System Description

The DP-50/DP-50T is an ergonomically designed portable and ease-of-use machine for multi-specialty use like adults, pregnant women, paediatric patients and neonates.

Intended Use

- **CE Region**: It is intended for use in gynaecology, obstetrics, abdominal, paediatric, small organ, cephalic, transcranial, musculo-skeletal, cardiac, vascular, urology, orthopaedics, nerve and intra-operative exams.
- **FDA Region**: It is intended for use in fetal, abdominal, paediatric, small organ (breast, thyroid, testes), neonatal and adult cephalic, trans-rectal, trans-vaginal, musculo-skeletal (conventional, superficial), cardiac(paediatric) and peripheral vascular exams.

General Specification

Dimensions and Weight

- Unfolded:
  - Depth: 476mm (18.74 inch)
  - Width: 415mm (16.34 inch)
  - Height: 396mm (15.59 inch)
- Folded:
  - Depth: 190mm (7.48 inch)
  - Width: 415mm (16.34 inch)
  - Height: 378mm (14.88 inch)
- Net Weight: 7.7kg (without battery)

Electrical Power

Input power

- Voltage: 100-240V~
- Frequency: 50/60Hz
- Input current: 1.5- 0.8A
- Output power: 500W

Battery

- Lithium-ion Battery Pack: 14.8V === , 6600mAh
- Charge time: < 3 hours (connected on AC power supply, with the system powered off)
- Endurance time: > 120 min

Boot time

- Boot time: ≤23s
- Wake up time (from standby): ≤5.8s

Operating Environment

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

Storage & Transportation Environment

Ambient temperature: -20°C ~ 55°C
Relative humidity: 30% ~ 95% (no condensation)
Atmospheric pressure: 700 hPa ~ 1060 hPa

Probe

Probe Types

- Convex array
- Linear array

Scanning Methods

- Electronic convex with extend FOV
- Electronic linear with slant scanning and trapezoid

Probe Model

- 35C50EA Convex
- 65C15EA Micro-Convex
- 65EC10EA Endocavity Micro-Convex
- 75L38EA Linear
- 75L53EA Linear
- 10L24EA Linear
- 65EB10EA Bi-plane (convex & convex)
- 35C20EA Micro-Convex
- 65EC10ED Endocavity Micro-Convex
- 75LT38EA Intra-operative linear
- 65EL60EA Endorectal Linear

NOTE: Probe 35C20EA, 65EC10ED, 75LT38EA and 65EL60EA are not sold in FDA region.
Available Needle-guided Bracket for Probe:
- 35C50EA NGB-001
- 35C20EA NGB-003
- 65C15EA NGB-005
- 65EC10EA NGB-004
- 65EB10EA NGB-004
- 65EC10ED NGB-004
- 75L38EA NGB-002
- 75L53EA NGB-007
- 65EL60EA NGB-009
- 75LT38EA NGB-010
- 10L24EA NGB-016

System Configuration

Standard Configuration
- Display
  - 15-inch LCD, High-Resolution 1024 x 768
  - Contrast & Brightness adjustable
  - Screen Saver: Time presettable
  - Angle adjustable: 30°
- Control Panel
  - Alphanumeric Keys
  - Function Keys
  - Knobs
  - User-defined Keys: function presettable
  - 8 segment TGC
  - Trackball: Colour & Speed presettable
  - Key Backlight Brightness & Volume presettable
  - Integrated Speakers
- Indicators: Power/Battery/Standby/HDD status
- Handle
- Phase Shift harmonic imaging
- Trapezoid imaging
- Slant scanning for linear probes (2D Steer)
- iBeam™
- iTouch™
- ExFOV Imaging for Convex Probe
- iStation™
- 500GB integrated hard disk
- I/O Interfaces
  - Transducer port: 2
  - Power input port: 1 (Connect to the AC power supply)
  - USB port: 4
  - VGA OUT port: 1
  - Video OUT: 1
  - S-Video OUT: 1 (Separate video output)
  - Ethernet port: 1 (Connect to network)
  - Remote control port: 1
- Multi-language screen display and control panel overlay
- Application categories
  - Abdomen
  - Obstetrics
  - Gynaecology
  - Cardiology
  - Small Parts
  - Urology
  - Vascular
  - Orthopaedics
  - Emergency
  - Nerve

Accessories
- Operator’s manual
  - Basic Volume.
  - Advanced Volume.
  - Operation Note.
- Gel
- Power cord
  - 3-Flat-Pin Power Cord
  - EU Power Cord
  - US Power Cord
  - UK Power Cord
- Probe holder
- Grounded Cable
- Video Printer Remote Cable

System Language
- Software display and keyboard input available:
  - Chinese/English/German/Spanish/French/Italian/Portuguese/Russian/Czech/Polish
- Keyboard input available only:
  - Icelandic/Norwegian/Swedish/Finnish/Turkish/Danish
- Control panel overlay available:
  - Chinese/German/Spanish/French/Italian/Portuguese/Russian/Czech/Polish
- Operation manual available:
  - Chinese/English/German/Spanish/French/Italian/Portuguese/Russian/Czech/Polish
**Options**
- iClear™
- IMT (Auto Calculation of Intima-Media Thickness)
- DICOM basic
  - Task management
  - DICOM storage
  - DICOM print
  - DICOM storage commitment
  - DICOM media storage (including DICOM DIR)
- DICOM Worklist
- Keys for option functions
  - iClear™ Key
  - IMT Key
  - DICOM Basic Key
  - DICOM Worklist Key
- Battery Pack
- External USB DVD-RW: SE-S224
- Footswitch:
  - 971-SWNOM (2-pedal)
  - SP-997-350 (3-pedal)
- Mobile trolley: UMT-150
  - Weight: 21kg
  - Width: 445mm
  - Depth: 535mm
  - Height: selective (not available after installed): 810mm, 870mm, 2 levels
- Carrying bag
- Gel
- Print paper
- Probes
- Needle-guided brackets

**Peripherals Supported**
- Black and White Video Printer
  - SONY UP-897MD Analog
  - MITSUBISHI P93W-Z Analog
- Colour Video Printer
  - SONY UP-20 Analog
  - MITSUBISHI CP910E Analog
  - HP Photosmart plus B210A Digital
- Graph / text printer

- HP deskjet 1280
- HP Colour Laserjet CM1015
- HP officejet 6000
- HP officejet J3608 all-in-one
- HP LaserJet p1007
- HP LaserJet 1020 plus

**Exam Mode**
- ABD
- ABD-Difficult
- Paed-ABD
- GYN
- OB1
- OB2/3
- Cardiac
- Paed-cardiac
- Thyroid
- Breast
- SMP
- Urology
- Prostate
- Vascular
- MSK(Musculoskeletal)
- Nerve
- Superficial
- Orthopaedic
- EM FAST

**Imaging Mode**
- B-Mode
  - Tissue Harmonic Imaging
  - Phase Shift Harmonic Imaging
- Slant scanning for linear probes (2D Steer)
- Trapezoid Imaging for Linear Probe
- ExFOV Imaging for Convex Probe
- M -Mode
- Display Mode:
  - Dual live: B/M
  - Time line display: left/right and top/bottom (1:1, 1:2, Full)
  - Single window
  - Dual-split: B/M, B/B
  - Quad-split: 4B
**Imaging Features**

- iBeam™ (Spatial Compounding Imaging for Linear and Convex Probe)
- Multi-frequency probes for 2D imaging modes
- iClear™ (adaptive speckle suppression imaging for all probes)
- iTouch™ (B/M): Auto Optimisation
- TSI (Tissue Specific Imaging)
- iZoom™
- Spot Zoom and Pan Zoom

**B Mode**

- Display Depth
  - Minimum: 0.9cm
  - Maximum: 37cm
- Frame rate (Max.):
  - B mode: 400 fps
- Adjustable focus number: 4
- Adjustable focus positions (Max.): 16
- Digital processing channels: 1024
- Magnification factor:
  - Pan Zoom: 100%-1000%, 10 steps
  - Spot Zoom: continuously adjustable
- iZoom: instant full screen view, two level.
- System dynamic range: 30~220dB, 39steps
- Frequency: 2.0~14.0MHz (transducer dependant), 6 steps
- Gain: 0~100dB, 51steps
- TGC: 8
- Colourise: on, off
- Colourise map: off, 1~16
- FOV: N, M1, M2, W, ExFOV
- IP: 1~8
- Persistence: 0~7
- R/L, U/D Flip
- Rotation: 0°, 90°, 180°, 270°
- Line Density: L, M, H, UH
- iTouch Bright: -12~12dB, 9steps
- A.power: 7%~100%, 32steps
- Smooth: 1~4
- TSI: General, Fat, Fluid, Muscle
- B Steer: -6°, 0°, 6°, linear transducer only
- Trapezoid: on, off, linear transducer only
- FOV Position: max. 5 steps
- HScale: on, off
- Lithotrity: on, off
- Gray Rejection: 0~5
- γ: 0~3
- Curve: adjustable
- Gray Invert: on, off
- High FR: on, off, 35C50EA THI
- Auto Merge: on, off, linear probe, Dual display mode

**M Mode**

- Speed: 1~6
- IP: 1~8
- Edge Enhance: 0~14
- M Soften: 0~14
- Time Mark: on, off

**Display Annotations**

- Manufacturer logo
- Hospital name: up to 64 characters can be displayed
- Exam date: 3 types selectable, YY/MM/DD, MM/DD/YY, DD/MM/YY
- Exam time: 2 formats
- Acoustic output indices: MI, TIC, TIS, TIB
- Freeze icon
- Gender
- Age
- ID: up to 64 characters can be displayed
- Name: up to 64 characters can be displayed
- Probe model
- Current exam mode
- Accession#
- Operator: up to 64 characters can be displayed
- Menu
- Image
- Probe orientation mark
- Time line
- Coordinate axis, including depth, time, frequency
- TGC curve
- Focus
- Comment
- Body Mark
- Measure caliper
- Gray scale bar
- Thumbnail
- Help information
- Status icons
- Biopsy guideline
- Measure result window (up to 8 results can be displayed)
- Image parameters

Comments and Body Mark

**Comment**

**Text comment**
- Comment text (option)
  - Abdomen: 89
  - OB: 97
  - Cardiology: 80
  - GYN: 69
  - Vascular: 110
  - Urology: 61
  - SMP: 124
  - Paediatrics: 35
  - Nerve: 52
  - EM: 126
- User-defined Comments
  - Add
  - Delete

**Arrow**
- Arrow Size
- Arrow position
- Arrow orientation

**Body Mark**

**Application package (Option)**
- Abdomen: 13
- OB: 25
- Cardiology: 18
- GYN: 7
- Vascular: 17
- Urology: 7
- Small Part: 46
- Nerve: 32
- EM: 38

**User-defined**
- Import (load)
- Delete

Storage/Connection

- 500GB integrated hard disk
- External DVD-R/W (Optional)
- 4 USB ports
- Image archive on hard disk, DVD, iStorage and temporary saving in cine memory
- Clipboard
- Thumbnail
- Single-frame image formats: BMP, JPG, DCM, FRM (supports off-line analysis)
- Multi-frame images formats: AVI, DCM, CIN, (supports off-line analysis)

**Storage area:**
- Image area: 640×480
- Standard area: 800×600
- Full-screen: 1024×768

**iVision:** Demo player

**Cine review:** Auto, Manual (auto review segment can be set), supports linked cine review for 2D, M images.

**Cine memory capacity (Max.)**
- Clip length presettable: 1-60s
- B mode: 10566 frames
- M mode: 66.3s

**Max. frames in HDD**
- 21343795 frames (JPG format)
- 384348 frames (FRM format)

**iStorage**

**DICOM:**
- DICOM Basic
  - Task management
  - DICOM storage
  - DICOM print
  - DICOM storage commitment
  - DICOM media storage (including DICOM DIR)
- DICOM Worklist

**iStation™**

Intelligent patient data management system
- Integrated search engine for patient data
- Detailed patient information view
- Intelligent data backup/restore
- Patient data/image sending
- Patient data deleting
- Exam managing: create new exam, activate exam and continue exam
- Recycle Bin
- Task manager

**Measure/Calc/Study**

**Caliper**

**2D-mode**
- Depth
- Distance
- Angle
- Area
- Volume
- Cross
- Parallel
- T Length
- Ration (D)
- Ratio (A)
- B-Hist
- B-Profile

**M-mode**
- HR
- Slope
- Distance
- Time
- Velocity

**Application**

**Abdomen**
- 2D-mode Measure
  - Liver
  - Renal L (Renal Length)
  - Renal H (Renal Height)
  - Renal W (Renal Width)
  - Cortex (Renal Cortical Thickness)
  - Adrenal L (Adrenal Length)
  - Adrenal H (Adrenal Height)
  - Adrenal W (Adrenal Width)
  - CBD (Common bile duct)
  - Portal V Diam (Portal Vein Diameter)
  - CHD (Common hepatic duct)
  - GB L (Gallbladder Length)
  - GB H (Gallbladder Height)
  - GB wall th (Gallbladder wall thickness)
  - Panc duct (Pancreatic duct)
  - Panc head (Pancreatic head)
- Panc body (Pancreatic body)
- Panc tail (Pancreatic tail)
- Spleen
- Aorta Diam (Aorta Diameter)
- Aorta Bif
- Iliac Diam (Iliac Diameter)
- Pre-BL L (Previous-Bladder Length)
- Pre-BL H (Previous-Bladder Height)
- Pre-BL W (Previous-Bladder Width)
- Post-BL L (Posterior-Bladder Length)
- Post-BL H (Posterior-Bladder Height)
- Post-BL W (Posterior-Bladder Width)
- 2D-mode Calculation
  - Renal Vol (Renal Volume)
  - Pre-BL Vol (Previous-Bladder Volume)
  - Post-BL Vol (Posterior-Bladder Volume)
  - Mictur.Vol (Micturated Volume)
- 2D-mode study
  - Kidney
  - Adrenal
  - Bladder

**Obstetrics**
- 2D-mode Measure
  - GS (Gestational Sac Diameter)
  - YS (Yolk Sac)
  - CRL (Crown Rump Length)
  - NT (Nuchal Translucency)
  - BPD (Biparietal Diameter)
  - OFD (Occipital Frontal Diameter)
  - HC (Head Circumference)
  - AC (Abdominal Circumference)
  - FL (Femur Length)
  - TAD (Abdominal Transversal Diameter)
  - APAD (Anteroposterior Abdominal Diameter)
  - TCD (Cerebellum Diameter)
  - Cist Magna (Cist Magna)
  - LVW (Lateral Ventricle Width)
  - HW (Hemisphere Width)
  - OOD (Outer Orbital Diameter)
  - IOD (Inter Orbital Diameter)
  - HUM (Humerus Length)
  - Ulna (Ulna Length)
  - RAD (Radius Length)
  - Tibia (Tibia Length)
  - FIB (Fibula Length)
• CLAV (Clavicle Length)
• Vertebrae (Length of Vertebrae)
• MP (Middle Phalanx Length)
• Foot (Foot Length)
• Ear (Ear Length)
• APTD (Anteroposterior trunk diameter)
• TTD (Transverse trunk diameter)
• FTA (Fetal Trunk Cross-sectional Area)
• THD (Thoracic Diameter)
• HrTC (Heart Circumference)
• TC (Thoracic circumference)
• Umb VD (Umbilical Vein Diameter)
• F-kidney (Fetal kidney Length)
• Mat Kidney (Matrix Kidney Length)
• Cervix L (Cervical Length)
• AF (Amniotic Fluid)
• NF (Nuchal Fold)
• Orbit (Orbit)
• PL Thickness (Placental Thickness)
• Sac Diam1 (Gestational Sac Diameter 1)
• Sac Diam2 (Gestational Sac Diameter 2)
• Sac Diam3 (Gestational Sac Diameter 3)
• AF1 (Amniotic Fluid 1)
• AF2 (Amniotic Fluid 2)
• AF3 (Amniotic Fluid 3)
• AF4 (Amniotic Fluid 4)
• LVIdD (Left Ventricular Internal Diameter at End-diastole)
• LVIds (Left Ventricular Internal Diameter at End-systole)
• LV Diam (Left Ventricular Diameter)
• LA Diam (Left Atrium Diameter)
• RVIdD (Right Ventricular Internal Diameter at End-diastole)
• RVIds (Right Ventricular Internal Diameter at End-systole)
• RV Diam (Right Ventricular Diameter)
• RA Diam (Right Atrium Diameter)
• IVSd (Interventricular Septal Thickness at End-diastole)
• IVSs (Interventricular Septal Thickness at End-systole)
• IVS (Interventricular Septal Thickness)
• LV Area (Left Ventricular Area)
• LA Area (Left Atrium Area)
• RV Area (Right Ventricular Area)

• RA Area (Right Atrium Area)
• Ao Diam (Aorta Diameter)
• MPA Diam (Main Pulmonary Artery Diameter)
• LVOT Diam (Right Ventricular Outflow Tract Diameter)
• RVOT Diam (Right Ventricular Outflow Tract Diameter)

• 2D-mode Calculation
• Mean Sac Diam (Mean Gestational Sac Diameter)
• AFI
• EFW (Estimated Fetal Weight)
• EFW2 (Estimated Fetal Weight 2)
• HC/AC
• FL/AC
• FL/BPD
• AXT
• CI
• FL/HC
• HC(c)
• HrTC/TC
• TCD/AC
• LVW/HW
• LVD/RVD
• LAD/RAD
• AoD/MPAD
• LAD/AoD

• 2D-mode Study
• AFI

• M-mode Measure
• FHR (Fetal Heart Rate)
• LVIdD (Left ventricular diameter at end diastole)
• LVIds (Left ventricular diameter at end systole)
• RVIdD (Right ventricular diameter at end diastole)
• RVIds (Right ventricular diameter at end systole)
• IVSd (Interventricular septal thickness at end diastole)
• IVSs (Interventricular septal thickness at end systole)

Available Obstetrics Formulae
• GA (gestational age) and FG (fetal growth)

Formulae

<table>
<thead>
<tr>
<th>Items</th>
<th>GA</th>
<th>FG</th>
</tr>
</thead>
<tbody>
<tr>
<td>EFW:</td>
<td>2</td>
<td>5</td>
</tr>
</tbody>
</table>
EFW2: 2 5  
GS: 4 4  
CRL: 10/9* 6  
BPD: 12/11* 12/11*  
HC: 7/6* 7/6*  
AC: 8/3* 9/6*  
FL: 12 10  
OFD: 3 4  
APAD / 1  
TAD / 1  
FTA: 1 1  
THD: 1 1  
HUM: 2 2  
Ulna: / 1  
Tibia: / 1  
RAD: / 2  
FIB: / 2  
CLAV: 1 1  
TCD: 2 3  
OOD: 1 /  
Cist Magna / 1  
Mean Sac Diam 1 /  
AFI / 1  

Note: * indicates the formulae number in FDA region as some of the formulae are unavailable for sale in USA or Canada.

- Fetal Weight Formulae: 11

**Cardiology**

- 2D-mode Measure
  - LA Diam (Left Atrium Diameter)
  - LA Major (Left Atrium major Diameter)
  - LA Minor (Left Atrium minor Diameter)
  - RA Major (Right Atrium major Diameter)
  - RA Minor (Right Atrium minor Diameter)
  - LV Major (Left Ventricular major Diameter)
  - LV Minor (Left Ventricular minor Diameter)
  - RV Major (Right Ventricular major Diameter)
  - RV Minor (Right Ventricular minor Diameter)
  - LA Area (Left Atrium area)
  - RA Area (Right Atrium area)
  - LV Area(d) (Left Ventricular area at end-diastole)
  - LV Area(s) (Left Ventricular area at end-systole)
  - RV Area(d) (Right Ventricular area at end-diastole)
  - RV Area(s) (Right Ventricular area at end-systole)
  - LVIDd (Left Ventricular Internal Diameter at end-diastole)
  - LVIDs (Left Ventricular Internal Diameter at end-systole)
  - RVDd (Right Ventricular Diameter at end-diastole)
  - RVDs (Right Ventricular Diameter at end-systole)
  - LVPWd (Left Ventricular Posterior wall thickness at end-diastole)
  - LVPWs (Left Ventricular Posterior wall thickness at end-systole)
  - RVAWd (Right Ventricular Anterior wall thickness at end-diastole)
  - RVAWs (Right Ventricular Anterior wall thickness at end-systole)
  - IVSd (Interventricular Septal thickness at end-diastole)
  - IVSs (Interventricular Septal thickness at end-systole)
  - Ao Diam (Aorta Diameter)
  - Ao Arch Diam (Aorta arch Diameter)
  - Ao Asc Diam (Ascending Aorta Diameter)
  - Ao Desc Diam (Descending Aorta Diameter)
  - Ao Isthmus (Aorta Isthmus Diameter)
  - Ao st junct (Aorta ST junct Diameter)
  - Ao Sinus Diam (Aorta Sinus Diameter)
  - Duct Art Diam (Ductus Arteriosus Diameter)
  - Pre Ductal (Previous ductal Diameter)
  - Post Ductal (Posterior ductal Diameter)
  - ACS (Aortic Valve Cusp Separation)
  - LVOT Diam (Left Ventricular Outflow Tract Diameter)
  - AV Diam (Aorta Valve Diameter)
  - AVA (Aortic Valve Area)
  - PV Diam (Pulmonary valve Diameter)
  - LPA Diam (Left pulmonary Artery Diameter)
  - RPA Diam (Right pulmonary Artery Diameter)
  - MPA Diam (Main pulmonary Artery Diameter)
  - RVOT Diam (Right Ventricular Outflow Tract Diameter)
  - MV Diam (Mitral Valve diameter)
  - MVA (Mitral Valve area)
  - MCS (Mitral Valve Cusp Separation)
  - EPSS (Distance between point E and Interventricular Septum when mitral valve is fully open)
  - TV Diam (Tricuspid valve Diameter)
- TVA (Tricuspid Valve Area)
- IVC Diam (Insp) (Inferior vena cava inspiration Diameter)
- IVC Diam (Exp) (Inferior vena cava expiration Diameter)
- SVC Diam (Insp) (Superior vena cava inspiration Diameter)
- SVC Diam (Exp) (Superior vena cava expiration Diameter)
- LCA (Left Coronary Artery)
- RCA (Right Coronary Artery)
- VSD Diam (Ventricular Septal defect Diameter)
- ASD Diam (Atrial Septal defect Diameter)
- PDA Diam (Patent ductus Arteriosus Diameter)
- PFO Diam (Patent Oval Foramen Diameter)
- PEd (Pericardial Effusion at diastole)
- PEs (Pericardial Effusion at systole)
- 2D-mode Calculation
  - LA/Ao (Left Atrium Diameter/Aorta Diameter)
  - Ao/LA (Aorta Diameter/Left Atrium Diameter)
- M-mode Measure
  - LA Diam (Left Atrium Diameter)
  - LVIDd (Left Ventricular Internal Diameter at end-diastole)
  - LVIDs (Left Ventricular Internal Diameter at end-systole)
  - RVDD (Right Ventricular Diameter at end-diastole)
  - RVDs (Right Ventricular Diameter at end-systole)
  - LVPWd (Left Ventricular Posterior wall thickness at end-diastole)
  - LVPWs (Left Ventricular Posterior wall thickness at end-systole)
  - RVAVd (Right Ventricular Anterior wall thickness at end-diastole)
  - RVAWs (Right Ventricular Anterior wall thickness at end-systole)
  - IVSd (Interventricular Septal thickness at end-diastole)
  - IVSs (Interventricular Septal thickness at end-systole)
  - Ao Diam (Aorta Diameter)
  - Ao Arch Diam (Aorta arch Diameter)
  - Ao Asc Diam (Ascending Aorta Diameter)
  - Ao Desc Diam (Descending Aorta Diameter)
  - Ao Isthmus (Aorta Isthmus Diameter)
  - Ao st junct (Aorta ST junct Diameter)
  - Ao Sinus Diam (Aorta Sinus Diameter)
  - LVOT Diam (Left Ventricular outflow tract Diameter)
  - ACS (Aortic valve Cusp Separation)
  - LPA Diam (Left pulmonary Artery Diameter)
  - RPA Diam (Right pulmonary Artery Diameter)
  - MPA Diam (Main pulmonary Artery Diameter)
  - RVOT Diam (Right Ventricular outflow tract Diameter)
  - MV E Amp (Amplitude of the Mitral Valve E wave)
  - MV A Amp (Amplitude of the Mitral Valve A wave)
  - MV E-F Slope (Mitral Valve E-F slope)
  - MV D-E Slope (Mitral Valve D-E slope)
  - MV DE (Amplitude of the Mitral Valve DE wave)
  - MCS (Mitral Valve Cusp Separation)
  - EPSS (Distance between point E and the interventricular septum)
  - PEd (Pericardial effusion at diastole)
  - PEs (Pericardial effusion at systole)
  - LVPEP (Left Ventricular pre-ejection period)
  - LVET (Left Ventricular ejection time)
  - RVPEP (Right Ventricular pre-ejection period)
  - RVET (Right Ventricular ejection time)
  - HR (Heart Rate)
- M-mode Calculation
  - LA/Ao (Left Atrium diameter/Aorta diameter)
  - Ao/LA (Aorta Diameter/Left Atrium Diameter)
- Cardiac Study Items
  2D-mode:
    - S-P Ellipse
    - B-P Ellipse
    - Bullet
    - Mod.Simpson
    - Simpson SP (A2C)
    - Simpson SP (A4C)
    - Simpson BP
    - Cube
    - Teichholz
    - Gibson
    - LA Vol(A-L)
    - LA Vol(Simp)
    - RA Vol(Simp)
    - LV Mass(Cube)
    - LV Mass(A-L)
    - LV Mass(T-E)
M-mode:
- LVIMP
- Cube
- Teichholz
- Gibson
- LV Mass (Cube)

Vascular
- 2D-mode Measure
  - Vas Diam (Vascular Diameter)
  - Vas Area (Vascular Area)
  - Normal (D) (Vessel Diameter)
  - Resid (D) (Residual Diameter)
  - Normal (A) (Vessel Area)
  - Resid (A) (Residual Area)
  - CCA IMT (Common Carotid Artery IMT)
  - Bulb IMT (Bulbillate IMT)
  - ICA IMT (Internal Carotid Artery IMT)
  - ECA IMT (External Carotid Artery IMT)
- 2D-mode Calculation
  - Stenosis D (Stenosis Diameter)
  - Stenosis A (Stenosis Area)
- 2D-mode Study
  - Stenosis
  - IMT (Intima-Media Thickness)

Gynecology
- 2D-mode Measure
  - UT L
  - UT H
  - UT W
  - Cervix L
  - Cervix H
  - Cervix W
  - Endo
  - Ovary L
  - Ovary H
  - Ovary W
  - Follicle1-16 L
  - Follicle1-16 W
  - Follicle1-16 H
- 2D-mode Calculation
  - Ovary Vol
  - UT Vol
  - Uterus Body
  - UT-L/ CX-L
- 2D-mode Study
  - Uterus (Length, height and width of uterus, endometrium thickness)
  - Uterine Cervix (Length, height and width of uterine cervix)
  - Ovary (Length, height and width of ovary)
  - Follicle 1-16 (Length and width of follicle 1-16)

Urology
- 2D-mode Measure
  - Renal L
  - Renal H
  - Renal W
  - Cortex
  - Adrenal L
  - Adrenal H
  - Adrenal W
  - Prostate L
  - Prostate H
  - Prostate W
  - Seminal L
  - Seminal H
  - Seminal W
  - Testis L
  - Testis H
  - Testis W
  - Ureter
  - Pre-BL L
  - Pre-BL H
  - Pre-BL W
  - Post-BL L
  - Post-BL H
  - Post-BL W
- 2D-mode Calculation
  - Renal Vol
  - Prostate Vol
  - Testis Vol
  - Pre-BL Vol
  - Post-BL Vol
  - Mictur.Vol
- 2D-mode Study
  - Kidney
  - Adrenal
  - Prostate
  - Seminal Vesicle
  - Testis
  - Bladder

Small Parts
- 2D-mode Measure
<table>
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<tr>
<th>Measurement</th>
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<tr>
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<td>Testis L</td>
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<td>Mass2 D1-3</td>
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<td>EM (Emergency)</td>
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<tr>
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<td>Gallbladder wall thickness</td>
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<td>M-mode Measure</td>
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<td>FHR (Fetal Heart Rate)</td>
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**Diagnostic Report**
- View/add images
- Data edit
- Print
- Import
- export (to PDF/RTF file)
- View history report
- Obstetric analysis
- Fetal growth curve

**Safety & Conformance**

**Quality Standards**
- ISO 9001:2008
- ISO 13485:2003

**Design Standards**
- EN 60601-1 and IEC 60601-1
- EN 60601-1-2 and IEC 60601-1-2
- EN 60601-2-37 and IEC60601-2-37
- EN ISO 14971 and ISO 14971
- EN ISO10993-1 and ISO10993-1
- EN 62366 and IEC 62366
- EN 62304 and IEC 62304
- EN ISO 17664
- EN 1041
- EN 980
• IEC 60878

**CE Declaration**

DP-50/DP-50T system is fully in conformance with the Council Directive 93/42/EEC Concerning Medical Devices, as amended by 2007/47/EC. The number adjacent to the CE marking (0123) is the number of the EU-notified body that certified meeting the requirements of Annex II of the Directive.

Not all features or specifications described in this document may be available in all probes and/or modes.

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Note: the contents in this datasheet are applied to Version 2.0 of system software for DP-50/DP-50T Digital Ultrasonic Diagnostic Imaging System.