HD Communications Corp.

HD31883
SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Class AB linear LDMOS design
Designed for P-Band high power pulse applications
Built-in monitoring and protection circuits
High reliability and ruggedness

ELECTRICAL SPECIFICATIONS: Relative to 50 Ohm

Parameter	Specification			Notes
Power Output	4000 Watt Min			Pulse
Operating Frequency Range	915 MHz Min			
Input Pulse Characteristics	Pulse Width	Duty Cycle	PRF	
	100nS Min	10% Max		
Power Gain	66 dB Min			
Input Return Loss	10 dB Min			Relative to 50 Ohm
Harmonics	>30 dBc			At rated Pout
Non Harmonics Spurious	>60 dBc			
Operating Voltage	50 VDC			
Current Consumption - Average	6 Amp			At rated Pout
Current Consumption - Peak	200 Amp			
Max Input Power	+8 dBm			Without damage
Load VSWR Protection	∞ : 1 Min			
Turn On / Off Speed	5 µSec Max			

ENVIRONMENTAL CHARACTERISTICS

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

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions (in mm)	350x280x32 mm	Excluding Connectors
Weight	TBD	Typical Weight
RF Connectors In/Out	SMA-F / Type-N	
DC Power / Interface Connector	7-Pin Hybrid D-Sub	
Cooling	External Heatsink	Forced air required

D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	FWD	N/A
2	REV	N/A
3	CURRENT SENSOR	I_D @ 50mV/100mA Typ
4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
5	SHUTDOWN	TTL
A1	VDD	50VDC
A2	GND	Ground

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