The 4116-T11-8478 Translator converts a 7.90 - 8.4 GHz input RF band to 7.25 - 7.75 GHz. Front panel LEDs provide indication of DC Power, and PLL Alarm. The RF to RF gain is +20 dB, maximum. Connectors are Type N female for the RF out, RF in and SMA female for the external reference input and reference output. Gain, band select, and internal 10 MHz frequency are controlled by the Ethernet M&C or via the Status/Control connector. In AUTO, the 10 MHz reference stays in external if the external level is in the +2 to +8 dBm range. It is powered by a 100-240 ±10% VAC power supply, and mounted in a 8” W X 6” H X 16” D Weather Resistant enclosure.

**EQUIPMENT SPECIFICATIONS**

- **Input Characteristics**
  - Impedance/Return Loss: 50Ω/14 dB, min
  - Frequency (GHz): SEE BAND CHART
  - Noise Figure, Max.: 30 dB at max gain
  - Level Range: -40 to -20 dBm

- **Output Characteristics**
  - Impedance/Return Loss: 50Ω/10 dB, 14 dB typ
  - Frequency (GHz): SEE BAND CHART
  - Level Range: -20 to 0 dBm
  - Output 1 dB comp., max. gain: +10 dBm, at max gain
  - Output 1mV, max. gain: >50 dBc, at max gain

- **Channel Characteristics**
  - Gain at Fc: +20 ± 3 dB max., (+20 to 0 dB variable in +1±1 dB steps)
  - Input to Output Isolation: > 45 dBc, min; > 60 dBc typ. (at max gain and 0 dBm out)
  - Spurious, Inband: > 30 dBc in band, except 25 dBc (> 30 dBc typ.) or
  - Spurious, Out of band: < -50 dBc, signal independent; ffc ± 1 GHz, except for harmonics of LOs (See Chart)
  - Spurious, LO: < -50 dBc, measured at the input; <-40 dBm, measured at the output
  - Intermod 2 Tone: > 45 dBc (> 50 dBc typ.), for two carriers at 4 MHz spacing, each at -25 dBm out
  - Frequency Response: ±2.0 dB, over RF band; ±0.5 dB, 40 MHz BW
  - Frequency Sense: Non-inverting

- **LO Characteristics**
  - Frequency: 0.65 GHz
  - Accuracy: ± 0.05 ppm max over temp internal reference; ext. ref. input

- **RF Characteristics**
  - Frequency @ F (Hz): 100 1K 10K 100K 1M
  - Specification dBc/Hz: 65 75 85 95 110

- **Controls, Indicators**
  - Gain, Band, 10M Freq.: Gain, band select, and internal 10 MHz frequency
  - PLL Alarm: via Ethernet M&C or Status/Control connector.
  - Power: Green LED

- **Other**
  - RF In, RF Out Connector: Type N (female), 50Ω
  - 10 MHz Connectors: SMA (female), 50Ω
  - Status/Control Connector: MS3116F14-18P; RJ45 Weather Resistant Ethernet Connector
  - Size: 8” W X 6” H X 16” D Weather Resistant enclosure
  - Power: 100-240 ±10% VAC, 47 -63 Hz, 25 watts max./ FCI Clipper Series CL1M1102 connector

*Weather Resistant enclosures are designed to be water resistant for installation in an outdoor enclosure/antenna hut OR mounted outdoors on an antenna assembly at their specified temperature ranges. They are designed to be located “out in the elements” (water, sleet, snow, etc.) but they are not designed to be “submerged under” water.

If an extended temperature range is required, there is an Extended Temperature option (Option W21; -30°C to +60°C) available at an additional cost. Contact Cross for quote.

* *+0 to +50 degrees C; -30 to +60 degrees C Non-operating; Specifications subject to change without notice*