Power Amplifiers

TA1057|20-512 MHz
W Broadband

Description

This class AB GaN 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
Temperature Output
High Speed On/Off Control
Optional Heatsink

Specifications subject to change without notice. Typical performance at 28.0VDC at 25°C in a 50Ω system

RF / Electrical				
Parameter	**Min**	**Typ**	**Max**	**Unit**
Operating Frequency	20		512	MHz
PSat Power Output	45.0	46.0		dBm
Gain	47.0	49.0	v	dB
Gain Flatness		2.0		dB
Linear Power		0.0		dBm
Input Return Loss	-14	0		dB
Operating Voltage	28.0	28.0	30.0	VDC
Current Draw		4.0	4.0	A
Quiescent Current Draw		3.0		A
Switching Time			1.0	uS

Mechanical		
Parameter	**Value**	**Unit**
Dimensions (L x W x H)	3.5x2.5x0.85	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	6	oz
Weight with Heatsink	16	Oz

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	0.0		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	+VDC	Supply Voltage - Range Specified in Datasheet