HD30975
SOLID STATE HIGH POWER PULSE AMPLIFIER

FEATURES

Ruggedized, compact Class AB high power pulse SSPA designed for high reliability IFF applications such as Secondary Surveillance Radar (SSR) applications, IFF Modes 1, 2, 3/A and Mode C. Standard features include forward power indicator, protection against over-temperature, excess VSWR, excess modulation (pulse width and duty cycle). An internal capacitive bank provides low output droop over extended pulse widths. Input pulse modulation is accomplished through TTL compatible level signals.



ELECTRICAL SPECIFICATIONS

Parameter	Specification	Notes
Operating Frequency	1030 or 1090 MHz ±0.1 MHz	
Power Output	600 Watt Min	Peak Pulse
Duty Cycle (δ)	4 % Max	
Pulse Width (tp)	32 µS Max	
Pulse Rise	50 - 100 nS	
Pulse Fall Time	50 - 200 nS	
Pulse Droop	1 dB Max	32 µS pulse width
Modulation	PCM	
Class of Operation	AB/C	LDMOS transistors design
Power Gain	58 dB ± 2.0dB	
Input Return Loss	-14 dB Min	Relative to 50 Ohm
Operating Voltage	46 VDC Nom	
Current Consumption	1.5A Amp Avg, 25 Amp Peak Typ	600 W Peak @ 4% δ
Harmonics	>50 dBc	
Load VSWR Protection	∞ : 1	

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Note
Operating Case Temperature	-20 to +65 °C	
Storage Temperature	-40 to +85 °C	
Relative Humidity	5 to 95 %	Non Condensation

MECHANICAL SPECIFICATIONS

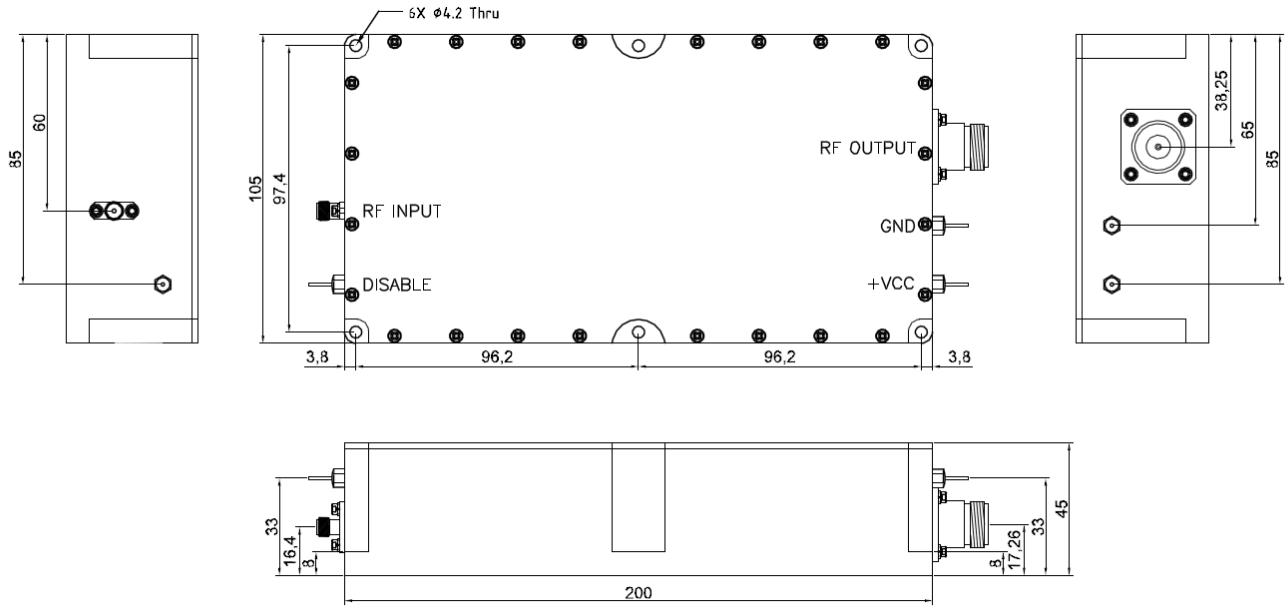
Parameter	Specification	Notes
Dimensions	200 x 105 x 45 mm	Excluding Heatsink
Weight	TBD	
RF Connectors In/Out	SMA female / Type N female	
DC Power / Interface Connector	Feed Thru	
Cooling	External Heatsink	Forced air required @ 2% DS

TTL “Hi” = Disable Function @ 50mS (**Option**: 5uS Trigger/Pulse Modulator)

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OUTLINE DRAWING



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