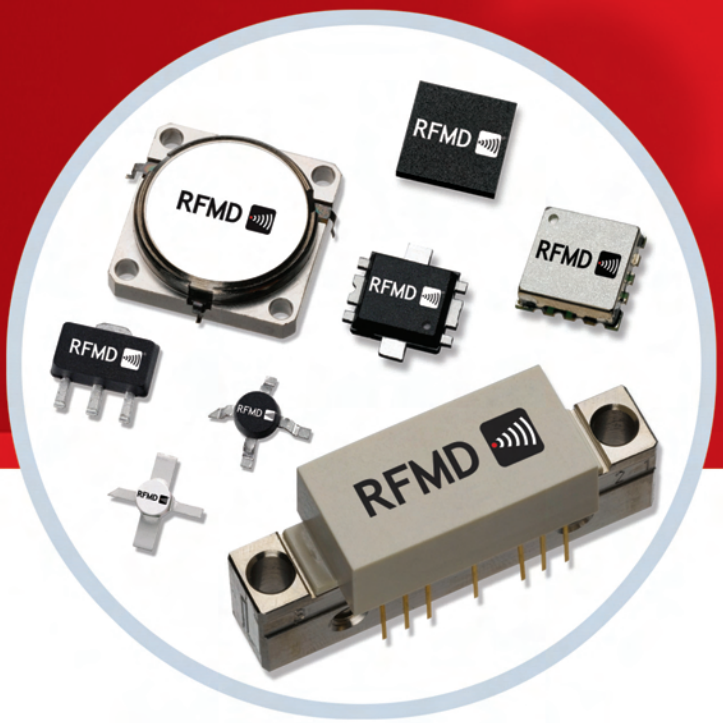
2009 RFMD® Multi-Market Product Selection Guide



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Amplifiers (Broadband, General Purpose)

Table 1

SiGe HBT Active Bias Gain Blocks (SGC)

Part Number	Freq Range (MHz)	Gain (dB)	NF (dB)	OP1dB (dBm)	OIP3 (dBm)	Vd (V)	Id (mA)	Package
SGC-2363Z	50 to 4000	17.0	3.7	10.4	23.0	3.0	26.0	SOT-363
SGC-2386Z	50 to 4000	17.0	3.8	10.5	23.0	3.0	26.0	SOT-86
SGC-2463Z	50 to 4000	19.8	3.5	10.5	22.5	3.0	26.0	SOT-363
SGC-2486Z	50 to 4000	19.9	3.3	10.5	23.0	3.0	25.0	SOT-86
SGC-4263Z	50 to 4000	–	3.3	15.2	32.0	3.0	–	SOT-363
SGC-4363Z	50 to 4000	17.1	4.0	13.3	28.5	3.0	54.0	SOT-363
SGC-4386Z	50 to 4000	16.7	3.7	13.4	29.5	3.0	54.0	SOT-86
SGC-4463Z	50 to 4000	20.5	3.7	13.8	28.0	3.0	52.0	SOT-363
SGC-4486Z	50 to 4000	20.5	3.4	13.8	29.0	3.0	52.0	SOT-86
SGC-4563Z	50 to 4000	26.5	1.7	16.8	29.5	3.0	–	SOT-363
SGC-6289Z	50 to 3500	14.0	3.3	19.0	34.5	5.0	83.0	SOT-89
SGC-6386Z	50 to 4000	16.3	3.4	19.3	35.6	5.0	85.0	SOT-86
SGC-6389Z	50 to 4000	16.3	3.7	19.5	36.0	5.0	84.0	SOT-89
SGC-6489Z	50 to 3500	22.2	2.4	20.6	34.1	5.0	85.0	SOT-89

Table 2

SiGe HBT Gain Blocks (SGA)

Part Number	Freq Range (MHz)	Gain (dB)	NF (dB)	OP1dB (dBm)	OIP3 (dBm)	Vcc (V)	Id (mA)	Package
SGA-0163Z	DC to 4500	12.7	4.6	-1.8	9.4	2.1	8	SOT-363
SGA-0363Z	DC to 4500	19.6	3.0	2.3	14.2	2.5	11	SOT-363
SGA-1263Z	DC to 4000	15.7	2.7	-7.8	2.6	2.8	8	SOT-363
SGA-2163Z	DC to 5000	10.5	4.1	7.1	21.0	2.2	20	SOT-363
SGA-2186Z	DC to 5000	10.2	4.3	7.5	20.0	2.2	20	SOT-86
SGA-2263Z	DC to 5000	14.7	3.2	7.5	20.2	2.2	20	SOT-363
SGA-2286Z	DC to 5000	15.0	3.2	8.3	20.0	2.2	20	SOT-86
SGA-2363Z	DC to 5000	17.5	2.9	8.2	19.4	2.7	20	SOT-363
SGA-2386Z	DC to 5000	17.2	2.9	8.5	20.5	2.7	20	SOT-86
SGA-2463Z	DC to 5000	20.0	2.6	8.0	20.1	2.7	20	SOT-363
SGA-2486Z	DC to 5000	19.8	2.7	8.4	20.0	2.7	20	SOT-86
SGA-3263Z	DC to 5000	15.0	3.6	11.6	26.2	2.6	35	SOT-363
SGA-3286Z	DC to 5000	14.5	3.7	12.2	25.5	2.6	35	SOT-86
SGA-3363Z	DC to 3500	17.5	2.9	11.6	25.4	2.6	35	SOT-363
SGA-3386Z	DC to 5000	17.0	3.2	12.3	24.3	2.6	35	SOT-86
SGA-3463Z	DC to 5000	21.5	2.5	11.3	24.0	2.9	35	SOT-363
SGA-3486Z	DC to 5000	21.0	2.8	12.7	24.6	2.9	35	SOT-86
SGA-3563Z	DC to 5000	25.5	2.3	13.0	24.0	3.3	35	SOT-363
SGA-3586Z	DC to 5000	25.0	2.5	13.0	24.5	3.3	35	SOT-86
SGA-4163Z	DC to 5000	10.5	4.8	13.0	29.7	3.2	45	SOT-363
SGA-4186Z	DC to 5000	10.0	4.7	14.6	28.3	3.2	45	SOT-86
SGA-4263Z	DC to 3500	14.0	3.4	14.2	29.3	3.2	45	SOT-363
SGA-4286Z	DC to 5000	13.5	3.7	15.0	29.1	3.2	45	SOT-86
SGA-4363Z	DC to 4000	17.5	2.7	14.3	28.7	3.2	45	SOT-363
SGA-4386Z	DC to 4500	17.0	2.9	15.3	28.9	3.2	45	SOT-86
SGA-4463Z	DC to 3500	19.0	2.5	14.0	27.0	3.2	45	SOT-363
SGA-4486Z	DC to 4500	18.5	2.7	15.4	28.2	3.2	45	SOT-86
SGA-4563Z	DC to 2500	25.6	1.9	15.0	27.1	3.6	45	SOT-363
SGA-4586Z	DC to 4000	24.0	1.7	16.5	28.6	3.6	45	SOT-86
SGA-5263Z	DC to 4500	13.3	4.0	16.3	32.5	3.4	60	SOT-363
SGA-5286Z	DC to 5000	13.5	4.1	17.0	31.0	3.5	60	SOT-86
SGA-5289Z	DC to 5000	13.4	4.2	15.8	31.8	3.5	60	SOT-89
SGA-5386Z	DC to 5000	16.6	3.5	17.0	32.0	3.6	60	SOT-86
SGA-5389Z	DC to 4500	16.4	3.3	16.3	31.5	3.6	60	SOT-89
SGA-5486Z	DC to 3500	18.8	3.1	17.0	32.0	3.5	60	SOT-86
SGA-5489Z	DC to 4000	19.7	2.8	16.0	30.8	3.3	60	SOT-89

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Amplifiers (Broadband, General Purpose) *(Continued from page 3.)*

Table 2 **SiGe HBT Gain Blocks (SGA)** *continued*

Part Number	Freq Range (MHz)	Gain (dB)	NF (dB)	OP1dB (dBm)	OIP3 (dBm)	Vcc (V)	Id (mA)	Package
SGA-5586Z	DC to 4000	23.1	2.5	18.1	31.6	3.9	60	SOT-86
SGA-5589Z	DC to 4000	23.8	3.0	18.2	32.9	3.9	60	SOT-89
SGA-6286Z	DC to 5500	13.6	3.9	18.7	35.0	4.0	75	SOT-86
SGA-6289Z	DC to 4500	13.9	3.7	18.1	34.4	4.0	75	SOT-89
SGA-6386Z	DC to 5000	15.4	3.6	21.0	36.0	4.9	80	SOT-86
SGA-6389Z	DC to 4500	15.5	3.8	20.2	35.2	4.9	80	SOT-89
SGA-6486Z	DC to 4500	19.7	3.0	20.2	35.0	5.1	75	SOT-86
SGA-6489Z	DC to 3500	20.1	2.7	20.7	34.0	5.1	75	SOT-89
SGA-6586Z	DC to 4000	23.8	2.7	21.5	33.8	4.9	80	SOT-86
SGA-6589Z	DC to 3500	25.2	2.5	21.5	32.5	4.9	80	SOT-89
SGA-7489Z	DC to 3000	21.5	2.8	22.4	35.5	5.0	115	SOT-89

Table 3 **InGaP HBT Active Bias Gain Blocks (SBB)**

Part Number	Freq Range (MHz)	Gain (dB)	NF (dB)	OP1dB (dBm)	OIP3 (dBm)	Vd (V)	Id (mA)	Package
SBB-1089Z	50 to 850	15.5	3.5	19.0	43.0	5.0	90	SOT-89
SBB-2089Z	50 to 850	20.0	2.7	20.0	43.0	5.0	90	SOT-89
SBB-3089Z	50 to 6000	16.5	3.9	15.0	30.0	4.2	42	SOT-89
SBB-4089Z	50 to 6000	15.5	4.5	19.5	35.0	5.0	80	SOT-89
SBB-5089Z	50 to 6000	20.0	4.2	20.5	35.0	5.0	75	SOT-89

Table 4 **GaAs HBT Gain Blocks**

Part Number	Freq Range (MHz)	Gain (dB)	NF (dB)	OP1dB (dBm)	OIP3 (dBm)	Vcc (V)	Icc (mA)	Package
RF3374	DC to 6000	18.7	3.5	17.5	32.0	4.5	65	SOT-89
RF3375	DC to 6000	13.2	4.5	16.0	29.0	5.2	65	SOT-89
RF3376	DC to 6000	19.8	2.0	11.5	24.0	3.4	35	SOT-89
RF3377	DC to 6000	15.5	2.8	12.5	25.5	3.7	40	SOT-89
RF3378	DC to 6000	12.0	3.7	13.5	24.0	3.9	40	SOT-89
RF3394	DC to 6000	18.7	3.5	17.5	32.0	4.5	65	QFN-12
RF3395	DC to 6000	12.7	5.3	17.5	33.5	5.2	65	LCC-12
RF3396	DC to 6000	19.8	2.0	11.5	24.0	3.4	35	QFN-12
RF3397	DC to 6000	15.5	2.8	13.0	25.5	3.7	40	QFN-12
RF3398	DC to 6000	12.0	3.7	13.6	25.4	3.9	40	QFN-12

Table 5 **InGaP HBT Gain Blocks**

Part Number	Freq Range (MHz)	Gain (dB)	NF (dB)	IP1dB (dBm)	OP1dB (dBm)	OIP3 (dBm)	Vcc (V)	Icc (mA)	Package (dim. in mm)
NBB-300	DC to 12000	12.0	5.2	0.0	13.0	27.1	3.6 to 4.2	50	Ceramic Micro-X
NBB-302	DC to 12000	12.5	5.5	2.7	13.7	23.5	3.6 to 4.2	50	Ceramic MPGA 3 x 3
NBB-310	DC to 12000	11.5	4.9	2.8	13.8	24.0	4.6 to 5.3	50	Ceramic Micro-X
NBB-312	DC to 12000	12.5	4.9	3.4	15.8	24.0	4.7 to 5.3	50	Ceramic MPGA 3 x 3
NBB-400	DC to 8000	16.0	4.3	1.0	15.0	28.1	3.6 to 4.2	47	Ceramic Micro-X
NBB-402	DC to 8000	14.3	4.3	0.0	15.8	26.0	3.6 to 4.2	47	Ceramic MPGA 3 x 3
NBB-500	DC to 4000	19.0	3.2	-5.7	12.3	26.5	3.6 to 4.2	35	Ceramic Micro-X
NBB-502	DC to 4000	19.0	4.0	-5.0	13.0	23.0	3.6 to 4.2	35	Ceramic MPGA 3 x 3
NLB-300	DC to 10000	12.0	4.9	-0.9	11.1	28.6	3.6 to 4.2	50	Plastic Micro-X
NLB-310	DC to 10000	12.0	5.0	1.6	12.6	28.9	4.4 to 4.8	50	Plastic Micro-X
NLB-400	DC to 6000	15.5	4.1	-3.5	12.0	29.6	3.6 to 4.2	47	Plastic Micro-X
SBA-4086Z	DC to 5000	14.2	4.8	—	19.0	33.5	5.0	80	SOT-86
SBA-4089Z	DC to 5000	14.6	4.8	—	19.0	33.5	5.0	80	SOT-89
SBA-5086Z	DC to 5000	17.2	4.5	—	19.5	34.0	4.9	80	SOT-86
SBA-5089Z	DC to 5000	18.0	4.5	—	19.5	34.0	4.9	80	SOT-89
SBF-4089Z	DC to 500	14.8	3.3	—	20.1	42.0	4.9	90	SOT-89
SBF-5089Z	DC to 500	20.0	2.8	—	21.0	41.0	4.9	90	SOT-89

Low Noise Amplifiers and Discretes

Table 6

Low Noise Amplifier MMICs

Part Number	Freq Range (MHz)	Gain (dB)	NF (dB)	OP1dB (dBm)	OIP3 (dBm)	IIP3 (dBm)	Vcc (V)	Icc (mA)	Package (dim. in mm)
CXE-2022Z	48 to 1000	17.5	1.2	1.3	–	0.0	2.7 to 3.3	20.0	QFN 2 x 2
FMA219	7000 to 11,000	21.0	1.1	12.0	–	–	3.0	65.0	Die 1.62 x 1.62
FMA3058	2000 to 20,000	15.0	6.5	15.0	–	–	–	90.0	Die
RF2304	300 to 2500	11.7 at 300 MHz	1.6	16.0	15.0	–	2.7 to 6.0	8.4	SOIC-8
RF2314	150 to 2500	14.0 at 900 MHz	1.5	18.0	9.0	–	2.7 to 6.0	12.5	SOT23-5
RF2370	1500 to 3800 w/bypass	19.0 at 0.9 GHz, 12.0 at 2.45 GHz	1.2 at 0.9 GHz, 1.6 at 2.45 GHz	–	7.0	–	1.8 to 5.0	7.0	SOT-6
RF2373	400 to 4000	19.0 at 0.9 GHz, 12.0 at 2.45 GHz	1.6	–	7.0	–	2.7 to 5.0	10.0	SOT-5
RF2374	400 to 4000 w/bypass	19.0 at 0.9 GHz, 12.0 at 2.45 GHz	1.6	–	7.0	–	1.8 to 5.0	7.0	QFN-8, 2.2 x 2.2 x 0.6
RF2442	500 to 2500	19.0 at 881 MHz	1.5	–		–	2.5 to 5.0	12.0	MSOP-8
RF2472	DC to >6GHz	18.7 at 0.9 GHz, 12 at 2.45 GHz	1.5	–	22.0	–	2.7 to 3.6	6.0	SOT-5
RF2815	–	13.5	0.9	–	–	8.0	1.0 to 3.6	–	3.3 x 2.1 x 1.0
RF2878	–	20.5 at 836 MHz	1.0 to 2.0	–	26.0	–	2.7 to 4.0	variable (6.0 to 22.0)	SOT23-5
RF2884	45 to 2500	15.0	1.5	5.0	–	4.0	2.7 to 3.0	6.0	QFN-12, 3 x 3
RF3827	5 to 1500	20.0	1.2 to 1.5	24.0	39.0		5.0 to 9.0	110.0	QFN 3 x 3
RF3857	800 to 4000 w/bypass	14.0 at 2.45 GHz, 12.0 at 3.50 GHz	1.3 1.7	11.0 10.0	21.0	7.0	1.8 to 5.0	7.0	QFN 3 x 3
RF3861	400 to 3800	16.0 (700 MHz) to 10.0 (3800 MHz)	1.0	22.5	36.0	–	2.5 to 6.0	90.0	QFN-16, 3 x 3
RF3863	700 to 3800	18.0 (700 MHz) to 10.0 (3800 MHz)	0.7	22.5	35.0	–	2.5 to 6.0	90.0	QFN-16, 3 x 3
RF3865	400 to 3800	33.0 (700 MHz) to 20.0 (3800 MHz)	1.1	22.5	36.0	–	2.5 to 6.0	180.0	QFN-20, 5 x 5
RF3863	700 to 3800	18.0 (700 MHz) to 10.0 (3800 MHz)	0.7	22.5	35.0	–	2.5 to 6.0	90.0	QFN-16, 3 x 3
RF3865	400 to 3800	33.0 (700 MHz) to 20.0 (3800 MHz)	1.1	22.5	36.0	–	2.5 to 6.0	180.0	QFN-20, 5 x 5
RF3866	400 to 3800	32.0 (700 MHz) to 20.0 (3800 MHz)	0.8	22.5	36.0	–	2.5 to 6.0	180.0	QFN-20, 5 x 5
RF3867	700 to 3800	18.5 (700 MHz) to 10.0 (3800 MHz)	0.8	22.5	36.0	–	2.5 to 6.0	180.0	QFN-20, 5 x 5
RF5515	–	11.0 at 5500 MHz	1.6	–	22.0	–	–	12.0	QFN 2.2 x 2.2 x 0.5
RF5601	–	11.0 at 5500 MHz	1.6	–	22.0	–	–	12.0	QFN 2.2 x 2.2 x 0.5
SGA-4563Z	DC to 2500	25.6	1.9	15.0	27.1	–	3.6	45.0	SOT-363
SGA-4586Z	DC to 4000	24.0	1.7	16.5	28.6	–	3.6	45.0	SOT-86
SGL-0163Z	100 to 1300	15.5	1.2	5.2	–	7.0	2.5 to 4.0	12.0	SOT-363
SGA-8343	DC to 4000	24.0 at 0.9 GHz, 14.0 at 2.45 GHz	1.2 1.5	9.0	27.0	3.0 13.0	3.0 to 5.0	10	SOT-343
SGA-8343	DC to 4000	24.0 at 0.9 GHz, 14.0 at 2.45 GHz	1.2 1.5	9.0	27.0	3.0 13.0	3.0 to 5.0	10	SOT-343
SGL-0263Z	1400 to 2500	10.8	2.0	7.9	–	15.5	2.5 to 4.0	12.5	SOT-363
SGL-0363Z	5 to 2000	20.0	1.1	2.5	–	-7.1	2.7 to 3.3	5.7	SOT-363
SGL-0622Z	5 to 4000	28.5	1.5	5.3	–	-13.0	2.7 to 3.6	10.5	QFN 2 x 2
SPF-5122Z	50 to 4000	18.9	0.6	23.0	38.0	–	3.0 to 5.0	90.0	QFN 2 x 2
SPF-5189Z	50 to 4000	18.7 at 0.9 GHz, 12.8 at 1.96 GHz	0.55 at 0.9 GHz, 1.96 GHz	22.4 at 0.9 GHz, 22.7 at 1.96 GHz	38.5 at 0.9 GHz, 39.5 at 1.96 GHz	–	3.0 to 5.0	90.0	SOT-89
SPF-5344Z	800 to 4000	24.5	0.80 at 2.0 GHz	22.4 at 2.0 GHz	39.0 at 2.0 GHz	–	3.0 to 5.0	120.0	QFN 4 x 4

Continued on page 6.

Low Noise Amplifiers and Discretes *(Continued from page 5.)*

Table 6A

Low Noise Amplifier + Switch

Part Number	Freq Range (MHz)	Integrated Switch	LNA Gain (dB)	NF (dB)	Switch Insertion Loss (dB)	Switch P1dB (dBm)	OP1dB (dBm)	OIP3 (dBm)	IIP3 (dBm)	Vcc (V)	Icc (mA)	RF ports DC-blocked	Package (dim. in mm)
RF5501	2400 to 2500	SP3T	11.5	1.9	0.6	29	5	19	7	3.0 to 4.5	9	No	QFN 2 x 2 x 0.5
RF5511	2400 to 2500	SP3T	11.5	1.8	0.6	29	5	19	7	3.0 to 4.5	9	No	Flip Chip 1 x 1 x 0.5
RF5521	2400 to 2500	SP3T	11.5	1.9	0.6	29	5	19	7	3.0 to 4.5	9	No	QFN 1.75x1.75x0.5
RF5611	2400 to 2500	SP3T	11	2.2	0.8	29	5	19	7	3.0 to 4.5	9	Yes	QFN 2x2x0.5

Table 7

pHEMT Low Noise Discrete Transistors

		Typical 1.85 GHz Performance				Typical 2.0 GHz Performance				Typical 5.8 GHz Performance						
Part Number	Freq Range (MHz)	Gain (dB)	OP1dB (dBm)	OIP3 (dBm)	NF (dB)	Gain (dB)	OP1dB (dBm)	OIP3 (dBm)	NF (dB)	Gain (dB)	OP1dB (dBm)	OIP3 (dBm)	NF (dB)	Vcc (V)	Icc (mA)	Package (dim. in mm)
FPD1050SOT89	700 to 6000	17.5	24.5	36	0.4	16.6	26.0	40.0	0.45	—	—	—	—	5	80	4.5 x 4.19
FPD200P70	1000 to 26000	21	20.0	30.0	0.3	—	—	—	—	17	19.0	28.0	0.7	5/3	30	P70 4.8 x 4.8 x 1.12
FPD3000SOT89	700 to 3000	13	30.0	45.0	1.3	13	30.0	45.0	1.3	—	—	—	—	5	450	SOT-89 4.5 x 4.25
FPD6836P70	500 to 18000	19	22.0	32.0	0.5	19	22.0	32.0	0.5	16	22.0	32.0	0.8	5	55	P70 4.8 x 4.8 x 1.12
FPD6836SOT343	1000 to 5000	19	18.0	32.0	0.4	18	18.0	32.0	0.5	13	18.0	31.0	0.8	3	50	2.4 x 2.25
FPD750SOT343	1000 to 5000	16.5	19.0	31.0	0.6	18	20.0	31.0	0.6	10.5	20.0	33.0	0.9	3.3	40	2.4 x 2.25
FPD750SOT89	700 to 5000	20	24.0	39.0	0.8	20	24.0	39.0	0.8	11.5	24.0	35.0	1.5	5	100	SOT-89 4.5 x 4.25
FPD7612P70	1000 to 18000	21	20.0	30.0	0.5	—	—	—	—	—	—	—	—	5	30	P70 4.8 x 4.8 x 1.12
FPM21500QFN	700 to 5000	16.5	29.0	38.0	0.7	—	—	—	—	—	—	—	—	4	100	QFN 4 x 4 x 0.9
FPM2750QFN	700 to 5000	18	24.0	38.0	0.6	18	24.0	38.0	0.6	N/A	N/A	N/A	N/A	4	100	QFN 4 x 4 x 0.9
FPD1500SOT89	700 to 4500	17	27.5	42.0	1.0	17	27.5	42.0	1.0	10	25.0	40.0	1.8	5	200	SOT-89 4.5 x 4.25
FPD2250SOT89	700 to 3500	14	29.0	44.0	1.2	14	29.0	44.0	1.2	—	—	—	—	5	300	SOT-89 4.5 x 4.25
FPD750DFN	700 to 5000	24.0	38.0	0.6	13	24.0	35.0	1.5	—	—	—	—	5	5	100	DFN 2.0 x 2.0
FPD1500DFN	700 to 5000	18	27.0	42.0	1.2	18	27.0	42.0	1.2	10.5	27.0	39.0	1.8	5	200	DFN 2.0 x 2.0

Table 8

Variable Gain Amplifiers

Part Number	Freq Range (MHz)	Gain (dB)	NF (dB)	OP1dB (dBm)	OIP3 (dBm)	Vcc (V)	Icc (mA)	Eff (%)	Gain Control Range (dB)	Package (dim. in mm)
RF2155	400 to 950	31.0	—	27.0	—	3.0 to 5.0	50.0	60.0	1.5 to 31	Standard Batwing
RF2377	800 to 2200	24.0 at 1880	—	—	—	2.7 to 3.3	45.0	—	50.0	SOT23-6
RF2381	800 to 2100	20.0 at 1880	—	8.0	26.0	2.7 to 3.3	35.0	—	50.0	SOT23-6
RF2637	12 to 385	40.0 to 60	—	—	—	2.7 to 3.4	14.0	—	90.0	MSOP-8

High-Linearity Amplifiers and Discretes

Table 9

High-Linearity MMICs

Part Number	Freq Range (MHz)	Gain (dB)	NF (dB)	OP1dB (dBm)	OIP3 (dBm)	Vcc (V)	Icc (mA)	Eff (%)	Package (dim. in mm)
CGA-3318Z	5 to 900	12.5	4.5	20.0	38.0	8.0	150	–	ESOP-8
CGA-6618Z	1 to 1000	13.8	5.3	21.0	40.0	8.0	150	–	ESOP-8
CGB-1089Z	48 to 1000	16.0	3.5	18.0	35.0	5.0	80	–	SOT-89
CGR-0118Z	5 to 120	25.0	3.0	–	37.5	8.0 to .0	138	–	SOIC-8
CXE-1089Z	48 to 1000	13.0	3.0	18.5	38.5	5.0	–	–	SOT-89
RF2132	450 to 950	29 at 836 MHz	–	30.0	–	5.0	40	45	Standard Batwing
RF2155	400 to 950	31.0	–	27.0	–	3.0 to 5.0	50	60	Standard Batwing
RF2312	DC to 2500	16.0	4.2	18.5	30.0	9.0	100	–	SOIC-8
RF2317	DC to 3000	15.0	5.3	22.0	38.0	9.0 to 12.0	180	–	CJ2BAT0
RF2320	5 to 2500	16.7	2.6	22.0	36.0	6.0 to 9.0	85	–	CJ2BAT0
RF2360	5 to 1500	20.0	1.2	–	33.7	6.0 to 9.0	120	–	SOP-16 Batwing
RF2389	48 to 1000	16.3	3.0	–	38.5	5.0	110	–	SOT-89
RF3315	300 to 3000	12 at 2 GHz	3.0	25.0	40.0	5.0	100	–	SOT-89
RF3861	400 to 3800	16.0 (700 MHz) to 10.0 (3800 MHz)	1.0	22.5	36.0	2.5 to 6.0	90	–	QFN-16, 3 x 3
RF3863	700 to 3800	18.0 (700 MHz) to 10.0 (3800 MHz)	0.7	22.5	35.0	2.5 to 6.0	90	–	QFN-16, 3 x 3
RF3865	400 to 3800	33.0 (700 MHz) to 20.0 (3800 MHz)	1.1	22.5	36.0	2.5 to 6.0	180	–	QFN-20, 5 x 5
RF3866	400 to 3800	32.0 (700 MHz) to 20.0 (3800 MHz)	0.8	22.5	36.0	2.5 to 6.0	180	–	QFN-20, 5 x 5
RF3867	700 to 3800	18.5 (700 MHz) to 10.0 (3800 MHz)	0.8	22.5	36.0	2.5 to 6.0	180	–	QFN-20, 5 x 5
RF5110G	150 to 960	33.0	–	–	–	2.8 to 4.8	–	–	QFN-16, 3 x 3
FPD1000AS	–	15.0 at 1.8 GHz	–	–	–	10.0	200	–	4.4 x 3.8
FPD2000AS	–	14.0	–	–	–	10.0	350	–	4.4 x 3.8
SGA-8543Z	50 to 3500	19.0	–	–	–	3.3	86	–	SOT-343
SPA-1426Z	700 to 2200	14.0	–	–	–	–	325	–	SOF-26
SPA-1318Z	2110 to 2170	12.5	7.0	29.5	47.0	5.0	310	–	SOIC-8
SPA-1526Z	700 to 2200	13.5	5.5	32.0	49.0	5.0	645	–	SOF-26
SPA-2118Z	810 to 960	33.0	5.0	30.5	47.0	5.0	400	–	SOIC-8
SPA-2318Z	1700 to 2200	23.5	5.5	30.0	47.0	5.0	400	–	SOIC-8
SPB-2026Z	700 to 2200	13.7	5.2	33.8	–	5.0	445	–	SOF-26
SUF-1000	DC to 20,000	10.5	4.5	14.0	26.0	5.0	46	–	–
SUF-1033	DC to 18	9.5	4.8	13.7	24.3	5	46	–	QFN 3 x 3
SUF-2000	200 to 10,000	11.5	3.6	16.0	30.0	3.3	71	–	–
SUF-3000	250 to 16,000	10.0	4.8	15.5	26.5	5.0	51	–	–
SUF-4000	150 to 10,000	17.0	2.8	21.0	32.0	5.0	73	–	–
SUF-5000	100 to 3700	19.0	3.2	22.0	34.5	5.0	90	–	–
SUF-5033	0.1 to 4	18.5	3.6	21.0	27.6	5	90		QFN 3 x 3
SUF-6000	2000 to 16,000	20.5	4.7	14.0	27.5	5.0	107	–	–
SUF-8033	DC to 12	14.6	4.2	16.8	25.7	5	58	–	QFN 3 x 3
SXA-3318BZ	400 to 2500	17.5	5.1	28.0	47.0	5.0	240	–	SOIC-8
SXA-389Z	400 to 2500	19.0	5.5	25.0	42.0	5.0	115	–	SOT-89
SXA-389BZ	400 to 2500	18.4	5.0	25.0	42.0	5.0	115	–	SOT-89
SXB-2089Z	5 to 2500	17.0	4.2	24.5	43.0	5.0	135	–	SOT-89
SXB-4089Z	400 to 2500	20.0	5.6	27.5	43.5	5.0	265	–	SOT-89
SXE-1089Z	50 to 3000	11.7	3.2	22.9	38.5	5.0	128	–	SOT-89

Table 10

WiMAX/WiFi High Power Amplifiers

	Part Number	Description	Freq Range (MHz)	Gain (dB)	Pout (dBm)	EVM (%)	Vcc (V)	Icc (mA)	Package (dim. in mm)
	SZA-2044Z	1W Class AB Amplifier	2300 to 2700	25.0	22.0	3.0	5.0	300	QFN, 4 x 4
NEW	RF5602	2W Class AB Amplifier	2300 to 2700	34.0	26.0	2.5	5.0	450	QFN 3 x 3
			2300 to 2700	34.0	23.0	3.0	3.3	350	
	SZP-2026Z	2W Class AB Amplifier	2300 to 2700	13.5	26.0	2.5	5.0	570	SOF-26
	SZM-2066Z	2W Class AB Amplifier	2300 to 2700	36.0	26.5	2.5	5.0	660	QFN 6 x 6
	SZM-2166Z	2W Class AB Amplifier	2300 to 2700	36.0	27.0	2.5	3.0 to 6.0	880	QFN 6 x 6
NEW	RF5632	2W Class AB Amplifier	2300 to 2700	35.0	28.0	2.5	5.0	950	QFN 4 x 4

Continued on page 8.

High-Linearity Amplifiers and Discretes *(Continued from page 7.)*

Table 10

WiMAX/WiFi High Power Amplifiers *continued*

	Part Number	Description	Freq Range (MHz)	Gain (dB)	Pout (dBm)	EVM (%)	Vcc (V)	Icc (mA)	Package (dim. in mm)
	SZA-3044Z	1W Class AB Amplifier	2700 to 3800	25.0	24.0	2.5	5.0	340	QFN 4 x 4
	SZP-3026Z	2W Class AB Amplifier	3300 to 3800	11.8	26.0	2.5	5.0	540	SOF-26
	SZM-3066Z	2W Class AB Amplifier	3300 to 3800	34.0	26.0	2.5	5.0	700	QFN 6 x 6
	SZM-3166Z	2W Class AB Amplifier	3300 to 3600	35.0	27.0	2.5	3.0 to 5.2	900	QFN 6 x 6
NEW	RF5633	2W Class AB Amplifier	3300 to 3800	33.0	28.0	2.5	5.0	1050	QFN 4 x 4
	RF5643	2W Class AB Amplifier	2300 to 2500, 2500 to 2700, 2700 to 2900, 3300 to 3800	10.0	30.0	2.5	5.0	1200	QFN 3 x 8
NEW	STA-5063Z	30mW Class A Amplifier	3300 to 6200	14.0	15.0	—	3.0 to 3.6	52	SOT-363
NEW	RF5616	1W Class AB Amplifier	4900 to 5900	28.0	21.0	3.0	5.0	250	QFN 3 x 3
	SZA-5044Z	1W Class AB Amplifier	4900 to 5900	28.0	22.0	3.0	5.0	270	QFN 4 x 4
	SZP-5026Z	2W Class AB Amplifier	4900 to 5900	9.0	25.0	2.5	5.0	570	SOF-26
NEW	SZM-5066Z	2W Class AB Amplifier	4900 to 5900	17.0	25.0	2.5	5.0	600	QFN 6 x 6

Table 11

WiFi Front End Modules

	Part Number	Functionality	Type	11g Pout (dBm)	11b Pout (dBm)	11a Pout (dBm)	11bg Gain (dB)	11a Gain (dB)	11g EVM (%)	11a EVM (%)	Vcc (V)	11g Op. Current (mA)	11b Op. Current (mA)	11a Op. Current (mA)	Package (dim. in mm)
	RF5924	PA, SP3T, Rx Balun	.11 b/g	16.0	20.0	—	31.5	—	3.0	—	3.3	175	240	—	3.5 x 3.5 x 1.4
NEW	RF5225	PA, SP3T, Rx Balun	.11 b/g	16.0	20.0	—	26.0	—	3.0	—	3.3	130	160	—	QFN 3 x 3 x 0.5
NEW	RF3482	PA, SP3T, Rx Balun	.11 b/g	16.0	20.0	—	33.0	—	3.0	—	3.3	135	160	—	QFN 3 x 3 x 0.5
NEW	RF5345	PA, SP3T, LNA	.11 b/g	17.0	20.0	—	30.0	—	3.3	—	3.3	130	150	—	QFN 3 x 3 x 0.5
NEW	RF5725	PA, SP3T, LNA	.11 b/g	17.0	20.0	—	26.0	—	3.0	—	3.3	130	150	—	QFN 3 x 3 x 0.5
NEW	RF5325	PA, SP3T	.11 b/g	17.0	20.0	—	26.0	—	3.0	—	3.3	130	150	—	QFN 3 x 3 x 0.5
NEW	RF5755	PA, SP3T, LNA	.11 b/g	20.0	23.0	—	30.0	—	3.3	—	3.3	180	220	—	QFN 3 x 3 x 0.5
NEW	RF5506	PA, SPDT, LNA	.11 a	—	—	16.0	—	27.0	—	3.0	3.3	—	—	190	QFN 3 x 3 x 0.5
NEW	RF5516	PA, SPDT, LNA	.11 a	—	—	16.0	—	27.0	—	3.0	3.3	—	—	190	QFN 3 x 3 x 0.5
NEW	RF5686	PA, SPDT	.11 a	—	—	16.0	—	27.0	—	3.0	3.3	—	—	190	QFN 3 x 3 x 0.5
NEW	RF3688	2.4GHz PA, SP3T, Rx Balun 5 GHz PA, SPDT, Rx Balun	.11 a	16.0	—	—	33.0		3.0	—	3.3	135	—	180	QFN 3 x 3 x 0.5
	RF5388	2.4GHz PA, SP3T, MIMO, Diplexer 5 GHz PA, SPDT	.11 a/b/g	18.0	20.0	—	26.0	25.0	4.0	—	3.3	140	160	150	QFN 6 x 6 x 0.9
	RF5389	2.4GHz PA, SP3T, MIMO, Diplexer 5 GHz PA, SPDT	.11 a/b/g	18.0	20.0	—	26.0	25.0	4.0	—	3.3	140	160	150	QFN 6 x 6 x 0.9
NEW	RF5608	2.4GHz PA, SP3T, LNA, MIMO, Diplexer 5 GHz PA, SPDT, LNA	.11 a/b/g	16.0 20.0	20.0	13.0 16.0	28.0	27.0	2.0 4.0	2.0 4.0	3.3	160 200	240	160 200	QFN 5 x 5 x 0.9
NEW	RF5618	2.4GHz PA, SP3T, MIMO, Diplexer 5 GHz PA, SPDT	.11 a/b/g	16.0 18.0	20.0	13.0 16.0	28.0	27.0	2.0 4.0	2.0 4.0	3.3	160 200	240	160 180	QFN 5 x 5 x 0.9

Table 12

WiFi Power Amplifiers

	Part Number	Description	Freq Range (MHz)	Gain (dB)	Pout (dBm)	EVM (%)	Vcc (V)	Icc (mA)	Package (dim. in mm)
	RF5373	Driver Amplifier	2400 to 2500	28.0	12.0	3.0	1.8 to 3.6	55	QFN-8, 2.2 x 2.2 x 0.6
	RF5222	Linear Power Amplifier	2400 to 2500	31.0	17.0	3.0	3.0 to 4.2	125	QFN-8, 2.2 x 2.2 x 0.6
	RF5112	Linear Power Amplifier	2400 to 2500	28.0	23.0	3.0	3.0 to 5.0	185	QFN-16, 3 x 3 x 0.9
	RF5122	Linear Power Amplifier	2400 to 2500	24.0	18.0	2.5	3.0 to 3.6	120	QFN-8, 2.2 x 2.2 x 0.6
NEW	RF5322	Linear Power Amplifier	2400 to 2500	25.5	18.0	2.5	3.0 to 3.6	120	QFN-8, 2.2 x 2.2 x 0.4
NEW	RF5722	Linear Power Amplifier	2400 to 2500	25.5	18.0	2.5	3.0 to 3.6	120	QFN-8, 2.2 x 2.2 x 0.5
	RF5622	Linear Power Amplifier	2400 to 2500	30.0	18.0	3.0	3.0 to 3.6	95	QFN-8, 2.2 x 2.2 x 0.5
	RF5152	Linear Power Amplifier	2400 to 2500	34.0	18.0	3.0	3.0 to 3.6	130	QFN-16, 3 x 3 x 0.9
	RF5125	Linear Power Amplifier	2400 to 2500	28.0	23.0	3.0	3.0 to 5.0	185	QFN-16, 3 x 3 x 0.9
	RF5355	Linear Power Amplifier	4900 to 5850	26.0	18.0	4.0	3.0 to 5.0	140	QFN-8, 2.2 x 2.2 x 0.5
	RF5300	Linear Power Amplifier	4900 to 5850	30.0	18.0	4.0	3.0 to 5.0	265	QFN-16, 3 x 3 x 0.9
NEW	RF5616	Linear Power Amplifier	4900 to 5850	28.0	19.0	3.0	3.0 to 3.6	200	QFN-16, 3 x 3 x 0.9

Table 13

AMR/ZigBee® Power Amplifiers and Front End Modules

	Part Number	Freq Range (MHz)	PA Gain (dB)	LNA Gain (dB)	NF (dB)	OP1dB (dBm)	OIP3 (dBm)	Vcc (V)	LNA Icc (mA)	Switch	PA Icc (mA)	Efficiency (%)	Pout (dBm)	Package (dim. in mm)
	RF2172	902 to 2500	0 - 28	—	—	25.0	35.0	3.6	—	—	145	45	23.5	QFN-16, 4 x 4
	RF5110G	150 to 960	33.0	—	—	35.0	44.0	2.8 to 4.8	—	—	—	57	35	QFN 3 x 3
NEW	RF5745	2400 to 2500	27.0	12.5	2.2	26.0	36.0	3.0 to 4.2	10	SP3T	240	—	23	QFN 3 x 3 x 0.5
NEW	RF6515	2400 to 2500	28.0	—	—	—	—	3.0 to 4.2	10	SP2T	160	—	20	QFN 3.5 x 3.5 x 0.5

Table 14

High-Linearity Discrete Transistors

Part Number	Freq Range (MHz)	Gain (dB)	OP1dB (dBm)	OIP3 (dBm)	NF (dB)	Vd (V)	Id (mA)	Package	Process Technology
SHF-0189Z	50 to 6000	18.6	27.2	40.0	4.7	8.0	100	SOT-89	HFET
SHF-0289Z	50 to 6000	19.2	30.0	43.0	3.2	7.0	200	SOT-89	HFET

High-Frequency Amplifiers

Table 15

High-Frequency pHEMT MMIC Amplifiers

Part Number	Type	Freq Range (MHz)	Gain (dB)	NF (dB)	OP1dB (dBm)	OIP3 (dBm)	Vd (V)	Id (mA)	V- (V)
FMA246	High Gain X-Band MMIC Amplifier Die	8000 to 14,000	30.0	2.5	20.0	—	6.0	150.0	
FMA3007	Amplifier Die	2000 to 20000	11.5	4.5	25.0 at 10 GHz; 23.0 at 18 GHz	—	7.0	135.0	-0.3
FMA3008	Amplifier Die	2000 to 20000	11.0	4.5	23.5 at 10 GHz; 22.5 at 18 GHz	—	6.0	120.0	-0.3
FMA3011	Power Amplifier Die	12700 to 16000	30.0	4.0	28.0	37.0	7.0	450.0	-0.4
FMA3014	Limiting Amplifier Die	12700 to 16000	32.0	6.0	15.0	—	—	—	—
FMA3051	Amplifier Die	12500 to 15000	35.0	—	30.0	40.0	6.0	1200.0	-0.4

Table 16

High-Frequency pHEMT Discrete Die Transistors

Part Number	Freq Range (MHz)	Gain at 12 GHz (dB)	NF (dB)	OP1dB at 12 GHz (dBm)	OIP3 (dBm)	Vcc (V)	Id (mA)	Package (dim. in mm)
FPD200	1000 to 28000	17	1.1	19	—	5	30	0.4 x 0.4
FPD6836	1000 to 24000	16.5	—	25.5	—	8	110	0.4 x 0.4
FPD7612	2000 to 28000	17	1.1	20.5	—	3.0 to 5.0	27	0.52 x 0.335
FPD750	1000 to 20000	11.5	—	27	38	8	115	0.47 x .0.34
FPD1050	1000 to 16000	11	—	28	39	8	160	0.47 x .0.44
FPD1500	1000 to 18000	8.5	—	29	41	8	185	0.48 x .0.45
FPD2250	1000 to 18000	7.5	—	32.5	40	8	350	0.47 x .0.68
FPD3000	1000 to 15000	6.5	—	32.5	42	8	400	0.45 x .0.768

Switches

Table 17

Part Number	Type	Freq Range (MHz)	Insertion Loss (dB)	Isolation (dB)	OP1dB (dBm)	Vcc (V)	Package (dim. in mm)
FMS2014-001	SPDT	DC to 2500	0.5 at 1.8 GHz	>28.0 at 1.8 GHz	37	2.7 to 5.0	QFN 3 x 3 x 0.9
FMS2016-001	SP4T	DC to 2500	0.65 at 1.85 GHz	>30.0 at 1.8 GHz	37	2.7 to 5.0	QFN 3 x 3 x 0.9
FMS2016-005	SP4T Reflective	DC to 2500	0.65 at 1.8 GHz	>30.0 at 1.8 GHz	37	2.7 to 5.0	QFN 3 x 3 x 0.9
FMS 2020-001	SPDT	DC to 6000	1.0 at 6GHz	25.0 ar 2.5GHz	42 at 5GHz	2.7 to 5.0	QFN 3.3 x 0.9
FMS 2023	SPST Absorptive	DC to 20000	1.0 at 20 GHz	50.0 at 20 GHz	24.0 at 20GHz	-5	Die 1.91 x 1.11
FMS 2024	SPDT Absorptive	DC to 20000	1.4 at 20 GHz	37.0 at 20 GHz	24.0 at 20GHz	-5	Die 1.91 x 1.11
FMS 2027	SPDT Absorptive	DC to 20000	2.1 at 20 GHz	42.0 at 20 GHz	21.0 at 18GHz	-5	Die 0.93 x 1.33
FMS 2028	SP6T	DC to 2500	<0.41 (Tx) at 1.8GHz	>42.0 at 20 GHz	>37	2.7 to 6.0	Die 0.85 x 0.99
FMS 2029-000	SPST Absorptive	DC to 20000	1.6 at 15GHz	57.0 at 15 GHz	26	-5	Die
FMS2031-001	SPDT	DC to 6000	0.6 at 3.8 GHz	<36.0 at 3.8 GHz	>42.0	2.6 to 5.0	QFN 3 x 3
RF1126	SPDT	Low Freq. to 6000	0.25 at 1 GHz	—	—	—	QFN-6, 2 x 1.3
RF1128	SPDT	Low Freq to 3500	-0.35 at 1 GHz; -0.40 at 2 GHz	—	—	—	2.0 x 1.3 x 0.5
RF1131	SP3T	Low Freq to 2500	0.3 at 1 GHz	31.0 at 2 GHz	>34.0	—	QFN 2 x 2
RF1132	SP3T	Low Freq to 2500	0.5 at 1 GHz	23.0 at 1.90 GHz	>34.0	—	QFN-12, 2 x 2
RF1194	SP9T	—	—	—	—	—	4.5 x 4.5
RF1195	SP10T	—	—	—	—	—	4.5 x 4.5
RF1200	SPDT	Low Freq. to 2500	0.5 at 2 GHz	—	—	2.6 to 5.0	QFN-6, 2 x 2
RF1201	SPDT	Low Freq. to 2500	0.5 at 2 GHz	—	—	—	QFN 2 x 2 x 0.85
RF1450	SP4T	Low Freq. to 2500	0.40 at 1 GHz	29.0 at 1 GHz	—	—	QFN-16, 3 x 3
RF1480	SP8T	Low Freq to 2500	—	—	—	—	QFN-20, 3.5 x 3.5
RF2436	Transmit/Receive	DC to 2500	1	22.0 to 24.0	—	3.0	SOT23-5
RF3021	SPDT	10 to 6000	0.5 at 1 GHz	>50.0	27.0	2.8 to 5.0	QFN 3 x 3 x 0.85
RF3023	SPDT	10 to 3000	0.3 at 1 GHz	>25.0	27.0	2.8 to 5.0	SC70-6
RF3024	SPDT	10 to 3000	0.3 at 1 GHz	>25.0	27.0	2.8 to 5.0	SC70-6
RF3025	SPDT	10 to 6000	0.5 at 1 GHz	>50.0	25.0	2.8 to 5.0	QFN 3 x 3 x 0.85

Modulators and Demodulators

Table 18 **Modulators**

Part Number	Process Technology	RF/LO (MHz)	Modulation Bandwidth (MHz or Band)	Broadband Noise Floor (dBm/Hz)	Carrier Suppression (dBc)	Sideband Suppression (dBc)	OP1dB (dBm)	OIP3 (dBm)	Gain (dB)	Vcc (V)	Icc (mA)	Package (dim. in mm)
RF2705G	SiGe	800 to 2000	1 (EDGE); 11 (W-CDMA)	-152	40.0	40.0	-14	20	92.0, 42.0	2.7 to 3.3	112	QFN-24, 4 x 4
RF2850	—	1700 to 2500	DC to 250	—	—	>40.0	—	—		5.0	60	QFN-16, 4 x 4
RF3854	SiGe	800 to 2000	1 (EDGE); 11 (W-CDMA)	-152	40.0	40.0	-14	20	92.0, 42.0	2.7 to 3.3	112	QFN-24, 4 x 4
STQ-1016	SiGe	250 to 1000	—	-154	33.0	42.0	6	—	—	5.0	80	TSSOP-16
STQ-2016	SiGe	700 to 2500	—	-154	35.0	40.0	4	—	—	5.0	73	TSSOP-16
STQ-2016-3	SiGe	700 to 2500	—	—	—	—	—	—	—	5.0	73	TSSOP-16
STQ-3016	SiGe	2500 to 4000	—	-154	36.0	36.0	2	—	—	5.0	80	TSSOP-16

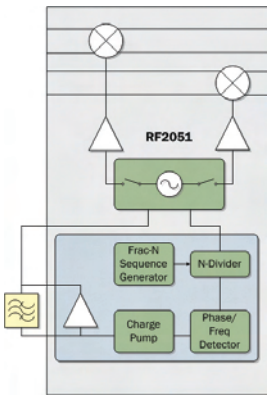
Table 19 **Demodulators**

Part Number	IF/LO (MHz)	RF/LO (MHz)	Baseband Freq Range (MHz)	Gain (dB)	OP1dB (dBm)	NF (dB)	I/Q Amp Balance (dB)	I/Q Phase Balance (Deg)	Vcc (V)	Icc (mA)	Package
RF2713	—	.2 to 500	0.1 to 250	24.0	—	—	—	—	3.0 to 6.0	10.0	SOIC-14
SRF-1016	65 to 300	—	65 to 300	-6.0, 11.0, 31.0	5	30.0, 12.0, 7.0	±0.2	±2	5.0	180	TSSOP-16
SRF-2016	200 to 600	—	200 to 600	-6.0, 11.0, 31.0	5	30.0, 12.0, 7.0	±0.2	±2	5.0	180	TSSOP-16
SRQ-2116	—	—	700 to 3800	7.0	—	16.0	±0.1	±0.1	5.0	160	TSSOP-16

Integrated Synthesizers/Mixers

Table 20

	Part Number	Description	Mixer RF/IF Freq Range (MHz)	LO Freq Range (MHz)	Mixer Conversion Gain (dB)	Mixer IIP3 (dBm)	Vcc (V)	Icc (mA)	Package (dim. in mm)
	RF2051	High-Performance Wideband RF Synthesizer/VCO with Integrated RF Mixers	30 to 2500	300 to 2400	-2.0	12 to 18	2.7 to 3.6	55 to 75	QFN-32, 5 x 5
	RF2052	High-Performance Wideband RF Synthesizer/VCO with Integrated RF Mixer	30 to 2500	300 to 2400	-2.0	12 to 18	2.7 to 3.6	55 to 75	QFN-32, 5 x 5
	RF2053	High-Performance Wideband RF Synthesizer with Integrated RF Mixer	30 to 2500	300 to 2400	-2.0	12 to 18	2.7 to 3.6	35 to 50	QFN-32, 5 x 5
NEW	RF2057	High-Performance RF PLL/VCO with Integrated RF Mixers for Repeaters	30 to 2500	1900 to 2400	-2.0	12 to 18	2.7 to 3.6	55 to 75	QFN-32, 5 x 5
NEW	RF2059	High-Performance RF PLL/VCO with RF Mixers for WLAN Band-Shifters	30 to 2500	1550 to 2050	-2.0	12 to 18	2.7 to 3.6	55 to 75	QFN-32, 5 x 5
NEW	RFMX0180	Mixer (Passive)	12000 to 24000	DC to 2000	-8.0	18	—	—	QFN 4 x 4

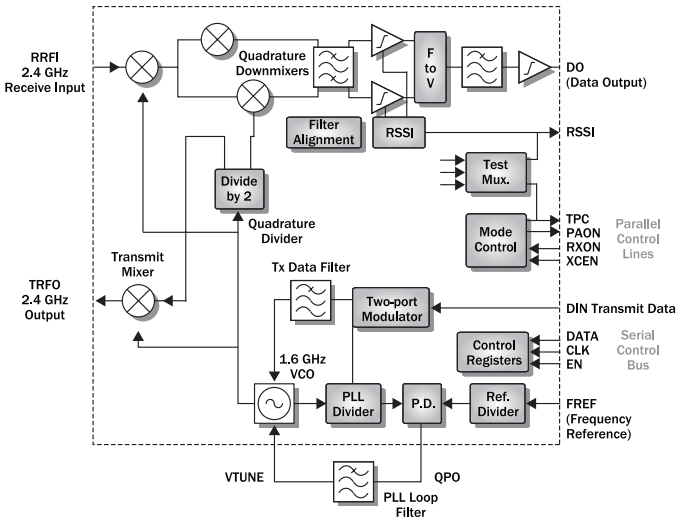


ISM Band Transceivers, Transmitters, and Transverters

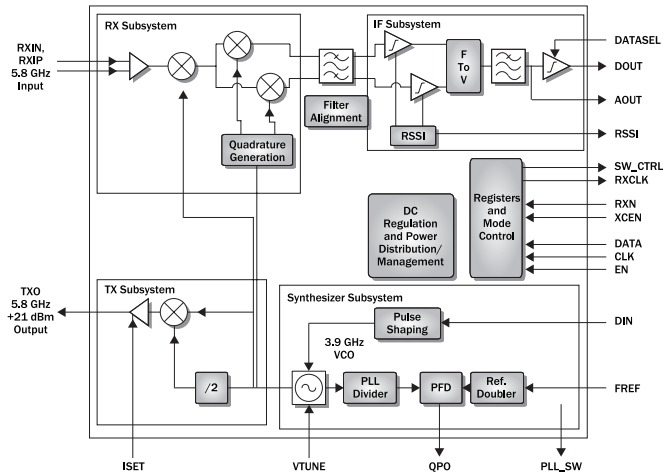
Table 21

Part Number	Description	Freq Range (MHz)	Tx Pout (dBm)	Rx Icc (mA)	Sensitivity (dBm)	Vcc (V)	Package (dim. in mm)
ML2722	1.5 Mbps FSK Transceiver	902 to 928	-1.0	50.0	-95.0	2.7 to 4.5	TQFP-32
ML2724	1.5 Mbps FSK Transceiver	2400 to 2485	3.0	55.0	-81.0	2.7 to 3.3	TQFP-32
ML2726	2.0 Mbps FSK Transceiver	2400 to 2485	3.0	55.0	-81.0	2.7 to 3.3	TQFP-32
ML4622CS	Fiber Optic Data Quantizer	—	—	—	—	5.0 to -5.2	SOIC-16
ML5800	Variable Data Rate FSK Transceiver with PA	5725 to 5850	0.0	65.0	-94.0	2.7 to 3.6	LPCC-32
ML5805	5.8 GHz Variable Data Rate FSK Transceiver with Integrated PA	5725 to 5850	21.0	100.0	-97.0	2.7 to 3.6	QFN-40, 6 x 6
ML5824	2.4 GHz to 5.8 GHz Frequency Translator	2400 and 5800	5.5	100.0	—	2.8 to 3.6	LPCC-28
ML5825	2.4 GHz to 5.8 GHz Frequency Translator	2400 and 5800	5.5	100.0	—	2.8 to 3.6	LPCC-28
ML5830	Low Power Integrated 5.8 GHz ASK/FSK Transmitter	5790 to 5840	4.0	51.0	—	2.9 to 3.6	QFN-40, 6 x 6
ML6652CM	10/100Mbps Media Converter	—	—	—	—	3.3	LPCC/QFN-44
ML6652CH	10/100Mbps Media Converter	—	—	—	—	3.3	TQFP-44
RF2514	VHF/UHF Transmitter	100 to 1000	—	8.0	1.0	2.25 to 3.6	LCC-16, 4 x 4
RF2516	VHF/UHF Transmitter	100 to 500	—	10.5	10.0	2.25 to 3.6	QSOP-16

ML2724 and ML2726



ML5805



Signal Sources

Table 22

UMX Series - Ultra-low Noise CROs*

	Part Number	Freq Range (MHz)	Vtune (V)	Phase Noise (dBc/Hz) at 10 kHz	Vcc (V)	Pout (dBm)
NEW	UMX-1878-D16-G	386 to 456	0.3 to 4.7	-118	5	-4
NEW	UMX-1796-D16-G	500 to 520	0.5 to 4.5	-125	5	5
NEW	UMX-1929-D16-G	600 to 630	0.5 to 4.5	-122	5	4
NEW	UMX-1136-D16	680	0.5 to 4.5	-130	5	6
	UMX-870-D16-G	818 to 847	3.0 to 12.0	-120	7	6
	UMX-673-D16-G	902 to 922	0.5 to 10.0	-125	8	5
	UMX-1035-D16-G	1045 to 1055	1.0 to 11.0	-125	5	4
	UMX-207-D16-G	1080	0.5 to 4.5	-125	5	0
	UMX-518-D16-G	1200	0.5 to 4.5	-123	5	7
	UMX-861-D16-G	1400	1.0 to 4.0	-125	5	0
	UMX-519-D16-G	1450 to 1500	0.5 to 4.5	-115	5	7
	UMX-495-D16-G	1590 to 1855	1.0 to 12.0	-108	8	7
	UMX-119-D16-G	1600	2.0 to 10.0	-123	8	0
	UMX-579-D16-G	1650 to 1710	0.5 to 4.5	-114	5	7
	UMX-308-D16-G	1700 to 1800	0.5 to 4.5	-110	5	7
	UMX-476-D16-G	1800	0.5 to 4.5	-124	6	6
	UMX-254-D16-G	1800 to 1900	0 to 4.5	-110	5	7
	UMX-352-D16-G	1865 to 2055	0 to 12.0	-113	8	7
	UMX-381-D16-G	1900 to 2100	0 to 12.0	-110	6	7
	UMX-392-D16-G	1900 to 2200	1.0 to 14.0	-106	6	5
	UMX-406-D16-G	2000	0.5 to 4.5	-122	6	6
	UMX-154-D16-G	2080	0.5 to 4.5	-121	8	7
	UMX-599-D16-G	2100 to 2120	0.5 to 4.5	-120	8	7
	UMX-587-D16-G	2100 to 2500	0 to 15.0	-106	6	7
	UMX-315-D16-G	2175	0.5 to 4.5	-120	6	7
	UMX-629-D16-G	2200 to 2400	1.0 to 12.0	-110	8	7
	UMX-310-D16-G	2200 to 2500	1.0 to 14.0	-105	6	5
	UMX-592-D16-G	2300	0.5 to 4.5	-118	5	7
	UMX-314-D16-G	2300 to 2450	0.5 to 4.5	-112	5	4
	UMX-160-D16-G	2350 to 2750	1.0 to 14.0	-106	6	5
	UMX-215-D16-G	2400	1.0 to 10.0	-120	8	7
	UMX-630-D16-G	2400 to 2600	1.0 to 12.0	-110	8	7
	UMX-634-D16-G	2450	0.5 to 4.5	-120	8	7
	UMX-601-D16-G	2500	0.5 to 4.5	-122	8	7
	UMX-588-D16-G	2500 to 2950	0 to 15.0	-105	6	7
	UMX-333-D16-G	2500 to 3000	0 to 15.0	-105	6	7
	UMX-438-D16-G	2540 to 2740	0.5 to 4.5	-105	5	5
	UMX-603-D16-G	2600	0.5 to 4.5	-122	8	7
	UMX-631-D16-G	2600 to 2800	1.0 to 12.0	-111	8	7
	UMX-500-D16-G	2670 to 2730	0.5 to 4.5	-113	5	6
	UMX-594-D16-G	2722 to 2785	0.5 to 4.5	-112	8	7
	UMX-453-D16-G	2750	0.5 to 4.5	-120	8	6
	UMX-391-D16-G	2780 to 2980	1.0 to 14.0	-108	6	5
	UMX-200-D16-G	2800	0.5 to 4.5	-118	8	7
	UMX-690-D16-G	2877 to 3273	0 to 18.0	-108	8	0
	UMX-199-R16-G	2880	0.5 to 4.5	-120	9	7
	UMX-163-D16-G	2955 to 3014	0.5 to 4.5	-110	5	6
	UMX-201-D16-G	3050	0.5 to 4.5	-120	8	7
	UMX-331-D16-G	3125 to 3275	0.5 to 4.5	-107	6	5
	UMX-478-D16-G	3200	1.0 to 10	-117	8	6
	UMX-176-D16-G	3208	0.5 to 4.5	-117	5	6
	UMX-918-D16-G	3230 to 3410	0 to 18.0	-112	8	0
	UMX-999-D16-G	3625	0.5 to 4.5	-120	8	0
	UMX-903-D16-G	3740 to 3840	1.0 to 15.0	-110	6	2
	UMX-806-D16-G	4000	0.5 to 4.5	-116	5	0
NEW	UMX-1305-D16-G	4250 to 4270	0.5 to 4.5	-110	5	3

* CRO — Coaxial Resonator Oscillator
Package (dim. in mm): 12.7 x 12.7

Table 23

UMZ Series - Microstrip VCOs up to 6000 MHz

	Part Number	Freq Range (MHz)	Vtune (V)	Phase Noise (dBc/Hz) at 10 kHz	Vcc (V)	Pout (dBm)
	UMZ-1155-R16-G	100	0.5 to 4.5	-135	5	9
	UMZ-1153-D16-G	136 to 174	0.5 to 4.5	-123	5	9
	UMZ-1154-D16-G	200 to 239	0.5 to 4.5	-122	5	8
	UMZ-149-A16-G	300 to 345	0.5 to 4.5	-100	5	3
	UMZ-867-D16-G	400 to 500	0.5 to 4.5	-110	5	5
	UMZ-1043-R16-G	405 to 425	0.5 to 4.5	-121	4.75	0
	UMZ-1150-R16-G	435 to 451	0.5 to 4.5	-120	4.7	0
NEW	UMZ-1216-R16	496 to 512	0.5 to 4.5	-122	4.7	0
	UMZ-408-D16-G	500 to 850	0.5 to 8.5	-103	5	5
	UMZ-218-A16-G	580 to 620	0.5 to 4.5	-116	5	0
	UMZ-249-A16-G	600 to 1200	0 to 13.0	-104	12	10
	UMZ-285-A16-G	698 to 722	0.5 to 4.5	-115	5	5
	UMZ-992-D16-G	700 to 1000	1.0 to 18.0	-112	8	0
	UMZ-106-A16-G	736 to 760	0.5 to 4.5	-115	5	0
	UMZ-318-A14-G	780 to 800	0.5 to 4.5	-110	5	6
	UMZ-993-D16-G	800 to 1150	1.0 to 18.0	-110	8	0
	UMZ-1601-A16-G	800 to 1600	0 to 6.0	-101	10	6
NEW	UMZ-1250-D16-G	850 to 910	0.5 to 4.5	-111	4.75	4
NEW	UMZ-1369-A16	900	0.5 to 4.5	-115	5	0
	UMZ-479-D16-G	900 to 1100	1.0 to 11.0	-111	5	4
	UMZ-182-A16-G	950 to 1525	2.0 to 12.0	-104	12	12
NEW	UMZ-1377-D16-G	979 to 1018	0.5 to 4.5	-113	5	1
	UMZ-533-D16-G	1000 to 1100	0.5 to 4.5	-110	5	11
	UMZ-185-A16-G	1000 to 1780	1.7 to 13.7	-102	12	12
	UMZ-268-D16-G	1100 to 1200	0.5 to 4.5	-112	5	11
	UMZ-454-A16-G	1195 to 1205	1.0 to 4.0	-115	8	7.5
	UMZ-334-A16-G	1295 to 1335	0.5 to 4.0	-113	5	0
	UMZ-834-D16-G	1300 to 1500	0.5 to 4.5	-105	8	3
	UMZ-1157-D16-G	1300 to 1600	0 to 13.0	-110	10	0
	UMZ-131-R16-G	1400 to 1850	0 to 9.0	-102	5	9
	UMZ-557-A16-G	1438 to 1442	1.0 to 4.0	-116	5	2
	UMZ-1089-D16-G	1460 to 1825	0.5 to 18.0	-107	8	0
	UMZ-140-A16-G	1500 to 1600	0.5 to 4.5	-108	5	2
	UMZ-1189-D16-G	1520 to 1635	0.5 to 4.5	-107	4.75	3
	UMZ-309-D16-G	1590 to 1855	2.0 to 10.0	-105	5	5
NEW	UMZ-1840-R16-G	1700 to 1805	0.5 to 4.5	-107	5	5
	UMZ-836-D16-G	1700 to 1900	0.5 to 4.5	-105	8	3
	UMZ-877-R16-G	1785 to 1800	0.5 to 2.5	-106	3	0
	UMZ-341-A16-G	1850 to 1940	0.5 to 4.5	-105	5	3
NEW	UMZ-1642-A16-G	1874 to 2074	0.5 to 4.5	-104	5	5
	UMZ-347-A16-G	1900 to 2000	0.5 to 4.5	-107	5	0
	UMZ-667-A16-G	1910 to 2010	0.5 to 4.0	-105	4.5	5
	UMZ-348-A16-G	2000 to 2100	0.5 to 4.5	-107	5	0
	UMZ-840-D16-G	2000 to 2400	2.0 to 10.0	-100	5	0
	UMZ-350-A16-G	2100 to 2200	0.5 to 4.5	-106	5	0
	UMZ-421-A16-G	2190 to 2246	1.0 to 4.0	-105	5	3.5
	UMZ-351-A16-G	2200 to 2300	0.5 to 4.5	-106	5	0
	UMZ-1958-R16-G	2240 to 2340	0.5 to 4.5	-105	5	0
	UMZ-355-A16-G	2300 to 2400	0.5 to 4.5	-105	5	0
	UMZ-253-A16-G	2300 to 2800	1.5 to 12.0	-98	10	10
	UMZ-569-A16-G	2390 to 2700	0.5 to 4.5	-100	5	6
	UMZ-357-A16-G	2400 to 2500	0.5 to 4.5	-105	5	0
	UMZ-841-D16-G	2400 to 2850	2.0 to 10.0	-100	5	0
	UMZ-985-D16-G	2500 to 3000	2.0 to 12.0	-100	8	0
	UMZ-316-A16-G	2540 to 2740	0.5 to 4.5	-100	5	8
NEW	UMZ-1892-D16-G	2655 to 2750	0.5 to 4.5	-100	4.75	8
NEW	UMZ-1233-R16-G	2770 to 3060	0.2 to 22	-102	10	9
NEW	UMZ-2006-D16-G	2800 to 2970	0.5 to 5.0	-102	5	5
	UMZ-1147-R16-G	2824 to 3552	1.0 to 12.0	-97	8	3

Package (dim. in mm): 12.7 x 12.7

Continued on page 14.

Signal Sources *(Continued from page 13.)*

Table 23 **UMZ Series - Microstrip VCOs up to 6000 MHz** *cont.*

	Part Number	Freq Range (MHz)	Vtune (V)	Phase Noise (dBc/Hz) at 10 kHz	Vcc (V)	Pout (dBm)
NEW	UMZ-1509-R16-G	2920 to 3020	0.5 to 4.5	-100	5	0
	UMZ-290-A16-G	2950 to 3020	0.5 to 4.5	-105	5	3
	UMZ-411-D16-G	2980 to 3200	0.5 to 4.5	-102	5	5
	UMZ-986-D16-G	3000 to 3500	2.0 to 12.0	-99	8	0
	UMZ-147-A16-G	3060 to 3132	0.5 to 4.5	-103	5	3
	UMZ-292-A16-G	3160 to 3205	0.5 to 4.5	-104	5	3
	UMZ-671-A16-G	3180 to 3710	1.0 to 12.0	-98	5	0
	UMZ-659-A16-G	3190 to 3210	0.5 to 4.5	-104	5	6
	UMZ-192-A16-G	3200 to 3400	0.5 to 4.5	-100	5	0
	UMZ-1141-R16-G	3260 to 3340	0.5 to 4.5	-103	5	4
	UMZ-116-A16-G	3300 to 3815	2.0 to 10.0	-96	5	3
NEW	UMZ-1504-R16	3350 to 3450	0.5 to 4.5	-103	5	0
	UMZ-203-A16-G	3400	0.5 to 4.5	-102	5	0
NEW	UMZ-1855-R16-G	3400 to 3600	0.2 to 4.8	-100	5	8
	UMZ-427-A16-G	3550 to 3630	0.5 to 5.0	-105	5	5
	UMZ-216-D16-G	3600	4 to 8.0	-96	5	14
NEW	UMZ-1856-R16-G	3600 to 3800	0.2 to 4.8	-100	5	8
	UMZ-281-A16-G	3700	0.5 to 5.0	-102	5	3
	UMZ-307-A16-G	3775 to 3900	0.5 to 4.5	-100	5	0
	UMZ-354-A16-G	3930 to 4200	1.0 to 11.0	-98	5	0
NEW	UMZ-1741-D16-G	4100 to 4650	1.0 to 12.0	-98	8	0
NEW	UMZ-1637-D16-G	4200 to 4400	0.5 to 5.0	-95	5	0
NEW	UMZ-1403-D16	4300	0.5 to 4.5	-97	5	0
NEW	UMZ-1659-D16-G	4400 to 5000	0 to 16.5	-97	8	3
NEW	UMZ-1570-D16	4460 to 4615	0.5 to 4.5	-98	5	0
	UMZ-822-D16-G	4600 to 5300	0.2 to 8.0	-89	5	0
	UMZ-189-A16-G	4850 to 4950	2.0 to 8.0	-95	8	3
	UMZ-837-D16-G	4850 to 4950	0.5 to 4.5	-95	8	3
NEW	UMZ-1702-D16-G	4875 to 5250	0 to 15.0	-100	8	0
NEW	UMZ-1867-D16-G	5000 to 5600	1.0 to 15.0	-94	8	3
	UMZ-191-A16-G	5220 to 5280	0 to 3.0	-88	3.3	0

Package (dim. in mm): 12.7 x 12.7

Table 24 **UMS Series - Octave Band VCOs**

Part Number	Freq Range (MHz)	Vtune (V)	Phase Noise (dBc/Hz) at 10 kHz	Vcc (V)	Pout (dBm)
UMS-50-R16-G	25 to 50	1.0 to 15.0	-125	12	9
UMS-100-R16-G	50 to 100	1.0 to 15.0	-105	12	9.5
UMS-150-R16-G	75 to 150	1.0 to 16.0	-105	12	10
UMS-200-R16-G	100 to 200	1.0 to 16.0	-105	12	10
UMS-300-R16-G	150 to 300	1.0 to 16.0	-103	12	10
UMS-400-R16-G	200 to 400	1.0 to 16.0	-102	12	11
UMS-535-R16-G	300 to 535	1.0 to 15.0	-100	12	10
UMS-800-A16-G	400 to 800	0.5 to 11.0	-104	12	12
UMS-1000-A16-G	500 to 1000	0.5 to 11.0	-103	12	10
UMS-1200-A16-G	600 to 1200	0.5 to 12.0	-104	12	12
UMS-1400-A16-G	700 to 1400	0.5 to 14.0	-104	12	12
UMS-1800-A16-G	900 to 1800	0.5 to 15.0	-100	12	12.5
UMS-1600-A16-G	950 to 1600	1.5 to 14.0	-103	12	12.5
UMS-2150-R16-G	950 to 2150	0.5 to 16.0	-102	12	11
UMS-2000-A16-G	1000 to 2000	1.0 to 14.0	-103	12	11
UMS-2400-A16-G	1400 to 2400	1.0 to 16.0	-95	12	10
NEW UMS-3200-D16-G	1600 to 3200	0.5 to 20.0	-89	5	7.5
UMS-3000-R16-G	2000 to 3000	1.0 to 14.0	-98	12	10

Package (dim. in mm): 12.7 x 12.7

Table 25 **UMJ Series - VCOs for IF Conversion**

	Part Number	Freq Range (MHz)	Vtune (V)	Phase Noise (dBc/Hz) at 10 kHz	Vcc (V)	Pout (dBm)
	UMJ-398-A14-G	29 to 31	1.0 to 10.0	-138	5	9
	UMJ-409-D14-G	45 to 53	1.0 to 10.0	-130	5	9
	UMJ-123-D14-G	50 to 60	1.0 to 4.0	-124	5	9
	UMJ-177-D14-G	54 to 64	1.0 to 10.0	-132	5	10
	UMJ-958-D14-G	60 to 70	0.5 to 4.5	-128	5	9
	UMJ-950-D14-G	75 to 110	1.0 to 12.0	-125	12	9
	UMJ-559-D14-G	75 to 85	0 to 5.0	-130	5	9
	UMJ-797-D14-G	80	0.5 to 4.5	-137	5	9
	UMJ-470-D14-G	85 to 88	1.0 to 4.0	-125	8	9
NEW	UMJ-232-D14-G	87.4 to 109.4	1.0 to 12.0	-130	5	9
	UMJ-410-D14-G	105 to 120	0.5 to 4.5	-125	5	7
	UMJ-271-D14-G	134.2	0.5 to 4.5	-135	5	9
	UMJ-463-D14-G	160	0.5 to 4.5	-122	5	9
	UMJ-234-D14-G	177 to 187	0 to 5.0	-120	5	9
	UMJ-231-D14-G	183 to 219	1.0 to 12.0	-123	5	9
	UMJ-804-D14-G	200	0 to 5.0	-135	5	9
	UMJ-178-D14-G	202.7 to 209	1.0 to 12.0	-105	5	9
NEW	UMJ-441-D14	203 to 218	1.0 to 10.0	-122	5	9
	UMJ-614-D14-G	226 to 244	1.0 to 12.0	-125	8	9
	UMJ-947-R14-G	240 to 250	0.5 to 4.5	-127	5	4
	UMJ-225-D14-G	270 to 290	0.5 to 4.5	-122	5	9
	UMJ-412-D14-G	370 to 380	0.5 to 4.5	-118	5	7
	UMJ-858-D14-G	400	1.0 to 4.0	-125	5	9

Package (dim. in mm): 12.7 x 12.7

Table 26 **UMZ-T2 Series - VCOs with Internal Doubler**

Part Number	Freq Range (MHz)	Vtune (V)	Phase Noise (dBc/Hz) at 10 kHz	Vcc (V)	Pout (dBm)
UMZ-T2-1078-016-G	4200 to 4400	2.0 to 10.0	-97	5	0
UMZ-T2-855-016-G	4400 to 5000	2.0 to 10.0	-92	5	0
UMZ-T2-1045-016-G	4460 to 4615	0.5 to 4.5	-98	5	0
UMZ-T2-1079-016-G	4500 to 5250	1.0 to 12.0	-95	8	0
UMZ-T2-624-016-G	4505 to 5575	2.0 to 10.0	-87	10	0
UMZ-T2-226-016-G	4700 to 5118	1.0 to 11.0	-96	5	0
UMZ-T2-227-016-G	4900 to 5900	1.0 to 11.0	-92	5	-1
UMZ-T2-1080-016-G	5200 to 5800	1.0 to 12.0	-95	8	0
UMZ-T2-798-016-G	5382 to 6426	0 to 11.0	-91	5	0
UMZ-T2-449-016-G	5394 to 5494	0.5 to 2.8	-93	3.3	-2
UMZ-T2-608-016-G	5400 to 6100	2.0 to 12.0	-90	5	0
UMZ-T2-1062-016-G	5400 to 6950	0.5 to 13.8	-86	12	0
UMZ-T2-1077-016-G	5600 to 5800	2.0 to 10.0	-98	5	0
UMZ-T2-228-016-G	5700 to 6812	1.0 to 11.0	-92	5	1
UMZ-T2-397-016-G	6525	0.5 to 4.5	-96	5	0
UMZ-T2-447-016-G	6600 to 8100	1.0 to 15.0	-88	5	-2

Package (dim. in mm): 12.7 x 12.7

Table 27

UMV Series - Ultra-linear Tuning VCOs

Part Number	Freq Range (MHz)	Vtune (V)	Phase Noise (dBc/Hz) at 10 kHz	Vcc (V)	Pout (dBm)
UMV-950-R16-G	900 to 1000	0.5 to 4.5	-110	5	0
UMV-1050-R16-G	1000 to 1100	0.5 to 4.5	-110	5	0
UMV-1150-R16-G	1100 to 1200	0.5 to 4.5	-110	5	0
UMV-1250-R16-G	1200 to 1300	0.5 to 4.5	-110	5	0
UMV-1350-R16-G	1300 to 1400	0.5 to 4.5	-110	5	0
UMV-1450-R16-G	1400 to 1500	0.5 to 4.5	-109	5	0
UMV-1550-R16-G	1500 to 1600	0.5 to 4.5	-109	5	0
UMV-1650-R16-G	1600 to 1700	0.5 to 4.5	-108	5	0
UMV-1750-R16-G	1700 to 1800	0.5 to 4.5	-108	5	0
UMV-1850-R16-G	1800 to 1900	0.5 to 4.5	-107	5	0
UMV-1950-R16-G	1900 to 2000	0.5 to 4.5	-107	5	0
UMV-2050-R16-G	2000 to 2100	0.5 to 4.5	-106	5	0
UMV-2150-R16-G	2100 to 2200	0.5 to 4.5	-106	5	0
UMV-2250-R16-G	2200 to 2300	0.5 to 4.5	-106	5	0
UMV-2350-R16-G	2300 to 2400	0.5 to 4.5	-106	5	0
UMV-2450-R16-G	2400 to 2500	0.5 to 4.5	-105	5	0
UMV-2550-R16-G	2500 to 2600	0.5 to 4.5	-104	5	0
UMV-2650-R16-G	2600 to 2700	0.5 to 4.5	-104	5	0
UMV-2750-R16-G	2700 to 2800	0.5 to 4.5	-104	5	0
UMV-2850-R16-G	2800 to 2900	0.5 to 4.5	-104	5	0
UMV-2950-R16-G	2900 to 3000	0.5 to 4.5	-103	5	0
UMV-3050-R16-G	3000 to 3100	0.5 to 4.5	-102	5	0
UMV-3150-R16-G	3100 to 3200	0.5 to 4.5	-102	5	0
UMV-3250-R16-G	3200 to 3300	0.5 to 4.5	-102	5	0
UMV-3350-R16-G	3300 to 3400	0.5 to 4.5	-103	5	0
NEW UMV-3450-R16-G	3400 to 3500	0.5 to 4.5	-104	5	0
UMV-3550-R16-G	3500 to 3600	0.5 to 4.5	-102	5	0
UMV-3650-R16-G	3600 to 3700	0.5 to 4.5	-102	5	0
UMV-3750-R16-G	3700 to 3800	0.5 to 4.5	-102	5	0
NEW UMV-3850-R16	3800 to 3900	0.5 to 4.5	-102	5	0
UMV-3950-R16-G	3900 to 4000	0.5 to 4.5	-102	5	0

Package (dim. in mm): 12.7 x 12.7

Table 28

VCO190 Series - 5 V Narrowband VCOs

Part Number	Freq Range (MHz)	Vtune (V)	Phase Noise (dBc/Hz) at 10 kHz	Vcc (V)	Pout (dBm)
VCO190-70TY	68 to 72	1.0 to 4.0	-120	5.0	1.0
VCO190-150TY	100 to 200	1.0 to 16.0	-114	5.0	0.0
VCO190-190TY	140 to 240	0.5 to 4.6	-105	5.0	0.0
VCO190-157TY	148 to 167	0.8 to 4.2	-115	5.0	0.0
VCO190-200TY	150 to 250	1.0 to 12.0	-110	5.0	0.0
VCO190-235TY	200 to 270	0.5 to 4.5	-108	5.0	1.0
VCO190-250TY	200 to 300	1.0 to 12.0	-110	5.0	0.0
VCO190-260TY	240 to 280	1.0 to 4.0	-113	5.0	3.0
VCO190-300TY	250 to 350	1.0 to 10.0	-112	5.0	0.0
VCO190-295TY	290 to 300	1.0 to 4.0	-116	5.0	1.0
VCO190-360TY	335 to 385	0.5 to 10.0	-114	5.0	0.0
VCO190-370TY	340 to 400	0.5 to 4.5	-108	5.0	2.0
VCO190-395TY	375 to 415	0.4 to 4.5	-113	5.0	0.0
VCO190-450ATY	400 to 500	1.0 to 9.0	-109	5.0	0.0
VCO190-419TY	405 to 433	0.5 to 4.5	-114	5.0	0.0
VCO190-450TY	442 to 458	0.5 to 4.5	-118	5.0	2.0
VCO190-492TY	466 to 517	0.6 to 4.4	-117	8.0	3.0
VCO190-548TY	535 to 560	0.5 to 4.8	-110	5.0	3.0

Package (dim. in mm): 12.7 x 12.7

Table 28

VCO190 Series - 5 V Narrowband VCOs *cont.*

Part Number	Freq Range (MHz)	Vtune (V)	Phase Noise (dBc/Hz) at 10 kHz	Vcc (V)	Pout (dBm)
VCO190-630TY	600 to 660	0.5 to 4.5	-110	5.0	1.0
VCO190-640TY	620 to 660	0.5 to 4.5	-110	5.0	0.0
VCO190-680TY	667 to 693	1.0 to 4.0	-114	5.0	1.0
VCO190-775TY	700 to 850	1.0 to 9.5	-108	5.0	0.0
VCO190-744TY	724 to 764	2.0 to 8.0	-115	5.0	3.0
VCO190-112TY	759 to 150	1.0 to 16.0	-118	5.0	0.0
VCO190-810TY	797 to 823	1.0 to 4.0	-115	5.0	3.0
VCO190-900TY	800 to 1000	1.0 to 9.0	-106	5.0	0.0
VCO190-940TY	800 to 1080	0.5 to 5.0	-94	5.0	2.0
VCO190-818UY	804 to 826	1.0 to 4.0	-111	5.0	1.0
VCO190-818TY*	805 to 830	1.0 to 3.9	-114	5.0	0.0
VCO190-836TY	823 to 849	1.0 to 4.0	-126	5.0	3.0
VCO190-845TY	832 to 858	1.0 to 4.0	-115	5.0	3.0
VCO190-884TY	842 to 926	1.0 to 10	-109	5.0	0.0
VCO190-860TY	845 to 875	1.0 to 4.0	-113	5.0	3.0
VCO190-880TY	865 to 895	0.5 to 4.8	-111	5.0	3.0
VCO190-882UY*	874 to 889	1.0 to 4.0	-111	5.0	2.0
VCO190-888TY	875 to 901	1.0 to 4.0	-111	5.0	3.0
VCO190-1000TY	900 to 1100	0.7 to 4.3	-96	5.0	3.0
VCO190-915TY	902 to 928	1.0 to 4.0	-113	5.0	5.0
VCO190-964TY	951 to 977	1.0 to 4.0	-112	5.0	5.0
VCO190-992TY	979 to 1005	1.0 to 4.0	-113	5.0	3.0
VCO190-1007UY*	994 to 1019	1.0 to 4.2	-112	5.0	3.0
VCO190-1050TY	1030 to 1070	1.0 to 4.0	-111	5.0	3.0
VCO190-1067UY*	1049 to 1085	1.0 to 4.2	-110	5.0	3.0
VCO190-1100TY	1085 to 1115	1.0 to 4.5	-111	5.0	5.0
VCO190-1120TY	1107 to 1132	1.0 to 4.0	-111	5.0	3.0
VCO190-1200ATY	1150 to 1250	1.0 to 6.0	-102	5.0	0.0
VCO190-1200TY	1185 to 1215	1.0 to 4.0	-110	5.0	3.0
VCO190-1275TY	1200 to 1350	0.5 to 4.5	-100	5.0	1.0
VCO190-1400TY	1200 to 1600	0.5 to 11.0	-98	8.0	0.0
VCO190-1500ATY	1200 to 1800	0.5 to 15.0	-98	8.0	9.5
VCO190-1225UY*	1210 to 1240	1.0 to 4.2	-109	5.0	3.0
VCO190-1525TY	1250 to 1800	1.0 to 15.0	-96	8.0	9.5
VCO190-1500TY	1450 to 1550	1.0 to 6.0	-100	5.0	3.0
VCO190-1550TY	1500 to 1600	1.0 to 6.0	-102	5.0	3.0
VCO190-1600TY	1550 to 1650	1.0 to 6.0	-100	5.0	3.0
VCO190-1605TY	1567 to 1642	1.0 to 4.0	-104	5.0	3.0
VCO190-1650TY	1600 to 1700	1.0 to 6.0	-101	5.0	3.0
VCO190-1735TY	1650 to 1820	1.0 to 4.0	-94	5.0	3.0
VCO190-1925TY	1650 to 2200	0.5 to 11.0	-90	5.0	0.0
VCO190-1750TY	1700 to 1800	1.0 to 6.0	-100	5.0	3.0
VCO190-1752UY	1725 to 1780	1.0 to 4.0	-102	5.0	0.0
VCO190-1850TY	1800 to 1900	1.0 to 6.0	-100	5.0	3.0
VCO190-1843TY	1805 to 1880	1.0 to 4.0	-100	5.0	1.0
VCO190-1900TY	1850 to 1950	1.0 to 6.0	-100	5.0	3.0
VCO190-1950TY	1900 to 2000	1.0 to 6.0	-100	5.0	3.0
VCO190-1960TY	1930 to 1990	1.0 to 4.5	-99	5.0	0.0
VCO190-2225TY	1950 to 2500	0.5 to 11.0	-95	5.0	1.0
VCO190-2075TY	2000 to 2150	1.0 to 10.0	-102	5.0	5.0
VCO190-2100TY	2000 to 2200	0.5 to 4.5	-90	5.0	0.0
VCO190-2200TY	2100 to 2300	0.5 to 4.5	-95	5.0	0.0
VCO190-2210UY	2185 to 2235	0.5 to 4.5	-101	5.0	0.0
VCO190-2275TY	2200 to 2350	1.0 to 10.0	-102	5.0	5.0
VCO190-2350TY	2300 to 2400	1.0 to 6.0	-98	5.0	0.0
VCO190-2420TY	2370 to 2470	0.5 to 4.5	-98	5.0	2.0
VCO190-2450ATY	2400 to 2500	1.0 to 4.0	-97	4.5	0.0
VCO190-2453TY	2400 to 2506	0.5 to 4.5	-96	5.0	2.0

*Package (dim. in mm): 12.7 x 12.7, *Package (dim. in mm): 9.5 x 9.5*

Continued on page 16.

Signal Sources (Continued from page 15.)

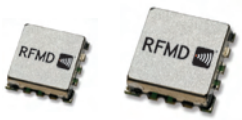


Table 28

VCO190 Series - 5 V Narrowband VCOs *cont.*

Part Number	Freq Range (MHz)	Vtune (V)	Phase Noise (dBc/Hz) at 10 kHz	Vcc (V)	Pout (dBm)
VCO190-2488TY	2487.32 to 2489.32	1.0 to 4.0	-95	5.0	3.0
VCO190-2600TY	2500 to 2700	0.5 to 4.5	-91	5.0	0.0
VCO190-2600ATY	2550 to 2650	0.5 to 4.5	-96	5.0	2.0
VCO190-2800TY	2750 to 2850	0.5 to 4.5	-96	5.0	2.0
VCO190-2925TY	2850 to 3000	1.0 to 10.0	-102	5.0	5.0
VCO190-2950TY	2900 to 3000	0.5 to 4.5	-94	5.0	2.0
VCO190-3925TY	3850 to 4000	1.0 to 10.0	-94	5.0	5.0
VCO190-4025TY	3950 to 4100	1.0 to 10.0	-94	5.0	5.0

Package (dim. in mm): 12.7 x 12.7

Table 29

VCO191 Series - 3 V Narrowband VCOs

Part Number	Freq Range (MHz)	Vtune (V)	Phase Noise (dBc/Hz) at 10 kHz	Vcc (V)	Pout (dBm)
VCO191-220UY	210 to 230	1.0 to 2.9	-115	3.0	0
VCO191-773UY	760 to 786	0.4 to 2.6	-109	3.0	-3
VCO191-836UY	823 to 849	0.4 to 2.6	-108	3.0	-3
VCO191-890UY	860 to 920	0.4 to 2.6	-102	3.0	-3
VCO191-902UY	889 to 915	0.4 to 2.6	-108	3.0	-3
VCO191-915UY	902 to 928	0.4 to 2.6	-109	3.0	-3
VCO191-926UY	913 to 939	0.4 to 2.6	-108	3.0	-3
VCO191-967XY*	954 to 980	0.5 to 2.7	-106	3.0	-3
VCO191-1013UY	996 to 1031	0.4 to 2.6	-106	3.0	-3
VCO191-2450UY	2400 to 2500	0.4 to 2.7	-93	3.0	-3
VCO191-1305UY	1280 to 1330	0.4 to 4.0	-102	3.0	-3

*Package (dim. in mm): 9.5 x 9.5, *Package (dim. in mm): 9 x 7*

Table 29A

Broadband MMIC VCO

Part Number	Freq Range (MHz)	Pout (dBm)	Phase Noise (dBc/Hz) at 10 kHz	Phase Noise (dBc/Hz) at 100 kHz	Bias
RFVC1800	8000 to 12000	4	-66	-93	+5 at 55mA

Table 30

PNP Series - Plug-N-Play PLL Synthesizers

Part Number	Freq Range (MHz)	Step Size (kHz)	Phase Noise (dBc/Hz) at 100 kHz	Vcc1 (V)
PNP-1050-L22-G	1000 to 1100	25 to 10000	-130	5.0
PNP-1500-P22-G**	1000 to 2000	200 to 10000	-118	12.5
PNP-1150-L22-G	1100 to 1200	25 to 10000	-130	5.0
PNP-1550-L22-G	1500 to 1600	25 to 10000	-126	5.0
PNP-1090-P22-G**	1500 to 2500	5000 to 10000	-100	12.5
PNP-1650-L22-G	1600 to 1700	25 to 10000	-126	5.0
PNP-1950-L22-G	1900 to 2000	25 to 10000	-127	5.0
PNP-2050-L22-G	2000 to 2100	25 to 10000	-127	5.0

*Package (dim. in mm): 12.7 x 12.7, *Package (dim. in mm): 15.2 x 15.2*
*Vcc2 (V): 3.0, PLL IC: ADF4153, Pout (dBm): 0, *Pout (dBm): 7, **Pout (dBm): 8,*

Table 30

PNP Series - Plug-N-Play PLL Synthesizers *cont.*

Part Number	Freq Range (MHz)	Step Size (kHz)	Phase Noise (dBc/Hz) at 100 kHz	Vcc1 (V)
PNP-2150-L22-G	2100 to 2200	25 to 10000	-127	5.0
PNP-2250-L22-G	2200 to 2300	25 to 10000	-124	5.0
PNP-2350-L22-G	2300 to 2400	25 to 10000	-124	5.0
PNP-2450-L22-G	2400 to 2500	25 to 10000	-125	5.0
PNP-2550-L22-G	2500 to 2600	25 to 10000	-125	5.0
PNP-2650-L22-G	2600 to 2700	25 to 10000	-125	5.0
PNP-2750-L22-G	2700 to 2800	25 to 10000	-126	5.0
PNP-2850-L22-G	2800 to 2900	25 to 10000	-126	5.0
PNP-2950-L22-G	2900 to 3000	25 to 10000	-126	5.0
PNP-3050-L22-G	3000 to 3100	25 to 10000	-124	5.0
NEW PNP-3150-L22-G	3100 to 3200	25 to 10000	-124	5.0
NEW PNP-3250-L22-G	3200 to 3300	25 to 10000	-124	5.0
PNP-3350-L22-G	3300 to 3400	25 to 10000	-123	5.0
NEW PNP-3450-L22-G	3400 to 3500	25 to 10000	-122	5.0
NEW PNP-3550-L22-G	3500 to 3600	25 to 10000	-122	5.0
PNP-3650-L22-G	3600 to 3700	25 to 10000	-122	5.0
PNP-3750-L22-G	3700 to 3800	25 to 10000	-122	5.0
PNP-3850-L22-G	3800 to 3900	25 to 10000	-122	5.0
PNP-3950-L22-G	3900 to 4000	25 to 10000	-122	5.0

*Package (dim. in mm): 12.7 x 12.7, *Package (dim. in mm): 15.2 x 15.2*
Vcc2 (V): 3.0, PLL IC: ADF4153, Pout (dBm): 0

Table 31

PNP Series - Plug-N-Play CRO* Synthesizers

Part Number	Freq Range (MHz)	Step Size (kHz)	Phase Noise (dBc/Hz) at 100 kHz	Vcc1 (V)	Pout (dBm)
PNP-1623-P22-G	1530 to 1825	5000	-126	12.0	0
PNP-1620-P22-G	1900 to 2000	250	-134	12.0	0
PNP-1621-P22-G	2000 to 2100	250	-134	12.0	0
PNP-1622-P22-G	2525 to 2735	250	-130	12.5	3

*Package (dim. in mm): 15.2 x 15.2, * CRO — Coaxial Resonator Oscillator*
Vcc2 (V): 3.0, PLL IC: ADF4153

Table 32

PLL350 Series PLLs

Part Number	Freq Range (MHz)	Step Size (kHz)	Phase Noise (dBc/Hz) at 100 kHz	Pout (dBm)	PLL IC
PLL350-144Y	144	1000	-139	3	ADF4110
PLL350-265Y	264 to 266	2.5	-135	5	ADF4113
PLL350-777Y	760 to 795	200	-123	3	ADF4113
PLL350-768Y	768	125	-134	3	ADF4153
PLL350-881Y	869 to 894	200	-123	3	ADF4113
PLL350-942Y	925 to 960	200	-121	3	ADF4113
PLL350-1120Y	1090 to 1150	100	-128	2	ADF4113
PLL350-1260Y	1230 to 1290	100	-126	2	ADF4113
PLL350-1590Y	1560 to 1620	200	-122	3	ADF4113
PLL350-1627Y	1590 to 1665	200	-113	3	ADF4113
PLL350-1760AY	1730 to 1790	200	-120	0	ADF4118
PLL350-1760Y	1730 to 1790	200	-114	3	ADF4113
PLL350-1810Y	1780 to 1840	50	-127	3	ADF4113
PLL350-1842Y	1805 to 1880	200	-114	3	ADF4113
PLL350-1875Y	1840 to 1910	50	-126	3	ADF4113
PLL350-1960Y	1930 to 1990	200	-114	3	ADF4113
PLL350-2140A	2110 to 2170	200	-122	3	ADF4118
PLL350-2140Y	2110 to 2170	200	-122	3	ADF4113
PLL350-2444Y	2344 to 2544	250	-118	-1	ADF4113
PLL350-2944Y	2940 to 3048	125	-119	2	ADF4113

Package (dim. in mm): 20.32 X 14.78, Vcc1 and Vcc2 (V): 5.0

Table 33

PLL400 Series PLLs

Part Number	Freq Range (MHz)	Step Size (kHz)	Phase Noise (dBc/Hz) at 100 kHz	Pout (dBm)
PLL400-735Y	717 to 752	200	-120	3
PLL400-875Y	750 to 1000	250	-111	0
PLL400-864AY	851 to 877	30	-133	2
PLL400-915AY	902 to 928	200	-133	3
PLL400-964AY	951 to 977	30	-132	3
PLL400-1500Y	1450 to 1550	1000	-120	1
PLL400-1550Y	1510 to 1590	200	-125	1
PLL400-1950AY	1900 to 2000	200	-121	1
PLL400-2200AY	2000 to 2400	1000	-110	0

Package (dim. in mm): 15.2 x 15.2
Vcc1 and Vcc2 (V): 5.0, PLL IC: ADF4113

Passive Components

Table 34

Circulators

Part Number	Freq Range (MHz)	Insertion Loss (dB)	Isolation (dB)	Return Loss (dB)	IMD (dBc) 2T x 37.5 Watts	Reflected Power (W)	Max Rating (W)	Impedance (Ω)	SWR	Temp (°C)	Package (dim. in in.)
PC0882AG-21H	869 to 894	< 0.2	> 23	23	-65	200	200	50	1.15	-20 to +85	1" Drop-In
PC0940AG-21H	920 to 960	< 0.2	> 23	23	-65	200	200	50	1.15	-20 to +85	1" Drop-In
PC1843AG-21H	1805 to 1880	< 0.2	> 23	23	-70	200	200	50	1.15	-40 to +85	1" Drop-In
PC1960AG-21H	1930 to 1990	< 0.2	> 23	23	-75	200	200	50	1.15	-40 to +85	1" Drop-In
PC2018BE-12H	2010 to 2025	< 0.25	> 22	22	-70	100	100	50	1.17	-40 to +85	3/4" Drop-In
PC2140AG-21H	2090 to 2190	< 0.2	> 23	23	-75	200	200	50	1.15	-40 to +85	1" Drop-In

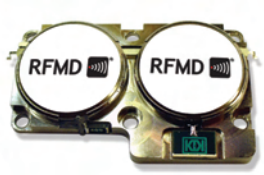


Table 35

Isolators

Part Number	Freq Range (MHz)	Insertion Loss (dB)	Isolation (dB)	Return Loss (dB)	IMD (dBc) 2T x 37.5 Watts	Reflected Power (W)	Max Rating (W)	Impedance (Ω)	SWR	Temp (°C)	Package (dim. in in.)
PI0882AG-21H	869 to 894	< 0.2	> 23	23	-65	30	200	50	1.15	-20 to +85	1"
PI0940AG-21H	920 to 960	< 0.2	> 23	23	-65	30	200	50	1.15	-20 to +85	1"
PI1843AG-21H	1805 to 1880	< 0.2	> 23	23	-70	30	200	50	1.15	-40 to +85	1"
PI1960AG-21H	1930 to 1990	< 0.2	> 23	23	-75	30	200	50	1.15	-40 to +85	1"
PI2140AG-21H	2090 to 2190	< 0.2	> 23	23	-75	30	200	50	1.15	-40 to +85	1"
PD0940AQ-21H	920 to 960	< 0.4	> 55	23	-60 Fwd and -90 Rev	100	150	50	1.15	-20 to +85	2" x 1.25"
PD1843AQ-21H	1805 to 1880	< 0.4	> 55	23	-60 Fwd and -90 Rev	100	150	50	1.15	-20 to +85	2" x 1.25"

Continued on page 18.

Passive Components (Continued from page 17.)

Table 36

Couplers

Part Number	Freq Range (MHz)	Nominal Coupling (dB)	Coupling Flatness (dB)	Typical Mainline Loss (dB)	Typical Directivity (dB)	Min Return Loss (dB)	Characteristic Impedance (Ω)	Package
CPA-0501-510H	5 to 500	10.0 ± 0.5	± 0.5	0.8	30	15	50	S06
CPA-1001-510H	5 to 1000	10.0 ± 0.5	± 0.5	0.8	25	14	50	S06
CPA-1001-56H	5 to 1000	6.5 ± 0.5	± 0.5	1.9	15	12	50	S06
CPA-1001-708H	5 to 1000	8.5 ± 0.3	± 0.5	1.7	20	14	75	S06
CPA-1001-710H	5 to 1000	10.0 ± 0.5	± 0.5	1.2	14	14	75	S06
CPA-1001-716H	5 to 1000	16.0 ± 0.5	± 0.5	0.6	30	14	75	S06
CPA-1001-720H	5 to 1000	20.5 ± 0.5	± 0.7	0.4	20	17	75	S06
CPK-1001-710H	5 to 1000	10.0 ± 0.5	± 0.5	1.2	25	14	75	S01
CPK-1001-716H	5 to 1000	16.0 ± 0.5	± 0.5	0.6	30	14	75	S01
CPK-1001-720H	5 to 1000	20.5 ± 0.5	± 0.5	0.4	20	17	75	S01

Table 37

Splitters

Part Number	Freq Range (MHz)	Min Return Loss (dB)	Typical Isolation (dB)	Typical Insertion Loss (dB)	Characteristic Impedance (Ω)	Package
SPA-0101-27H	5 to 65	20	35	0.2	75	S06
SPA-0501-25H	1 to 500	14	25	0.4	50	S06
SPA-0701-25H	1 to 650	14	25	0.4	50	S06
SPA-1001-25H	800 to 980	17.7	23	0.2	50	S06
SPA-1002-25H	5 to 1000	9.6	16	0.4	50	S06
SPA-1002-27H	5 to 100	17.7	30	0.5	75	S06
SPA-1003-27H	30 to 1000	20	30	0.5	75	S06
SPA-2501-25H	1700 to 2500	9.6	24	0.5	50	S06
SPC-2001-25H	1600 to 2000	11	18	0.4	50	S10
SPC-2201-25H	1800 to 2200	11	23	0.5	50	S10

Table 38

Transformers

Part Number	Type	Freq Range (MHz)	Impedance Ratio	Package
XFA-0101-16UH	Unbalanced - Unbalanced	0.165 to 75	1:16	S06
XFA-0101-1BH	Balanced - Balanced	0.008 to 100	1:1	S06
XFA-0101-25UH	Unbalanced - Unbalanced	0.011 to 100	1:2.5	S06
XFA-0201-1WH	Unbalanced - Balanced	0.006 to 150	1:1	S06
XFA-0201-8WH	Unbalanced - Balanced	0.05 to 125	1:8	S06
XFA-0301-1WH	Unbalanced - Balanced	0.05 to 300	1:1	S06
XFA-0301-4BH	Balanced - Balanced	0.1 to 240	1:4	S06
XFA-0301-4UH	Unbalanced - Unbalanced	0.05 to 220	1:4	S06
XFA-0401-1UH	Unbalanced - Unbalanced	1 to 400	1:1	S06
XFA-1001-1UH	Unbalanced - Unbalanced	40 to 1000	1:1	S06
XFK-0201-16WH	Unbalanced - Balanced	13 to 200	1:16	S01
XFK-0901-4WH	Unbalanced - Balanced	8 to 900	1:4	S01
XFK-1001-1UH	Unbalanced - Unbalanced	40 to 1000	1:1	S01
XFK-2001-1UH	Unbalanced - Unbalanced	2.5 to 2000	1:1	S01
XFM-0201-1WH	Unbalanced - Balanced	3 to 200	1:1	S03
XFM-0701-4WH	Unbalanced - Balanced	3.5 to 700	1:4	S03
XFM-1001-1UH	Unbalanced - Unbalanced	15 to 1003	1:1	S03
XFM-1001-4WH	Unbalanced - Balanced	1 to 1000	1:4	S03
XFM-1002-1UH	Unbalanced - Unbalanced	40 to 1000	1:1	S03
XFM-1901-1UH	Unbalanced - Unbalanced	800 to 1900	1:1	S03
XFM-2501-4WH	Unbalanced - Balanced	500 to 2500	1:4	S03
XFM-3001-1UH	Unbalanced - Unbalanced	5 to 3000	1:1	S03
XFP-1001-1UH	Unbalanced - Unbalanced	5 to 1000	1:1	S09
XFP-1001-4WH	Unbalanced - Balanced	5 to 1000	1:4	S09
XFP-2501-1UH	Unbalanced - Unbalanced	1 to 2500	1:1	S09

Hybrid CATV Amplifier Modules

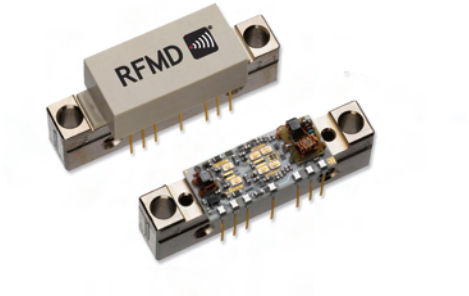


Table 39 1 GHz Power Doublers

	Part Number	Freq Range (MHz)	Min Power Gain (dB) at 1 GHz	Max Current (mA)	Max NF (dB)	Package
	D10040180GT	40 to 1000	19.0	375	6.5	SOT-115J
	D10040180GTH	40 to 1000	19.0	440	6.5	SOT-115J
	D10040200GT	40 to 1000	20.0	375	6.5	SOT-115J
	D10040200GTH	40 to 1000	20.0	440	6.5	SOT-115J
	D10040200P1*	45 to 1000	20.0	450	4.5	SOT-115J
	D10040200PH1	45 to 1000	20.0	450	4.0	SOT-115J
NEW	D10040200PL1*	45 to 1000	20.0	380	4.0	SOT-115J
	D10040220GT	40 to 1000	22.5	375	6.5	SOT-115J
	D10040220GTH	40 to 1000	22.5	440	6.5	SOT-115J
	D10040230P1*	45 to 1000	22.5	450	4.0	SOT-115J
	D10040230PH1	45 to 1000	22.5	450	4.0	SOT-115J
NEW	D10040230PL1*	45 to 1000	22.5	380	4.0	SOT-115J
	D10040240GT	40 to 1000	24.0	375	6.0	SOT-115J
	D10040240GTH	40 to 1000	24.0	440	6.0	SOT-115J
	D10040250GT	40 to 1000	24.5	375	5.5	SOT-115J
	D10040250GTH	40 to 1000	24.5	440	5.5	SOT-115J
	D10040270GT	40 to 1000	27.0	375	5.0	SOT-115J
	D10040270GTH	40 to 1000	27.0	440	5.0	SOT-115J
	D10040270GTL	40 to 1000	27.0	325	5.0	SOT-115J
NEW	D10040300GTH	40 to 1000	30.5	440	4.5	SOT-115J

*Uses Gallium Nitride (GaN) technology for outstanding Linearity

Table 40 870 MHz Power Doublers

	Part Number	Freq Range (MHz)	Min Power Gain (dB) at 870 MHz	Max Current (mA)	Max NF (dB)	Package
	D8740180GT	40 to 870	18.5	375	6.5	SOT-115J
	D8740180GTH	40 to 870	18.5	440	6.5	SOT-115J
	D8740200GT	40 to 870	20.5	375	6.5	SOT-115J
	D8740200GTH	40 to 870	20.5	440	6.5	SOT-115J
	D8740220GT	40 to 870	22.0	375	6.5	SOT-115J
	D8740220GTH	40 to 870	22.0	440	6.5	SOT-115J
	D8740240GT	40 to 870	24.0	375	6.0	SOT-115J
	D8740240GTH	40 to 870	24.0	440	6.0	SOT-115J
	D8740250GT	40 to 870	25.0	375	5.5	SOT-115J
	D8740250GTH	40 to 870	25.0	440	5.5	SOT-115J
	D8740270GT	40 to 870	27.0	375	5.0	SOT-115J
	D8740270GTH	40 to 870	27.0	440	5.0	SOT-115J
NEW	D8740300GTH	40 to 870	30.5	440	4.5	SOT-115J
	D8740320GT	40 to 870	32.0	375	4.5	SOT-115J
	D8740320GTH	40 to 870	32.0	440	4.5	SOT-115J

Table 41 1 GHz Push-Pull Hybrid Amplifiers

	Part Number	Freq Range (MHz)	Min Power Gain (dB) at 1 GHz	Max Current (mA)	Max NF (dB)	Package
NEW	S10040140P1	40 to 1000	14.0	260	5.5	SOT-115J
NEW	S10040180P1	40 to 1000	18.0	260	4.0	SOT-115J
	S10040200P	40 to 1000	20.0	260	4.5	SOT-115J
	S10040220GT	40 to 1000	23.0	240	6.2	SOT-115J
	S10040220P	40 to 1000	22.0	270	3.5	SOT-115J
	S10040230GT	40 to 1000	23.5	250	6.0	SOT-115J
	S10040240P	40 to 1000	24.0	255	3.5	SOT-115J
	S10040280GT	40 to 1000	28.0	260	5.0	SOT-115J
NEW	S10040340	40 to 1000	34.5	280	4.5	SOT-115J

Table 42 Reverse Path Hybrid Amplifiers

Part Number	Freq Range (MHz)	Min Power Gain (dB) at Fmax	Max Current (mA)	Max NF (dB)	Package
R0605250	5 to 65	24.7	200	3.0	SOT-115J
R0605250L	5 to 65	24.3	140	3.0	SOT-115J
R0605300	5 to 65	29.3	200	2.5	SOT-115J
R0605300L	5 to 65	29.3	140	3.0	SOT-115J
R0605400L	5 to 65	40.0	160	4.5	SOT-115J
R1005250L	5 to 100	24.6	140	3.4	SOT-115J
R1005300L	5 to 100	29.3	140	3.0	SOT-115J
R2005200P12	5 to 200	19.5	360	5.0	SOT-115J
R2005240	5 to 200	23.7	235	3.5	SOT-115J
R2005240P12	5 to 200	23.5	360	5.0	SOT-115J
R2005280L	5 to 200	27.3	140	3.0	SOT-115J
R2005300L	5 to 200	29.3	140	3.0	SOT-115J
R2005350L	5 to 200	34.5	160	5.0	SOT-115J
R3005250L	5 to 300	24.2	140	3.5	SOT-115J
R3005300L	5 to 300	29.1	160	6.3	SOT-115J

Table 43 870 MHz Push-Pull Hybrid Amplifiers

Part Number	Freq Range (MHz)	Min Power Gain (dB) at 870 MHz	Max Current (mA)	Max NF (dB)	Package
S8740180GT	40 to 870	18.7	240	7.5	SOT-115J
S8740190	40 to 870	18.5	240	5.0	SOT-115J
S8740200P	40 to 870	20.0	260	4.5	SOT-115J
S8740220GT	40 to 870	22.7	240	6.2	SOT-115J
S8740220P	40 to 870	22.0	255	3.5	SOT-115J
S8740240GT	40 to 870	24.2	240	6.5	SOT-115J
S8740240P	40 to 870	23.5	255	3.5	SOT-115J
S8740240P12	40 to 870	23.5	450	3.5	SOT-115J
S8740260GT	40 to 870	26.0	240	5.5	SOT-115J
S8740280GT	40 to 870	28.0	260	5.0	SOT-115J
S8740340	40 to 870	34.5	280	4.0	SOT-115J
S8740340PT	40 to 870	34.5	300	4.0	SOT-115J

Table 44 Optical Receivers

	Part Number	Freq Range (MHz)	Max Current (mA)	EINC (pA/sqrt(Hz))
	OR3005230W	5 to 300	190	7.5 (10 MHz to 300 MHz)
	OS10040280GW	40 to 1000	255	7.5 (40 MHz to 1000 MHz)
NEW	OS10040320PW	40 to 1000	260	5.0 (40 MHz to 400 MHz), 5.5 (400 MHz to 1000 MHz)
	OS8740230W	40 to 870	225	7.5 (40 MHz to 750 MHz), 8.0 (750 MHz to 870 MHz)

CATV Amplifiers and Tuners

Table 45

CATV 75 Ω Push-Pull Amplifier ICs

Part Number	Freq Range (MHz)	Gain (dB)	NF (dB)	OP1dB (dBm)	OIP3 (dBm)	Min CSO (dBc)	Min CTB (dBc)	Vcc (V)	Icc (mA)	Package
CGA-3318Z	5 to 900	12.5	4.5	20.0	38.0	-70 79ch Flat +34 dBmV out	-68 79ch Flat +34 dBmV OUT	8.0	150	ESOP-8
CGA-6618Z	1 to 1000	13.8	5.3	21.0	40.0	-81 79ch Flat +34 dBmV out	-70 79ch Flat +34 dBmV OUT	8.0	150	ESOP-8
CGR-0118Z	5 to 120	25.0	3.0	—	37.5	-75 7ch Flat +50 dBmV out	-62 7ch Flat +50 dBmV OUT	8.0 to 12.0	138	SOIC-8

Table 46

CATV 75 Ω Single-Ended Linear Amplifiers

Part Number	Freq Range (MHz)	Gain (dB)	NF (dB)	OP1dB (dBm)	OIP3 (dBm)	Min CSO (dBc)	Min CTB (dBc)	Vcc (V)	Icc (mA)	Package
CGB-1089Z	48 to 1000	16.0	3.5	18.0	35.0	-65 79 Ch Flat 25 dBmV out	-77 79 Ch Flat +25 dBmV out	5.0	80	SOT-89
CXE-1089Z	48 to 1200	13.0	3.0	18.5	38.5	-66 110 Ch Flat +28 dBmV out	-79 110 Ch Flat +28 dBmV out	5.0	110	SOT-89
RF2312	DC to 2500	16.0	4.2	18.5	30.0	-64 79 Ch Flat +25 dBmV out	-83 79 Ch Flat +25 dBmV out	5.5 to 9.0	100	SOIC-8
RF2317	DC to 3000	15.0	5.3	22.0	38.0	-64 133 Ch flat +25 dBmV out	-83 133 Ch Flat +25 dBmV out	9.0 to 12.0	180	CJ2BAT0
RF2360	5 to 1500	20.0	1.2	—	33.7	—	—	6.0 to 9.0	120	SOP-16 Batwing
RF2389	48 to 1002	16.3	3.0	18.5	38.5	-64 79 Ch Flat +25 dBmV out	-86 79 Ch Flat +25 dBmV out	5.0	110	SOT-89
RF3315	300 to 3000	12 at 2 GHz	3.0	25.0	40.0	—	—	5.0	100	SOT-89

Table 47

75 Ω Low Noise Amplifier MMICs

Part Number	Freq Range (MHz)	Gain (dB)	NF (dB)	OP1dB (dBm)	OIP3 (dBm)	Vd (V)	Id (mA)	Package
CXE-2022Z	48 to 1000	17.5	1.2	1.3	17.5	2.7 to 3.3	20	QFN 2 x 2
RF3827	5 to 1500	20.5 at 837 MHz	1.2 to 1.5	24.0	39.0	5 to 9	110	QFN 3 x 3

Table 48

CATV Set-Top Application-Specific ICs

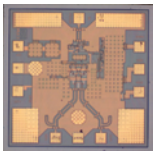
Part Number	Description	Freq Range (MHz)	Gain (dB)	NF (dB)	Vd (V)	Id (mA)	Package (dim. in mm)
S510065-55Z	Out-of-Band Tuner	50 to 150	70.0	13	3.3	117	QFN 5 x 5
S510069-28Z	AGC Amplifier	30 to 100	12.0 to 69.0	13	3.3	78	MSOP-8
S510075-33Z	Out-of-Band Tuner	50 to 150	70.0	13	3.3	95	QFN 3 x 3
S518324-44Z	Upstream Programmable Amplifier	5 to 65	-32.0 to 31.0	10	3.3	70 to 143	QFN 4 x 4
CGA-0116Z	3-way Active CATV Splitter	50 to 870	2.0 to 8.0	7	5.0	150	TSSOP-16

Optical Transimpedance Amplifiers

Table 49

High-Speed Optical Receive Amplifiers

Part Number	Freq Range (GHz)	Gain (dB)	Vcc (V)	Icc (mA)	Package
SFT-0100	14	28	5.0	52	Bare Die
SFT-9100B	45	24	3.3	58	Bare Die
SFT-9400B	60	32	3.3	90	Bare Die

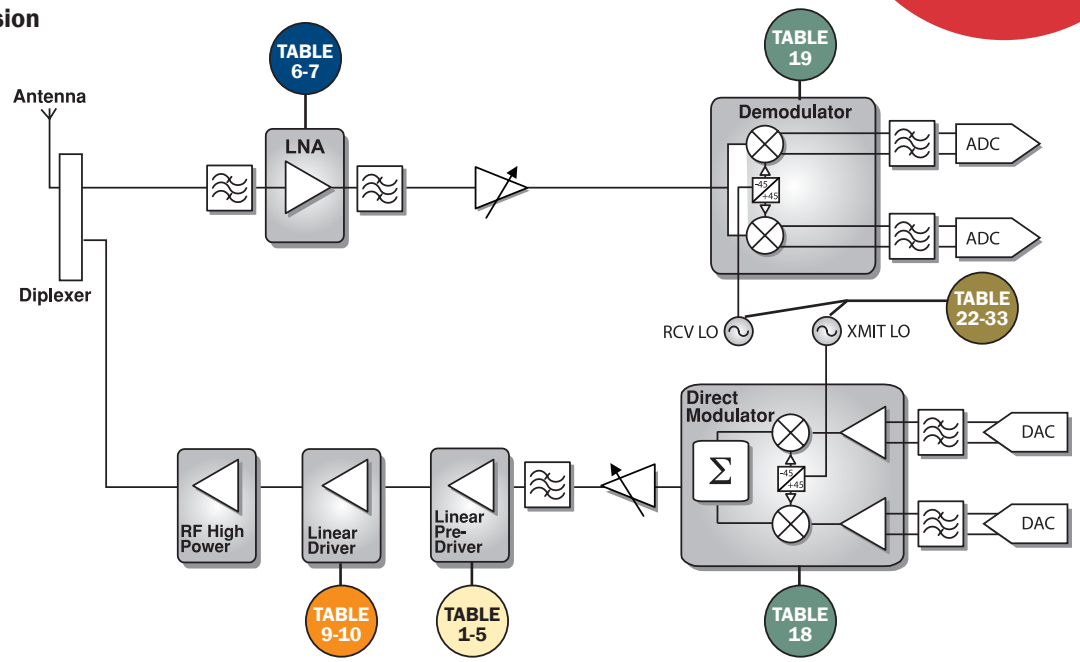


Wireless Infrastructure

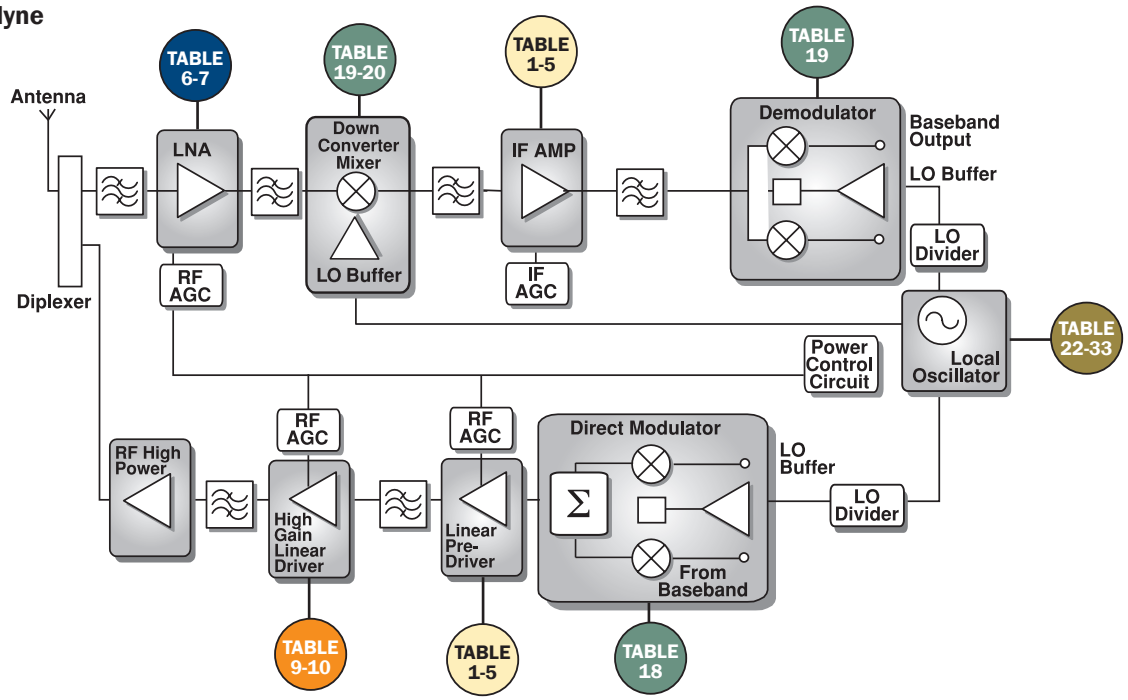
Cellular Base Stations

Parts shown in the diagrams in this section can be cross-referenced throughout the product guide using the table number indications.

Direct Conversion Base Station Transceiver



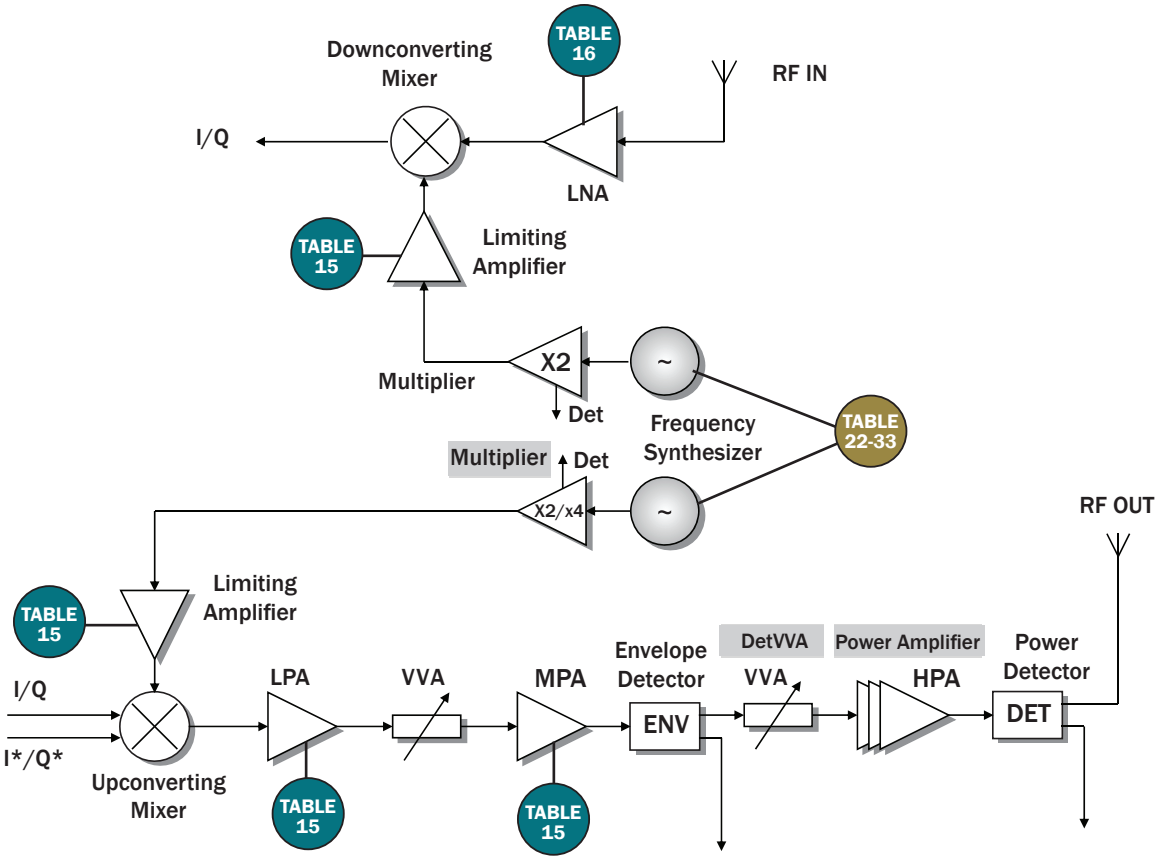
Superheterodyne Base Station Transceiver



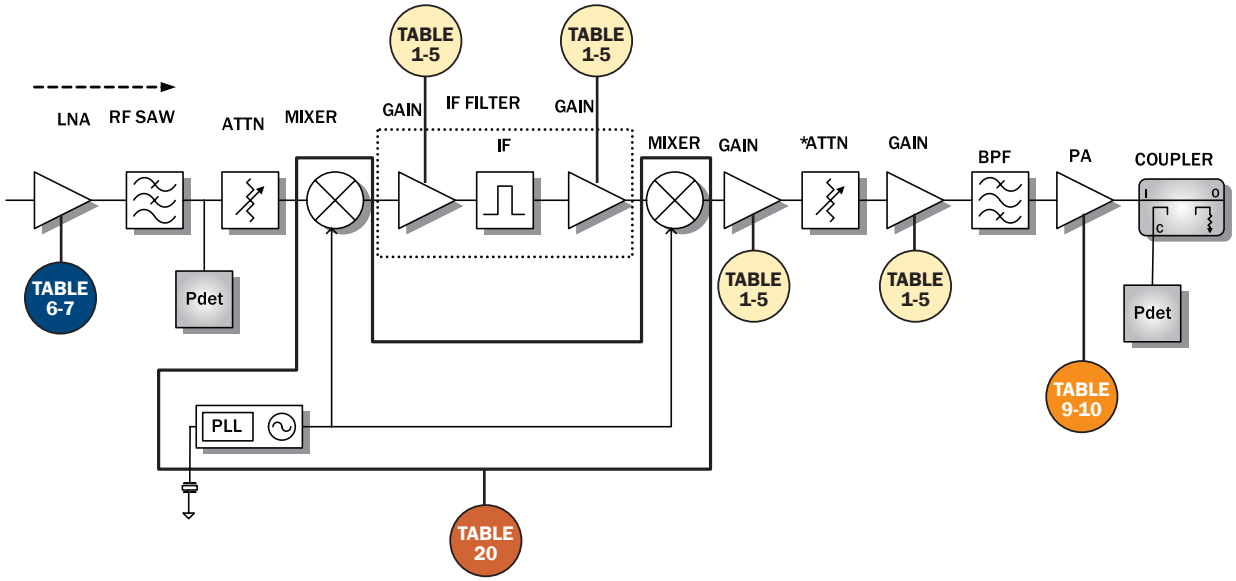
Continued on page 22.

Wireless Infrastructure *(Continued from page 21.)*

Point-to-Point



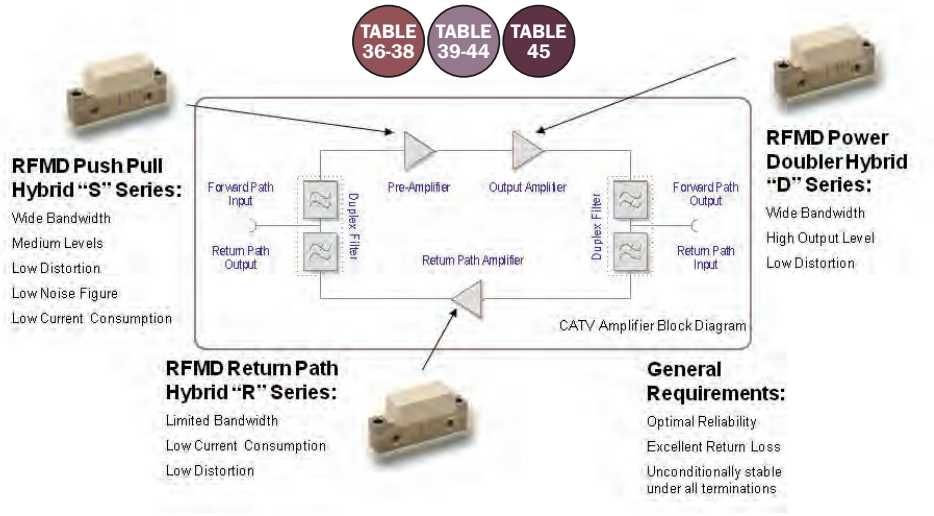
Wireless Repeater



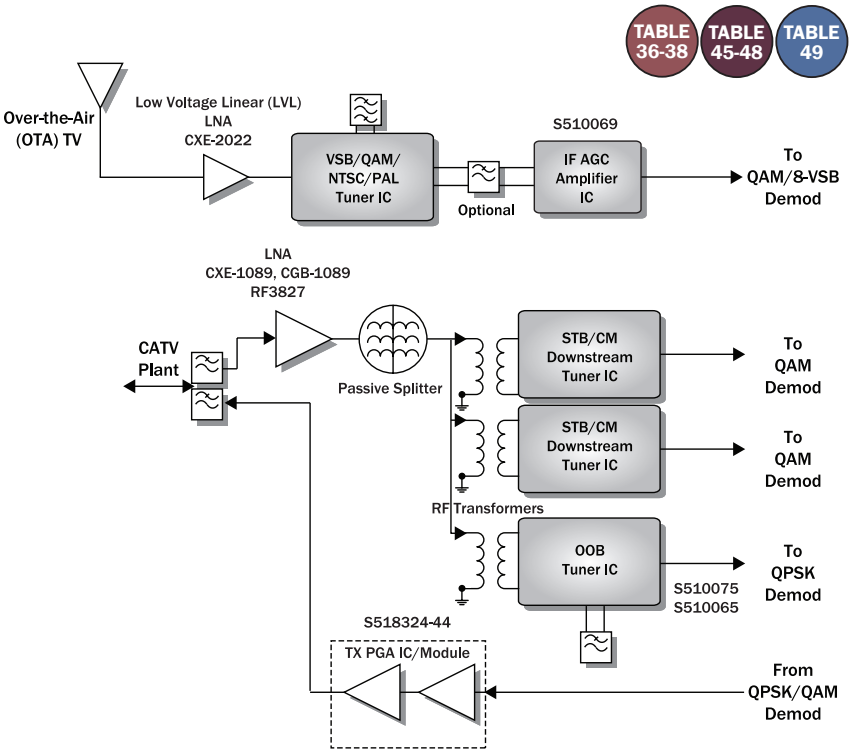
Broadband

CATV Transmission

CATV Line Extender Amplifier Block Diagram using RFMD Hybrid CATV Amplifier Modules



Broadband Customer Premise Equipment (CPE)

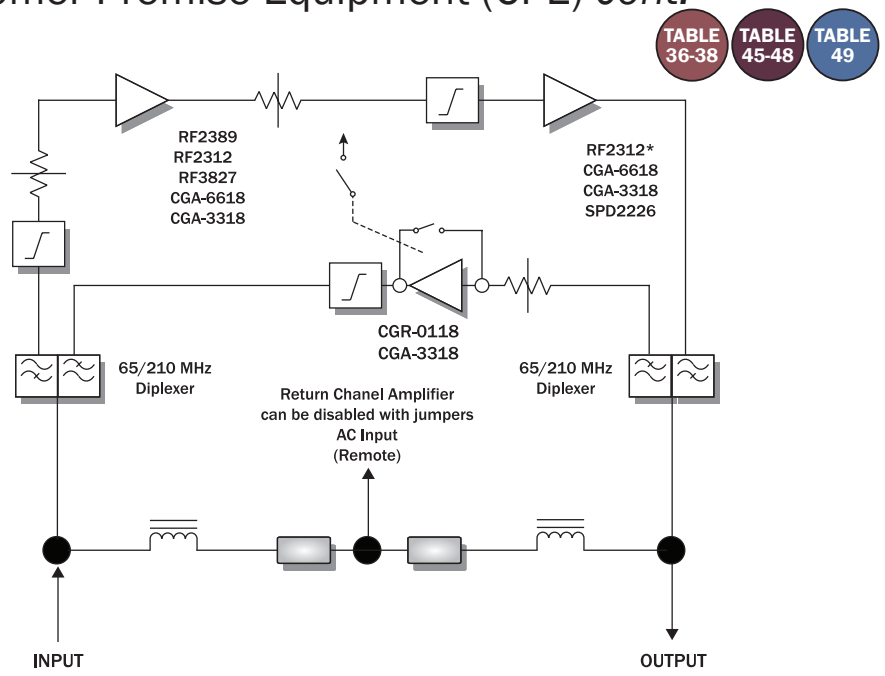


Over-the-Air (OTA) HDTV/CATV Set-Top Box (STB)/Cable Modem (CM) Front End Block Diagrams

Continued on page 24.

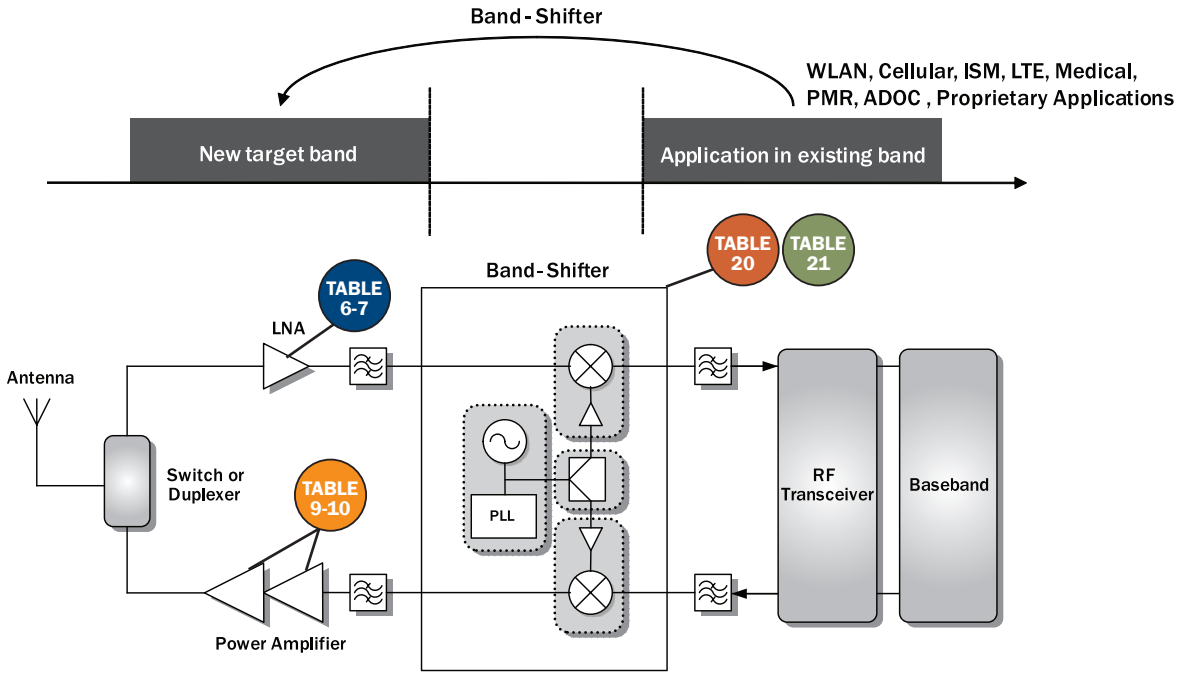
Broadband *(Continued from page 23.)*

Broadband Customer Premise Equipment (CPE) *cont.*



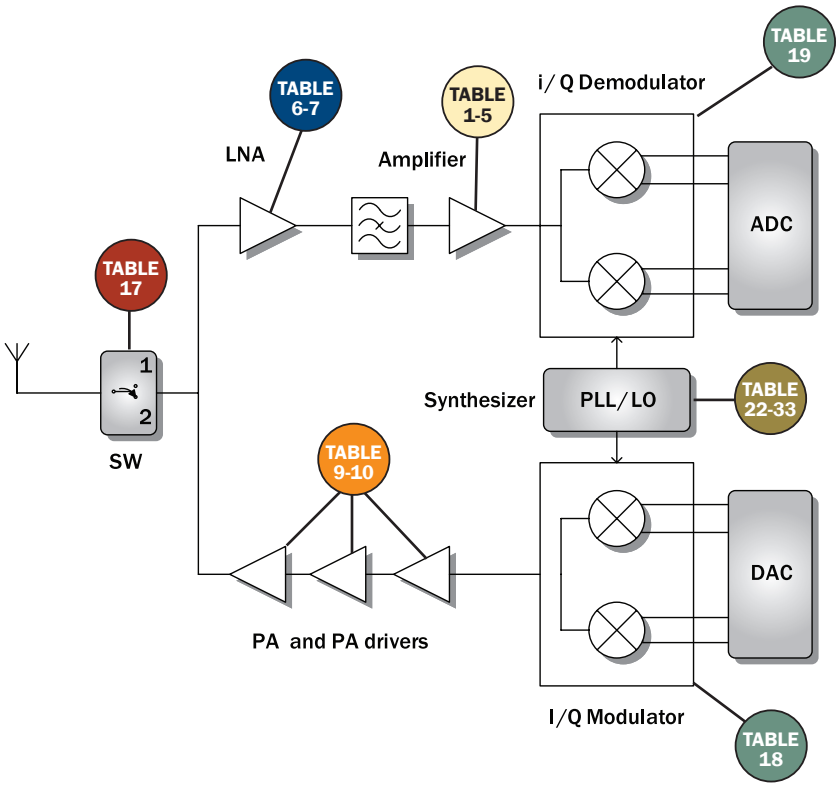
CATV Multi-Dwelling Unit (MDU) Amplifier

Band-Shifter



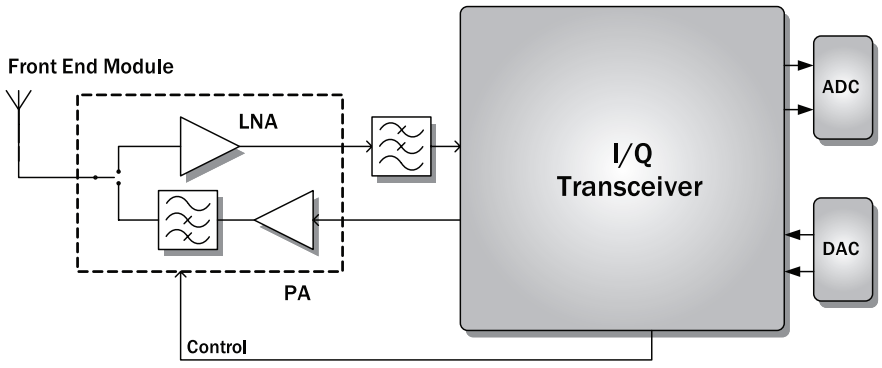
WiFi, WiMAX, ZigBee®, and *Bluetooth*®

WiMAX Base Station



WiFi

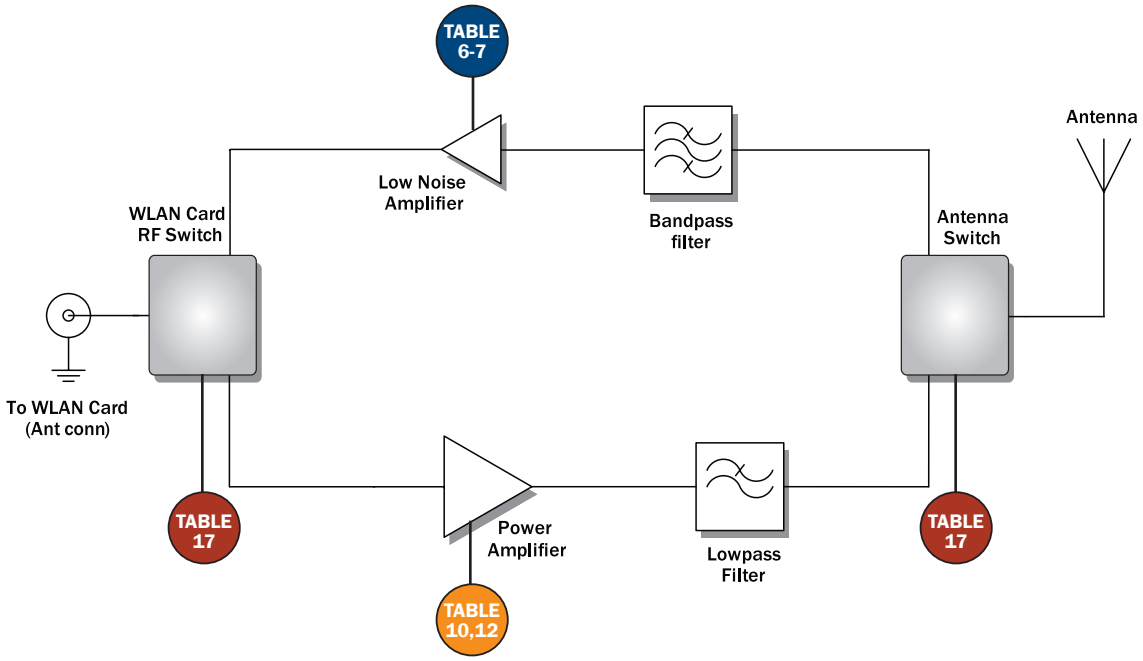
TABLE 6-6A TABLE 10-11



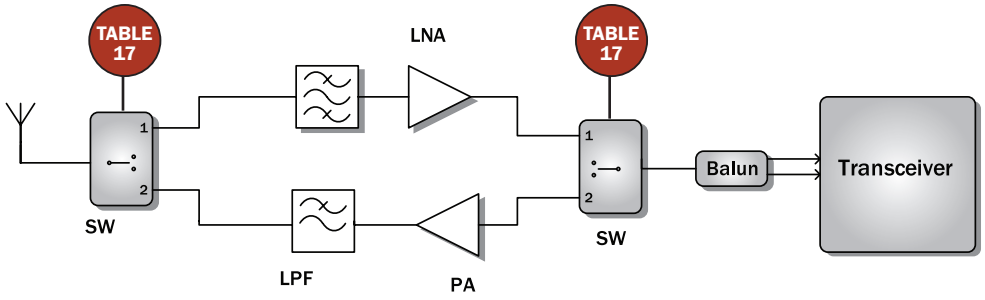
Continued on page 26.

WiFi, WiMAX, ZigBee®, and *Bluetooth*® *(Continued from page 25.)*

WiFi Booster



AMR TABLE 13



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