MZ8810 / MZ8810C



Triple-Balanced Mixer

Rev. V3

Features

- LO 2 TO 18 GHz
- RF 2 TO 18 GHz
- IF 1 TO 8 GHz
- LO DRIVE: +10 dBm (NOMINAL)
- MINIATURE PACKAGE
- WIDE BANDWIDTH
- AVAILABLE WITH FIELD REPLACEABLE **CONNECTORS**

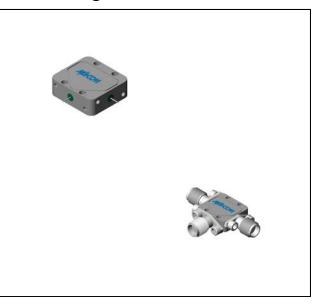
Description

The MZ8810 is a triple balanced mixer, designed for use in military, commercial and test equipment applications. The design utilizes Schottky ring quad diodes and broadband soft dielectric baluns to attain excellent performance. The use of high temperature solder and welded assembly processes used internally makes it ideal for use in manual, semi-automated assembly. Environmental screening available to MIL-STD-883, MIL-STD-202 or MIL-DTL-28837, consult

Ordering Information

Part Number	Package		
MZ8810	Versapac		
MZ8810C	SMA Connectorized		

Product Image



Electrical Specifications: $Z_0 = 50\Omega$ Lo = +10 dBm (Downconverter application only)

Parameter	Parameter Test Conditions		Typical	Guaranteed	
rarameter Test Conditions		Units		+25°C	-54º to +85ºC
SSB Conversion Loss (max) & SSB Noise Figure (max)	fR = 3 to 10 GHz, fL = 2 to 15 GHz, fI = 1 to 5 GHz fR = 2 to 18 GHz, fL = 2 to 18 GHz, fI = 1 to 18 GHz	dB dB	7.5	9.0 11.0	9.5 11.5
Isolation, L to R (min)	fL = 2 to 18 GHz	dB	25	15	13
Isolation, L to I (min)	fL = 2 to 18 GHz		28	16	14
1 dB Conversion Comp.	Comp. fL = +10 dBm		+6		
fR1 = 3 GHz at -10 dBm, fR2 = 3.01 GHz at -10 dBm, fL = 5 GHz at +10 dBm fR1 = 17.99 GHz at -10 dBm, fR2 = 18 GHz at -10 dBm, fL = 14 GHz at +10 dBm		dBm dBm	+15 +13		

Commitment to produce in volume is not gui

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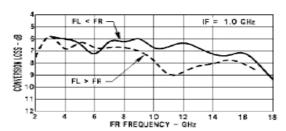


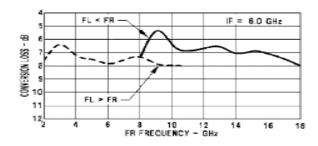
Triple-Balanced Mixer

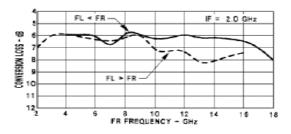
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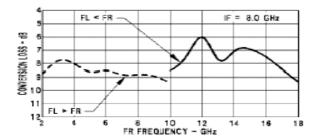
Typical Performance Curves

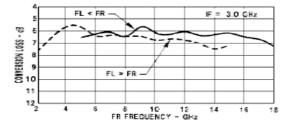
Conversion Loss vs. Frequency



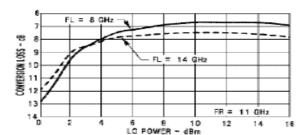








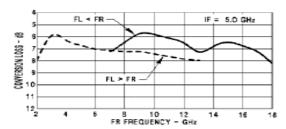
Conversion Loss vs. LO Power



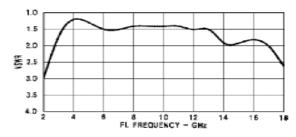
Conversion Loss vs. Frequency

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L-Port VSWR vs. Frequency



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 Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and or test up a may be a vailable.
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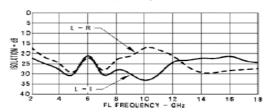
Triple-Balanced Mixer

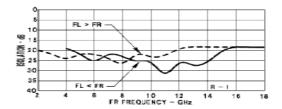
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Absolute Maximum Ratings

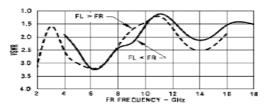
Parameter	Absolute Maximum		
Operating Temperature	-54°C to +100°C		
Storage Temperature	-65°C to +100°C		
Peak Input Power	+26 dBm max @ +25°C +23 dBm max @ +100°C		
Peak Input Current	mA DC		

Isolation vs. Frequency



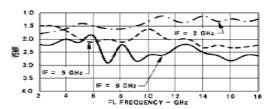


R-Port VSWR vs. Frequency

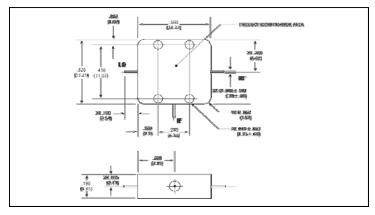


I-Port VSWR vs. Frequency

Commitment to produce in volume is not du

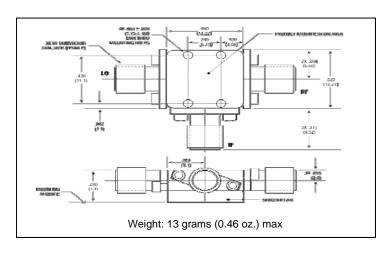


Outline Drawing: Versapac



Weight: 4 grams (0.14 oz.) max

Outline Drawing: SMA Connectorized *



* Dimensions are inches (millimeters) ±0.015 (0.38) unless otherwise specified.

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