







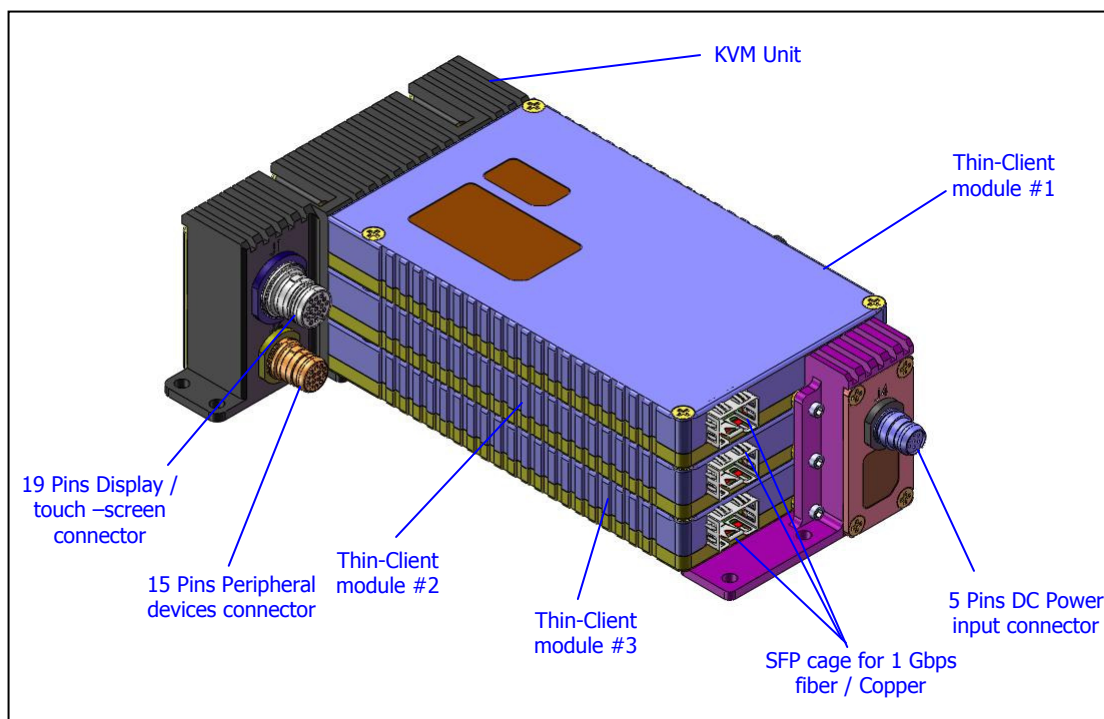
Product Highlights

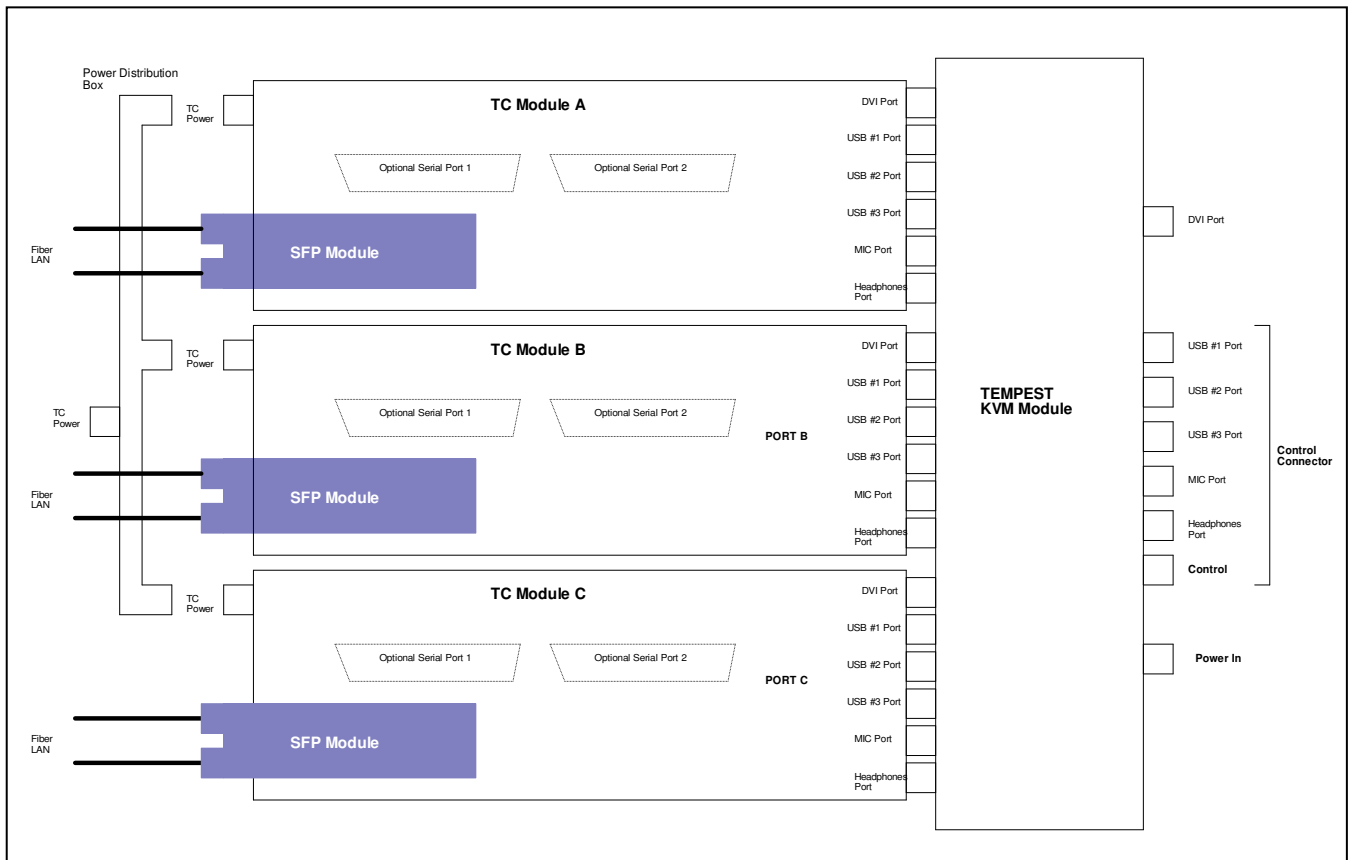
-  **Replaces multiple PCs / Laptops** • a standardize building block that can replace many large PCs and laptops. Ideal user workstation for tactical vehicles. Used on board battle ships and nuclear submarines.
-  **Physical network separation** • 3 identical thin-clients fully isolated. KVM is optically isolated. No leakage possible between networks. Designed to operate between Top Secret and Internet.
-  **TEMPEST** • Product designed to meet the most demanding TEMPEST requirements with built-in anti-tampering and crypto-modules.
-  **Smallest size lowest power** • Provides 90% space saving and 95% power saving compared to existing PCs and KVMs.
-  **Automatic network fallback** • In case of network shutdown or severe damage to the vehicle essential functions can fallback to secondary network. True triple redundancy
-  **Robust** • Designed for 10 years of operation in extreme environmental conditions.

Isolated TEMPEST Clients

The TCM (TEMPEST Thin-Client Module) is a modular package containing powerful engine to drive user's display and peripheral devices coupled to 3 independent and isolated fiber networks.

The TCM combines 3 isolated TEMPEST thin-clients with built-in managed Giga LAN switch, advanced crypto module and anti-tempering, with TEMPEST power supplies and KVM. This modular package typically used to drive a complete user workstation on board tactical vehicles. The TCM is fully manageable by 3 independent Xcalibur Global management suites enabling full control of devices and users by Active Directory and Group Policy. Thin-client modules designed to operate in latest virtualized desktop environments such as VMware VDI and Citrix VDM.





TCM Specification

General	<ul style="list-style-type: none"> Integrated isolated triple thin-client package 3 x highly isolated thin-client modules TEMPEST KVM for digital video, USB and audio TEMPEST power supply Machined aluminium alloy enclosure
Typical Applications	<ul style="list-style-type: none"> Submarines Battle-ships Aircraft Mobile C4I, Tactical land networks
Thin-Client Modules	<ul style="list-style-type: none"> Advanced RMI MIPS 500 MHz processor Memory 128/256 MB DDR Flash 64/256/512 MB Sandisk mDOC 128-bit 3D graphics acceleration engine with separate 8 MB display memory SDRAM Display support - Up to 1920x1200 pixels (Reduced Blank) @ 64K (16 bit) colors 3 USB 1.1 ports, 1 DVI video out port, 2 PS/2 ports [Optional] AC-97 Audio CODEC, Audio in (MIC), Audio Out (stereo) 4 x serial COM ports [Optional] Integrated Layer-2 managed Giga LAN switch SFP Giga fiber-optic interface (accepts copper modules) Reset and Zeroing push-button switches Operating system – Microsoft Windows CE 6.0 [Linux Optional] Local applications – RDP, ICA, VDI, VDM Clients, IE Browser, Media-Player, Terminal Emulations TEMPEST filter and isolated power supply
Anti-Tampering [Optional]	<ul style="list-style-type: none"> Non-imprinting memory key-holder Emergency delete of firmware and crypto keys Large number of sensors including mechanical integrity and temperature

	<ul style="list-style-type: none"> 3 years of events logging FIPS 140-2 certified Battery powered zeroing switch
KVM	<ul style="list-style-type: none"> Supporting 3 isolated channels of DVI, USB and Audio in/out. Video resolution up to HD Accepts switching commands from external switches TEMPEST filter and isolated power supply Direct USB channel for user authentication (smart-card reader / biometric) Display and peripheral connectors – 15 and 19 pin Amphenol SCE series connector [Other connector options available]
Crypto Modules	<ul style="list-style-type: none"> Type – SafeNet 1740, Supports SafeNet CGX™ Cryptographic Library 128 / 256 AES, DES, 3DES, AES, ARC4, SSL in hardware ECC acceleration Non-deterministic random number generator
Power	<ul style="list-style-type: none"> Power input 24VDC, 1A maximum Power consumption – working mode – 5.5W , Sleep Mode - 0.35W Power connector – 5 pin Amphenol SCE series connector [Other connector options available]
Regulatory Compliance	<ul style="list-style-type: none"> Safety: UL/cUL60950, EN60 950 EMI/EMC: FCC Class B, CE Mark, EN55022B, VCCI
Security Accreditations	<ul style="list-style-type: none"> Common Criteria EAL-6 approval TEMPEST NATO AMSG 720B DEF-STAN
Standard Warranty	1 year
Physical Characteristics	<ul style="list-style-type: none"> Dimensions: 130(W) x 191(D) x 52(H) mm / 5.11 (W) x 7.52(D) x 2.05(H) inch Device weight: 1.0 Kg. (2.2 lbs.) Shipping Weight: 2.0 Kg. (4.4 lbs.) Full Epoxy encapsulation [Optional]
Environmental	<ul style="list-style-type: none"> MIL-STD-810 Temperature range: Operating – 0°C to 40°C (32°F to 104°F); Storage - -20°C to 60°C (-4°F to 140°F) Humidity: Operating - 20 to 80% non condensing; Storage – 10 to 90% non condensing Altitude: 0 to 20,000 ft EMI – MIL-STD-461E

- Specifications are subjected to change without prior notice
- Multiple patents pending