



भारतीय प्रौद्योगिकी संस्थान कानपुर  
INDIAN INSTITUTE OF TECHNOLOGY KANPUR  
संगणक केन्द्र  
COMPUTER CENTRE

पत्रालय-आई.आई.टी.कानपुर-208016(भारत)  
P.O.-I.I.T. KANPUR - 208 016 (India)

CC/IITK/09/401  
July 19, 2017

Sealed quotations are invited for the following items for the Institute network:

S. No.	Item Description	Qty.
A	Cat 6 A U/UTP indoor Cable , 305 Mtrs	60
B	UTP Cat 6 CM/CMR Cable,305 Mtrs. Bundle	500
C	UTP Cat 6 Outdoor (Steel Tape with Double Sheath, Outer and Inner) Cable, 305meter Bundle	20
D	UTP Cat 5E Cable, 305 meter Bundle	30
E	I/O Cat 6 RJ45 Face Plate Simplex with Mounting/ Gang Box	2500
F	UTP Patch Panel 24 ports unloaded multipurpose for Cat6 and Cat6 A Jack	100
G	Information Outlet (I/O) Cat 6 RJ 45 Jack	5000
H	Information Outlet (I/O) Cat 6A RJ 45 Jack	500
I	UTP Patch Cord Cat 6, 3Ft	2600
J	UTP Patch Cord Cat 6A, 3Ft	500

**Terms & Conditions:**

1. All quotations must reach undersigned by August 4, 2017, 5 P.M.
2. Quotation must be valid till 31/12/2017.
3. Quotations shall be submitted in two parts.
  - **Part-I (Technical)** should contain all the eligibility criteria, technical details and specifications of the product. Technical compliance of the above specification and makes should be clearly specified. It should contain un-priced bid along with terms & conditions, warranty, taxes etc. This envelope should be marked as "Technical Bid".
  - **Part-II (Financial)** The commercial bid of the above items should be in another sealed envelope marked as "Commercial Bid". It should contain commercial terms & conditions.
4. The vendor should have valid authorization later from the OEM for this enquiry.
5. Please quote giving unit price for each of the items. The vendor must quote for all the items.
6. IIT Kanpur is exempted for partial custom duty (CD applicable to IIT Kanpur is 5.15%).
7. Please clearly mention the tax rate (like GST etc.), if charged extra.

(Prof. Y. N. Singh)  
Head

**Eligible Criteria for OEM & Bidder (Enquiry No. CC/IITK/09/401 dated 19-07-2017)**

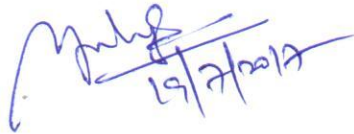
**Eligible Criteria for OEM**

S. No.	Description
1	The OEM of Passive Network Components should be present in India for last 10 Years. (Document proof Required)
2	Should provide 25-year Performance warranty; Warranty to cover Bandwidth of the specified and installed cabling system
3	Should have Technical / Telephonic support center in India
4	OEM must have ISO 9001:2008, ISO 9001:14001.
5	Factory Test report have to be provided for the product during supply.
6	All the components/raw material used must be RoHS verified
7	OEM should have manufacturing unit and product design & development center in India and customer should be able to visit the center.
8	All passive components should be RoHS complied
9	The entire Passive components should be from single OEM.

**Eligible Criteria for Bidder**

S. No.	Description
1	The bidder must be a reputed manufacturer (OEM) or his authorized System Integrator of the type of products offered. In case of System Integrator, a Letter of Authorization from OEM, specific to the tender should be enclosed. <b>The bids received without authority are liable to be rejected.</b>
2	The Bidder shall provide the Registration number GST/Sales Tax / Service Tax /PAN /TIN - Registration number.
3	The Bidder Should ISO Certified 9001:2015.

**Note: Bidder should index all the documents according to item list.**

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**Technical Specification for Enquiry No. CC/IITK/09/401 dated 19-07-2017**

**(A) Cat 6A (U/UTP) or (F/UTP) Indoor Cable**

S. No.	Minimum Specifications	Compliance Yes/No	Remark
A	UTP Cable, TIA-568C.2, Category-6A (U/UTP) or (F/UTP) , (305 Mtrs./1000 feet per Box)		
A1	All cables shall be 4-pair 100 ohms balanced paired cables. They are unshielded twisted pair cables (U/UTP or F/UTP) meeting or exceeding the quality and performance requirements for Category 6A cables stipulated in EIA/TIA-568-C standard, and ISO/IEC 11801		
A2	ANSI/TIA-568-C.2 Category 6A (U/UTP) or F/UTP).		
A3	Each Category 6A (U/UTP) or F/UTP) cable shall be terminated on an 8-conductor Category 6A jack in accordance with the EIA/TIA-568C wiring code.		
A4	The cable shall have Centre filler to maintain pair twisting, and optimum NEXT (Near End Crosstalk) and ELFEXT (Equal Level Far End Crosstalk) performance.		
A5	The cable shall be accompanied with traceable serial numbers from the manufacturer indicated on the packaging to assist in quality validation of the installed cables		
A6	Conductor: Solid Bare Copper		
A7	AWG: 23		
A8	Conductor Dia. Nom. (+/-0.02mm): 0.59		
A9	Filler: PE		
A10	1.0-500.0MHz Delay Skew (ns/100m): <= 45		

**(B) UTP Cat 6 CM/CMR Cable**

S. No.	Minimum Specifications	Compliance Yes/No	Remark
B	UTP Cable, TIA-568C.2, Category-6 , (305 Mtrs./1000 feet per Box)		
B1	Shall be of 4 twisted pairs of 23 AWG solid conductors ,		
B3	Shall be 4-pair Unshielded twisted pair meeting Category 6 tested up-to 500 MHz or more (4 connector test report from Intertek to be submitted with Bid). Shall be have UL/ATL Listed for Cat 6 CM/CMR Cable.		
B4	Should comply with all of the performance requirements for current and proposed applications such as Gigabit Ethernet (1000BASE-TX), 10 and 100 BASE-TX, token ring, 155 Mbps ATM, 100 Mbps TP-PMD, ISDN, analog and digital video, and analog and digital voice (VoIP).		
B5	The cable shall have a nominal outer diameter of 6 mm +/- 10%. Nom Polyethylene insulation.		

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**(C) Cat 6 Outdoor Steel Tape UTP Cable**

S. No.	Minimum Specification	Compliance Yes/No	Remark
C	<b>Cat 6 Outdoor Steel Tape UTP Cable (305 Mtrs./1000 feet per Box)</b>		
C1	Shall be used for Outdoor Application. It should have Double Sheath (Outer – HDPE Black and Inner PE) It should have Steel Tape Armour between both the Sheath.		
C2	Shall be installed for Direct Burial application.		

**(D) Cat 5e UTP Cable**

S. No.	Minimum Specification	Compliance Yes/No	Remark
D	<b>Cat 5e UTP Cable (305 Mtrs./1000 feet per Box)</b>		
D1	Unshielded Twisted Pair, Category 5e, TIA / EIA 568-C.2 , 24 AWG solid bare copper , Polyethylene		
D2	The cable shall have an outer diameter of 4.5 mm to 4.7 mm.		
D3	Minimum 100 MHz, 45ns MAX , 1 to 100 MHz.		
D4	Attenuation, Pair-to-pair and PS NEXT, ELFEXT and PSELFEXT, Return Loss, ACR and PS ACR		

**(E) Faceplate Single with Mounting / Gang Box**

S. No.	Minimum Specifications	Compliance Yes/No	Remark
E	<b>Faceplate Simplex</b>		
E1	Shall be Single Port (RJ45) square plate, dimension as per commercially available modular office furniture.		
E2	Shall have spring shuttered front access for preventing ingress of dust		
E3	Face Plate shall be supplied with Gang Box of the same OEM if manufactured by OEM or of equivalent Brand (Legrand, Anchor & Havells) if not manufactured by OEM.		
E4	Shall have written on labels in transparent plastic window along with the plate.		
E5	Shall have Screw hole covers along with the plate		
E6	Shall be able to support variety of jacks(Cat6 & Cat6A) – UTP and STP Information outlets		

**(F) UTP/FTP Patch Panel 24 ports unloaded multipurpose for Cat6 and Cat6 A Jack**

S. No.	Minimum Specifications	Compliance Yes/No	Remark
F	<b>UTP /FTP Jack Panel, Unloaded with Individual Replaceable Jack 24 nos. UTP/FTP ports for PCB based IO Jacks</b>		
F1	Shall be unloaded individually replaceable 24 nos. Category-6 I/O Jacks Category-6 AI/O Jacks complying with TIA-568.C		
F2	Shall be 19" rack mountable and of 1U height & complete with all mounting accessories Shall be UL Listed and RoHS Compliance.		
F3	Shall have labels for identification of ports		
F4	Shall have Comprehensive port numbering in front		



**(G) Information Outlet (I/O) RJ45 CAT6**

S. No.	Minimum Specifications	Compliance Yes/No	Remark
G	<b>PCB based Information Outlet (I/O) RJ45, TIA-568C Category-6, Termination of Category-6 UTP Cable</b>		
G2	Shall support network line speeds up to 1 Gbps		
G3	The information outlet will have insertion life of 750 cycles minimum		
G4	Material: Jack Housing - Polycarbonate, 94V-0 rated Jack Contacts Phosphor bronze with 50 micron-inches of gold over 100 micron-inches Nickel plating. IDC Terminals - Phosphorous bronze with nickel plating		
G5	Colors ( any 4)- Blue, Grey, Yellow & Red (As required by IITK)		

**(H) Information Outlet (I/O) RJ45 CAT6A**

S. No.	Minimum Specification	Compliance Yes/No	Remark
H	<b>Information Outlet (I/O) RJ45 CAT6A</b>		
H1	The modular jack should comply with EIA/TIA-568-C standard, and ISO/IEC 11801 Class Ea standards;		
H2	The modular jack should have universal color coding for T568A and T568B standard cable termination;		
H3	Contact pins are copper alloy gold-plated with 50u inch;		
H4	IDC connectors of modular jack shall support insulation slicing of 22 to 24AWG.		
H5	Comply to Cat6A component level;		
H6	UL Listed		
H7	Spring Wire/Contact Pins: Phosphor Bronze Alloy Plated with 50μ" of Gold over 70~100 μ" of Nickel		
H8	IDC: IDC Wire Gauge should be 22-24 AWG.		
H9	RJ-45 Pin Connector: IEC 60603-7 compliant		
H10	Insertion / Extraction Life: 750 Cycles Min.		
H11	Insulation Resistance: 200MΩ		
H12	IDC Contact Resistance: 1 MΩ		
H13	Colors ( any 4)- Blue, White, Yellow & Red (As required IITK)		

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**(I) Cat 6 UTP Patch Cord 1 Mtr.**

S. No.	Minimum Specifications	Compliance Yes/No	Remark
I	<b>Cat 6 UTP Patch Cable, TIA-568C Category-6</b>		
I1	Length shall be available in 1/2/3/5 meters or equivalent length in feet		
I2	All patch cords shall conform to Category 6 & conductor shall be stranded for better flexibility Shall be ETL Channel Verified and UL Listed.		
I3	Shall support network line speeds up to 1 Gbps		
I4	Colors ( any 4)- Blue, White, Yellow & Red (As required IITK)		

**(J) Cat 6A UTP/FTP Patch Cord 1 Mtr.**

S. No.	Minimum Specifications	Compliance Yes/No	Remark
J	<b>Cat 6A UTP/FTP Patch Cable, TIA-568C Category-6A</b>		
J1	All patch cords shall exceed the performance requirements in EIA/TIA and ISO/IEC Category 6A /Class specifications or equivalent; and the copper patch cords shall be used to cross-connect the Category 5 and Category 6 cables in the racks/frames within the IT Rooms and the Central Server Room.		
J2	The patch cords shall provide air-tight connections and shall comply with ISO/IEC 11801 Class Ea and EIA/TIA 568-C-2 Category 6A requirement and Power SUM NEXT requirement.		
J3	Patch cords shall be available in 1.0, 2.0, 3.0, and 5.0 meters, excluding modular plugs at both ends; The RJ45 plugs are shielded with brass alloy. The assembly boot ensures excellent strain relief and together with the insert, ensures that performance is stable when using the Patch Cord.		
J4	Patch cords colour shall be available in Blue, Grey, and White colours, with matching boots to help with circuit identification in cabinet.		
J5	All cordage shall be round, and shall consist of 22-24 AWG copper, stranded conductors, tightly twisted into individual pairs;		
J6	Comply with Cat6A component level and UL/ETL Listed;		
J7	Rated Temperature (i) min 60		
J8	Reference Standards TIA/EIA 568B.2-10 & ISO/IEC 11801 Class Ea		
J9	AWG 26		
J10	Pair Count 4-Pair Individually Colour with Filler and		
J11	Durability 750 Mating Cycles Min.		
J12	Plug Housing Polycarbonate, UL94V-0		

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