NeoSoft AG

Equipment and technologies for security

CATALOGUE

About Us

NeoSoft aims at the development, production and distribution of informatics and security products, based on cellular technologies 3G, GSM, CDMA. Our engineers and technologies developers have more than 15 years experience.

Our worldwide known equipment is:

▶ **GSM/3G Mobile Active Monitoring System**

▶ GSM Passive Monitoring System

▶ GSM Hybrid Monitoring System

▶ CDMA Passive Monitoring System

▶ IMSI/IMEI GSM/UMTS catcher

▶ InPoint SMS System

▶ GSM communication system

▶ Localization System

- NeoSoft AG is situated in Zurich, Switzerland.
- Our core business and competence are GSM technologies.
- Using our GSM expertise we deliver the fastest and the easiest solutions for various applications.

Our mission

We elaborate and produce high quality equipment for counter-terrorism purpose, information protection and provision of public security. With our products we are making our contribution for a saver world. Our equipment is well known and distributed worldwide.

Contents

*The system is designed for government agencies and law enforcement groups only.
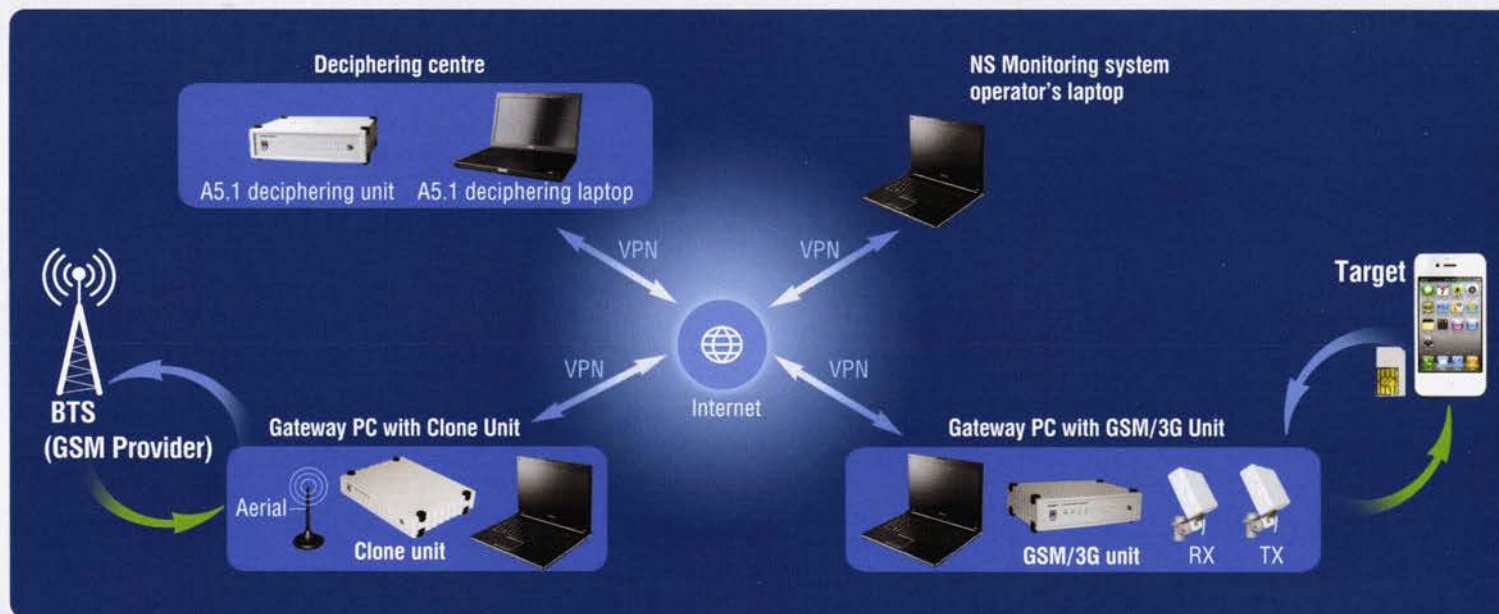
GSM/3G Mobile Active Monitoring System NEOSOFT NS-15-1-SAS51

Purpose:

The system is designed for active real time GSM/3G monitoring in the following bands: 850, EGSM/1800, 1900 MHz for GSM and 850, 900, 1700, 1900, 2100 MHz for 3G.

The basic units of the system are GSM and 3G modules which provide communication with the corresponding types of mobile phones. Each of these units creates a fake BTS with the best operation parameters (GSM/3G) for communication. Since the mobile phone has registered within the fake GSM BTS all connections can be monitored by the system. 3Gmobilephones will be downgraded to GSM operation mode and can be intercepted by GSM monitoring system.

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Deciphering centre

A5.1 deciphering unit   A5.1 deciphering laptop

NS Monitoring system operator's laptop

VPN   VPN

VPN   VPN

Internet

BTS (GSM Provider)

Gateway PC with Clone Unit

Aerial

Clone unit

Gateway PC with GSM/3G Unit

GSM/3G unit   RX   TX

Target

Features:

- Secretly operates in real time with all types of ciphering **(A5.1, A5.2, A5.3)** in GSM networks
- Detects GSM mobile phones located within the area controlled by the system
- Manipulates the state of mobile phones registered within the system
- Records voice sessions, SS, SMS messages and call related information to HDD
- Calls and SMS censoring with network activity emulation
- Manual and automatic Public Numbers (PN) detection for registered mobile phones
- Detects the change of SIM card or mobile phone
- Calls and SMS from system's operator to GSM network provider subscribers using target's identity
- Tracking Cell information
- Allows to marks the target's mobile phone with various icons that can't be deleted manually
- Communication with SS7 system for target's 2G and 3G mobile phones localization

- Mapping of target position using combination of public internet BTS services and internal mobile phone's measurements
- Correlation tool to find actual target's IMSI/IMEI identity
- Tunes TX level of the searched mobile phone during "direction finding" procedure
- Real time verification and KC evaluation for selected targets
- Selective jamming for registered mobile phones
- Remotely activates GPS receiver on the target's mobile phone
- Automatic speech recognition (voice identification) system. (Optional)
- Special set for fitting into vehicles and helicopters. Outstanding power supply solutions. Various options for reducing number of aerials.
- Target's microphone activation. Certain limitations may apply
- Monitoring of GPRS traffic. Certain limitations may apply.
- Sending SMS to each registered mobile phone.
- VPN IP connection.
- High reliability of the equipment.

GSM Frequency range	850, 900, 1800, 1900 MHz
UMTS Freq range	850, 900, 1700, 1900, 2100 MHz
Output power	0.01- 10 Watts
Operation range - In rural area - In urban area	 - up to 1500 m - up to 1000 m
Support of Incoming calls, SMS	Yes
RF sensitivity	-110 dBm
Number of registered targets	Unlimited
Number of encrypted conversations at the same time	1-6 for 1 Clone unit
Connection with laptop	LAN, Internet via VPN
Dimensions: - GSM unit - 3G unit - Clone unit	 - 330x268x80 mm - 330x268x80 mm - 330x268x55 mm
Operating temperature range	+0° to +55°C
Power - Clone unit, GSM unit, 3G unit - Laptop	 - DC 24V - DC 20V

GSM Monitoring Fully Passive System NEOSOFT NS-15-1-PS51

Purpose:

The system is designed for passive real time GSM monitoring in all existing GSM Networks worldwide: 850, EGSM/DCS, PCSranges and all type of encryption such as **A5.0, A5.1, A5.2**.The system works secretly and does not affect any settings of the GSM network provider. The principle of operation of this system is to receive downlink channel (from GSM base station) and uplink channel (from mobile phone) simultaneously using multiple receivers, each of them tuned on totheone base station.

The system consists of receivers which can manage several connections simultaneously. Oneunit (Receiver) has 8 duplexchannels. The final configuration of the system can consist of multiple units which allows to satisfy customer's requirements on the number of ARFCN channels.

The Passive Monitoring System is completely undetectable. There is no transmission towards BTS or the mobilephone.

For operation in countries with **A5.1** GSM session coding the system can be additionally equipped with the special **A5.1** deciphering multi-processor unit (Option). **A5.2** deciphering featuresare presented in the form of special software on the operator's laptop.

Features:

- Fully passive real time traffic monitoring of forward and reverse ARFCN channels
- Real time GSM A5.1, A5.2deciphering features.
- Operates secretly at large distances.
- "Random" and "Selective" operation modes.
- Mapping of target position using combination of public internet BTS services and internal mobile phone's measurements
- Target TMSI identity detection in manual and automatic modes.
- Target IMSI identity detection by SS7 request
- Mapping Target location by SS7 request
- Supports frequency hopping and all types of voice codecs: FR, EFR, HR, AMR

- Records on operator's laptop HDDall required GSM session information (incoming and outgoingvoiceand call related data, SMS-messages, SS, normal and periodic location updating, IMSI attach, IMSI detach)
- 8 full duplex channels in one unit. There is no limit of units, which allows creationof thesystem with the following number ofARFCN channels: 32, 64, 128
- Units can be used all together (in one place) or separated from each other (each unit being used in different place)
- Automatic speech recognition (voice identification) system (option)
- LAN, Internet via VPN connection
- High reliability of the equipment

|	
Frequency range	850, EGSM/DCS, PCS
Number of duplex channels in one Receiver	8 duplex
Maximum number of monitoring channels	128 channels
RF sensitivity	-110dBm
Predicted operation range	up to 35km
Connection with operator's laptop	LAN, Internet via VPN
Receiver dimensions	330x268x80 mm

Power supply
  - Receiver
  - Laptop
	
	-DC 24V
	-DC 20V

GSM Monitoring Hybrid System NEOSOFT NS-15-1-HPS51

Purpose:

The Hybrid System enhancesthe capabilities of the Passive GSM monitoring system with Clone unit.

Clone unit allows creationof a clone of the target's mobile phone, which helps to solve multiple tasks like public number detection (MSISDNs of targets), sending SMS or even making a call on behalf of the target.
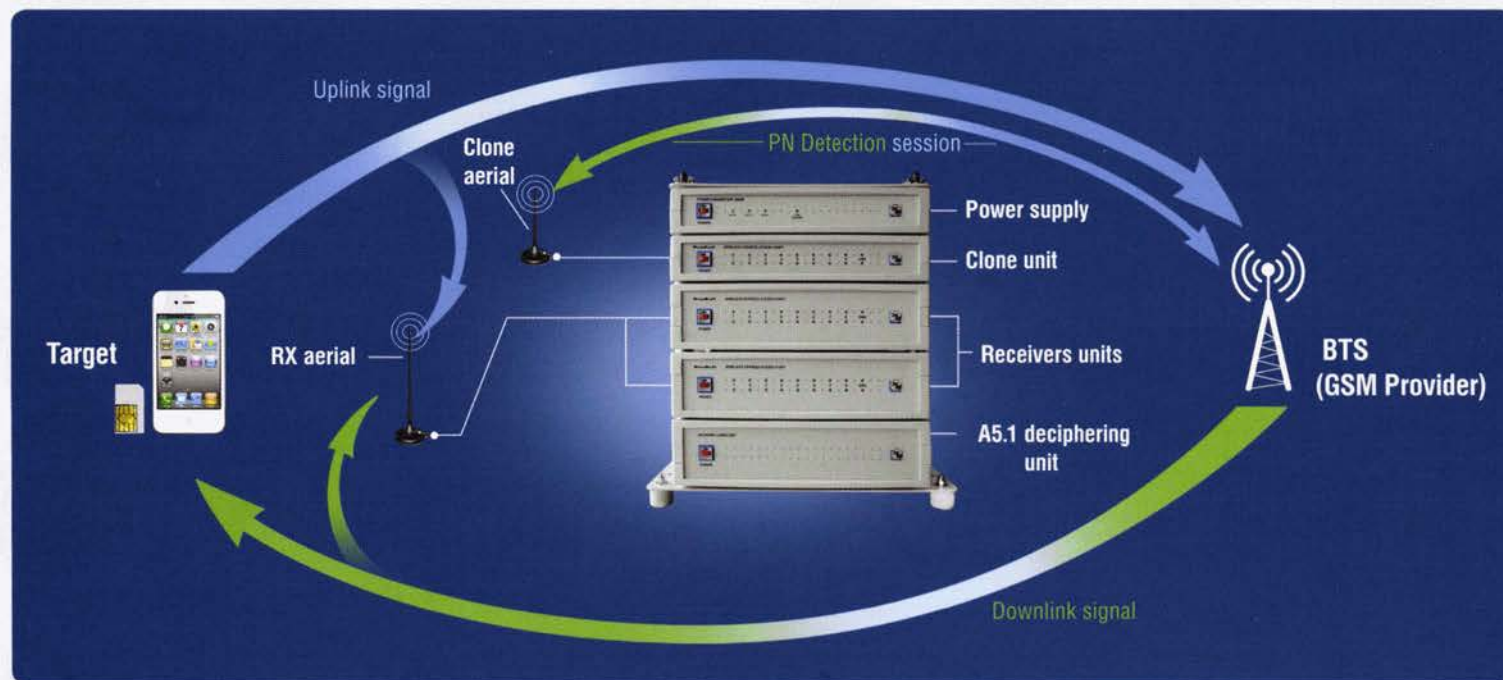
Features:

All features of Passive Monitoring System plus:

- Automatic MSISDN detection of monitored targets. Various algorithms for PN detection: Calls, SMS, SS requests
- The unique MSISDN database for NeoSoft passive and active monitoring systems
- 1 Clone unit can contain up to 8 mobile phoneclones
- Consists of several network units which provides advantages for operational purposes such as concealment, mobility, interchangeability, repairing. These units are easily controlled or even linked together remotely from the operator's laptop

- Easily integrated into a vehicle for mobile applications
- Special set for fitting into vehicles and helicopters. Outstanding power supply solutions. Various options for reducing number of aerials
- Access to intercepted information in real time on private VPN channel
- High reliability of the equipment

Frequency range	850, EGSM/DCS, PCS
Number of duplex channels in one Receiver	8 duplex
Maximum number of monitoring channels	up to 128
RF sensitivity	-110dBm
Predicted operation range	up to 35km
Connection with operator's laptop	LAN, Internet via VPN
Dimensions: - Power supply - Clone box unit - Receiver unit - Decipher unit	330x268x55 mm 330x268x55 mm 330x268x80 mm 330x268x80 mm
Power supply: - Receiver Unit - Clone Box Unit - Notebook	-AC 110-230/24V -AC 110-230/24V -AC 110-230/20V

GSM Portable Semi-Active System
NEOSOFT NS-15-1-PAS51

Purpose:

The system is designed for active real time GSM monitoring in the following bands: 850, EGSM/1800, 1900 MHz.

The basic unit of the system is portable GSM module which provides communication with mobile phones in the working area. It creates a fake BTS with the best operation parameters (GSM) for communication. Since the mobile phone has registered within the fake GSM BTS all connections can be monitored by the system.

The low-cost system configuration consists of the BTS module in the ruggedized case together with the gateway laptop for Internet connection, battery and a set of RX, TX and scanning aerials. A Clone unit is required to support incoming and outgoing communications of theregistered mobile phone with the real GSM network.The fake BTS and Clone unit are separated and connected via Internet VPN connection. For operation in countries with A5.1 GSM session coding the system can be additionally equipped with the special A5.1 deciphering multi-processor unit (Option) which is also connected to BTS via Internet VPN connection.

The monitoring software can be installed on the gateway laptop as well as on remote computer. The top-level system configuration consists of the ruggedized case with the compact BTS,

Deciphering centre

A5.1 deciphering unit   A5.1 deciphering laptop

NS Monitoring system operator's laptop

VPN   VPN

BTS (GSM Provider)

VPN   VPN

Internet

Target

Gateway PC with Clone Unit

Aerial

Clone Unit

Portable Semi-Active System

integrated clone unit, battery and software based A5.1 deciphering unit which is installed in the operator's laptop. The system has compact dimensions and is useful for target localization inside buildings, far located places and mountains.

Features:

- Secretly operates in real time with all types of ciphering (A5.1, A5.2, A5.3) in GSM networks
- Detects GSM mobile phones located within the area controlled by the system
- Manipulates the state of mobile phones registered within the system
- Records voice sessions, SS, SMS messages and call related information to HDD
- Calls and SMS censoring with network activity emulation
- Manual and automatic Public Numbers (PN) detection for registered mobile phones
- Detects the change of SIM card or mobile phone
- Calls and SMS from system's operator to GSM network provider subscribers using target's identity
- Allows to marks the target's mobile phone with various icons that can't be deleted manually
- Communication with SS7 system for target's 2G and 3G mobile phones localization
- Tracking Cell information

- Mapping of target position using combination of public internet BTS services and internal mobile phone's measurements
- Correlation tool to find actual target's IMSI/IMEI identity
- Tunes TX level of the searched mobile phone during "direction finding" procedure
- Real time verification and KC evaluation for selected targets
- Selective jamming for registered mobile phones.
- Remotely activates GPS receiver on the target's mobile phone.
- Automatic speech recognition (voice identification) system. (Optional)
- Special set for fitting into vehicles and helicopters. Outstanding power supply solutions. Various options for reducing number of aerials
- Target's microphone activation. Certain limitations may apply.
- Monitoring of GPRS traffic. Certain limitations may apply.
- Sending SMS to each registered mobile phone.
- VPN IP connection.
- High reliability of the equipment.

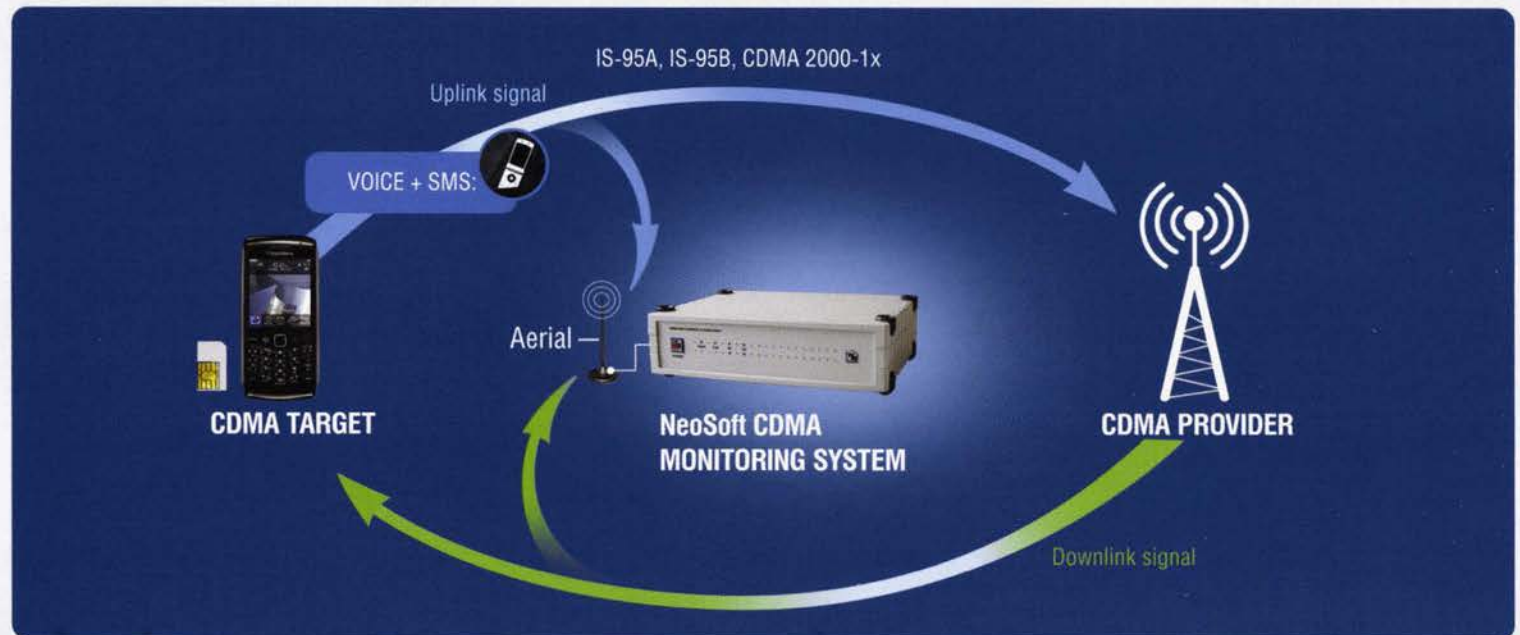|	
Frequency range	850, 900, 1800, 1900 MHz
Output power	0.04 – 4 Watts for case option
Operation range - In rural area - In urban area	up to 1000 m up to 700 m
Support of Incoming calls, SMS	Yes
RF sensitivity	- 110 dBm
Number of registered targets	Unlimited
Number of encrypted conversations at the same time	1-6 depends of amount of clone stations
Connection with operator's laptop	LAN, Internet via VPN
External battery	capability to autonomous operation up to 8 hours
Dimensions: - Portable GSM BTSunit - Clone unit	- 290x260x75mm - 330x268x55 mm
Operating temperature range	+0° to +55°C
Power: - Portable GSM BTS unit - Clone unit - Laptop	- DC 12-24V - DC 24V - DC 20V

CDMA Monitoring Fully Passive System NEOSOFT NS-15-4-PS

Purpose:

The system is designed for fully passive real time CDMA monitoring in the following all existing Networks worldwide: CDMA 1 (IS-95, IS-95A, IS-95B) and CDMA 2000 (CDMA 1x).

The system works secretly and does not affect any settings of the CDMA network provider. The principle of operation of this system is to receive downlink channel (from CDMA base station). Since the CDMA mobile phone established connection with another subscriber then the system uses one of receivers to control uplink channel (from mobile phone).

The system consists of Receivers which can manage several connections simultaneously.

IS-95A, IS-95B, CDMA 2000-1x

Uplink signal

VOICE + SMS:

Aerial

CDMA TARGET

NeoSoft CDMA MONITORING SYSTEM

CDMA PROVIDER

Downlink signal

Oneunit(Receiver) has 4 channels. These channels will be reconfigured during voice communication into 2 duplex channels. The final configuration of the system can consist of multiple units which allows to satisfy customer's requirements on the number of channels.

The Passive Monitoring System is completely undetectable. There is no transmission towards CDMA base station or the mobile phone.

Frequency bands	450/800/1900 MHz
Supported CDMA Protocols	CDMA 1 (IS-95, IS-95A, IS-95B) and CDMA 2000 (CDMA 1x)
Supported voice codecs	VRSC, EVRC, QCELP
Channelsensitivity	-110dBm
Duplexing scheme	FDD
Number of monitoring BTS	4 (for one Receiver)
Number of duplex channels	2 (for one Receiver)
Number of monitoring targets	Unlimited
Type of Operation	Fully Passive
Modes of Operation	Random /Target Selection
Effective range	Up to 700m
CDMA Receiver's dimensions	330x268x55 mm

Power supply
  - Receiver
  - Personal computer
	DC 24V
	DC 20V

Weight	3 kg
Operating temperature range	+0° to +45°C
Connection via LAN or WLAN	Yes

- Detects subscriber's real phone number or ESN during his registration in the network and call

- Detects real phone number (if subscriber has Caller ID function)

- Records voice sessions, incoming SMS messages and call related information to HDD.
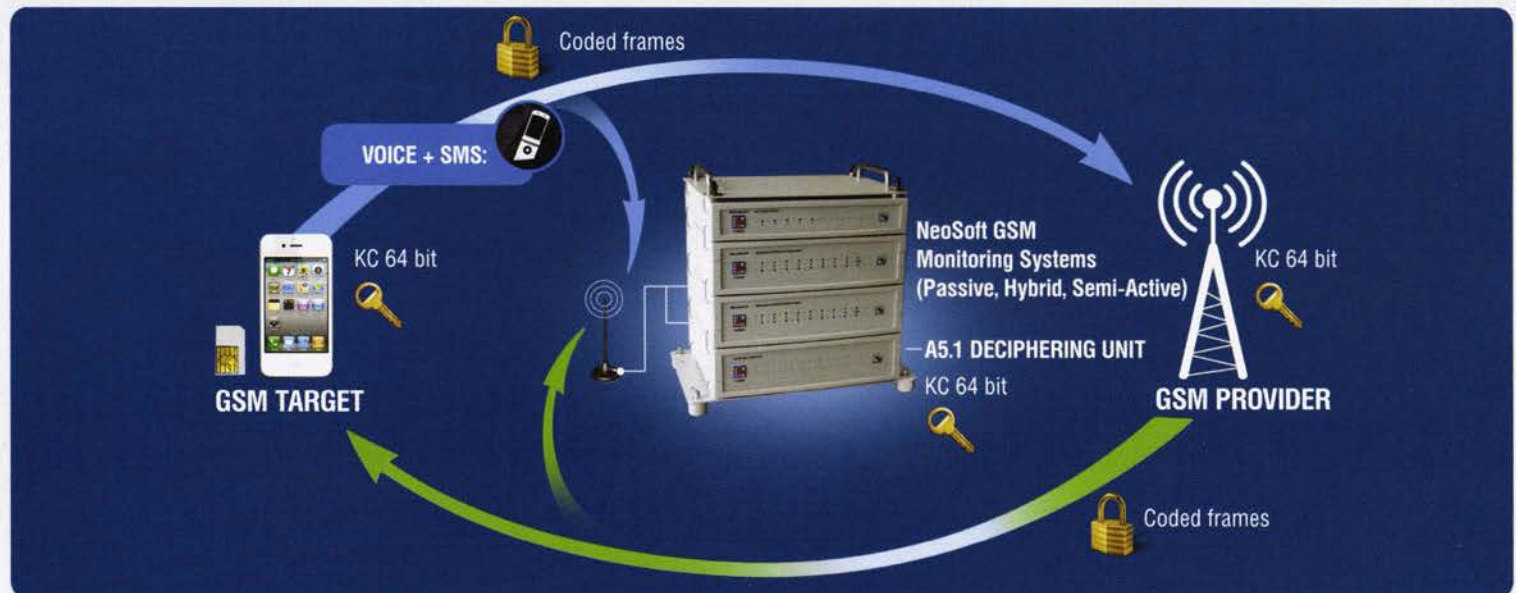
A5.1 Deciphering Network Unit NEOSOFT NS-15-1-DNU

Purpose:

The Deciphering network multi-processor unit is designed as optional equipment for NeoSoft active, passive and hybrid GSM monitoring systems. It is required for operation in countries with A5.1 GSM session coding.

The A5.1 coding is a stream cipher which is used to provide over-the-air (OTA) communication privacy in the GSM cellular standard. As the result, all OTA data is covered by the session key KC. When discovering KC, one can restore an entire GSM session with voice, SMS recording, etc.

The hardware is controlled by a computer which is responsible for the deciphering configuration and the communication between the A5.1 Deciphering unit and NeoSoft GSM monitoring system. The A5.1 Deciphering unit is a network device and can be connected to the operator's computer either directly by LAN cable or wirelessly using any available communication (GPRS, UMTS, satellite link, etc.) or via highly secured Internet VPN connection.

Coded frames

VOICE + SMS:

KC 64 bit

GSM TARGET

NeoSoft GSM Monitoring Systems (Passive, Hybrid, Semi-Active)

A5.1 DECIPHERING UNIT
KC 64 bit

KC 64 bit

GSM PROVIDER

Coded frames

The special software for A5.1 Deciphering unit can maintain more than one NeoSoft GSM system according with the priority. It is a typical server-client application. Usually, A5.1 Deciphering unit is located in a customer'shead quarter and is connected with GSM monitoring systems via Internet or Intranet.

Handling of parallel evaluation	Max 80 KC
Minimum deciphering time	0.01 sec
Average deciphering time (for probability > 98%)	0.5 s
Connection with NeoSoft GSM System	Ethernet, Internet
Operating temperature range	+5° to +25° C
Storage temperature range	-20° to +60° C
Humidity	+40° C at 95% humidity
Power supply	DC 24V
Power consumption	50W
Dimensions	330x268x80mm
Weight	5.6kg

- One deciphering unit serves several GSM monitoringsystems with priority tuning.
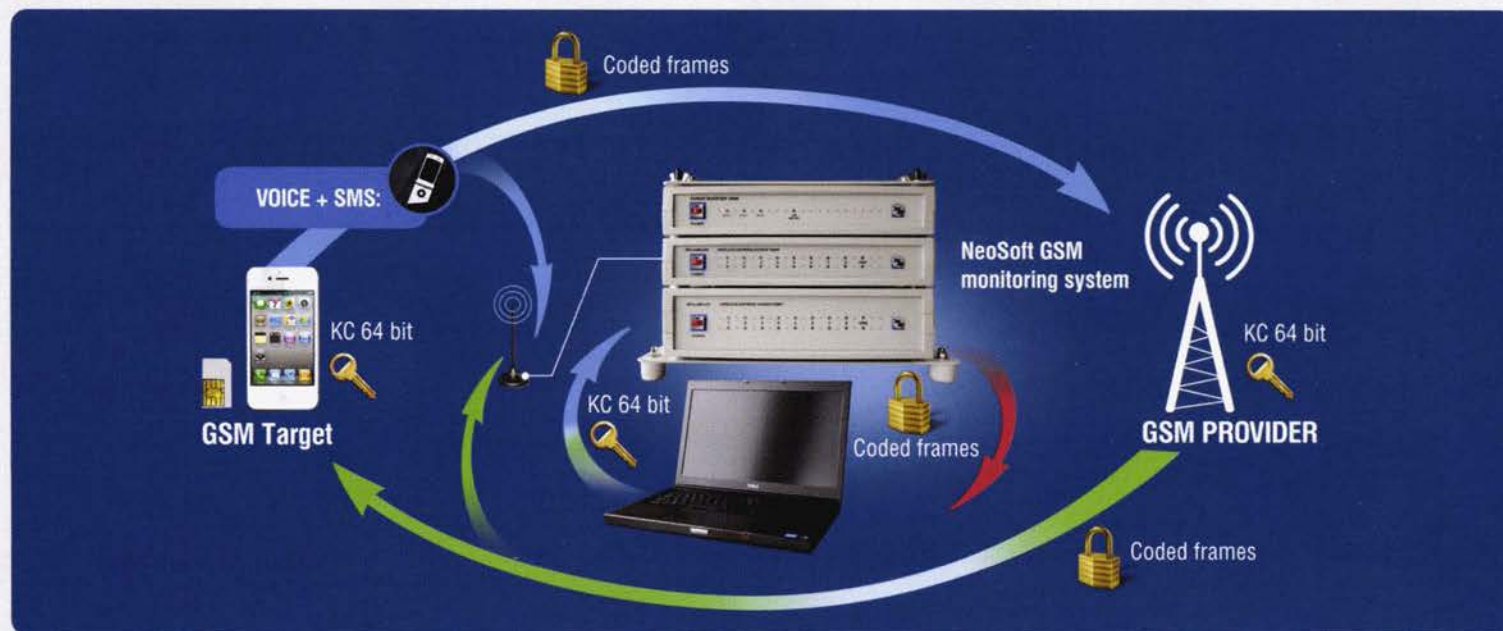- Several deciphering units can be used with one GSM monitoring system at the same time.

Deciphering Laptop
NEOSOFT NS-15-1-DLP

Purpose:

The Deciphering laptop is designed as optional equipment for NeoSoft passive, hybrid and portable active GSM monitoring systems. It is required for operation in countries with A5.1 GSM session coding.

The A5.1 coding is a stream cipher which is used to provide over-the-air (OTA) communication privacy in the GSM cellular standard. As the result, all OTA data is covered by the session key KC. When discovering KC, one can restore an entire GSM session with voice, SMS recording, etc.

The deciphering unit is implemented as software/hardware in the operator's laptop which is responsible for the deciphering configuration and the communication between the A5.1 Deciphering unit and NeoSoft GSM monitoring system. The A5.1 Deciphering unit is a network device and can be connected to the operator's computer either directly by LAN cable or wirelessly using any available communication (GPRS, UMTS, satellite link, etc.) or via highly secured Internet VPN connection.

The special software for A5.1 Deciphering unit can maintain more than one NeoSoft GSM system according with the priority. It is a typical server-client application.

Usually, A5.1 Deciphering unit is located in a customer's head quarter and is connected with GSM monitoring systems via Internet or Intranet.

Minimum deciphering time	0.01 sec
Averagedecipheringtime(forprobability>98%)	1.5s
Connection with NeoSoft GM system	Ethernet, Internet
Operating temperature range	+5° C to +25° C
Storage temperature range	-20° C to +60° C
Humidity	+40°C at 95% humidity
Power Supply – laptop	DC 20V
Weight	4,5 kg

- 2 KCs calculation in parallel
- One deciphering unit serves several GSM monitoringsystems with priority tuning
- Several deciphering units can be used with one GSM monitoring system at the same time.

Handheld Direction Finder NEOSOFT NS-15-DF

Purpose:

Direction finder is intended for searching and localizing handsets operating in EGSM/DCS and 850/PCS GSM bands.

It is the optional equipment for mobile or portable active GSM monitoring systems by NeoSoft.

Since the mobile phone is registered by the active GSM monitoring system and the system's operator activated it's transmitter by the special software then the Direction finder (DF) can detect the direction of this transmission. The DF must be tuned to the same ARFCN channel as the BTS of the GSM monitoring system.From this moment the DF user will hear the detected sound signals of TDMA sequence natural for GSM telephony. While operating the DF it is necessary to connect it to the antenna connector of the corresponding range. Rotating the antenna right or left allows achieve the maximum in signal level reading on the control unit LED or the maximum volume level in the head-phones or Bluetooth headset.

GSM Directional finder

Internet

Wi-fi

GM operator

Handset

GSM data

Portable Base Unit

Handset in office
1. Handset 1. IMSI=...
2. Handset 2. IMSI=...
3. Handset 3. IMSI=...

N. Handset N. IMSI=...

Depending on direction and distance from the object volume level in head phones will change.

The maximum volume of the sound signal is correlated with the target's location. While the operator is approaching the object under searching, it might be necessary to change sensibility of the device switching on attenuator 10-60 dB. Attenuation value must be detected by experiment.

Features:

- Compact dimensions
- Case and body factor form options
- Thin radiation pattern
- Included attenuator with remote control
- Sound indication in wired and Bluetooth headsets

Operation band	EGSM/1800 and 850/1900 MHz
Attenuator	10-60 dB
Operation distance	up to 500 m
Distance correlation parameter Sound	TDMA sequence
Type of direction acoustic indicator	wired and Bluetooth headset

Radiation pattern for basic antennas:
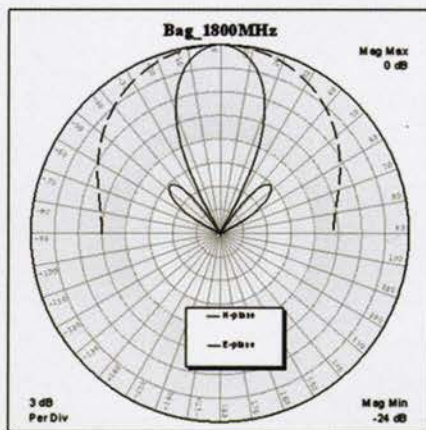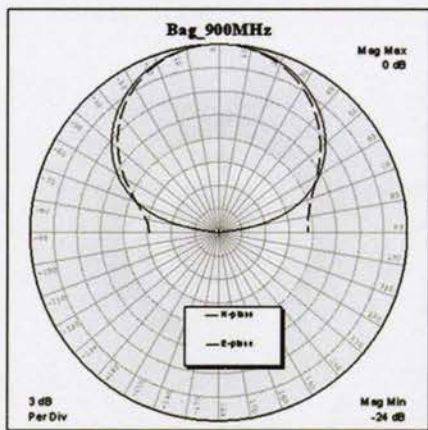
Case Variant

Body keeping

9
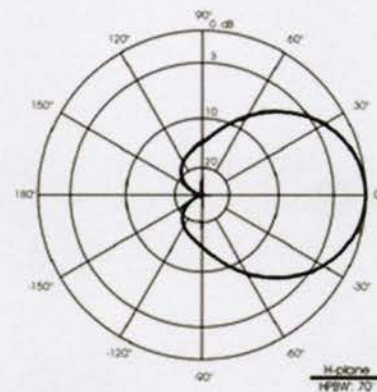
Portable IMSI/IMEI 3G Catcher NEOSOFT NS-17-3G

Purpose:

The system is designed for government agencies and law enforcement groups in order to collect basic identities (IMSI, IMEI) of 3G mobile phonesin the working area (airport terminals, prisons, etc.).

The basic unit of the system is 3G module which provides communication with the corresponding types of mobile phones. It also creates a fake BTS (Node B) with the best operation parameters for 3G communication. If the mobile phone try to register within the Node Bit present IMSI, IMEI identities and some detail information about communication capabilities. When required information is collected by the 3G Catcher then the mobile phone can be released to 3G provider's network or be downgraded to GSM operation mode. In the last casethe mobile phone can be intercepted by GSM monitoring system.

It is also possible to make correlation analysis of IMSI/IMEI identities collected in the different places and estimate actual target's identity. The 3G Catcher is fully compatible with GSM/3G Mobile Active Monitoring System. It can be used either as a stand-alone device or be integrated with NeoSoft GSM Monitoring systems.

Internet

Wi-fi

Operator

RX   TX

3G data

Handset in office
1. Handset 1. IMSI=...
2. Handset 2. IMSI=...
3. Handset 3. IMSI=...

N. Handset N. IMSI=...

3G BTS

Features:

- Semi-active type of the IMSI/IMEI collection algorithm
- Scan and detects 3G networksin the working area
- Detects 3G mobile phones and collects their identities (IMSI, IMEI and TMSI)
- Displays phone model, country of origin and the network provider

- The accuracy of distance measurementsfor 3Gmobile phones is less than 30 meters
- Selectively forces 3G mobile phones to GSM operation mode
- Selectively blocks communication of 3G mobile phones
- Detects the actual target's identities using "Target correlation" feature

Frequency Range	UMTS Band1 – 2100 MHz UMTS Band2 – 1900 MHz UMTS Band4 – 1700 MHz UMTS Band5 – 850 MHz UMTS Band8 – 900 MHz

Operation Range
  - In rural area
  - In urban area
	up to 1500 m
	up to 700 m

Average output power in 5 MHz	0.1-5 Watts
P1dB power	5 mW – 25W
Dimensions	330x268x80mm

Power supply
  - 3G BTS Unit (Node B)
  - Operator's laptop
	DC 24V
	DC 20V

Connection via LAN or WLAN	Yes

Portable IMSI/IMEI GSM Catcher
NEOSOFT NS-17-2G

Purpose:

The system is designed for government agencies and law enforcement groups in order to collect basic identities (IMSI, IMEI) ofGSM mobile phones (MP) in the working area (airport terminals, prisons, etc.).

The basic unit of the system is GSM module which provides communication with the corresponding types of MP. It creates a fake BTS with the best operation parameters for GSM communication. If the MPtry to register within the fake BTSit present IMSI, IMEI identities and some detail information about communication capabilities.

When required information is collected by the GSM Catcher then the MP can be accepted or be released to GSM provider's network. If the MP is accepted by the GSM Catcher then operator can arrange calls and SMS messages to it. Also it will be possible to activate MP's transmitter and detect target's location with the help of Direction finder device (option).

The system configuration consists of the BTS module in the ruggedized case together with the gateway laptop for Internet connection, battery and a set of RX, TX and scanning aerials.

Internet

Wi-fi

Operator

GSM data

Handset in office
1. Handset 1. IMSI=...
2. Handset 2. IMSI=...
3. Handset 3. IMSI=...

N. Handset N. IMSI=...

Portable GSM Base Unit

The software also provides correlation analysis of IMSI/IMEI identities collected in the different places and estimate actual target's identity.

The system has compact dimensions and is useful for target localization inside buildings, far located places and mountains.It can be used either as a stand-alone device or integrated in a NeoSoft GSM monitoring systems.

Features:

- Semi-active type of the IMSI/IMEI collection algorithm
- Accepts selected mobile phones with capability of calls and SMS communication with the system's operator
- Selective jamming of mobile phones feature
- Mobile phone presence verification
- Mobile phone direction finding. (Option)
- Mapping of target position using combination of public internet BTS services and internal mobile phone's measurements.

- Allows to marks the target's mobile phone with various icons that can't be deleted manually
- Algorithmic optimization for catcher's functionality. Powerful output amplifier is not required
- Sending SMS to each registered mobile phone
- VPN IP connection
- Target's correlation feature

Frequency Range	850, 900, 1800, 1900 MHz
Output power	0.1-4 Watts
Operation Range	
- In rural area	up to 1000 m
- In urban area	up to 700 m
Power supply	
- GSM BTS Unit	DC 12-24 v
- Operator's laptop	DC 20 v
External battery	autonomous operation up to 8 hours
Connection via LAN or WLAN	Yes
Dimensions:	
- GSM BTS Unit	290x260x75 mm

SMS Advertising System
NEOSOFT InPOINT SMS

Purpose:

The system is designed to send a bulk of advertising SMS messages or even security messages to handsets in local areas (banks, businesses, railway stations, shops, hotels, ships, etc.)

The basic unit of the system is GSM module which provides communication with the corresponding types of mobile phones. It creates a fake BTS with the best operation parameters for GSM communication. If the mobile phone will try to register within the fake BTSthen itwill receive required SMS message and will be released to GSM provider's network. The system has power adjustment feature and a set of directional aerials to create various operation areas(Private zones).

Directional antennas provide working area (Private zone)

Private zone 1

Private zone 2

Private zone 3

SMS: You have a special discount in my shop...

SMS: An unequal offer in my business centre...

SMS: The best rest is in my Hotels...

! Your personal data is not collected

NS-17-5-DT / operation scheme

The system is aimed to provide SMS service only in the private area according to the following rules:

- Sends broadcastSMS only to people who come to the system's working area (potential business partners);
- Public numbers of mobile phones stay unknown for the operators of the system;
- Personal data is not collected;
- The system does not install any software, viruses etc on the processed mobile phones.

The system may be also useful for government agencies and law enforcement groups. The system can provide circular GSM messaging in cases of emergency, help to looking for eye-witnesses or giving instructions to people in disastrous areas.

Features:

- Full independence from the real GSM provider
- SMS messages are absolutely free for the sender as well as for the subscriber
- Sends SMS to all the GSM mobile phones which are coming into its working area with no limitations
- Sends SMS to all phone types and different GSM providers
- Unlimited text size (amount of characters) gives a chance to send long texts with detailed descriptions
- Possibility to put any text in the "SENDER" ("FROM") field
- Very simple in use with an easy interface

By utilizing our advertising system the following objectives can be achieved:

- create a special outlook system that detects presence of new handsets in the place of interest and sends advertisement messages to each of them;
- increase the attractiveness of your business to the customers;
- keep interested parties updated about ongoing promotions, sweepstakes, contests, discounts, schedule changes, etc;
- SMS-broadcasting in creative combination with news, finances, sport information, lottery results, and even horoscopes;
- a company of any size can transfer information about its special offers to their existing and potential customers;
- now it is not necessary to be contacted individually to each potential customer. Thus, spending for printed products can be reduced.

|	
Frequency Range	850, 900, 1800, 1900 MHz
Output power	0.1-4 Watts

Operation Range
  - In rural area
  - In urban area
	up to 1000 m
	up to 700 m

Number of SMS per 1 min	up to 3000

Power supply
  - GSM BTS Unit
  - Operator's laptop
	DC 12-24 V
	DC 20 v

External battery	autonomous operation up to 8 hours
Connection via LAN or WLAN	Yes
Dimensions - GSM BTS Unit	290x260x75 mm

Portable GSM Communication System
NEOSOFT NS-15-1-PCS

Purpose:

The system is designed for providing GSM communication in a local territory in the following bands: 850, EGSM/1800, 1900 MHz.

The basic unit of the system is portable GSM module which provides communication with mobile phones in the working area. It creates a fake BTS with the best operation parameters (GSM) for communication. Since the mobile phone has registered within the fake GSM BTS all connections can be monitored by the system.

The low-cost system configuration consists of the BTS module in the ruggedized case together with the gateway laptop for Internet connection, battery and a set of RX, TX and scanning aerials. It provides communication for registered mobile phones inside BTS working area. This may be useful in emergency cases when GSM provider network is damaged or absent.
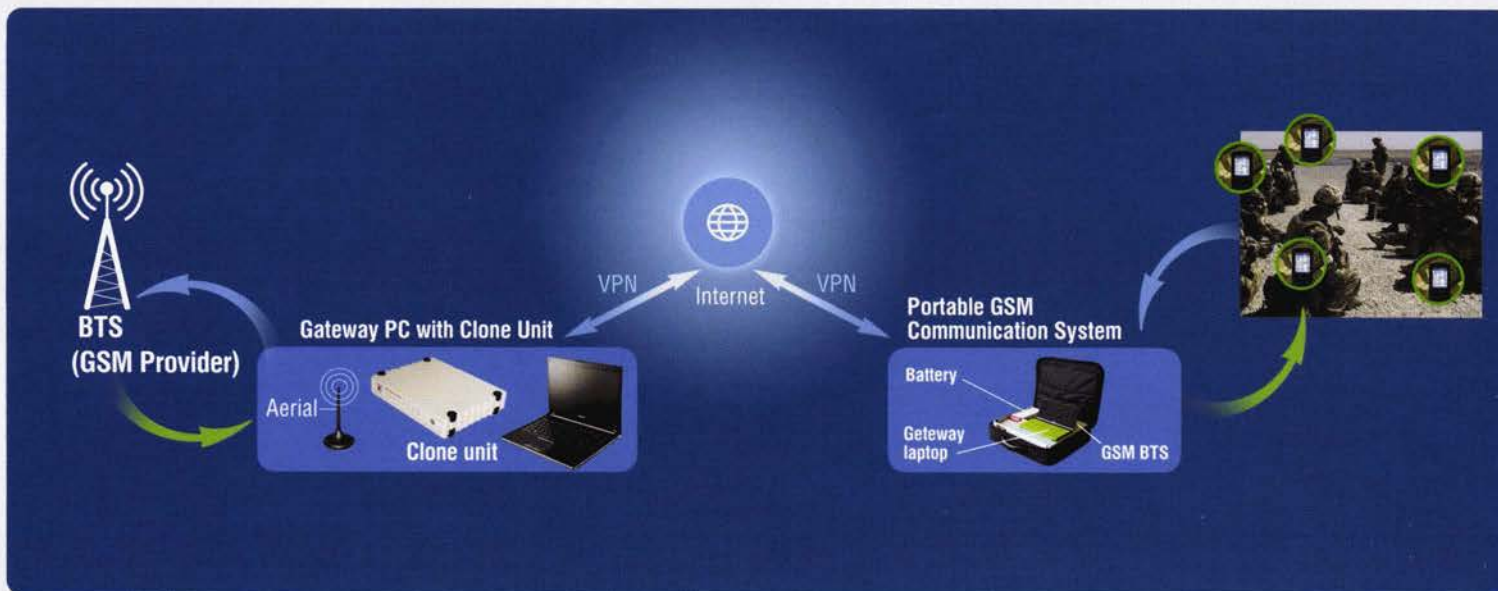
A Clone unit is required to support incoming and outgoing communications of theregistered mobile phone with the real GSM network.The fake BTS and Clone unit are separated and connected via Internet VPN connection.

For operation in countries with A5.1 GSM session coding the system can be additionally equipped with the special A5.1 deciphering multi-processor unit (Option) which is also connected to BTS via Internet VPN connection.

The communication software can be installed on the gateway laptop as well as on remote computer.

The top-level system configuration consists of the ruggedized case with the compact BTS, integrated clone unit,battery and software based A5.1 deciphering unit which is installed in the operator's laptop.

Features:

- Internal corporate GSM communications for employees and clients using their own handsets
- GSM communications for VIP persons and convoy in case intelligent jamming use
- GSM communications in case of earthquakes and acts of terrorism
- GSM communication for travelers, seamen, mountain-climbers, expeditions, etc.

- Provides GSM-VOIP communication
- Allows routing of handsets abroad through third party countries across non-interceptable and non-decryptable internet channels
- High equipment's reliability

GSM Frequency range	850, 900, 1800, 1900 MHz
Output power	0.01- 10 Watts
Operation range - In rural area - In urban area	up to 1500 m up to 1000 m
Support of Incoming calls, SMS	Yes
RF sensitivity	-110 dBm
Number of registered targets	Unlimited
Number of encrypted conversations at the same time	1-6 for 1 Clone unit
Connection with laptop	LAN, Internet via VPN
Dimensions: - BTS unit - Clone unit	330x268x80 mm 330x268x55 mm
Operating temperature range	+0° to +55°C
Power - Clone unit - BTS unit - Laptop	DC 24V DC 12-24V DC 20V

Localization system
NEOSOFT NS-15-5-LOC

Purpose:

The system is designed for government agencies and law enforcement groups to detect mobile phone location all over the world. The system operates secretly and support 2G and 3G mobile phones types. It can detect IMSI identity, Cell ID and geographic coordinates of the BTS that registered the interested mobile phone.

The Localization System requires connection to SS7 GSM/3G provider signaling system and connects to probes which are installed in the cellular network. Normally for SS7 requests the mobile phone can be detected with the accuracy from 100m to 1km. The NeoSoft special software increases the accuracy of localization due to combination of public internet BTS services and internal mobile phone's measurements. If the customer already have SS7 connection then the system can be connected directly to it. It is also possible to rent NeoSoft service of SS7 connection.

SS7 location requests

Target's location

GSM 3G Target

The system can be used either as a stand-alone device or integrated with NeoSoft GSM Monitoring Systems.

In conjunction with our Monitoring Systems and IMSI/IMEI Catcher and Triangulation Method, an exact location of targets worldwide including monitoring possibilities can be achieved.

Features:

- All target movementscan be recorded
- Fully integrated in NeoSoft Passive, Active and Hybrid Systems
- Fully integrated in NeoSoft IMSI/IMEI Catcher.
- Automatic IMSI detection of the target from the Public Number
- Shows time when the target registered in this Cell ID. Update itscurrent position using silent SMS.

- Extends NeoSoft GSM system to provide the location of a target in case the target is not in the range of our system.
- Shows each cell on the Map. (Different sources and possibilities to add user-defined data and sources).
- Various statistical analyses with collected identities.

Supported mobile phone types	GSM, 3G
Operation range	inside GSM/3G networks worldwide
Detailed info	cellular network provider depended
Power - Laptop	- DC 20V

Contacts

We welcome your comments and suggestions on the quality and usefulness of this publication.
Your feedback is an important part of the information used for revision.

- Did you find any errors?
- Is the information clearly presented?
- Do you need more information? If yes, please specify.
- What features do you like most about this manual?

If you find any errors or have any suggestions for improvement, please let us know the name, and revision of the document and specify the chapter, section and page number. You can contact us by using any of the following methods:

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