High Power Amplifier, Solid State, Broadband
100-500MHz, 56dB Gain, N Female Connectors, 500 Watts

RAMP-100-500M-56d-Nf-500W-e7

This amplifier is utilizing advanced Push-Pull MOSFET devices technology that provides high gain, wide dynamic range, low distortions and good linearity

- Solid-state Class AB linear design
- Instantaneous ultra broadband
- Small and lightweight
- Standard front panel manual gain adjust
- Built-in Control, Monitoring & Protection Circuits
- Suitable for most modulations types (contact factory for details)
- 50 ohm input/output impedance
- Highly rugged and ruggedness

ELECTRICAL SPECIFICATIONS @ 208 VAC, 25°C, 50 Ω System

Parameter	Symbol	Min	Typ	Max	Unit
Frequency Response	BW	100		500	MHz
Power Output CW	PSAT	550	600		Watt
Output Power @ 1 dB Gain Compression Point	P1dB	400	500		Watt
Power Gain @ 1 dB Gain Compression Point	G1dB	56			dB
Input Power for Rated Pout	PIN		0		dBm
Small Signal Gain Flatness	ΔG			±1.5	dB
Gain Adjustment Range	FGA		25		dB
Input Return Loss	S11			-10	dB
Noise Figure @ max gain	NF		10		dB
Third Order Intercept Point	IP3		+64		dBm
Harmonics @ P1 dB Gain Compression Point			-20		dBc
Spurious Signals	Spur		-70	-60	dBc
Operating Voltage (single phase)	VAC	180		260	Volt
AC Power Consumption @ 500 W CW	PD		<2500	3000	Watt

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Limits
Dimensions	19 x 8.75 x 22	Inch	Max
Weight	80	lb.	Max
RF Connectors, Input/Output	Type-N female		
Cooling	Built in internal forced air cooling system		

ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Unit
Operating Case Temperature	Tc	0		50	°C
Non-operating Temperature	Tstg	-40		+85	°C
Relative Humidity (non-condensing)	RH			95	%
Altitude (MIL-STD-810F Method 500.4)	ALT	10,000		30,000	Feet
Shock / Vibration (MIL-STD-810F Method 516.5)	SH / VI	Airborne			

PROTECTIONS

Input Overdrive	+10 dBm	Max
Load VSWR @ Pout = 80W	∞ @ any angle & magnitude	Nom
Thermal Overload	85°C shutdown	Max

WORLD HQ: 1702L Meridian Ave. Suite 127, San Jose, Ca 95125, U.S.A.
Tel: (408) 266-7404 FAX: (408) 266-4483
WEB: www.raditek.com E-mail: sales@raditek.com

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SELECTED AVAILABLE OPTIONS

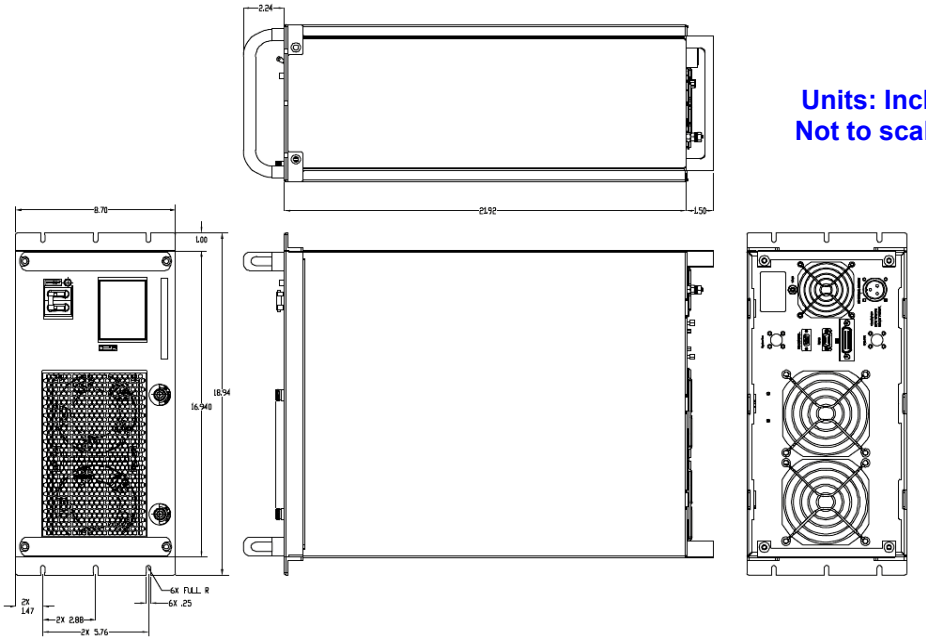
Option	Description
FGA	Front panel 10 turns manual gain adjustment.
LCD	Touch screen Digital Display, including Fwd/Rev Power indication (dB or Watt scale), Gain Adjustment, ALC Fast/Slow, On/Off, Standby mode, Fault indication, Rear panel HPIB IEEE-488.2 or Full Duplex RS232 remote interface. **Note: Output Power is lowered by 0.5 - 0.75 dB with this option.**
FCN	Front Panel Type-N female
RCN	Rear Panel Type-N female
INT	Rear panel Interlock function (F) - Shutdown Fast & Noise Muting - 9 pin, D-Sub connector
ACB	180-260 VAC, Single Phase, 50-60 Hz
DCC	28VDC input voltage

Available Option Packages: 15, 16, 17, 18

I/O CONNECTOR – D-Sub, 9-Pin

Pin #	Description	Specifications
1	Forward Test Point	Analog Voltage 0-5 V Test Point relative to Forward Power Output
2	Reverse Test Point	Analog Voltage 0-5 V Test Point relative to Reverse Power
3	+5 V Test Point	Measurement Voltage Output 5 V
4	N/C	Reserved
5	EXT Shutdown	Disable: TTL High (5 V) Enable: TTL Low (0 V) or Open or Ground
6	+12 V (Test Point)	Measurement Voltage Output 12 V Test Point
7	VDD+ (Test Point)	Measurement Voltage Output 28 V Test Point
8	N/C	Reserved
9	GND	Ground

OUTLINE DRAWING SHOWN WITH OPTION PACAKGE 17



Units: Inch
Not to scale

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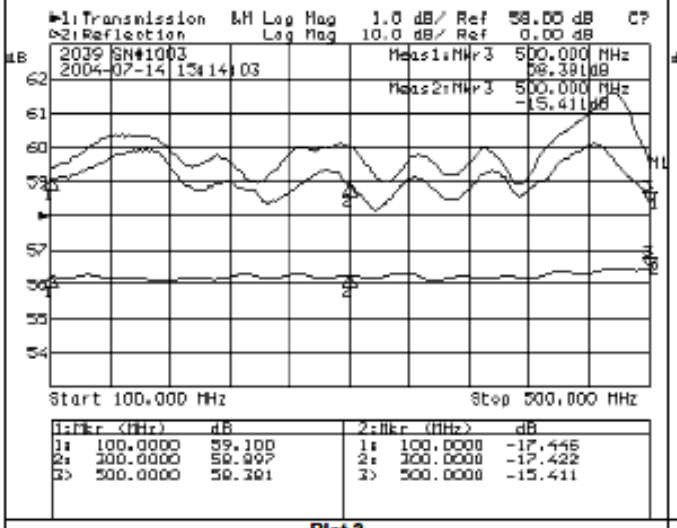
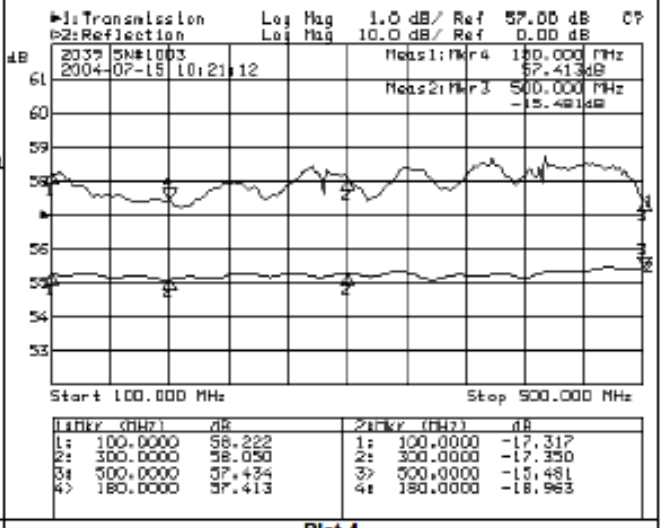
TYPICAL PERFORMANCE PLOTS

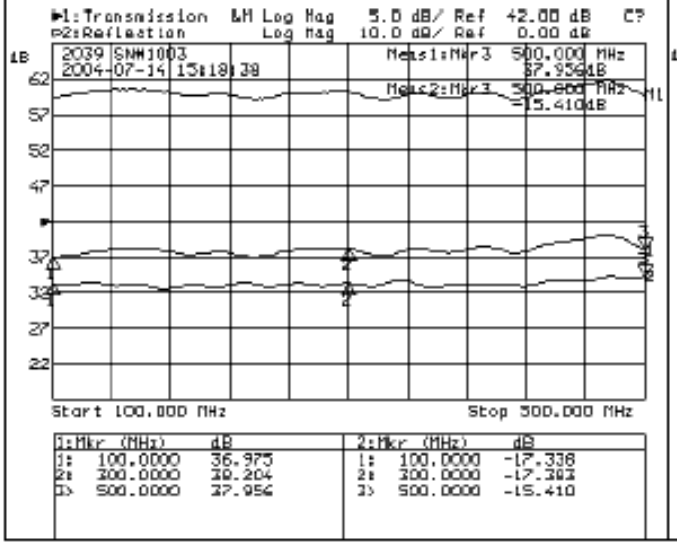
Plot 1
Small Signal and P1dB Gain
Top Curve: Small Signal gain @ Pin = -25dBm
Middle Curve: Power Gain @ P1dB, Pin = -1.0dBm (Note 2)
Reference = 57dB
Bottom Curve: Input Return Loss



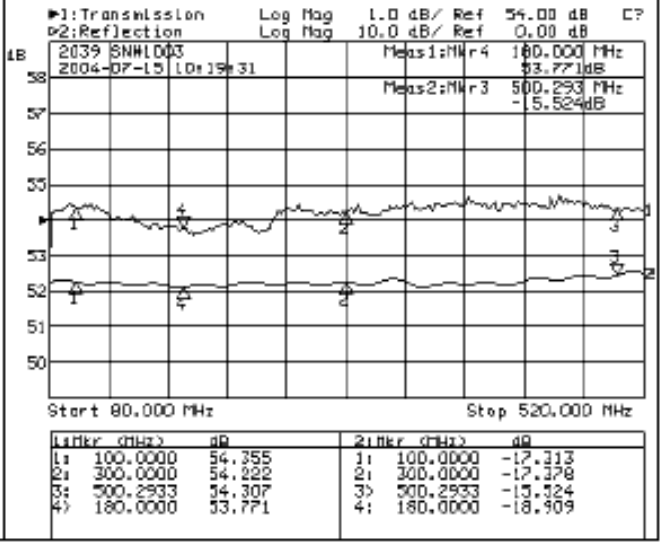
Plot 2
Power Gain @ Psat
Top Curve: Psat @ Pin = 0.0dBm (Note 2)
Reference = 57dB, 1dB/Div
Bottom Curve: Input Return Loss



Plot 3
Gain Adjust Dynamic Range
Top curve: Full Gain @ Pin = 0dBm
Reference: 42dB, 10dB/div.
Middle curve: VVA @ Minimum Gain
Bottom Curve: Input Return Loss



Plot 4
ALC Flatness
Top curve: ALC @ Pout = 250W, Pin = 0dBm
Reference: 54dB
Bottom curve: Input Return Loss



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