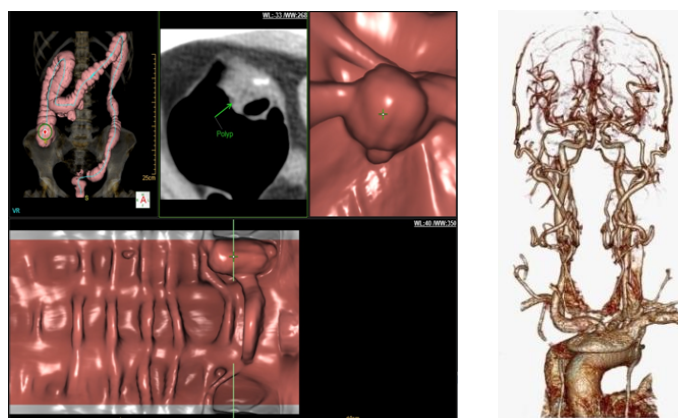
Virtual Colonoscopy

Automatic Colon Segmentation, Unfold View, Polyp Detection, Compare with Supine and Prone.

Tumor Evaluation

Tumor Evaluation can provide tumor segmentation and measurements from CT Scan series:

One click tumor segmentation, tumor diameter and volume calculation Follow up.



Installation

Outline Dimensions & Weight

Gantry Dimensions
2244mm (L) x 890mm (W) x 1920mm (H)
Gantry Weight: 1800 kg
Gantry Package Dimensions
2370mm (L) x 1030mm (W) x 2250mm (H)
Couch Dimensions
2220mm (L) x 610mm (W) x 1055mm (H)
Couch Weight: 345 kg
Couch Package Dimensions:
2570mm (L) x 970mm (W) x 1230mm (H)

Power Supply Requirements

Power Capacity: 50KVA
Input Voltage:
China: 380VAC±10%, 3-phase 5-line
Global: 200/208/220/230/240/380/400/415/440/460/480VAC
Delta, 3-phase 4-line (equipped with an optional isolation transformer)
Voltage Variation: ±10%
Drop with Loading: ≤5% of the rating
3-Phase Unbalance: ≤5%
Frequency: 50Hz/60Hz±1Hz
Grounding Resistance: Independent Grounding Resistance ≤4Ω
Common Grounding Resistance <1Ω

Environment Requirements

Min. Area of Scanning room: 5180mm×3650mm
Min. Area of Operating Room: 1700mm×3650mm
Min. Height of Ceiling: 2010mm
Temperature: Scan Room: 18 - 24°C
Console Room: 18 - 28°C
Humidity: Scan Room: 30% - 60%, non-condensing
Console Room: 20% - 80%, non-condensing
Atmospheric Pressure: 70kPa - 106kPa
Temperature of Transportation and Storage: -20°C - +55°C
Humidity of Transportation and Storage: 10% - 90%, non-condensing
Running Noise: ≤70dB(A) (1 meter distance)

Specifications are subject to change without notice.

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