Stealth Microwave
INCORPORATED

Model SM04548-47L

450-480 MHz
50 Watt Ultra Linear Power Amplifier
FOR BROADBAND WIRELESS ACCESS

The **SM04548-47L** is a 450 to 480 MHz solid state GaAs FET amplifier designed for Broadband Wireless Access or any system utilizing spectrum in the 450 MHz band. The amplifier provides 55 dB of linear gain and +47 dBm of output power at P1dB. Our proprietary linearization technique improves the OIP3 by 7 dB. The design provides ultra-linear performance for rigorous system requirements.

Features

- Mis-Match Protected
- Single Power Supply
- Over Voltage Protection
- Thermal Protection with Auto Reset
- Temperature Compensation
- Integral Output Isolator

Options

- Reverse Power Detection
- RF Sampling
- Pulse Control up to 1µs for TDD with RF Isolation
- Logic On/Off Control
- Integral Heatsink

Configurations

- Module
- 19" Rack

Parameter	Specification
Frequency Range	450 – 480 MHz
Pout (P1dB)	+ 47 dBm (typ.) See p.2 for OFDM output
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/-18 dB
Power Supply	+ 12 Volts @ 14 A 6.7A when switched @85KHz
Mechanical Dimensions (Without Heatsink) (With Heatsink)	 7.5 x 4.0 x .79 inches 7.5 x 5.0 x 3.3 inches
RF Connectors	SMA Female
Operating Temperature	0ºC to +55ºC
Operating Humidity	95% Non-condensing
Operating Altitude	Up to 10,000 feet above Sea Level

1007 Whitehead Road Ext., Trenton, NJ 08638
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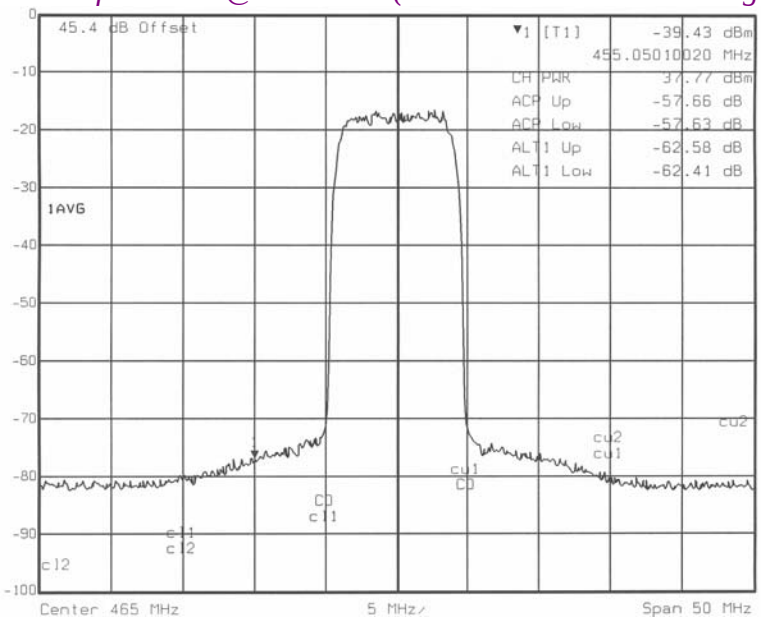
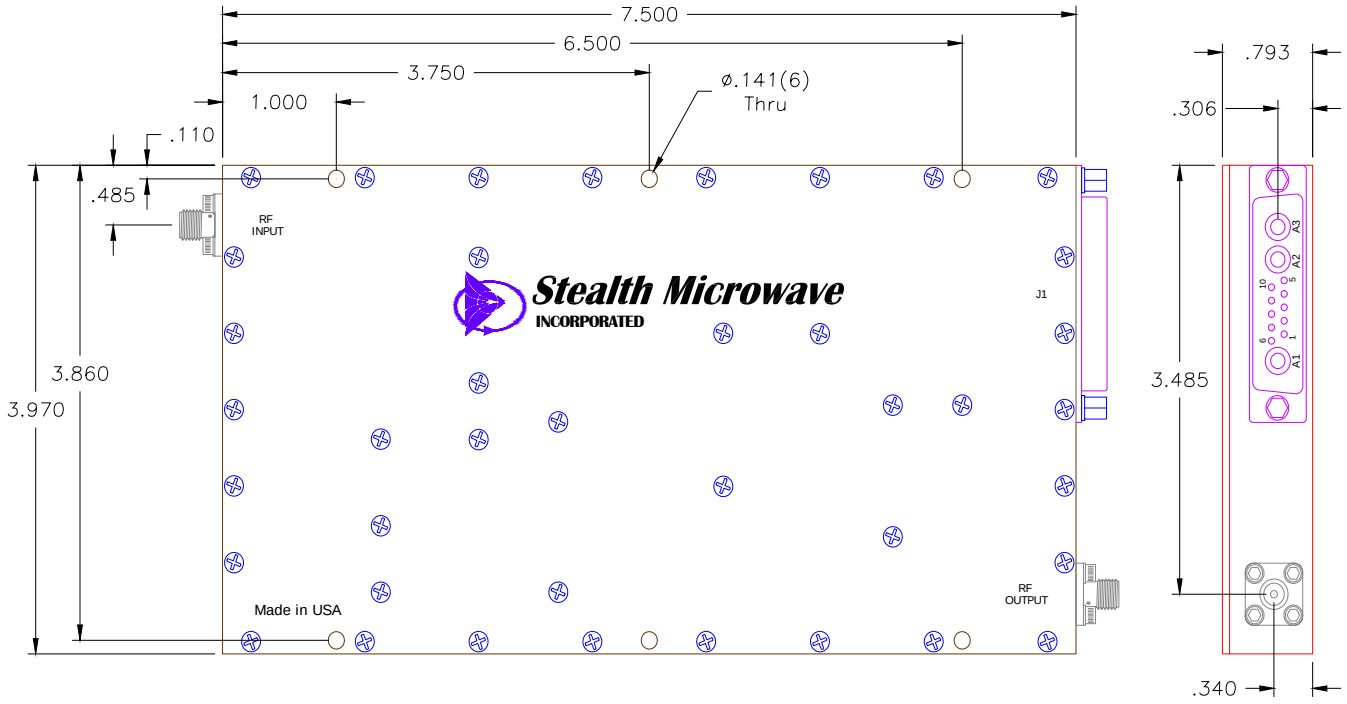
OFDM Performance @ 37.5 dBm (7 MHz BW UMTS-TDD Signal)



DIMENSIONS IN INCHES



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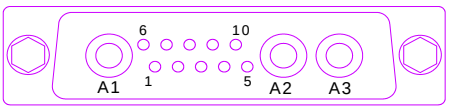
J1: 13W3 D-SUB



Pin	Description	Values
RF IN	Input Connector (SMA Female)	- 8 dBm, typical
RF OUT	Output Connector (SMA Female)	+47 dBm @P1dB
1	GND	--
2	Reverse Power Detector	∞ VSWR @ + 38 dBm ≈ + 3.0 Volts
3	TTL Logic On/Off	0 Volts = Off, + 5 Volts = On
4	TDD Switching Control	Up to 1µs switching speed, RF isolation when off
5 thru 10	GND	--
A1	RF Sample Port	-30dBr sampling output
A2	+12 VDC Supply	+ 12 Volts @ 14 Amperes (typ.)
A3	GND	--

Specifications subject to change without notice.

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