

## C-BAND UP-CONVERTER (3.4 - 4.2GHz)

The C-Band Up-converter is available in 19" wide and 1U high rack mountable systems. It offers frequency step size of 1kHz, with input frequency of 70MHz and output frequency between 3.4 - 4.2GHz. It is easily controlled and monitored remotely, using TCP/IP interface and has capability of allocating a unique IP address. The system could be easily controlled with standard software programs such as Labview, Labwindows, C, C++ etc.

- ### FEATURES
- Wideband output from 3.4 - 4.2 GHz
  - Output protected with a Isolator for open and short
  - High stability, low ripple and excellent phase noise
  - 10MHz External Reference option fitted as standard with automatic internal reference back-up
  - LCD LED alarms on front panel for control and monitoring
  - Input frequency 70 MHz  $\pm$  20MHz
  - Remote monitoring and control using TCP/IP interface
  - Internal capability of allocating unique IP address
  - Option to preset up to 20 Frequency channels
  - Sturdy 19" rack mountable case

- ### APPLICATION
- Satellite Communication
  - Weather Radar
  - ATE signal source
  - Civil Aviation Radar
  - Defense application

### Electrical Specification:

Parameter	Specification	Units
Frequency range	3.4 - 4.2	MHz
Gain	>25	dB
Gain adjust	100 in 10 & 1 steps	dB
Gain stability	$\pm 0.25$	dB/day
Gain ripple over 36MHz band	$\pm 0.2$	dB
AM/PM conversion	0.1	Deg./dB
Noise figure	<6	dB
Frequency band	70 $\pm$ 20	MHz
Return loss min.	20	dB
I/P level range	-30 to +10	dBm
Phase Noise	See table page 2	-
Frequency step size (minimum)	1	KHz
Stability time min.	$\pm 1 \times 10^{-9}$	/day
Stability temperature min.	$\pm 1 \times 10^{-8}$	/day
Mean Time Between Failure (MTBF)	50,000	Hours



## C-BAND UP-CONVERTER (3.4 - 4.2GHz)

### Physical Specification:

RF Output connector		N-Type
Output impedance		50Ω
Input Intermediate Frequency		70MHz
Impedance		50Ω
External reference		10MHz
External Reference Connector		BNC/TNC/SMA
Dimension	Width	19 inch
	Height	1U
	Depth	<250 mm.
Weight		<5kg

### System Control:

Local Control		Front Panel push buttons and LCD display
Remote Control	TCP/IP	RJ45 Ethernet Port
	RS232	9 pin D-type Female
Front Panel Alarms	Power On	LED
	Error	LED
	Remote Operation	LED
Operational Modes		Front Panel or remote is selected automatically
IP Address allocation		Using telnet with Raw TCP/IP connection

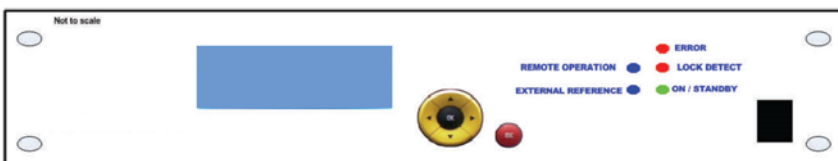
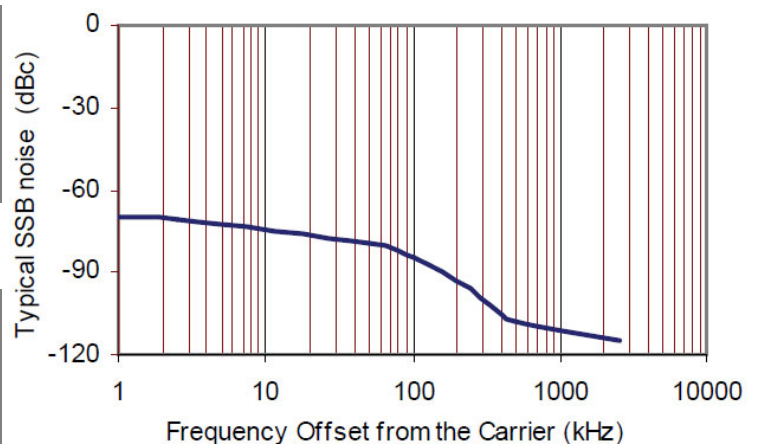
### Environmental Specification:

Operating temperature range	0 to 45°C
Location	Indoor use only
Humidity	-85% non-condensing
Storage temperature	-20 to +75°C

### AC power:

Voltage	85 - 264V AC
Frequency	50 - 60 Hz
Socket	IEC Standard
Fuses	5x20mm standard

Typical Phase Noise added by the system



### Other options available:

- Higher P1 dB point available
- Up to 5 hrs of battery backup option available
- SMA/TNC input/output connector available
- External reference could be set to 5MHz instead of 10MHz

Data sheet is for information purposes only and may be subject to modifications or may be discontinued without notice. *Rev. 1 dated 02-01-2015*