HD Communications Corp.

HD31229
SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Class AB linear LDMOS design
Instantaneous wide bandwidth
Suitable for all modulations standards
Built-in protection circuits
High reliability and ruggedness

ELECTRICAL SPECIFICATIONS

Parameter	Specification	Notes
Operating Frequency Range	30 - 400 MHz	
Power Output	3.8 Watt Min	CW
Power Output @ P1dB GCP	1 Watt Min	Reference only
Power Gain	36 dB Min	
Gain Adjustment Range	45 dB Typ	+1.5V = 0dB Attn.
Gain Slope	8dB / V	+5V = 45dB Attn.
Power Gain Flatness	3.0 dB p-p Max	Constant input power
Input / Output Return Loss	10 dB Min	Relative to 50 Ohm
2-Tone Intermodulation (IMD)	>30 dBc Typ	26dBm/Tone, Δ = 1MHz
Harmonics	<-13 dBc	At rated Pout
Non Harmonics Spurious	<-60 dBc	
Operating Voltage	28 VDC Nom	
Current Consumption	2 Amp Max	At rated Pout
Max Input Power	+10 dBm	Without damage
Load VSWR Protection	∞ : 1	

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Case Temperature	-40 to +85 °C	
Storage Temperature	-40 to +125 °C	
Relative Humidity	5 to 95 %	Non Condensation

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	54 X 26 X 12.5 mm	Excluding Connectors
Weight	100 gr.	
RF Connectors In/Out	Solder-in Type Feed Thru	
DC Power / Interface Connector	Solder-in Type Feed Thru / GND Feed Thru	
Cooling	External Heatsink	Forced air required

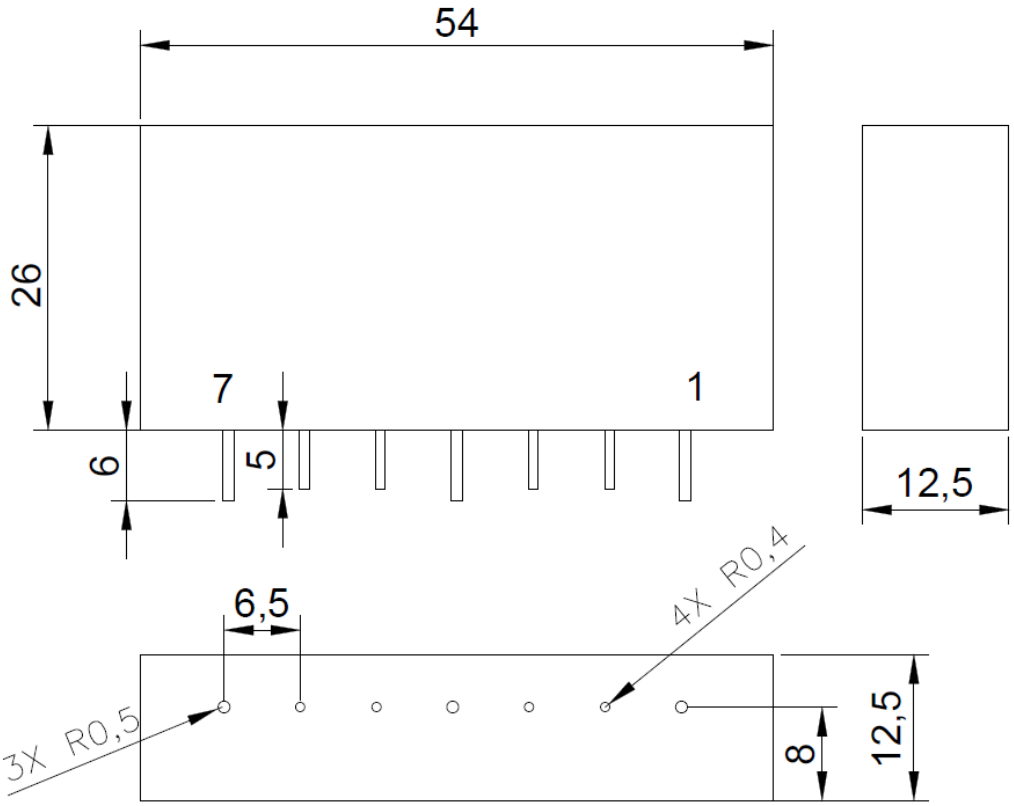
D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	GND	GROUND
2	RF INPUT	RF INPUT
3	VVA	1.5V->0dB / 5V->45dB Typ.
4	GND	GROUND
5	VDD	28VDC
6	RF OUTPUT	RF OUTPUT
7	GND	GROUND

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OUTLINE DRAWING



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