GOVERNMENTAL SECURITY SOLUTIONS

GSM-Monitoring System Semi Active Falcon E+

GSM-Monitoring System Semi Active – Falcon E+

Description

The Falcon E+ system is designed and developed as a Semi Active OFF-THE-AIR-GSM-Monitoring system. The system provides the option of both stationary and mobile operation

The Falcon E+ system deciphers A5.1 and A5.2 ciphering algorithms online. The system does not require the service providers SIM for operation because uses cloning of the targets phone in real time. Therefore, all the calls made by the target are billed into its account

Main Features

- The system ensures monitoring of audio and data traffic within standard GSM 900/1800 networks (800/1900 on request) and deciphers A5.1 and A5.2 algorithms online
- Default configuration of the system – 8 or 12 reception channels (4 or 6 duplex channels, monitoring of both forward and reverse conversation channels)
- The system ensures registration of radio-electronic-conditions within the radio cells to be monitored (frequency and characteristics of BCCH-channels)
- The operator can select the required targets based on their IMSI or IMEI. Upon selecting the targets the system acts as a virtual base station (BTS) for these targets.
- When one of the targets initiates a call, the FALCON E+ system automatically calculates the ciphering key ant authentications parameters. These parameters are then cloned onto another mobile phone attached to the system (up to 4). The targets calls are now routed through the cloned mobile phone, maintaining the same encryption and target identity.
- The system contains a database (up to 1000 calling partners), operating in real-time, which can be accessed corresponding to the selected search criteria and parameters.
- Calling partners are identified according to the IMEISV, IMSI, TMSI, ISDN number (local and international number)
- Retrieving of target IMEI/IMSI for using targets mobile number and silent call
- Registration and storage of telephone conversations, call related information, network information and Short Message Service (SMS) to the system`s hard disk.
- The system ensures registration and storage as audio codec – types FR, EFR, HR.
- Playback of recordings may be carried out by the system itself
- Identification of SMS and DTMF data.

Scope of Delivery

- Main unit FALCON E+
- Control unit (Notebook)
- Virtual base station 900MHz and/or 1800MHz
- Duplexer 900MHz and/or 1800MHz
- GSM antenna (omni-directional)

- GSM antenna (directional 9dBi gain)
- Network-connecting cables
- Power supply cable 230VAC
- Power supply cable 12VDC
- User manual
- Transport case (2 pcs.)

Technical data

	GSM900	GSM1800
Reception Channel	8 or 12 (4 or 6 Duplex channels	
Target Numbers	Up to 1000	
Data entries	Up to 100000	
Identification	Through IMSI, TIMSI, IMEI, Class mark, Telephone Number, Distance	
Monitoring	Voice (A5.0, A5.1, A5.2),SMS, DTMF	
Recording	Audio codec type FR, EFR, HR	
Playback	Player software	
Frequency Range of Down Link BTS->MS	935.....960 MHZ	1805.....1880 MHZ
Frequency Range of Up-Link MS->BTS	890....915 MHZ	1710....1785 MHz
Channel Spacing	200 kHz	
Number of Channels	124	375
Frequency Deviation	45 MHz	95MHz
Frequency Stability	±0.03 ppm	
Receiver Type	Wide Range Receiver	
Receiver Sensitivity	- 105 dBm	
Output power	10mW – 6W. (20W or 50W optional)	
Operation Range	up to 500 m in city	
Assessment of coverage		up to 550m
Accuracy		
Antenna Impedance	50 Ω	
Time of frequency Change		< 500 µS
In Hopping mode		
Dynamics Range	>75 dB	
Volume Range	25 dB	
Demodulator	GMSK, asynchrony	
Decoder	For Protocol A5.2	
Speech Codex	RPE/LTP:FR, EFR	
Channel structure	TDMA/FDMA	

System Software	Windows XP
Audio Format	Standard Wave-Form
Interface	TCP/IP
Remote Control	via LAN, ADSL
Power supply	220 VAC, 50Hz 110 VAC, 60Hz
Operating Temperature	+ 5° C....40° C
Dimensions/Weight:	
Box-900:	29x26x12,5 cm / 4,25 kg
Box-1800:	29x26x12,5 cm / 3,7 kg
Clone-Box	29x26x 8 cm / 1,75 kg

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