

**CHP-20M520M-5050-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:**

- 20-520 MHz ultra-broadband
- Psat: 100W Typ
- Over temperature protection
- Built-in protection circuits

**Electrical Specifications:**

- Frequency: 20-520 MHz
- Power Gain: 50 dB Min
- Gain Flatness: ±1.5 dB Typ
- Power Output: +50 dBm Typ, +49.5 dBm Min
- Harmonics: -13 dBc Typ
- 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: +28 V Typ
- DC Supply Current: 9.0 A Typ
- Over Temp Protection: OFF @ 70C case temp, Autoreset @ 60C

**Environmental Ratings:**


- Temperature: -10°C to +60 °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:**

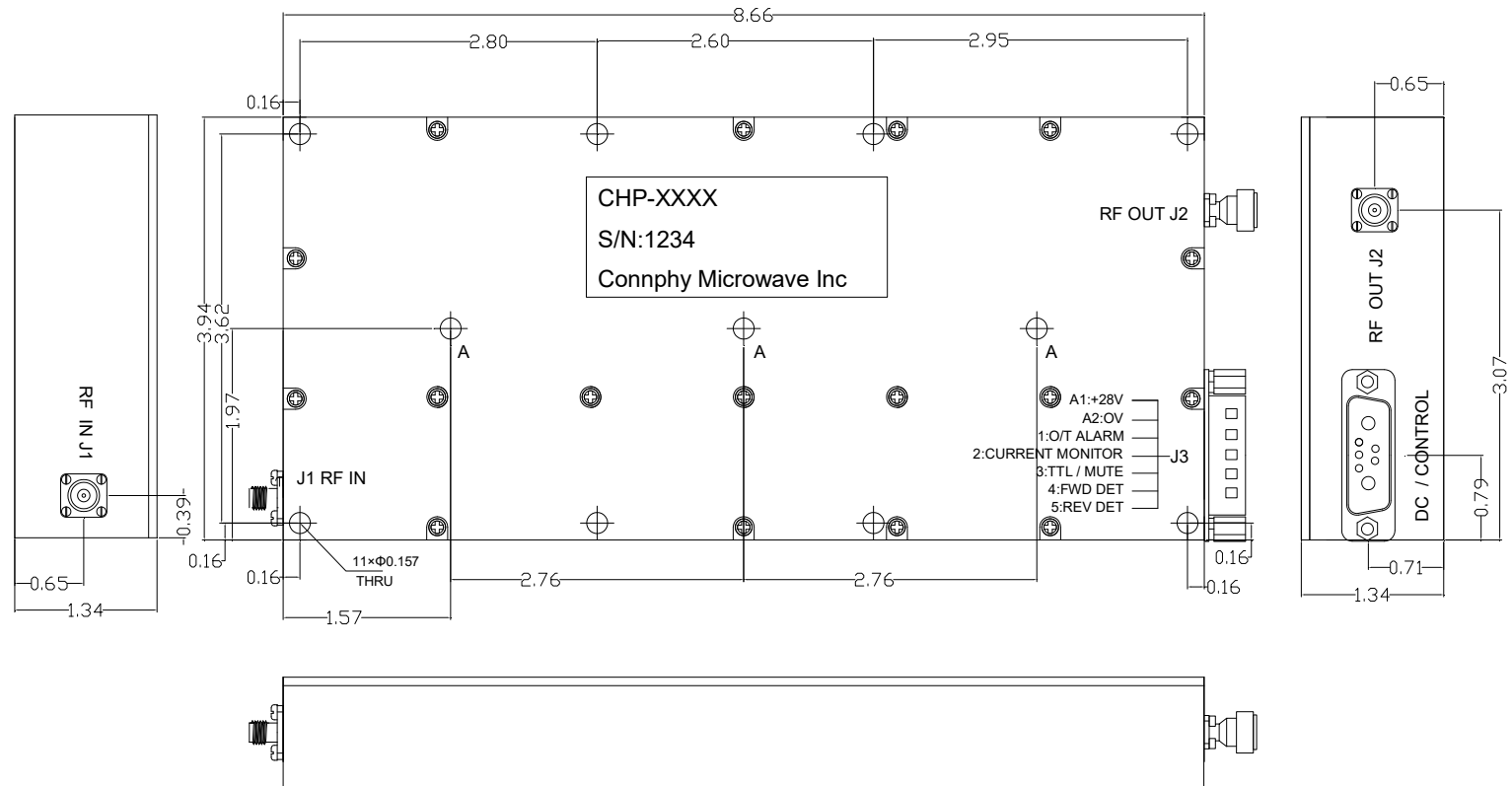
Parameter	Specification
Dimensions WxHxD	8.66 ×3.94×1.34Inches
RF Connectors In/Out	SMA-F
DC Connector	7W2 D-SUB
Cooling	External Heatsink

**DC Connector PIN Assignment:**

Pin	Description	Specification
A1	GND	GND
A2	+28 V	+28 V
1	Temp Monitor	10mV/C+500mV Typ@50C
2	CURRENT MONITOR	25mV/100mA nom
3	SHUTDOWN(TTL)	TTL Low=Enable:High=Disable
4	NC	NC
5	Reverse Power	TTL "High" = Alarm

SOLID STATE HIGH POWER AMPLIFIER CHP-20M520M-5050-S			
DRAWN:	DWG NO.:	REV CODE: Rev.1.0	 <a href="http://www.connphy.com">www.connphy.com</a> <a href="mailto:sales@connphy.com">sales@connphy.com</a>
CHECKRD:	DATE: 14/05/15	SHEET : 1 OF 2	
ISSUED:	SIZE: A	SCALE : N / A	Notes: SPEC ARE SUBJECT TO CHANGE WITHOUT NOTICE.

## Mechanical Outline (Inches):



## Environmental

Temperature:	-10°C to +60 °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

## SOLID STATE HIGH POWER AMPLIFIER

### CHP-20M520M-5050-S

DRAWN:	DWG NO.:	REV CODE: Rev.1.0	 <a href="http://www.connphy.com">www.connphy.com</a> <a href="mailto:sales@connphy.com">sales@connphy.com</a>
CHECKRD:	DATE: 14/05/15	SHEET : 2 OF 2	
ISSUED:	SIZE: A	SCALE : N / A	
			Notes: SPEC ARE SUBJECT TO CHANGE WITHOUT NOTICE.