

AMPLIFIER MODULE

290 - 320 MHz

120 Watts

Gain: 35 dB Voltage: 28 VDC

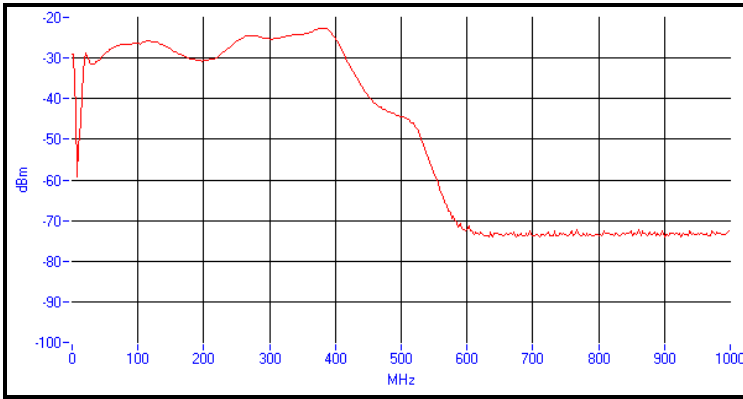


Small Size
High Efficiency
Low Even Order Harmonics
Rugged

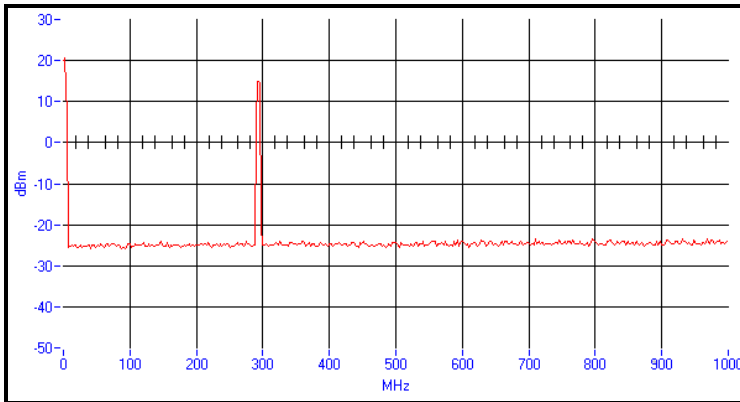
PERFORMANCE

PARAMETER	SPECIFICATIONS	COMMENTS
RF Output Power	120 Watts cw minimum	
Frequency Range	290 - 320 MHz	
Gain	35 dB minimum	40 dB typical
Main DC Supply	28 VDC, 9 Amp max	7 to 8 Amp typical at 120W output (See Note 1)
Bias Supply	15 VDC, 10 mA max	Provides enable/disable control (See Note 2)
Class	AB Linear	
Efficiency	60%	
Harmonics	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 Connections	Solderable filtered feed throughs with ground lugs	
Size	4.84" x 2.0" x 1.0"	Excluding connectors/feet
Weight	<14 oz.	
Operating Temperature	-50°C to 60°C	Consult technical support for higher temperature operation.
Operating Humidity	95 to 100%	
Vibration	110 G Shock	
Altitude	50,000 feet	

ELECTRICAL PERFORMANCE



Small Signal Gain (-70 dBm reference)



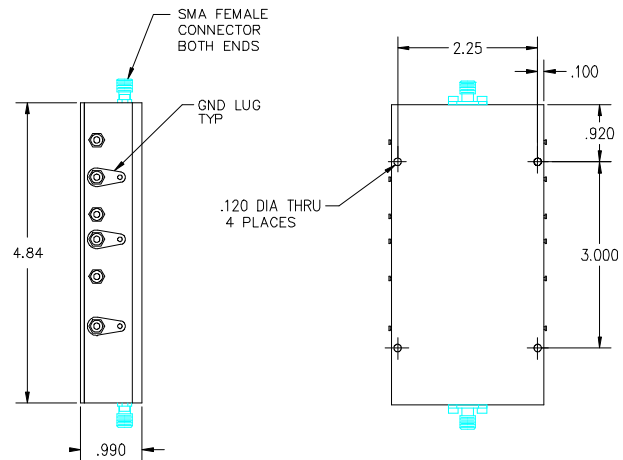
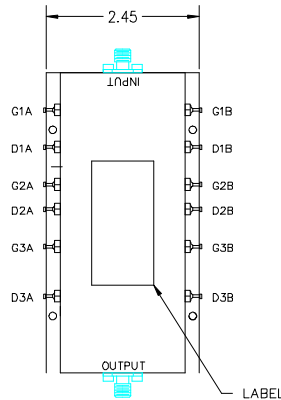
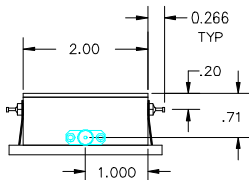
Harmonics (120W output)

HIGH POWER TEST DATA

(Typical)

Freq (MHz)	Input Power (dBm)	Output Power (W)	Drain Voltage (V)	DC Current (A)	DC Power (W)	Eff (%)	Gain (dB)
290.0	5.5	120.4	27.3	7.41	202.1	59.5	45.3
300.0	6.1	120.1	27.4	7.18	196.8	61.0	44.7
310.0	7.0	120.3	27.4	7.05	193.3	62.3	43.8
320.0	8.7	120.2	27.4	7.43	203.6	59.1	42.1

MECHANICAL OUTLINE



OPEN ARCHITECTURE FEATURES

1. Separate power supply feed throughs for each push/pull section permit individual fuse protection, section monitoring, and diagnostics. Single power supply terminal available.
2. Separate bias inputs permit adjustment of each push/pull section permit optimization of gain vs. distortion vs. efficiency. Bias off disables amplifier. Single bias terminal, TTL compatible enable/disable, or no bias terminal available.
3. A low loss output matching network provides high efficiency and optimum stability.
4. Separate bias inputs and power supply feed throughs permit either Class AB (standard) or Class A biasing.

AVAILABLE

- Higher powers through multiple module combining
- Inside wiring with only one DC connection
- Detailed Application Notes
- TTL compatible enable/disable control
- Test fixture with heat sink, fuse protection, and thermal shutdown
- Complete rackmount systems with integrated power supply
- Transmit/Receive subsystems
- Narrower band optimization available at no additional cost

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