

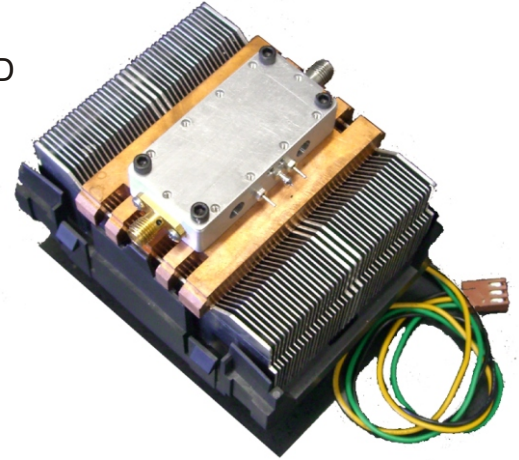


GaN Broadband High Power Amplifier

DEPA500-3600/10 ALLmax

500MHz - 3600MHz / 10Watts

The DEPA500-3600/10 power amplifier is ideal for broadband applications such as instrumentation or 802.16, WiFi, WiMax, RFID or Software Defined Radios. This amplifier utilizes the latest ultra linear highly efficient GaN devices. The DEPA500-3600/10 offers ultra small size and operates from a single supply.



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

- Class A operation
 - Instantaneous ultra broadband
 - RF Power control & Blanking Optional
 - 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 = 2A, T=25 C, 50 Ohm System

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW(3dB)	500		3600	MHz
Power Output CW @ Pin = +5dBm	Po	40	41	42	dBm
Power Gain @ Pout = +37dBm (3 Watt)	Pg	31	35	39	dB
Power Gain (Small Signal)	S21dB	35	36	39	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=4W 2-Tone, Δ = 10MHz	IMD	-20	-22	-24	dBc
Spurious Signals	Spurs				
Efficiency	Eff	10	12	18	%
Operating Voltage	VD	27	28	30	Volt DC
Operating Current (Pin in = 0dBm)	IDQ	1.8	2.0	2.5	A
Operating Current (Po = +37dBm)	IDO		2.0	2.5	A
RFin MAX	-			27	dBm
Protection	Over voltage and reverse voltage protection				

MECHANICAL SPECIFICATIONS

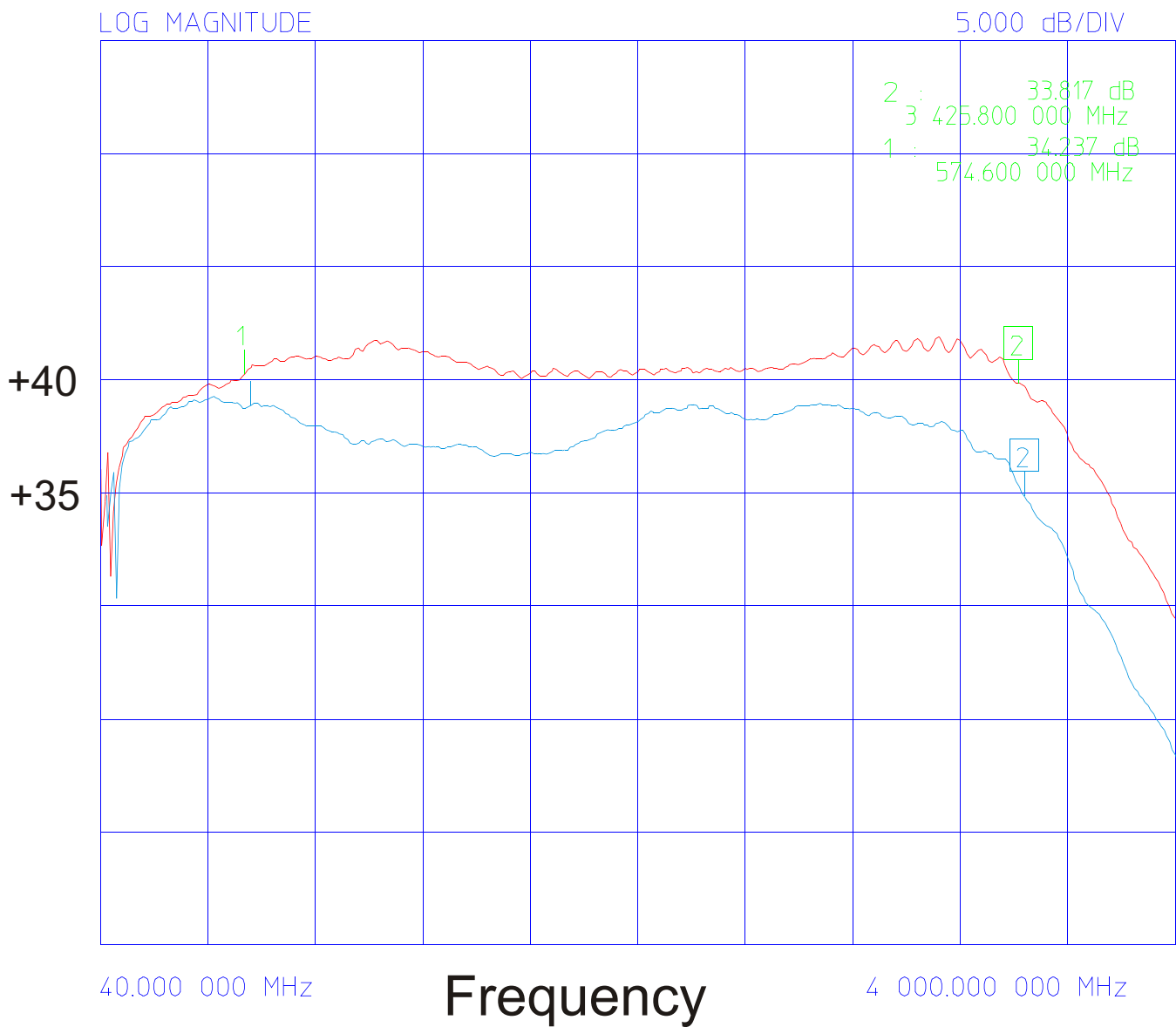
Dimensions (no heat sink)	L = 1.8" W = 1.0" H = .5"				
Weight (no heat sink)		1.8	1.9	2.0	Oz
RF Connectors I/O	SMA - Female				
DC Connector	EMI Pin				

10 Watt Pout

Pin = +5dBm

Pin = +0dBm

Output Power(dBm)



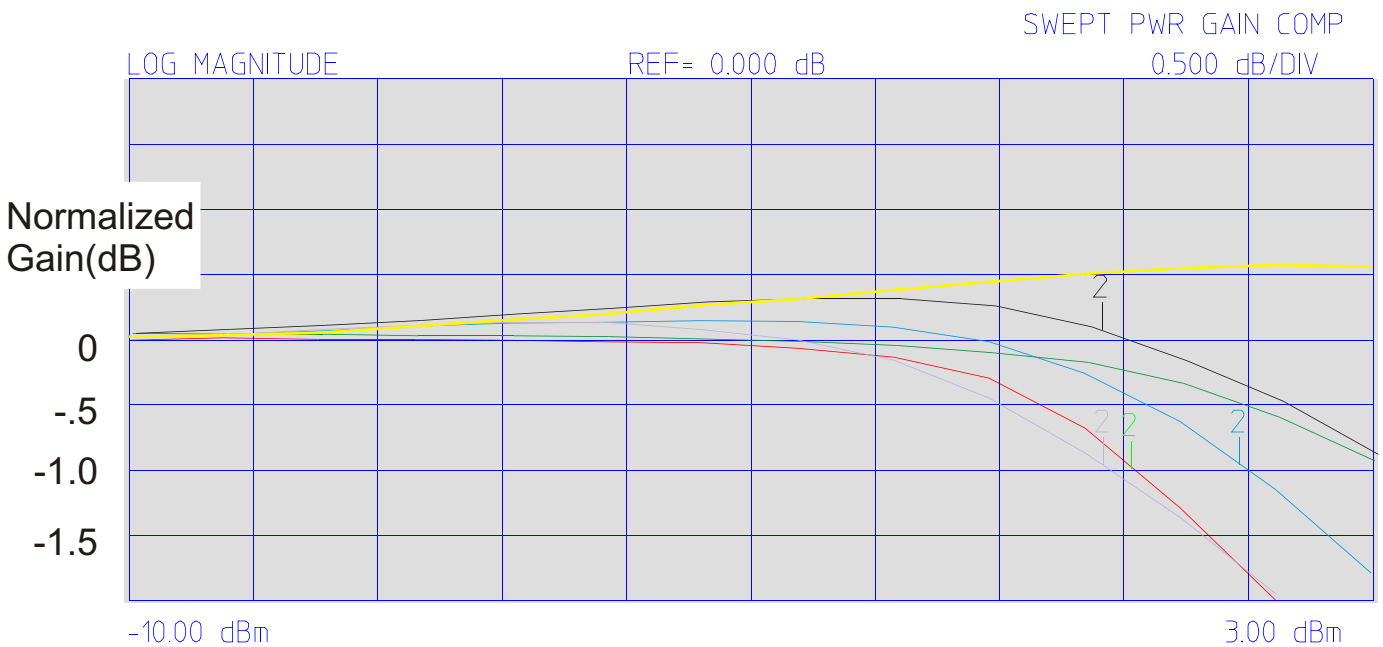
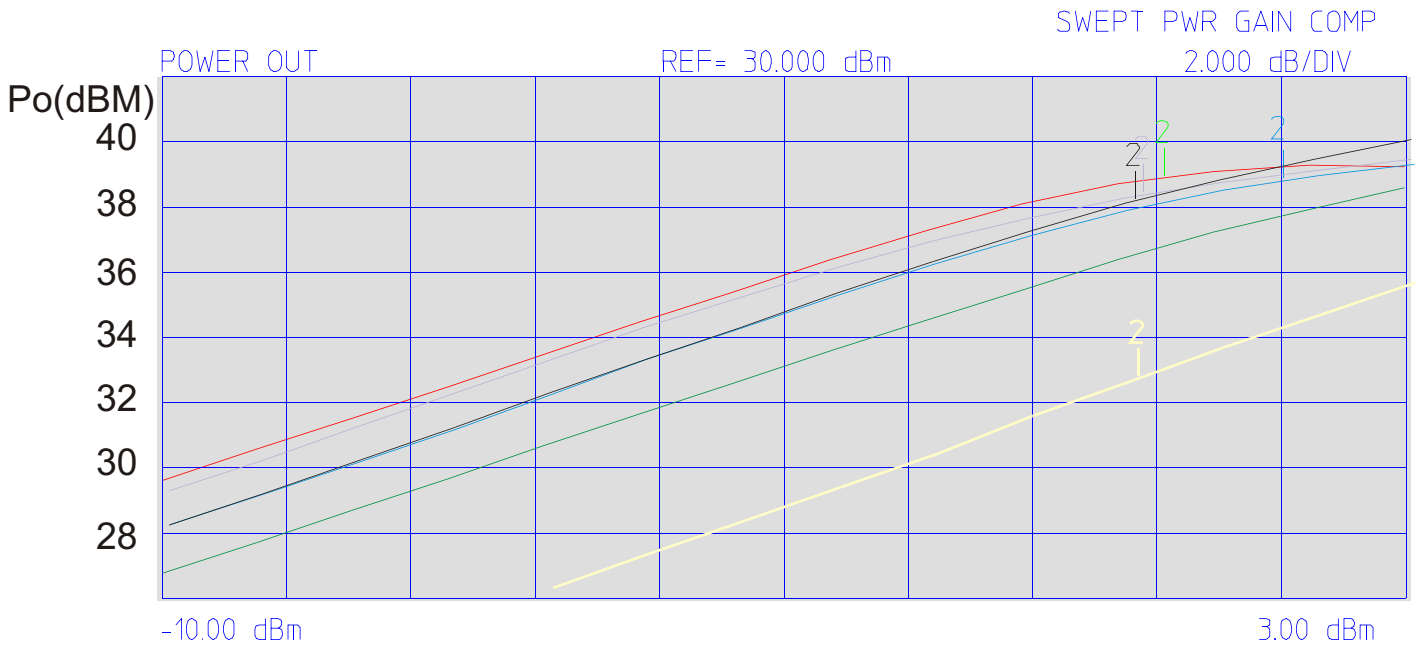


Diamond Engineering

GaN Broadband High Power Amplifier DEPA500-3600/10 ALLmax 500MHz - 3600MHz / 10Watts

- 500MHz
- 1000MHz
- 2G
- 2.5G
- 3.0G
- 3.5G

Swept Power and Gain Compression





Constant Pout IMD

- $P_o = 10W$
- $P_o = 5W$
- $P_o = 4W$

Tone separation 10MHz

