



**ORCHEO XQ**

**EXTENDED**

**TECHNICAL DATA SHEET**

Unprecedented performance and versatility in a small footprint/lightweight mobile and easy to use system, The Orcheo XQ is designed for the following clinical applications: Vascular, Cardiology, Obstetrics, Gynecology, Small Parts and Superficial, Abdominal, Urological, Musculoskeletal, Breast, Pediatric and Neonatal.



<p><b><u>Dimensions</u></b></p> <ul style="list-style-type: none"> <li>➤ Depth: 83cm</li> <li>➤ Width: 57cm</li> <li>➤ Height: 141cm in average. 151cm max</li> </ul>	<p><b><u>Weight</u></b></p> <ul style="list-style-type: none"> <li>➤ 120kg approx</li> </ul>
<p><b><u>Electrical Power</u></b></p> <ul style="list-style-type: none"> <li>➤ Voltage Nominal: 220-240V</li> <li>➤ Frequency: 50/60Hz +-10%</li> <li>➤ Power Connector: European standard Type C or other</li> </ul> <p><b><u>Online UPS (optional)</u></b></p> <ul style="list-style-type: none"> <li>➤ Input Voltage 180-250V +-10%</li> <li>➤ Output Voltage 220V +-5%</li> <li>➤ Capacity: 600W</li> <li>➤ Power Connector: 2</li> </ul>	<p><b><u>Monitor</u></b></p> <ul style="list-style-type: none"> <li>➤ <b>20 inch High Resolution LCD Monitor</b></li> <li>➤ Resolution: 1,280 X 1,024</li> <li>➤ Vertical Adjustment</li> <li>➤ Adjustable Tilt</li> <li>➤ Adjustable Swivel: 360 Degrees</li> <li>➤ Viewing Angle: Left/Right: 89° Up/Down: 89°</li> <li>➤ Integrated Speaker</li> <li>➤ Contrast and Brightness Adjustment</li> <li>➤ Automatic Brightness Adjustment</li> </ul>
<p><b><u>General System Equipment</u></b></p> <ul style="list-style-type: none"> <li>➤ <b>4 ACTIVE PROBE SOCKETS/PORTS</b></li> <li>➤ 4 removable probe holders</li> <li>➤ Foot Switch to Freeze/Unfreeze the Image: Optional</li> <li>➤ 4 antistatic wheels diameter: 10cm - With integrated locking mechanism</li> <li>➤ 2 hooks for probe cable</li> <li>➤ Working surface dimensions: Maximum Depth: 80.5cm Maximum Width: 54.5cm</li> <li>➤ Footrest: Depth: 38cm Maximum Width: 27cm</li> <li>➤ Connectivity: 4 UBS 2.0 Ports allowing connection of USB drive, DVD recorder, HDMI output, Ethernet</li> <li>➤ Air Filter</li> <li>➤ Compartment for storage of liquid gel and/or tissue Depth: 30cm Width: 12.5cm</li> </ul>	<p><b><u>Control Panel</u></b></p> <ul style="list-style-type: none"> <li>➤ Control panel depth: 47.5cm</li> <li>➤ Control panel width: 39cm</li> <li>➤ <b>12.1" TOUCHSCREEN</b> Length: 17cm Width: 13cm</li> <li>➤ Backlit control panel to easily identify activated key(s)</li> <li>➤ Trackball</li> </ul>

<p><b><u>Applications:</u></b></p> <ul style="list-style-type: none"> <li>➤ Vascular</li> <li>➤ Abdominal</li> <li>➤ Obstetrics</li> <li>➤ Gynecology</li> <li>➤ Anesthesia</li> <li>➤ Urology</li> <li>➤ Small Parts and Superficial</li> <li>➤ Pediatric and Neonatal</li> <li>➤ Musculoskeletal</li> </ul> <p><b><u>Options:</u></b></p> <ul style="list-style-type: none"> <li>➤ Cardiology</li> </ul> <p><b><u>Biopsy guides:</u></b></p> <ul style="list-style-type: none"> <li>➤ Available as option on Linear probe, Convex probe and Endocavitary probe</li> </ul>	<p><b><u>Main* Probes (Electronic Multi Frequencies)</u></b></p> <ul style="list-style-type: none"> <li>➤ <u>HD Linear Array</u> Applications: Vascular, Small Parts, Breast, Pediatric, Neonatal Band Width: 08MHz ~ 17MHz Steered Angle: +/- 10° Trapezoidal Imaging</li> <li>➤ <u>Linear Array</u> Applications: Vascular, Small Parts, Breast, Pediatric, Neonatal Band Width: 05MHz ~ 10MHz Steered Angle: +/- 10° Trapezoidal Imaging</li> <li>➤ <u>Convex Array</u> Applications: Abdominal, OB/GYN, Urology, Vascular Band Width: 02MHz ~ 05MHz Scanning angle: 60°</li> <li>➤ <u>Endocavitary Array</u> Applications: OB/GYN, Urology Band Width: 04MHz ~ 09MHz Scanning angle: 148°</li> <li>➤ <u>Phased Array</u> Applications: Cardiology, Abdominal Band Width: 02MHz ~ 04MHz Scanning angle: 90°</li> <li>➤ <u>Motorized Convex 3D/4D (Mechanical)</u> Applications: OB, Urology, Abdominal, Renal Band Width: 03MHz ~ 06MHz Scanning angle: 77°</li> </ul>
<p><b><u>Imaging Modes</u></b></p> <ul style="list-style-type: none"> <li>➤ B-Mode</li> <li>➤ M-Mode, <b>Color M-Mode, Steer-M (optional)</b></li> <li>➤ Color Doppler (CFM)</li> <li>➤ Power Doppler</li> <li>➤ Directional Power Doppler</li> <li>➤ Pulse Wave Doppler (PW)</li> <li>➤ Continuous Wave Doppler (CW)</li> <li>➤ ECG</li> <li>➤ Tissue Harmonic Imaging</li> <li>➤ <b>Panoramic: Optional</b></li> <li>➤ <b>3D/4D: Optional</b> <ul style="list-style-type: none"> <li>- <b>Live 3D Mode</b></li> <li>- <b>Static 3D Mode</b></li> <li>- <b>4D Real Time</b></li> </ul> </li> </ul>	<p><b><u>Combination Modes</u></b></p> <ul style="list-style-type: none"> <li>➤ B/B Mode</li> <li>➤ B/M Mode</li> <li>➤ Dual M-Mode</li> <li>➤ Duplex Mode</li> <li>➤ <b>Triplex Mode</b></li> </ul>

<p><b><u>Storage Capacity</u></b></p> <ul style="list-style-type: none"> <li>➤ Integrated HDD: 1To (Images, Cine Loop)</li> <li>➤ CINE Memory: Sequence of up to 30 seconds each in full post processing</li> <li>➤ Archive format: JPEG, AVI, DICOM etc.</li> <li>➤ Patient Data storage and management</li> </ul>	<p><b><u>Media &amp; Peripheral devices:</u></b></p> <ul style="list-style-type: none"> <li>➤ Digital B/W printer (Thermal printing): Optional</li> <li>➤ Digital color printer (Dye sublimation thermal transfer): Optional</li> <li>➤ Laser B/W printer: Optional</li> <li>➤ Laser color printer: Optional</li> <li>➤ CD/DVD recorder</li> <li>➤ USB drive: optional</li> </ul>
<p><b><u>Software Options:</u></b></p> <ul style="list-style-type: none"> <li>➤ <b>3D/4D</b></li> <li>➤ <b>Panoramic</b></li> </ul>	<p><b><u>Operating System:</u></b></p> <ul style="list-style-type: none"> <li>➤ <b>Windows 7</b></li> </ul>
<p><b><u>Language available:</u></b></p> <ul style="list-style-type: none"> <li>➤ English</li> <li>➤ French</li> <li>➤ Russian</li> </ul>	<p><b><u>Measurement tools available</u></b></p> <ul style="list-style-type: none"> <li>➤ Distance</li> <li>➤ Circumference</li> <li>➤ Area</li> <li>➤ Angle</li> <li>➤ Volume</li> <li>➤ Velocity</li> <li>➤ Time</li> <li>➤ Heart Rate</li> <li>➤ Acceleration</li> </ul>

<b>SCANNING PARAMETERS ON REAL TIME EXAM</b>	
<p><b><u>B Mode (2D) and M Mode :</u></b></p> <ul style="list-style-type: none"> <li>➤ Acoustic Power Output</li> <li>➤ Probe Frequency</li> <li>➤ 2D Gain</li> <li>➤ Time Gain Compensation : 8 Levels</li> <li>➤ Dynamic Range</li> <li>➤ Edge Enhancement</li> <li>➤ Focus Number</li> <li>➤ Focus Position</li> <li>➤ Depth. Minimum Depth : 2cm (probe dependent). Maximum Depth : 30cm (probe dependent)</li> <li>➤ Real Time Adapting Smoothing: for image smoothing, speckle reduction and contour enhancement</li> <li>➤ Time Smooth</li> <li>➤ Continuous Zoom and Scroll</li> <li>➤ Trapezoid Mode. With linear probe only</li> <li>➤ Compound Imaging</li> <li>➤ Line Density</li> <li>➤ up to 200 frame per sec</li> <li>➤ Invert image</li> <li>➤ Turn image</li> </ul>	<p><b><u>CFM and Power Mode :</u></b></p> <ul style="list-style-type: none"> <li>➤ Acoustic Power Output</li> <li>➤ CFM Window Size</li> <li>➤ CFM Window Location</li> <li>➤ Color Gain</li> <li>➤ Pulse Repetition Frequency</li> <li>➤ Steering : With linear probe only</li> <li>➤ Color Inversion</li> <li>➤ Color Frequency</li> <li>➤ Focus Position</li> <li>➤ Wall Filter</li> <li>➤ Duplex</li> <li>➤ Triplex</li> <li>➤ Continuous Zoom and Scroll</li> <li>➤ Color Map</li> </ul>
<p><b><u>Pulse Wave Mode</u></b></p> <ul style="list-style-type: none"> <li>➤ Acoustic Power Output</li> <li>➤ PW Gate position</li> <li>➤ PW Gate Length</li> <li>➤ PW Frequency</li> <li>➤ PW Baseline Adjustment</li> <li>➤ PW steering (possibility to combine color and PW steering in triplex mode): With linear probe only</li> <li>➤ PW Inversion</li> <li>➤ PW Gain Adjustment</li> <li>➤ Wall Filter</li> <li>➤ Pulse Repetition Frequency</li> <li>➤ Duplex</li> <li>➤ Triplex</li> <li>➤ Audio Adjustment</li> <li>➤ Angle Correction</li> <li>➤ Automatic PW Doppler Optimization</li> <li>➤ Line</li> <li>➤ Auto Trace</li> </ul>	<p><b><u>3D/4D Acquisition</u></b></p> <ul style="list-style-type: none"> <li>➤ 3D High Definition Rendering</li> <li>➤ Real Time 4D Mode</li> <li>➤ 4D Depth Adjustment : Scan distance</li> <li>➤ Rotate</li> <li>➤ Continuous Zoom</li> </ul>

<b>SCANNING PARAMETERS ON POST PROCESS</b>	
<p><b><u>B Mode (2D) and M Mode :</u></b></p> <ul style="list-style-type: none"> <li>➤ <b>2D GAIN</b></li> <li>➤ Time Gain Compensation</li> <li>➤ <b>DYNAMIC RANGE</b></li> <li>➤ Edge Enhancement</li> <li>➤ Real Time Adapting Smoothing for image smoothing, speckle reduction and contour enhancement</li> <li>➤ Time Smooth</li> <li>➤ Continuous Zoom and Scroll</li> <li>➤ Automatic 2D Optimization</li> </ul>	<p><b><u>CFM and Power Mode :</u></b></p> <ul style="list-style-type: none"> <li>➤ <b>COLOR GAIN</b></li> <li>➤ Color Inversion</li> <li>➤ Wall Filter</li> <li>➤ Continuous Zoom and Scroll</li> </ul>
<p><b><u>Pulse Wave Mode/CW</u></b></p> <ul style="list-style-type: none"> <li>➤ <b>PW Baseline</b></li> <li>➤ PW Inversion</li> <li>➤ <b>PW GAIN ADJUSTMENT</b></li> <li>➤ Audio Adjustment</li> <li>➤ Wall Filter</li> <li>➤ Automatic PW Optimization</li> </ul>	<p><b><u>3D/4D Acquisition</u></b></p> <ul style="list-style-type: none"> <li>➤ 3D Rendering</li> <li>➤ <b>REAL TIME 4D MODE</b></li> <li>➤ Sectional Planes</li> <li>➤ Treshold (Opacification)</li> <li>➤ Continuous Zoom</li> </ul>
<p><b><u>Continous Wave Mode</u></b></p> <ul style="list-style-type: none"> <li>➤ <b>CW BASELINE</b></li> <li>➤ CW Inversion</li> <li>➤ <b>CW GAIN ADJUSTMENT</b></li> <li>➤ Audio Adjustment</li> </ul>	
<b>IMAGE PROCESSING AND PRESENTATION</b>	
<ul style="list-style-type: none"> <li>➤ Full digital beamformer</li> <li>➤ Number of processing channels : 4096</li> <li>➤ Displayed Image Depth : 2 – 30cm. Probe dependent</li> <li>➤ Number of transmission focus: Up to 4 combined focal points of 32 predetermined points (probe dependent)</li> <li>➤ Receiving focus: Dynamic continuous focusing</li> <li>➤ Dynamic range: 150dB</li> <li>➤ Gray scale 256 shades of gray</li> <li>➤ Multi frequency/Wideband probes</li> </ul>	<p><b><u>Cine Memory/Image Memory:</u></b></p> <ul style="list-style-type: none"> <li>➤ Cine review: Loop or frame by frame</li> <li>➤ Cine Memory: Sequences of up to 30 seconds each, more than 1500 frames</li> </ul>

<p><b><u>Certifications:</u></b></p> <ul style="list-style-type: none"> <li>➤ The medical device described above is CE marked according to EC directive 93/42, Annex 2, Article 3.</li> <li>➤ EN-ISO 9001:2000: Sonoscanner, manufacturer of the medical device described above complies with the requirements for the implementation of a quality management system</li> <li>➤ 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</li> </ul>	<p><b><u>Safety Standards:</u></b></p> <p>The products described above complies with the following safety standards:</p> <ul style="list-style-type: none"> <li>➤ EN-ISO 60601-1: General requirements for basic safety and essential performance</li> <li>➤ EN-ISO 60601-1-1: Electrical Medical Equipment</li> <li>➤ EN-ISO 60601-1-2: Electromagnetic Compatibility</li> <li>➤ EN-ISO 60601-1-4: Programmable Medical Systems</li> <li>➤ EN-ISO 60601-2-37: Particular requirements for the basic safety and essential performance of medical ultrasound system and monitoring equipment</li> </ul>
<p><b><u>Spare Parts availability:</u></b></p> <ul style="list-style-type: none"> <li>➤ More than five (5) years</li> </ul>	

Sonoscanner reserves the right to make at any time and without notice any changes in the specifications and features described hereabove.

Please contact your Sonoscanner representative for the most up-to-date information. .



