

AMP5016P 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 overtemperature, 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 | | 66 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 | | 3.5 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

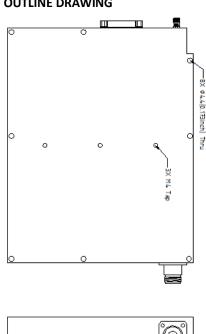
| Parameter | Specification | Notes |
|--------------------------------|---------------------------------|-----------------------------|
| Dimensions | 8.5 x 6.7 x 1.39Inch | Excluding Heatsink |
| Dimensions | 8.6 x 6.7 x 3.0 Inch | Including Heatsink |
| Weight | 4 lb. (1.8 Kg) or 8 lb. (3.6Kg) | Without/ 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 |

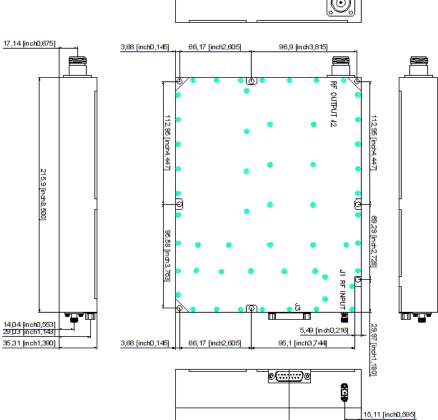
TTL "Hi" = Disable Function @ 50mS (**Option**: 5uS Trigger/Pulse Modulator)



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OUTLINE DRAWING





170,43 [inch6,710]

65,74 [inch2,588]