

- ✓ *Multi-service optical interface for universal service provisioning*
- ✓ *Protocol independent, enabling efficient delivery and installation of services*
- ✓ *Multi-rate optical interface, supporting OC-3/STM-1, OC-12/STM-4, OC-48/STM-16, Fibre Channel (1.06 Gbps and 2.1 Gbps), and Gigabit Ethernet, for a wide range of applications*
- ✓ *Full 3R (reshaping, regeneration, retiming) capability for reliable transport of services*
- ✓ *Remote provisioning and management, eliminating expensive truck rolls*
- ✓ *Non-intrusive In-Wavelength Management (IWM) of remote modules, eliminating the expense and complexity of a dedicated optical supervisory channel*

CWDM/DWDM optical transponder

The Optical Channel Module (OCM), the GigaMux multi-service transport interface, enables service providers to efficiently deliver a mix of services, supporting a wide range of applications employed by enterprise customers. Based on Sorrento's intelligent optical layer technology, the OCM is designed to operate at the native physical layer, increasing the speed and flexibility of service provisioning; making the deployment of new hardware for delivery of different services unnecessary. An OC-3/STM-1 service delivered to a customer site can rapidly be changed to a native GbE or Fibre Channel service through a simple remote configuration command. The same OCM can deliver OC-12/STM-4 or OC-48/STM-16.

The OCM supports a variety of CPE optical interfaces such as OC-3/STM-1, OC-12/STM-4, OC-48/STM-16, Fibre Channel (1.06 Gbps and 2.1 Gbps), and Gigabit Ethernet. Through the OCM's multirate architecture, users can rapidly change the rate of the application interface through a single management command executed at the local OCM. The corresponding remote OCM will then be automatically configured to the same rate through Sorrento's non-intrusive In-Wavelength Management (IWM) channel.

The OCM resides in any of the GigaMux enclosures GM 1608, GM 3217 and GM 3234. It terminates the CPE optical interface and transports it onto a single wavelength. Intermediate and long-reach options enable cost-effective service deployment from access POPs to customer sites. With the scalability of the GigaMux's optical access service architecture, service providers can expand the capacity of their service delivery by providing a multi-service mix of applications over the fiber infrastructure. The OCMs deliver each of the services, which are then multiplexed together through the GigaMux's WDM modules.

The OCM is also designed for use with corresponding Fixed Add-Drop Multiplexer Modules (FADM) or MD100 series filters, allowing the add-drop of a wavelength at one or more particular locations in a multidrop topology. The OCM provides WDM operation up to 16 channels in a 200ghz spaced configuration or 40 channels in a 100ghz configuration, increasing capacity and providing a multi-service mix on the same fiber.

The OCM can be easily managed via the command line interface, the WavCommand, or through remote network management via WavBrowser or the Sorrento Management System (ZMS). The GigaMux Management Processor Module (MPM) directly manages the local and remote OCMs and performs remote download of software, which reduces maintenance costs and greatly simplifies network upgrades.

Technical Specifications

Dimensions

- Dimensions 4" H x .8" W x 8.25" D
- (100 mm x 20 mm x 210 mm)

Interfaces

- LC/UPC based line-side interface
- SC/UPC based client-side interface

Standards Support

- Gigabit Ethernet—
- Type 1000Base-FX
- Standard IEEE 802.3z/D5
- Transparent, full-duplex with 1.25 Gbps throughout
- SONET/SDH—
- Type OC-3/STM-1, OC-12/STM-4, OC-48/STM-16
- Standard GR253-Core SONET transport
- Configuration Transparent, line rates of 155 Mbps, 622 Mbps, 2.48 Gbps
- Fibre Channel—
- Standard ANSI X3.230 - 1994
- Transparent, line rate of 1.06 Gbps, 2.1 Gbps

Protocol Support

- OCM-ITU Long Range
- Launch power (Min): 0 dBm
- Launch power (Max): 1 dBm
- Receive power (Max): -7 dBm
- Receive Power (Min): -27dBm
- Link Budget 25 dB
- Dispersion tolerance: 1800 ps/nm
- OCM-ITU Extended Range
- Launch power (Min): 0 dBm
- Launch power (Max): 2 dBm
- Receive power (Max): -7 dBm
- Receive Power (Min): -27dBm
- Link Budget 23.5 dB
- Dispersion tolerance: 4500 ps/nm
- Note: Link budget information includes dispersion penalty at maximum distance

Regulatory Compliance

- (When properly installed in a GigaMux Chassis)
- CE (GM 3234/3217/1608)
- Telcordia NEBS Level 3 Compliant (GM 3234/3217)
- OSMINE TIRKS and NMA
- Safety UL 1950, 3rd Edition
- IEC 60950, 3rd Edition (according to CB Scheme)
- EMC FCC Part 15 Class A (USA)
- EN 55022 Class A (Europe)
- GM 3234/3217
- EN 55022 Class B (Europe)
- GM 1608/1602
- VCCI Class A (Japan)
- EN61000-3-2/3
- Harmonics/Flicker
- Immunity EN61000-4-2/3/4/5/6/11
- ESD/EI/EFT/Surge/LFCI/VDS
- ENV50140-RI
- Telecom FCC Part 68 (USA)



Sorrento Networks, Inc.
+1 510.577.1499 phone
www.sorrentonet.com

For more information visit www.sorrentonet.com or e-mail info@sorrentonet.com.

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