

FP-EO Modulator WR-250-03



WR-250-03 is a waveguide Fabry-Perot Electro-Optic (FP-EO) modulator which can modulate optical cavity length at high speed. Modulation efficiency is higher than conventional modulators because of its high finesse optical resonance effect. Therefore this device can generate precise optical comb and optical pulse.

This device is hermetically sealed, high reliability and low RF power designed for stable phase modulator. Besides Optical Comb/Pulse Generator, this module is applicable to Radio Over Fiber (ROF), optical metrology with high frequency stability and so on.

Specifications

Item	Specification
Center Wavelength*2	1530 ~ 1565 nm
Modulation Frequency*3	25 GHz
Frequency Stability	Same as reference
RF Input Power	< 0.5 W
Optical Input Power	< 40 mW
$V\pi$	< 10 V @ 25GHz
Transmittance(F-P _{peak})	15 ~ 20 % 0.3 % (modulated)
Finesse	> 50
Comb Span	> 10 THz
Flatness	-7 dB / THz
Optical Pulse Width	600 fs (calculated)
Pulse Repetition Rate	50 GHz
Dimension	15W x 30D x 40H mm ³ (Excluding protrusions)

*2 Laser input should be single mode and linewidth less than 10MHz is recommended. Optical isolator between input laser and this device is strongly recommended.

*3 10 GHz is also available.

Features

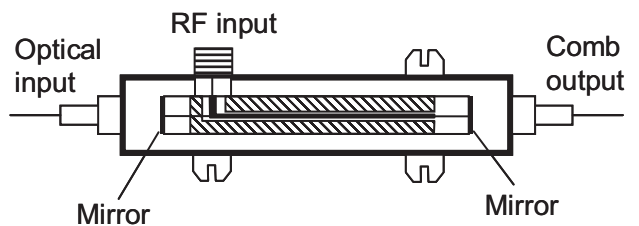
- High finesse FP cavity
- Low power consumption
- Low $V\pi$ *1
- High reliability

Applications

- Optical Comb/Pulse Generator
- Radio Over Fiber (ROF)
- Optical Metrology
- WDM communications

*1 Figure of merit= $V\pi$ / Finesse

Overview



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