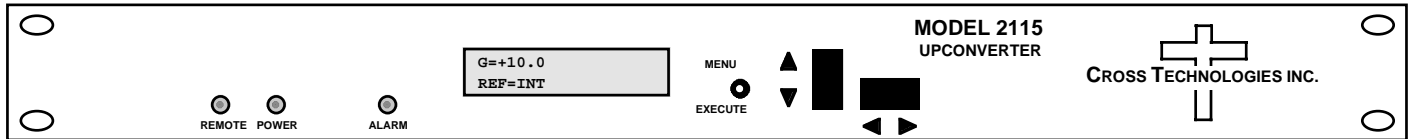


2115-158 Block Upconverter, 5.85 to 6.65 GHz

The 2115-158 Block Upconverter converts 0.95 - 1.75 GHz to 5.85 - 6.65 GHz with low phase noise and flat frequency response. Frequency translation is via a 4.90 GHz local oscillator. Front panel LEDs provide indication of DC power, PLL alarm, and remote operation. Gain settings appear on the LCD display. Gain is +30 to 0 dB adjustable in 0.5 dB steps by the front panel multi-function push-button switches. Connectors are Type N female for the RF and IF and BNC female for the external reference input and reference output. Powered by a 90-260 VAC power supply; 1 3/4" X 19" X 16" rack mount chassis.



Front Panel

EQUIPMENT SPECIFICATIONS*

Input Characteristics

Impedance/Return Loss 50Ω / 17 dB
 Frequency 0.95 to 1.75 GHz
 Noise Figure, Max. 15 dB max gain
 Input Level range -70 to -30 dBm
 Input 1 dB compression -10 dBm

Output Characteristics

Impedance/Return Loss 50Ω / 18 dB
 Frequency 5.85 to 6.65 GHz
 Output Level Range -40 to 0 dBm
 Output 1 dB compression +13 dBm

Channel Characteristics

Gain, adjustable 0 to +30 dB, 0.5 dB steps
 Group Delay < ± 3 ns any 40 MHz BW
 Level Stability ± 0.25 dB/day
 Image Rejection > 60 dB, min
 Spurious, Inband SIGNAL RELATED<-65 dBC in band, 0 dBm out; SIGNAL INDEPENDENT,<-65 dBm
 Spurious, Out of band < -50 dBm
 Intermodulation < -50 dBC for two carriers each at 0 dBm out
 Frequency Response ±1 dB, 5.85 - 6.65 GHz out; ± 0.5 dB, 40 MHz BW
 Frequency Sense Non-inverting

LO Characteristics

LO Frequency 4.90 GHz
 Frequency Accuracy ± 0.01 ppm max over temp internal reference; external reference input
 10 MHz In/Out Level 3 dBm ± 3 dB
 Phase Noise

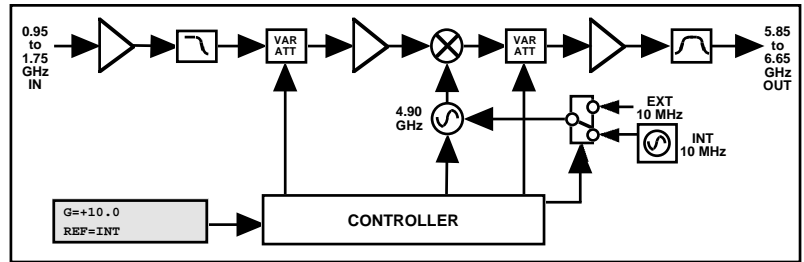
@ Freq	100Hz	1kHz	10kHz	100kHz	1MHz
dBC/Hz	< -70	< -80	< -85	< -100	< -110

Controls, Indicators

Gain Selection Direct readout LCD; manual or remote selection
 Power Green LED
 Alarm Red LED, External contact closure
 Remote Yellow LED; RS485 or RS232C, 9600 baud

Other

RF Connector Type N (female), 50Ω (SMA, 50Ω optional)
 L-Band Connector BNC (female), 50Ω (BNC, 75Ω; Type-F, 75Ω; Type-N, 50Ω optional)
 10 MHz Connectors BNC (female), 50Ω/75Ω
 Alarm Connector DB9 - NO or NC contact closure on Alarm
 Size 19 inch standard chassis 1.75" high X 14.0" deep
 Power 90 - 260 VAC, 47 - 63 Hz, 45 watts max.



Block Diagram

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