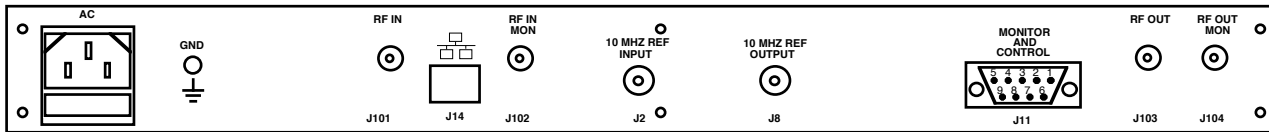
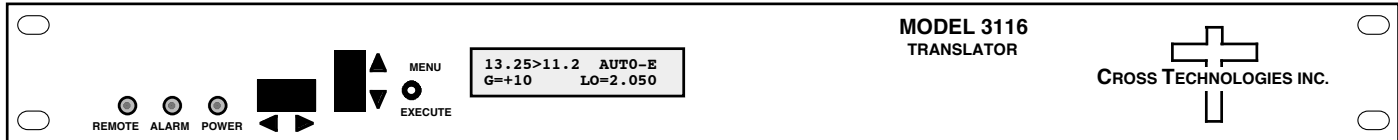


3116-T12-1311 Translator 12.75-13.25 GHz to 10.7-11.2 or 11.2-11.7 GHz

The 3116-T12-1311 Translator converts **12.75-13.25 GHz to 10.7-11.2 or 11.2-11.7 GHz with a 2.05 or 1.55 GHz local oscillator**. Front panel LEDs provide indication of Remote operation, PLL Alarm, and DC Power. The RF to RF gain is +25 dB, maximum. Connectors are SMA female for RF out, RF in, and **OPTIONAL RF Monitors (RF in, Opt W86; RF out, Opt W85)** and BNC female for external 10 MHz in and 10 MHz out. In AUTO, the 10 MHz reference stays in external if the external level is **+3 dBm, ±3 dB**. Gain, LO frequency and internal 10 MHz frequency are controlled by the **front panel switches** or the M&C connector (**Ethernet optional**). It is powered by a 100-240 ±10% VAC power supply and is in a 1.75" X 19" X 14" rack mount chassis.



3116-T12-1311 FRONT AND REAR PANELS (Shown with optional RF Monitors and Ethernet)

EQUIPMENT SPECIFICATIONS*

Input Characteristics

Impedance/Return Loss **50Ω/12 dB, 14 dB typ**
 Frequency **12.75 - 13.25 GHz**
 Noise Figure, Max. **25 dB at max gain**
 Input Level range **-30 to -10 dBm**

Output Characteristics

Impedance/Return Loss **50 Ω /12 dB, 14 dB typ**
 Frequency **10.7-11.2 or 11.2-11.7 GHz**
 Output Level Range **-30 to 0 dBm**
 Output 1 dB compression **+8 dBm, +10 typ.**

Channel Characteristics

Gain, maximum **+25 ±3 dB at Fc**
 Gain Range **+25 to 0 dB; 0.5±0.5 dB Steps**
 In to Out Isolation, Min. **>40 dBc, >50 typ.**
 Spurious, Inband **>40 dBc**
 Spurious, out of band **<-20 dBc, Fc±1 GHz, <-40 dBc, Fc±2 GHz**
2 tone @-10dBm out ea **>45 dBc, 50 typ, Gain=+25 (carriers at Fc ± 2 MHz)**
 Freq. Response, band **±2 dB (10.7-11.2 or 11.2-11.7 GHz)**
 Freq. Response, 40MHz **± 0.5 dB**
 Frequency Sense **Non-inverting**

LO Characteristics

LO Frequency **2.05 or 1.55 GHz**
 Frequency Accuracy **± 0.01 ppm max over temp internal reference; ext. ref. input**

Phase Noise @ F (Hz) >	100	1K	10K	100K	1M
dBc/Hz	-70	-80	-90	-100	-110

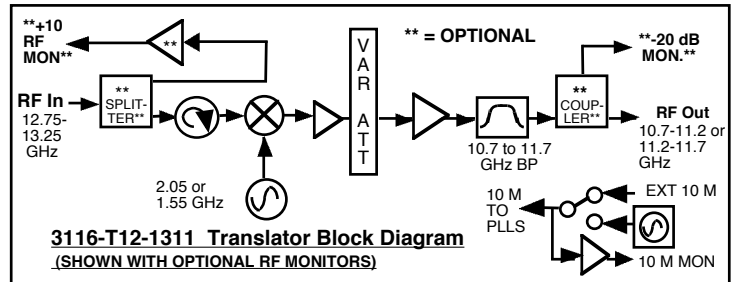
10 MHz In/Out Level **+3 dBm, ±3 dB**

Controls, Indicators

Gain, 10M Freq. Gain and internal 10 MHz frequency, Front Panel Switches or M&C connector (Ethernet Optional).
 PLL Alarm Red LED, External contact closure
 Power Green LED
 Remote RS232C, 9600 baud (Ethernet and RS485 Optional)

Other

RF In, Out, Mon. Conn. SMA (female), 50Ω (**RF In and RF Out monitors Optional**)
 10 MHz connectors BNC (female), 75 ohms; Works with 50Ω
 Monitor/Control Conn. RS232C, DB9, Female; **Optional Ethernet, RJ45, Female;**
 Size 19 inch, 1RU standard chassis, 1.75" high X 14" **deep**
 Power 100-240 ±10% VAC, 47-63 Hz, 30 watts max



Available Options

Q - RS485 Remote Interface
 W8 - Ethernet; w/Web Browser (WB)
 W18 - Ethernet; w/WB & SNMP
 W28 - Ethernet; w/TCP/IP, Telnet
W828 - Ethernet; W8 + W18 +W28
 W85- Out RF Mon. -20 dB
 W86- In RF Mon. +10 dB

Connectors/Impedance

NN- 50Ω N-type (RF In, RF Out)

* +10 to +40 degrees C Operating; **-30 to +60 degrees C Non-operating**; 95% relative humidity, non-condensing;
 Specifications subject to change without notice