



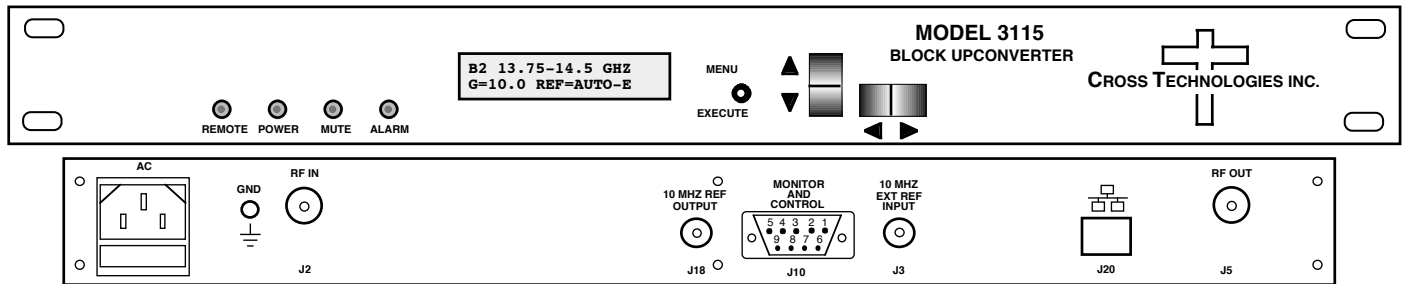
DATA SHEET

REV. 0

12/14/17

3115-21-67145 Block Upconverter, 5.85-6.725 or 13.75-14.5 GHz

The 3115-21-67145 Block Upconverter converts 0.95-1.825 to 5.85-6.725 GHz or 0.95-1.70 to 13.75-14.5 GHz. The gain range is 0 to +30 dB, adjustable in 0.5 dB steps. Front panel LEDs indicate Remote operation, PLL Alarm and DC Power. Band select, gain and internal/external/Auto reference frequency selection are controlled by front panel switches or remotely via RS 232C 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 $\pm$ 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 (RF)

Impedance/Return Loss 50 Ω /14 dB
Frequency Band 1;2 0.95 -1.825; 0.95 -1.70; GHz;
Noise Figure, Max. 20 dB max gain
Input Level range -40 to -20 dBm

Output Characteristics (L-Band)

Impedance/Return Loss 50 Ω /14 dB, **Mute and UnMute**
Frequency Band 1;2 5.85-6.725; 13.75 -14.5 GHz
Output Level Range -15 to 0 dBm
Output 1 dB compr. +10 dBm, at max. gain
Mute >60 dB @ 0 dBm out

Channel Characteristics

Gain, max; adjustment +30 dB $\pm$ 2 dB, max. gain; 30 dB adjustment in 0.5 $\pm$ 0.5 dB Steps
Image Rejection > 60 dB, min
Spurious, In Band SIGNAL RELATED<-60 dBC in band, 0 dBm out; SIGNAL INDEPENDENT,<-60 dBm
Spurious, Out of Band <-50 dBm, Band 1,2; 4.8-5.8 and 6.8-8 GHz ; 12.7-13.7 and 14.6-15.5 GHz
Intermodulation <-55 dBC for two carriers at 4 MHz spacing, each at -10 dBm out, **Gain = +30 dB**
Frequency Response $\pm$ 1.5 dB, 5.85-6.725 GHz, and 13.75 -14.5 GHz out; $\pm$ 0.5 dB, 40 MHz BW
Frequency Sense 1;2 Non-inverting

LO Characteristics

LO Freq. Band 1;2 12.80/7.90 GHz; 12.8 GHz
Frequency Accuracy $\pm$ 0.01 ppm max over temp internal reference; ext. ref. input
10 MHz level In/Mon +2 to +8 dBm in, w/Auto-detect; Monitor Output = +3 $\pm$ 3 dBm

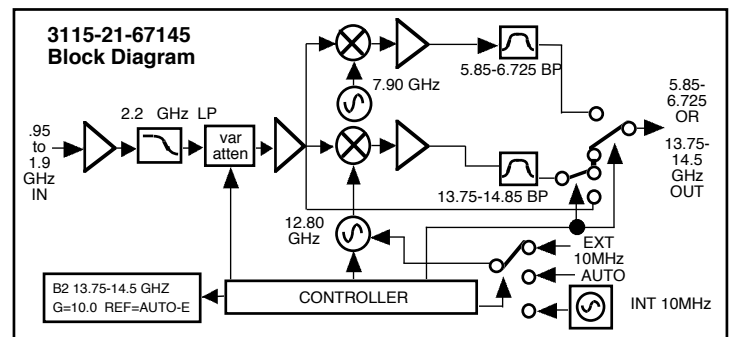
Phase Noise @ F (Hz) >	100	1K	10K	100K	1M
dBC/Hz	-70	-75	-85	-95	-110

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), 50 Ω
L-Band Connector BNC (female), 50 Ω
10 MHz Connectors **BNC (female), 75 ohms; Works with 50 or 75 Ω**
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 $\pm$ 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 - 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