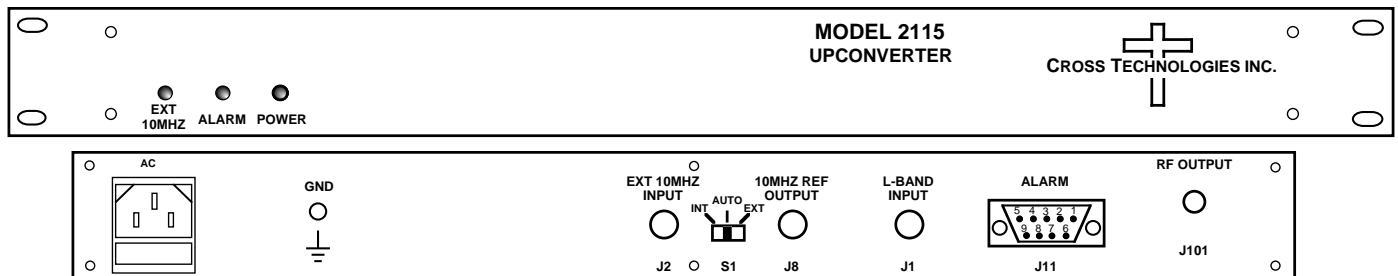


2115-275-1845 Block Upconverter, 1.345 - 2.345 GHz to 27.50 - 28.50 GHz

The 2115-275-1845 Block Upconverter converts **1.345 - 2.345 GHz (Fc=1845 MHz)** to **27.50 - 28.50 GHz** with a local oscillator at **26.155 GHz**. Front panel LEDs provide indication of DC Power, External 10 MHz, and PLL Alarm. The gain is +20 dB. Connectors are **2.92 mm** female for the RF out and BNC female for the RF in (designated L-Band) 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. It is powered by a 100-240 ± 10% VAC power supply, and in a 1 3/4" X 19" X 14" rack mount chassis.



Front and Rear Panels

EQUIPMENT SPECIFICATIONS*

Input Characteristics (designated L-Band)

Impedance/Ret. Loss 50Ω/14 dB
Frequency **1.345 to 2.345 GHz**
Noise Figure, Max. 20 dB max gain
Input Level range -40 to -25 dBm
Input 1 dB compression **-15 dBm**

Output Characteristics (RF)

Impedance/Ret. Loss 50 Ω /14 dB
Frequency **27.50 to 28.50 GHz**
Output Level Range -20 to -5 dBm
Output 1 dB compr. +5 dBm

Channel Characteristics

Gain +20 ±1 dB at Fc
Image Rejection > 60 dB, min
Spurious, Inband SIGNAL RELATED <-60 dBc in band, -5 dBm out; SIGNAL INDEPENDENT, <-60 dBm
Spurious, Out of band <-50 dBm, **26.5-27.5 and 28.5-29.5 GHz out**
Intermodulation <-55 dBc for two carriers each at -10 dBm out
Frequency Response **±2.0 dB, 27.50 - 28.50 GHz out**; ± 0.5 dB, 40 MHz BW
Frequency Sense Non-inverting

LO Characteristics

LO Frequency **26.155 GHz**
Frequency Accuracy ± 0.01 ppm max over temp internal reference; ext. ref. input

Phase Noise @ F (Hz) >	100	1K	10K	100K	1M
dBC/Hz	-70	-75	-80	-90	-110

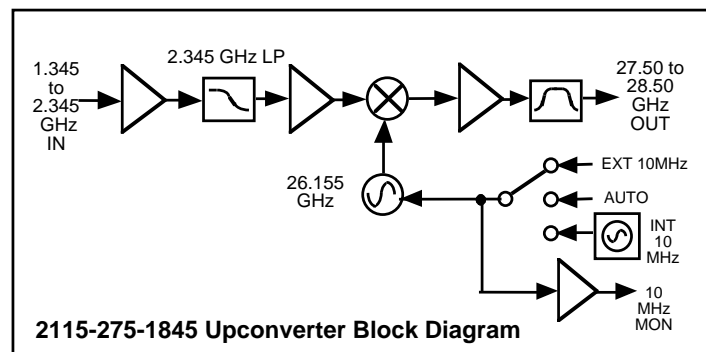
10 MHz level +3 dBm, ± 3 dB, 75 ohms, External In or Internal out

Controls, Indicators

INT/AUTO/EXT Switch Selects internal or external 10 MHz (rear panel DP3T switch)
Ext 10 MHz Yellow LED, indicates external 10 MHz reference selected
PLL Alarm Red LED, External contact closure
Power Green LED

Other

RF In Connector BNC (female), 50Ω (designated L-band)
RF Out Connector **2.92 mm (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.



2115-275-1845 Upconverter Block Diagram

Available Connector Options

297 - 50Ω 2.92 mm (RF), 75Ω BNC (L-BAND)
29N - 50Ω 2.92 mm (RF), 50Ω N-type (L-BAND)
29S - 50Ω 2.92 mm (RF), 50Ω 2.92 mm (L-BAND)

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