HD35111
SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Class AB linear design
Suitable for high power C-Band pulse applications
Built-in monitoring and protection circuits
High reliability and ruggedness
Optional built in fast pulse modulator.



ELECTRICAL SPECIFICATIONS : 50Ω, 25°C

Parameter	Specification			Notes
Operating Frequency Range	4.0 - 8.0 GHz			
Output Power @ Pulse	600 Watt Min			Peak pulse
Pulse Characteristics	**Width**	**Duty**	**Droop**	
	up to 100µS	up to 10 %	<1.0 dB	Max rating
Rise / Fall time	<75 nS Typ			Nom Peak Power (10 - 90% of Pout)
Switching Delay Time (Td)	200 nS Typ			
Power Gain	58dB Min			
Power Gain Flatness	3.0 dB p-p Max			
Input / Output Return Loss	-10 dB Max			
Harmonics	-20 dBc Typ			At rated Pout
Spurious	-60 dBc Max			Non-harmonics
Operating Voltage	38 VDC			
Current Consumption[1]	130 Amp Peak / 13 Amp Avg Max			100µS, 10%, @ rated Pout
Input Power Protection	+5 dBm Max			<10 Sec without damage
Load VSWR Protection	4.0 : 1 Max[1]			At rated Pout
Pulse Trigger / Modulator speed	1 µS Max			

1 Proper pulse, thermal, duty, VSWR parameters must be followed for reliable operation.

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
Altitude	3000 meters	
Shock & Vibration	Normal transport[2]	

2 MIL Spec available for quotation

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions L x W x H	310 x 230 x 32 mm	Excluding connectors
Weight	5.5 Kg. Typ	
RF Connectors In/Out	SMA female / Type-N female	
DC Power / Interface Connector	7-Pin Hybrid D-Sub	
Cooling	External Heatsink	Forced air required

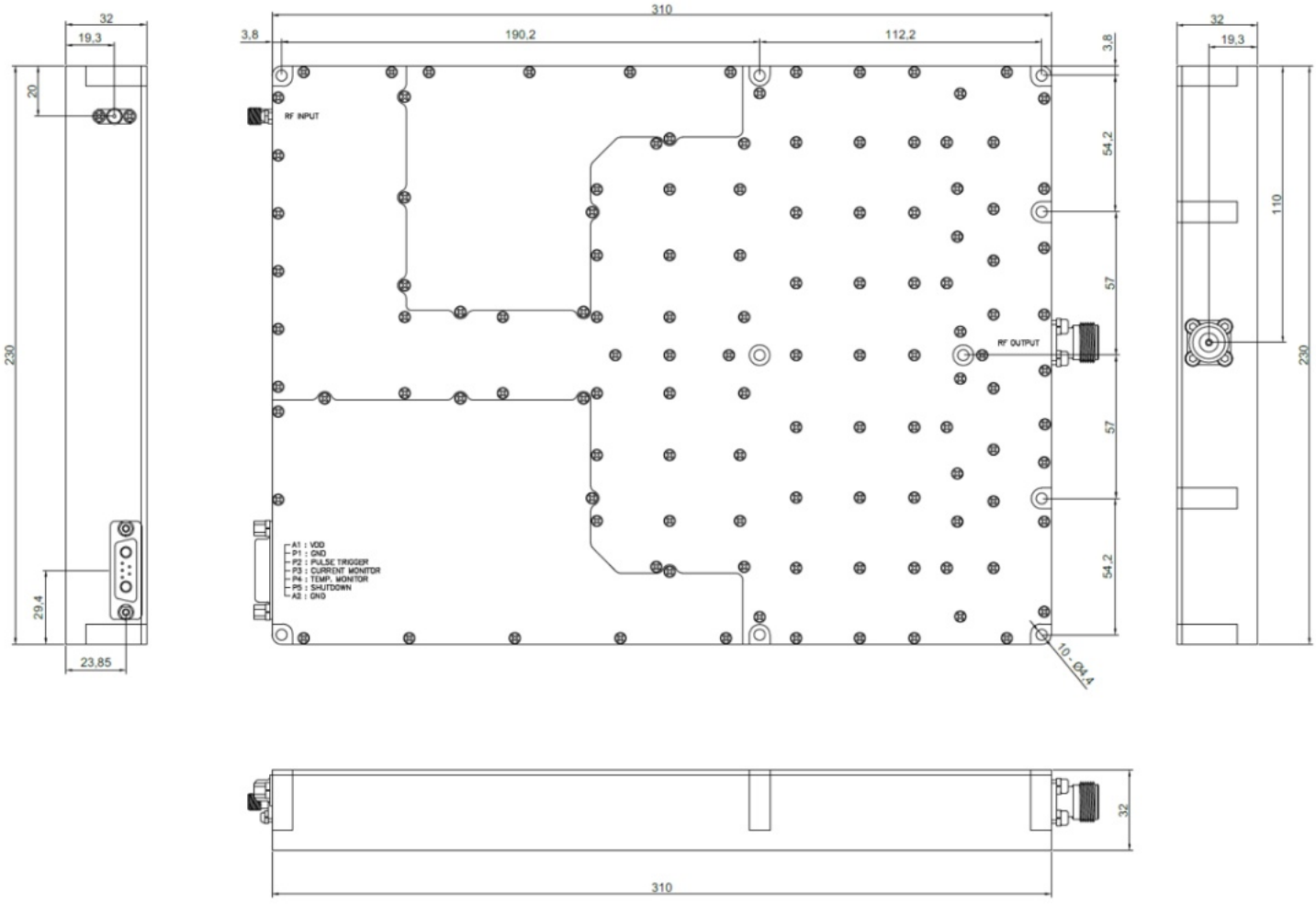
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D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	GND	Ground
2	PULSE TRIGGER	Pulse Enable = TTL "High"(<3.2V); Pulse Disable = Open or TTL "Low" (0V)
3	CURRENT MONITOR: I_D @ 80mV/100mA	i.e. 72mV @ Idq = 0.921A
4	TEMP. MONITOR: 10mV/°C + 500mV	i.e. 0.802V@ Room temp = 30.2°C
5	SHUTDOWN	Enable = TTL "High" (<3.2V)"; Disable = TTL "Low(0V)" or Open
A1	VDD	+36-38VDC
A2	GND	Ground

OUTLINE DRAWING



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