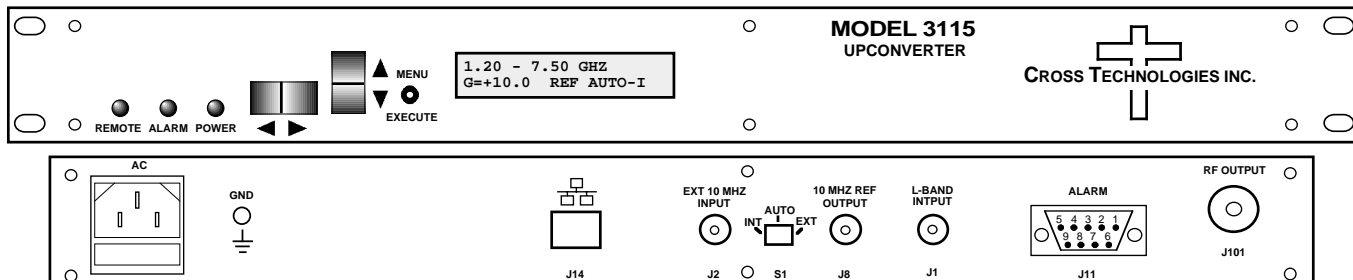


3115-72 Block Upconverter, 0.95 - 1.45 GHz to 7.25 - 7.75 GHz

The 3115-72 Upconverter converts 0.95 - 1.45 GHz to 7.25 - 7.75 GHz (non-inverted) with a 6.3 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 N-Type 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 100-240 \pm 10% VAC power supply, and housed in a 1 3/4" X 19" X 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 **7.25 to 7.75 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= 7.25 GHz and FH = 7.75 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**, 7.25 - 7.75 GHz out; ± 0.5 dB, 40 MHz BW
 Frequency Sense Non-inverting

LO Characteristics

LO Frequency **6.3 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

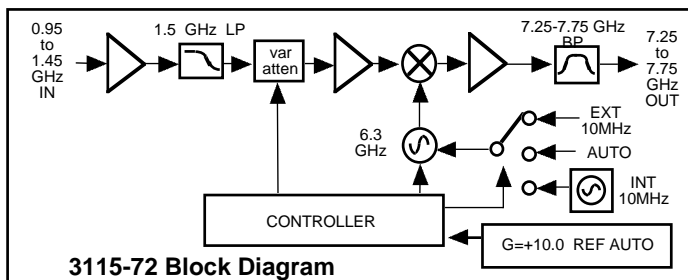
Controls, Indicators

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 100-240 \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

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.

