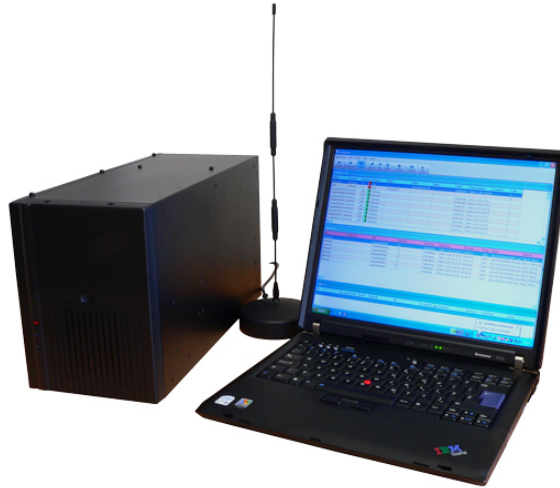elaman
GERMAN SECURITY SOLUTIONS

GSM Monitoring System:
Falcon D+
Model 580

GSM Monitoring System: FALCON D+

Description

The Falcon D+ system is designed for surveillance tasks and monitoring of telephone conversations within the GSM 900/1800 networks. The system provides the option of both stationary and mobile operation.

- The system ensures monitoring of audio and data traffic within standard GSM 900/1800 networks:
- Without application of encryption algorithms
- Application of encryption algorithm A5/2 [real-time] (decoding time: 0.01 sec.)
- Application of encryption algorithm A5/1 [real-time] when Ki is known
- Default configuration of the system - 8 reception channels
- The system ensures registration of radio-electronic circumstances within the radio cells to be monitored (frequency and characteristics of BCCH-channels)
- Channels which are to be monitored are, according to the task, manually selected by the user.
- The system contains a database (up to 100,000 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)
- Assessment of presence of calling partners to be monitored and identification of specific parameters (TMSI) occurs automatically by means of a mobile phone with special software. The special software is contained in the scope of delivery.
- Registration and storage of telephone conversations occur on 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 (CoolEdit-Software).
- Identification of SMS and DTMF data.
- Systems's coverage:
- Down-Link - up to 10 km
- Up-Link - up to 500m in city
- Assessment of coverage between calling partner and base station; accuracy of up to 550m

The system has a TCP/IP interface which ensures that several devices can be remote controlled in the same network (LAN, DSL, etc.)

Technical data

	GSM 900	GSM 1800
Reception channels	8 (Full Duplex)	
Target numbers	up to 100.000	
Identification	through IMSI, TMSI, IMEI, Class mark, Telephone number, Distance	
Frequency range of Downlink (BTS → MS)	935 ... 960 MHz	1805 ... 1880 MHz
Frequency range of Uplink (MS → BTS)	890 ... 915 MHz	1710 ... 1785 MHz
Channel spacing	200 kHz	
Number of channel	124	375
Frequency deviation	45 MHz	95 MHz
Frequency stability	± 0,03 ppm	
Receiver type	wide range receiver	
Receiver sensitivity	-105 dbm	
Antenna impedance	50	
Time of frequency change in Hopping mode	< 500 µs	
Dynamics range	> 75 dB	
Volume range	25 dB	
Demodulator	GMSK, asynchrony	
Decoder	for Protocol A5-2	
Speech codex	RPE/LTP: HR, FR, EFR, AMR	
Channel structure	TDMA/FDMA	
System software	Windows XP	
Audio format	standard Wave-format	
Power supply	220 VAC, 50 Hz; 110 VAC, 60 Hz or external 12 V DC	
Operating temperature range	+ 5 °C ... 40 °C	

Scope of delivery:

- FALCON D+ (main unit)
- Control unit (Notebook)
- network connecting cable
- Power supply cable 230VAC
- Dual band antenna (magnetic mount)
- User manual
- Transport case

If you would like further Information about ELAMAN,
or would like to discuss a specific requirement or project, please contact us at:

Elaman GmbH
German Security Solutions
Seitzstr. 23
80538 Munich
Germany

Tel: +49-89-24 20 91 80
Fax: +49-89-24 20 91 81
info@elaman.de
www.elaman.de