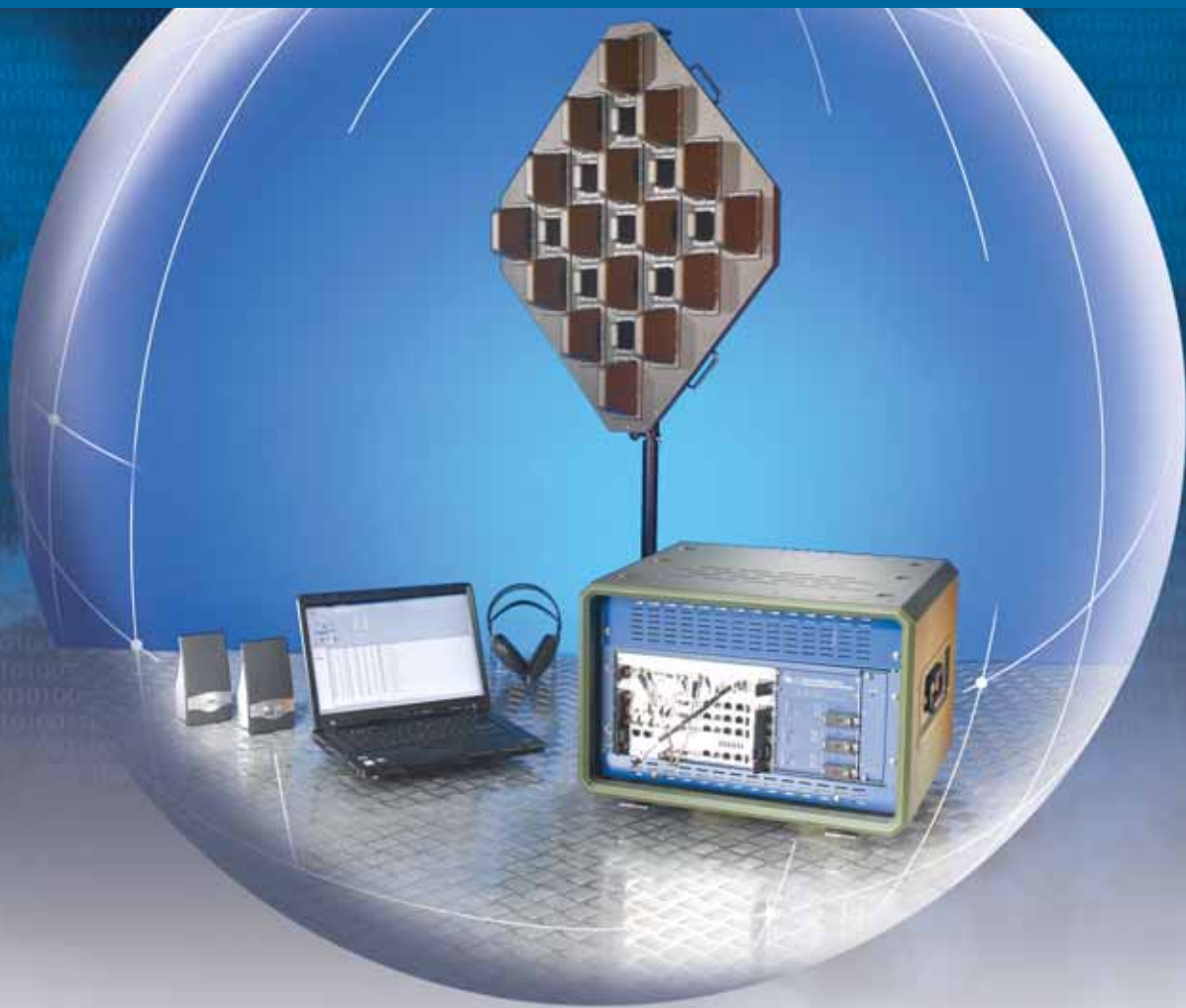


GSM Off-the-Air Monitoring System ■ EL/K-70770



■ INTELLIGENCE, SURVEILLANCE, RECONNAISSANCE

General

Elta's EL/K-70770 GSM monitoring system is a modular, high-capacity GSM900/1800 interception system with enhanced RF and processing capabilities. The system performs off-the-air interception and monitoring of voice and SMS GSM traffic in a passive mode, without interfering with the cellular network's operation.

System Highlights:

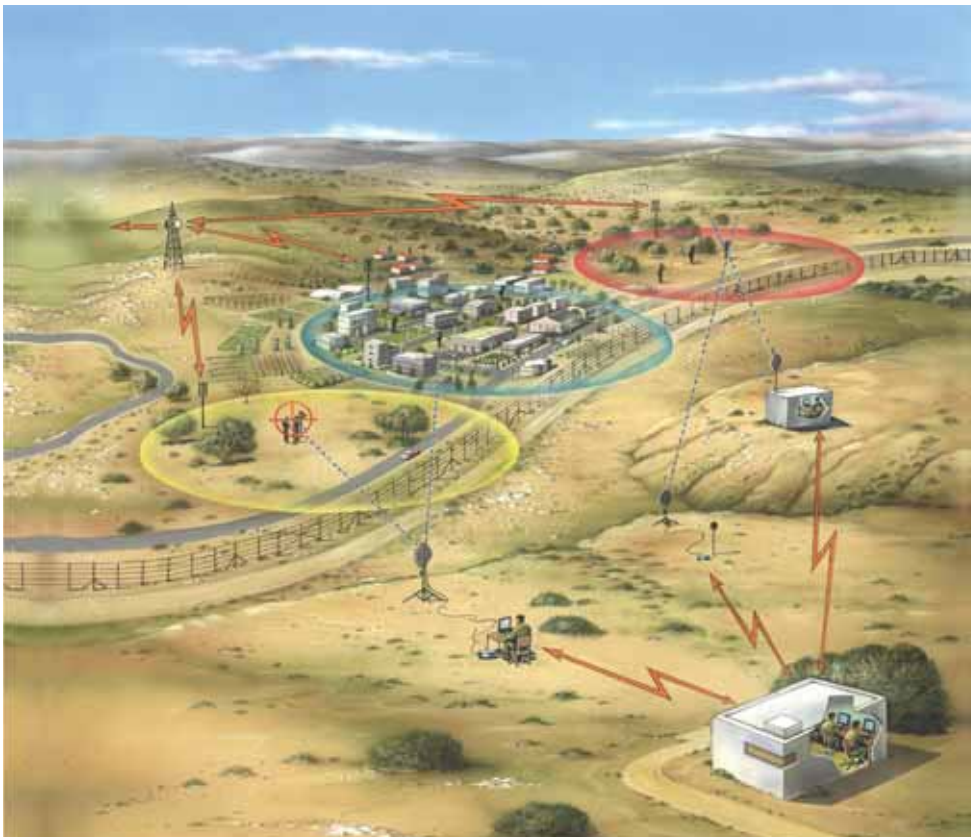
- Designed for GSM stand-off monitoring, as well as for tracking specific in-cell targets
- Modular and scalable system. The system can be expanded to increase its capacity, in terms of monitored number of frequency channels, base stations and number of calls (4, 8, 12 and more) that are monitored and recorded simultaneously
- Enhanced RF features designed to eliminate GSM RF multi-path, fading and frequency-reuse interferences. The system enables successful interception of P-GSM 900 and DCS 1800 traffic, in a dense environment and over long ranges
- Portable system, carried by one person
- Antenna types:
 - High-gain portable antenna for stand-off monitoring applications
 - Small antennas for in-cell operation
- Priority management that facilitates efficient allocation of resources to high value targets, automatically in all system subunits
- HMI display tools to direct the antenna towards the target BTS or location
- Robust deciphering unit, capable of extracting the ciphering key (Kc) in relatively high BER conditions
- Scalable hot-swappable cPCI chassis that can be expanded to accommodate the required capacity
- Each demodulator board can support 16 ARFCN channels
- Option to add high availability PICMG 2.16 Ethernet card as part of a high throughput solution transfer media and signaling messages

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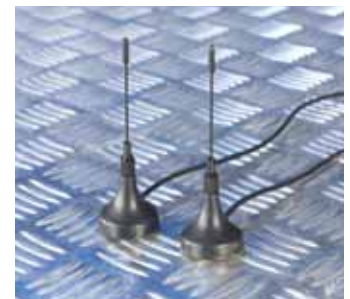
System Specifications

Description	Parameter Values
RF RECEIVER UNIT	
900 MHz frequency range	890-915 MHz (uplink), 935-960 MHz (downlink),
1800 MHz frequency range	1710-1785 MHz (uplink), 1805-1880 MHz (downlink)
Sensitivity	-105 dBm
DEMODULATOR UNIT	
Channel capacity	16 (expandable)
Recording capacity	Up to 4 calls simultaneously (expandable)
Equalizer	Improves BER to encounter multi-path and fading
DECIPHERING UNIT	
	Supplied by third party standards: A5.1, A5.2
VOCODER	
Type of supported CODECs	HR, FR, EFR, AMR, HR AMR

Description	Parameter Values
FUNCTIONALITY	
Network coverage	Automatic set-up for full coverage of interception area
Priority process	Supports target priority-based decisions at all processing stages
Target identification and positioning	Maximal efficiency in target identity and location tracking
Operator control	Full manual operator control over system functionality
PORTABLE ENCLOSURE	
Weight	25 Kg
Operational temperature range	-10° C to +50° C
POWER	
Main	220 VAC
Optional	48 VDC



GSM Interception Scenario



In-Cell Omni Antenna

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