

## High Power Amplifier, Solid State, Broadband 20-500MHz, 56dB Gain, N Female Connectors, 500 Watts

### RAMP-20-500M-56d-Nf-500W-e7



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

- Solid-state linear design
- Instantaneous ultra broadband
- Small form factor and lightweight
- Standard front panel manual gain adjust
- Suitable for most modulation types
- 50 ohm input/output impedance
- Highly rugged and ruggedness

#### ELECTRICAL SPECIFICATIONS @ 220 V<sub>AC</sub>, 25°C, 50 Ω System

Parameter	Symbol	Min	Typ	Max	Unit
Frequency Response	BW	20		500	MHz
Power Output CW	PSAT	550	600		Watt
Output Power @ 1 dB Gain Compression Point	P1dB	500			Watt
Power Gain @ 1 dB Gain Compression Point	G1dB	56			dB
Input Power for Rated Psat	PIN		0		dBm
Small Signal Gain Flatness	ΔG			±2.0	dB
Gain Adjustment Range	FGA		25		dB
Input Return Loss	S11			-10	dB
Noise Figure	NF		10		dB
Third Order Intercept Point 2-Tones, 47 dBm, Δ = 100 KHz	IP3		+64		dBm
Harmonics @ P1 dB Gain Compression Point			-15		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	+6 dBm	Max
Load VSWR @ Pout = 500W	@ 10:1 load phase & amplitude for duration of 1 minute 3:1 @ all load phase & amplitude continuous	Nom
Thermal Overload	85°C shutdown	Max

## High Power Amplifier, Solid State, Broadband 20-500MHz, 56dB Gain, N Female Connectors, 500 Watts

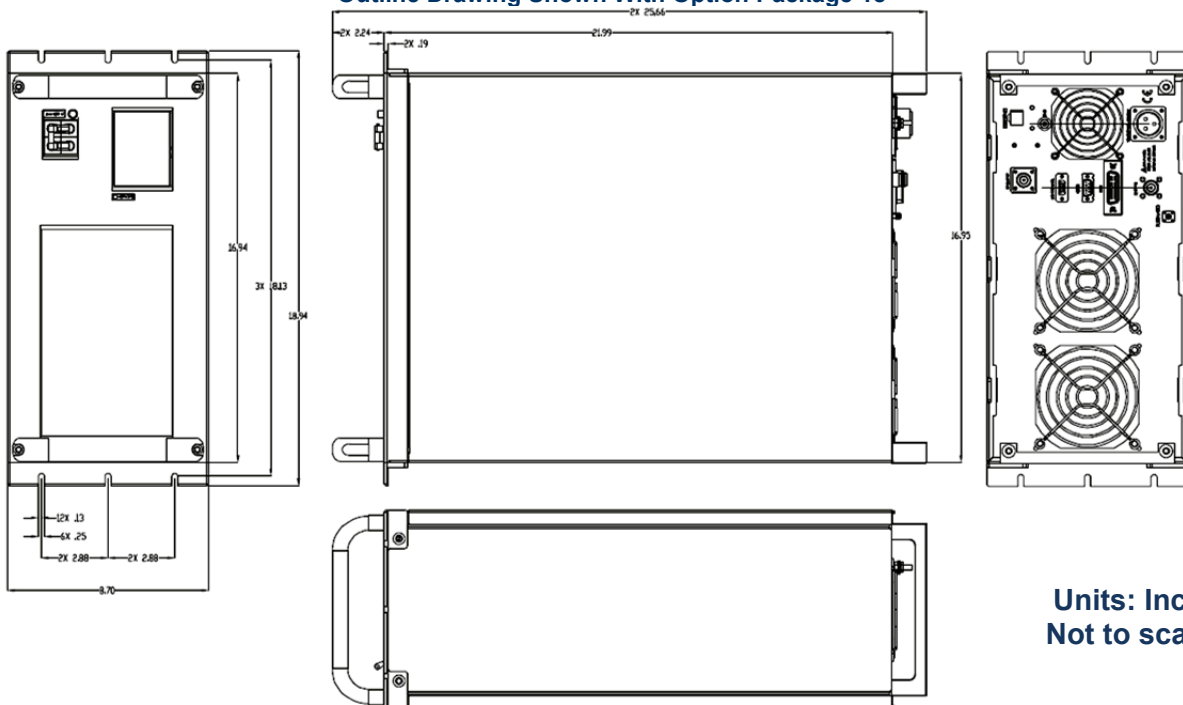
### RAMP-20-500M-56d-Nf-500W-e7

**Selected Available Options**

Option	Description
FGA	Front panel 10 turns manual gain adjustment.
LCD	Touchscreen 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/ GPIB-IEEE 488.2 and half Duplex RS232or Full Duplex RS422 remote interface. <b>Note: Output Power is lowered by 0.5 - 0.75 dB with this option.</b>
FCN	Front Panel Type-N female
RCN	Rear Panel Type-N female

**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 <sub>DC</sub> Test Point relative to Forward Power Output
2	Reverse Test Point	Analog Voltage 0-5 V <sub>DC</sub> Test Point relative to Reverse Power
3	+5 V Test Point	Output 5 V <sub>DC</sub> ±0.2 V
4	VVA Test Point	VVA Gain 5.6 V <sub>DC</sub> ±0.2 V
5	Ext Shutdown	Amplifier Disable: TTL Logic High (5 V)(Internally Pulled Low)
6	+12 V (Test Point)	12 V <sub>DC</sub> ±0.5 V
7	PS+ (Test Point)	Power supply output voltage 28 V <sub>DC</sub> ±0.2 V
8, 9	GND	Ground

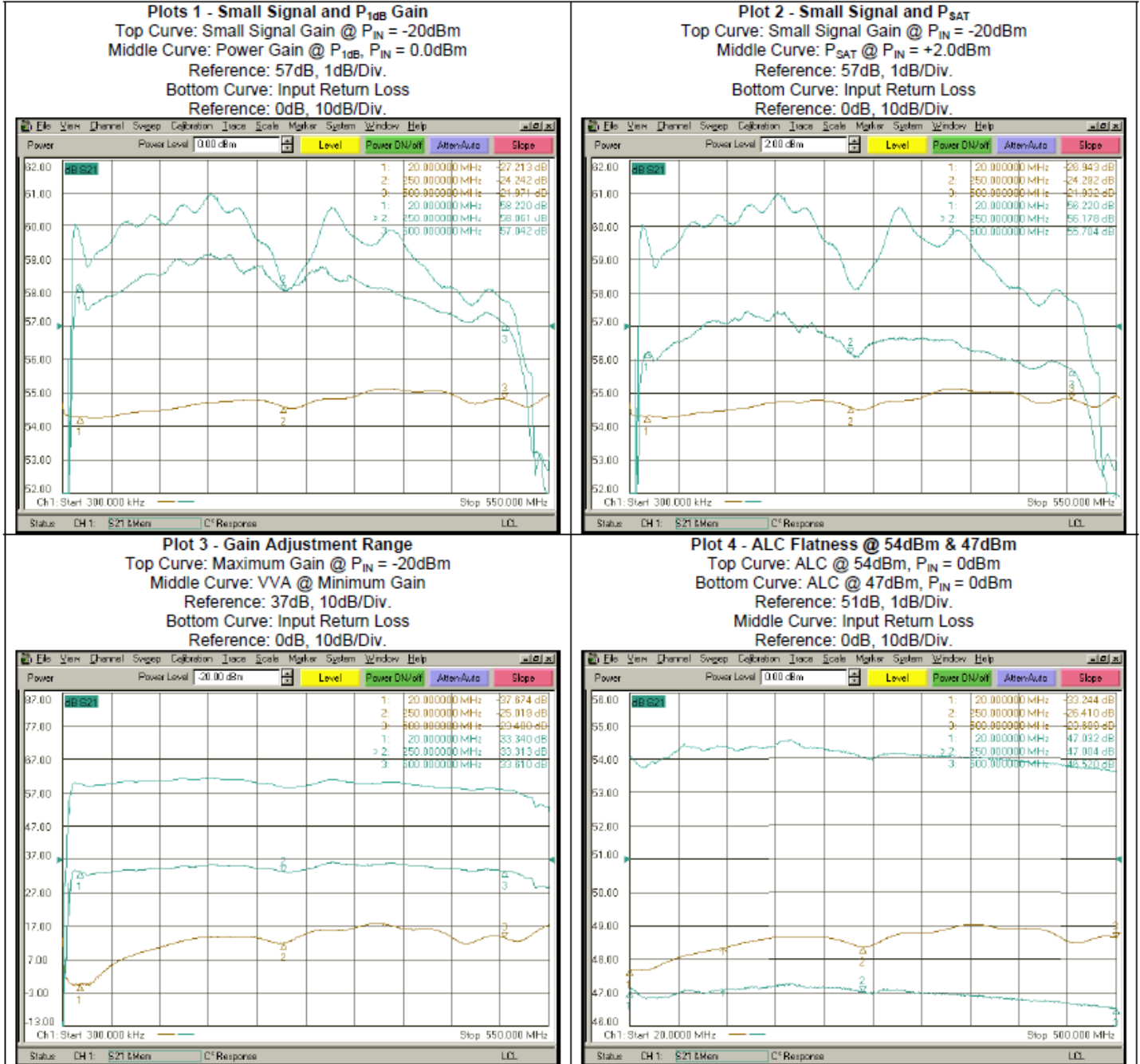
**Outline Drawing Shown With Option Package 18**


**Units: Inch  
Not to scale**

## High Power Amplifier, Solid State, Broadband 20-500MHz, 56dB Gain, N Female Connectors, 500 Watts

### RAMP-20-500M-56d-Nf-500W-e7

#### TYPICAL PERFORMANCE PLOTS



## High Power Amplifier, Solid State, Broadband 20-500MHz, 56dB Gain, N Female Connectors, 500 Watts

### RAMP-20-500M-56d-Nf-500W-e7

