LEONARDO ELECTRONICS

IT-DTD

Data Transfer Device
Portable Keys Loader

IT-DTD (Data Transfer Device) is a ruggedised, battery powered, handheld fill device designed to securely receive, store and transfer key material (both symmetric and asymmetric) which can then be loaded onto a generic End Cryptographic Unit (ECU) supporting EKMS 308 interface such as an encryption system or secure telephone.

The IT-DTD is able to receive COMSEC material from another Data Transfer Device or from an Electronic Key Management System (EKMS) using an EKMS 308 standard interface. It greatly simplifies the key loading procedure, increases security compared to traditional Fill Devices and ensures key loading capabilities on a wide variety of ECUs.

Multiple ECUs can be keyed, and it is compatible with various ECUs and Common Fill Devices (CFDs) -it supports both DS-101 and DS-102 interfaces in accordance with EKMS 308 standard. The IT-DTD can function in any operational scenarios where ECUs are deployed (terrestrial, naval, avionic) and in different operational environments (strategic, tactical, vehicular).

Through the use of an electronic pen and touch pad, a user can configure and use the device, start receiving or transmitting crypto material and audit data through the EKMS 308 interface.

KEY BENEFITS

- Ruggedised for use in military environments
- Able to host up to four different algorithms approved for key encryption
- Import via air gap of encrypted keys from NATO DACAN EKMS (DEKMS) or National Key Generation System
- Easy, quick activation of the NATO/National operational context using a simple selector provided with a CIK (Crypto Ignition Key) to disable or enable the device
- Secure storage of black/red material loaded through an EKMS 308 interface (up to 2GB)
- Full integration with the EKMS system, supporting secure key loading on EKMS 308 compatible encryption devices
- Supports NATO, National and Custom (future use) encryption Algorithms

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GENERAL CHARACTERISTICS

Main features include:

- Transport of both symmetric and asymmetric keys
- Scalability for additional applications to support future ECU in case of specific needs
- Accounting information on keying activity in accordance with SDIP 293 and AC/322-D(2006)0069, log on user activity and alarms
- Storing of key material in encrypted form
- Application Key
- Traffic Encryption Key (TEK)
- Key Encryption Key (KEK)
- Transfer Key Encryption Key (TrKEK)
- Send/receive keys to/from a Fill Gun device
- Transfer of keys to/from Crypto devices supporting DS101 and DS102 protocols (now described in 'EKMS 308 Rev F' standard), plus some specific ECU types (EFA ACVMU, company ECCM radios, MIDS Link-16 and IFF/NGIFF equipment)
- It can interpret key tagging information as defined in EKMS 308
- Keys to control GUI (movement, Enter and Escape), switch on/off and brightness regulation
- Management firmware based on a certified COTS linux-based kernel

SECURITY FEATURES

The IT-DTD has the following security features:

- Secure memory to store up to 2 Gbytes of red or black material received through EKMS 308 interface
- "Erase" switch to zeroize
- Anti-tampering mechanism
- CIK (Crypto Ignition Key) to enable/disable the device and to allow a rapid declassification to CCI
- Two different profiles of users to manage the device (SuperUser) and to manage the relevant material (User)

TECHNICAL SPECIFICATIONS

INTERFACES

- EKMS 308 for red or black material

SECURITY

- NATO, National algorithms
- Ready to customised or proprietary algorithm
- Equipment enabling by CIK; in this case, declassified to CCI when CIK is removed
- Anti-Tampering mechanism
- Key zeroization in emergency
- Tempest compliant SDIP-27/1 Level A

MANAGEMENT

- Built in Test (BIT)
- System and Security Alarms
- Local Event Log
- Local control: touch display and pen

ELECTRICAL FEATURES

- Rechargeable Battery with supplied AC-DC converter (100–240V AC, 47Hz–63Hz)
- 8 hours of operations
- 30 days of material storage (always off)

PHYSICAL DATA

• Dimensions (w x h x d)	150mm x 200mm x 60mm
• Weight	1.3Kg

ENVIRONMENTAL DATA

• Operative temperature	-20°C to +50°C
• Storage temperature	-40°C to +65°C
• Relative humidity	10% to 90%, 40°C
• Storage altitude	10000m
• Operating altitude	4000m

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