

**CHP-20M1G-4643-S** is a complete solid state microwave power amplifier module that features high efficiency, high output power and wide dynamic range. It is based on advanced microwave device technology and provides long-term reliability and high ruggedness.

**Features:**

- Solid State Linear GaN design
- Reverse polarity protection
- Over temperature protection
- With stands full reflected power

**Electrical Specifications:**

- Frequency: 20-1000 MHz
- Power Gain: 46 dB Min
- Gain Flatness: ±1.5 dB Max
- Power Output: +43 dBm Min
- Harmonics: -15 dBc Min
- Non Harmonics Spurious: -80 dBc Min
- Input Power: +15 dBm Max
- Input Return Loss: 10 dB Min
- Output Return Loss: 10 dB Typ
- DC Voltage: +24 to +28 V Typ
- DC Supply Current: 3 A Typ
- Switching Time: 1mS Typ

**Environmental Ratings:**


- Temperature: -10°C to +70 °C Operating  
-40 °C to +90 °C Non-Operating
- Vibration: MIL-STD-202F, Method 204D Cond. B
- Altitude: MIL-STD-202F, Method 105C Cond. B
- Temperature Cycle: MIL-STD-202F, Method 107D Cond. A

**Mechanical Specifications:**

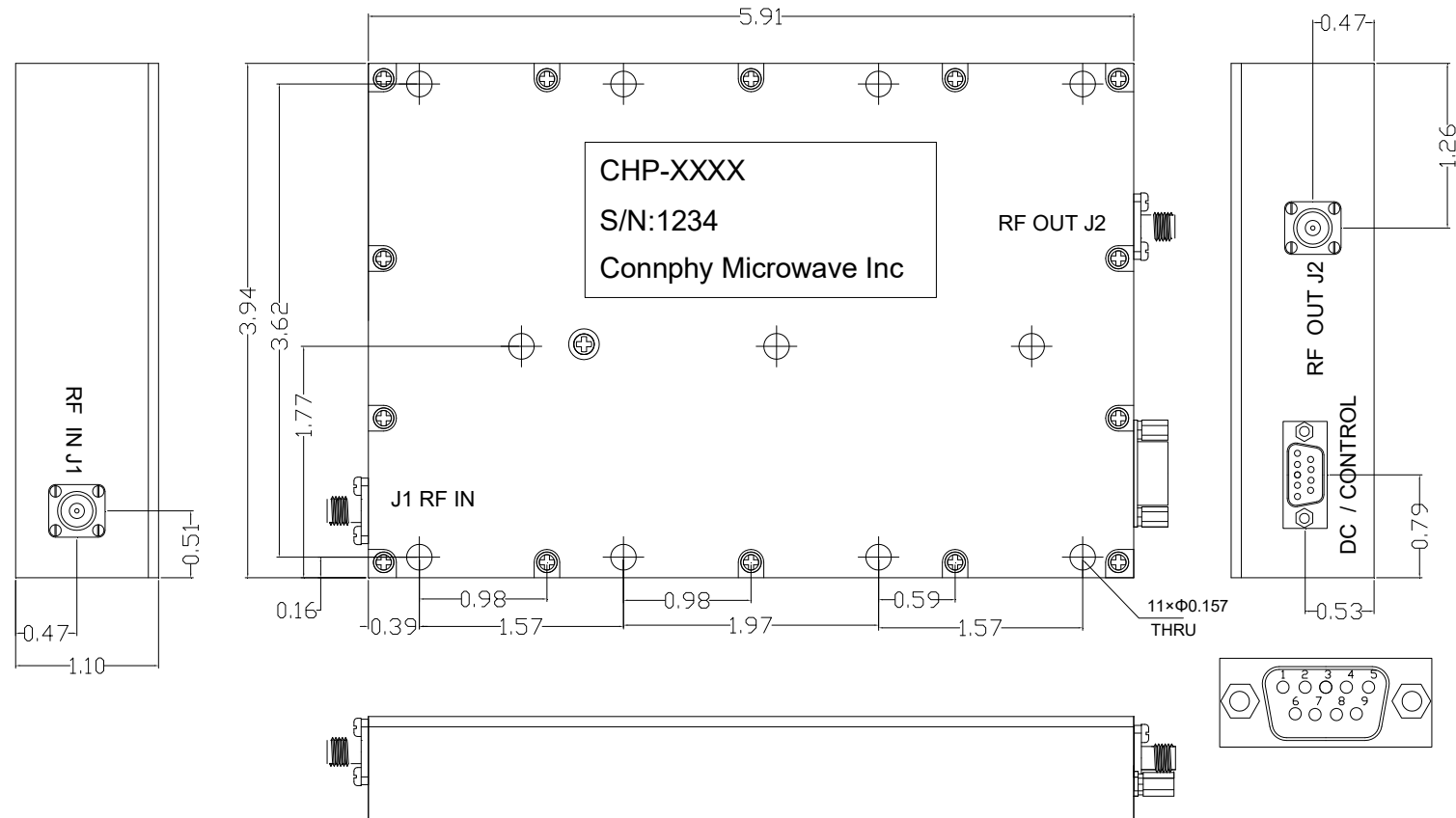
| Parameter            | Specification            |
|----------------------|--------------------------|
| Dimensions WxHxD     | 5.91 × 3.94 × 1.10Inches |
| RF Connectors In/Out | SMA-F                    |
| DC Connector         | 9 Pin D-Sub              |
| Cooling              | External Heatsink        |

**DC Connector PIN Assignment:**

| Pin | Description    | Specification               |
|-----|----------------|-----------------------------|
| 1-4 | NC             |                             |
| 5   | Remote Control | TTL Low=Enable:High=Disable |
| 6,7 | +V             | +28V                        |
| 8,9 | GND            | GND                         |
|     |                |                             |

| SOLID STATE HIGH POWER AMPLIFIER<br>CHP-20M1G-4643-S |                   |                      |   |
|--|-------------------|----------------------|---|
| DRAWN:   | DWG NO.:          | REV CODE:<br>Rev.1.0 | <br><a href="http://www.connphy.com">www.connphy.com</a><br><a href="mailto:sales@connphy.com">sales@connphy.com</a> |
| CHECKRD:   | DATE:<br>14/05/15 | SHEET :<br>1 OF 2    |   |
| ISSUED:  | SIZE:<br>A        | SCALE :<br>N / A     | Notes: SPEC ARE SUBJECT TO CHANGE WITHOUT NOTICE.   |

## Mechanical Outline (Inches):



## Environmental Ratings:

|                    |   |
|--------------------|---|
| Temperature:       | -10°C to +70 °C Operating<br>-40 °C to +90 °C Non-Operating |
| Vibration:         | MIL-STD-202F, Method 204D Cond. B                           |
| Altitude:          | MIL-STD-202F, Method 105C Cond. B                           |
| Temperature Cycle: | MIL-STD-202F, Method 107D Cond. A                           |

## SOLID STATE HIGH POWER AMPLIFIER

CHP-20M1G-4643-S

|          |                   |                      |
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