

IOAP-MOD

9189



FEATURES

- Zero-chirp or fixed-chirp versions available for optimum link design
- Wide optical bandwidth for use in C & L-band EDFA DWDM links
- True hermetic, qualified to Telcordia™ GR-468-CORE
- Separate DC bias electrode for long-term stability & reliability
- Low drive voltage for ease of use with wide range of commercially available drivers
- High modulator on/off extinction ratio
- Continuously tunable attenuation

APPLICATIONS

- Ideal for OC192 C-band & L-band DWDM applications

OC192 integrated 10 Gb/s amplitude modulator and attenuator

As part of the commitment to meet the needs of our customers, SDL is introducing this new product which has been developed to provide intrinsic attenuation flexibility for multi channel systems.

The integrated 10Gb/s amplitude modulator and attenuator employs

an integrated attenuator which allows the pre-emphasis of all ITU wavelengths in a DWDM optical link.

Supplied in a hermetic package and qualified to Telcordia™ GR-468-CORE, this product ensures high reliability and performance at all times.

Electro-Optical Performance

Parameter	Min	Value Typ	Max	Units
Optical				
Operating Wavelength	1525	-	1605	nm
Insertion Loss (end of life)	4.0	5.0	7.0	dB
Modulator On/Off Extinction Ratio (DC)	20	-	-	dB
Attenuation Range	20	-	-	dB
Optical Return Loss	-	-	-45	dB

Electrical**RF Port**

Chirp	-	0 ±0.2	-	see note 1
S11 Return Loss				
0.13 - 3 GHz	-	-	-14	dB
3 - 9 GHz	-	-	-10	dB
9 - 15 GHz	-	-	-6	dB
S21 Electro-Optical Bandwidth (-3 dBe)	8.0	9.0	-	
V _{pi} (at 10 Gb/s PRBS into 50Ω)	4.9	-	6.1	V
Extinction Ratio (at 10 Gb/s PRBS)	12.0	14.0	-	dB
Rise/Fall Time (10%/90%)	-	35	45	ps

Bias Port

V _{pi} (DC)	3.2	-	5.8	V
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Attenuator Port

V _{pi} (DC)	4.7	-	8.4	V
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Parameter	Specification
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Fiber

Input	Fujikura SM-15-P-8/125-UV/UV-400
Output	Corning SMF-28

Packaging (details available upon request)

RF Connection	Anritsu K-Connector ²
Attenuator, DC Bias, Ground Pins	DC feedthroughs

Environmental

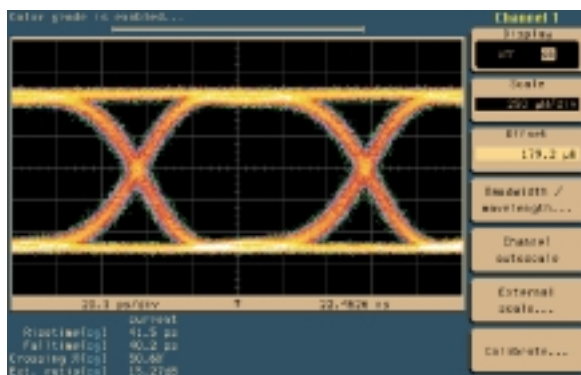
Qualification & Reliability	True hermetic to GR-468-CORE
Operating Temperature	0°C to +70°C
Storage Temperature	-40°C to +80°C

Notes

1. Other chirp values are available on a custom basis.
2. K is a trademark of the Anritsu Corporation.
3. Contact SDL for details of a compatible range of digital drivers.

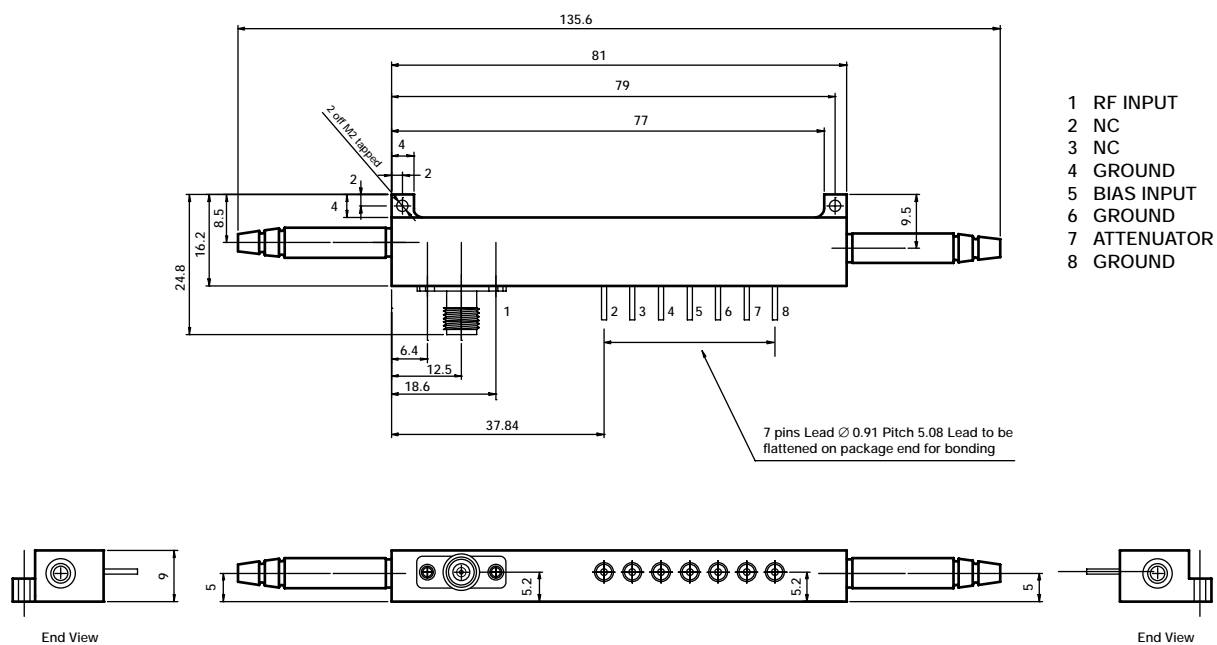
Performance

Eye Diagram



Outline Drawing

Dimensions in millimeters except where indicated



Ordering Information

Part Numbers & Options

IOAP-MOD-9189-N-M-P

Defines Output Tap Coupler Option

0 = No coupler (supplied as standard)

1 = 1% tap coupler (available to special order at additional cost)

Defines Output Connector Type

F = FC/PC connector (supplied as standard, at no additional cost)

B = Bare Fiber (available to special order at no additional cost)

Defines Input Connector Type

F = FC/PC connector (supplied as standard, at no additional cost)

B = Bare Fiber (available to special order at no additional cost)

Default part number is IOAP-MOD9189-F-F-0 (modulators)



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