



# CITRON Laser Threat Simulator for Aviation Safety



The CITRON is a short to long range electro-optical missile threat simulator for testing missile approach warning systems (MAWS) and for training crew in the operation of these systems.

CITRON provides fast and safe testing against various types of missiles. It simulates the MWIR radiation profile of an approaching missile, based on input parameters such as: missile signature, missile speed, missile range, atmospheric conditions and more.

CITRON includes video tracker with motorized pedestal, laser rangefinder, MWIR programmable laser simulator, computer, tripod and a portable battery. CITRON records data and video backlog of events for post analysis

The CITRON is available for MWIR, SWIR, LWIR, UV or newer generation dual-band MW MAWS systems. Integrated detectors to measure the IR countermeasure of the threatened platforms, ability to sync between several units to create a true “missile – field” simulations are optional.

| FEATURES   | APPLICATIONS   |
|--|--|
| Proven in field use. One man portable<br>Affordable cost. Cost effective<br>Low Maintenance. Passive cooled<br>Withstands field environmental conditions | Airborne Protection Testing<br>Testing of detectors/MAWS<br>Training of crew |



| LASER THREAT SIMULATOR MAIN PARAMETERS, MODEL : CITRON |  |
|--|--|
| Wavelength range                                       | MWIR (UV, NIR, SWIR, LWIR – optional)  |
| Beam divergence (deg)                                  | 1-2  |
| On-Axis Radiant Intensity (Watt/str) max               | 500 - 1,000  |
| IR rise/fall time (msec)                               | 0.1  |
| IR programming step (msec)                             | 1  |
| Single engagement dynamic range                        | > 800  |
| Standoff range (m)                                     | 5 - 6,000  |
| Gimbal Travel Range Azimuth / Elevation                | 360° (+/-180°) / 60° (+50°/-10°)   |
| Gimbal Travel Rate / Follow Aim Rate (°/sec)           | 30 / 15  |
| Gimbal Position Resolution, mrad                       | 0.1  |
| Tracker Camera   | Color 2/3 CCD HD 1920 x 1080, 60 fps   |
| Tracker Zoom   | x30 optical, (x3 digital)  |
| FOV horizontal   | 45° – 1.5° (15° - 0.5°)  |
| Rangefinder Repetition rate                            | 1pps   |
| Rangefinder Range, m                                   | 100 – 10,000   |
| Rangefinder Eye safety category                        | Class 1M IEC 825-1 2001-08   |
| Clear aperture, mm                                     | Laser transmitter < 30 x 150<br>Rangefinder < 40 x 100<br>Tracker camera < 70 x 70 |
| Warm-up time (min)                                     | < 2  |
| Environmental  | 5 - 45°C   |
| Weight (kg)  | Optical assembly – 20<br>Tripod – 10<br>Control unit – 10                          |
| Power input from Battery or AC/DC adapter              | DC 24V ( 3 - 10A)  |

Specifications in this document are subject to change without notice.



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