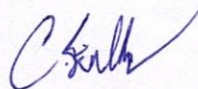


PRODUCT STANDARD
DIGITAL TRANSFORMATION GROUP
BAP/BHEL/RANIPET - 632 406

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DATE 19.09.2019

TITLE: TECHNICAL SPECIFICATION NETWORK COMPONENTS PASSIVE

ITEM: SUPPLY OF OFC CABLES

NAME		DESIGNATION	SIGNATURE	DATE
PREPARED	S. Gayathri	Sr.Engineer/DTG		19/9/19
CHECKED	A.Mahesh	DM/DTG		17/9/19
APPROVED	C.SENTHIL	DGM/DTG		19/9/19

ISSUED BY:
DIGITAL TRANSFORMATION GROUP

REVISION NO 01

INITIAL RELEASE

19.09.2019

Technical Specification:

Features	Min Requirements as per RFP	Compliance (Yes / No)	Remarks
Outdoor Single mode Fiber Optic cable (6 Core - OS1)	1.Make : Molex / Panduit / Schneider /Systimax / ADC Krone /AMP/Legrand/Polycab 2. Type of Fiber: 6 Single mode 9/125 micron Loose Tube armored with ROHS Compliant 3.Application : Outdoor / Underground 4.Jacket: UV Stabilized Polyethylene HDPE Sheath 5.Armoring: Corrugated Steel Tape Armour (ECCS Tape), Thickness > 0.15mm 6.Strength: Member Water blocked E-Glass fiber elements OR Two Steel Wires 7.Standard: ISO IEC 11801, TIA/EIA 598 8.Attenuation: 0.4dB/km over 1310nm to 1625nm		
6 Port Fully Loaded LIU	1.Make: Molex / Panduit / Schneider / Systimax / ADC Krone / AMP/Legrand 2.Material: Fully Powder Coated Steel Body 3.Mount Type: Wall mount 4.Accommodation: Accept 6 SC Duplex Adaptors		

	5. Labelling: Labelling for port identification 6. Certification: ROHS Compliant 7. Coupler: Fully Loaded SC Duplex Type with ROHS Compliant 8. Specification Standard: ISO/IEC 11801		
Single mode Pigtail	1. Make: Molex / Panduit / Schneider / Systimax / ADC Krone / AMP/Legrand/Polycab 2. Type of connectors: SC Connector 3. Polishing: 100% Factory polished 4. Standards: ROHS Compliant 5. Insertion Loss: Less than 0.3 db dB per connector		
Duplex Single Mode Fiber Patch cord : 2 Meter patch cord	1. Make: Molex / Panduit / Schneider / Systimax / ADC Krone / AMP/Legrand/Polycab 2. Type of connectors: SC-SC 3. Polishing: 100% Factory polished 4. Standards: ROHS Compliant 5. Insertion Loss: Less than 0.3 db dB per connector		
Duplex Single Mode Fiber Patch cord: 2 Meter patch cord	1. Make: Molex / Panduit / Schneider / Systimax / ADC Krone / AMP/Legrand/Polycab 2. Type of connectors: SC-LC 3. Polishing: 100% Factory polished 4. Standards: ROHS Compliant 5. Insertion Loss: Less than 0.3 db dB per connector		

Metal Route Marker	1.Material:Metal 2.Marking: OFC		
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Scope of Work for Installation & Commissioning

Features	Min Requirements as per RFP	Compliance(Yes / No)	Remarks
Outdoor Fiber optic cable laying in soft / hard soil	The cable shall be laid in HDPE pipe, underground by excavating the earth to a depth of 0.75 meter. Cable route markers shall be installed at intervals of 50 meters and at turning points. The excavated portion shall be refilled to about 60 cms. and warning tape shall be placed. The balance soil shall be refilled and compacted up to the ground level. In case of any obstructions in built up areas and it is not possible to dig deeper, a minimum of 0.3 meter(~1 ft) from top of pipe shall be maintained. In all such cases where the depth is less than 0.75m, mechanical protection by reinforced concrete casing/GI pipe should be given. No protection, however, need to be given if the depth is 0.75m.		
Outdoor Fiber optic cable laying in road	The cable shall be laid underground by excavating the earth to a depth of 0.5 meter. The cable shall be laid in a HDPE pipe within a GI pipe (Medium duty). The excavated portion shall be refilled fully with the excavated earth and shall be finished by cementing.		

	Outdoor Fiber optic cable laying in trench In some places, fiber cable shall be laid along existing trenches. This involves removal of cement slabs/ MS Sheets at few locations, laying of HDPE pipe, clamping of HDPE pipe, laying of fiber cable inside HDPE pipe and replacement of cement slabs / MS Sheets.		
Splicing	The pigtails shall be spliced to the ends of fiber cables and neatly arranged using splice holders in the LIU and the LIU shall be fixed in the walls. Test the connectivity using fiber tester and the test report shall be submitted. Labeling of all fiber Cables shall be done by the bidder		