

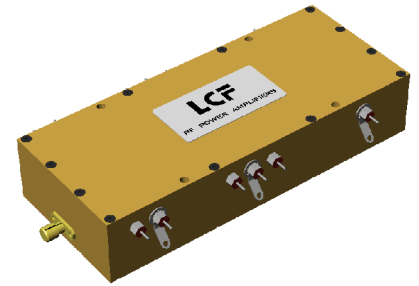
Model A072
P/N 500-30-100-35-E3

RF POWER AMPLIFIER MODULE

30 - 500 MHz

100 Watts

Gain: 35 dB Voltage: 28 VDC



Small Size
High Efficiency
Low Even Order Harmonics
Rugged

PERFORMANCE

PARAMETER	SPECIFICATIONS	COMMENTS
RF Output Power	100 Watts cw minimum	Class AB linear
Frequency Range	30 - 500 MHz	
Gain	35 dB minimum	40 dB typical
Main DC Supply	28 VDC, 12 Amp maximum	8 to 11 Amp typical at 100 W output (see Note 1)
Bias Supply	15 VDC, 10 mA maximum	Provides enable/disable control (see Note 2)
Efficiency	35 - 45 % typical	
Harmonics / Spurious	See Plot / Spurious <-60 dBc	
In / Out Impedance		Designed for small size, high efficiency; compatible with 50 ohms
RF In / Out Connectors	SMA Female	
DC Connectors	Solderable filtered feed throughs with ground lugs	
Size / Weight	6.0" x 2.5" x 1.25" / < 1 lb.	
Operating Temperature	-50 °C to +60° C	Consult technical support for higher temperature operation.
Humidity	95 - 100 %	
Vibration	110 G Shock	
Altitude	50,000 feet	

OPEN ARCHITECTURE FEATURES

1. Separate bias inputs and power supply feed throughs permit either Class A or Class AB biasing. Bias off disables amplifier
2. Separate power supply terminals for each push/pull section permit individual fuse protection.
3. A low loss output matching network provides high efficiency and optimum stability.

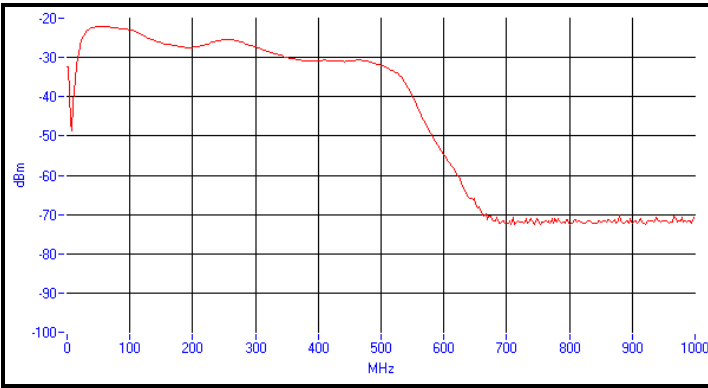
OPTIONS AVAILABLE

- Higher powers through multiple module combining
- Inside wiring with only one DC connection
- Detailed Application Notes
- Transmit/Receive Subsystems
- TTL compatible enable/disable control
- Narrower band optimization. (no additional cost)
- Complete rackmount 120/220 VAC systems
- Test fixture with heat sink, fuse protection, and thermal

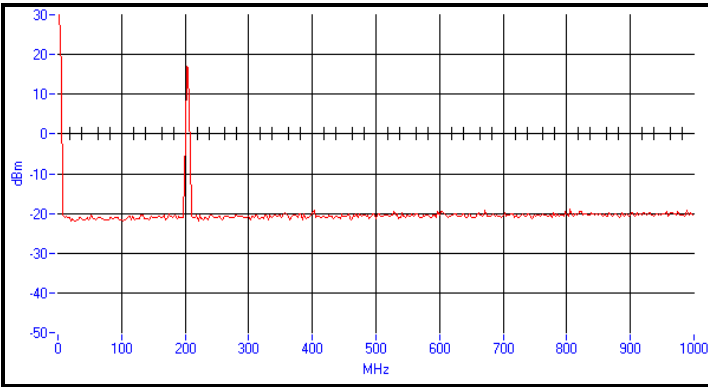
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ELECTRICAL PERFORMANCE



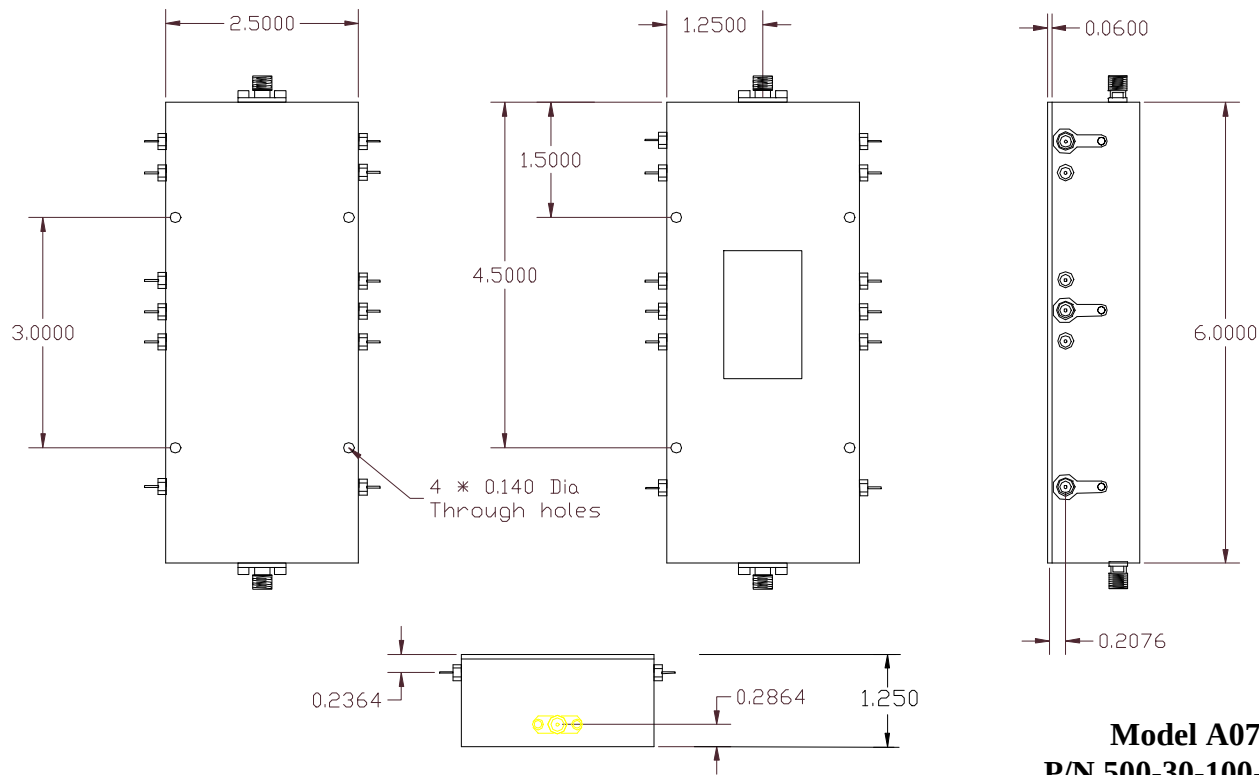
Small Signal Gain (-70 dBm reference)



HIGH POWER DATA (Typical)

Freq (MHz)	Input Power (dBm)	Output Power (W)	Drain Voltage (V)	DC Current (A)	DC Power (W)	Eff (%)	Gain (dB)
30.0	-0.7	101.0	29.9	11.0	309.0	32.7	50.7
50.0	-0.1	101.6	28.0	9.11	255.4	39.8	50.2
100.0	-0.4	101.4	28.1	7.81	219.4	46.2	50.5
150.0	3.3	101.2	28.2	8.09	227.8	44.4	46.8
200.0	4.2	104.0	28.2	8.31	234.3	44.4	46.0
250.0	3.7	102.4	28.1	8.83	248.4	41.2	46.4
300.0	2.0	100.3	28.1	9.51	267.4	37.5	48.0
350.0	3.9	101.9	28.1	11.3	318.3	32.0	46.2
400.0	7.2	100.8	28.2	11.6	326.0	30.9	42.8
450.0	10.1	101.9	28.2	10.5	293.0	34.4	40.0
500.0	12.5	100.8	28.2	8.93	251.8	40.0	37.5

MECHANICAL OUTLINE



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