

FEATURES

- High Performance at Low-Cost.
- Miniature Chassis.
- Low-Phase Noise.
- Wide IF. frequency range 70+/-18MHz (140 +/-36MHz).
- Wide L-Band frequency range 950 to 1525MHz L-Band Out and 950 to 1750MHz L-Band In.
- Up to 125kHz Frequency Control Step.
- RS232/422/485 Serial Interface.
- Output Power Detector
- User Friendly Graphic User Interface
- 10MHz output optional.
- Mute Control.
- Out of Lock Alarm
- Single Positive Supply Voltage +12VDC.
- 30 dB of Gain Control Dynamic range at 1 dB resolution.

APPLICATIONS

The converter modules are specifically designed to take full advantage of the combination of simple low-cost satellite modems (70 MHz or 140 MHz) and highly efficient antenna mounted L-Band BUC and LNB configurations.

The **CLU** Up Converter series receives the 70 MHz (or 140 MHz) signal from the modem or other indoor unit, converts it to L-Band frequencies, and forwards to the antenna mounted L-Band Block Up Converter (BUC).

Accordingly **CLD** series down-converter receives an L-Band signal from the antenna mounted LNB and converts it to 70MHz (140MHz) signal which then goes to the modem or any demodulator.

Its miniature size, (5.5"x3.5"x1.1"), light weight (1.5 lb.), and wide operating temperature range (-40 to +60 degree C) allows outdoor installations.

MONITOR AND CONTROL INTERFACE.

RS485/RS232 serial interface provides a wide range of telemetry functions such as Gain control, frequency control, power detection, mute control, out of lock alarm and temperature monitor.

MODELS:

**CLU70, CLU140,
CLD70, CLD140.**



CL –Frequency Converters Series offers high-end performance and cost efficient 70MHz/140MHz to L-Band frequency Up and Down frequency conversion .

These converter modules use digitally controlled double frequency conversion with PLL resulting in low phase noise, high frequency stability, high frequency resolution and wide L-Band coverage. Output signal level is controlled within 30dB dynamic range.

Monitor and Control includes frequency control in 125 kHz steps; Gain Control in 1 dB steps; Output Power Monitoring; Mute Control; Out-of-Lock Alarm; as well s other control and indication features are provided via Serial Interface – S485 or RS-232 (RS-422 optional) and user friendly GUI.

SPECIFICATIONS

70MHz/140 MHz to L-Band Up Converter		L-Band to 70MHz/140 MHz Down Converter	
Output Characteristics:		Input Characteristics:	
Frequency Range	950-1450MHz 950-1525MHz	950-1450MHz 950-1750MHz	
Frequency Control Step	1MHz	125 kHz (optional)	
Impedance	50 Ohm		
Return Loss	-15 dB		
Output Power P1dB	0 dBm	Input Power Level	-60 to -30 dBm
Input Characteristics:		Output Characteristics:	
Frequency Range	70 +/-18MHz; (140+/-36 MHz)		
Impedance	50 Ohm		
Return Loss	-15 dB		
Input Power Level	-30 to 0 dBm	-	
Transfer Characteristics:			
Gain	30 dB nominal		
Gain Control Range	30 dB min.		
Gain Control Step	1 dB		
Gain Slope over 40MHz	+/-1 dB		
Phase Noise @ frequency offset	100 Hz -65 dBc 1kHz -75 dBc 10kHz -85 dBc 100kHz -95 dBc		
Spurious	-55 dBc		
Output Level at Mute	-65 dBm	-70 dBm	
Monitor & Control Features:			
Serial Interface	RS485 / RS232 / RS422		
Control Functions	Frequency Control Gain Control Mute Control		
Monitoring/Reporting	Out of Lock Alarm Frequency Gain Output Power Temperature		
Common:			
Reference	10 MHz 0 to 5 dBm		
DC Power In	12 +/-1 VDC 0.5A		
Temperature range	-40 to +60deg.C ambient		
Mechanical:			
Weight	1.5 lbs		
Size	5.5" x 3.5" x 1.1"		
Connectors	70 MHz In/Out L-Band In/Out 10MHz In 12 VDC In Serial Interface	SMA Female SMA Female SMA Female Molex 43045-0209 Molex 43650-0809	