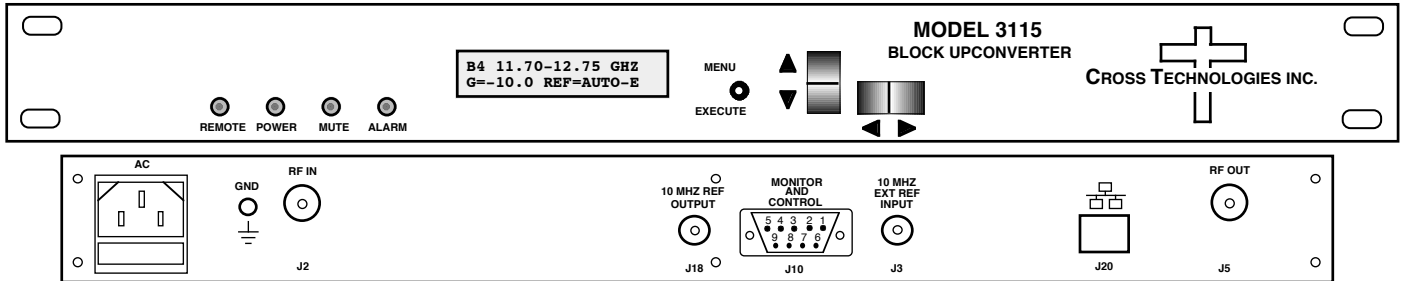


3115-41-128# Block Upconverter, 3.4-4.2, 7.25-7.75, 10.70-11.80, 11.70-12.75 GHz

The 3115-41-128# Block Upconverter converts 0.95-1.75 to 3.4-4.2 GHz or 0.95-1.45 to 7.25-7.75 GHz or 0.95-2.05 to 10.70-11.80 GHz or 0.95-2.0 to 11.70-12.75 GHz. The gain range is **0 to -30 dB**, adjustable in **0.5 ±0.5 dB** steps. Front panel LEDs indicate Remote operation, DC Power, Mute and PLL Alarm. Band select, gain and internal/external/Auto reference frequency selection are controlled by front panel switches or remote selection via RS232C or RS485/422 (Ethernet Optional) and are viewable on the LCD Display. Connectors are SMA 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 in the +2 to +8 dBm range. The 3115 is powered by a 100-240 ± 10% VAC power supply, and housed in a 1 3/4" X 19" X 16" rack mount chassis.



Front and Rear Panel (shown with Ethernet option)

EQUIPMENT SPECIFICATIONS*

Input Characteristics (L-Band)

Impedance/Return Loss 50Ω/14 dB min.
 Frequency Band 1,2 **0.95-1.75, 0.95-1.45 GHz**
 Frequency Band 3,4 **0.95-2.05, 0.95-2.00 GHz**
 Noise Figure, Max. **30 dB at max. gain**
 Input Level range -50 to -30 dBm

Output Characteristics (RF)

Impedance/Return Loss 50Ω/14 dB
 Frequency Band 1,2 **3.4-4.2, 7.25-7.75 GHz**
 Frequency Band 3,4 **10.70-11.80, 11.70-12.75 GHz**
 Output Level Range **-50+GAIN dBm to -30+GAIN dBm**
 Output 1 dB compression **-20+GAIN dBm**

Channel Characteristics

Gain, max; adjustment **+0 dB ±3 dB, max. gain; (0 to -30 dB variable in 0.5 ±0.5 dB Steps)**
 Spurious, In Band **<-45 dBC, <-50 dBC typical; -30 to -50 dBm out, Gain = 0 dB**
 Spurious, Out of Band **<-35 dBC, Fc ± 1GHz; -30 to -50 dBm out, Gain = 0 dB**
 Intermodulation **<-50 dBC for two carriers at 4 MHz spacing centered at Fc, each at -35 dBm out, Gain = 0 dB**
 Frequency Response **±2 dB, over RF band; ± 0.5 dB, 40 MHz BW**
 Frequency Sense **Band 1, Inverting; Bands 2, 3, 4, Non-inverting**

LO Characteristics

LO Freq. Band 1;2;3;4 **5.15 GHz; 6.30 GHz; 9.75 GHz; 10.75 GHz**
 Frequency Accuracy ±0.01 ppm max over temp internal reference or ext. ref. input
 10 MHz level In/Mon +2 to +8 dBm in, w/Auto-detect; Monitor Output = +3 ±3 dBm

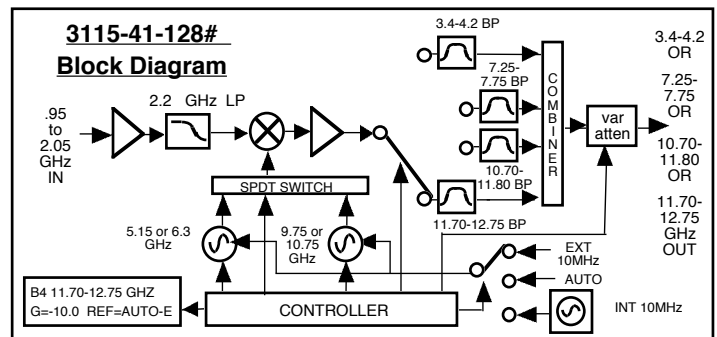
Phase Noise @ F (Hz) >	100	1K	10K	100K	1M
dBC/Hz	-70	-80	-80	-95	-110

Controls, Indicators

Band; Gain; 10M Ref Sel. Direct readout LCD; pushbutton switches or remote
 Rem; Alarm; Mute; Pwr Yellow LED; Red LED; Yellow LED; Green LED
 Remote RS232C/RS485/422, 9600 baud (Ethernet Optional)

Other

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



Available Options

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