RiT Technologies Ltd.
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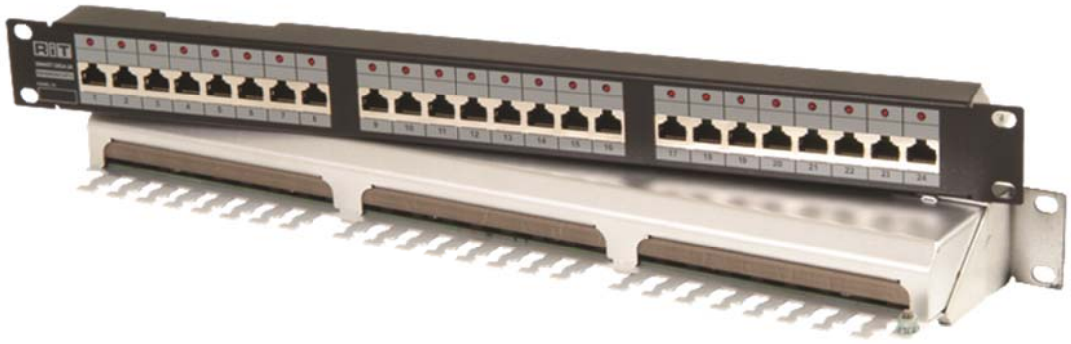
SMART Giga 24
Patch Panels (Vertical) -
Features



- Simple labor saving assembly and installation
- Excellent provisions for terminating shielded cables
- Sealed casing for superior EMI/RFI protection
- Conform to ANSI/TIA/EIA-568-B.2, ISO/IEC 11801 2nd edition (2002) and CENELEC EN50173 (2002) for Category 5e/Class D
- Models for STP or UTP cabling systems
- Two cable termination options: eight-position 110 blocks or Krone blocks
- Compatible with 22-26 AWG solid or stranded wire cables
- Provisions for cable routing and clamping with T-shaped anchors and cable-ties at the rear
- Special grounding channels for improved cable grounding
- High durability and reliability
- PatchView and non-PatchView options

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SMART Giga 24
Patch Panels (Vertical) -
Features

SMART-Giga™

SMART-Giga 24™ Patch Panels are part of the RiT SMART-Giga Cabling System™, featuring enhanced Category 5 performance. The system is designed to support protocols running at up to 1000 Mbps, such as ATM 622 Mbps and Gigabit Ethernet.

PatchView™ Capability

- Special SMART-Giga 24 model, when used in conjunction with RiT's PatchView System, are able to scan the wiring center configuration and subsequently report the connectivity status
- Patching information is displayed on the management station for cabling management applications
- LED indicators on panels identify any two ports patched together. Extremely useful for facilitating maintenance in mid-to-large size wiring centers which are over congested with patch cords
- Computerized LED displays guide the technician in performing Moves, Adds and Changes (MACs)

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SMART Giga 24
Patch Panels (Vertical) -
Description

The RiT SMART-Giga 24 line of data communications patch panels is the ultimate solution for cross-connect equipment in today's high performance computing environment. The panels are optimized for ease of assembly and installation, resulting in significantly lower labor costs. A unique assembly fixture is available for supporting the panel during assembly.

Special provisions were made for simplifying termination of shielded cables and for completely sealing the metal casing in order to achieve superior EMI/RFI performance.
SMART-Giga 24 features a large variety of models which cover many different applications and customer requirements, including modern voice systems.

With the ever increasing need for faster data transmission rates, these panels minimize cross-talk and insertion-loss.

SMART-Giga 24 patch panels conform to ANSI/TIA/EIA-568-B.2, ISO/IEC 11801 2nd edition (2002) and CENELEC EN50173 (2002) for Category 5e/Class D, and are designed for high-speed protocols such as ATM 622 Mbps and Gigabit-Ethernet 1000 Mbps. SMART-Giga 24 and SMART 24 panels are available in shielded or unshielded models and in a variety of cable interconnection options.

Special SMART-Giga 24 model, when used in conjunction with RiT's PatchView system, are able to perform remote or on-site scanning of the patching configuration. The entire wiring center's patching configuration is continuously monitored by a scanner which reports the data to a remote terminal.

The network administrator uses this data as a vital part of his cabling management system. The data may be displayed on the panel itself by LED indicators. Servicing time is dramatically reduced as computerized LED displays guide the technician when performing Moves, Adds and Changes (MACs).

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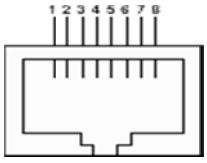
SMART Giga 24
Patch Panels (Vertical) -
Specifications

Interface

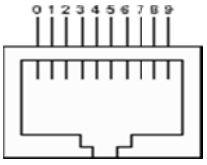
- **Front Interconnection (patch cords side)**
  24 eight or ten-position RJ-45 modular jacks, shielded or unshielded as specified by customer.
- **Back Interconnection (cabling side)**
  Two connector options as specified by customer:
  a. 24 eight-position 110 IDC blocks, accept 22 to 26 AWG wires, solid or stranded. Rated for up to a minimum of 200 re-termination cycles.
  b. 24 eight-position KRONE LSA-PLUS blocks, accept 22 to 26 AWG wires solid or stranded. Rated for up to a minimum of 200 re-termination cycles.

Note: Termination tools must be ordered separately.

SMART-Giga 24



Models with 8-Position
RJ-45 jacks



Models with 10-Position
RJ-45 jacks (for PatchView)

- **Ground Interconnection (in shielded models only)**
  Grounding channels for clamping shielding braids of up to 24 cables, of 5 to 11 mm outer diameter. No special tools required.
- **Cable Routing and Clamping**
  24 T-shaped anchors for clamping cables with cable-ties. 4.8 mm wide ties, such as PANDUIT P/N PLT 2S are recommended. Cable-ties can be ordered from RIT.
- **Interconnection to RIT's PatchView system (in selected models)**
  A 26-pin, 100 mil spacing header on the back of the panel is used for connection to PatchView Scanner. Select Scanner Attachment Cord according to the required length. The scanning signal is transmitted over pin 9 of the RJ-45. Pin 9 exists in special ten-position RJ-45 jack and plug designs used for these patch panel models. A special patch cord - SMART Jumper, including an extra wire and special RJ-45 plugs is needed.

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SMART Giga 24
Patch Panels (Vertical) -
Specifications

SMART GIGA WARRANTY

5e

Electrical Specifications

Category 5e (Applicable for SMART-Giga 24 Patch Panels)

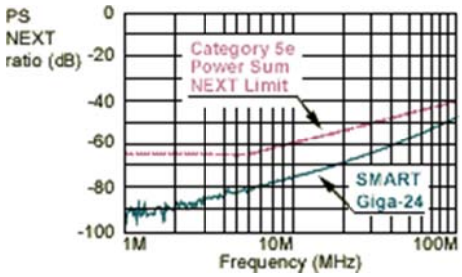
Standard	Performance Requirements	Measurement Procedure
ANSI/TIA/EIA-568-B.2 Transmission Performance Specifications for 4-Pair 100 W Category 5e Cabling	Meets all connecting hardware requirements	Annexes D, E, F and I

Electrical Performance

SMART-Giga 24 Patch Panels

PowerSum NEXT ratio plot is shown for worst pair. The following are typical Power Sum NEXT measurement results at 100 MHz for all pairs.

Pair (to all other pairs)	PowerSum NEXT (dB) 100 MHz
1-2	-52.2
3-6	-51.5
4-5	-47.3
7-8	-48.0



All pairs exceed Category 5e requirements.

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SMART Giga 24
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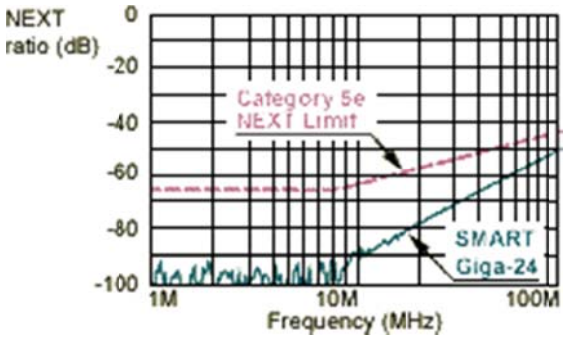
Specifications

NEXT ratio plot is shown for worst pair combination. The following are typical NEXT measurement results at 100 MHz for all pair combinations.

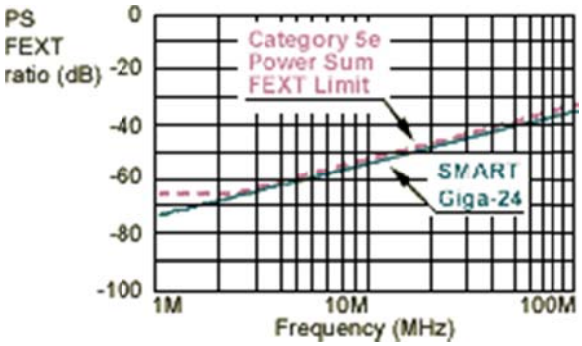
Pair Combination	NEXT (dB) 100 MHz
1-2 & 3-6	-59.1
1-2 & 4-5	-55.5
1-2 & 7-8	-57.0
3-6 & 4-5	-54.5
3-6 & 7-8	-56.8
4-5 & 7-8	-49.3



All pair combinations exceed Category 5e requirements

PowerSum FEXT ratio plot is shown for worst pair. The following are typical Power Sum FEXT measurement results at 100 MHz for all pairs.

Pair (to all other pairs)	PowerSum FEXT (dB) 100 MHz
1-2	-38.8
3-6	-35.0
4-5	-34.0
7-8	-35.9



All pairs exceed Category 5e requirements.

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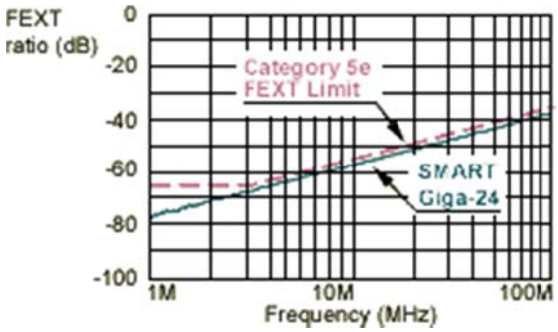
SMART Giga 24
Patch Panels (Vertical) -
Specifications

FEXT ratio plot is shown for worst pair combination. The following are typical FEXT measurement results at 100 MHz for all pair combinations.

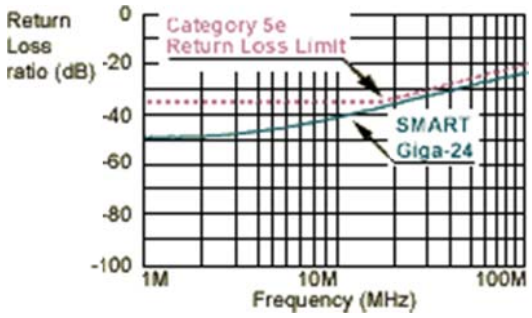
Pair Combination	FEXT (dB) 100 MHz
1-2 & 3-6	-39.0
1-2 & 4-5	-57.9
1-2 & 7-8	-55.4
3-6 & 4-5	-37.9
3-6 & 7-8	-46.0
4-5 & 7-8	-36.4



All pair combinations exceed Category 5e requirements.

Return Loss ratio plot is shown for worst pair. The following are typical Return Loss measurement results at 100 MHz for all pairs.

Pair Combination	Return Loss (dB) 100 MHz
1-2	-27.5
3-6	-34.8
4-5	-27.2
7-8	-23.4



All pair combinations exceed Category 5e requirements.

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SMART Giga 24
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Specifications

General

- **Physical**
  - Height: 44.1 mm / 1.74" (1U)
  - Width: 482.6 mm / 19"
  - Depth: 130.0 mm / 5.11"
  - Weight: 1.2 kg (2.6 lb)

- **Material**
  Aluminum

- **Colors**
  Black background with gray silk screened markings

- **Environment**
  Temperature: -40° to 85°C
  Humidity: 0-90% non-condensing

- **Compliance with International EMC Standards:**
  The SMART Giga 24 line of patch panels is designed to comply with EN-55022, Class B (Europe) and FCC Part 15, Subpart J, Class A (USA)

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SMART Giga 24
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Ordering Information

Number	Description
R3801010	SMART Giga STP Panel, 24, Vertical, 110
R3801020	SMART Giga STP Panel, 24, Vertical, Krone