

## S-BAND DOWN-CONVERTER (2.0 - 2.4GHz)

The S-Band Down Converter is available in 19" wide and 1U high rack mountable systems. It offers frequency step size of 1kHz, with output frequency of 70MHz and input frequency between 2.0 - 2.4 GHz. 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 remotely with standard software such as Labview, Labwindows, C, C++ etc.

- ### FEATURES
- Wideband input
  - Input 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
  - Output frequency 70 MHz  $\pm$  20MHz
  - Option to preset up to 20 Frequency channels

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

### Electrical Specification:

Parameter	Specification	Units
Frequency range	2.0 - 2.4	GHz
Gain at 0 dB attenuation	>25	dB
Gain adjust	100 in 10 & 1 steps	dB
Gain ripple over 36MHz band	$\pm$ 0.2	dB
Output at 1 dB compression point	>10	dBm
Image rejection	<70	dBc
Noise figure	<6	dB
Frequency band	70 $\pm$ 20	MHz
Return loss min.	20	dB
I/P level range	-70 to -20	dBm
Phase Noise	See table page 2	-
Frequency step size (minimum)	1	KHz
Stability time min.	$\pm$ 1x10 <sup>-9</sup>	/day
Stability temperature min.	$\pm$ 1x10 <sup>-8</sup>	/day
Mean Time Between Failure (MTBF)	50,000	Hours



## S-BAND DOWN-CONVERTER (2.0 - 2.4GHz)

### Physical Specification:

RF input connector	N-Type	
Input impedance	50Ω	
Output Intermediate Frequency	70MHz	
Output 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	

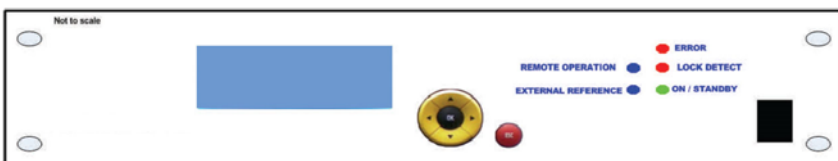
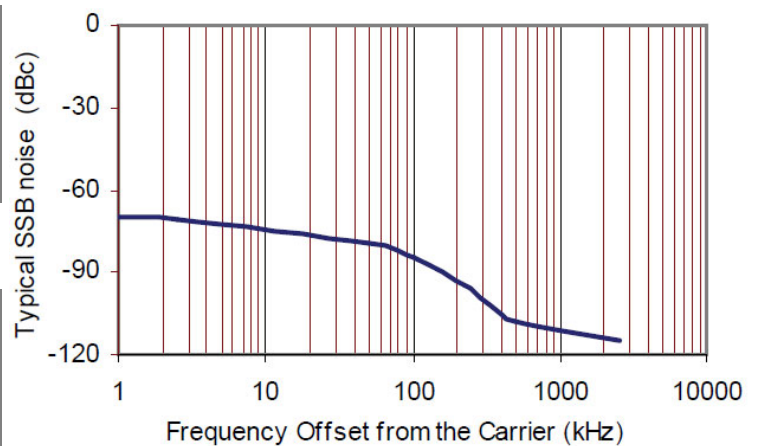
### Environmental Specification:

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**