ECSI

AN INTEGRAL PART OF THE SOLUTION

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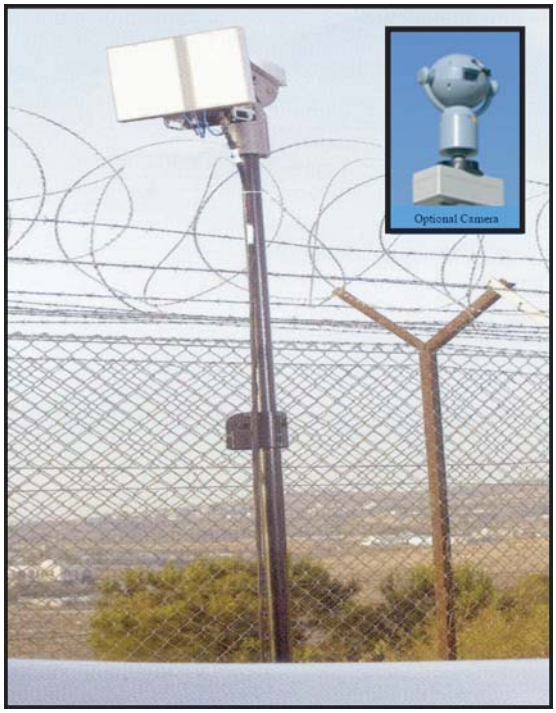
# HDS - Human Detection System

The HDS Series 2107P System provides high resolution imaging of moving objects, up to 300 meters in distance based on an Ultra Wide Bandwidth (UWB) waveform and processing logic. Advanced state-of-the-art digital processing and software algorithms are used to perform real time detection of moving objects, measurements, analysis and recognition in accordance with stringent governmental NAR/FAR requirements – thus enabling reliable, real time surveillance and alarms. The HDS consists of an antenna array, a transceiver, connecting cables and an integrated video assessment and tracking system.




**Series 2107P**
**Permanent Mounted**

## HDS VALUE PROPOSITION

HDS, verified to be accurate, reliable, flexible, cost-effective, and state-of-the-art.

| | |
|---|---|
| Low Lifecycle Cost | Low power consumption, Easy installation, and Low maintenance |
| Best Industry Warranty | 3 years |
| Scalability | HDS modular design allows for easy scalability. Zone size can be increased by simply adding units to the system network |
| High Quality | Solid state<br>MTBF (Mean Time Between Failure): 20,000 Hours (Calculated in accordance with Military Handbook 217F)<br>MTTR (Mean Time to Replace): 30 Minutes (Replacement of Line Replaceable Units, LRU) |
| Highly Accurate | High Probability of Detection (PD) Regardless of weather conditions (90%) for people and vehicles |

| HARDWARE | BENEFITS |
|---|---|
| High range accuracy and resolution doppler radar | The system allows continuous monitoring and detection in all weather conditions |
| System built-in test | Easy to maintain - isolates 95% of the failures to subsystem module |
| Modular design | Multi-sensor array and scalability |
| PC based control unit | Easy installation |
| Lightweight and low power consumption | Extended operation |
| Uses RS232 or RS422 interface | Interoperability with other security system technologies through a PC interface |
| High reliability, low maintenance, no calibration needed | Low lifecycle costs |
| Hardware includes capability for IP, cellular or microwave networking of multiple units to one PC | The system may be connected in a netted configuration, integrating radars and electro-optical devices to one central computer complying with customer securtiy requirements |
| Controllable via remote command post | Low exposure of operations personnel |

| SOFTWARE FEATURES | BENEFITS |
|---|---|
| Automatic detection of moving targets | Security force reduction |
| Visual and audio alarms for each detection | High probability of timely response |
| User friendly Human Machine Interface (HMI) | Simple to operate |
| Control from a remote command post | Remote control data retrieval |
| Display background area on actual customer's digital map/picture | Allows radio response to threat area |
| Programmable according to areas status. (Restricted zones according to time frames, buffer zones, etc.) | Proper priority of response forces |

## SPECIFICATIONS

| HARDWARE | |
|---|---|
| Working Method | high-resolution Doppler radar |
| Frequency | C band |
| Detection Range | 300m for humans |
| Horizontal Field of Detection | 80° |
| Range Accuracy | ±1m |
| Azimuth Accuracy | ±5º |
| Power | 24v |
| Power Consumption | 20w |
| Communication | via RS-422/232 |
| MEU Weight | 3.5 kg |
| Operating Temperature | -25°C to +55°C |
| Storage | -40°C to +85°C |
| Humidity | Up to 95% relative humidity |
| Wind | During operation - 50 Knots |
| Salt Atmosphere | Exposure to salt air atmosphere |
| Sand and Dust | Exposure to sand and dust particles as encountered in operational areas (11grams /M3, wind 50 knots) |
| Mechanical Shock | Shock characteristics: half Sine wave 30 G, 11 msec |
| Solar Radiation | Exposure to solar radiation (105 W/ft2) |
| Vibration | Sinusoidal vibration in accordance with MIL-STD-810C, method 514.2, proc. VIII |

| SOFTWARE | |
|---|---|
| Operating System | Windows 2000 Professional |
| Software Language | C++ |

## APPLICATIONS

### Installation Security
Secures the perimeter for facilities such as: power plants, factories, military bases, air and sea ports, correctional facilities, embassies and other governmental facilities

### Traffic Control
Tracks non authorized personnel and vehicles within selected areas

### Border Protection
Enhances response force capability by real-time monitoring and tracking people/vehicles along the border

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ISO 9001:2000 REGISTERED

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