DeltaX G2

COUNTER SURVEILLANCE SWEEPING SYSTEM

NEW PORTABLE DESIGN

FEATURES OF THE NEW GENERATION

- New portable design – the device is reliably mated with the laptop or tablet and moved during the detecting and locating
- The laptop or tablet is attached with the help of the magnetic holders
- Side handles are used for carrying
- All antennas fixed to the main unit
- Carrying case is in the supplied set
- 2 models – up to 6 GHz or 12 GHz

GENERAL FEATURES

- Quickly and reliably detects all kinds of RF listening devices, including analog, digital, constantly existing and intermittent, sending audio or video, with or without encryption
- Finds hidden surveillance devices employing the digital standards GSM, 3G, 4G/LTE, 5G(<6GHz) Bluetooth, Wi-Fi, DECT, etc.
- Detects illegal information transmission in AC, telephone, Ethernet, alarm and other wires as well as in the infrared range with the help of the supplied Multifunction Probe
- Can work in instant detection mode, guarding mode, locating mode and car tracker detection
- Has a 20-50 times higher sensitivity and detection distance compared to conventional RF detectors and near-field receivers
- Real-time spectrum analysis gives the ability to detect short-burst signals such as Wi-Fi, Bluetooth or mobile devices within just a few seconds
- Automatic antenna selection provides high sensitivity and detection distance on all frequency bands
- Can monitor the RF environment 24 hours a day with data logging
- Capable of detecting covert bugging devices with an accumulation function and transmitters hidden within the spectrums of other signals
- Supports storage of an unlimited quantity of signals.
- Full information is stored in the log and can be reviewed during the detection, or at a later time. Multiple logs are supported.
- Demodulation of audio in FM, AM, USB, LSB, CW (adjustable BW 3…240 kHz)
- Alarm relay output can activate external devices when a dangerous signal is detected (turn on a CCTV system, for example)
- Powered from the laptop's or tablet's USB

ADVANTAGES

What it is: a portable system controlled by a laptop computer or tablet

- The high capacity of the hard drive enables full data logging during the detection (24/7 possible)
- Wider screen is more convenient for analysis
- Compatible with touch screens

Magnetic holders provide reliable attachment of the laptop/tablet to the unit while the side handles make it easy to carry the entire system

Handling of the mobile and wireless bands GSM, CDMA, 3G, 4G/LTE, 5G(<6GHz), DECT, Wi-Fi, Bluetooth, etc.

- Mobile and wireless signals are detected simultaneously with analog transmissions
- Mobile/wireless signals are detected with the use of individual thresholds and are displayed separately from other signals
- Activities within each band are stored as one signal with a certain danger level to avoid excessive records in the Signals table and to locate the sources with a hopping frequency
- Additional sweepings on the "short-burst" bands are performed to increase the probability of interception of such signals as GSM, 3G, 4G, 5G(<6GHz), DECT, Wi-Fi, Bluetooth, etc.
- External interference from neighboring mobile phones and Wi-Fi routers can be rejected with the help of the thresholds
- The supplied data files allow the operator to adjust the system to the mobile/wireless bands employed in the country of use

Sensitivity and detection distance

- The built-in spectrum analyzer has 20-50 times higher sensitivity and detection distance compared to conventional RF detectors and near-field receivers
- Resistant to interference - sensitivity remains high regardless of the proximity to wireless routers, cordless phones, mobile phones, TV towers, radio broadcasting and mobile communications

Support of the "Known signals" table

- The operator can easily distinguish between safe and dangerous signals
- The TV frequencies employed in the country of use can be quickly imported from the supplied data files
- The FM, VHF/UHF police and municipal channels can be collected and stored for further use

Advanced signal recognition method

- The signals are automatically recognized in the spectrum traces and inserted or updated in the Signals table
- Both analogue and digital signals are captured with an assigning of a corresponding Danger level

Unique algorithm of measuring the signal's Danger level

- Uses a combination of the reference trace and individual thresholds for mobile/wireless bands
- Takes into consideration both the signal's strength and bandwidth
- Works for both analogue and digital signals including transmissions with a changing frequency
- Is used during the locating procedure and provides more reliable results compared to the traditional "signal strength" method.

Low demands on the operator's level of knowledge

- The system can be prepared for detection with the help of the "Update Masks" procedure within a few minutes
- Manual handing of spectrum traces is not necessary
- Everything is done automatically after the detection starts
- The operator is warned by an audio alarm when a dangerous signal is detected

COMPATIBLE WITH 12-14" LAPTOPS AND TABLETS

Data logging

- All the spectrum traces and alarms are logged during detection
- The situation at any given time can be reviewed and studied
- 24 hours a day logging provides detection of periodically working/remotely controlled bugging devices

Tracking of the signal's activity

- The full history of each separate signal, or of all signals simultaneously, is displayed on the Alarms graph
- The events at any given time can be reviewed by simply clicking on the graph
- The operator can see the duration of an activity and as such distinguish between any interference and real danger

The Waterfall and Persistence graphs

- Both the present and previous measurements at any given time can be displayed
- The displayed time interval (density) is selectable in the range of 2 minutes to 6 hours

Car Tracker Detector mode

- The monitoring of mobile bands can detect signals from GPS trackers hidden within a vehicle

Functions of the software

- Rich visual representation: Spectrogram/Persistence, Waterfall, Alarms graph
- The Known Signals table allows the system to reject TV, FM and other "friendly" signals while maintaining high sensitivity to unknown signals.
- The Detector and Locator allow the operator to perform location of a bugging device with both visual and audio notification
- The Alarm Threshold decreases the false alarm rate
- The Hold Max Danger feature selects and shows the strongest signals for their location as the system is moved during detection
- The Update Mask procedure allows the operator to quickly adjust the system to the local RF environment in order to reject safe signals
- Sorting and filtering is supported in the Signals table
- The Report function allows the operator to export all obtained information about the desired signals
- Is easily localizable to any language

WORKING MODES

Stop / View Log
Review of the detection results stored in the log. The Signals table, Spectrogram, Waterfall and Alarms graph give full information about the detected signals and alarm events

Update masks
Quick preparation for detection – the system automatically accumulates the broadcasting and other safe signals existing in the area in order to pass over them during the subsequent detection

RF Sweep
The main detection mode. Provides maximum reaction time and the highest sensitivity. The operator can move the system or its antenna during the detection.

Guard 24/7
Rejection of short transmissions and usage of two antennas reduces false alarms in this mode. Suitable for 24 hour detection without unwanted false alarms

Car Tracker Detector
Detection of vehicle mounted GPS trackers transmitting the coordinates via mobile networks

Probe
Checking of AC, Ethernet, Telephone and Alarm wires and the infrared/low frequency for the presence of unwanted bugging signals

Signal Analyzer
Analysis, demodulation and physical locating of detected signals

Specifications	G2/6	G2/12
Frequency range	9 kHz - 6 GHz	9 kHz - 12 GHz
Update rate	2-3 GHz/sec	3-4 GHz/sec
Reaction time (How quickly a dangerous signal is detected)	2-3 sec	3-4 sec
Format	Handheld unit	Handheld unit
Antenna inputs	INPUT, AUX	INPUT, AUX1, AUX2
Probe inputs	PROBE	PROBE
Occupied disk space per 24 hours	< 12 Gb	< 24 Gb
Unit dimensions (without antennas)	33.5 x 26 x 6 cm	33.5 x 26 x 6 cm
Unit weight (without laptop/tablet)	3.4 kg	3.6 kg
Spectrum resolution	9,8 kHz	
Temperature Range	0°C to +55°C	
Demands on laptop/tablet (Not included in the standard supplied set)	Intel Core i3 / AMD Ryzen 3 or higher (Intel Core i5 / AMD Ryzen 5 recommended) 1 x USB 3.0/3.1/3.2 (or USB Type C), 1 x USB 2.0 (or USB Type C) RAM 8 Gb or more, SSD 128 Gb or more. Windows 7, 8, 10 or newer. Screen 12-14"	
Displayed dynamic range	-90…-10 dBm	
Displayed spectrum spans	0.5, 1, 2, 5, 10, 25, 50, 100, 200, 500, 1000, 2000, 3000, 6000, 12000 MHz	
Spectrum graphs	Spectrogram, Waterfall	
Spectrogram's displayed data	Persistence, Live, Max, Threshold	
Detector's modes	Wide-Range, Signal, Selection	
Fields of "Signals" table	Frequency, Bandwidth, Name, dbm Level, dbm Peak Level, Danger Level, Peak Danger Level	
Fields of "Bands" table	Begin, End, Name, Type, Threshold, Priority, Tracker detection	
Fields of "Known Signals" table	Frequency, BW, Name, Modulation	

Supplied set

Item	G2/6	G2/12
1. Main unit with the built-in spectrum analyzer and RF switcher	1	1
2. Carry case	1	1
3. Software Delta X on the USB drive	1	1
4. ODA-4 - omnidirectional wideband antenna with screw	1	1
5. MWA-6 - microwave antenna with screw	1	1
6. LPDA-12 - microwave antenna (G2/12 only)	–	1
7. Multifunction Probe with cables (high-voltage cable, low-voltage cable, coaxial cable 2m)	1	1
8. In-line modular adapter	1	1
9. Set of accessories (USB Type C to USB Type A adapter - 2, angle USB adapter - 2, magnetic stickers for laptop/tablet - 4)	1	1