2016-125 Agile L-Band Downconverter

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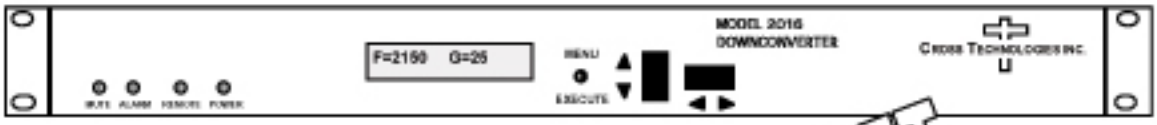
The 2016-125 L-band Downconverter converts 2000 to 2500 MHz in 1 kHz, 10 kHz, or 125 kHz steps (user selectable) to 70 ± 18 MHz with low group delay and flat frequency response. Synthesized local oscillators (LO) provide very low phase noise and ±0.01 ppm stability frequency selection. Multi-function push button switches select the RF frequency, gain, and other parameters. Front panel LEDs provide indication of DC power (green), PLL alarm (red), and remote operation (yellow). Gain is adjustable manually over a 0 to +50 dB range as adjusted by the front panel multi-function push-button switches. Remote operation allows selection of frequency and gain. Parameter selection and frequency and gain settings appear on the LCD display. Connectors are BNC female for RF Input, IF output and the optional external reference input and output. The External 10 MHz option includes a 10 MHz output connector, along with the ability to send either the internal or external 10 MHz reference signal out the RF and/or Output connector. The unit is powered by a 90-260 VAC power supply, and housed in a 1 3/4" X 19 " X 16" rack mount chassis.

2016-125 Agile L-Band Downconverter Front Panel



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Equipment Specifications*

Input Characteristics

Impedance/RL	50 ohms/10dB
Frequency (see models)	2000 to 2500 MHz
Noise Figure, max.	15 dB (max gain)
Level range	-20 to -70 dBm
Input 1dB comp	-15 dBm, min. gain

Options

-E	External 10MHz input and output w/ RF insertion
-Q	RS485/RS422 Remote Interface

Output Characteristics

Impedance/RL	50 ohms/18dB
Frequency	70 ± 18 MHz
Output level/max linear	-20/-10 dBm
Output 1dB	-5 dBm

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Channel Characteristics

Gain	0.0 to 50.0 dB, 1 dB steps
Image Rejection	> 50 dB
Spurious Response	< -50 dBC in band (± 18 MHz)
Frequency Response	±1.5dB, entire band; ±0.5dB, 36 MHz BW
Group Delay, max	3 ns, 30 MHz, 5 ns, 36 MHz BW
Frequency Sense	Non-inverting or Inverting (selectable)

Synthesizer Characteristics

Frequency Accuracy		±0.01 ppm				
Frequency Step		1kHz, 10kHz, or 125kHz (selectable)				
Phase Noise	Hz	100 Hz	1.0 kHz	10 kHz	100 kHz	1.0 MHz
	(dBC/Hz)	< -75	< -90	< -97	< -107	<-117
10 MHz Level (In or Out)		0 dBm, ±3 dB, 75 ohms (option -E)				

Controls/Indicators

Frequency Selection	Direct readout LCD; push button switches or remote selection
Gain Selection	Direct readout LCD; push button switches or remote selection
Alarm	Red LED
DC Power	Green LED
Remote	Yellow LED; RS232C, 9600 baud (RS485 option -Q)

Other

RF / IF Connector(s)	BNC (female), 50 Ω / BNC (female), 50 Ω
10 MHz Connectors	BNC (female) (option -E)
Connector, Alarm, Remote	DB9 - NO or NC contact closure on Alarm
Size	19 inch 1RU standard chassis, 1.75"H X 16.0"D
Power	90-260 VAC, 47-63 Hz, 45W max

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SATCOM SERVICES
www.satcom-services.com
Mike Termondt
mike@satcom-services.com
Phone: 1.805.649.1384
Fax: 1.805.649.1174