

DC TO mmWAVE

MMIC Products

Product Line Overview & Selection Guide

750+ Models in
Stock & Counting

In-House Design,
Assembly &
Characterization

Industry-Leading
Quality & Supply
Chain Stability

20+ Years
Heritage

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Product Line Overview

20+ Years In-House Design & Production Experience

Mini-Circuits' industry-leading line of MMIC devices is built on over 20 years of R&D and production experience across our global operating footprint. Our portfolio comprises an extensive selection of active and passive devices designed, packaged and characterized in-house with tight process control under stringent quality and reliability standards.

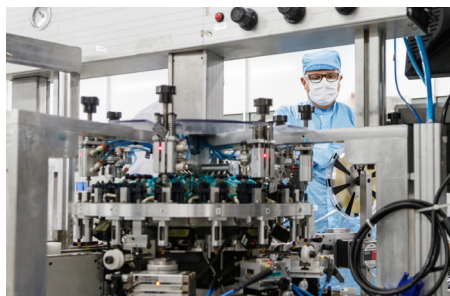
We maintain strong partnerships with some of the world's leading foundries to leverage pHEMT, HBT and IPD fabrication processes on GaAs and GaN substrates to deliver the best combination of performance parameters in every design to meet your system requirements.

Core Capabilities

DESIGN



ASSEMBLY



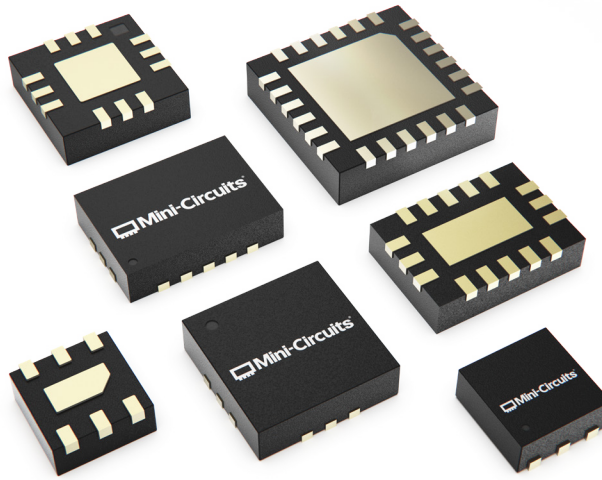
TESTING & CHARACTERIZATION



DC TO mmWAVE

Over 750 Catalog Models & Counting

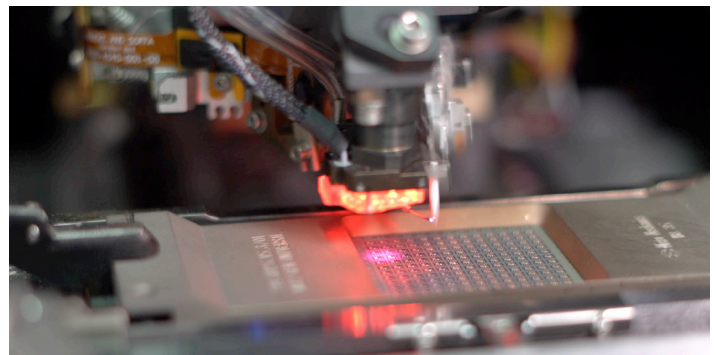
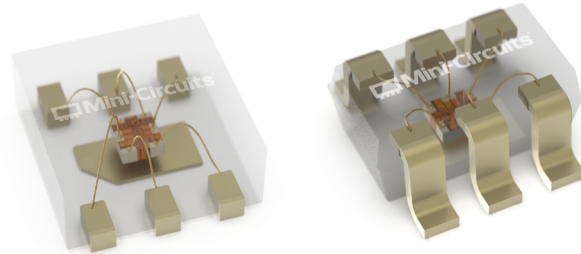
- Amplifiers
- Attenuators
- Couplers
- Equalizers
- Reflectionless Filters
- Frequency Mixers
- Frequency Multipliers
- Power Splitter/Combiners
- 90° Hybrids
- Switches
- Transformers & Baluns



Customization Services

Our assembly, testing and qualification capabilities allow Mini-Circuits to offer a variety of customization services to support special requirements beyond off-the-shelf parts from our catalog. Contact our applications engineering team to discuss how we can support your next project.

- Die Repackaging
- Upscreening Services for Space & Hi-Rel
- Custom Characterization
- Lead Plating & Finishing
- Screening for Magnetic Content
- & More



Global Operations



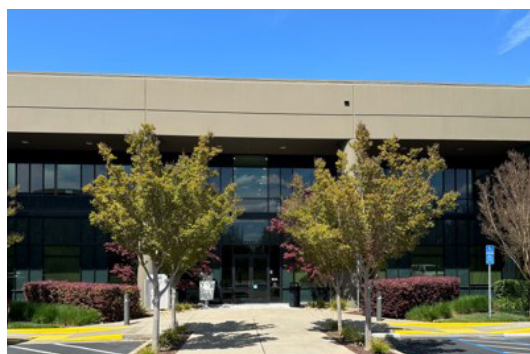
PENANG, MALAYSIA

Established in 1999, Mini-Circuits Technologies (MCT) is the global base for Mini-Circuits' extensive line of RF semiconductor products. The MCT facility features world-class engineering talent and advanced in-house capabilities for MMIC design, handling and packaging. engineering team to discuss how we can support your next project.



CARLSBAD, CALIFORNIA

Established in 2020, Mini-Circuits' office in Carlsbad, CA is a design center of excellence for our world-leading line of RF semiconductor products. Together with our facility in Penang, Malaysia, designers in the Carlsbad office are innovating products that expand Mini-Circuits' MMIC product line and push the limits of what's possible for our customers.



SANTA ROSA, CALIFORNIA

Mini-Circuits' Santa Rosa MMIC Design Center was acquired in 2024 to expand our line of 75Ω products for broadband, optical and CATV applications. This design group develops some of the world's most advanced component technologies for 75Ω systems including amplifiers, integrated modules and more.



DEER PARK, NEW YORK

Mini-Circuits' Deer Park location was expanded in 2022 to add a world-class R&D facility for millimeter-wave components with state-of-the-art capabilities for design, micro-assembly, and test and measurement including a 3500-square-foot class 100k cleanroom environment.

Product Selection Guide

With hundreds of models in stock, chances are we have a solution for your needs, but if you don't see exactly what you're looking for, please contact us to discuss your project. We're constantly developing new products and technologies to support future market needs, and we frequently partner with customers at the engineering level to meet special requirements.

Mini-Circuits MMIC Portfolio

Amplifiers

DUAL MATCHED AMPLIFIERS

Model Number	Freq Low (MHz)	Freq High (MHz)	Gain (dB) Typ.	NF (dB) Typ.	P1dB (dBm) Typ.	OIP3 (dBm) Typ.	Voltage (V)	Current (mA)	Case Style
MGVA-82+	DC	5200	14.1	7	20.2	36	5	100	JV2579
MERA-533+	DC	4000	18.8	3.5	17.5	33	4.9	65	DL805
MGVA-62+	40	3000	15.7	4.8	19.6	37.9	5	82	DL1020
MGVA-63+	40	3000	21.4	3.6	19.4	34.3	5	69	DL1020
MPGA-105+	40	3000	14.4	1.9	21	37.8	5	63	DL1020
PHA-11+	50	3000	15	2.3	21.4	41.5	5	146	DL1020
PHA-22H+	50	3000	16	2	22.2	39	5	141	DL1020
MERA-556+	DC	2200	19	3.5	17.6	35.5	4.9	65	DL1020
MPGA-152+	30	1500	14.6	3.2	29.6	43.6	9	407	DG1847
PHA-22+	50	1500	16	1.9	22	41	5	146	DL1020
MERA-7433+	DC	1000	19	2.7	18.3	35	4.8	80	DL805
MERA-7456+	DC	1000	18.6	2.7	18.2	35	4.8	80	DL1020

GAIN BLOCKS

Model Number	Freq Low (MHz)	Freq High (MHz)	Gain (dB) Typ.	NF (dB) Typ.	P1dB (dBm) Typ.	OIP3 (dBm) Typ.	Voltage (V)	Current (mA)	Case Style
PMA3-15453+	15000	45000	17	3.2	17	25	5	128	DQ1225
PMA3-453+	10000	45000	25.5	2.4	11.7	23.4	4	68	DQ1225
TSS-44+	22000	43500	17.6	3.2	6.9	12.7	4	22	DQ1225
LVA-273PN+	10	26500	17.7	3.7	18.3	28.1	5	85	DG1847
AVA-2183+	2000	20000	16.4	5.2	19.3	24.7	4	210	DG1847-1
AVA-24A+	5000	20000	11.8	5.7	18.4	25	5	120	DQ849
EHC-24L+	DC	20000	15.1	5.2	7	19.2	5	19.1	AF320
AVA-183A+	5000	18000	14	5	19	26	5	131	DQ849
AVA-183P+	500	18000	8.1	4.8	11.7	21.5	5	46	DQ1225
AVA-5R183+	500	18000	14.4	3.4	16.8	27.9	5	85	DG1847-1
CMA-183L+	DC	18000	14.2	5.5	5.4	17.5	5	20	LZ1737
LVA-6183PN+	6000	18000	19.9	4.1	19.6	28.7	6	123	DG1847
TSS-183A+	5000	18000	14.2	4.4	17.9	28.9	5	145	DQ849
EHA-163L+	DC	16000	15.3	5.2	6.5	15.6	5	20.9	MC1630-1
GVA-123+	10	12000	16.9	4	16.2	30	5	52	DF782
LVA-123+	10	12000	17.3	3.9	15.6	28.2	5	52	DQ849
PSA-14+	10	10000	16.5	3.9	16.3	29.4	5	47	MMM1362
GVA-93+	10	9000	16.9	4	16.2	30	5	52	DF782
ERA-1+	DC	8000	10.9	4.3	12	26	3.4	40	VV105
ERA-1SM+	DC	8000	10.9	4.3	12	26	3.4	40	WW107
ERA-21SM+	DC	8000	12.2	4.7	12.6	26	3.5	40	WW107
ERA-9SM+	DC	8000	8.3	5.3	14.1	31.3	4	50	WW107
GALI-1+	DC	8000	11.8	4.5	10.5	27	3.4	40	DF782
GALI-2+	DC	8000	14.8	4.6	11	27	3.5	40	DF782
GALI-21+	DC	8000	13.1	4	10.5	27	3.5	40	DF782
LEE-19+	DC	8000	12	6.5	10.2	24.5	3.6	40	FG873
LEE-29+	DC	8000	15.4	5.5	10.9	25.5	3.6	40	FG873
LEE-9+	DC	8000	8.4	5.3	13.9	29.7	4	50	FG873
LHA-83W+	50	8000	16.8	3.1	23.3	35.1	5/9	40/105	DQ1225

GAIN BLOCKS CONTINUED

Model Number	Freq Low (MHz)	Freq High (MHz)	Gain (dB) Typ.	NF (dB) Typ.	P1dB (dBm) Typ.	OIP3 (dBm) Typ.	Voltage (V)	Current (mA)	Case Style
PHA-83W+	50	8000	15.7	3.3	23.3	35.5	5.0/9.0	41/110	DF782
PMA3-83LP+	400	8000	19.5	2.8	24.6	35.4	6	150	DQ1225
PMA3-83MP+	400	8000	21	3.2	27.8	37.9	8	144	DQ1225
CMA-82+	DC	7000	14.1	6.7	20.6	36.4	5	106	DL1721
CMA-84+	DC	7000	20.2	5.5	21	34.5	5	108	DL1721
GALI-19+	DC	7000	11.6	6.5	9	23.7	3.6	40	DF782
GALI-29+	DC	7000	19.7	6	10	24.7	3.6	40	DF782
GVA-82+	DC	7000	13.8	6.6	20.6	36	5	106	DF782
GVA-83+	DC	7000	17.1	6.2	18.6	31.5	5	72	DF782
GVA-84+	DC	7000	16	5.5	20.6	35.8	5	108	DF782
LHY-84+	DC	7000	20	5.4	21	33.1	5	111	MC1630-1
CMA-62+	10	6000	15.4	5.1	19.2	33	5	82	DL1721
CMA-63+	10	6000	20.3	3.9	18.4	32	5	69	DL1721
CMA-81+	DC	6000	10	7.4	19.6	34	5	103	DL1721
ERA-2+	DC	6000	14.4	4	13	26	3.4	40	VV105
ERA-2SM+	DC	6000	14.4	4	13	26	3.4	40	WW107
GALI-24+	DC	6000	16.6	4.3	19.3	35.3	5.8	80	DF782
GALI-84+	DC	6000	16.7	4.4	21	37.4	5.8	100	DF782
GVA-62+	10	6000	15.4	5.1	19.2	33.6	5	82	DF782
GVA-63+	10	6000	20	3.7	18.6	32.2	5	69	DF782
GVA-81+	DC	6000	10	7.4	19.7	36.6	5	103	DF782
MNA-7A+	1500	6000	17.7	5.7	17.1	28.5	2.8/5.0	77/82	DQ849
GALI-49+	DC	5000	13.6	4.4	16.4	33.3	4.5	65	DF782
GALI-59+	DC	5000	18.3	4.3	17.6	33.3	4.8	65	DF782
GVA-60+	10	5000	19.8	4	19.5	35.6	5	92	DF782
LEE-49+	DC	5000	14	5.5	16.4	33	4.9	65	FG873
LEE-59+	DC	5000	19.7	4.5	17.3	33	4.8	65	FG873
MNA-2W+	500	4500	14.7	5.4	17.5	29	2.8/5.0	79/84	DQ849
MNA-4W+	500	4500	17	4.5	16.8	27.9	2.8/5.0	70.6/75	DQ849

Model Number	Freq Low (MHz)	Freq High (MHz)	Gain (dB) Typ.	NF (dB) Typ.	P1dB (dBm) Typ.	OIP3 (dBm) Typ.	Voltage (V)	Current (mA)	Case Style
MNA-5W+	500	4500	19.2	3.2	8.7	19.1	5	34	DQ849
ERA-4+	DC	4000	13.4	4.2	17.3	34	4.5	65	VV105
ERA-4SM+	DC	4000	13.4	4.2	17.3	34	4.5	65	WW107
ERA-5+	DC	4000	18.5	4.3	18.4	32.5	4.9	65	VV105
ERA-51SM+	DC	4000	16.1	4.1	18.1	33	4.5	65	WW107
ERA-5SM+	DC	4000	17.6	4.3	18.4	32.5	4.9	65	WW107
ERA-6+	DC	4000	12.2	4.5	17.9	36	5	70	VV105
ERA-6SM+	DC	4000	12.2	4.5	17.9	36	5	70	WW107
GALI-33+	DC	4000	17.5	3.9	11.4	28	4.3	40	DF782
GALI-4+	DC	4000	13.5	4	16	34	4.6	65	DF782
GALI-4F+	DC	4000	13.4	4	13.8	32	4.4	50	DF782
GALI-5+	DC	4000	17.5	3.5	16	35	4.4	65	DF782
GALI-51+	DC	4000	16.1	3.5	16.5	35	4.5	65	DF782
GALI-51F+	DC	4000	15.9	3.5	14.4	32	4.4	50	DF782
GALI-55+	DC	4000	18.5	3.3	15.5	28.5	4.3	50	DF782
GALI-5F+	DC	4000	17.4	3.5	14.2	31.5	4.3	50	DF782
GALI-6+	DC	4000	11.3	4.5	18.2	35.5	5	70	DF782
GALI-6F+	DC	4000	11.6	4.5	15.8	35.5	4.8	50	DF782
ERA-3+	DC	3000	18.7	3.5	12.5	25	3.2	35	VV105
ERA-33SM+	DC	3000	17.4	3.9	13.5	28.5	4.3	40	WW107
ERA-3SM+	DC	3000	18.7	3.5	12.5	25	3.2	35	WW107
GALI-3+	DC	3000	19.1	3.5	10.5	25	3.3	35	DF782
MNA-2A+	500	2500	15	5.3	17.9	29	2.8/5.0	79/84	DQ849
MNA-3A+	500	2500	16.5	4	9.5	21	2.8/5.0	32.6/34.3	DQ849
MNA-4A+	500	2500	17.8	4.4	18.6	30.8	2.8/5.0	70.6/75	DQ849
MNA-5A+	500	2500	22.8	3	10.4	21.3	5	34	DQ849
VNA-25+	500	2500	18.6	5.5	18.2	29	5	85	XX211-1
YSF-2151+	900	2150	20	3.1	20	35	5	118	DL1636
ERA-50SM+	DC	2000	19.4	3.5	17.2	32.5	4.4	60	WW107

GAIN BLOCKS CONTINUED

Model Number	Freq Low (MHz)	Freq High (MHz)	Gain (dB) Typ.	NF (dB) Typ.	P1dB (dBm) Typ.	OIP3 (dBm) Typ.	Voltage (V)	Current (mA)	Case Style
ERA-8SM+	DC	2000	19	3.1	12.5	25	3.7	36	WW107
MAR-2SM+	DC	2000	12	3.7	7	22	5	25	WW107
MAR-3+	DC	2000	12	6	10	23	5	35	VV105
MAR-3SM+	DC	2000	12	3.7	10	28	5	35	WW107
MAR-6+	DC	2000	20	3	3	14.5	3.5	16	VV105
MAR-7SM+	DC	2000	12.5	5	3.5	19	4	22	WW107
RAM-2+	DC	2000	11.8	6.5	4.5	17	5	25	AF190
RAM-3+	DC	2000	12	6	10	23	5	35	AF190
RAM-7+	DC	2000	12.5	4.5	5.5	19	4	22	AF190
VAM-3+	DC	2000	11	6	9	22	4.7	35	MMM168
VAM-6+	DC	2000	15	3	2	14	3.3	16	MMM168
VAM-7+	DC	2000	12	5	5.5	18	3.8	22	MMM168
YSF-122+	800	1200	20.4	3.4	20.5	36	5	118	DL1636
MAR-1SM+	DC	1000	16.5	3.3	2.5	14	5	17	WW107
MAR-4+	DC	1000	8	7	12.5	25.5	5.25	50	VV105
MAR-4SM+	DC	1000	8	6	12.5	25.5	5.3	50	WW107
MAR-8A+	DC	1000	25	3.1	12.5	25	3.7	36	VV105
MAR-8ASM+	DC	1000	25	3.1	12.5	25	3.7	36	WW107
MAV-11BSM+	50	1000	11.3	4.4	18	34	5.5	60	RRR137
RAM-4+	DC	1000	8	6.5	12.5	25.5	5.3	50	AF190

LINEAR AMPLIFIERS

Model Number	Freq Low (MHz)	Freq High (MHz)	Gain (dB) Typ.	NF (dB) Typ.	P1dB (dBm) Typ.	OIP3 (dBm) Typ.	Voltage (V)	Current (mA)	Case Style
LHA-1+	50	6000	14.1	2.1	22.7	40	5	146	FG873
LHA-1H+	50	6000	12.2	2.5	22.7	40.9	5	145	FG873
LHY-1H+	50	6000	14	2.1	22.5	41	5/4.5/4	144/116/80	MC1630-1
PHA-1+	50	6000	13.5	2.2	22.4	42	5	146	DF782
PHA-102+	50	6000	14.5	3.4	26.4	50	9	192	DF782

Model Number	Freq Low (MHz)	Freq High (MHz)	Gain (dB) Typ.	NF (dB) Typ.	P1dB (dBm) Typ.	OIP3 (dBm) Typ.	Voltage (V)	Current (mA)	Case Style
PHA-1H+	50	6000	13.8	2.2	22.6	41	5	132	DF782
PHA-202+	30	2700	17	3.5	30.4	46.1	11	350	DL1636
HXG-242+	700	2400	15	2.3	22.8	46.5	5	144	LZ1671
GVA-91+	869	2170	20.4	6.4	28.8	40	5	147	DF782
GVA-92+	869	2170	21.2	6	24.1	42	5	99	DF782
PHA-101+	50	1500	15.2	4	25.8	45	9	182	DF782
HXG-122+	500	1200	15.3	2.2	23	46	5	144	LZ1671

LOW NOISE AMPLIFIERS

Model Number	Freq Low (MHz)	Freq High (MHz)	Gain (dB) Typ.	NF (dB) Typ.	P1dB (dBm) Typ.	OIP3 (dBm) Typ.	Voltage (V)	Current (mA)	Case Style
PMA3-24323LN+	24000	32000	17	2.8	17	24	5	128	DQ1225
PMA3-313GLN+	26500	31000	18.2	1.6	11	23.4	4	68	DQ1225
AVA-0233LN+	2000	30000	17	2.2	13.5	25.7	5	65	DG1677-4
PMA3-34GLN+	10000	30000	25.5	1.6	10	22	4	68	DQ1225
PMA3-223GLN+	10000	22000	27.9	1.8	10	22.1	4	68	DQ1225
PMA3-10203+	12500	20000	21	1.5	16	24	5	56	DQ3005
AVA-183MP+	50	18000	16.5	1.8	23.8	31.1	8	160	DG1847-1
PMA2-183LN+	4000	18000	10.4	2.5	14.2	25.6	5	48.2	MC1631-1
PMA-183PLN+	6000	18000	27.5	1.2	9.6	22.4	2.6	57	JV2579
TSY-173LN+	13500	17000	16.5	1.1	8.7	24.2	3	13.2	MC1630-1
PMA3-5153+	5500	15500	21.5	1.2	17	28.4	5	64	DQ3005
PMA2-153LN+	500	15000	16.8	2.6	14.8	26.8	5.0/6.0	50/66	MC1631-1
PMA2-133LN+	10000	13000	15.3	1.3	13.5	28.6	3.0/5.0	13/29	MC1630-1
PMA3-5123+	5500	12500	21.6	1	16.8	28.1	4	72	DQ3005
PMA2-123LN+	500	12000	16.8	2.6	14.9	27	5.0/6.0	51/68	MC1631-1
PMA2-123LN5+	500	12000	15.1	1.2	12.2	23.4	5	30	MC1631-1
PMA3-14LN+	50	10000	22.6	1.8	22	30.4	6	67	DQ1225
CMA-83LN+	500	8000	21.5	1.3	20.3	30.1	5.0/6.0	50/62	DL1721

LOW NOISE AMPLIFIERS CONTINUED

Model Number	Freq Low (MHz)	Freq High (MHz)	Gain (dB) Typ.	NF (dB) Typ.	P1dB (dBm) Typ.	OIP3 (dBm) Typ.	Voltage (V)	Current (mA)	Case Style
LEE-39+	DC	8000	20.8	2.4	10.4	23.4	3.5	35	FG873
PMA3-83LN+	500	8000	22.1	1.3	20.7	35.2	5.0/6.0	60/77	DQ1225
PMA3-83LNW+	400	8000	22.6	1.2	21.7	37	5.0/6.0	58/75	DQ1225
TSY-83LN+	400	8000	22.3	1.5	22.9	33.6	5.0/6.0	76/104	DQ1225
GALI-39+	DC	7000	19.7	2.4	9	22.9	3.5	35	DF782
LEE2-6+	DC	7000	18.9	2.3	2.8	17.6	3.6	16	MC1630-1
PSA2-6+	DC	7000	16.5	2.5	3.6	16	5	15	CA1389
CMA-545+	50	6000	14.2	0.8	20	35	3	80	DL1721
PGA-102+	50	6000	15.9	2.3	17.4	32.7	3.3	83	DF782
PGA-1021+	50	6000	15.1	2.3	16.8	26.5	3.3	57	DF782
PMA2-63LN+	400	6000	19.3	0.4	16.4	30.1	5	36.4	MC1631-1
PMA3-63GLN+	1800	6000	27.9	0.7	14.1	26.6	5	69	DQ1225
PMA-545+	50	6000	14.2	0.8	20.3	36.4	3	80	DQ849
PMA-5451+	50	6000	13.7	0.8	16.8	30.8	3	30	DQ849
PMA-5452+	50	6000	14	0.7	18.3	34.1	3	40	DQ849
PMA-5453+	50	6000	14.3	0.7	19.64	36.8	3	60	DQ849
PMA-5454+	50	6000	13.5	0.9	14.6	28.1	5	20	DQ849
PMA-5455+	50	6000	14	0.8	19.1	32.7	5	40	DQ849
PMA-5456+	50	6000	14.4	0.8	21.5	36	5	60	DQ849
PSA-0012+	50	6000	14.2	2.4	22	35	5	74	CA1389
PSA-39+	DC	6000	23	2.2	10.7	23.3	5	32	CA1389
MNA-6W+	500	5500	23.2	2.7	19.2	30	2.8/5.0	92/99	DQ849
TSS2-53LNB+	500	5000	20.9	1.25	19.1	29.1	5	80	MC3007
TSS-53LNB+	500	5000	21.7	1.4	20.6	33.9	5	82	DQ1225
TSS-53LNB3+	500	5000	18.4	1.5	14.9	25	3	42	DQ1225
CMA-103+	50	4000	11	0.8	23.1	44.8	3.0/5.0	60/97	DL1721
CMA-5043+	50	4000	18.4	0.75	19.8	33.5	5	58	DL1721
PGA-103+	50	4000	11	0.9	22.5	44.6	3.0/5.0	60/97	DF782
PMA2-43LN+	1100	4000	19.9	0.46	19.9	32.9	5	51	MC1631-1

Model Number	Freq Low (MHz)	Freq High (MHz)	Gain (dB) Typ.	NF (dB) Typ.	P1dB (dBm) Typ.	OIP3 (dBm) Typ.	Voltage (V)	Current (mA)	Case Style
PSA4-5043+	50	4000	18.4	0.75	18.8	33.5	3.0/5.0	33/58	MMM1362
PSA-545+	50	4000	14.9	1	20.2	36.2	3	80	CA1389
PSA-5451+	50	4000	14	1	16.2	30.2	3	30	CA1389
PSA-5453+	50	4000	14.7	1	19.4	36.8	3	60	CA1389
PSA-5454+	50	4000	13.6	1.1	14	26.3	5	20	CA1389
PSA-5455+	50	4000	14.4	1	18.5	32.2	5	40	CA1389
PSA-8A+	DC	4000	31	3	12.8	25.8	5	36	CA1389
TAMP-362GLN+	3300	3600	20	0.9	16	29	5	100	JQ1382
PMA3-352GLN+	2500	3500	28.5	0.7	14.8	27.8	5	69	DQ1225
YSF-322+	900	3200	19	2.5	20	35	5	118	DL1636
GALI-S66+	DC	3000	18.2	2.4	3.3	19.1	3.5	16	DF782
PMA2-33LN+	400	3000	19.1	0.38	17.2	34.5	3	56	MC1631-1
PMA4-33GLN+	700	3000	38.9	0.47	22.6	40.4	5	152	DG1886
TAMP-272LN+	2300	2700	14	0.85	19.5	30	5	70	JQ1382
YSF-272+	2300	2700	19	2.5	20	35	5	118	DL1636
PGA-105+	40	2600	15.1	1.9	20.5	39.3	5	63	DF782
CMA-252LN+	1500	2500	16.8	1	17.8	30	4	57	DL1721
MNA-6A+	500	2500	25	2.6	20.2	32.4	2.8/5.0	92/99	DQ849
PMA2-252LN+	1500	2500	17.6	0.8	17.8	30	4	57	MC1631
PMA2-252LNA+	1500	2500	17.6	0.8	17.8	30	4	57	MC1631-1
VNA-28B+	500	2500	23	2.9	11.4	22.7	2.8/5.0	32/34	DL1020
TAMP-242GLN+	1710	2400	30	0.85	20	36	5	120	JQ1382
TAMP-242LN+	1710	2400	13	0.65	17	33.5	5	46	JQ1382
CMA-545G1+	400	2200	31.8	0.9	23.3	36.5	5	158	DL1721
PMA-545G1+	400	2200	31.3	1	22.2	33.6	5	158	DQ849
GALI-52+	DC	2000	17.8	2.7	15.5	32	4.4	50	DF782
LHA-23HLN+	30	2000	21.5	1.3	28.3	44.7	8	244	DQ1225
LHA-23LN+	30	2000	21.2	1.2	23.8	36.9	3/5	75/146	DQ1225
MAR-6SM+	DC	2000	20.2	2.3	3.7	18.1	3.5	16	WW107

LOW NOISE AMPLIFIERS CONTINUED

Model Number	Freq Low (MHz)	Freq High (MHz)	Gain (dB) Typ.	NF (dB) Typ.	P1dB (dBm) Typ.	OIP3 (dBm) Typ.	Voltage (V)	Current (mA)	Case Style
PHA-23HLN+	30	2000	21.3	1.4	28.4	44.4	8	235	DF782
PHA-23LN+	30	2000	21	1.2	23.9	37.4	5.0/3.0	171/72	DF782
RAM-6A+	DC	2000	19.7	2.3	3.2	17.3	3.5	16	AF190
TSS-23HLN+	30	2000	21.8	1.4	28.5	42.6	8	236	DQ1225
TSS-23LN+	30	2000	21.5	1.2	24.1	36.4	3/5	74/139	DQ1225
TSY-172LNB+	30	1700	13.1	1.4	17.5	24.7	2.7	7.7	MC1631-1
CMA-162LN+	700	1600	23.2	0.49	19.9	30.3	4	55	DL1721
PMA2-162LN+	700	1600	22.7	0.5	20	30	4	55	MC1631
PMA2-162LNA+	700	1600	22.7	0.5	20	30	4	55	MC1631-1
PMA-545G2+	1100	1600	30.4	1	22	33.6	5	158	DQ849
TAMP-1521GLN+	1380	1520	35	0.6	13.5	27.5	5	50	JQ1382
GALI-74+	DC	1000	21.8	2.7	18.3	38	4.8	80	DF782
LHA-13HLN+	1	1000	22.7	1.2	28	43.3	8	239	DQ1225
LHA-13LN+	1	1000	22.4	1.1	23.3	38.3	3/5	73/143	DQ1225
PHA-13HLN+	1	1000	22.7	1.1	28.7	43	8	234	DF782
PHA-13LN+	1	1000	22.4	1	24.5	39	5.0/3/0	138/71	DF782
PMA-545G3+	700	1000	31.3	0.9	21.9	33.4	5	158	DQ849
RAM-8A+	DC	1000	28	2.6	12.6	24.4	3.7	36	AF190
TSS-13HLN+	1	1000	23	1.4	28.4	42.9	3/5/8	72/142/234	DQ1225
TSS-13LN+	1	1000	22.8	1.1	24.5	39.2	3/5	72/142	DQ1225
TSY-13LNB+	30	1000	14.7	1.2	17.1	26.4	2.7	7.7	MC1631-1
TAMP-960LN+	824	960	18	0.55	16.5	30	5	45	JQ1382
TAMP-72LN+	400	700	20	1	21.5	36	5	90	JQ1382
YSIF-421+	220	380	37.2	1.6	22.2	38.3	5	189	DG1677-2

POWER AMPLIFIERS

Model Number	Freq Low (MHz)	Freq High (MHz)	Gain (dB) Typ.	NF (dB) Typ.	P1dB (dBm) Typ.	OIP3 (dBm) Typ.	Voltage (V)	Current (mA)	Case Style
PMA5-83-2W+	10	10000	12.6	3.9	31	40.9	12	400	DG1677-10

TRANSISTORS

Model Number	Freq Low (MHz)	Freq High (MHz)	Gain (dB) Typ.	NF (dB) Typ.	P1dB (dBm) Typ.	OIP3 (dBm) Typ.	Voltage (V)	Current (mA)	Case Style
TAV2-14LN+	50	10000	16.4	0.7	18.8	30.9	2/4	20/40	MC1630-1
SAV-541+	45	6000	23.2	0.5	19.2	33.1	3	60	MMM1362
SAV-551+	45	6000	20.9	0.5	17.5	24.3	3	15	MMM1362
SAV-581+	45	6000	22.3	0.5	19	30.6	3	30	MMM1362
TAV1-541+	45	6000	23.2	0.5	19.2	33.1	3	60	TE2769
TAV1-541NM+	45	6000	16.2	0.9	20.6	34	3/4	60	TE2769
TAV1-551+	45	6000	21.6	0.5	16	23.9	3	15	TE2769
TAV-541+	45	6000	23.8	0.5	19.1	33.6	3	60	FG873
TAV-551+	45	6000	21.3	0.5	17.5	23.5	3	15	FG873
TAV-581+	45	6000	22.9	0.5	18.3	30.3	3	30	FG873
SAV-331+	10	4000	24.1	0.5	19.6	32.3	4	60	MMM1362
TAV1-331+	10	4000	24.1	0.6	20.1	31.8	4	60	TE2769
TAV1-331NM+	10	4000	20.1	0.7	20.4	31.7	4	60	TE2769
TAV2-501+	400	3900	15.1	1.3	27.7	42.9	4.5	280	MC1631-1

VARIABLE GAIN AMPLIFIERS

Model Number	Freq Low (MHz)	Freq High (MHz)	Gain (dB) Typ.	NF (dB) Typ.	P1dB (dBm) Typ.	OIP3 (dBm) Typ.	Voltage (V)	Current (mA)	Case Style
PVGA-273+	300	26500	13.9	2.6	15	28.8	5/8	80	DG1677-4
PVGA-123+	400	12000	15.8	4.3	20.2	29.5	6	77	DQ1225
DVGA2-33A+	50	3000	18.1	5.3	18	31.3	5	91	DG1677
DVGA2-33APP+	50	3000	19.3	5.3	16.4	31.5	3/5	91	DG1677
DVGA1-242A+	450	2400	29.3	2.4	22.9	35.9	5	155	DG1677
DVGA1-242APP+	450	2400	29.5	2.6	22.8	35.5	5	158	DG1677
DVGA3-122+	900	1200	20	0.5	15.6	28	5	52.2	DG1677-2

CATV AMPLIFIERS (75Ω)

Model Number	Freq Low (MHz)	Freq High (MHz)	Gain (dB) Typ.	NF (dB) Typ.	P1dB (dBm) Typ.	OIP3 (dBm) Typ.	Voltage (V)	Current (mA)	Case Style
PGA-106W-75+	950	2150	15.9	3.6	19.5	35.6	5	116	DF782
PGA-106-75+	50	1500	16.9	3.3	20.1	36.2	5	116	DF782
PGA-122-75+	5	1500	15.5	2.8	23.8	41.4	9	115	DF782
MPGA-122-75+	40	1250	15.3	3.2	30.6	48.8	9	391	DG1847
PGA-32-75+	5	300	15.6	2.9	23.7/18.7	43.3/39.1	9.0/5.0	110/55	DF782
PGA-106R-75+	5	250	17.9	3.3	19.5	34.4	5	116	DF782

AMPLIFIER DIE MODELS

Model Number	Freq Low (MHz)	Freq High (MHz)	Gain (dB) Typ.	NF (dB) Typ.	P1dB (dBm) Typ.	OIP3 (dBm) Typ.	Voltage (V)	Current (mA)
AVA-054-D+	DC	50000	16.1	4	19.3	26.9	5	160
AVA-20453BL-D+	20000	45000	23.5	9.7	23	30	5	450
AVA-20453MP-D+	20000	45000	20.8	9.2	20.5	27.7	4.5	300
AVA-26453LN-D+	26000	45000	22.2	2.9	11.1	19.2	3	80
PMA3-15453-D+	15000	45000	15.6	3.6	17	24	5	128
PMA3-453-D+	10000	45000	25.5	2.4	11.7	23.4	4	68
TSS-44-D+	22000	43500	17.6	3.2	6.9	12.7	4	22
AVA-0233LN-D+	2000	30000	17	2.2	13.5	25.7	5	65.2
LVA-273PN-D+	10	26500	18	3.6	18.5	27.7	5	85
PVGA-273-D+	300	26500	15.7	2.1	17.3	28.8	5/8	80
AVA-24A-D+	5000	22000	13	5.8	19.2	25	5	126
AVA-183A-D+	5000	20000	14.5	4.3	18.2	25	5	131
EHA-24L-D+	DC	20000	13.4	5.1	6.8	16.6	5	19.1
AVA-183MP-D+	DC	18000	14.5	2.8	23.2	29.5	8	160
AVA-183P-D+	500	18000	8.1	4.8	11.7	21.5	5	46
AVA-2183-D+	2000	18000	17.2	5.5	19.6	27.4	4	210
AVA-5R183-D+	500	18000	13.3	2.8	18.6	23.3	5	85
LVA-6183PN-D+	6000	18000	19.5	4.1	19.3	28.9	6	123
PMA2-183LN-D+	4000	18000	10.4	2.5	14.2	25.6	5	48.2

Model Number	Freq Low (MHz)	Freq High (MHz)	Gain (dB) Typ.	NF (dB) Typ.	P1dB (dBm) Typ.	OIP3 (dBm) Typ.	Voltage (V)	Current (mA)
PMA-183PLN-D+	6000	18000	27.5	1.2	9.6	22.4	2.6	57
TSY-173LN-D+	13500	17000	16.5	1.1	8.7	24.2	3	13.2
PMA2-153LN-D+	500	15000	16.8	2.6	14.8	26.8	5.0/6.0	50/66
PMA2-133LN-D+	10000	13000	15.3	1.3	13.5	28.6	3.0/5.0	13/29
GVA-123-D+	10	12000	16.7	3.9	15.9	29.1	5	48
PMA2-123LN5-D+	500	12000	15.1	1.2	12.2	23.4	5	30
PVGA-123-D+	400	12000	15.6	4.5	20.2	30	6	77
PMA3-14LN-D+	50	10000	22.6	1.8	22	30.4	6	67
PMA5-83-2W-D+	10	10000	13.6	3.9	30.9	42.5	12	400
TAV2-14LN-D+	50	10000	16.4	0.7	18.8	30.9	2/4	20/40
PHA-83W-D+	50	8000	15.7	3.3	23.3	35.5	5.0/9.0	41/110
PMA3-83LN-D+	500	8000	21.9	1.2	21.2	35	5.0/6.0	60/77
PMA3-83LNW-D+	400	8000	22.6	1.2	21.7	37	5.0/6.0	58/75
PMA3-83MP-D+	400	8000	21	3.2	27.8	37.9	8	144
GALI-39-D+	DC	7000	19.7	2.4	10.5	22.9	3.5	35
GVA-84-D+	DC	7000	16	5.5	21	35.8	5	108
GVA-60-D+	10	6000	19.3	3.9	18.2	29	5	93
GVA-62-D+	10	6000	15.7	5	19.4	32.8	5	82
GVA-63-D+	10	6000	20.5	3.7	18.2	31.9	5	69
GVA-81-D+	DC	6000	10	7.4	19.7	36.6	5	103
MNA-7A-D+	1500	6000	17.7	5.7	17.1	28.5	2.8/5.0	77/82
PHA-102-D+	50	6000	14.5	3.4	26.4	50	9	192
PHA-1-D+	50	6000	13.6	2.1	22.5	39	5	155
PHA-1H-D+	50	6000	13.8	2.2	22.6	41	5	132
PMA2-63LN-D+	400	6000	19.3	0.4	16.4	30.1	5	36.4
PMA3-63GLN-D+	1800	6000	27.9	0.7	14.1	26.6	5	69
PSA-0012-D+	50	6000	15.6	2.4	22.2	35	5	92
SAV-541-D+	450	6000	19.1	0.38	21	33.1	3/4	15/30/60
TSS-53LNB-D+	500	6000	21.4	1.3	19.4	35	5	82

AMPLIFIER DIE MODELS CONTINUED

Model Number	Freq Low (MHz)	Freq High (MHz)	Gain (dB) Typ.	NF (dB) Typ.	P1dB (dBm) Typ.	OIP3 (dBm) Typ.	Voltage (V)	Current (mA)
MNA-6A-D+	500	5500	23.2	2.7	19.2	30	2.8/5.0	92/99
MNA-2A-D+	500	4500	14.7	5.4	17.5	29	2.8/5.0	79/84
MNA-4A-D+	500	4500	17	4.5	16.8	27.9	2.8/5.0	70.6/75
MNA-5A-D+	500	4500	19.2	3.2	8.7	19.1	2.8/5.0	32/34
ERA-51SM-D+	DC	4000	16.1	4.1	18.1	33	4.5	65
PGA-103-D+	50	4000	11.3	0.8	22.3	41.6	5	60/97
PMA2-43LN-D+	1100	4000	19.4	0.6	20.4	32.9	5	53
PSA4-5043-D+	50	4000	18.4	0.8	19	34	5	33/58
TAV2-501-D+	400	3900	15.1	1.3	27.7	42.9	4.5	280
GALI-S66-D+	DC	3000	18.2	2.4	3.3	19.1	3.5	16
PMA2-33LN-D+	400	3000	18.4	0.47	17.6	33.8	3	58
PHA-202-D+	30	2700	17	3.5	30.4	46.1	11	350
PGA-105-D+	40	2600	15.1	1.9	18.4	36.9	5	65
MNA-3A-D+	500	2500	16.8	3.9	10.3	22	2.8/5.0	32.6/34.3
PMA-545G1-D+	400	2200	31.1	1	23.4	36.1	5	158
PHA-23HLN-D+	30	2000	21	1.2	19/24/28	31/37/44	3.0/5.0/8.0	72/141/235
TSS-23HLN-D+	30	2000	21.8	1.4	28.5	42.6	3/5/8	74/139/236
TSY-172LNB-D+	30	1700	13.1	1.4	17.5	24.7	2.7	7.7
PMA2-162LN-D+	700	1600	22.7	0.5	20	30	4	55
PHA-101-D+	50	1500	15.2	4	25.8	45	9	182
MAR-8A-D+	DC	1000	31.5	3.1	12.5	25	3.7	36
PHA-13HLN-D+	1	1000	23	1.1	19/24/18	33/40/43	3.0/5.0/8.0	71/138/234
TSS-13HLN-D+	1	1000	23	1.4	28.4	42.9	3/5/8	72/142/234
PGA-32-75-D+	5	300	15.6	2.9	23.7/18	43.3/31.6	9.0/5.0	110/50.7

Attenuators



FIXED ATTENUATORS

Model Number	Freq Low (MHz)	Freq High (MHz)	Attenuation (dB) Typ.	Input Power (W) Max	Case Style
QAT-0+	DC	50000	0	2	MC3000
QAT-1+	DC	50000	1	2	MC3000
QAT-10+	DC	50000	10	1.7	MC3000
QAT-12+	DC	50000	12	1.1	MC3000
QAT-15+	DC	50000	15	1.4	MC3000
QAT-2+	DC	50000	2	2	MC3000
QAT-20+	DC	50000	20	0.8	MC3000
QAT-3+	DC	50000	3	2	MC3000
QAT-30+	DC	50000	30	1	MC3000
QAT-4+	DC	50000	4	1.7	MC3000
QAT-5+	DC	50000	5	1.4	MC3000
QAT-6+	DC	50000	6	1.6	MC3000
QAT-7+	DC	50000	7	1.3	MC3000
QAT-8+	DC	50000	8	1.2	MC3000
QAT-9+	DC	50000	9	1.1	MC3000
KAT-0+	DC	43500	0	2	MC1630-1
KAT-1+	DC	43500	1	2	MC1630-1
KAT-10+	DC	43500	10	1.7	MC1630-1
KAT-12+	DC	43500	12	1.1	MC1630-1
KAT-15+	DC	43500	15	1.4	MC1630-1
KAT-2+	DC	43500	2	2	MC1630-1
KAT-20+	DC	43500	20	0.8	MC1630-1

FIXED ATTENUATORS CONTINUED

Model Number	Freq Low (MHz)	Freq High (MHz)	Attenuation (dB) Typ.	Input Power (W) Max	Case Style
KAT-3+	DC	43500	3	2	MC1630-1
KAT-30+	DC	43500	30	1	MC1630-1
KAT-4+	DC	43500	4	1.7	MC1630-1
KAT-5+	DC	43500	5	1.4	MC1630-1
KAT-6+	DC	43500	6	1.6	MC1630-1
KAT-7+	DC	43500	7	1.3	MC1630-1
KAT-8+	DC	43500	8	1.2	MC1630-1
KAT-9+	DC	43500	9	1.1	MC1630-1
RCAT-00+	DC	20000	0	2	LZ1737
RCAT-01+	DC	20000	1	2	LZ1737
RCAT-02+	DC	20000	2	2	LZ1737
RCAT-03+	DC	20000	3	2	LZ1737
RCAT-04+	DC	20000	4	2	LZ1737
RCAT-05+	DC	20000	5	2	LZ1737
RCAT-06+	DC	20000	6	2	LZ1737
RCAT-07+	DC	20000	7	2	LZ1737
RCAT-08+	DC	20000	8	2	LZ1737
RCAT-09+	DC	20000	9	2	LZ1737
RCAT-10+	DC	20000	10	2	LZ1737
RCAT-12+	DC	20000	12	1.8	LZ1737
RCAT-15+	DC	20000	15	1.6	LZ1737
RCAT-20+	DC	20000	20	1.5	LZ1737
RCAT-30+	DC	20000	30	1.3	LZ1737
YAT-0A+	DC	18000	0	2	MC1630
YAT-10A+	DC	18000	10	1.7	MC1630
YAT-12A+	DC	18000	12	1.1	MC1630
YAT-15A+	DC	18000	15	1.4	MC1630
YAT-1A+	DC	18000	1	2	MC1630
YAT-20A+	DC	18000	20	0.8	MC1630

Model Number	Freq Low (MHz)	Freq High (MHz)	Attenuation (dB) Typ.	Input Power (W) Max	Case Style
YAT-2A+	DC	18000	2	2	MC1630
YAT-30A+	DC	18000	30	1	MC1630
YAT-3A+	DC	18000	3	2	MC1630
YAT-4A+	DC	18000	4	1.7	MC1630
YAT-5A+	DC	18000	5	1.4	MC1630
YAT-6A+	DC	18000	6	1.6	MC1630
YAT-7A+	DC	18000	7	1.3	MC1630
YAT-8A+	DC	18000	8	1.2	MC1630
YAT-9A+	DC	18000	9	1.1	MC1630
GAT-0+	DC	8000	0	0.5	FG873
GAT-1+	DC	8000	1	0.5	FG873
GAT-10+	DC	8000	10	0.5	FG873
GAT-12+	DC	8000	12	0.5	FG873
GAT-15+	DC	8000	15	0.5	FG873
GAT-2+	DC	8000	2	0.5	FG873
GAT-20+	DC	8000	20	0.5	FG873
GAT-3+	DC	8000	3	0.5	FG873
GAT-4+	DC	8000	4	0.5	FG873
GAT-5+	DC	8000	5	0.5	FG873
GAT-6+	DC	8000	6	0.5	FG873
GAT-7+	DC	8000	7	0.5	FG873
GAT-8+	DC	8000	8	0.5	FG873
GAT-9+	DC	8000	9	0.5	FG873
PAT-1+	DC	7000	1	1	AF320
PAT-10+	DC	7000	10	1	AF320
PAT-12+	DC	7000	12	1	AF320
PAT-15+	DC	7000	15	1	AF320
PAT-2+	DC	7000	2	1	AF320
PAT-20+	DC	7000	20	1	AF320

FIXED ATTENUATORS CONTINUED

Model Number	Freq Low (MHz)	Freq High (MHz)	Attenuation (dB) Typ.	Input Power (W) Max	Case Style
PAT-3+	DC	7000	3	1	AF320
PAT-30+	DC	7000	30	1	AF320
PAT-4+	DC	7000	4	1	AF320
PAT-5+	DC	7000	5	1	AF320
PAT-6+	DC	7000	6	1	AF320
PAT-7+	DC	7000	7	1	AF320
PAT-8+	DC	7000	8	1	AF320
PAT-9+	DC	7000	9	1	AF320
PAT-0+	DC	5000	0	1	AF320
GAT-30+	DC	3000	30	0.5	FG873
LAT-0+	DC	2500	0	0.5	MMM168
LAT-1+	DC	2500	1	0.5	MMM168
LAT-10+	DC	2500	10	0.5	MMM168
LAT-12+	DC	2500	12	0.5	MMM168
LAT-15+	DC	2500	15	0.5	MMM168
LAT-2+	DC	2500	2	0.5	MMM168
LAT-20+	DC	2500	20	0.5	MMM168
LAT-3+	DC	2500	3	0.5	MMM168
LAT-4+	DC	2500	4	0.5	MMM168
LAT-5+	DC	2500	5	0.5	MMM168
LAT-6+	DC	2500	6	0.5	MMM168
LAT-7+	DC	2500	7	0.5	MMM168
LAT-8+	DC	2500	8	0.5	MMM168
LAT-9+	DC	2500	9	0.5	MMM168
LAT-30+	DC	1000	30	0.5	MMM168

FIXED ATTENUATOR DIE

Model Number	Freq Low (MHz)	Freq High (MHz)	Attenuation (dB) Typ.	Flatness (dB) Typ.	Input Power (W) Max
KAT-0-D+	DC	50000	0	0.2	2
KAT-1-D+	DC	50000	1	0.1	2
KAT-2-D+	DC	50000	2	0.25	2
KAT-3-D+	DC	50000	3	0.25	2
KAT-4-D+	DC	50000	4	0.3	1.7
KAT-5-D+	DC	50000	5	0.2	1.4
KAT-6-D+	DC	50000	6	0.15	1.6
KAT-7-D+	DC	50000	7	0.2	1.3
KAT-8-D+	DC	50000	8	0.2	1.2
KAT-9-D+	DC	50000	9	0.2	1.1
KAT-10-D+	DC	50000	10	0.2	1.7
KAT-12-D+	DC	50000	12	0.25	1.1
KAT-15-D+	DC	50000	15	0.4	1.4
KAT-20-D+	DC	50000	20	0.65	0.8
KAT-30-D+	DC	50000	30	0.45	1
YAT-0A-D+	DC	26500	0	-	2
YAT-1A-D+	DC	26500	1	-	2
YAT-2A-D+	DC	26500	2	-	2
YAT-3A-D+	DC	26500	3	-	2
YAT-4A-D+	DC	26500	4	-	1.7
YAT-5A-D+	DC	26500	5	-	1.4
YAT-6A-D+	DC	26500	6	-	1.6
YAT-7A-D+	DC	26500	7	-	1.3
YAT-8A-D+	DC	26500	8	-	1.2
YAT-9A-D+	DC	26500	9	-	1.1
YAT-10A-D+	DC	26500	10	-	1.7
YAT-12A-D+	DC	26500	12	-	1.1
YAT-15A-D+	DC	26500	15	-	1.4
YAT-20A-D+	DC	26500	20	-	0.8
YAT-30A-D+	DC	26500	30	-	1

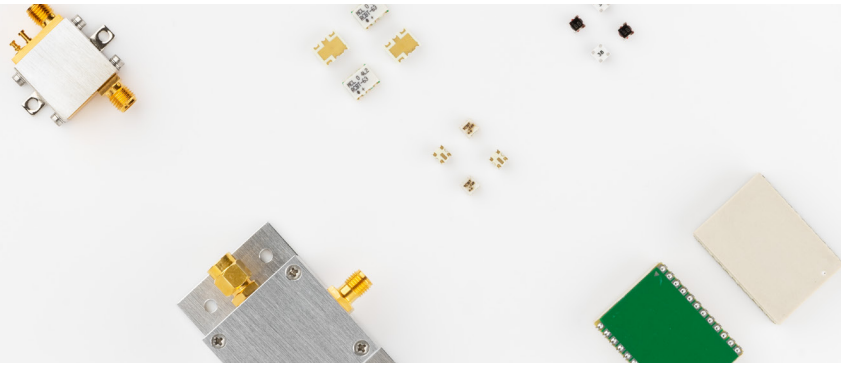
DIGITAL STEP ATTENUATORS

Model Number	Freq Low (MHz)	Freq High (MHz)	Attenuation (dB) Typ.	Attenuation Step (dB)	# of Bits	IP3 (dBm) Typ.	Input Power 0.2 dB Compression (dBm) Typ.	Switching Speed (μ s)	Supply Voltage (V _{dd} , V _{ss})	Control Interface	Case Style
DAT-15R5A-PN+	DC	4000	15.5	0.5	5	52	24	1	3, -3.2	Parallel	DG983-2
DAT-15R5A-PP+	DC	4000	15.5	0.5	5	52	24	1	3	Parallel	DG983-2
DAT-15R5A-SN+	DC	4000	15.5	0.5	5	52	24	1	3, -3.2	Serial	DG983-2
DAT-15R5A-SP+	DC	4000	15.5	0.5	5	52	24	1	3	Serial	DG983-2
DAT-31A-PN+	DC	4000	31	1	5	52	24	1	3, -3.2	Parallel	DG983-2
DAT-31A-PP+	DC	4000	31	1	5	52	24	1	3	Parallel	DG983-2
DAT-31A-SN+	DC	4000	31	1	5	52	24	1	3, -3.2	Serial	DG983-2
DAT-31A-SP+	DC	4000	31	1	5	52	24	1	3	Serial	DG983-2
DAT-31R5A-PN+	DC	4000	31.5	0.5	6	52	24	1	3, -3.2	Parallel	DG983-2
DAT-31R5A-PP+	DC	4000	31.5	0.5	6	52	24	1	3	Parallel	DG983-2
DAT-31R5A-SN+	DC	4000	31.5	0.5	6	52	24	1	3, -3.2	Serial	DG983-2
DAT-31R5A-SP+	DC	4000	31.5	0.5	6	52	24	1	3	Serial	DG983-2
DAT-15575A-PN+	1	2500	15.5	0.5	5	57	30	0.4	3, -3	Parallel	DG983-2
DAT-15575A-PP+	1	2500	15.5	0.5	5	57	30	0.4	3	Parallel	DG983-2
DAT-15575A-SN+	1	2500	15.5	0.5	5	57	30	0.4	3, -3	Serial	DG983-2
DAT-15575A-SP+	1	2500	15.5	0.5	5	57	30	0.4	3	Serial	DG983-2
DAT-31575A-PN+	1	2500	31.5	0.5	6	57	30	0.4	3, -3	Parallel	DG983-2
DAT-31575A-PP+	1	2500	31.5	0.5	6	57	30	0.4	3	Parallel	DG983-2
DAT-31575A-SN+	1	2500	31.5	0.5	6	57	30	0.4	3, -3	Serial	DG983-2
DAT-31575A-SP+	1	2500	31.5	0.5	6	57	30	0.4	3	Serial	DG983-2
DAT-3175A-PN+	1	2500	31	1	5	57	30	0.4	3, -3	Parallel	DG983-2
DAT-3175A-PP+	1	2500	31	1	5	57	30	0.4	3	Parallel	DG983-2
DAT-3175A-SN+	1	2500	31	1	5	57	30	0.4	3, -3	Serial	DG983-2
DAT-3175A-SP+	1	2500	31	1	5	57	30	0.4	3	Serial	DG983-2

VOLTAGE VARIABLE ATTENUATORS

Model Number	Freq Low (MHz)	Freq High (MHz)	Attenuation (dB) Typ.	IP3 (dBm) Typ.	Max Control Voltage (V)	Max Control Current (mA)	Case Style
PVA-453-34+	10000	45000	-	26	-5 to +1	5	JV2579
PVA-453-34-D+	10000	45000	-	26	-5 to +1	5	

Bias Tees



BIAS TEES

Model Number	Freq Low (MHz)	Freq High (MHz)	Insertion Loss (dB) Typ.	Input Current (mA) Max.	DC port Isolation (dB) Typ.	Case Style
MBT-44+	10000	40000	1	500	46	JV3002
MBT-283+	1500	28000	0.7	500	47	JV2579

BIAS TEE DIE

Model Number	Freq Low (MHz)	Freq High (MHz)	Insertion Loss (dB) Typ.	Input Current (mA) Max.	DC port Isolation (dB) Typ.
MBT-44-D+	10000	40000	1	500	46
MBT-283-D+	1500	20000	0.7	500	47

Couplers

COUPLERS

Model Number	Freq Low (MHz)	Freq High (MHz)	Coupling (dB)	Mainline Loss (dB) Typ.	Directivity (dB) Typ.	Power Input Max. (W)	Case Style
EDC10-273+	6000	26500	10	1.4	15	0.63	DG1847
EDC21-24+	4000	20000	21	0.7	19	1.77	DG1847
EDC10-183+	6000	18000	10	1.3	16	0.63	DG1847
D17W+	700	3500	16-26	0.4	14	4	CA531
D17IA+	2300	2600	17.1	0.4	14	4	CA531
D18PA+	1700	2000	19.3	0.3	16	4	CA531
D19GA+	1400	1700	20.7	0.3	17	4	CA531
D20C+	810	960	19.2	0.3	15	1	CA531

COUPLERS DIE

Model Number	Freq Low (MHz)	Freq High (MHz)	Coupling (dB)	Mainline Loss (dB) Typ.	Directivity (dB) Typ.	Power Input Max. (W)	Type
EDC14-553-D+	22000	55000	12.7	0.8	9	1.5	Directional
HK-PT54-D+	DC	50000	26.5	0.8	-	1	RF Tap
EBDC19-KA-D+	5000	43500	18.7	0.6	10	1.45	Bi-Directional
EDC19-KA-D+	5000	43500	18.3	0.5	9.3	1.47	Directional
EDC10-273-D+	6000	26500	10	1.4	15	0.63	Directional
EDC21-24-D+	4000	20000	21	0.7	19	1.77	Directional

Equalizers

EQUALIZERS

Model Number	Freq Low (MHz)	Freq High (MHz)	Slope (dB) Typ.	Insertion Loss @ Freq. High (dB)	Max Input Power (dBm)	Case Style
EQY-10-453+	DC	45000	9.6	1.8	28	MC1630-1
EQY-3-453+	DC	45000	3.5	0.9	30	MC1630-1
EQY-4-453+	DC	45000	4.1	1.1	29	MC1630-1
EQY-5-453+	DC	45000	5.1	1.1	28	MC1630-1
EQY-6-453+	DC	45000	6.1	1.1	28	MC1630-1
EQY-7-453+	DC	45000	7	1.3	27	MC1630-1
EQY-8-453+	DC	45000	7.9	1.2	27	MC1630-1
EQY-9-453+	DC	45000	8.6	1.5	28	MC1630-1
EQY-3-283+	DC	28000	3.4	0.6	31	MC1630-1
EQY-4-283+	DC	28000	4.3	0.6	30	MC1630-1
EQY-5-283+	DC	28000	5.9	0.6	30	MC1630-1
EQY-6-283+	DC	28000	6.6	0.6	30	MC1630-1
EQY-0-24+	DC	20000	-0.37	0.39	33	MC1631-1
EQY-10-24+	DC	20000	10.2	0.9	33	MC1631-1
EQY-12-24+	DC	20000	12	1.4	30	MC1631-1
EQY-15-24+	6000	20000	15.7	1.3	31	JV3002
EQY-2-24+	DC	20000	2.1	0.9	31	MC1631-1
EQY-3-24+	DC	20000	3.1	0.7	34	MC1631-1
EQY-5-24+	DC	20000	5.1	0.7	34	MC1631-1
EQY-6-24+	DC	20000	6.3	0.5	31	MC1631-1
EQY-8-24+	DC	20000	8.3	0.8	34	MC1631-1
EQY-18-24+	6000	18000	18	2.2	33	DQ3005

Model Number	Freq Low (MHz)	Freq High (MHz)	Slope (dB) Typ.	Insertion Loss @ Freq. High (dB)	Max Input Power (dBm)	Case Style
EQY-0-63+	DC	6000	-0.1	0.14	33	MC1631-1
EQY-10-63+	DC	6000	10.2	1	31	MC1631-1
EQY-1-63+	DC	6000	1.2	0.4	31	MC1631-1
EQY-2-63+	DC	6000	2.1	0.4	31	MC1631-1
EQY-3-63+	DC	6000	3.2	0.6	31	MC1631-1
EQY-4-63+	DC	6000	4.2	0.6	31	MC1631-1
EQY-5-63+	DC	6000	5	1	31	MC1631-1
EQY-6-63+	DC	6000	6.5	0.5	32	MC1631-1
EQY-8-63+	DC	6000	8.2	0.5	31	MC1631-1

EQUALIZER DIE

Model Number	Freq Low (MHz)	Freq High (MHz)	Slope (dB) Typ.	Insertion Loss @ Freq. High (dB)	Max Input Power (dBm)
EQY-3-453-D+	DC	45000	3.5	1.1	30
EQY-4-453-D+	DC	45000	4.5	1.1	29
EQY-5-453-D+	DC	45000	5.5	1.1	28
EQY-6-453-D+	DC	45000	6.5	1.1	28
EQY-7-453-D+	DC	45000	7.4	1.3	27
EQY-8-453-D+	DC	45000	8.2	1.2	27
EQY-9-453-D+	DC	45000	9	1.6	28
EQY-10-453-D+	DC	45000	10.2	1.8	28
EQY-3-283-D+	DC	28000	3.4	0.6	31
EQY-4-283-D+	DC	28000	4.3	0.6	30
EQY-5-283-D+	DC	28000	5.9	0.6	30
EQY-6-283-D+	DC	28000	6.6	0.6	30
EQY-2-24-D+	DC	20000	2.1	0.9	31
EQY-3-24-D+	DC	20000	3	0.8	34
EQY-5-24-D+	DC	20000	4.9	0.8	34
EQY-6-24-D+	DC	20000	6.1	0.7	31
EQY-8-24-D+	DC	20000	8	1.1	34

EQUALIZER DIE CONTINUED

Model Number	Freq Low (MHz)	Freq High (MHz)	Slope (dB) Typ.	Insertion Loss @ Freq. High (dB)	Max Input Power (dBm)
EQY-10-24-D+	DC	20000	10	1.1	33
EQY-12-24-D+	DC	20000	11.9	1.5	30
EQY-15-24-D+	6000	20000	15.7	1.3	31
EQY-18-24-D+	6000	18000	18	2.2	33
EQY-1-63-D+	DC	6000	1.2	0.4	31
EQY-2-63-D+	DC	6000	2.1	0.4	31
EQY-3-63-D+	DC	6000	3.2	0.6	31
EQY-4-63-D+	DC	6000	4.2	0.6	31
EQY-5-63-D+	DC	6000	5	1	31
EQY-6-63-D+	DC	6000	6.5	0.5	32
EQY-8-63-D+	DC	6000	8.2	0.5	31
EQY-10-63-D+	DC	6000	10.2	1	31

Filters

REFLECTIONLESS FILTERS - BAND PASS

Model Number	Passband F1 (MHz)	Passband F2 (MHz)	Stopband F3 (MHz)	Rejection @ F3 (dB)	Stopband F4 (MHz)	Rejection @ F4 (dB)	Case Style
XBF-24+	19500	20500	DC - 10000	66	30000 - 32000	55	DG1847
XBF-183+	17500	18500	DC-9000	55	27000-40000	55	DG1847
XBF-163+	15500	16500	DC-8000	55	24000-40000	55	DG1847
XBF-282+	2350	3150	DC-1810	14	3800-20000	14	DQ1225

REFLECTIONLESS FILTERS - HIGH PASS

Model Number	Passband F1 (MHz)	Passband F2 (MHz)	Stopband F3 (MHz)	Rejection @ F3 (dB)	Stopband F4 (MHz)	Rejection @ F4 (dB)	Case Style
XHF2-1832+	18300-30000	17500	DC-14600	14	-	-	MC1630-1
XHF2-153+	15300-30000	14200	DC-12000	14	-	-	MC1630-1
XHF2-1352+	13500-30000	12700	DC-10500	14	-	-	MC1630-1
XHF-143M+	13900-19000	11200	7000-8000	30	DC-7000	40	DQ1225
XHF2-1162+	11600-30000	10400	DC-8700	14	-	-	MC1630-1
XHF2-912+	9100-30000	8200	DC-7100	14	-	-	MC1630-1
XHF-14M+	9900-20000	8000	5000-7000	30	DC-5000	40	DQ1225
XHF-73M+	7000-16400	6420	4000-5200	30	DC-4000	38	DQ1225
XHF-652M+	6600-16200	6230	4000-5000	30	DC-4000	38	DQ1225
XHF-63M+	5900-19000	5000	3000-4100	30	DC-3000	40	DQ1225
XHF-482M+	4800-19400	4390	2400-3600	36	DC-2400	37	DQ1225
XHF-53H+	5000-11000	4300	DC-3100	50	-	-	DG1847
XHF-392+	3940-11500	3220	DC-2450	14	-	-	DQ1225
XHF-292M+	2900-8700	2400	DC-1950	30	-	-	DG1847

REFLECTIONLESS FILTERS - HIGH PASS CONTINUED

Model Number	Passband F1 (MHz)	Passband F2 (MHz)	Stopband F3 (MHz)	Rejection @ F3 (dB)	Stopband F4 (MHz)	Rejection @ F4 (dB)	Case Style
XHF-252+	2460-10400	2030	DC-1520	14	-	-	DQ1225
XHF-23+	2010-10100	1650	DC-1210	14	-	-	DQ1225
XHF-721M+	700-5000	600	300-450	20	DC-300	30	DG1677-2
XHF-581M+	580-3000	470	280-330	20	DC-280	30	DG1677-2

REFLECTIONLESS FILTERS - LOW PASS

Model Number	Passband F1 (MHz)	Passband F2 (MHz)	Stopband F3 (MHz)	Rejection @ F3 (dB)	Stopband F4 (MHz)	Rejection @ F4 (dB)	Case Style
XLF-173+	DC-17000	18000	23900-26000	14	26000-33000	20	DQ1225
XLF-133+	DC-13100	15800	19500-20000	14	20000-30000	20	DQ1225
XLF-123+	DC-12200	15000	18100-19000	14	19000-29000	20	DQ1225
XLF-14+	DC-10000	13200	15800-17000	20	17000-24200	20	DQ1225
XLF-982+	DC-9800	13100	19000-22000	14	22000-32500	20	DQ1225
XLF-962+	DC-9600	12400	14800-16000	14	16000-25200	20	DQ1225
XLF-762+	DC-7600	11000	13100-20000	14	-	-	DQ1225
XLF-63H+	DC-6820	10500	14500-16300	30	16300-26000	40	DQ1225
XLF-73+	DC-7000	9900	11700-21300	14	-	-	DQ1225
XLF-732+	DC-7300	9800	14300-34000	14	-	-	DQ1225
XLF-63+	DC-6000	8100	9600-17800	14	-	-	DQ1225
XLF-662M+	DC-6000	6740	9200-14000	30	14000-26000	36	DQ1225
XLF-362H+	DC-3910	6300	9200-10700	30	10700-18500	40	DQ1225
XLF-312H+	DC-3530	5600	7900-9300	30	9300-18500	40	DQ1225
XLF-332+	DC-3250	4120	5900-17000	14	17000-30000	20	DQ1225
XLF-252H+	DC-2500	3800	7000-17000	40	-	-	DG1847
XLF-252+	DC-2500	3220	4550-16000	14	16000-30000	20	DQ1225
XLF-272M+	DC-2700	2900	4000-6000	28	6000-10000	39	DQ1225
XLF-192+	DC-1900	2400	3480-11200	14	11200-30000	20	DQ1225
XLF-222H+	DC-2200	2400	4000-6000	43	6000-10000	52	DG1847
XLF-172H+	DC-2000	2350	3600-3800	30	3800-11000	40	DG1847

Model Number	Passband F1 (MHz)	Passband F2 (MHz)	Stopband F3 (MHz)	Rejection @ F3 (dB)	Stopband F4 (MHz)	Rejection @ F4 (dB)	Case Style
XLF-132H+	DC-1300	1680	2700-3000	30	3000-19000	40	DG1847
XLF-122+	DC-1150	1510	2190-10000	14	10000-21000	20	DQ1225
XLF-122H+	DC-1200	1400	2300-2500	30	2500-9500	40	DG1847
XLF-112H+	DC-1050	1200	2000-2200	30	2200-10000	40	DG1847
XLF-13H+	DC-1000	1150	1850-2500	30	2500-10000	40	DG1847
XLF-861+	DC-860	1150	1700-7500	14	7500-25000	20	DQ1225
XLF-551+	DC-550	770	1140-5800	14	5800-18500	20	DQ1225
XLF-641M+	DC-500	640	1100-7800	30	7800-13000	40	DG1677-2
XLF-421+	DC-420	610	900-5200	14	5200-18000	20	DQ1225
XLF-221+	DC-220	370	570-3500	14	3500-12000	20	DQ1225
XLF-42M+	DC-300	350	660-6800	30	6800-10000	40	DG1677-2
XLF-151+	DC-150	280	460-2800	14	2800-16000	20	DQ1225

Frequency Mixers

MIXERS

Model Number	LO Level (dBm)	LO & RF Freq. Low (MHz)	LO & RF Freq. High (MHz)	IF Freq. Low (MHz)	IF Freq. High (MHz)	Conversion Loss (dB) Typ.	LO-RF Isolation (dB) Typ.	LO-IF Isolation (dB) Typ.	Input P1dB (dBm) Typ.	Input IP3 (dBm) Typ.	Subcategory	Case Style
MDB-54H+	15	20000	50000	DC	20000	11	45	30	10	20	Double Balanced Mixer	DQ1225
MDB-44H+	15	10000	40000	DC	15000	8.4	37	37	10	20	Double Balanced Mixer	DQ1225
SMIQ-1844H+	18	18000	40000	DC	7000	9.2	38	40	10	29	IQ Mixer	DG1847
SMIQ-6243H+	18	6000	24000	DC	6000	8.6	41	43	10	25	IQ Mixer	DG1847
MDB-24H+	15	5000	21500	DC	5000	7.9	35	44	10	23	Double Balanced Mixer	DG1847
MDA4-752H+	0	2200	7500	30	1600	-9.1	31	61	9	15	Active Mixer	DG1847
MDB-73H+	15	2200	7000	DC	1600	8.2	39	46	10	24	Double Balanced Mixer	DG1847

MIXER DIE

Model Number	LO Level (dBm)	LO & RF Freq. Low (MHz)	LO & RF Freq. High (MHz)	IF Freq. Low (MHz)	IF Freq. High (MHz)	Conversion Loss (dB) Typ.	LO-RF Isolation (dB) Typ.	LO-IF Isolation (dB) Typ.	Input P1dB (dBm) Typ.	Input IP3 (dBm) Typ.	Subcategory
MDB-653H-D+	15	20000	65000	DC	20000	11	45	30	10	20	Double Balanced Mixer
SMIQ-653H-D+	18	18000	65000	DC	20000	10.9	47	32	10	26	IQ Mixer
SMIQ-1844H-D+	18	18000	43500	DC	7000	9.2	38	40	10	29	IQ Mixer
MDB-44H-D+	15	10000	40000	DC	15000	8.4	37	37	10	20	Double Balanced Mixer
SMIQ-6243H-D+	18	6000	24000	DC	6000	8.6	40	45	10	25	IQ Mixer
MDB-24H-D+	15	5000	21500	DC	5000	7.9	35	44	10	23	Double Balanced Mixer
MDB-73H-D+	15	2200	7000	DC	1600	8.5	40	51.6	10	18.2	Double Balanced Mixer

Frequency Multipliers

MULTIPLIERS

Model Number	Multiply Factor (X)	Input Freq. Low (MHz)	Input Freq. High (MHz)	Output Freq. Low (MHz)	Output Freq. High (MHz)	RF Input Power (dBm) Min.	RF Input Power (dBm) Max.	Conv. Loss (dB) Typ.	F1 Fundamental Suppression Below F[X] (dBc) Typ.	F[X-1] Suppression Below F[X] (dBc) Typ.	F[X+1] Suppression Below F[X] (dBc) Typ.	Case Style
CY2-44+	2	6200	20000	12400	40000	12	18	14	26	-	34	DQ1225
CY3-453+	3	6660	15000	20000	45000	12	17	21	39	46	40	DG1847
CY2-283+	2	3500	14000	7000	28000	12	18	13	34	-	40	DQ1225
CY3-223+	3	3330	7330	10000	22000	12	18	17	34	45	50	DG1847
CY2-143+	2	2000	7000	4000	14000	12	18	12	30	-	32	DG1847

MULTIPLIER DIE

Model Number	Multiply Factor (X)	Input Freq. Low (MHz)	Input Freq. High (MHz)	Output Freq. Low (MHz)	Output Freq. High (MHz)	RF Input Power (dBm) Min.	RF Input Power (dBm) Max.	Conv. Loss (dB) Typ.	F1 Fundamental Suppression Below F[X] (dBc) Typ.	F[X-1] Suppression Below F[X] (dBc) Typ.	F[X+1] Suppression Below F[X] (dBc) Typ.
CY3-723-D+	3	13333	24000	40000	72000	12	19	21.1	41	33	33
CY2-44-D+	2	7000	20000	14000	40000	12	18	13	30	-	30
CY3-64-D+	3	10000	20000	30000	60000	12	19	21	30	33	42
CY3-453-D+	3	6660	15000	20000	45000	15	17	20	42	41	34
CY2-283-D+	2	3500	14000	7000	28000	12	18	13	35	-	34
CY3-223-D+	3	3330	7330	10000	22000	12	18	17	34	45	50
CY2-143-D+	2	2000	7000	4000	14000	12	18	12	30	-	32

Power Splitters

POWER SPLITTERS

Model Number	No. of Ways	Freq Low (MHz)	Freq High (MHz)	Isolation (dB), Typ.	Insertion Loss (dB) Above Theoretical, Typ.	Phase Unbalance (deg) Typ.	Amplitude Unbalance (dB) Typ.	Power Input (W) as Splitter, Max.	Technology	Case Style
EP2-5G1+	2	12000	43500	23	1.3	1.7	0.1	0.5	MMIC	MC1630-1
EP2KA+	2	10000	43500	17	2.2	9.6	0.57	1.25	MMIC	JV2579-1
EP2-28+	2	25000	35000	31	0.8	2	0.04	0.63	MMIC	MC1630-1
EP4KA+	4	10700	31000	19.3	0.6	4.7	0.2	0.6	MMIC	DG1677-2
EP2-5G+	2	24000	30000	23	1.3	1.7	0.1	0.5	MMIC	MC1630-1
EP2K1+	2	2000	26500	20	2.4	5.4	0.3	2.5	MMIC	DG1847
EP2-19+	2	15000	25000	24	0.6	2	0.03	0.63	MMIC	MC1630-1
EP3-19+	3	15000	25000	27	0.5	1	0.3	0.5	MMIC	JV2579
EP2K+	2	5000	20000	20	2.1	4.2	0.1	2.5	MMIC	DG1847
EP2RKU+	2	DC	18000	26.1	3.3	1.1	0.02	0.3	Resistive , MMIC	DG1677-2
EP4RKU+	4	DC	18000	18.8	3.8	1.9	0.2	0.6	Resistive , MMIC	DG1677-2
EP2C+	2	1800	12500	16	1.1	6	0.2	1.85	MMIC	DG1847
EP2W1+	2	500	9500	19.4	1.8	1.7	0.1	2.5	MMIC	DG1677-2
EP2RCW+	2	DC	8000	23	4.8	0.9	0.02	0.3	Resistive , MMIC	DG1677-2
GP2X1+	2	2800	7200	22	0.8	10	0.4	1.5	MMIC	DQ1225
GP2X+	2	2900	6200	24	0.6	9	0.3	1.5	MMIC	DQ1225
WP4F1+	4	4750	6200	28	1	9	0.6	1.5	MMIC	DQ1225
EP2W+	2	700	6000	19.8	1.3	0.9	0.1	2.5	MMIC	DG1677-2
WP4S+	4	3400	4600	30	0.8	9	0.6	1.5	MMIC	DQ1225
GP2Y1+	2	1550	4400	20	1	6	0.3	1.5	MMIC	DQ1225
WP4W1+	4	3000	4200	26	0.9	9	0.5	1.5	MMIC	DQ1225
WP4L+	4	2700	3800	24	0.7	9	0.5	1.5	MMIC	DQ1225

Model Number	No. of Ways	Freq Low (MHz)	Freq High (MHz)	Isolation (dB), Typ.	Insertion Loss (dB) Above Theoretical, Typ.	Phase Unbalance (deg) Typ.	Amplitude Unbalance (dB) Typ.	Power Input (W) as Splitter, Max.	Technology	Case Style
WP4W+	4	3300	3800	26	0.8	8	0.4	1.5	MMIC	DQ1225
GP2Y+	2	1600	3300	24	0.8	4	0.2	1.5	MMIC	DQ1225
BP4U1+	4	1850	3000	23	0.7	28	1.3	1.5	MMIC	XX211
WP4R1+	4	2000	3000	24	0.7	7	0.5	1.5	MMIC	DQ1225
WP4U1+	4	1875	2800	24	0.7	5	0.5	1.5	MMIC	DQ1225
WP4R+	4	2300	2700	26	0.7	6	0.4	1.5	MMIC	DQ1225
BP4P1+	4	1500	2500	21	0.8	25	0.8	1.5	MMIC	XX211
GP2S1+	2	500	2500	20	0.9	5	0.2	1.5	MMIC	DQ1225
WP4U+	4	2100	2500	28	0.7	4	0.5	1.5	MMIC	DQ1225
WP4P1+	4	1525	2375	26	0.9	4	0.4	1.5	MMIC	DQ1225
BP2P1+	2	1400	2350	20	0.5	4	0.3	1.5	MMIC	XX211
SP-2P1+	2	1350	2250	20	0.5	3	0.2	1.5	MMIC	CA531
GP2S+	2	800	2100	24	0.8	4	0.2	1.5	MMIC	DQ1225
WP4P+	4	1710	2025	29	0.7	4	0.4	1.5	MMIC	DQ1225
BP2G1+	2	1200	2000	21	0.6	3	0.3	1.5	MMIC	XX211
SP-2G1+	2	1200	2000	20	0.7	4	0.2	1.5	MMIC	CA531
WP4G1+	4	1300	2000	26	0.8	5	0.5	1.5	MMIC	DQ1225
BP2P+	2	1710	1990	30	0.5	3	0.2	1.5	MMIC	XX211
BP4P+	4	1710	1990	23	0.8	15	0.5	1.5	MMIC	XX211
SP-2P+	2	1710	1990	28	0.4	2	0.2	1.5	MMIC	CA531
NP2G+	2	1150	1950	13	0.4	0.8	0.1	1.5	MMIC	MC2601
WP4N+	4	1215	1900	23	0.7	5	0.5	1.5	MMIC	DQ1225
BP2G+	2	1420	1660	28	0.6	3	0.2	1.5	MMIC	XX211
SP-2G+	2	1420	1660	28	0.4	3	0.2	1.5	MMIC	CA531
WP4G+	4	1420	1660	28	0.7	4	0.5	1.5	MMIC	DQ1225
WP4C1+	4	800	1150	22	0.7	4	0.5	1.5	MMIC	DQ1225
WP4M+	4	720	1125	22	0.7	3	0.5	1.5	MMIC	DQ1225

POWER SPLITTER DIE

Model Number	No. of Ways	Freq Low (MHz)	Freq High (MHz)	Isolation (dB), Typ.	Insertion Loss (dB) Above Theoretical, Typ.	Phase Unbalance (deg) Typ.	Amplitude Unbalance (dB) Typ.	Power Input (W) as Splitter, Max.	Feature	Technology
EP2KA-D+	2	10000	43500	22	0.9	6.1	0.22	1.25	DC Pass	MMIC
EP4KA-D+	4	10700	31000	18.8	3.8	1.9	0.2	0.6	DC Pass	MMIC
EP2K-D+	2	2000	26500	18.9	1.6	6	0.2	2.5	DC Pass	MMIC
EP2RKU-D+	2	DC	18000	23	2.9	0.6	0.1	0.6	-	Resistive , MMIC
EP4RKU-D+	4	DC	18000	23	4.8	0.9	0.2	0.6	-	Resistive , MMIC
EP2C-D+	2	1800	12500	19.7	0.9	3.2	0.09	1.85	DC Pass	MMIC
EP2W-D+	2	500	9500	19.4	1.8	1.7	0.1	2.5	DC Pass	MMIC
EP2RCW-D+	2	DC	8000	22.3	4.5	0.1	0.1	0.6	-	Resistive , MMIC
WP4R-D+	4	2000	3000	24	0.7	2	0.1	1.5		MMIC
WP4P1-D+	4	1525	2375	26	0.9	2	0.2	1.5		MMIC

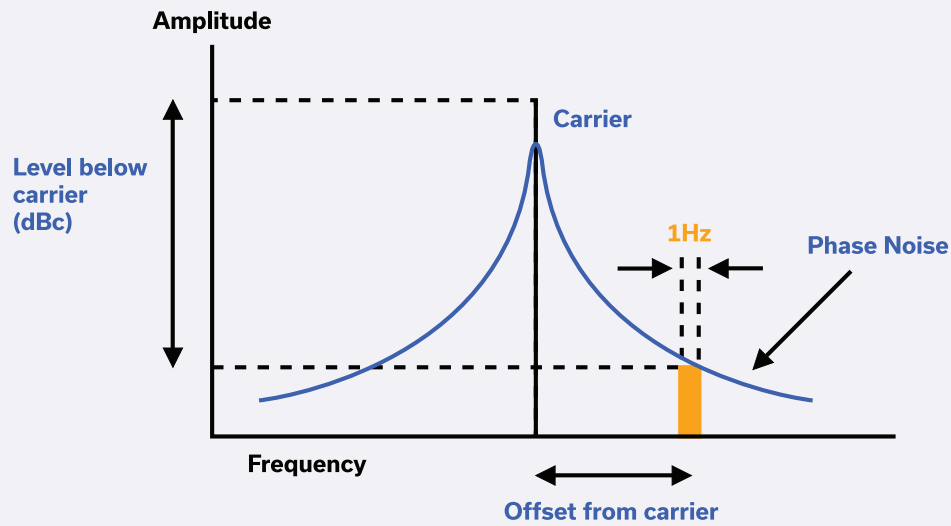
Switches

SWITCHES

Model Number	Type	Freq. Low (GHz)	Freq. Hi (GHz)	Driver	Config.	Insertion Loss (dB), Typ.	Insertion Loss (dB), Max.	1 dB Compression (dBm), Typ.	Input IP3 (dBm) Typ.	In-Out Isolation (dB), Typ.	In-Out Isolation (dB), Min.	Case Style
M3SWA2-34DR+	SPDT	DC	30	Yes	Absorb	1.05	2.4	25	48	61	41	DQ3005
CSWA2-63DR+	SPDT	0.5	6	CMOS	Absorb	1.1	1.8	27	45	50	44	DG1293
HSWA2-63DR+	SPDT	0.1	6	CMOS	Absorb	1	1.6	35	65	68	44	DG983-3
HSWA4-63DR+	SP4T	0.03	6	CMOS	Absorb	1.15	2.5	35	58	52	29	DG984-1
JSW2-63DR+	SPDT	0.005	6	CMOS	Reflect	0.33	0.8	35	59	35	18	MT1818
JSW2-63VHDRG+	SPDT	0.005	6	CMOS	Reflect	0.36	1.25	37	75	33	15	MT2140
JSW2-63VHDRP+	SPDT	0.005	6	CMOS	Reflect	0.36	1.25	37	75	33	15	MT2140
M3SWA2-63DRC+	SPDT	DC	6	CMOS	Absorb	0.6	2.2	26.2	46.3	56	30	DQ1225
VSWA2-63DR+	SPDT	0.5	6	CMOS	Absorb	1.2	1.9	27	44	46	38	DG1235-1
MSW2-50+	SPDT	DC	5	-	Reflect	0.7	2.2	23	54	53	24	DQ1225
MSWA2-50+	SPDT	DC	5	-	Absorb	0.7	2.4	24	54	53	23	DQ1225
M3SW-2-50DRA+	SPDT	DC	4.5	CMOS	Reflect	0.6	2.5	25	47.3	48	30	DL805
M3SWA-2-50DRA+	SPDT	0.5	4.5	CMOS	Absorb	1.2	1.9	27	46	51	-	DL805
M3SWA-2-50DRB+	SPDT	DC	4.5	CMOS	Absorb	0.6	2.5	25.4	46.5	56	30	DL805
HSWA2-30DR+	SPDT	DC	3	CMOS	Absorb	0.9	1.2	31	55	55	44	DG983-1
VSW2-33-10W+	SPDT	0.05	3	-	Reflect	0.5	0.8	40	56	26	15	JZ1436
JSW3-272DR+	SP3T	0.005	2.7	CMOS	Reflect	0.6	0.8	35	59	30	25	MT1817
JSW4-272DR+	SP4T	0.005	2.7	CMOS	Reflect	0.6	0.8	35	59	30	25	MT1817
JSW6-33DR+	SP6T	0.005	2.7	CMOS	Reflect	0.6	0.8	35	59	30	25	MT1817
RSW-2-25PA+	SPDT	DC	2.5	-	Reflect	0.7	1.8	28	39	44	26	CL620-1
MSW-2-20+	SPDT	DC	2	-	Reflect	0.5	1.3	24	-	34	20	XX211
MSWA-2-20+	SPDT	DC	2	-	Absorb	0.95	1.5	27	-	40	25	XX211

SWITCH DIE

Model Number	Type	Freq. Low (GHz)	Freq. Hi (GHz)	Driver	Config.	Insertion Loss (dB), Typ.	Insertion Loss (dB), Max.	1 dB Compression (dBm), Typ.	Input IP3 (dBm) Typ.	In-Out Isolation (dB), Typ.	In-Out Isolation (dB), Min.
M3SWA2-34DR-D+	SPDT	DC	30	Yes	Absorb	1.13	2.8	25	48	62	42
M3SWA263DRC-D+	SPDT	DC	6	CMOS	Absorb	0.6	2.2	26.2	46.3	56	30
M3SW-250DRA-D+	SPDT	DC	4.5	CMOS	Reflect	0.6	2.5	25	47.3	48	30
M3SWA-250DRBDG+	SPDT	DC	4.5	CMOS	Absorb	0.6	2.5	25.4	46.5	56	30

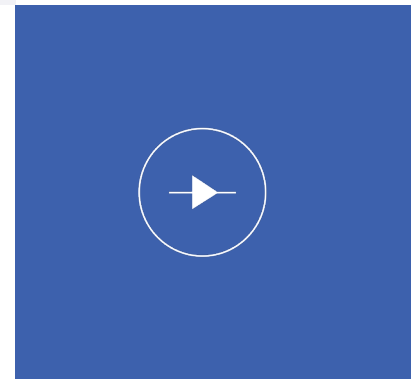


INDUSTRY-LEADING PERFORMANCE

Low Phase Noise Amplifiers

For Sensitive Transceiver Systems

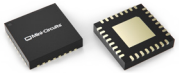
- Additive phase noise as low as -173 dBc/Hz @ 10 kHz Offset
- Ideal for radar, test instrumentation and more
- Wide selection in stock for the most demanding requirements
- State-of-the-art measurement capability in house



VIEW PHASE NOISE SPECS

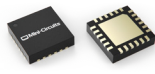


MMIC Case Styles



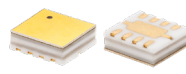
DG1677-4

- 5x5mm
- Lead Count: 32



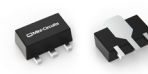
DG1847-1

- 4x4mm
- Lead Count: 20



DL1721

- 3x3mm
- Lead Count: 8



DF782

- 2.59x4.6mm
- Lead Count: 3



MC1630-1

- 2x2mm
- Lead Count: 6



FG873

- 3x3mm
- Lead Count: 4



DQ1225

- 3x3mm
- Lead Count: 12



WW107

- 0.085" Dia.
- Lead Count: 4



DQ849

- 3x3mm
- Lead Count: 8



MC1631-1

- 2x2mm
- Lead Count: 8



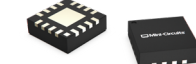
MC1631

- 2x2mm
- Lead Count: 8



DQ3005

- 3x3mm
- Lead Count: 16



DG1886

- 4x4mm
- Lead Count: 16



JV2579

- 3.5x2.5mm
- Lead Count: 16



CA1389

- 2.25x1.35mm
- Lead Count: 6



MMM1362

- 2.25x1.35mm
- Lead Count: 4



AF190

- 0.083" Dia.
- Lead Count: 4



JQ1382

- 15x10mm
- Lead Count: 11



MC3007

- 2x2mm
- Lead Count: 8



DL1020

- 6x4.9mm
- Lead Count: 8



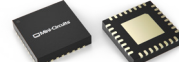
DL1636

- 6x4.9mm
- Lead Count: 8



DG1677-2

- 5x5mm
- Lead Count: 32



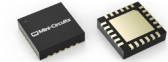
DG1677-10

- 5x5mm
- Lead Count: 32



LZ1671

- 6.4x6.96mm
- Lead Count: 6



DG1847

- 4x4mm
- Lead Count: 24



TE2769

- 1.4x1.2mm
- Lead Count: 4



LZ1737

- 2.25x2.25mm
- Lead Count: 3



AF320

- 0.068" Dia.
- Lead Count: 4



VV105

- 0.085" Dia.
- Lead Count: 4



RRR137

- 0.145" Dia.
- Lead Count: 4



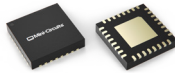
MM168

- 1.4x1.14mm
- Lead Count: 4



XX211-1

- 4.14x5.33mm
- Lead Count: 8



DG1677

- 5x5mm
- Lead Count: 32



DL805

- 3.25x3.25mm
- Lead Count: 8



MC3000

- 2x2mm
- Lead Count: 6



MC1630

- 2x2mm
- Lead Count: 6



DG983-2

- 4x4mm
- Lead Count: 20



XX211

- 4.14x5.33mm
- Lead Count: 8



JV2579-1

- 3.5x2.5mm
- Lead Count: 10



MC2601

- 2.04x1.39mm
- Lead Count: 6



CA531

- 3.1x1.7mm
- Lead Count: 6



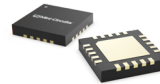
DG1293

- 4x4mm
- Lead Count: 16



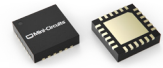
DG983-1

- 4x4mm
- Lead Count: 20



DG983-3

- 4x4mm
- Lead Count: 20



DG984-1

- 4x4mm
- Lead Count: 20



MT1818

- 2x2mm
- Lead Count: 12



MT2140

- 2x2mm
- Lead Count: 12



MT1817

- 2x2mm
- Lead Count: 14



CL620-1

- 8.69x5.97mm
- Lead Count: 14



JZ1436

- 3x2mm
- Lead Count: 6



DG1235-1

- 4x4mm
- Lead Count: 16



JV3002

- 2.5x2.5mm
- Lead Count: 8



MT1817

- 3x4mm
- Lead Count: 12

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