TE5

Color Doppler Ultrasound System

Datasheet

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1 System Overview

1.1 Application
- Emergency
- Nerve
- Musculoskeletal
- Critical Care
- Abdomen
- Obstetrics
- Gynecology
- Urology
- Smart parts
- Vascular
- Others

1.2 Transducer types
- Curved array transducer
- Linear array transducer

1.3 Imaging modes
- B-Mode
- THI and PSH™ (Phase Shift Harmonic Imaging)
- M-Mode/ Color M-mode
- Color Doppler Imaging
- Power Doppler Imaging/Directional PDI
- Pulsed Wave Doppler

1.4 Standard features
- B-Mode
- THI and PSH™
- M-Mode
- Color Doppler Imaging
- Power Doppler Imaging and Directional PDI
- Pulsed Wave Doppler
- iBeam™ (Spatial Compound Imaging)
- iClear™ (Speckle Suppression Imaging)
- iTouch™ (Auto Image Optimization)
- Smart track
- Zoom/iZoom (Full Screen Zoom)
- FCI (Frequency Compound Imaging)
- B steer
- ExFOV (Extended Field of View)
- Post processing function
- 3 or 1 active universal probe ports(optional)
- 128GB SSD
- Built-in wireless adapter
- Built-in battery
- 4 USB 3.0 ports
- Touch Gestures
- iStorage
- MedSight
- MedTouch

1.5 Optional features
- DICOM
- Shared Service Package
- iNeedle™ (Needle Visualization Enhancement)
- Cart
- Table stand/ Wall mount
- ECG module
- Smart 3D (Only for CE)
- iVocal
  Support voice recognition function by inputting system-recognizable voice commands through microphone

1.6 Language support
- Software: English, Chinese, German, Spanish, French, Italian, Portuguese, Russian, Czech, Polish, Turkish, Norwegian, Serbian, Finnish, Hungarian, Icelandic, Swedish, Danish
- User manual: English, Chinese, Dutch, French, German, Hungarian, Italian, Polish, Portuguese, Serbian, Spanish, Turkish
- Soft keyboard input: English, Chinese, French, German, Italian, Portuguese, Finnish, Danish, Icelandic, Norwegian, Swedish, Polish, Czech, Hungarian, Serbian, Turkish, Russian, Spanish

2 Physical Specification

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2.1 Dimension and weight
- Depth: 97mm
- Width: 295mm
- Height: 380mm
- Weight (including batteries, three-probe socket configuration and one probe): <8.2Kg.

2.2 Monitor
- 15-inch high resolution color LED monitor
- Resolution: 768*1024
- Viewing angle: 85°left/right; 85°up/down
- Digital on-screen display of brightness and contrast controls
- Frame rate (Hz): 60Hz

2.3 Cart (Option)
- DCU independent tilt of 50 degrees up, 5 degrees down.
- Dimension and Weight(with DCU)
  - Height: 1266-1556mm
  - Width: 535mm
  - Depth: 620mm
  - Weight: approx. 50Kg
- Wheels
  - Diameter: 125mm
  - Castors (4): total lock and break
- Towelette holster
- Gel holder
- Printer holder
- Storage bin

2.4 Table stand (Option)
- DCU independent tilt of 50 degrees up, 5 degrees down.
- Dimension and Weight(with DCU)
  - Height: 248mm
  - Width: 196mm
  - Depth: 239mm
  - Weight: approx. 2.5 Kg

2.5 Built-in Wireless adapter
- Encryption: WEP, WPA-PSK, WPA2-PSK
- Max transfer speed: 300Mbps
- Protocols: 802.11b: 11,5.5,2,1 Mbps;

802.11g: 54,48,36,24,18,12,9,6 Mbps; 802.11n: up to 300Mbps

2.6 Built-in Battery
- Replaceable and rechargeable lithium battery
- Light indicator
- Full battery lasts more than 22 hours in standby mode
- Empty battery recharged to full in less than 4 hours
- Continuous work time: more than 2 hours
- Lithium-Ion Battery Pack 14.8V, 5800mAh (single battery)

2.7 Probe port and holder
- Probe ports: max. 3 active ports
- Detachable probe holder: 4

2.8 Electrical power
- Voltage: 100-240V~
- Frequency: 50/60 Hz
- Input current: 3.5A (115VAC)

2.9 Operating Environment
- Ambient temperature: 0-40 °C
- Relative humidity: 30%-85% (no condensation)
- Atmospheric pressure: 700hPa-1060hPa

2.10 Storage & Transportation Environment
- Ambient temperature: -20-55 °C
- Relative humidity: 20%-95% (no condensation)
- Atmospheric pressure: 700hPa-1060hPa

3 User Interface

3.1 System boot-up
- Boot-up from complete shut-down in less than 25 sec
- Shut-down in less than 15 sec
- Restore from standby mode：about 3 sec

3.2 Comments
- Supports text input and arrow

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- Support freehand marking on touch screen
- Covers various applications
- User customizable

3.3 Body mark
- 144 bodymarks for versatile application

3.4 Numbers of exam mode presets: 36 system exam modes (unlimited number for user-defined ones)

3.5 Screen information*
- Common info:
  - Mindray logo
  - Hospital name,
  - Acoustic power
  - Mechanical index
  - Tissue thermal index
  - ID, Last name, First Name, Middle initial, Gender, Age
  - Probe model
  - Operator
  - Focus position
  - Imaging parameters

*Not all items are listed in this part. For detail information, please refer to the user manual

4 Imaging Parameters

4.1 Overview
- Echo-enriched Beamforming
- Up to 55296 channels
- Up to 8-beamforming

4.2 B-mode
- Display formats: Single(B), Dual(B+B)
- iClear™: Off; 1-7, 7 steps
- iBeam™: Off; 1-5, 5 steps for linear probes; 1-3, 3 steps for convex probes.
- iTouch™
- FCI
- Image quality: Pen/Gen/Res (depends on probe)
- B steer: available on linear transducers
- ExFOV: available on convex, linear, and volume transducers
- Depth: 30 levels (1.5-40cm; all depend on transducer)
- Max. frame rate: 1000f/s
- Acoustic output power: 3.2%-100%
- TGC: 6 segment control
- Dynamic range: 30-240
  - 30-140:5/step
  - 140-200:10/step
  - 200-240: 20/step
- Gain: 0-100, 1/step
- Focus number: 1-4 (depends on transducer)
- Focus position: 16 levels
- FOV: continuously adjustable
- Line density: L, M, H, UH
- Persistence: 0-7, 8 steps
- Horizontal Scale: on/off
- L/R flip and U/D flip: on/off
- Rotation: 0, 90, 180, 270
- TSI: general/muscle/fluid/fat
- Gray Map: 1-8, 8 types
- Tint map: off; 1-8, 8 types
- Middle line
- Dual live

4.3 THI and PSH™
- Available on all types of transducer
- Patented PSH™ technology, obtains purer harmonic, better contrast resolution, higher SNR, exceptional high frequency harmonic
- iClear™ available
- Image quality: HPen/HGen/HRes/HPen-Gen(depends on probe)

4.4 M-mode
- Display formats: V2:3,V3:2,V3:1,FULL
- Acoustic output power: 3.2%-100%
- Dynamic range: 30-240, 5/step
- Gain: 0-100, 1/step
- M sweep speeds: 6 levels;145mm/s, 75mm/s, 50mm/s, 35mm/s, 25mm/s,

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20mm/s
- M soften: 0-4, 5 steps
- Tint map: off; 1-8, 8 types
- Gray Map: 1-8, 8 types
- Edge enhance: 0-3, 4 steps
- Color M available

4.5 Color Doppler Imaging
- Steer: max. 30 degrees (linear transducer)
- Image quality: Pen/Gen/Res
- Max. frame rate: 365 f/s
- Acoustic output power: 3.2-100%
- Gain: 0-100, 2/step
- ROI size/position: adjustable
- Scale: 30 steps, 1cm/s to 148 cm/s
- Baseline: -8-8, 17 steps
- Wall filter: 8 steps
- PRF: 0.1kHz to 15.2kHz
- Packet size: 0-3, 4 steps
- Flow state: L, M, H
- Smooth: 0-6, 7 steps
- B/C align: on/off
- Priority: 0-100%, 1%/step
- Color map: 21 types
- Invert: on/off
- Persistence: 0-6, 7 steps
- Line density: L, M, H, UH
- Smart track: On/off

4.6 Power Doppler Imaging
- Support directional power doppler
- Image quality: Pen/Gen/Res
- Acoustic output power: 3.2%-100%
- Dynamic range: 10-70, 5/step
- Gain: 0-100, 2/step
- ROI size/position: adjustable
- Scale: 30 steps
- Wall filter: 8 steps
- PRF: 0.1 -12.8kHz
- Packet size: 3 steps
- Flow state: L, M, H
- Smooth: 0-6, 7 steps
- B/C align
- Priority: 0-100%, 1%/step
- Power map: 4 types
- Directional power map: 4 types
- Persistence: 0-6, 7steps
- Line density: L, M, H, UH

4.7 PW
- Display formats: V2:3,V3:2,V3:1,FULL(V: vertical)
- Image quality: 3 levels
- Sample volume size: 0.5-20 mm (PW only)
- SV position: adjustable
- PW Scale: 30 steps, 4.69cm/s to 8.89 m/s
- Baseline: -4-4, 1/step
- PW Steer: max.30 degrees (linear transducer)
- Volume: 0-100%, 2%/step
- PW PRF: 0.7kHz to 23.8 kHz
- Gain: 0-100, 2/step
- Dynamic range: 24-72, 2/step
- Sweep speed: 6 steps; 145mm/s, 75mm/s, 50mm/s, 35mm/s, 25mm/s, 20mm/s
- Wall filter: 7 steps
- Invert: on/off
- Auto invert: on/off
- Angle correction: -89-89 degrees
- Quick angle: -60, 0, 60 degrees
- Gray map: 1-10, 10 types
- Tint map: Off; 1-8, 8 types
- Time/frequency resolution: 0-4, 5 steps
- Auto calc: on/off
- Auto calc cycle: 1-5
- Trace area: above, below, all
- Trace sensitivity: 0-5, 6 steps
- Trace smooth: Off, 1-4, 4 levels
- Duplex/Triplex: on/off(supporting PW duplex/triplex)

4.8 Smart 3D™ (option)
- For L12-4s and L14-6Ns only.
- Reset: reset ROI, reset curve, reset orientation
- Inversion: on/off
- Accept VOI: on/off

- Render modes: Surface, Max, Min, X-ray
- Direction: D/U, U/D, L/R, R/L, F/B, B/F (D: down, U: up, L: left, R: right, F: front, B: back)
- Threshold: 0%-100%, 1%/step
- Transparency: 0%-100%, 5%/step
- Smooth: 0-20, 21 steps
- Brightness: 0%-100%, 2%/step
- Contrast: 0%-100%, 2%/step
- Tint map: off; 8 types
- iClear: Off, 1-7
- Rotation control: X, Y, Z axis Sync

4.9 iTouch™
- **Auto image optimization**
- **B-mode: gain, TGC**
- **Color: gain**
- **Power: gain**
- **PW: baseline, scale, PRF, WF**
- **iTouch on L12-4s, L7-3s, L16-4Hs, L14-5sp, L20-5s, L14-6s, L14-6Ns and L9-3s support optimizing Color ROI and PW sampling line under vascular, EM Vas and carotid exam modes**

4.10 Smart Track
- **Continuously track the flow and detect the best color box position and angle in real time scanning**
- **All linear probes under vascular, EM Vas and carotid exam modes support the Smart Track function.**

4.11 Zoom
- **Zoom: Pan zoom (read zoom)**
- **iZoom: Expand the image to full screen, image operation available**

4.12 Quick Save
- **Create a new exam mode by quickly saving current image parameter settings**

4.13 iNeedle (option)
- **Needle visualization enhancement**
- **Available on all linear transducers**

- Needle steer: -50, -40, -30, -20, 20, 30, 40, 50 degrees (also supports slight adjustment in 2° increments)

5   Cine Review and Post Processing

5.1 Cine review
- **Available in all modes**
- **Frame by frame manual cineloop review or auto playback with variable speed**
- **Maximum cine memory up to 32346 frames or 427s (M/PW)**
- **Retrospective and prospective storage are available and length is pre-settable (Prospective: Max. time 480s; Retrospective: Max. time: 120s)**

5.2 Post processing
- **B-mode:**
  Dyn Ra.
  Gray Map
  Tint Map
  iClear
  L/R Flip
  U/D Flip
  Rotation
  H Scale
  Echo Boost
- **M-mode:**
  Speed
  Dyn Ra.
  Gray Map
  Tint Map
  Edge Enhance
- **Color:**
  Baseline
  Smooth
  Color Map
  Priority
  Invert
- **Power:**
  Smooth
  Dynamic range

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Color Map
Priority
Invert

- PW:
Baseline
Volume
Angle
Speed
Dyn Ra.
Gray Map
Tint Map
Invert
WF
Quick Angle
Auto Calculate
T/F Res
Auto Calc Cycle
Auto Calc Parameter
Trace Sensitivity
Trace Smooth
Trace Area

6 Measurement/Analysis and Report*

6.1 Basic measurements
- Depth
- Distance
- Angle
- Area: Ellipse, Trace
- Volume :3-Distance
- Length Ratio
- Area Ratio
- Time
- Slope
- Heart Rate
- Velocity
- D Trace
- PS/ED

- **Automatic Doppler Spectrum Analysis**
  - Heart cycle pre-settable (1, 2, 3, 4, 5)
  - Automatic real-time and

retrospective tracing
- User configurable display of items
- Support PI, RI, TAMAX, TAMEAN, Volume Flow calculations
- Appropriate factory setting according to applications

6.2 Report
- **Specific report template by application**
- **Editable value in report**
- **Images selectable**
- **Able to Export as PDF/RTF file**

* Not all measurements are listed in this part; for more detailed information please refer to the Operators' Manual

7 Exam Storage and Management

7.1 Exam storage
- **128GB SSD. More than 74GB internal hard drive for patient data storage**
- **Capable to store up to approximate 354313 single frames**
- **Direct digital storage of single frame and cine 2D, color and Doppler.**

7.2 Exam management
- **iStation™ workstation dedicated for patient exam management**
- **Patient exam query/retrieve**
- **Support review of current and past exam**
- **New exam, Activate exam, End exam are available**
- **Support measurements and calculations on archived exam and images**
- **Export images as (BMP/JPG/FRM/CIN/TIFF/DCM/AVI/MP4 format)**
- **Support backup/send to USB devices (hide patient information); support back up to DVD-RW media (ASUS DVD).**

7.3 iScanHelper
- **Tutorial function as a guidance to**

show basic scanning skill with graphic of probe position, schematic of anatomy and example clinical image.
- Support ABD, GYN, OB, SMP, URO and nerve applications

8   Connectivity

8.1 Ethernet Network Connection
- Cable connection
- Wireless connection: built-in wireless adaptor

8.2 DICOM 3.0
- DICOM basic (option)
  -Verify (SCU, SCP)
  -Print
  -Store
  -Storage Commitment
  -Media Exchange
- DICOM Worklist (option, HL7 supported)
- DICOM Query/Retrieve (option)
- DICOM Modality Performed Procedure Step - MPPS (option)
- DICOM OB/GYN structure report (option)
- DICOM Vascular structure report (option)
- DICOM Breast Report (option)

8.3 iStorage (included in UltraAssist)
- Direct network storage tool between ultrasound system and personal computer

8.4 Hotspot support
- For Medsight use: connect mobile phone to TE7 product directly.

8.5 MedSight
- DICOM Basic is mandatory
- Needs to be installed on mobile terminal
- Support IOS 5.0 or above mobile terminal
- Transfer PC format images or clips from system to mobile terminal

through WiFi

8.6 MedTouch
- Connect Ultrasound machine to smart devices based on Android and iOS system, such as tablet PC or mobile phone. Remote control of Ultrasound machine, review of patient information, and tutorial software iScanHelper study on smart devices
- Support Android and iOS powered smart devices
- Android 4.0 and above
- iOS 7.0 and above
- DICOM not necessary

9   Transducers

9.1 Curved array
- C5-2s
  - Application: Abdomen, Gynecology, Obstetrics, Urology
  - Bandwidth: 1.3-5.7MHz
  - Number of Elements:128
  - FOV (max): 75°
  - Extended FOV: 115°
  - Convex Radius: 50mm
  - Depth: 4-40cm
  - Physical Footprint: 76.3mm× 25.6mm
  - Footprint: 64mm × 16.2mm
  - B-mode Frequencies: 1.3-3.2, 1.9-4.6, 2.3-5.7 MHz
  - Harmonic Frequencies: 3.5, 4.0, 5.0, 6.0 MHz
  - Doppler Frequencies: 2.0, 2.5, 3.0 MHz
  - Biopsy Guide: NGB-015, multi angle, reusable
- C11-3s
  - Application: Abdomen, Pediatrics, Transcranial, Vascular, Small parts, Musculoskeletal
  - Bandwidth: 2.6-12.8MHz
  - Number of Elements: 128

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- FOV (max):101°
- Extended FOV:141°
- Convex Radius: 15mm
- Depth: 1.5-28cm
- Physical Footprint: 32.8 mm × 25mm
- Footprint: 27.4 mm ×8.4mm
- B-mode Frequencies: 2.6-6.5, 3.2-7.9, 4.7-12.8 MHz
- Harmonic Frequencies: 7.0, 8.0, 9.0 MHz
- Doppler Frequencies: 4.4, 5.0, 5.7 MHz
- Biopsy Guide: NGB-018, multi angle, reusable

9.2 Linear

- L9-3s (only for CE)
  - Application: Abdomen, Pediatric, Small Parts, Musculo-skeletal, Vascular, Nerve, Obstetrics
  - Bandwidth: 1.8-9.8 MHz
  - Number of Elements: 192
  - FOV (max): 43 mm
  - Extended Angle: 40°
  - Steered Angle: +/-6°,12°(B); +/-10°, 20°, 30° (C, PW)
  - Depth: 1.5-28cm
  - Physical Footprint: 62mm x 22mm
  - Footprint: 48mm x 11mm
  - B-mode Frequencies: 1.8-7.0, 2.4-8.2, 3.6-9.8 MHz
  - Harmonic Frequencies: 5.0, 6.0, 7.0 MHz
  - Doppler Frequencies: 3.0, 3.6, 4.4 MHz
  - Biopsy Guide: NGB-034, multi-angle, reusable
- L12-4s
  - Application: Vascular, Small parts, Nerve, MSK
  - Bandwidth: 4.4-13.5MHz
  - Number of Elements: 192
  - FOV (max): 38mm
  - Extended Angle: 40°

- Steered Angle: +/-10°,20°(B); +/-10°, 20°, 30° (C, PW)
- Depth: 1.5-35cm
- Physical Footprint: 45.7mm × 10.9mm
- Footprint: 44.2mm × 8.5mm
- B-mode Frequencies: 4.4-9.6, 5.4-11.5, 6.6-13.5 MHz
- Harmonic Frequencies: 8.0, 9.0, 10.0 MHz
- Doppler Frequencies: 4.4, 5.0, 5.7 MHz
- Biopsy Guide: NGB-007, multi angle, reusable
- L14-6Ns
  - Application: Vascular, Small parts, Nerve, MSK, Superficial
  - Bandwidth: 5.4-16.2MHz
  - Number of Elements: 192
  - FOV (max): 38mm
  - Extended Angle: 40°
  - Steered Angle: +/-10°,20°(B); +/-10°, 20°, 30° (C, PW)
  - Depth: 1.5-28cm
  - Physical Footprint: 45.7mm × 10.9mm
  - Footprint: 44.2mm × 8.5mm
  - B-mode Frequencies: 5.4-11.6, 6.0-12.6, 7.6-16.2 MHz
  - Harmonic Frequencies: 8.0, 10.0, 12.0 MHz
  - Doppler Frequencies: 5.0, 5.7, 6.6 MHz
  - Biopsy Guide: NGB-007, multi angle, reusable
- L14-6s
  - Application: Vascular, Small parts, Nerve, MSK
  - Bandwidth: 5.4-16.2MHz
  - Number of Elements: 128
  - FOV (max): 25mm
  - Extended Angle: 40°
  - Steered Angle: +/-6°,12°(B); +/-10°, 20°, 30° (C, PW)

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- Depth: 1.5-28cm
- Physical Footprint: 31.6mm × 22.8mm
- Footprint: 30mm × 8mm
- B-mode Frequencies: 5.4-11.6, 6.0-12.6, 7.6-16.2 MHz
- Harmonic Frequencies: 8.0, 10.0, 12.0 MHz
- Doppler Frequencies: 5.0, 5.7, 6.6 MHz
- Biopsy Guide: NGB-016, multi angle, reusable

- L7-3s
  - Application: Vascular, Small parts, Nerve, MSK
  - Bandwidth: 2.6-8.2MHz
  - Number of Elements: 128
  - FOV (max): 38mm
  - Extended Angle: 20°
  - Steered Angle: +/-6°,12°(B); +/-10°, 20°, 30° (C, PW)
  - Depth:1.5-28cm
  - Physical Footprint: 45.7mm × 10.9mm
  - Footprint: 43mm × 10mm
  - B-mode Frequencies: 2.6-4.8, 3.6-6.4, 3.8-8.2 MHz
  - Harmonic Frequencies: 5.5, 6.0, 6.5 MHz
  - Doppler Frequencies: 3.3, 3.8, 4.4 MHz
  - Biopsy Guide: NGB-007, multi angle, reusable

- 7LT4s
  - Application: Intraoperative, MSK, Vascular
  - Bandwidth: 4.8-13.5MHz
  - Number of Elements: 128
  - FOV (max): 40mm
  - Extended Angle: 40°
  - Steered Angle: +/-6°,12°(B); +/-10°, 20°, 30° (C, PW)
  - Depth:1.5-28cm
  - Physical Footprint: 49.5mm ×

14.4mm
- Footprint: 45mm × 9mm
- B-mode Frequencies: 4.8-11.2, 6.0-12.6, 6.6-13.5 MHz
- Harmonic Frequencies: 8.0, 9.0, 10.0MHz
- Doppler Frequencies: 4.4, 5.0, 5.7MHz
- Biopsy Guide: NGB-010, multi angle, reusable

- L16-4Hs (only for CE)
  - Application: MSK, Nerve, Intraoperative, Vascular
  - Bandwidth: 5.4-13.5MHz
  - Number of Elements: 128
  - FOV (max): 25.3mm
  - Extended Angle: 40°
  - Steered Angle: +/-6°,12°(B); +/-10°, 20°, 30° (C, PW)
  - Depth: 1.5-28cm
  - Physical Footprint: 11.5mm x 38mm/34.8mm
  - Footprint: 28.7mm ×5.5 mm
  - B-mode Frequencies: 5.4-11.6, 6.0-12.6, 6.6-13.5MHz
  - Harmonic Frequencies: 8.0, 10.0, 12.0MHz
  - Doppler Frequencies: 5.0, 5.7, 6.6MHz
  - Biopsy Guide: not available

- L14-5sp (only for FDA)
  - Application: MSK, Nerve, Intraoperative, Vascular
  - Bandwidth: 5.4-13.5MHz
  - Extended Angle: 40°
  - Number of Elements: 128
  - Field of View (max): 25.3mm
  - Steered Angle: +/-6°,12°(B); +/-10°, 20°, 30° (C, PW)
  - Depth: 1.5-28cm
  - Footprint: 28.2mm × 5 mm
  - Physical Footprint: 36.6mm x 13.6mm
  - B-mode Frequencies: 5.4-11.6, 6.0-

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12.6, 6.6-13.5MHz
- Harmonic Frequencies: 8.0, 10.0, 12.0MHz
- Doppler Frequencies: 5.0, 5.7, 6.6MHz
- Biopsy Guide: not available

- **L20-5s**
  - Application: Small Parts, MSK, Vascular, Nerve
  - Bandwidth: 6.0-18.0MHz
  - Number of Elements: 192
  - FOV (max): 28mm
  - Extended Angle: 40°
  - Steered Angle: +/-6°,12°(B); +/-10°, 15°, 20° (C, PW)
  - Depth:1.5-28cm
  - Physical Footprint: 42.23mm×22.1mm
  - Footprint: 31.5mm × 4.5mm
  - B-mode Frequencies: 6.0~12.6, 9.0~15.6, 11.5~18.0 MHz
  - Harmonic Frequencies: 12.0, 14.0, 16.0MHz
  - Doppler Frequencies: 9.0, 11.0, 13.0MHz
  - Biopsy Guide: not available

- **7L4s**
  - Application: Small Parts, Pediatric, MSK, Vascular, Nerve
  - Bandwidth: 4.4-13.5MHz
  - Number of Elements: 128
  - FOV (max): 38mm
  - Steered Angle: +/-10°,20°(B); +/-10°, 20°, 30° (C, PW)
  - Depth: 1.5-35cm
  - Footprint: 43mm ×10mm
  - Physical Footprint: 45.7mm x 10.9mm
  - B-mode Frequencies: 4.4-9.6, 5.4-11.5, 6.6-13.5MHz
  - Harmonic Frequencies: 8.0, 9.0, 10.0MHz
  - Doppler Frequencies: 4.4, 5.0, 5.7MHz

- Biopsy Guide: NGB-007, multi angle, reusable

10 Peripheral Devices and Accessories (Option)

10.1 Black/white digital video printer
  - MITSUBISHI P95DW-N
  - SONY UP-D898MD
  - SONY UP-X898MD

10.2 Color digital printer
  - SONY UP-D25MD

10.3 Footswitch
  - USB port: 971-SWNOM (2-pedal)
  - USB port: 971-SWNOM (3-pedal)
  - Wireless: WFREC-1(Receiver) + WFSW-2/WFSW-3 (Footswitch)

10.4 Barcode reader
  - Laser barcode scanner Model: SYMBOL LS2208, DS6067
  - JADAK Barcode reader Model: HS-1M and HS-1R (supporting RFID)
  - iVocal Microphone (including wireless receiver, wireless headset, and USB connecting wire) Model: SAMSON XPD1 Headset, SAMSON XPD1 Presentation, and PYLE PUSBMIC43

10.5 ECG module
  - ECG lead port: 6 pin, IEC&AHA, for 3-lead wires

11 System Inputs and Outputs

- HDMI: 1 port
- ECG connector: 1 port
- USB: 4 USB 3.0 ports
- Ethernet: 1 port

12 Safety and Conformance

12.1 Quality standards
  - ISO 9001
  - ISO 13485

12.2 Design standards

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- EN 60601-1 and IEC 60601-1
- EN 60601-1-2 and IEC 60601-1-2
- EN 60601-1-6 and IEC 60601-1-6
- EN 60601-2-37 and IEC60601-2-37
- EN 62304 and IEC 62304
- EN 62366 and IEC 62366
- EN ISO 17664 and ISO 17664

12.3 CE declaration

TE5 system is fully in conformance with the Council Directive 93/42/EEC Concerning Medical Devices. The number adjacent to the CE marking (0123) is the code of the EU-notified body that certified meeting the requirements of Annex II excluding (4). of the Directive.

Notice:

Not all features or specifications described in this document may be available in all probes and/or modes. Mindray reserves the right to make changes in specifications and features shown herein, or discontinue the product at any time without notice or obligation. Contact Mindray Representative for the most current information.