Series 2083-1205 Agile L to UHF Translator

2083-1205 Agile L to UHF Translator - The 2083-1205 Agile L to UHF Translator converts a 950-1200 MHz block to 250-500 MHz and 500-750 MHz with no spectrum inversion, low group delay and flat frequency response. The 950-1200 MHz input is mixed with a synthesized local oscillator (LO) of 2850 MHz to 1650-1900 MHz or with an LO signal of 3100 MHz to 1900-2150 MHz output and then with an LO signal of 2400 MHz to 250-500 MHz and 500-750 MHz. Multi-function push button switches select the translation, input level, and gain. Frequency translation, input level, and gain (0 to +20 dB, selectable in 1 dB steps) settings appear on the LCD display. Front panel LEDs light when DC power is applied (green) or a PLL alarm occurs (red). Connectors are BNC female for RF input and output and for (optional) external 10 MHz reference (+3± 3 dBm in).

The 2083-1205 Translator is housed in a 1 3/4” X 19 “ X 16” deep rack mount chassis.

EQUIPMENT SPECIFICATIONS*

Input Characteristics
- Input Impedance/RL: 75 Ω/12 dB
- Frequency: 950-1200 MHz
- Input Level: -10 to -30 dBm
- Input 1 dB compression: 0 dBm

Output Characteristics
- Impedance/RL: 75 Ω/12 dB
- Output Level, Range: -10 to -30 dBm
- Output 1 dB compression: 0 dBm
- Frequency: 250-500 MHz or 500-750 MHz

Channel Characteristics
- Gain: 0 to +20 ± 0.5 dB, selectable in 1 dB steps
- Frequency Response: ± 1.0 dB, 250 MHz bandwidth; ± 0.5 dB, any 36 MHz increment
- Intermodulation: < -50 dBc for two carriers each at -13 dBm out
- Spurious Response: < -60 dBm in band; < -50 dBm out of band
- Group Delay, max: < -40 dBc, 0.95 to 1.2 GHz out; < -45 dBc, 1.9 to 2.4 GHz out; < -50 dBm, LO out
- Group Delay, max (parabolic, 0.03ns/MHz, linear, 1 ns ripple any 36 MHz BW

Synthesizer Characteristics
- Frequency Accuracy: ± 1 ppm max over temp; Optional, High Stability (± 0.01 ppm) Option -H
- Frequency Reference: 10 MHz Internal/Internal/External selectable is Option -E

Controls, Indicators
- Frequency Translation: pushbutton switches; setting shown on LCD display; Set for low or high block
- Input Level Selection: pushbutton switches; setting shown on LCD display; Set to composite input level
- Gain Selection: pushbutton switches; setting shown on LCD display; Set to 0 to +20 dB (-10 dBm max out)
- DC Power: Green LED; Red LED

Other
- Connectors: RF In and Out and (optional) external 10 MHz reference In, BNC, female, 75 ohm
- Connectors, Alarm: DB9 - NO or NC contact closure on Alarm
- Size: 19 inch standard chassis 1.75” high X 16.0” deep
- Power: 100-240 (±10%) VAC, 47-63 Hz, 30 watts max.

OPTIONS
- E: External 10 MHz reference In
- D: BNC, female, 50 ohms for RF In and Out
- H: High Stability (± 0.01 ppm) internal reference

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