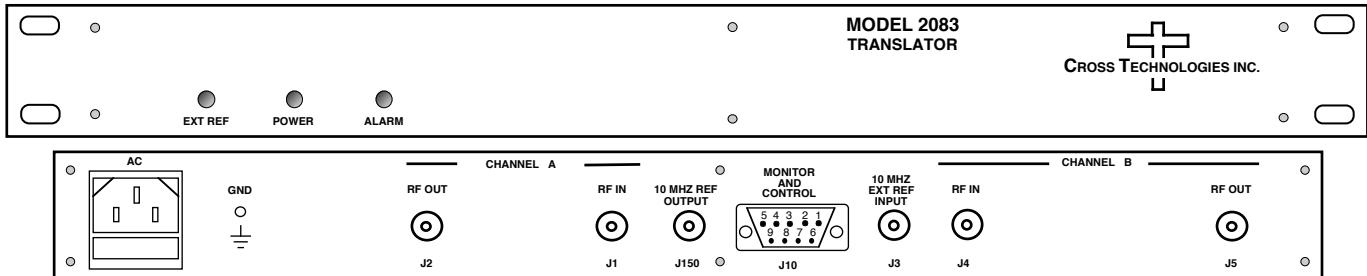


**2083-0312-30036 Up/Down Translator, 370 MHz to/from 1200 MHz; ±150 MHz Up, ±18 MHz Down**

**2083-0312-30036 Up/Down Translator** consists of a 370 ±150 MHz to 1200 ±150 MHz Upconverter and a 1200 ±18 MHz to 370 ±18 MHz Downconverter with 1.570 GHz LOs (inverted spectrums). The converters have a gain of 0±2 dB at Fc. Both 370 MHz IN/OUT connectors are 50 ohm BNC female. The 1200 MHz out connector is 75 ohm, Type F female and the 1200 MHz in connector is 50 ohm N female. Front panel LEDs light when DC power is applied (green), a PLL alarm occurs (red), the unit detects presence of EXT input (yellow). The 2083-0312-30036 is powered by a 100-240 ±10% VAC power supply and housed in a 1.75" X 19" X 16" 1RU chassis.

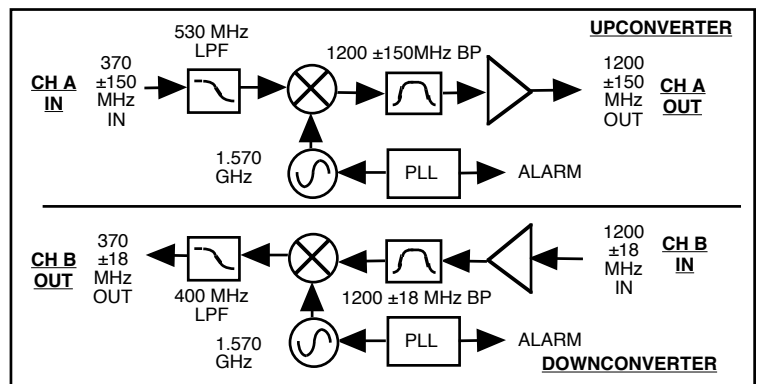


**2083-0312-30036 Front and Rear Panels**

**EQUIPMENT SPECIFICATIONS\***

**EQUIPMENT SPECIFICATIONS\***

	<b>CH A Up</b>	<b>CH B Down</b>
<b>Input Characteristics</b>		
Input Impedance/RL	50Ω /12 dB	50Ω /12 dB
Frequency, GHz	<b>0.37±0.150</b>	<b>1.20±0.018</b>
Input Level, Range, dBm	-10 to -30 dBm	-10 to -30
Input 1 dB compression	0 dBm	0 dBm
<b>Output Characteristics</b>		
Impedance/RL	75Ω /10 dB	50Ω /10 dB
Output 1 dB compression	0 dBm	0 dBm
Output Level, Range, dBm	-10 to -30 dBm	-10 to -30
Frequency, GHz	<b>1.20±0.150</b>	<b>0.37±0.018</b>
<b>Channel Characteristics</b>		
Gain at band center	0 dB ±2 dB, fixed, at Fc	
Frequency Response	±1.5 dB, for ±150 MHz , ±0.7 dB, any 36 MHz increment (UP); ±0.7 dB, for ±18 MHz band; (DOWN)	
Frequency Sense	Inverting (0.22 GHz Translates to 1.35 GHz, 0.52 GHz Translates to 1.05 GHz, UP)	
Intermodulation	<-45 dBc for two carriers at Fc ±2 MHz, each at -15 dBm out	
Spurious Response	<-35 dBc, for ±150 MHz band UP and ±18 MHz band DOWN	
In to out Feedthru	<-30 dBc, min, <-40 dBc, goal	
LO rejection	<-40 dBm, LO at the output	
<b>Synthesizer Characteristics</b>		
LO frequency	<b>1.570 GHz</b>	
Frequency Accuracy	±1.0 ppm max	



**2083-0312-30036 Block Diagram**

**Available Options**

- E - External 10 MHz ref in & out
- H - High Stability (±0.01ppm) Internal Ref

**Contact Cross for other options**

Phase Noise @ F (Hz) >	100	1K	10K	100K	1M
dBc/Hz	-70	-80	-85	-95	-110

**Indicators**

Power; PLL Alarm; Ext.Ref. Green LED; Red LED; Yellow LED

**Other**

- Connectors, 370 MHz **370 MHz RF in and Out, BNC, female, 50 ohm;**
- Connectors, 1200 MHz **1200 MHz Out, type F, 75 Ohm; 1200 MHz In N, 50 Ohm;**
- Connector, Alarm **DB9 - 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, 15 watts max**

\*+10 to +40 degrees C; 2000 meters max elevation; 80% max humidity; Specifications subject to change without notice.