L3’s M1300 represents the state of the art in low-noise, compact, high-efficiency, wideband millimeter-wave amplifiers for airborne, shipboard and ground military applications. This Microwave Power Module contains a TWT, SSA, power supply and integral air cooling within a single package for a variety of applications.

**KEY FEATURES**

- 30 GHz to 36 GHz
- 50 W output power
- Integral air cooling

**PERFORMANCE**

- **Frequency**: 30 GHz to 36 GHz
- **RF Output Power**: 50 W min
- **RF Input Power**: 0 dBm max
- **Small Signal Gain**: 52 dB min
- **PRF**: 50 KHz max
- **Pulse Width**: 100 nsec min
- **Duty Cycle**: 0% to 100% CW
- **Noise Power Density**: Beam On -30 dBm/MHz, Beam Off -90 dBm/MHz
- **Intermodulation**: -21 dBc max, 7 dB backoff
- **AM/PM Conversion**: 6 °/dB max
- **Harmonics**: -15 dBc max
- **Spurious**: -30 dBc max
- **Spectral Purity**: -30 dBc max

**INTERFACE**

- **Prime Power**: 28 ± 3 VDC, 350 W max
- **Controls**: Beam on/off, battle override, Synchronization
- **Indicators**: Warm-up complete indicator, Operate indicator, Fault indicator

**ENVIRONMENT**

- **Temperature**: -40 °C to +70 °C
- **Cooling**: Integral air cooling
- **Altitude**: 50,000 ft.
- **Humidity**: Up to 95%, non-condensing
- **Shock**: 20 g, 11 ms
- **Acceleration**: 10 g
- **Vibration**: 6 grms, 20 Hz to 2,000 Hz, 80 Hz to 350 Hz: MIL-STD-810, Method 514.4, +3 dB/octave from 20 Hz to 80 Hz, -3 dB/octave from 350 Hz to 2,000 Hz

**MECHANICAL DESCRIPTION**

- **Dimensions**: See outline
- **Weight**: 7.5 lb. max
- **RF Input Connector**: 2.9 mm (K) female
- **RF Output Connector**: WR-28
- **Power/CTRL Connector**: 12-pin circular connector (MS3122E14-12P)
OUTLINE DRAWING

(measurements in inches)

**Side View**

**Top View**

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<th>DC INPUT POWER AND CONTROL CONNECTOR</th>
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