The 2009-8487P Converter converts a 8.487 GHz signal to or from 67 MHz with a low side local oscillator (LO) (non-inverted spectrum) for loop-back applications. Featuring low phase noise and high stability, this unit is used to down convert “clean” (having only this frequency) 8.487 GHz signal to 67 MHz or up convert 67 MHz to 8.487 GHz for test purposes. A synthesized local oscillator (LO) of 8.420 GHz converts the 8.487 GHz signal to 67 MHz when used as a downconverter and the 67 MHz signal to 8.420 GHz when used as an upconverter with a nominal gain of -15 dB. Connectors are SMA (female) for the 67 MHz IF and the RF ports. Front panel LEDs light when DC power is applied (green) and when a PLL alarm occurs (red). The unit is powered by a 120 ±10% VAC wall mount power supply (suffix P) and other power supply options are available (option -P4 or -C). The 2009 can be mounted on an 1 3/4” X 19” rack mount panel (option -R).

**EQUIPMENT SPECIFICATIONS**

**RF Characteristics**
- Impedance / Return Loss: 50Ω / 12 db
- Frequency: 8487 MHz ± 20 MHz
- Level, In, Downconverter: -30 to -5 dBm
- Level, Out, Upconverter: -30 to -20 dBm
- Input 1 dB compression: +5 dBm

**IF Characteristics**
- Impedance / Return Loss: 50Ω / 12 db
- Frequency: 67 MHz ± 20 MHz
- Level, In, Upconverter: -15 to -5 dBm
- Level, Out, Downconverter: -45 to -20 dBm

**Channel Characteristics**
- Gain at band center: -15 dB ±2 dB
- Spurious Response: < -40 dBC, ± 20 MHz of the center frequency
- Spectrum Sense: Non-inverting
- Frequency Response: ± 0.5 dB, ± 20 MHz of the center frequency

**Synthesizer Characteristics**
- Frequency Accuracy: ± 2.5 ppm max

**Indicators**
- DC Power: Green LED
- Alarm: Red LED

**Other**
- RF Connector: SMA (female), 50Ω
- IF Connector: SMA (female), 50Ω
- Size, Bench Top: 4.7” wide X 1.75” high X 6.5” deep
- Size, Rack Mount (-R): 19 inch standard chassis 1.75” high X 7.0” deep (optional)
- Power: 120 ±10% VAC Wall Power Supply providing +15 to +18 VDC

**Options**
- -C: No Power Supply, Use with 2000-01 Power Supply
- -P4: 100-240 ± 10% VAC Wall Power Supply
- -R: 1RU Rack Mounting

*+10°C to +40°C; 2000 meters max elevation; 80% max humidity; Specifications subject to change without notice*