

Avionics

MLS-801 Microwave Landing System Ramp Test Set



The MLS-801 ramp test set provides Microwave Landing System angle receiver go/no-go verification testing

- Rugged construction, meets MIL-T-28800D, Type 2, Class 2, Style A requirements
- Automatic Test Sequence mode to allow one person operation
- Control Motion Deflection Position to test auto-pilot coupling
- Complete simulation of the MLS transmission cycle, including all angular information as well as data words
- Built-In-Test (BIT) for confidence testing and fault isolation of the test set
- Manual deflection controls for both Azimuth and Elevation
- Two power output levels for short and long range testing requirements
- Internal battery allowing 2 hours (approx.) of operation before recharge. Automatic power shutdown after approximately 15 minutes of non-use

Aeroflex is a leader in the design, manufacture and marketing of Avionics test systems.

The MLS-801 ramp test set provides go/no-go verification of the Microwave Landing System angle receiver installed in an aircraft. The test set generates a single channel signal that includes all necessary AM and DPSK modulation for testing of the azimuth, elevation, back azimuth and clearance functions as well as all basic data words in their standard test conditions.

Controls on the IFR MLS-801 provide for angle offset, deviation and slewing in order to allow the operator to exercise the Glideslope and Localizer deviation, to observe control surface motion and to test off-set approach angles.

Other Features

- Dynamic Slew capability at 0.05, 0.1, 0.5 and 1.0 degrees/second.
- Left and Right Clearance pulse simulation.
- Azimuth, High Rate Azimuth and Back Azimuth offset approach simulation of up to 40 degrees.
- Elevation approach angle simulation from 1 to 10 degrees.
- Fixed transmission frequency, set to the FAA specified channel (500).
- Auxiliary RF, Video and Sync Pulse outputs for use in limited bench testing.

SPECIFICATION

RF Frequency

MLS Channel 500, 5031 MHz ± 10 kHz

RF LEVEL

HIGH Range

-69.5 dBW/m² @ 30 ft.; Range approximately 300 ft.

LOW Range

-89.5 dBW/m² @ 30 ft.; Range approximately 30 ft.

MODULATION

AM and DPSK signals that conform to FAA 14

CFR Part 17 requirements. Phase accuracy is 180 ± 10 degrees

BEAM LEVEL

Fixed at 6 dB above the preamble; Accuracy ± 2 dB

BEAM WIDTH

AZ, BAZ and EL: 1.0°

HiAZ: 3.0°

Accuracy

$\pm 10\%$ (measured at the -3 dB point)

ANGLE OFFSET

Azimuth: $\pm 40^\circ$ in 10° steps

Elevation: +1 to $+10^\circ$ in 1° steps

Accuracy

$\pm 0.1^\circ$

CLEARANCE PULSE**Levels**

CLR L: +6 dB LEFT PULSE and -4 dB RIGHT PULSE

CLR R: -4 dB LEFT PULSE and +6 dB RIGHT PULSE

Width

1/2 Beam plus Clearance Pulse at -3 dB point (75 μ s)

Position

Pulse fixed at $\pm 12.5^\circ$ (Pulses fixed at -12.5° left and $+12.5^\circ$ right)

DEFLECTION**Center**

0% Full Scale Deflection (FSD)

Accuracy: $\pm 0.1^\circ$

Full

100% FSD (left and right 3.2 degrees Azimuth)

Standard

52% FSD

Control Motion

7% FSD

SLEW**Slew Rate**

0.0, 0.05, 0.1, 0.5 and 1.0° per second

Accuracy

$\pm 0.05^\circ$ per second

GENERAL

Operating Temperature

-40° C to $+55^\circ$ C

Storage Temperature

-40° C to $+71^\circ$ C

Battery

Four hour battery operation with 15 minute time-out following the absence of switch operation

AC

Selectable VAC operation used to recharge the battery and operate the test set; 103.5 to 129 VAC or 207 to 253 VAC, 47.5 to 420 Hz, 50 W

Dimensions

343 mm wide, 368 mm deep, 209 mm high

13.5 in. wide, 14.5 in. deep, 8.25 in. high

Weight

13.5 kg (30 lbs.) approximately

VERSIONS AND ACCESSORIES

When ordering please quote the full ordering number information.

Ordering Numbers**Versions**

801 MLS-801 Microwave Landing System Ramp Test

801-C MLS-801 Microwave Landing System Ramp Test with Certificate of Calibration

All IFR Avionics products delivered with Factory Certificate of Calibration

For the very latest specifications visit www.aeroflex.com

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