3115-277#-1200 Agile Block Upconverter, 1200 ± 400 MHz to 25.5 - 27.7 GHz

The 3115-277#-1200 Agile Block Upconverter converts 1200 ± 400 MHz to 25.5 to 27.7 GHz in 5 MHz steps. This unit converts 1200 MHz to 5.9 GHz and 5.9 GHz to 25.5 - 27.7 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), remote operation (yellow) or the TX carrier is muted (yellow). Variable attenuators for the 1200 MHz input provide a gain range of 0 to +20 dB as adjusted by the front panel multi-function 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. The unit is powered by a 100-240 ±10% VAC power supply, and housed in a 1 3/4" X 19 " X 14" rack mount chassis.

Front and Rear Panels (shown with optional Ethernet)

**EQUIPMENT SPECIFICATIONS**

**Input Specifications**

**Impedance Characteristics**
- Impedance: 75 Ω
- Return Loss: 14 dB
- Frequency: 1200 ± 400 MHz
- Input Level: -30 to -10 dBm

**Output Characteristics**
- Impedance: 50 Ω
- Return Loss: 18 dB min., 20 dB typ.
- Frequency: 25.5 to 27.7 GHz
- Output Level: -20 to -5 dBm
- Output 1 dB compression: +5 dBm, at max. gain

**Channel Characteristics**
- Gain Max. / Range: +20.0 ± 3 dB; adjustable from 0 to +20.0 dB, ±1 dB steps
- Spurious, Inband: < -50 dBc, at max. gain
- Spurious, Out of band: < -50 dBm, 24.0 - 25.4 and 27.8 - 29 GHz, at max. gain
- Intermod: < -50 dBc for two carriers spaced 4 MHz apart each at -5 dBm out, at max. gain
- Frequency Response: ±3.0 dB, 25.5-27.7 GHz; ±1.5 dB, any 800 MHz band
- Frequency Sense: Non-inverting

**Synthesizer Characteristics**
- Frequency Accuracy: ± 0.01 ppm max over temp internal ref; ext ref. input
- Frequency Step: 5 MHz minimum
- External 10 MHz level: +3 dBm ± 3 dB, 50Ω

**Phase Noise @ Freq**
- 100 Hz: 60
- 1 kHz: 70
- 10 kHz: 80
- 100 kHz: 90
- 1 MHz: 100

**Controls, Indicators**
- Direct readout LCD: manual or remote selection
- Power: 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

**Connectors/Impedance**
- BNC (female), 50Ω BNC (IF)
- S2 - 2.92mm (RF), 50Ω BNC (IF)
- SS2 - 2.92mm (RF), SMA (IF)

**Contact Cross for other options**

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*S10°C to 40°C; Specifications subject to change without notice*