

**SIGN4L**



# GPS-PROTECT

RESILIENT NAVIGATION. SUCCESSFUL MISSION.

Robust protection against GNSS-based  
interference and jamming



# STATE-OF-THE-ART TECHNOLOGY

GPS-PROTECT uses the latest digital signal processing and array antenna technology to effectively protect GNSS receivers from interference and jamming, thereby preventing them from being spoofed or otherwise directed off course, even by powerful or sophisticated jamming systems.

## KEY FEATURES

- Designed to counter both narrowband (NB) and broadband (BB) jammers
- Works with legacy GPS receivers
- Easy installation across all platforms
- Compact and affordable



## FOR MISSION SUCCESS, SHIELD YOUR SYSTEMS

Most military platforms depend on satellite technology to achieve their mission goals, giving rise to a plethora of GNSS jamming and spoofing technologies that can cause even the most carefully planned missions to fail.

To mitigate the jamming of GNSS signals, SIGN4L's compact and affordable anti-jammer system can be configured for deployment on missiles, UAVs, ships, ground vehicles, and both fixed and rotary-wing manned aircraft.

## SPECIFICATIONS

Operating bands (configured after purchase):

PARAMETER	VALUES
GNSS protection	Galileo E1, Beido B1
Single jammer	Up to 105 dB JSR
Several jammers (up to three)	NB: Up to 95-105 dB JSR BB: Up to 65-85 dB JSR
Number of RF-out channels	4
Number of antenna array elements	4
Power consumption	20 W
Weight	1.4 kg
Operating temperature	-40°C – +65°C

# USE CASE: VESSEL NAVIGATION



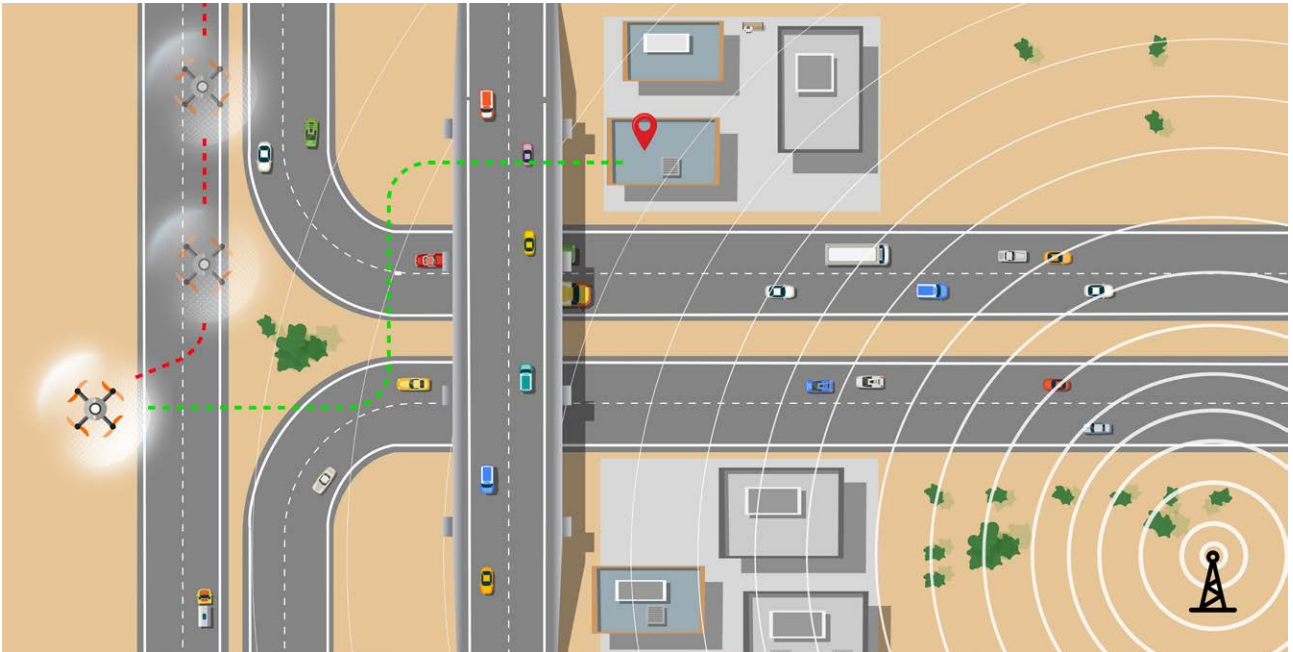
The vessel has chartered a course to its destination using an unprotected GPS receiver, which calculates the position and time of the vessel and destination using radio signals transmitted from satellites.

The tower uses a GPS jammer to send out signals on the same frequency as the GPS receivers and transmitters. These emitted signals, which are much stronger than the signals sent out by the satellites, disrupt reception of the vessel's GPS receiver to either be unable to or inaccurate in calculating position and time. The result is the vessel steering off-course, and rendered unable to navigate towards its destination in the GPS jammed environment.



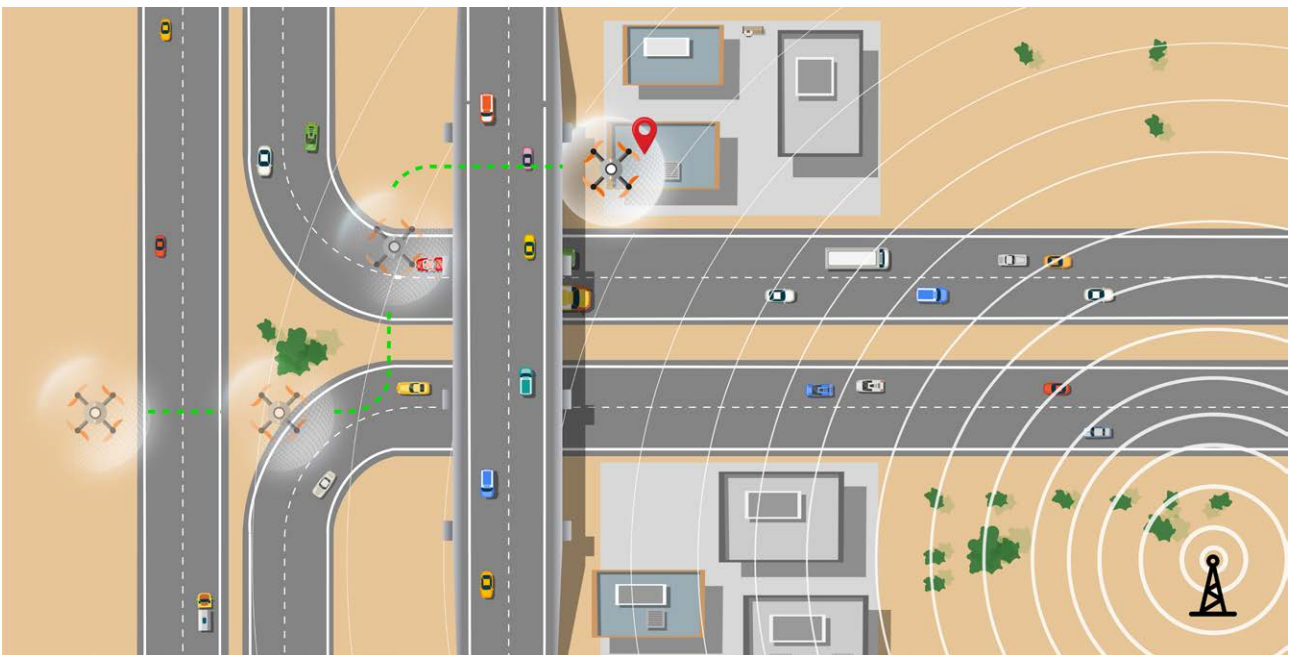
The vessel's GPS receiver is now protected with SIGN4L's GPS-PROTECT, which detects interference and deploys countermeasures to nullify those signals, permitting the vessel to successfully navigate to the destination.

# USE CASE: DRONE NAVIGATION —



The drone has chartered a course to its destination using an unprotected GPS receiver, which calculates the position and time of the drone and destination using radio signals transmitted from satellites.

The tower uses a GPS jammer to send out signals on the same frequency as the GPS receivers and transmitters. These emitted signals, which are much stronger than the signals sent out by the satellites, disrupt reception of the drone's GPS receiver to either be unable to or inaccurate in calculating position and time. The result is the drone steering off-course, and rendered unable to navigate towards its destination in the GPS jammed environment.



The drone's GPS receiver is now protected with SIGN4L's GPS-PROTECT, which detects interference and deploys countermeasures to nullify those signals, permitting the drone to successfully navigate to the destination.



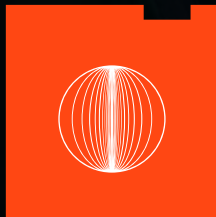
## ABOUT SIGN4L

Electronic warfare (EW) systems have become an essential element of the modern battlefield, and SIGN4L is pioneering advanced technologies to secure the electromagnetic spectrum and is developing disruptive solutions to outpace adversaries.

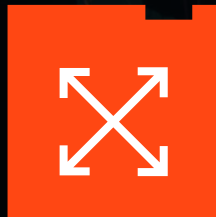
Based in Abu Dhabi, SIGN4L is the leading provider of EW solutions in the UAE and one of only a few in the region with such capabilities.

SIGN4L is part of the Electronic Warfare & Cyber Technologies cluster at EDGE Group.

## OUR CAPABILITIES



**Electronic deception and concealment**



**Electronic Protection**



**Signal and Communication Intelligence**



**Electronic Support Measures**



**Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR) sensors**

A person in a military uniform is shown from the chest up, looking at a laptop screen. The background is a blurred outdoor setting with green foliage. The person's hands are visible on the laptop keyboard.

# EDGE

## ABOUT EDGE

We live in an accelerating world. Characterised by uncharted frontiers, the future is empowered by advanced technology that is galvanising a new breed of players. At the edge of these frontiers exist no limits – where boundless opportunities await.

Transforming how we live, and ensuring a more secure future, is what we do. We are EDGE; and our mission is simple. To disrupt complacency. To move with speed. And to counter threats.

We will not only revolutionise the defence industry, but we will change its fundamentals. We are the vanguard of the next-generation, of a reimagined sector. We prioritise technology in a non-binary world and seek universal solutions. We work with everyone: big or small, start-up or established, local or global.

We are EDGE. We enable a secure future.

**SIGN4L**

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