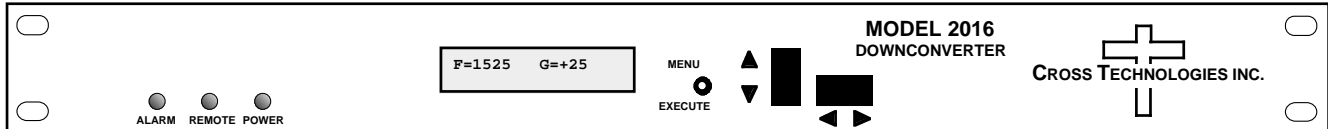


2016-1327 Downconverter, 1.3 - 2.7 GHz

The 2016-1327 Downconverter converts 1300 to 2700 MHz to 70 MHz in 1 MHz 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 **BNC female for the RF, IF** and optional external 10 MHz reference input and output (option -E). Tables below show connector and other options. The 2016-1327 is powered by a 100-240 $\pm 10\%$ VAC, 47-63 Hz power supply, and is contained in a 1 3/4" X 19" X 16" rack mount chassis.



Front Panel

EQUIPMENT SPECIFICATIONS*

Input Characteristics

Impedance/Return Loss	50Ω/10 dB
Frequency	1300 to 2700 MHz
Noise Figure, Max.	15 dB max. gain
Input Level range	-50 to -20 dBm
Input 1 dB compression	-15 dBm

Output Characteristics

Impedance/Return Loss	75 Ω / 18 dB
Frequency	70 \pm 18 MHz
Output Level/max linear	-20 / -10 dBm
Output 1 dB compression	-5 dBm

Channel Characteristics

Gain range (adjustable)	0.0 to +30.0 dB (1dB steps)
Image Rejection	> 50 dB, min.
Frequency Response	± 2.0 dB, 1300 to 2700 MHz ; ± 0.75 dB, 36 MHz BW
Spurious Response	< -50 dBc, in band
Group Delay, max	0.015 ns/MHz² parabolic; 0.05 ns/MHz linear ; 1 ns ripple
Frequency Sense	Non-inverting

Synthesizer Characteristics

Frequency Accuracy	± 1.0 ppm max over temp (± 0.02 ppm optional)
Frequency Step	1.0 MHz (125 kHz steps is OPTION X)
10 MHz Level (In or Out)	+3 dBm, ± 3 dB, 75 ohms (option E)

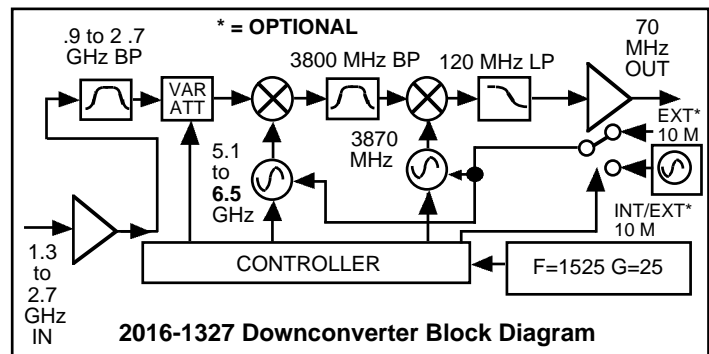
Phase Noise @ Freq	100Hz	1kHz	10kHz	100kHz	1MHz
dBC/Hz	-70	-70	-80	-90	-100

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, option Q)

Other

RF Connector	BNC, 50 ohm (female)
IF, 10 MHz Connectors	BNC (female) Option E
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 $\pm 10\%$ VAC, 47-63 Hz, 45 watts max.



2016-1327 Downconverter Block Diagram

Available Options

- E - External 10 MHz ref input & output
- H - High Stability (± 0.01 ppm) Internal Ref
- Q - RS485 Remote Interface
- T - Temperature Sensor
- W8 - Ethernet M&C Remote Interface
- W18 - Ethernet Interface w/SNMP
- X - 125 kHz Frequency Step Size

Connectors/Impedance

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

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