HD30986
SOLID STATE HIGH POWER PULSE AMPLIFIER

FEATURES

Class AB linear GaN design
Designed for Satcom and C-Band high peak power pulse applications
Small form factor & light weight
Built-in protection circuits
High reliability and ruggedness



ELECTRICAL SPECIFICATIONS : 50Ω, 25°C

Parameter	Specification			Notes	
Operating Frequency Range	5.4 - 5.9 GHz				
Power Output @ Pulse	300 Watt Min			Peak Pulse	
Input Pulse Characteristics	**Width (tp)**	**Duty (δ)**	**Droop**	**Rise / Fall**	
	150 µS	10 %	<1.0 dB	<100 nS Max	
Power Gain	55 dB Min				
Power Gain Flatness	2.0 dB p-p Max			Constant input power	
Input / Output Return Loss	-10 dB Max				
Harmonics	<-20 dBc Typ			At rated Pout	
Spurious	-60 dBc Max			Non-harmonics	
Operating Voltage	50 VDC Nom				
Current Consumption	6 Amp Avg / 24 Amp Peak Max			δ = 10%, tp = 150µS	
Input Power Protection	+8 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	up to 95 %	Non-condensing
Altitude	3000 meters	
Shock & Vibration	Normal transport[1]	

1 MIL Spec available for quotation

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	250 x 130 x 42 mm	Excluding connectors
Weight	-	
RF Connectors In/Out	SMA-F / SMA-F	
DC Power / Interface Connector	7-Pin Hybrid D-Sub	7W2
Cooling	External Heatsink	Forced air required

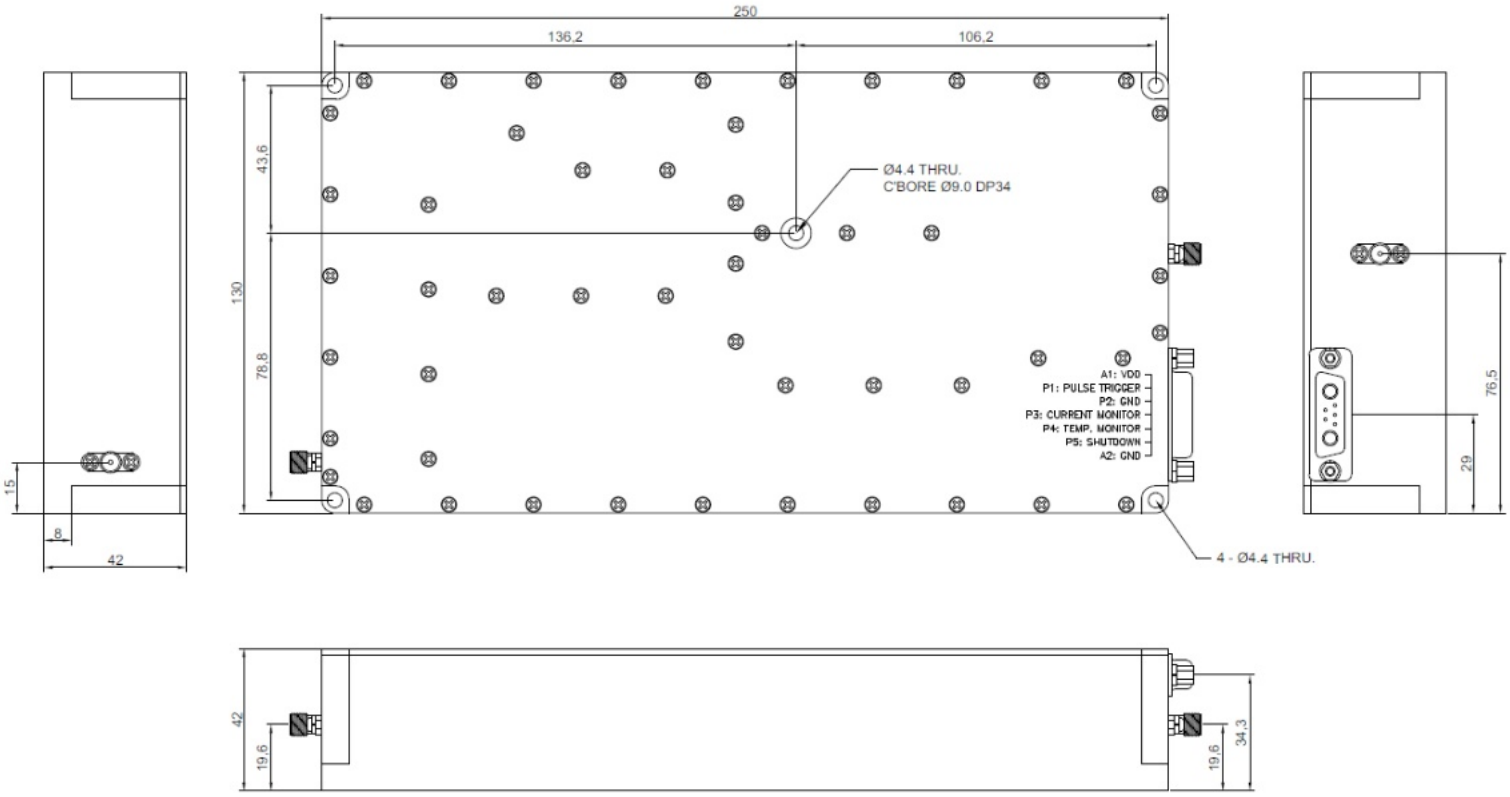
D-SUB CONNECTOR PIN ASSIGNMENT

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

338 Jericho Turnpike, Suite 387, Syosset NY, 11791 (631)-588-3877
www.rfamplifiers.com sales@hdcom.com. www.rfcomp.com
Specifications subject to change without notice. Specifications and drawings may vary with selected options.

HD30986
SOLID STATE HIGH POWER PULSE AMPLIFIER

OUTLINE DRAWING



338 Jericho Turnpike, Suite 387, Syosset NY, 11791 (631)-588-3877
www.rfamplifiers.com sales@hdcom.com. www.rfcomp.com

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