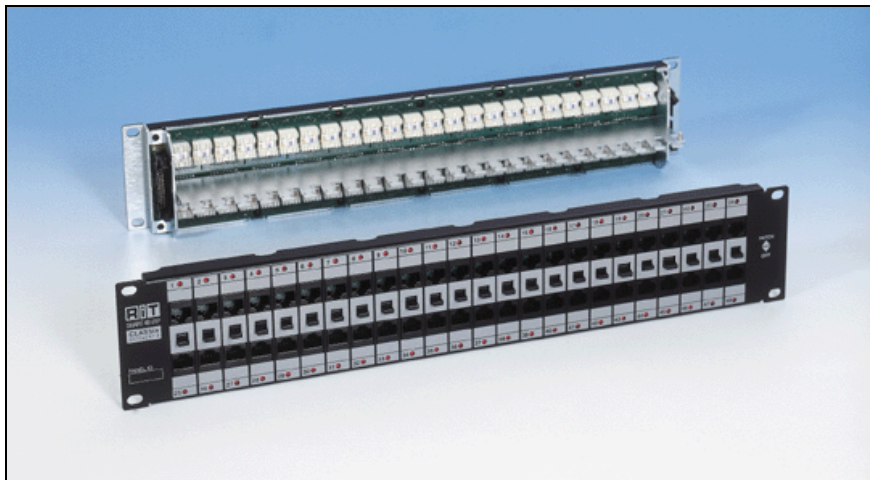

SMART CLASSix 48 UTP Patch Panels (with patching switches) -

Features

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- Front-mounted Patching Switches connect ports internally, dramatically reducing the need for patch cords
 - Compatible to Unshielded Twisted Pairs (UTP) cabling systems
 - High performance panel that supports Category 6 performance specifications up to 250 MHz
 - Conform to ANSI/TIA/EIA-568-B.2-1, ISO/IEC 11801 2nd edition (2002) and CENELEC EN50173 (2002) for Category 6/Class E.
 - Simple, labor saving assembly and installation using 110 termination tool
 - 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
 - Patent pending
-

SMART CLASSix 48 UTP Patch Panels (with patching switches) - *Features*



CLASSix™

SMART CLASSix UTP Patch Panels are part of the SMART CLASSix Cabling System™, featuring Category 6 performance. The system is designed to conform to ANSI/TIA/EIA-568-B.2-1, ISO/IEC 11801 2nd edition (2002) and CENELEC EN50173 (2002) for Category 6/Class E.

PatchView™ Capability

SMART CLASSix UTP switching panels, when used in conjunction with the PatchView Solution provides valuable connectivity information about the entire network to the PV4E management software.

LED indicators on panels identify any two ports patched together and enable 100% accurate Moves, Adds and Changes.

With its unique automated detection, LED-guided connection, and web-based remote maintenance capabilities, PV4E enables real-time, centralized management and troubleshooting for even the most dispersed networks.

SMART CLASSix 48 UTP Patch Panels (with patching switches) -

Description



The SMART CLASSix 48 UTP 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.

The SMART CLASSix 48 UTP Patch Panel conforms to ANSI/TIA/EIA-568-B.2-1, ISO/IEC 11801 2nd edition (2002) and CENELEC EN50173 (2002) for Category 6/Class E.

SMART CLASSix 48 UTP Patch Panels (with patching switches) - *Specifications*



Interface

■ **Front Interconnection (patch cord side)**

48 eight-position or nine-position RJ-45 unshielded modular jacks. Use of patch cords with CLASSix RJ-45 plugs is recommended.

■ **Back Interconnection (cabling side)**

48 eight-position 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 the PatchView system**

- **PV Panels** - Two 26-pin headers on the back of the panel are used for connection to the PV or PVMax Scanner. Use two **Group A** Scanner Attachment Cord according to the required length.
- **PVMax Panels** - Two 14-pin headers on the back of the panel are used for connection to the PVMax Scanner. Use one **Group B** 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 of the e-catalog for further details.

■ **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.

■ **Patching Switches**

24 Patching Switches for internal patching. When switched to "PATCH" position - upper and lower ports are connected. When switched to "OFF" position - upper and lower ports are disconnected. Eight wires and the ninth scanning wire (when applicable) of each port are simultaneously switched. The switch is of superior quality and is qualified per military standards.

SMART CLASSix 48 UTP Patch Panels (with patching switches) - *Specifications*



Electrical Specifications

Category 6

Standard Performance Requirements

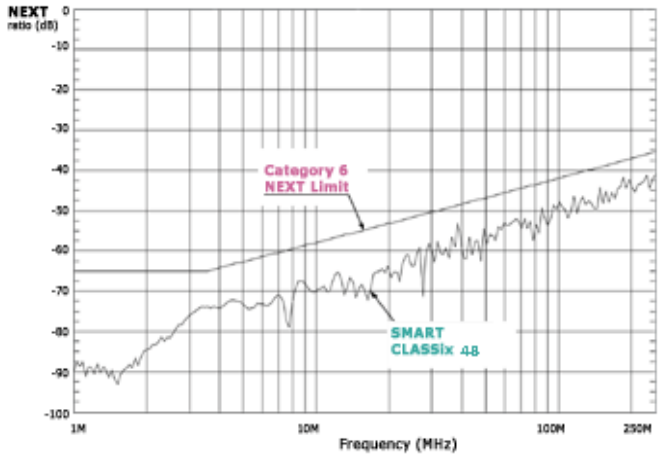
- Conforms to ANSI/TIA/EIA-568-B.2-1, ISO/IEC 11801 2nd edition (2002) and CENELEC EN50173 (2002) for Category 6/Class E.
- Meets all link and channel requirements
- UL 1836 listed

Electrical Specifications

SMART CLASSix 48 UTP 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



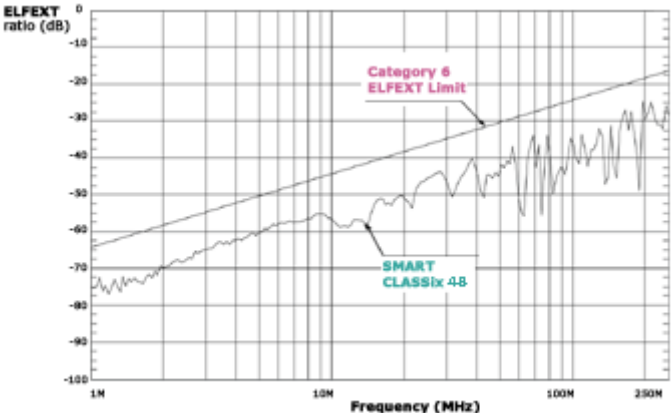
All pairs combinations exceed Category 6 requirements.

SMART CLASSix 48 UTP 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.

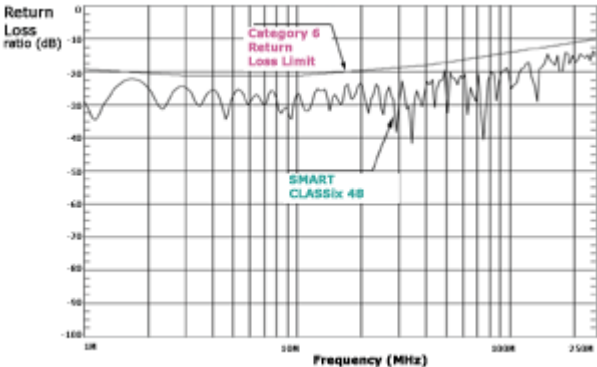
Pairs	ELFEXT (dB)		
	100 MHz	200 MHz	250 MHz
12-36	-41.78	-32.95	-31.64
12-45	-40.55	-41.41	-28.51
12-78	-52.65	-24.51	-28.27
36-45	-36.5	-29.54	-28.16
36-78	-42.06	-36.24	-31.04
45-78	-43.51	-34.96	-35.15



All pairs 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

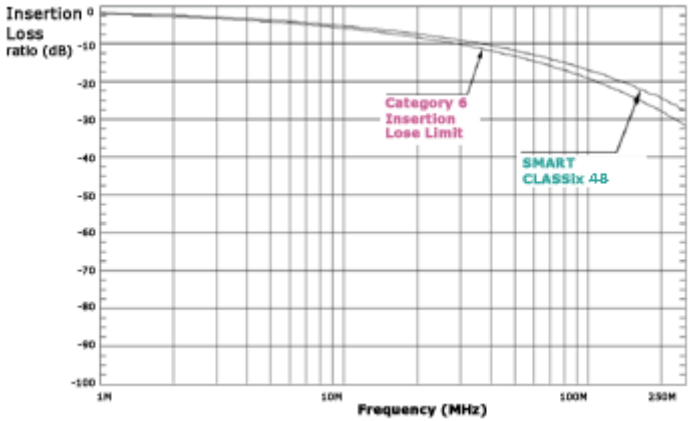
SMART CLASSix 48 UTP Patch Panels (with patching switches) - *Specifications*

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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.

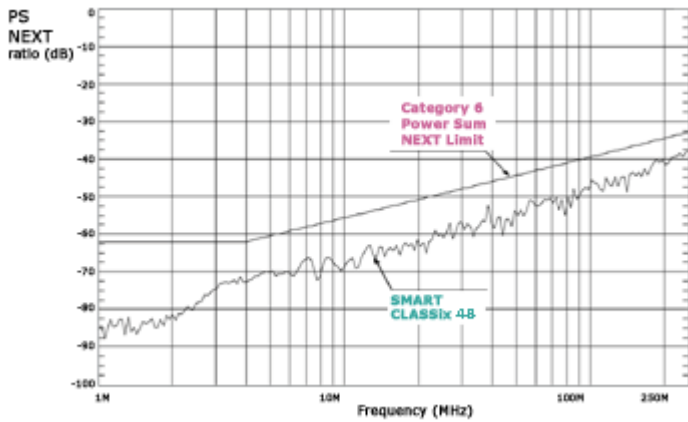
Pairs	Insertion Loss (dB)		
	100 MHz	200 MHz	250 MHz
1-2	-16.07	-23.34	-25.76
3-6	-16.95	-24.32	-27.44
4-5	-16.88	-24.46	-27.16
7-8	-15.57	-22.42	-26.17



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 pair combinations exceed Category 6 requirements.

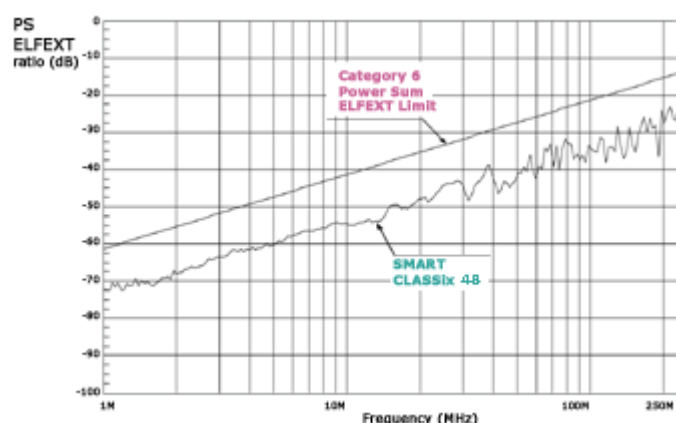
SMART CLASSix 48 UTP Patch Panels (with patching switches) -

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 pairs combinations exceed Category 6 requirements.

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:	0.7kg

■ 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 UTP 48 line of patch panels is designed to comply with EN-55022, Class B (Europe) and FCC Part 15, Subpart J, Class A (USA).