



1550nm Suppression Carrier Single-Sideband Modulator



Description

R-ModBox-CS-SSB-1550 Suppression Carrier Single-Sideband Modulation Unit is a highly integrated product of rof photoelectric with independent intellectual property rights.

The product integrates Mach-Zehnder double parallel modulator, bias controller, RF driver And other necessary components into a unit, which doesn't only facilitate the user, but also greatly improves the reliability of the MZ intensity modulator. What's more, it can be customized according to user's requirements.

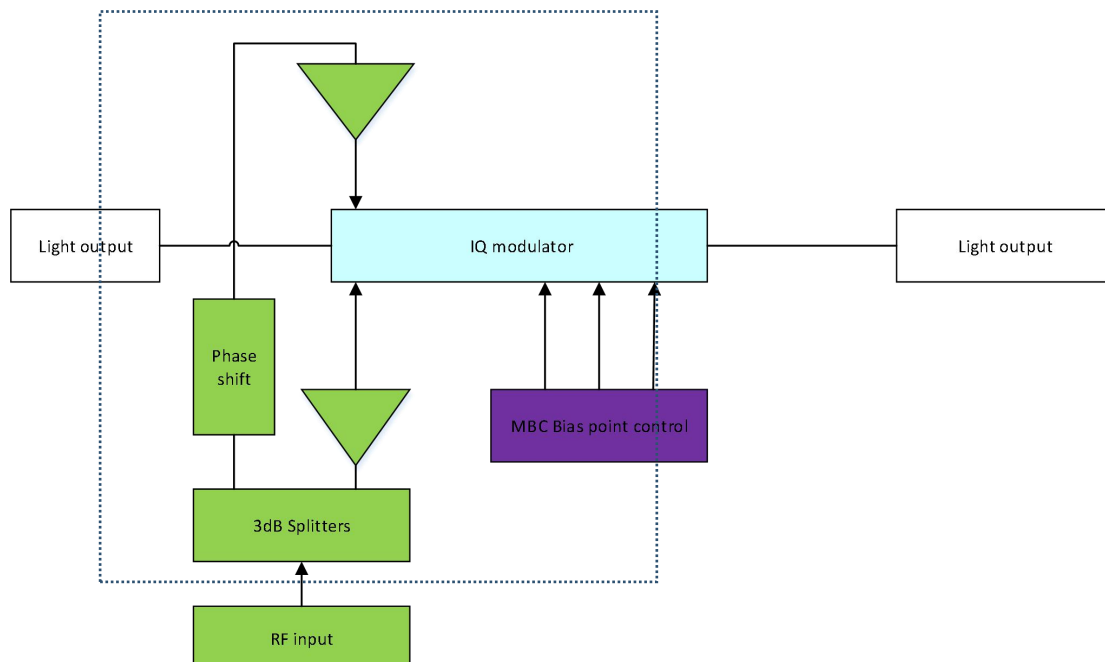
Features

- Low insertion loss
- High operating bandwidth
- AC220V

Applications

- Optical fiber sensing system
- Microwave photonics
- Teaching and experimental demonstration system
- Suppress Carrier Single Sideband Modulation to Achieve Wavelength adjustable

Principle diagram





Performance parameters

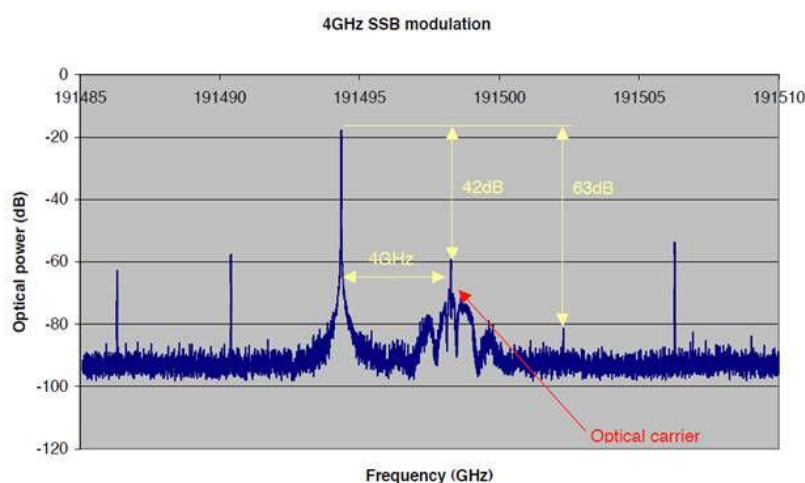
Parameter	Symbol	Min	Typ	Max	Unit
RF modulation signal (user provide)					
Input signal		1		20	GHz
Signal format		sine, single ended			
Match impedance			50		Ω
Signal amplitude			200		mVp-p
Carrier light source parameters (user provided)					
Laser type	DFB light source or Wavelength tunable light source DFB				
Wavelength		1510		1560	nm
Line-width		-		1	MHz
Polarization extinction ratio			20	-	dB
Power			10	100	mW
specification parameters					
Modulator type	X-cut double parallel M-Z modulator				
Modulator bandwidth S21@3dB		16	18	-	GHz
Insertion loss		5	6	7	dB
Chirp		- 0.1	0	+ 0.1	-
Return loss		- 45	- 50	-	dB
RF driver bandwidth S21@3dB		15	18		GHz
Bias controller parameters					
Automatic feedback bias controller		Jitter mode			
Dithering signal frequency		400	1000	1400	Hz
Jitter signal amplitude		10	50	1000	mV
Preset operating point		Lowest point			
CS-SSB optical output signal					
Side-band suppression ratio @1530 nm		30	35	-	dB
Interface					



Beijing Rofea Photonics Co., Ltd

Optical Connectors		Standard panda type polarization fiber FC/APC			
Input RF signal interface		SMA（50 Ω）			
Bias controller interface		USB			
Other parameters					
Operating temperature		+15	-	+35	℃
Storage temperature		-40	-	+75	℃
Power supply		110	-	240	V
		50	-	60	Hz
Equipment Chassis Size		19''2U			
Equipment weight		-	3	-	Kg

Test results



Ordering information

R	AMBOX	XX	XX	XX	XX
	Modulator type : AMBOX---strength modulator	Operating wavelength : 15---1550nm 13---1310nm 10---1064nm 08---850nm	Operating bandwidth : 10G---10GHz	Input output optical fiber : PS---PM/SMF PP---PM/PM	Optical fiber splic : FA---FC/APC FP---FC/PC SP---user specified

More information is provided on website (www.rof-oc.com), you can also contact us for more information by email (sales@rof-oc.com).