



Dual Output Analog CATV Modulator

The SWT dual output analog community antenna television (CATV) modulator is based on a Mach-Zehnder waveguide interferometer and is manufactured using the annealed proton exchanged in X-cut, Y-propagating LiNbO₃ substrates, it is rated for operation at optical power levels to 200mW. Two optical outputs offer flat electrical frequency response and excellent composite second order distortion(CSO).

Key features

- 1550 nm Window
- Annealed Proton Exchanged Waveguide
- Low Insertion Loss
- Low Drive Voltage
- Low electrical return loss(S11)
- Flat frequency response
- Separate Bias Electrode
- Dual Optical Output Ports
- Enables Low CSO on Both Outputs
- Integrated Phase Modulator



Applications

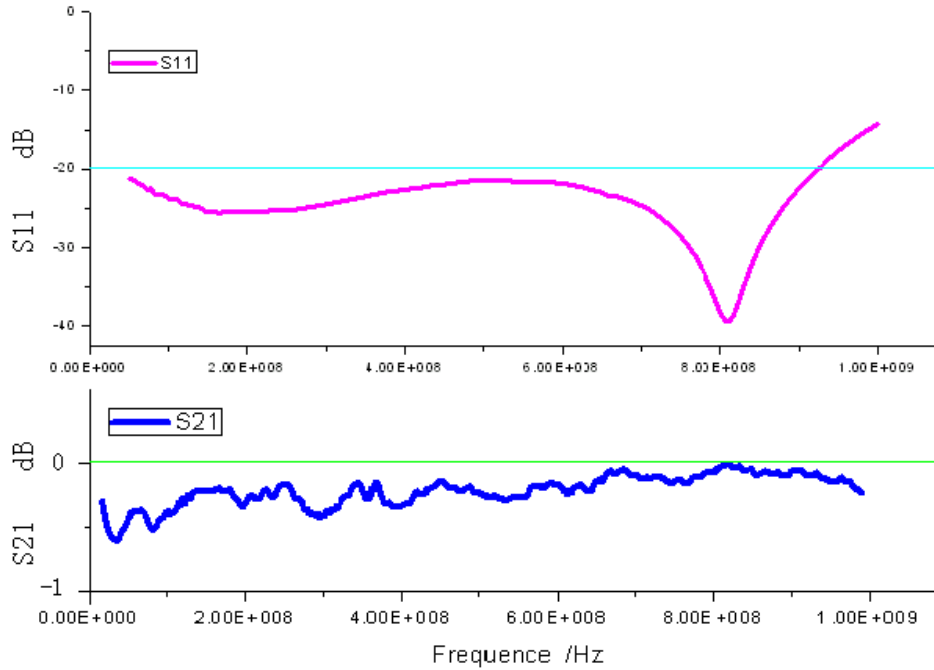
- High Performance External Intensity Modulation for 1550 nm CATV band Transmitters



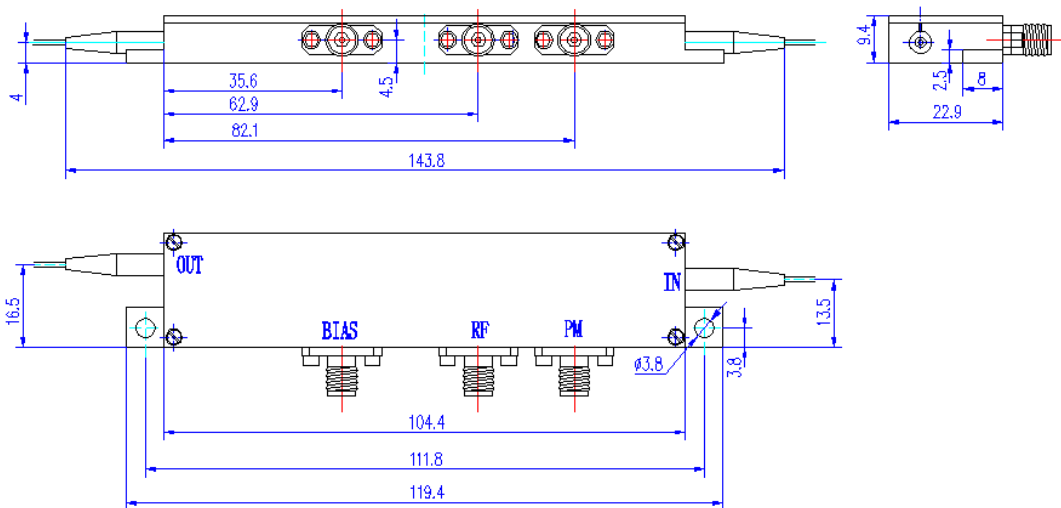
北京世维通光通讯技术有限公司

Beijing SWT Optical Communication Technology Co., Ltd.

Typical Frequency Response & Return Loss Curve (S21 & S11)



Dimensions Diagram(Unit: mm)



address: 10th Floor, Tower C2, Dong ChangAn Street Dongcheng Diatric, Beijing
P.C.: 100738 Tel: 010-85180588 Fax: 010-85185617 <http://www.swt-oc.com>



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Specifications(23°C)

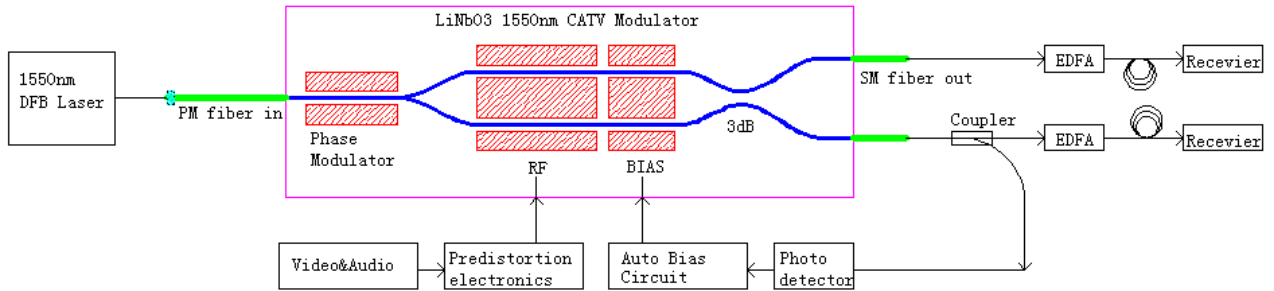
PARAMETER	SPECIFICATION	
Optical	Operating Wavelength	1550±10nm
	On/Off extinction Ratio	≥23dB
	Optical Return Loss	≥45dB
	Insertion Loss	≤4.5dB
	Insertion Loss imbalance between outputs	≤0.5dB
Intensity modulator	Signal Electrode V_{π} (@100MHz)	≤6V
	Applied RF Power	≤24dBm
	Bias Electrode V_{π} (@DC)	≤7.5V
	Operating Bandwidth	47~ 860MHz
	Amplitude Flatness	≤±0.5dB
	Phase Flatness	≤±5°
	Electronic Reflect (S_{11})	≤-18dB
Phase modulator	Half Wave Voltage (@DC)	≤8.5V
	3dB Operating Bandwidth	≥2.5GHz
	Electronic Reflect (S_{11})	≤-10dB
	Applied RF Power	≤30dBm
Mechanical	Input Fiber	PM Fiber, 0.9mm loose tube
	Output Fiber	SM Fiber, 0.9mm loose tube
	Electrical connector	SMA
Environmental	Operating Temperature	0~70°C
	Storage Temperature	-40°C~80°C



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Typical Applications In CATV transmission system



We can provide design, device filtration and system solution support by customer requirement. Welcome to contact us.

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