SIEMENS

TEMPEST
Crypto Communication System
T1285CA

Secure text processing with the ...

TEMPEST communication systems are an absolute necessity for word processing and communication in private, official and military networks.

Furthermore, the system must eliminate any possibility of message change or falsification, regardless of whether interference attempts are made by unauthorized users or from the network.

Siemens has therefore developed a new microprocessor-based system that meets all demands for secure word processing and communication.

The key features of this new system are as follows:

- TEMPEST-proof
- Integrated encryption/ decryption
- Secure against internal and external intrusion (e.g. viruses)
- Enhanced text editor
- Formatting aids
- 5-level or 8-level code selectable (and ITA No. 2 / IA No. 5)
- Universally usable due to automatic code conversion (5/8-level, 8/5-level)
- Easy to handle
- Screen prompting menus
- Short training periode only
- Error diagnostics

Local with crypto unit   MD: 117 .... reserved

    Select function:

    1 New message

    2 Edit message

    3 Forms/text modules

    4 Message handling

    5 Delete message

    6 Reserve message for transmission/
       Cancel reservation

Local with crypto unit   MD: 117 .... reserved

    New message

Store message to memory=1 or disk=2   1

Msg. no.:   Title: ....

Editor mode normal=1, code transparent=2:   1

Store message   clear=1
               scrambled=2:   2

Reserve message automatically for transmission (Y/N): Y

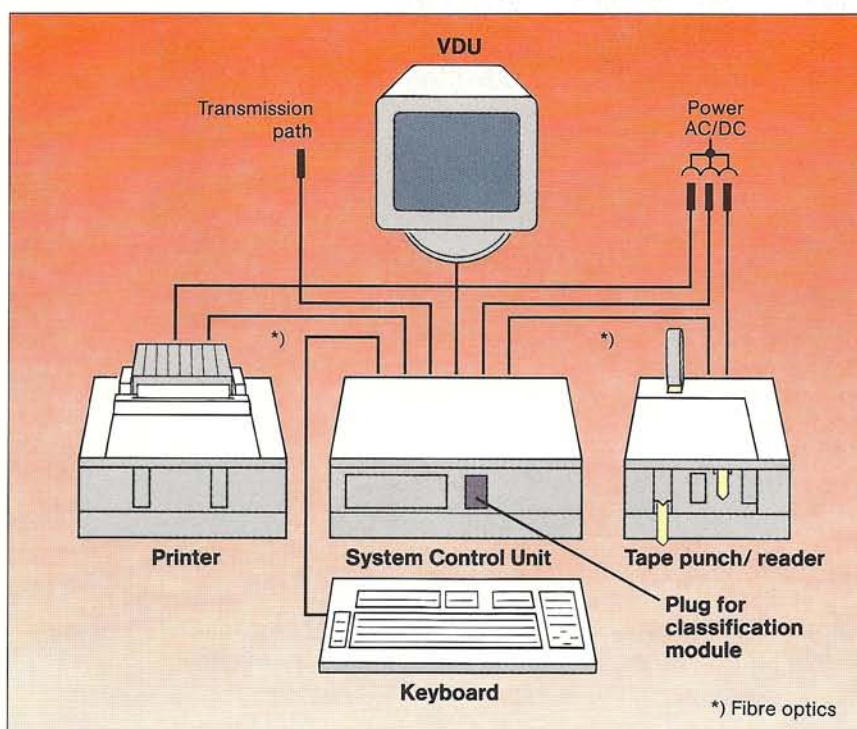Space for   characters

System layout

The TEMPEST Crypto Communication System T1285CA has a modular design and comprises the following units:

- System control unit with 3.5" floppy disk drive, integrated crypto unit and line adapter
- VDU with 12" monochromes screen (black/white)
- Typewriter keyboard and separate function keys in outlined pads
- Printer, connected via fibre optics

Options:

- Tape punch/reader, connected via fibre optics
- The T1285CA system is also available with a different-colored housing for use in an office environment

VDU

Transmission path

Power AC/DC

Printer

System Control Unit

Tape punch/ reader

Plug for classification module

Keyboard

*) Fibre optics

... new TEMPEST Crypto Communication System T1285CA

Perfect Word Processing

- Consequente operator guidance via screen menues

- Menu-driven text formatting

- Text display on screen, instant correction, comfortable text editor

- Text storage in plain language or in crypto mode

- Text modules and short texts

- Search function

- Horizontal tab

- Forms processing

- Directory update, display, and printout

Integrated Crypto Functions

- Encryption and decryption (26-, 32- and 256-character mode) in online and offline mode

- Key insertion via standard fill interface

- 2 x 32 crypto keys

- Remote keying

- Local and remote update

- Zeroise switch (erases all crypto keys and plain text)

- Access to crypto functions restricted by crypto ignition key (CIK)

- Plain text and encrypted messages are strictly separated by special hardware and software structures

Optimized Communication

- Automated menu-driven transmission handling
  - Communication reports
  - Message chaining
  - Sequence numbering
  - Date and time labeling

- In crypto mode, formatting in 5-character groups is possible (26-character mode)

- Printout or output to floppy disk in plain language or as crypto text
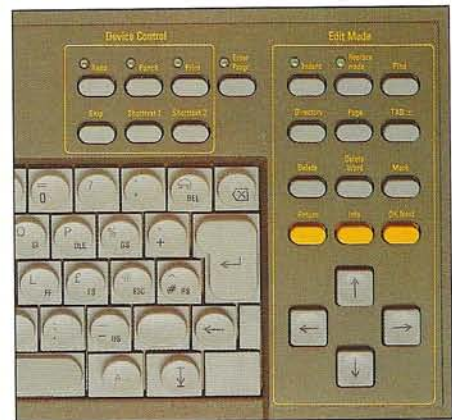
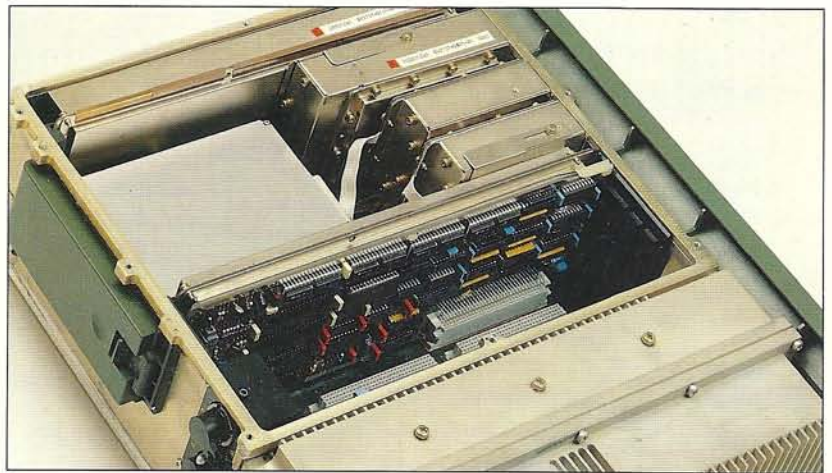# ... new TEMPEST Crypto Communication System T1285CA
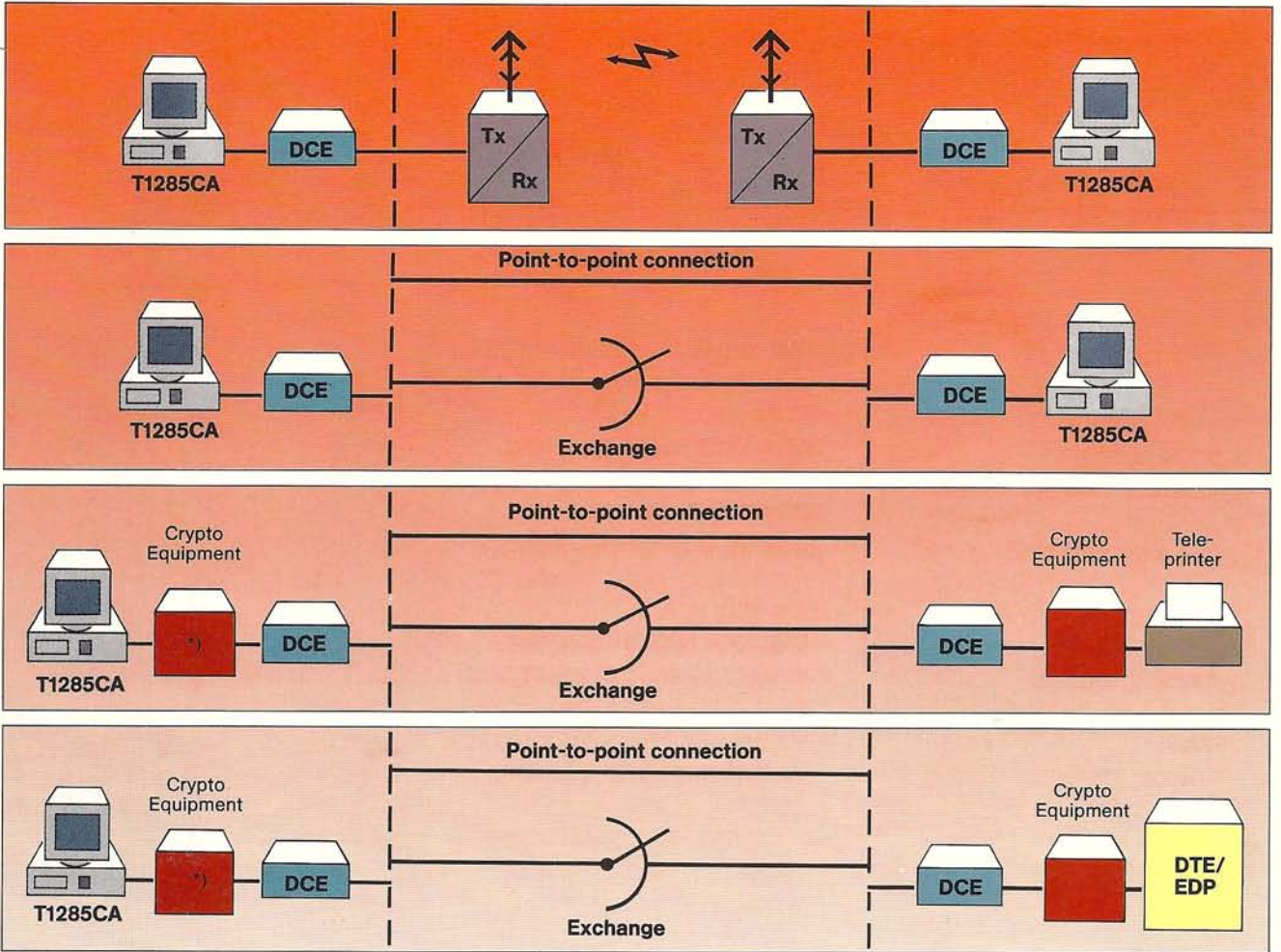
*) Crypto function of T1285CA switched off

Flexible use

Thanks to its modular design, the TEMPEST Communication System T1285CA can be adapted individually to any operator's position.
The T1285CA system has been developed for use in stationary as well as mobile communication networks. The T1285CA system can be operated via RF connections with ARQ or FEC equipment. When switching off the integrated crypto function the T1285CA system can be combined with any telegraph crypto equipment or asynchronous data crypto equipment that conforms to the interface requirements (see Technical Data).

Technical Data
T1285 CA

Performance Data

System control unit

- Program memory 640 KB (locked)
- Main memory 256 KB
- Message memory 192 KB
- Floppy disk 3.5", 720 KB formatted (for messages and forms)
- Crypto unit

Keyboard

- 4-row typewriter keyboard (English assignment)
- Maximum of 112 key mounting positions (47 for function keys)
- 24 LEDs for status signaling
- Audible alarm for operating errors
- Perfect ergonomic design

VDU

- 12" monochrome screen
- Text presentation black on white or vice versa
- 80 characters per line
- 27 lines
- Tilt-and-swivel VDU
- Brightness control

Printer

- Bidirectional printout
- Connection to system control unit via fibre optics
- Original + 2 copies
- Roll paper
- Printing speed 60 cps

Reliability

- MTBF per system unit more than 10.000 hrs
- Error diagnostics

Communication Data

Code

- 5-unit code (ITA No. 2)
- 8-unit code (IA No. 5)
- Automatic code conversion

Transmission speed

- 50...2400 bps
- 50...9600 bps (crypto unit switched off)

Interfaces

- CCITT V.24/RS-232-C with level as per V.10 or Mil-STD 188-114 (asymmetrical) resp. interoperabel with V.28
- TTY 15V/20mA as well as 60V/40mA neutral current (external supply)
- Operation on telephone lines via modem acc. to CCITT
- Connectable to packet-switched networks via PAD (X.28)

Power supply data

- Protection class II (optional I)
- 115V, 127V, 230V, 240V (±15%) 42...70 Hz oder 400 Hz (± 5%)
- 24V- (19...33V)
- Automatic switching from AC to DC without data loss
- Message memory protected against power failure (min. 72 hrs)
- Power consumption (operation)
  System control unit:
  AC: approx. 60 VA
  DC: approx. 50 W
  Printer:
  AC: approx. 55 VA
  DC: approx. 45 W
  Tape punch/reader:
  AC: approx. 55 VA
  DC: approx. 45 W

Environmental and Mechanical Data

Environmental conditions

- Suitable for mobile military use
- Complies with military standards
- Temperatur range:
  Operation: 0° C...+45° C
  Storage: −40° C...+70° C
  (Other temperature ranges on request)
- Fireproof

Dimensions / weight

- System control unit:
  W x H x D 425 x 145 x 378 mm
  Weight approx. 18 kg
- VDU:
  W x H x D 348 x 365 x 340 mm
  Weight approx. 13 kg
- Keyboard:
  W x H x D 425 x 22/51 x 200 mm
  Weight approx. 3 kg
- Printer:
  W x H x D
  425x145(260)*x378(502)* mm
  * with paper cassette
  Weight approx. 21 kg
- Tape punch/reader:
  W x H x D
  361x145(365)*x378(504)* mm
  * with paper tape
  Weight approx. 18 kg

Compromising radiation

- TEMPEST-proof