3115-41-128# Block Upconverter, 3.4-4.2, 7.25-7.75, 10.70-11.80, 11.70-12.75 GHz

The 3115-41-128# Block Upconverter converts 0.95-1.75 to 3.4-4.2 GHz or 0.95-1.45 to 7.25-7.75 GHz or 0.95-2.05 to 10.70-11.80 GHz or 0.95-2.0 to 11.70-12.75 GHz. The gain range is 0 to -30 dB, adjustable in 0.5 ±0.5 dB steps. Front panel LEDs indicate Remote operation, DC Power, Mute and PLL Alarm. Band select, gain and internal/external/Auto reference frequency selection are controlled by front panel switches or remote selection via RS232C or RS485/422 (Ethernet Optional) and are viewable on the LCD Display. Connectors are SMA female for the RF and BNC female for the L-Band and external reference input and reference output. In AUTO, the 10 MHz reference stays in external if the external level is in the +2 to +8 dBm range. The 3115 is powered by a 100-240 ± 10% VAC power supply, and housed in a 1 3/4” X 19” X 16” rack mount chassis.

**EQUIPMENT SPECIFICATIONS**

**Input Characteristics (L-Band)**
- Impedance/Return Loss: 50Ω/14 dB min.
- Frequency Band 1, 2: 0.95-1.75, 0.95-1.45 GHz
- Frequency Band 3, 4: 0.95-2.05, 0.95-2.00 GHz
- Noise Figure, Max.: 30 dB at max. gain
- Input Level range: -50 to -30 dBm

**Output Characteristics (RF)**
- Impedance/Return Loss: 50Ω/14 dB
- Frequency Band 1, 2: 3.4-4.2, 7.25-7.75 GHz
- Frequency Band 3, 4: 10.70-11.80, 11.70-12.75 GHz
- Output Level Range: -50+GAIN dBm to -30+GAIN dBm
- Output 1 dB compression: -20+GAIN dBm

**Channel Characteristics**
- Gain, max; adjustment: +0 dB ±3 dB, max. gain; (0 to -30 dB variable in 0.5 ±0.5 dB Steps)
- Spurious, In Band: ≤-50 dB, ≤-50 dB typical
- Spurious, Out of Band: ≤-50 dB, ≤-50 dB
- Intermodulation: ≤-50 dB for two carriers at 4 MHz spacing centered at Fc, each at -35 dBm out, Gain = 0 dB
- Frequency Response: ±2 dB, RF band; ±0.5 dB, 40 MHz BW
- Frequency Sense: Band 1, Inverting; Bands 2, 3, 4, Non-Inverting

**LO Characteristics**
- LO Freq. Band 1: 2-3: 5.15 GHz; 6.30 GHz; 9.75 GHz; 10.75 GHz
- ± 0.01 ppm max over temp internal reference or ext. ref. input
- ±2 to +8 dBm in, w/Auto-detect; Monitor Output = +3 ±3 dBm

**Controls, Indicators**
- Band; Gain, 10M Ref Sel. Direct readout LCD; pushbutton switches or remote
- Rem; Alarm; Mute; Pwr: Yellow LED; Red LED; Yellow LED; Green LED
- Remote: RS232C/RS485/422, 9600 baud (Ethernet Optional)
- RF Connector: SMA (female), 50Ω
- L-Band Connector: BNC (female), 50Ω
- 10 MHz Connectors: BNC (female), 50Ω/75Ω
- Alarm/Remote Conn. DB9 - NO or NC contact closure on Alarm
- Size: 19 inch standard chassis 1.75” high X 16.0” deep
- Power: 100-240 ± 10% VAC, 47 - 63 Hz, 45 watts max.

**Available Options**
- Remote M&C Ethernet Options
  W8 - Ethernet w/web browser Interface
  W18 - Ethernet w/SNMP (and MIB) Interface
  W28 - Ethernet w/direct TCP/IP Interface

**Available Connector Options**
- N - 50Ω N-type (RF), 75Ω BNC (L-BAND)
- NF - 50Ω N-type (RF), 75Ω F-type (L-BAND)
- NN - 50Ω N-type (RF), 50Ω N-type (L-BAND)
- S7 - 50Ω SMA (RF), 75Ω BNC (L-BAND)
- SF - 50Ω SMA (RF), 75Ω F-type (L-BAND)
- SN - 50Ω SMA (RF), 50Ω N-type (L-BAND)
- SS - 50Ω SMA (RF), 50Ω SMA (L-BAND)

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