

## OMx OPTICAL MONITOR PRODUCT FAMILY

### Introducing the OMx Optical Monitor Family

To meet today's optical network management and fiber-optic test and measurement challenges, AXSUN Technologies offers the industry's most comprehensive range of optical monitor products.

### Family Description

AXSUN's OMx product family provides highly accurate optical power, frequency and signal-to-noise ratio measurement in the C or L band, and reports the data over a serial RS-232 or dual port RAM interface.

### OMx starts with reliability.

Based on AXSUN Technologies' automated manufacturing process, the OMx product family incorporates AXSUN's reliable MEMS tunable filter, micro-optics, and LIGA micro-alignment structures in an epoxy-free system that is fully qualified to stringent Telcordia requirements (GR-63-CORE and GR-468-CORE).

### OMx provides the most advanced features.

The OMx scanning architecture adds support for 25GHz channel spacing, and scaling to support more than 1000 channels with sub-second scans. With its high spectral resolution, flexible signal processing capability and TruSpectrum scan enhancement capability, your OMx can be used for OSNR monitoring and analysis across a wide range of modulation formats and transmission data rates, to adapt to your changing network monitoring needs. The flexibility of the OMx family also extends to fiber-optic sensor applications enabling you to optimize the performance of fiber-optic interrogators, while significantly reducing the size, power consumption and cost of the instrument.

### OMx means innovation and flexibility.

Some OMx models provide instrument-class measurement capabilities so small, that they can be embedded in an optical network element. With its single 3.3V power supply architecture, the OMx simplifies integration, and reduces overall power consumption. The product evaluation kit includes OMxLiveLink software, to get your OMx up and collecting data in a matter of minutes.

### OMx -- Today's Best Optical Monitoring Products



#### Product Features & Benefits

- Fully Telcordia Qualified
- $\pm 0.5\text{dB}$  Power Accuracy
- 25dB OSNR Measurement
- 30dB OSNR Dynamic Range
- $\pm 8\text{GHz}$  Frequency Accuracy
- Full C or L Band Operation
- Supports 25, 50, 100GHz Spacing
- 50dB Input Power Dynamic Range
- Smallest 50GHz Monitor Available
- -5 to 70°C Operating Temperature
- Flexible RS-232 and High Speed DPRAM Interface
- High Spectral Resolution (25,000 points)
- Flexible sensor interface capability
- $\pm 10\text{ pm}$  Sensor Wavelength Accuracy

#### Applications

- EDFA Gain Tilt Control
- Spectral Power Balancing
- Advanced Modulation Analysis
- OSNR Monitoring and Analysis
- Wavelength Routing and Path Provisioning
- Fiber-optic sensing for pressure, temperature, stress or strain

## PERFORMANCE SPECIFICATIONS FOR OMx PRODUCTS

Parameter	OM2 <sup>4</sup> /OM3		OM3-INT		Units
	Min	Max	Min	Max	
Operating Temperature	-5	70	-5	50	°C
Supply Voltage (nominal = 3.3V)	3.15	3.45	3.15	3.45	Vdc
Supply Current (max at 70°C)				2.0	A
Operating Frequency/Wavelength <sup>1</sup> C Band	196.3 1527	191.55 1565	196.4 1526	191.4 1566	THz nm
L Band	190.9 1570	186.2 1610	NA	NA	THz nm
Absolute Power Accuracy <sup>2</sup>		±0.5		NA	dB
Relative Power Accuracy		±0.25		NA	dB
Power Repeatability		±0.1		NA	dB
Power Readout Resolution		0.1		0.1	dBm
Absolute Frequency Accuracy <sup>5</sup>		±8.0 ±64		±1.25 ±10	GHz pm
Relative Frequency Accuracy		±4.5 ±36		NA	GHz pm
Frequency Repeatability		±1		±0.5	GHz
Frequency Readout Resolution		1 8		0.25 2	GHz pm
OSNR magnitude (50GHz spacing)		25		NA	dB
OSNR magnitude (100GHz spacing)		28			dB
OSNR Repeatability		±0.75		NA	dB
Per Channel Power Range	-40	-7	-45	-10	dBm
Optical Return Loss		30		NA	dB
Scan and Report Time <sup>3</sup>	0.5	1.0	0.5	1.0	sec
Mechanical Dimensions (OM3, -INT)	106 x 70 x 15 mm				
Mechanical Dimensions (OM2)	220 x 110 x 25.7 mm				

- Other frequency ranges available upon request.
- Excluding random connector mating loss.
- Scan and report time is determined from the format of information requested, i.e. peak information only or full raw spectral data.
- The OM2 is a mechanical and electrical drop-in replacement for several existing industry DPRAM monitoring products.
- Frequency accuracy for the OM2/3 is guaranteed for 20 year EOL. The wavelength accuracy for the OM3-INT is dependent on the exact sensor type and configuration and is based on a periodic calibration cycle

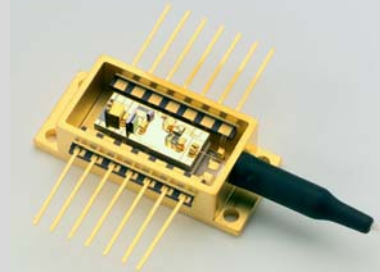
US Patent Numbers    5,807,622    5,618,474    6,373,632    6,341,039    6,416,937  
                                  6,385,382    6,404,567    6,420, 206    6,509,972

Other Patents Pending

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