



## Secure GSM HC-2423

**GSM phone calls can be tapped with little effort because communication over a radio link can be eavesdropped upon with purchasable receivers or monitor-GSM cells. Moreover, 80 % of cell phone calls are conducted with users in fixed networks whose lines can also be easily tapped. If you want to convey sensitive information by phone, you must use End-to-End Encryption to assure consistent protection of your calls against access by others! The Secure GSM HC-2423 from Crypto AG is the most reliable solution for that purpose.**

The Secure GSM HC-2423 allows you to call securely over cell networks with a small, lightweight and easy to use GSM phone, worldwide, in all 900 and 1800 GSM networks supporting transparent asynchronous data service. Your communication is not impaired in terms of voice quality and speaker identification. Encryption provides seamless end-to-end protection for your GSM communication, also into the PSTN infrastructure. You can encrypt at the press of a button or operate your phone without encryption at any time. The unit is so easy to use. For instance, if you want all calls to a certain party to be encrypted, you can have encryption automatically activated whenever you dial that number by simply making an appropriate entry in your phone directory.

You make your calls on a small, lightweight and discrete handset without any outward signs of security functions. The tiny encryption module is integrated unseen in the battery cover and plain operation is possible also if it is removed. You can communicate securely by phone in any mixed network topology consisting of the Secure GSM HC-24x3 and the PSTN Encryption HC-2203. The Security Architecture from Crypto AG

provides the best in cryptographic protection for your calls. End-to-End Encryption is carried out in a separate tamper-proof hardware encryption module featuring access protection. When calling, you use secret algorithms profiled by your security manager. With the multi-key concept, you can define any hierarchical user groups you wish, complete with cryptographic authorisation to interact, and thereby systematically eliminate any source of error in communication. The user doesn't have to care about selecting communication keys; they are automatically selected or calculated according to his own and his partner's key set and parameter setting.

Cloning from another HC-24x3 or data transfer from a master PSTN Encryption HC-2203 eases installation and security management. In larger networks, you can bring in the user-friendly Key Handling Centre KHC-2000 (option) for assistance.

### Key features

- GSM cell phone with integrated End-to-End Encryption (hardware module) for absolute tap-proof phone communication in GSM 900/1800 networks
- Small, lightweight and discrete phone set: No one realises you are making an encrypted call
- Easy to operate – also the security functions – at the press of a button
- Three key calculation methods presentable according different operational or security requirements
- Compatible with Secure PSTN Encryption HC-2203. You can conduct stationary or mobile calls securely at any time
- Practically no degradation of audio quality and speaker identification
- High-security encryption is carried out in a separate integrated tamper-proof security module to exclude the possibility of unauthorised access to security data
- Supports other security elements such as access protection and blacklist factory reset
- HC-2423 can use the end-to-end digital UDI mode within the GSM network for a quick setup time

## General data

### Features

- Voice communication in plain mode supports EFR sound quality
- Built-in data/fax modem (plain only)
- Built-in hands-free speaker phone
- Back-lit high definition graphic display: up to 8 lines of text, numbers and icons
- Battery and field indicator, text messages, voice mail box
- No difference for male and female voice
- 2-user programmable buttons
- Anti-theft code
- WAP 1.1. browser, FastW@p button
- 100 directory entries with alphabetic sorting
- Memory for 100 short messages (SMS)
- 40 ringing tones + 5 additional ringing tones for personalisation, silence mode, vibrating device
- Send and receive ringing tones by SMS
- 15 call groups with choice of icons and ring tones
- Redial: memorisation of the last 20 calls
- Currency converter, calculator, date, time, alarm clock, timer
- 3D animated icons and screensavers welcome message

### Operator-dependent services

- Call forwarding, call restriction
- Short Message Service: MO, MT, CB
- Call wait, call hold, caller ID
- Anonymous call

### Marking

- CE (European conformity)

### Quality assurance

- ISO 9001:2000

### Dimensions

- 105 x 50 x 23 mm H/W/D
- Volume 79 cm<sup>3</sup>

### Weight

- 106 g including battery and security module

### Autonomy

- Talktime: 130 - 225 minutes
- Standby time: 150 - 250 hours
- Depending on operating conditions and network configuration

## Cryptographic data

### Algorithm

- Customer-specific cipher algorithm
- Customer managed profiling of algorithm by CMP with variety > 10<sup>506</sup>

### Key calculation method

- Symmetric direct, derived
- Asymmetric (diffie helman)

### Key variety

- Communication key (CK) variety: 2<sup>128</sup>
- Key stream period: > 10<sup>28</sup> years

### Key memory

- 999 communication keys

### Access protection

- Tamper-proof security module
- 2 password protected security levels: operator and security manager

### Management

- Manual key management via keyboard
- Cloning
- Key transfer from HC-2203 or KHC-2000 Key Handling Centre

### Clear functions

- User clear for communication keys
- Factory reset

## Security features

### Voice quality aspects in cipher mode

- Excellent voice quality and speaker recognition
- Independent of language
- No difference for male and female speakers
- Immunity against background noise
- Resistance to bit errors

### Operator-based requirements

- GSM 900/1800 Mhz standard
- 4.8 or 9.6 kbps fix, transparent, asynchronous data mode

## Delivery content

HC-2423 including:

- Removable security module
- Extra battery cover for operation without security module
- Charger
- Pedestrian hands-free kit
- Leather case
- User manual and quick guides

## Accessories

- Various cables for cloning, data transfer and modem (to be ordered separately)
- Chargers and batteries
- Hands-free and car kit

## Telephony Systems

