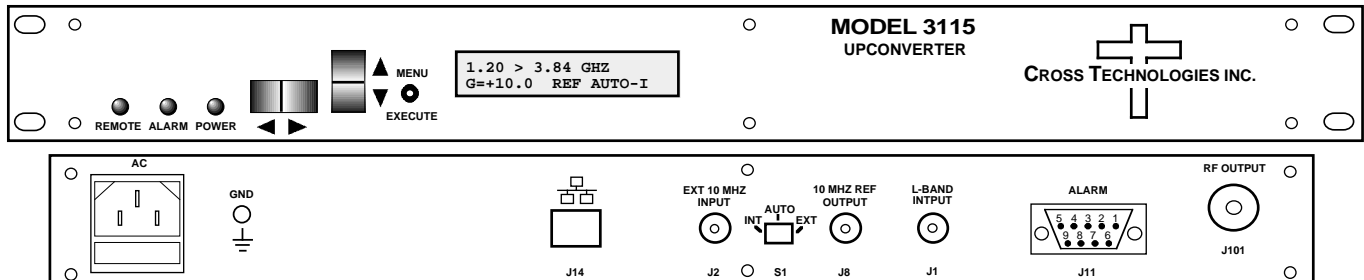


3115-35 Block Upconverter, 0.95 - 1.45 GHz to 3.59 - 4.09 GHz

The 3115-35 Upconverter converts 0.95 - 1.45 GHz to 3.59 - 4.09 GHz (non-inverted) with **11.48** and **8.84** GHz local oscillators. 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 Out 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**. It 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 50 Ω /14 dB
Frequency **0.95 to 1.45 GHz**
Noise Figure, Max. **15 dB max gain**
Input Level range -40 to -20 dBm

Output Characteristics

Impedance/Return Loss 50 Ω /18 dB
Frequency **3.59 to 4.09 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= 3.59 GHz and FH = 4.09 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, 3.59 -4.09 GHz out; ± 0.5 dB, 40 MHz BW**
Frequency Sense Non-inverting

LO Characteristics

LO Frequencies **11.48 and 8.84 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	-80	-95	-110

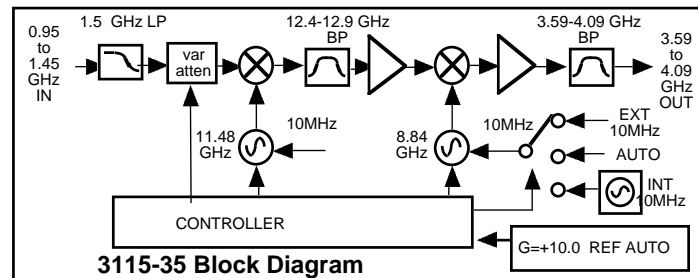
Controls, Indicators

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 Out Connector N-type (female), 50 Ω
L-band Connector BNC (female), 50 Ω
10 MHz Connectors BNC (female), **75 Ω , 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 - 50 Ω N-type (RF), 75 Ω BNC (L-BAND)
NF - 50 Ω N-type (RF), 75 Ω F-type (L-BAND)
NN - 50 Ω N-type (RF), 50 Ω N-type (L-BAND)
S7 - 50 Ω SMA (RF), 75 Ω BNC (L-BAND)
SF- 50 Ω SMA (RF), 75 Ω F-type (L-BAND)
SN - 50 Ω SMA (RF), 50 Ω N-type (L-BAND)
SS - 50 Ω SMA (RF), 50 Ω SMA (L-BAND)

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