

NEW PRODUCTS – MAY 2008

Our MMIC Product Matrix contains a snapshot view of our current product line. As Mimix strives to provide extensive applications engineering support and customer service, the product development categories for our MMIC devices should help design engineers understand our nomenclature.

■ Production Devices ■ Pre-production Devices

I - Infrastructure S - SatCom
P - Point-to-Point D - Defense

To obtain a complete datasheet of any product, please visit www.mimixbroadband.com or contact us via email at info@mimixbroadband.com to request a copy. For more information call 281.988.4600.

Buffer Amplifiers

Description	Part Number	Frequency (GHz)	Gain (dB)	Gain Flatness (dB)	Noise Figure (dB)	Output P1dB (dBm)	OIP3 (dBm)	Bias (mA @ V)	Package	Applications
Buffer Amplifier (QFN)	XB1012-QT ■	0.25-6.0	10.0*	+/- 0.5	4.0	+23.0 +25.0	+36.0 +39.0	120 @ 5.0 120 @ 8.0	-QT (3x3 mm)	I / P

Gain Blocks

Part Number	Frequency (GHz)	P1dB (dBm)	Gain (dB)	OIP3 (dBm)	NF (dB)	Icc (mA)	Vd / Vs (Volts)	Rth Deg/W	Package	Applications
CGB8001-SC ■	DC-2.7	+27.0	15.5	-	3.9	150	+5.0 / +5.0	35	-SC (SOT-89)	I / S / P / D
CGB8002-SC ■	DC-2.7	+22.5	15.8	+37.0	4.7	120	+3.3 / +3.3	35	-SC (SOT-89)	I / S / P / D
XG1001-SA ■	0.05-4.0	+22.5	13.0	+41.0 +44.0*	2.1	150	+3.3 / +5.0	27	-SA (SOIC-8)	I / S / P / D

Vs is supply voltage • *balanced configuration

Unless otherwise specified, data is @ 900 MHz.

Mixers

Description	Part Number	RF Frequency (GHz)	LO Frequency (GHz)	IF Frequency (GHz)	Conversion Loss (dB)	IIP3 (dBm)	LO Input Power (dBm)	Package	Applications
Balanced	XU1014-BD ■	8.0-18.0	5.0-21.0	DC-3.5	+10.0	+22.0	+5.0	DIE	P / D
Balanced (QFN)	XU1014-QH ■	8.0-18.0	5.0-21.0	DC-3.5	+10.0	+22.0	+5.0	-QH (4x4 mm)	P / D

Power Amplifiers

Description	Part Number	Frequency (GHz)	Gain (dB)	Gain Flatness (dB)	Output P1dB (dBm)	OIP3 (dBm)	Bias (mA @ V)	Package	Applications
Power Amplifier (@ 900 MHz)	XP1052-SC ■	0.1-3.0	18.5	+/- 0.5	+29.5	+44.0	500 @ 5.0	-SC (SOT-89)	I
Power Amplifier	XP1053-SD ■	0.8-0.95	16.5	+/- 0.5	+30.5	+46.0	300 @ 5.0	-SD (SOIC-8)	I
Power Amplifier	XP9003 ■	1.6	38.0	+/- 0.5	+43.0	-	2900 @ 9.0	(40x42.8 mm)	S
Power Amplifier	XP1066-SD ■	1.9-2.17	12.0	+/- 0.5	+30.0	+46.0	300 @ 5.0	-SD (SOIC-8)	I
Power Amplifier (QFN)	CHV2720-QJ ■	2.3-2.7	11.0	+/- 0.5	+39.0	+51.0**	160 @ 12.0	-QJ (6x6 mm)	I

*EVM = 2.5% @ 1W • **EVM = 2.5% @ 1.5W • ***EVM = 2.5% @ 0.5W

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Power Amplifiers (cont.)

Description	Part Number	Frequency (GHz)	Gain (dB)	Gain Flatness (dB)	Output P1dB (dBm)	OIP3 (dBm)	Bias (mA @ V)	Package	Applications
Power Amplifier (QFN)	XP1065-QJ ■	2.3-2.7	16.0	+/- 0.5	+34.5	+46.0***	550 @ 8.0	-QJ (6x6 mm)	I
Power Amplifier (QFN)	CHV2721-QJ ■	3.3-3.6	11.0	+/- 0.5	+39.0	+51.0**	160 @ 12.0	-QJ (6x6 mm)	I
Power Amplifier (QFN)	XP1048-QJ ■	3.3-3.8	13.0	+/- 0.5	+34.5	+46.0***	600 @ 8.0	-QJ (6x6 mm)	I
Power Amplifier	XP1044-QL ■	4.9-5.9	17.0	+/- 0.5	+34.5	+46.0***	800 @ 8.0	-QL (7x7 mm)	I
Power Amplifier (QFN)	XP1039-QJ ■	5.6-7.1	16.0	+/- 0.5	+35.5	+49.0	1200 @ 8.0	-QJ (6x6 mm)	I / P
Power Amplifier (QFN)	XP1050-QJ ■	7.1-8.5	16.0	+/- 0.5	+35.5	+49.0	1200 @ 8.0	-QJ (6x6 mm)	I / P
Power Amplifier	XP1042-BD ■	12.0-16.0	21.0	+/- 1.0	+25.0	+38.0	500 @ 5.0	DIE	P
Power Amplifier (QFN)	XP1042-QT ■	12.0-16.0	21.0	+/- 1.0	+25.0	+38.0	500 @ 5.0	-QT (3x3 mm)	P
Power Amplifier	XP1043-BD ■	12.0-16.0	21.5	+/- 1.0	+30.0	+41.0	700 @ 7.0	DIE	P
Power Amplifier (QFN)	XP1043-QH ■	12.0-16.0	21.5	+/- 1.0	+30.0	+41.0	700 @ 7.0	-QH (4x4 mm)	P
Power Amplifier	XP1059-BD ■	13.5-15.0	28.0	+/- 1.0	+36.0	+46.0	2.1 A @ 8.0	DIE	S / D
Power Amplifier	XP1057-BD ■	13.5-16.0	17.0	+/- 1.0	+39.0	+48.0	4.0 A @ 8.0	DIE	S / P / D
Power Amplifier	XP1058-BD ■	14.0-16.0	27.0	+/- 1.0	+36.0	+45.0	2.1 A @ 8.0	DIE	S / P / D
Power Amplifier (QFN)	XP1051-QH ■	29.5-30.0	16.0	+/- 0.5	+30.0 (Psat)	-	1000 @ 5.0	-QH (4x4 mm)	S
Power Amplifier	XP1054-BD ■	33.0-36.0	20.0	+/- 1.0	+34.5 (Psat)	-	1.9 A @ 6.0	DIE	D
Power Amplifier	XP1055-BD ■	34.0-36.0	20.0	+/- 1.0	+33.5 (Psat)	-	1.9 A @ 6.0	DIE	D
Power Amplifier	XP1056-BD ■	34.5-38.0	13.0	+/- 1.0	+26.0 (Psat)	-	190 @ 6.0	DIE	D

*EVM = 2.5% @ 1W • **EVM = 2.5% @ 1.5W • ***EVM = 2.5% @ 0.5W

Transmitters

Description	Part Number	RF Frequency (GHz)	LO Frequency (GHz)	IF Bandwidth (GHz)	Conversion Gain (dB)	LO Input Power (dBm)	Output P1dB (dBm)	Output IP3 (dBm)	Bias (mA @ V)	Package	Applications
Up-Converter	XU1014-BD ■	8.0-18.0	5.0-21.0	DC-3.5	-10.0	+5.0	+2.0	+12.0	80 @ 4.0	DIE	P / D
Up-Converter (QFN)	XU1014-QH ■	8.0-18.0	5.0-21.0	DC-3.5	-10.0	+5.0	+2.0	+12.0	80 @ 4.0	-QH (4x4 mm)	P / D

NEW PRODUCTION DEVICES

The following parts are now in production:

CMM0016-BD Power Amplifier	XPI035-QH Power Amplifier (QFN)	XRI011-BD Receiver
XLI010-BD Low Noise Amplifier	XPI042-BD Power Amplifier	XRI011-QH Receiver (QFN)
XLI010-QT Low Noise Amplifier (QFN)	XPI042-QT Power Amplifier (QFN)	XXI007-BD Doubler
XMI003-BD Image Reject Mixer	XPI043-BD Power Amplifier	XXI007-QT Doubler (Single Supply / QFN)
XPI035-BD Power Amplifier	XPI043-QH Power Amplifier (QFN)	

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