

Version
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TopSec 711

Reliable encryption for telephone and fax

- ◆ Encryption of group-3 fax signals
- ◆ Encryption of voice signals
- ◆ Interoperable with the TopSec GSM
- ◆ Plug & play installation on analog communications port
- ◆ Easy operation
- ◆ Menu-controlled administration
- ◆ Secure remote administration

**ROHDE & SCHWARZ**

Security of dial-up lines

The globalization of business and private communications provides multiple targets for eavesdroppers and spies on telephone and data networks. But which security measures are available to counteract such unauthorized intrusion? The TopSec 711 was developed to protect fax transmission against possible eavesdropping attacks.

Fax encryption

With the TopSec 711, faxes can be exchanged securely between two subscribers. The only prerequisite is that each subscriber uses a TopSec 711. The header of faxes transmitted in encrypted form between two TopSec 711 devices contains the indication "CRYPTO" and a user-specific ID of the TopSec 711 that sent the fax.

Voice encryption

The TopSec 711 also ensures confidential voice communication between two subscribers. The only prerequisite is that the called party also has a TopSec 711 or a TopSec GSM mobile phone.

Encryption of confidential communication

Encryption is based on a hybrid method. To attain maximum security, a combination of two algorithms is used: an asymmetrical algorithm with a 1024-bit key for key agreement, and a symmetrical algorithm for encrypting the confidential information. In the encryption mode, the TopSec 711 and the called station automatically negotiate a new 128-bit key for each connection. The 128-bit key is randomly determined from 10^{38} possibilities and erased as soon as the communication is terminated.

Tap-proof communication through plug & play instruments

The TopSec 711 is simply connected between the fax machine or telephone and the telephone network. The device can encrypt and decrypt outgoing and incoming faxes as well as phone calls. The transmission mode (plain/encrypted) is selected by adding a code number to the number of the called station. During communication, the subscribers at either end need only check the LEDs on their equipment to make sure that the information is being transmitted confidentially.

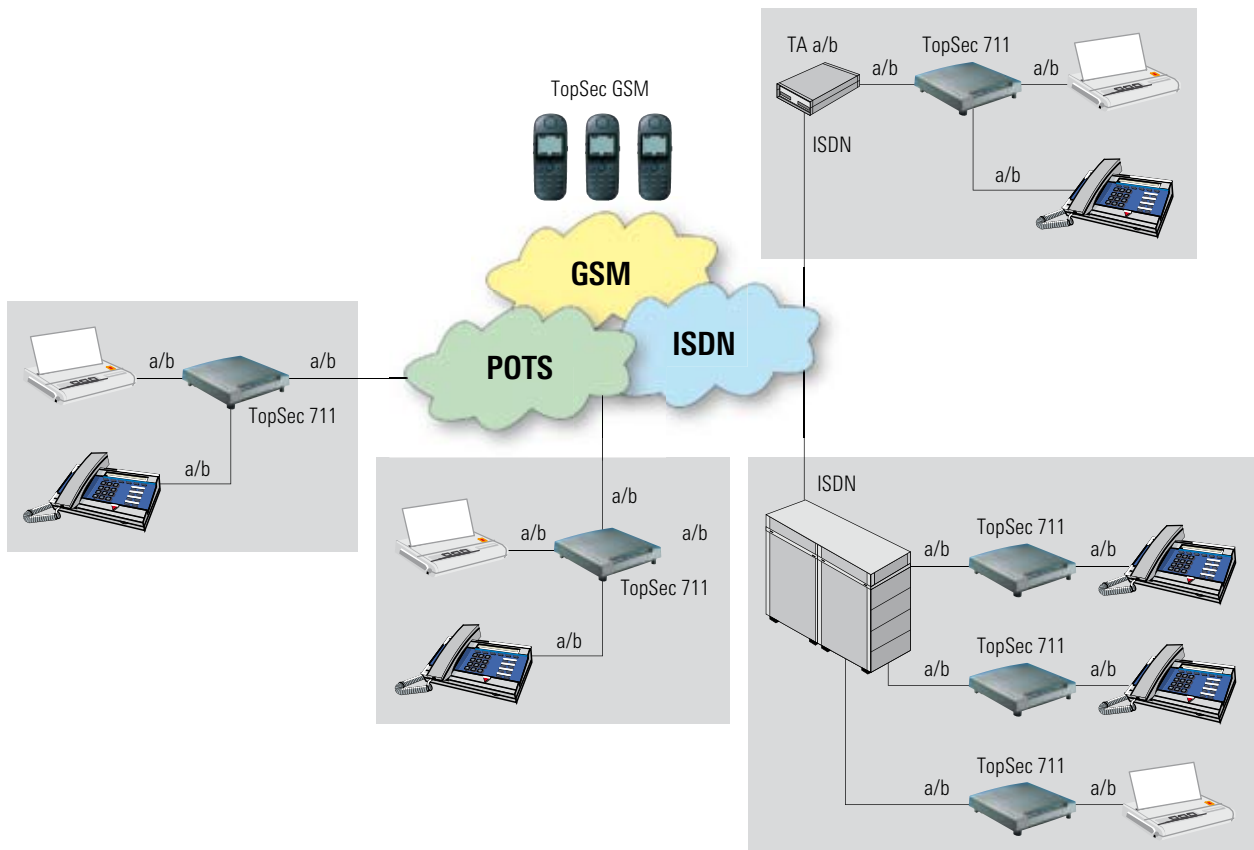
Acknowledging encrypted fax transmission

The TopSec 711 is connected to the fax machine that will transmit the fax. After the fax has been sent to the partner unit, the TopSec 711 returns an acknowledgement fax to the connected fax machine. The acknowledgement fax contains information confirming that an encrypted fax was transmitted; it also states the specific ID of the TopSec 711 of the called partner unit and, if the connection was encrypted, an authentication code that is unique for each communications link. In addition, it provides information as to whether the fax was saved by the partner TopSec 711.

Intelligent mini-exchange integrated

A fax machine and a telephone can be connected simultaneously to a TopSec 711. When a call comes in, the TopSec 711 automatically recognizes whether the call is intended for the fax machine or for the telephone and connects the call to the appropriate terminal. This applies to both plain and encrypted calls.

Examples of TopSec 711 applications



Specifications

Transmission protocol in encrypted mode	V.29 to fax machines, V.32 to network
Transfer speed	up to 9600 bit/s
Power supply	100 V AC to 240 V AC, 50 Hz to 60 Hz
Connectors	1 × telephone network 1 × terminal device 1 × administrator terminal 1 × power supply
Dimensions (W × H × D)	180 mm × 45 mm × 173 mm (7.1 in × 1.7 in × 6.8 in)

Ordering information

Designation	Order No.
TopSec 711	5400.2450
Adapter set for plug-in power supply	5400.2144



More information at
www.rohde-schwarz.com
(search term: TopSec)



ROHDE & SCHWARZ

www.rohde-schwarz.com

Rohde & Schwarz SIT GmbH · Am Studio 3 · 12489 Berlin · Telefon +49 30 65884-223 · Fax +49 30 65884184
E-Mail: contact@sit.rohde-schwarz.com · www.sit.rohde-schwarz.com