3115-72-3840 Block Upconverter, 3.59 - 4.09 GHz to 7.25 - 7.75 GHz

The 3115-72-3840 Upconverter converts 3.59 - 4.09 GHz to 7.25 - 7.75 GHz (non-inverted) with 5.04 and 8.70 GHz local oscillators. The gain is +30 dB maximum and is adjustable in 0.5 ± 0.5 dB steps. Front panel LEDs provide indication of Remote operation, PLL Alarm and DC Power. Gain and internal/external/Auto reference frequency selection are controlled by front panel switches or remote selection (via RS-232C/485, standard; Ethernet Optional) and are viewable on the LCD Display. Connectors are N-Type female for the RF In and RF Out and BNC female for the external reference input and reference output. In AUTO, the 10 MHz reference stays in external if the external level is +3 dBm, ±3 dB. It is powered by a 100-240 ± 10% VAC power supply, and housed in a 1 3/4" X 19" X 14" rack mount chassis.

**Equipment Specifications**

**Input Characteristics**
- Impedance/Return Loss: 50Ω/14 dB
- Frequency: 3.59 to 4.09 GHz
- Noise Figure, Max.: 15 dB max gain
- Input Level range: -40 to -20 dBm

**Output Characteristics**
- Impedance/Return Loss: 50Ω/18 dB
- Frequency: 7.25 to 7.75 GHz
- Output Level Range: -20 to -5 dBm
- Output 1 dB compression: +5 dBm at max. gain

**Channel Characteristics**
- Gain, max; adjustment: +30 dB ±1 dB, max gain; 30 dB adjustment in 0.5 ±0.5 dB Steps
- Image Rejection: > 60 dB, min
- Spurious, In Band: -55 dBC in Band, -20 to -5 dBm out
- Spurious, Out of Band: -55 dBC, FL -0.9 GHz to FL and FH to FH +0.9 GHz ;FL= 7.25 GHz and FH = 7.75 GHz
- Spurious, Out of Band: -50 dBm, FL -2 GHz to FL -0.9 GHz and FH +0.9 GHz to FH +2 GHz
- Intermodulation: <-55 dBC for two carriers each at -10 dBm out, GAIN = +30 dB
- Frequency Response: ±1.0 dB, 7.25 -7.75 GHz out; ± 0.5 dB, 40 MHz BW
- Frequency Sense: Non-inverting
- LO Frequencies: 5.04 and 8.70 GHz
- Frequency Accuracy: ± 0.01 ppm max over temp internal reference; ext. ref. input
- 10 MHz In/Out Level: 3 dBm, ± 3 dB. w/ Auto-detect

**LO Characteristics**

**Available Options**
- W7: L-band/RF front panel Monitors (-20 dBc)
- W31: 0 to +50 degrees C operation
- 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)

**Controls, Indicators**
- Gain; Ext Ref Selection: Direct readout LCD; pushbutton switches or remote
- Pwr; Alarm; Rem; Mute: Green LED; Red LED; Yellow LED; Yellow LED
- Remote: RS232C/RS485/422, 9600 baud (Ethernet Optional)

**Other**
- RF Out Connector: N-Type (female), 50Ω
- RF In Connector: N-Type (female), 50Ω
- 10 MHz Connectors: BNC (female), 75Ω, works with 50 or 75 ohms
- Alarm/Remote Conn.: 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, 45 watts max.