



PSTN Encryption

For Secure Landline Communications

CRYPTTECH-L FOR SECURE LANDLINE COMMUNICATIONS

CRYPTTECH-L is the latest evolution of the well-proven CasperTech Secure Terminal concept. Flexibility and innovation are the key words for this new paradigm in information security.

Shaped in a stylish aluminium case, it integrates sophisticated security and communication functions for operation over almost any available communication channel.

Based on a modular design concept, the CRYPTTECH-L is configurable to meet Customer requirements at the best. User interface is intuitive as all CasperTech devices .

The digital encryption algorithm guarantees a mathematically verifiable high security level. Voice quality in crypto is similar to a normal call. In case of poor lines a fall-back to lower speed communication is automatic. Secure voice communication can be activated either manually, with a single push of a button, or automatically without the need of user intervention at all.

A flexible management structure assures the distribution of keys either on-line, via the communication channel, or off-line with the use of tokens or even manually from the keypad.

Interoperability with Crypttech voice and fax encryption equipment, the CRYPTTECH Mobile phones and CRYPTTECH-FX, makes the CRYPTTECH-L easy to integrate into existing networks.

The CRYPTTECH-L was designed to keep compromising radiations as low as military standards require.

Excellent figures of MTBF and MTTR confirm the reliability and the ease of maintenance of the equipment.



CRYPTTECH-L

Specifications

GENERAL

Applications	<ul style="list-style-type: none"> ● Digital high security terminal for end-to-end protection of voice, fax and data communications
Features	<ul style="list-style-type: none"> ● Operation over <ul style="list-style-type: none"> - Public switched telephone network - Satellite channels including INMARSAT A - B - M4 - GSM radiotelephone cellular networks - VHF/UHF and HF-SSB radio channels - Ready for wide band and IP networks (VOIP) ● Fully compatible with CRYPTTECH voice and fax equipment <ul style="list-style-type: none"> - CRYPTTECH Mobile phones , CRYPTTECH-FX ● Proprietary, non standard, implementation of vocoder and modems ● Designed and manufactured in accordance to ISO 9001:2000 standards
Voice communication	<ul style="list-style-type: none"> ● Voice digitizers <ul style="list-style-type: none"> - CELP voice digitizer for high quality operation - MELP high quality digitizer for low bit rate operation - Enhanced LPC10+ digitizer for low bit rate operation ● Crypto modems <ul style="list-style-type: none"> - proprietary modems: 5,3 Kbps full duplex - 2,7 Kbps full duplex and half duplex - Very short "training time" (hand-shake); less than 10 seconds to pass from clear to crypto - ITU modems: V.26ter full duplex at 2.4 Kbps - V.32 full duplex at 9.6 Kbps ● Crypto operation (secure mode) <ul style="list-style-type: none"> - Clear like voice quality in full duplex for normal channels - Full duplex, high quality low bit rate, for bad channels
Facsimile operation	<ul style="list-style-type: none"> ● Fully compatible with ITU-T G3 fax machines up to 14400 bps including ECM error correction ● Modems: V.17 - V.29 - V.27ter - V.21/protocols: T.4 - T.30 - T.31
Data communication	<ul style="list-style-type: none"> ● Crypto modem <ul style="list-style-type: none"> - 2.7 Kbps optimized for very bad channels - 115,2 Kbaud asynchronous interface

CRYPTOLOGY AND SECURITY

Encryption process	<ul style="list-style-type: none"> ● AES 256 algorithm ● Customised algorithms available on request
Keys	<ul style="list-style-type: none"> ● 3-key hierarchy: system key, communication key, message key or as per algorithm definition
Physical Random Noise Generator	<ul style="list-style-type: none"> ● According to FIPS PUB 140-2
Key management	<ul style="list-style-type: none"> ● Key Distribution Centre (KDC) through the ordinary telephone line ● Keys manually entered from keypad or via smartcard ISO7816 ● User keys storage in secure core or smart-card ● Emergency key and sensitive data active cancellation even without power supply

TELEPHONE FUNCTIONS

Clear operation modes	<ul style="list-style-type: none"> ● Full-duplex operation from handset ● Hands-free operation ● Loudspeaker listening or external headset listening ● Standard telephone operation even without mains power
Telephone features	<ul style="list-style-type: none"> ● Programmable tone (DTMF) or pulse dialling ● Programmable telephone directory by the keyboard ● Programming of various service functions
Display	<ul style="list-style-type: none"> ● Graphic colour TFT-LCD 7" 16:9 display, resolution 800 x 480 ● Multilanguage programmable messages (non Latin alphabets available on request)

MISCELLANEOUS

Access control	<ul style="list-style-type: none"> ● User set passwords and/or smart-card
Tamper evidence	<ul style="list-style-type: none"> ● Sealed to control access to internal circuits, sealed handset
Environmental	<ul style="list-style-type: none"> ● Operation: 0 to +50°C, storage: -20 to +70°C ● 95% relative humidity
Power	<ul style="list-style-type: none"> ● 100 to 240 Vac, 50 to 60 Hz auto ranging (5 to 36 Vdc option) ● Power consumption <25 VA
Reliability	<ul style="list-style-type: none"> ● MTBF (Medium Time Before Failure) more than 55.000 hours, MTTR 15 minutes
Dimensions	<ul style="list-style-type: none"> ● 270x280x80 mm
Weight	<ul style="list-style-type: none"> ● 2,6 kg
Approvals	<ul style="list-style-type: none"> ● CE approved product ● Compliant with ETSI TBR-21 and TBR-38, ETSI ETS 300.001 (NET4) when applicable

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