



## Apogee 2100

— *Digital Mobile Color  
 Doppler System*

### Appearance

- Ergonomic appearance
- 15-inch LED monitor
- Visual Angle:
  - Left and right side: 170°
  - Up and down: 170°
  - Resolution : 1024 × 768
- Backlit keyboard, 8 TGC
- Removable control panel
- Lithium battery
- Working hour: 50 min
- Two active probe connectors
- Two probe holders

- 4D convex probe
- 4D trans vaginal probe

### Probe Mode

- C3LN convex probe
- L8LN linear probe
- L10LN linear probe
- P3FN phased array probe
- V6LN trans vaginal probe
- C5LN 4D convex probe
- C6LN micro-convex probe
- C3LN 4D trans vaginal probe
- ECBN bip-lane probe

### Probe

#### Transducer Types

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

### Technology

#### Applications

- Abdomen, Urology, Gynecology,
- Obstetrics (1<sup>st</sup> Trimester, 2<sup>nd</sup> and 3<sup>rd</sup> 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

### Highlight

- Auto-Fit: Automatic Optimization (B and PW mode)
- Nanoview : Speckled Reduction
- Trapezoidal Imaging (linear probe)
- Tissue Harmonic imaging (3 frequency)
- MFI (Macro Fidelity)
- Edit the exam type and save the user-defined items
- Pulse Wave Doppler
- XBeam : Compound Imaging
- Panoscope : Panoramic Imaging
- B flow
- HPRF
- Free hand 3D
- Color Doppler and Color Power Doppler(Optional)
- Anatomic M mode (360°,3lines) (Optional)
- 4D Lite(Optional)
- 4D Pro(Optional)
- Elastography (Optional)
- ECG (Optional)
- TDI (Optional)
- Continuous Wave Doppler(Optional)
- Color M mode (optional)
- VS Flow (Optional)
- SonoAir : transmit images to iPad/iPhone or the wireless Printer (Optional)
- Smarchive
- DICOM 3.0 (Optional)
- Triplex(B/C/PW mode) (Optional)

### Display mode

- B, 2B, 4B mode
- M, B/M mode
- B/Color, B/CPA, B/DPI mode
- PW, B/PW, B/C/PW mode
- CW, B/CW, B/C/CW mode
- Trapezoidal Imaging
- Tissue Harmonic Imaging
- B/C real time
- 3D, 4D mode
- E, B/E mode

### Zoom

- HD Zoom-For partial
- Full-View Zoom-For full image area
- Full Screen Image Area-The image area fills into whole screen

### Focus

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

### Memory

- Cine-memory
- B-mode (max.2000 frames)
- M-mode (11 minutes)
- 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:  $-\infty \sim 0$ dB, 0~100%
- B steer:  $-20^\circ \sim +20^\circ$
- B rotation:  $0^\circ \sim 270^\circ$
- Line density: 2 steps
- Inversion: left/right, up/down

## M mode

- Gain: 0~100
- 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: 3KHz, 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%,  $-\infty$  dB ~ 0 dB
- Baseline: 17 steps
- Steer:  $-20^\circ \sim +20^\circ$
- Priority: 0~255, 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:  $-80^\circ \sim +80^\circ$
- Sampling volume: 0.5~40.0mm
- Volume: 0~100%
- D Speed: 1~5
- Smooth: 0~3
- Power:  $-\infty \sim 0$ dB, 0~100%
- Steer:  $-20^\circ \sim +20^\circ$

## CW mode

- Gain: 0~100dB
- Map: 0~23
- Speed: 1~5
- Frequency: 1 step
- Volume: 0~100%
- Power:  $-\infty \sim 0$ dB, 0~100%
- Smooth: 0~3
- Chroma: 0~8
- WF: 50 steps
- Angle:  $-80^\circ \sim +80^\circ$
- Scale: 1~9

## 4D Lite mode

- 4D map: 31 steps
- Color: 0~4
- Rotal:  $0^\circ \sim 270^\circ$
- Threshold: 0~100
- Smooth: 0~3
- Brightness: 0~10
- Render rate: Low Mid, High
- Scan rate: Low Mid, High
- Angle: 50%~100%
- Opacity: 0~255

## 4D Pro mode

- Zoom: 0.2~2.5

## Product Data

- Chroma: 0~5
- Smooth: 0~5
- Scan Rate: Low, Mid, High
- Blend: 0~255
- nSlice:
  - Slices: 3~39
  - Space: 0.5~20mm
- Q Cut
- Any Cut
- Distance
- Trace Length
- Ellipse (area)
- Trace (area)
- Angle (general)
- Angle (cross)
- Auto IMT (intima-media thickness)
- Histogram

### 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 ~ 298cm/s
- C ENH: 6~16

### ECG mode

- Gain: 1~8
- Position: 1~10
- Interval: ON/OFF
- ESP: 0~3
- Color: 1~4
- Hide: ON/OFF

## Measurement & Calculation

### Measurement

#### 2D mode (General)

### 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)
- 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)

## Product Data

- 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
- 2 USB port
- Printer control port
- AC power input port
- HDMI digital port
- Network interface
- Foot SW
- ECG port
- Adapter port

## Calculation

### Abdomen

### Urology

### Gynecology

### Obstetrics (1<sup>st</sup> Trimester)

### Obstetrics (2<sup>nd</sup> and 3<sup>rd</sup> Trimesters)

### Fetal echo

### Thyroid

### Breast

### Testes

### Neonate

### Peripheral vascular

### Orthopedics

### Carotid

### Cardiology

## Dimension

- Net dimension:
  - 390 mm (H) X 360mm (W) X 145mm (D)

## Weight

- Net weight
  - 7.9kg (without probes)
  - 0.56kg(single battery)

## Power Requirements

- Voltage: AC 100V to 240V±10%
- Frequency: 50Hz±1Hz; 60Hz±1Hz
- Rated Power: 250VA

## Operation Conditions

- Ambient temperature: 0°C to +40°C
- Relative humidity: 38% to 85%
- Atmospheric Pressure: 700hPa to 1060hPa

## Stored Conditions

- Ambient temperature: -20°C to +60°C
- Relative humidity: 15% to 93%

## Physical Features

### Connectivity

- Video out port

## Product Data

- Atmospheric Pressure: 500hPa ~ 1060hPa

- ISO 13485:2003

## Software & Accessories

### Standard Accessories

- Power Cable
- Operation Manual
- Potential equalization conductor
- Printer control cable
- S-Video cable
- Fuse
- Wireless network antenna
- BNC/RCA cable
- Dust-proof cover
- Small probe holder
- Big probe holder
- Recovery system USB
- Adapter

### Optional software language

- Chinese/English

### 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
- Trolley (CR-30A/CR-30B)
- ECG cable
- Probe switcher (TQ-B007,TQ-B008,TQ-B010)

## Applied Standards

### Quality Standards

- ISO 9001:2008

### 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.



Probe

Model mode	Applications	Transmit frequency (MHz)	Max. depth	View field	Array radius	Max Frames (Hz)	Biopsy guide
<b>Convex probe</b>							
C3LN	Abdomen Gynecology 1 <sup>st</sup> Trimester 2 and 3 Trimesters Multifetation Fetal echo Urology Abdomen(pen) Urology(pen)	B mode: 2.0/2.5/3.3/4.2/5.0 Color mode: 2.0/2.5/3.0/3.5 PW mode: 2.5/3.0/3.5 <b>Harmonic:</b> 2.0/2.5/3.3	30.8cm	74°	R60	1112	Available
<b>Linear probe</b>							
L8LN	Thyroid Breast Testes Peri.Arteries Carotid Orthopaedics Podiatry Superficial Small Part (pen) Vessel(pen)	B mode: 5.0/6.6/7.5/10.0/12.0 Color mode: 5.6/6.2/7.5 PW mode: 5.0/5.7/6.2 <b>Harmonic:</b> 5.0	9.5cm	38mm		218	Available
<b>Trans-vaginal probe</b>							
V6LN	Gynecology 1 Trimester Urology	B mode: 4.0/5.0/6.0/7.0/9.0 Color mode: 24.2/5.0/5.7/6.5 PW mode: 5.0/5.7/6.5 <b>Harmonic:</b> 4.0/5.0/6.0	13.4cm	157°	R11	2002	Available
<b>4D Probe</b>							
C5LN	Abdomen Gynecology Urology 1st Trimester 2 and 3 Trimesters Multifetation Fetal echo	B mode: 4.0/4.7/5.5/6.2/7.0 Color mode: 2.5/3.0/3.5/4.5 PW mode: 2.5/3.0/3.5 <b>Harmonic:</b> 4.0/4.7/5.5	30.8cm	68°	R40	910	Invalid
<b>Phased array probe</b>							
P3FN	Cardiac	B mode: 1.7/2.0/2.5/3.3/4.0	30.8cm	20mm /90°		1112	Invalid

## Product Data

	Abdomen	Color mode: 1.5/2.0/2.5/3.0 PW mode: 1.5/2.0/2.5 Harmonic: 1.7/2.0/2.5					
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