

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  $\pm 0.5$  dB.



### Features

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

### Options

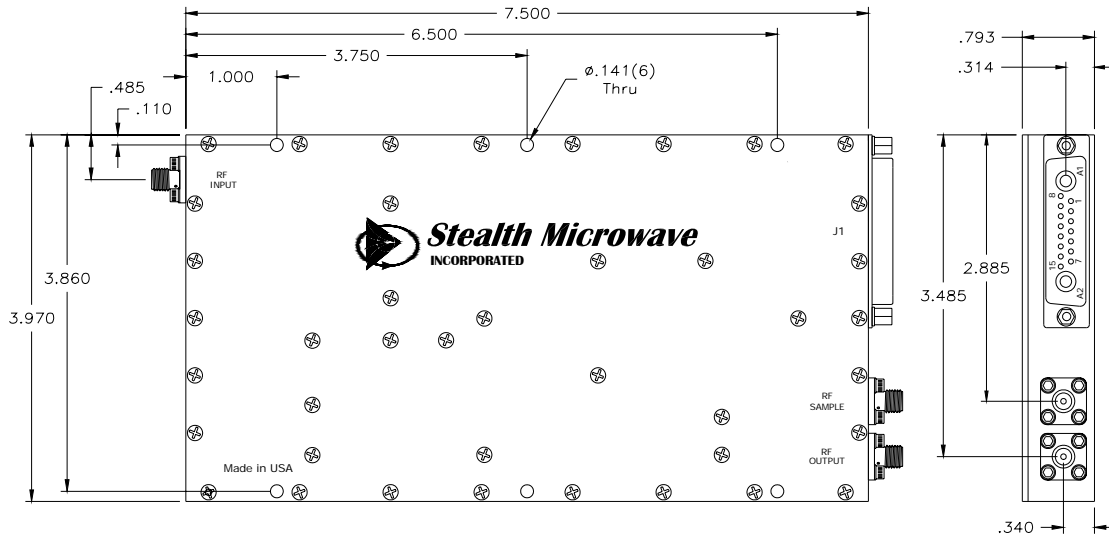
- Forward/Reverse Power Detection
- RF Sampling
- Fan
- Logic On/Off Control
- Integral Heatsink
- High Speed Switching for TDD

### 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	
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	

GENERAL SETTINGS

DEMOD SETTINGS

DISPLAY  
LIST GRAPH

FLATNESS  
FLAT GDEL

FLATNESS DIFFERENCE

SPECTRUM  
IEEE ETSI

SPECTRUM FFT

ACP  
ABS REL

Result Summary						
No. of Bursts	6 <span style="color: red;">*</span>					
	Min	Mean	Limit	Max	Limit	Unit
EVM All Carriers	-35.09	-35.02	-31.00	-34.93	-31.00	dB
EVM Data Carriers	-35.10	-35.02		-34.93		dB
EVM Pilot Carriers	-35.01	-34.89		-34.81		dB
IQ Offset	-26.73	-26.73	-15.00	-26.71	-15.00	dB
Gain Imbalance	0.00	0.00		0.00		dB
Quadrature Error	-0.397	-0.392		-0.389		°
Center Frequency Error	-0.50	-0.69	± 20864	-0.84	± 20864	Hz
Clock Error	0.04	0.08	± 8	0.13	± 8	ppm
Burst Power	40.12	40.12		40.12		dBm
Crest Factor	8.30	8.30		8.31		dB
RSSI	3.14	3.19		3.28		dBm
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

