

SIGN4L

SKYSHIELD TM

MOBILE DEPLOYMENT. RAPID PROTECTION.

STATE-OF-THE-ART, TRAILER-MOUNTED COUNTER-UAS SOLUTION FOR QUICK DEPLOYMENT

The SIGN4L SKYSHIELD TM is a state-of-the-art, trailer-mounted counter-UAS solution that is ideal for quick mobile deployments that combine jamming and spoofing for reliable point protection. This solution jams the full GNSS spectrum and spoofs the full commercial GNSS spectrum to protect a specified area of interest.

The typical jamming range for unprotected GNSS platforms is up to 10 km, while the solution also jams drone command and control channels with a typical jamming performance of 2:1 from a drone's remote control.

SPECIFICATIONS

KEY FEATURES

- Detect and identify UAS platforms
- Jams the full GNSS spectrum
- Jams drone’s command & control channels
- Spoofs the full commercial GNSS spectrum to protect a specified area of interest
- Combination of jamming and spoofing capability for maximum coverage range
- Typical jamming range for unprotected GNSS platform up to 10 km (medium range coverage)
- Typical jamming performance for command-and-control channels is 2:1 from drone’s remote control
- Trailer mounted, fully self-contained, with the option of external power source for fixed deployment operation

MAIN COMPONENTS

- Jammer and spoofer
- EO/IR camera
- Radar

SPECIFICATIONS

Equipment (compact antenna)	L mm	W mm	H mm	W kg
Trailer	5163	2065	2729 (3,586 when mast extended)	

HARDWARE SUBSYSTEMS

Feature	Specification
Operational bandwidth	400 to 6000 MHz,
GNSS spoofing frequency	GPS L1C/A, L2C; GLONASS L1OF, L2OF
RF jamming total output power	350W
RF jamming and spoofing distribution	Jamming: 100W from 400-1100MHz Jamming/Spoofing: 100W from 1100-1600MHz Jamming: 100W from 1600-3000MHz Jamming: 50W from 3000-6000MHz
Jammer signal source	Field programmable gate array (FPGA)
Jammer type	Active jammer
Jammer exciter sweep time	< 1.8 micro-sec

Jammer total power control step	2 dB with on board attenuators
Jammer transmission power control dynamic range	>20dB
EO/IR camera	As per OEM specifications
Radar	As per OEM specifications
Power consumption (peak)	< 5KW
Connectivity to command & control	Ethernet interface
Antennas	High gain directional antennas
Safety	Alarms for VSWR and temperature
Environmental*	Design to meet MIL-STD 810G

*The environmental conditions stated above apply only to the SKYSHIELD TM systems' main components.

SOFTWARE SUBSYSTEM

Feature	Specification
Remote control unit	C-UAS C2 application
Exciter controller	Ability to activate/deactivate specific frequency bands
Jammer power mute	GUI allows the user to mute specific bands before activation and/or all bands instantaneously
Health monitor	System status (Initialising, standby, transmitting)
Selectable jamming threats	400 to 6000 MHz
Ephemeris data	Live update obtained from current location
Update desired spoof location	User-defined spoof location