

LN MODULATORS

10Gbit/s Small Size LN Intensity Modulator (Package length:48mm) (Single Electrode Model)

Specifications

| Model | | T·MZH1.5-10PD-ADC-48-Y-Z (chirped type) |
|---------------------------------|--------|--|
| Operating wavelength | | 1.55μm |
| Insertion loss | | ≤6.0dB |
| Drive voltage(Vπ) at 10Gbps | | ≤6.5Vp-p |
| Optical bandwidth*1 | | ≥10GHz |
| ON/OFF extinction ratio at DC | | ≥20dB |
| Polarization extinction ratio*2 | | ≥20dB |
| Optical return loss | | ≥30dB |
| Maximum optical input power*3 | | 20mW |
| Input RF connector | | GPO connector |
| Optical fiber | Input | 0.9mmΦPMF |
| | Output | 0.9mmΦ PMF or SMF |
| Fiber lead length | | Min0.7m(for both ports) |
| Operating temperature | | -5°C~70°C |
| Polarizer | | Output side |

| PD characteristics | |
|--------------------|----------------|
| Sensitivity | 0.04~0.40mA/mW |
| Extinction ratio | ≥10dB |

*1: 3dB down (1GHz reference)

*2: Only available for PMF output

*3: Input polarization must be aligned to the slow axis of polarization maintaining fiber.

Ordering Information

T·MZH1.5-10PD-ADC-48-Y-Z

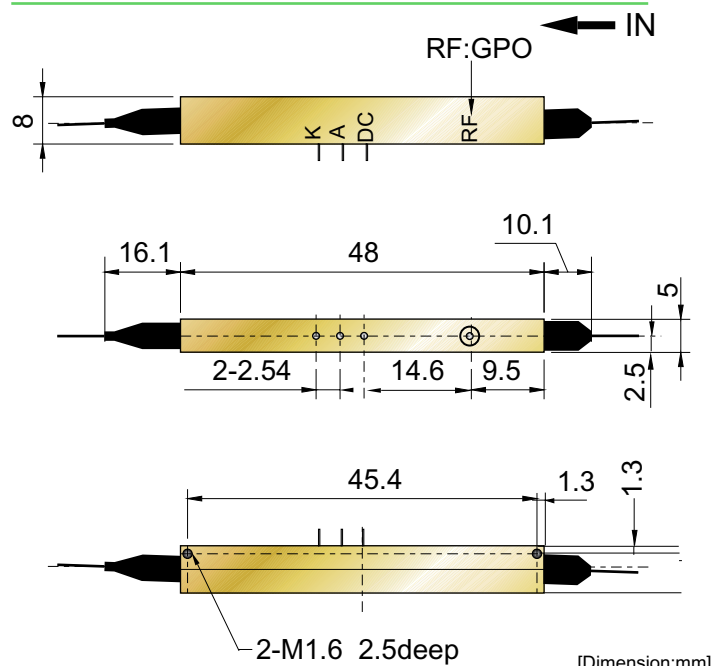
| Y: Output Fiber*1 | |
|-------------------|---|
| 0.9mmφ PMF | P |
| 0.9mmφ SMF | S |
| Others | O |

| Z: Optical Connectors*1,2 | |
|---------------------------|----|
| FC/SPC (w/o key ring) | FN |
| FC/SPC (w/ key ring) | FK |
| SC/SPC | SC |
| FC/APC(Angled PC) | FA |
| Others | O |

*1: When Other O is selected in the above ordering code, please specify your requirements with as much detail as possible.

*2: The Polarization state of input and/or output PMF is slow axis aligned.

Package size(Hermetically-sealed)



2009 MARCH

Specifications subject to change without any notice.

Manufactured by :

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Recommended configuration

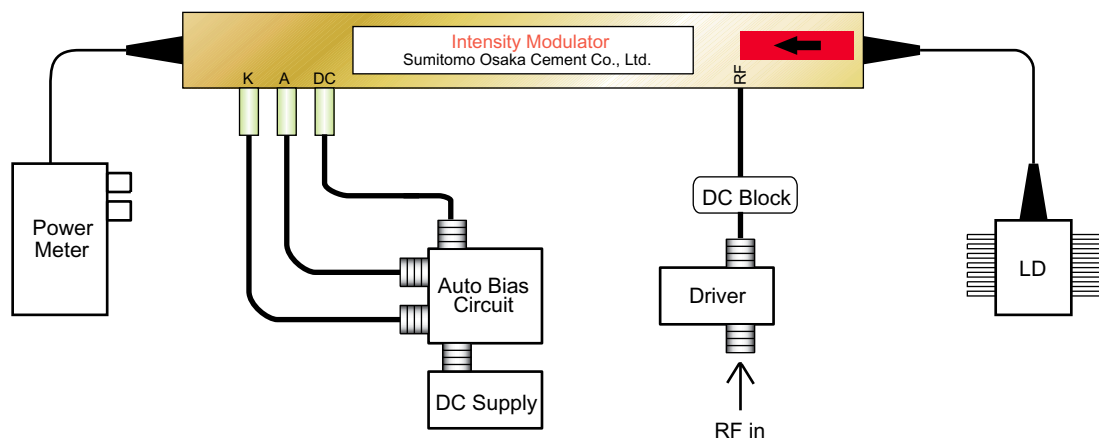
*** This recommended configuration is only for giving general ideas. Please refer to the operation manual which is included with the product when you use the product. The operation manual shows you the appropriate way to use with any note.**

- (1) For proper adjustment, make optical connection prior to electrical connection otherwise the product may get damage.
The optical connection between the product and a power meter, or between the product and a laser source should be made when laser source is off.



Any risk of making connection while laser source is working, such as loss of eyesight, should be at the user.

- (2) The input fiber of the modulator must be optically adjusted with an optical laser source. The schematic diagram is illustrated below.
- (3) The output fiber of the modulator must be optically adjusted with a power meter. The schematic diagram is illustrated below.
- (4) You can work the laser source.
- (5) Adjust the input side connector appropriately so that the input light power to the module is maximized.
 The internal polarizer will get damage by improper adjustment and cause unexpected optical loss.
- (6) DC Supply is connected to Auto Bias Circuit. Auto Bias Circuit and Driver are appropriately connected to modulator electrical inputs. The schematic diagram is illustrated below.
 PIN or GPO connector should be fixed otherwise you will find low optical performance.



*DC Block capacitor should be inserted between driver and modulator RF port.
 *This product is internally terminated, thus you do not need terminator.