

# Multi-path Satellite Simulator System

The MSS series of Multi-Path Satellite Simulators simultaneously talk to two sets of ground equipment, enabling the user to run extensive and prolonged tests without the need to go 'live' on a satellite.

- Simultaneously tests two satellite terminals
- Models for X, Ku, DBS, Ka and Q bands
- Linear and circular polarisation options
- Fixed installation or portable
- Ethernet and local controls



## General Specification

LO Frequency Steps	25MHz
Maximum Input Level	+10dBm
Conversion Gain	-35dB nom. (see options)
Conversion Gain Flatness	+/-2dB typ.
Attenuation Range	60dB min. (see options)
Attenuation Control	1.0dB Steps
Impedance	50 ohms
Input VSWR	1.8:1 typ. (see options)
Output VSWR	1.8:1 typ. (see options)
Signal Related Spurious	-25dBc typ
LO Related Spurious & Harmonics	-30dBm typ.
Non Signal or LO Related Spurious	-60dBc min.
Input Power	80-240V, 50-60Hz
Input Power Connector	IEC with Fuse



Phase noise dBc/Hz (typical)				
Offset Frequency	LO Frequency (GHz)			
	2.0	10.0	12.0	25.0
100Hz	-80	-70	-65	-60
1KHz	-90	-85	-75	-70
10KHz	-95	-90	-80	-75
100KHz	-95	-90	-80	-80
1MHz	-120	-115	-115	-110
Environmental				
Ethernet Control	local and remote			
Operating Temperature	0 to +50C (see options)			
Storage Temperature	-10 to +70C			
Power				
Charger Power	100-240V 50/60Hz input (internal and external options)			
Internal Battery	12V, 14AH			
Physical				
Size exc. connectors etc: Base Unit - inches (mm) Transponder - Inches (mm)	W10 (255) x H5.7 (145) x D12.6 (320) W13 (330) x H4.5 (115) x D9 (230)			
Input Connector	2.92mm Female Ka Band SMA Female Ku Band			
Output Connector	SMA Female			
Reference Input Connector	BNC Female			
Ethernet Connector	RJ45			

Options: SS01 Two Part Option - Ethernet Only SS02 Internal Battery Charger 100-240V, 50/60Hz input SS03 Switchable Internal 10MHz OCXO Reference (Frequency Stability, +/- 0.05ppm over 0 to +50C, +/-0.1ppm per year) SS04 LCD Display and Digital Attenuator (Ethernet Control). SS05 Linear Polarisation Antenna SS06 Circular Polarisation Antenna SS07 One Part Option - Ethernet only.

Note 1: The specification is subject to regular reviews and will be updated from time to time as part of our continuing product development and improved spec accuracy.  
Note 2: Operation beyond the quoted limits stated above may cause instantaneous and permanent damage.

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