

Trusted Systems™ Product Data Sheet

TEMPEST Information Processing System (TIPS) Security Container

- **GSA/NSA Approved Class 5 Security Container with High Performance TEMPEST Shielded Enclosure**
- **Combines Physical & Emanation Security into One Integrated Solution, Enhancing Accountability**
- **For On-Line, Unattended, Closed Door Operation Enabling Secured 24/7 Network Availability**
- **Configuration Flexibility Tailored to Equipment & Facility Requirements with Transportable Modularity**
- **Closed Loop Climate Control with Optional Air Conditioning, Contaminant & Maintenance Free**
- **Self-Contained TEMPEST Shielded Enclosure on Removable Service Tracks For Easy Access**
- **Cost Effective Alternative to SCIFs, Vaults, or Strong Rooms, A “SCIF in a Box”™ Turnkey Solution**

Trusted Systems has joined forces with ETS Lindgren to produce the first Full TEMPEST Information Processing System (TIPS) Security Container for high threat classified applications. It combines the superior physical strength of a GSA Class 5 security container with the highest performance shielding available in a TEMPEST enclosure. The TIPS Container integrates physical and TEMPEST protection to maintain configuration flexibility, regardless of changes in hardware, technology or security landscape. Three models are offered: TIPS281 (8U), TIPS521 (21U) & TIPS621 (28U) with varying depths from 45” to 76” depending on cooling method and size of equipment. This offers configuration flexibility tailored to equipment and facility requirements without the expense and restrictions imposed by SCIFs, vaults, or strong rooms.

Applications From an operational perspective, the TIPS Container enables secured 24/7 on-line network availability. At critical high threat sites or at lock-and-leave posts, unattended network operations are now possible. Increasing dependence on distributed networks for global communications mandates a modular, self-contained distributed security solution. The TIPS Container is just such a solution, a one time investment, with transportable modularity without any compromise to security.



Model TIPS621 TEMPEST Security Container

Furthermore, it frees the user from performance constraints of TEMPEST hardware while staying current with technology with more competitively priced COTS equipment. Excessive maintenance costs, especially for overseas operations, can be substantially reduced.

The design flexibility and scalability of the TIPS Container makes it ideal for securing everything from single users, to communication nodes, to server farms, to blade clusters, to thin clients, to messaging systems, to high performance computing worldwide, in multinational and MLS environments.

Construction The TIPS Container is constructed as two autonomous enclosures, one within the other. This isolates the security functions to maximize performance while simplifying installation and operations. The outer container offers full GSA Class 5 physical protection with its electronic lock and armored hardplate. To this Trusted Systems has added closed loop high performance cooling in the form of a heat exchanger that extracts heat (from 4,000 to 12,000 Btu/Hr) without polluting the interior space with dust, dirt, moisture, smoke, chemicals or other contaminants from the outside air. The heat exchanger can be replaced internally, or augmented externally, with an air conditioner custom engineered to suit facility and equipment heat load requirements where climate control is limited or nonexistent.

Two universal cable box portals, one black, one red, for separation, are mounted to the inside rear wall of the TIPS Container to secure routing of data and power cables to the TEMPEST Enclosure. Cable bundles are controlled by return reels when the TEMPEST Enclosure is rolled in and out. A power strip is provided for connecting the cooling devices and the TEMPEST Enclosure RF power filter to the power source. A PDS junction box is installed on the outside over the red cable access portal for conduit termination.

The TEMPEST Enclosure is a stand-alone module designed to maximize usable space. Referring to the picture at the right, the enclosure is constructed of 24 ounce copper shielding applied to a plywood core frame, soldered at all seams. The front is accessible by a dual finger-stock RF door with over center draw latches. It has a removable left side panel for added equipment and cable access. The RF power filter, Earth ground stud and brass bulkhead I/O connector panel are mounted on the rear of the enclosure. Shielded wave guide air vents are mounted front and rear, augmented by a bank of exhaust fans, to facilitate air flow for equipment cooling.



A 19" rack mount assembly has been mounted inside the TEMPEST Enclosure with fixed vertical rails, front and rear for equipment installation (8U to 27U of rack space depending on the size of the TIPS Container). The TEMPEST Enclosure retracts in and out using removable service tracks for installation and maintenance.

Options The I/O connector panel is removable for upgrading the mix of RF data filters as configurations change. KVM and EtherNet gateways and switches are available as options to facilitate secured external access to desktop peripherals. The TIPS Container has an optional caster base for mobility and spreader plates for dissipating floor loads if necessary. An IP addressable monitoring system is optional for remote sensing of power, environmental & door position when unattended. When in manned office spaces, acoustical ear muffs are also optional for reducing fan noise levels in the TIPS Container.

Installation & Operation Removal of the bottom retainer plate securing the TEMPEST Enclosure to the base of the container allows attachment of two service tracks with screws provided. The enclosure can now be rolled out of the container and secured to the stop at the end of the service track. Removal of the left side panel exposes the interior for cabling and rack mounting of equipment. The container's heat exchanger has been installed at the factory with DC fans on a universal switching power supply. The cooling fans mounted to the rear of the TEMPEST Enclosure have the same setup. Both cooling power connectors must be plugged into the same source as the RF power filter if UPSs are employed.

The brass I/O panel can accommodate copper data filters or fiber barrel wave guides to allow feeding of fiber with the connectors attached. Connectors need not be removed for threading through either cable box portal as well, and no tools are needed for opening or closing. Once installed, all cable service lengths can be bundled and attached to the appropriate red or black cable return reel. After rolling the enclosure back inside, the service tracks can be removed, the bottom retainer plate remounted. Store service tracks in a safe location for future use.

Performance All TIPS Container models meet or exceed the GSA Class 5 Federal Specification AA-F-2786 for physical security containers. The TEMPEST Enclosure meets or exceeds the NSA TEMPEST Specification 94-106 as shown on the chart to the left, verified by an independent government test facility.

PHYSICAL SPECIFICATIONS

Model:	TIPS281	TIPS521	TIPS621
<u>Empty Weight (lbs)</u>			
IPS Container:	1,255	2,055	2,415
TEMPEST Enclosure:	117	210	261
<u>Dimensions – HxWxD (Inches)</u>			
IPS Container			
Outside:	28x30x52	52x30x60	62x30x64
Door Opening:	25½x19¼	48½x24¼	60½x24¼
TEMPEST Enclosure			
Outside:	25x23x28	45x23x39	55x23x42
Door Opening:	21x19½	41x19½	51x19½
Left Side Panel:	16x21	36x31	46x34
Usable Depth:	23	34	37
Usable Rack Space:	8U	21U	28U
Service Track Extension:	43	67	67

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