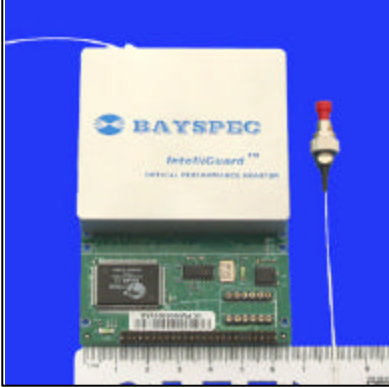




Enlightening Fiber Optic Networks

## IntelliGuard™ 100 GHz Single-Band Optical Channel Performance Monitor



BaySpec's **IntelliGuard™** Optical Channel Performance Monitor (OCPM) is an integrated spectrometer module that embraces the essential functions of optical channel monitor (OCM), optical performance monitor (OPM), optical wavelength meter, optical power meter, and spectral analyzer, providing rapid channel identification, and non-invasive wavelength, power and OSNR measurements. BaySpec is offering the world-smallest OCPMs using high-resolution volume phase grating (VPG®) technology and high-efficient InGaAs array detector, providing more flexibility for system integration. The **IntelliGuard™** OCPM presently supports 50 & 100 GHz systems with channel numbers ranging from 40 to 160 over both C- and L-band.

### Specifications

Parameter	Unit	Data
Wavelength Range	nm	1528 - 1570 (C-Band) or 1570 - 1605 (L-Band)
Channel Number	-	40
Channel Spacing	GHz	100 (ITU Grid)
Wavelength Accuracy	pm	± 15
Dynamic Range	dB	60
Channel Input Power Range	dBm	- 55 to -25
Channel Power Accuracy	dB	± 0.5
Channel Power Repeatability	dB	± 0.2
Power Resolution	dB	0.1
Polarization Dependence Loss	dB	< 0.3
Noise Floor	dBm	- 80
Peak to Valley	dB	25
OSNR	dB	30
OSNR Accuracy	dB	± 1.5
Response Time	ms	< 20
Spectral Engine	-	Proprietary stigmatic spectrograph
Detector	-	256-element InGaAs detector array
Operating Temperature	°C	- 5 to 70
Storage Temperature	°C	- 40 to 85
Optical Connectors	-	Customer specify
Electronics Interface	-	Customer specify
Dimension (Optics)	mm	60 × 68 × 15
Weight	g	< 200

### Notes:

1. The channel power repeatability is measured for 24 hours.
2. 512-element InGaAs detector array is available for higher resolution.
3. The optical system does not require the active temperature control.

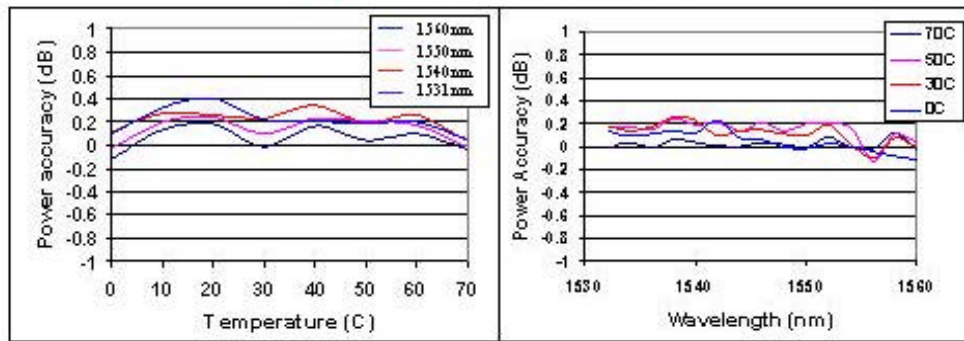
### Applications:

- Real-time optical performance monitoring of DWDM networks
- Optical add/drop monitoring and diagnostics
- Remote gain equalization of DWDM systems based on optical power or OSNR
- Transmission laser wavelength locking
- Real-time system error warning and alarming
- EDFA gain balancing

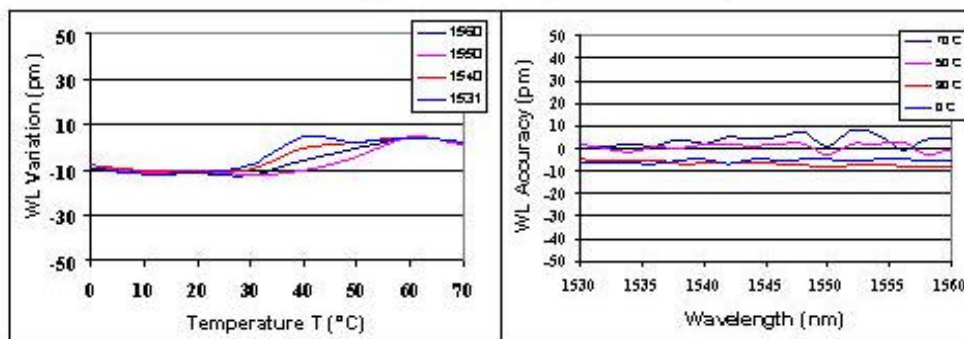
### Features:

- High-resolution VPG<sup>®</sup> spectral element
- High-efficient 256- or 512-element InGaAs array detector
- Without moving parts
- High sensitivity
- High dynamic range
- Ultra-compact, robust, and lightweight package
- Athermalized design
- Telcordia GR-1209/1221 standards

### Power Accuracy and Stability



### Wavelength Accuracy and Stability



### About BaySpec, Inc.

BaySpec, Inc., founded in 1999, designs, manufactures and markets fiber-optic components and modules for the optical networking industry. Utilizing our patented Volume Phase Grating (VPG<sup>®</sup>) technologies, BaySpec has developed a new generation of optical networking products that provide cost and performance benefits for enterprise, metro- and long-haul applications. These products, available in volume, include the Chromatica<sup>®</sup> family of WDM Mux/Demux modules, IntelliGuard<sup>™</sup> Optical Channel Performance Monitors, the IntelliGain<sup>®</sup> and IntensiGain<sup>™</sup> family of small form-factor EDFAs, and CoupleX<sup>™</sup> fusion fiber products.

Visit our web site at [www.bayspec.com](http://www.bayspec.com) for more information.

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