

HENSOLDT TwinSens

Combined passive and active radar technology
for protection against aerial threats

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Recent conflicts have demonstrated how drones can be used with devastating effect to find and then destroy key enemy assets. Ground-based air defence (GBAD) systems have proven to be particularly vulnerable due to their high power transmission, as loitering munition is able to detect and immediately attack any source of power transmission.

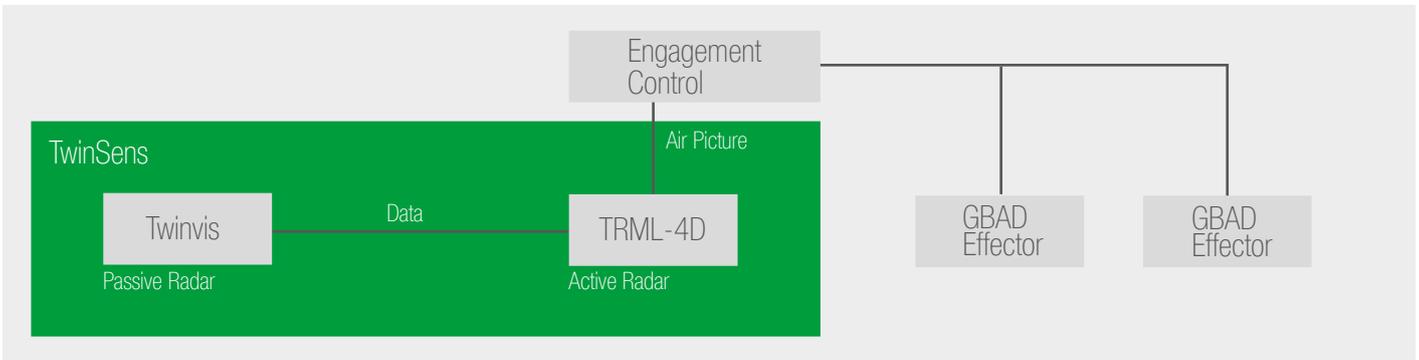
This situation calls for an innovative protection solution. To enable end users to secure their territory against attacks from hostile missiles and aircraft, whether manned or unmanned, HENSOLDT has combined its TRML-4D air defence system (active radar) with its world-leading Twinvis passive radar to form the unique TwinSens® solution.

Twinvis

A passive radar that uses existing electromagnetic signals from broadcast and TV transmitters and evaluates their echoes when reflected by an object. It remains invisible and therefore cannot be jammed or eliminated in a targeted action – a real advantage in the military field. More than 15 Twinvis® units have already been sold.

TRML-4D

A multi-functional C-band AESA radar for surveillance, target acquisition and weapon assignment, which provides a recognised air picture of the theatre. It is able to detect, track and classify various types of air targets, including cruise missiles, hovering helicopters and small, fast, low-flying and manoeuvring aircraft. More than 50 units from the 4D family have already been sold.



TwinSens technical data

Instrumented range	250 km
Track accuracy	<ul style="list-style-type: none">• Azimuth: <0.2°• Elevation: <0.3°• Range: <15 m
Dual-band surveillance	<ul style="list-style-type: none">• Active radar: NATO G-band• Passive radar: FM, DVB-T, DAB
RF on/off switching time	1 s

TwinSens

A solution created by the combination of two HENSOLDT systems – the TRML-4D active radar and the Twinvis passive radar – which offers unique functionalities and operational advantages. The exchange of sensor data between these two systems and common control enhances performance of the overall solution compared to standalone sensors.

With TwinSens, you get:

- An air picture initially created without RF transmissions and, consequently, without the risk of GBAD systems being detected by enemy forces
- Improved situational awareness even for targets with an extremely small RCS
- Increased resistance to modern jammers



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Detect and Protect

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