

Root[®] with 03[®] Regional Oximetry

Available for Adult, Pediatric, Infant, and Neonatal Applications



O3 Regional Oximetry

O3 Regional Oximetry may help clinicians monitor cerebral oxygenation in situations in which peripheral pulse oximetry alone may not be fully indicative of the oxygen in the brain.

O3 Regional Oximetry monitors the regional hemoglobin oxygen saturation of blood (rSO₂) in the cerebral region for infant, neonatal, pediatric, and adult patients.

With their flexible design, O3 sensors easily conform to and allow for ergonomic application on foreheads of all sizes.



Infant and Neonatal Application

- > 3% ARMS² trending accuracy specification
- > Patients less than 10kg



Pediatric Application

- > 5% ARMS absolute accuracy and 3% ARMS trending accuracy specifications
- > Patients between 5kg and 40kg



Adult Application

- > 4% ARMS absolute accuracy and 3% ARMS trending accuracy specifications
- > Patients greater than 40kg

Expansion with Root

The expandable, versatile, and customizable Root patient monitoring and connectivity platform allows O3 Regional Oximetry to be combined with other monitoring modalities and automatically charts patient data in electronic medical records (EMRs).

Expanded Visibility of the Brain

Root with O3 Regional Oximetry and Next Generation SedLine® Brain Function Monitoring provides a more complete picture of the brain

Root with **Next Generation SedLine brain function monitoring** helps clinicians monitor the state of the brain under anesthesia with bilateral data acquisition and processing of four leads of electroencephalogram (EEG) signals, enabling continuous assessment of both sides of the brain.



When used together on Root, SedLine and O3 provide a more complete picture of the brain on an instantly interpretable, integrated display.



Expanded Visibility of Oxygenation Status

Root with O3 Regional Oximetry and Masimo SET® Pulse Oximetry (SpO₂)

O3 is displayed with Masimo SET® pulse oximetry on Root, providing clinicians with expanded visibility of a patient's oxygenation status.



Expanded Visibility of Patient Data

Iris Gateway® for Advanced Connectivity and Interoperability

Integrate data from Root and third-party devices using Iris® ports for automated charting in EMRs.



Data from Root and connected third-party devices

Device data and alarms are automatically charted in EMRs

Expanded Visibility Through Supplemental Display

UniView™ aggregates data and alarms from multiple Masimo and third-party devices – such as patient monitors, ventilators, anesthesia machines, IV pumps and others connected through Masimo systems – on a supplemental display.

- > Integrated real-time data visualization reduces cognitive overload and promotes data sharing among multiple clinicians, helping them to spot trends and coordinate care
- > Visual alarm indicators, relayed from connected devices, help care teams recognize patient distress and target areas for clinical focus
- > Tailored use-case-specific screen layouts optimize the presentation of advanced and integrated parameters, trend data, and waveforms in critical care areas
- > Adaptable layout automatically reconfigures based on connected devices



Kite® expands visibility by providing a supplemental display of patient data from Root, with the ability to customize the layout differently from Root.

By allowing customization of what can be displayed, Kite allows clinicians to focus on the most pertinent data for each stage of a patient's journey, empowering them to make more informed decisions.

With Kite, all clinicians in the OR can view brain monitoring information instantly, simultaneously.

O3 Module Specifications

PHYSICAL CHARACTERISTICS

Length (including cable)	12.1 ft (3.7 m)
Width	1.8 in (4.6 cm)
Thickness	0.6 in (1.5 cm)
Weight	7.1 oz max (200 g max)

ENVIRONMENTAL

Operational Temperature	32 to 104° F (0 to 40° C)
Storage Temperature	-40 to 158° F (-40 to 70° C)
Operating and Storage Humidity	10 to 95%, non-condensing
Altitude	Up to 12,000 ft (3700 m)

O3 Sensor Specifications

Application Site	Forehead
Wavelengths	4
Adult rSO₂ Sensor Accuracy (ARMS)¹	≥40 kg
Absolute Regional Oxygen Saturation (rSO ₂)	4%
Trending Regional Oxygen Saturation (rSO ₂)	3%
Pediatric rSO₂ Sensor Accuracy (ARMS)²	≥5 kg and <40 kg
Absolute Regional Oxygen Saturation (rSO ₂)	5%
Trending Regional Oxygen Saturation (rSO ₂)	3%
Neonatal rSO₂ Sensor Accuracy (ARMS)²	<10 kg
Trending Regional Oxygen Saturation (rSO ₂)	3%

ENVIRONMENTAL

Operating Temperature at Ambient Humidity	41 to 104° F (5 to 40° C)
Storage Temperature at Ambient Humidity	-40 to 140° F (-40 to 60° C)
Storage Humidity	15% to 90%, 86 to 140° F (30 to 60° C)

SedLine Module Specifications

PHYSICAL CHARACTERISTICS

Module Physical Dimensions

Width	1.3 in (3.3 cm)
Length	4.0 in (10.2 cm)
Thickness	0.8 in (2.0 cm)

ENVIRONMENTAL

Module Operating Conditions

Operating Temperature	41-104°F (5-40°C)
Operational Humidity	15-95%, non-condensing

Module Storage Conditions

Storage Temperature	-40-158°F (-40-70°C)
Storage Humidity	15-95%, non-condensing
Exposure to Pressure	500-1060 mbar

SedLine Sensor Specifications

Application Site	Forehead
Active Channels	4
Active Electrodes	L1, L2, R1, and R2

Ground Electrode	CB
Reference Electrode	CT
Duration of Use	Maximum of 24 hours
Latex Content	Does not contain natural rubber latex
Adult SedLine EEG Sensor	>18 years

Root Specifications

ELECTRICAL

Root	
AC Power Requirements	100-240 VAC, 47-63 Hz
Power Consumption	65W (Max)
Fuses Each With	2 Amp, Fast Acting, Metric, (5x20mm), 250V
Battery	
Type	10.8V Lithium Ion (Nominal)
Capacity	4 Hours ²
Maximum Charging Time	4 Hours

ENVIRONMENTAL

Operating Temperature	32°F to 122°F (0°C to 50°C)
Transport/Storage Temperature	-40°F to 158°F (-40°C to 70°C)
Operating Humidity	10% to 95%, Non-Condensing
Storage Humidity	10% to 95%, Non-Condensing
Operating Altitude	500 mbar to 1060 mbar -1,000 ft to 18,000 ft (-304 m to 5,486 m)

PHYSICAL CHARACTERISTICS

Weight	<8 lbs (3.63 kg)
Dimension	11 in x 10.5 in x 5.5 in (27.94 cm x 26.67 cm x 13.97 cm)
Display	
Type	Backlit Active Matrix TFT LCD
Resolution	1280 x 800 Pixels
Color	24 bit RGB
Size	10.1 in (25.65 cm) Diagonal
Touchscreen	
Type	Multi-Touch P-Cap

CONNECTIONS

Connector	Type (Number of Ports)
Nurse Call	1/4-in Round Female (1)
MOC-9	Masimo Connector (3)
USB	USB 2.0 (2)

¹ ARMS accuracy is a statistical calculation of the difference between device measurements and reference measurements. Approximately two-thirds of the device measurements fell within \pm ARMS of the reference measurements in a controlled study. ² This represents approximate run time at the lowest indicator brightness, using a fully charged battery.

Caution: Federal (USA) law restricts this device to sale by or on the order of a physician. See instructions for use for full prescribing information, including indications, contraindications, warnings, and precautions.

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