

FEATURES

LO Frequency:	3000 – 4000 MHz
Image Rejection:	35 dB
LO-RF Isolation:	55 dB
Input IP3:	+17 dBm
Input P1dB:	+6 dBm
LO Power:	+15 dBm

DESCRIPTION

The IRM3040B is an image-reject mixer with enhanced linearity. The desired RF sideband is downconverted to the IF while the unwanted RF sideband is internally rejected.

The IRM3040B maintains excellent image rejection across multi-octave IF frequency bandwidths. In-stock IF bands include:

- 10 MHz to 50 MHz
- 30 MHz to 90 MHz

Other common IF bands are available. Please specify $IF=RF-LO$ or $IF=LO-RF$ and IF band when ordering.

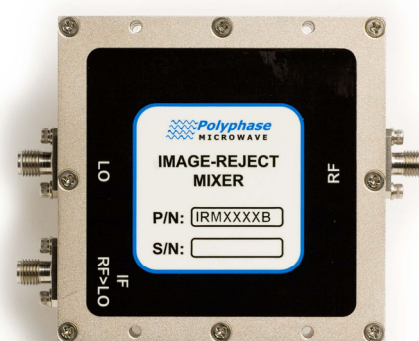
ELECTRICAL SPECIFICATIONS

Test Conditions: +25°C, LO Input = +15 dBm, RF input = 0 dBm @ LO+30 MHz unless otherwise noted.

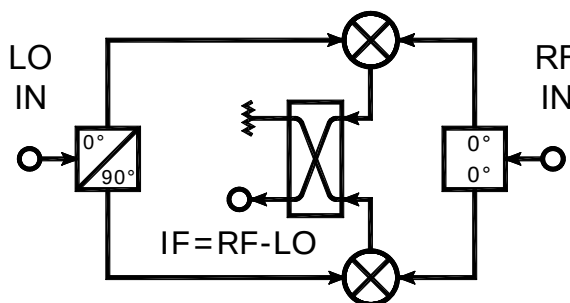
PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
LO Frequency Range ¹		3000		4000	MHz
LO Power		+13	+15	+16	dBm
LO VSWR			2.0:1		Ratio
RF VSWR			2.0:1		Ratio
IF Output Impedance ²			50		Ω
Conversion Loss ²			7.5	9.5	dB
Noise Figure ²			8		dB
Input IP2 ²			+70		dBm
Input IP3 ²	2-Tone, $\Delta f = 1$ MHz		+19		dBm
Input P1dB ²			+7		dBm
LO-RF Isolation	No IF input	43	53		dB
LO-IF Isolation	No IF input		45		dB
Image Rejection ²		27	37		dB
Operating Temperature Range		-40		+85	°C
RF/IF Input Power w/o Damage				+25	dBm

Notes:

1. Standard unit is configured for $IF=RF-LO$ operation and 10 MHz to 50 MHz IF band option.
2. Specified over entire IF frequency band.

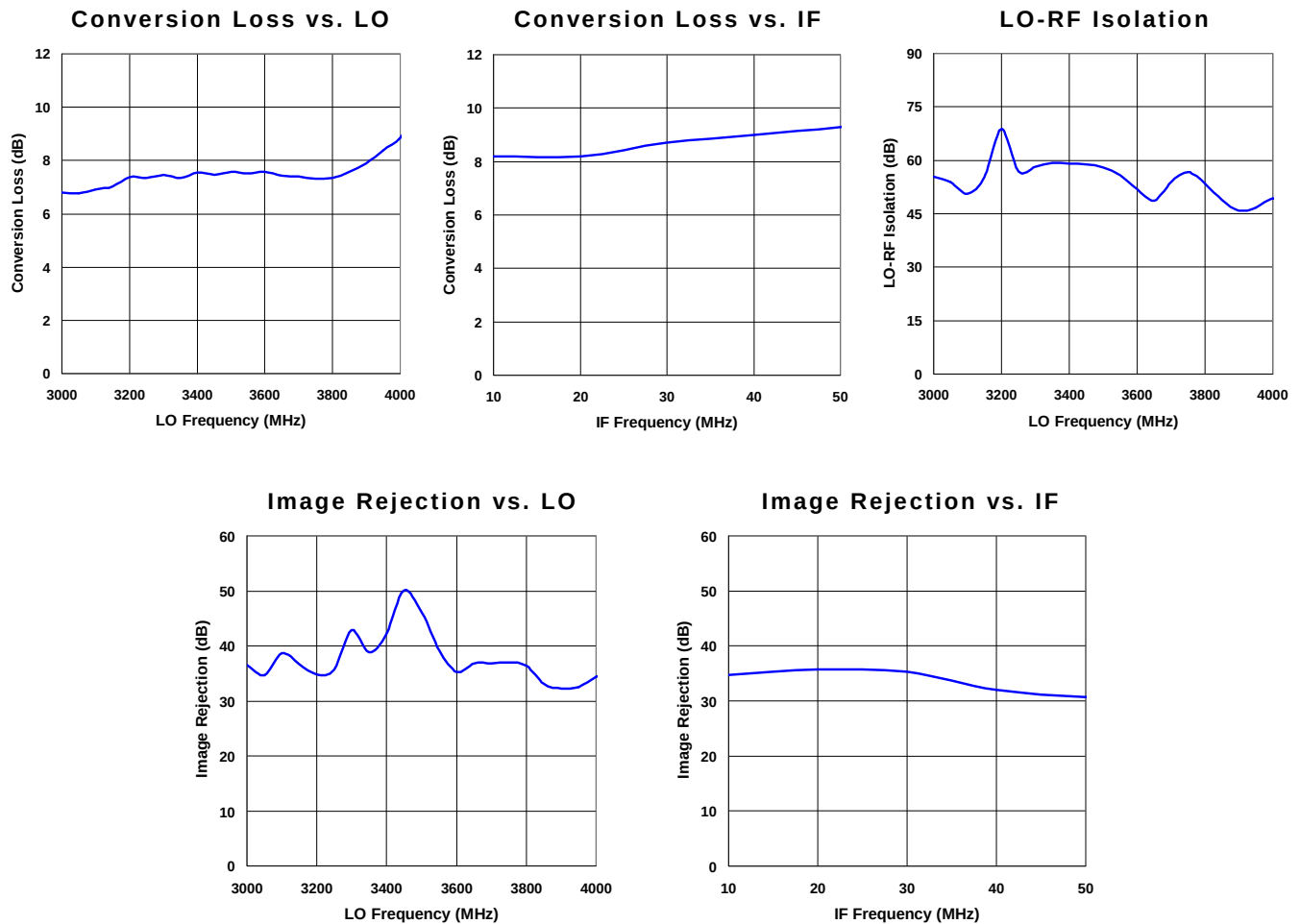


BLOCK DIAGRAM
($IF=RF-LO$ CONFIGURATION)



TYPICAL PERFORMANCE CHARACTERISTICS

Standard Test Conditions: +25°C, LO Input = +15 dBm, RF input = 0 dBm @ LO+30 MHz



CASE DRAWING

