

Miniature Double-Balanced Mixer Modules

T-74-13-01

Features

- Double-Balanced 4-18 GHz
- Ruggedized Construction Techniques
- Hermetic Seal

Description

Miniature broadband double-balanced mixers in a drop-in module configuration for direct integration into stripline or microstrip circuitry. Designed for use in high-rel military system environments.

Environmental

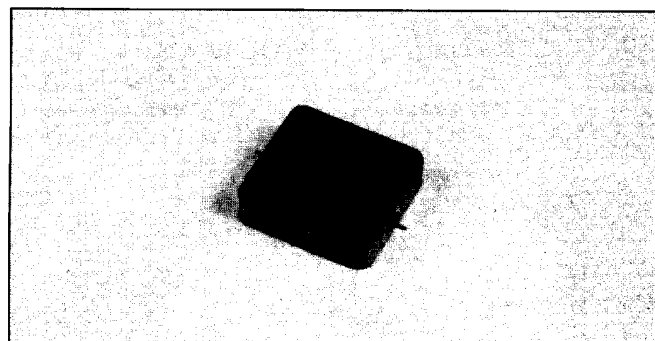
These devices are designed to meet the following screening conditions:

Test	MIL-STD	Method	Cond
Non-Destructive Bond Pull	883	2023	
Internal Visual	M/A-COM	QCP	H076
Stabilization Bake	883	1008	B
Thermal Cycle	883	1010	B
Constant Acceleration	883	2001	A (YI Axis)
Burn-in	883	1015	125°C
Seal	Fine	883	1014 AI
	Gross	883	1014 CI
External Visual	883	2009	

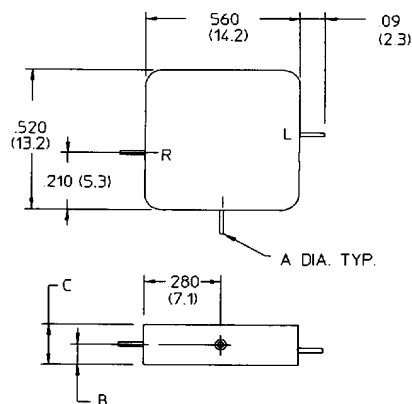
High-rel screening is available. See Appendix at the end of this section for options.

Maximum Ratings

Parameter	LO Drive Level	
	Low Medium (L, M Suffix)	High (H Suffix)
Operating Temp. Max.	-55°C to +100°C	-55°C to +100°C
Storage Temp. Max.	-65°C to +125°C	-65°C to +125°C
RF Input Power Max.	100 mW	200 mW



Mechanical Outline



	Dim. Inches (mm)		
	A ±.002	B	C
-05-Series	.012 (0.3)	.075 (1.9)	.150 (3.8)
-07-Series	.015 (0.4)	.095 (2.4)	.190 (4.8)

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Specifications* 25°C

T-74-13-D1

RF/LO Frequency Range (GHz)	L-R Isolation (dB min.)	L-I Isolation (dB min.)	3 dB IF Bandwidth (GHz min.)	LO Range (dBm) Min./Max.	Conversion Loss (dB) Max./Typ.	Input 1 dB Compression Pt. (dBm Min.)	Input 3 rd Order Intercept Pt. (dBm Min.)	Part Number
4.0-18.0	18	15	dc-1.0	+7/+11	9.5/6.5	+2	+12	3601-05-DBL
				+11/+15	9.5/6.5	+5	+15	3601-05-DBM
				+15/+18	10.0/7.0	+8	+18	3601-05-DBH
	18	15	dc-1.0	+7/+11	9.5/6.5	+2	+12	3601-07-DBL
				+11/+15	9.5/6.5	+5	+15	3601-07-DBM
				+15/+18	10.0/7.0	+8	+18	3601-07-DBH
	20	15	1.0-9.0	+7/+11	9.5/7.0	+2	+12	3603-07-DBL
				+11/+15	9.5/7.0	+5	+15	3603-07-DBM
				+15/+18	10.0/7.5	+8	+18	3603-07-DBH

Notes:

1. All measurements performed in a 50 ohm system.
2. Available in phase and amplitude matched sets; consult factory for details.
3. Low-cost test fixture available. Consult factory for details.

* Consult the factory for typical performance over frequency.