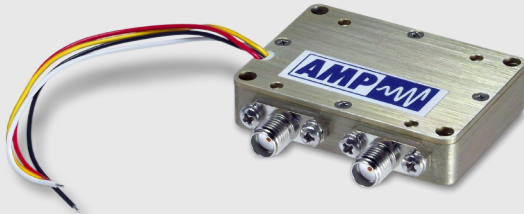


# HSP1 Analog FM High Power Amplifier

## Miniature Analog FM Amplifier!



## Design Features

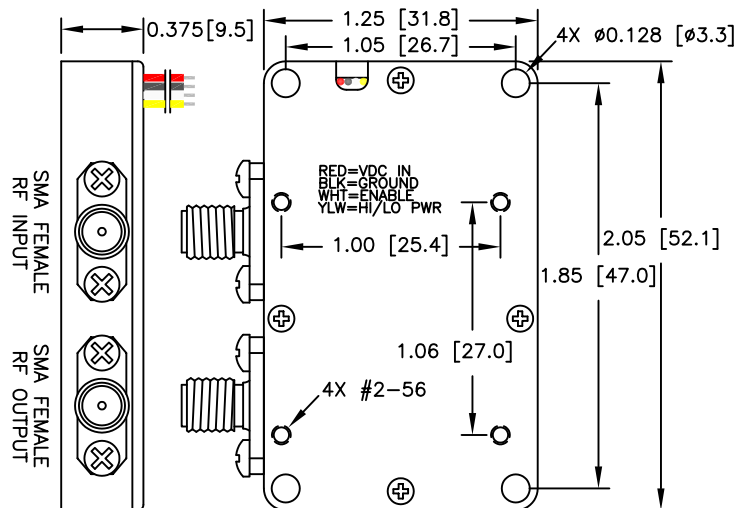
- 0.8 Cubic Inch Package (1.25"x2.05"x0.375")
- Weighs < 1.2 oz.
- Up to 2 Watts RF Output Power
- Up to 2 Selectable Power Modes
- Dedicated PA Enable Pin
- Compatible with AMP PMT1 Transmitters
- J-STD-001D Class 3 Assembly (Medical/Aerospace)

## HSP1 Series

AMP's HSP1 Series 0.8 cubic inch High Power Amplifiers (HPAs) are designed to be mated with AMP's PMT1 transmitters.

The HSP1 module provides up to 2W of output power and can be configured to provide 2 output power levels including any of 250mW, 500mW, 1W, and 2W levels. Power levels are selected by grounding one of the unit's flying leads.

With military telemetry heritage, HSP1 HPAs are designed to withstand harsh environments and are ideal for law enforcement, surveillance, UAV, UGV, Military, and other applications requiring efficient, high quality video/audio/data transmission in a compact, rugged package.



HSP1 SERIES - UHF, S-BAND 2W POWER AMP (for PMT1)



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# HSP1 Analog FM High Power Amplifier

## RF Characteristics

Frequency Range (Specify):	UHF:	340.0-399.9 MHz
(Other Ranges Available)	Lower L-Band:	1435-1535 MHz
	Upper L-Band:	1700-1850 MHz
	Lower S-Band:	2200-2399 MHz
	Upper S-Band:	2400-2499 MHz
	Full S-Band:	2200-2499 MHz
	Lower C-Band:	4400-4900 MHz
	Upper C-Band:	4900-4999 MHz
	Full C-Band:	4400-4999 MHz
Output Power (Specify):	250 mW, 500 mW, 1 Watt, or 2 Watts, Nominal	
Output Power, PA Disabled:	<+10 dBm	
Input Power (Specify):	20mW (+13 dBm) +2/-1 dB or 250mW (+24 dBm) +2/-1 dB	
Power Modes (Specify):	One (Fixed) or Two (Specify), Flying Lead, Open (10 k $\Omega$ pull up to 3.3 Vdc) = High, Ground (or <0.6 Vdc) = Low	
Output Impedance:	50 $\Omega$ Nominal, VSWR 2:1 Maximum	
Output Protection:	Internal Isolator (Most Bands) - Open/Short Indefinitely	
Spurious Output:	-13 dBm Maximum	

## Power Requirements

Input Voltage:	+11 to +16 Vdc, Reverse Polarity Protected
Current Draw (12V Typical):	175mA for 250mW, 275mA for 500mW, 375mA for 1W, or 625mA for 2W
PA Enable Control:	Open = On, Ground (or <1.5 Vdc) = Off

## Mechanical

Material:	CNC Machined T6061-T6 Aluminum	
Finish (Specify):	Nickel Plated or Gold Iridite	
Dimensions:	1.25" W x 2.05" L x 0.375" H	
Weight:	<1.2 oz.	
Connectors:	RF Input:	SMA Female
	RF Output:	SMA Female
	DC Supply, PA Enable, High/Low Power:	Flying Leads

## Environmental

Temperature (Operating):	-20°C to +60°C
Acceleration:	100 g, 3 Axis
Altitude:	Unlimited
Humidity:	Up to 95% @ Any Temperature Forming Frost or Condensation