Stealth Microwave
INCORPORATED

Lead Free
RoHs Compliant

Model SM1920-47LQ

1900-2000MHz
50 Watt Linear Power Amplifier
FOR PCS APPLICATIONS

The **SM1920-47L** is a solid state GaAs amplifier designed for the Personal Communication Systems (PCS) market. This unit operates from 1.9 to 2.3 GHz, provides 55 dB of gain with a ± 0.5 dB flatness, and has a P1dB of +47 dBm. Stealth Microwave's proprietary linearization technique provides an OIP3 of +66 dBm, an improvement of 8 dB. The compact size and ultra high linearity make this amplifier ideally suited for systems using CDMA, TDMA, single-carrier or multi-carrier applications.



Features

- Single Power Supply
- Over Voltage Protection
- Thermal Protection with Auto Reset
- Temperature Compensation

Options

- Forward/Reverse Power Detection
- RF Sampling
- Pulse Control with switching speeds up to 100 kHz
- Logic On/Off Control
- Integral Heatsink

Parameter	Specification
Frequency Range	1.9 - 2.3 GHz (100 MHz bands)
Pout (P1dB)	+ 47 dBm
Third Order Intercept Point	+ 66 dBm
Linear Gain	55 dB ± 1 dB
Gain Flatness over Full Band	± .5 dB
Gain Change over Temperature	± .5 dB
Input/Output Return Loss	-16 dB / -16dB
DC Input Voltage	+ 12 Volts
DC Input Current	15 Amps. (operational)
Mechanical Dimensions Without Heatsink	7.5 x 4.0 x 0.8 Inches 7.5 x 4.0 x 3.3 with Heatsink
RF Connectors	SMA Female
Operating Temperature	0ºC to +55ºC
Operating Humidity	Up to 95% Non-condensing
Operating Altitude	Up to 10,000 feet above Sea Level

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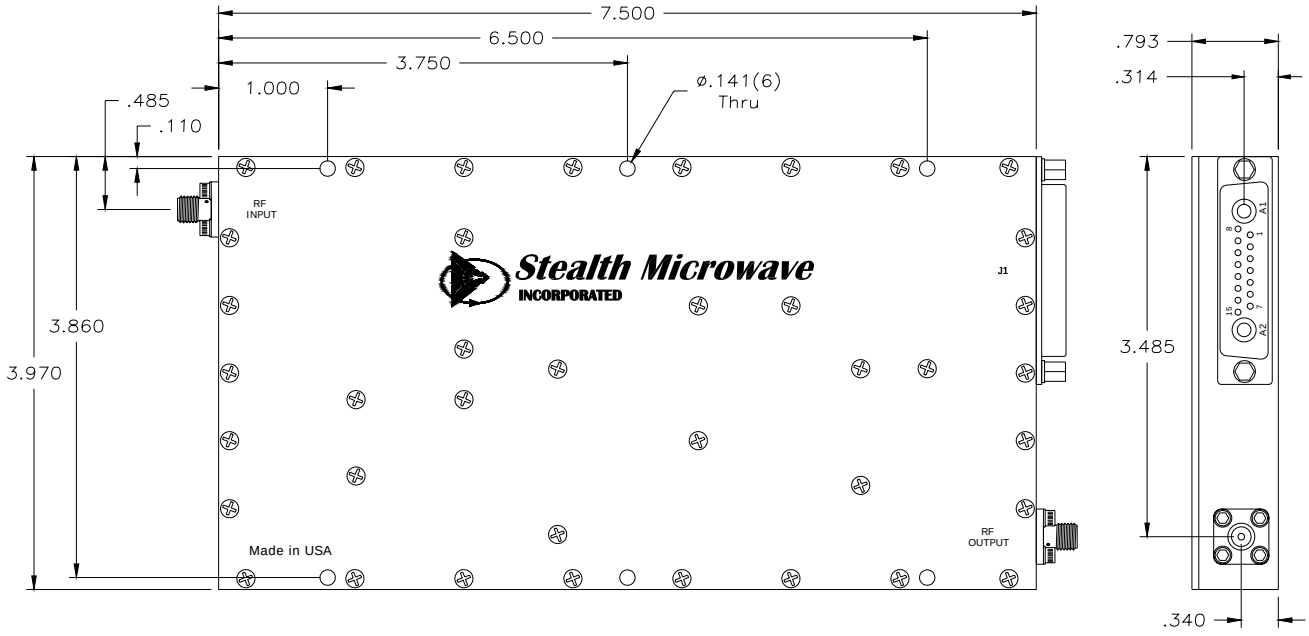
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DIMENSIONS IN INCHES



Pin	Description	Values
RF INPUT	Input Connector (SMA Female)	-8 dBm typical
RF OUTPUT	Output Connector (SMA Female)	+47dBm @P1dB
RF SAMPLE	Sample RF Port (SMA Female)	30 dBr
GND	Ground Turret	---
FWD	Forward Power Detector	+ 41 dBm Output Power ≈ +2.5 Volts (50Ω Load)[1]
REV	Reverse Power Detector	∞ VSWR @ + 41 dBm ≈ + 3.5 Volts[1]
+12VDC	DC Input Voltage	+ 12 Volts @ 15 Amps (operational)
ON/OFF	TTL Logic On/Off	0 Volts = Off, + 5 Volts = On
CNTL	TTL Pulse Control	Rates up to 100 kHz

Specifications subject to change without notice.
[1]*May be set according to customer required values*

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