Electro-Optic Modulator

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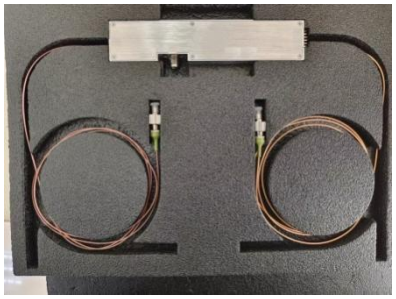


The product primarily completes the convention from electrical signals to optical signals, outputting in optical form for user applications. It mainly consists of an optical intensity modulator, a modulator driver control unit. The output optical interface of the product is in the form of an FC/APC connector, powered by an external power supply, and the component uses a non-sealed metal packaging.

Applications

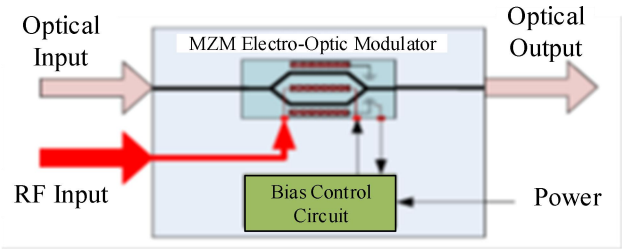
- **Radar**
- **Electronic countermeasures**
- **Radar array processing to achieve high-precision phase-preserving transmission of RF signals.**

Features

- **A wide frequency band**
- **Large dynamic range**
- **Compact**
- **Lightweight**
- **High reliability**
- **A capacity for mass production**

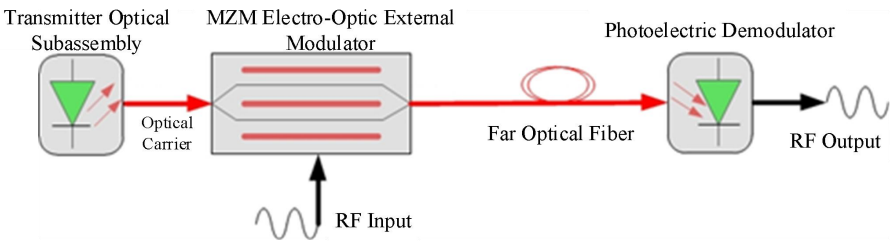
Product Schematic Diagram

Its basic working principle is to modulate the required electrical signal through the MZ intensity modulator, and then modulate it onto the external input optical source. The working principle block diagram is shown below:



Typical Application Example

A typical application example is shown in the figure below, Where the MZM electro-optic external modulator completes the electro-optic conversion function.



Electro-Optic Modulator

Typical Indicator

0.8GHz～18GHz

Operating Conditions	
Operating Temperature (T_A)	-55℃～＋70℃
Power Supply Voltage (Vcc)	+5V(DC)
Power Supply Current (Icc)	135mA
Performance Indicators	
Operating Wavelength	1520nm～1560nm
Input Signal Frequency	0.8GHz～18GHz
RF Return Loss	≤-10dB
Optical Insertion Loss	≤5dB
Link Gain(Link Indicators)	≧-26dB
Harmonic Suppression	≧40dBc（0 dBm Input）
In-Band Flatness(Link Indicators)	≤2dB
Maximum Power Consumption	≤0.6W
Quality Level	
This product meets MI-level military standards for application environment.	

2GHz～40GHz

Operating Conditions	
Operating Temperature (T_A)	-55℃～＋70℃
Power Supply Voltage (Vcc)	+5V(DC)
Power Supply Current (Icc)	135mA
Performance Indicators	
Operating Wavelength	1520nm～1560nm
Input Signal Frequency	2GHz～40GHz
RF Return Loss	≤-10dB
Optical Insertion Loss	≤5dB
Link Gain(Link Indicators)	≧-32dB
Harmonic Suppression	≧40dBc（0 dBm Input）
In-Band Flatness(Link Indicators)	≤9dB
Maximum Power Consumption	≤0.6W
Quality Level	
This product meets MI-level military standards for application environment.	

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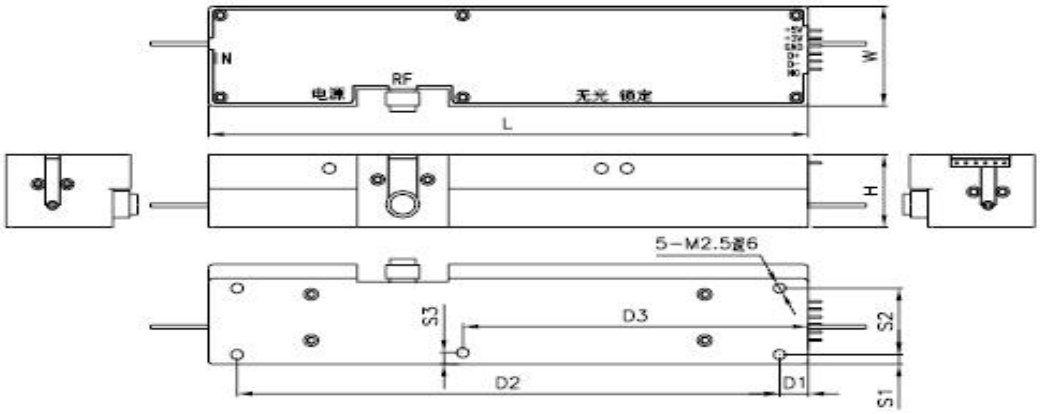
Outline Drawing



Package Type: Metal cavity package.

External Dimensions: 125mm×26mm×18.8mm (Length×Width×Height)

Physical Photo