



# Spectrum Compact

PAY LESS TO BECOME AGILE  
[spectrumcompact.com](http://spectrumcompact.com)





# SAF Tehnika Has 20+ Years of Experience in Wireless Link Deployment

## T&M Test and Measurement

spectrumcompact.com

### Key Facts:

- Global presence and extensive partner network in 130+ countries
- Large-scale production capabilities
- Custom solutions for our clients



Microwave radio  
saftehnika.com



Internet of Things  
aranet.com

# Use Spectrum Compact for a Variety of RF Field Tests

1

Link  
Troubleshooting

2

Signal Coverage  
Testing

3

Radio Parameter  
Verification

4

Interference  
Hunting

5

Line of Sight  
Verification

6

Precise Antenna  
Alignment

# Perfect T&M Solution for RF Field Tests

Fits in your hand, pocket or harness

Completely stand-alone in the field mode

Instant ON and data logging

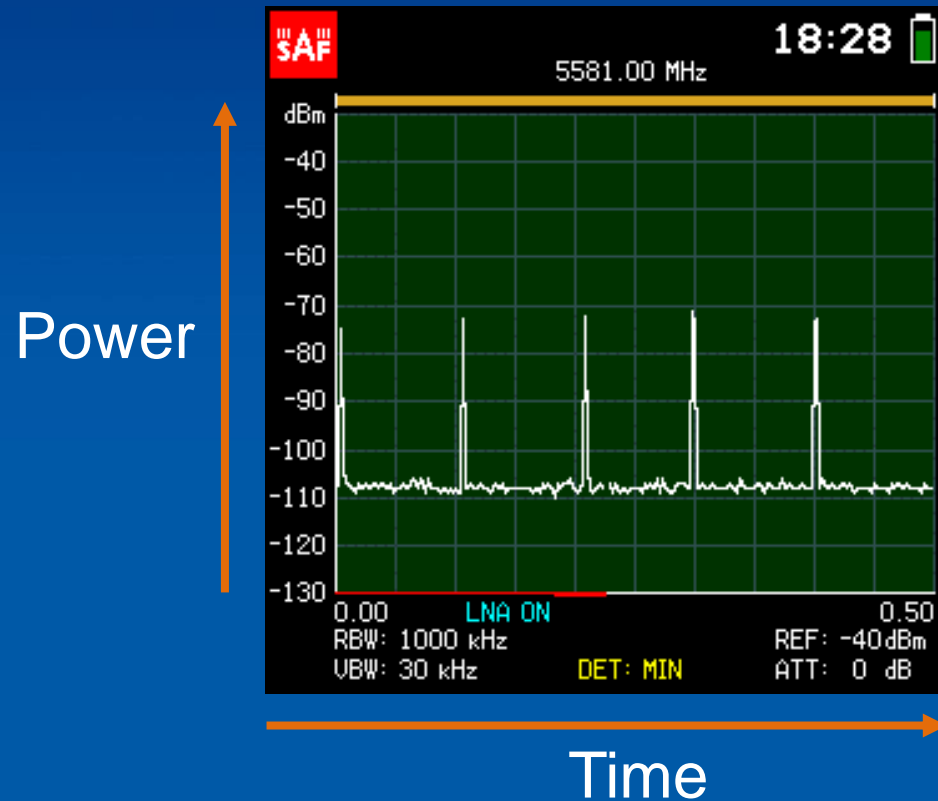
Works perfectly with gloves

Battery time up to 4 hours



# Zero-Span Feature for Spectrum Compact v2

## Zero-Span view



## Applications

- ✓ External PIM hunting
- ✓ Detection of TDD signals, e.g. Wi-Fi, 5G, LoRa
- ✓ Channel power measurement for narrowband signals
- ✓ Satellite antenna alignment

# We offer a Complete and Customizable RF Solution Tailored to Your Needs

**Spectrum Manager**  
PC Software & API



**Spectrum Compact**  
Spectrum Analyzer



**SG Compact**  
Signal Generator



CREATING A SOLUTION KIT

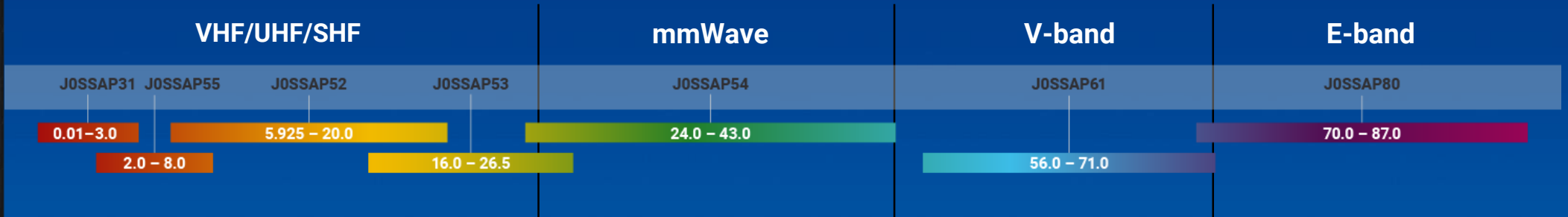


**Accessories**

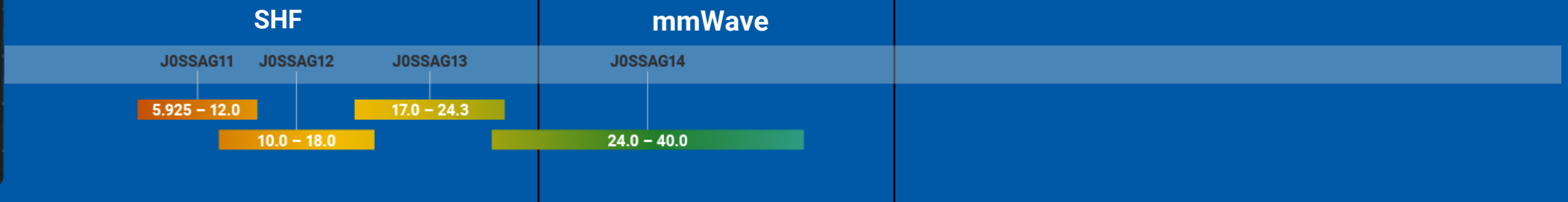
- ✔ **No extra software costs** and integration with 3<sup>rd</sup> party software via API
- ✔ **Standard 1 year guarantee** with the option to get an extension and experienced tech support
- ✔ **Quality assurance** guarantees device performance in a **-15-55°C (5-131F)** range

# Pay Only for the MW Range You Actually Use

## Spectrum Compact



## SG Compact



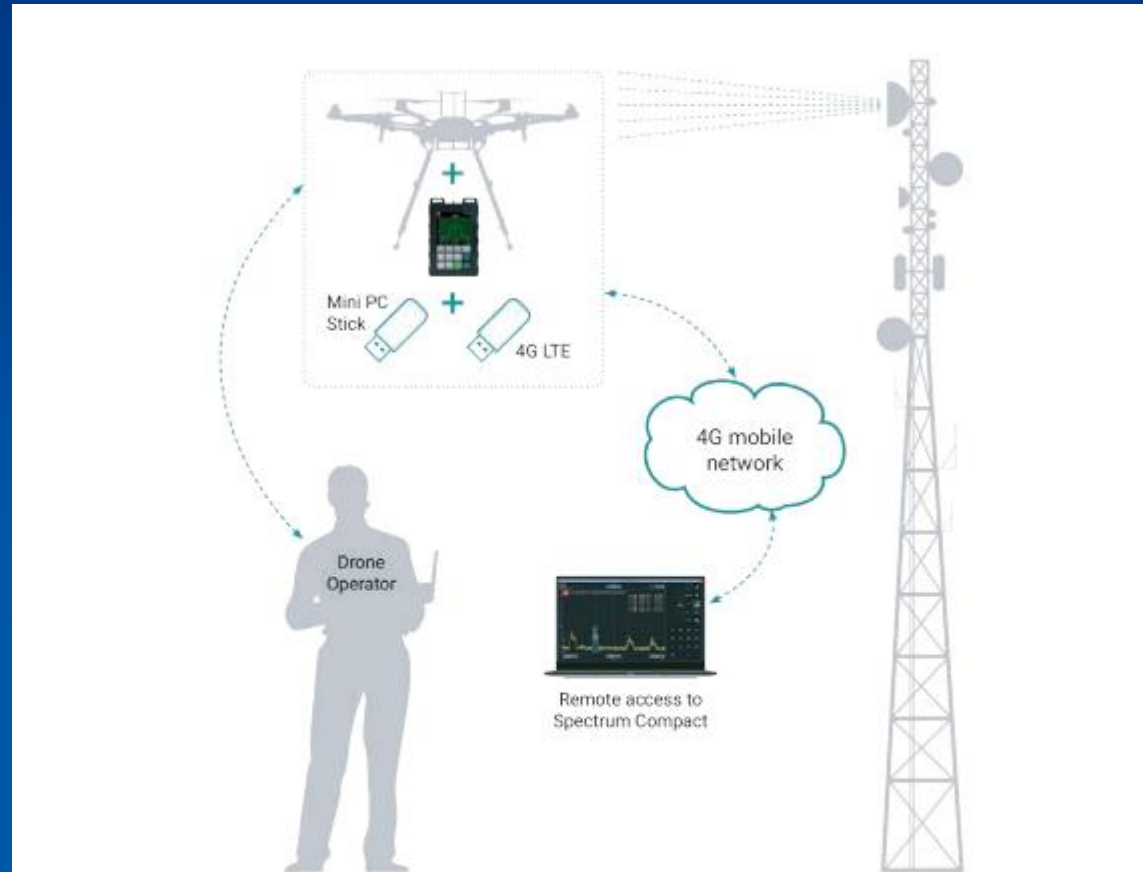
# Drone solution

First tests  
2019



E-band SC on a drone

General concept



The solution consists of a Spectrum Compact 70-87 GHz unit, mini PC with Windows OS, 4G modem, Spectrum Manager PC software and an unmanned aerial vehicle – drone.

Smaller drone  
2022

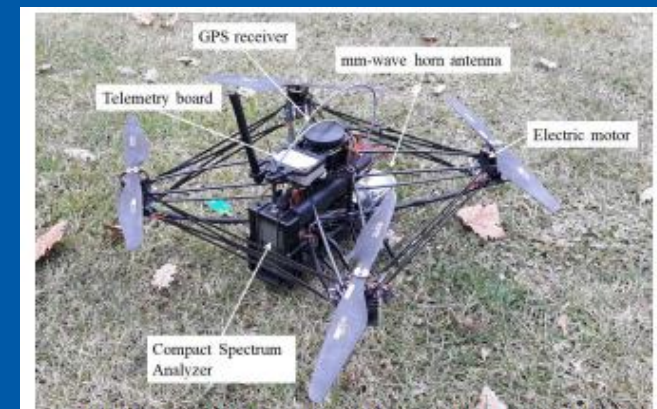
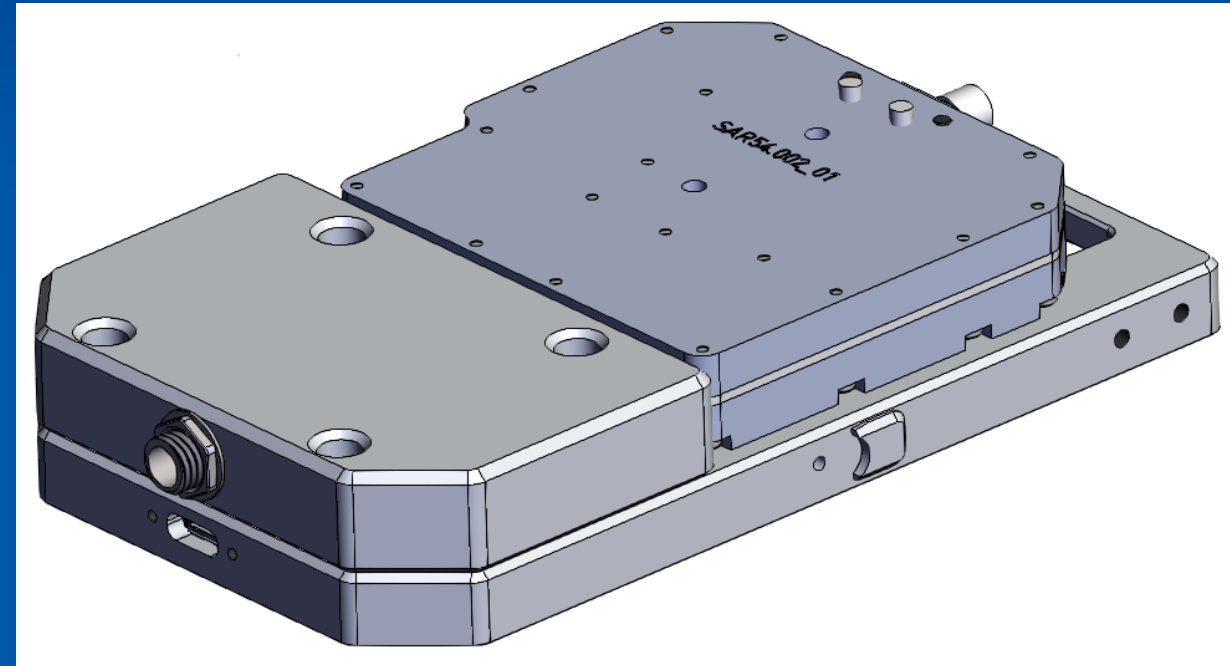
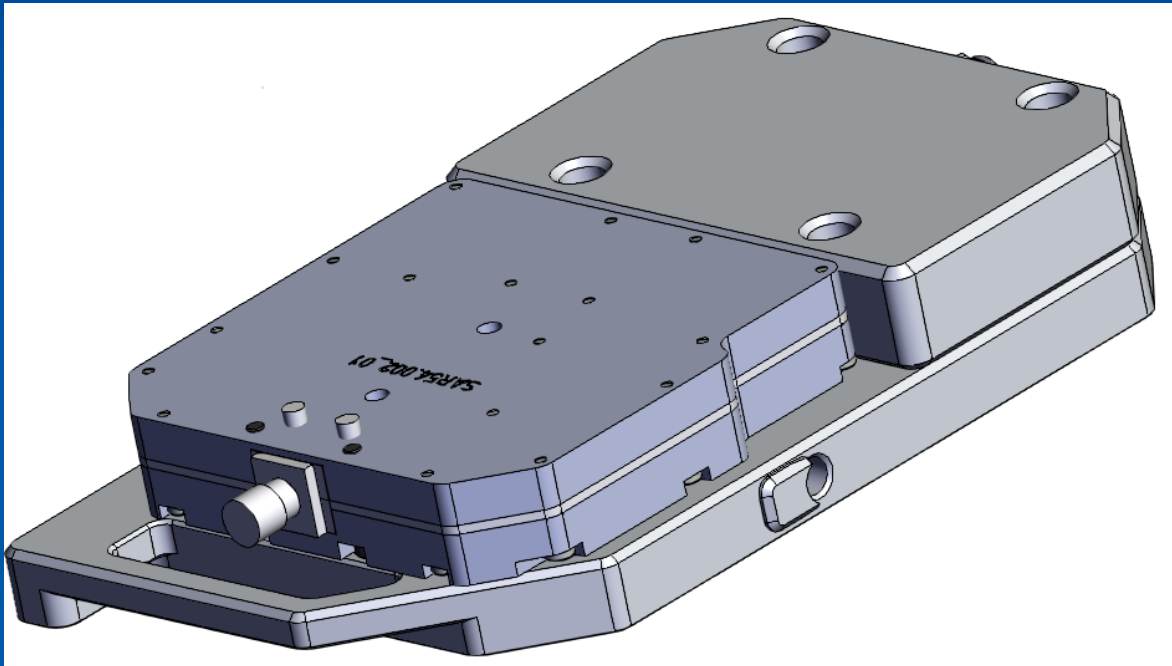


Figure 1. Drone station with the onboard measurement equipment.



# Spectrum Compact module

- No screen, no built-in batteries
- Requires external power supply
- Controlled via open API over the serial connection
- Weight: ~ 0.45 kg
- Dimensions: 145 x 85 x 27 mm
- Interfaces: RF input, USB-C, DC input



# Drone solution for RF regulatory authorities

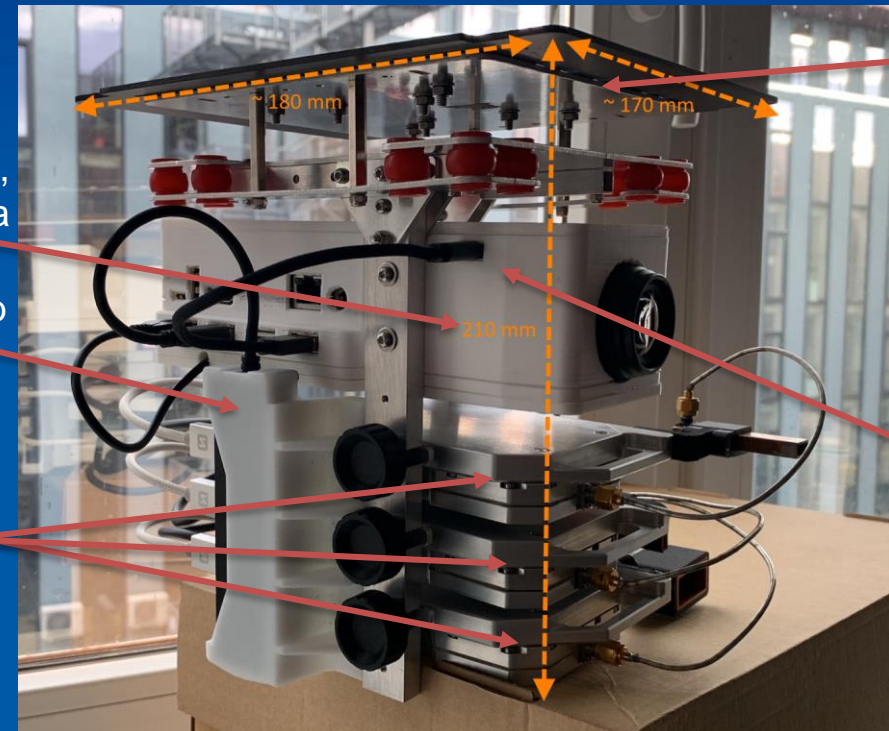
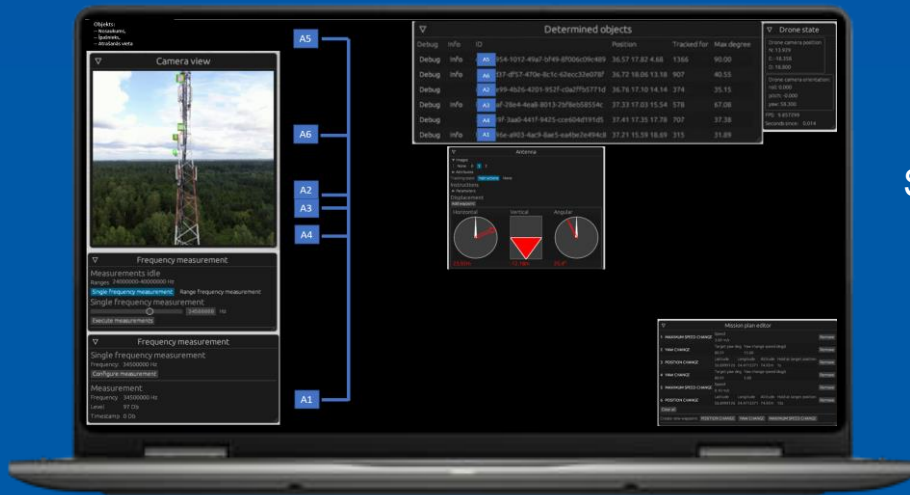
Electronic Communications  
Office of Latvia (project owner)

technology innovation  
company LMT  
(Software)

SAF Tehnika JSC  
(Hardware)

✓ Using an unmanned aerial vehicle (drone) to monitor radio communications

✓ Infrastructure inspection by drone



Bottom plate  
for attachment

Mini-PC,  
camera

USB hub

Spectrum Compact  
modules  
with waveguides /  
antennas

Pack with  
replacable  
batteries for  
powering SCs  
(behind camera)

Below 3 kg

# Conclusions and comments

Spectrum Compact can be a good fit as stand-alone hand-held device

SAF provided hardware is ready for drone integration, but we are not drone providers or software company

A single drone solution will not fit all applications

SAF Tehnika is planning to provide chassis with SC modules and software



Early-stage prototype

# Spectrum Compact Clients



**BOSCH**

**SPACEX**

**verizon**

**SoftBank**

*Telefonica*

**Schneider Electric**

Americatel

**Ofcom**

**TELE2**



**Rai Way**



**Charter COMMUNICATIONS**



**WIND**

**FUJITSU**

**Imt**



**Freedom mobile**

**LANCOM East BERLIN**



**Frontier COMMUNICATIONS**



**NEXCOM**  
PT. Nexcom Indonesia

**PTS**

**SWIFT NETWORKS**

a sense for **IEE** innovation

**bmvfi**

**EETT**

**NLST**



**DAIMLER FINLAND**

**CDOT COLORADO**  
Department of Transportation

**REPUBLIC OF ESTONIA**  
TECHNICAL REGULATORY AUTHORITY



**RYSIU REGULAVIMO TARYBA**



**DÖVLƏT RADIOTEZLİKLƏR İDARƏSİ**  
**DRI**



# Thanks!

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