



Bid Number/बोली क्रमांक (बिड संख्या):

GEM/2025/B/6048153

Dated/दिनांक : 12-03-2025

Bid Document/ बिड दस्तावेज़

Bid Details/बिड विवरण	
Bid End Date/Time/बिड बंद होने की तारीख/समय	26-03-2025 10:00:00
Bid Opening Date/Time/बिड खुलने की तारीख/समय	26-03-2025 10:30:00
Bid Offer Validity (From End Date)/बिड पेशकश वैधता (बंद होने की तारीख से)	180 (Days)
Ministry/State Name/मंत्रालय/राज्य का नाम	Ministry Of Communications
Department Name/विभाग का नाम	Department Of Telecommunications (dot)
Organisation Name/संगठन का नाम	Iti Limited
Office Name/कार्यालय का नाम	Raebareli
क्रैता ईमेल/Buyer Email	buyer25.il.up@gembuyer.in
Total Quantity/कुल मात्रा	892185
Item Category/मद केटेगरी	SINGLE MODE OPTICAL FIBRE G. 652D
GeMARPTS में खोजी गई स्ट्रिंग / Searched Strings used in GeMARPTS	SINGLE MODE OPTICAL FIBRE G652D
GeMARPTS में खोजा गया परिणाम / Searched Result generated in GeMARPTS	Metal Free Optical Fibre Cable, Fibre Cable for Networking, Single Band ONT, ADSS Optical Fiber Cable (Defence), Armoured Optical Fibre Cable for Direct Burial (Underground), Fiber Media converter, Ribbon Optical Fiber Splicing Machine as per TEC Specification, Fiber Optic Patch Cord, Optical Fibre Splicing Machine (V2) as per TEC 88090:2012, Optical Time Domain Reflectometer (OTDR)
अधिसूचना के लिए चयनित प्रासंगिक श्रेणियाँ / Relevant Categories selected for notification	<ul style="list-style-type: none">Fiber Glass Sheet
Minimum Average Annual Turnover of the bidder (For 3 Years)/बिडर का न्यूनतम औसत वार्षिक टर्नओवर (3 वर्षों का)	1222 Lakh (s)
OEM Average Turnover (Last 3 Years)/मूल उपकरण निर्माता का औसत टर्नओवर (गत 3 वर्षों का)	1222 Lakh (s)
Years of Past Experience Required for same/similar service/उन्हीं/समान सेवाओं के लिए अपेक्षित विगत अनुभव के वर्ष	2 Year (s)

Bid Details/बिड विवरण	
MSE Exemption for Turnover/टर्नओवर के लिए एमएसई को छूट प्राप्त है	Yes
Startup Exemption for Turnover/ टर्नओवर के लिए स्टार्टअप को छूट प्राप्त है	Yes
Document required from seller/विक्रेता से मांगे गए दस्तावेज़	Experience Criteria,Past Performance,Bidder Turnover,Certificate (Requested in ATC),OEM Authorization Certificate,OEM Annual Turnover,Additional Doc 1 (Requested in ATC) *In case any bidder is seeking exemption from Experience / Turnover Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer
Do you want to show documents uploaded by bidders to all bidders participated in bid?/	Yes
Past Performance/विगत प्रदर्शन	30 %
Bid to RA enabled/बिड से रिवर्स नीलामी सक्रिय किया	No
Type of Bid/बिड का प्रकार	Two Packet Bid
Time allowed for Technical Clarifications during technical evaluation/तकनीकी मूल्यांकन के दौरान तकनीकी स्पष्टीकरण हेतु अनुमत समय	2 Days
Inspection Required (By Empanelled Inspection Authority / Agencies pre-registered with GeM)	No
Evaluation Method/मूल्यांकन पद्धति	Total value wise evaluation
Arbitration Clause	No
Mediation Clause	No

EMD Detail/ईएमडी विवरण

Required/आवश्यकता	No
-------------------	----

ePBG Detail/ईपीबीजी विवरण

Required/आवश्यकता	No
-------------------	----

MII Purchase Preference/एमआईआई खरीद वरीयता

MII Purchase Preference/एमआईआई खरीद वरीयता	Yes
--	-----

MSE Purchase Preference/एमएसई खरीद वरीयता

MSE Purchase Preference/एमएसई खरीद वरीयता	Yes
---	-----

1. If the bidder is a Micro or Small Enterprise as per latest definitions under MSME rules, the bidder shall be exempted from the requirement of "Bidder Turnover" criteria and "Experience Criteria" subject to meeting of quality and technical specifications. If the bidder is OEM of the offered products, it would be exempted from the "OEM Average Turnover" criteria also subject to meeting of quality and technical specifications. In case any bidder is seeking exemption from Turnover / Experience Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer.

2. If the bidder is a Startup, the bidder shall be exempted from the requirement of "Bidder Turnover" criteria and "Experience Criteria" subject to their meeting of quality and technical specifications. If the bidder is OEM of the offered products, it would be exempted from the "OEM Average Turnover" criteria also subject to meeting of quality and technical specifications. In case any bidder is seeking exemption from Turnover / Experience Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer.

3. The minimum average annual financial turnover of the bidder during the last three years, ending on 31st March of the previous financial year, should be as indicated above in the bid document. Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid. In case the date of constitution / incorporation of the bidder is less than 3-year-old, the average turnover in respect of the completed financial years after the date of constitution shall be taken into account for this criteria.

4. Experience Criteria: In respect of the filter applied for experience criteria, the Bidder or its OEM {themselves or through reseller(s)} should have regularly, manufactured and supplied same or similar Category Products to any Central / State Govt Organization / PSU for number of Financial years as indicated above in the bid document before the bid opening date. Copies of relevant contracts to be submitted along with bid in support of having supplied some quantity during each of the Financial year. In case of bunch bids, the category of primary product having highest value should meet this criterion.

5. OEM Turn Over Criteria: The minimum average annual financial turnover of the OEM of the offered product during the last three years, ending on 31st March of the previous financial year, should be as indicated in the bid document. Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid. In case the date of constitution / incorporation of the OEM is less than 3 year old, the average turnover in respect of the completed financial years after the date of constitution shall be taken into account for this criteria.

6. Preference to Make In India products (For bids < 200 Crore): Preference shall be given to Class 1 local supplier as defined in public procurement (Preference to Make in India), Order 2017 as amended from time to time and its subsequent Orders/Notifications issued by concerned Nodal Ministry for specific Goods/Products. The minimum local content to qualify as a Class 1 local supplier is denoted in the bid document. If the bidder wants to avail the Purchase preference, the bidder must upload a certificate from the OEM regarding the percentage of the local content and the details of locations at which the local value addition is made along with their bid, failing which no purchase preference shall be granted. In case the bid value is more than Rs 10 Crore, the declaration relating to percentage of local content shall be certified by the statutory auditor or cost auditor, if the OEM is a company and by a practicing cost accountant or a chartered accountant for OEMs other than companies as per the Public Procurement (preference to Make-in -India) order 2017 dated 04.06.2020. Only Class-I and Class-II Local suppliers as per MII order dated 4.6.2020 will be eligible to bid. Non - Local suppliers as per MII order dated 04.06.2020 are not eligible to participate. However, eligible micro and small enterprises will be allowed to participate .The buyers are advised to refer the OM No.F.1/4/2021-PPD dated 18.05.2023,

[OM No.1 4 2021 PPD dated 18.05.2023](#) for compliance of Concurrent application of Public Procurement Policy for Micro and Small Enterprises Order, 2012 and Public Procurement (Preference to Make in India) Order, 2017.

7. Purchase preference will be given to MSEs having valid Udyam Registration and whose credentials are validated online through Udyam Registration portal as defined in Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 dated 23.03.2012 issued by Ministry of Micro, Small and Medium Enterprises and its subsequent Orders/Notifications issued by concerned Ministry. If the bidder wants to avail themselves of the Purchase preference, the bidder must be the manufacturer / OEM of the offered product on GeM. Traders are excluded from the purview of Public Procurement Policy for Micro and Small Enterprises and hence resellers offering products manufactured by some other OEM are not eligible for any purchase preference. In respect of bid for Services, the bidder must be the Service provider of the offered Service. Relevant documentary evidence in this regard shall be uploaded along with the bid in respect of the offered product or service and Buyer will decide eligibility for purchase preference based on documentary evidence submitted, while evaluating the bid. If L-1 is

not an MSE and MSE Seller (s) has / have quoted price within L-1+ 15% (Selected by Buyer) of margin of purchase preference /price band defined in relevant policy, such MSE Seller shall be given opportunity to match L-1 price and contract will be awarded for 25% (selected by Buyer) percentage of total quantity. The buyers are advised to refer the OM No. F.1/4/2021-PPD dated 18.05.2023 [OM No.1 4 2021 PPD dated 18.05.2023](#) for compliance of Concurrent application of Public Procurement Policy for Micro and Small Enterprises Order, 2012 and Public Procurement (Preference to Make in India) Order, 2017. Benefits of MSE will be allowed only if seller is validated on-line in GeM profile as well as validated and approved by Buyer after evaluation of documents submitted.

8. Past Performance: The Bidder or its OEM {themselves or through re-seller(s)} should have supplied same or similar Category Products for 30% of bid quantity, in at least one of the last three Financial years before the bid opening date to any Central / State Govt Organization / PSU. Copies of relevant contracts (proving supply of cumulative order quantity in any one financial year) to be submitted along with bid in support of quantity supplied in the relevant Financial year. In case of bunch bids, the category related to primary product having highest bid value should meet this criterion.

SINGLE MODE OPTICAL FIBRE G. 652D (892185 kilometer)

(Minimum 50% and 20% Local Content required for qualifying as Class 1 and Class 2 Local Supplier respectively/क्रमशः श्रेणी 1 और श्रेणी 2 के स्थानीय आपूर्तिकर्ता के रूप में अर्हता प्राप्त करने के लिए आवश्यक)

Technical Specifications/तकनीकी विशिष्टियाँ

Buyer Specification Document/क्रेता विशिष्टि दस्तावेज़	Download
--	--------------------------

Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	Pushp Raj	229010,ITI LTD, Sultanpur Road, Raebareli	892185	30

Buyer Added Bid Specific Terms and Conditions/क्रेता द्वारा जोड़ी गई बिड की विशेष शर्तें

1. Generic

OPTION CLAUSE: The Purchaser reserves the right to increase or decrease the quantity to be ordered up to 25 percent of bid quantity at the time of placement of contract. The purchaser also reserves the right to increase the ordered quantity up to 25% of the contracted quantity during the currency of the contract at the contracted rates. The delivery period of quantity shall commence from the last date of original delivery order and in cases where option clause is exercised during the extended delivery period the additional time shall commence from the last date of extended delivery period. The additional delivery time shall be $(\text{Increased quantity} \div \text{Original quantity}) \times \text{Original delivery period (in days)}$, subject to minimum of 30 days. If the original delivery period is less than 30 days, the additional time equals the original delivery period. The Purchaser may extend this calculated delivery duration up to the original delivery period while exercising the option clause. Bidders must comply with these terms.

2. Buyer Added Bid Specific ATC

Buyer uploaded ATC document [Click here to view the file.](#)

3. Past Project Experience

Proof for Past Experience and Project Experience clause: For fulfilling the experience criteria any one of the following documents may be considered as valid proof for meeting the experience criteria: a. Contract copy along with Invoice(s) with self-certification by the bidder that service/supplies against the invoices have been executed. b. Execution certificate by client with contract value. c. Any other document in support of contract execution like Third Party Inspection release note, etc. **Proof for Past Experience and Project Experience clause:** For fulfilling the experience criteria any one of the following documents may be considered as valid proof for meeting the experience criteria: a. Contract copy along with Invoice(s) with self-certification by the bidder that service/supplies against the invoices have been executed. b. Execution certificate by client with contract value. c. Any other document in support of contract execution like Third Party Inspection release note, etc.

4. Past Project Experience

The Bidder / OEM {themselves or through reseller(s)}, should have executed project for supply and installation / commissioning of same or similar Category Products during preceding 3 financial years (i.e. current year and three previous financial years) as on opening of bid, as per following criteria:

- (i) Single order of at least 35% of estimated bid value; or
- (ii) Two orders of at least 20% each of estimated bid value; or
- (iii) Three orders of at least 15% each of estimated bid value.

Satisfactory Performance certificate issued by respective Buyer Organization for the above Orders should be uploaded with bid. In case of bunch bids, the Category related to primary product having highest bid value should meet this criterion

5. Turnover

Bidder Turn Over Criteria: The minimum average annual financial turnover of the bidder during the last three years, ending on 31st March of the previous financial year, should be as indicated in the bid document. Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid. In case the date of constitution / incorporation of the bidder is less than 3 year old, the average turnover in respect of the completed financial years after the date of constitution shall be taken into account for this criteria.

6. Turnover

OEM Turn Over Criteria: The minimum average annual financial turnover of the OEM of the offered product during the last three years, ending on 31st March of the previous financial year, should be as indicated in the bid document. Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid. In case the date of constitution / incorporation of the OEM is less than 3 year old, the average turnover in respect of the completed financial years after the date of constitution shall be taken into account for this criteria. In case of bunch bids, the OEM of CATEGORY RELATED TO primary product having highest bid value should meet this criterion.

7. OEM

IMPORTED PRODUCTS: In case of imported products, OEM or Authorized Seller of OEM should have a registered office in India to provide after sales service support in India. The certificate to this effect should be submitted.

8. Certificates

Material Test Certificate Should Be Sent Along with The Supply. The Material Will Be Checked by Buyer's Lab & the Results of the Lab will be the Sole Criteria for Acceptance of the Item.

The additional terms and conditions have been incorporated by the Buyer after approval of the Competent Authority in Buyer Organization, whereby Buyer organization is solely responsible for the impact of these clauses on the bidding process, its outcome, and consequences thereof including any eccentricity / restriction arising in the bidding process due to these ATCs and due to modification of technical specifications and / or terms and conditions governing the bid. If any clause(s) is / are incorporated by the Buyer regarding following, the bid and resultant contracts shall be treated as null and void and such bids may be cancelled by GeM at any stage of bidding process without any notice:-

1. Definition of Class I and Class II suppliers in the bid not in line with the extant Order / Office Memorandum issued by DPIIT in this regard.
2. Seeking EMD submission from bidder(s), including via Additional Terms & Conditions, in contravention to exemption provided to such sellers under GeM GTC.
3. Publishing Custom / BOQ bids for items for which regular GeM categories are available without any Category item bunched with it.
4. Creating BoQ bid for single item.
5. Mentioning specific Brand or Make or Model or Manufacturer or Dealer name.
6. Mandating submission of documents in physical form as a pre-requisite to qualify bidders.
7. Floating / creation of work contracts as Custom Bids in Services.
8. Seeking sample with bid or approval of samples during bid evaluation process. (However, in bids for [attached categories](#), trials are allowed as per approved procurement policy of the buyer nodal Ministries)
9. Mandating foreign / international certifications even in case of existence of Indian Standards without specifying equivalent Indian Certification / standards.
10. Seeking experience from specific organization / department / institute only or from foreign / export experience.
11. Creating bid for items from irrelevant categories.
12. Incorporating any clause against the MSME policy and Preference to Make in India Policy.
13. Reference of conditions published on any external site or reference to external documents/clauses.
14. Asking for any Tender fee / Bid Participation fee / Auction fee in case of Bids / Forward Auction, as the case may be.

Further, if any seller has any objection/grievance against these additional clauses or otherwise on any aspect of this bid, they can raise their representation against the same by using the Representation window provided in the bid details field in Seller dashboard after logging in as a seller within 4 days of bid publication on GeM. Buyer is duty bound to reply to all such representations and would not be allowed to open bids if he fails to reply to such representations.

All GeM Sellers / Service Providers are mandated to ensure compliance with all the applicable laws / acts / rules including but not limited to all Labour Laws such as The Minimum Wages Act, 1948, The Payment of Wages Act, 1936, The Payment of Bonus Act, 1965, The Equal Remuneration Act, 1976, The Payment of Gratuity Act, 1972 etc. Any non-compliance will be treated as breach of contract and Buyer may take suitable actions as per GeM Contract.

[This Bid is also governed by the General Terms and Conditions/ यह बिड सामान्य शर्तों के अंतर्गत भी शासित है](#)

In terms of GeM GTC clause 26 regarding Restrictions on procurement from a bidder of a country which shares a land border with India, any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. While participating in bid, Bidder has to undertake compliance of this and any false declaration and non-compliance of this would be a ground for immediate termination of the contract and further legal action in accordance with the laws./जेम की सामान्य शर्तों के खंड 26 के संदर्भ में भारत के साथ भूमि सीमा साझा करने वाले देश के बिडर से खरीद पर प्रतिबंध के संबंध में भारत के साथ भूमि सीमा साझा करने वाले देश का कोई भी बिडर इस निविदा में बिड देने के लिए तभी पात्र होगा जब वह बिड देने वाला सक्षम प्राधिकारी के पास पंजीकृत हो। बिड में भाग लेते समय बिडर को इसका अनुपालन करना होगा और कोई भी गलत घोषणा किए जाने व इसका अनुपालन न करने पर अनुबंध को तत्काल समाप्त करने और कानून के अनुसार आगे की कानूनी कार्यवाई का आधार होगा।

---Thank You/धन्यवाद---

TABLE OF CONTENT

ANNEXURE No	CONTENT	PAGE NO
1	BID DOCUMENT	2-6
2	ATC/ Checklist	7-7
3	BID SECURITY DECLARATION	8-8
4	INTEGRITY PACT	9-11



BID DOCUMENT

GeM

**SUPPLY OF Fibre G 652 D AS PER TECHNICAL SPECIFICATION MENTIONED
IN BID DOCUMENT.**

DGM (PPM- T & TSEC)

ITI LIMITED

(A Government of India Undertaking)

Sultanpur Road, RAE BARELI-229010 (U.P)

Visit us at www.itilttd.in



ITI LIMITED

(A GOVT. OF INDIA UNDER TAKING)

SULTANPUR ROAD , RAE BARELI -229010 (UP) INDIA

Tel.: 0535 -2287565 , 0535-2287387 FAX: 0535-2702106,

E-mail: purmpd_rbl@itilttd.co.in, deepak_rbl@itilttd.co.in

To,

Dear Sir,

Please quote your prices & Delivery for the following items as per attached Terms and conditions:

Item No.	ITI CODE	Item Description	Qty. Required	Delivery required
1-	ORM-FBRG652D-000	SINGLE MODE OPTICAL FIBRE G.652D	892185 Km	Delivery would be in staggered mode @ 25% of P O qty. within one month from the date of placement of PO and balance thereafter each 3rd month with same rate however, the exact date will be intimated in advance.

Make: Party shall quote for following MAKE only .

Sterlite Technologies/Birla Furukawa/Finolex/Corning.

NOTE: (1) Technical Specifications are as per enclosed.

(2) Other requirement:

- Spool length for 70% of total quantity will be of good length 25.2 km & 50.4 km and balance 30% will be of length greater than 8.4 km in multiple of 4.2 km.
- Each length of spool must be in the group of 24 spools.
- Each pallet must contain spools of equal length.

(3) Material should confirm the BSNL ORM TEC 89010:2021 or latest amendments if any.

(4) Grade of fiber should not change till the completion of supply.

(5) The Valid CACT Approval is required. Please submit Leaflet/data sheet along with quotation.

(6) RA will be applicable for this Bid.

(7) A valid CACT certificate, MSDS (Material Safety Data Sheet), non-Hydrogen evolution certificate / declaration shall be mandatory for all CACT approved raw materials.

(8) Life time certificate shall be required for 25 years as per GR/ORM.

(9) L1 awarded winner may be asked to supply free of cost sample Fibre for 20 Km Cable. The Quantity shall be informed later on .

(11) Payment terms- LC 60 days .

Special Note:

1. Please confirm material specification, strictly as per our enquiry in your quotation.
2. Quote the basic rate, GST, freight, & HSN code of material separately.
3. Any product / item found faulty during our manufacturing process / system testing / installation and commissioning / operation of our equipment in field due to deviation from our specifications shall be replaced by vendor free of cost immediately.
4. In case of any dispute only Rae Bareli court will have jurisdiction to try the suit if any.
5. This is a Limited tender.
6. The above enquiry is also available in our website www.itilttd.india.com & Govt. website www.eprocure.gov.in
7. Price must be on FOR ITI RBL basis inclusive of insurance charges.
8. **Test Certificate with batch number mentioned in Invoice and TC must be provided by the vendor at the time of supply.**
9. Vendors have to indicate whether they are MSME Registered, vendor/DIPP recognized Start-ups with supporting documents.
10. MSME vendors have to indicate whether they are SC/ ST owned or women owned.

Yours faithfully

For ITI Limited,

(Deepak

Raebareli

TERMS AND CONDITIONS

1. **SUBMISSION OF TENDERS:** (A) This is only an enquiry to quote and not an order. This tender enquiry is not transferable.
2. **OPENING OF TENDERS:**
Tenders against enquiries will be opened in the presence of the tenderer/authorized representative on the due date of the tender itself / the next working day.

NOTE :

- a. Send your quote well in advance of due date to avoid delay.
 - b. Please indicate the Sl.No. and Code/Description exactly as per our enquiry.
- (3) Any substitute or alternate code quoted should be clearly stated. In case the Item quoted is under obsolescence, the same may be indicated with best last date of P.O and supply feasibility.

PRICES :

- a. ITI is planning to have long-term tie up with limited vendors, who can keep up good quality, prompt delivery and lowest cost. Hence, you may quote in such a way that a long-term relationship is possible.
- b. Prices must be per unit as called for in the enquiry and should be on F.O.R, ITI Works basis only and inclusive of insurance charges. In such an event, while tabulating the offers, insurance is not to be reckoned and should include weather proof packing adequate to withstand transshipment damages. Local supplier's offers should be on F.O.R delivery at our Stores in our Plant.
- c. ITI, under normal circumstances, may not negotiate for the price. We may also short list only two to three suppliers for ordering. Hence you are requested to quote your best price in the original quotation itself.
- d. Any counter terms and conditions are not binding on us unless we agree to the same in writing.
- e. In case of an order on you, the ordered rate should be firm till the completion of the order. In case where the market prices of your inputs are fluctuating too frequently, you shall clearly define price variation clause. Please note that any variation in price up to 5% due to variation in FE / statutory levies will be absorbed by the supplier. However, for variation beyond 5% due to variation in FE / statutory levies, the burden of price increase / advantage of price decrease will be shared equally between ITI and the supplier.
- f. Vendors should deliver the material to ITI-Stores irrespective of whether they are Raebareli based or from outstation. Out station vendors can make use of their local representative / Courier Service / Surface transport on door delivery basis to deliver the material at ITI-Stores. ITI will not take the responsibility of clearing the goods from the carrier's godown / office / railway station / air port etc.
- g. In case of supply of imported items by local dealers proof of import should be provided. Prices quoted should indicate clearly the Modvat relief (by way of C.V.D), being passed on to ITI and supplier should furnish regular invoice indicating rate and amount of duty that is passed on which should be proportionate to the materials sold to ITI from the relevant imported consignment, covered under this appropriate Bill of Entry.

STATUTORY LEVIES:

- a. All applicable statutory levies like GST etc., should be separately indicated with the current rate applicable. Otherwise rate quoted will be deemed as inclusive of taxes / levies. Vague terms like "As applicable at the time of supply" should be avoided. Apart from statutory levies other charges like handling, P&F etc., will not be paid by us.
- b. In case of GST exempted delivery, authorization letter from the competent authority should be enclosed along with the quote.
- c. In case of your absorbing the GST portion, the same may be specified clearly in the quotation itself and not after the tender opening, which otherwise will be treated as post-tender correction and would disqualify your quote.
- d. In case of statutory levies like GST Surcharge etc., are modified the same has to be intimated to ITI immediately.

MODVAT RELIEF :

- a. We are eligible to avail the credit of GST paid on items procured for manufacturing Tele-communication equipments under MODVAT RELIEF scheme. Hence "Invoice Cum Gate Pass" in original for payment, and transporter copy duly marked and authenticated is to be produced along with the consignment. In case of your failing to adhere to this instruction, no GST will be reimbursed by us.
- b. Invoices should be in the prescribed form and have all particulars as per the GST Rules and notifications as amended from time to time, particularly Assessor code, Range Division, rate and amount of duty debited and Debit particulars.

- c. Agents/Distributors, on whom an order is placed should also produce Invoice Cum Gate Pass as per the procedure laid down by GST Rules and notifications issued from time to time. They should get registered with GST authorities where GST is being passed on.

Contd...../..

7. TERMS OF PAYMENTS:

- a. ITI prefers **LC PAYMENT 60 days**. For any variation in payment terms quoted by different vendors, loading in the comparative statement will be made suitably.
- b. **NO PAYMENT WILL BE MADE FOR THE REJECTED QUANTITY.**

- c. In case you fall under SSI as per DIC, please mention the same in all your quotations / invoices indicating also the certificate number. This is essential if in the unlikely event of delay in payment, you would like to claim preferential payment as an S.S.I.

8. INSPECTION :

- b. We are planning to reduce inspection time with self-certification scheme for the vendors who keep up good quality leading to “ship to stock system”.
- c. Inspection of the material at our works will be final. ITI reserves the right to inspect the material at any other standard testing center authorised by us.
- d. We or our representative including our customer may if required preliminarily inspect the product at vendor’s premises. Such verification shall not absolve the vendor of the responsibility to provide the acceptable product nor shall preclude subsequent rejection during the final inspection at our works. It is the responsibility of every vendor to ensure that only the inspected material s confirming to our specifications / drawings/requirements are supplied.
- e. The supplies shall be from the latest batch of production. Batch Number should be indicated on the components/packet/test certificate and accompanying delivery challan / test certificate.
- f. Test certificate / check list should accompany each supply. Consignments without test certificate are liable for rejection. Rejected material should be collected immediately (within 30 days) after our intimation by giving two days prior notice for completing the necessary GST FORMALITIES. You should make arrangements to collect the material either personally, OR through your authorised representatives. ITI does not take any responsibility to send the material back to you. After 90 days from the date of rejection intimation to you the material will be scrapped at your risk if not collected.

9. SAMPLES :

Those tenderers who have not supplied the material against any of our earlier orders, should submit FREE SAMPLES clearly indicating enquiry reference. Free samples along with your offer is preferable. In case of a Purchase Order on you, bulk supply should commence only after approval of samples.

10. WARRANTY :

Please note that we are an ISO 9002 accredited company. All our equipments/systems have a warranty of 18 months from the date of despatch to our customer. Hence the warranty of your products should be for a minimum period of 24 months from the date of supply. Within this warranty period, if any of your component/subsystem is found defective during our manufacturing process/system testing/installation and commissioning/operation of our equipment in the field, the same is to be replaced free of cost immediately by you.”

11. GENERAL :

- a. We reserve the right to accept or reject any or all offers and to order full or part quantities or cancellation thereof without assigning any reason whatsoever.
- b. Successful tenderer only will be intimated by post through/letter of intent/firm orders.
- c. Canvassing by tenderers in any form including un-solicited letters against tenders submitted or post-tender corrections shall render their tenders liable for summary rejection.

Contd...../..

12. DELIVERY SCHEDULE :

- a. Please indicate minimum LEAD TIME REQUIRED, manufacturing capacity and the quantity that can be reserved for us.
- b. Liquidated Damages Clause :
Time is the essence of contract and the materials, against an order arising out of this enquiry must be delivered by the supplier according to the delivery schedule indicated in the P.O. In case of any change, the supplier should inform us in advance and obtain our approval to the revised delivery schedule. Should the supplier fail to deliver the material or part thereof as per the delivery schedule, or any extension thereof, we shall be entitled at our option either to recover from the supplier, as penalty, a sum equivalent to ½% (half percent) per week for first four weeks and 0.7% per week thereafter for such delay or part thereof or terminate the contract in respect of the balance supply so delayed and purchase materials elsewhere at the risk and cost of the defaulting supplier.

13. SECURITY DEPOSIT :

In case of an order on you, you will have to agree for an interest free security deposit of 5% of order value subject to a maximum of Rs 10 Lakhs, by cash or draft only which will be forfeited in case you fail to execute the order to our satisfaction in all respects. This clause may be waived off in case of approved or established suppliers. However, the sole discretion lies with ITI.

14. FABRICATION ORDERS ONLY :

In case of Fabrication Orders:

- a. Necessary Bank guarantee towards the cost of raw material / component to be issued by ITI would be necessary.
- b. A quality agreement has to be entered into with ITI before commencing supply.
- c. Furnish the particulars of the Income Tax such as
 - i) ACCOUNT NO.
 - ii) Place where Income Tax Circle is situated along with tender documents. otherwise such tenders are liable for rejection.
 - d. The technical know-how Literature, specifications etc., if furnished to you alongwith this Purchase Enquiry/Order are strictly for the limited purpose of supplying / manufacturing the items mentioned therein and you shall have no right to make use of the same for any other purpose or to execute any other order or pass on the same to others. The aforesaid know-how, literature, specification etc., must be returned to us in case you regret to quote / after executing the orders as the case may be.
 - e. Further Please certify that :
 - i) The know-how will not be passed on to others.
 - ii) No export will be done by you directly without arriving at a commercial understanding with ITI Ltd.
 - iii) No supply will be made by you to any outside agency without ITI's prior approval and commercial understanding.
 - iv) Kits/components will not be diverted to other orders.
 - v) Drawing if any should be returned, along with your offer.
 - f. Tax would be deducted at source under the T.D.S scheme as per IT rules at appropriate rates, wherever applicable. Any exemption or recovery at lower rates would be considered only on production of appropriate certificates issued by IT officers concerned. T.D.S Certificates would be issued after the 15th of following month.
15. LOCAL REPRESENTATION :
Please indicate your local representative's address, telephone, Fax No., E-mail Id, the person to be contacted, in the offer.
16. TECHNICAL CATALOGUE :
In the event of any change in the technical catalogue, updated version may be sent to us immediately. It is essential that you simultaneously take up the same with approving authority and their approval copy sent to us.
17. Issue of "C" Form / Form"37" will be done on financial year wise as per the statement to be furnished by you as below in quadruplicate. We will be only endorsing on the same. Any qualification criteria VDC approval etc may be considered.VDC approval required.....
18. GOVERNING LAW :
All suits shall be instituted in a court of competent jurisdiction at Rae Bareli and in case of arbitration, the Indian Arbitration Act, 1996 is applicable.

Yours faithfully
For ITI Limited, Raebareli

(Deepak

Prasad)

DGM (PPM- T & TSEC

CHECK LIST

(Tender No. _____ and due date: _____)

(Please ensure that following documents/details have been enclosed /accepted)

Sl. No.	Particulars	Status	Please tick (√)
1	Every page of tender duly signed, stamped and attached.	Yes	
2	Validity of offer 180 days from the tender opening date	Yes	
3	Quoted prices Shall be firm during the period of supply - Accepted	Yes	
4	Following declarations on party letterhead enclosed in ATC " on GeM Portal a) We hereby certify that we have not been blacklisted by any Public Sector Undertaking/Public Department. b) We have gone through the terms and conditions given in your above tender form, is accepted and agreed by us	Yes	
5	Party to indicate HSN Code: and GST:..... % for the quoted item.	Yes	
7	The delivery term shall be "FOR ITI Raebareli Stores" .	Yes	
8	The Payment term shall be "LC 60 days from the date of receipt of material at ITI Raebareli".	Yes	
9	ITI Raebareli reserves the right to reject any offer due to non-compliance with the above conditions and/or non-receipt of this form in duly filled condition - Agreed	Yes	
10	For delivery term FOR ITI Raebareli, Transit insurance shall be at party's end and it should be included in quoted basic rate.	Yes	
11	Integrity Pact document accepted and Signed by Party	Yes	
12	Declaration that the party is the manufacturer of the quoted items Enclosed	Yes	
13	Vender to undertake declaration on the letter head about supply of material uninterrupted supplies as per ITI's monthly/ quarterly delivery schedule Enclosed	Yes	
14.	MSME Registration If the firm is registered as Micro/Small/Medium Enterprises as per MSMED Act, 2006, the same may be confirmed by the renderer and submit a photocopy (Self certified) of the registration certificate in support thereof. Otherwise it will be construed that the firm is not registered as per MSMED Act, 2006.	Yes	
15.	The Valid CACT Approval is required. Please submit CACT certificate alongwith quotation.	Yes	
16.	Material should confirm the BSNL ORM TEC 89010:2021 or latest amendments if any & it's latest amendments	Yes	
17.	Life time certificate for 25 years is required. Please submit Lifetime certificate along with quotation.	Yes	
18.	A valid CACT certificate, MSDS (Material Safety Data Sheet), non-Hydrogen evolution certificate /declaration shall be mandatory for all	Yes	

	CACT approved raw materials.		
19.	Only OEM's of following parties shall be eligible to Quote : Sterlite Technologies/Birla Furukawa/Finolex/Corning.	Yes	

The desired documents must be uploaded on **GeM Portal** in column of "ATC ".

Signature of the Tenderer with SEAL

RFP/Tender Ref No:

Dated:

Annexure-III

Bid Securing Declaration Form

<Letterhead of the bidder>

<Date>

To ITI LIMITED RAEBARELI,

SULTANPUR ROAD, RAEBARELI-229010

I/We. The undersigned, declare that:

I/We understand that bids must be supported by a Bid Securing Declaration.

I/We accept that I/We may be disqualified from bidding for any contract with you/ MeitY for a period of two years from the date of notification if I am /We are in a breach of any obligation under the bid conditions, because I/We

a) have withdrawn/modified/amended, impairs or derogates from the tender, my/our Bid during the period of bid validity or its extended period, if any; or

b) having been notified of the acceptance of our Bid by the purchaser during the period of bid validity

(i) fail or reuse to execute the contract, if required, or (ii) fail or refuse to furnish the Performance

Bank Guarantee, in accordance with the Instructions to Bidders.

c) If the bidder is found indulging in any corrupt, fraudulent or other malpractice in respect of the bid;

or

d) If there is a discrepancy between words and figures quoted by the bidder and the bidder does not accept that the amount in words prevails over amount in figure.

I/We understand this Bid Securing Declaration shall cease to be valid if I am/we are not the successful Bidder, upon the earlier of (i) the receipt of your notification of the name of the successful Bidder; or (ii) thirty days after the expiration of the validity of my/our Bid.

Signed: (insert signature of person whose name and capacity are shown)

in the capacity of (insert legal capacity of person signing the Bid Securing Declaration)

Name: (insert complete name of person signing he Bid Securing Declaration)

Duly authorized to sign the bid for an on behalf of (insert complete name of Bidder)

Dated on _____ day of _____ (insert date of signing)

Corporate Seal (where appropriate)

(Note: In case of a consortium, the Bid Securing Declaration must be in the name of all partners to the consortium that submits the bid)

INTEGRITY PACT

PURCHASE ORDER No.

THIS Integrity Pact is made on.....day of20 .

BETWEEN:

ITI Limited having its Registered & Corporate Office at ITI Bhavan, Dooravaninagar, Bangalore – 560 016 and established under the Ministry of Communications, Government of India (hereinafter called the Principal), which term shall unless excluded by or is repugnant to the context, be deemed to include its Chairman & Managing Director, Directors, Officers or any of them specified by the Chairman & Managing Director in this behalf and shall also include its successors and assigns) ON THE ONE PART

AND:

..... represented by Chief Executive Officer (hereinafter called the Contractor(s), which term shall unless excluded by or is repugnant to the context be deemed to include its heirs, representatives, successors and assigns of the contractor ON THE SECOND PART.

Preamble

WHEREAS the Principal intends to award, under laid down organizational procedures, contract for of ITI Limited. The Principal, values full compliance with all relevant laws of the land, regulations, economic use of resources and of fairness/ transparency in its relations with its Contractor(s).

In order to achieve these goals, the Principal has appointed an Independent External Monitor (IEM), who will **monitor** the tender process and the execution of the contract for compliance with the principles as mentioned herein this agreement.

WHEREAS, to meet the purpose aforesaid, both the parties have agreed to enter into this Integrity Pact the terms and conditions of which shall also be read as integral part and parcel of the Tender Documents and contract between the parties.

NOW THEREFORE, IN CONSIDERATION OF MUTUAL COVENANTS STIPULATED IN THIS PACT THE PARTIES HEREBY AGREE AS FOLLOWS AND THIS PACT WITNESSETH AS UNDER:

SECTION 1 – COMMITMENTS OF THE PRINCIPAL

- 1.1 The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:
- a. No employee of the Principal, personally or through family members, will in connection with the tender for or the execution of the contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the personal is not legally entitled to.
 - b. The Principal will, during the tender process treat all bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all bidder(s) the same information and will not provide to any bidder(s) confidential/additional information through which the bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
 - c. The Principal will exclude from the process all known prejudiced persons.
- 1.2 If the Principal obtains information on the conduct of any of its employee, which is a criminal offence under IPC/PC Actor if there be a substantive suspicion in this regard, the Principal will inform the Chief Vigilance Officer and in addition can initiate disciplinary action as per its internal laid down Rules/ Regulations.

SECTION 2 – COMMITMENTS OF THE BIDDER/CONTRACTOR

- 2.1 The Contractor(s) commits himself to take all measures necessary to prevent corruption. He commits himself observe the following principles during the participation in the tender process and during the execution of the contract.
- a. The contractor(s) will not, directly or through any other person or firm offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
 - b. The contractor(s) will not enter with other contractors into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

- c. The contractor(s) will not commit any offence under IPC/PC Act, further the contractor(s) will not use improperly, for purposes of competition of personal gain, or pass onto others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- d. The Contractor(s) of foreign origin shall disclose the name and address of the agents/representatives in India, if any. Similarly, the Bidder(s)/Contractor(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any.
- e. The Contractor(s) will, when presenting the bid, disclose any and all payments made, are committed to or intend to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- f. The Contractor(s) will not bring any outside influence and Govt bodies directly or indirectly on the bidding process in furtherance to his bid.
- g. The Contractor(s) will not instigate third persons to commit offences outlined above or to be an accessory to such offences.

SECTION 3 – DISQUALIFICATION FROM TENDER PROCESS & EXCLUSION FROM FUTURE CONTRACTS

- 3.1 If the Contractor(s), during tender process or before the award of the contract or during execution has committed a transgression in violation of Section 2, above or in any other form such as to put his reliability or credibility in question the Principal is entitled to disqualify Contractor(s) from the tender process.
- 3.2 If the Contractor(s), has committed a transgression through a violation of Section 2 of the above, such as to put his reliability or credibility into question, the Principal shall be entitled exclude including blacklisting for future contract award process. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the Principal taking into consideration the full facts and circumstances of each case, particularly taking into account the number of transgression, the position of the transgressor within the company hierarchy of the Contractor(s) and the amount of the damage. The exclusion will be imposed for a period of minimum one year.
- 3.3 The Contractor(s) with its free consent and without any influence agrees and undertakes to respect and uphold the Principal's absolute right to resort to and impose such exclusion and further accepts and undertakes not to challenge or question such exclusion on any ground including the lack of any hearing before the decision to resort to such exclusion is taken. The undertaking is given freely and after obtaining independent legal advice.
- 3.4 A transgression is considered to have occurred if the Principal after due consideration of the available evidence concludes that on the basis of facts available there are no material doubts.
- 3.5 The decision of the Principal to the effect that breach of the provisions of this Integrity Pact has been committed by the Bidder(s)/ Contractor(s) shall be final and binding on the Bidder(s)/ Contractor(s), however the Bidder(s)/ Contractor(s) can approach IEM(s) appointed for the purpose of this Pact.
- 3.6 On occurrence of any sanctions/ disqualifications etc arising out from violation of integrity pact Bidder(s)/ Contractor(s) shall not entitled for any compensation on this account.
- 3.7 subject to full satisfaction of the Principal, the exclusion of the Contractor(s) could be revoked by the Principal if the Contractor(s) can prove that he has restored/ recouped the damage caused by him and has installed a suitable corruption preventative system in his organization.

SECTION 4 – PREVIOUS TRANSGRESSION

- 4.1 The Contractor(s) declares that no previous transgression occurred in the last 3 years immediately before signing of this Integrity Pact with any other company in any country conforming to the anti-corruption/ transparency International (TI) approach or with any other Public Sector Enterprises/ Undertaking in India of any Government Department in India that could justify his exclusion from the tender process.
- 4.2 If the Contractor(s) makes incorrect statement on this subject, he can be disqualified from the tender process or action for his exclusion can be taken as mentioned under Section-3 of the above for transgressions of Section-2 of the above and shall be liable for compensation for damages as per Section- 5 of this Pact.

SECTION 5 – COMPENSATION FOR DAMAGE

- 5.1 If the Principal has disqualified the Bidder(s)/Contractor(s) from the tender process prior to the award according to Section 3 the Principal is entitled to forfeit the Earnest Money Deposit/Bid Security/ or demand and recover the damages equitant to Earnest Money Deposit/Bid Security apart from any other legal that may have accrued to the Principal.
- 5.2 In addition to 5.1 above the Principal shall be entitled to take recourse to the relevant provision of the contract related to termination of Contract due to Contractor default. In such case, the Principal shall be entitled to forfeit the Performance Bank Guarantee of the Contractor or demand and recover liquidate and all damages as per the provisions of the contract agreement against termination.

SECTION 6 – EQUAL TREATMENT OF ALL BIDDERS/CONTRACTORS

- 6.1 The Principal will enter into Integrity Pact on all identical terms with all bidders and contractors for identical cases.
- 6.2 The Bidder(s)/Contractor(s) undertakes to get this Pact signed by its sub-contractor(s)/sub-vendor(s)/associate(s), if any, and to submit the same to the Principal along with the tender document/contract before signing the contract. The Bidder(s)/Contractor(s) shall be responsible for any violation(s) of the provisions laid down in the Integrity Pact Agreement by any of its sub-contractors/sub-vendors/associates.
- 6.3 The Principal will disqualify from the tender process all bidders who do not sign this Integrity Pact or violate its provisions.

SECTION 7 – CRIMINAL CHARGES AGAINST VIOLATING BIDDER(S)/ CONTRACTOR(S)

- 7.1 If the Principal receives any information of conduct of a Contractor(s) or sub-contractor/sub-vendor/associates of the Contractor(s) which constitutes corruption or if the Principal has substantive suspicion in this regard, the Principal will inform the same to the Chief Vigilance Officer of the Principal for appropriate action.

SECTION 8 – INDEPENDENT EXTERNAL MONITOR(S)

- 8.1 The Principal appoints competent and credible Independent External Monitor(s) for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this pact.
- 8.2 The Monitor is not subject to any instructions by the representatives of the parties and performs his functions neutrally and independently. He will report to the Chairman and Managing Director of the Principal.

SECTION – I
(TYPE –I)

GENERIC REQUIREMENTS FOR SINGLE MODE OPTICAL FIBRE

(As per ITU-T Rec. G. 652 D)

1.0 Single Mode Optical Fibre used in manufacturing optical Fibre Cables shall be as per ITU-T Rec. G. 652 D. The specification of optical fibres are mentioned below:

1.1 Type of fibre : Single mode Optical Fibre
(Wavelength band optimized conforming to ITU-T Rec
nominal 1310 nm) G.652 D.

1.2 Geometrical Characteristics:

1.2.1 MFD at 1310nm : $9.2 \pm 0.4 \mu\text{m}$

1.2.2 Cladding diameter : $125\mu\text{m} \pm 0.7 \mu\text{m}$

1.2.3 Cladding Non-circularity : $\leq 0.8\%$

1.2.4 Core Clad concentricity error : $\leq 0.5 \mu\text{m}$

1.2.5 Diameter over primary coated with : $242 \pm 5 \mu\text{m}$
double UV cured acrylate.
(To be measured on uncoloured fibre)

Note: The thickness of colour coating may be over and above the values specified above if the manufacturer adopts separate UV cured colouring process to colour the uncoloured fibres, other than the on line integrated colouring process (of secondary layer of primary coating) of the fibres during fibre manufacturing.

1.2.6 Colored fibre coating diameter : $252 \pm 10\mu\text{m}$

1.2.7 Coating / Cladding Concentricity : $\leq 12 \mu\text{m}$

1.3 Transmission Characteristics:

1.3.1 Attenuation:

a) Fibre attenuation before Cabling

- i) At 1310 nm : $\leq 0.34 \text{ dB/Km}$
- ii) Between 1285 to 1380 nm : $\leq 0.37 \text{ dB/Km}$
- iii) Between 1390 to 1525 nm : $\leq \text{Value at 1310nm}$
- iv) At 1550 nm : $\leq 0.20 \text{ dB/Km}$
- v) Between 1525 to 1625 nm : $\leq 0.24 \text{ dB/Km}$
- vi) At 1270 nm : $\leq 0.40 \text{ dB/km}$
- vii) At 1490 nm : $\leq 0.24 \text{ dB/km}$
- viii) At 1625 nm : $\leq 0.23 \text{ dB/km}$

b) Water Peak Attenuation before cabling

- Between 1380-1390 nm : $\leq \text{Value at 1310nm}$

Note:

1. Attenuation in the band 1380-1390nm shall be checked at every 2nm after Hydrogen ageing as per IEC 60793-2-50. Hydrogen ageing test is to be carried out by CACT, Bangalore or any other recognized laboratory for type test.
2. Sudden irregularity in attenuation shall be less than 0.1 dB
3. The Spectral attenuation shall be measured on un-cabled fibre in the 1250nm-1625 nm band at an interval of 10nm and the test results shall be submitted.

c) Fibre attenuation after cabling

- i) At 1310 nm : $\leq 0.36 \text{ dB/km}$
- ii) At 1550 nm : $\leq 0.22 \text{ dB/Km}$
- iii) At 1625 nm : $\leq 0.26 \text{ dB/Km}$
- iv) At 1490nm : $\leq 0.26 \text{ dB/Km}$

- d) Water Peak Attenuation after cabling
 At 1383nm \pm 3nm : \leq Value at 1310nm

Note: Fibre attenuation after cabling may be checked during approval testing of respective GR of Cable.

1.3.2 Dispersion:

- a) Total Dispersion
- i) In 1285-1330 nm band : \leq 3.5 ps/nm. Km
 - ii) In 1270-1340 nm band : \leq 5.3 ps/nm. Km
 - iii) At 1550 nm. : \leq 18.0 ps/nm. Km
 - iv) At 1625 nm : \leq 22.0 ps/nm. Km

Note: The dispersion in the 1250 nm–1625 nm band shall be measured at an interval of 10nm and the test results shall be submitted.

- b) Polarization mode dispersion
- i) Un-cabled Fibre : \leq 0.15 ps/ $\sqrt{}$ km
 - ii) Cabled Fibre : \leq 0.3 ps/ $\sqrt{}$ km
 - iii) Link design value for un-cabled fibre : \leq 0.06 ps/ $\sqrt{}$ km

Note: Measurement on un-cabled fibre may be used to generate cabled fibre statistics and correlation is established.

- c) Zero Dispersion Slope : \leq 0.092ps/(nm²-km)
- d) Zero dispersion wave length range : 1300 -1324 nm

1.3.3 Cable Cut off wavelength : 1260nm Max.

Note - The above cut off wavelength is w.r.t. 22M sample length of fibre.

1.4 Mechanical Characteristics:

1.4.1 Proof test for minimum strain level : 1%
(Test method IEC-60793-1-30)

1.4.2 Stripability force to remove primary coating of the Un-aged and Aged fibre
(Water aged and Damp heat aged): (Test method IEC- 60793 - 1 - 32)

- a) Peak strip force : $1 \leq F \leq 8.9 \text{ N}$
- b) Average strip force : $1 \leq F \leq 5 \text{ N}$

Note: The force required to remove $30 \text{ mm} \pm 3 \text{ mm}$ of the fibre coating shall not exceed 8.9 N and shall not be less than 1N.

1.4.3 Dynamic Tensile Strength
(Test method IEC-60793-1-31)

- a) Un-aged : $\geq 550 \text{ KPSI (3.80 GPa)}$
- b) Aged (Damp heat aged) : $\geq 440 \text{ KPSI (3.00 GPa)}$

1.4.4 Dynamic Fatigue :
(Test method IEC-60793-1-33)

- a) Un-aged: ≥ 20
- b) Aged (Damp heat aged): ≥ 20

1.4.5 Fibre Macro bend
(Test method FOTP – 62/ IEC- 60793-1-47)

- a) Change in attenuation when fibre is coiled : $\leq 0.05 \text{ dB at } 1550 \text{ nm}$
with 100 turns on $60 \pm 1.0 \text{ mm}$ diameter : $\leq 0.1 \text{ dB at } 1625 \text{ nm}$
mandrel
- b) Change in attenuation when fibre is coiled : $\leq 0.5 \text{ dB at } 1550 \text{ nm}$
with 1 turn around $32 \pm 0.5 \text{ mm}$ diameter : $\leq 1.0 \text{ dB at } 1625 \text{ nm}$
mandrel

c) Change in attenuation when fibre is coiled : ≤ 0.05 dB at 1310nm
with 100 turns on 50 ± 0.5 mm diameter
mandrel.

1.4.6 Fibre Curl : ≥ 4 meters radius of
(Test method as per IEC 60793-1-34) curvature

1.5 Material Properties:

1.5.1 Fibre Materials:

a) The substances of which fibres are made : To be indicated by the
manufacturer.

b) Protective material requirement:

i) The physical and chemical properties : It shall meet the requirement
of the material used for the fibre primary of fibre stripping force as per
coating and for single jacket fibre. clause No. 1.4.2

ii) The best way of removing protective : To be indicated by the
coating material. Manufacturer.

c) Group refractive Index of fibre : To be indicated by the
manufacturer.

Note: The manufacturer shall indicate the variation in group refractive index of fibre
during bulk production

d) Fibre materials shall be RoHS (Restriction of Hazardous Substance)
complied.

1.6 Environmental Characteristic of Fibre:

1.6.1 Operating Temperature

(Test Method IEC – 60793 – 1 - 52)

Temperature Dependence of Attenuation : - 60°C to +85°C

Induced Attenuation at 1550nm & 1625 nm
at -60°C to +85° C : ≤ 0.05 dB/km

1.6.2 Temperature – Humidity Cycling

(Test method /EIA/TIA-455-73)

Induced Attenuation at 1550nm & 1625 nm
at -10°C to +85°C and 95% relative humidity. : ≤ 0.05 dB/km

1.6.3 Water Immersion 23°C

(Test method IEC- 60793 – 1- 53)

Induced Attenuation at 1550nm & 1625 nm
due to Water Immersion at 23 ± 2°C : ≤ 0.05 dB/km

1.6.4 Accelerated Aging (Temperature) 85°C

(Test method IEC- 60793 – 1- 51)

Induced Attenuation at 1550 nm & 1625 nm
due to Temperature Aging at 85 ± 2°C : ≤ 0.05dB/km

1.6.5 Retention of Coating Color

(Test method IEC- 60793 – 1- 51)

Coated Fibre shall show no discernible change : 30 days at 85°C with 95%
in colour when aged for relative humidity humidity and then 20 days in
85°C dry heat.

1.6.6. High Temperature and High Humidity (Damp Heat)

(Test Method IEC 60793-2-50)

Induced attenuation at 1550nm & 1625nm at
85°C and 85% Relative Humidity for 30 days : ≤ 0.05 dB/km

1.7 Colour Qualification and Primary coating Test:

1.7.1 Colour Qualification Test:

a) MEK Rub Test (Methyle Ethyl Ketone):

To be tested by using soaked (Solvent) tissue paper for ten strokes unidirectional on 10 cm length of fibre. No colour traces shall be observed on the tissue paper after testing.

b) Water immersion Test (Type Test):

To be tested for coloured fibre for 30 days. After the test Colour qualification, attenuation measurement & stripability test are to be taken.

1.7.2 Primary coating Test (Type Test):

a) Fourier Transform Infrared Spectroscopy (FTIR) Test:

To be tested to check the curing level of coating on the surface of natural fibre. The curing level shall be better than 90%.

b) Adhesion Test:

To be tested by using soaked (Solvent) tissue paper for ten strokes unidirectional on 10 cm length of fibre. No coating shall be observed on the tissue paper after testing.