

# SVALE SV-UAV1 aerial spectrum surveillance solution

**svale**  
TECHNOLOGY

SVALE SV-UAV1 aerial spectrum surveillance solution, as other products in our portfolio, is a result of a research development to form a system suitable for measurements at places where neither standard measurement vehicles nor alpine techniques can provide field strength / spectrum.

Key function of SVALE SV-UAV1 is the ability to run unmanned measurements near at very high power transmitters or at extreme space positions, providing field strength for antenna characteristics measurements (polar diagram) or EMF purposes, radio spectrum monitoring up to 8GHz (options: 18GHz or 40GHz) and its valuable low cost design. Shipped as a ready to use construction, SVALE SV-UAV1 aerial spectrum surveillance solution is the right tool for regulatory authorities and Telecom service providers, Health organizations in the surveillance industry needing a simple but powerful solution.

SVALE SV-UAV1 uses dedicated measurement antenna selected for monitoring or EMF application of customer choice, its software UI can display or record panorama or target spectrum, save sweeps or IQ to its local internal storage or can stream sweep or IQ data over TCP/IP network for operator notebook.

The SVALE SV-UAV1 contains all necessary modules for being an compact solution: scalable RF receiver card of customer choice\*, measurement control module, 4G / ISM radiolink based interface, necessary measurement antenna selected for target band.

Measurements can be configured via desktop GUI software that can manage multiple measurement configurations as stored and retrievable files. For users with in-house measurement framework, optional API interface available for integration.

The whole measurement package mounted to the UAV host\*\*, can be powered either by drone power distribution network or by a battery pack.

SVALE SV-UAV1 can be upgraded to support EMF measurements. For this application we provide a suitable isotropic antenna and software update.

In standard configuration, SVALE SV-UAV1 aerial spectrum surveillance solution comes with a selected RF receiver, control and COMs module, an antenna set, cable pack, and desktop GUI software.

\*: Please contact us for available receivers pointing the operational frequency range and RTBW requirement.

\*\* : We provide UAV host, however operating UAV requires special training and drone operational experience, so in case you would not like to be involved in spending energy and time on this, UAV operation is available as a service.

## Features

- Ready to use compact design
- Records spectrum sweeps or IQ to its local internal storage
- Able to stream sweep or IQ data either to operator laptop or over TCP/IP network
- Ready application flow for antenna characteristics measurements
- Ready application flow for EMF measurements
- Tasked by SVALE desktop GUI software (option: SVALE API)
- EMF measurement support option

## Technical specifications

Operational frequency range:	30MHz-8GHz (options: 18GHz, 40GHz)
Level measurement accuracy:	$\pm 1.0$ dB to $\pm 2.0$ dB typical
IF BW:	40MHz (options: 50MHz, 100MHz)
RF connector:	SMA or N female / 50 ohms
Internal storage:	256GB SSD (option: 1TB SSD)
Operational temperature range:	5°C ... +45°C
Weight:	~6kg including battery



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