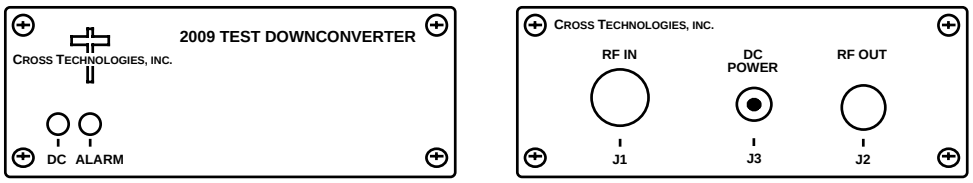
CROSS TECHNOLOGIES, INC.

DATA SHEET

5/3/2007

2009-59 Test Downconverter, 5.925 - 6.425 GHz

The 2009-59 Test Downconverter converts a 5.925 - 6.425 GHz signal to 950 - 1450 MHz with a high side local oscillator (LO) (inverted spectrum). With low phase noise, this unit down converts "clean" (having only this frequency) 5.925 - 6.425 GHz signals to 950 - 1450 MHz for test purposes. The 5.925 - 6.425 GHz input is mixed with a synthesized local oscillator (LO) signal to 950 - 1450 MHz. The mixer output goes to the output attenuator providing a nominal gain of -40 dB. Connectors are 75 ohm F female for the 950 - 1450 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 (**options -P and -P4**). **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). Models with **option -H** operate over an extended -20˚C +60˚C temperature range.



Front and Rear Panels

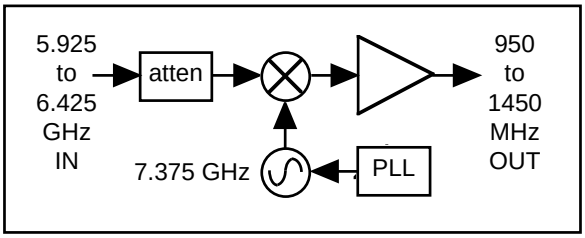
EQUIPMENT SPECIFICATIONS*

Input Characteristics

Impedance / Return Loss	50Ω / 12 db
Frequency	5.925 to 6.425 GHz
Level	-10 to +15 dBm
Input 1 dB compression	+20 dBm

Output Characteristics

Impedance / Return Loss	75Ω / 12 db
Frequency	950 to 1450 MHz
Level	-50 to -25 dBm



Block Diagram

Channel Characteristics

Gain at band center	-40 dB ±2 dB
Spurious Response	<-40 dBC, 950-1450 MHz out
Spectrum Sense	Inverting
Frequency Response	± 2 dB, 950-1450 MHz; ± 0.5 dB, any 10 MHz increment

Synthesizer Characteristics

Frequency Accuracy	± 2.5ppm max					
Phase Noise	@ Freq	100Hz	1kHz	10kHz	100kHz	1MHz
	dBC/Hz	< -65	< -80	< -85	< -100	< -110

Indicators

DC Power	Green LED
Alarm	Red LED

Other

RF In Connector	Type-N (female)
RF Out Connector	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, 250 ma on RF Out

Options

-H	Operates over an extended -20˚C to 60˚C temp range
-P	115 VAC Wall Power Supply
-P4	90-260 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

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