

KNOW BEFORE YOU GO™



Available in -50, -100 and -180 versions

UV LED Mallina Missile Warning Stimulator

Part Numbers: EU02175-01-FG (-50 version)

EU02153-01-FG (-100 version)

EU02173-01-FG (-180 version)

Specifications subject to change without notice.

Providing confidence and reliability through total spectrum test and training solutions.

The Ultraviolet (UV) Light-Emitting Diode (LED) Mallina is a medium- to long-range electro-optical (EO) system designed to stimulate UV missile warning systems such as AN/AAR-47, -54, -57 and -60. A ruggedized, military-specification (MIL SPEC) system, the UV LED Mallina can be used as an independent or remotely controlled EO range simulator, or as an adjunct to an existing radio frequency threat simulator platform. It can be operated from typical standoff ranges of 500-10,000 meters (m) or 1,600-32,000 feet.

The UV LED Mallina is a developmental and operational test and evaluation tool, as well as a training aid for aircraft survivability equipment aircrew training. It can be operated remotely using a communication serial data bus or mounted on a tripod. It also is sufficiently rugged for vehicle mounting and operation.

New LED technology allows aircrews to train at night, with or without night vision goggles, without fear of eye dazzle and without giving away threat locations. It also provides nearly instantaneous modulation of any depth for advanced hostile fire and missile plume simulation. In addition, the UV LED Mallina can use its internal battery source or accept other direct current (DC) sources from 10-60 volts (V). Enhanced performance versions (i.e., greater than 80 watts per steradian, or W/sr) are available by request.

Specifications

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| Performance: | <ul style="list-style-type: none">■ Typical effective range to warner* -50 version: 500 m to 8 kilometers (km) -100 version: 500 m to 9 km -180 version: 500 m to 10 km■ Typical beam divergence 5 degrees (half power)■ Sample rate up to 6 kilohertz (kHz)■ Narrow wavelength line within the solar blind region■ Maximum on-axis radiance 2.1 W/sr ±15 percent (for -50 version), 4.2 W/sr ±15 percent (for -100 version), 7.6 W/sr ±15 percent (for -180 version) – depending on options■ Output response time less than 100 microseconds rise time between any values |
| Controls: | <ul style="list-style-type: none">■ Battery/off/external selection switch■ Input voltage selection switch■ Initiate/abort stimulation sequence (fire) switch■ File scroll buttons■ Arm/safety switch |
| Indicators : | <ul style="list-style-type: none">■ Dual seven-segment status and program display■ Power, UV LED status, ready and running indicator LEDs |
| Built-in tests: | <ul style="list-style-type: none">■ LED integrity, power supply, battery, witness sensor, removable memory media present and checksum, display and indicators, temperature and safety key |
| Test profiles: | <ul style="list-style-type: none">■ Programmable using the optional Mallina Communications Suite, or MalCom II, software package■ Maximum 99 files per library and a maximum of eight libraries per removable PCMCIA (PC) card for customer programming■ Maximum 32-second profile duration at 6 kHz■ Sample rates from 200 hertz (Hz) to 6 kHz can be selected in 200-Hz steps■ 2 seconds between re-triggers (interval between firing) |
| Connectors: | <ul style="list-style-type: none">■ Remote ports include Recommended Standard, or RS, 232/422 serial communication port/remote trigger; test file selection; initiate test; file download; and built-in test, including source status■ Cluster network link port enables users to link up to four modules (including infrared, laser and data/video recorder)■ Monitor port includes a witness sensor, accurate synch pulse and safety key■ 20-60 V port with DC supply input and DC supply auxiliary output of 48 V that can power the Mallina laser range finder■ 10-32 V port with DC supply input and DC supply auxiliary output of 5 and 12 V |
| Aiming sight: | <ul style="list-style-type: none">■ Two times, or x2, using an optical red dot sight, or compatible with stabilized platforms■ Optional video and infrared targeting and recording |
| Construction: | <ul style="list-style-type: none">■ Single optical head assembly, mounted on platform or tripod■ Internal battery and optional external power supply modules |
| Power options: | <ul style="list-style-type: none">■ Supplied internal, MIL SPEC nickel-metal hydride battery, plus spare■ Option 1: 110/230 volts alternating current, or VAC, Mallina Power Supply Unit■ Option 2: 48 volts direct current (VDC) Battery Power Supply Unit■ Will accept user-provided power from appropriate 10-60 VDC supply |
| Dimensions: | <ul style="list-style-type: none">■ Overall dimensions within 250 millimeters (mm) x 250 mm x 500 mm, or 9.8 inches (in.) x 9.8 in. x 19.7 in.■ Mass is approximately 15 kilograms, or 33 pounds |
| Environment: | <ul style="list-style-type: none">■ Operating temperature -40 to 55 degrees Celsius (°C); -20°C for battery operation■ Storage temperature -40 to 71°C■ CE marked■ Designed to the requirements of MIL PRF 28800F and DEF STAN 66-31 |

* Effective range performance is highly dependent upon missile warner sensitivity and atmospheric conditions. The above figures are for the following ambient conditions: 20 parts per billion ozone and 100-km visibility.

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