SPACELABS HEALTHCARE

Data Sheet

Qube 4.20
91390

Qube shown with 91496-C Command Module and 92516 Capnography Module (both sold separately)

Spacelabs 91390 Qube® is a compact patient monitor with a 12-inch touchscreen that is well-suited for use in high acuity neonatal, pediatric and adult care, as well as perioperative environments. Its clever design and compatibility with the Spacelabs Command Modules, Spacelabs Capnography Pod, and Exergen Temporal Artery Thermometer provide a versatile solution with a full range of measurement choices.

Qube stores up to 96 hours of trends, and features remote viewing, Alarm Watch, and three user-selectable screen formats harmonized with Xprezzon® and Qube Mini to facilitate learning and navigation. With wireless networking and two batteries, Qube supports extended transport for up to eight hours. When deployed with the Spacelabs Xhibit® Central Station and Intesys® Clinical Suite, Qube offers enterprise connectivity to your hospital EMR, ECG management systems, paging systems, and remote access solutions.

Physical Specifications

Dimensions (Height × Width × Depth)	26.2 cm × 31.5 cm × 13.2 cm (10.3 in × 12.4 in × 5.2 in)
Weight	4.1 kg (9.1 lb) with one battery, excluding module and Capnography Pod
Display type	Resistive TFT LCD
Display size	30.7 cm (12.1 in) diagonal
Display resolution	1024 × 768 pixels
Number of waveforms	Choice of 4, 6, or 8
Screen layouts	Selectable, 3
Controls	Power On/Off (side of unit) Touchscreen user interface
Indicators	
Alarms	Audible tones, visual on display, integrated alarm light
Alarm levels	High, Medium, Low
Power	AC power and battery charge status indicators
Connections	
Measurement connections	Slot for 91496 Command Modules SDLC port for 90499 two-slot module housing and Flexport® interfaces 92516 Capnography Pod interface
USB ports	4 USB ports for optional 91449 printer, bar code reader, Exergen Temporal Artery Thermometer (P/N 010-2157-00), mouse (P/N 010-1622-00), and/or language-specific keyboard
Network	LAN: Ethernet 10/100 Base T port WLAN: 802.11a/b/g/n/ac (optional)
Video interface	DVI-D for optional 94267 secondary display
Serial port	RS-232 (UART) connector for secondary display touchscreen, Patient Data Logger, or troubleshooting
Docking	Qube docking station (optional)
Alarm relay output–Nurse alert	14-pin SCSI (female) connector for alarm relay output–nurse alert. Compatible with third-party alarm devices (e.g. hospital alarm lights) that conform to the Spacelabs pinout for alarm relay. Relay contact ratings must not exceed 250 mA or 28 V AC/DC.
Mount interface	75 mm VESA mounting pattern. GCX compatible; contact Spacelabs Healthcare for mounting options.
Grounding	Equipotential terminal
Recorder	
Type	Optional integrated recorder/printer (option U) or USB connection to 91449 thermal array recorder/printer
Wave traces	2-channel
Paper width	50 mm (2 in)

Electrical Specifications

Power supply	
Power source	Battery or external AC power supply, P/N 119-0552-xx
AC input	100 to 240 VAC, 50 to 60 Hz, 3 to 1.5 A
Safety classification	60601-1: Class I, chassis connected to protective earth (hospital grade safety ground)
Mode of operation	Continuous
Start-up transients	Maximum in-rush current <35 A at 120 VAC; <70 A at 240 VAC
Battery	
Type	Rechargeable lithium-ion, P/N 146-0142-xx
Number of batteries	1 or 2
Voltage	10.8 V (7.2 Ah) each
Battery operation	Approximately 4 hours with 1 battery; approximately 8 hours with 2 batteries
Battery recharge time	1 battery: approximately 2 hours from depletion to 90% charge in normal use 2 batteries: approximately 4 hours from depletion to 90% charge in normal use
Battery life	300 cycles

Environmental Requirements

Ambient temperature	
Operating	0° to 40° C (32° to 104° F)
Storage and transport	-25° to 60°C (-13° to 140° F)
Relative humidity	
Operating, storage, transport	95% non-condensing
Altitude	
Operating	0 to 3,000 meters (0 to 9,843 feet)
Storage and transport	0 to 12,192 meters (0 to 40,000 feet)
Water ingress	Meets EN 60529 IPX1

Ordering Information

Software options	4-waveform display (04) 6-waveform display (06) 8-waveform display (08) Perioperative (D) Vital signs calculations (N) Data Shuttle (Q) Patient Data Logger (R) Full 12-lead view (V) Full bed review (W)

Hardware options	Integrated recorder/printer (U) Wireless 802.11a/b/g/n/ac (L) Second battery (Z) Battery charger, 2-battery capacity (P/N 015-0696-00) Docking station (P/N 016-0922-00) 94267-L19 secondary display, 19-inch (48.26 cm) Exergen Temporal Artery Thermometer (P/N 010-2157-00) 91449 thermal array recorder/printer 90499 module housing External alarm light (P/N 011-0246-00) For further ordering information and details on compatible accessories, please contact your Spacelabs Healthcare representative or refer to the product documentation. This product may not be approved for market release in all countries.

Documentation

This product ships with a complete set of comprehensive documentation.

For a full list of available supplies and accessories, go to https://www.spacelabshealthcare.com/supplies.

Regulatory Approvals

C SP® US	CSA certified. Meets CSA C22.2 No. 60601-1, ANSI/AAMI ES60601-1, and IEC 60601-1 for basic safety and essential performance.
CE 0123	CE marked in accordance with the Medical Device Directive 93/42/EEC.
	Does not contain hazardous substances — China
	The wireless option L 802.11a/b/g/n/ac radio transceiver of this device complies with part 15 of the FCC Rules, with RSS-247 of Industry Canada, and with the Radio Equipment Directive (2014/53/EU). Operation of the wireless option is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. The radio transceiver may only be used for Wireless Local Area Network (WLAN) operation within a medical facility. It is not intended for home or vehicle use. Changes or modifications not expressly approved by Spacelabs Healthcare will void the user's authorization to operate this equipment. To comply with the FCC's RF safety Specific Absorption Rate (SAR) requirements, the user must ensure that the monitor which contains the radiating element of the antenna is located at least 20 cm (8 in) away from a person's head or body.

Qube complies with the following standards:

Identifier	Applicable standard editions or document number/revision and description
IEC 60601-1	IEC 60601-1:2005+AMD1:2012 Medical electrical equipment – Part 1-2: General requirements for basic safety and essential performance
EN 60601-1	EN 60601-1:2006+A1:2013+A2:2021 Medical electrical equipment – Part 1-2: General requirements for basic safety and essential performance
IEC 60601-1-2	IEC 60601-1-2:2014+AMD1:2020 Medical electrical equipment – Part 1-2: General requirements for basic safety and essential performance – Collateral Standard: Electromagnetic disturbances- Ed. 4.1
EN 60601-1-2	EN 60601-1-2:2021 Medical electrical equipment – Part 1-2: General requirements for basic safety and essential performance – Collateral Standard: Electromagnetic disturbances- Ed. 4.1

Identifier	Applicable standard editions or document number/revision and description
IEC 60601-1-8	IEC 60601-1-8:2006 + AMD1:2012 Medical electrical equipment – Part 1-8: General requirements for basic safety and essential performance – Collateral standard: General requirements, tests and guidance for alarm systems in medical electrical equipment and medical electrical systems - Edition 2.1; Consolidated Reprint
EN 60601-1-8	EN 60601-1-8:2007/A2:2021 Medical electrical equipment – Part 1-8: General requirements for basic safety and essential performance – Collateral standard: General requirements, tests and guidance for alarm systems in medical electrical equipment and medical electrical systems - Edition 2.1; Consolidated Reprint
IEC 80601-2-49	IEC 80601-2-49:2018-03 Medical electrical equipment – Part 2-49: Particular requirements for the basic safety and essential performance of multifunction patient monitoring equipment
EN 80601-2-49	EN 80601-2-49:2019-10 Medical electrical equipment - Part 2-49: Particular requirements for the basic safety and essential performance of multifunction patient monitoring equipment
ISO 13485	ISO 13485:2016/AC:2018 Medical devices – Quality management systems – Requirements for regulatory purposes
EN ISO 13485	EN ISO 13485:2016/A11:2021 Medical devices – Quality management systems – Requirements for regulatory purposes
EN ISO 14971	EN ISO 14971:2019 Medical devices – Application of risk management to medical devices
IEC 60601-1-6	IEC 60601-1-6:2020 Medical electrical equipment – Part 1-6: General requirements for basic safety and essential performance – Collateral standard: Usability
EN 60601-1-6	EN 60601-1-6:2021 Medical electrical equipment – Part 1-6: General requirements for basic safety and essential performance – Collateral standard: Usability
IEC 62366-1	IEC 62366-1:2020 Medical devices – Part 1: Application of usability engineering to medical devices
IEC 62304	IEC 62304:2015 Medical device software – Software life cycle processes – Consolidated Text
EN 62304	EN 62304:2015 Medical device software – Software life cycle processes – Consolidated Text
MDCG 2019-16	Cybersecurity
ISO 15223-1	ISO 15223-1:2021 Medical devices-Symbols to be used with medical device labels, labelling and information to be supplied- Part 1: General requirements
EN ISO 15223-1	EN ISO 15223-1:2021 Medical devices-Symbols to be used with medical device labels, labelling and information to be supplied- Part 1: General requirements
ISO 20417	ISO 20417:2021 Medical devices — Information to be supplied by the manufacturer
EN ISO 20417	EN ISO 20417:2021 Medical devices — Information to be supplied by the manufacturer

We are continuously improving our products. Specifications are subject to change without notice. Product images are provided for general reference. This product may not be available for sale in all countries.

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