

Avionics

MLS-801 Microwave Landing System Ramp Test Set

AEROFLEX
A passion for performance.



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

For the very latest specifications visit www.aeroflex.com

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 ($75\mu\text{s}$)

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 $+55^\circ\text{C}$

Storage Temperature

-40°C to $+71^\circ\text{C}$

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

CHINA Beijing

Tel: [+86] (10) 6467 2761 2716
Fax: [+86] (10) 6467 2821

CHINA Shanghai

Tel: [+86] (21) 6282 8001
Fax: [+86] (21) 62828 8002

FINLAND

Tel: [+358] (9) 2709 5541
Fax: [+358] (9) 804 2441

FRANCE

Tel: [+33] 1 60 79 96 00
Fax: [+33] 1 60 77 69 22

GERMANY

Tel: [+49] 8131 2926-0
Fax: [+49] 8131 2926-130

HONG KONG

Tel: [+852] 2832 7988
Fax: [+852] 2834 5364

INDIA

Tel: [+91] 80 5115 4501
Fax: [+91] 80 5115 4502

KOREA

Tel: [+82] (2) 3424 2719
Fax: [+82] (2) 3424 8620

SCANDINAVIA

Tel: [+45] 9614 0045
Fax: [+45] 9614 0047

SPAIN

Tel: [+34] (91) 640 11 34
Fax: [+34] (91) 640 06 40

UK Burnham

Tel: [+44] (0) 1682 604455
Fax: [+44] (0) 1682 662017

UK Stevenage

Tel: [+44] (0) 1438 742200
Fax: [+44] (0) 1438 727601
Freephone: 0800 282388

USA

Tel: [+1] (316) 522 4981
Fax: [+1] (316) 522 1360
Toll Free: 800 835 2352

As we are always seeking to improve our products, the information in this document gives only a general indication of the product capacity, performance and suitability, none of which shall form part of any contract. We reserve the right to make design changes without notice. All trademarks are acknowledged. Parent company Aeroflex, Inc. ©Aeroflex 2004.

www.aeroflex.com
info-test@aeroflex.com



Our passion for performance is defined by three attributes represented by these three icons: solution-minded, performance-driven and customer-focused.