File No.AIR/DEL/NBH/CMU/NetworkCablinginNBH





प्रसार भारती/PRASAR BHARATI भारत का लोक प्रसारक/India's Public Service Broadcaster आकाशवाणी, दिल्ली/Akashvani, Delhi नई दिल्ली/New Delhi-110001.

सं0/No.AIR/DEL/NBH/CMU/NetworkCablinginNBH

दिनांक:Dated-05.12.2025

Subject: Publication of Draft Technical Specification for SITC of New Network Cabling at Akashvani, Delhi for seeking Vendors/OEMs feedback and budgetary quote.

- 1. Draft Technical Specification for SITC of New Network Cabling at Akashvani, Delhi is being uploaded to invite feedback from the Vendors/OEMs dealing with supply of such equipments. The interested parties are requested to provide comments/feedback on this technical specification.
- 2. Vendors/OEMs are also requested to provide percentage of local content in the offered equipment.
- 3. The budgetary price offered for SITC of New Network Cabling with associated equipment may also be submitted.
- 4. All these information may be provided by E-mail to ddgenbh@prasarbharati.gov.in and engstorenbh@gmail.com on or before 15.12.2025.

(JITENDER PRUTHI) (Dy. Director General (Engg.)

Bill Of Materials

S.No		Item Descriptions			Qty	UOM
	Supply of LAN Items at NBH(New Broadcasting House)					
	1	24 Port Layer 2 Switch	6	Nos		
	2	10G SFP+ MM Transceiver	8	Nos		
	3	6 Core MM OM3 OFC Cable	350	Mtr.		
	4	6 Port LIU Fully Loaded LC Type	4	Nos		
	5	24 Port LIU Fully Loaded LC Type	1	Nos		
	6	LC-LC Fiber Patch Multi Mode OM3	10	Nos		
	0	Cord 3 mtr				
	7	Cable Cat 6 , 4 pair, UTP - 305m	10	Box		
	8	Cat 6 24 Port Jack Panel Fully	6	Nos		
1	0	Loaded			1	Set
	9	Cat-6 Information Outlet	98	Nos		
	10	Single Face plate	24	Nos		
	11	Dual Face plate	37	Nos		
	12	SMB box	61	Nos		
	13	Cat-6 UTP Patch Cord 1 Mtr	98	Nos		
	14	Cat-6 UTP Patch Cord 2 Mtr	98	Nos		
	15	25mm PVC Conduit 25mm	2600	Mtr.		
	16	Flexible Pipe 25mm	540	Mtr.		
	17	25mm PVC Batten	60	Mtr.		
	18	9U Rack with accessories	4	Nos		
2	Configuration and Installation LAN			1	Set	
3	Commissioning of LAN			1	Set	
4	Warranty for 3 years			1	Set	
5	Training for LAN Syste	m			1	Set

1. Interface: Standard rack mountable width, Height 1U 2 Architecture 2.1 The switch should offer Non – Blocking Switching & Routing performance at Layer 2 2.2 Rj 45 downlink 1/10 Gbps ports 24 Nos 2.3 1/10 Gbps SFP/SFP+ uplink ports 4 Nos 2.4 The Switch should support stacking up to 12 switches with more than 100 Gbps stacking Band with Per switch. 2.5 The switch should be able to stack with different models of same switch series of access switches 3 Performance 3.1 Switching Bandwidth 128 Gbps or more. 3.2 Forwarding capacity (Throughput) 95 Mpps (Minimum) 3.3 Latency 1000 Mb < 3.8 micro Sec., 10 Gbps < 1.6 micro sec. 3.4 MAC address at least 8 K 3.5 Should shall have 4Gb DRAM and 8Gb FLASH with 4Mb Packet buffer 4 Layer 2 features 5 Should support latest features such as MAC Address, 4.1 Table, Flow control, port mirroring, ERPS, L2 Protocol Tunnelling etc. 4.2 Should support 32K MAC addresses or more. 4.3 Should support minimum 4000 Vlans 5 Memory and Processor 5.1 Should have at least dual core processor with speed 1016 MHz or more. 5.2 RAM — At least 2 GB DDR3 SDRAM. 5.3 Flash Memory of at least 16 MB 6 Security 6.1 Switch should support username/password for Authentication, 5 Should support Floure Guard, DHCP snooping, DHCPv4, DHCPv6 and Dynamic ARP Inspection. 6.2 Should support PS ource Guard, DHCP snooping, DHCPv4, DHCPv6 and Dynamic ARP Inspection. 6.3 Should support PS ource Guard, DHCP snooping, DHCPv4, DHCPv6 and Dynamic ARP Inspection. 6.4 Should support Ps and packet based broadcast, multicast, and unknown-unicast limits with suppression port dampening. 6.7 Management features 7.1 Should support Throad Dynamic ARP Inspection. 6.3 Should support Throad Dynamic ARP Inspection. 6.4 Management features 6.5 Should support Throad Dynamic ARP Inspection. 6.7 Management features 6.8 Other Features 7.1 Should support manageability using Centralized Management platform using Web based Graphical User Interface (CUI) 7.2 Command Line Interface (CUI) 7.2 Command Line Interface (CUI) 7.3 Command Line Interfac	S.No	Technical Specifications of the 24 Port Layer 2 Switch
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8 Other Features 8.1 Ventilation : Smart fans (desirable)	7.2	· · · ·
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8.2 Warranty: 3 years	8.1	Ventilation : Smart fans (desirable)
		Warranty: 3 years

Technical Specifications of 10G SFP+ MM Transceiver			
1	Type of Transceiver	SFP+ 10G	
2	SFP Mode	Multimode	
3	IEEE STD	802.3ae	
4	Wave length(nm)	850Nm	
5	Distance	150m to 300 m	
6	Digital Optical Monitoring and Hot Pluggable/ Swappable		
7	Safety Standard	EN60825-1	

Technical Specifications for Copper and Fiber Components

The OEM must be a legal entity registered in India under the Companies Act, 1956, having registered office and operations in India. The OEM of Passive Network Components should be present in the India for last 15 Years.

OEM must have ISO 9001:2008, ISO 9001:14001, ISO 45001 ISO 27001

Components/raw material used must be RoHS verified

OEM should have manufacturing Unit, Product design & development center in India.

The entire passive components Copper & Fiber should be from single OEM.

Tec	chnical Specifications of the 6 Core MM OM3 OFC Cable
Multi Mode fiber 6 co	re: -Armored Uni-Tube, 50/125µm,OM3 Type Optical Fiber Cable
Fiber Type	Multi Mode, 50/125-micron primary coated buffers, OM3
Construction type	Uni-tube construction,
Tube:	1 Nos Polybutylene, Terephthalate (PBT)
No of fibers:	6 core
Water Blocking	Thixotropic Gel (Tube) Petroleum Jelly (Interstices)
Core Wrapping	Polyethylene Terephthalate
Armoring:	Corrugated Steel Tape Armor (ECCS Tape) Thickness > 0.125mm
Peripheral Strength Member	Two Steel wires (0.9 mm dia)
Ripcord:	Polyester based yarns below armored tape for easy ripping
Outer Sheath	UV Stabilised Polyethylene (HDPE)
Sheath thickness	1.8 mm nominal
Standards	ISO/IEC 11801 2nd Edition; OM4 AS/ACIF S008; AS/NZS 3080; TIA/EIA 568.C.3; IEC-60793-1, 60793-2 EN50173, ANSI/TIA 568-C.3, Telcordia GR-20; suitable for use in indoor / outdoor ducts, direct burial and backbone cabling, RoHS Complaint
Dimensions and Mass Overall, Cable (Nominal):	9.0 ± 1 MM
Mass (Nominal)	80 kg/km +- 10 %
Cable length	2 km ± 10%
Max. Bending Radius (During installation)	20 X Overall diameters
Max. Bending Radius (During full load):	10 X Overall diameters
Max. Tensile Strength-Short Term	1500N

Operating Temperature range Max. Attenuation: Att850 nm: 3.0 dB/km At 1300 nm: 1.5 dB/km Technical Specifications of the 6 Port LIU Fully Loaded LC Type 6 Port Fiber Optic Rack Mount LIU with Adaptors Plates ,Splice Connector Type Operating Ope	Max. Crush Resistance- Short Term:	2000N/10 cm
Attenuation At 850 nm : 3.0 dB/km At 1300 nm : 1.5 dB/km Technical Specifications of the 6 Port LIU Fully Loaded LC Type 6 Port Fiber Optic Rack Mount LIU with Adaptors Plates ,Splice Connector Type LC-Style Operating temperature	Operating	-20°C ±70°C
Attenuation At 850 nm : 3.0 dB/km At 1300 nm : 1.5 dB/km Technical Specifications of the 6 Port LIU Fully Loaded LC Type 6 Port Fiber Optic Rack Mount LIU with Adaptors Plates , Splice Connector Type Connector Type Conector	remperature range	May Attonuation:
Technical Specifications of the 6 Port LIU Fully Loaded LC Type 6 Port Fiber Optic Rack Mount LIU with Adaptors Plates , Splice Connector Type Connector Type Congrating temperature MM connectors 500 cycles, Beige Ferrules Pre-radiused Ceramic Ferrules Attenuation Fiber Optic Patch panels FMS- Front Patching / Splicing Shelf The FMS fiber management shelf series is ideal for high density front patching applications. High Density 10: 6/24 Fiber terminations Upgradable Upto 96 LC port in 1 U Should be supplied loaded with secondary coated LC pigtails, Splice Tray & Splice Protector Mounting brackets can be placed in different positions Easy access to splicing tray Easy access to back side of connector concept allows for Technical Specifications of the 24 Port LIU Fully Loaded LC Type 24 Port Fiber Optic Rack Mount LIU with Adaptors Plates , Splice Connector Type Operating temperature MM connectors 500 cycles, Beige Ferrules Pre-radiused Ceramic Ferrules Attenuation Not more than 0.75 dB per mated pair 6/24 Ports Loaded FMS- Front Patching / Splicing Shelf The FMS fiber management shelf series is ideal for high density front patching applications.	Attonuction	
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24 Port Fiber Optic Rack Mount LIU with Adaptors Plates ,Splice Connector Type		
Connector Type Operating temperature MM connectors Ferrules Attenuation Fiber Optic Patch panels FMS- Front Patching / Splicing Shelf The FMS fiber management shelf series is ideal for high density front patching applications. LC-Style -20 Degree C to +70 Degree C or better better -20 Degree C to +70 Degree C or better -20 Degree C to +70 Degree C or better	Techr	nical Specifications of the 24 Port LIU Fully Loaded LC Type
Operating temperature MM connectors Ferrules Attenuation Fiber Optic Patch panels FMS- Front Patching / Splicing Shelf The FMS fiber management shelf series is ideal for high density front patching applications.	24 Port Fiber Optic R	ack Mount LIU with Adaptors Plates ,Splice
temperature MM connectors 500 cycles, Beige Ferrules Pre-radiused Ceramic Ferrules Attenuation Not more than 0.75 dB per mated pair Fiber Optic Patch panels 6/24 Ports Loaded FMS- Front Patching / Splicing Shelf The FMS fiber management shelf series is ideal for high density front patching applications.	Connector Type	LC-Style
Ferrules Attenuation Not more than 0.75 dB per mated pair Fiber Optic Patch panels FMS- Front Patching / Splicing Shelf The FMS fiber management shelf series is ideal for high density front patching applications.	· •	-20 Degree C to +70 Degree C or better
Attenuation Not more than 0.75 dB per mated pair Fiber Optic Patch panels 6/24 Ports Loaded FMS- Front Patching / IU 19" / ETSI versions available Splicing Shelf The FMS fiber management shelf series is ideal for high density front patching applications.	MM connectors	500 cycles, Beige
Fiber Optic Patch panels 6/24 Ports Loaded FMS- Front Patching / Splicing Shelf The FMS fiber management shelf series is ideal for high density front patching applications.	Ferrules	Pre-radiused Ceramic Ferrules
FMS- Front Patching / 1U 19" / ETSI versions available Splicing Shelf The FMS fiber management shelf series is ideal for high density front patching applications.	Attenuation	Not more than 0.75 dB per mated pair
FMS- Front Patching / Splicing Shelf The FMS fiber management shelf series is ideal for high density front patching applications.	Fiber Optic Patch	6/24 Ports Loaded
Splicing Shelf The FMS fiber management shelf series is ideal for high density front patching applications.	panels	0/24 POITS LOaded
The FMS fiber management shelf series is ideal for high density front patching applications.	/	1U 19" / ETSI versions available
High Density 1U: 6/24 Fiber terminations Upgradable Upto 96 LC port in 1 U	. 3	
	High Density	1U: 6/24 Fiber terminations Upgradable Upto 96 LC port in 1 U

	Should be supplied loaded with secondary coated LC pigtails, Splice Tray		
	& Splice Protector Mounting brackets can be placed in different positions		
	Easy access to splicing tray		
Sliding Drawer	Easy access to back side of connector		
concept allows for	Labeling strip for adhesive labels and better cable management		
	Fiber guides, radius controls & secure tie downs provided		
-	ecifications of the LC-LC Fiber Patch Multi Mode OM3 Cord 3 mtr		
	Multimode OM3 Optical Fiber Patch Cords:- 3 Mtr		
Fiber Type	50/125 μm, OM3 , Duplex Zipcord.		
	The optical fiber patch leads shall comprise of Multi-mode		
Connectors	50/125μm OM3 fiber with 2XLC type fiber connectors terminated at one		
	end and 2X LC type fiber connectors at other end of the patch cord.		
Cordage O.D	(Duplex): 2.0mm ± 0.1mm x 4.1± 0.2mm		
Buffer Diameter	900μ tight buffer		
Strength Member	Aramid Yarn		
Jacket Material	LSOH IEC 61034-1 &2,IEC-60332-1, IEC-60754-1 & 2		
Connector Loss	0.30dB(max)		
Operating	-40°C to +85°C		
Temperature			
Standards	ISO/IEC 1108:2008, ANSI/TIA/ EIA 568.C.3, ANSI/TIA/EIA-492,		
	TELECORDIA GR-409, ICEA-596		
	nical Specifications of the Cable Cat 6 , 4 pair, UTP - 305m		
CAT6 4 Pair UTP CABL			
Туре	Unshielded twisted pair cabling system, TIA 568.2-D Category 6 Supports ultrahigh speed data networks such as Gigabit Ethernet (1000		
Network support	Base-T and 1000 Base-TX) or more.		
TIA 568.2-D	ETL Verified & UL Listed (Certificates are mandatory)		
IEEE 802.3ab	Zero-bit Error		
POE	Suitable for PoE applications: IEEE 802.3bt from Type 1 to Type 4,		
Fire Rating	IEC 60332-1 ,Acid gas IEC 60754-2 Smoke density IEC 61034-2		
Conductors	23 AWG solid bare copper		
Insulation	Polyethylene		
Sheath Type	LSZH Complies to IEC 60332-1		
Pulling Force	100N or 11 KG Minimum		
NVP	69%		
Packing	Box of 305 meters		
Instant Volt rated	300V		
Impedance	100 Ohms + / - 15 ohms		
Delay Skew:	45ns Max		
Mutual Capacitance:	5.6nF/100m Nominal		
Approved	RoHS Compliant		
, ipproved	Notice Compilation		
Technic	al Specifications of the Cat 6 24 Port Jack Panel Fully Loaded		
CAT6 24 PORT JACK PANEL LOADED:-			
	ith individually replaceable 24 numbers Category-6 I/O Jacks complying as		
•	L-1:2017, ANSI/TIA-568.2 D or latest		
	ountable and of 1U height & complete with all mounting accessories		
Material should be CF	RS (cold rolled steel)		

Jack (I/O) should have protection from dust and contaminants.

Jack (I/O) operating Life should be minimum 750 insertion cycles and contact material should be copper alloy.

Jack (I/O) contact plating should be 50μ Gold/ 50μ Nickel minimum

Should have self-adhesive, clear label holders (transparent plastic window type) and white designation labels with the panel, with optional color labels / icons.

Operating Life should be Minimum 20 re-terminations and contact material should be copper alloy.

Should be supplied with metallic integrated rear cable management shelf as for cable strain relief & for better cable dressing at the rear

Port numbering is provided on the front and rear of the panel

Should be RoHS Compliant

Should be RoHS Com	pliant			
Т	echnical Specifications of the Cat-6 Information Outlet			
CAT6 INFORMATION OUTLET (JACK)				
Туре	Should be confirm to Category-6 as per ISO/IEC 11801: 2002 Class EA and ANSI/TIA-568.2-D			
Bandwidth support	Should be support network line speeds up to 1 Gbps			
POE	Suitable for PoE applications: IEEE 802.3bt from Type 1 to Type 4,			
Pattern support	Dual color-coding allows for 568 A/B wiring			
Compatibility	RJ-11 compatible			
Dust Proof	Jack (I/O) should have a protection from dust and contaminants.			
RJ45 I/O	Individual Compatible RJ45 Jack & Pointed IDC Tower on RJ45 Jack for			
Compatibility	easy termination			
Plastic Housing:	Thermoplastic UL94V-0 rated or equivalent			
Operating Life:	Minimum 750 insertion cycles			
Contact Material:	Copper Alloy			
Contact Plating:	50μ" Gold/100μ" Nickel			
Plug Retention Force:	11 lbf minimum			
Operating Life:	Minimum 20 re-terminations			
Wire Accommodation:	22-24 AWG solid			
Interface Resistance:	At least 20 milliohms			
Insulation Resistance:	At least 100 Megaohms			
Approval	ROHS Complied			
Certification	Should be covered by UL/ETL certification.			
Te	chnical Specifications of the Cat-6 UTP Patch Cord 1 Mtr			
CAT6 PATCH CORDS (1 Mtr) (Blue, Yellow, Red & Green)			
Туре	Cat 6 U/UTP support data networks for 10/100BASE-T and 1000BASE-T applications.			
Conductor size:	24 AWG stranded copper wire			
Nom. O.D.:	6 mm ± 0.5 mm			
Sheath:	LSOH			
POE	Suitable for PoE applications: IEEE 802.3bt from Type 1 to Type 4,			
Boots	Transparent Plug with anti-snag slip on boots			

RJ45 Plug Standard	ISO/IEC 60606-7-4 and FCC 47 Part 68	
Sheath Standards	Fire Propagation compliant with CSA FTI, IEC 60332-1 & IEC 61034	
Operating	-20°C to 60°C	
temperature:		
MIN operating life	: 750 insertion cycles	
Tec	chnical Specifications of the Cat-6 UTP Patch Cord 2 Mtr	
CAT6 PATCH CORDS (2 Mtr) (Blue, Yellow, Red & Green)	
Туре	Cat 6 U/UTP support data networks for 10/100BASE-T and 1000BASE-T	
туре	applications.	
Conductor size:	24 AWG stranded copper wire	
Nom. O.D.:	6 mm ± 0.5 mm	
Sheath:	LSOH	
POE	Suitable for PoE applications: IEEE 802.3bt from Type 1 to Type 4,	
Boots	Transparent Plug with anti-snag slip on boots	
RJ45 Plug Standard	ISO/IEC 60606-7-4 and FCC 47 Part 68	
Sheath Standards	Fire Propagation compliant with CSA FTI, IEC 60332-1 & IEC 61034	
Operating	-20°C to 60°C	
temperature:	-20 € 10 00 €	
MIN operating life	: 750 insertion cycles	

Second Floor

SI NO	Location	Rrequired connections
1	Duty Room 1	1
2	Duty Room 2	1
3	Duty Room 3	1
4	Dubbing 3	2
5	Dubbing 4	2
6	CB 2	1
7	CB 3	1
8	Studio7	5
9	Studio8	6
10	Studio9	5
11	Studio10	5
12	Studio11	5
13	Studio12	5
14	Studio13	5
15	Studio14	5
Total		50

Fourth floor

SI NO	Location	Required connections
1	Studio21	5
2	Studio22	5
3	Studio23	5
4	Studio24	5
5	Studio25	5
6	Studio26	5
7	CB 5	1
8	Web streaming	2
9	Duty room Gold	1
10	Duty room Rainbow	1
11	Gold Production	2
12	Rainbow production	3
13	Media Library	2
14	CBS Library	0
15	GMU`	2
16	Earth Station	2
Total		46

Studio:

1.	Booth(system + Clock)	1
2.	Studio Systems	2
3.	Studio Clock	1
4.	Phone in	1

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