HD31966
SOLID STATE HIGH POWER PULSE AMPLIFIER

FEATURES

Class AB linear GaN design
Suitable for high power P-Band pulse applications
Built in fast pulse modulator
Built-in monitoring and protection circuits
High reliability and ruggedness



ELECTRICAL SPECIFICATIONS : 50Ω, 25°C

Parameter	Specification			Notes	
Operating Frequency Range	400 - 1000 MHz				
Power Output @ Pulse	2000 Watt Min			Peak Pulse	
Pulse Characteristics	**Width (tp)**	**Duty (δ)**	**Droop**	**Rise / Fall**	
	1 - 25 µS	1 - 4 %	<0.8 dB[1]	<75 nS Typ	
Switching Delay Time (Td)	200 nS Typ				
Power Gain	63 dB Nom			0dBm or less for rated Pout	
Power Gain Flatness	2.0 dB p-p Max				
Input Return Loss	-12 dB Max				
Harmonics	-20 dBc Typ			At rated Pout	
Spurious	-65 dBc Max			Non-harmonics	
Operating Voltage	50 VDC Nom				
Current Consumption	8 Amp Avg / 180 Amp Peak Max			δ = 4%, tp = 25µS	
Input Power Protection	+5 dBm Max			<10 Sec without damage	
Load VSWR Protection	5 : 1 Max2			<1 minute at rated Pout	

1 Requires 10KuF Ext. Cap
2 Modules could be damaged due to excessive VSWR beyond 1 minute

ENVIRONMENTAL CHARACTERISTICS

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

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	365 x 250 x 43 mm	Excluding connectors
Weight	6.5 Kg.	
RF Connectors In/Out	SMA Female / Type-N Female	
DC Power / Interface Connector	7-Pin Hybrid D-Sub	7W2
Cooling	External Heatsink	Forced air required

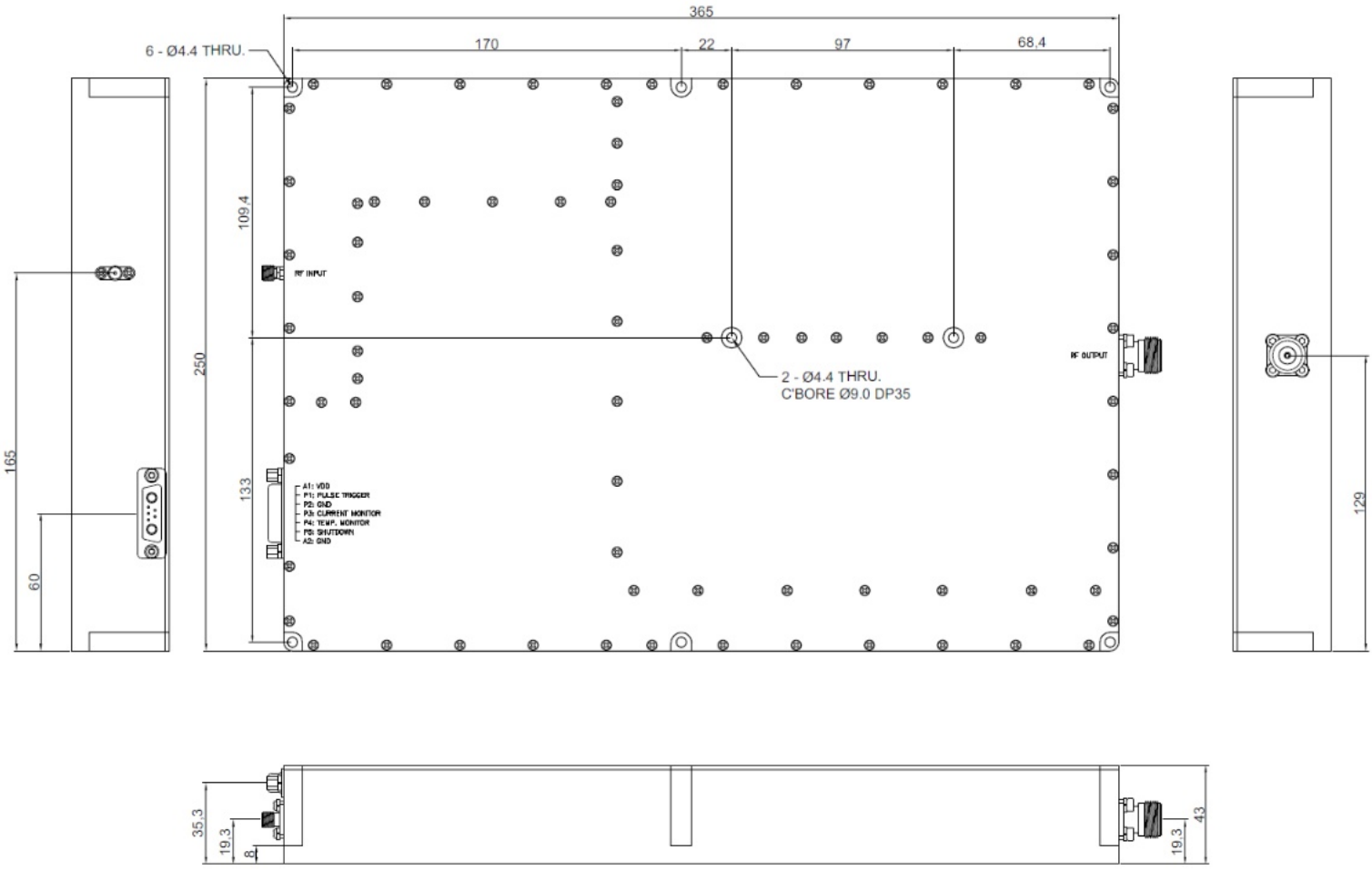
D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
P1	PULSE TRIGGER	Enable = TTL "High" - Disable = Open or TTL "Low"
P2	GND	Ground
P3	CURRENT SENSOR	I_D @ 20mV/100mA Typ
P4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
P5	SHUTDOWN	Enable = TTL "High" - Disable = Open or TTL "Low"
A1	VDD	+50VDC
A2	GND	Ground

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Specifications subject to change without notice. Specifications and drawings may vary with selected options.

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OUTLINE DRAWING



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