Featuring the next generation of portable ultrasound system, the Orcheo Lite combines premium performance and versatility in a highly portable and easy to use platform. The Orcheo Lite CV is designed for the following clinical applications: Cardiology, Vascular, Obstetrics, Gynecology, Small Parts and Superficial, Abdominal, Urological, Musculoskeletal, Breast, and Pediatric.

Dimensions ➢ Depth: 37cm ➢ Width: 42cm ➢ Height: 8.5cm	**Weight** ➢ **5.3KG APPROX WITH BATTERY**
Console ➢ Laptop Style ➢ Operating System: Windows XP ➢ **Boot Up Time: 20 sec** ➢ 2 probe ports: Automatic probe selection ➢ Storage capacity: 1To ➢ Main memory: 8G RAM ➢ Front Handle ➢ **2 USB 3.0 Ports** ➢ COM Port ➢ **VGA Output**	**Screen** ➢ **15 INCH HIGH RESOLUTION LCD HD COLOR MONITOR** ➢ Resolution: 1,024 X 768 ➢ Angle Adjustment: 0° to 100° ➢ Integrated Stereo Speaker ➢ Magnetic closure
Control Panel ➢ Alphanumeric Keyboard ➢ Hard Key Operations ➢ 11 multifunction soft buttons dedicated to Scanning Modes ➢ 4 multifunction digital encoders ➢ Trackball: 25mm	**Electrical Power** ➢ Voltage: 110V or 220V ➢ Frequency: 50/60Hz

Applications:

- Cardiology
- Vascular
- Abdominal
- Obstetrics
- Gynecology
- Anesthesia
- Urology
- Small Parts and Superficial
- Pediatric

Scan Frequency range:

- **From 1.5 to 20 Mhz**

Probe elements range:

- **From 64 to 192 elements**

Main* Probes

- Phased Array
  Applications: Cardiology, Pediatric
  Band Width: 1,5MHz ~ 05MHz

- Linear Array
  Applications: Vascular, Small Parts, Breast, Pediatric, Anesthesia
  Band Width: 05MHz ~ 12,5MHz
  Steered Angle: +/- 10°
  Trapezoidal Imaging

- Convex Array
  Applications: Abdominal, OB/GYN, Urology, Vascular
  Band Width: 02MHz ~ 05MHz
  Scanning angle: 60°

- Endocavitary Array
  Applications: OB/GYN, Urology
  Band Width: 05MHz ~ 08MHz
  Scanning angle: 148°

- Linear Array HD
  Applications: Vascular, Small Parts, Breast, Pediatric, Anesthesia
  Band Width: 08MHz ~ 18MHz
  Steered Angle: +/- 10°
  Trapezoidal Imaging

- Motorized Convex 3D/4D (Mechanical)
  Applications: OB, Urology, Abdominal, Renal
  Band Width: 03MHz ~ 06MHz

Imaging Modes

- B-Mode
- M-Modes
- Color Doppler (CFM)
- **Tissue Doppler (TDI)**
- Power Doppler
- Directional Power Doppler
- HPRF (1 to 12khz)
- Pulse Wave Doppler (PW)
- ECG
- **Continuous Wave Doppler (CW)**
- Tissue Harmonic Imaging
- Panoramic (optional)
- 4D Real Time (optional)

Combination Modes

- B/C PW Mode
- B/PW Mode
- B/M Mode
- Dual M-Mode
- Duplex Mode
- **Triplex Mode**

Storage Capacity

- Integrated SDD: 1To (Images, Cine Loop etc)
- CINE Memory: Sequence of up to 40 seconds each (25 images per second).

Media & Peripheral devices:

- Digital B/W printer (Thermal printing): Optional
- Digital color printer (Dye sublimation thermal transfer): Optional

➢ Archive format: JPEG, AVI	➢ CD/DVD recorder: optional ➢ Software Wifi
Software Options: ➢ **4D** ➢ **PANORAMIC** ➢ **Folicular Package**	**Hardware Options:** ➢ Travelling Case ➢ Dedicated Cart ➢ 3 Probes connector for Dedicated Cart
Connectivity: ➢ Ethernet Network Connection: Gigabit LAN, Wifi.	**Exclusivity:** ➢ Probe Holder integrated and removable

SCANNING PARAMETERS ON REAL TIME EXAM

B Mode (2D),Harmonic and M Mode :

- Acoustic Power Output
- Probe Frequency
- 2D Gain
- Time Gain Compensation (8 levels)
- Dynamic Range
- Edge Enhancement
- Focus Number
- Focus Position
- Depth. Minimum Depth : 2cm (probe dependent). Maximum Depth : 30cm (probe dependent)
- Real Time Adapting Smoothing®: for image smoothing, speckle reduction and contour enhancement
- Time Smooth
- Continuous Zoom and Scroll
- Trapezoid Mode. With linear probe only
- Harmonic Mode. With convex probe only
- Compound Imaging: iSteer®
- Line Density

CFM,Power and Directionnal Modes:

- Acoustic Power Output
- CFM Window Size
- CFM Window Location
- Color Gain
- Pulse Repetition Frequency
- Steering : With linear probe only
- Trapezoid Mode. With linear probe only
- Color Inversion
- Color Frequency
- Focus Position
- Wall Filter
- Duplex
- Triplex
- Continuous Zoom and Scroll
- Color Map

Pulse Wave Mode

- Acoustic Power Output
- PW Gate position
- PW Gate Length
- PW Frequency
- PW Baseline Adjustment
- PW steering (possibility to combine color and PW steering in triplex mode): With linear probe only
- PW Inversion
- PW Gain Adjustment
- Wall Filter
- Pulse Repetition Frequency
- Duplex
- Triplex
- Audio Adjustment
- Angle Correction
- Automatic PW Doppler Optimization: Autoset®
- Line
- Auto Trace

3D/4D Acquisition

- 3D Rendering
- Real Time 4D Mode
- 4D Depth Adjustment : Scan distance
- 360° display rotation
- Continuous Zoom

SCANNING PARAMETERS ON POST PROCESS

B Mode (2D) and M Mode :

- **2D GAIN**
- Time Gain Compensation
- **DYNAMIC RANGE**
- Edge Enhancement
- Real Time Adapting Smoothing® for image smoothing, speckle reduction and contour enhancement
- Time Smooth
- Continuous Zoom and Scroll

CFM,Power and Directionnal Modes:

- **COLOR GAIN**
- Color inversion
- Continuous Zoom and Scroll

Pulse Wave Mode

- **PW BASELINE**
- PW Inversion
- **PW GAIN ADJUSTMENT**
- Audio Adjustment
- Wall Filter
- Automatic PW Optimization: Autoset®

3D/4D Acquisition

- 3D Rendering
- Real Time 4D Mode
- Treshold (Opacification)
- Continuous Zoom
- 360° display rotation

Continous Wave Mode

- **CW BASELINE**
- CW Inversion
- **CW GAIN ADJUSTMENT**
- Audio Adjustment

IMAGE PROCESSING AND PRESENTATION

- **Full digital beamformer**
- Displayed Image Depth : 2 – 30cm. Probe dependent
- Receiving focus: Dynamic continuous focusing
- Dynamic range: 110dB
- Gray scale 256 shades of gray
- Multi frequency/Wideband probes
- MI-TI Display
- Bodymark: up to 84 types

Cine Memory/Image Memory:

- Cine Review: Loop or frame by frame
- Cine Memory: Sequences of up to 40 seconds each

- Digital Filters
- RDF real-time dynamic filtering
- DBF Digital Point Formation
- Dynamic Mapping frequency DFS
- DRF Dynamic Approach
- Opening RDA Real time dynamic

Certifications:	**Safety Standards:**
➢ The medical device described above is CE marked according to EC directive 93/42, Annex 2, Article 3. ➢ EN-ISO 9001:2000: Sonoscanner, manufacturer of the medical device described above complies with the requirements for the implementation of a quality management system ➢ EN-ISO 13485:2003: Sonoscanner manufacturer of the medical device described above complies with the requirements for the implementation of a quality management system for medical devices	The products described above complies with the following safety standards: ➢ EN-ISO 60601-1: General requirements for basic safety and essential performance ➢ EN-ISO 60601-1-1: Electrical Medical Equipment ➢ EN-ISO 60601-1-2: Electromagnetic Compatibility ➢ EN-ISO 60601-1-4: Programmable Medical Systems ➢ EN-ISO 60601-2-37: Particular requirements for the basic safety and essential performance of medical ultrasound system and monitoring equipment