HD Communications Corp.
Ronkonkoma, NY USA

Home of RFAmplifiers.com

Solid State Broadband High Power Amplifier

HD18858

10 – 1000 MHz / 8 Watt

The HD18858 is suitable for broadband high power linear applications; this amplifier utilizes Silicon RF Power MOSFET 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. Each unit undergoes extensive burn-in prior to final test and inspection.

- 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; 50Ω System

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	10		1000	MHz
Power Output CW	Psat	8	10		Watts
Power Output @ 1 dB comp.	P1dB	5	7		Watts
Small Signal Gain	SSG	40			dB
Small Signal Gain Flatness	G_F		±1.0	±1.5	dB
Input/Output VSWR	S11/S22			2:1	-
Harmonics @ 1 dB compression	H		-25		dBc
Third Order Intercept Point 2 – Tones, Pout=1W Avg., 100KHz spacing	IP3		+45		dBm
Noise Figure @ minimum attenuation	NF		7	10	dB
RF Input Overdrive	OD			+10	dBm
Load VSWR @ P1dB	Ψ			Infinite	-
Spurious Signals	Spur		-70	-60	dBc
Operating Voltage	VDD	24	28	32	VDC
Supply Current	IDD		2.0	2.5	Amp

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Limits
Dimensions (excluding heatsink)	6.0 x 3.0 x 1.1	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		

ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Unit
Operating Case Temperature	Tc	0		+50	°C
Storage Temperature	Tstg	-40		+85	°C
Relative humidity w/o condensation	RH	95			%
Altitude	ALT	10,000			Feet
Shock	SH	GR-63-CORE 5.3.1			
Vibration	VI	GR-63-CORE 4.4.4			

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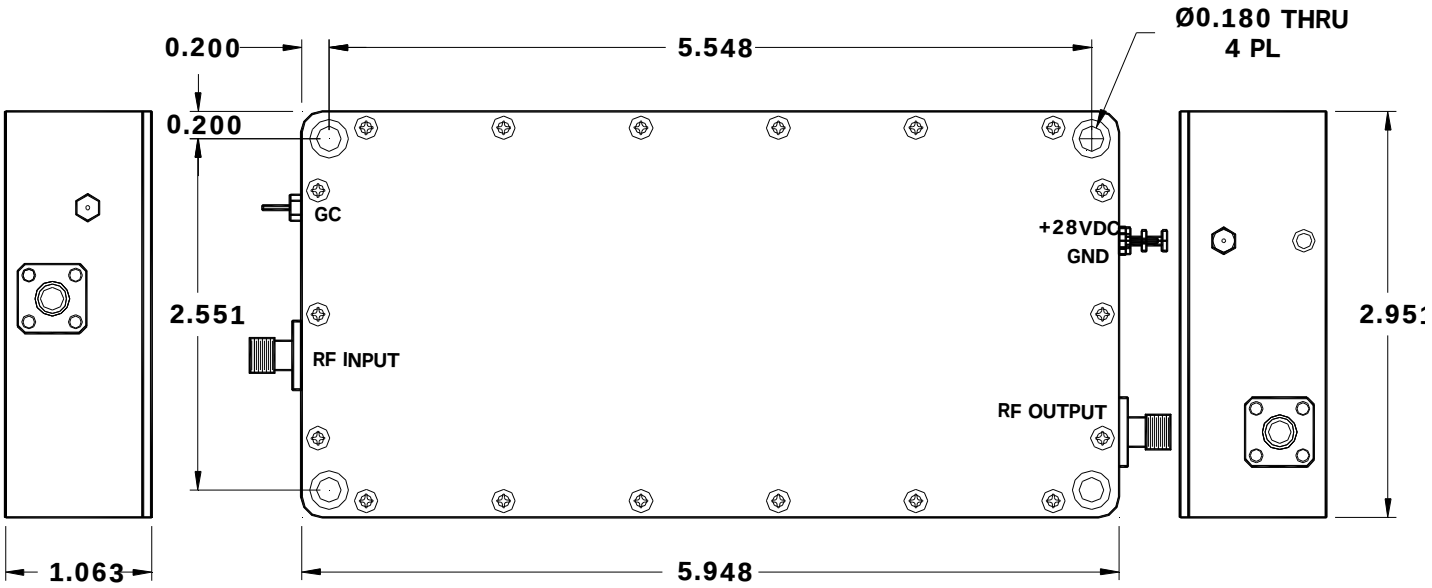
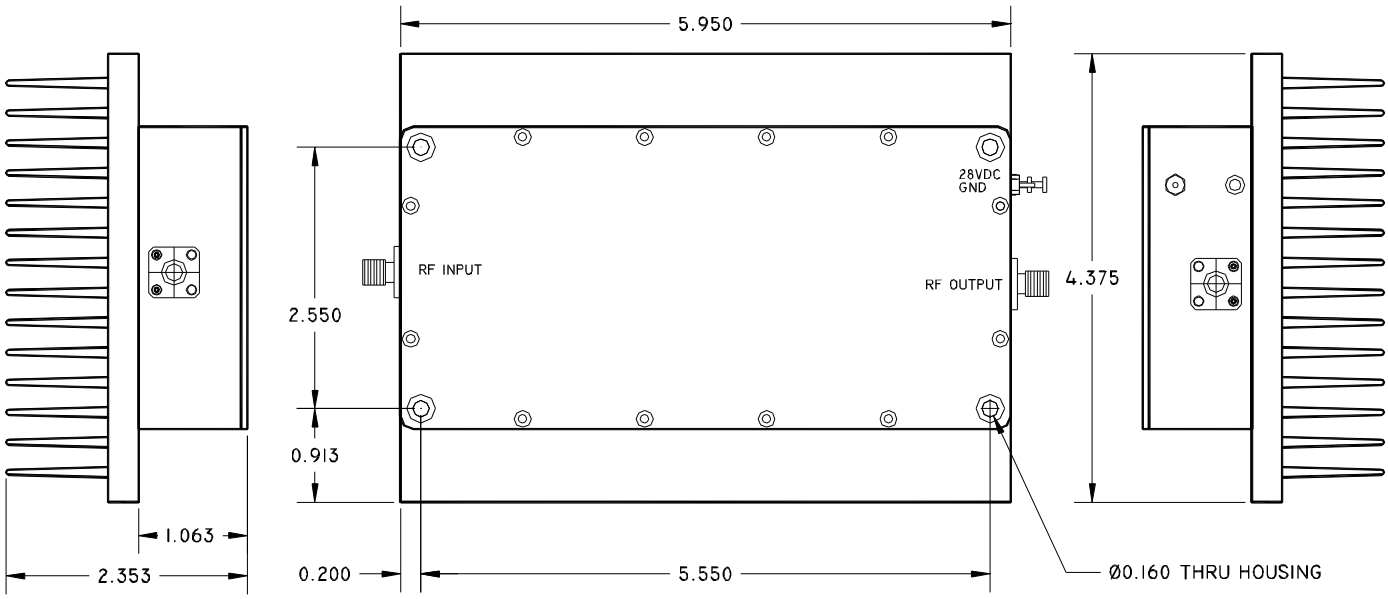
Outline drawing without heatsink



Outline drawing including heatsink



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