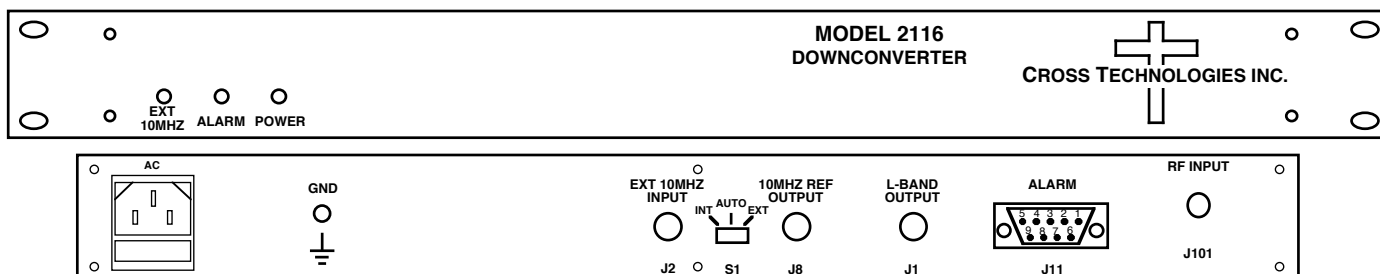


2116-255270 Block Downconverter, 25.5 - 27.0 GHz to 800 - 2300 MHz

The 2116-255270 Downconverter converts **25.5 - 27.0 GHz** to **800 - 2300 MHz** with a local oscillator at **24.7 GHz**. Front panel LEDs provide indication of DC Power, External 10 MHz, and PLL Alarm. The gain is **+0 dB**. Connectors are **2.92 mm** female for the RF input and BNC female for the RF output (designated L-Band) and external reference input and reference output. A three-way switch controls which 10 MHz reference is being used. In the INT position, the internal reference is used, in the EXT position, the external reference is used, and in the AUTO position, the internal reference is used unless a +3 dBm ± 3 dB, 10 MHz reference signal is connected to the external reference input. It is powered by a 100-240 ± 10% VAC power supply, and in a 1 3/4" X 19" X 14" rack mount chassis.



Front and Rear Panels

EQUIPMENT SPECIFICATIONS

Input Characteristics (RF)

Impedance/Return Loss 50Ω/14 dB
Frequency 25.5 to 27.0 GHz
Level -20 to 0 dBm
1 dB Compression +10 dBm

Output Characteristics (designated L-Band)

Impedance/Return Loss 50Ω/14 dB
Frequency 800 to 2300 MHz
Level -20 to 0 dBm
1 dB Compression +10 dBm at Fc

Channel Characteristics

Gain 0 dB ±2 dB at Fc
Image Rejection > 55 dB, min
Spurious, In Band SIGNAL RELATED <-50 dBc in band, 0 dBm out; SIGNAL INDEPENDENT, <-50 dBm
Spurious, Out of Band <-50 dBm (0.1-0.79 GHz and 2.31-3.3 GHz Out)
Intermodulation <-55 dBc for two carriers at Fc ± 2MHz, each at -5 dBm out
Frequency Response ±2.0 dB, 800-2300 MHz out; ± 0.5 dB, 500 MHz BW
Frequency Sense Non-inverting

LO Characteristics

LO Frequency 24.7 GHz
Frequency Accuracy ± 0.01 ppm max over temp internal reference; ext. ref. input

Phase Noise @ F (Hz) >	100	1K	10K	100K	1M
dBc/Hz	-60	-70	-80	-90	-110

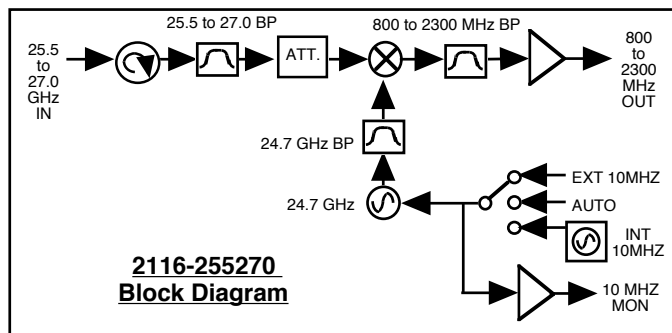
10 MHz level +3 dBm, ± 3 dB, 75 ohms (works with 50Ω or 75Ω), External In or Internal out

Controls, Indicators

INT/AUTO/EXT Switch Selects internal or external 10 MHz (rear panel DP3T switch)
Ext 10 MHz Yellow LED, indicates external 10 MHz reference selected
PLL Alarm Red LED, External contact closure
Power Green LED

Other

RF In Connector 2.92 mm (female), 50Ω
RF Out Connector BNC (female), 50Ω (designated L-band)
10 MHz connectors BNC (female), works with 50Ω or 75Ω
Alarm Connector DB9 - NO or NC contact closure on Alarm
Size 19 inch standard chassis 1.75" high X 14.0" deep
Power 100-240 ± 10% VAC, 47 - 63 Hz, 25 watts maximum



**2116-255270
Block Diagram**

Available Connector Options

297 - 50Ω 2.92 mm (RF), 75Ω BNC (L-BAND)
29N - 50Ω 2.92 mm (RF), 50Ω N-type (L-BAND)
29S - 50Ω 2.92 mm (RF), 50Ω SMA (L-BAND)

*+10 to +40 degrees C; Specifications subject to change without notice