HD33631
SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Class A/AB linear design
Designed for medium power S-Band applications.
Applicable for EMI/RFI, Lab, and general communication applications.
Suitable for all single channel modulation standards
Built-in monitoring and protection circuits
High efficiency, reliability and ruggedness



ELECTRICAL SPECIFICATIONS : 50Ω, 25ºC

Parameter	Specification	Notes
Operating Frequency Range	3.1 - 3.5 GHz	
Power Output @ Psat	10 Watt Min	CW
Power Output @ P1dB	6 Watt Typ	CW
Power Gain	40 dB Min	0dBm or less for rated Pout
Power Gain Flatness	2.0 dB p-p Max	Constant input power
Input Return Loss	-12 dB Min	
2-Tone Intermodulation (IMD)	-30 dBc Typ	30dBm/Tone, Δ = 1MHz
Harmonics	-20 dBc Max	At rated Pout
Noise Figure	8 dB Max	
Spurious	-60 dBc Max	Non-harmonics
Operating Voltage	28 VDC Nom	
Current Consumption	2.0 Amp Max	At rated Pout
Input Power Protection	+8 dBm Max	<10 Sec without damage
Load VSWR Protection	∞ : 1[1]	<1 minute at rated Pout

1 Modules could be damaged due to excessive VSWR beyond 1 minute.

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Case Temperature	-20 to +75 ºC	
Storage Temperature	-40 to +85 ºC	
Relative Humidity	up to 95 %	Non-condensing
Altitude	3000 meters	
Shock & Vibration	Normal transport[2]	

2 MIL Spec available for quotation

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	125 x 63 x 27 mm	Excluding connectors
Weight	350 gr.	
RF Connectors In/Out	SMA female	
DC Power / Interface Connector	9-Pin D-Sub	
Cooling	External Heatsink	Forced air required

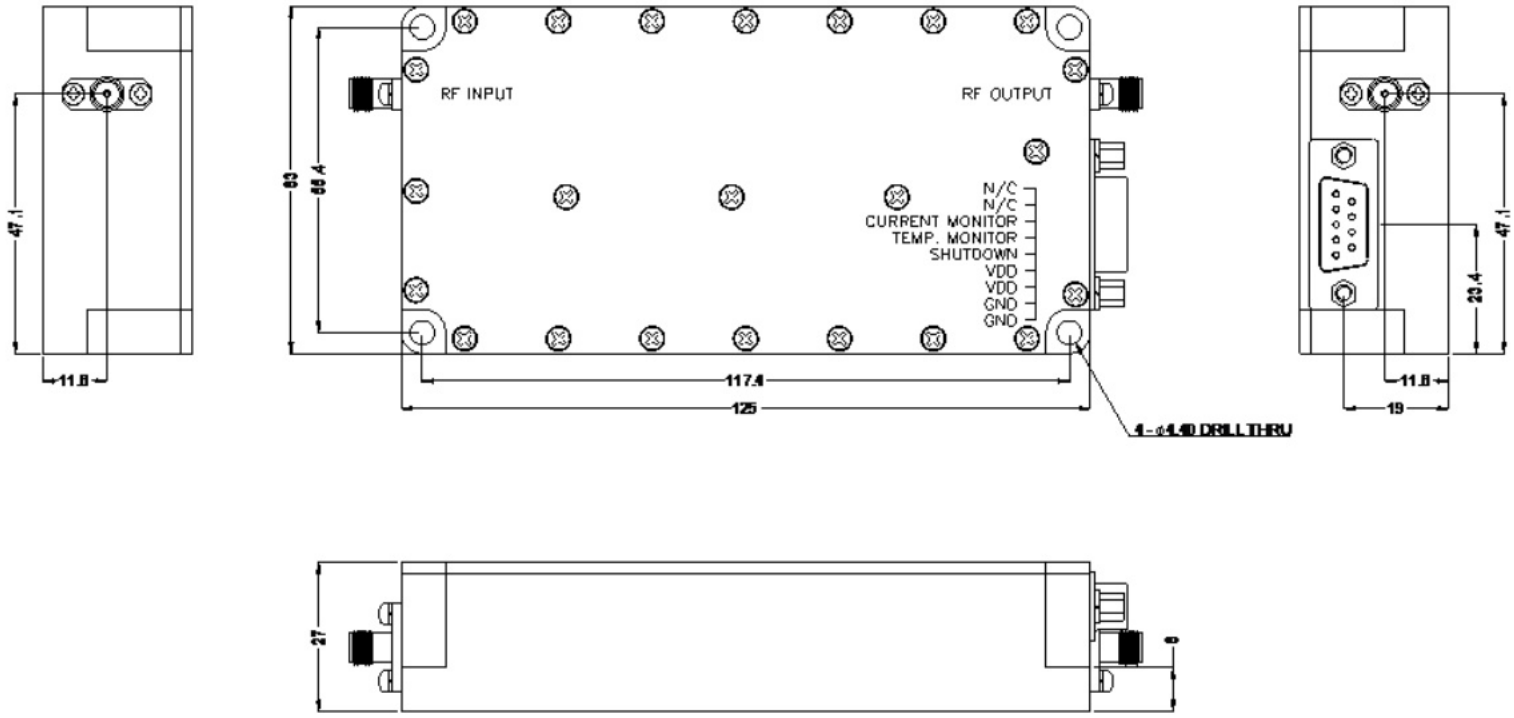
338 Jericho Turnpike, Suite 387, Syosset NY, 11791 (631)-588-3877
www.rfamplifiers.com sales@hdcom.com. www.rfcomp.com
Specifications subject to change without notice. Specifications and drawings may vary with selected options.

HD33631
SOLID STATE HIGH POWER AMPLIFIER

D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	FWD	Option-101 (With larger housing dimensions)
2	REV	Option-102 (With larger housing dimensions)
3	CURRENT SENSOR	I_D@50mV/100mA Typ
4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
5	SHUTDOWN	Enable = TTL High or Open; Disable = TTL Low or Short
6, 7	VDD	28VDC
8, 9	GND	Ground

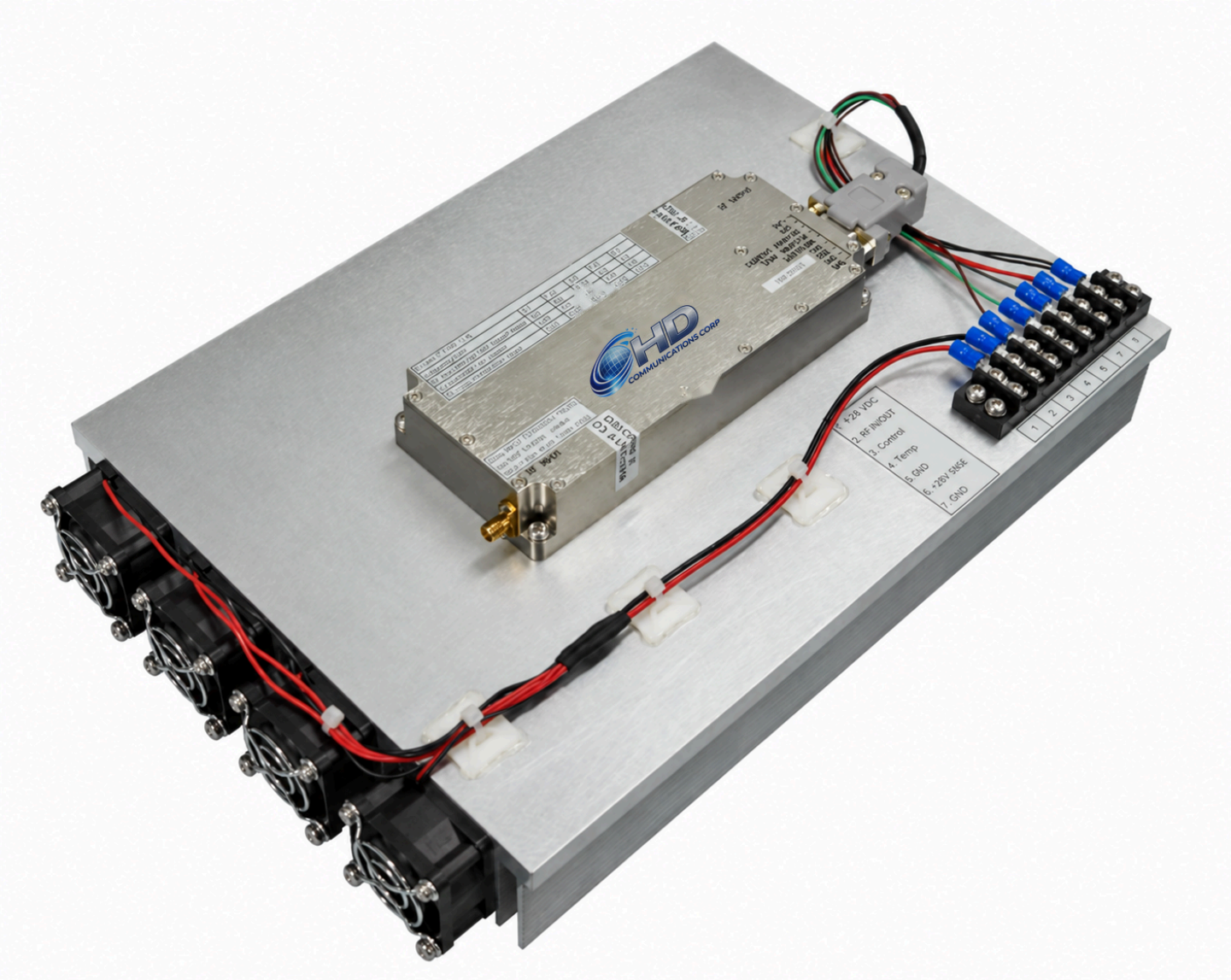
OUTLINE DRAWING



338 Jericho Turnpike, Suite 387, Syosset NY, 11791 (631)-588-3877
www.rfamplifiers.com sales@hdcom.com. www.rfcomp.com
Specifications subject to change without notice. Specifications and drawings may vary with selected options.

HD33631
SOLID STATE HIGH POWER AMPLIFIER

OUTLINE DRAWING
OPTIONAL HEATSINK (Option HSF)



338 Jericho Turnpike, Suite 387, Syosset NY, 11791 (631)-588-3877
www.rfamplifiers.com sales@hdcom.com. www.rfcomp.com
Specifications subject to change without notice. Specifications and drawings may vary with selected options.