AVANTGARDE IR | MW | DT

IP Dual Technology Barrier
IMTDT150 series

AVANTGARDE-DT is a high security active dual technology (DT) barrier enclosed in two tamper protected extruded aluminum columns equipped with Sicurit last generation of digital patented bi-directional infrared and brand new planar X-Band microwave technology, all within one unit.
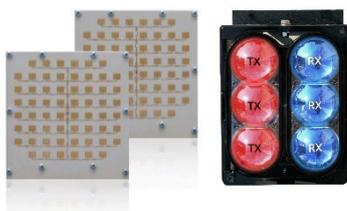
Bi-Directional IR Technology
Thanks to the patented 3TX+3RX-Optics Beam head, in case of any false exposure to direct light sources (e.g. sunlight/car headlights) the inflicted receiver raises a pre-alarm, but as the corresponding receiver on the other side is getting a correct signal, AVANTGARDE-DT will not set an alarm condition thus drastically reducing nuisance alarm rates.

New Planar X-Band Microwave Technology
Additionally AVANTGARDE-DT makes use of last generation of Sicurit's digital Microwave (X-Band) and Advanced Digital Signal Processing (ADSP) to reduce false alarm rates and distinguishing the type of intrusion attempt and eventual temporary obstructions specially during system rearming.

Another innovation is the introduction of a random modulation channel shuffle-based algorithm that increases Microwave safety making AVANTGARDE-DT completely immune against attempts to tamper it.

Unique Functions

Target Direction Analysis (TDA)
AVANTGARDE-DT provides not only simple alarm information but even target direction (IN or OUT) information which makes even target tracking with perimeter CCTV cameras easier and more accurate.

5DS Detection Scenarios (Distributed Intelligence)
Being each Infrared beam equipped with microprocessor, individual crossing parameters can be set and up to 5 multiple intrusion detection scenarios can be programmed to better define detection target based on intrusion attempts behaviors.

Predictive Maintenance Tool (SEA)
Another key innovation is the continuous Signal Efficiency Analysis (SEA) which monitor all optical communication efficiency and notifies when critical thresholds has been reached that can be caused by e.g. dirty front-cover, IR beam end of life.

Infrared Beams Control (ON-OFF)
AVANTGARDE-DT can adapt itself to any drastic environmental change such as big snow falls, growing grass or sand storms by simply disabling without additional wire connections any Infrared Beam temporally obstructed thus preserving its capability of detection.
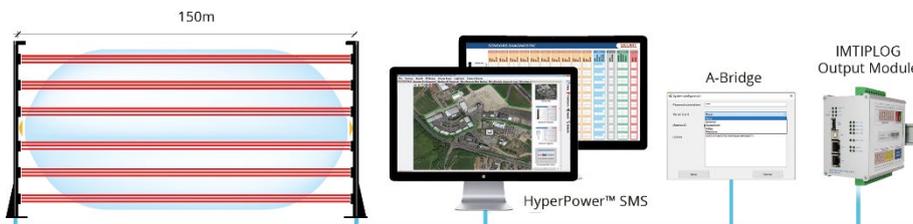
KEY BENEFITS

• Combined Detection (IR+MW)

• Bi-directional IR and digital planar X-band Microwave technologies

• End-to-End IP based sensor

• Complete remote control and diagnostic

• Optional PoE+ splitter

• Integrated with major VMS

• Certified Grade 4

ITALIAN PIDS TECHNOLOGY

PIDS

SICURIT Perimeter Protection Systems – a dedicated division of SICURIT Alarmitalia S.p.A.
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Specifications

General	
Operating ranges	150m
Type of detection	Linear with volumetric pre-alarm | Bi-directional Infrared + Microwave Technology
IR frequency	940nm
MW type and frequency	Planar, X-Band (10.525GHz)
Frequency channels	16 Crystal-Quartz random shuffle
Probability of detection (POD)	Greater than 99%
False alarm rates	Typically 1/unit/year
Number of IR beams	3x (IMTDT150/2.0); 4x (IMTDT150/2.5); 5x (IMTDT150/3.0)
Towers height (H)	2.0m (IMTDT150/2.0); 2.5m (IMTDT150/2.5); 3.0m (IMTDT150/3.0)
Communication	
Communication interfaces	Dry contacts, Ethernet (RJ45)
Communication protocols	TCP-IP/ModBusTCP (API available on request)
Ethernet (M-TX/S-RX)	TCP 10/100 Base T
Alarm data transmission	TCP/IP to HyperPower SMS and A-Bridge; ModBusTCP to IMTIPLOG
Alarm outputs	N.C. Relay Output in M-TX and S-RX (selectable)
Tamper outputs	N.C. Relay Output in M-TX and S-RX
Auxiliary I/O	4IN/3OUT (programmable O.C.) in both M-TX and S-RX
Electrical	
Power supply	PoE+/12VDC-24VAC (110V/230V built-in Power Supply available)
Power consumption	M-TX 580mA/S-RX 580mA (2.0); M-TX 680mA/S-RX 680mA (2.5); M-TX 780mA/S-RX 780mA (3.0)
Power supply options	PoE+ (with IMTSPT1220BOX); 110/230V (with BEA1224ALI/EX/USA)
Environmental	
Operating temperatures	-25°C / +70°C; -40°C / +70°C with additional PTC Heater -10°C / +70°C with IMTSPT1220BOX PoE+ splitter
IP rating (towers)	IP65
Configuration tool	Web-browser and Software (Windows® based)
Dimensions	Tower: 15.5x16.6x**H**cm | Base: 28x28cm
Regulatory compliance	CE, Product classified Security Grade 4 - Environmental Class IV (according to EN 50131-1:2006, EN 50131-1-2-4:2008)
Warranty	Comprehensive 3 years

Graphic representation

150m

HyperPower™ SMS

A-Bridge

IMTIPLOG
Output Module

How to order (P/N)

Models

IMTDT150/2.0	Set of Avantgarde-DT | H: 2.0m | 3x IR's + 1MW
IMTDT150/2.5	Set of Avantgarde-DT | H: 2.5m | 4x IR's + 1MW
IMTDT150/3.0	Set of Avantgarde-DT | H: 3.0m | 5x IR's + 1MW

List of accessories

BET040	Ground base
BEA1224ALIEX	230V Power supply
IMTSPT1220BOX	PoE+ Splitter

Integration options

CMHPAVSW	Hyperpower SMS
IMTAB16/32/64/128	A-Bridge VMS gateway
IMTIPLOG	Ethernet output module ONVIF ready

Complete list of accessories available in SICURIT official pricelist

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