

TCE 621/B AND TCE 621/C

TCE 621/B and TCE 621/C are the high capacity encryption units in the Cryptel®-IP family. TCE 621/B offers 10 and 100 Mbit/s Ethernet interfaces while TCE 621/C offers additional Gigabit interfaces.

Both TCE 621/B and TCE 621/C are available in three variants depending on encryption algorithm:

- > **NICE.** NATO NICE algorithm.
- > **AES.** Public AES algorithm with possibility for customer specific vector.
- > **Dual.** Equipped with both AES and NICE algorithms. Selection of algorithm at initial configuration of equipment.

Main Features

- > Supports both IPv4 and IPv6
- > Centralized management
- > Electronic and manual key distribution
- > Transparent to network service
- > Secure multicast
- > Hot standby
- > NAT support (UDP encapsulation)
- > Software upgradable

NETWORK SECURITY

TCE 621/B AND TCE 621/C

Cryptel®-IP High Capacity Encryption Devices



TCE 621/B AND TCE 621/C

Cryptel®-IP High Capacity Encryption Devices

The **TCE 621** crypto equipment securely interconnects single end systems or LANs over unsecure networks (typically Internet) forming secure VPN (Virtual Private Network). End-to-end protection of the communication are provided over standard commercial networks.

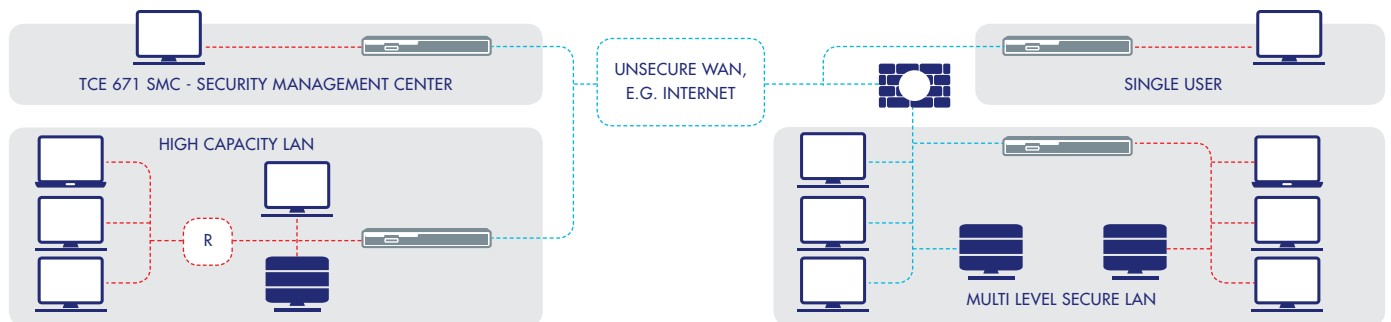
The **TCE 621** protects the communication by adding end-to-end security services to the IP protocol. All security services are provided according to IPsec ESP (Encapsulating Security Payload) protocol as specified by IETF.

The **TCE 621** authenticates the source IP addresses of communication end systems. The access control service may be used to prohibit communication between end systems and subnets. Configuration through the front panel, or by use of a dedicated software application. No day-to-day handling is necessary during operation.

A part of the equipment is the Crypto Ignition Key (CIK) in a Smart-card format. With the CIK removed, the TCE 621 is declassified. In addition, an emergency erase feature and a tamper protection mechanism are included.

The **TCE 671 SMC** (Security Management Center) is used for automatic key generation, key distribution and remote management of all IP crypto devices. The TCE 671 SMC functions include key management, access control management, security monitoring and configuration management. For increased availability several SMCs in the network can be configured in a master/slave configuration with automatic data replication.

The TCE 621 may also be operated in manual mode without the need of TCE 671 SMC or if connection to TCE 671 SMC fails. Due to the very low latency time introduced by TCE 621, it is well suited for protection of real-time traffic, e.g. VoIP and video conference.



Technical data:

Security characteristics

Security level

- > NICE variant: Cosmic Top Secret
- > AES variant: NATO secret

Security Protocol

- > IETF RFC 2406 - ESP

Security Management

- > Manual
- > Electronic via TCE 671 SMC

Software upgradable

- > Remotely from TCE 671 SMC
- > Locally from front panel

Tempest

- > According to SDIP-27 level A

Operational Security

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

Interfaces

Black Network Interfaces

- > IPv4 (RFC 791)
- > IPv6 (RFC 2460)
- > Ethernet 10/100 Mbit/s and Gigabit (TCE 621/C)

Red Local Interface

- > IPv4 (RFC 791)
- > IPv6 (RFC 2460)
- > Ethernet 10/100 Mbit/s and Gigabit (TCE 621/C)

Fill Device Interfaces

- > DS-101 (RS-485); AN/CYZ-10 DTD
- > DS-102; K01-18
- > V.24/V.10 (RS-232C); PC
- > Smart card (1301/IEC 7816)

Physical Characteristics

Temperature

- > Operating: 0 to + 40 °C
- > Storage: - 20 to + 70 °C

Power Consumption

- > Max 25 W
- > Nominally 20 W

Power feeding

- > 110 & 230VAC
- > 47-63 Hz
- > Automatic adaptation

Installation

- > 19" rack mounting

Dimensions

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

Weight

- > 4,1 kg

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

Performance

- > Full duplex data rate: 600 Mbit/s (TCE 621/C) and 200 Mbit/s (TCE 621/B)
- > 200 000 packets/s
- > Latency time : < 5 µs
- > Up to 15 000 simultaneous Security Associations (SA)
- > No SA establishment time

Other support functions

- > QoS enabled
- > NAT enabled (UDP encapsulation)
- > Secure multicast
- > Receive only mode
- > Configurable SNMP support

Support components

- > Network Planner
- > Configuration Tool application
- > Software Loader application
- > Cables
- > AC/DC adapter (110-240 VAC)
- > Optical adapter (MT-RJ, LC)
- > Mounting brackets