

GaN Broadband High Power Amplifier

DEPA50-4000/5 ALLmax

50MHz - 4GHz / 5Watts

The DEPA50-4000/5 power amplifier is ideal for broadband applications such as instrumentation or 802.16, WiFi, WiMax, RFID, Ultra Wide Band or Software Defined Radios. This amplifier utilizes the latest ultra linear highly efficient GaN devices. The DEPA50-4000/5 offers ultra small size.



Case dim: 1.8" x 1" x .5"

- Class A operation
- Instantaneous ultra broadband
- RF Power control & Blanking
- Low harmonic content and spurious output
- Suitable for CW/FM/PM/AM/Digital modulation
- 50 Ohm Input/Output
- Single Power Supply operation with bias sequencer
- Small compact size

Optional copper heat sink (cooling required)

ELECTRICAL SPECIFICATIONS VD = +28VDC, IDQ = 750MA, T=25 C, 50 Ohm System

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW(3dB)	50		4000	MHz
Power Output CW @ Pin = +0dBm	Po	37	38	40	dBm
Power Gain @ Pout = +37dBm (5 Watt)	Pg	20	22	23	dB
Power Gain (Small Signal)	S21dB	25	36	38	dB
Input VSWR	-			2.0:1	-
Output Load Tolerance in 50 ohm system				2.0:1	-
Harmonics @ Pout = +37dBm	-		-14		dBc
Inter-Modulation Distortion Pout=3W 2-Tone, Δ = 10MHz	IMD	-23	-20	-18	dBc
Spurious Signals	Spurs				
Efficiency	Eff	8	13	33	%
Operating Voltage	VD	27	28	30	Volt DC
Operating Current (Pin in = 0dBm)	IDQ	1000	1200	1300	ma
Operating Current (Po = +37dBm)	IDO	1	1.2	1.5	Amp
RFin MAX	-			30	dBm
Protection	Over voltage and reverse voltage protection				

MECHANICAL SPECIFICATIONS

Dimensions (no heat sink)	L = 1.8" W = 1.0" H = .5"				
Weight (no heat sink)		1.8	1.9	2.0	Oz
RF Connectors I/O	SMA - Female				
DC Connector	EMI Pin				