

MODEL CMS2010

50 Watts

2.5 – 2.7 GHz

The Model CMS2010 is a 2.5 –2.7 GHz Solid-State latest generation LDMOS power amplifier module built for the wireless broadband network. This 47dBm linear power amplifier has a gain of 45dB minimum and is designed to meet the WiMAX (802.16) specifications. It can be modified to meet various types of OFDM or NPR requirements. The module comprises a printed wiring assembly housed in a machined aluminum enclosure. Cooling requirements are defined by the over-temperature shutdown limits listed below.

The amplifier is protected from thermal overload, over power, over voltage or wrong voltage polarity as well as having an internal isolator.

SPECIFICATIONS

| | |
|--|--|
| FREQUENCY RANGE..... | 2.5 – 2.7 GHz |
| GAIN | 45 dB minimum |
| GAIN FLATNESS | ± 1dB over 200 MHz |
| GAIN VARIATION OVER TEMPERATURE | ± 1.5dB minimum |
| OPERATION TEMPERATURE | 0 – 80 Deg C |
| P1 dB | 47 dBm minimum |
| OVER-POWER SHUTDOWN..... | 48 dBm (Scalable) |
| IP3 @ 33dBm OUTPUT POWER (30dBm/TONE)..... | 54 dBm minimum |
| INTER-MODULATION DISTORTION..... | 2% EVM for 64 QAM symbols at 10 Watts average output power (IEEE 802.16) |
| INPUT/OUTPUT IMPEDANCE..... | 50 Ohms |
| OUTPUT ISOLATION | Built in Isolator |
| HARMONIC DISTORTION..... | Better than –60dB @ 38dBm |
| RETURN LOSS (INPUT/OUTPUT PORTS)..... | 15dB |
| POWER SUPPLY | 28 Vdc |
| DC CURRENT..... | 3.5 A typical |
| RF CONNECTORS..... | SMA Female |
| DC CONNECTOR | D-Sub Combo 7W2 |
| | (Mating connector supplied) |
| MECHANICAL DIMENSIONS (L X W X H)..... | 7" X 4" X 1." (Excluding heatsink) |

FUNCTIONS

| | |
|---------------------------------------|---|
| TEMPERATURE SHUTDOWN..... | Mute @ 80 Deg. ± 5 Deg. C (Auto restart @ 65 Deg. ± 5 Deg. C) |
| OVER-TEMPERATURE ALARM (PIN 3)..... | ≥ 80 Deg. C = TTL High |
| RF ENABLE/DISABLE (PIN 4)..... | 5V = ON 0V = OFF |
| RF FORWARD POWER MONITOR (PIN 2)..... | 2V @ 38 dBm (Adjustable) |
| POWER AMP DISABLE (PIN 1) | Ground |
| INTERFACE GROUNDING PIN..... | PIN 5 |

| |
|-----------------------------|
| DOC # 7-98-906-001 REV C |
|-----------------------------|

Other interface options are available on demand.