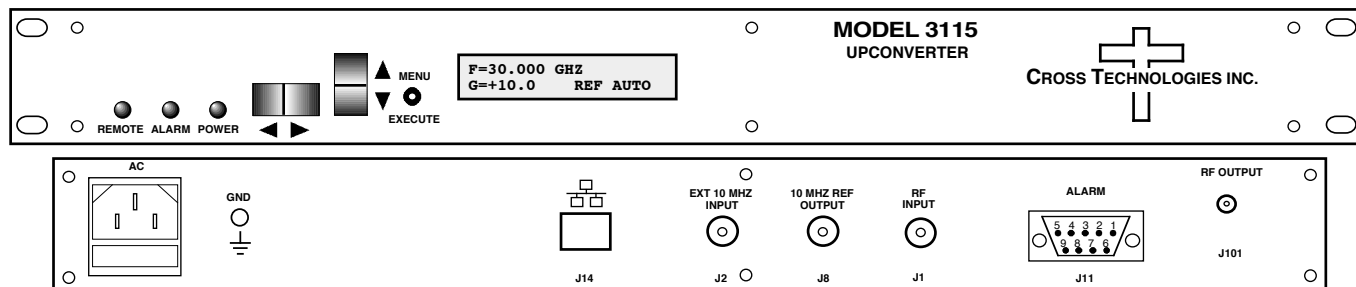


## 3115-290#-1200 Agile Block Upconverter, 1200 ± 200 MHz to 29.0 - 31.0 GHz

The 3115-290#-1200 Agile Block Upconverter converts 1200 ± 200 MHz to 29.0 to 31.0 GHz in 1 MHz steps. This unit converts 1200 MHz to 5.5 GHz and then 5.5 GHz to 29.0 - 31.0 GHz. Synthesized local oscillators (LO) provide frequency selection. Multi-function switches select the RF frequency, gain, and other parameters. Front panel LEDs provide indication of DC power (green), PLL alarm (red), and remote operation (yellow). Variable attenuators for the 1200 MHz input provide a gain range of 0 to +20 dB as adjusted by front panel switches. Remote operation allows selection of frequency and gain. Parameter selection and frequency and gain settings appear on the LCD display. Connectors are BNC (female) for 1200 MHz and external 10MHz reference input and output, and 2.92 mm (female) for the RF output. 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 (shown with optional Ethernet)

### EQUIPMENT SPECIFICATIONS\*

#### Input Characteristics

Impedance/Return Loss 50Ω / 14 dB  
Frequency 1200 ± 200 MHz  
Input Level -30 to -10 dBm  
Input 1 dB compression -25 dBm Gmax, at Fc

#### Output Characteristics

Impedance/Return Loss 50 Ω/ 14 dB  
Frequency 28.8 to 31.2 GHz  
Output level Range -20 to -5 dBm  
Output 1 dB compression +5 dBm, at Gmax, at Fc

#### Channel Characteristics

Gain Max. /range +20.0 ± 3 dB; adjustable from 0 to +20.0 dB, 0.5 ±0.5 dB steps at Fc  
Spurious, Inband < -50 dBc, at Gmax  
Spurious, Out of band < -50 dBm, 27.0 - 28.8 and 31.2 - 33 GHz, at Gmax  
Intermod < -50 dBc for two carriers at Fc ±2 MHz each at -15 dBm out, at Gmax  
Frequency Response ±2.5 dB, 28.8-31.2 GHz; ±1.0 dB, any 400 MHz band  
Frequency Sense Non-inverting

#### Synthesizer Characteristics

Frequency Accuracy ± 0.01 ppm max. over temp internal ref.; ext ref. input  
Frequency Step 1 MHz minimum  
External 10 MHz level +3 dBm ± 3 dB, w/ Auto-detect, 50Ω

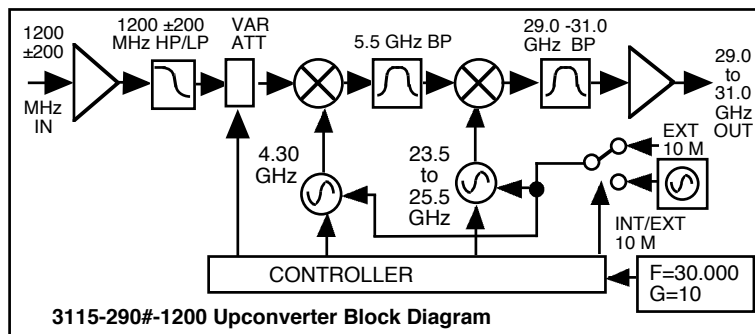
Phase Noise @ Freq	100 Hz	1kHz	10kHz	100kHz	1 MHz
dBc/Hz	60	70	80	90	100

#### Controls, Indicators

Freq/Gain Selection Direct readout LCD; manual or remote selection  
Power; Alarm; Remote Green LED; Red LED; Yellow LED  
Remote RS232C/RS485/422, 9600 baud (Ethernet/opt -W8,18, 28, 828)

#### Other

RF Connector 2.92 mm (female)  
1200 MHz, Connector BNC (female), 50 Ω  
10 MHz Connectors BNC (female), 50 ohms  
Alarm/Remote Connector DB9 (female) - NO or NC contact closure on Alarm  
Size 19 inch, 1RU standard chassis 1.75" high X 14.0" deep  
Power 100-240 ±10% VAC, 47-63 Hz, 30 watts max.



#### Available Options

W8 - Ethernet; w/Web Browser (WB)  
W18 - Ethernet; w/WB & SNMP  
W28 - Ethernet; w/TCP/IP, Telnet  
W8W28 - Ethernet; W8 + W28  
W828 - Ethernet; W8 + W18 + W28

#### Connectors/Impedance

SS2- 2.92mm (RF), SMA (IF)

Contact Cross for other options

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