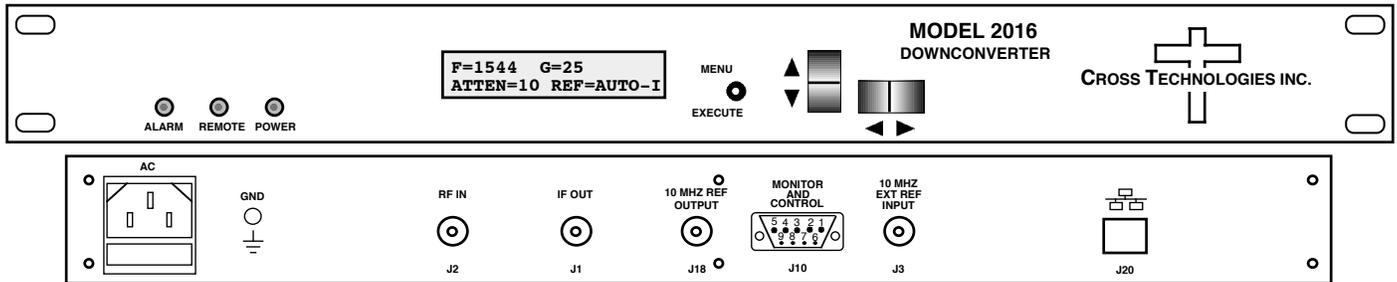


2016-1522# Downconverter, 1.544 or 2.226 GHz to 70 ± 5 MHz

The 2016-1522# Downconverter converts 1.544 or 2.226 GHz to 70 MHz. The gain is 0 to +50 dB, adjustable in 1±1 dB steps. Push button switches select the input 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 (MGC) over a 0 to 30 dB range. Remote operation allows selection of frequency and gain. Parameter selection and frequency and gain settings appear on the LCD display. Connectors are Type N female for the IF out and RF in and BNC female for the external 10 MHz reference input (Option E) which includes a 10 MHz output connector which contains either the internal or external 10 MHz reference signal. The unit is powered by a 100-240 ± 10% VAC power supply, and housed in a 1 3/4" X 19" X 16" rack mount chassis.



2016-1522# Front and Rear Panels (Ext 10 MHz and Ethernet Options shown)

EQUIPMENT SPECIFICATIONS *

Input Characteristics

Impedance/Return Loss 50Ω/12 dB
 Frequency **1.544 and 2.226 GHz**
 Noise Figure, Max. 15 dB at max gain
 Input Level range -50 to -20 dBm

Output Characteristics

Impedance/Return Loss 50 Ω /18 dB
 Frequency 70 ± 5 MHz
 Output level range -20 to 0 dBm
 Output 1 dB compr. +10 dBm, max. gain

Channel Characteristics

Gain at Fc +50 ±3 dB max., (+50 to 0 dB variable in 1 ± 1 dB steps)
 Image Rejection > 50 dB, min.
 Frequency Response **1544 or 2226, 10 MHz BW, ± 0.75 dB**
 Spurious Response < -50 dBc, in band, 70 ± 5 MHz
 Group Delay, max 0.015 ns/MHz² parabolic; 0.05 ns/MHz linear; 1 ns ripple
 Frequency Sense Non-inverting

LO Characteristics

LO step size **NONE, Fixed tuned to 1544 or 2226 MHz in**
 Frequency Accuracy **± 0.01 ppm max over temp internal reference**

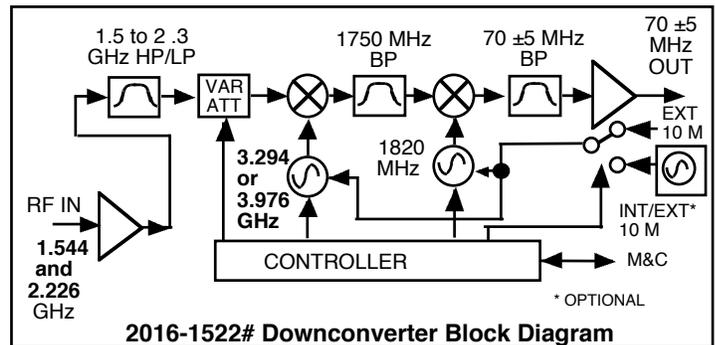
Phase Noise @ Freq	100Hz	1kHz	10kHz	100kHz	1MHz
dBc/Hz	-75	-80	-90	-100	-110

Controls, Indicators

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

Other

RF, IF Connectors N (female), N (female)
 10 MHz Connectors BNC (female), **75Ω, works with 50 or 75 ohms** (option E)
 Alarm/Remote Conn. DB9 (female) - NO or NC contact closure on Alarm
 Size 19 inch, 1RU standard chassis 1.75" H X 16.0" D
 Power 100-240 ±10% VAC, 47-63 Hz, **25 W** max.;



2016-1522# Downconverter Block Diagram

*** CUSTOM Specifications and/or STANDARD Options (shown below) included with Model 2016-1522#.**

Opt. H - ±0.01 10 MHz Internal reference
Opt. NN - Conn. N-type (RF), N-type (IF)

Available Options

E - 10 MHz External Reference

Comm. Interface/Standard RS232

Q - RS485 Remote Interface
 W8 - Ethernet; w/Web Browser (WB)
 W18 - Ethernet; w/WB & SNMP
 W28 - Ethernet; w/TCP/IP, Telnet

Connectors/Impedance

STD - 50Ω Type N (RF), 50Ω Type N (IF)
 SS - 50Ω SMA (RF), 50Ω SMA (IF)

*10°C to 40°C; Specifications subject to change without notice.