



Features



- RJ-45 on rear of panel for connecting network equipment with regular patch cords
- Front-mounted Patching Switches connect ports internally, dramatically reducing the need for patch cords in normal use
- High performance panel that supports Category 6 performance specifications up to 250 MHz
- Conforms to ANSI/TIA/EIA-568-B.2-1, ISO/IEC 11801 2nd edition (2002) and CENELEC EN50173 (2002) for Category 6/Class E.
- Models for Shielded or Unshielded cabling systems
- High density panel supports 48 ports, using 2U high of rack space
- High durability and reliability
- Simple, labor saving assembly and installation
- Compatible with 22-26 AWG solid or stranded wire cables
- PatchView[™] and non-PatchView options



SMART CLASSix RJ-RJ 48 Patch Panels -*Features*



CLASSix™

RIT SMART CLASSix 48 1U UTP Patch Panels are part of the RIT 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

Special SMART CLASSix 48 1U UTP Patch Panels models, 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 when performing Moves, Adds and Changes (MACs).







Description



The RiT SMART CLASSix RJ-RJ line of data communications patch panels features an advanced cross-connect concept: network equipment ports are connected to RJ-45 jacks on the back of the patch panel and are represented by corresponding RJ-45 jacks on the front.

Patching Switches or conventional patch cords are used for patching the above-mentioned front ports to other ports, representing users.

The panels are constructed of 48 RJ-45 jacks on the front for patching, 24 RJ-45 jacks on the lower row of the back for connecting equipment ports, and 24 termination blocks on the upper row of the back for terminating horizontal cables.

SMART CLASSix RJ-RJ is available both in shielded and unshielded models.

RiT's proprietary Patching Switches dramatically reduce the need for patch cords by connecting ports internally, avoiding the traditional patch cord chaos. Cords are needed only to reassign ports. Cross-talk performance is improved in switched channels in comparison to channels using patch cords. The RJ-45 ports can be used for on-line monitoring.

Special SMART CLASSix RJ-RJ models, when used in conjunction with RiT's PatchView solution, 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).



Description



Application





SMART CLASSix RJ-RJ 48

Patch Panels -

Specifications



Datasheet

Interface

- Front Interconnection (patch cord side)
 48 eight-position or nine-position RJ-45 shielded or unshielded modular jacks.
- Back Interconnection (cabling side) Lower Row
 24, eight-position RJ-45 modular jacks, shielded or unshielded as required.
- Back Interconnection (cabling side) Upper Row
 24 Krone & 110 tool-compatible termination 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 (in selected models)
 - 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 Cords 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 for further details.

LEDs (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.



Specifications

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.

Electrical Specifications

Category 6 / CLASS E Conforms to ANSI/TIA/EIA-568-B.2-1, ISO/IEC 11801 2nd edition (2002) and CENELEC EN50173 (2002) for Category 6/Class E.

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 (dE	3)	
	100 MHz	200 MHz	250 MHz
12-36	-58.86	-52.21	-48.49
12-45	-57.65	-53.37	-50.18
12-78	-57.39	-55.9	-53.42
36-45	-64.28	-62.99	-53.3
36-78	-61.65	-56.25	-54.52
45-78	-57.66	-54.43	-50.69



All pairs combinations exceed Category 6 requirements.



SMART CLASSIX

SMART CLASSix 48 1 UTP Patch Panels (High Dendity) -

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	-58.86	-52.21	-48.49			
12-45	-57.65	-53.37	-50.18			
12-78	-57.39	-55.9	-53.42			
36-45	-64.28	-62.99	-53.3			
36-78	-61.65	-56.25	-54.52			
45-78	-57.66	-54.43	-50.69			



All pairs combinations exceed Category 6 requirements.

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			
12-36	-58.86	-52.21	-48.49			
12-45	-57.65	-53.37	-50.18			
12-78	-57.39	-55.9	-53.42			
36-45	-64.28	-62.99	-53.3			
36-78	-61.65	-56.25	-54.52			
45-78	-57.66	-54.43	-50.69			



All pairs combinations exceed Category 6 requirements.





Specifications

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.

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Pairs	Return L	oss (dB)								_	\mathbf{X}	H	Ħ	圳	-	不
	100 MHz	z 200 MHz	z 250 MHz			H	Ł	4	ł	$\downarrow \sim$	wh	frf	\square		~~~	
1-2	-46.40	-35.57	-31.70		-	Y						SM	IART	CLA 48	UTP	
3-6	-34.03	-28.06	-26.19		-	\vdash	+	+	+			\mathbb{H}	+	+++		+
4-5	-28.25	-22.32	-20.42		-								\square			
7-8	-34.03	-27.25	-25.03	-	109							\square	\pm	++		
					18				104	Frequency	(MHz)			101	1MI	260M

All pair combinations exceed Category 6 requirements.

General

Physical

Lloight.	88.10mm / 1.76" (2U)
	482.6 mm / 19"
Width:	56.10 mm / 2.2"
Depth:	89.10 mm / 3.5"
Retention Fixture:	UTP - 1.5 kg
weight including package:	STP - 2.3 kg

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 RJ-RJ 48 line of patch panels is designed to comply with EN-55022, Class B (Europe) and FCC Part 15



Datasheet