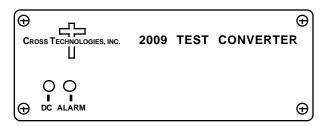
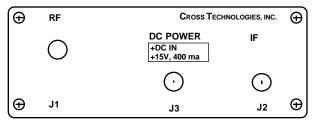


# DATA SHEET REV A 12/22/09

# 2009 X-band Test Downconverter

2009-72P, -79P Test Downconverter - These units convert an X-band signal to 950 - 1450 MHz with a low side local oscillator (LO) (non-inverted spectrum). Featuring low phase noise, these units are used to downconvert "clean" (having only this frequency) X-band signals to 950 - 1450 MHz for test purposes. The X-band input is mixed with a synthesized local oscillator (LO) signal to 950 - 1450 MHz. The mixer output is applied to the output amplifier providing a nominal gain of -10 dB. Connectors are 75 ohm BNC female for the 950 - 1450 MHz output and 50 ohm SMA, female for the RF input. Front panel LEDs light when DC power is applied (green) and when a PLL alarm occurs (red). DC power is provided by an external wall mount power supply. The 2009 can be mounted on an 1 3/4" X 19" rack mount panel (option -R)





2009-72P, -79P Test Downconverter Front & Rear Panels

## **EQUIPMENT SPECIFICATIONS\***

Input Characteristics

Input Impedance/RL 50  $\Omega$  /10 db

Frequency 7.25-7.75 GHz (-72P); 7.95 8.45 GHz (-79P)

Input Level -10 to -20 dBm Input 1 dB 0 dBm

**Output Characteristics** 

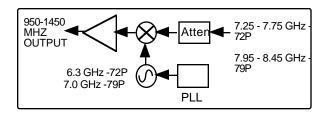
Impedance/RL 75 Ω/10 db Frequency Band 950 -1450 MHz

**Channel Characteristics** 

Gain at band center -10 dB ±2 dB

Spurious Response <-40 dBC, 950-1450 MHz out Frequency Response ±2 dB, 950 -1450 MHz;

±0.5 dB, any 10 MHz increment



2009-72P, -79P Block Diagram

#### Synthesizer Characteristics

Frequency Accuracy	± 10ppm max		
Phase Noise @ F (Hz) >	10kHz	100kHz	1MHz
dBC/Hz	-80	-90	-100

#### **Indicators**

DC Power; Alarm Green LED; Red LED

Other

RF In, RF Out Connectors SMA, female, BNC, female 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, 60 Hz, 15 watts max, wall mount Power Supply

Models

2009-72P 7.25 - 7.75 GHz in, 950 - 1450 MHz Out, Wall Power Supply 2009-79P 7.95 - 8.45 GHz in, 950 - 1450 MHz Out, Wall Power Supply

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<sup>\*+10</sup> to +40 degrees C; 2000 meters max elevation; 80% max humidity; Specifications subject to change without notice