



SERIES HMPA MEDIUM POWER AMPLIFIERS

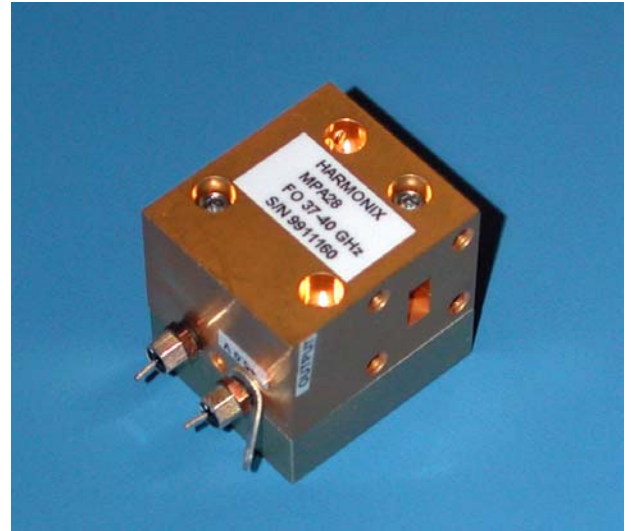
DESCRIPTION

The HMPA Series of Medium Power Amplifiers covers the range from 18 – 70 GHz, with partial coverage to 100 GHz. A wide variety of gain and bandwidth combinations provide the designer with a solution for most applications. MMIC technology is employed for high reliability and repeatability.

The amplifiers can be used as gain blocks in LO chains and test equipment, and in transmitters for communication and radar systems.

Multiple stages can be combined to increase gain. Gain of 40 dB has been obtained over 50-60 GHz. These units can be combined with power amplifiers to obtain higher P1dB output power levels.

The Amplifiers can be integrated with mixers and other components to form custom subassemblies for specific applications.



Applications

Communications Equipment

Radar Transmitters

Test Equipment

Integrated systems

Features

Low Cost

Single Bias

High Efficiency

High Bandwidth

Small Size



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Specifications @ 35°C T_{CASE}; Specifications subject to change w/o notice.

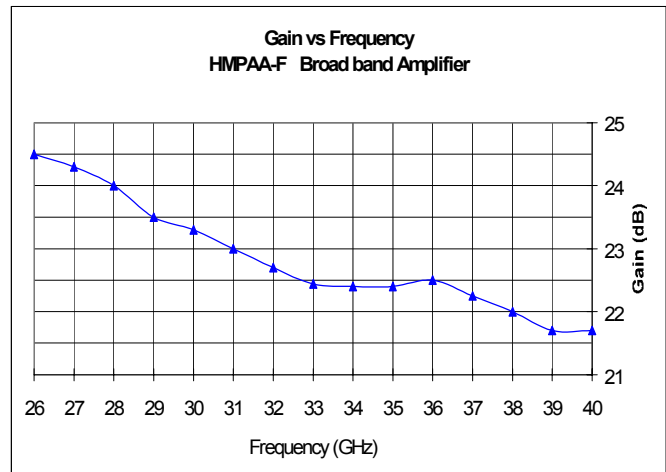
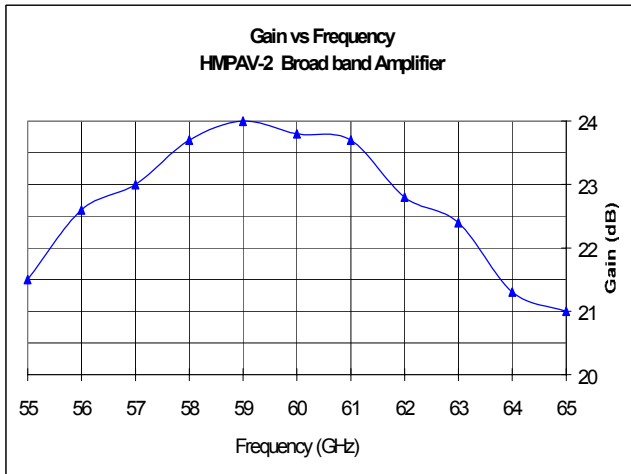
Model Number	Frequency Range* (GHz)	Input/Output	P _{1dB} (dBm) typical	Gain (dB) typical
HMPAKK	18 – 26.5	K FEMALE	+17	20
HMPAK-1	18 – 26.5	WR-42, UG-595/U	+17	40
HMPAKK-2	18 – 26.5	K FEMALE	+17	20
HMPAK-2	18 – 26.5	WR-42, UG-595/U	+17	40
HMPAA-1F	26.5 - 40	WR-28, UG-599/U	+17	20
HMPAA-2F	26.5 - 40	WR-28, UG-599/U	+17	40
HMPAB-1A	40 - 50	WR-22, UG-599/U-M	+10	15
HMPAB-2A	40 - 50	WR-22, UG-599/U-M	+15	30
HMPAU-1B	50 - 60	WR-15, UG-599/U-M	+10	12
HMPAU-2B	50 - 60	WR-15, UG-599/U-M	+14	21
HMPAV-1A	50 - 60	WR-15, UG-385/U	+10	12
HMPAV-2A	50 - 60	WR-15, UG-385/U	+14	21
HMPAV-1B	55 - 65	WR-15, UG-385/U	+10	12
HMPAV-2B	55 - 65	WR-15, UG-385/U	+14	21
HMPAV-1C	60 - 70	WR-15, UG-385/U	Contact Factory	Contact Factory
HMPAV-2C	60 - 70	WR-15, UG-385/U	Contact Factory	Contact Factory
HMPAE	71 - 86	WR-12, UG-387/U	Contact Factory	Contact Factory
HMPAW	92 - 96	WR-10, UG-387/U-M	Contact Factory	Contact Factory

*Note: Frequency range is for band identification only. Please provide required operating frequency range when requesting a quote. Consult factory for frequencies above 70 GHz.



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Typical data on HMPA broadband amplifiers



Notes:

1. 0 to +50°C is standard operating temperature range.
2. Typical minimum gain shown.
3. Typical capabilities shown; consult factory with exact requirement.

Requesting quotes

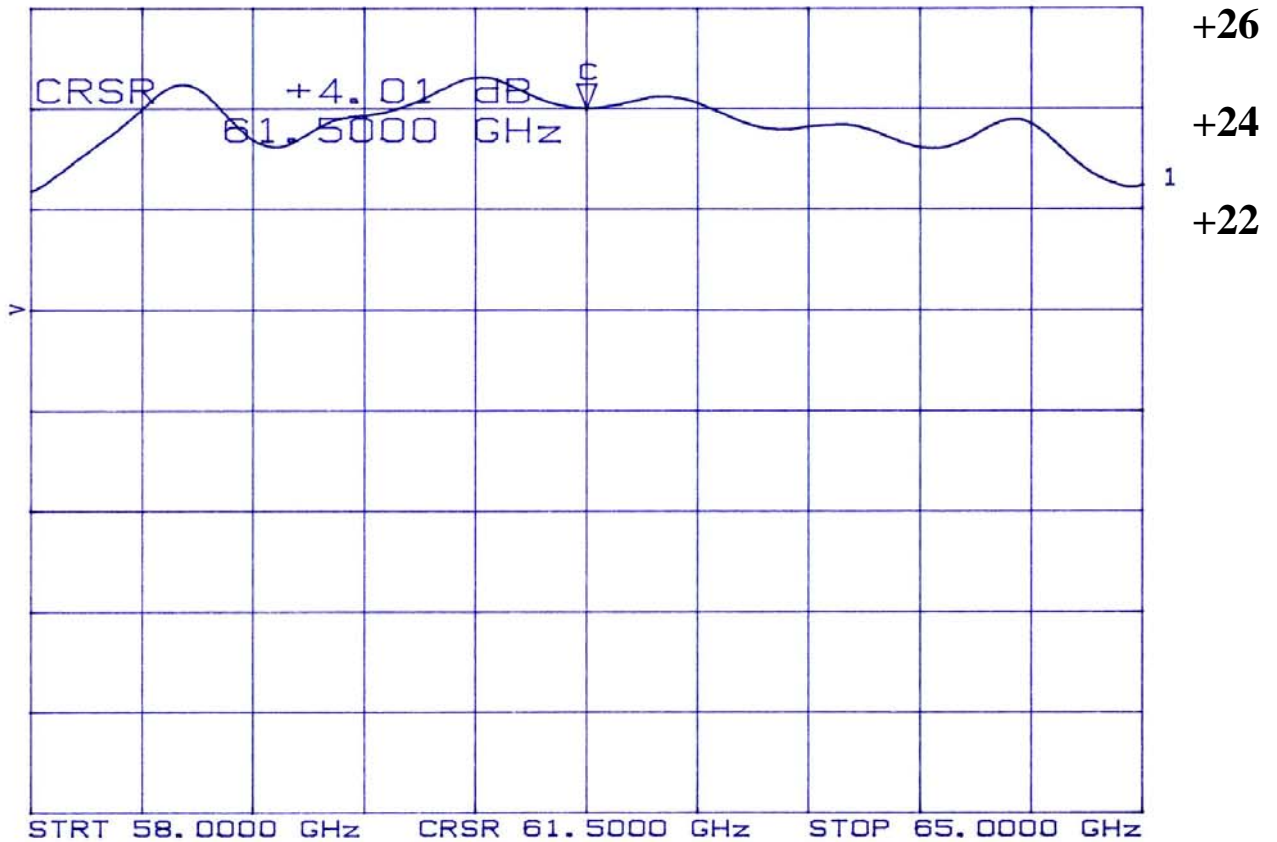
When requesting a quote for HMPA Medium Power Amplifiers, please specify required frequency range and any other required specifications. (Frequency ranges listed in the specification table are for band identification only.)



OPTIONS

SMA female connectors available to 26 GHz. 3.5 mm, 2.4 mm also available through 40 GHz.

CH1: A -M*S +4.01 dB
2.0 dB/ REF 0.00 dB



Swept: 58 to 65 GHz
 Markers: 61.5 GHz
 Scale: 2 dB / Div
 P1dB: +15.8 dBM @ 60 GHz
 Bias: +6.00 VDC @ 0.15A
 Gain: 24 dB @ 61.5 GHz
 TW 4-27-06