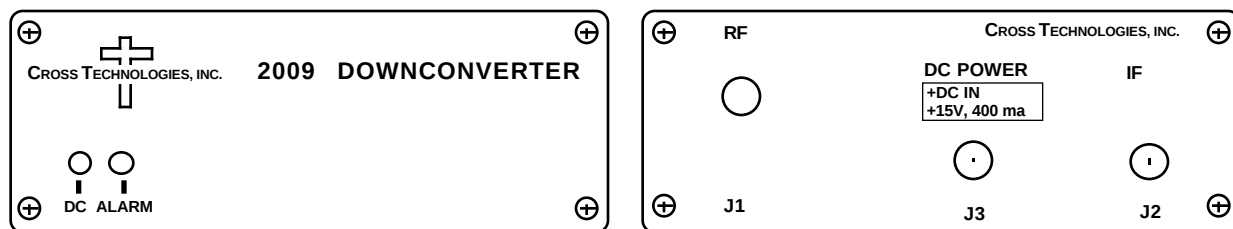


2009 X-band Downconverter

2009-72P, -79P Downconverter - These units convert an X-band signal to 950 - 1450 MHz with a low side local oscillator (LO) (non-inverted spectrum) for loop-back applications. 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 Downconverter Front & Rear Panels

EQUIPMENT SPECIFICATIONS*

Input Characteristics

Input Impedance/RL	50 Ω /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 $\pm$ 2 dB
Spurious Response	<-40 dBC, 950-1450 MHz out
Frequency Response	$\pm$ 2 dB, 950 -1450 MHz; $\pm$ 0.5 dB, any 10 MHz increment

Synthesizer Characteristics

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

Indicators

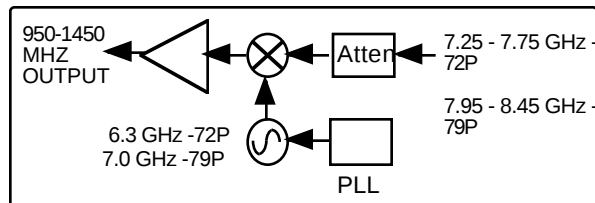
DC Power; Alarm	Green LED; Red LED
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Other

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 $\pm$ 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



2009-72P, -79P Block Diagram

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