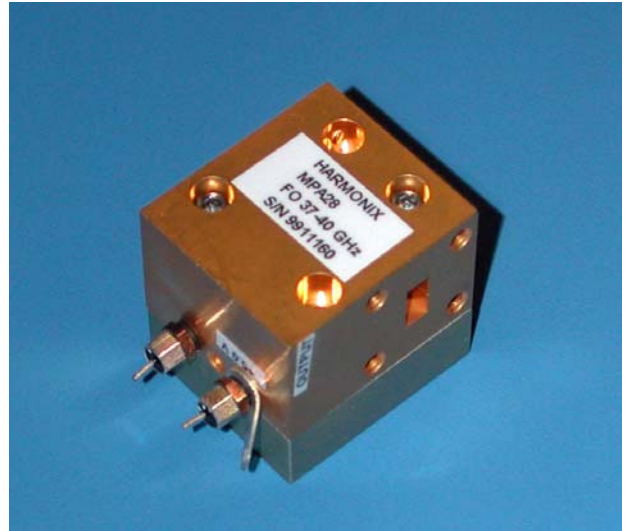


## DESCRIPTION

The HMPA Series of Medium Power Amplifiers covers the range from 18 to 100 GHz. A wide variety of gain and bandwidth combinations provide the system 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.

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



## Applications

Radar Front Ends

Communications Equipment

Test Equipment

## Features

Multiple Gain / P1dB options

High Bandwidth models

Single Bias / Internal Regulation

Internal Bias Sequencing

### Medium Power Amplifier Specifications

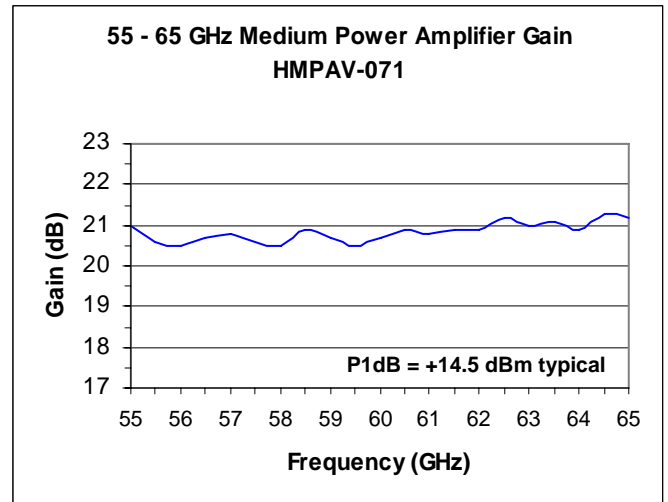
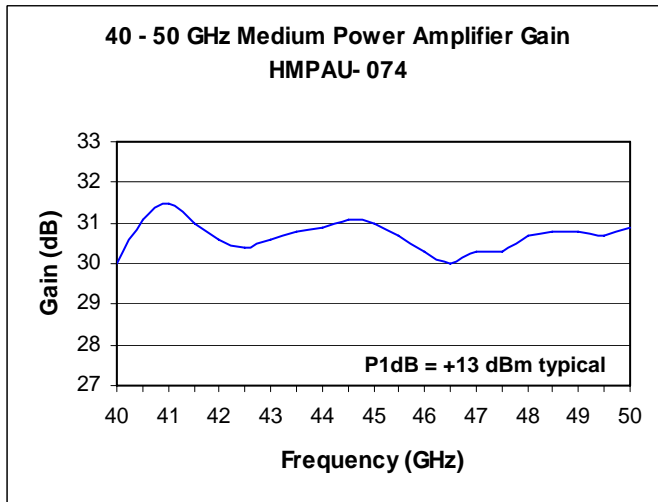
This is just a sample listing of available medium power amplifiers.  
Please choose from these models or contact factory with your requirements.  
Please identify your required frequency range with any inquiry.

Model Number	Frequency Range* (GHz)	Input/Output	P <sub>1dB</sub> (dBm) typical	Gain (dB) typical
HMPAKK	18 – 26.5	K FEMALE	+17	20
HMPAKK-2	18 – 26.5	K FEMALE	+17	20
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 - 76	WR-12, UG-387/U	See HHPA Data Sheet	
HMPAE	81 - 86	WR-12, UG-387/U	See HHPA Data Sheet	
HMPAW-085	86.0 - 88.0	WR-10, UG-387/U-M	+13	13
HMPAW-077	90 - 98	WR-10, UG-387/U-M	+10	20

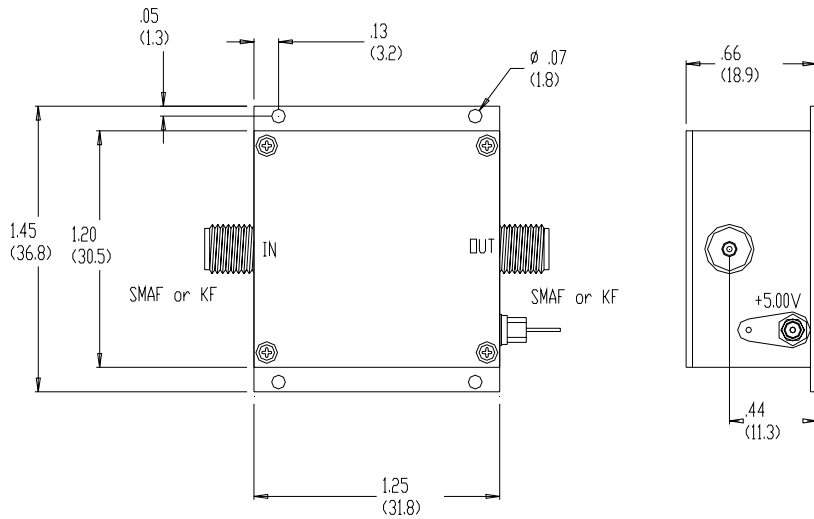
Specifications @ 35°C T<sub>CASE</sub>, Specifications subject to change w/o notice.

\*Note: Frequency range is for band identification only. Please provide required operating frequency range when requesting a quote.

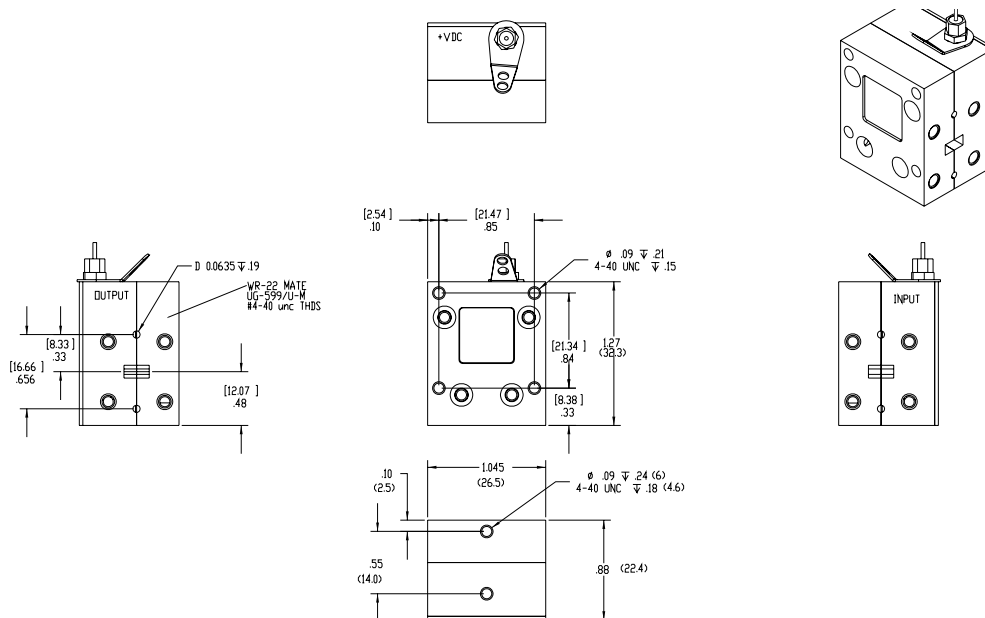
## Typical Gain Data for HMPA Medium Power Amplifiers



## Medium Power Amplifier Outlines

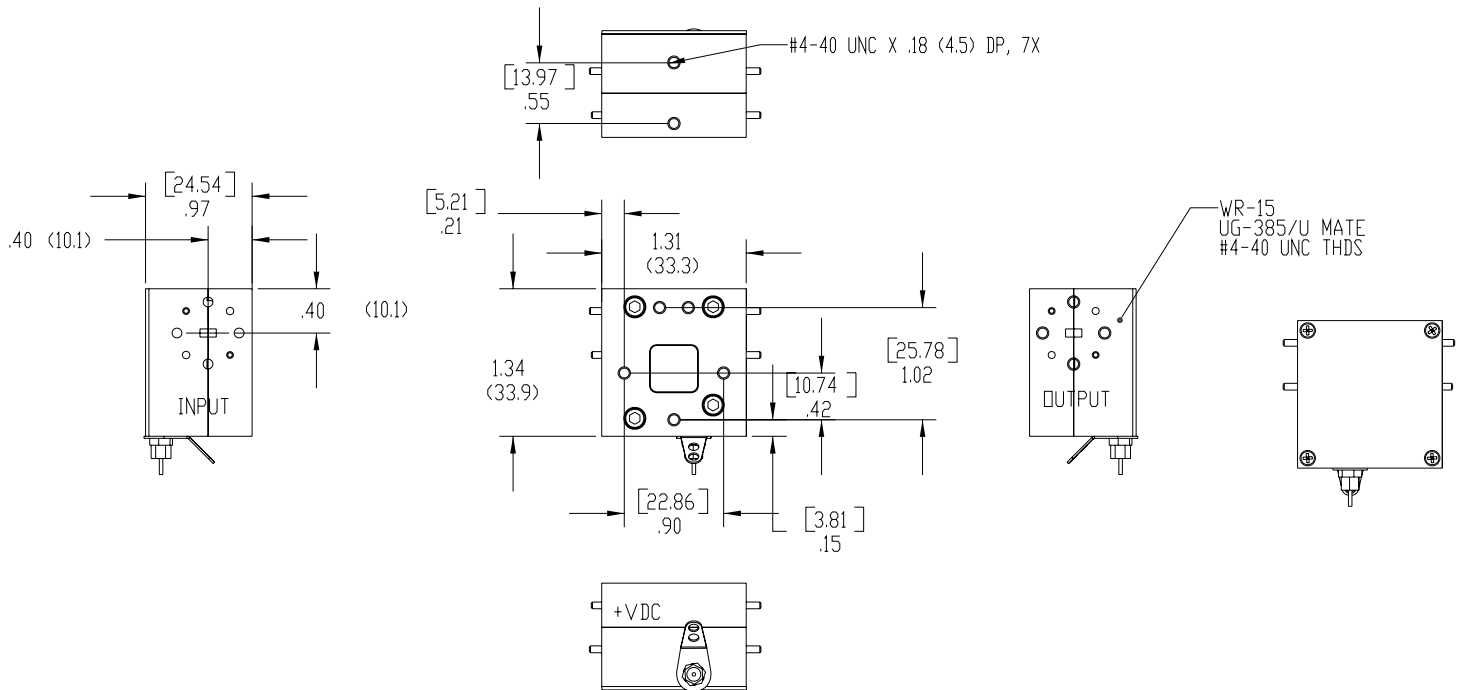


## Coaxial Medium Power Amplifier

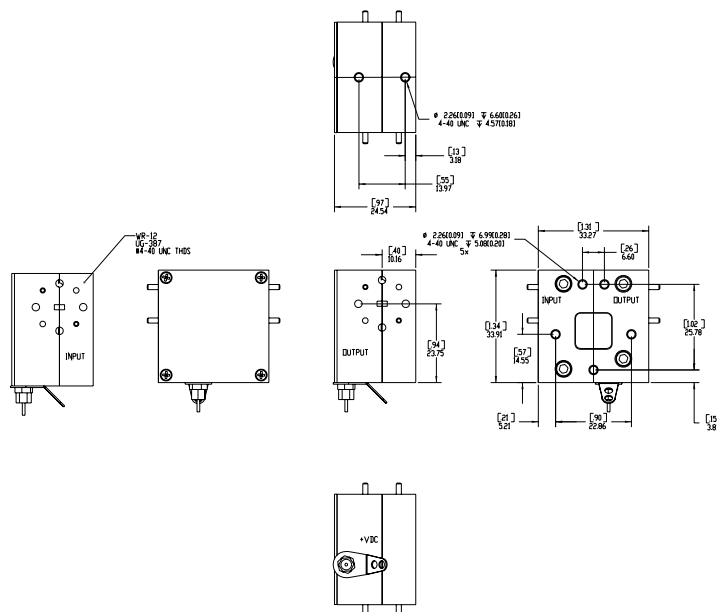


## Q-Band (B-Band) Medium Power Amplifier (Outline is also valid for Ka-Band)

## Medium Power Amplifier Outlines

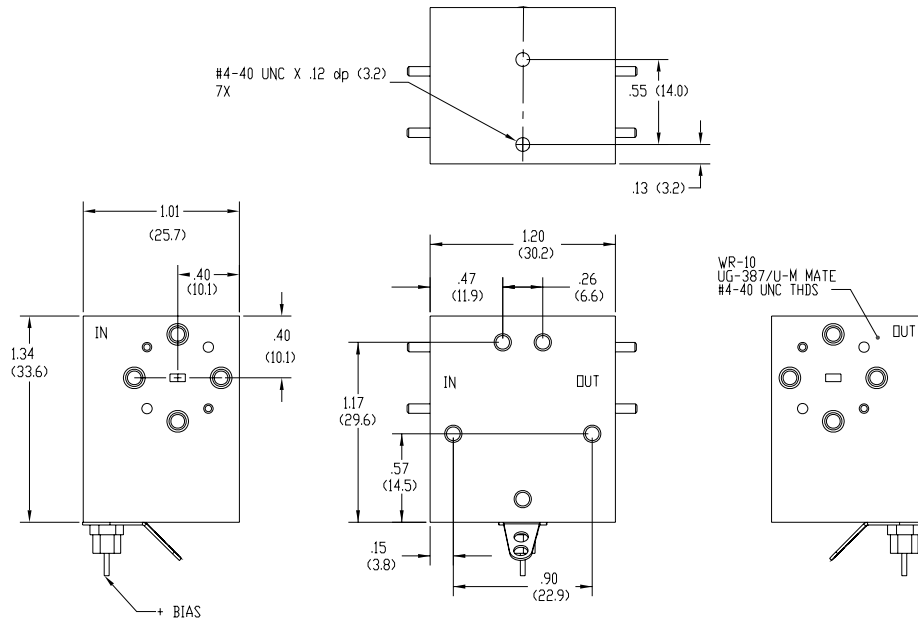


### V-Band (WR-15) Medium Power Amplifier



### E-Band (WR-12) Medium Power Amplifier

## Medium Power Amplifier Outlines



**W-Band (WR-10) Medium Power Amplifier**

## 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.)



## Interface Options

SMA female connectors available to 20 GHz.  
2.9 mm connectors also available through 40 GHz.  
V-Connectors available through 65 GHz.