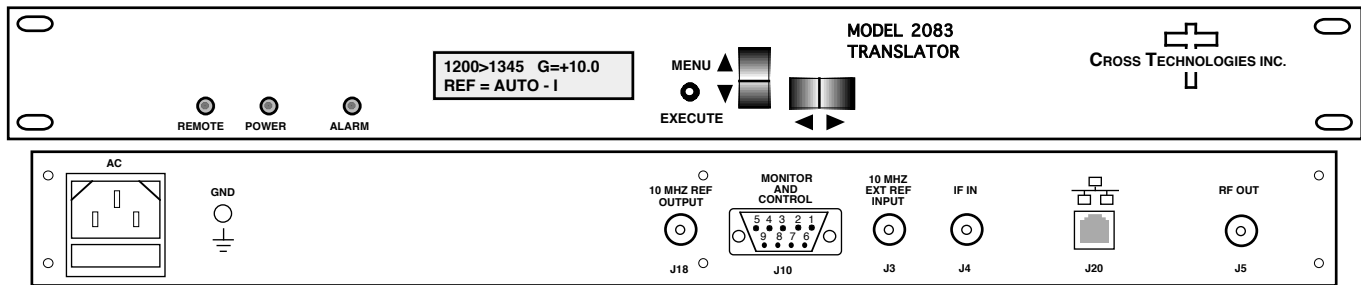


2083-1617 Block 1200 ± 400 to 1345 ± 400 Translator, Fixed Frequency

2083-1617 Block 1200 ± 400 to 1345 ± 400 Translator - The 2083-1617 Block 1200 ± 400 to 1345 ± 400 Translator converts a 1200 ± 400 MHz block to 1345 ± 400 MHz block with no spectrum inversion, low group delay and flat frequency response. The 1200 ± 400 MHz input is mixed with synthesized local oscillator (LO) signals, first to 3800 MHz center frequency and finally to the 1345 ± 400 MHz block output. Multi-function switches select the gain and internal or external 10 MHz. The input frequency band, output frequency band, internal or external reference, and gain (0 to +20 dB, selectable in 0.5 ± 0.5 dB steps) settings appear on the LCD display. Front panel LEDs provide indication of DC power (green), PLL alarm (red), and remote operation (yellow). Remote operation allows setting the overall gain and 10 MHz reference. Connectors are BNC female for RF input and output and for the external 10 MHz reference (+3 ± 3 dBm in). It is powered by a 100-240 $\pm 10\%$ VAC, 47-63 HZ input power supply and in a 1 3/4" X 19" X 16" rack mount chassis.



2083-1617 Front and Rear Panels (Shown with optional Ethernet)

EQUIPMENT SPECIFICATIONS*

Input Characteristics

Input Impedance/RL	50 Ω /15 dB
Frequency,	1200 ± 400 MHz
Input Level	-30 to -10 dBm
Noise Figure	+18 dB, max., Fc, Gmax

Output Characteristics

Impedance/RL	50 Ω /15 dB
Frequency	1345 ± 400 MHz
Output Level, Range	-25 to -5 dBm
Output 1 dB compr.	+5 dBm, Fc, Gmax

Channel Characteristics

Gain at F _c	0 to +20 ± 2 dB, selectable in 0.5 ± 0.5 dB steps
Frequency Response	± 2.0 dB, Fc ± 400 MHz; ± 0.9 dB, Fc ± 230 MHz
Spurious, In band	>50 dBc signal dependent or independent at -10 dBm out, Gmax
Spurious, Out of band	<-50 dBm, 0.5 - 0.945 and 1.745 - 2.5 GHz, Gmax
Frequency Sense	Non-inverting

Synthesizer Characteristics

Frequency Accuracy	± 1.0 ppm max over temp (± 0.01 ppm, option-H)
Reference	10 MHz Internal; Internal/External
Frequency Step	None, fixed frequency translation

Phase Noise @ F (Hz) >	100	1K	10K	100K	1M	10M
dBc/Hz	-60	-70	-80	-90	-100	-110

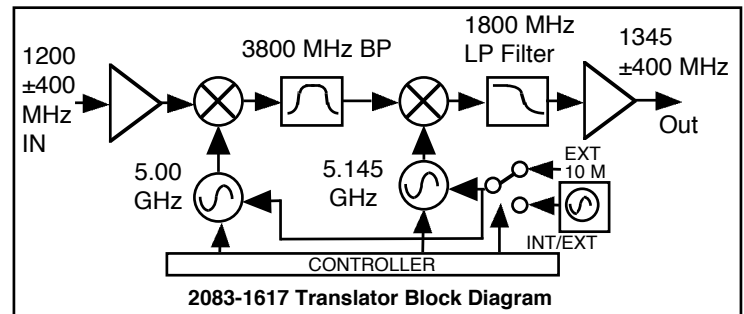
10 MHz Level (In or Out) 3 dBm, ± 3 dB, 50 ohms

Controls, Indicators

Gain Selection	direct readout LCD; manual or remote selection
Pwr; Alarm; Rem;	Green LED; Red LED; Yellow LED
Remote	RS232C, 9600 baud (RS485, Ethernet Optional)

Other

RF In/RF Out Conn.	BNC (female), 50 Ω
10 MHz Conn. (In & Out)	BNC (female), 50Ω
Alarm/Remote Conn.	DB9 (female) - NO or NC contact closure on Alarm
Size	19 inch standard chassis 1.75" high X 16.0" deep
Power	100-240 $\pm 10\%$ VAC, 47-63 Hz, 30 watts max.



Available Options

H - High Stability (± 0.01 ppm) Internal Ref
W31 0 to +50 degrees C operation

Comm. Interface/Standard RS232

Q - RS485 Remote Interface
W8 - Ethernet; w/Web Browser (WB)
W18 - Ethernet; w/WB & SNMP
W28 - Ethernet; w/TCP/IP, Telnet
W828 - W8 +W18 +W28

Connectors/Impedance

Std. - 50 Ω BNC (RF IN), 50 Ω BNC (RF OUT)
NN - 50 Ω N (RF IN), 50 Ω N (RF OUT)
SS - 50 Ω SMA (RF IN), 50 Ω SMA (RF OUT)

Contact Cross for other options

*+10 to +40 degrees C; Specifications subject to change without notice