HD31876
SOLID STATE HIGH POWER AMPLIFIER

Communications Corp.

FEATURES

Class AB linear GaN design
Instantaneous bandwidth
Suitable for all single channel modulation standards
Built-in protection circuits
High reliability and ruggedness



ELECTRICAL SPECIFICATIONS

Parameter	Specification	Notes
Operating Frequency Range	1210 - 1610 MHz	
Power Output Psat	5 Watt Typ	CW
Power Gain	37 dB Min	
Power Gain Flatness	2.0 dB p-p Max	Constant input power
Input Return Loss	10 dB Min	Relative to 50 Ohm
2-Tone Intermodulation (IMD)	-30 dBc Typ	27dBm/Tone, Δ = 1MHz
Harmonics 2nd / 3rd	-30 dBc Max	At Rated Pout
Spurious	-60 dBc Max	Non-harmonics
Operating Voltage	28 VDC Nom	
Current Consumption	1.0 Amp Max	At rated output
Max Input Power Protection	+8 dBm	<10 Sec without damage
Load VSWR Protection	∞ : 1	< 1 minute at rated Pout

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Case Temperature	-20 to +75 °C	
Storage Temperature	-40 to +85 °C	
Relative Humidity	5 to 95 %	Non-condensation

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	150 x 65 x 27 mm	Excluding connectors
Weight	-	
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	N/C
2	REV	N/C
3	CURRENT SENSOR	I_D@20mV/100mA Typ
4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
5	SHUTDOWN	TTL
6, 7	VDD	28VDC
8, 9	GND	Ground

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