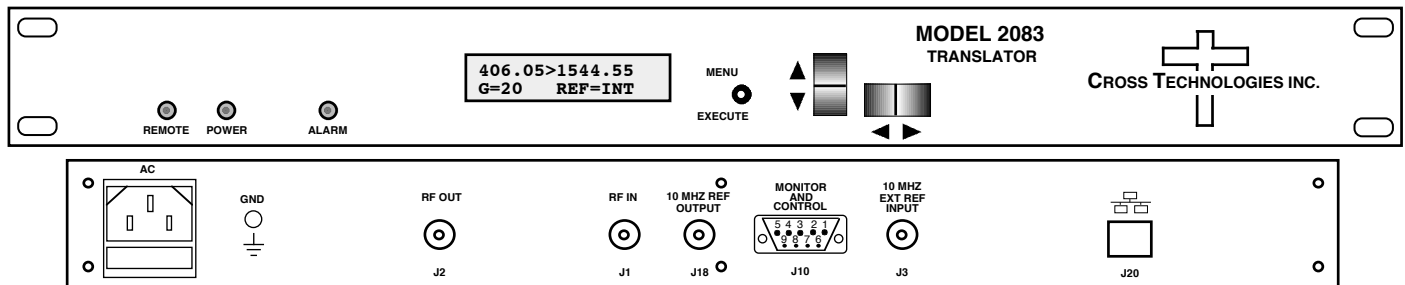


**2083-0415# Translator, 406.05 MHz to 1544.55 MHz, ±18 MHz**

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 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 **BNC** female for RF input and 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.



**2083-0415# Front and Rear Panels (shown with optional external 10 MHz and Ethernet)**

**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± 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 **1.13850 GHz**

Phase Noise @ F (Hz) >	100	1K	10K	100K	1M
dBC/Hz	-65	-75	-85	-95	-110

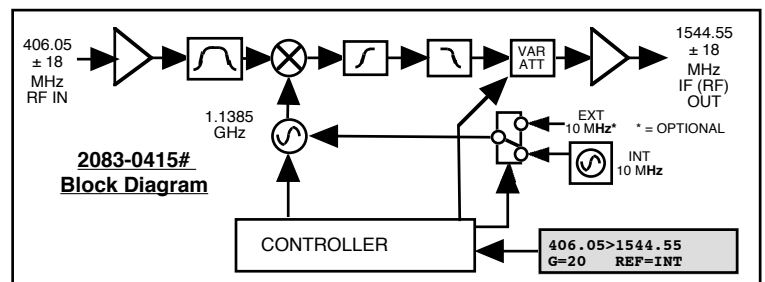
10 MHz Level (In or Out) **3 dBm, ± 3 dB, 75 ohms (option E)**

**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  
**Connectors/Impedance**  
 STD. - 50Ω BNC (RF), 50Ω BNC (IF)  
 M - 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; SpecIF (RF out)ications subject to change without notice.