

ART Optronic Platform High Performance Surveillance Solution

Applications

- Border surveillance
- Critical infrastructure protection
- Military crisis deployments

Highlights

- Long range assessment of threats (intruder classification)
- Multi-sensor: thermal and visible light imaging
- Compatible with ART radar systems and unattended underground sensors
- Slew-to-Cue surveillance capability (automatic optical tracking of radar detections)
- High performance in complete darkness and in extreme weather conditions: rain, snow and fog
- Smooth and accurate Pan & Tilt movements
- Clear and sharp thermal image
- Low power consumption
- Fast deployment
- Low maintenance required
- Environmentally MIL qualified product
- Cost effective

Technology

- High performance uncooled thermal camera
- High sensitivity: no additional active illumination required
- 100% PELCO-D compatible



ART Optronic Platform High Performance Surveillance Solution

ART Optronic Platform is a complete Surveillance System based on a state-of-the-art un-cooled thermal camera, a compact CCD SONY camera and a high precision pan/tilt device.

This combination provides a high performance multi-sensor (thermal and visible light) solution at a competitive price. The clear and sharp output thermal image guarantees a 3000+ meter detection range and an improved threat assessment capability in complete darkness.

ART Optronic Platform can be controlled using PELCO Protocol. The high precision

pan/tilt unit provides accurate and stable pointing control and advanced features such as a radar slew-to-cue operation mode that enables automatic optical tracking of the intruders detected by other sensors. ART Optronic Platform is therefore ideally suited to complement ART range of advanced early warning surveillance sensors such as ART Midrange High Resolution Ground Surveillance Radar or ART Enhanced Unattended Underground Sensors.

ART Optronic Platform is cost effective and can be easily integrated within a sensor network or preexisting security infrastructure.



ART Optronic Platform Product Brief

THERMAL CAMERA

Detector:	VOx uncooled Microbolometer FPA	
Spectral Range:	7.5 μm –13 μm	
Detector Size:	320 x 240	640 x 480
Available Lenses:	9 mm (48° x 39°) 13 mm (34° x 28°) 19 mm (24° x 19°) 35 mm (13° x 10°) 50 mm (9° x 7°) 100 mm (4.6° x 3.7°)	25mm (25° x 20°) 35 mm (18° x 14°) 50 mm (12° x 10°) 100 mm (6.2° x 5°) 60mm/180mm (15.8° x 9.6° / 5.1° x 2.9°) 25 mm / 150 mm Continuous Zoom (25.3° x 18.9° / 4.1° x 3.1°) 25 mm / 225 mm Continuous Zoom (24.5° x 18.4° / 2.8° x 2.1°)
Sensitivity:	85 mK	
Operating Temperatures:	-40 °C to +55 °C	
Storage Temperatures:	-50 °C to +85 °C	
IP Qualified:	IP66	

CCD CAMERA

Detector:	¼ " EXviewHAD CCD 530 TVL. Approx. 440,000 pixels
Lens:	f=3.4 mm to 122.4 mm, F1.6 -F4.5
Zoom:	36X optical, 12X digital
S/N:	Higher than 50 dB
Minimum Illumination:	1,4 lx (typical) at 1 / 60 s 0,1 lx (typical) at 1/4 s

PAN & TILT POSITIONING SYSTEM

Azimuth Range:	360° continuous
Elevation Range:	+90° to -90°
Speed Ranges:	Azimuth: 0,1 °/s -45 °/s Elevation: 0,1 °/s -45 °/s
Accuracy:	+/-0.018°
Operating Temperatures:	-40 °C to +60 °C (Operating from -25 °C)
IP Qualified:	IP66

MAIN FEATURES

Material:	Aluminium and Stainless Steel
Weight approx.:	15 Kg
Dimensions approx.:	474 x 376 x 305 mm
Control:	PELCO-D through RS-422

Company Information

ADVANCED RADAR TECHNOLOGIES S.A - ART is the leading Spanish technology company in high performance ground surveillance radars, integrated multisensor surveillance and command & control systems for critical infrastructure protection and border surveillance.

ART business model is based on more than 20 years of innovation in radar, millimeter-wave technology and systems engineering. The core research and development team of the company comes from the Microwave and Radar Research Group of the Polytechnic University of Madrid (UPM), with extensive experience developing radar and microwave solutions in close cooperation with key players in the Spanish and European Defense & Aerospace Industry. The systems engineering team of ART offers an experience of fifteen years working in the development and deployment of the pioneer Spanish Maritime Border Surveillance System (SIVE) and several other surveillance systems in Eastern Europe.



ART has developed the Integrated Surveillance System Solution (IS₃), as the key component to build Critical Infrastructure Protection Systems and Border Surveillance Systems. IS₃ is an integrated multi-sensor system that combines three types of sensors: high resolution ground surveillance radars, plus an optronic (IIR+CCD) platform and networks of Unattended Ground Sensors.

ART's offering is based on integrated solutions (IS₃) addressed to Security System Integrators. However individual radar, UGS and optronic sensors are also available for Integrators willing to use their own system solutions. ART products are easily integrated into preexisting sensor networks or security infrastructures.

