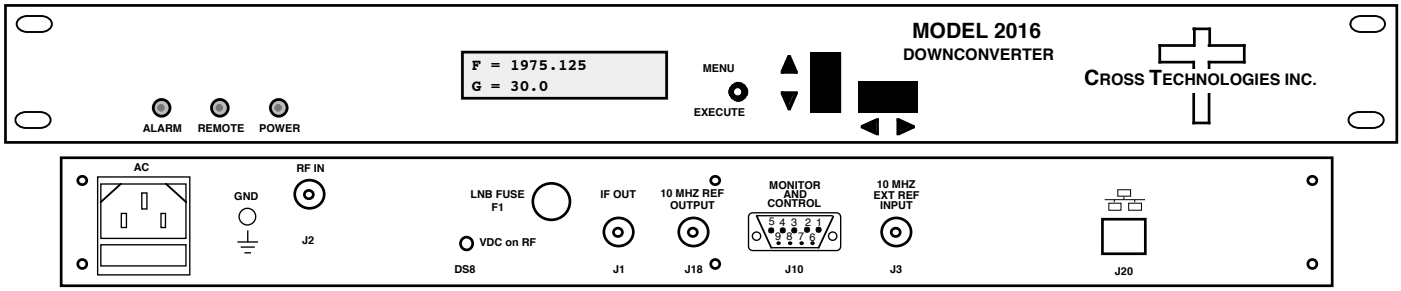
CROSS TECHNOLOGIES, INC.

DATA SHEET
REV. 0 04/18/19

2016-02-1200 L-Band Downconverter, 1200 ±100 MHz IF

The 2016-02-1200 Downconverter converts 950 to 2150 MHz to 1200 MHz in **125 kHz** steps with low group delay and flat frequency response. Synthesized local oscillators (LO) provide frequency selection. Multi-function switches select the input frequency, gain, and other parameters. Front panel LEDs provide indication of DC power, PLL alarm or Remote operation. Gain is adjustable manually (MGC) over a 0 to +**30** dB range. The frequency and gain are remotely selectable. Parameter selection and frequency and gain settings appear on the LCD display. Connectors are Type F female for the RF, and BNC female for the IF and **external 10 MHz reference input and output**. **External 10 MHz is standard. A 10 MHz output connector contains either the internal or external 10 MHz reference signal whichever is selected by the user.** The 2016-02-1200 is powered by a 100-240 ±10% VAC, 47-63 Hz power supply, and is contained in a 1 3/4" X 19" X 16" rack mount chassis.



2016-02-720 Front and Rear Panels (Optional Ethernet and LNB insertion shown)

EQUIPMENT SPECIFICATIONS*

Input Characteristics

Impedance/Return Loss	75Ω/10 dB
Frequency	950 to 2150 MHz
Noise Figure, Max.	**20** dB max. gain
Input Level range	**-50 to -20 dBm**

Output Characteristics

Impedance/Return Loss	**50 Ω /14** dB
Frequency	**1200 ± 100 MHz**
Output Level Range	-20 to -10 dBm
Output 1 dB compression	**0 dBm, max. gain**

Channel Characteristics

Gain range (adjustable)	**0.0 to +30.0 dB, 1 ±1 dB steps**
Image Rejection	**> 45 dB, min., 50 dB typical**
Frequency Response	**±2.0 dB, 950 to 2150 MHz; ±1.0 dB, 200 MHz BW**
Spurious Response	< **-45** dBc, in band
Group Delay, 200 MHz BW	**10 ns total, Max. (parabolic + linear + ripple),**
Frequency Sense	**Non-inverting**

Synthesizer Characteristics

Frequency Accuracy	± 1.0 ppm max. over temp (± 0.01 ppm option -H)
Frequency Step	**125 kHz**

Phase Noise @ Freq	*100Hz*	*1kHz*	*10kHz*	*100kHz*	*1MHz*
dBC/Hz	*-70*	*-70*	*-80*	*-90*	*-100*

10 MHz Level (In or Out)	**3 dBm, ± 3 dB, 75 ohms**

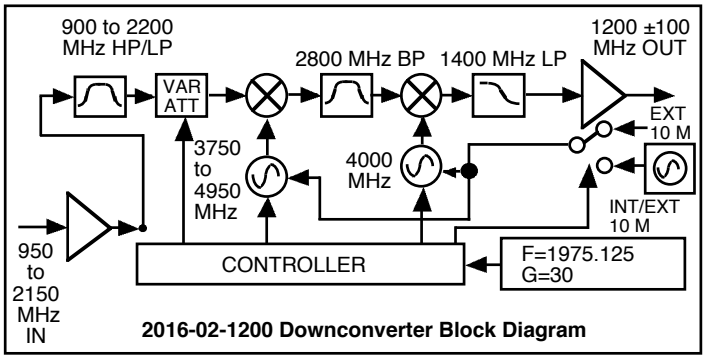
Controls, Indicators

Frequency Selection	Direct readout LCD; manual or remote selection
Gain Selection	Direct readout LCD; manual or remote selection
Power; Alarm; Remote	Green LED; Red LED; Yellow LED
Remote	RS232C, 9600 baud **(RS485, Ethernet Optional)**

Other

RF Connector	Type F (female)
IF, 10 MHz Connectors	BNC (female)
Alarm/Remote Connector	DB9 (female) - NO or NC contact closure on Alarm
Size	19 inch, 1RU standard chassis 1.75" high X 16.0" deep
Power	100-240 ± 10% VAC, 47-63 Hz, **30 watts max.**

*10˚C to 40˚C; Specifications subject to change without notice



2016-02-1200 Downconverter Block Diagram

Available Options

H - High Stability (±0.01ppm) Internal Ref
L - LNB Voltage, +24 VDC, 0.4 amps
Q - RS485 Remote Interface
W8 - Ethernet; w/Web Browser (WB)
W18 - Ethernet; w/WB & SNMP
W28 - Ethernet; w/TCP/IP, Telnet®
W828 - W8 + W18 + W28

Connectors/Impedance

STD - 75Ω Type F (RF), 50Ω BNC (IF)
B - 75Ω BNC (RF), 75Ω BNC (IF)
C - 50Ω BNC (RF), 75Ω BNC (IF)
D - 50Ω BNC (RF), 50Ω BNC (IF)
M - 50Ω Type N (RF), 50Ω BNC (IF)
N - 50Ω Type N (RF), 75Ω BNC (IF)
S - 50Ω SMA (RF), 50Ω BNC (IF)

Contact Cross for other options

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