

# Root<sup>®</sup> with 03<sup>®</sup> 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 (rSO<sub>2</sub>) 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.



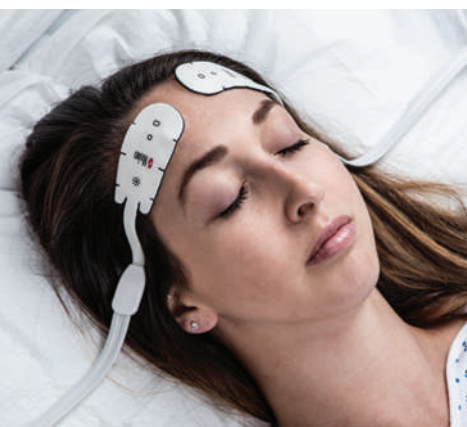
## Infant and Neonatal Application

- > 3% ARMS<sup>2</sup> 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.

**Patient State Index, PSi**, a processed EEG parameter related to the effect of anesthetic agents

**Density Spectral Array (DSA)** display contains left and right spectrograms representing the power of the EEG on both sides of the brain

**rSO<sub>2</sub>** provides tissue oxygen saturation



### Expanded Visibility of Oxygenation Status

Root with O3 Regional Oximetry and Masimo SET® Pulse Oximetry (SpO<sub>2</sub>)

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	ENVIRONMENTAL
Length (including cable) . . . . . 12.1 ft (3.7 m)	Operational Temperature . . . . . 32 to 104° F (0 to 40° C)
Width . . . . . 1.8 in (4.6 cm)	Storage Temperature . . . . . -40 to 158° F (-40 to 70° C)
Thickness . . . . . 0.6 in (1.5 cm)	Operating and Storage Humidity . . . . . 10 to 95%, non-condensing
Weight . . . . . 7.1 oz max (200 g max)	Altitude . . . . . Up to 12,000 ft (3700 m)

## O3 Sensor Specifications

PHYSICAL CHARACTERISTICS	ENVIRONMENTAL
Application Site . . . . . Forehead	Operating Temperature at Ambient Humidity . . . . . 41 to 104° F (5 to 40° C)
Wavelengths . . . . . 4	Storage Temperature at Ambient Humidity . . . . . -40 to 140° F (-40 to 60° C)
<b>Adult rSO<sub>2</sub> Sensor Accuracy (ARMS)<sup>1</sup></b> . . . . . ≥40 kg	Storage Humidity . . . . . 15% to 90%, 86 to 140° F (30 to 60° C)
Absolute Regional Oxygen Saturation (rSO <sub>2</sub> ) . . . . . 4%	
Trending Regional Oxygen Saturation (rSO <sub>2</sub> ) . . . . . 3%	
<b>Pediatric rSO<sub>2</sub> Sensor Accuracy (ARMS)<sup>2</sup></b> . . . . . ≥5 kg and <40 kg	
Absolute Regional Oxygen Saturation (rSO <sub>2</sub> ) . . . . . 5%	
Trending Regional Oxygen Saturation (rSO <sub>2</sub> ) . . . . . 3%	
<b>Neonatal rSO<sub>2</sub> Sensor Accuracy (ARMS)<sup>2</sup></b> . . . . . <10 kg	
Trending Regional Oxygen Saturation (rSO <sub>2</sub> ) . . . . . 3%	

## SedLine Module Specifications

PHYSICAL CHARACTERISTICS	ENVIRONMENTAL
<b>Module Physical Dimensions</b>	<b>Module Operating Conditions</b>
Width . . . . . 1.3 in (3.3 cm)	Operating Temperature . . . . . 41-104°F (5-40°C)
Length . . . . . 4.0 in (10.2 cm)	Operational Humidity . . . . . 15-95%, non-condensing
Thickness . . . . . 0.8 in (2.0 cm)	
	<b>Module Storage Conditions</b>
	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	Ground Electrode . . . . . CB
Active Channels . . . . . 4	Reference Electrode . . . . . CT
Active Electrodes . . . . . L1, L2, R1, and R2	Duration of Use . . . . . Maximum of 24 hours
	Latex Content . . . . . Does not contain natural rubber latex
	Adult SedLine EEG Sensor . . . . . >18 years

## Root Specifications

ELECTRICAL	PHYSICAL CHARACTERISTICS
<b>Root</b>	Weight . . . . . <8 lbs (3.63 kg)
AC Power Requirements . . . . . 100-240 VAC, 47-63 Hz	Dimension 11 in x 10.5 in x 5.5 in (27.94 cm x 26.67 cm x 13.97 cm)
Power Consumption . . . . . 65W (Max)	<b>Display</b>
Fuses Each With . . . . . 2 Amp, Fast Acting, Metric, (5x20mm), 250V	Type . . . . . Backlit Active Matrix TFT LCD
<b>Battery</b>	Resolution . . . . . 1280 x 800 Pixels
Type . . . . . 10.8V Lithium Ion (Nominal)	Color . . . . . 24 bit RGB
Capacity . . . . . 4 Hours <sup>2</sup>	Size . . . . . 10.1 in (25.65 cm) Diagonal
Maximum Charging Time . . . . . 4 Hours	<b>Touchscreen</b>
	Type . . . . . Multi-Touch P-Cap
<b>ENVIRONMENTAL</b>	<b>CONNECTIONS</b>
Operating Temperature . . . . . 32°F to 122°F (0°C to 50°C)	<b>Connector</b> . . . . . <b>Type (Number of Ports)</b>
Transport/Storage Temperature . . . . . -40°F to 158°F (-40°C to 70°C)	Nurse Call . . . . . 1/4-in Round Female (1)
Operating Humidity . . . . . 10% to 95%, Non-Condensing	MOC-9 . . . . . Masimo Connector (3)
Storage Humidity . . . . . 10% to 95%, Non-Condensing	USB . . . . . USB 2.0 (2)
Operating Altitude . . . . . 500 mbar to 1060 mbar -1,000 ft to 18,000 ft (-304 m to 5,486 m)	

<sup>1</sup> ARMS accuracy is a statistical calculation of the difference between device measurements and reference measurements. Approximately two-thirds of the device measurements fell within ± ARMS of the reference measurements in a controlled study. <sup>2</sup> 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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