

Trusted Systems™ Product Data Sheet

Standalone TEMPEST Shielded Enclosures For Rack Mounted Electronic Equipment

- **High Performance TEMPEST Shielded Enclosure for Shielding Non-TEMPEST Rack Mounted Electronics**
- **Emission Security Integrated into a Self-Contained Computer Cabinet with RF Power Filtering**
- **For On-Line, Closed Door Operation Enabling Emission Free, 24/7 Network Availability**
- **Configuration Flexibility Tailored to Equipment & Facility Requirements with Transportable Modularity**
- **Forced Air Climate Control with Shielded Waveguide Air Vents Front and Back**
- **Removable Left Side Panel for Equipment & Cabling Access During Installation & Maintenance**
- **Removable I/O Data Filter Panel User Configurable**
- **Cost Effective Alternative or Enhancement to SCIFs, Vaults, or Strong Rooms, A “SCIF in a Box”™**



Model TSL451 TEMPEST Enclosure

Trusted Systems has joined forces with ETS Lindgren to produce the first Full TEMPEST shielded enclosure for high threat classified applications. This “SCIF in a Box” solution is a paradigm shift in addressing how to provide emanation security for electronic equipment. Formerly, each device was secured individually by signature specific countermeasures, very time consuming and expensive, retarding its ability to stay abreast of technology. The Trusted Systems TEMPEST Enclosure is a broadband solution securing a rack rather than a piece of equipment. Any combination of equipment can be shielded, whether COTS, zoned, or TEMPEST shielded. This enables complete configuration flexibility, regardless of changes in hardware or technology.

Four models are offered in varying heights and depths to tailor the size to the equipment load: TSL251 (8U), TSL451 (21U), TSL551 (27U), and TSL851 (42U). Depths can vary from 28” to 42” depending on size of equipment. This offers a compact alternative to build outs tailored to equipment and facility requirements without the expense and restrictions imposed by SCIFs, vaults, or strong rooms.

Applications From an operational perspective, the Trusted Systems TEMPEST Enclosure enables secured 24/7 on-line network availability. Increasing dependence on distributed networks for global communications mandates a modular, self-contained distributed security solution. The Trusted Systems TEMPEST Enclosure is just such a solution, a one time investment, with transportable modularity without any compromise to security and reconfigurable to eliminate obsolescence. 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 Trusted Systems TEMPEST Enclosure makes it ideal for securing single users, communication nodes, radios, laptops, servers, blade clusters, thin clients, or high performance computers worldwide.

Construction The TEMPEST Enclosure is a stand-alone module 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 removable 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 42U of rack space).

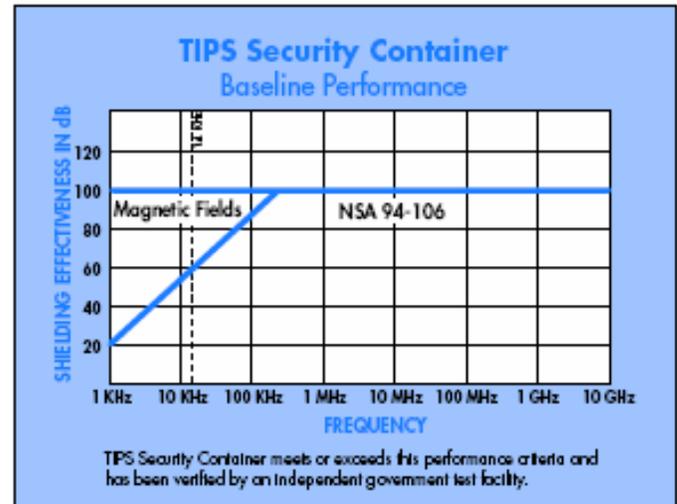
Options The brass I/O connector panel is removable for upgrading the mix of RF data filters. When using fiber, optional fiber barrel waveguides are offered to securely pass through fiber connections to the outside world. The fiber barrel waveguides allow pass through of cables without removing connectors when its center core is removed. They come in 6 or 12 barrel sizes. Additional copper data filters are available for equipment interfaces such as DB25s, Cat5/6 EtherNet, or N-type antenna cable.

Installation & Operation The TEMPEST Enclosure is fully self contained with its own RF power filter, forced air ventilation system, and rack mount assembly. The RF power filter is integrated with a power strip for distribution of filtered power inside the TEMPEST Enclosure and is universal to any power grid worldwide with the installation of the appropriate country plugs. The cooling fan array mounted to the rear of the TEMPEST Enclosure uses from two to four 24VDC 300cfm fans that are powered through a switching power supply that has a universal AC input. The number is dependent on the size of the enclosure: two for the TSL251, three for the TSL451 and TSL551, and four for the TSL851.



Enclosure Rear View

Performance The TEMPEST Enclosure meets or exceeds the NSA TEMPEST Specification 94-106 as per the chart below, verified by an independent government test facility.



TEMPEST Enclosure Interior

PHYSICAL SPECIFICATIONS

Model:	<u>TSL251</u>	<u>TSL451</u>	<u>TSL551</u>	<u>TSL851</u>
<u>Empty Weight</u>				
In lbs:	117	210	261	397
<u>Dimensions</u>				
HxWxD in Inches				
Outside:	25x23x28	45x23x39	55x23x42	85x23x42
Door Opening:	21x19½	41x19½	51x19½	81x19½
Left Side Panel:	16x21	36x31	47x34	77x34
Usable Depth:	23	34	37	37
Rack Space:	8U	21U	27U	42U

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Trusted Systems, Inc.
 86 York Street, Suite #3
 Taneytown, MD 21787 USA
 Toll Free: (800) 414-4203
 Website: www.trustedsys.com