SMART CLASSix 48 STP Patch Panels (with patching switches)

Features

- Dramatically reduces the need for patch cords in normal use by integrating internal mounted Patching Switches
- A unique innovative technology, for connecting each two vertical ports to each other. Usage of patch cord is only needed for connecting non vertical ports.
- Meets the transfer impedance standard requirement
- Compatible to Shielded Twisted Pairs (STP) cabling systems
- High performance panel that supports Category 6 performance specifications up to 250 MHz
- Conforms to ANSI/TIA/EIA-568-C.2, ISO/IEC 11801 2nd edition (2002) and CENELEC EN50173 (2002) for Category 6/Class E.
- Simple, labor saving assembly and installation using Krone and 110 termination tools
- Enhanced cable retention fixture
- Support 48 ports, using 2U of Rack space
- Compatible with 22-26 AWG Solid or stranded wire cables
- High durability and reliability
- PatchView and non PatchView options

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Features

CLASSix™

RiT SMART CLASSix STP Patch Panels are part of the RiT SMART CLASSix Cabling System™, featuring Category 6 performance. The system is designed to Conforms to ANSI/TIA/EIA-568-C.2, ISO/IEC 11801 2nd edition (2002) and CENELEC EN50173 (2002) for Category 6/Class E.

PatchView™ Capability

- SMART 48 Panels, when used in conjunction with RiT's PatchView System, can scan the wiring center configuration and subsequently report the connectivity status
- Patching information is displayed at the management station for cabling management and control
- 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-display guides the technician in performing Moves, Adds and Changes (MACs)

SMART CLASSix 48 STP Patch Panels (with patching switches)

Description

SMART CLASSix 48 STP Patch Panel offers an innovative high quality patching solution that is made to last. The robust system significantly reduces the need for patch cords while exceeding all Category 6 performance requirements. Provides RiT's worldwide-recognized PatchView™ Technology with a real-time cabling management system. The SMART CLASSix 48 STP Patch Panel conforms to ANSI/TIA/EIA-568-C.2, ISO/IEC 11801 2nd edition (2002) and CENELEC EN50173 (2002) for Category 6/Class E.

SMART CLASSix 48 STP Patch Panels (with patching switches)

Specifications

Interface

- **Front Interconnection (patch cord side)**
  48 eight-position or nine-position RJ-45 shielded modular jacks. Use of patch cords with RiT CLASSix RJ-45 plugs is recommended.

- **Back Interconnection (cabling side)**
  48 eight-position Krone & 110 tool-compatible 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.

- **Interconnection to RiT's PatchView system**

  - **PVMax Panels -** Two 14-pin headers on the back of the panel are used for connection to the PVMax Scanner. Use one Scanner Attachment Cord according to the required length

  - The scanning signal is transmitted over pin 9 of the RJ-45. Pin 9 exists in nine-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. Please refer to the PatchView System and the Copper Cables and Cords sections for further details.

  - **Patching Switches**
    24 Patching Switches for internal inside patching. When patch cord is not inserted – each two upper and lower ports are connected. When patch cord is inserted - upper and lower ports are disconnected. Eight wires and the ninth scanning wire of each port are simultaneously switched.

- **Indicators (in models adapted to PatchView only)**
  Port identification indicators - 48 red LEDs. A pair of activated LEDs identifies connected ports. A single port can be identified and the corresponding LED activated by a remote control command from the network management station.

SMART CLASSix 48 STP Patch Panels (with patching switches)

Specifications

Electrical Specifications
Category 6

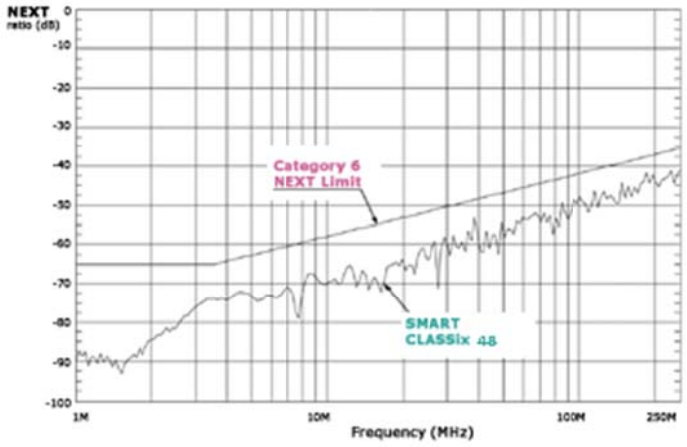
Conforms to ANSI/TIA/EIA-568-C.2, ISO/IEC 11801 2nd edition (2002) and CENELEC EN50173 (2002) for Category 6/Class E.

Electrical Specifications

SMART CLASSix 48 STP Patch Panel (with patching switches)

NEXT ratio plot is shown for worst pair combination. The following are typical NEXT measurement results at 100, 200 and 250 MHz for all pair combinations.

Pairs	NEXT (dB)		
	100 MHz	200 MHz	250 MHz
12-36	-60.21	-48	-48.67
12-45	-51.29	-46.62	-44.31
12-78	-60.39	-51.19	-47.2
36-45	-53.6	-49.05	-42.3
36-78	-51.77	-46.44	-46.32
45-78	-47.82	-44.15	-41.07



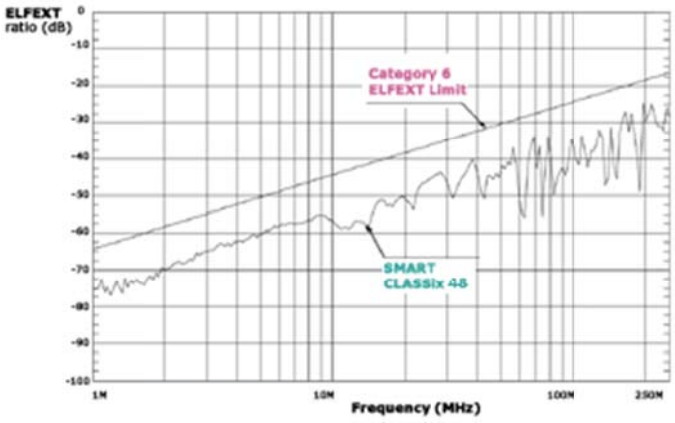
All pairs combinations exceed Category 6 requirements.

SMART CLASSix 48 STP Patch Panels (with patching switches)

Specifications

ELFEXT ratio plot is shown for worst pair combination. The following are typical ELFEXT measurement results at 100, 200 and 250 MHz for all pair combinations.

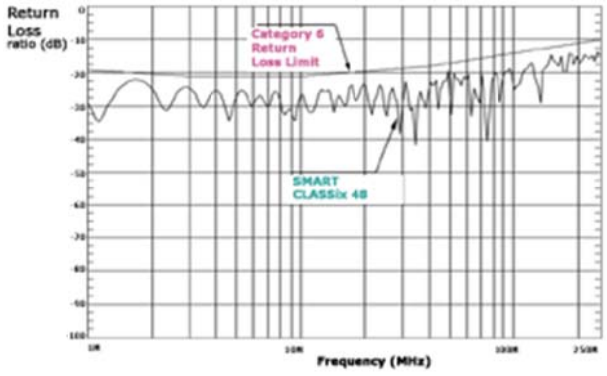
Pairs	ELFEXT (dB)		
	100 MHz	200 MHz	250 MHz
12-36	-41.78	-32.95	-31.64
12-45	-40.55	-41.41	-28.51
12-78	-52.65	-24.51	-28.27
36-45	-36.5	-29.54	-28.16
36-78	-42.06	-36.24	-31.04
45-78	-43.51	-34.96	-35.15



All pair combinations exceed Category 6 requirements.

Return Loss ratio plot is shown for worst pair. The following are typical Return Loss measurement results at 100, 200 and 250 MHz for all pairs.

Pairs	Return Loss (dB)		
	100 MHz	200 MHz	250 MHz
1-2	-21.44	-16.66	-14.62
3-6	-19.62	-17.39	-15.98
4-5	-21.35	-16.38	-14.96
7-8	-18.71	-14.95	-13.61



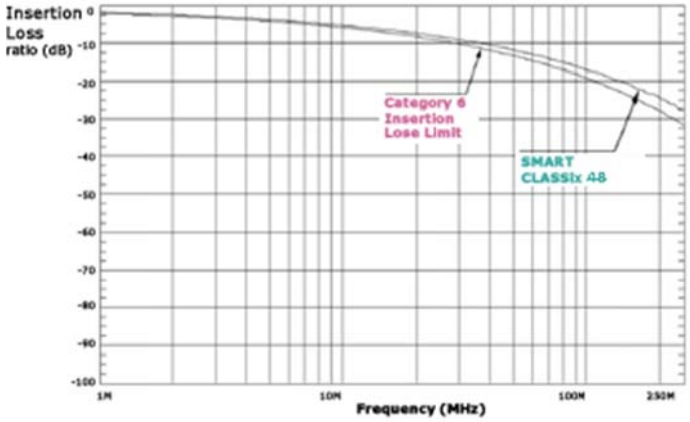
All pairs exceed Category 6 requirements

SMART CLASSix 48 STP Patch Panels (with patching switches)

Specifications

Insertion Loss ratio plot is shown for worst pair. The following are typical Insertion Loss measurement results at 100, 200 and 250 MHz for all pairs.

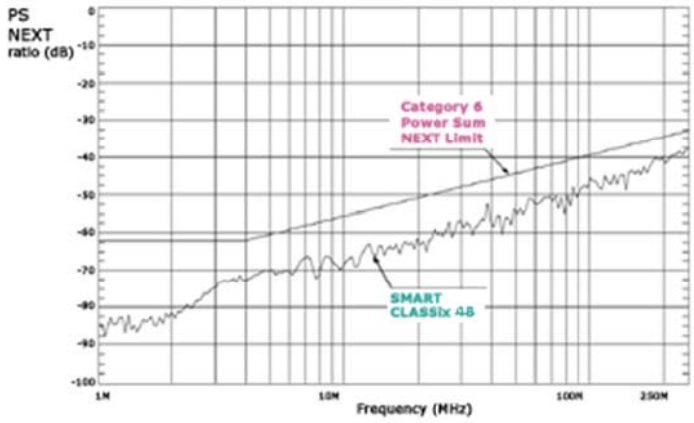
Pairs	Insertion Loss (dB)		
	100 MHz	200 MHz	250 MHz
1-2	-16.07	-23.34	-25.76
3-6	-16.95	-24.32	-27.44
4-5	-16.88	-24.46	-27.16
7-8	-15.57	-22.42	-26.17



All pairs exceed Category 6 requirements.

Power Sum NEXT ratio plot is shown for worst pair combination. The following are typical Power Sum NEXT measurement results at 100, 200 and 250 MHz for all pair combinations.

Pairs	Power Sum NEXT (dB)		
	100 MHz	200 MHz	250 MHz
1-2	-50.31	-44.47	-41.57
3-6	-49.22	-43.82	-40.19
4-5	-45.48	-41.39	-37.59
7-8	-46.18	-41.63	-39.19



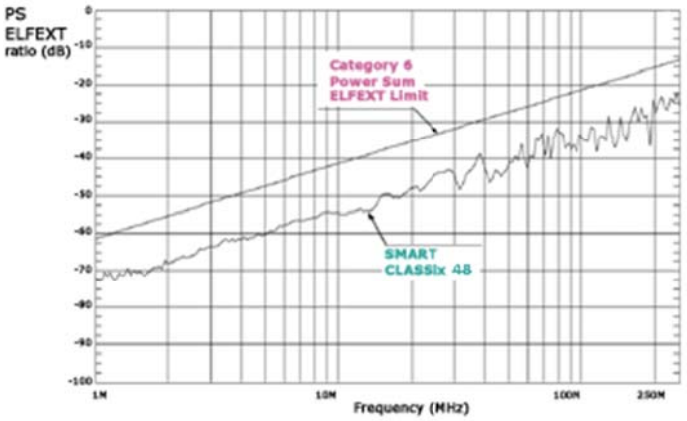
All pairs combinations exceed Category 6 requirements.

SMART CLASSix 48 STP Patch Panels (with patching switches)

Specifications

Power Sum ELFEXT ratio plot is shown for worst pair combination. The following are typical Power Sum ELFEXT measurement results at 100, 200 and 250 MHz for all pair combinations.

Pairs	Power Sum ELFEXT (dB)		
	100 MHz	200 MHz	250 MHz
1-2	-37.96	-23.86	-24.45
3-6	-34.53	-27.31	-25.23
4-5	-34.48	-28.23	-24.89
7-8	-39.5	-23.88	-25.88



All pair combinations exceed Category 6 requirements.

SMART CLASSix 48 STP Patch Panels (with patching switches)

Specifications

General

- **Physical**

Height:	88.10 mm / 1.76" (2U)
Width:	482.6 mm / 19"
Depth:	56.10 mm / 2.2"
Retention Fixture:	89.10 mm / 3.5"
Weight:	1.5kg

- **Material**
  Steel

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

- **Environment**
  Temperature:-20° to 60°C
  Humidity: 0-90% non-condensing

- **Compliance with International EMC Standards:**
  The SMART CLASSix STP 48 line of patch panels is designed to comply with EN-55022, Class B (Europe) and FCC Part 15, Subpart J, Class A (USA).

SMART CLASSix 48 STP Patch Panels (with patching switches)

Ordering Information

Number	Description
R3241010	SMART CLASSix STP Panel, 48, Switches, Cable Retention