HD34591
SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Class AB linear LDMOS design
Instantaneous wide bandwidth
Suitable for all single channel modulation standards
Built-in monitoring and protection circuits
Small form factor, light weight
High efficiency, reliability and ruggedness



ELECTRICAL SPECIFICATIONS : 50Ω, 25°C

Parameter	Specification	Notes
Operating Frequency Range	20 - 520 MHz	
Power Output @ Psat	100 Watt Min	@28VDC
Power Gain	50 dB Min	0dBm or less for rated Pout
Power Gain Flatness	3.0 dB p-p Max	Constant input power
Input Return Loss	-10 dB Min	Relative to 50 Ohm
2-Tone Intermodulation (IMD)	-30 dBc Typ	40dBm/Tone, Δ = 1MHz
Harmonics	2nd <-30dBc Typ 3rd <-15dBc Typ	At rated Pout
Spurious	-60 dBc Max	
Operating Voltage	24 - 30 VDC Nom	28VDC Nom
Current Consumption	9 Amp Max	At rated Pout
Max 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	-30 to +75 °C	Extended Temp range
Storage Temperature	-40 to +85 °C	
Relative Humidity	5 to 95 %	Non-condensing
Altitude	3000 meters	
Shock & Vibration	Normal transport[2]	

2 MIL Spec available for quotation

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	162 x 96 x 27 mm	Excluding connectors
Weight	600 gr.	
RF Connectors In/Out	SMA female	
DC Power / Interface Connector	9-Pin D-Sub	
Cooling	External Heatsink	Forced air required

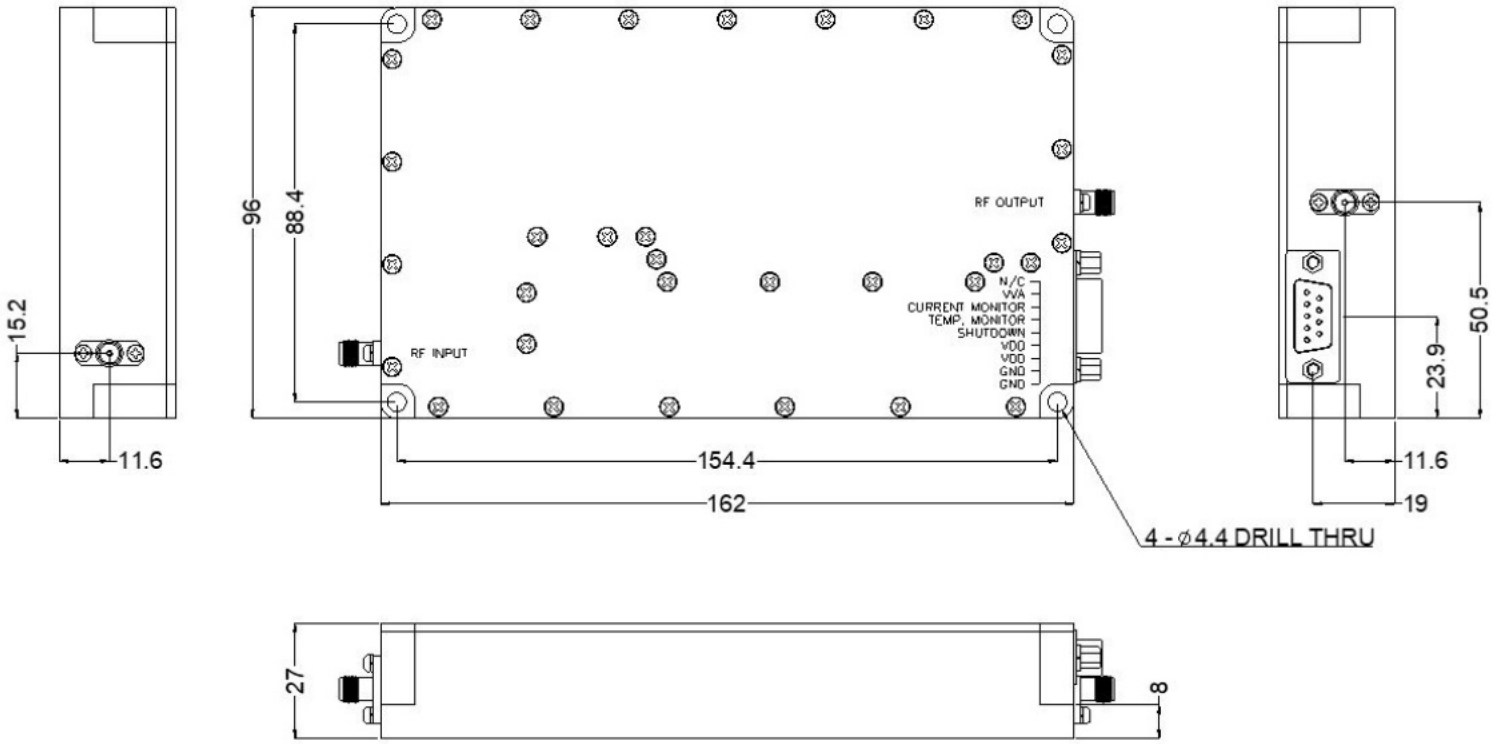
D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	FWD	Option-101 (With larger housing dimensions)
2	VVA	Option-103
3	CURRENT SENSOR	I_D@20mV/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

38 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.

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OUTLINE DRAWING
OPTION ORDERING INFORMATION
01(FWD) : Forward Power Detect
03(VVA) : Variable Voltage Attenuator



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