

SMA Mixer From 5 GHz to 18 GHz With an IF Range From DC to 4 GHz And LO Power of +10 dBm

Fairview Microwave's FMFX1053 is a double balanced mixer module that operates across an RF and LO frequency range of 5 GHz to 18 GHz with an IF frequency range of DC to 4 GHz. This double balanced mixer provides excellent LO to RF isolation of 35 dB. The FMFX1053 also provides low conversion loss of 6.2 dB. RF Mixers are commonly used to convert from one frequency to another. This is done by "mixing" two signals of different frequencies, also known as heterodyning.

Electrical Specifications

Description	Min	Typ	Max	Units
RF Frequency Range	5		18	GHz
LO Frequency Range	5		18	GHz
IF Frequency Range	DC		4	GHz
Impedance		50		Ohms
Conversion Loss		6.2	8.5	dB
LO to RF Isolation	25	35		dB
LO to IF Isolation	20	30		dB
Input at P1dB		+4		dBm
Input at IP3		+14		dBm
LO Input Power		+10	+13	dBm
Input Power (CW)			0.2	Watts
Input Current (Peak)			0.1	A

Electrical Specification Notes:
Values at 25°C, sea level.

Peak input power for any single port: +23 dBm peak

Mechanical Specifications

Size

Length	1.55 in [39.37 mm]
Width	0.19 in [4.83 mm]
Height	0.97 in [24.64 mm]

Housing Material and Plating	Passivated Stainless Steel
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Configuration

Design	Double Balanced
Package Type	Connectorized
RF Connector	SMA Female
LO Connector	SMA Female
IF Connector	SMA Female

Environmental Specifications

Temperature

Operating Range	-45 to +90 deg C
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Features:

- Double Balanced Mixer Module
- RF/LO Frequency 5 GHz to 18 GHz
- IF Bandwidth DC to 4 GHz
- LO Drive Level +10 dBm
- Low Conversion Loss of 6.2 dB
- High LO/RF Isolation of 35 dB

Applications:

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

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Storage Range

-65 to +100 deg C

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

Plotted and Other Data

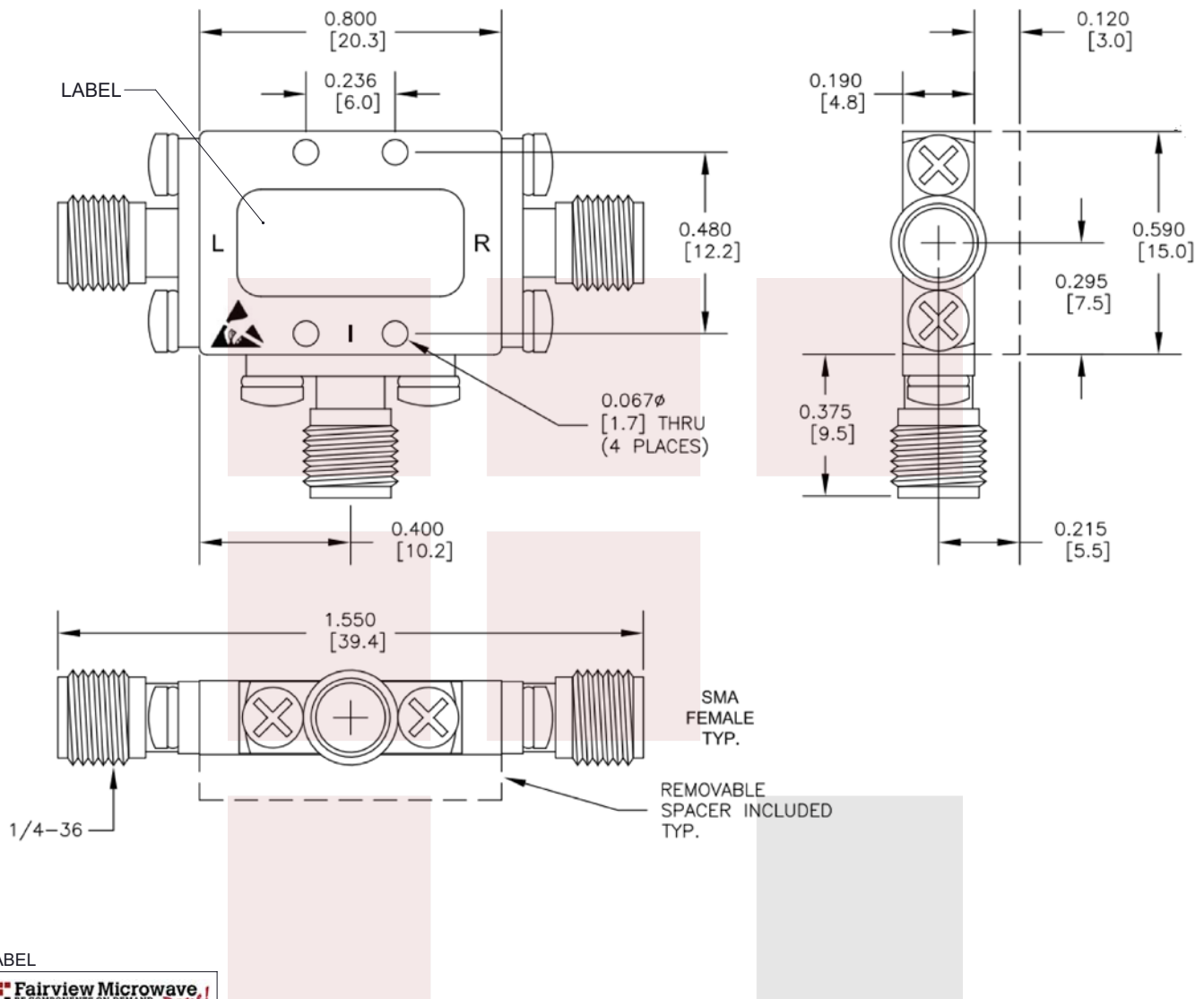
Notes:

SMA Mixer From 5 GHz to 18 GHz With an IF Range From DC to 4 GHz And LO Power of +10 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: [SMA Mixer From 5 GHz to 18 GHz With an IF Range From DC to 4 GHz And LO Power of +10 dBm FMFX1053](#)

URL: <https://www.fairviewmicrowave.com/sma-mixer-10-dbm-fmfx1053-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume any liability arising out of the use of any part or documentation.



LABEL

Fairview Microwave
RF COMPONENTS ON DEMAND. *Done!*
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FMFX1053

STANDARD TOLERANCES

.X ±0.2
.XX ±0.01
.XXX ±0.005

*STANDARD TOLERANCES APPLY
ONLY TO DIMENSIONS IN INCHES

TITLE
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NOTES:
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
3. DIMENSIONS ARE IN INCHES [mm].

DWG NO	FMFX1053	CAGE CODE	3FKR5
CAD FILE	05/24/18	SHEET	1 OF 1
SCALE	N/A	SIZE	A
			7361