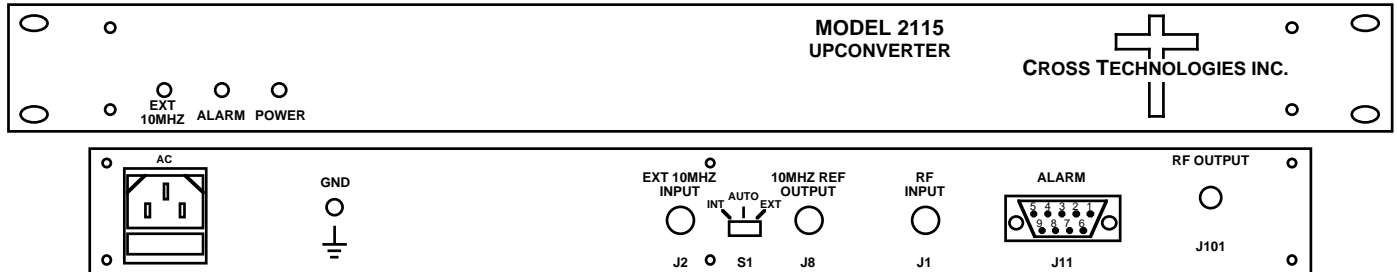


2115-222 Block Upconverter, 21.35 - 22.35 GHz

The 2115-222 Block Upconverter converts 2.5 - 3.5 GHz to 21.35 - 22.35 GHz with a local oscillator at 18.85 GHz. Front panel LEDs provide indication of DC Power, External 10 MHz, and PLL Alarm. The RF In to RF Out gain is 0 dB. Connectors are SMA female for the RF Out and BNC female for the RF In and external reference input and reference output. A three-way switch controls which 10 MHz reference is being used. In the INT position, the internal reference is used, in the EXT position, the external reference is used, and in the AUTO position, the internal reference is used unless a +3 dBm ± 3 dB, 10MHz reference signal is connected to the external reference input. The 2115 is powered by a 100-240 ±10% VAC power supply, and mounted in a 1 3/4" X 19" X 14" rack mount chassis.



Front and Rear Panels

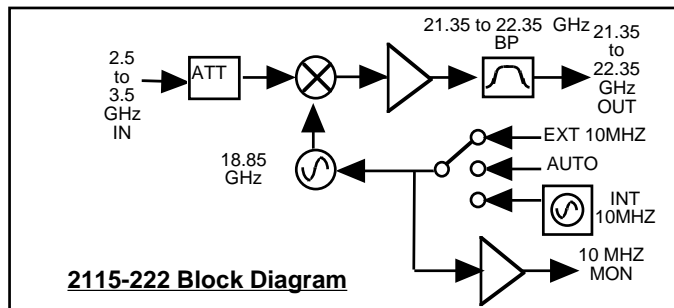
EQUIPMENT SPECIFICATIONS*

Input Characteristics

- Impedance/Return Loss 50Ω/10 dB
- Frequency 2.5 to 3.5 GHz
- Noise Figure, Max. 20 dB max gain
- Input Level range -10 to -30 dBm
- Input 1 dB compression +4 dBm

Output Characteristics

- Impedance/Return Loss 50 Ω /10 dB
- Frequency 21.35 to 22.35 GHz
- Output Level Range -10 to -30 dBm
- Output 1 dB compression +4 dBm



2115-222 Block Diagram

Channel Characteristics

- Gain 0 dB ±3 dB
- Image Rejection > 55 dB, min
- Spurious, Inband SIGNAL RELATED <-50 dBC in band, -10 dBm out; SIGNAL INDEPENDENT, <-70 dBm
- Spurious, Out of band, LO <-60 dBm
- Intermodulation <-50 dBC for two carriers each at -13 dBm out
- Frequency Response ±2 dB, 21.35-22.35 GHz out; ± 1.0 dB, 40 MHz BW
- Frequency Sense Non-inverting

LO Characteristics

- LO Frequency 18.85 GHz
- Frequency Accuracy ± 0.01 ppm max over temp internal reference; external reference input

Phase Noise @ F (Hz) >	100	1K	10K	100K	1M
dBC/Hz	-55	-70	-80	-100	-115

10 MHz In/Out level +3 dBm, ± 3 dB

Controls, Indicators

- Ext 10 MHz Yellow LED, indicates external 10 MHz reference selected (rear panel DPDT switch)
- PLL Alarm Red LED, External contact closure
- Power Green LED

Other

- RF Out Connector SMA (female), 50Ω
- RF In Connector BNC (female), 50Ω
- 10 MHz connectors BNC (female), 75Ω connector; Works for 50Ω or 75Ω
- Alarm Connector DB9 - NO or NC contact closure on Alarm
- Size 19 inch standard chassis 1.75" high X 14.0" deep
- Power 100-240 ±10% VAC, 47 - 63 Hz, 25 watts max.

Available Connector Options

- SN - 50Ω SMA (RF Out), 50Ω N-type (RF In)
- SS - 50Ω SMA (RF Out), 50Ω SMA (RF In)

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

