HD30971
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. Spectrum meets ICAO specifications.

Standard features include PPM modulation, pulse shaping circuits, sample ports (forward power), 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		999 MHz ± 2 MHz			
Power Output		63 dBm ± 0.5 dBm			Peak Pulse
Power Gain		63 dB ± 2.0dB			
Duty Cycle		1% Nom			
Pulse Width		30 µS Max			
Pulse Repetition Rate		5-20 Hz			
Pulse Rise / Fall Time		100 nS Max			
Pulse Droop		< 1dB			30 µS pulse width
Phase Noise	Offset	10 Hz	250 Hz	1 KHz	
	Level	-85 dBc	-100 dBc	-125 dBc	
Pulse to Pulse Amplitude stability		0.1 dB			
Pulse Jitter		2 nS Max			
Input Return Loss		-14 dB			Relative to 50 Ohm
Operating Voltage		46 VDC			
Current Consumption		2.5 Amp Max			2 KW Peak @ 1% DS
Harmonics		30 dBc Typ			
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

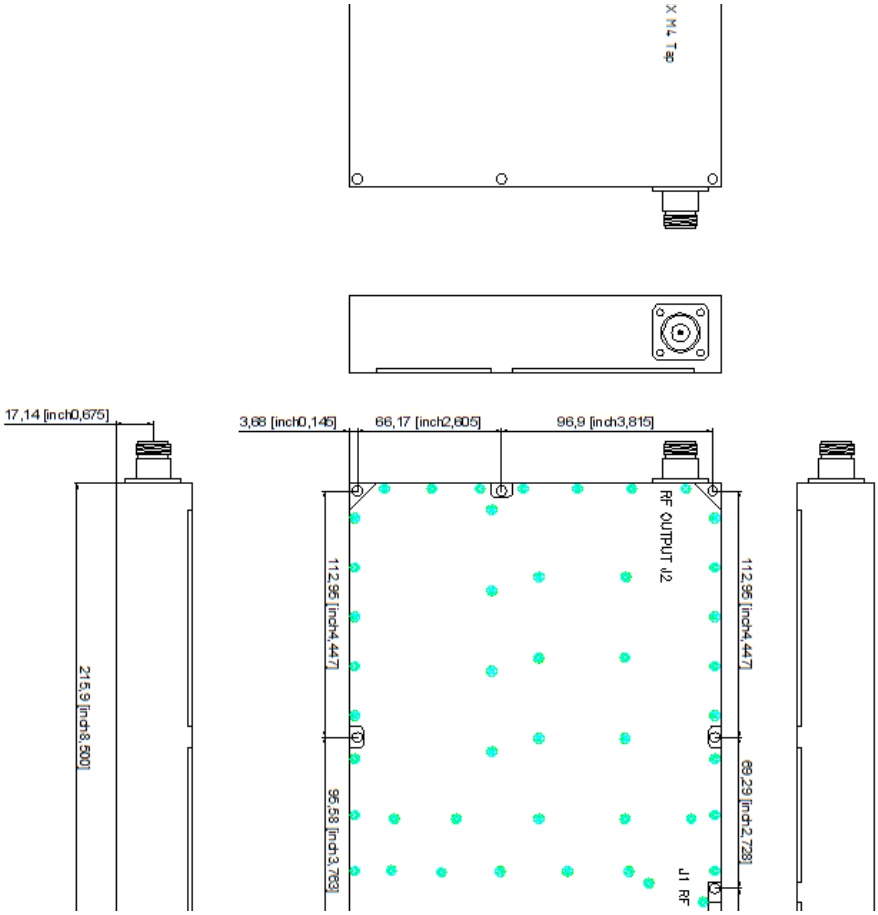
Parameter	Specification	Notes
Dimensions	8.5 x 6.7 x 1.39Inch	Excluding Heatsink
Dimensions	8.6 x 6.7 x 3.0 Inch	Including Heatsink
Weight	4 lb. (1.8 Kg) or 8 lb. (3.6Kg)	Without/ With Heatsink
RF Connectors In/Out	SMA female / Type N female	
DC Power / Interface Connector	Miniature D-Sub	
Cooling	External 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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