

# Acusonic® Acoustic Gunshot Detection System



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## Acoustic Gunshot Detection System



### Best-in-class

Thales has drawn upon its 50-year history as a leading worldwide supplier of Sonar systems to develop a new class of acoustic detection system for the battlefield.

The Acusonic<sup>®</sup> system combines state of the art acoustic detection and tracking algorithms with a compact form factor to achieve best-in-class acoustic gunshot detection.

Acusonic<sup>®</sup> can be stand alone or fully integrated into the architecture of the host platforms and their respective C2/C4I systems, be that on land or sea.

It is the ideal solution for other applications such as battlefield intelligence, vehicle protected mobility and border/base security.

### Acusonic<sup>®</sup>

Passive detection system comprised of acoustic sensors, utilising the bullet's supersonic shock wave and wake signature alongside the weapon muzzle blast to provide outstanding detection and threat location capabilities in challenging environmental conditions.

### Sensors

Acusonic<sup>®</sup> can be operated in a range of formats, from a single sensor head in isolation with minimal infrastructure impact in its "standalone" configuration, through to multiple connected sensors fully integrated into the host platform's Battle Management System (BMS).

The sensors themselves are highly compact and durable, certified to DEF-STAN 59-411 (Land Class A) and IP-67.

### Multi threat, Multi role, Multi domain

Automatic detection and location of sniper fire, small arms fire and cannon fire.

Proven capability on both land vehicles and naval vessels.

Multiple Acusonic<sup>®</sup> heads can be installed on a single platform, this ensures that 360° coverage can be maintained even when the host platform contains structures that create acoustic shadowing.

Detection capability can also be enhanced to include other threat classes via software upgrades.

### Infrastructure

With the ability to provide outputs over ethernet, Acusonic<sup>®</sup> can be used to form part of a sensor network. The expansion potential of the product is effectively unlimited which makes it an ideal solution for applications such as border or base security.

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### Key features

- Real-time sensor system with continuous monitoring
- Inclusion of wake signature detection provides near immunity to environmental interference such as:
  - Vehicle noise
  - Weather
  - Surrounding infrastructure
- Detects range, bearing and elevation
- 360° coverage
- Very low false alarm rates
- Proven performance:
  - Detects up to 2 km
  - 99% detection rate
  - +/- 4° bearing accuracy
- Compact, low-profile and ruggedized sensor
  - Avoids interference with mounted weapon system line of sight
- For use as part of an integrated sensor suite (C4I) or stand-alone solution
- Engineered for use on a comprehensive range of land and naval platforms
- Easy to deploy, allowing transfer across platforms ("plug-&-play")
  - Ethernet (GVA or simple TCP/IP interface)
- Low power consumption and certified to DEF-STAN 61-5
- Cost-effective: low cost of ownership
- Software enhancements provide future upgrade path
- ITAR free
- Suitable for integration into Remote Weapon Station (RWS) for slew to cue capability

