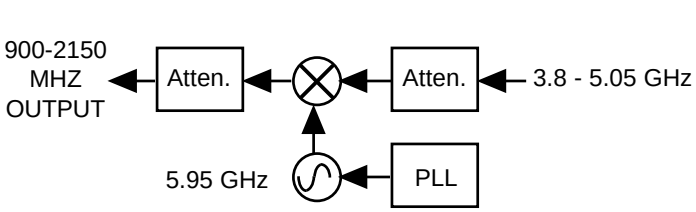
CROSS TECHNOLOGIES, INC.

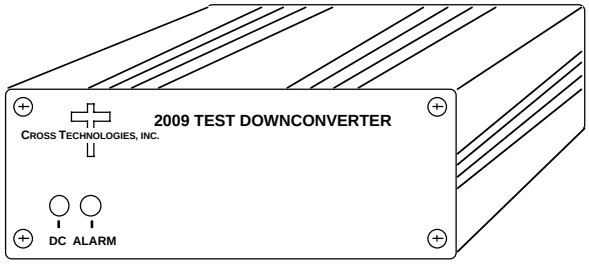
DATA SHEET

PRELIMINARY 9/22/04A

2009-38 3.8 - 5.05 GHz Test Downconverter

2009-38 Test Downconverter - Converts a 3.8 - 5.05 GHz signal to 900 - 2150 MHz with a high side local oscillator (LO) (inverted spectrum). With low phase noise, this unit down converts "clean" (having only this frequency) 3.8 - 5.05 GHz signals to 900 - 2150 MHz for test purposes. The 3.8 - 5.05 GHz input is mixed with a synthesized local oscillator (LO) signal to 900 - 2150 MHz. The mixer output goes to the output attenuator providing a nominal gain of -40 dB. Connectors are 75 ohm F female for the 900 - 2150 MHz output and 50 ohm N, female for the RF input. Front panel LEDs show DC power is applied (green) and if a PLL alarm occurs (red). DC power is provided by the LNB voltage from the receiver under test or by an external wall mount power supply (**option -P,** 115 VAC or **Option -P4**, 90-260 VAC). **Option -C** has no power supply and is powered by an external power supply like the 2000-01. The 2009 can be mounted on an 1 3/4" X 19 " rack mount panel (**option -R**).

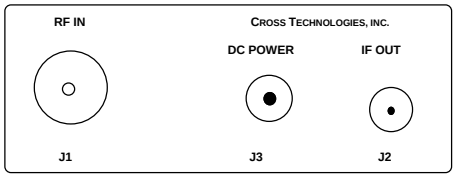




2009-38 Test Downconverter Block Diagram and Chassis

EQUIPMENT SPECIFICATIONS*

Input Characteristics	
Input Impedance/RL	50 Ω /10 db
Frequency	3.8-5.05 GHz
Input Level	-15 to +0 dBm
Input 1 dB	+5 dBm
Output Characteristics	
Impedance/RL	75 Ω/10 db
Frequency Band	900 -2150 MHz



2009 REAR PANEL

Channel Characteristics	
Gain at band center	-40 dB ±2 dB
Spectrum Sense	Invert
Spurious Response	<-40 dBC, 900-2150 MHz out
Frequency Response	± 2 dB, 900 -2150 MHz; ± 0.5 dB, any 10 MHz increment
Synthesizer Characteristics	
LO Frequency	5.95 GHz
Frequency Accuracy	± 4 ppm max
Phase Noise (dBC/Hz)	≤-85@1 kHz;≤-90@10 kHz; ≤ -95@100 kHz; ≤ -110@1 MHz
Indicators	
DC Power; Alarm	Green LED; Red LED
Other	
RF In, RF Out Connectors	Type N, female, Type F, 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	+16 to +20 VDC, 280 ma on RF Out; -P Option,120 ± 10% VAC, 60 Hz, 15 watts max, wall mt PS -P4 Option,90-260 VAC, 47-63 Hz, 15 watts max, wall mt PS
Models	
2009-38	3.8-5.05 GHz in, 900 - 2150 MHz Out, Uses Receiver LNB Voltage to IF out
2009-38C	3.8-5.05 GHz in, 900 - 2150 MHz Out, No Power Supply, Use with 2000-01 Power Supply
2009-38P	3.8-5.05 GHz in, 900 - 2150 MHz Out, 115 VAC Wall Power Supply
2009-38P4	3.8-5.05 GHz in, 900 - 2150 MHz Out, 90-260 VAC Wall Power Supply

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

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