

High-Performance RFI Attenuation for Secure Environments

Tempest Shielded Rack Cabinet

Width 600 or 800mm

Depth 600, 800, 1000, 1200mm



Product overview

Deckro offers an extensive range of shielded racks, cabinets, and custom enclosures, delivering exceptional RFI attenuation combined with advanced design and security features. The standard product range is based on a modular design, ensuring expedited lead times, with all cabinets customizable to meet specific requirements.

Their enclosures provide a minimum of 60dB attenuation of radiated emissions within the range of 100kHz to 1GHz, ensuring compliance with low emission standards. When subjected to appropriate testing and certification as a complete configuration, these products support the deployment of Commercial-Off-The-Shelf (COTS) equipment in TEMPEST applications.

Deckro's solutions include both standard and customized options, enabling the seamless integration of a wide array of unmodified equipment into TEMPEST environments. These products cater to both permanent installations and rapid deployment scenarios, making them ideal for use in secure office computer rooms, utilities control rooms, network operations centers (NOCs), emergency response situations, and data centers. Additionally, smaller, mobility-focused cabinets can be equipped with transport cases for enhanced portability.

This combination of performance, customization, and adaptability highlights Deckro's commitment to meeting the diverse needs of secure and specialized environments.

Specifications

Dimension								
Height	U	12	18	22	24	26	36	42
Height	mm	714	980	1158	1246	1420	1865	2132
Width	mm	600/800	600/800	600/800	600/800	600/800	600/800	600/800
Depth	mm	600	600	600	600	600	600	600
		800	800	800	800	800	800	800
		1000	1000	1000	1000	1000	1000	1000
		1200	1200	1200	1200	1200	1200	1200

Key Feature	
High RFI Attenuation	High RFI Attenuation: Minimum 60 dB shielding effectiveness from 100 kHz to 1 GHz, ensuring low emission levels for secure operations.
TEMPEST Compatibility	Supports deployment of COTS equipment in TEMPEST environments, subject to full system certification and testing.
Custom Design Flexibility	Tailored enclosures available for unique applications or non-standard hardware
Modular Design	Enables short lead times, fast configuration, and scalable solutions.
Security Integration	Designed to accommodate enhanced locking systems, access control, and other physical security features.

Shielding Performance	
Shielding Effectiveness	≥60 dB attenuation from 100 kHz to 1 GHz as standard; higher attenuation levels available upon request.
Construction	All-metal body with conductive seams, treated and coated for environmental durability.
Gasket Solutions	Conductive EMI gaskets ensure continuous shielding across doors and panel interfaces.
Penetration Control	Filtered power, signal, and fiber optic feedthroughs available to maintain shielding integrity.

Standards & Certifications (Upon Request)

TEMPEST	Certification-ready systems designed to meet NATO SDIP-27/2, SDIP-28, and other agency-specific criteria.
EMC	Built according to MIL-STD-285, IEEE 299, DEF STAN 59-188, or customer-specified shielding standards.
CE, RoHS, REACH:	All materials and components comply with applicable European directives.
Custom Compliance	Deckro works closely with client-appointed laboratories for project-specific certification and qualification testing.

General

Colour	All cabinets are available RAL9005 (Black) and RAL7035 (Light grey) and are also available RAL7032 (Pebble Grey)
Load capacity	kg 1000kg / 2204lbs load capacity
IP Grade	Standard IP42 protection class according to IEC297-1 - EN60529 Alternative IP55 or IP66 when doors, bottom plate, top covers and roof applied
Materials	Sheet Steel, DIN EN 10130-99 / DC-01 6112 / DC-7122
Earthing	Fully earthed with central earthing point According to EN 61587-1 / EN 61010-1
Construction	Monoblock frame design Solid welded construction 2.0, 1.5, 1.0 mm zinc-plated and sheet steel Alternative Stainless-Steel

Performance

Electrostatic Powder Paint	ISO 9001:2015 ASTM D523; ASTM D2794; DIN EN ISO 2811-1; ASTM D1186/D1400;
Climatic Performance	Cold (IEC 60068-2-1 :2007;Ab) Temperature of the exposure: -25°C +/-3°C Dry heat (IEC 60068-2-2 :2007;Bd) Temperature of the exposure: +70°C +/-2°C Damp heat cyclic (IEC 60068-2-30:2005;Db; (cyclic 2x), variant 2)
Industrial Atmosphere	Salt mist test IEC 60068-2-11 Salt Spray Test TS EN ISO 9227

Mechanical Impact Resistance	EN/IEC 62262 - IK07 Mechanical Impact Resistance
Protection Performance	EN/IEC 60529 – IP41 Ingress Protection performance
Mechanical Performance	EN 61587-1 5.2.1 / 5.2.3 Static mechanical load test (Performance level SL 12) Stiffness test (Performance level ST5) Shock test (IEC 60068-2-27:Ea; 1987) Performance level DL4S Impact test (IEC 60068-2-75:Eh; 2014) (Performance level IK07)
Standards	ISO9001 Management system ISO 14001 Environmental Management System ISO45001 The Occupational Health and Safety Management System
Compliance	RoHS compliancy %100 Recyclable Material CE conform to EN 60950-1 Information Technology Equipment, Safety, Part-1: General Requirement and EN IEC 62368-1 Audio/Video, Information and Communication Technology Equipment Part 1: Safety requirements
Mechanical Structures	According to EN 61587-1 Mechanical Structures for Electronic Equipment EN IEC 60297, 19" Mounting EN IEC 60917 Overall Cabinet Dimensions
Connection Elements (Bolt, Nuts, Washer)	DIN 7985, DIN 965, DIN 7981 , DIN 934 , DIN 985 , DIN 933 , RoHS

General Standards

ANSI/EIA-310-E	Electronic Industries Association standard for horizontal spacing, vertical hole spacing, rack opening and front panel width
DIN 41494 Part 1 & 7	Panel Mounting Racks for Electronics Equipment's; Racks and Panels, Dimensions; Dimensions of cabinets and suites of racks
BS EN 60297-3-100:2009	Mechanical structures for electronic equipment. Dimensions of mechanical structures of the 482,6 mm (19inc) series. Basic dimensions of front panels, sub racks, chassis, racks and cabinets

Industries Alliance	According to ETSI or EIA Standards EIA-310-D, EIA/ECA-310-D EIA/ECA-310-E 19" = 482,6 mm RU or U= 44,45 mm Height
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Product Specifications

Frame	Monobloc Frame Design Solid Welded Construction 2.0, 1.5, 1.2, 1.0mm Zinc-Plated and Sheet Steel
Finishing	High resistance against external impacts. Electrostatic RAL9005 black powder coating or RAL7035 light grey powder coating or RAL7032 grey powder coating (ISO 9001:2015)
Front door	• Standard single-opening front door installation • Locking Mechanism: Equipped with a swivel arm lock for enhanced security
Rear Door	Standard solid metal rear panel installation
19" Mounting Rail	• 4 pieces and adjustable along the entire depth of the cabinet and thickness 1.5mm, silk screened. • There are "U Marks" from top to bottom and from bottom to top for easy device installation, the structure of the mounting rails is manufactured as 1U=44.45 with 9.5x9.5mm square holes with +/- 0.01 precision on CNC punch machines
Grounding	All metal components in the cabin shall be electrically connected and grounded in accordance with IEC 61010-1 / 6.5.1.3. The maximum grounding resistance is 0.1 ohm.
Side Panels	Steel, power coated side panels
Top panel	• Ventilation Compatibility: Dedicated opening for a ventilation unit • Efficient Cooling: Supports 2 or 4-fan modules with a thermostat controller • Optimized Cable Management
Bottom Panel	Cable Management: Integrated cable entrance for organized routing
Locking Systems	Multi-point mechanical or electronic locking systems available, including options for integration with facility access control.

Cooling Options	Shielded ventilation systems (forced or passive), air-to-air or air-to-liquid heat exchangers, and climate control units designed to maintain thermal performance without compromising shielding.
Grounding & Bonding	All enclosures include dedicated grounding points and bonding kits for integration into facility earth systems.
Cable Entry Management	Waveguides below cutoff and filtered entry points ensure secure and shielded cable routing.
Internal Configuration	Fully customizable 19" mounting systems, equipment trays, power distribution, and cable management solutions.

Optional Features and System Enhancements

Power Management	• Integrated UPS Power Protection: Ensures continuous operation during power interruptions • Power Distribution and Circuit Protection: Modular PDU configurations with built-in overload protection • Remote (IP) Equipment Power Shutdown: Secure, network-controlled power management for connected systems
Safety and Environmental Controls	• Automatic Fire Extinguishing System: In-rack or in-room systems using clean agent or inert gas • Environmental Monitoring and Remote Reporting: Real-time alerts for temperature, humidity, smoke, and door access • Temperature-Controlled Fans: Adaptive cooling for thermal efficiency and noise reduction • Dust Filters: Replaceable high-efficiency filters to protect internal components from contamination
Wooden Packing Crate	Heavy-duty protection for international shipping and long-term storage
Removable Eye-Bolt Lift Options	Secure lifting points for transport and deployment flexibility