

Field Replaceable 2.92mm Mixer from 7 GHz to 43 GHz with an IF Range from DC to 10 GHz and LO Power of +13 dBm

The FMMX1009 is an ultra broadband double balanced mixer that operates across an RF and LO frequency range from 7 to 43 GHz with an IF frequency range of DC to 10 GHz and supports an LO drive level of +13 dBm typical. The 50 ohm design utilizes high performance GaAs Schottky diodes in a balanced configuration that's DC coupled. Exceptional typical performance includes 9 dB conversion loss, and 35 dB LO to RF and LO to IF Isolation. The compact and rugged drop-in pin package supports field replaceable 2.92mm connectors for the RF and LO ports and an SMA connector for the IF port, operates over a temperature range of 0°C to +50°C, and is designed to meet MIL-STD-202 environmental test conditions for Humidity, Shock, Vibration, and Altitude for high reliability.



Features:

- Double Balanced Mixer Module
- RF/LO Frequency 7 to 43 GHz
- Wide IF Bandwidth DC to 10 GHz
- Balanced Design utilizes GaAs Schottky Diodes
- No external components or matching circuitry
- Mil Spec Compliant
- DC Coupled Design
- LO Drive level +13 dBm
- Low Conversion loss 9 dB
- High LO/RF Isolation 35 dB
- Field Replaceable 2.92mm RF and LO Connectors and an SMA IF Connector
- RF/IF Input up to +10 dBm
- Operating Temperature Range 0°C to +50°C

Electrical Specifications +25°C, 50 Ohm System

Description	Min	Typ	Max	Units
RF Frequency Range	7		43	GHz
LO Frequency Range	7		43	GHz
IF Frequency Range	DC		10	GHz
Impedance		50		Ohms
Conversion Loss		9		dB
LO to RF Isolation		35		dB
LO to IF Isolation		35		dB
RF Input Power			+10	dBm
LO Input Power		+13		dBm
IF Input Power			+10	dBm

Mechanical Specifications

Weight 0.04 lbs [18.14 g]

Configuration

Design	Double Balanced
Package Type	Connectorized
Connector Option	Field Replaceable
RF Connector	2.92mm Female
LO Connector	2.92mm Female
IF Connector	SMA Female

Environmental Specifications

Temperature

Operating Range	0 to +50 deg C
Humidity	MIL-STD-202F, Method 103B, Condition B
Shock	MIL-STD-202F, Method 213B, Condition B
Vibration	MIL-STD-202F, Method 204D, Condition B
Altitude	MIL-STD-202F, Method 105C, Condition B

Applications:

- Electronic Warfare
- Point-to-Point Radios
- Point-to-Multipoint Radios
- VSAT
- Radar
- Space Systems
- Test Instrumentation
- Sensors
- Telecom Infrastructure

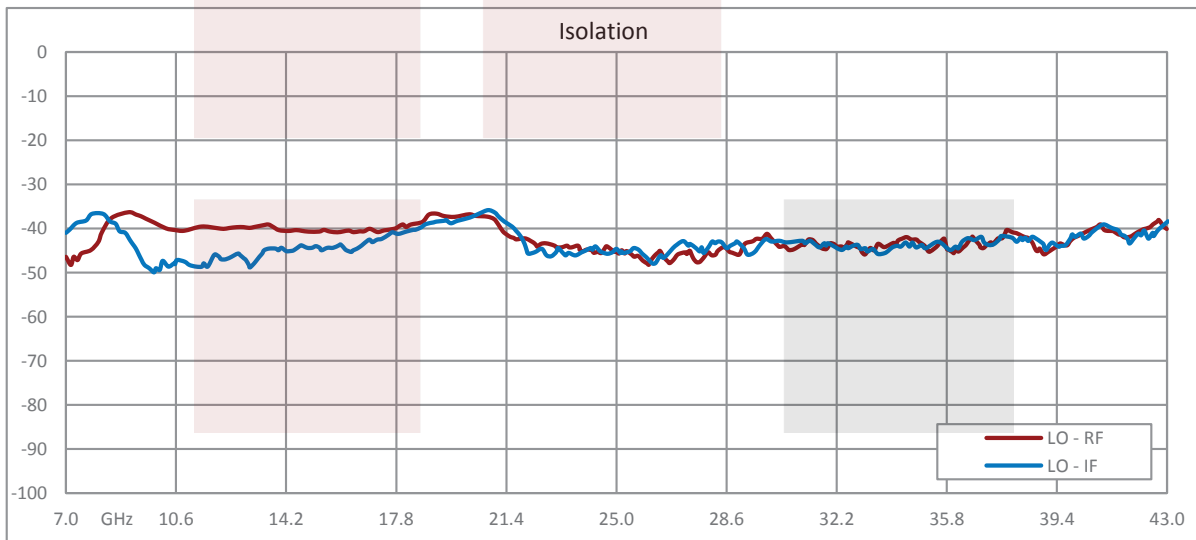
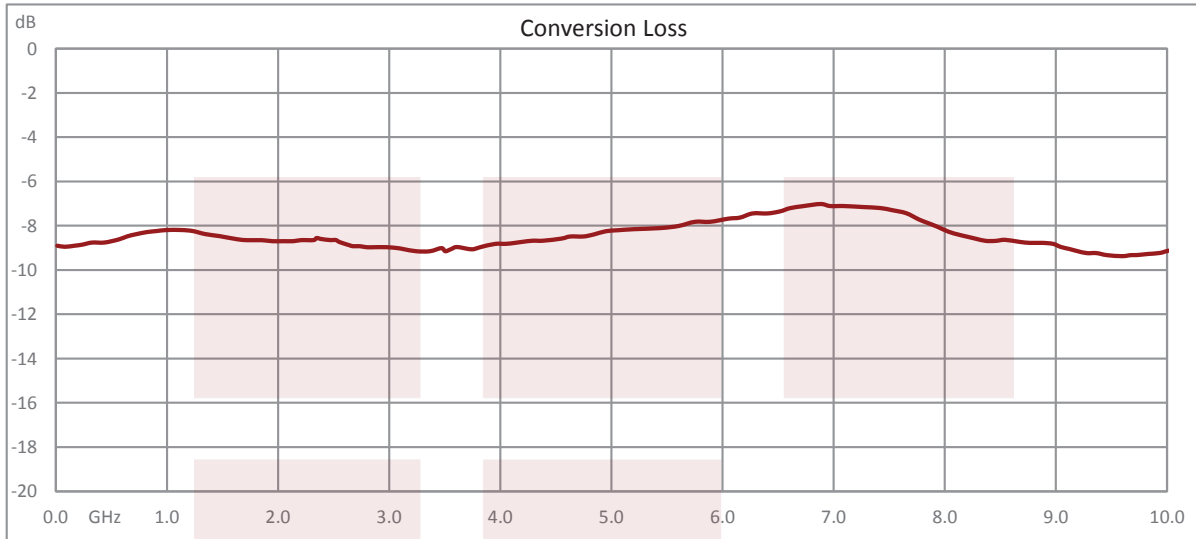
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Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

Typical Performance Data



Field Replaceable 2.92mm Mixer from 7 GHz to 43 GHz with an IF Range from DC to 10 GHz and LO Power of +13 dBm from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

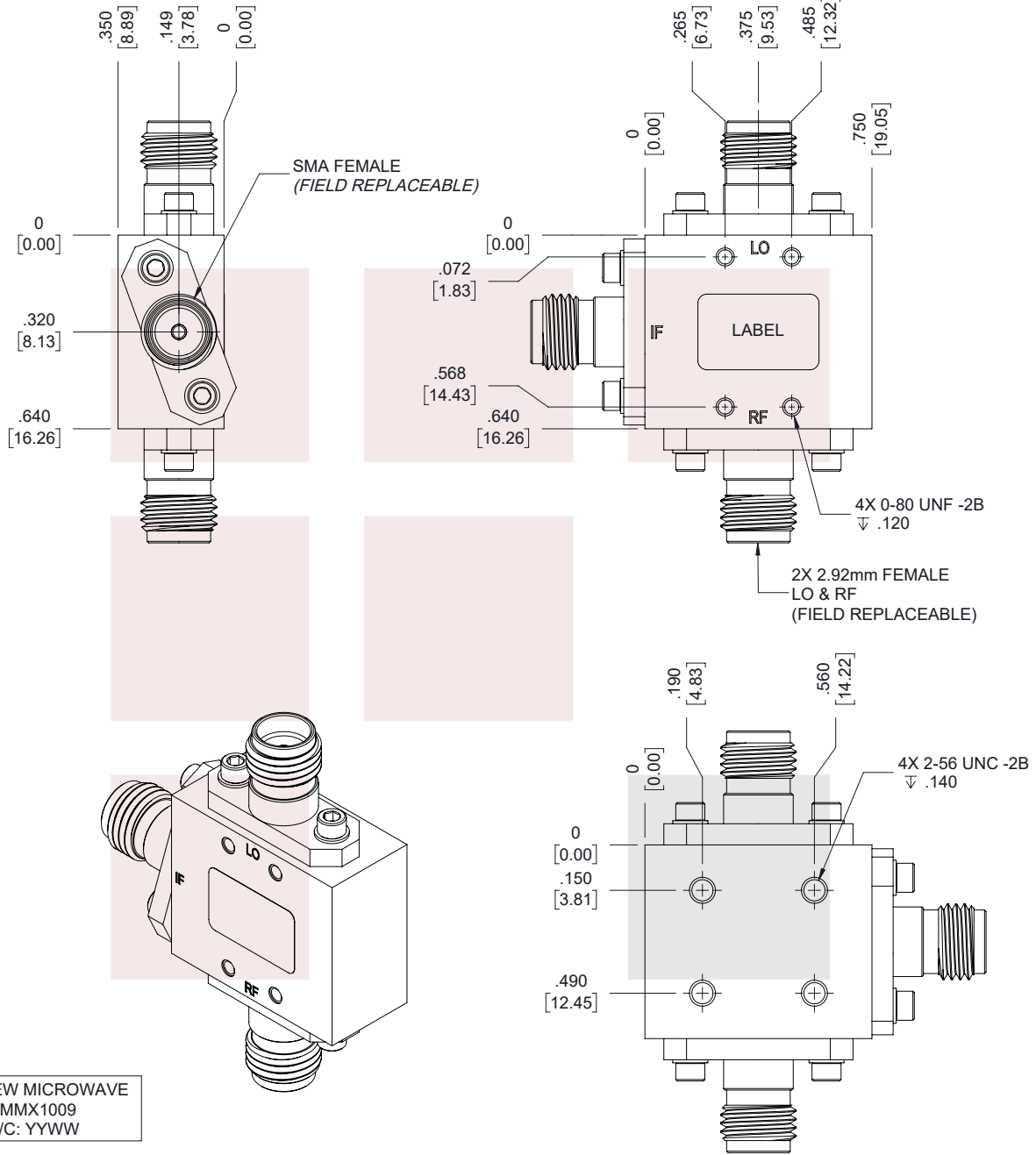
For additional information on this product, please click the following link: [Field Replaceable 2.92mm Mixer from 7 GHz to 43 GHz with an IF Range from DC to 10 GHz and LO Power of +13 dBm FMMX1009](#)

URL: <https://www.fairviewmicrowave.com/field-replaceable-2.92mm-mixer-13-dbm-fmmx1009-p.aspx>

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	11/08/19	T.GALLA



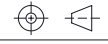
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TITLE
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UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES
 DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES:		CABLE LENGTH (L) TOLERANCES:	
.X ± .2 [5.08]	FRACTIONS ± 1/32	L ≤ 12 [305]	= +1 [25] / -0
.XX ± .02 [.51]	ANGLES ± 1°	12 [305] < L ≤ 60 [1524]	= +2 [51] / -0
.XXX ± .005 [.13]		60 [1524] < L ≤ 120 [3048]	= +4 [102] / -0
		120 [3048] < L ≤ 300 [7620]	= +6 [152] / -0
		300 [7620] < L	= +5%L / -0

THIRD-ANGLE PROJECTION



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SHEET 1 OF 1

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SCALE N/A

SIZE A	CAGE CODE 3FKR5	DRAWN BY K.DANG	PART NUMBER FMMX1009	REV A
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T-Rev.D