

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

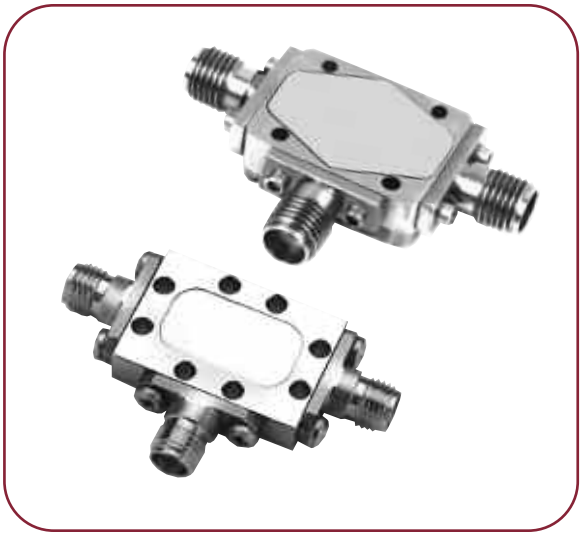
Visit our website - *Click HERE*

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.

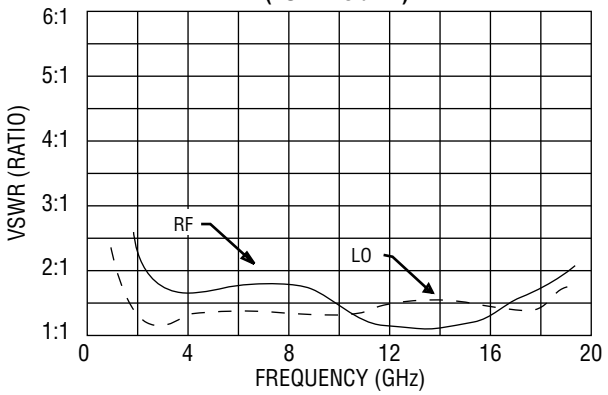
ELECTRICAL SPECIFICATIONS

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	

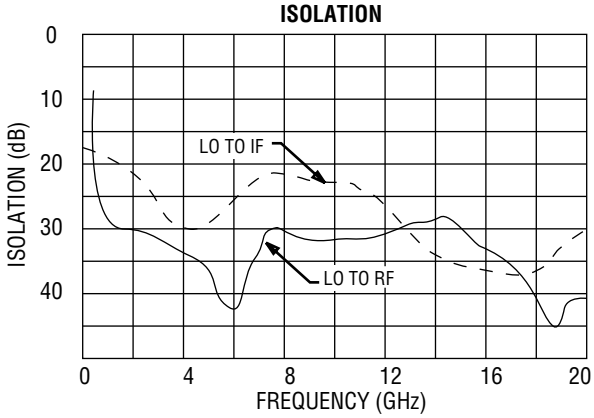
MITEQ® 100 Davids Drive, Hauppauge, NY 11788 • TEL: (631) 439-9220 • FAX: (631) 436-7430 • www.miteq.com

DB0218LW2/A1 TYPICAL TEST DATA

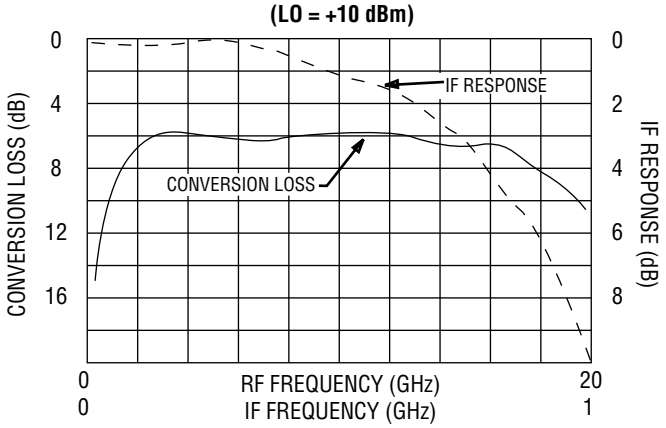
VSWR
(LO = +10 dBm)



ISOLATION



CONVERSION LOSS (IF = 100 MHz)
RELATIVE IF RESPONSE
(LO = +10 dBm)



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

RF HARMONIC (m)	LO HARMONIC (n)				
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

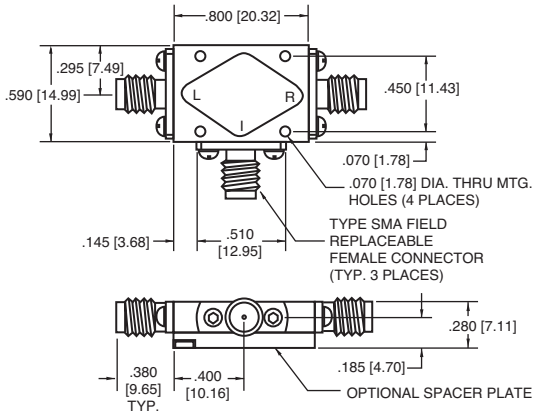
AVAILABLE OPTION

Medium/high dynamic range options
M (LO = +13 to +17 dBm), (IP^3 = +18 dBm typ.)
H (LO = +17 to +20 dBm), (IP^3 = +22 dBm typ.)
Conversion loss = 9.5 dB max.

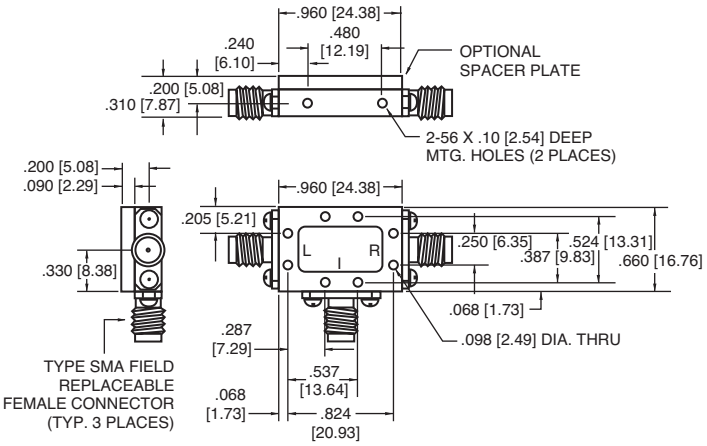
NOTE: Test data supplied at 25°C; conversion loss and LO-to-RF isolation.

OUTLINE DRAWINGS

W2 HOUSING



A1 HOUSING



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

MITEQ® 100 Davids Drive, Hauppauge, NY 11788 • TEL: (631) 439-9220 • FAX: (631) 436-7430 • www.miteq.com

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP