

Stealth Microwave's **SM2527-47L** is a solid state GaAs FET amplifier designed for the Broadband Wireless Access market. Using a proprietary pre-distortion technique, the OIP3 is improved by 8 dB. The P1dB is +47 dBm, the linear gain is 56 dB, and the gain change over temperature is only ± 0.5 dB.



Features

- Over/Reverse Voltage Protection
- Thermal Protection with Auto Reset
- Temperature Compensation
- Integral Output Isolator

Options

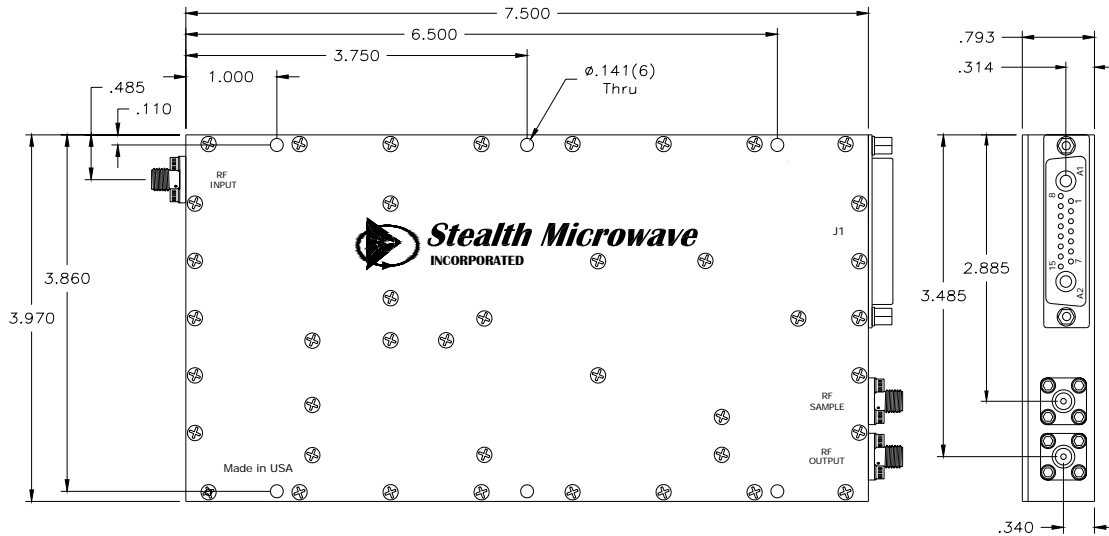
- Forward/Reverse Power Detection
- RF Sampling
- Fan
- Logic On/Off Control
- Integral Heatsink
- High Speed Switching for TDD

Configurations

- Module
- 19" Rack Mount Unit
- Bench Top Lab Unit

| | Specification |
|--|-----------------------------------|
| Frequency Range | 2.5 - 2.7 GHz |
| Pout (P1dB) | + 47 dBm |
| Third Order Intercept Point | + 65 dBm |
| Linear Gain | 56 dB \pm 1 dB |
| Gain Flatness over Full Band | $\pm .5$ dB |
| Gain Change over Temperature | $\pm .5$ dB |
| Input/Output Return Loss | -14 dB /-18 dB |
| Harmonics @ P1dB | -60dBc (min.) -65dBc (typ.) |
| DC Input Voltage | + 12 Volts |
| DC Input Current | 15 Amps (Varies per application) |
| Mechanical Dimensions (Without Heatsink) | 7.5 x 4.0 x .79 inches |
| RF Connectors | SMA Female |
| Operating Temperature (Baseplate) | 0°C to +55°C |
| Operating Humidity | 95% Non-condensing |
| Operating Altitude | Up to 10,000 feet above Sea Level |

DIMENSIONS IN INCHES



| Label | Description | Values |
|-----------|--------------------------------|----------------|
| RF INPUT | Input Connector (SMA Female) | -7 dBm typical |
| RF OUTPUT | Output Connector (SMA Female) | +47dBm @P1dB |

J1 17W2 CONNECTOR

| PIN | FUNCTION | PIN | FUNCTION |
|------|--------------------|-----|----------|
| 1 | Control High Speed | A1 | +12VDC |
| 2 | TTL On/Off | A2 | GND |
| 3 | Address A1 | | |
| 4 | SCL | | |
| 5 | SDA | | |
| 6 | Rev. Detector | | |
| 7 | Forward Detector | | |
| 8-15 | Ground | | |

Specifications subject to change without notice.

TYPICAL WiMAX PERFORMANCE – 40dBm @ 2%EVM, 5MHz BW

| IEEE 802.16 - 2004 | | | | | | | |
|-------------------------|--------------------------------------|-----------------------|----------|---------------------|---------|---------------------|--|
| Frequency: | 2.608 GHz | Signal Level Setting: | 0.9 dBm | External Att: | 39.8 dB | GENERAL SETTINGS | |
| Sweep Mode: | Continuous | Trigger Mode: | Free Run | Trigger Offset: | -10 µs | | |
| Burst Type: | OFDM DL Burst | Modulation: | 64QAM3/4 | No Of Data Symbols: | 1/2425 | | |
| Result Summary | | | | | | | |
| No. of Bursts | 6 * | | | | | | DEMOD SETTINGS |
| | Min | Mean | Limit | Max | Limit | Unit | |
| EVM All Carriers | -35.09 | -35.02 | -31.00 | -34.93 | -31.00 | dB | DISPLAY LIST GRAPH |
| EVM Data Carriers | -35.10 | -35.02 | | -34.93 | | dB | |
| EVM Pilot Carriers | -35.01 | -34.89 | | -34.81 | | dB | FLATNESS FLAT GDEL |
| IQ Offset | -26.73 | -26.73 | -15.00 | -26.71 | -15.00 | dB | |
| Gain Imbalance | 0.00 | 0.00 | | 0.00 | | dB | FLATNESS DIFFERENCE |
| Quadrature Error | -0.397 | -0.392 | | -0.389 | | ° | |
| Center Frequency Error | -0.50 | -0.69 | ± 20864 | -0.84 | ± 20864 | Hz | SPECTRUM IEEE ETSI |
| Clock Error | 0.04 | 0.08 | ± 8 | 0.13 | ± 8 | ppm | |
| Burst Power | 40.12 | 40.12 | | 40.12 | | dBm | SPECTRUM FFT |
| Crest Factor | 8.30 | 8.30 | | 8.31 | | dB | |
| RSSI | 3.14 | 3.19 | | 3.28 | | dBm | ACP ABS REL |
| RSSI Standard Deviation | | -6.06 | | | | dB | |
| CINR | 36.85 | 37.84 | | 38.92 | | dB | |
| CINR Standard Deviation | | 24.60 | | | | dB | |
| Running ... | | | | | | | |
| SPECTRUM | WiMAX | AUTO LVL | RUN SGL | RUN CONT | REFRESH | SCREEN A | ↓ |

