

**SIGN4L**



# ACTIVECELL

CONTROL COMMUNICATION. THWART THE THREAT.

Detect, monitor, deny and intercept  
mobile network communications



# DECISIVE MANIPULATION OF CELLULAR SIGNALS

**ACTIVECELL is a multi-level cellular signal manipulation system that gives operators the power to detect, monitor, locate, deny and intercept communication of mobile devices operating on 2G (GSM), 3G (UMTS), 4G (LTE) and 5G Non-Standalone (NSA) networks.**

Modular and agile, ACTIVECELL systems can be installed on various platforms, including UAVs, backpacks, and SUVs to serve a wide range of military, homeland security, special operations, and public safety missions. Operation is intuitive, with a user-friendly graphical interface, requiring minimal resources for successful planning and execution.





## PLATFORMS

- ACTIVECELL-B (Tactical backpack)
- ACTIVECELL-V (SUV)
- ACTIVECELL-A (Airborne)

# ACTIVECELL-B: TACTICAL BACKPACK



## SPECIFICATIONS

Tactical, low-power, cellular system enclosed in a backpack for covert operations. This system detects, monitors, locates, and intercepts targets over 2G (GSM), 3G (UMTS), 4G (LTE) and 5G (NSA) networks.

## USE CASES

- Target Location
- Interception of voice, SMS and data

## KEY FEATURES

<b>Covert operation</b>	One backpack containing all necessary components for discrete stand-alone operation in sensitive areas
<b>User-friendly</b>	Lightweight, ergonomic, and easy to use
<b>Robust</b>	Up to 6 BTS for simultaneous transmission across all available networks

## CAPABILITIES

- Identification
- Location
- Interception
- Blocking and DoS
- Downgrade to lower technology

# USE CASE: MAN-IN-THE-MIDDLE OPERATION

Operator inconspicuously activates ACTIVECELL-B to intercept the communication of a suspicious target's device. This man-in-the-middle action allows authorities to gather valuable information and prevent threats to national and civil security from developing.



## SPECIFICATIONS - HARDWARE SUBSYSTEM

Operating Band	<b>GSM:</b> 1900(B2), 1800(B3), 850(B5), 900(B8)
	<b>UMTS:</b> 2100(B1), 1800(B3), 850(B5), 900(B8), 1900(B2), 1700(B4)
	<b>LTE:</b> 2100(B1), 1900(B2), 1800(B3), 1700(B4), 850(B5), 2600(B7), 900(B8), 800(B20), 850+(B26), 700(B28B), 2600 (B38), 2300 (B40), TD 2600+ (B41), 1700/2100(B66)
	<b>5G NSA</b>

<b>Number of BTS</b>	6
<b>BTS Supported Technology</b>	GSM, UMTS, LTE (FDD & TDD), 5G NSA
<b>BTS Dynamic Range</b>	>75 dB
<b>Power Amplifiers</b>	6x10W CW
<b>Antennas</b>	1 omni-directional RX, 1 directional TX antenna panel, GPS antenna
<b>Functionality</b>	Software defined radio – smooth transition between technologies
<b>Scanning</b>	High-end scanner supporting 2G/3G/4G/5G
<b>Display</b>	Laptop GUI, display also shows GPS location and map or mobile phone (identification and location only)
<b>Safety</b>	Alarms for high power, VSWR and temperature
<b>Operating Temperature</b>	-20°C to 45°C
<b>Weight</b>	<15kg (including battery)
<b>Endurance</b>	Up to 2 hours of operation with internal battery

# ACTIVECELL-V: VEHICLE-MOUNTED



## SPECIFICATIONS

High-power cellular system containing ACTIVECELL-V unit (two blocks), antennas, and Interface Control Document (for systems without included vehicle solution). This system detects, monitors, locates, and intercepts targets over 2G (GSM), 3G (UMTS), 4G (LTE) and 5G (NSA) networks.

## USE CASES

- Target Location
- Interception of voice, SMS and data

## KEY FEATURES

<b>Mobile operation</b>	When installed in a covert vehicle, the system is discrete and fully self-contained, with the option of an external power source for on-the-pause operations.
<b>UI and UX</b>	Easy to use
<b>Robust</b>	Up to 16 high-power base stations for simultaneous transmission across all available networks

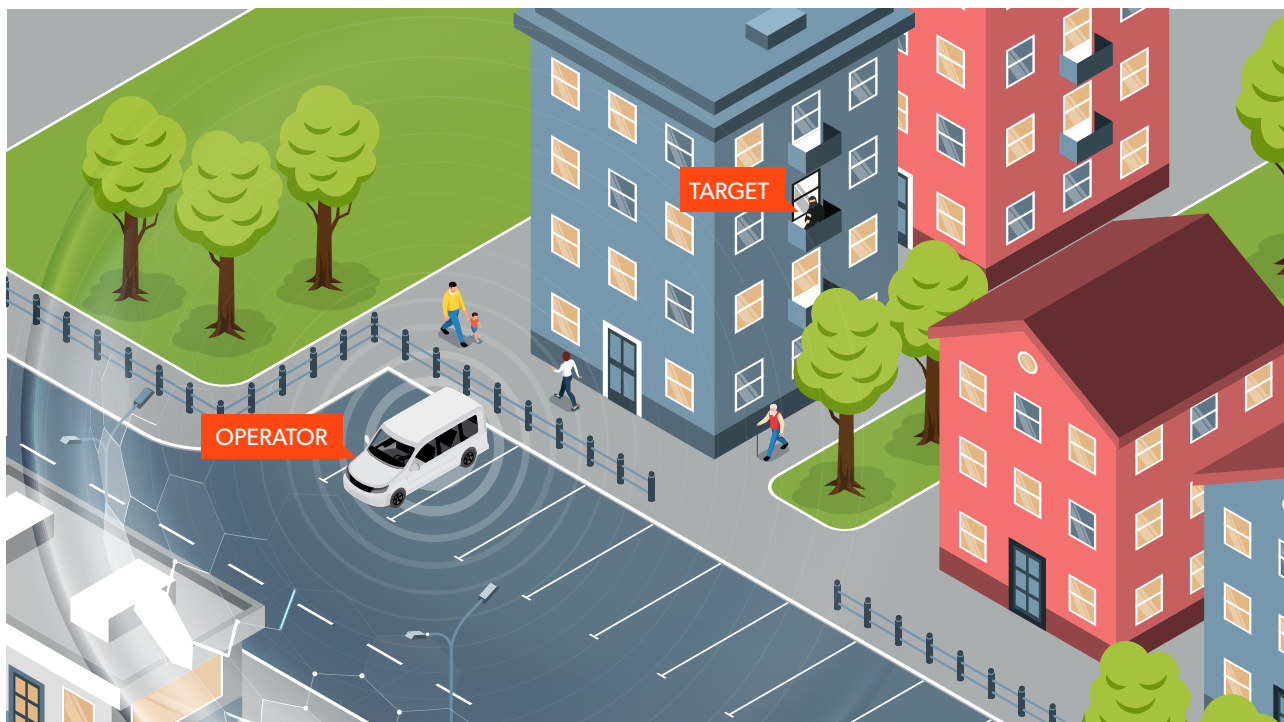
## CAPABILITIES

- Identification
- Location
- Interception
- Blocking and DoS
- Downgrade to lower technology

# USE CASE: DENIAL OF SERVICE

The vehicle-mounted ACTIVECELL-V is inconspicuously positioned within range of the target's device, permitting the operator to monitor the device's voice and data traffic.

Upon detecting suspicious activity, the operator initiates a DoS attack, effectively preventing the malicious target from using the device to initiate any operation that would threaten civil or national security.



## SPECIFICATION - HARDWARE SUBSYSTEM

**GSM:** 1900(B2), 1800(B3), 850(B5), 900(B8)

**UMTS:** 2100(B1), 1800(B3), 850(B5), 900(B8), 1900(B2), 1700(B4)

**LTE:** 2100(B1), 1900(B2), 1800(B3), 1700(B4), 850(B5), 2600(B7), 900(B8), 800(B20), 850+(B26), 700(B28B), 2600 (B38), 2300 (B40), TD 2600+ (B41), 1700/2100(B66)

**5G NSA**

Operating Band

<b>Number of BTS</b>	8 per subsystem. Up to 2 subsystems per installation (i.e. 16 BTSs)
<b>BTS Supported Technology</b>	GSM, UMTS, LTE (FDD & TDD), 5G NSA
<b>BTS Dynamic Range</b>	>75 dB
<b>Power Amplifiers</b>	6x50W CW per subsystem
<b>Antennas</b>	3 TX directional and 1 RX omni-directional + accessories antennas
<b>Functionality</b>	Software defined radio – smooth transition between technologies
<b>Scanning</b>	High-end scanner supporting 2G/3G/4G/5G
<b>Display</b>	Laptop GUI, display also shows GPS location and map or mobile phone (identification and location only)
<b>Safety</b>	Alarms for high power, VSWR and temperature
<b>Environmental</b>	Designed for MIL-STD 810G

# ACTIVECELL-A: AIRCRAFT-MOUNTED



## SPECIFICATIONS

Aircraft-mounted high-power cellular system containing ACTIVECELL-A unit, antennas, and ICD. This system detects, monitors, locates, and intercepts targets over 2G (GSM), 3G (UMTS), 4G (LTE) and 5G (NSA) networks.

## USE CASES

- Target Location
- Interception of voice, SMS and data

## KEY FEATURES

**Mobile operation** Installed in manned or unmanned aircraft.

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**UI and UX** Easy to use

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**Robust** Up to 8 high-power base stations for simultaneous transmission across all available networks

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## CAPABILITIES

- Identification
- Location
- Interception
- Blocking and DoS
- Downgrade to lower technology



# USE CASE: LONG-RANGE DETECTION

ACTIVECELL-A, mounted on a manned or unmanned aircraft, continuously scans large areas, identifying and monitoring all cellular devices within the area in real-time. Upon detecting suspicious devices, the operator locates them and takes immediate action to prevent malicious targets from using the devices to initiate any operation that would threaten civil or national security.



## SPECIFICATION - HARDWARE SUBSYSTEM

Operating Band	<b>GSM:</b> 1900(B2), 1800(B3), 850(B5), 900(B8)
	<b>UMTS:</b> 2100(B1), 1800(B3), 850(B5), 900(B8), 1900(B2), 1700(B4)
	<b>LTE:</b> 2100(B1), 1900(B2), 1800(B3), 1700(B4), 850(B5), 2600(B7), 900(B8), 800(B20), 850+(B26), 700(B28B), 2600 (B38), 2300 (B40), TD 2600+ (B41), 1700/2100(B66)

### 5G NSA

CONOPS	Aerial platform at 6,000 -12,000ft in circular motions; target within 5km radius of area of limitations
Number of BTS	Up to 8
BTS Supported Technology	GSM, UMTS, LTE (FDD & TDD), 5G NSA
BTS Dynamic Range	>75 dB
Power Amplifiers	6x50W CW
Antennas	2 TX directional and 1 RX directional + accessories antennas
Functionality	Software defined radio – smooth transition between technologies.
Scanning	High-end scanner supporting 2G/3G/4G/5G
Display	Laptop GUI, display also shows GPS location and map
Safety	Alarms for high power, VSWR and temperature
Durability	MIL-STD 810G
Environmental	Designed for DO160-e
Power Consumption	< 4 KW



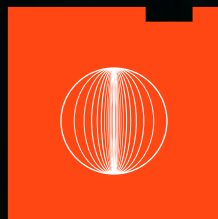
## ABOUT SIGN4L

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 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.

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