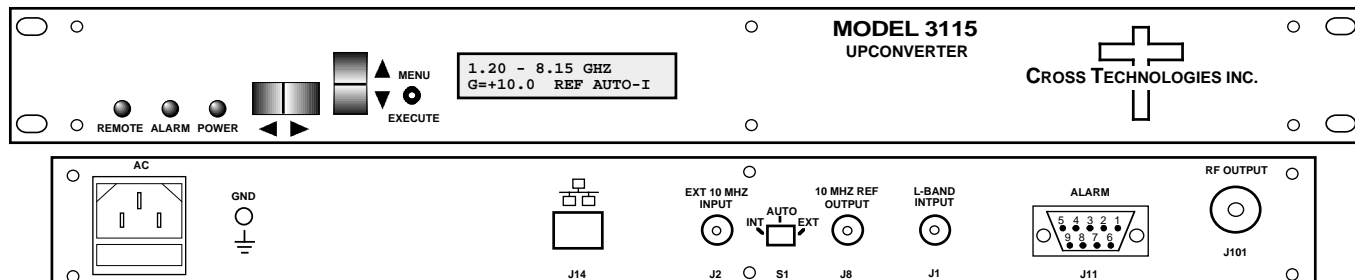


3115-79 Block Upconverter, 0.95 - 1.45 GHz to 7.9 - 8.4 GHz

The 3115-79 Upconverter converts 0.95 - 1.45 GHz to 7.9 - 8.4 GHz (non-inverted) with a 6.95 GHz local oscillator. 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. Gain and internal/external/Auto reference frequency 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 3115 is powered by a $100\text{-}240 \pm 10\%$ VAC power supply, and housed in a $1\frac{3}{4}'' \times 19'' \times 14''$ rack mount chassis.



EQUIPMENT SPECIFICATIONS*

Input Characteristics

Impedance/Return Loss 50Ω/14 dB
Frequency **0.95 to 1.45 GHz**
Noise Figure, Max. 12 dB max gain
Input Level range -40 to -20 dBm

Output Characteristics

Impedance/Return Loss 50Ω /18 dB
Frequency **7.9 to 8.4 GHz**
Output Level Range -20 to -5 dBm
Output 1 dB compression **+5 dBm at max. gain**

Channel Characteristics

Gain, max; adjustment **+30 dB ± 1 dB**, max. gain; **30 dB** adjustment in **0.5 ± 0.5 dB** Steps
Image Rejection > 60 dB, min
Spurious, In Band **-55 dBC in band, -20 to -5 dBm out**
Spurious, Out of Band **-55 dBC, FL -0.9 GHz to FL and FH to FH +0.9 GHz ;FL= 7.9 GHz and FH = 8.4 GHz**
Spurious, Out of Band **-50 dBm, FL -2 GHz to FL -0.9 GHz and FH +0.9 GHz to FH +2 GHz**
Intermodulation <-55 dBC for two carriers each at **-10 dBm out, GAIN = +30 dB**
Frequency Response **± 1.0 dB**, 7.9 -8.4 GHz out; ± 0.5 dB, 40 MHz BW
Frequency Sense Non-inverting

LO Characteristics

LO Frequency **6.95 GHz**
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	-70	-80	-85	-100	-110
Opt W87 Enhanced dBC/Hz	-60	-75	-90	-95	-105	-120

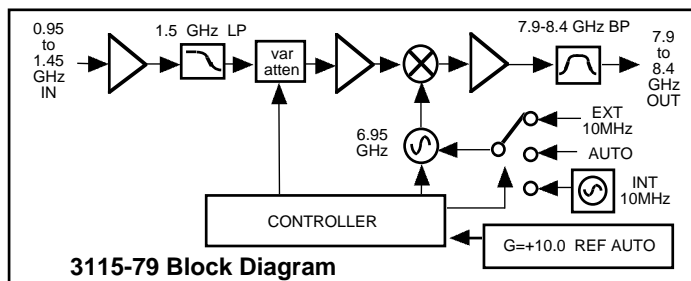
Controls, Indicators

Gain; 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 $100\text{-}240 \pm 10\%$ VAC, 47 - 63 Hz, 45 watts max.

Front and Rear Panel



Available Options

- W7 L-band/RF front panel Monitors(-20dBC)
- W31 0 to +50 degrees C operation
- W87 Enhanced phase noise

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

Available Connector Options

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

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