

## MULTI-SENSING SECURITY UNIT



SENTiNEL ROBO is a new weapon for security alarm and surveillance protection applications.

It is an all-in-one unit, combines the following parts:

|           |     |   |
|-----------|-----|---|
| DMW-100   | --- | Long range Doppler Microwave Motion Detector                    |
| IFR150XT  | --- | Long range outdoor passive infrared motion detector             |
| VAM       | --- | Full range Video Analytics Module for motion and other behavior |
| PowerView | --- | IR laser based day/night video surveillance unit                |
| CPM       | --- | Central Processing Module                                       |
| PSM       | --- | Power Supply Module   |

All the motion detection sensors could work simultaneously and separately. The Doppler Microwave or Video Analytics Module will give a pre-alarm in case that a motion activity is detected, and the passive infrared will confirm the final alarm if motion is detected by itself together with pre-alarm.

There is separate output for each detector, too. The user has the free choice of trusting any single alarm or neglect them, or trust the final alarm only according to the specific application conditions. IFR150XT long-range Passive Infrared Detector (PIR) has been developed for detection of intruders up to 150 meters. It can be used when the installation of traditional active infrared beams is difficult or impossible. Moreover the area protected cannot be identified by an intruder due to the passive operation of the unit. It is a passive device designed to detect any intruder by his movement due to the infrared contrast against the background. Two curtains sensing areas provide the alarm only when they detect infrared radiation emitted by a human body entering in the first curtain and leaving the second one. The detection algorithm eliminates slow temperature changes and avoids nuisance alarm caused by small animals, flying birds and moving vegetation. DMW-100 is a long range Doppler Microwave Motion Detector. It generates and emits original X-band microwave signals to the protected area, and compares the frequency or phase differences between the original signal and received signals. By the theory of Doppler, the detector could tell

if there is a motion or not, and even the speed & direction of the motion. An intelligent noise-filter together with the smart LeadEx firmware is designed to eliminate as much as possible the false alarms, while judging the real alarms. Its ideal working range is about 100mt from the detector with a angle of 45 degrees.

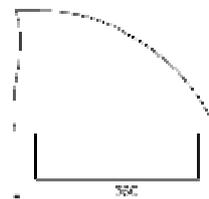
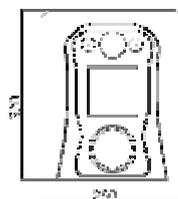
VAM Video Analytics Module is a video based unit to detect and analyze the objects in the field of view. The object behavior, especially the motion activities are detected and traced by the VAM, and give an alarm output. For details, please refer to LeadEx VAM descriptions.

A dedicated camera with laser IR illuminators is used for the video image capture, which could guarantee the excellent performance at both daytime and night. And it is also a great help for the VAM analyzing.

## Specifications

|                                       |  |
|---------------------------------------|--|
| <b>Range &amp; Field of View</b>      | <ul style="list-style-type: none"> <li>■ IFR150EX up to 150mt (1.2° x 1.8°)</li> <li>■ DMW-100 up to 100mt for person and 150mt for car ( 45° horizontal)</li> <li>■ VAM up to 200mt in the view ( match to camera 52°)</li> <li>■ Laser IR up to 200mt at zero lux conditions ( 10°)</li> </ul> |
| <b>Speed of objects for detection</b> | Min.: 0.5 mt/sec.<br>Max: 7 mt/sec.  |
| <b>Sealing</b>                        | IP65   |
| <b>Microwave Frequency</b>            | 10.525GHz  |
| <b>Laser Parameter</b>                | <ul style="list-style-type: none"> <li>■ Laser working voltage: Average 2050 mV</li> <li>■ Slope efficiency: Average 1.20</li> <li>■ Laser wavelength: 808nm</li> <li>■ Electric working current: 2000mA</li> <li>■ Optical output: 4000mW</li> <li>■ Laser Angle: 1° ~8°</li> </ul>             |
| <b>Camera Parameter</b>               | Please see SONY 36X camera module specification  |
| <b>Power</b>                          | 20W  |
| <b>Input Voltage</b>                  | 12VDC, 2A  |
| <b>G. Weight</b>                      | 19KG   |

**Dimension**



unit:mm

## Order Guide

| Model Number | Description                              |
|--------------|--|
| SL-1         | DMW-100 + IFR150XT+VAM+PowerView+CPM PSM |
| SL-2         | DMW-100 + IFR150XT+PowerView+CPM PSM     |
| SL-3         | DMW-100 + IFR150XT+CPM PSM               |