



TCE 621/C - Gigabit Cryptel®-IP

Main Features

- High grade crypto device for IP based networks
- Evaluated by NATO for all security levels
- Supports both IPv4 and IPv6
- Centralised management using TCE 671
- Electronic and manual key distribution available
- Transparent to network services
- Gigabit performance
- Secure Multicast
- Hot standby
- Support for NAT (UDP encapsulation)
- Software loadable
- Fully interoperable with TCE 621

The TCE 621/C high-grade crypto equipment securely interconnects single end systems or LANs (local area networks), forming a secure network. This is used to establish VPN (Virtual Private Network) solutions, or to provide end-to-end protection of the communications between single hosts over standard commercial networks.

The TCE 621/C protects the communication by adding end-to-end security services to the IP protocol. All security services are provided according to IPsec ESP (Encapsulation Security Payload) protocol as specified by IETF.

The TCE 621/C authenticates the source IP addresses of the communicating end systems. The access control service may be used to prohibit communication between end systems and subnets.

Configuration through front panel, or by use of a dedicated software application. No day-to-day handling is necessary during operation. Keys for management communication are loaded infrequently.

A Crypto Ignition Key (CIK) is included. With the CIK removed, the TCE 621/C is declassified. In addition, an emergency erasure feature and a tampering protection mechanism are included.

The building blocks in the Cryptel®-IP System are the TCE 621, TCE 621/B and the TCE 621/C IP Crypto Devices and the TCE 671 Security Management Centre.

The TCE 671 Security Management Centre is used for automatic key generation, key distribution and remote management of all IP crypto devices. The TCE 671 functions include key management, access control management, security monitoring and configuration management. An extra TCE 671 may be deployed at a different location in the network for increased availability. The TCE 621/C may alternatively be operated in manual mode.

The TCE 621/C is well proven to protect real-time traffic as for instance Voice-over-IP and video conferences.

NATO has selected the TCE 621 as NATO IP Crypto Equipment, (NICE).

TCE 621/C

Technical Data

Security Characteristics

Security Level

- Approved for all NATO and Norwegian classifications

Operational Security

- Removable Crypto Ignition Key
- Operator password (2 levels)
- Tampering protection
- Emergency erase switch

Interfaces

BLACK Network Interface

- 10/100/1000 Mbit/s Ethernet on RJ-45 connector
- 100 Mbit/s Fibre on MT-RJ and LC connector
- 1 Gbit/s Fibre on MT-RJ and LC connector
- IPv4 (RFC 791)
- IPv6 (RFC 2460)

Physical Characteristics

Temperature

- Operating: 0/+40°C
- Storage: -20/+70°C

Power

- External power supply
- Automatic adaptation
110 & 230 Volt AC, 47-63 Hz

Power Consumption

- Max 25W
- Nominally 20W

Performance

- Full duplex 660 Mbit/s data rate aggregated
- 200.000 packets pr. second
- Low latency
- Up to 15.000 simultaneous Security Associations (SA)
- No SA establishment time

Tempest

- According to AMSS 720B

Security Management

- Electronic via TCE 671 Management Centre
- Manual

RED Local Interface

- 10/100/1000 Mbit/s Ethernet on RJ-45 connector
- 100 Mbit/s Fibre on MT-RJ and LC connector
- 1 Gbit/s Fibre on MT-RJ and LC connector
- IPv4 (RFC 791)
- IPv6 (RFC 2460)

Installation

- 19" rack mounting

Dimensions

- Width: 440 mm
- Height: 44 mm (1U)
- Depth: 250 mm

Weight

- 4,1 Kg

Other supported functions

- QoS enabled
- NAT enabled, (UDP encapsulation)
- Receive only mode
- Configurable network management interface

COMSEC

- NATO approved algorithm (Einride)
- Prepared for other algorithms

Security Protocol

- IETF RFC 2406 - ESP

Software loadable

- Remotely from TCE 671
- Locally from front panel

Fill Device Interfaces

- DS-101 (RS-485); AN/CYZ-10 DTD
- DS-102; KOI-18
- V.24/V.10 (RS-232C); PC
- Smart card (ISO 7816)

EMC

- 89/336/EEC
- EN 55022 class B

Reliability

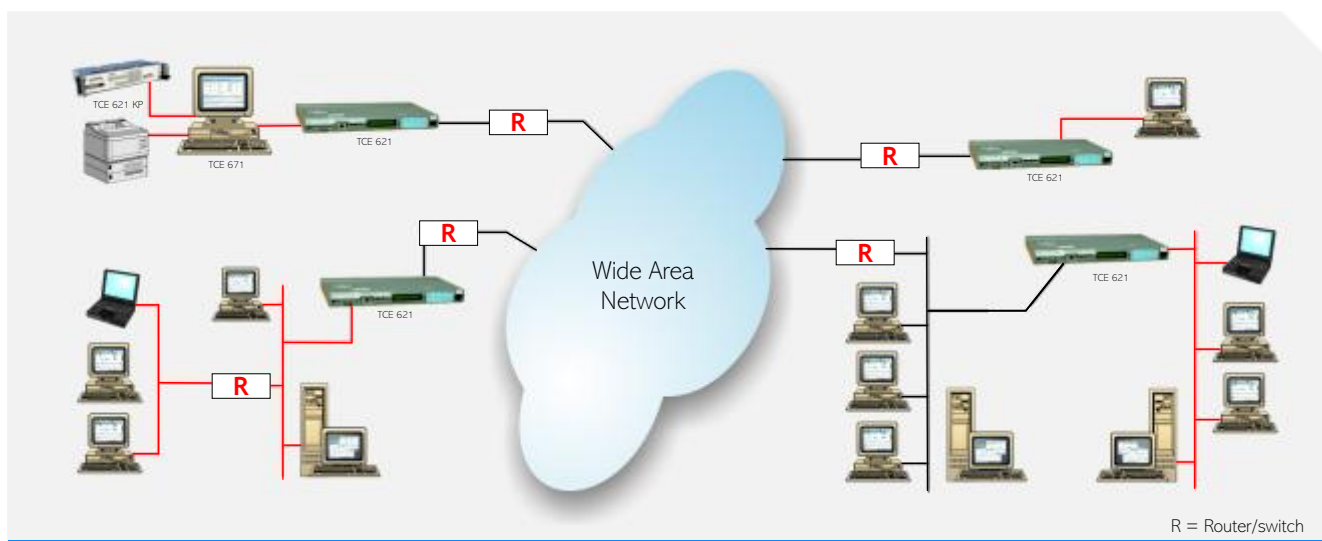
- MTTF > 100,000 h
(calculated, Mil HDBK 217 F)

Environment

- IEC 68-2
- DEF-STAN 07-55

Supported components/parts

- Configuration Tool application
- Software Loader application
- Cables
- Media Converters
- Mounting brackets



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