# Optical Channel Performance Monitor

## *IntelliGuard® OCPM Wideband Series*



**BaySpec's OCPM-W Series optical wideband power monitor is an embedded, integrated power analyzer delivering precise measurements and powerful processing capabilities over a wide wavelength range (1230-1670nm).**

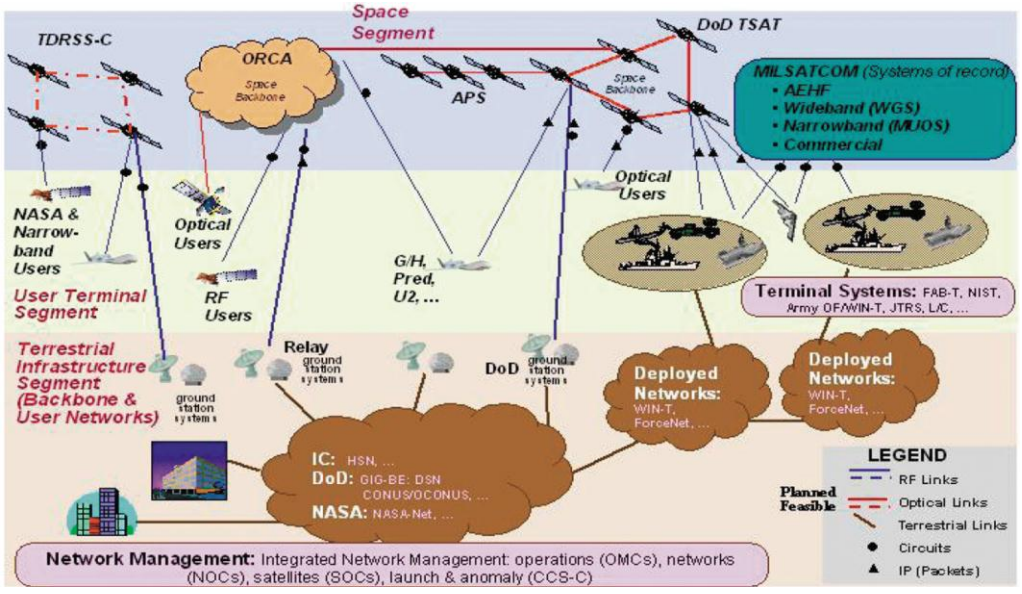
The device covers S, C and L band wavelength ranges and provides simultaneous measurements at coarse WDM and dense WDM wavelength power levels. High reliability (GR-63/1209/1221 qualified) and fully compliant to MIL STD 810 achieved through a rugged mechanical design with no moving parts. Periodic calibration is not required. Input/Output (I/O) is provided through a dual port RAM interface accessed through ADD/DAT bus direct connection or serial (RS232 or USB) communications.



The OCPM-W Series employs a highly efficient *Volume Phase Grating* (VPG®) as the spectral dispersion element and an ultra-sensitive InGaAs array detector as the detection element, thereby providing high-speed parallel processing and continuous spectrum measurements. As an input, the device uses a tapped signal from the main data transmission link through a single mode fiber, then collimating it with a micro lens. The signal is spectrally dispersed with the VPG®, and the diffracted field is focused onto an InGaAs array detector. The control electronics read out the processed digital signal to extract required information. Both the raw data and the processed data are available to the host.

### Key Features:

- Real-time optical power monitoring over wide wavelength range
- Fast sub 1 ms response time for raw data
- High dynamic range - 50 dB
- High reliability - no moving parts and GR-63/1209/1221 qualified and compliant with MIL STD 810
- Athermal design for ultra-low power consumption
- Compact, card-mountable design
- Deep cooling for ultra-low noise floor available upon request




### Applications:

- Military/Defense applications non-ITU grid
- Physical layer monitoring for provisioning and commissioning optical networks
- Real time fault detection and isolation in DWDM systems
- EDFA gain balancing
- Wideband channel power
- Wavelength upgradeable
- OEM module for field test equipment

### Compliance

- Telcordia GR-63/ 1209/1221 qualified
- MIL STD 810

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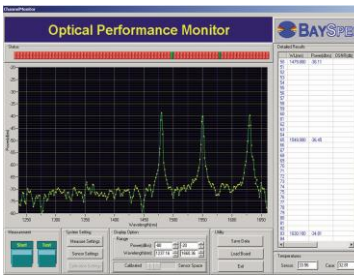
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| Parameter | Data | Unit |
|---|---|---|
| Wavelength Range<br>Coarse<br>Fine | <br>1230 - 1670<br>1525 - 1570 | <br>nm<br>nm |
| Channel Input Power Range | -65 to –15 | dBm |
| Power Resolution | 0.1 | dB |
| PDL | 0.3 | dB |
| Response Time | <50 for processed data<br>(<1 raw data only) | ms |
| Size | 202 x 90 x 24 (shown) | $mm^3$ |
| Interface | USB, RS-232 | |
| Weight | <900 | g |
| Operation Temperature | -5 to -70 | |
| Power Consumption<br>Off State<br>Idle State<br>Reconfiguring | <br>0<br><50 mW<br><10 W | <br><br><br>max. |

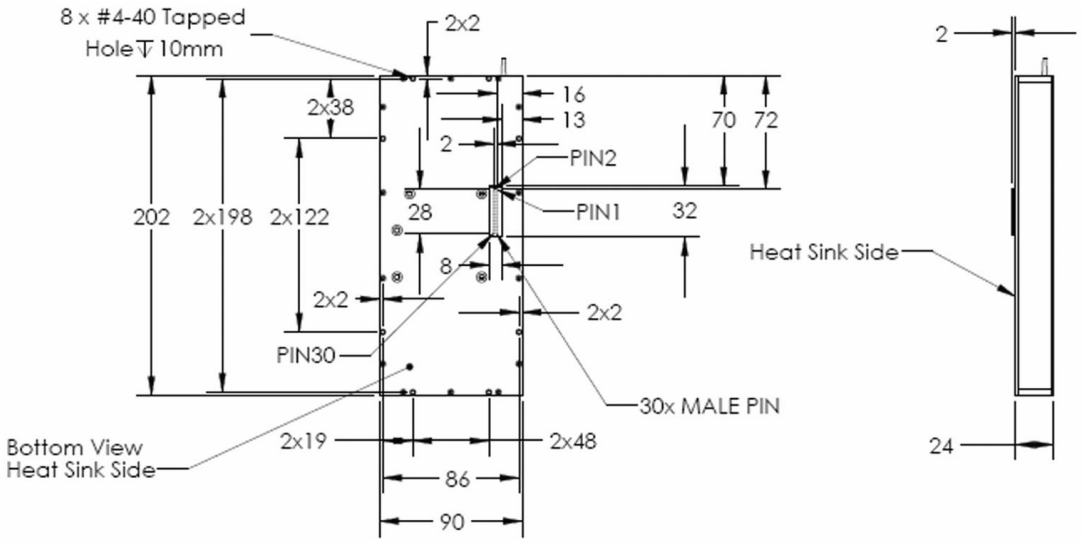
*Subject to Change, Depending on specifications

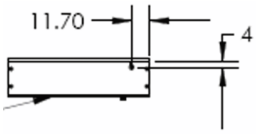
***Sense 2020 Software***




BaySpec's *Sense 2020* software included, a Windows-based package with flexible data acquisition, processing and output functionality

BaySpec SDK, a software development kit for new applications development and integration into to your host software systems.




**Part Number Selection:**

**OCPM-** □□□□ **-** □□□□ **-** □□

| Code | Starting Wavelength |
|---|---|
| | Please specify the starting wavelength i.e. : |
| 1230 | 1230 nm |

| Code | Ending Wavelength |
|---|---|
| | Please specify the ending wavelength i.e. : |
| 1670 | 1670 nm |

| Code | Connector Type |
|---|---|
| NC | No connector |
| FA | FC/APC |
| FP | FC/PC |
| SA | SA/APC |
| SP | SA/PC |
| LA | LC/APC |
| LP | LC/PC |
| XY | TBD |

Note: standard fiber length is 1.0m




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