

IOAP-MOD

9140 SERIES



FEATURES

- Zero-chirp versions for optimum link design
- 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 on/off extinction ratio
- Polarization maintaining fiber version available on output for RZ modulation schemes

APPLICATIONS

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

OC192 10 Gb/s Amplitude Modulator

The 10Gb/s modulator has been designed specifically to exceed the requirements of OC192. Supplied in a hermetic package, qualified to Telcordia™

GR-468-CORE, this product assures high reliability and performance at all times.



Electro-Optical Performance

Parameter	Min	Value Typ	Max	Units
Optical				
Operating Wavelength	1525	-	1605	nm
Insertion Loss	3.0	3.5	5.5	dB
On/off Extinction Ratio (DC)	20	-	-	dB
Optical Return Loss	-	-	-45	dB
Electrical				
RF Port				
Chirp	-	0 ±0.2	-	see note 1
S11 Return Loss				
0.13 GHz - 3 GHz	-	-	-14	dB
3 GHz - 9 GHz	-	-	-10	dB
9 GHz - 15 GHz	-	-	-6	dB
S21 Electro-Optic Bandwidth (-3 dBe)	8.0	-	9.0	
V _{pi} (at 10Gb/s PRBS into 50Ω)	4.9	-	6.1	V
Extinction Ratio (at 10Gb/s PRBS)	12.0	14.0	-	dB
Rise/Fall Time (10%/90%)	-	35	45	ps

Parameter	Specification
Fiber	
Input	Fujikura SM-15-P-8/125-UV/UV-400
Output	Corning SMF-28 or Fujikura SM-15-P-8/125-UV/UV-400

Packaging (details available upon request)

RF Connection	Anritsu K-Connector ²
DC Ground Pins	DC feedthroughs

Environmental

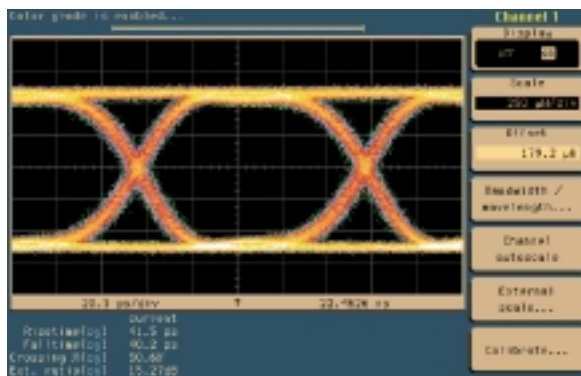
Qualification & Reliability	True hermetic to GR-468-CORE
Operating Temperature	0°C to +70°C
Storage Temperature	-40°C to +80°C

Notes

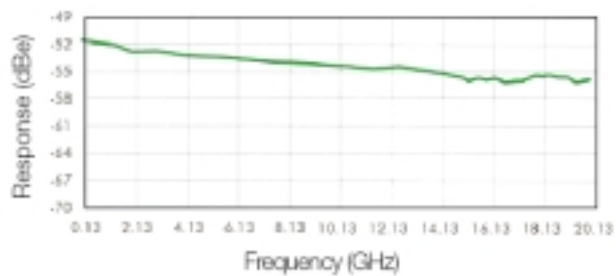
1. Other chirp values are available on a custom basis.
2. K is a trademark of the Anritsu Corporation
3. Contact SDL for details of a compatible range of digital drivers.

Performance

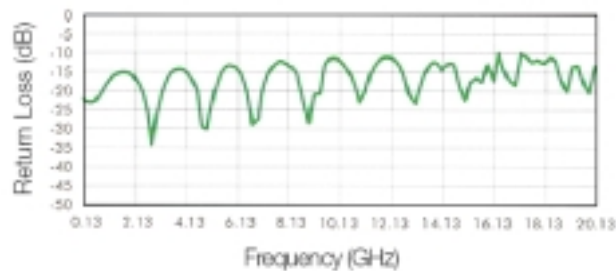
Eye Diagram



Frequency Response (S21)

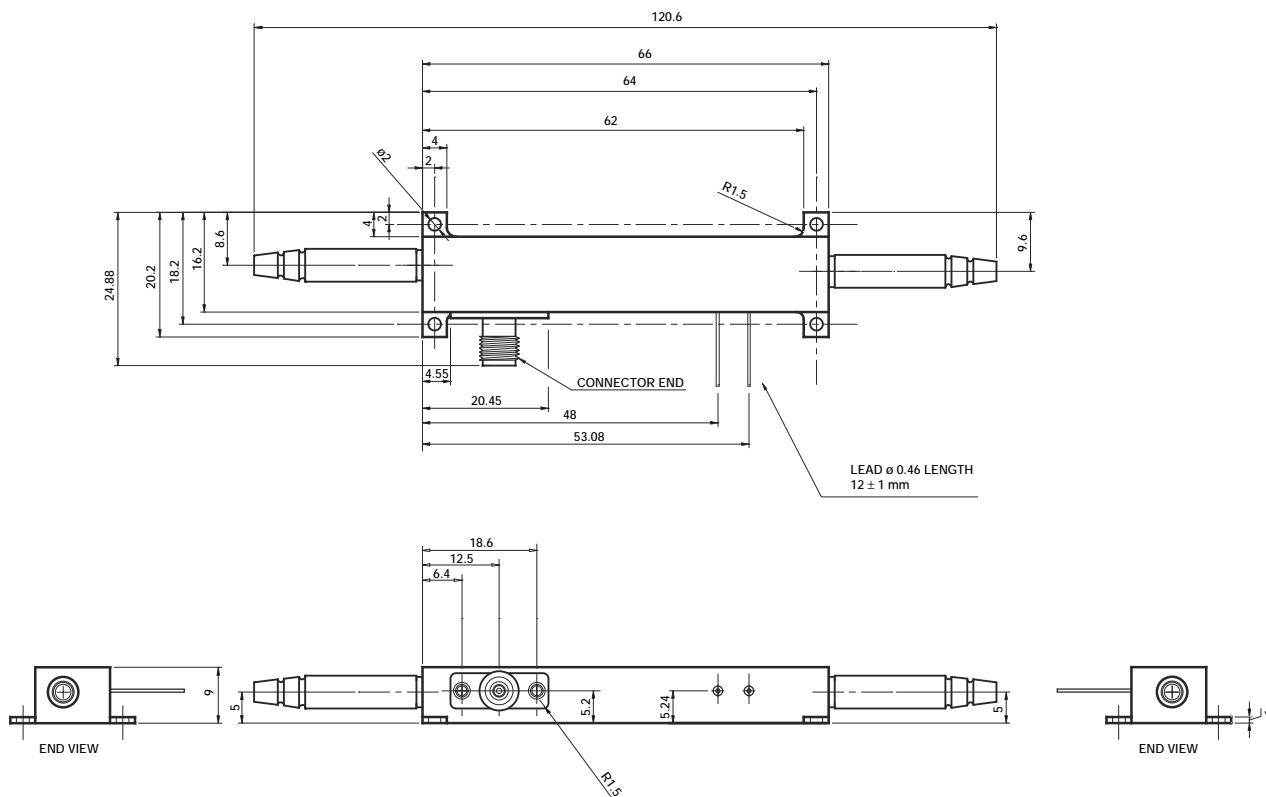


Electrical Return Loss (S11)



Outline Drawing

Dimensions in millimeters except where indicated



Ordering Information

Part Numbers & Options

IOAP-MOD-91XX-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)

Defines Output Fiber Type

40 = Corning SMF

70 = Panda PMF

Examples:

Model Number	Description
IOAP-MOD9140-F-F-0	10Gb/s amplitude modulator; input fiber Panda PMF; output fiber Corning SMF; Super FC/PC connectorized
IOAP-MOD9170-F-F-0	10Gb/s amplitude modulator; input fiber Panda PMF; output fiber Panda PMF; Super FC/PC connectorized



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