

To Whom it may concern

Sébastien Roels

Brussels, August 30th, 2022

Engineer-Advisor

Spectrum Enforcement Department

sebastien.roels@ibpt.be

tel. +32 2 226 89 94

mob. +32 474 39 79 91

BIPT (Belgian Institute for Postal Services and Telecommunications), the federal regulatory body responsible for regulating the electronic communications market, the postal market, the electromagnetic spectrum of radio frequencies and the radio and television broadcasting in the Brussels-Capital Region, procured via several tenders over past 2 years the following RF real-time spectrum analyzers & receivers with handheld and auto-DFing antennas from the manufacturer 'Narda Safety Test Solutions GmbH' Pfullingen (Germany):

- 2 x SignalShark handheld real-time spectrum analyzers and receivers with set of semi-automatic DFing antennas for emitter bearing and geolocation
- 4 x SignalShark remote receivers for vehicle integration (19 inch rackmount)
- 5 x SignalShark outdoor receivers for rooftop and mast mount
- 9 x Auto Directional ADFA2 antennas offering corelative interferometry (SHF/UHF/VHF) and Watson-Watt (HF) techniques, for both, fixed, mast-mount and vehicle integrated AoA bearing applications

BIPT is using the 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 drive tests, measurement devices are used for last mile 'homing' of emitters, as well as for 24/7 monitoring (occupied channels etc.) via centralized and automated spectrum monitoring software based on fixed stations (rooftop, masts).

For the latter application, company Combit (Hungary) provided SW driver for both Narda SignalShark receiver and auto-DFing antennas. Thanks to its open platform architecture and concept, based on WIN10, SCPI commands, Python scripting and VITA49 formatted IQ streaming of time signal and frequency bins, both instruments have been fully integrated by Combit with its monitoring software system SIMon.

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

Digitally signed by
Sébastien Roels (Signature)
Reason: I am the author of
this document
Location: Brussels
Date: 2022.08.30 19:18:06
+02'00'

