



NETWORK SECURITY

Cryptel - MuST

Multi-purpose Secure Terminal TCE 811

The TCE 811 MAD (Multi-Application Device) is a handheld secure platform hosting several applications for handling of crypto keys and classified user data – both at rest and in transit. The solution reduces the need to operate several different systems and products for managing classified information.

The TCE 811 applications will suit a wide range of users from crypto custodians to embassy officers, from civil servants to soldiers, all with a need to securely store and transfer crypto keys and classified documents. Different users may log in and gain access to applications and features according to their granted privileges.

Main Applications

- Electronic Key Fill
- Secure File Storage
- Crypt and Share (Offline File and Key Transfer)
- Synchronising keys and accounting data with eCustodian
- Local management of TCE 621/M

Main Features

- All NATO classification levels
- Handheld and rugged
- Large storage and battery capacities
- Wide range of interfaces & protocols
- Firmware upgradeability

Cryptel® - MUST TCE 811

Multi-purpose Secure Terminal

In addition to being a **Fill Device** for crypto key material, the TCE 811 MAD also features encryption and decryption of keys or classified files such as text documents, videos, sensor data etc. The encrypted data can be stored locally, or exported via BLACK USB interface for transmission over an unsecured network. At the remote destination another TCE 811 MAD with a corresponding crypto key may decrypt the file received over the network, and either fill an End Cryptographic Unit (ECU) with the received keys, or copy the data files to a locally connected classified PC via the RED USB interface.

The Security Officer, or one of the up to seven defined operators, may configure the TCE 811 according to own preferences and needs, e.g.

- Advanced folder structures; for easier management of large amount of keys or files
- Key profiles; define sorting and filtering of keys, and which information that should be displayed for each key

- Equipment profiles; enabling adaptation of interface to future, yet unknown ECUs

The Graphical User Interface is intuitive, minimising the need for training and user manuals. The high battery capacity and low power consumption enables a long workday of active use; furthermore, charging from 110/220 V AC/DC Power Adapter or 5V DC Power Bank is possible even during operation.

The TCE 811 is upgradeable, which ensures a versatile and future-proof product for many years to come. The platform is extendable to host several algorithms, applications and features for encryption, decryption and storage. Adaptation to the upcoming NATO Key Management Infrastructure (KMI) standard will also be possible. Specific variants of the TCE 811 fulfil the role as KP/HSM (Key Processor / HW Security Module) in eCustodian II from Thales Norway.

Security Characteristics

- Approved by NATO for all classification levels
- TEMPEST: Approved according to SDIP-27 Level A
- Tamper detection and response according to FIPS 140-2 Level 4
- Two-factor authentication; Crypto Ignition Key and Password
- Covert Mode (minimal emission of light from power-on)
- Push-Button Crypto Destruct (Emergency Erase)
- 1 Security Officer and 1-7 Operators with individual privileges
- All actions, events and alarms are recorded in Audit Log

Performance & Capacity

- 64 Gb flash storage
- Data rate for user files: 50 Mb/s TX, 20 Mb/s RX
- Li-Ion 4.0Ah/14.6Wh main battery; 12 hours typical active use
- Empty-to-full charging (switched off): approx. 2½ h
- Power feeding: 110 & 230 VAC / 5 VDC adapter. Optional standard USB Power Bank
- Lithium 1.2Ah/4.32Wh backup battery; 36 months memory storage

Physical Characteristics

- Weight: 995g
- Size: 185 x 135 x 46 mm
- Temperature: Operation: -30°C to +49°C; Storage: -40°C to +60°C
- Immersion in water: 1 meter, 30 minutes.
- Low pressure: Operation: 4.500 m; Storage: 10.700 m
- EMC: MIL-STD-461F, EN 55032 Class B, EN 55024
- Reliability: MTTF (MIL-HDBK-217 F)
 - Ground Benign > 81.000 h
 - Ground Mobile > 24.000 h
- Environment; Shock, vibration, sand, dust, contamination by fluids: MIL-STD-810G

Interfaces and protocols

- Key Fill Interfaces: DS-101, DS-102, RS-232
- Red & Black USB Interfaces: USB 2.0
- Media Transfer Protocol (MTP)
- Connectors: ODU AMC® Easy-Clean
 - 16 pins plug for RED interface
 - 16 pins receptacle for BLACK / management interface
- Human-Machine Interfaces
 - 3,5" TFT Colour Display 320x240 pixels
 - 22-keys alphanumeric multi-tap keyboard
 - Status / alarm LED
 - Auto adjustment of display brightness and key backlight

Conformance

- Safety: EN 60950-1
- REACH: 1907/2006/EU
- ROHS: 2011/65/EU
- WEEE: 2002/96/EC
- EMC: 2014/30/EU
- Battery: 2006/66/EC/
- Low Voltage: 2014/35/EU

Accessories and support

- Cables
- Vehicle Power Adapter 10-30 VDC
- Docking Station
- Protective Soft Cover
- Equipment case (Small/Large)
- Screen Protector
- TCE 810 SW Loader
- Manuals
- E-learning
- Training Courses