

CSD 4100

Secure Full Featured Telephone

The CSD 4100 is a full featured and highly secure telephone for government applications. It operates in full and half duplex modes, over any public or government switched telephone network, the Inmarsat B and M satellite networks, AMP's cellular networks, as well as radio channels. It is compatible with TCC's secure voice products including the CSD 3600 secure telephone device and the CSD 9300 secure cellular telephone system.

AT&T SURITY™
Encryption Technology

Key Management

The CSD 4100 has a variety of security layers for optimum communications protection. A new key is negotiated each communications session using public key encryption, while TCC's private key system adds message authentication



An authorized crypto ignition key is needed to communicate securely with the CSD 4100.

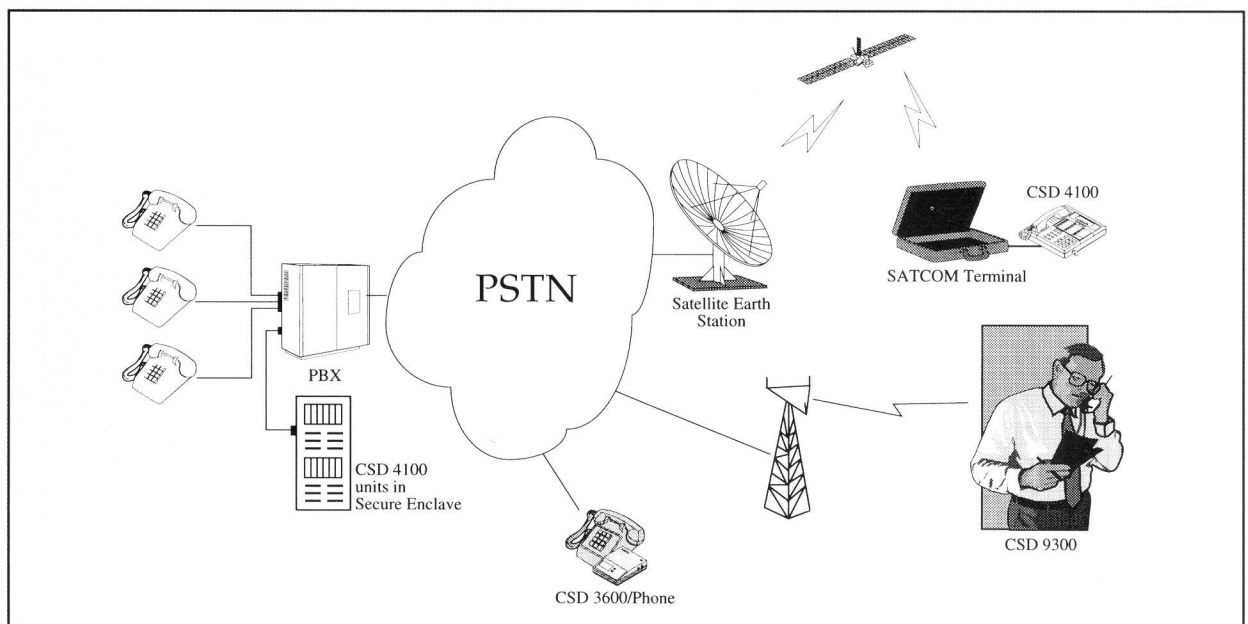
and certification. Complete security is confirmed when the receiving security device is identified and indicates that the intended recipient received the call. An easy to read display also shows if the call is or is not protected.

Key generation, transport, storage and access control are centrally managed at TCC's Windows™-based key management system - the KCA 4000. For optimum security, serial numbers are assigned to each telephone unit and key bank. Only

users with a crypto ignition key matching the serial number programmed into the CSD 4100 can operate the secure unit. Additionally, a secure call can only be established if the sending and receiving devices are authorized to communicate.

Fully Featured

The CSD 4100 has all the telephone features needed by busy executives. Digital encryption for optimum voice quality, a data interface, and a clear/secure speakerphone are a few notable features. A variety of options including, secure video teleconferencing, shared PABX access, conference calls and cellular capability, are also available to meet specific customer requirements.



The CSD 4100 featured secure telephone operates in a shared PABX environment; over telephone, radio, satellite and cellular links; and communicates with TCC's CSD 3600 secure telephone and CSD 9300 secure cellular system.

Secure Enclave

The Secure Enclave allows multiple subscribers on a switch/PABX to share access and operation of a pool of CSD 4100's from their standard telephone without operator intervention. It attaches to the PABX and functions transparently.

Up to twenty CSD 4100's can be shared for secure voice and data communications, and customized voice prompts make it easy to use. Remote CSD 4100's can even communicate in the same secure conference call automatically with the Enclave's secure conferencing bridge.

A Windows-based extensive statistical gathering and reporting system is optional with the Enclave. Using continuous polls the system collects information such as call tracking, unauthorized access and compromised key material, and stores it in a database for the Security Administrator.

Secure conferencing without the Enclave system is achieved with TCC's Secure Conferencing System. A PC-based system, it supports up to sixteen CSD 4100's.

Video Docking Unit

The Video Docking Unit (VDU) turns the CSD 4100 into a secure video telephone without requiring expensive dedicated transmission lines. When attached to the base of the CSD 4100 telephone, it can be used for secure point-to-point videoconferencing at the desktop. When connected to a scanner or external camera, it can transmit high-resolution images in still-frame mode. The images can even be



Secure color motion video conferencing with audio is possible at the desktop.

stored electronically for future use. The VDU supports audio and motion video transmission in the same 9.6 Kbps bandwidth. It has a compact, high resolution color LCD and built in auto-focus camera. For multi-party conferences, it can be connected to a large video monitor and used in conjunction with the built in secure speakerphone.

Cellular Capability

The CSD 4100 is compatible with TCC's lightweight and full featured secure cellular telephone system - the CSD 9300. The same high level security is used in the CSD 9300 as in the CSD 4100 and CSD 3600. As a result, a mix of inter-operational security devices provide wired and wireless communications protection.



The KCA-4000 Windows-based system, centrally manages keys and access control.

Quality

TCC is dedicated to quality products and services. The CSD 4100 was designed by AT&T Bell Laboratories and is supported by TCC's state of the art resources. TCC is ISO 9001 certified. ISO 9001, granted to TCC by TUV, is the most stringent standard available for total quality systems in design/development, production, installation and servicing.



The CSD 9300 cellular system communicates securely with the CSD 4100 phone.

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Technical Specifications

CRYPTOLOGY	AT&T Proprietary DACE algorithm AT&T Bell Laboratories algorithm
KEY MANAGEMENT	Negotiated public key Private key Public key with authentication
SECURITY FEATURES	Auto-answer, auto secure Anti-tamper and zeroize Visual authentication identification Plain text inhibit Secure access control via CIK
EXECUTIVE TELEPHONE FEATURES	Speaker phone On-hook dialing Pulse or tone dialing Last number redial Memory dialing: 32 numbers Programmable pause Dial tone detect Switch hook flash Automatic disconnect Ringer cut-off Handset volume control 2-line by 16 character LCD
DATA RATE	Voice/data: Synchronous/asynchronous 2400, 4800, 9600 bps
VOICE MODES	Clear Voice Secure Voice: 9.6 Kbps full duplex MRCELP 4.8 Kbps full duplex RCELP 4.8 Kbps full duplex CELP 2.4 Kbps full duplex LPC-10e 2.4 Kbps half duplex LPC-10e
INTERFACE	EIA RS-232 data port with 25 pin D-connector RJ-11/RJ-13 telephone jack
POWER	External Power Supply: Selectable, 110/220 VAC Input Frequency: 47-63 Hz Input Power Dissipation: 16 watts
STANDARDS COMPLIANCE	■ FCC Part 15, Subpart J, Class B ■ FCC Part 68 ■ UL 1459 ■ MIL-STD 1472 acoustical noise, curve NC-35 ■ EMC/EMI MIL-STD461C ■ ESD 20 kV

Executive Secure Telephone

ENVIRONMENTAL	Temperature: Operating: -10° C to +40° C Storage: -40° C to +65° C Humidity: Non-condensing 5 to 95%
SIZE AND WEIGHT	Width: 9" (22.86 cm) Depth: 11" (27.96 cm) Height: 3.25" (8.26 cm) Weight: 10 lbs (4.53 kg)

Accessories

SECURE ENCLAVE SYSTEM	PBX/Switch interface - 2 and 4 wire Shared secure telephone access Voice and data support Supports up to 20 channels Automated voice prompts
ENCLAVE PERFORMANCE SYSTEM	On-line call monitoring system Windows-based Statistical reporting
ENCLAVE CONFERENCE BRIDGE	Automated secure teleconferencing Interfaces to the Enclave system
SECURE CONFERENCE SYSTEM	Secure automated teleconferencing DOS-based system Optional interface to Enclave
VIDEO DOCKING UNIT	Desktop secure video conferencing Simultaneous audio and video 9600/4800 bps video only 2400 bps full duplex 256 colors, high resolution 3 to 8 frames per second Image transmission and storage
CELLULAR SECURITY	CSD 9300 cellular system: Secures analog cellular High level security of CSD 3600 Compact/lightweight Complete transportable package
OTHER OPTIONS	■ CSD 4100 cellular system ■ KCA 4000 key management system ■ Multiline (5 lines and hold) ■ Four wire/two line adapter ■ Digital gateway ■ Carrying case ■ Push to talk handset ■ Uninterruptible power supply

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