

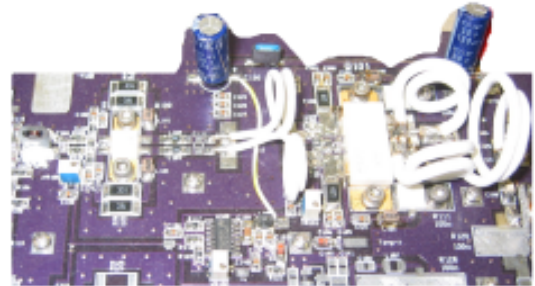


P120-100-400-25

High Power RF Amplifiers and Accessories

120W P1dB 100-400 Mhz Communications Amplifier

The **P120-100-400-25** is an integrated communications linear amplifier building block designed for VHF/ UHF communications systems. Providing a minimum of 120W P1dB, and featuring gold metallized MOSFET construction, the P120-100-400-25 is the perfect amplifier for use in any VHF / UHF comm or data amplifier.



- No RF assembly or circuit tuning!
- 120W Minimum at P1dB!
- 25 dB typical gain at 400 MHz!
- Amplifier Disable Input!
- Class AB Linear Amplifier

PRELIMINARY

Specifications:

$V_{sup}=+28V_{dc}$, $I_{dc}=1.8A$, 100-400MHz

Parameter	Min	Typ	Max	Units
Pout, P1dB		120		Watts
Distortion <small>80% Modulation, 1kHz, 30W Carrier Power</small>		5		%
Power Input <small>for 50W Carrier Power</small>		75		mW
Power Gain	24	25		dB
Delta Gain		±2.0		dB
Drain Current		4		A
Efficiency	30	42		%
Input VSWR		1.3:1	1.5:1	
Insertion Phase Variation <small>(unit to unit)</small>		±10		°
Power Gain Variation <small>(unit to unit)</small>		±1		dB
F2 Second Harmonic		-30		dBc
F3 Second Harmonic		-15		dBc
Baseplate Operating Temp	0		+70	°C
Physical Dimensions	2.5" x 5.0" x 1.5" / 6cm x 13cm x 4cm			

Absolute Maximum Ratings:

Parameter	Value	Units
Maximum Operating Voltage	+34.0	V DC
Stable Operating Voltage	+26.0 to +32.0	V DC
Maximum Bias Current- Q1 <small>Factory set to 1.0A.</small>	1.5	A
Maximum Bias Current - Q2 <small>Factory set to 0.8A.</small>	2.0	A
Maximum Drain Current	12	A
Load Mismatch Survival <small>At all phase angles with the base plate held at 40C and Id current limited to 10A, 2 seconds maximum</small>	5:1	
Storage Temperature	-40 to +105	°C
Maximum Operating Baseplate Temperature	+60	°C

Features Include:

- Amplifier Disable
- Current Sense
- Connectorized Power

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