HD Communications Corp.

HD30979
SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Class AB linear LDMOS design
Suitable for S-Band long Pulse applications
Built-in monitoring and protection circuits
Hermetically sealed, high reliability and ruggedness

ELECTRICAL SPECIFICATIONS

Parameter	Specification			Notes	
Operating Frequency Range	2.7 - 2.9 GHz				
Peak Output Power	1300 Watt Min				
Pulse Characteristics	**Width(tp)**	**Duty(δ)**	**PRF**	**Droop**	
	1 - 200 µS	10 % Max	-	1 dB Max	
Power Gain	50 dB Nom				
Rise / Fall Time	100 nS Max @ Psat				
Switching Delay Time (Td)	300 nS Typical				
Pulse to Pulse Stability	0.0063 dB / 0.032° Max				
Power Gain Flatness	1.0 dB p-p Max				
Input Return Loss	10 dB Min			Relative to 50 Ohm	
Harmonics	<-40 dBc Typ			At rated Pout	
Spurious	-60 dBc Max			Non-harmonics	
Operating Voltage	50 VDC Nom				
Current Consumption	9.5 Amp Ave / 95 Amp Peak Max			δ = 10%	
Nominal Input Power	12 dBm Nom				
Load VSWR	5 : 1 Min				

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Case Temperature	0 to +60 °C	
Storage Temperature	-40 to +85 °C	
Relative Humidity	95 % Max	Non Condensing

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	300 x 220 x 43 mm	Excluding Connectors
Weight	TBD	Max Weight
RF Connectors In/Out	SMA female / Type-N female	
DC Power / Interface Connector	7-Pin Hybrid D-Sub	
Cooling	External Heatsink	Forced air required

FEED-THRU PIN ASSIGNMENT

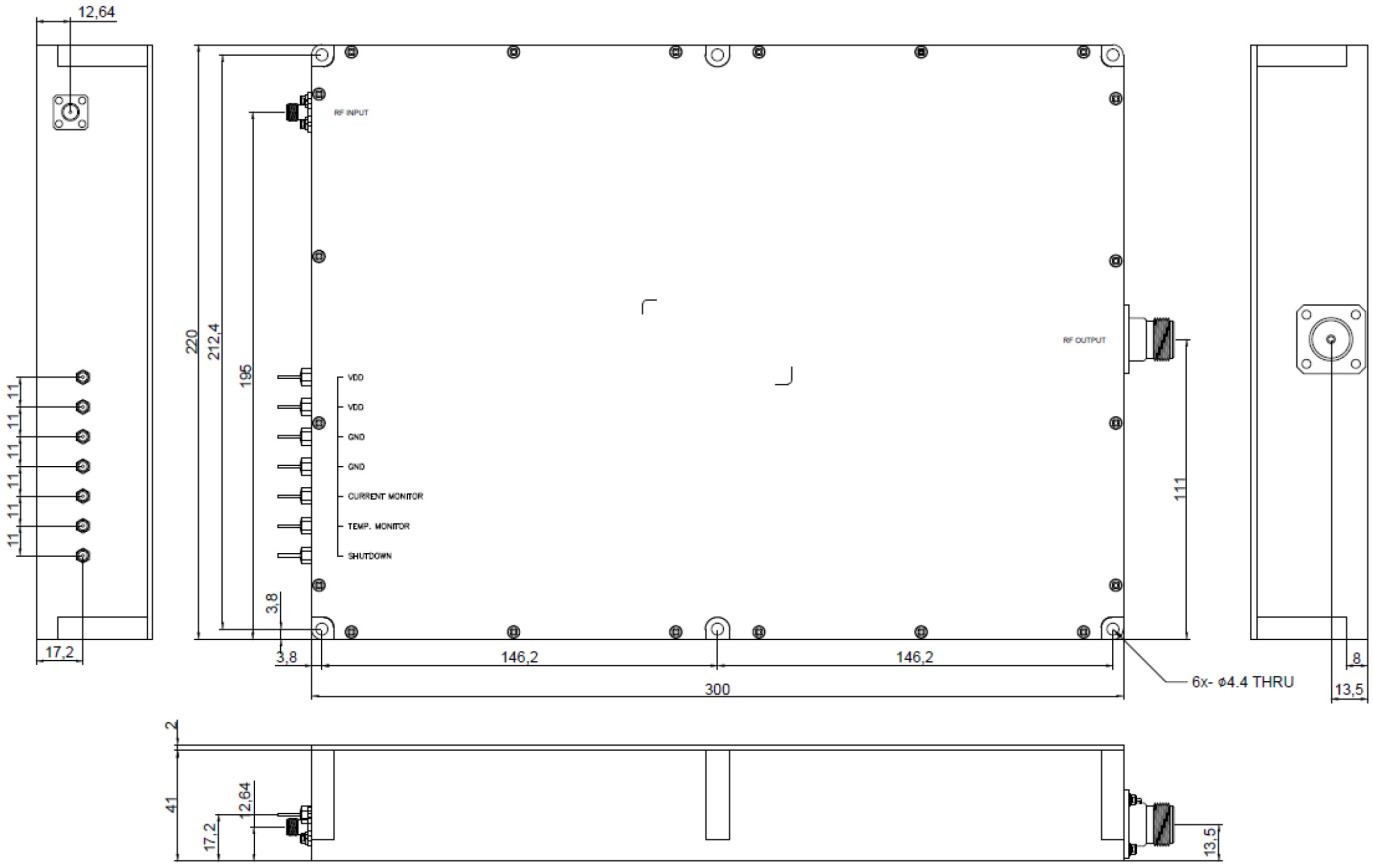
Pin #	Function	Description
1	VDD	+50VDC
2	VDD	+50VDC
3	GND	Ground
4	GND	Ground
5	CURRENT SENSOR	I_D@20mV/100mA Typ
6	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
7	SHUTDOWN	TTL "Hi" = Disable Function @ 50mS (**Option**: 5uS Trigger/Pulse Modulator)

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OUTLINE DRAWING



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