

## Z6/Z6T/Z6S/Z6W

### Diagnostic Ultrasound System

#### System Description Z6 ergonomiško dizaino portatyvinė ir lengvai naudojama sistema

1. The Z6/Z6T/Z6S/Z6W is an ergonomically designed portable and ease-of-use machine for multi-specialty use like adults, pregnant women, pediatric patients and neonates.

#### Intended Use

- CE Region: It is intended for use in gynecology, obstetrics, abdominal, pediatric, small organ, cephalic, transcranial, musculo-skeletal, cardiac, vascular, urology, orthopedics, nerve and intraoperative exams.
- FDA Region: It is intended for use in fetal, abdominal, intraoperative (abdominal, thoracic, and vascular), pediatric, small organ (breast, thyroid, testes), neonatal and adult cephalic, trans-rectal, trans-vaginal, musculo-skeletal (conventional, superficial), cardiac (adult, pediatric), peripheral vessel and urology 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)

1. Net Weight: ≤8.8kg (including ACDC and battery)

#### Electrical Power Grynas svoris

##### Input power

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

18.3 **Battery** Bateria

- Lithium-ion Battery Pack: 14.8 V , 6600 mAh

- Charge time: < 3 hours (connected on AC power supply, with the system powered off)

18.3 Endurance time: > 100 min Bateriajos veikimo laikas 100 min

#### Boot time

- Boot time: ≤30 s
- Wake up time (from standby): ≤5 s

#### 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
- Phased array

##### Scanning Methods

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

#### Probe Model

18.1	> 3C5P	Convex	Gaubtinis daviklis
	> 6C2P	Convex	
	> 6CV1P	Endocavity Micro-Convex	
	> CB10-4P	Bi-plane (convex & convex)	
	> 7L4P	Line	
18.2	> 7L5P	Line	Linijinis daviklis
	> L14-6P	Linear	
16.1	> 2P2P	Phased	Fazinis daviklis
	> V10-4BP	Convex	
	> 7LT4P	Linear	
	> 6LE7P	Linear	

**Available Needle-guided Bracket for Probe:**

- > 6CV1P                    NGB-004
- > CB10-4P                NGB-004
- > V10-4BP                NGB-004
- > 6C2P                    NGB-005
- > 3C5P                    NGB-006
- > 7L4P                    NGB-007
- > 7L5P                    NGB-007
- > 6LE7P                  NGB-009
- > 7LT4P                  NGB-010
- > 2P2P                    NGB-011
- > L14-6P                 NGB-016

**System Configuration**

**Standard Configuration**

- Display
  - 3.1 > 15-inch LCD, High-Resolution 1024 x 768 15 colių, LCD
  - > Contrast & Brightness adjustable
  - 3.2 > Screen Saver: Time and picture presettable
  - > Angle adjustable: 30°
- Control Panel                    Kampo pasvirimas 30 laipsnių
  - > Alphanumeric Keys
  - > Function Keys
  - > Knobs
  - > User-defined Keys: function presettable
  - > 8 segment TGC
  - > Trackball: Color & Speed presettable
  - > Key Backlight Brightness & Volume presettable
  - > Integrated Speakers
- Indicators: Power/Battery/Standby/HDD status
- Handle
- Phase Shift harmonic imaging
- Steer scanning for linear probes (2D Steer)
- iBeam™
- iClear™ (Speckle Suppression Imaging)
- Color/Power module
- PW module
- iTouch™
- ExFOV Imaging
- iStation™
- 500G integrated hard disk
- I/O Interfaces
  - 2. > Transducer port: 2            Daviklių jungtys: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
- > Equipotential terminal: 1
- Multi-language screen display and control panel overlay
- Application categories

- 7.1 > Abdomen                    Pilvo organų
  - > Obstetrics
  - > Gynecology
  - > Cardiology
- 7.2 > Small Parts                Smulkių kūno dalių
  - > Urology
- 7.3 > Vascular                   Kraujagyslių
  - > Orthopedics
  - > 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

### Options

- IMT (Auto Calculation of Intima-Media Thickness)
- HPRF
- CW module
- 17.1 • iScape View
- 17.2 • **iWorks**
  - Free Xros M (Anatomical M)
  - Smart 3D (not applied in FDA region)
  - Application software package (including related exam mode, comments, measurements, body marks and report)
    - > Abdominal package
    - > Obstetrical package
    - > Gynecological package
    - > Cardiac package
    - > Small parts package
    - > Urological package
    - > Vascular package
    - > Pediatric package
    - > Nerve blocks package
    - > Emergency medicine package
  - DICOM basic
    - > Task management
    - > DICOM storage
    - > DICOM print
    - > DICOM storage commitment
    - > DICOM media storage (including DICOM DIR)
  - DICOM Worklist
  - DICOM MPPS
  - DICOM Query/Retrieve
  - DICOM OB/GYN structured report
  - DICOM vascular structured report
  - DICOM cardiac structured report
  - Battery Pack
  - External USB DVD-RW: SE-S224
  - Footswitch:
    - > 971-SWNOM (2-pedal or 3-pedal)
    - > FS-81-SP-2 (1-pedal)
  - 1. 18.4.1 • **Mobile trolley: UMT-150** Mobilus vežimėlis
    - > Weight: 21 kg
    - > Width: 445 mm
    - > Depth: 535 mm
    - > Height: selective (not available after installed): 810 mm, 870 mm, 2 levels

- Mobile trolley: UMT-160
  - > Weight: 20 kg
  - > Width: 616 mm
  - > Depth: 702 mm
  - > Height: selective (not available after installed): 1247 mm, 1147 mm, 2 levels
- Carrying Case
- Wireless-LAN adapter: D-Link DWA-125
- Bar code reader: SYMBOL LS2208-SR
- Gel
- Print paper
- Probes
- Needle-guided brackets

### Peripherals Supported

- Black and White Video Printer
  - > SONY UP-897MD Analog
  - > MITSUBISHI P93W-Z Analog
  - > SONY UP-D897 Digital
- Color Video Printer
  - > SONY UP-20 Analog
  - > MITSUBISHI CP910E Analog
- 15. • **Graph / text printer**
  - > **HP Color LaserJet CM1015 MFP**
  - > **HP LaserJet p1007**
  - > **HP LaserJet 1020 plus**
  - > HP Officejet 7000 wide format
  - > HP Deskjet 1050
  - > HP Deskjet Ink Advantage 2020hc
  - > HP Deskjet Ink Advantage 2010
  - > HP Deskjet Ink advantage Printer K109g
  - > HP Officejet Pro 8100
  - > HP Deskjet 1000-J110a
  - > EPSON Stylus PHOTO R230
  - > EPSON Stylus PHOTO R270
  - > HP LaserJet CP1025 Color

Grafinis/teksto spausdintuvas

### Exam Mode

- Adult ABD (Adult Abdomen)
- ABD-Difficult (Abdomen-Difficult)
- Ped-ABD
- GYN (Gynecology)
- OB1
- OB2/3
- Fetal Cardiac

- Kidney
- Urology
- Prostate
- Carotid
- IMT (Intima-Media Thickness)
- Upper Ext Artery
- Lower Ext Artery
- Upper Ext Vein
- Lower Ext Vein
- Thyroid
- Breast
- Testicle
- MSK (Musculoskeletal)
- General Nerve
- Superficial
- Orthopedic
- Adult Cardiac
- CAR-Difficult
- TCI
- Ped-cardiac
- Neonatal Head
- Neonatal Cardiac
- Neonatal ABD
- EM ABD
- EM FAST
- EM OB
- EM Vascular
- EM Superficial
- CVC (Central Venous Catheterization)
- Vascular Access
- Superficial Nerve
- Deep Nerve
- Ped Epidural Block
- Sciatic Nerve
- Epidural Block

## Imaging Mode

- 8.1 • **B-Mode** B režimas
- Tissue Harmonic Imaging
  - Phase Shift Harmonic Imaging
  - Slant scanning for linear probes (B, color/power, 9, PW/CW independent)
- 8.7 • **ExFOV Imaging for Convex Probe (trapezoid imaging for linear probe)** Trapezoidinio
- 8.2 • **M-Mode** M režimas vaizdavimo režimas linijiniams davikliams
- Free Xros M Mode

- iScape™ (iScape View)
- 8.5 • **Color** Spalvinis
- Power
  - Smart 3D (not applied in FDA region)
- 8.6 • **PW (Pulse Wave Doppler)** Pulsinės bangos dopleris
- HPRF (High Pulse Repeat Frequency)
- 16.2 • **CW (Continuous Wave Doppler)**
- Display Mode: Nuolatinės bangos dopleris (CW)
    - Single window
    - B/C/D triplex mode
    - Dual live: B/C
    - Adjustable time line display format (V1:1, V1:2, V2:1, Full)
- 8.3 • **Dual-split: B/C**, B/M, B/PW Dvigubas (B+B)
- 8.4 • **Quad-split** Keturgubas(4B)

## Imaging Features

- iBeam™ (Spatial Compounding Imaging for Linear and Convex Probe)
  - iScape™
  - Multi-frequency probes for 2D imaging modes
  - iClear™ (adaptive speckle suppression imaging for all probes)
13. • **iTouch™ (B/PW): Auto Optimization** Automatinis optimizavimas
- TSI (Tissue Specific Imaging)
  - iZoom™
  - Spot Zoom and Pan Zoom

## B Mode

4. • **Display Depth** Vaizdavimo gylis. Maksimalus:38.8 cm.
- Minimum: 0.9 cm
  - Maximum: 38.8 cm
5. • **Frame rate (Max.):** Maksimalus kadru dažnis B režime: 400
- B mode: 400 fps (2P2P)
  - Adjustable focus number: 4
  - Adjustable focus positions (Max.): 16
  - Magnification factor:
    - Spot Zoom: continuously adjustable
    - Pan Zoom: 80%-1000%
  - iZoom: instant full screen view, two levels
  - **System dynamic range: 30~220**, 5/step
  - Gain: 0~100dB, 51steps Sistemose
  - TGC: 8 dinaminis diapazonas
  - Tint map: on/off, 1~16
  - Gray map: 1~8
  - FOV: on/ off, continuously adjustable

- ExFOV: on/ off (Trapezoid imaging for linear probe)
- Persistence: 0~7
- R/L, U/D Flip
- Line Density: L, M, H, UH
- iTouch Bright: -12~12dB, 9steps
- A.power: 7%~100%, 32steps
- TSI: General, Fat, Fluid, Muscle
- Steer: -6°, 0°, 6°, linear probe only
- HScale: on/ off
- Lithotriety: on/ off
- iClear: on/off, 1~4
- iBeam: on/off
- Gray Invert: on/ off
- Auto Merge: on/ off, linear probe, Dual display mode

### **M Mode**

- Speed: 1~6
- Edge Enhance: 0~14
- M Soften: 0~14

### **Color Mode**

- Frame rate (Max.): 376 fps (2P2P)
- PFR (kHz): 0.3 (2P2P)~ 15.7 (2P2P)
- Flow velocities (cm/s, probe dependent): 5.0 (L14-6P)~ 302 (2P2P)
- Gain: 0~100, 2/step
- Baseline: -8~8
- Persistence: 0~4
- Smooth: 0~4
- ROI adjustment: continuously
- Color Map: V0~V10; VV0~ VV9
- Priority: 0%~100%, 11 levels
- WF: 0~7
- Line Density: L, M, H, UH
- Dual Live: on/ off
- Invert: on/ off
- B/C Align: on/ off
- Packet Size: 0~3

### **Power Mode**

- Dynamic Range: 10~70, 5/step
- Power Map: P0~P3; dP0~dP3

### **PW/CW Mode**

- PRF (kHz)
  - > PW: 0.7 (L14-6P)~ 24.0 (2P2P)
  - > CW: 0.4 (2P2P)~ 160.0 (2P2P)
- Flow velocities (cm/s, probe dependent):

- > PW: 4.1 (L14-6P)~ 462 (2P2P)
- > CW: 7.1 (2P2P)~ 3080 (2P2P)
- Gain: 0~100, 2/step
- Baseline: -4~4
- Audio volume: 0~100%, 2%/step
- Angle: -89°~89°
- Quick Angle: -60°~60°
- SVD (CW focus depth): 10%-100%
- Speed: 1~6
- iTouch (PW): on/off
- SV:
  - > 0.5~3 mm, 0.5 mm/step
  - > 3~5 mm, 1 mm/step
  - > 5~10 mm, 2.5 mm/step
  - > 10~20 mm, 5 mm/step
- Dynamic range: 24~72, 2/step
- WF: 0~6
- Duplex/Triplex: on/ off
- HPRF: on/ off
- T/F Res: 0~4

14.2

- **Auto Calc: on/ off**

Automtinis matavimas:  
ijungta/išjungta

- Auto Calc Cycle: 1~5
- Auto Calc Param: setting auto spectrum calculation results
- Trace Area: Above/ Below/ All

## **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
- Other 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/color 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 for all exam modes
- Custom: add/delete/edit comment units in current menu.

#### Arrow

- Arrow size
- Arrow position
- Arrow orientation

### Body Mark

#### Application package

- Body marks for all exam modes:
- Custom: import/delete body marks

## Storage/ Connection

- 10.1 • **500G integrated hard disk** Vidinis kietasis diskas 500GB
- External DVD-R/W (Optional)
- 10.2 • **4 USB ports** 4 USB jungtys
- Image archive on hard disk, DVD, network storage (iStorage) or 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/D images.

6. • **Cine memory capacity (Max.)** Maksimali cinematinės atminties talpa
- > Clip length presettable: 1-60s
  - > **B mode: 12394 frames** B režimas 12394 kadru
  - > M mode: 181.1 s
  - > PW/CW: 169.6 s
  - > Color: 10121 frames
- Max. frames in HDD
    - > 12905551 frames (JPG format)
    - > 232397 frames (FRM format)

- iStorage
- DICOM:
  - > DICOM Basic
    - Task management
    - 12. **DICOM storage** DICOM saugykla
    - DICOM print** Spausdinimas
    - DICOM storage commitment** Saugyklos perdavimas
  - DICOM media storage (including DICOM DIR)
    - > DICOM Worklist
    - > Query/ Retrieve
    - > Structured Report (SR)
    - > MPPS

### iStation™ išmani paciento duomenų administravimo sistema

- 11.1. **Intelligent patient data management system** Integruota pacientų duomenų paieškos sistema
- 11.2. • **Integrated search engine for patient data**
- 11.3. • **Detailed patient information view**
- Intelligent data backup/ restore
  - Patient data/ image sending Detali pacientų tyrimų informacijos peržiūra
  - Patient data deleting
  - Exam managing: create new exam, activate exam and continue exam
  - Recycle Bin
  - Task manager

## Measure/Calc/Study

**Caliper** Matavimai, skaičiavimai, tyrimai

### **2D-mode**

- Depth
- Distance
- Angle
- Area & Circumference (Trace/ Ellipse/ Spline/ Cross)
- Volume
- Cross
- Parallel
- Trace Length
- Ration (D)
- Ratio (A)
- B-Hist
- B-Profile
- Volume Flow
- Color Vel
- IMT

### **M-mode**

- HR
- Slope
- Distance
- Time
- Velocity

### **Doppler mode**

- D Vel
- HR
- Time
- Acceleration
- D Trace
- PS/ED
- Volume Flow

## **Application**

### 14.1.1 **Abdomen** Pilvo organu

- 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)
- > Ureter
- 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
- Doppler-mode Measure
  - > Ren A Org (Renal Artery Origin)
  - > Arcuate A (Arcuate Artery)
  - > Segment A (Segmental Artery)
  - > Interlobar A (Interlobar Artery)
  - > Renal A (Renal Artery)
  - > M Renal A (Main Renal Artery)
  - > Renal V (Renal Vein)
  - > Aorta
  - > Celiac Axis
  - > SMA (Superior Mesenteric Artery)
  - > C Hepatic A (Common Hepatic Artery)
  - > Hepatic A (Hepatic Artery)
  - > Splenic A (Splenic Artery)
  - > IVC (Inferior Vena Cava)

- > Portal V (Portal Vein)
- > M Portal V (M Portal Vein)
- > Lt Hepatic V (Left Hepatic Vein)
- > Rt Hepatic V (Right Hepatic Vein)
- > Hepatic V (Hepatic Vein)
- > M Hepatic V (Middle Hepatic Vein)
- > Splenic V (Splenic Vein)
- > SMV (Superior Mesenteric Vein)

### **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)
- > HrtA (Heart area)
- > Facial Angle
- > MV Diam (Mitral Valve diameter)
- > PV Diam (Pulmonary valve Diameter)
- > Ao Asc Diam (Ascending Aorta Diameter)
- > Ao Desc Diam (Descending Aorta Diameter)

- > Duct Art Diam (Ductus Arteriosus Diameter)
- > TV Diam (Tricuspid valve Diameter)
- > LPA Diam (Left pulmonary Artery Diameter)
- > RPA Diam (Right pulmonary Artery Diameter)
- > IVC Diam (Inferior vena cava 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)
- Doppler-mode Measure
  - > Umb A (Umbilical Artery)
  - > Duct Venos (Ductus Venos)
  - > Placenta A (Placenta Artery)
  - > MCA (Middle Cerebral Artery)
  - > Fetal Ao (Fetal Aorta)
  - > Desc Aorta (Descending Aorta)
  - > Ut A (Uterine Artery)

- > Ovarian A (Ovarian Artery)
- > FHR (Fetal Heart Rate)

#### **Available Obstetrics Formulae**

- GA (gestational age) and FG (fetal growth) Formulae

Items	GA	FG
EFW:	2	5
EFW2:	2	5
GS:	4	4
CRL:	10	6
BPD:	12	12
HC:	7	7
AC:	8	9
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
Umb A RI:	/	JUM
Umb A PI:	/	JSUM
MCA RI:	/	JSUM
MCA PI:	/	JSUM

- 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(Expir) (Inferior vena cava expiration Diameter)
- > SVC Diam(Insp) (Superior vena cava inspiration Diameter)
- > SVC Diam(Expir) (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)
- > HR (Heart Rate)
- > Diastole
- > 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)
  - > 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)
- > 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)
- > Diastole
- > Systole
- M-mode Calculation
  - > LA/Ao (Left Atrium diameter/Aorta diameter)
  - > Ao/LA (Aorta Diameter/Left Atrium Diameter)
- Doppler Measure
  - > MV Vmax (Mitral Valve Maximum Velocity)
  - > MV E Vel (Mitral Valve E-wave Velocity)
  - > MV A Vel (Mitral Valve A-wave Velocity)
  - > MV E VTI (Mitral Valve E-wave Velocity-Time Integral)
  - > MV A VTI (Mitral Valve A-wave Velocity-Time Integral)
  - > MV VTI (Mitral Valve Velocity-Time Integral)
  - > MV AccT (Mitral Valve Acceleration Time)
  - > MV DecT (Mitral Valve Deceleration Time)
  - > IVRT (isovelocity Relaxation Time)
  - > IVCT (isovelocity Compression Time)
  - > MV E Dur (Mitral Valve E-wave Duration)
  - > MV A Dur (Mitral Valve A-wave Duration)
  - > LVOT Vmax (Left Ventricular Outflow Tract Velocity)
  - > LVOT VTI (Left Ventricular Outflow Tract Velocity-Time Integral)
  - > LVOT AccT (Left Ventricular Outflow Tract Acceleration Time)
  - > AAO Vmax (Ascending Aorta Maximum Velocity)
  - > DAAo Vmax (Descending Aorta Maximum Velocity)
  - > AV Vmax (Aorta Valve Maximum Velocity)
  - > AV VTI (Aorta Valve Velocity-Time Integral)
  - > LVPEP (Left Ventricular Pre-ejection Period)
  - > LVET (Left Ventricular Ejection Time)
  - > AV AccT (Aorta Valve Acceleration Time)
  - > AV DecT (Aorta Valve Deceleration Time)
  - > RVET (Right Ventricular Ejection Time)
  - > RVPEP (Right Ventricular Pre-ejection Period)
  - > TV Vmax (Tricuspid Valve Maximum Velocity)
  - > TV E Vel (Tricuspid Valve E-wave Flow Velocity)
  - > TV A Vel (Tricuspid Valve A-wave Flow Velocity)
  - > TV VTI (Tricuspid Valve Velocity-Time Integral)
  - > TV AccT (Tricuspid Valve Acceleration Time)
  - > TV DecT (Tricuspid Valve Deceleration Time)
  - > TV A Dur (Tricuspid Valve A-wave Duration)
  - > RVOT Vmax (Right Ventricular Outflow Tract Maximum Velocity)
  - > RVOT VTI (Right Ventricular Outflow Tract Velocity-Time Integral)
  - > PV Vmax (Pulmonary Valve Maximum Velocity)
  - > PV VTI (Pulmonary Valve Velocity-Time Integral)
  - > PV AccT (Pulmonary Valve Acceleration Time)
  - > MPA Vmax (Main Pulmonary Artery Maximum Velocity)
  - > RPA Vmax (Right Pulmonary Artery Maximum Velocity)

- > LPA Vmax (Left Pulmonary Artery Maximum Velocity)
- > PVein S Vel (Pulmonary Vein S-wave Flow Velocity)
- > PVein D Vel (Pulmonary Vein D-wave Flow Velocity)
- > PVein A Vel (Pulmonary Vein A-wave Flow Velocity)
- > PVein A Dur (Pulmonary Vein A-wave Duration)
- > PVein S VTI (Pulmonary Vein S-wave Velocity-time Integral)
- > PVein D VTI (Pulmonary Vein D-wave Velocity-time Integral)
- > PVein DecT (Pulmonary Vein Deceleration Time)
- > IVC Vel (Insp) (Inferior Vena Cava Inspiration Maximum Velocity)
- > IVC Vel (Expir) (Inferior Vena Cava Expiration Maximum Velocity)
- > SVC Vel (Insp) (Superior Vena Cava Inspiration Maximum Velocity)
- > SVC Vel (Expir) (Superior Vena Cava Expiration Maximum Velocity)
- > MR Vmax (Mitral Valve Regurgitation Maximum Velocity)
- > MR VTI (Mitral Valve Regurgitation Velocity-Time Integral)
- > MS Vmax (Mitral Valve Stenosis Maximum Velocity)
- > dP/dt (Rate of Pressure Change)
- > AR Vmax (Aortic Valve Regurgitation Maximum Velocity)
- > AR VTI (Aortic Valve Regurgitation Velocity-Time Integral)
- > AR DecT (Aortic Valve Regurgitation Deceleration Time)
- > AR PHT (Aortic Valve Regurgitation Pressure Half Time)
- > AR Ved (Aortic Valve Regurgitation Velocity) at end-Diastole)
- > TR Vmax (Tricuspid Valve Regurgitation Maximum Velocity)
- > TR VTI (Tricuspid Valve Regurgitation Velocity-Time Integral)
- > PR Vmax (Pulmonary Valve Regurgitation Maximum Velocity)
- > PR VTI (Pulmonary Valve Regurgitation Velocity-Time Integral)
- > PR PHT (Pulmonary Valve Regurgitation Pressure Half Time)
- > PR Ved (Pulmonary Valve Regurgitation Velocity) at end-Diastole)
- > VSD Vmax (Ventricular Septal Defect Maximum Velocity)
- > ASD Vmax (Atrial Septal Defect Maximum Velocity)
- > PDA Vel (d) (Patent Ductus Arteriosus Velocity at End-diastole)
- > PDA Vel (s) (Patent Ductus Arteriosus Velocity at End-systole)
- > Coarc Pre-Duct (Coarctation of Pre-Ductus)
- > Coarc Post-Duct (Coarctation of Post-Ductus)
- > HR (Heart Rate)
- > RAP (Right Atrium Pressure)
- Doppler-mode Calculation
  - > MV E/A (MV E Vel (cm/s) / MV A Vel (cm/s))
  - > MVA(PHT) (MVA(PHT) (cm<sup>2</sup>) = 220 / MV PHT (ms) Mitral Valve Orifice Area (PHT))
  - > TV E/A (Tricuspid Valve E-Vel/A-Vel)
  - > TVA(PHT) (Tricuspid Valve Orifice Area (PHT))
- 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)
    - > Qp/Qs
    - > PISA MR
    - > PISA AR
    - > PISA TR

- PISA PR
- M-mode:
- LVIMP
- Cube
- Teichholz
- Gibson
- LV Mass (Cube)
- Doppler-mode:
- MVA(VTI)
- AVA(VTI)
- LVIMP
- RVSP
- PAEDP
- RVIMP
- Qp/Qs
- PISA MR
- PISA AR
- PISA TR
- PISA PR

14.1.2.b)

➢ Cephalic V (Cephalic Vein) Veninis cephalica  
 ➢ Basilic V (Basilic Vein) Veninis basilica

- Ulnar V (Ulnar Vein)
- Radial V (Radial Vein)
- C.Iliac A (Common Iliac Artery)
- Ex.Iliac A (External Iliac Artery)
- CFA (Common Femoral Artery)
- SFA (Superficial Femoral Artery)
- Pop A (Popliteal Artery)
- TP Trunk A (Tibial Peroneal Trunk Artery)
- Peroneal A (Peroneal Artery)
- P.Tib A (Posterior Tibial Artery)
- A.Tib A (Anterior Tibial Artery)
- Dors.Ped A (Dorsalis Pedis Artery)
- C.Iliac V (Common Iliac Vein)
- Ex.Iliac V (External Iliac Vein)
- Femoral V (Femoral Vein)
- Saph V (Great Saphenous Vein)
- Pop V (Popliteal Vein)
- TP Trunk V (Tibial Peroneal Trunk Vein)
- Sural V (Sural Vein)
- Soleal V (Soleal Vein)
- Peroneal V (Peroneal Vein)
- P.Tib V (Posterior Tibial Vein)
- A.Tib V (Anterior Tibial Vein)
- ACA (Anterior Cerebral Artery)
- MCA (Middle Cerebral Artery)
- PCA (Posterior Cerebral Artery)
- AComA (Ant.communicating br.)
- PComA (Post.communicating br.)
- BA (Basilar Artery)
- IIA (Internal Iliac Artery)
- PFA (Deep Femoral Artery)
- Ba V (Basilar Vein)
- Brachial V (Brachial Vein)
- IIV (Internal Iliac Vein)
- CFV (Common Femoral Vein)
- SFV (Superficial Femoral Vein)
- PFV (Deep Femoral Vein)
- SSV (Small Saphenous Vein)
- ASP (Ankle Systolic Pressure)
- BSP (Brachial Systolic Pressure)

14.1.2 **Vascular** Kraujagyslių

- 2D-mode Measure
  - 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)

14.1.2 • **Doppler-mode Measure** Dopleriniai matavimai

- CCA (Common Carotid Artery)
- Bulb (Bulbillate)
- ICA (Internal Carotid Artery)
- ECA (External Carotid Artery)
- Vert A (Vertebral Artery)
- Innom A (Innominate Artery)

14.1.2.b) ➢ Subclav V (Subclavian Vein) Veninis subclavia

- Axill A (Axillary Artery) Arterinis axilaris
- Brachial A (Brachial Artery) Arterinis brachialis
- Ulnar A (Ulnar Artery) Arterinis ulnaris
- Radial A (Radial Artery) Arterinis radialis

14.1.2.a) ➢ Subclav A (Subclavian Artery) Arterinis subclavia

- Axill V (Axillary Vein) Veninis axilaris

- Doppler-mode Calculation
  - ICA/CCA
- Doppler-mode Study

- > ABI (Ankle Brachial Index)

### **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
  - > Follicle 1~16
- 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
- > Prostate Mass1 d1~d3
- > Prostate Mass2 d1~d3
- > Prostate Mass3 d1~d3
- > Testis Mass1 d1~d3
- > Testis Mass2 d1~d3
- > Testis Mass3 d1~d3

- 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
  - > Prostate Mass1~3
  - > Testis Mass1~3

### **Small Parts**

- 2D-mode Measure
  - > Thyroid L
  - > Thyroid H
  - > Thyroid W
  - > Isthmus H
  - > Testis L (Testicular Length)
  - > Testis H (Testicular Height)
  - > Testis W (Testicular Width)
  - > Breast Mass1 d1-d3
  - > Breast Mass2 d1-d3
  - > Breast Mass3 d1-d3
  - > Thyroid Mass1 d1-d3
  - > Thyroid Mass2 d1-d3
  - > Thyroid Mass3 d1-d3

- 2D-mode Calculation
  - Thyroid Vol
- 2D-mode Study
  - Thyroid
  - Testis
  - Breast Mass1-3
  - Thyroid Mass1-3
- Doppler-mode Measure
  - STA
  - ITA

**Orthopedics**

- 2D-mode Measure
  - HIP
  - HIP-Graf
  - d/D

**Emergency**

- 2D-mode Measure
  - Renal L (Renal Length)
  - Renal H (Renal Height)
  - Renal W (Renal Width)
  - CBD (Common bile duct)
  - Portal V Diam (Portal Vein Diameter)
  - CHD (Common hepatic duct)
  - GB wall tha (Gallbladder wall thickness)
  - Aorta Diam (Aorta Diameter)
  - Aorta Bif
  - Ureter
  - Pre-BL L (Pre-Animal Bladder Length)
  - Pre-BL H (Pre-Animal Bladder Height)
  - Pre-BL W (Pre-void Bladder Width)
  - Post-BL L (Post-void Bladder Length)
  - Post-BL H (Post-void Bladder Height)
  - Post-BL W (Post-void Bladder Width)
  - GS (Gestational Sac Diameter)
  - YS (Yolk Sac)
  - BPD (Biparietal Diameter)
  - CRL (Crown Rump Length)
  - UT L (Uterine Length)
  - UT H (Uterine Height)
  - UT W (Uterine Width)
  - Endo (Endometrium Thickness)
  - Ovary L (Ovary Length)
  - Ovary H (Ovary Height)
  - Ovary W (Ovary Width)
- 2D-mode Calculation

- Renal Vol (Renal Volume)
- Pre-BL Vol (Pre-void Bladder Volume)
- Post-BL Vol (Post-void Bladder Volume)
- Mictur.Vol (Micturated Volume)
- Ovary Vol (Ovary Volume)
- UT Vol (UT Volume)
- Uterus Body
- 2D-mode Study
  - Uterus
  - Ovary
  - Kidney
  - Bladder
- M/Doppler-mode Measure
  - FHR (Fetal Heart Rate)

**Diagnostic Report**

- View/add images
- Data edit
- Print
- Save/ load comment
- 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**

Z6/Z6T/Z6S/Z6W 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 the Directive.

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

No part of this manual may be copied or printed, in whole or in part, without written permission. The contents of this manual are subject to change without prior notice and without our legal obligation.

Note: the contents in this datasheet are applied to Version 1.0 of system software for Z6/Z6T/Z6S/Z6W diagnostic ultrasound system.

P/N: 046-002185-00 (V2.0)

P/N: 046-002185-00 (V1.0)

18.1.1

18.1.2

18.1.3

Probe	18.1.1		18.1.2				18.1.3		Application
	Type	-6dB Bandwidth (MHz)	Elements	Fundamental Freq. (MHz)		Harmonic Freq. (MHz)	FOV (Max.)		
3C5P	Convex	2.5-5.2	128	2.0	3.5 4.5 5.0	H5.0 H6.0	70° (FOV W) 90° (ExFOV)	Gynecology, Obstetrics, Pediatric, Abdominal, Vascular, Urology	
6C2P	Micro-Convex	4.6-9.3	128	5.0	6.5 7.5 8.5	H8.0 H9.0	101° (FOV W) 121° (ExFOV)	Abdominal, Pediatric, Cephalic, Transcranial, Cardiac	
6CV1P	Endocavity Convex	5-9.5	128	5.0	6.5 7.5 8.5	H8.0 H9.0	150° (FOV W) 170° (ExFOV)	Gynecology, Obstetrics, Pediatric, Urology, Cephalic	
CB10-4P	Endocavity Micro-Convex	4.5-9.5	128	5.0	6.5 7.5 8.5	H8.0 H9.0	164° (FOV W) 180° (ExFOV)	Urology	
7L4P	Linear	5-11.7	128	5.0	7.5 8.5 10.0	H8.0 H10.0	38mm	Pediatric, Small organ, Musculo-skeletal, Vascular, Orthopedics, Nerve	
7L5P	Linear	4.4-10.1	128	5.0	7.5 8.5 10.0	H8.0 H10.0	52.6mm	Pediatric, Small organ, Musculo-skeletal, Vascular, Orthopedics, Nerve	
L14-6P	Linear	5.1-12.5	128	8.0	10.0 12.0 14.0	H12.0 H14.0	25.4mm	Small organ, Musculo-skeletal, Vascular, Nerve	
2P2P	Phase	2-4.1	64	2.0	2.5 3.0 3.5	H3.2 H3.6		Abdominal, Cardiac	
V10-4BP	Endocavity Convex	4.7-9	128	5.0	6.5 7.5 8.5	H8.0 H9.0	160° (FOV W) 180° (ExFOV)	Gynecology, Obstetrics, Pediatric, Urology, Cephalic	
7LT4P	Linear	5-10	128	5.0	7.5 8.5 10.0	H8.0 H10.0	40mm	Musculo-skeletal, Small organ, Intraoperative	
6LE7P	Endocavity Linear	4.4-10	128	5.0	6.5 7.5 8.5	H8.0 H9.0	52.6mm	Gynecology, Obstetrics, Pediatric, Urology, Cephalic	
D6-2P	Volume	2.1-4.6	80	2.0	3.5 4.0 5.0	H5.0 H6.0	69° (FOV W) 89° (ExFOV)	Gynecology, obstetrics, abdominal	
P7-3P	Phase	2.6-6.7	96	3.6	5.0 6.0 7.0	H6.0 H7.0	90° (FOV W) 90° (ExFOV in tender mode)	Pediatric, cardiac, abdominal, vascular	

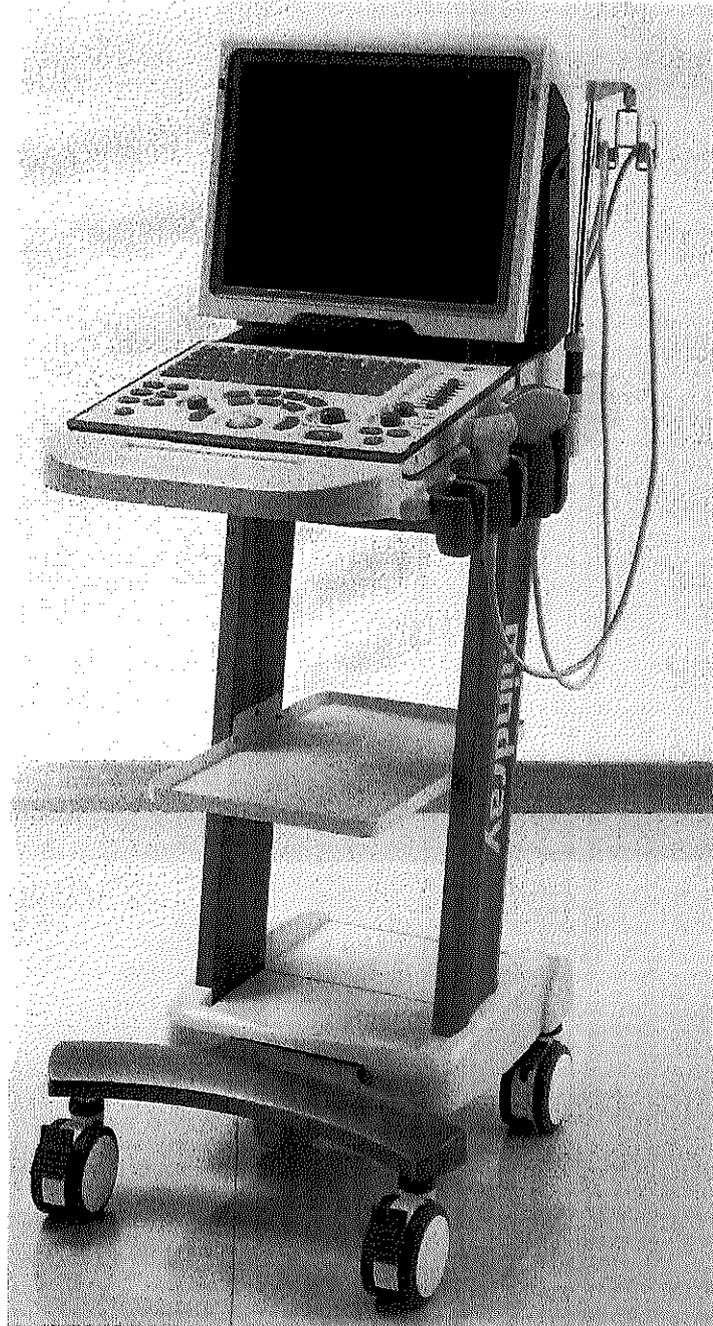
18.4.1

## UMT – 150 Mobile trolley

- Weight: 21 kg
- Width: 445 mm
- Depth: 535 mm
- Height: selective (not available after installed):
- 810 mm, 870 mm, 2 levels

18.4.2

- 4 castors, 2 with brakes



UAB GRAINA Ltd.  
Durbyno str. 22, LT-36237 Panevezys, Lithuania

To whom it may concern,

Jan 27, 2021

## DECLARATION

We, **Shenzhen Mindray Bio-Medical Electronics Co., Ltd.**, manufacturer of Ultrasound systems, hereby certify that **Mindray Z6** has automatic workflow protocols function **iWorks**.

iWorks can perform functions:

17.2

- Auto workflow protocol
- Templates are user configurable

17.1

- Functions: pause, stop, replace, repeat, skip, insert single step, return and continue, steps in thumbnail, iNSert™ another template
- iWorks setup mode: B; B/B (Dual Live); Dual B/B; Color; B/Color (Dual Live); Power; B/Power (Dual Live); B + PW; Color + PW; Power + PW; B + CW; Color + CW; B+M; B+TVI; TVI+TVD; iScape.
- iWorks setup annotation: support up to 2 annotations, location and font size are configurable.
- iWorks setup bodymark: select existing library, and transducer indicator is pre-settable
- iWorks setup measurement: select existing measurement library
- Template import and export are available

Very truly yours,



Senior Manager of International Ultrasound Imaging Systems Marketing Department  
**Shenzhen Mindray Bio-Medical Electronics Co., Ltd.**

Vertimas iš anglų kalbos į lietuvių kalbą.

UAB GRAINA Ltd.

Durpyno g. 22, LT-36237 Panevėžys, Lietuva

Tiems, kam tai gali rūpėti,

2021 m. sausio 27 d.

### DEKLARACIJA

Mes, **Shenzhen Mindray Bio-Medical Electronics Co., Ltd**, ultragarsinių sistemų gamintojas, patvirtiname, kad Mindray Z6 turi automatinį darbo eigos protokolų funkcija iWorks.

iWork gali atlikti šias funkcijas:

- 17.2 

<ul style="list-style-type: none"><li>• Automatiniai darbo eigos protokolai</li><li>• Protokoliai gali būti koreguojami vartotojo</li></ul>
---
- 17.1 

<ul style="list-style-type: none"><li>• Funkcijos: pauzė, sustabdymas, pakeitimas, pakartojimas, praleidimas, įterpti vieną žingsnį, sugrįžti ir tęsti, žingsniai miniatiūroje, iNSert™ kita šablona</li><li>• iWorks nustatomi režimai: B; B/B (Dual Live); Dual B/B; Color; B/Color (Dual Live); Power; B/Power (Dual Live); B + PW; Color + PW; Power + PW; B + CW; B + M; B + TVI; TVI + TVD; iScape.</li><li>• iWork komentarų nustatymas: palaikoma iki 2 komentarų, konfigūruojama vieta ir šrifto dydis</li><li>• iWork kūno žymenų nustatymas: pasirinkus norimą biblioteką, yra nustatoma daviklio krypties padėtis</li><li>• iWork matavimų nustatymai: pasirinkti jau išsaugotus matavimus</li><li>• Šablonai gali būti importuojami ir eksportuojami</li></ul>
---

Jūsų  
/parašas/Antspaudas/

Tu Haitao  
Ultragarso sistemos rinkodaros skyriaus vadovas Europoje  
**Shenzhen Mindray Bio-Medical Electronics Co., Ltd**

Vertimą tvirtino UAB „GRAINA“ direktorius ta...



**Z6/Z6T/Z6S/Z6W**

**Diagnostic Ultrasound System**

**Operator's Manual**

**[Basic Volume]**

**Auto Calculation**

Automatinis skaičiavimas. Ši funkcija naudojama sekti ir suskaičiuoti PW/CW režimo vaizdo parametrus. Rezultatai rodomi rezultatų lange.

**Description** This function is used to trace the spectrum and calculate parameters of PW/CW mode image, and the results of which are displayed in the result window.

**Auto Calculation** Turn on or off the auto calculation function through the [Auto Calc] item on the image menu.

**Auto Calculation Parameter** Select parameters in the dialogue box prompted by clicking [Auto Calc Param] on the image menu.

**Auto Calc Cycle** To set the number of heart cycle for auto calculation.  
Click [Auto Calc Cycle] on the image menu to select the cycle number.

**Operations** In real-time scanning, the results displayed are derived from the calculation of latest cardiac cycle;  
In the freeze and cine status, the results displayed are calculated from the current selected area.

**Trace**

**Trace Area** To set the trace area of the Doppler wave in the spectrum map, applicable for auto calculation.

Change the trace area through the [Trace Area] item on the image menu.  
The available selections are: Above, Below, All.

**SV**

**Description** To adjust the SV position and size of sampling in PW mode, the real-time value of SV and SVD are displayed in the image parameter area in the upper right corner of the screen.

**SV size** Click the [SV] on the image menu to adjust the SV size.  
Value: 0.5-20mm.

**SVD** Roll the trackball to select the SV depth.

**Effects** The smaller the SV size, the more accurate the result; and more details are obtained when selected large SV size.

**iTouch**

**Description** To optimize image parameters as per the current tissue characteristics for a better image effect.

**Operations** Press <Gain/ iTouch> on the control panel to turn on the function.

**Angle**

**Description** This function is used to adjust the angle between Doppler vector and flow to make the velocity more accurate.

The real-time adjusting angle value is displayed on the right part of the spectrum map.

**Operations** Click the <Angle> item on the image menu to adjust.  
The adjustable angle range is -89~89°, in increments of 1°.