



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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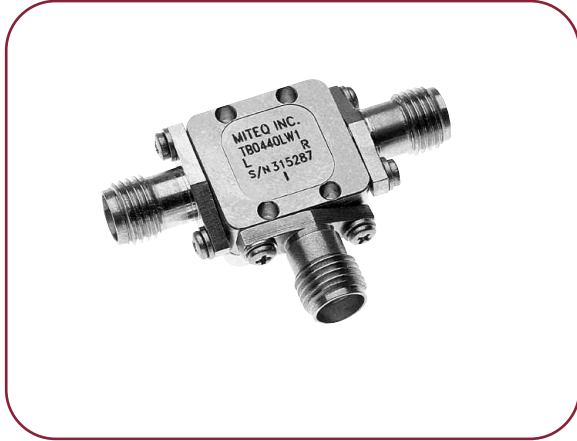


4 TO 40 GHz TRIPLE-BALANCED MIXER

MODEL: TB0440LW1

FEATURES

- RF coverage..... 4 to 40 GHz
- LO coverage 4 to 42 GHz
(usable to 50 GHz)
- IF operation..... 0.5 to 20 GHz
- LO power range..... +10 to +15 dBm
- RF-to-IF isolation..... 30 dB typical
- Removable K connectors

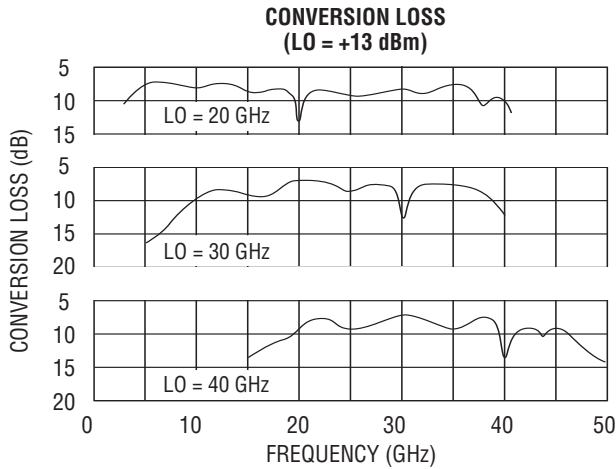
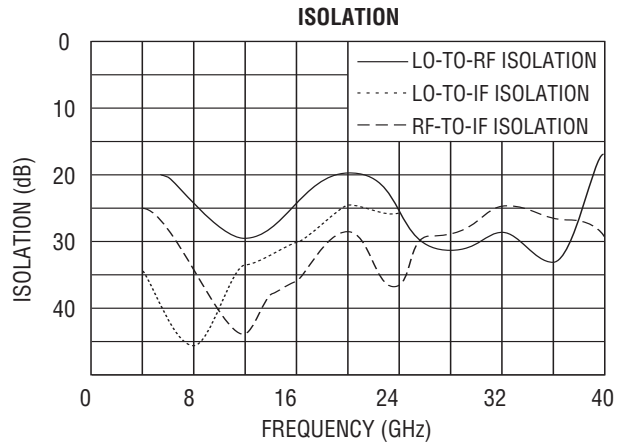
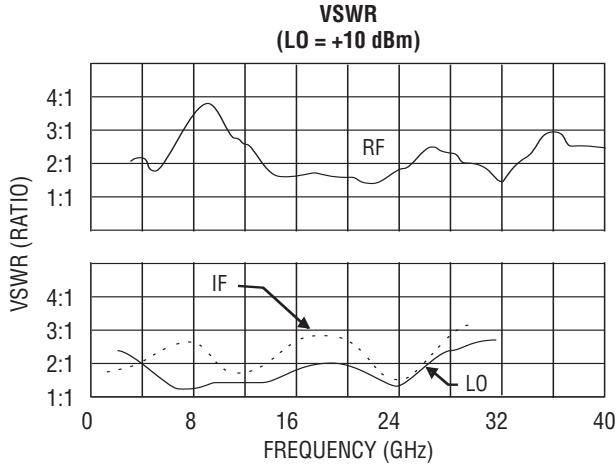


MITEQ's Model TB0440LW1 offers the industry's first millimeter-wave triple-balanced mixer. The unique balun design and custom semiconductor packaging allows coverage of 4 to 40 GHz through the RF and LO port with simultaneous IF operation from 0.5 to 20 GHz. Applications include a single LO block conversion of the low Ka-bands into an existing common frequency receiver front end. This device performs as an up- and downconverter.

ELECTRICAL SPECIFICATIONS

INPUT PARAMETERS	CONDITION	UNITS	MIN.	TYP.	MAX.
RF frequency range		GHz	4		40
RF VSWR (RF = -10 dBm, LO = +13 dBm)		Ratio		2.5:1	
LO frequency range		GHz	4		42
LO power range		dBm	+10	+13	+15
LO VSWR	LO = +13 dBm	Ratio		2:1	
TRANSFER CHARACTERISTICS	CONDITION	UNITS	MIN.	TYP.	MAX.
Conversion loss (IF = 1000 MHz, LO = +13 dBm) L/H		dB		10/11	12/13
Single-sideband noise figure at 25°C		dB		10.5	
LO-to-RF isolation		dB	18	20	
LO-to-IF isolation		dB	20	25	
RF-to-IF isolation		dB	20	30	
Input power at 1 dB compression L/H		dBm		+5/+10	
Input two-tone third-order intercept point L/H		dBm		+15/+20	
OUTPUT PARAMETERS	CONDITION	UNITS	MIN.	TYP.	MAX.
IF frequency range	3 dB bandwidth	GHz	0.5		20
IF VSWR (IF = -10 dBm, LO = +13 dBm)		Ratio		2.5:1	

TB0440LW1 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	80	> 85	80	> 85	> 85
3	58	63	59	70	63
2	46	52	46	56	47
1	REF	27	12	33	22

LO HARMONIC (n)

MAXIMUM RATINGS

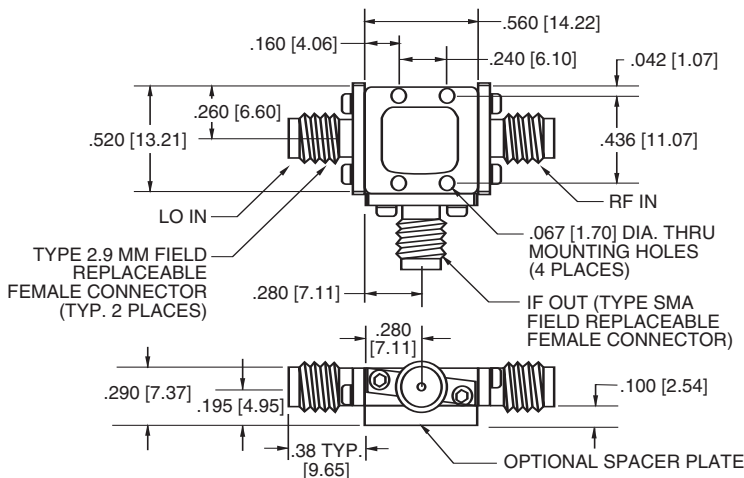
Specification temperature..... +25°C
 Operating temperature -54 to +85°C
 Storage temperature -65 to +125°C

AVAILABLE OPTION

High dynamic range option
 H (LO = +17 to +23 dBm)

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

OUTLINE DRAWING



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

BLOCK DIAGRAM

