



FEATURES

- Unconditional Stability
- RF Ports Matched to 50 Ohms
- Internal DC Voltage Regulation
- Reverse Polarity Protection
- RoHS Compliant

TYPICAL APPLICATIONS

- Wireless Infrastructure
- RF Microwave and VSAT
- Military and Aerospace
- Test Instruments
- Fiber Optics

ELECTRICAL SPECIFICATIONS (@ 23°C and V_{DC} = +15 V)

Operating Frequency (GHz)	Minimum Gain (dB)	Max Noise Figure (dB)	Max Gain Flatness (±dB)	Max Input VSWR	Max Output VSWR	Max Current (mA) for each Min P1dB (dBm)			Operating Frequency (GHz)	Minimum Gain (dB)	Max Noise Figure (dB)	Max Gain Flatness (±dB)	Max Input VSWR	Max Output VSWR	Max Current (mA) for each Min P1dB (dBm)		
						+5	+10	+15							+5	+10	+15
1 - 2	20	0.7	1.5	2.3:1	2.0:1	160	180	260	0.1 - 4	20	1.2	1.5	2.2:1	2.2:1	160	180	260
	30	0.6				180	200	280		30	1.1				180	200	280
	40					200	220	300		40					200	220	300
2 - 4	20	0.6	1.5	2.0:1	2.0:1	160	180	260	0.1 - 8	20	1.4	1.5	2.3:1	2.3:1	160	180	260
	30	0.5				180	200	280		30	1.3				180	200	280
	40					200	220	300		40					200	220	300
4 - 8	20	0.65	1.5	2.0:1	2.0:1	110	130	210	0.1 - 12	20	1.6	2.0	2.3:1	2.3:1	160	180	260
	30	0.6				130	150	230		30	1.5				180	200	280
	40					150	170	250		40					200	220	300
8 - 12	20	0.75	1.5	2.0:1	2.0:1	110	130	210	0.1 - 18	20	2.1	2.0	2.3:1	2.3:1	210	230	310
	30	0.7				130	150	230		30	2.0				230	250	330
	40					150	170	250		40					250	270	350
12 - 18	20	1.1	2.0	2.0:1	2.0:1	160	180	260	0.1 - 26	20	2.6	2.5	2.5:1	2.5:1	210	230	310
	30	1.0				180	200	280		30	2.5				230	250	330
	40					200	220	300		40					250	270	350
18 - 26.5	20	1.7	2.0	2.3:1	2.3:1	160	180	260	0.1 - 40	20	5.5	3.0	2.7:1	2.7:1	260	280	360
	30	1.6				180	200	280		30	5.4				280	300	380
	40					200	220	300		40					300	320	400
26.5 - 40	20	2.5	2.5	2.3:1	2.3:1	210	230	310	2 - 8	20	0.9	1.5	2.2:1	2.2:1	160	180	260
	30	2.4				230	250	330		30	0.8				180	200	280
	40					250	270	350		40					200	220	300
4 - 12	20	1.4	2.0	2.2:1	2.2:1	210	230	310	2 - 12	20	1.5	2.0	2.3:1	2.3:1	160	180	260
	30	1.3				230	250	330		30	1.4				180	200	280
	40					250	270	350		40					200	220	300
6 - 18	20	1.4	2.0	2.3:1	2.3:1	210	230	310	2 - 18	20	2.1	2.0	2.3:1	2.3:1	210	230	310
	30	1.3				230	250	330		30	2.0				230	250	330
	40					250	270	350		40					250	270	350
12 - 26	20	2.5	2.5	2.5:1	2.5:1	260	280	360	2 - 26	20	2.5	2.5	2.5:1	2.5:1	210	230	310
	30	2.4				280	300	380		30	2.4				230	250	330
	40					300	320	400		40					250	270	350
18 - 40	20	2.9	3.0	2.5:1	2.5:1	260	280	360	2 - 40	20	5.4	3.0	2.7:1	2.7:1	260	280	360
	30	2.8				280	300	380		30	5.3				280	300	380
	40					300	320	400		40					300	320	400

Absolute Maximum Ratings

Maximum DC Supply Voltage	+20 V
Minimum DC Supply Voltage (Varies per Model, See Individual Datasheets)	
Maximum RF Power Applied to the Input Port	+13 dBm
Maximum RF Power Applied to the Output Port	+13 dBm
Maximum DC Voltage Applied to the RF Ports (See Individual Datasheets)	

The information above is relative to the sale of a COTS product as depicted. For information regarding specific features of an individual model within this amplifier family, please review the datasheet for that model or contact your local representative for specific inquiries.

The material presented in this datasheet was current at the time of publication. Narda-MITEQ's continuing product improvement program makes it necessary to reserve the right to change our mechanical and electrical specifications without notice. If either of these parameters is critical, please contact the factory to verify that the information is current.

This material consists of Narda-MITEQ general capabilities information and does not contain controlled technical data as defined within the International Traffic in Arms (ITAR) Part 120.10 or Export Administration Regulations (EAR) Part 734.7-11. D-405/05.01.18



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MECHANICAL SPECIFICATIONS¹

Operating Frequency (GHz)	Minimum Gain (dB)	Connectors (In/Out)	Outline Drawing	Package Dimensions L x W x H (in [mm])	Package Weight (g)	Operating Frequency (GHz)	Minimum Gain (dB)	Connectors (In/Out)	Outline Drawing	Package Dimensions L x W x H (in [mm])	Package Weight (g)
1 - 2	20 30 40	SMA(F) / SMA(F)	113384-4	0.64 x 0.70 x 0.29 [16.3 x 17.8 x 7.3]	10.8	0.1 - 4	20 30 40	SMA(F) / SMA(F)	113384-4	0.64 x 0.70 x 0.29 [16.3 x 17.8 x 7.3]	10.8
2 - 4	20 30 40	SMA(F) / SMA(F)	113384-4	0.64 x 0.70 x 0.29 [16.3 x 17.8 x 7.3]	10.8	0.1 - 8	20 30 40	SMA(F) / SMA(F)	113384-4	0.64 x 0.70 x 0.29 [16.3 x 17.8 x 7.3]	10.8
4 - 8	20 30 40	SMA(F) / SMA(F)	113384-4	0.64 x 0.70 x 0.29 [16.3 x 17.8 x 7.3]	10.8	0.1 - 12	20 30 40	SMA(F) / SMA(F)	113384-4	0.64 x 0.70 x 0.29 [16.3 x 17.8 x 7.3]	10.8
8 - 12	20 30 40	SMA(F) / SMA(F)	113384-4	0.64 x 0.70 x 0.29 [16.3 x 17.8 x 7.3]	10.8	0.1 - 18	20 30 40	SMA(F) / SMA(F)	113384-4	0.64 x 0.70 x 0.29 [16.3 x 17.8 x 7.3]	10.8
12 - 18	20 30 40	SMA(F) / SMA(F)	137139-5*	0.72 x 0.75 x 0.31 [18.3 x 19.1 x 7.7]	9.6	0.1 - 26	20 30 40	SMA(F) / SMA(F)	113384-4	0.64 x 0.70 x 0.29 [16.3 x 17.8 x 7.3]	10.8
18 - 26.5	20 30 40	SMA(F) / SMA(F)	128061-5*	0.64 x 0.75 x 0.31 [16.3 x 19.1 x 7.7]	8.8	0.1 - 40	20 30 40	K(F) / K(F)	128749 129007 or 135997	0.43 x 0.74 x 0.30 [11.0 x 18.7 x 7.6] 0.94 x 0.74 x 0.70 [23.8 x 18.7 x 17.8]	8.6 13.8
26.5 - 40	20 30 40	K(F) / K(F)	128749 129007 or 135997	0.43 x 0.74 x 0.30 [11.0 x 18.7 x 7.6] 0.94 x 0.74 x 0.70 [23.8 x 18.7 x 17.8]	8.6 13.8	2 - 8	20 30 40	SMA(F) / SMA(F)	113384-4	0.64 x 0.70 x 0.29 [16.3 x 17.8 x 7.3]	10.8
4 - 12	20 30 40	SMA(F) / SMA(F)	113384-4	0.64 x 0.70 x 0.29 [16.3 x 17.8 x 7.3]	10.8	2 - 12	20 30 40	SMA(F) / SMA(F)	113384-4	0.64 x 0.70 x 0.29 [16.3 x 17.8 x 7.3]	10.8
6 - 18	20 30 40	SMA(F) / SMA(F)	113384-4	0.64 x 0.70 x 0.29 [16.3 x 17.8 x 7.3]	10.8	2 - 18	20 30 40	SMA(F) / SMA(F)	113384-4	0.64 x 0.70 x 0.29 [16.3 x 17.8 x 7.3]	10.8
12 - 26	20 30 40	SMA(F) / SMA(F)	113384-4	0.64 x 0.70 x 0.29 [16.3 x 17.8 x 7.3]	10.8	2 - 26	20 30 40	SMA(F) / SMA(F)	113384-4	0.64 x 0.70 x 0.29 [16.3 x 17.8 x 7.3]	10.8
18 - 40	20 30 40	K(F) / K(F)	128749 129007 or 135997	0.43 x 0.74 x 0.30 [11.0 x 18.7 x 7.6] 0.94 x 0.74 x 0.70 [23.8 x 18.7 x 17.8]	8.6 13.8	2 - 40	20 30 40	K(F) / K(F)	128749 129007 or 135997	0.43 x 0.74 x 0.30 [11.0 x 18.7 x 7.6] 0.94 x 0.74 x 0.70 [23.8 x 18.7 x 17.8]	8.6 13.8

¹Outlines marked with asterisk are non-hermetic, different package required for "-H" option, see individual datasheet.

ENVIRONMENTAL SPECIFICATIONS²

Seam-Sealed Package (Hermetic)			Epoxy-Sealed Package (Non-Hermetic)		
Parameter	Standard	Description	Parameter	Standard	Description
Operational Temperature		-55°C to +85°C	Operational Temperature		-40°C to +75°C
Storage Temperature		-65°C to +125°C	Storage Temperature		-65°C to +125°C
Random Vibration	MIL-STD-883K, Method 2026, Cond. 1B	50 - 2000 Hz, 7.3 Grms	Random Vibration	MIL-STD-883K, Method 2026, Cond. 1B	50 - 2000 Hz, 7.3 Grms
Humidity	MIL-STD-202, Method 103B, Cond. B	95% RH Non-Condensing	Humidity	MIL-STD-202, Method 103B, Cond. B	95% RH Non-Condensing
Altitude	MIL-STD-883K, Method 1001, Cond. C	50,000 ft	Altitude	MIL-STD-883K, Method 1001, Cond. B	30,000 ft

²Hermeticity not tested unless "-H" option is purchased. These amplifiers are designed to meet the above conditions, If ESS testing is required please contact factory.

ORDERING INFORMATION³

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Gain (dB) Start - Stop Frequency (GHz) P1dB (dBm)

Standard Gains: 20, 30 or 40 dB Minimum

Standard P1dBs: +5, +10 or +15 dBm Minimum

Available Options: Adds One or More Suffixes to the Part Number

Option	Description	Option	Description
-L	Input Limiter	-XXV	Specific Operating Voltage
-GW	Gain Window	-PG	Gain and Phase Tracking
-BTO	Bias Through Output	-S	Combine 3 or More Options
-TC	Temperature Compensation	Connector Options (Input / Output)	
-AM	Amplitude Matching	-MF	Male / Female
-PM	Phase Matching	-FM	Female / Male
-APM	Amplitude and Phase Matching	-MM	Male / Male
-H	Hermetic (Includes Leak Test)	No Dash	Female / Female

³Other Frequency Bands, Gains and P1dBs may be available upon request. However, certain combinations of Frequency, Gain, P1dB and/or other options may not be compatible. For more details on a specific model, see individual datasheet.

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