HD33905
SOLID STATE HIGH POWER PULSE AMPLIFIER

FEATURES

Class AB linear GaN design
Suitable for narrow S-Band high power pulse applications
Built-in monitoring and protection circuits
High reliability and ruggedness
Gating function to quiet the SSPA between pulses
Built-in isolator



ELECTRICAL SPECIFICATIONS : 50Ω, 25°C

Parameter	Specification			Notes	
Operating Frequency Range	3.6 GHz				
Power Output @ Pulse	1300 Watt Typ				
Pulse Characteristics	**Width (tp)**	**Duty (δ)**	**Droop**	**Rise / Fall** [1]	
	5 µS	1 %	<0.5 dB	75 nS Typ	
Power Gain	62 dB Nom				
Input / Output Return Loss	-10 dB Max			Relative to 50 Ohm	
Harmonics	-40 dBc Typ			At rated Pout	
Spurious	-60 dBc Max			Non-harmonics	
Operating Voltage	50 VDC Nom			Requires 10KuF Ext. Cap	
Current Consumption	2 Amp Avg Typ			δ = 1%, tp = 5µS	
Input Power Protection	+5 dBm Max			<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	95 % Max	Non-condensing

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	14.37 x 9.84 x 1.69in (365 x 250 x 43mm)	
Weight	14.3 lb. (6.5Kg.)	
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

Notes:
1. Measured between 10% and 90% at nominal output

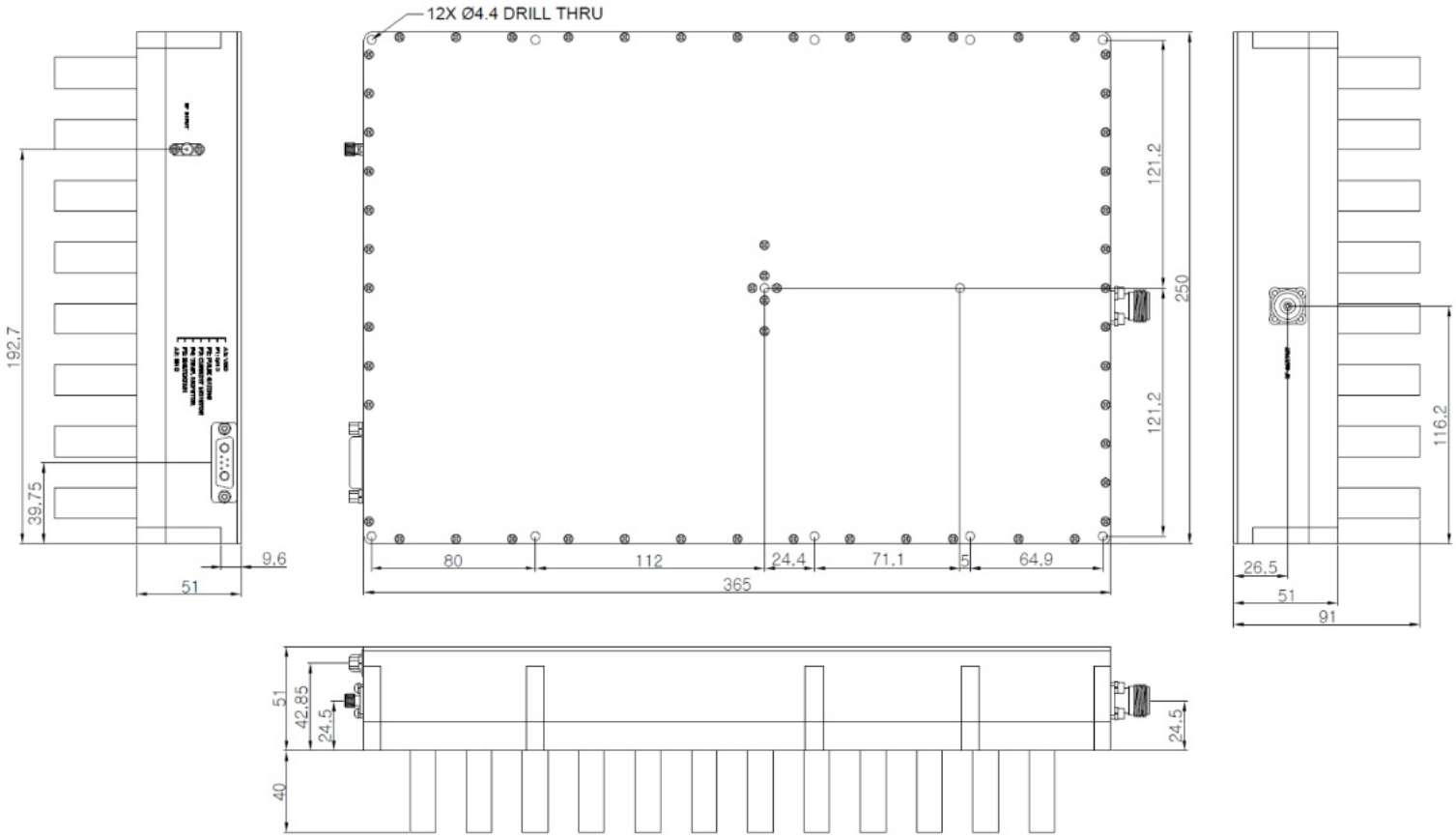
D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
P1	GND	Ground
P2	PULSE TRIGGER	Enable = TTL "High" - Disable = Open or TTL "Low" @ 2µS delay
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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