



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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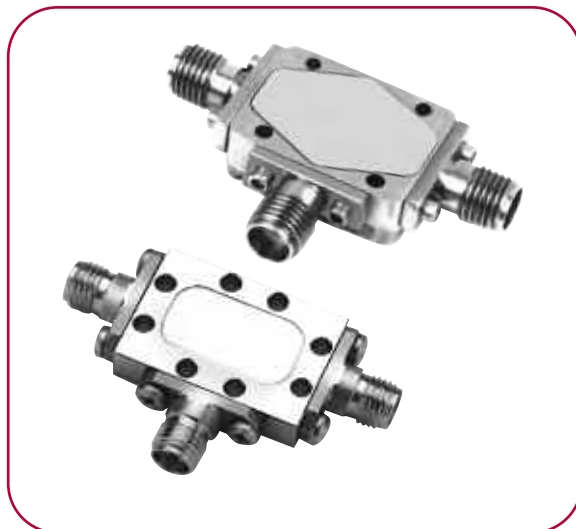


2 TO 18 GHz TRIPLE-BALANCED MIXER

MODELS: TB0218LW2 AND TB0218LA1

FEATURES

- RF/LO coverage 2 to 18 GHz
- IF operation 0.5 to 8 GHz
- High LO-to-RF isolation
- Low RF/LO VSWR
- High 1 dB compression point
- Removable SMA connectors



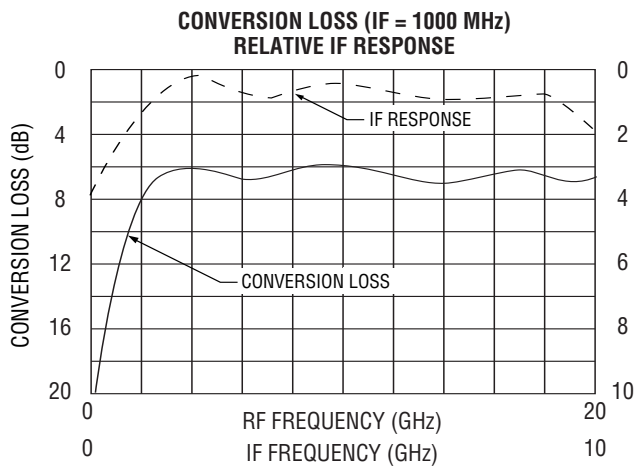
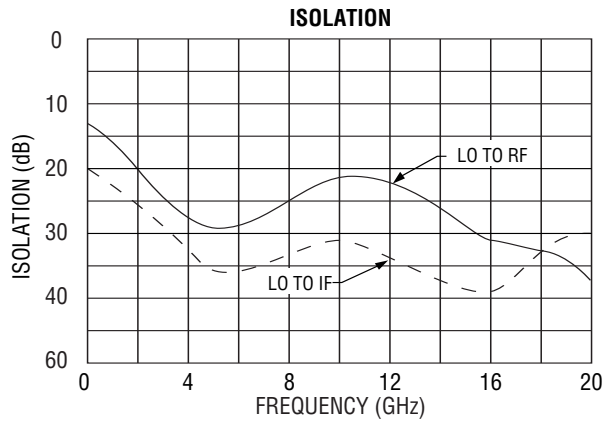
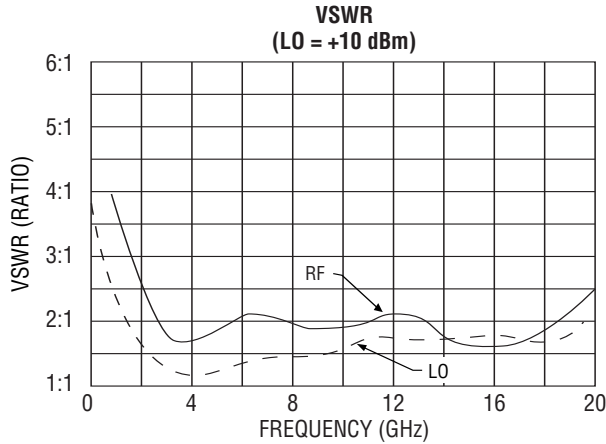
MITEQ's triple-balanced TB0218L mixer series utilizes a dual-quad circuit to provide performance in overlapping RF and IF frequency ranges. In addition to extremely broadband operation, custom-processed diodes allow for minimal variation in conversion loss, extremely high third-order intercept and 1 dB compression points versus input LO power range. Options for various drive level diodes provide numerous combinations of intercept point and LO level. This device performs as an up- or downconverter.

ELECTRICAL SPECIFICATIONS

INPUT PARAMETERS	CONDITION	UNITS	MIN.	TYP.	MAX.
RF frequency range		GHz	2		18
RF VSWR (RF = -10 dBm, LO = +10 dBm)	2 to 18 GHz	Ratio		2.5:1	
LO frequency range		GHz	2		18
LO power range		dBm	+10	+13	+15
LO VSWR (LO = +10 dBm)	2 to 18 GHz	Ratio		2.5:1	
TRANSFER CHARACTERISTICS	CONDITION	UNITS	MIN.	TYP.	MAX.
Conversion loss (IF = 1000 MHz, LO = +10 dBm)	2 to 18 GHz	dB		7.5	9.5
Single-sideband noise figure	2 to 18 GHz	dB			10
LO-to-RF isolation	2 to 18 GHz	dB	20	25	
LO-to-IF isolation	2 to 18 GHz	dB		20	
RF-to-IF isolation	2 to 18 GHz	dB		20	
Input power at 1 dB compression	LO = +10 dBm	dBm	+3		
Input two-tone third-order intercept point	LO = +10 dBm	dBm	+13	+15	
OUTPUT PARAMETERS	CONDITION	UNITS	MIN.	TYP.	MAX.
IF frequency range	3 dB bandwidth	GHz	0.5		8
IF VSWR (IF = -10 dBm, LO = +10 dBm)		Ratio		2:1	



TB0218LW2/A1 TYPICAL TEST DATA



SINGLE-TONE (m) RF x (n) LO RELATIVE SPUR LEVEL (dBc) TO REF (RF = -10 dBm, LO = +13 dBm)

5	> 85	> 85	> 85	> 85	> 85
4	80	> 85	80	> 85	> 85
3	58	63	59	70	63
2	46	52	46	56	47
1	REF	26	12	33	22
	1	2	3	4	5

LO HARMONIC (n)

MAXIMUM RATINGS

Specification temperature..... +25°C
 Operating temperature -54 to +85°C
 Storage temperature -65 to +125°C

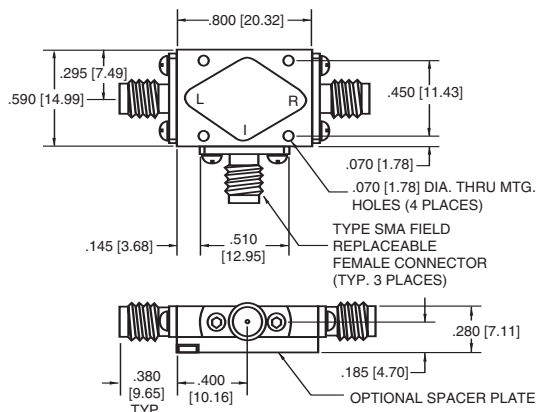
AVAILABLE OPTION

Medium/high dynamic range options
 M (LO = +15 to +20 dBm), (IP³ = +18 dBm typ.)
 H (LO = +20 to +23 dBm), (IP³ = +25 dBm typ.)
 M, H (Conversion loss = 10.5 dB max.)

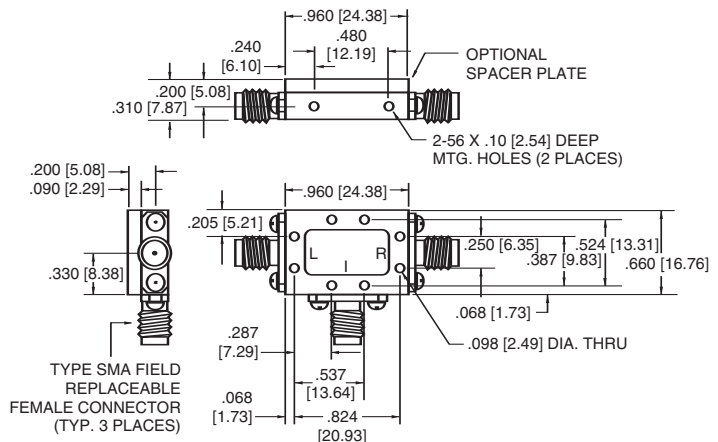
NOTE: Test data supplied at 25°C; conversion loss and LO-to-RF isolation.

OUTLINE DRAWINGS

W2 HOUSING



A1 HOUSING



NOTE: All dimensions shown in brackets [] are in millimeters.

