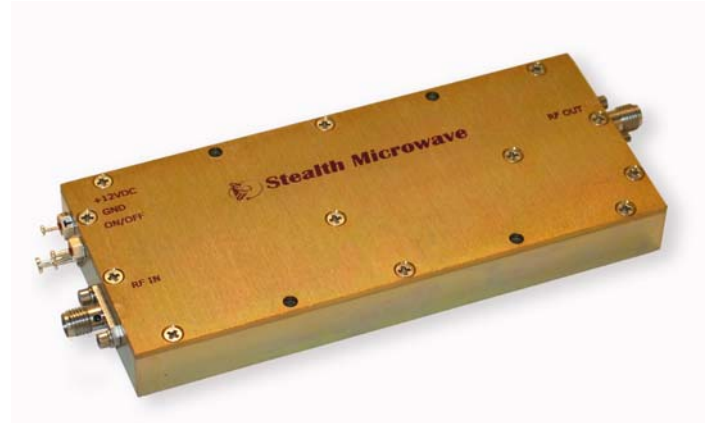


The **SM3436-37HS** is a solid state GaAs amplifier designed primarily for multiple wireless markets. **With 200 MHz of bandwidth**, the amplifier can be used in Industrial Scientific Medical (ISM), Wireless Communications Systems (WCS), and Broadband Wireless Access (BWA) applications. This amplifier operates from 3400 to 3600 MHz, provides 36 dB of gain,  $\pm 0.5$  dB gain flatness over the full band, and +37 dBm of output power at the 1 dB compression point. This highly linear design provides an output third order intercept point of + 50 dBm. The amplifier operates off a single supply of +12V (+10V available as an option) and 1.9 A (typ). The unit uses the latest surface mount technologies to provide numerous features while maintaining a very small size.



### Features

- Mis-Match Protected
- Over Voltage Protection
- Thermal Protection with Auto Reset

### Options

- Logic On/Off Control
- Integral Heatsink
- Single DC Supply of +10 V
- High Speed Switching for TDD

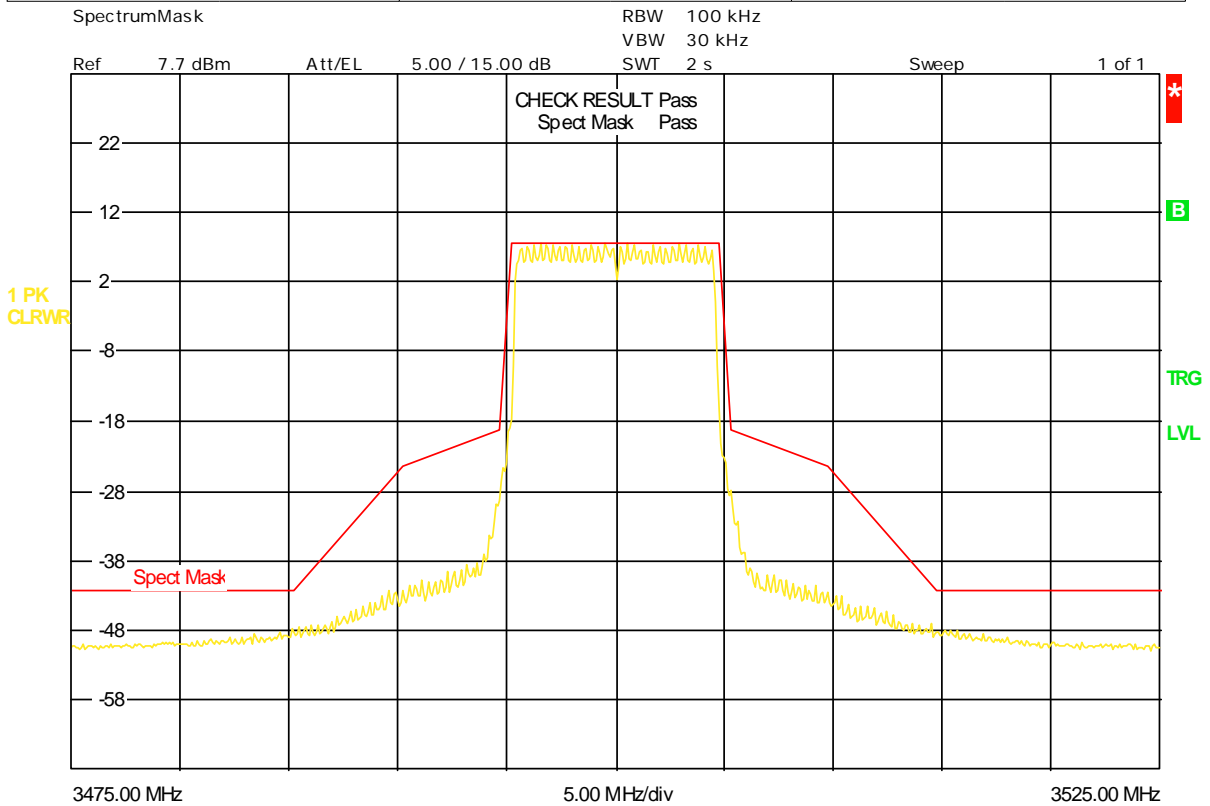
### Configurations

- Module
- 19" Rack

| Parameter                                | Specification                         |
|--|---------------------------------------|
| Frequency Range                          | 3.4 – 3.6 GHz                         |
| Pout (P1dB)                              | + 37 dBm                              |
| Third Order Intercept Point              | + 50 dBm                              |
| Linear Gain                              | 33 dB $\pm$ 1.0 dB                    |
| Gain Flatness over Full Band             | $\pm .5$ dB                           |
| Input/Output Return Loss                 | -14 dB / -14dB                        |
| DC Input Voltage                         | +12 Volts (+10 V Operation Available) |
| DC Input Current                         | 1.9 Amperes (typ.)                    |
| Mechanical Dimensions (Without Heatsink) | 4.7 x 2.0 x 0.54 inches               |
| RF Connectors                            | SMA Female                            |
| Operating Temperature                    | 0°C to +55°C                          |
| Operating Humidity                       | 95% Non-condensing                    |
| Operating Altitude                       | Up to 10,000 feet above Sea Level     |

**WiMAX PERFORMANCE – IEEE MASK & EVM FOR 30dBm Pout  
802.16d 10 MHz 64 QAM OFDM**

| IEEE 802.16 - 2004 |               |                       |          |                     |             |
|--------------------|---------------|-----------------------|----------|---------------------|-------------|
| Frequency:         | 3.5 GHz       | Signal Level Setting: | 6.2 dBm  | External Att:       | 24.5 dB     |
| Sweep Mode:        | Continuous    | Trigger Mode:         | Power    | Trigger Offset:     | -10 $\mu$ s |
| Burst Type:        | OFDM DL Burst | Modulation:           | 64QAM3/4 | No Of Data Symbols: | 1/2425      |



Running ...

SM3436-37 S/N 18288 TR06-210 802.16d 10MHz 30 symbols 64 QAM

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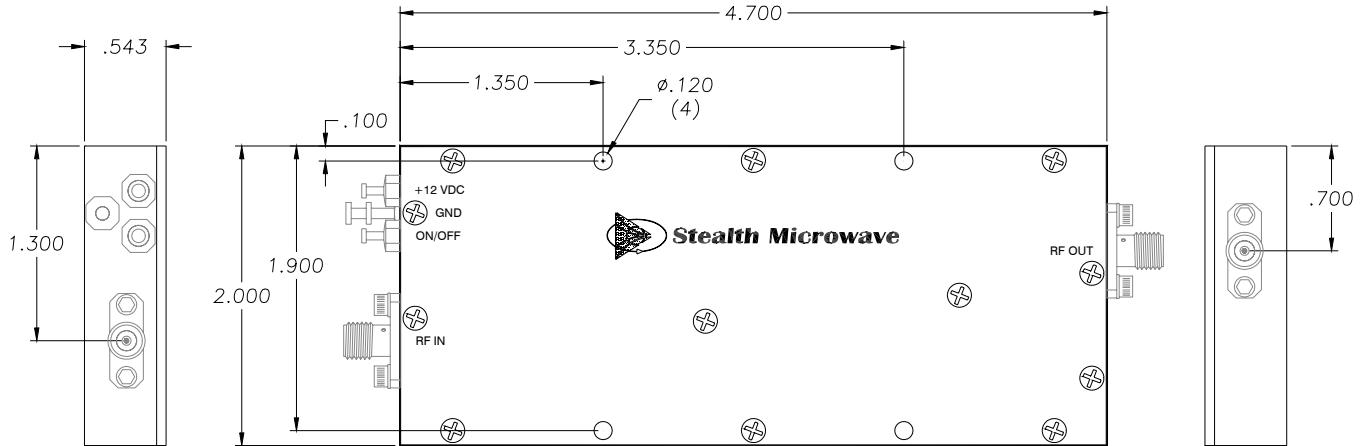
| IEEE 802.16 - 2004 |               |                       |          |                     |         |
|--------------------|---------------|-----------------------|----------|---------------------|---------|
| Frequency:         | 3.5 GHz       | Signal Level Setting: | 6 dBm    | External Att:       | 24.5 dB |
| Sweep Mode:        | Continuous    | Trigger Mode:         | Power    | Trigger Offset:     | -10 µs  |
| Burst Type:        | OFDM DL Burst | Modulation:           | 64QAM3/4 | No Of Data Symbols: | 1/2425  |

| Result Summary           |         |         |         |         |         |      |
|--------------------------|---------|---------|---------|---------|---------|------|
| No. of Bursts            | 6       |         |         |         |         |      |
|                          | Min     | Mean    | Limit   | Max     | Limit   | Unit |
| EVM All Carriers         | - 44.53 | - 44.16 | - 31.00 | - 43.84 | - 31.00 | dB   |
| EVM Data Carriers        | - 44.53 | - 44.14 |         | - 43.80 |         | dB   |
| EVM Pilot Carriers       | - 44.96 | - 44.68 |         | - 44.37 |         | dB   |
| IQ Offset                | - 51.61 | - 51.48 | - 15.00 | - 51.42 | - 15.00 | dB   |
| Gain Imbalance           | - 0.01  | - 0.01  |         | - 0.01  |         | dB   |
| Quadrature Error         | - 0.064 | - 0.062 |         | - 0.059 |         | °    |
| Center Frequency Error   | 0.25    | - 0.37  | ± 28000 | - 0.99  | ± 28000 | Hz   |
| Clock Error              | - 0.00  | - 0.02  | ± 8     | - 0.06  | ± 8     | ppm  |
| Burst Power              | 29.23   | 29.23   |         | 29.23   |         | dBm  |
| Crest Factor             | 8.63    | 8.63    |         | 8.63    |         | dB   |
| RSSI                     | 7.53    | 7.53    |         | 7.68    |         | dBm  |
| RSSI Standard Deviation  |         | 2.10    |         |         |         | dB   |
| C INR                    | 42.83   | 44.75   |         | 45.52   |         | dB   |
| C INR Standard Deviation |         | 31.00   |         |         |         | dB   |

Running ...

SM3436-37 S/N 18288 TR06-210 802.16d 10MHz 30 symbols 64 QAM

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**DIMENSIONS IN INCHES**


| Pin     | Description                   | Values                       |
|---------|-------------------------------|------------------------------|
| RF IN   | Input Connector (SMA Female)  | +2 dBm typ.                  |
| RF OUT  | Output Connector (SMA Female) | + 37 dBm @ P1dB              |
| GND     | Ground Turret                 | ---                          |
| +12 VDC | DC Input Voltage              | + 12 Volts @ 1.9 Amperes     |
| ON/OFF  | TTL Logic On/Off              | 0 Volts = Off, +5 Volts = On |

*Specifications subject to change without notice.*