**2083-7216# Translator, 7216.6 MHz to 1686.6 MHz, ±18 MHz**

The 2083-7216# Translator converts 7216.6 ±18 MHz to 1686.6 ±18 MHz with a low side LO (non-inverted spectrum). Push button switches select the gain, and other parameters. Front panel LEDs indicate DC power (green), PLL alarm (red), and Remote operation (yellow). Gain is adjustable over a +20 to +40 dB range in 1±1 dB steps locally via front panel switches and remotely via M&C interface. Parameter selection and gain settings appear on the LCD display. Connectors are Type N female for RF input and BNC for IF (RF Out) and optional external 10MHz input and output. The external 10 MHz option E includes a 10 MHz output which contains either the internal or external 10 MHz reference signal. It is powered by a 100-240 ± 10% VAC power supply, and in a 1 3/4" X 19" X 16" rack mount chassis.

**EQUIPMENT SPECIFICATIONS**

**Input Characteristics (RF)**
- Impedance/Return Loss: 50 Ω/12 dB
- Frequency: 7216.6 ± 18 MHz
- Input Level: -50 to -30 dBm
- No Damage Input level: +15 dBm min.

**Output Characteristics (IF, RF Out)**
- Impedance/Return Loss: 50 Ω/12 dB
- Frequency: 1686.6 ± 18 MHz
- Output level: -25 to -5 dBm
- Output 1 dB comp.: +5 dBm at maximum gain, Gmax

**Channel Characteristics**
- Gain range: +40 ±2 dB at Fc, maximum; manually adjustable from +20 to +40 dB at Fc in ±1 dB steps
- Frequency Response: ±0.7 dB, 1686.6 ± 18 MHz out
- Spurious, In Band: <40 dBc, 1686.6 ± 18 MHz out, -25 to -5 dBm out,
- Spurious, Out of Band: < -40 dBc, Fc± 100MHz out; LO < -20 dBm; all at Gmax
- Frequency Sense: Non-inverting

**Synthesizer Characteristics**
- Frequency Accuracy: ±1.0 ppm max over temp (±0.01 ppm, option H)
- LO Frequency: 5.530 GHz

**Phase Noise @ F (Hz) >**
- 100: -85
- 1K: -85
- 10K: -85
- 100K: -95
- 1M: -110

**10 MHz Level (In or Out)**
- 3 dBm, ± 3 dB, 75 ohms (option E)

**Controls, Indicators**
- Gain Selection: Direct readout LCD; manual or remote selection
- Power; Alarm; Remote: Green LED: Red LED: Yellow LED;
- Remote: RS232C, 9600 baud (RS485, Ethernet Optional)

**Other**
- RF in Connector: Type N (female), 50Ω
- IF (RF out) Connector: BNC (female), 50Ω
- 10 MHz Connectors: BNC (female), 50Ω, works with 50 or 75 ohms (option E)
- Alarm/Remote Connector: DB9 (female) - NO or NC contact closure on Alarm
- Size: 19 inch, 1RU standard chassis 1.75" H X 16.0" D
- Power: 100-240 ±10% VAC, 47-63 Hz, 25 W max.

Available Options
- E - External 10 MHz ref in & out
- H - High Stability (±0.01 ppm) int. ref.
- 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
- Connectors/Impedance
- STD. - 50Ω Type N (RF), 50Ω BNC (IF)
- S - 50Ω SMA (RF), 50Ω BNC (IF)
- SS - 50Ω SMA (RF), 50Ω SMA (IF)
- Contact Cross for other options

*10°C to 40°C; Specific RF options subject to change without notice.