



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Federal Department of the Environment, Transport,
Energy and Communications DETEC

Federal Office of Communications OFCOM
Radio Monitoring and Equipment Division
Radio Monitoring Section

2501 Biel/Bienne

OFCOM; vor

POST CH AG

Decodio AG
Heinrichstrasse 147
8005 Zürich
Switzerland

File: BAKOM-582.0-8/5

Business event:

Your reference: Reference Decodio

Biel/Bienne, 8 September 2022

To Whom it may concern,

BAKOM -Swiss frequency regulatory office- procured via a tender over past 2 years following RF real-time spectrum analyzers & receivers with handheld and auto-DF antennas from manufacturer 'Narda Safety Test Solutions GmbH' Pfullingen (Germany) via its Swiss Partner Decodio AG, Zürich:

- 9 x SignalShark handheld real-time spectrum analyzers and receivers with set of semi-automatic DFing antennas for emitter bearing and geolocation

- 5 x Automatic Directional ADFA2 antennas offering corelative interferometry (SHF/UHF/VHF) and Watson-Watt (HF) techniques for AoA and TDoA

BAKOM is using above equipment for daily tasks, like over-the-air RF signal identification / classification / decoding of wanted, unwanted, rogue, and illegal emitters, incl. jammers or obsolete repeaters, in the frequency range from 8 kHz to 8 GHz.

Besides RF interference localization drive test, measurement devices are used for last mile 'homing' of emitters and are also used for 24/7 monitoring (occupied channels etc.) via centralized and automated spectrum monitoring software, as well as for decoding of analogue and digital signals (like DMR, TETRA,...) and for TDoA geolocation of emitters.

For the latter application company DECODIO (Switzerland) provided SW driver for both, Narda Signal-Shark receiver and auto-DFing antennas. Thanks to its open platform architecture and concept, based on WIN10, SCPI commands and VITA49 formatted IQ streaming of time signal and frequency bins,

Federal Office of Communications OFCOM

René Vogt

2501 Biel/Bienne

Location: Zukunftstrasse / Rue de l'Avenir 44, 2501 Biel/Bienne

Tel. +41 58 46 05077, Fax +41 58 46 31824

rene.vogt@bakom.admin.ch

<https://www.bakom.admin.ch>



both instruments have been fully integrated by DECODIO with its monitoring, signal classification, decoding and geolocation software system DECODIO RED and DECODIO Localizer.

Narda's above mentioned measurement equipment operates in accordance with specs and functions as being outlined in BAKOM's tender spes, as well as Narda's data sheets and works to the full satisfaction of all users within BAKOM.



René Vogt
Head of Radio Monitoring