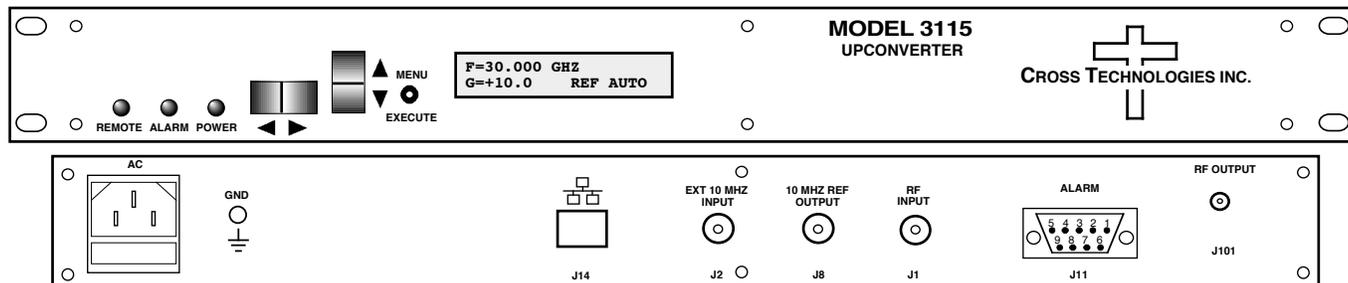


3115-290#-2075 Agile Block Upconverter, 2067.5 ± 42.5 MHz to 29.0 - 31.0 GHz

The 3115-290#-2075 Agile Block Upconverter converts 2067.5 ± 42.5 MHz (2025 - 2110 MHz) to 29.0 to 31.0 GHz in 1 MHz steps. This unit converts 2067.5 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 2067.5 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 2067.5 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 2067.5 ± 42.5 MHz (2025 - 2110 MHz)
Input Level -30 to -10 dBm
Input 1 dB compression -25 dBm max gain, at Fc

Output Characteristics

Impedance/Return Loss 50 Ω/ 14 dB
Frequency 29.0 to 31.0 GHz
Output level Range -20 to -5 dBm
Output 1 dB compression +5 dBm, at max. gain, 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 max. gain
Spurious, Out of band < -50 dBm, 27.0 - 28.9 and 31.1 - 33 GHz, at max. gain
Intermod < -50 dBC for two carriers at Fc ±2 MHz each at -15 dBm out, at max. gain
Frequency Response ±2.5 dB, 29.0-31.0 GHz; ±1.0 dB, any 100 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

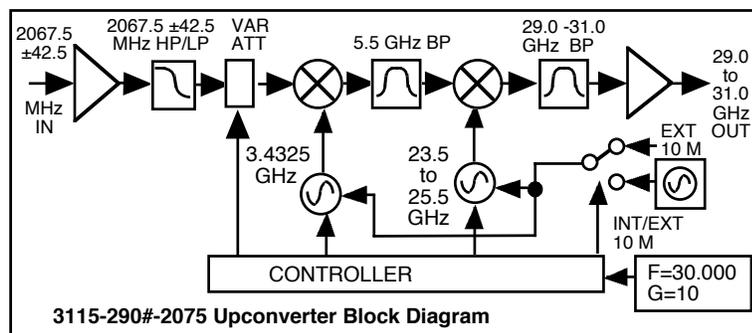
Phase Noise @ Freq	100 Hz	1kHz	10kHz	100kHz	1 MHz
dBC/Hz	60	70	80	90	100

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)
2067.5 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.



3115-290#-2075 Upconverter Block Diagram

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