

SIGN4L



SKYSHIELD

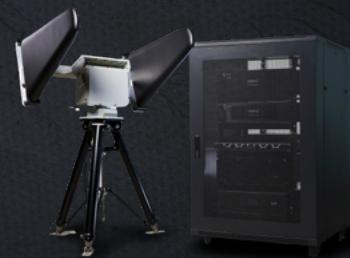
**DETECTION.
IDENTIFICATION.
NEUTRALIZATION.**

Your first line of defense in Drone security

**D PROTECT CRITICAL
INFRASTRUCTURE
PROTECTION**



**NAVCONTROL G
BORDER PROTECTION**



**SKYSHIELD QD MOBILE
PROTECTION**





STAY AHEAD OF AN EVOLVING BATTLESPACE

A portfolio of configurations for a comprehensive defense against a wide variety of UAS threats. Leveraging AESA radar technology, long range Electro-Optical Infrared sensors, directional finding systems and proven effectors to secure your skies.

Designed and developed by SIGN4L in the UAE, SkyShield delivers multi-range jamming and spoofing capabilities that deny and manipulate UAS even in dynamic and challenging environments.

DETECT

Designed for detection and tracking of airborne targets, including a variety of low RCS and low flying targets. Featuring an X-band (fixed solution) / S-band (mobile solution) solid-state electronically scanned array.

KEY FEATURES

- Jamming of the entire communication spectrum, including walkie talkies, mobile phones, Wi-Fi, satellite communication and GNSS
- Both active and reactive jamming
- User-defined jamming
- Up to 16 wideband jammers for simultaneous operation across all bands
- Graphical threat selection and topology
- Dedicated AC cooling system to prevent overheating in challenging climates
- Protective features against wind and other weather extremes
- Bespoke system configuration to suit unique client requirements



TRACK IDENTIFY

ELECTRO-OPTICAL INFRARED TARGET IDENTIFICATION

Multisensory detection capabilities to identify UAS targets. Our solutions provide situational awareness and empowers security teams with detailed information to enable precise UAS location and imaging for identification.





KEY FEATURES

- HD IR Sensor
- SWIR Sensor
- Continuous Zoom
- Stabilized line of sight (LOS)
- Advanced image processing
- Positioning and targeting capability
- Range-finding pointing
- High reliability and maintainability

SKYSHIELD DRONE DF

Passive RF detection and direction finding for UAS that emit EM energy, even in built-up urban environments.

KEY FEATURES

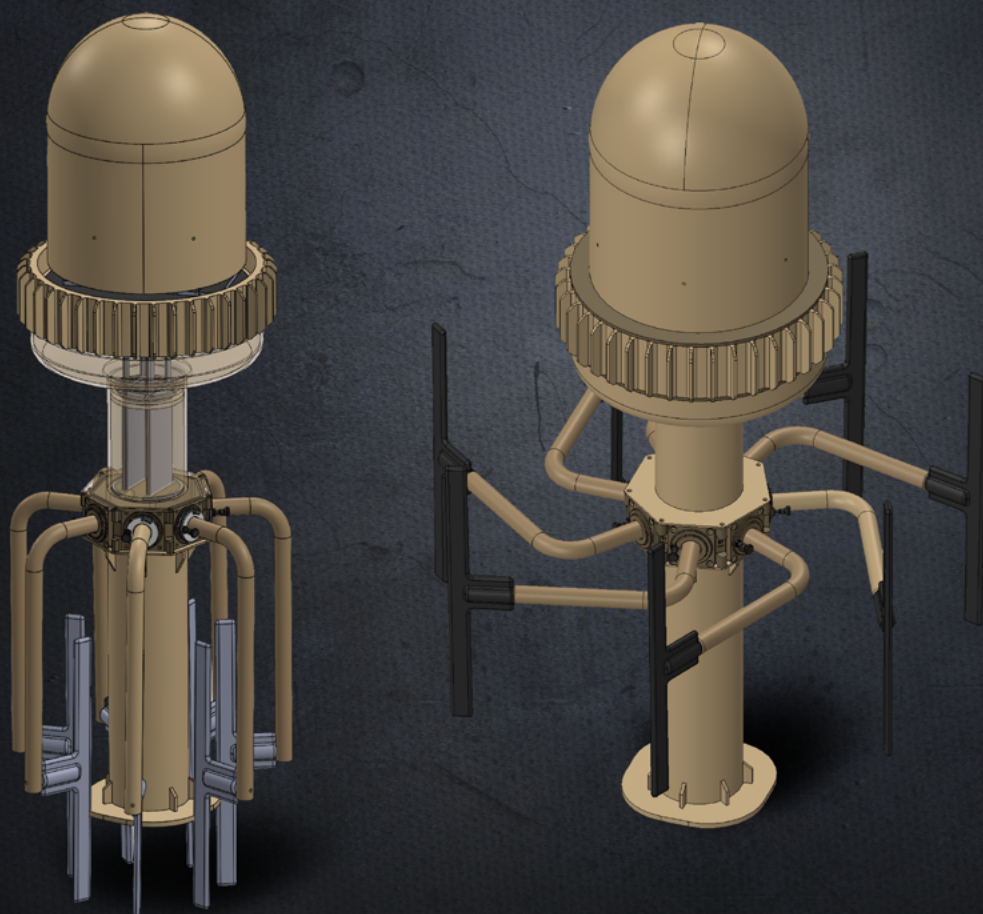
Frequency range 100MHz – 6GHz

Tactical System User Interface

Independent monitoring channel, simultaneous to DF

High performance, integrated, low power

5+1 Channel Instantaneous Capture



TECHNICAL SPECIFICATIONS

FEATURE	SPECIFICATION
Direction Finding	
Frequency Range	400 MHz to 6000 MHz
Receiver Channel Topology	5 channels
Spectrum Monitoring	
Frequency	400MHz to 6000MHz
Software	
Interface	Server / Client architecture
Display Options	Spectrum
	Detection Waterfall
	Direction Waterfall
DF Modes	Instantaneous
	Max Hold
Features	Noise Floor Average
	Noise Floor Detection (Noise Floor Riding)
	Frequency Blocking
	Sectorial Blocking
	Frequency Tuning
	BW & Resolution Control
Gain Control	Manual
	Automatic
Self Monitoring	Alarm for no Ethernet connection
Command and Control	Interface to SIGN4L's C2 solution

COMPONENTS

- Equipment installed in 3U space, 19" compliant.
- Direction Finding system mast or vehicle mountable.

DENY



NAVCONTROL-G

Powerful electronic counter-measures to combat UAS threats. Technologies include stationary and mobile configurations of GNSS jamming, and GNSS spoofing.



KEY FEATURES

Jams full range of GNSS spectrum.

Spoofs the full range of GNSS spectrum to protect a specified area of interest.

Combination of jamming and spoofing capability for maximum coverage range.

SPECIFICATIONS

RF Jamming frequency	GPS L1/L2/L5, Glonass G1/G2, Galileo E1/E5, BeiDou B1/B2
RF Spoofing frequency	GPS L1/L2/L5, Glonass G1/G2, Galileo E1/E5, BeiDou B1/B2
Total Output Power	Up to 400W
Antenna	High gain directional antenna
RF Jamming range	Up to 50km
RF Spoofing range	Up to 50km
Safety	Alarms for VSWR and temperature
Environmental	Designed to meet MIL-STD 810G

D-PROTECT

Radio frequency jamming system to mitigate UAS threats. D-Protect is capable of jamming control and GNSS signals to neutralize hostile UAS.



COMPONENTS

- Indoor equipment installed in 42U rack.
- Outdoor directional antennas installed on a motorized pedestal.

KEY FEATURES

Jams full range of GNSS spectrum.

Jams UAS command and control channels

Optional: Spoofs full range of GNSS spectrum to protect a specified area of interest.

SPECIFICATIONS

Operational Bandwidth	400 to 6000 MHz, ISM 433MHz-435MHz ISM 865-933MHz GNSS 1170-1610MHz GNSS 1220-1260MHz GNSS 1570-1620MHz ISM/WIFI 2400-2485MHz ISM/WIFI 5725-5875MHz
Common Threats for Jammer	
Jamming Ratio	2:1 (typical) for command and control signals. >10km for GNSS signals
Spoofing Frequency (optional)	GPS L1/L2/L5, Glonass G1/G2, Galileo E1/E5, BeiDou B1/B2
Typical Spoofing Range (optional)	>10km
Total output power	350W
Antennas	High gain directional antennas
Capabilities	Pre-defined active waveforms to efficiently counter drones communication and GNSS signal
Safety	Alarms for VSWR and temperature
Environmental	Design to meet MIL-STD 810G

CYBER COUNTER UAS

High-performance Counter-UAS system, based on radio frequency cyber takeover technology, delivers advanced capabilities with seamless operational flexibility to mitigate UAS threats.

CLEAR. CONFIDENT. CONTROL.

SIGN4L offers an advanced, integrated and fully customizable command and control interface. Ideal for large facilities and infrastructure, our resilient C4I system leverages singular command and control, connectivity, and data fusion originating from a network of strategic and tactical sensors.

Providing actionable intelligence that outpaces adversaries enabling deliberate, and rapid decision-making speeds to enable domain superiority.



USE CASES

FORWARD-BASE PROTECTION

By deploying NAVCONTROL-G, a forward military base is shielded from attack by unmanned aerial vehicles. The NAVCONTROL-G located at the periphery of the camp provides a dome of protection covering personnel, assets and facilities in a defined area of interest.



CRITICAL INFRASTRUCTURE

UAVs can degrade or destroy critical infrastructure such as power plants, oil & gas facilities, and airports. With NAVCONTROL-G antennas positioned at the boundaries of these facilities, a secure air perimeter is established to prevent UAV disruption of operations.



VIP RESIDENCE

Many attacks begin with aerial reconnaissance conducted by UAVs. By deploying NAVCONTROL-G to protect a VIP residence, security personnel create a wide safety perimeter that prevents surveillance UAVs from collecting valuable data by approaching or overflying the property.





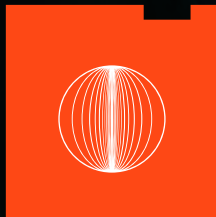
ABOUT SIGN4L

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.

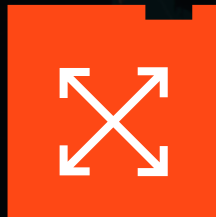
Based in Abu Dhabi, SIGN4L is the leading provider of EW solutions in the UAE and one of only a few in the region with such capabilities.

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

OUR CAPABILITIES



Electronic warfare
deception and
concealment



Electronic warfare
protection



Electronic and
communication
intelligence



Electronic warfare
support measures



Intelligence, surveillance,
target acquisition and
reconnaissance (ISTAR)
sensors



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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