2083-0415# Translator, 406.05 MHz to 1544.55 MHz, ±18 MHz

The 2083-0415# Translator converts 406.05 ±18 MHz to 1544.55 ±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 locally via front panel switches and remotely via M&C interface. Parameter selection and gain settings appear on the LCD display. Connectors are BNC female for RF input and for IF (RF Out) and optional external 10 MHz 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: 406.05 ± 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: 1544.55 ± 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±1 dB steps
- Frequency Response: ±0.7 dB, 1544.55 ±18 MHz out
- Spurious, In Band: <40 dBc, 1544.55 ±18 MHz out, -25 to -5 dBm out,
- Spurious, Out of Band: <40 dBm, Fc± 100 MHz 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: 1.13850 GHz
- Phase Noise @ F (Hz) >
  - dBC/Hz
  - 100: -65
  - 1K: -75
  - 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: BNC (female), 50Ω
- IF (RF out) Connector: BNC (female), 50Ω
- 10 MHz Connectors: BNC (female), 75Ω, 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

Contact Cross for other options

*10°C to 40°C; SpecIF (RF out) subject to change without notice.