HD32308
SOLID STATE HIGH POWER PULSE AMPLIFIER

FEATURES
Class AB GaN Devices
Designed for high power X-Band Pulse applications
Built-in protection circuits
High reliability and ruggedness



ELECTRICAL SPECIFICATIONS @ 50Ω, 25°C

Parameter	Specification			Notes	
Operating Frequency Range	9.1 - 9.5 GHz			BW = 200 MHz	
Peak Pulse Output @ Psat	200 Watt Min / 250W Typ				
Input Power	5 dBm ±2 dBm			Pulsed RF input	
Power Gain at Peak Power	48 dB Min				
Pulse Characteristics (Max values)	**Width**	**Duty**	**PRF**	**Rise/Fall**	**Droop**
	1 - 150 µS	20 %	100Hz - 20KHz	<75 nS	<0.4 dB
Max Input Power	+10 dBm			No damage	
Power Gain Flatness	0.5 dB p-p Max			Over any 100 MHz	
Input VSWR	1.3 : 1 Min			Relative to 50 Ohm	
Output VSWR	2.0 : 1 Min			Relative to 50 Ohm	
Harmonics	-30 dBc Max @ Psat				
Spurious	-65 dBc Max			Non-harmonics	
Switching Delay Time (Td)	300 nS Typical				
Inter-Pulse Noise Level	-164 dBm Typ / -160 dBm Max			Using pulse gating	
Noise Figure	10 dB Max				
Operating Voltage	30 VDC ± 1.0 V				
Current Consumption	10 Amp Avg. Typ			At 20% Duty-Cycle	
Load VSWR Protection	∞ : 1			Output isolator	

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Note
Operating Case Temperature	-10 to +55 °C	
Storage Temperature	-40 to +70 °C	
Relative Humidity	5 to 95 %	Non-condensation

MECHANICAL SPECIFICATIONS

Parameter	Specifications	Value
Dimensions	310 x 320 x 43 mm	Excluding connectors
Weight	10 Kg. Max	
DC Power / Interface Connector	Hybrid D-Sub	
Input / Output Connectors	SMA-F / Waveguide (WR90)	
Cooling	External Heatsink	Forced air required

OPTIONAL:

1. Status Monitoring & Control: RS422 for IP & OP Monitoring, Voltage & Current Consumption, Load VSWR, Temp

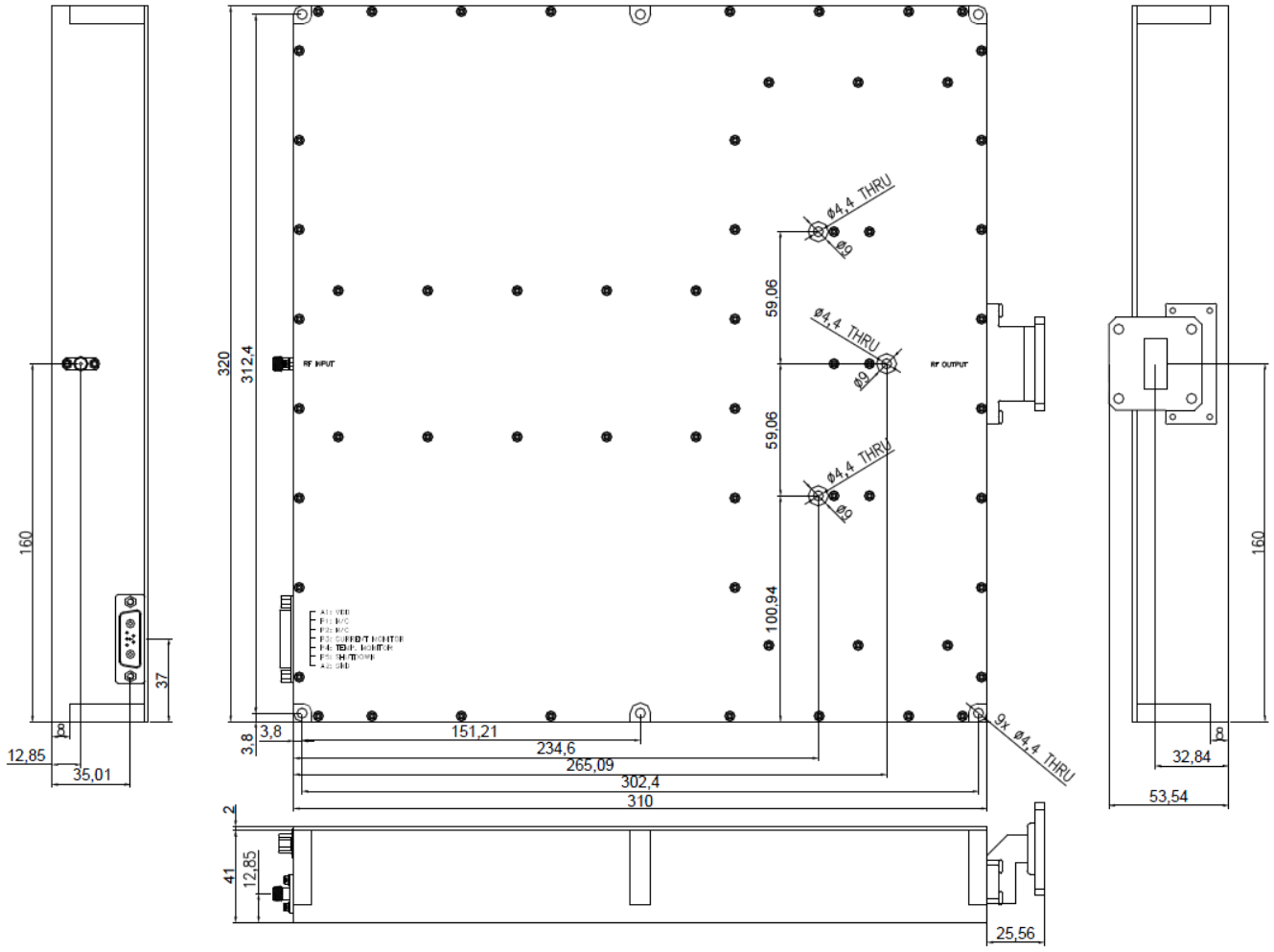
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D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	FWD	Option 101
2	REV	Option 102
3	CURRENT SENSOR	I_D@50mV/100mA Typ
4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
5	SHUTDOWN	TTL "Hi" = Disable Function @ 50mS (**Option**: 5uS Trigger/Pulse Modulator)
A1	VDD	30VDC
A2	GND	Ground

OUTLINE DRAWING (Unit: mm)



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