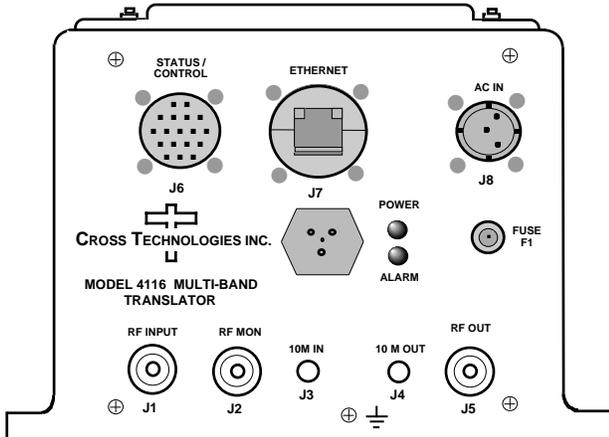


4116-T51 Multi-Band, Block Translator, Weather Resistant*

The 4116-T51 Translator converts one of three input RF bands to one of three output RF bands. 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 RF in Monitor 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. The 10 MHz reference switches to internal when the external falls below +1 dBm. The 4116 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.



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.

EQUIPMENT SPECIFICATIONS**

Input Characteristics

Impedance/Return Loss 50Ω/14 dB
 Frequency (GHz) BAND 1 5.85 to 6.95
 BAND 2&3 13.75 to 14.85
 BAND 4&5 17.3 to 18.4
 Noise Figure, Max. 20 dB at max gain
 Input Level range -30 to -10 dBm
 Input 1 dB compression 0 dBm

Output Characteristics

Impedance/Return Loss 50 Ω /14 dB
 Frequency (GHz) BAND 1 3.4 to 4.5
 BAND 2&4 10.7 to 11.8
 BAND 3&5 11.7 to 12.8
 Output Level Range -60 to 0 dBm
 Output 1 dB compression +10 dBm

Channel Characteristics

Gain +20 ±3 dB max., (+20 to -40 dB variable in 1 dB steps)
 Input to Output Isolation > 60 dB, min
 Spurious, Inband <-50 dBC in band, -15 to 0 dBm out
 Spurious, LO <-60 dBm LO
 Intermodulation <-50 dBC for two carriers each at -5 dBm out
 Frequency Response ±2 dB, over RF band; ± 0.5 dB, 40 MHz BW
 Frequency Sense Non-inverting

LO Characteristics

LO Frequency Band Specific
 Frequency Accuracy ± 0.05 ppm max over temp internal reference; ext. ref. input
 10 MHz level In/Mon Input=+2 to +8dBm in; Monitor. Output = Input Level ± 0.5dB, 50 ohms

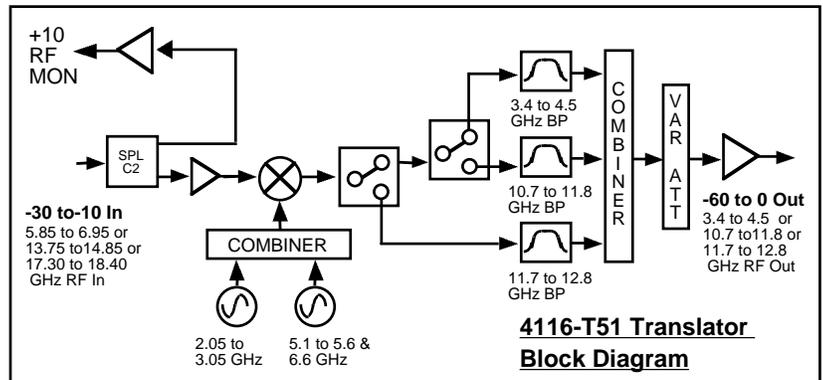
Phase Noise @ F (Hz) >	100	1K	10K	100K	1M
dBC/Hz	-70	-80	-85	-100	-110

Controls, Indicators

Gain, Band, 10M Freq. Gain, band select, and internal 10 MHz frequency via Ethernet M&C or Status/Control Connector.
 PLL Alarm Red LED, External Contact Closure
 Power Green LED

Other

RF In, Mon. Connector Type N (female), 50Ω
 RF Out Connector Type N (female), 50Ω
 10 MHz Connectors SMA (female), 50Ω
 Status/Control Connector Multipin MS3112E14-18S Weather Resistant Connector
 Size 8"W X 6"H X 16"D Weather Resistant Enclosure
 Power 100-240 ±10% VAC, 47 - 63 Hz, 20 watts max./ FCI Clipper Series CL1M1102 W/R* Connector



**+0 to +50 degrees C; Specifications subject to change without notice