



Apogee 3500 Elite

— *Digital Trolley Color*

Doppler System

Appearance

- Ergonomic appearance
- Swivel keyboard and monitor
- High resolution color monitor
- 18.5-inch LCD monitor
- 8.4-inch touch screen
- Visual Angle:
 - Left and right side:178°
 - Up and down:178°
 - Resolution : 1366×768
- Backlit keyboard, 8 TGC
- Transparent keyboard membrane for minor languages: Spanish, German, Russian, French
- Four active probe connectors
- Six probe holders

Probe

Transducer Types

- Electronic convex probe
- Electronic micro convex probe
- Electronic linear probe
- Electronic trans vaginal probe
- Electronic biplane probe
- Electronic phased array probe
- 4D convex probe
- 4D trans vaginal probe

Technology

Applications

- Abdomen, Urology, Gynecology,

- Obstetrics (1st Trimester, 2nd and 3rd Trimesters), Fetal echo, Multifetation
- Abdomen (PEN), Urology (PEN)
- Thyroid, Breast, Testes, Peripheral vascular, Orthopedics, Podiatry, Superficial, Small part (PEN), Musculoskeletal Neurology
- Carotid, Vascular (PEN)
- Cardiology, Cardiology (PEN),
- Paediatrics Cardiac

- iPad/iPhone or the wireless Printer (Optional)
- Smarchive
- DICOM 3.0 (Optional)

Highlight

- Auto-Fit: Automatic Optimization
- Nanoview : Speckled Reduction
- Trapezoidal/ Extend Imaging
- Tissue Harmonic imaging
- Edit the exam type and save the user-defined items
- MFI (Inversion THI)
- XBeam : Compound Imaging
- Panoscope : Panoramic Imaging (Optional)
- Auto IMT
- Auto Volume
- Semi-Auto EF
- CFM/CPA/DPA
- VS Flow (Optional)
- Pulse Wave Doppler
- Duplex / Triplex
- HPRF
- CW (Optional)
- Anatomic M mode (3 lines) (Optional)
- Color M mode (Optional)
- TDI (Optional)
- ECG (Optional)
- TEI index
- Free hand 3D
- 4D Lite (Optional)
- 4D Pro (Optional)
- Elastography (Optional)
- Needle Enhancement (Optional)
- SonoAir : transmit images to

Display mode

- B, 2B, 4B mode
- M, B/M mode
- Color flow mode
- Pulse Wave Doppler
- B/CFM, B/PDI mode
- B/PW mode
- B/CFM/PW, B/PDI/PW
- CW, B/CW, B/CFM/CW mode
- B/E, E mode
- Split B/Color real time mode
- 3D, 4D mode

Zoom

- HD Zoom
Zoom times >x9.0
Picture in Picture
- Full View Zoom
Zoom times >x7.0
Picture in Picture
Realtime and After Frozen
Mix Zoom times >x30.0
- Full Screen Zoom
- Mode Available
B, M, Color/CPA/TDI, PW/CW, 3D/4D, E mode

Focus

- Continuous dynamic focus
- Dynamic apodization
- Dynamic aperture
- 1~8 selectable transmit focus
- Acoustic lens focus

Memory

- Cine-memory
- B-mode (max.2000 frames)
- M-mode (11 minutes)
- PW-mode (10minutes)
- Hard disk 500 GB

Imaging Processing

2D mode

- 8-step TGC slide pots
- Gain: 0~100
- Depth: 1.6~30.8 cm
- Frequency: 5 steps
- Dynamic range adjustable: 30~180dB
- Edge enhancement: 0~3
- Smooth: 0~3
- Nanoview: 0~6
- Persistence: 0~7
- Chroma: 0~8
- Grayscale: 0~23
- Power: -∞~0dB, 0~100%
- B steer: -20° ~ +20°
- Line density: 3 steps
- Inversion: left/right, up/down
- Rotate angle: 0°~270°

M mode

- Gain:0~100dB
- Sweep speed: 4 steps
- Maps: 0~23
- Chroma: 0~8

Color mode

- Gain control: 0~100dB
- Pulse repetition frequency: 0.25KHz~6.0KHz
- Wall filter: 50 steps
- Median Filter: 0~3
- Threshold: 0~10
- Color Maps: 0~10
- Smooth: -3~3

- Color persistence: 0~7
- Line density: 2 steps
- Color enhancement: 6~16
- Speed: 0.1cm/s ~ 298.4cm/s
- Color frequency: 4 steps
- Power: 0~100%, -∞ dB ~ 0 dB
- Baseline: 17 steps
- Steer: -20° ~ +20°
- Priority: 85 steps
- Sampling volume: 1~128

PW mode

- Gain: 0~100dB
- D map: 0~23
- Frequency: 3 steps
- Chroma: 0~8
- PRFd: 0.25~25KHz
- Basic line: 31 steps
- Wall filter: 50 steps
- Angle: -80°~+80°
- Sampling volume: 0.5~40.0mm
- Volume:0~100%
- D Speed: 1~6
- Smooth: 0~3
- Power: -∞~0dB, 0~100%
- Steer: -20° ~ +20°

CW mode

- Gain: 0~100dB
- Map: 0~23
- Speed: 1~5
- Volume: 0~100%
- Power: -∞~0dB, 0~100%
- Smooth: 0~3
- Chroma: 0~8
- Frequency: 1 step
- WF: 50 steps
- Angle: -80°~+80°
- Scale: 1~9

4D Lite mode

- 4D map: 31 steps
- Chroma: 0~4
- Rotate angle: 0° ~ 270°
- Threshold: 0~100
- Smooth: 0~3
- Brightness: 0~10
- Gain: 1~8
- Position: 1~10
- Interval: ON/OFF
- ESP:0~3
- Color:1~4
- Hide: ON/OFF

4D Pro mode

- 4D map: 31 steps
- Rotate angle: 0° ~ 270°
- Threshold: 0~100
- Smooth: 0~3
- Brightness: 0~10
- Zoom: 0.2~2.5
- Color: 0~5
- Smooth: 0~5
- nSlice:
 - Planes: 3~39
 - Space: 0.5~20mm
- Q Cut
- Any Cut

TDI mode

- C Gain: 0~100Db
- C PER:0~7
- C Freq:4 steps
- PRFc:0.25~6KHz
- Wall filter: 3KHz,Max,50 steps
- Baseline:17 steps
- C Map:0~9
- Thred:0~10
- C Prior:0~255
- C PWR: 0~100%, -∞ dB ~ 0 Db
- C SMO:-3~+3
- C Gate:1~128
- M Filter:0~3
- C LD: Low, High
- C Speed: 0.2cm/s ~ 298.4cm/s
- C ENH:6~16

ECG mode

Measurement & Calculation

Measurement

2D mode (General)

- Distance
- Trace Length
- Ellipse (area)
- Trace (area)
- Angle (general)
- Angle (cross)
- Auto IMT (intima-media thickness)
- Histogram

PW mode

- HR (heart rate)
- Velocity
 - PSC (peak systolic velocity)
 - EDV (end diastolic velocity)
 - S/D (systolic/diastolic)
 - RI (resistance index)
 - PG (pressure)
- ACC (acceleration)
- Time
- Manual Trace
 - PSC (peak systolic velocity)
 - EDV (end diastolic velocity)
 - MN (median)
 - ACC (acceleration)
 - S/D (systolic/diastolic)
 - RI (resistance index)
 - PI (pulsatility index)
 - HR (heart rate)
 - PG (pressure)

Data Sheet

- Auto Trace
 - PSC (peak systolic velocity)
 - EDV (end diastolic velocity)
 - MN (median)
 - ACC (acceleration)
 - S/D (systolic/diastolic)
 - RI (resistance index)
 - PI (pulsatility index)
 - HR (heart rate)
 - PG (pressure)
- Range Trace
 - PSC (peak systolic velocity)
 - EDV (end diastolic velocity)
 - MN (median)
 - ACC (acceleration)
 - S/D (systolic/diastolic)
 - RI (resistance index)
 - PI (pulsatility index)
 - HR (heart rate)
 - PG (pressure)
- S-Video out port
- Audio in port
- Audio out port
- MIC
- VGA out port
- USB port
- Printer control port
- AC power input port
- HDMI digital port
- Network interface
- Foot SW
- ECG port

Dimension

- Gross dimension
 - Whole set
950 mm (L) X 670 mm (W) X 1200 mm (H)
- Net dimension
 - 820 mm (D) X 580 mm (W) X 1295~1425 mm (H)

Calculation

Abdomen

Urology

Gynecology

Obstetrics (1st Trimester)

Obstetrics (2nd and 3rd Trimesters)

Fetal echo

Thyroid

Breast

Testes

Neonate

Peripheral vascular

Orthopedics

Carotid

Cardiology

Weight

- Gross weight
 - 90kg
- Net weight
 - 60kg

Power Requirements

- Voltage
100-240V±22V~(230±23V for EU countries)
- Frequency
50Hz±1Hz; 60Hz±1Hz
- Rated Power
500VA

Physical Features

Connectivity

- Video out port

Operation Conditions

- Ambient temperature
0°C to +40°C
- Relative humidity
30% to 85%
- Atmospheric Pressure
700hPa to 1060hPa

Stored Conditions

- Ambient temperature
-20°C to +60°C
- Relative humidity
15% to 93%
- Atmospheric Pressure
500hPa ~ 1060hPa

Software & Accessories

Standard Accessories

- Power Cable
- Operation Manual
- Potential equalization conductor
- Printer control cable
- S-Video cable
- Fuse
- BNC/RCA cable
- Dust-proof cover
- Recovery system CD
- Wireless network antenna
- 4D training CD

Optional Accessories

- B/W or color Video printer
- LaserJet or inkjet printer
- Biopsy guide for convex or linear probe

- Biopsy guide for trans vaginal or transrecta probe
- Foot switch
- ECG cable

Applied Standards

Quality Standards

- ISO 9001:2008
- ISO 13485:2003

Conformance Standards

- UL 60601-1
- EN 60601-1 and IEC 60601-1
- EN 60601-1-1 and IEC 60601-1-1
- EN 60601-1-2 and IEC 60601-1-2
- EN 60601-1-4 and IEC 60601-1-4
- EN 60601-1-6 and IEC 60601-1-6
- EN 60601-2-37 and IEC 60601-2-37
- EN 62304 and IEC 62304

CE Declaration

The Certification Body of TÜV SÜD Product Service GmbH declares that the aforementioned manufacturer has implemented a quality assurance system for design, manufacture and final inspection of the respective products / product categories according to Annex II section 3 of the Directive 93/42/EEC on Medical Devices.