

DIGITAL MICROWAVE TRANSCEIVER

# MURENA PLUS

12M - 24M - 12M CURTAIN



DUAL DIGITAL DOPPLER BASED ON FUZZY LOGIC ANALYSIS



EXTREME SECURITY

V 1.0

SINCE 1974



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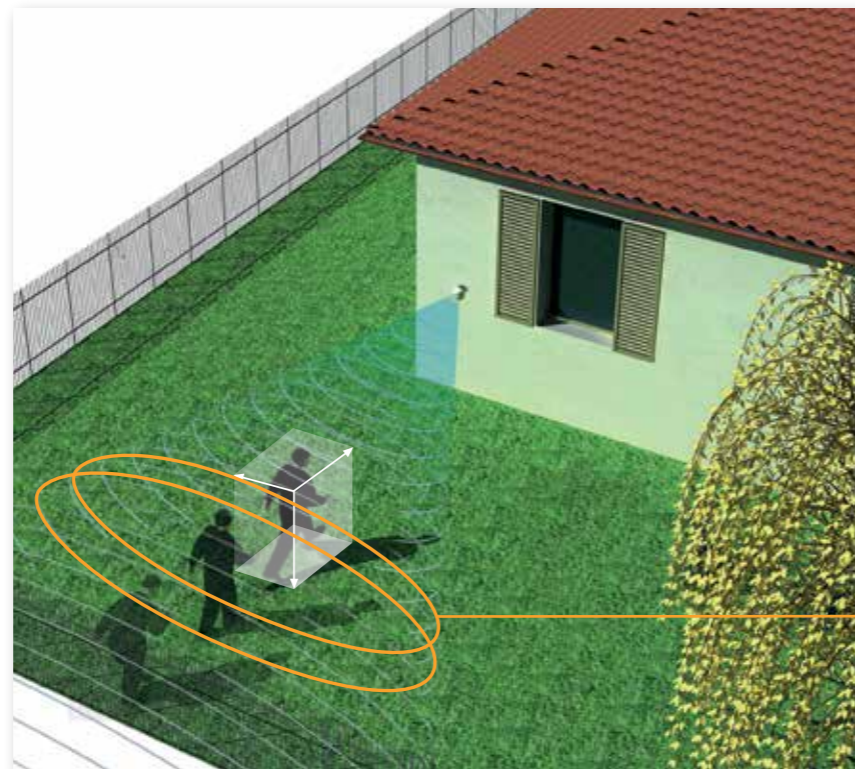
TECHNOLOGY



Murena, thanks to the dual doppler frequency generated, is capable of detecting **distance, dimension and direction** of the target making a real target much more distinguishable from environmental disturbances.

The frequency analysis carried out by a powerful DSP, (digital signal processor), together with the Fuzzy logic analysis, already successfully used with high level products like **ERMO 482x pro**, provides an excellent identification of target and its classification in terms of risk with respect to the pre-configured parameters.

The alarms are provided by 3 solid state relays (alarm, tamper, failure), through the RS-485 port (present on board) and the IP & PoE port (provided with accessory IP-Doorway).



Murena plus is a remotely controlled digital microwave transceiver from cias labs, based on "Fuzzy logic" analysis for outdoor protection as facades, balconies, terraces, entrances, etc.

Murena generates two different doppler frequencies. This gives the sensor the ability to detect changes in the phase of the signals, which vary dependent on the position of the target and can therefore determine the distance from the sensor.

IP READY & POE



**IP-Doorway** is an interface designed to make all the cias digital detectors "**IP-Ready**". Using the IP-Doorway, the barrier or sensor in which it is installed has all the elements of an "IP native detector". With an ethernet CAT5E FTP cable **it is possible to power the product while also remotely managing the alarm data and configuration.**

It immediately becomes clear that **there is a significant economic advantage to the installer** as, using a single cable, means that almost anything can be implemented with ease. The product can be powered using the **PoE 802.3AF** standard or by using a **DC voltage of 13.8 Vdc**, commonly used in intruder detection systems. since IP-Doorway handles the TCP; UDP; HTTP; DHCP; ICMP; ARP; RARP protocols, it can be used for many different types of data management.



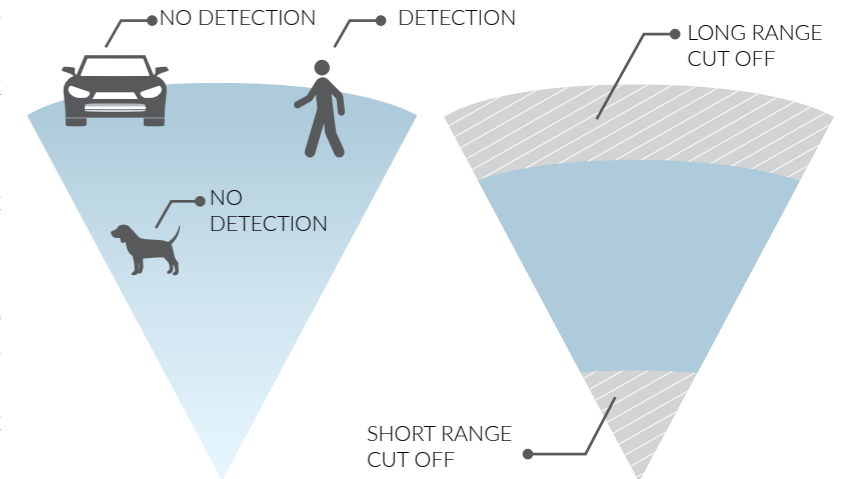
FUZZY LOGIC



The "**Fuzzy logic rules**", which are based on the analysis of the signal, enabling the identification of the target and its classification in terms of risk compared to the configuration set.

The detailed analysis of the movement provides an opportunity to understand whether the target is approaching, receding or moving across, within the lobe of protection.

Thanks to the Fuzzy function SRTD (**short range target discrimination**), is able to discriminate the undesired movements close to the detector, such as those of small animals and/or birds that normally generate unwanted alarms.



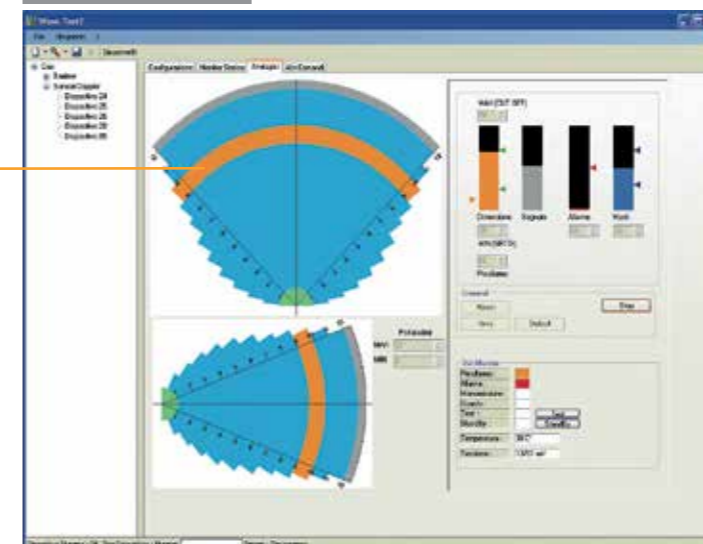
CURTAIN VERSION

Murena plus curtain is the model in the family that uses a special antenna and sophisticated algorithms studied for curtain application and is therefore able to detect with high reliability even intrusions that occur across the beam in a transversal way.

Furthermore, the ability to manage the size of the object moving along with the ability to define exactly the limit of the beam allows the sensor to work without coming into contact with areas that do not want to analyze.



PIN POINT LOCATION



SOFTWARE WAVE-TEST2

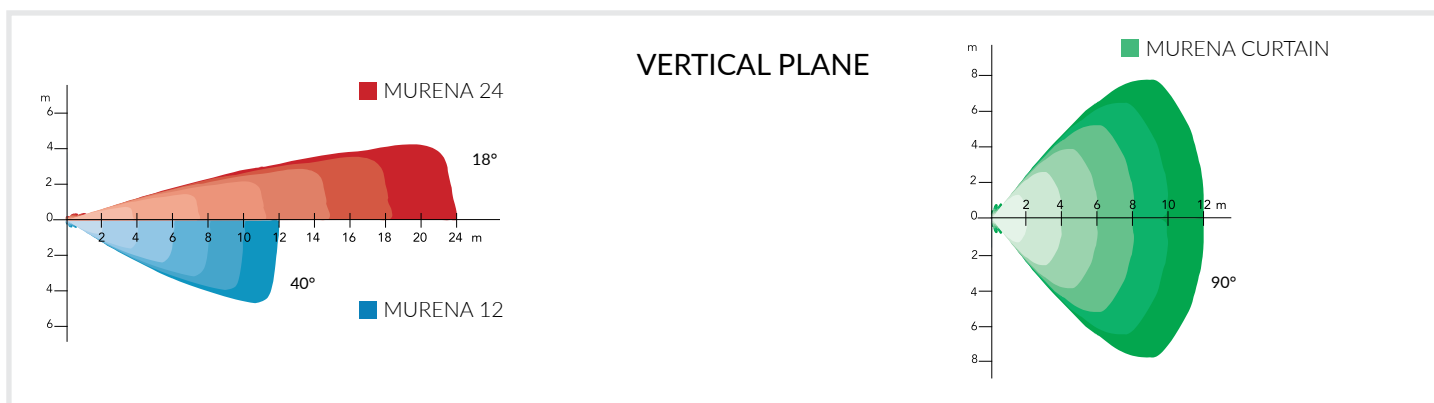
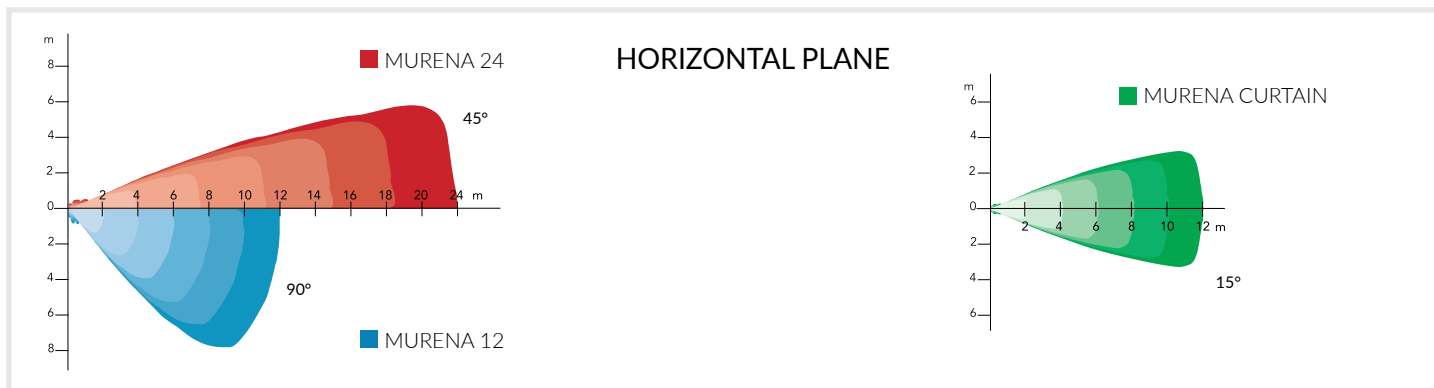
Any significant event is recorded on board into the events (history back-up) and the characteristics of the received signal into the monitors back-up.

These events are provided with the date and exact time thanks to the internal "RTC" and can be downloaded through the special software **wave-test2** used also in order to optimize the installation and give remote maintenance skills.

An “embedded” audio visual and a walk-test system provides the possibility, to verify the installation in terms of probability of detection, and allows you to modify the parameters settings, using a friendly and easy tool.

The mechanics made by polycarbonate with uv protection, allows you to install the device in different environment conditions from -40°C up to +65°C.

After installation and adjustment, the optional protection kit murena-rs allows you to protect the access to the cable entrance. The special roof, which is part of this kit allows you to reduce the noise arising from the rain when is installed in open areas.



## SPECIFICATIONS

MAX RANGE	12 m, 24 m, 12 m CURTAIN
TEMPERATURE	-40°C +65°C
CURRENT CONSUMPTION	125 mA
FCC	FCC Certified
HORIZONTAL PLANE	90° (MURENA 12) - 40° (MURENA 24) - 20° (MURENA CURTAIN)
VERTICAL PLANE	40° (MURENA 12) - 20° (MURENA 24) - 90° (MURENA CURTAIN)
POWER SUPPLY	13,8 Vdc
WEIGHT	500 g
DIMENSIONS	175 x 175 x 115 mm
ALARM OUTPUTS	3 solid state relays for alarm, fault, tamper.
SPECIAL OUTPUT	RS-485 PORT (on board) - IP & PoE PORT (accessory IP-DOORWAY)
SOFTWARE	WAVE-TEST 2 for setting up and remote maintenance

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