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COMPUTER CENTRE

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P.O.-I.I.T. KANPUR - 208 016 (India)

**Technical Specification for Enquiry No. CC/IITK/09/152 dated 17.05.2016**

**A. Cat 6 UTP Cable**

S.No	Minimum Specifications / Functionalities / Capabilities
A	UTP PVC Cable, TIA-568C.2, Category-6 , (305 Mtrs./1000 feet per Box)
1	Minimum Specifications
1.1	Shall be of 4 twisted pairs of 24 AWG solid conductors ,
1.3	Shall be 4-pair Unshielded twisted pair meeting Category 6 tested to 250 MHz or more (4 connector test report from Intertek to be submitted with Bid).
1.4	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).
1.5	The cable shall have an outer diameter of 5.5 mm to 6 mm and 0.95mm dia. Nom Polyethylene insulation.

**B. Cat 5e UTP Cable**

Sr. No.	Specification
1	Minimum Specification
1.1	Unshielded Twisted Pair, Category 5e, TIA / EIA 568-C.2 , 24 AWG solid bare copper , Polyethylene
1.2	The cable shall have an outer diameter of 4.5 mm to 4.7 mm .
1.3	Minimum 200 MHz, 45ns MAX , 100 Ohms +/- 15 ohms, 1 to 200 MHz.
1.4	Attenuation, Pair-to-pair and PS NEXT, ELFEXT and PSELFEXT, Return Loss, ACR and PS ACR

**c) Cat 6 UTP Patch Cord 1 Mtr.**

C	<b><u>Cat 6 UTP Patch Cable, TIA-568C Category-6</u></b>
1	Minimum Specifications
1.1	Length shall be available in 1/2/3/5 meters or equivalent length in feet
1.2	All patch cords shall conform to Category 6 & conductor shall be stranded for better flexibility
1.3	Shall support network line speeds up to 1 Gbps
1.4	Colors- Blue, Grey, Yellow, Red & Orange

*M. K. Singh*  
17/5/2016

**D) Information Outlet (I/O) RJ45**

<b>D</b>	<b>PCB based Information Outlet (I/O) RJ45, TIA-568C Category-6, Termination of Category-6 UTP Cable</b>
1	<b>Minimum Specifications</b>
1.2	Shall support network line speeds up to 1 Gbps
1.3	Material: Jack Housing - Polycarbonate, 94V-0 rated 110 Block - Polycarbonate Jack Contacts Array - Beryllium Copper, Plated with 1.27 micron minimum thick Gold in Localized area and 3.81 micron minimum thick matte tin. IDC Terminals - Phosphorous bronze, plate with 3.81 micron minimum thick matte tin over 1.27 microns minimum thick nickel under plate

**E ) UTP Jack Panel 24 Port with RJ-45 Jack**

<b>S.No</b>	<b>Minimum Specifications / Functionalities / Capabilities</b>
<b>E</b>	<b>UTP Jack Panel, Unloaded with Individual Replaceable Jack 24 nos. UTP ports for PCB based IO Jacks (RJ45, TIA-568C Category-6, Installation and Termination of all 24 nos. Category-6 UTP Cable with RJ-45.</b>
1	<b>Minimum Specifications</b>
1.1	Shall be unloaded or loaded with individually replaceable 24 nos. Category-6 I/O Jacks complying with TIA-568.C.2
1.2	Shall be 19" rack mountable and of 1U height & complete with all mounting accessories
1.3	Shall have labels for identification of ports
1.4	Shall have Comprehensive port numbering on front

**F) Faceplate Single & Dual Port**

<b>S.No</b>	<b>Minimum Specifications / Functionalities / Capabilities</b>
<b>F</b>	<b>Faceplate Single &amp; Dual Port (Work Area End)</b>
1	<b>Minimum Specifications</b>
1.1	Shall be Single Port or Dual port (RJ45) square plate, dimension as per commercially available modular office furniture.
1.2	Shall have spring shuttered front access for preventing ingress of dust
1.3	Shall be supplied with Gang Box of the same size by System Integrator or OEM
1.4	Shall have Write on labels in transparent plastic window along with the plate
1.5	Shall have Screw hole covers along with the plate
1.6	Shall be able to support variety of jacks – UTP and STP Information outlets

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24/5/2016

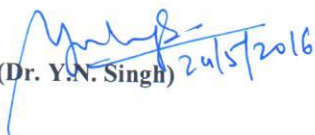
**G) 24 Fiber Optic Cable**

S.No.	Minimum Specifications / Functionalities / Capabilities
<b>G</b>	<b>24 Fiber Optic Cable, ISO/IEC-11801- 9/125<math>\mu</math>, OS2 Outdoor</b>
<b>1</b>	<b>Minimum Specifications</b>
1.1	Shall be 9 $\mu$ , 24-core Single mode OS2 metallic armored cable as per ISO/IEC-11801
1.2	Shall be able to meet Gigabit & 10 Gigabit by IEEE 802.3z (1000 Base-X) & IEEE 802.3ae (10G Base-X)
1.3	Optical Fibers should be in multitubes having 6 cores in single tube for 24 core fiber
1.4	Fiber cable shall be RoHS Compliant.
1.5	Should have a tensile strength of minimum 4000 Newton & crush resistance of minimum 4000 Newton
1.6	The attenuation @ 1310 nm should be $\leq$ 0.34 (Max) dB/Km and @ 1550 nm should be $\leq$ 0.22 (Max) dB/Km
1.7	Shall be compliant to Telcordia GR-20

**H) Fiber Optic Patch Cable LC-SC (2,3 & 5 Mtr)**

S.No	Minimum Specifications / Functionalities / Capabilities
<b>H</b>	<b>Fiber Optic Patch Cable (LC-LC), 1/2/3 Mtrs. Long, ISO/IEC-11801-OS2 9<math>\mu</math> Duplex, LSZH</b>
<b>1</b>	<b>Minimum Specifications</b>
1.1	Length shall be 2/3/5 meters
1.2	All patch cords shall conform to EIA/TIA-568C.3 and ISO/IEC-11801
1.3	Shall be Duplex Single Mode Fiber Optic Patch Cords OS2 9 $\mu$
1.4	Shall support network line speeds up to 10 Gbps or more
1.6	All patch cords shall be factory terminated and packed.

**Other terms, Conditions & Make (AMP (Tyco)/Panduit) for above items same.**

  
(Dr. Y.N. Singh) 24/5/2016