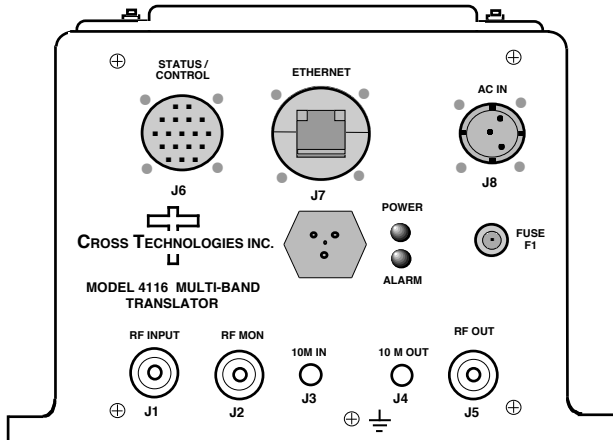


4116-T21-181 Multi-Band, Block Translator, Weather Resistant*

The 4116-T21-181 Translator converts a **17.3 - 18.1 GHz** input RF band to one of **two** output RF bands, **11.7 to 12.5 or 10.7 to 11.5 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 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 (**RS232C**). In AUTO, the 10 MHz reference stays in external if the external level is in the +2 to +8 dBm range. 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, min
 Frequency (GHz) **17.3 to 18.1 GHz**
 Noise Figure, Max. 30 dB at max gain
 Input Level range -20 to 0 dBm

Output Characteristics

Impedance/Return Loss 50Ω/10 dB, 14 dB typ
 Frequency, BAND1;BAND2 **11.7 to 12.5 ; 10.7 to 11.5 GHz**
 Output Level Range -55 to -20 dBm
 Output 1 dB compression **-10 dBm, at max gain**
 Output mute., **max. gain >50 dBc, at max gain**

Channel Characteristics

Gain at **F_c** -20 ±3 dB max., (-20 to -45 dB variable in **1±1 dB** steps)
 Input to Output Isolation > 45 dBC, min; > 60 dBC typ. (**at max gain and -20 dBm out**)
 Spurious, Inband > 40 dBC at 0 dBm in
 Spurious, Out of band <-50 dBm, signal independent; **f_c ± 2 GHz**
Spurious, LO <-50 dBm, 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 ≥1.5 dB, over RF band; ± 0.5 dB, 40 MHz BW
 Frequency Sense Non-inverting

LO Characteristics

LO Frequency **Band 1, 5.60 GHz; Band 2, 6.60 GHz**
 Frequency Accuracy ± 0.05 ppm max over temp internal reference; ext. ref. input

Phase Noise @ F (Hz) >	100	1K	10K	100K	1M
Specification dBC/Hz	65	75	85	95	110

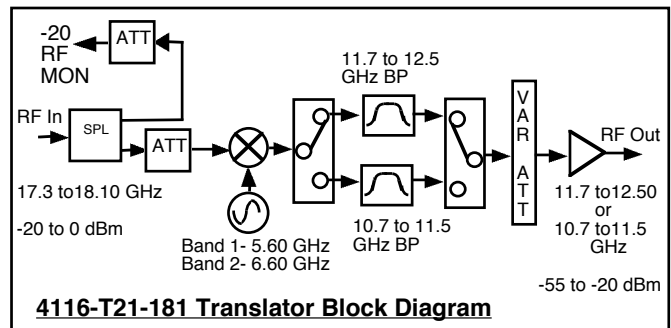
10 MHz level In/Mon +2 to +8 dBm in; Monitor Output = input level ± 1.0 dB, 50 ohms

Controls, Indicators

Gain, Band, 10M Freq. **Via Ethernet M&C or Status/Control connector, RS232C.**
 Power; PLL Alarm Green LED; Red LED, External contact closure

Other

RF In, Mon., 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



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