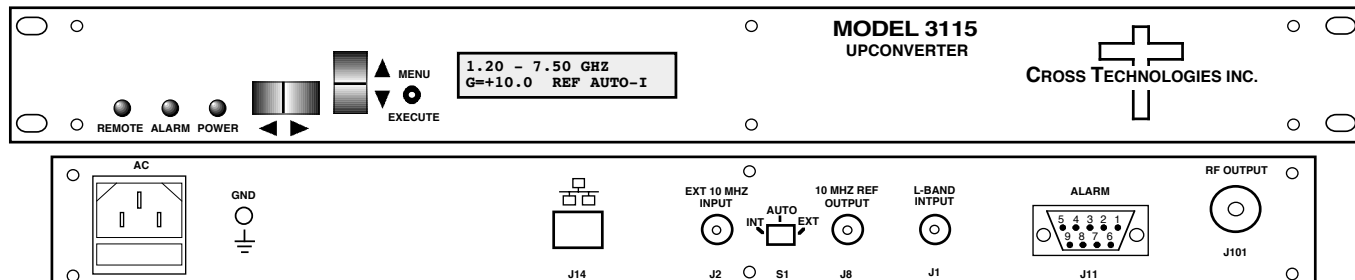


3115-72 Block Upconverter, 0.95 - 1.45 GHz to 7.25 - 7.75 GHz

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

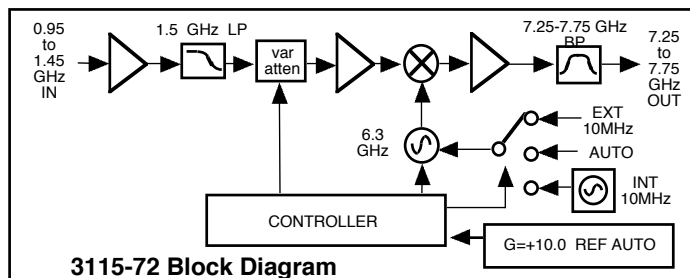
Controls, Indicators

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.