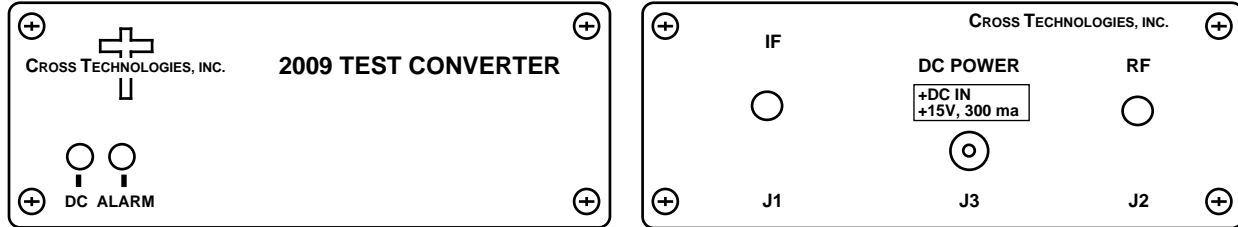


## 2009-8487P Converter, 8.487 GHz

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**).



**Front and Rear Panels**

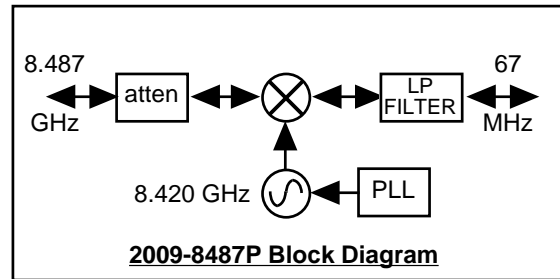
### EQUIPMENT SPECIFICATIONS\*

#### 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



**2009-8487P Block Diagram**

#### 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

Phase Noise @ F (Hz) >	100Hz	1kHz	10kHz	100kHz	1MHz
dBC/Hz	-70	-75	-80	-95	-110

#### 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

