Power Amplifiers

TA1072|4000-4200 MHz
6W PA

Description

This class A GaAs module is designed for both military and commercial applications. It is capable of supporting any signal type and modulation format, including but not limited to 3-4G telecom, WLAN, OFDM, DVB, and CW/AM/FM. The latest device technologies and design methods are employed to offer high power density, efficiency, and linearity in a small, lightweight package.

Features

Over / Under / Reverse Voltage Protection
Reflected Power Measurement
Temperature Output
Forward Power Measurement
High Speed On/Off Control
Optional Heatsink

Specifications subject to change without notice. Typical performance at 12.0VDC at 25°C in a 50Ω system

RF / Electrical				
Parameter	**Min**	**Typ**	**Max**	**Unit**
Operating Frequency	4000		4200	MHz
P1dB Power Output	37.0	38.0		dBm
PSat Power Output	38.0	38.0		dBm
Gain	36.0	37.0	v	dB
Gain Flatness		1.5	2.0	dB
Linear Power		31.0		dBm
Input Return Loss	-14	0		dB
Operating Voltage	11.0	12.0	13.0	VDC
Current Draw		3.0	3.0	A
Quiescent Current Draw		3.0		A
Switching Time		1.0	1.0	uS

Mechanical		
Parameter	**Value**	**Unit**
Dimensions (L x W x H)	3.75x2.5x0.553	in
RF Connectors (Input / Output)	SMA-F / SMA-F	--
DC / Control Connector	Circular Locking	--
Cooling	Baseplate Conduction - Optional Heatsink Available	--
Mounting	4-40 Thru Holes	--
Weight	4	oz
Weight with Heatsink	14	Oz

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ENVIRONMENTAL / PROTECTIONS			
PARAMETER	MIN	MAX	UNIT
Operating Temp. (Housing Temp.)	-40	85	°C
Storage Temp Range	-60	100	°C
Humidity Range	0-100		%
Altitude	0-30,000		ft.
Shock / Vibration	MIL-STD-810 and equivalents		--
Max RF Input	4.0		dBm
Load VSWR @ P1dB	Open / Short Output Protection		--
PA Baseplate Shutoff Temperature	85		°C

DC / CONTROL PINS		
PIN LABEL	NAME	DESCRIPTION
1	GND	Ground
2	TEMP	Temp Monitor: Temp in DegC = (Vout - 0.5V) / 10
3	Amp Enable	TTL On/Off Low=Enable, High=Disable
4	FWD	Forward Power Measurement
5	REV	Reflected Power Measurement
+VDC	+VDC	Supply Voltage - Range Specified in Datasheet