

# PMG - Portable MLS Generator

**Test and calibrate  
your MLS equipment**



**IN-SNEC®**

The Portable MLS Generator is intended to be used by technical staff involved in the Microwave Landing System (MLS) technics.

Its compact design and rugged construction make it ideal for transportable applications and severe environments.

## Main Functions

- Microwave Landing System technics
- Calibration of landing control station monitors
- Calibration of the IN-SNEC® Portable MLS Receiver (PMR)
- Simulation of the signal available on a MLS equipped airfield with top level accuracy.
- Multipath simulation for angle functions

## Main Features

- Conforming to the technical requirements of the ICAO document -Annex 10
- ARINC 429 interface for remote control
- Ethernet 100baseT protocol TCP/IP for remote control
- Autotest and autocalibration
- Built in calibration
- Built in MLS sequence for PMR automatic calibration

## Main Benefits

- Excellent ergonomies
- Easy to use : only one key sequence to alter the simulation
- High accuracy
- High ruggedness for harsh environment (FAA-G-200e)
- Fully autonomous with internal battery

## Options

- Antenna kit including deployable mast (4.5m), tripod and RF cable
- 19" rack mount kit

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## Technical specifications

### MLS functions

Elevation	rate	39 Hz
	beamwidth	0.5° to 3°
	angle	-1.5° to 29.5°
Approach azimuth	rate	13 Hz
	beamwidth	0.5° to 5°
	angle	-61.5° to +61.5°
High rate azimuth	rate	39 Hz
	beamwidth	0.5° to 5°
	angle	-41.5° to 41.5°
Back azimuth	rate	6.5 Hz
	beamwidth	0.5° to 5°
	angle	-41.5° to 41.5°
Basic Data Words	words 1 to 6	
Auxiliary words	words A1 to A5	

### Simulation

Angle resolution	0.001°
Level resolution	1 dB
Absolute level	-100 to -10 dBm
Beam relative levels of Data and OCIs	-15 to 0 dB
Automatic generation of clearances	
MLS data words fully decoded on display	
Multipath simulation for angle functions	
Position relative main angle	±20° resolution 0.16°
Multipath phase	0 - 360° by 1°
Relative beam level	-25 to +15 dB/dB
Beamwidth	0.5° to 5° (except Elevation 3°) by 0.5°
Symmetry error simulation	
range	± 1°
resolution	0.01°
Control Motion Noise (CMN) simulation	
range	± 1°
resolution	0.01°

### Accuracy

Path following error (PFE)	< 0.001°
Control motion noise (CMN)	< 0.003°
Absolute level	±1 dB after calibration
Beam relative level within a same function	± 0.5 dB

### BF outputs

Amplitude demodulation	(scale 4.5 dB/V)
Synchronization	(TTL) choice among all simulated functions
Demodulated Data	(TTL) code NRZ-L, rate 15.625 kbit/s

### Remote control

Protocol ARINC 429  
Ethernet

# PMG

## Portable MLS Generator

### MODEL REFERENCE

PMG	SM50732201
MLS antenna kit	SM50687801
19" rack mounting	SM52097501

### Environmental conditions

Operating temperature range	-30°C to +50 °C
Relative humidity	0% to 95% non condensing

### Primary power requirement

AC	
voltage	115 V & 230 V ±10%
power consumption	22 W
DC	
voltage	10 - 18 V
power consumption	18 W
Internal battery with built-in charger	
charge endurance	> 1.5 hours
charge time	15 hours

### Mechanical characteristics

Dimensions	W x H x D	13.34x9.25x4.68" (339 x 235 x 373 mm)
Weight		33 lb (15kg)
Shocks		30 g rms
Vibrations (random)		3 g rms
Drops		H = 7.87" (20cm)

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