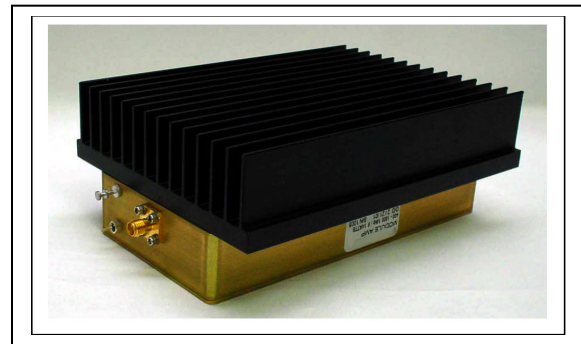


The HD17964 is suitable for ultra broadband and band specific high power linear applications. This amplifier utilizes MOSFET power devices that provide high gain, wide dynamic range and good linearity. Exceptional performance, long term reliability and high efficiency are achieved by employing advanced broadband RF matching networks and combining techniques, EMI/RFI filters, machined housings and qualified components.

- Solid-state Class A linear design
- Instantaneous ultra broadband
- Small and lightweight
- Suitable for all modulation types
- 50 Ohm Input/Output impedance
- High reliability and ruggedness

**ELECTRICAL SPECIFICATIONS @ T=25°C, VDD=+28VDC; 50 System**

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	1		1000	MHz
Power Output CW	P _{sat}	2	3		Watts
Power Output @ 1dB G.C.P	P _{1dB}	1			Watts
Gain @ P1dB G.C.P	P _{1dB}	30			dB
Input Power for Rated Pout	P _{in}		0		dBm
Small Signal Gain Flatness	G		±1.0	±1.5	dB
Input/Output VSWR	S11/S22			2:1	-
Noise Figure	NF		7	10	dB
Harmonics @ 1dB G.C.P	H		-25		dBc
Third Order Intercept Point 2 – Tones, Pout=1W Avg., 500KHz spacing	IP3		+39		dBm
Spurious Signals	Spur		-70	-60	dBc
Operating Voltage	VDD	24	28	32	VDC
Supply Current	IDD		1.0	2.0	Amp

ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Unit
Operating Case Temperature	T _c	0		+50	°C
Storage Temperature	T _{stg}	-40		+85	°C
Relative humidity w/o condensation	RH	95			%
Altitude	ALT	10,000	30,000		Feet
Shock & Vibration	SH / VI		Airborne		

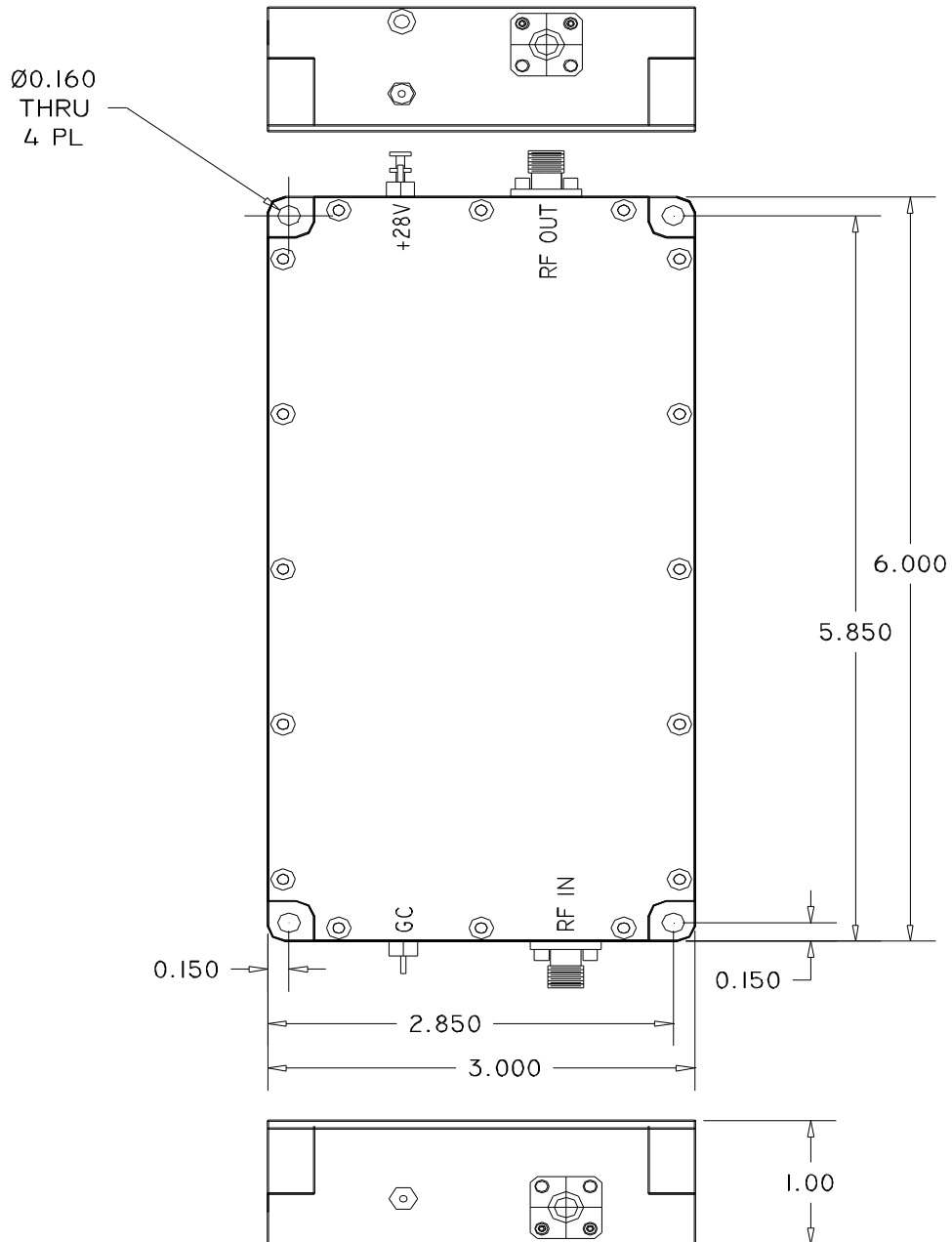
MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Limits
Dimensions (excluding heatsink)	6.0 x 3.0 x 1.0	Inch	Max
Weight without HS / with HS	1.0 / 2.5	lb.	Max
RF Connectors In/Out	SMA female		
DC Connectors	Feed Thru		
Cooling	External Heatsink		

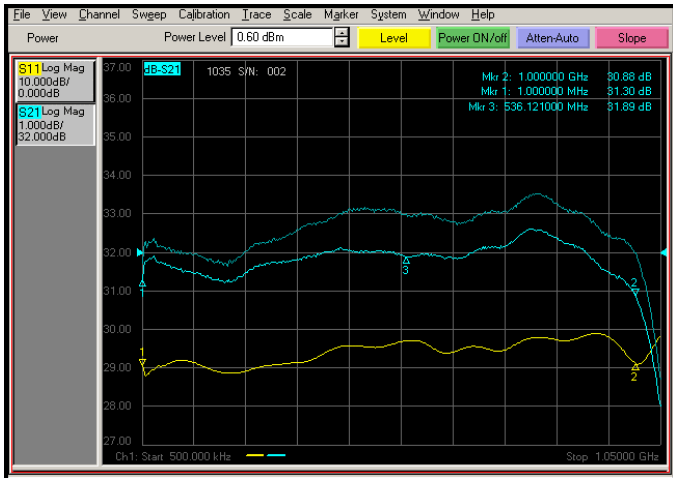
PROTECTIONS

Input Overdrive	+10 dBm	Max
Load VSWR	Infinite @ all load phase & amplitude	Nom
Thermal Overload	85°C shutdown	Max

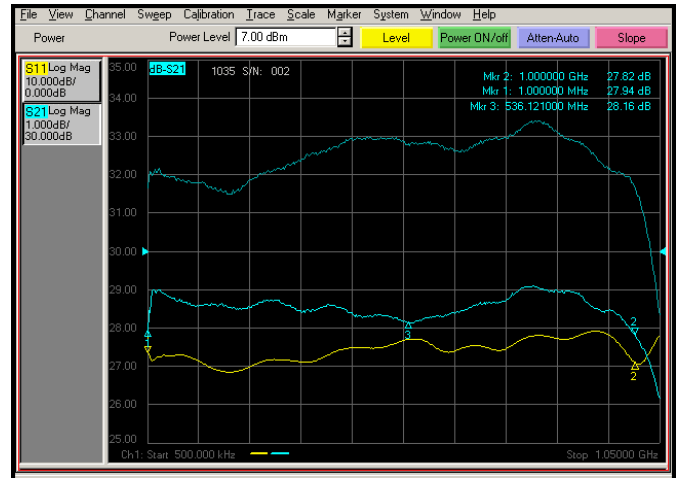
Outline drawing



Top curve: Small signal gain @ Pin = -20dBm
 Middle curve: Power gain @ P1dB, Pin = 0.60dBm
 Reference = 32dB
 Bottom curve: Input VSWR



Top curve: Small signal gain @ Pin = -20dBm
 Middle curve: Power gain @ Sat, Pin = 7dBm
 Reference = 32dB
 Bottom curve: Input VSWR



Top curve: VVA @ Maximum
 Middle curve: VVA @ Minimum
 Reference = -16dB
 Bottom curve: Input VSWR

