

Achieve Peak Performance With Our MMICs





Our portfolio of Monolithic Microwave Integrated Circuit (MMIC) products targets a variety of applications including electronic warfare, radars, instrumentation (test and measurement) and microwave communications. This portfolio includes broadband amplifiers (both power and low noise), amplifier modules, prescalers, attenuators and switches spanning DC to 70 GHz based on high-performance process technologies. We offer many distributed amplifier products, including industry-leading MMICs. Our prescalers combine higher frequency operation, the flexibility to divide by a large number of ratios and very good residual phase noise.

High-Power Amplifiers

Part Number	Function	Freq (GHz)	Gain (dB)	Pout (dBm)	Bias
ICP1137	Power Amplifier	2–18	18	37	24V, 114 mA
ICP0349	Power Amplifier	2.7–3.5	26.5	48	28V, 200 mA
ICP0349P	Packaged PA	2.7–3.5	26.5	48	28V, 200 mA
ICP1240	Power Amplifier	6–18	23	41	20V, 1500 mA
ICP1240P	Packaged PA	6–18	23	41	20V, 1500 mA
ICP1040	Power Amplifier	7.9–11	22	41	28V, 100 mA
ICP1040P	Packaged PA	7.9–11	22	41	28V, 100 mA
ICP1043	Power Amplifier	7.9–11	20	43	28V, 200 mA
ICP1044	Power Amplifier	7.9–11	22	44	28V, 220 mA
ICP1044P	Packaged PA	7.9–11	22	44	28V, 220 mA
ICP1045	Power Amplifier	7.9–11	22	45.5	28V, 400 mA
ICP1543	Power Amplifier	12–18	24	43	20V, 300 mA
ICP1445	Power Amplifier	13–15.5	24	45.5	28V, 350 mA
ICP1639	Power Amplifier	14–17	20	39	8V, 3.2A
ICP1937	Power Amplifier	17–21	28	37	24V, 84 mA
ICP1940	Power Amplifier	17–21	24	40	20V, 168 mA
ICP2637	Power Amplifier	23–30	25	37.5	20V, 56 mA
ICP2840	Power Amplifier	27.5–31	22	39	24V, 112–224 mA



Broadband Amplifiers

Part Number	Function	Frequency (GHz)	Gain (dB)	NF (dB)	OIP3 (dBm)	P1dB (dBm)	Bias	Package
MMA053AA	Distributed PA	DC-6	17	3	43	31	11 V, 420 mA	Die
MMA053PP5	Distributed PA	DC-6	16	4	41	29	11V, 420 mA	5 × 5 QFN
MMA043AA	Wideband LNA	0.5-12	16.5	1.4 at 7 GHz	29	17	5V, 55 mA	Die
MMA043PP4	Wideband LNA	0.5-12	14	2	28	17	5V, 55 mA	4 × 4 QFN
MMA015AA	Wideband Amp	0.1-14	14	2.6 at 10 GHz	29 ³	19 ³	4V, 80 mA ¹	Die
MMA016AA	Wideband Amp	0.1-16	14.5	2.6 at 10 GHz	29 ³	19 ³	4V, 80 mA ¹	Die
MMA044AA	Wideband LNA	6-18	21	1.7 at 12 GHz	30	17	4V, 102 mA	Die
UA5M15MP	Distributed Amp	5-18	13	6.5 at 10 GHz	28 ³	18 ³	5V, 130 mA ¹	3 × 3 QFN
MMA044PP3	Wideband LNA	6-18	17	2	28	14	4V, 100 mA	3 × 3 QFN
MMA040PP5	Distributed LNA	DC-20	14	2.5	23	13	8V, 60 mA	5 × 5 QFN
MMA041PP5	Distributed LNA	DC-20	18	2.5	35	21	8V, 160 mA	5 × 5 QFN
MMA021AA	Distributed Amp	5-20	15.5	5.5 at 10 GHz	28 ³	18 ³	5V, 135 mA ¹	Die
MMA041AA	Distributed LNA	DC-26	18	3.2 at 13 GHz	35	22	8V, 160 mA	Die
MMA040AA	Distributed LNA	DC-28	16.5	2.5 at 10 GHz	27	16	8V, 60 mA	Die
MMA022AA	Distributed LNA	DC-30	17	2.5	29 ³	19 ³	8V, 200 mA ¹	Die
MMA025AA	Distributed LNA	DC-30	17	2.5 at 15 GHz	29 ³	19 ³	8V, 200 mA ¹	Die
MMA026AA	Distributed LNA	DC-30	10.5	4.5 at 20 GHz	29 ³	19 ³	8V, 190 mA ¹	Die
MMA023AA	Distributed Amp	DC-30	17	3.0 at 10 GHz	32 ³	22 ³	8V, 250 mA ¹	Die
MMA024AA	Distributed Amp	DC-30	10.5	5.5 at 20 GHz	31 ³	21 ³	8V, 250 mA ¹	Die
MMA027AA	Distributed Amp	DC-30	11	2.5 at 20 GHz	24 ³	14 ³	4.5V, 85 mA ¹	Die
UAS3LK	Distributed Amp	DC-35	19		29 ³	19 ³	5V, 180 mA ¹	7 × 7 QFN ²
MMA030AA	Distributed LNA	DC-45	11.5	2.5 at 20 GHz	24 ³	14 ³	4.5V, 85 mA ¹	Die
MMA029AA	Distributed Amp	DC-45	11	4.5 at 20 GHz	29 ³	19 ³	8V, 190 mA ¹	Die
MMA031AA	Distributed Amp	DC-45	10	5.5 at 20 GHz	26.5 ³	16.5 ³	8V, 250 mA ¹	Die
MMA032AA	Distributed Amp	DC-45	10.5	5.5 at 20 GHz	31 ³	21 ³	8V, 250 mA ¹	Die
MMA033AA	Distributed Amp	DC-45	11	3.0 at 20 GHz	25.5 ³	15.5 ³	7.5V, 85 mA ¹	Die
MMA036AA	Distributed LNA	DC-65	11	2.3 at 20 GHz	24 ³	14 ³	4.5V, 85 mA ¹	Die
MMA034AA	Distributed Amp	DC-65	10.5	5.5 at 20 GHz	31 ³	21 ³	8V, 250 mA ¹	Die
MMA035AA	Distributed Amp	DC-65	11	4.5 at 20 GHz	28 ³	18 ³	8V, 190 mA ¹	Die
MMA121AA	Distributed Amp	DC-67	13.5	4 at 20 GHz	32	20	7V, 200 mA	Die

1. Power can be selected by choosing on-chip source resistor 2. Hermetic package 3. The selected bias point may be changed to modify this parameter

Prescalers and Frequency Detectors

Part Number	Function	Frequency (GHz)	Pout (dBm)	10 kHz SSB Noise (dBc/Hz)	Pdiss (W)	Package
UXN14M9P	/8 to /511, programmable all integers	DC-14	4	-147	1.1	6 × 6 QFN
UXN14M32K	/1 to /(232-1) programmable	DC-15	4	-150	0.30-0.80	4 × 4 ceramic
UXM15P	/2/4/8 or /4/5/6/7/8/9 programmable	DC-15	5	-153	0.6	4 × 4 QFN
MX1DS10P	/2 to /220 programmable	DC-15	-4	-153	1.4	6 × 6 QFN
UXC20P	/2/4/8 programmable	DC-20	5	-153	0.5	4 × 4 QFN
UXD20P	/1/2/4/8 programmable	DC-20	5	-153	0.43	4 × 4 QFN
UXD20K	/1/2/4/8 programmable	DC-26.5	5	-153	0.43	4 × 4 ceramic
UXN40M7K	/1 to /127 programmable, all integers	0.5-40	2	-153	0.75	4 × 4 ceramic
PFD1K	8 GHz phase frequency detector with dual 40 GHz prescalers	DC-40	0.4 VP-P	-153	1.32	6 × 6 ceramic

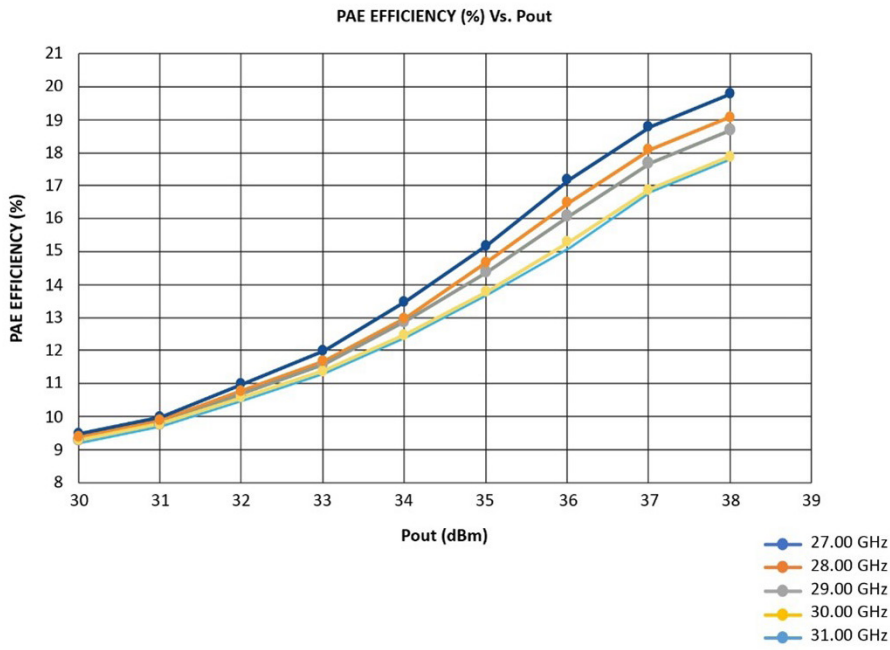
Switches

Part Number	Function	Frequency (GHz)	Insertion Loss (dB)	Isolation (dB)	Input P1dB (dBm)	Control Voltage	Package
MMS008AA	SP4T non-reflective	DC-8	1.6	45	28	0/-5V	Die
MMS008PP3	SP4T non-reflective	DC-8	1.5	44	29	0/-5V	3 × 3 QFN
MMS006AA	SP2T non-reflective	DC-20	2	40	24	0/-5V	Die
MMS006PP3	SP2T non-reflective	DC-20	2	42	23	0/-5V	3 × 3 QFN

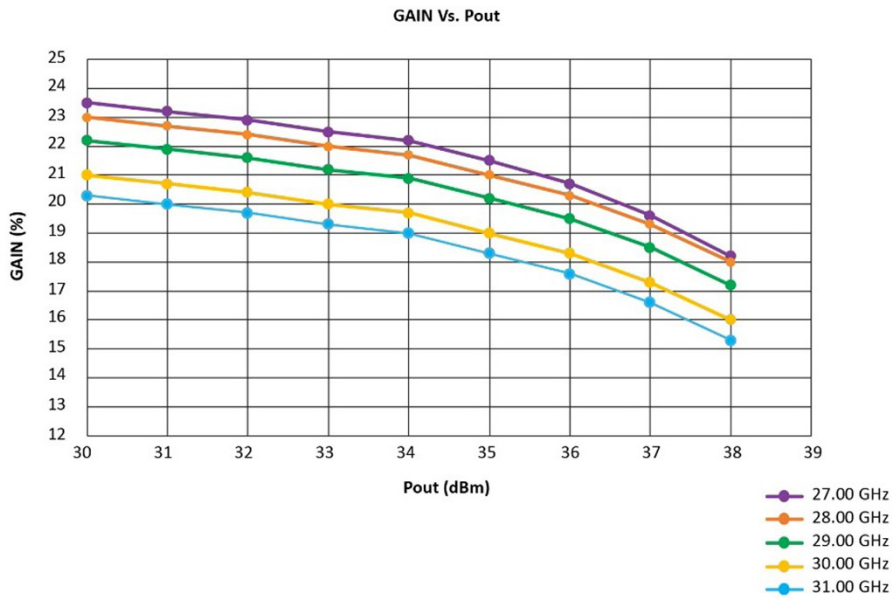
Voltage Variable Attenuator

Part Number	Function	Frequency (GHz)	Insertion Loss (dB)	Dynamic Range (dB)	Return Loss (dB)	Input P1dB (dBm)	Package
MMS004AA	Analog VVA	DC-50	5	27	12	3	Die

ICP2840 Linear PAE Across Frequency and Output Power Levels

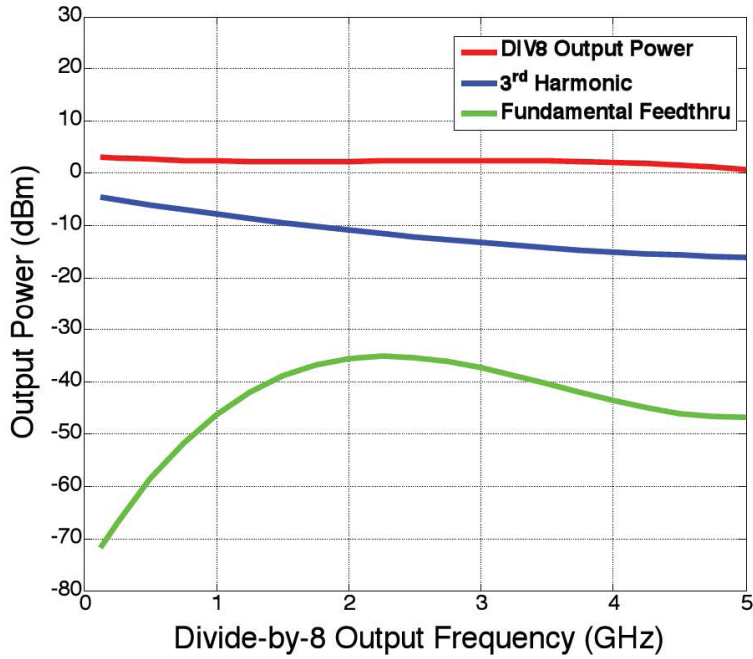


ICP2840 Linear Gain Across Frequency and Output Power Levels



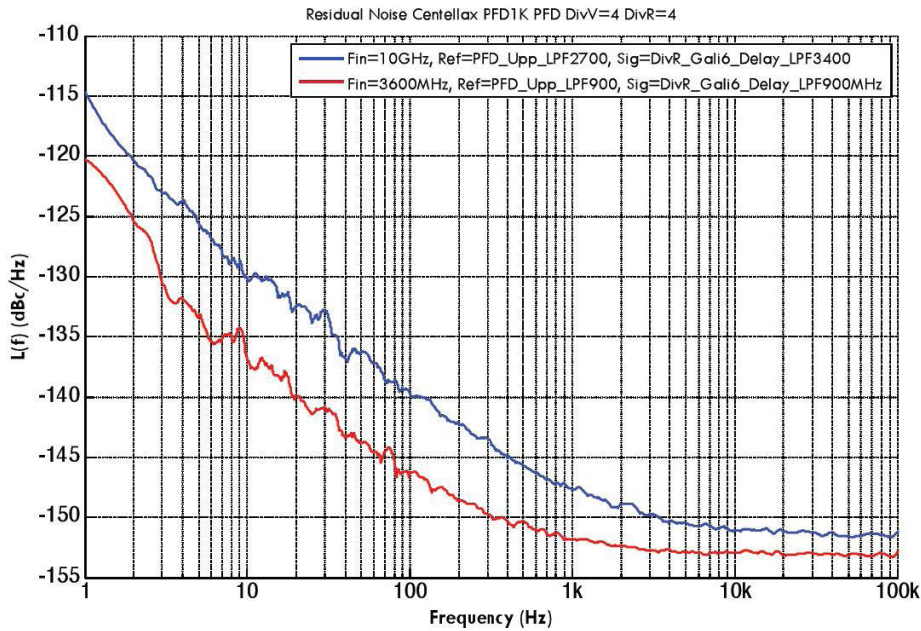
UXN40M7K

/1 to /127 40 GHz Programmable Integer Divider



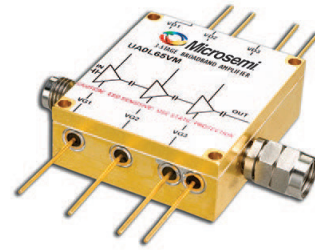
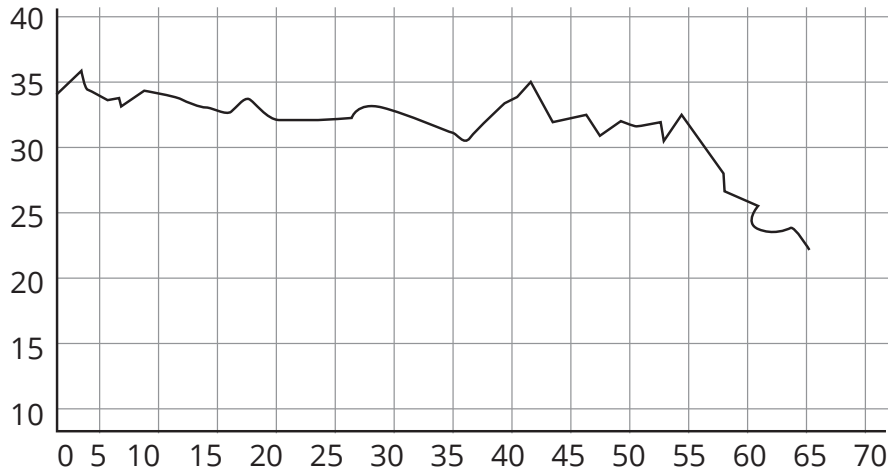
PFD1K

8 GHz Phase Frequency Detector With Dual 40 GHz Prescalers



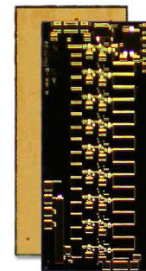
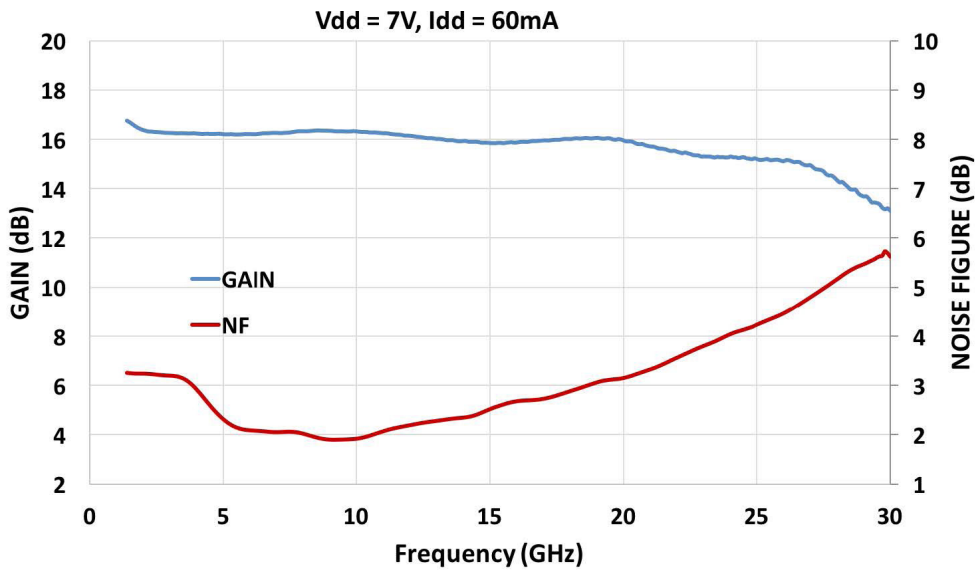
UA0L65VM

DC-65 GHz Wideband Amplifier Module



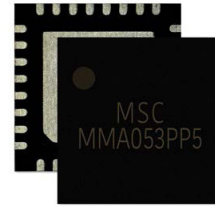
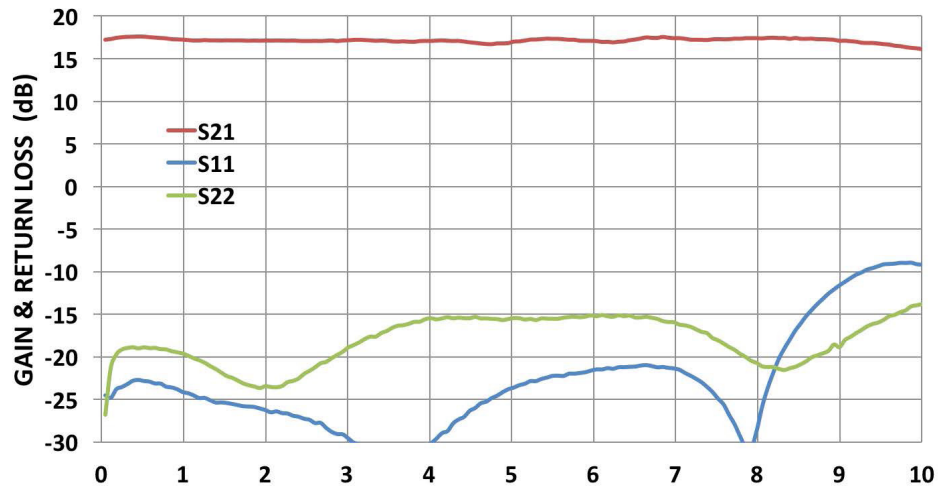
MMA040AA

DC-28 GHz Distributed LNA



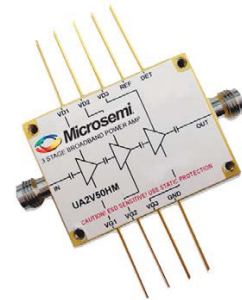
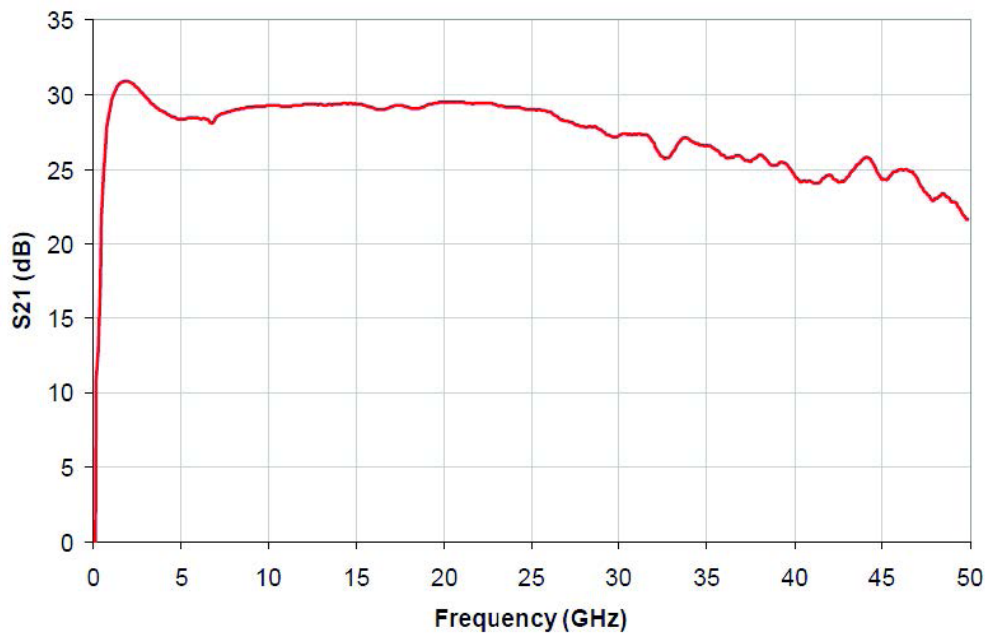
MMA053PP5

DC-8 GHz Distributed Power Amplifier



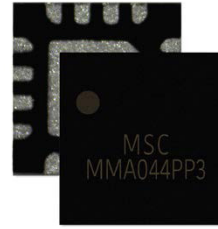
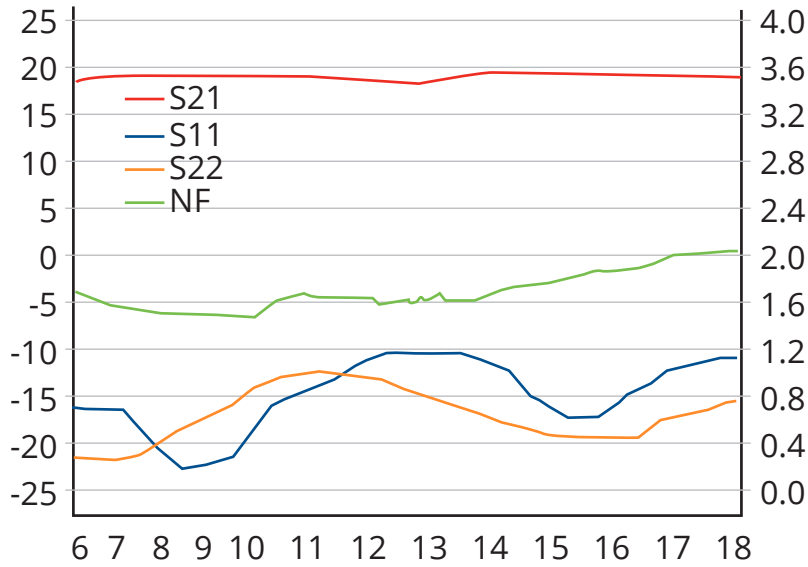
UA2V50HM

2 GHz-50 GHz High-Gain Power Amplifier Module



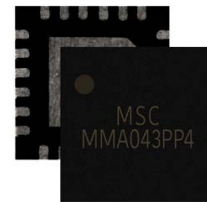
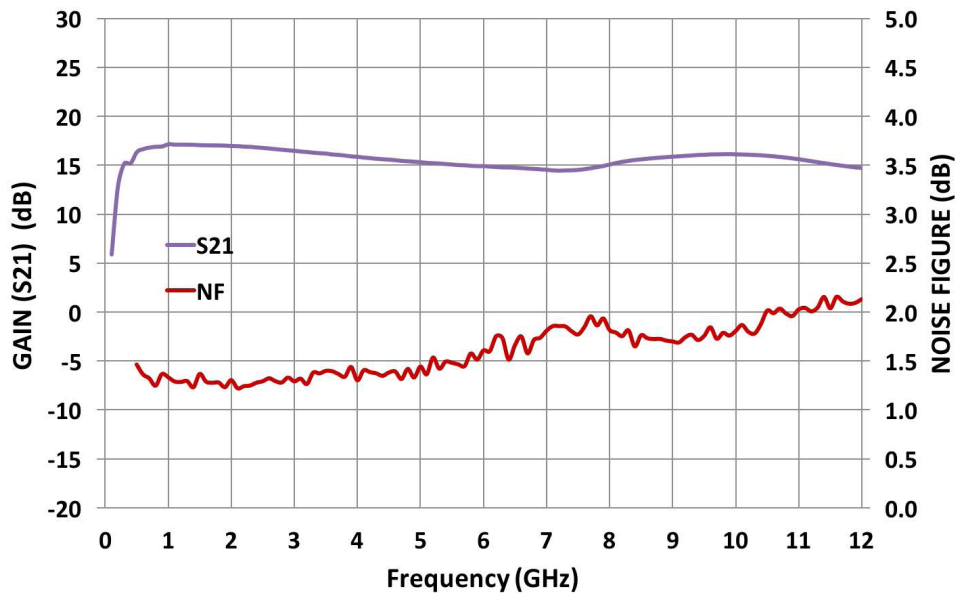
MMA044PP3

6 GHz–18 GHz Wideband LNA



MMA043PP4

0.5 GHz–12 GHz Wideband LNA



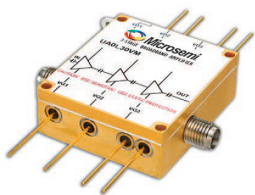


Wideband Amplifier Modules

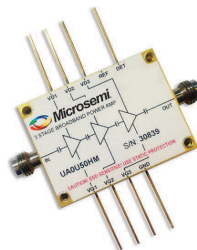
Part Number	Frequency (GHz)	Gain (dB)	Gain Flatness (dB)	NF (dB)	Psat (dBm)	Bias	Connector
UA0L30VM	0.0001-30	33	±2	4.5 at 15 GHz	23	7V, 475 mA	2.92 mm "K"
UA0U50HM	0.01-50	25	±3	10.0 at 30 GHz	22-30	7V, 1800 mA	2.4 mm
UA2V50HM	2-50	23-30	±4	10.5 at 30 GHz	22-30	7V, 1800 mA	2.4 mm
UA2V50LM	2-50	18	±4.5		22-30	6V, 1600 mA	2.4 mm
UA0L65VM	0.0001-65	23-35		5.2 at 30 GHz	22	7V, 475 mA	2.4 mm

Note: Contact sales for additional connector options and bias board information.

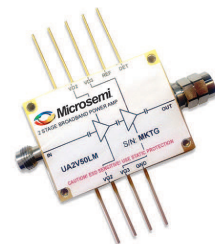
UA0L30VM



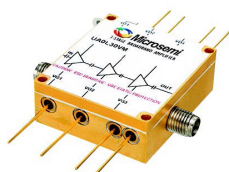
UA0U50HM



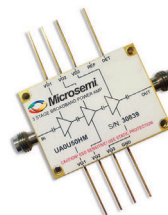
UA2V50LM



UA0L65VM



UA2V50HM







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