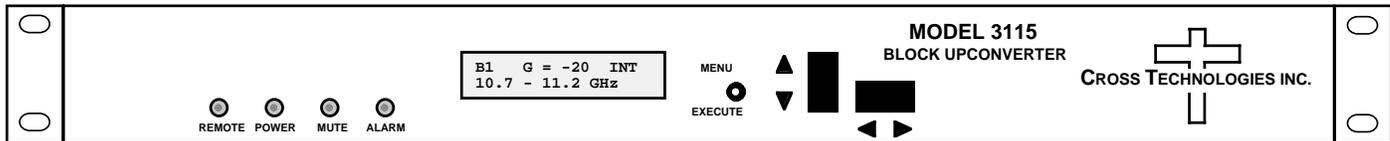


3115-51 Block Upconverter, Five-Band

The 3115-51 Block Upconverter converts 0.95 - 1.45 GHz to one of five 500 MHz wide RF bands over the 10.7 to 12.75 GHz range. Push button switches select the RF band, gain, and other parameters. Front panel LEDs provide indication of DC power (green), remote operation (yellow), PLL alarm (red), or the TX carrier is muted (yellow). A variable attenuator at the RF output provides a gain range of 0 to -20 dB as adjusted by the front panel pushbutton switches. Remote operation allows selection of frequency band and gain. Parameter selection and frequency band and gain settings appear on the LCD display. Connectors are SMA for the L-band input and the RF output (other connector configurations available), BNC female for the 10MHz reference input and output. The 3115-51 is powered by a 100-240 \pm 10% VAC power supply; and housed in a 1.75" X 19" X 16" rack mount chassis.



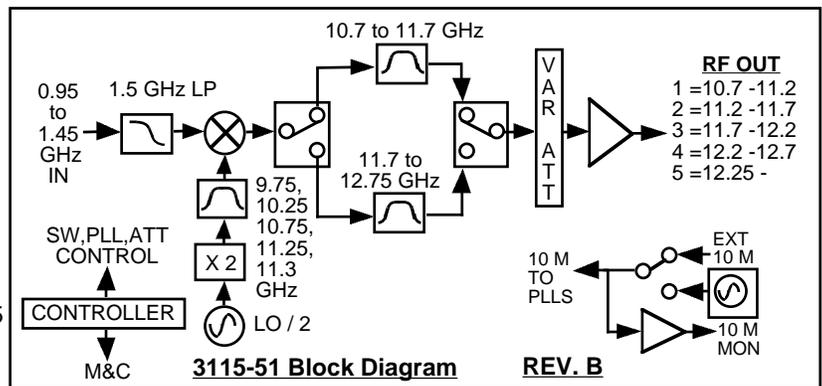
EQUIPMENT SPECIFICATIONS*

Input Characteristics

Impedance/Return Loss 50 Ω /14 dB
 Frequency 0.95 to 1.45 GHz
 Noise Figure, Max. **25 dB at max gain**
 Input Level range **-20 to 0 dBm**
 Input 1 dB compression **+10 dBm**

Output Characteristics

Impedance/Return Loss 50 Ω /14 dB
 Frequency (GHz) BAND1-10.7 to 11.2
 BAND2-11.2 to 11.7
 BAND3-11.7 to 12.2
 BAND4-12.2 to 12.7
 BAND5-12.25 to 12.75
 Output Level Range **-20 to 0 dBm**
 Output 1 dB compression **+10 dBm**



Channel Characteristics

Gain **0 \pm 2 dB, maximum (0 to -20 dB variable in 1 dB steps)**
 Image Rejection > 60 dB, min
 Spurious, Inband SIGNAL RELATED < -60 dBC in band, -15 to 0 dBm out; SIGNAL INDEPENDENT, < -60 dBC
 Spurious, Out of band < -50 dBC
 Intermodulation < -50 dBC for two carriers each at -5 dBm out
 Frequency Response \pm 1.5 dB, over 500 MHz RF band; \pm 0.5 dB, 40 MHz BW
 Frequency Sense Non-inverting

LO Characteristics

LO Frequency Band Specific, 9.75, 10.25, 10.75, 11.25, 11.3 GHz
 Frequency Accuracy \pm 0.01 ppm max over temp internal; ext. ref. input

Phase Noise @ F (Hz) >	100	1K	10K	100K	1M
dBc/Hz	-70	-80	-85	-100	-110

10 MHz In/Out Level 3 dBm \pm 3 dB

Controls, Indicators

Band/Gain Selection direct readout LCD; pushbutton switches or remote
 Pwr; Alarm; Rem; Mute Green LED; Red LED; Yellow LED; Yellow LED
 Remote RS232C, 9600 baud (RS485, Ethernet Options)

Other

RF Out Connector SMA (female), 50 Ω
 L-Band Connector SMA (female), 50 Ω
 10 MHz Connectors BNC (female), 50 Ω /75 Ω
 Alarm/Remote Connector DB9 - NO or NC contact closure on Alarm
 Size 19 inch, 1RU standard chassis 1.75" high X 16.0" deep
 Power 100-240 \pm 10% VAC, 47-63 Hz, 45 watts max

Available Options

Q - RS485 Remote Interface
 W8 - Ethernet Remote Interface
 W8S - Ethernet W/SNMP Remote Interface
Connector/Impedance
 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)

*+0 to +50 degrees C; Specifications subject to change without notice