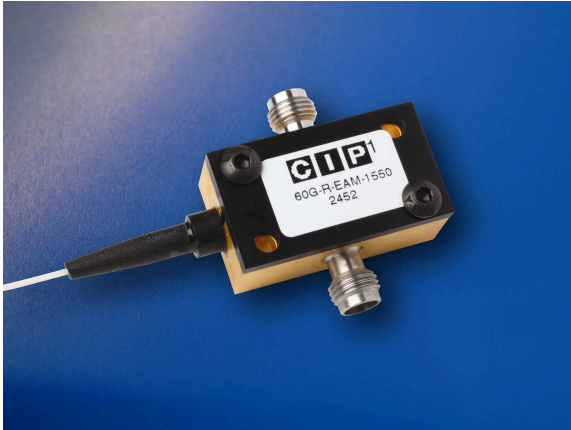


60G-R-EAM-1550

60 GHz Reflective Electroabsorption Modulator (EAM)



Features

- 1.55 μ m C-band operation
- High optical output power
- Buried heterostructure InP structure
- Low polarisation sensitivity
- Low insertion loss
- Low drive voltage modulation
- High responsivity broadband photodetection
- High speed V connector electrical interface

Applications

- Radio Over Fibre / Antenna Remoting in 60 GHz band
- Combined modulation and photodetection transducer operation in radio over fibre systems
- High speed digital modulation and photodetection

Description

The 60G-R-EAM-1550 provides digital optical modulation at 40 Gbit/s and RF modulation at up to the 60 GHz band. It operates across the 1550 nm C-Band with a low chirp parameter. It relies on the electroabsorption effect and is intended for use with a laser diode source.

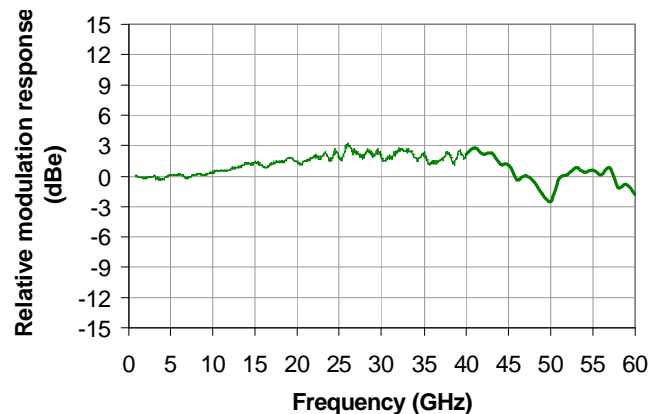
EAM devices offer a compact, low drive voltage solution to optical modulation requirements and may be implemented where space is at a premium.

The 60G-R-EAM-1550 also offers a high responsivity, high bandwidth photodetection capability.

The reflective EAM is provided in a RF connectorised package suitable for use with external RF components and drivers. It has a fibre with an Angled Polished Connector (APC).

Customer specified variants of the product may be available upon request.

Small signal modulation bandwidth



All specifications are at case temperature = 20°C and 1550nm unless stated otherwise.

P_{IN} = Input optical power, V_{DC} = Bias voltage.

Optical and electrical characteristics

Parameter	Test condition	Min.	Typ.	Max.	Unit
Minimum insertion loss	$P_{IN} = 0\text{dBm}$, $V_{DC} = +0.6\text{V}$		3.6	5.5	dB
Modulation depth	$P_{IN} = 0\text{dBm}$, V_{DC} in [0; -4]V	10	14		dB
Polarisation dependent loss	$P_{IN} = 0\text{dBm}$, $V_{DC} = 0\text{V}$		1.0		dB
Small signal 3dBe modulation bandwidth	$P_{IN} = 0\text{dBm}$, $V_{DC} = -1.5\text{V}$	45	60		GHz
Responsivity	$P_{IN} = 0\text{dBm}$, $V_{DC} = -4\text{V}$		1.0		A/W
Small signal 3dBe photodetection bandwidth	$P_{IN} = 0\text{dBm}$, $V_{DC} = -6\text{V}$		43		GHz

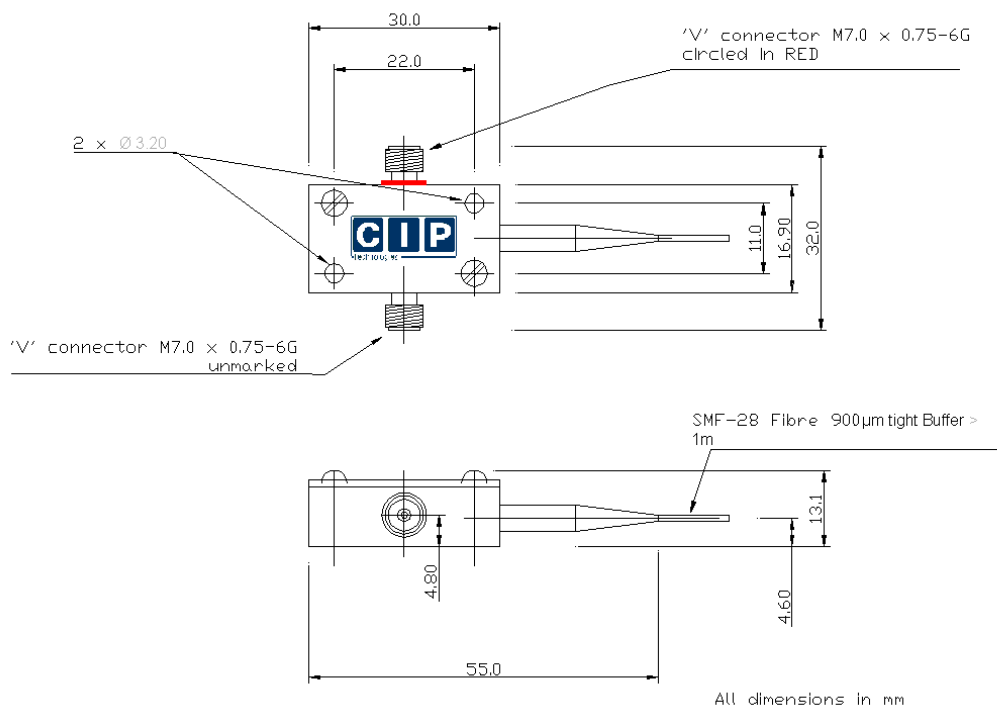
Absolute maximum ratings

Item	Rating	Unit
Maximum DC voltage forward bias	0.6	V
Maximum DC voltage reverse bias	6.0	V
Maximum optical input power	+10	dBm
RF Voltage (peak to peak)	4	V
Case operating Temperature	15 - 50	°C
Storage temperature	10 - 70	°C
Fibre type	SMF-28 900µm tight buffer, >1m - PM fibre option available on request	

Ordering Information– Part Number 60G-R-EAM-1550

For Custom products please contact CIP Sales on +44 1473 663210 or e-mail sales@ciphotonics.com.
 For details of your local agent, visit www.ciphotonics.com

Package Layout and Dimensions



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