



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 DOUBLE-BALANCED MIXER

MODELS: DB0218LW2 AND DB0218LA1

FEATURES

- RF/LO coverage 2 to 18 GHz
- IF operation DC to 750 MHz
- LO power range +7 to +13 dBm
- Conversion loss..... 6.5 dB typical
- Packaging..... Hermetically sealed

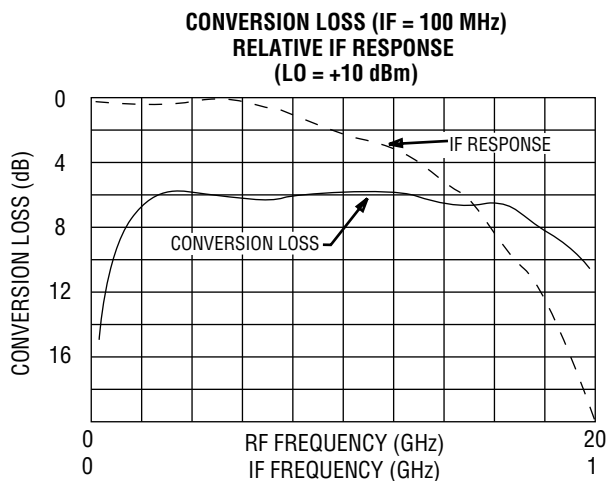
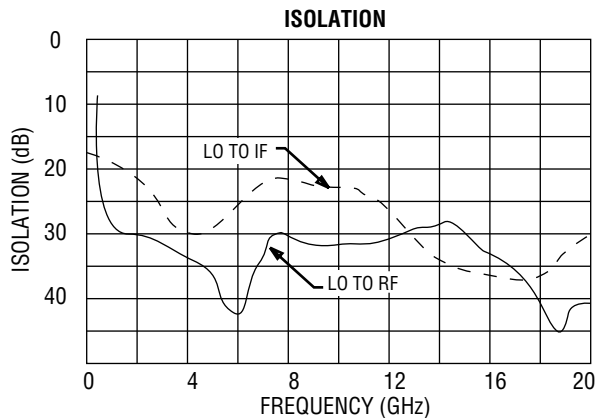
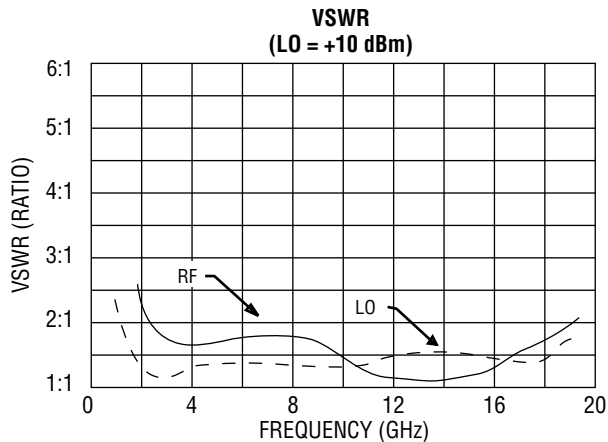


MITEQ's DB0218LW2 mixer is constructed of a balanced diode quad fed by microstrip RF and LO baluns and a DC-coupled IF structure. The construction, coupled with the hermetic packing, provides for high inherent reliability and performance over an extremely broad frequency range. This device performs as an up- or downconverter covering most EW bands, utility testing and breadboard applications.

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		1.5:1	
LO frequency range		GHz	2		18
LO power range		dBm	+7	+10	+13
LO VSWR (LO = +10 dBm)	2 to 18 GHz	Ratio		1.5:1	
TRANSFER CHARACTERISTICS	CONDITION	UNITS	MIN.	TYP.	MAX.
Conversion loss (IF = 100 MHz, LO = +10 dBm)	2 to 18 GHz	dB		6.5	8.5
Single-sideband noise figure	2 to 18 GHz	dB			9
LO-to-RF isolation	2 to 18 GHz	dB	22	30	
LO-to-IF isolation	2 to 18 GHz	dB		20	
RF-to-IF isolation	2 to 18 GHz	dB		30	
Input power at 1 dB compression	LO = +10 dBm	dBm		+5	
Input two-tone third-order intercept point	LO = +10 dBm	dBm		+15	
OUTPUT PARAMETERS	CONDITION	UNITS	MIN.	TYP.	MAX.
IF frequency range	3 dB bandwidth	GHz	DC		0.75
IF VSWR (IF = -10 dBm, LO = +10 dBm)		Ratio		1.5:1	

DB0218LW2/A1 TYPICAL TEST DATA



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

5	> 85	> 85	> 85	> 85	> 85
4	75	75	80	85	80
3	45	60	55	65	55
2	43	49	50	50	60
1	REF	30	11	33	20
	1	2	3	4	5

MAXIMUM RATINGS

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

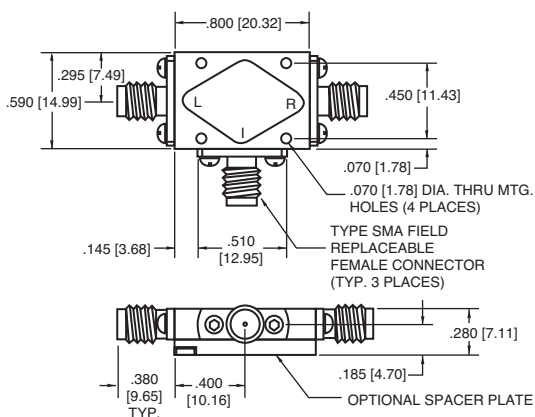
AVAILABLE OPTION

Medium/high dynamic range options
 M (LO = +13 to +17 dBm), (IP³ = +18 dBm typ.)
 H (LO = +17 to +20 dBm), (IP³ = +22 dBm typ.)
 Conversion loss = 9.5 dB max.

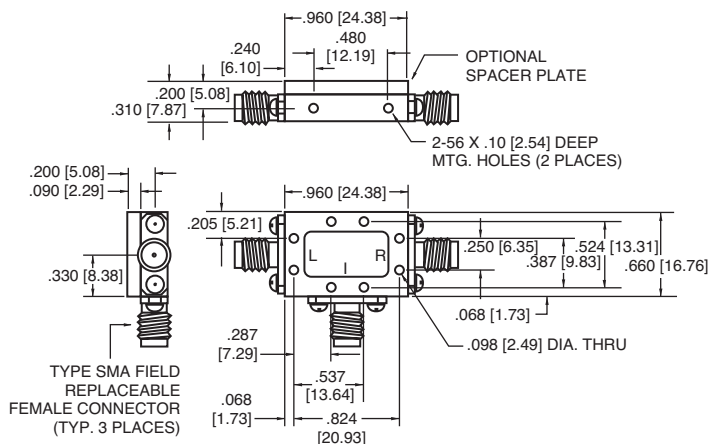
NOTE: Test data supplied at 25°C; conversion loss and LO-to-RF isolation.

OUTLINE DRAWINGS

W2 HOUSING



A1 HOUSING



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

