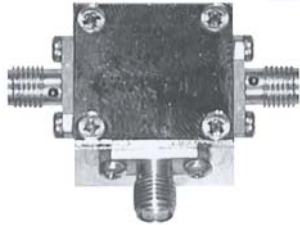




DBM-701S
 High Level SMA
 Connectorized Double
 Balanced Mixer
 Mismatch Insensitive
 1-3500 MHz



DESCRIPTION

DBM-701S is a high performance double balanced mixer that offers extremely wide bandwidth. This mixer features intermodulation performance that is virtually insensitive to mismatches on any or all of its ports. Due to almost constant linearity across its entire band, the DBM-701S's 3rd order IM products are essentially flat. This mixer is ideal to use in applications where elaborate and expensive matching networks are prohibitive. This miniature SMA connectorized package is RF1 shielded and constructed to withstand severe environments.

GUARANTEED MINIMUM PERFORMANCE DATA

TEST CONDITION:

LO + 10 dBm (High side LO)
 RF - 10 dBm
 IF 100 MHz

NOTE:

Specifications below, guaranteed with IF from 50 to 800 MHz. For higher IF frequencies, consult IF response curve for typical rolloff.

OVERALL FREQUENCY RANGE IN MHz:

L	R	X
1-3500	1-3500	5-2500

FREQUENCY BANDS IN MHz:

	100-1000	1000-1800	1800-3500
Conversion Loss	7.5	8.5	10.5
L-R Isolation	25	20	20
L-X Isolation	20	20	20
R-X Isolation	20	20	15

ABSOLUTE MAXIMUM RATINGS:

Operating Temp. - 54 to +100°C
 Total Input Power 400 mW @ +25°C
 Derate linearly to 100 mW @ +100°C(4mW/°C)

Specifications subject to change without notice.

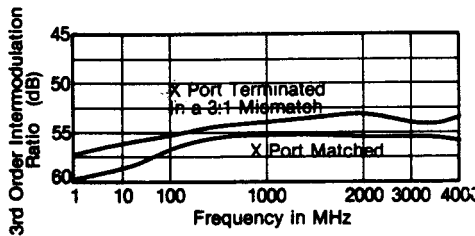
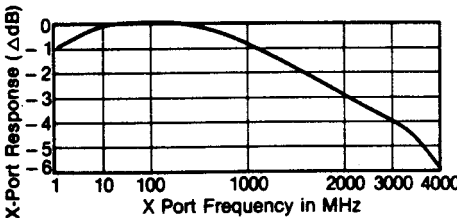
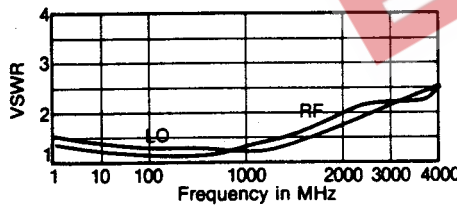
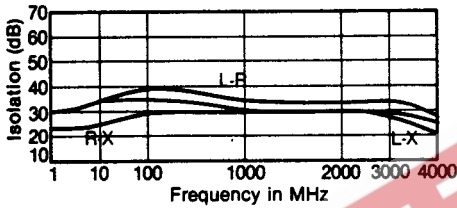
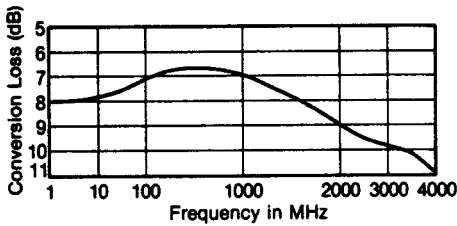
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TYPICAL PERFORMANCE

Impedance: All ports 50 ohms
 1 dB Compression Point: +7 dBm
 1 dB Desensitization Point: +5 dBm
 3rd Order Intercept Point: +17 dBm
 Noise Figure is within 1 dB of conversion loss
 LO Power Range: +10 to +20 dBm
 3rd order intermodulation Ratio
 Degradation 3 dB typical @ I.F.VSWR of 3.0:1



ENVIRONMENTAL CONDITIONS

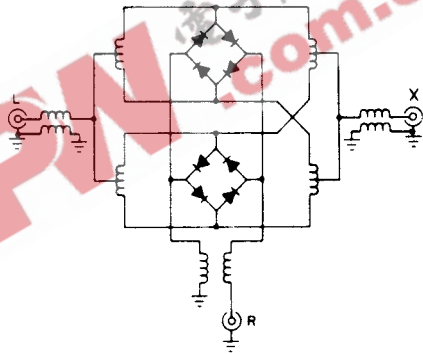
GUARANTEED ENVIRONMENTAL PERFORMANCE:

All units are designed to meet their specifications over -54°C to $+100^{\circ}\text{C}$ and after exposure to any or all of the following tests per MIL-STD-202E.

Exposure	Method	Test Condition
Thermal Shock	107D	B
Altitude	105C	G
H.F. Vibration	204C	D
Mechanical Shock	213B	C
Random Vibration	214	IIF

(15 minutes per axis)

FUNCTIONAL SCHEMATIC

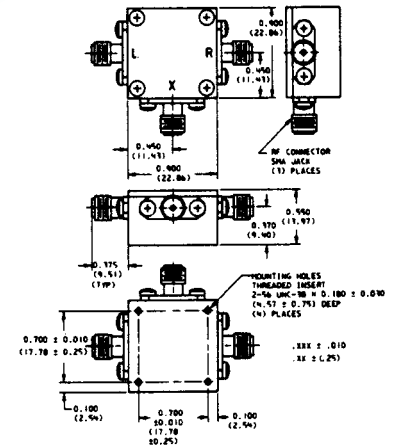


PACKAGE MATERIAL:

Housing and Cover: Aluminum
 Connector body: Stainless Steel per QQ-S-764, Class 303.
 Cond. A
 Contacts: Beryllium Copper per QQ-C-530. Half hard
 Dielectric: Polytetrafluorethylene per MIL-P-19468 Fed. Std. L-P-403

FINISH:

Housing and Covers: Bright Nickel per QQ-N-290, Class I, Form SB, Grade F.
 Contacts: Gold per MIL-G-45204. Type 1, Grade C, Class 2



Specifications subject to change without notice.