HSE 6000 Radio Headset & Telephone Encryption

Proven secure voice Land Mobile Radio (LMR), telephone and conferencing communications for public safety & special operations

The small, lightweight, self-powered HSE 6000 radio headset encryptor operates with most radios; connects to corded handset telephones used with VoIP, analog and digital telephone networks; and interoperates with TCC's military secure radio DSP 9000 family. Enabled by X-NCrypt® Cross Network Cryptography, the HSE 6000 provides end-to-end secure voice communications and conferencing across radio and telephone networks.

Secure Radio Tactical Operations

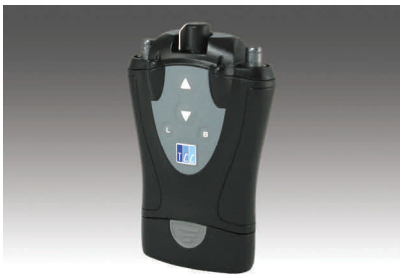
The HSE 6000 radio headset encryptor is designed for the Land Mobile Radio (LMR) applications of public safety and special operations — police, special forces, border control, aircrew on the ground, covert agent and private security.

Universal Radio Encryption

With TCC's universal radio encryption, the HSE 6000 operates with any handheld or squad radio and any headset/handset, such as lapel speaker/microphone, acoustic ear-bud headset, iPod-style headset, helmet headset and throat or boom microphone headset.

Simplicity and Portability

The HSE 6000 is portable with a small, body-worn size that fits in a pocket, and weighs under 0.6 lbs (315 g). It is comfortable to wear and has a long battery life of 12 hours constantly running before needing to be recharged. A quick exchange of the battery pack is easily done in the field. The HSE 6000 is also simple to operate. Users just select the cipher or plain mode switch to speak securely or in the clear, respectively. Key management is user transparent.



HSE 6000 radio headset encryptor

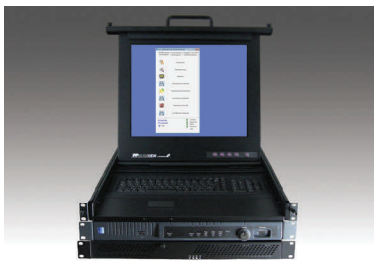
Cryptographic Strength

The same superior-grade security of TCC's military DSP 9000 secure radio solution is provided in the HSE 6000. TCC's Enhanced Domain Transform algorithm is controlled by a highly non-linear digital key stream generator. Tools are available for algorithm customization.

Prior to deployment, the security officer generates keys and interface settings with TCC's Crypto Management System and easily loads them into the HSE 6000 with TCC's SmartModule key fill device. A three-tier keying architecture, together with a randomly generated Initialization Vector, provide a new key stream for encrypting the audio. Additionally, Auto Key Change mode periodically updates the Local Key in use. Downline key indexing automatically sets the receiving HSE 6000's to the correct key.

Benefits

- Proven high-end security
- Provides exceptional recovered voice quality
- Universal encryption works with most radio makes and models, and all frequency bands
- Operates with corded handset telephones used with VoIP, digital and analog telephone networks
- Interoperates with the DSP 9000 military secure radio family
- Enables secure multiparty conferencing across radio and telephone networks
- Cost-effective solution — no equipment changes and seamless network overlay
- Easy to use, deploy, manage



Crypto Management System rack mountable server and security vault

HSE 6000 Radio Headset and Telephone Encryption

HSE 6010 Telephone Interconnect Kit

The HSE 6000 with our Telephone Interconnect Kit (HSE 6010) enables both secure radio to secure telephone communication, and secure telephone-to-telephone communication. It connects to corded handset telephones used with VoIP, analog and digital telephone networks, and is ideal for connecting commanders and government officials to field personnel. It also has secure voice mail. Setting up a secure call with the Telephone Interconnect Kit is easy and takes less than a minute.

DSP 9000 Military Secure Radio Family

DSP 9000 secure radio encryption is available in base station, manpack, radio-embedded, and handset configurations. It uses a digital signal processor to ensure exceptional recovered voice quality and cryptographic security. It is also a universal secure radio encryption solution, operating with most radio makes and models, and seamlessly overlaying on existing voice networks for cost-effective end-to-end security. The DSP 9000 has many years of proven in-use performance around the world, and interoperates with the HSE 6000.

HSE 6000 Technical Specifications

Cryptography
Enhanced Domain Transform algorithm controlled by a non-linear key generator

Key Architecture
Local Key — two independent key banks, 100 each (200 total)
Network Key
System Key
Initialization Vector (IV) — generated in software at each PTT sync actuation

Total Key Diversity
Excluding IV: 1.54×10^{99}
Including IV: 1.01×10^{104}

Self Powered
Rechargeable Li-ion battery pack
Power 12-hour battery life — constant usage
Quick exchange battery pack

Environmental
Operational Temperature -15°C +60°C
Storage Temperature (excluding battery) -40°C to +85°C
Storage Temperature (battery) -20°C to +50°C
Humidity: MIL-STD-810G
Immersion: IEC 60529 IP67
Vibration: MIL-STD-810G
Shock: MIL-STD-810G
EMI: MIL-STD-461F

User Interface
Language independent symbols for connections and buttons
Load and bank select buttons
Battery status indicator
Emergency erase button

Key Fill Device and Port
SmartModule key fill

Accessory: Crypto Management System

Optional: HSE 6010 Telephone Interconnect Kit

X-NCrypt®
Cross Network Cryptography

Enabling Secure Commander's Conferencing with TCC's HSE 6000/DSP 9000 Encryption Family

DSP 9000

Airborne

Vehicle

Naval

DSP 9000 HS

Ground Troops

HSE 6010
Telephone Interconnect Kit

Commander/ Presidency

Travel

HSE 6000

Public Safety, Private Security & Special Operations

Future
HSE 6020

Mobile Phone Support

X-NCrypt Cross Network Cryptography is the revolutionary evolution in the application of TCC's DSP 9000 military radio encryption technology, enabling secure voice communications across radio and telephone networks as well as commander's conferencing.

For more than 50 years, Technical Communications Corporation has specialized in superior-grade secure communications systems and customized solutions, supporting our CipherONE® best-in-class criteria, to protect highly sensitive voice, data and video transmitted over a wide range of networks. Government entities, military agencies and corporate enterprises in over 115 countries have selected TCC's proven security to protect their communications.

Communicate in Confidence

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