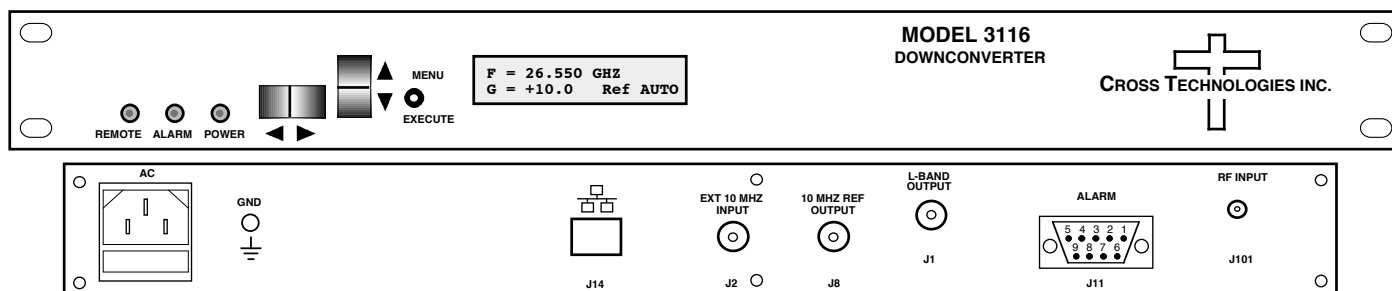


3116-275#-1200 Agile Block Downconverter, 25.25 - 27.5 GHz to 1200 ± 40 MHz

The **3116-275#-1200 Agile Block Downconverter** converts 25.25 - 27.5 GHz to **1200 ± 40 MHz** in **1 MHz steps** with low phase noise and flat frequency response. Frequency translation is via dual conversion. The gain is **+30 dB** maximum and is adjustable in **0.5 ± 0.5 dB steps**. Front panel LEDs provide indication of Remote operation, PLL Alarm and DC Power. Frequency, gain and internal/external/auto reference frequency selection are controlled by front panel switches or remote selection (via RS 232C, standard; Ethernet Optional) and are viewable on the LCD Display. Connectors are **2.92 mm (female)** for the RF and BNC female for the L-Band and external reference input and reference output. In AUTO, the 10 MHz reference switches to internal when the external is below 0 dBm ± 1 dB. The 3116 is powered by a 100-240 ± 10% VAC power supply, and housed in a 1 3/4" X 19" X 14" rack mount chassis.



Front And Rear Panels (Shown with optional Ethernet)

EQUIPMENT SPECIFICATIONS*

Input Characteristics (RF)

Impedance/Return Loss 50Ω/14 dB
Frequency 25.25 to 27.5 GHz
Noise Figure, Max. 20 dB, **Gmax, Fc**
Input Level range -50 to -30 dBm
Input 1 dB compression -25 dBm, **Gmax, Fc**

Output Characteristics (L-Band)

Impedance/Return Loss 75Ω /14 dB
Frequency 1200 ± 40 MHz
Output Level Range -20 to 0 dBm
Output 1 dB compression +10 dBm, **Gmax, Fc**

Channel Characteristics

Gain, max; adjustment **+30 dB ±3 dB**, max. gain; 30 dB adjustment in **0.5 ± 0.5 dB Steps, Fc**
Image Rejection > 60 dB, min
Spurious, In Band SIGNAL RELATED <-50 dBc in band, 0 dBm out; 2X_{Fo} <-45dBc; SIGNAL INDEPENDENT, <-60 dBm, **Gmax**
Spurious, Out of Band <-50 dBm, **0.5-1.16 GHz and 1.24- 2.5 GHz, Gmax**
Intermodulation <-50 dBc for two carriers at Fc ±2 MHz, each at -10 dBm out, **Gmax**
Frequency Response **±1.5 dB, 1200 ± 40 MHz** out; ± 0.5 dB, 40 MHz BW
Frequency Sense Non-inverting

LO Characteristics

Frequency Step 1 MHz, minimum
Frequency Accuracy ± 0.01 ppm max over temp internal reference; ext. ref. input
10 MHz In/Out Level 3 dBm, ± 3 dB, w/ Auto-detect

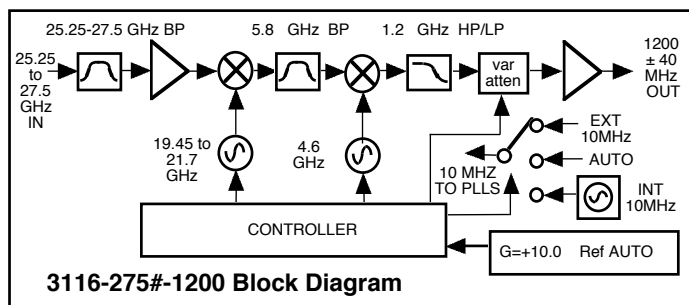
Phase Noise @ Freq	100 Hz	1kHz	10kHz	100kHz	1 MHz
dBc	60	70	80	90	100

Controls, Indicators

Freq., Gain, Ext Ref Sel. Direct readout LCD; pushbutton switches or remote
Power; Alarm; Remote Green LED; Red LED; Yellow LED
Remote RS232C/RS485/422, 9600 baud (Ethernet/opt -W8, 18, 28, 828)

Other

RF Connector 2.92 mm (female)
L-Band Connector BNC (female), 75Ω
10 MHz Connectors BNC (female), 75Ω, works with 50 or 75 ohms
Alarm/Remote Conn. DB9 - NO or NC contact closure on Alarm
Size 19 inch standard chassis 1.75" high X 14" deep
Power 100-240 ± 10% VAC, 47 - 63 Hz, 30 watts max.



3116-275#-1200 Block Diagram

Available Options

W85-O -20 dB SMA Rear Panel Out Mon.
W8 Ethernet; w/Web Browser (WB)
W18 Ethernet; w/WB & SNMP
W28 Ethernet; w/TCP/IP, Telnet
W828 Ethernet; W8 +W18 +W28

Connectors/Impedance

S2 2.92mm (RF), 50Ω BNC (IF)
SS2 2.92mm (RF), SMA (IF)
Contact Cross for other options

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