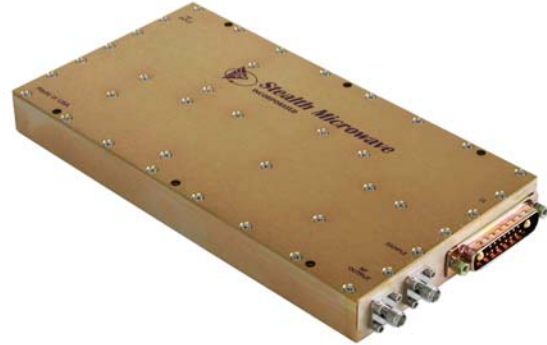


The **SM1920-47L** is a solid state GaAs amplifier designed for the Broadband Wireless Access market. This unit operates from 1.9 to 2.0 GHz, provides 55 dB of gain with a  $\pm 0.5$  dB flatness, and has a P1dB of +47 dBm. A proprietary linearization technique provides an OIP3 of +66 dBm, an improvement of 9 dB.



### Features

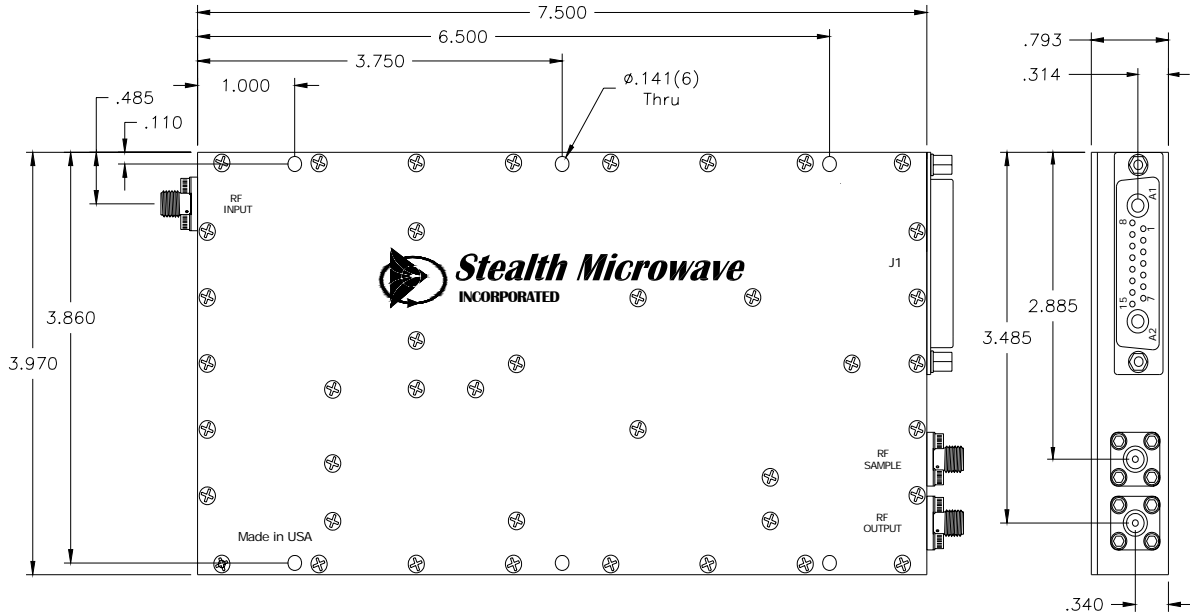
- Single Power Supply
- Over Voltage Protection
- Thermal Protection with Auto Reset
- Temperature Compensation

### Options

- Forward/Reverse Power Detection
- RF Sampling
- Pulse Control for TDD applications with 1us rise/fall time
- Logic On/Off Control
- Integral Heatsink

Parameter	Specification
Frequency Range	1.9 - 2.0 GHz
Pout (P1dB)	+ 47 dBm
Third Order Intercept Point	+ 66 dBm
Linear Gain	55 dB $\pm$ 1 dB
Gain Flatness over Full Band	$\pm .5$ dB
Gain Change over Operating Temperature	$\pm .5$ dB
Input/Output Return Loss	-16 dB / -16dB
DC Input Voltage	+ 12 Volts
DC Input Current	15 Amps. (operational)
Mechanical Dimensions	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 (Baseplate)	0°C to +55°C
Operating Humidity	Up to 95% Non-condensing
Operating Altitude	Up to 10,000 feet above Sea Level

## DIMENSIONS IN INCHES



Pin	Description	Values
RF INPUT	Input Connector ( SMA Female )	-7 dBm max.
RF OUTPUT	Output Connector (SMA Female)	+47dBm @P1dB

## J1 CONNECTOR PINOUT

PIN	FNCT.	COLOR	PIN	FNCT.	COLOR
1	CNTL. (HS)	ORANGE	A1	+12V	PURPLE
2	TTL (On/Off)		A2	GND.	BLACK
3	ADDRESS A1				
4	SCL	WHITE			
5	SDA	PURPLE			
6	REV. DET.	YELLOW			
7	FWD. DET.	GREEN			
8-15	GND.	BLACK			

Specifications subject to change without notice.  
<sup>1</sup>May be set according to customer required values