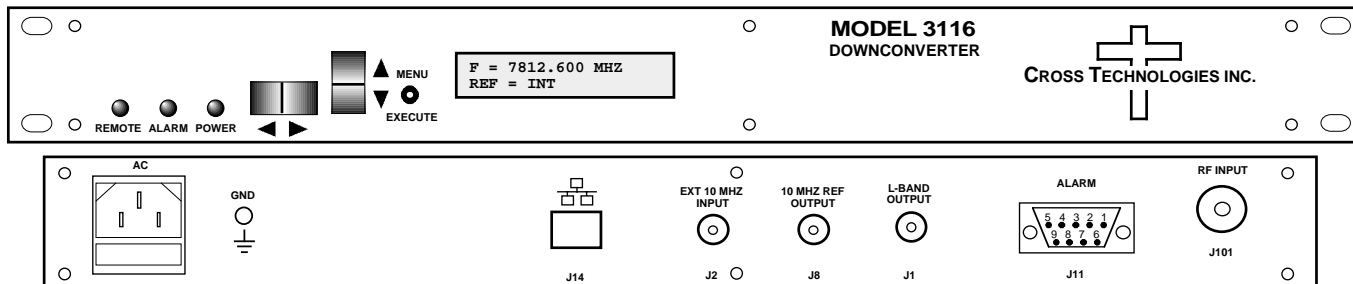


3116-77#-1200 Block Downconverter, 7.75 - 8.45 GHz to 1200 ± 20 MHz

The 3116-77#-1200 Downconverter converts **7.75 - 8.45 GHz** to **1200 ± 20 MHz** (non-inverted) in **100 kHz steps** with a **6.55 - 7.25 GHz** local oscillator. **The gain is -5 ± 2 dB**. Front panel LEDs provide indication of Remote operation, PLL Alarm and DC Power. **Frequency** and internal/external/Auto reference **mode** selection are controlled by front panel switches or remote selection (via RS-232C/485, standard; Ethernet Optional) and are viewable on the LCD Display. Connectors are Type N female for the RF and BNC female for the L-Band and external reference input and reference output. In AUTO, the 10 MHz reference stays in external if the external level is **+3 dBm, ±3 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.



EQUIPMENT SPECIFICATIONS*

Input Characteristics (RF)

- Impedance/Return Loss: 50Ω/14 dB
- Frequency: **7.75 to 8.45 GHz**
- Noise Figure, Max.: **20 dB**
- Input Level range: **-10 to 0 dBm**
- Input Non-damage: **+10 dBm**

Output Characteristics (L-Band)

- Impedance/Return Loss: 50Ω/14 dB
- Frequency: **1200 ± 20 MHz**
- Output Level Range: **-15 to -5 dBm**
- Output 1 dB compression: **+5 dBm**

Channel Characteristics

- Gain at Fc: **-5 dB ± 2 dB**
- Image Rejection: **> 60 dB, min**
- Spurious, In Band: **SIGNAL RELATED <-45 dBC, -5 dBm out; SIGNAL INDEPENDENT, <-60 dBm (1200 ±20 MHz Out)**
- Spurious, Out of Band: **<-50 dBm (0.5-1.17 and 1.23-2.0 GHz Out)**
- Intermodulation: **<-50 dBC for two carriers at 4 MHz spacing, each at -15 dBm out**
- Frequency Response: **±1.5 dB over the band, ± 0.75 dB 1200 ±20 MHz out;**
- Frequency Sense: **Non-inverting**

LO Characteristics

- LO Frequency: **6.55 - 7.25 GHz, 100 kHz steps**
- 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 @ F (Hz) >	10	100	1K	10K	100K	1M
Standard dBC/Hz	-55	-75	-80	-80	-100	-120

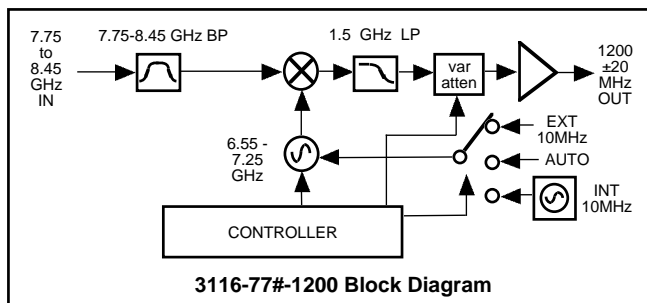
Controls, Indicators

- Freq.; Ext Ref Selection: Direct readout LCD; pushbutton switches or remote
- Pwr; Alarm; Rem; Mute: Green LED; Red LED; Yellow LED; Yellow LED
- Remote: RS232C/RS485/422, 9600 baud (Ethernet Optional)

Other

- RF Connector: N-Type (female), 50Ω
- L-Band Connector: BNC (female), 50Ω
- 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 14.0" deep
- Power: 100-240 ± 10% VAC, 47 - 63 Hz, **30 watts max.**

Front and Rear Panel



Available Options

- W71 - IF Monitor Port (-20 dB, Front)
- W31 0 to +50 degrees C operation

Remote M&C Ethernet Options

- W8 - Ethernet w/web browser Interface
- W18 - Ethernet w/SNMP (and MIB) Interface
- W28 - Ethernet w/direct TCP/IP Interface

Connector Options

- N - 50Ω N-type (RF), 75Ω BNC (L-BAND)
- NN - 50Ω N-type (RF), 50Ω N-type (L-BAND)
- S7 - 50Ω SMA (RF), 75Ω BNC (L-BAND)
- SN - 50Ω SMA (RF), 50Ω N-type (L-BAND)
- SS - 50Ω SMA (RF), 50Ω SMA (L-BAND)

Contact Cross for other Options

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

