

SAE SYSTEMS

SafeTalk Mobile (STM)

The Safetalk Mobile telephone (STM) is a secure speech mobile telephone device developed to ensure cellular telephone call privacy and is based on the HTS Smartphone Qtek 8500/Dopod S300



The SafeTalk Mobile (STM) device provides secure classified voice communication over GSM mobile networks (data/fax mode must be available). The STM operates both as a conventional mobile telephone or a secure device for classified voice communications through a data/fax channel. The STM device consists of a conventional HTC based smartphone /communicator (Qtek 8500), Rphone-SP (Rphone-PDA) software and secure SD, mini-SD or micro-SD card. The STM is flexible, diverse, portable and easy to use. It prevents information theft from eavesdroppers trying to capture the conversation (or data transmission) sent over cellular GSM channels.

256 bit encryption algorithm (GOST 28147-89) is used in the STM. The device is approved for use by Government organisations, Police and law enforcement agencies, government contractors, banks, and commercial structures. Customer's may request either secure 256 bit GOST algorithm or the AES 256 bit algorithm.

Cost-saving transmission over GSM mobile networks

STM is designed to secure voice communication over GSM mobile networks. An expensive, dedicated transmission path is NOT needed to ensure security. Voice can be transmitted through data/fax GSM channel at bit rate of 1600 bps.

Voice Quality

In the past, to make a secure telephone call meant to compromise voice quality. That's not the case with STM. Our design insures that the voice quality of your secure calls will be comparable to that of your clear (non-secure) calls. STM works in both modes as clear and secure voice at 1.6 kbps in full-duplex. Due to low bit rate MELP speech codec the STM device provides good secure voice communication quality among different GSM providers/operators and in roaming.

Design

STM is designed with features and functions that cover our customers' special needs. It is very compact, lightweight and is one of the thinnest clamshell smartphones on the market.

Encryption

GOST 28147-89 encryption or on customer's request this algorithm can be changed to AES
512 bit Fixed Additional Key
Private 256 bit key
Diffie Hellman key exchange algorithm (1024 bit)

Voice modes

Clear voice
1200 bps full-duplex MELP

STM – Smartphone technical specifications

Language: English
Network: Quad-band 850/900/1800/1900. Standard GSM mobile phone modem



Stand-by: 100 - 150 hours

Talk time: 2,5 - 5 hours

CPU: TI OMAP 850, 200MHz

OS: Microsoft Windows Mobile 5 Smartphone

Screen: 2.2" 240x320 dots resolution, TFT, 65K colours; Second external 1.2" TFT display, 65K colours (128 x 128 pixels)

Camera: 1.3 MP, 1280 x 1024 pixels, video

Memory: ROM: 64 MB, RAM: 64 MB

Expansion slot: micro SD (TransFlash)

Messaging: SMS, MMS, Email, Instant Messaging

Phonebook: In shared memory, Photo call

Call records: Yes

Ringtones: Polyphonic (40 channels), MP3, Vibration

GPRS: Class 10 (4+1/3+2 slots), 32 - 48 kbps

EDGE: Class 10, 236.8 kbps

Bluetooth: Yes, v 1.2

USB: Yes, v 1.1

Browser: WAP 2.0/xHTML, HTML (PocketIE)

Java: Yes

Music: WAV, MP3, WMV by WMP

Video: H.263, MPEG4, WMV

Games: Yes

Other Function: Internal antenna, ActiveSync, Video/audio album, T9, Built-in hands free

Battery: Standard battery, Li-Ion 750 mAh

Dimensions: 98.5mm x 51,4mm x 15,8mm

Weight: 99 g with battery pack

Standard warranty: 12 months. Post-warranty service is available.

Working conditions: operating temperature -20° to +50° C, relative humidity is up to 90% at +25° C.

STM is quick and easy to set up, operate and install. First insert the secure card in the slot, then install Rphone-SP (PDA) software and finally enter your private key. After that STM is ready for conventional voice calls and secure operation.