

BOQ

Passive networking equipments for various buildings (viz. Informatics Center, Lecture Hall Complex, Guest House Building, IWD building, Health Center, MK and MI block) of IISER Mohali.

SNo.	Particulars	Quantity	Unit	Rate	Amount
1	24 Port Shielded Cat-6A Jack Panel	6	Nos.		
2	Cat-6A Shielded Information Outlet with Face Plate and Gang-Box	70	Nos.		
3	Cat-6A, 4 Pair Shielded Cable Roll (of 305 meter length)	12	Nos.		
4	Shielded Cat-6A Patch Chord (3 meter length)	70	Nos.		
5	Shielded Cat-6A Patch Chord (1 meter length)	70			
6	Cat-6 Information Outlet with with Face Plate and Gang-Box	180	Nos.		
7	24 Port Cat-6 Jack Panel	27	Nos.		
8	Cat-6 Patch Chord (1 meter length)	330	Nos.		
9	Cat-6 Patch Chord (2 meter length)	150	Nos		
10	Cat-6 Patch Chord (3 meter length)	235	Nos		
11	Cat-6 UTP Cable Roll (of 305 meter length)	36	Nos.		
12	6U Wall Mount Rack with 6 socket PDU, Fans with Fan Tray& H/w Packet and other std accessories	20	Nos.		
13	RJ-45 Connectors (Pack of 100)	2	Nos.		

Note for the Bidder:

- One Bidder shall represent only one OEM .
- If possible all passive equipments should be from one OEM.
- Rates quoted should be valid for minimum of six months after the release of purchase order.

Specification Sheet

Item No. 1

24 Port Shielded Cat-6A Jack Panel

3	24 PORT SHIELDED CAT6A JACK PANEL
	Min. Required Specification
3.1	Be made of robust sheet metal.
3.2	Have port identification numbers on the front of the panel.
3.3	Should have self-adhesive, clear label holders (transparent plastic window type) and white designation labels with the panel, with optional color labels / icons.
3.4	Each port / jack on the panel should be individually removable on field from the panel.
3.5	Should have integrated rear cable management shelf.
3.6	Should have shutter on the jack panel port
3.7	Should have separate provision of grounding
3.8	Specification of the jacks is same as above for individual I/Os

Item No. 2

Cat-6A Shielded Information Outlet with Face Plate and Gang-Box

2	Shielded Cat 6A Information Outlet with Face Plate and Gang Box Complete
	Min. Required Specification
2.1	Single Gang square plate, 86mmx86mm
2.2	Write on labels in transparent plastic window - supplied with plate
2.3	Screw hole covers - to be supplied with plate
2.4	Plug in Icons - Icon tree - to be supplied with plate
2.5	Should be able to support variety of jacks - UTP, STP, Fiber, Coax etc.
2.6	I/O Should be Category 6A, TIA568C.2 - 500MHz
2.7	Should have robust die cast zinc alloy connector body housing
2.8	Should have shutter for 100% dust protection
2.9	IDC posts should be pointed
2.10	568A/B configuration
2.11	Approved by ETL
2.12	UL-1863
2.13	Housing: Zinc alloy plated bright Ni/Cu
2.14	Operating Life: Minimum 750 insertion cycles
2.15	Contact Material: Copper alloy
2.16	Contact Plating: 1.25 micrometers Au/Ni
2.17	IDC connector housing : Polycarbonate, UL94V-0 rated or equivalent
2.18	IDC contact material : Copper Alloy
2.19	Operating Life: Minimum 20 Re-terminations
2.20	IDC Contact Plating: Tin

Item No. 3

Cat-6A, 4 Pair Shielded Cable Roll (of 305 meter length)

1	Category 6A , 4 Pair Shielded Cable
	Min. Required Specification
1.1	Category 6A shielded Twisted Pair 4 pair cable shall be compliant with ANSI/TIA/EIA-568-C.2 for supporting 10G applications
1.2	Conductor Size : 23 AWG
1.3	Screen: Each pair enclosed in laminated Aluminium foil with drain wire
1.4	Screen material: Laminated Aluminium
1.5	Drain Wire material: tin-coated copper
1.6	Sheath Type: Low Smoke Zero Halogen (LSZH)
1.7	Pulling Force: 50 N/mm ² max
1.8	Capacitance: 40 pF/m nom. @1 KHz

1.9	DC Resistance: 72 Ω/Km max.
1.10	Propagation Delay Skew: 45 nS/100 max @ 1-500 MHz
1.11	Mean Impedance: 100Ω ± 6 @ 1-500 MHz
1.12	Commercial Standards :ANSI/TIA/EIA-568-C.2 and ISO/IEC 11801 A1.1
1.13	Should Have ETL verified to TIA/EIA-568-C.2 Category 6A standard (ETL certificate to be enclosed along with the bid)
1.14	Transmission Properties and Electrical Specifications tested minimum upto 500 Mhz and verified by ETL
1.15	Bidder to submit Cat 6A channel report verified by ETL
1.16	Should Have performance warranty of 20/25 years

Item No. 4 and 5

Shielded Cat-6A Patch Chord

4	MOUNTING CORDS - Cat 6 A shielded (1 meter and 3 meter)
	Min. Required Specification
4.1	Should be 4 pair 26 AWG stranded copper wire
4.2	Should have Slim clear anti-snap slip on boots
4.3	Factory pre-terminated with shielded RJ45 plugs and should be strain relief, anti snag type
4.4	Screen material - Aluminum/polyester shield with tinned copper drain wire
4.5	Sheath: Low Smoke Zero Halogen (LS0H)
4.6	Should give 10G Performance when installed as a complete Cat 6A Shielded System
4.7	Operating life: Minimum 750 insertion cycles
4.8	Contact material : 0.35mm thick copper
4.9	Plug dimensions & tolerances compliant with FCC Part 68 and IEC 60603-7
4.10	Operating temperature: -20 °C to + 60 °C
4.11	Commercial Standards :ISO/IEC 11801 2nd Ed Amd 1 Class EA
4.12	TIA-568-C.2 Cat 6A
4.13	UL 1863; CSA C22.2

Item No. 6

Cat-6 Information Outlet with with Face Plate and Gang-Box

B	Cat 6 Information Outlet with Face Plate and Gang Box Complete
B.1	Category 6, EIA/TIA 568-C.2
B.2	Use insulation displacement connectors
B.3	All information outlets for 100 W, 22-24 AWG copper
B.4	Should have shutter on I/O
B.5	Should have Plastic Housing: Polycarbonate, UL94V-0 rated or equivalent
B.6	Contact Plating: 50 μinches gold over 100 μinches nickel
B.7	Operating Life: Minimum 200 Re-terminations
B.8	Single Gang square plate, 86mmx86mm
B.9	Plug in Icons – Icon tree – to be supplied with plate
B.10	Write on labels in transparent plastic window – supplied with plate

Item No. 7

24 Port Cat-6 Jack Panel

C	24 PORT CAT6 Jack Panel
C.1	Should Be made of cold rolled steel
C.2	Should conform to TIA / EIA 568-C.2 Component Compliant
C.3	Should terminate 24 UTP CAT 6 (4 pair) Cables
C.4	Ports should be with individual dust cover .

C.5	Should confirm to EIA/TIA 568A wiring Pattern
C.6	Should have labeling strips for identification.
C.7	Should have integral cable management shelf.

Item No. 8 , 9 & 10

Cat-6 Patch Chord

D	Patch Chords (1 meter, 2 meter and 3 meter length)
D.1	Should be 4 Pairs 24 AWG copper cables.
D.2	The Outer Jacket should be Low Smoke Zero Halogen.
D.3	24 AWG stranded bare copper
D.4	Should minimum comply with proposed ANSI/TIA/EIA-568-C.2
D.5	Should Have cross separator

Item No. 11

Cat-6 UTP Cable Roll (of 305 meter length)

A	Category 6 UTP Cable
A.1	Category 6 Unshielded Twisted Pair 100W cable shall be compliant with EIA/TIA 568-C.2
A.2	Should be 4 pair, 23 AWG
A.3	Cable should be CM rated
A.4	Cable Should Have Internal cross separator
A.5	Jacket: LSZH (Low smoke zero halogen)
A.6	Conductor: Solid Copper
A.7	All the Cat6 cabling components should be tested and verified by ETL with data transmission frequencies min 400 MHz or higher.
A.8	Should have performance warranty for 20/25 years

Item No. 12

6U / 9U Wall Mount Racks:

6U / 9U Wall Mount Racks	19" wall mountable/ floor resting standard racks, 6U / 9U height with front glass door, closed on all sides, lock and key, 4 fans, trays and 6 socket power supply strip with spike buster preferably of make : PRESIDENT / APW / RITTAL / EMERSON etc.
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Item No. 13

RJ-45 Connectors (Pack of 100)

RJ-45 Connectors (Pack of 100)	For Cat5/Cat5e/Cat6 Networking Cable end connections for directly connecting network equipments, Should be directly punchable using RJ-45 crimping tool without any separator. Should be of brands equivalent to Digi-Link etc
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