O-Net Communications
#35 Cuijing Road, Pingshan New District, Shenzhen 518118,China
Tel: +86-755-2671 0000 Fax: +86-755-2671 0557

2×8 100G Coherent Mixer

Features

- Free-space bulk-optics design
- Purely passive component
- Low phase error
- Wavelength and Data-rate independent

Applications

- For 100G optical Transmission system
- Key component for the optical coherent detection

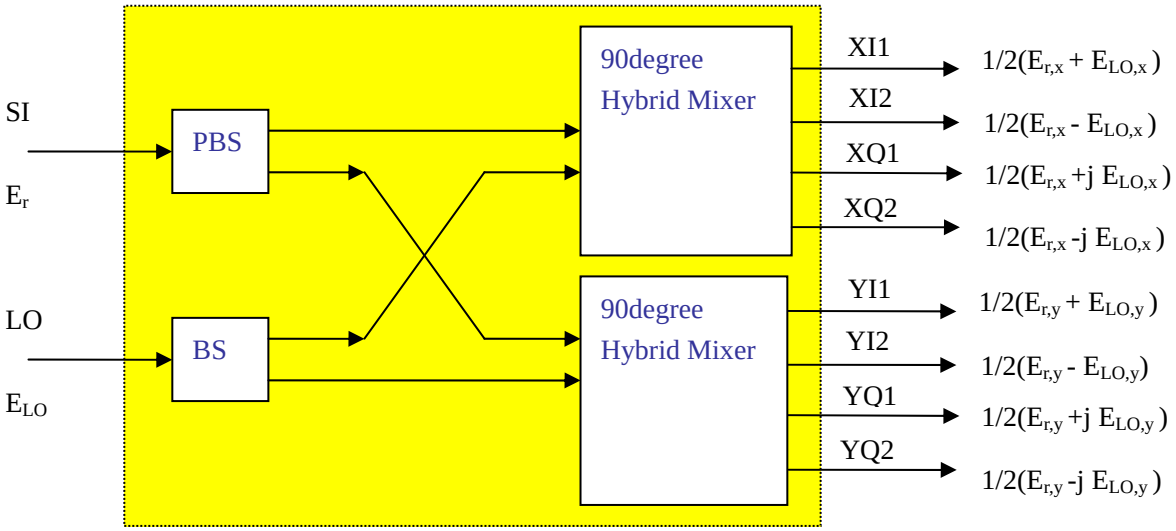

Figure 1. Function of 2X8 100G coherent mixer

Operating and storage condition

Parameters	Symbol	Min	Max	Unit
Storage temperature range	T_{stg}	-40	+85	C
Operating case temperature range	T_{op}	-10	+80	C
Operating Humidity	RH	5	95	%
Optical input power	Pin		+21	dBm
Fiber bend radius(SMF)	-	15		Mm

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Optical Parameter

Parameter	Conditions	Value		Unit
		Min	Max	
Operating wavelength	C-band	1527	1567	nm
Phase Difference	Between XI and XQ, between YI and YQ	85	95	degree
Insertion Loss	SI(polarization scrambled) to XI,XQ,YI,YQ		11	dB
	LO(linear polarized) to XI,XQ,YI,YQ			
Insertion loss Uniformity	SI(polarization scrambled) to XI,XQ,YI,YQ		0.7	dB
	LO(linear polarized) to XI,XQ,YI,YQ			
Skew p,n	between I1 and I2, between Q1 and Q2,		1	ps
Skew channel	between XI,XQ,YI,YQ		5	ps
Shew channel varies	Temporal variation in the skew between in the skew between any 2 channels due to case temperature wavelength input optical power and aging		2	ps
Polarization extinction ratio	for either SI or LO	18		dB
Optical Return Loss	SI input and LO input	27		dB

Mechanical dimension