The 2083-2717 Block Translator converts a 2550-2750 MHz block to 1600-1800 MHz block with or without spectrum inversion (selectable), low group delay and flat frequency response. The 2550-2750 MHz input is mixed with synthesized local oscillator (LO) signals, first to a 400 MHz center frequency and finally to the 1600-1800 MHz block output. The gain can be set for 0 to -30 dB in 0.5 ± 0.5 dB increments. The output translation is fixed (Option X5050 - ±50kHz Fout tuning, 50 Hz steps). Multifunction switches select Gain and internal or External 10 MHz reference which appear on the LCD display and can be adjusted remotely. Front panel LEDs provide indication of DC power (green), PLL alarm (red), and remote operation (yellow). Connectors are BNC female for RF and 10 MHz input and output. It is powered by a 100-240 ±10% VAC, 47-63 Hz input power supply and housed in a 1 3/4” X 19” X 16” rack mount chassis.

**EQUIPMENT SPECIFICATIONS**

**Input Characteristics**
- Input Impedance/RL: 50Ω /14 dB
- Frequency: 2550 - 2750 MHz
- Input Level: -15 to 0 dBm

**Output Characteristics**
- Impedance/RL: 50Ω/14 dB
- Frequency: 1600 - 1800 MHz
- Output Level: -30 to -15 dBm
- Output 1 dB compression: -5 dBm, at max gain

**Channel Characteristics**
- Gain, max; adjustment: +0 dB ±1 dB, max. gain; 0 to -30 dB gain adjustment in 0.5 ± 0.5 dB Steps
- Spurious, Inband: < -55 dBc in band, signal dependent and signal independent; -15 dBm Out
- Spurious, out of band: < -50 dBc, 1.15-1.59 GHz and 1.81-2.09 GHz Out
- Intermodulation: < -55 dBc for two carriers each at -20 dBm out
- Frequency Response: ± 2.0 dB, 200 MHz bandwidth; ± 1.0 dB, any 100 MHz bandwidth; ± 0.5 dB, any 20 MHz increment
- Frequency Sense: Non-inverting or Inverting, selectable

**Synthesizer Characteristics**
- Translation; Accuracy: ± 1 ppm; Option H, ±0.01 ppm
- Reference: 10 MHz Internal; Internal/ External selection
- Phase Noise @ F (Hz) >: 100 dBc/Hz, 1K, 10K, 100K, 1M
- Controls, Indicators: Gain (MGC) Direct readout LCD; manual or remote selection
- Ext. ref; Direct readout LCD; manual or remote selection
- Power; Alarm; Remote: Green LED; Red LED; Yellow LED
- Remote: RS232C/RS485/422, 9600 baud (Ethernet Optional)

**Available Options**
- H - High Stability (±0.01ppm) Internal Ref
- X5050 - ±50kHz Fout tuning, 50 Hz steps
- Comm. Interface/Standard RS232
- W8 - Ethernet; w/Web Browser (WB)
- W18 - Ethernet; w/WB & SNMP
- W28 - Ethernet; w/TCP/IP, Telnet

**Connectors/Impedance**
- Std. - 50Ω BNC (RF IN), 50Ω BNC (RF OUT)
- NN - 50Ω N (RF IN), 500 N (RF OUT)
- SS - 50Ω SMA (RF IN), 50Ω SMA (RF OUT)

**Contact Cross for other options**

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