

# যশীশ'নহ'র্ব্ব'ন্ধুব্বর্থান্ধ্রীম'শ্ব্র্রিক্র্র্রিন্র্র্রিক্র্র্রা Tashi InfoComm Private Limited

## TASHI INFOCOMM PRIVATE LIMITED

BIDDING DOCUMENT FOR SUPPLY Of

"Fiber cable and accessories for FY-2025"

Reference No: TIPL/PRO-01/2025/20

Date: 04 / 01 /2025









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## Tashi InfoComm Private Limited

## SECTION-I INVITATION OF BIDS FOR SUPPLY OF

"Fiber Cable and Accessories for FY-25"

- 1. Tashi InfoComm Private Limited, referred to as "Purchaser" invites sealed bids from eligible Bidders for the supply of fiber cable and accessories for FY-25.
- 2. Interested eligible bidder(s) may obtain further information on the bid form directly from our website- <a href="www.tashicell.com">www.tashicell.com</a> or Procurement & Inventory Section, Samten Lam, Post Box No. 1502, Thimphu, Bhutan. Contact the Procurement & Inventory Section at the given contact details during office hours only.
- 3. The Purchaser shall not be responsible for any costs or expenses incurred by the Bidder(s) in connection with the preparation or delivery of bids.
- 4. All Bidders/Representatives of the Bidders may be present during the opening of the Bidding Documents.
- 5. All correspondences with regard to the Bidding Documents shall be made in writing or email to the following address. Telephone inquiries shall not be accepted.

#### Address for communication/contact.

Procurement & Inventory Section, Tashi InfoComm Limited, Samten Lam, Post Box No-1502, Thimphu, Bhutan.

Email:

<u>procurement@tashicell.com/manager.procurement@tashicell.com/procurement.finance.finance</u>











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## Tashi InfoComm Private Limited

## SECTION-II INSTRUCTION TO BIDDERS

#### A. GENERAL

## 1. Scope of Bid:

- The scope of the Bid shall be the supply of fiber cable and accessories for FY-2025. 1.1.
- All the Bids are to be completed and submitted to the Purchaser in accordance with 1.2. the Instructions to Bidders.

## 2. Eligibility:

The invitation for Bid is open to all interested licensed national and global 2.1. suppliers.

## 3. Cost of Bidding:

The Bidder(s) shall bear all costs associated with the preparation and delivery of its 3.1. bids, and the purchaser shall in no case be responsible or liable for those costs.

## 4. Bidding Documents:

- The goods/services to be procured, bidding procedures, and terms & conditions are 4.1. prescribed in the Bidding Documents. In addition to the invitation for bids, the bidding document includes:
  - a) Instructions to bidders
  - b) General terms & conditions
  - c) Detailed list of goods/ and or services to be supplied along with detailed specifications.
- The bidder(s) are expected to examine the bidding document, including all 4.2. instructions, forms, terms, and specifications. Failure to furnish all information required by the bidding document or submission of a bid not substantially responsive to the bidding document in every respect will result in rejection of the bid.

#### 5. Bid Prices:

The bidder(s) shall complete the appropriate price schedule included herein, stating 5.1. unit prices, extended amount and the expected countries of origin of the goods to be supplied, if applicable





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## Tashi InfoComm Private Limited

- 5.2. Prices quoted by the bidders shall remain fixed and valid for the period stated in **Section II, Clause 6** of the bidding document, and will not be subject to variation on any account.
- 5.3. The bid currency shall be Ngultrum (Nu) for this bidding document. Except for third-country bidder(s), the bidder(s) from the rest of the countries are not allowed to quote in US Dollars.

The third country bidder(s) who quoted in US Dollars shall be converted into Ngultrum at the prevailing exchange rate (Selling TT rate of any financial institution) as on the date of tender opening for evaluation purposes.

#### 5.4. Trade Terms shall be:

Unless otherwise stated, the following shall be the trade terms for this bidding document:

- a) CIF, TIPL Warehouse, Thimphu for local bidders.
- b) CIF, TIPL Warehouse, Phuentsholing for Indian and other third-country bidder(s).

### 6. Bid Validity:

6.1. The Bids shall be valid for 12 months from the date of bid submission.

### 7. Taxes/Duties & other levies:

- 7.1. Unless otherwise stated, the applicable taxes/duties/any other levy both within and outside Bhutan shall be under the scope of the bidder.
- 7.2. The third country bidder(s) or bidder(s) from India may exclude applicable taxes/duties within Bhutan while submitting the bid. The applicable taxes including customs clearance within Bhutan shall be under the scope of the purchaser. However, applicable taxes/duties, etc shall be factored in during the time of evaluation to determine the final landing cost.

#### 8. Evaluation:

- 8.1. The purchaser shall evaluate the quotations based on specifications given in the bidding document to ascertain the lowest evaluated bidder(s).
- 8.2. The evaluation shall not only be based on the quoted unit rate but the specifications and complete datasheet of the fiber cable and accessories against the purchaser's requirement.

The Evaluation Team & Management Tender Committee's evaluation decision shall be final and binding, without thereby incurring any liability to the affected bidder or bidders or any obligation to inform and explain the affected bidder or









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## Tashi InfoComm Private Limited

bidders on the grounds of the evaluation team & Management Tender Committee's evaluation decisions and reports. In addition, the performance of previous tenders with the purchaser, if any shall also be factored in during the time of evaluation.

- 8.4. The lowest quoted unit rates alone do not guarantee the award of contract or Purchase Order.
- 8.5. The evaluation shall be based on lot-wise/package.

### 9. Award of Purchase Order/Contract:

9.1. The purchaser shall award the PO or supply contract to the successful bidder against the respective lot.

### 10. Delivery:

- 10.1. Delivery should be completed as per the given schedule:
  - a) Within 60 days from the date of confirmed PO depending on the nature of the items(s) awarded to the respective successful bidder(s).
  - b) The detailed terms & conditions shall be mentioned in the confirmed Purchase Order/Supply Contract.
- 10.2. The purchaser (TIPL) may provide a delivery time extension beyond the actual delivery date taking into account the actual need-by-day and project schedule of TIPL. However, subject to the approval of the Management Tender Committee after levying the Liquidity Damaged (LD) Penalty.
- 10.3. The Time Extension request/provided may not exceed 15 days at the maximum OR depend on the approval granted by the Management Tender Committee of the purchaser. The supplier has to send an email/in writing requesting a time extension with genuine reasons (along with supporting documentation).

## 11. Inspection of Goods:

11.1. The goods are subject to Physical Inspection upon delivery at TIPL Warehouse and testing & commissioning in due course of time. The Goods found to be faulty, DOA, not meeting specifications/requirement of TIPL after the final inspection, installation, and testing shall be rejected at the cost of the bidder.

#### 12. Warranty (If applicable):

12.1. The Warranty shall be minimum 12 months from the date of delivery OR standard manufacturer's warranty, whichever is longer





## 13. Payment:

- 13.1. The Payment shall be made 100% against delivery within 7 working days from the date of receiving of Bill/Invoice.
- 13.2. Advance payment up to a maximum of 30% of the total PO value may be released at Purchaser's discretion against furnishing equivalent amount of bank guarantee for the advance payment valid 6 months beyond the delivery deadline.

### 14. TDS/FCT:

14.1. TDS (Tax Deduction at Source) and or FCT (Foreign Contract Tax) shall be deducted as per the existing Rules and Regulations of the Department of Revenue & Customs, Bhutan (wherever applicable).

## 15. EMD (Earnest Money Deposit):

- 15.1. The bidder should submit **not less than 2% of the total quoted value** as part of the EMD along with the quotation in the form of a Demand Draft or Bank Guarantee from any of the financial institutions located in Bhutan. The bidder(s) other than Bhutanese national can furnish EMD from the financial institutions in their respective countries OR from any of the Bhutanese Financial Institutions. The EMD may be directly deposited into the Purchaser's bank account (please contact the Purchaser requesting bank details via email).
- 15.2. The bidder(s) failing to submit the EMD as per the requirement shall result in the rejection/cancellation of their bid.
- 15.3. The EMD shall be valid for 60 days beyond the submission/submission deadline of the bidding document. The EMD should be drawn in favor of "Tashi InfoComm Private Ltd., Samten Lam, Thimphu, Bhutan".
- 15.4. EMD of unsuccessful bidder(s) shall be returned promptly after the finalization of the quotation.
- 15.5. EMD shall be forfeited if:
  - a) A bidder withdraws its bids prior to the finalization of the bids in every respect.
  - b) The successful bidder fails to submit Performance Security as per the terms specified in the bidding document.
- 15.6. EMD of the successful bidder shall be returned promptly upon submission of Performance Security.





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## Tashi InfoComm Private Limited

bidders on the grounds of the evaluation team & Management Tender Committee's evaluation decisions and reports. In addition, the performance of previous tenders with the purchaser, if any shall also be factored in during the time of evaluation.

- 8.4. The lowest quoted unit rates alone do not guarantee the award of contract or Purchase Order.
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  - a) Within 60 days from the date of confirmed PO depending on the nature of the items(s) awarded to the respective successful bidder(s).
  - b) The detailed terms & conditions shall be mentioned in the confirmed Purchase Order/Supply Contract.
- 10.2. The purchaser (TIPL) may provide a delivery time extension beyond the actual delivery date taking into account the actual need-by-day and project schedule of TIPL. However, subject to the approval of the Management Tender Committee after levying the Liquidity Damaged (LD) Penalty.
- 10.3. The Time Extension request/provided may not exceed 15 days at the maximum OR depend on the approval granted by the Management Tender Committee of the purchaser. The supplier has to send an email/in writing requesting a time extension with genuine reasons (along with supporting documentation).

## 11. Inspection of Goods:

11.1. The goods are subject to Physical Inspection upon delivery at TIPL Warehouse and testing & commissioning in due course of time. The Goods found to be faulty, DOA, not meeting specifications/requirement of TIPL after the final inspection, installation, and testing shall be rejected at the cost of the bidder.

## 12. Warranty (If applicable):

12.1. The Warranty shall be minimum 12 months from the date of delivery OR standard manufacturer's warranty, whichever is longer





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## Tashi InfoComm Private Limited

## 16. Performance Security:

- The successful bidder should submit not less than 10% of the total PO/contract value as Performance Security within 1 week from the date of PO/signing of the supply contract.
- Performance Security shall be drawn in favor of "Tashi InfoComm Private Ltd, Thimphu" in the form of a Demand Draft or Bank Guarantee or can be deposited directly into the purchaser's bank account (contact purchaser via email requesting bank details).
- 16.3. Performance Security shall be valid for the period of 1 YEAR from the date of Purchase Order/Supply Contract.
- 16.4. If the successful bidder fails to submit the performance security within 1 week, the EMD shall be forfeited and the purchase order shall stand canceled and awarded to the second lowest evaluated bidder.
- Performance Security shall be returned within 1 week from the date of successful completion of all obligations under the issued Purchase Orders or signed supply contract.
- 16.6. Performance Security shall be forfeited if:
  - a) The successful bidder fails to execute the supplies/works as per the terms and conditions stated in the purchase order in any manner deemed unsatisfactory by the purchaser (TIPL) or the end-user(s).
  - b) The successful bidder fails to deliver the goods on the given deadline and is not recommended by the end-user(s) for a time extension or replacement.
  - c) The goods supplied do not conform to the specifications/brands/requirements, etc stated in the purchase order/BOM.

## 17. Liquidity Damage (LD) Penalty:

The LD penalty shall be charged at 0.01% per day up to a maximum of 10% of the total PO value should the supplier fail to deliver on the specified deadline.

### 18. The purchaser Right:

The purchaser reserves the following rights without thereby incurring any liability 18.1. to the affected bidder or bidders or any obligation to inform and explain the affected bidder or bidders on the grounds of the purchaser's action:

> The right to accept or reject any bid and reject all the bids at any time prior to issuance of Award Notification and or Purchase Order.



Procurement and inventory Section)

Tashi Info Comm Pvt Ltd.

Thimphu:Bhutan







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## Tashi InfoComm Private Limited

- b) The right at the time of award of the purchase order to increase or decrease the quantity of goods specified in the bidding document, without any changes in the price or other terms & conditions.
- c) The right to reject all or in part, the item supplied during the time of physical inspection/testing or found to be non-standard/non-specific/unreliable in terms of quality/not meeting specification.
- d) The right to direct negotiation, call quotations and receive the same via email from the manufacturers; authorized distributors; authorized dealers; and frequent supplier(s) of similar goods in Bhutan/India/China/Other countries to compare the rates with those offered by the vendors through this Bidding Document. If need be, to procure directly. The Purchaser also reserves the right to negotiate with the lowest evaluated bidder(s) or all of the bidders at any time prior to the award of the Purchase Order/Signing of the Supply Contract.
- 18.2. Should the selected Bidder(s) fail to supply the full order quantity within the given deadline, the purchaser reserves the right to cancel the quantities not supplied and place the order to the Second Lowest Evaluated Bidder. In such a case, the Purchaser shall recover as part of Liquidated Damages, the difference amount between purchase order rate and the actual rate paid to the second-lowest evaluated bidder for the quantities not supplied. The amounts shall be either adjusted from the Performance Security or bill/invoice amount of the supplied quantity.

## 19. Force majeure:

- 19.1. Force Majeure shall mean such unforeseeable occurrences beyond the control of the Purchaser and Bidder which occur after the date of issuance of Purchase Order or signing of Supply Contract and which were not reasonably foreseeable at the time of issuance of Purchase Order or signing of Supply Contract and which effects are not capable of being overcome without the unreasonable expense and/or loss of time to the Purchaser and the Bidder concerned, including, provided that the aforementioned conditions are met, but not limited to:
  - i) Natural catastrophes, earthquakes
  - ii) Strikes and blockages
  - iii) War or war-like conditions, mobilizations, revolutions or riots, an act of Public enemy, sabotage, terrorism.

Restriction by or actions, omissions, or interventions from Public Authorities (including but not limited to changes in laws, regulations or import/export, security restrictions).

The Party who wishes to plead Force Majeure shall inform the other party of the First party's perception of the effects of such force majeure on the fulfillment of issued purchase order/signed Supply Contract. Should any event of force majeure cause an increase in the time required for the performance of any part of the purchase order/signed Supply Contract, an equivalent adjustment shall be made in the time required for performance.











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## Tashi InfoComm Private Limited

However, if the force majeure situation continues for more than two months, the purchaser and bidder shall decide whether the contract should be terminated.

#### 20. Termination:

20.1. In the event of any failure by the Bidder to perform any of its obligations under the issued purchase order or signed Supply Contract or upon unsatisfactory performance, the purchaser shall terminate the purchase order or signed Supply Contract by giving a prior written notice of Fifteen (15) days, without any obligation to the Bidder. However, the purchaser shall pay the actual due amount for the quantity supplied and accepted by the Purchaser to Bidder on termination of the issued purchase order or signed Supply Contract.

### 21. Indemnity:

21.1. The bidder(s) shall comply with all the laws in force in Bhutan and outside. The laws will include all national, provincial, municipal, or other laws that affect the performance of the issued purchase orders or signed Supply Contract and bind upon the Bidder(s). The Bidder(s) shall indemnify and hold harmless the Purchaser for and against any and all liabilities, damages, claims, fines, penalties, and expenses of whatever the nature arising or resulting from the violation of such laws by the Bidder(s).

## 22. Dispute Settlement:

22.1. If any dispute should arise in connection to the issued purchase order or signed Supply Contract, the Parties shall try to settle any such dispute through good faith and negotiations including escalation to senior Management where each party deems it appropriate. If negotiations fail, the matter shall be referred to the Court of Law.

### 23. Governing Law and Jurisdiction:

23.1. The terms and conditions in this Bidding Document or issued Purchase Order or signed Supply Contract shall be read and construed in accordance with the laws of the Kingdom of Bhutan and the District Court of Thimphu, Bhutan shall have jurisdiction over any disputes arising out of the Contract.











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## SECTION-III GENERAL TERMS & CONDITIONS:

In this Bidding Document, the following terms shall be interpreted as indicated below:

"The Bid" means the proposal submitted by the Bidder

"The Purchaser" means the organization purchasing the Goods. In this case, M/s. Tashi InfoComm Private Limited (TIPL).

"Day" means a calendar day.

- 2. Bid. Submission: #1:00 AM (Bhutan Standard Time);
- 3. Bid Opening Time: 2:00 PM: 15 101 2025 at TIPL conference hall. Interested Bidder(s) may attend the bid opening on the given deadline and place.
- 4. Bidding Documents received after the deadline (time & date of submission) shall not be accepted and opened during the bid opening. The quotations shall automatically stand as "Rejected".
- 5. The Purchaser shall not be responsible for any damages, losses, breakages, or shortages of any items while in transit for delivery of Goods to TIPL Store/warehouse.
- 6. The Bidder should enclose a Xerox copy of valid Trade License, Tax clearance, Power of Attorney, and other relevant documents.
- 7. Clarification on Bidding Document: The bidder(s) are expected to examine the Terms and Conditions stated in the Bidding Document, Bill of Materials, Specifications, Drawings, etc furnished along with the Bidding Document. Once the bids are submitted by the bidder(s), It shall mean:
- The bidder(s) have examined, read, and accepted all the terms and conditions stated to the bidding Document, the specifications of the goods/services, Drawings/Designs, etc furnished in the Bidding Document. Thereafter, no grievance, complaints, etc (whatsoever nature may be) shall be accepted.
  - b) The bidder(s) can seek clarification (through email/in writing) with regard to the terms & conditions of the Bidding Document, the specifications of the goods/services, Drawings/Designs, etc furnished in the Bidding Document before the submission of the Bids.









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## Tashi InfoComm Private Limited

- c) Clarification can be sought through email or in writing to any of the given officials during office hours. Email ID: <a href="mailto:manager.procurement@tashicell.com">manager.procurement@tashicell.com</a> OR <a href="mailto:procurement@tashicell.com">procurement@tashicell.com</a> OR <a href="mailto:procurement@tashicell.com">procurement@tashicell.com</a>.
  - Address: Manager, Procurement & Inventory Section, Tashi InfoComm Private Ltd., Samten Lam, Post Box No. 1502, Thimphu, Bhutan.
- 8. The Bids not substantially responsive to the Bidding Document in every respect will result in the rejection of the Bids.
- 9. For any complaints or grievances, the bidder(s) may write directly to the Management Tender Committee of the Purchaser through email. The Email ID is procurement@tashicell.com.
- 10. Product samples, catalog/brochures containing details of technical and functional specifications shall be submitted along with the Bids wherever applicable. Failing which, shall result in rejection of the Bidding Document.
- 11. The decision of the Corporate/Management Tender Committee shall be final and binding.











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### **SECTION-IV**

The complete Bill of Materials (BOM) is as stated in Annexure-I. The Bids should be submitted in the below format in your company Quotation Form.

## Appendix-I:

S/L	Description	UoM	Qty	Unit Rate	Amount
1.	1. Detail as given in Annexure-I				

Total

#### Note:

- 1. Please attached details of the technical and functional specification along with Bidding Doc. Failing to do so, will result in the rejection of your bidding document.
- 2. Mention the Country of origin of goods in the bidding document.









SL	e-I Bill of Materials  Description	Specification	UoM	Qty	Rate	Amount	Packages
SL 1	ADSS 24 Core Fiber Optic Cable, 120m span, G.652D, Singlemode fiber cable, 11mm dia	Span: 150m Fiber: 24F, Color Coded Standard: G.652D Fiber Cable: Single Mode Diameter: 11-12mm Striping Material: 2 X Rip Cord Loose Tube: Gel-filled Central Strength Member: FRP Peripheral Strength Member: Aramid Yarns Inner Jacket: Black Color PE with UV Protection	КМ	61			g.
2	ADSS 48 Core, 120M spam, G.652D, Singlemode fiber cable, 11mm dia	Outer Jacket: Track Resistant PE with UV Protection Cable Label: Tashicell  Span: 150m Fiber: 48F, Color Coded Standard: G.652D Fiber Cable: Single Mode Diameter: 11-12mm Striping Material: 2 X Rip Cord Loose Tube: Gel filled Central Strength Member: FRP Peripheral Strength Member: FRP Peripheral Strength Member: With UV Protection Outer Jacket: Black Color PE with UV Protection Cable Label: Tashicell	КМ	17.5			
3	96F UG Fiber Cable, Single Armour Double Jacket	Fiber: 96F, Color Coded Standard: G.652D Fiber Cable: Single Mode Striping Material: Rip Cord Loose Tube: Gel filled Central Strength Member: FRP Armour: Corrugated Steel Armoured Inner & Outer Jacket: Black HDPE Diameter: 14mm Tensile Strength: 1000N Cable Label: Tashicell	KM	2			Package-1
4	Anti-Rodent, 24F, Arieal	Fiber: 24F, Color Coded Standard: G.652D Fiber Cable: Single Mode Striping Material: Rip Cord Loose Tube: Gel filled Central Strength Member: FRP Anti-Rodent Armour: Glass Yarns Inner & Outer Jacket: LSZH Sheath Diameter: 10-12mm Span: 120m Cable Label: Tashicell	KM	17			
5	24F UG Fiber Cable, Single Armour Double Jackets	Fiber: 24F, Color Coded Standard: G.652D Fiber Cable: Single Mode Striping Material: Rip Cord Loose Tube: Gel filled Central Strength Member: FRP Armour: Corrugated Steel Armoured Inner & Outer Jacket: Black HDPE Diameter: 11-12mm Tensile Strength: 1000N Cable Label: Tashicell	KM	4			
6	Drop fiber cables, 24 fibers, 8mm cable diameter with aramid Yarn (self-Supporting) GYFTY-24 B1.3 3000 meters	Specification attached	KM	5			
7	Drop fiber cables, 12 fibers, 8mm cable diameter with aramid Yarn (self-Supporting)	Specification attached	KM	45	-	-	-
8	Drop fiber cables, 6 fibers, 8mm cable diameter with aramid Yarn (self-Supporting)	Specification attached	KM	30			-
9	Drop fiber cables, 4 fibers, 8mm cable diameter with aramid Yarn (self-Supporting)	Specification attached	KM	15		-	
		Amount for Package-I Specification	UoM	Qty	Rate	Amoun	t Package
SL 1	Two ways Pole Clamp Tension set	Two ways Pole Clamp Tension set for 11-12mm Dia fiber cable including- Bow Shackle, extension link, bolts, clevis thimble & reinforcing Thimble,	Set	1940			
2	Fiber Closure Vertical Splicing type	96 Cores Max , 24 Cores Splice Tray 2 IN 2 OUT Mechanical Splicing type B SPFC-NV- 96M-2/2B, Dome Shape	No	97			
3	Terminal Box Indoor 19inch rack drawer	IU Fiber Optic Patch Panel Front Panel Port: 12 Ports Duplex Adapter Type: LC Duplex Capacity: LC 24 Core Number of Tray: 2 Pigtail: LC 24 Fiber	No	60			

Procurement Officer

Procurement and Inventory Section

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Thimphu: Bhutan

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4	Terminal Box Indoor 19inch rack drawer	1U Fiber Optic Patch Panel Front Panel Port: 24 Ports Duplex Adapter Type: LC Duplex Capacity: LC 48 Core Number of Tray: 2 minimum Pigtail: LC 48 Fiber	No	10		
5	Terminal Box Indoor 19inch rack drawer 48 ports Duplex LC with adaptors , pigtails	2U Fiber Optic Patch Panel Front Panel Port: 48 Ports Duplex Adapter Type: LC Duplex Capacity: LC 96 Core Number of Tray: 4 minimum Pigtail: LC 96 Fiber	No	5		
6	Terminating Helix	Material: Galvanized Iron Colour: Grey Shape: Helically Formed Application: Aerial Installation of ADSS Cable Thickness: 2.5mm Size: 11-13 mm	No	3880		
7	Spiral Vibration Damper	L= 1346 mm ADSS size= 12mm diameter Made of weather resistant & non corrosive plastic Helically form Damper	No	3880		
8	Downward Lead Clamp	Material: Stainless steel/ UV stabilized plastic Cable Diameter: 9~20mm Specific parameter; stripe size:19x0.7mm, stripe length:1.2 meters	No	1940		
9	LC-LC Duplex Single Patch fiber Optic Patch Cord, 2m	Patch Cord: LC-UPC/LC-UPC Duplex Length: 2m Diameter: 2mm Fiber: Single Mode	No	150		
10	LC-LC Duplex Single Patch fiber Optic Patch Cord, 5m	Patch Cord: LC-UPC/LC-UPC Duplex Length: 5m Diameter: 2mm Fiber: Single Mode	No	70		
. 11	LC-LC Duplex Single Patch fiber Optic Patch Cord, 10m	Patch Cord: LC-UPC/LC-UPC Duplex Length: 10m Diameter: 2mm Fiber: Single Mode	No	35		
12	LC-FC Duplex Single Patch fiber Optic Patch Cord, 5m	Patch Cord: LC-UPC/FC-UPC Duplex Length: 5m Diameter: 2mm Fiber: Single Mode	No	50		
13	LC-FC Duplex Single Patch fiber Optic Patch Cord, 10m	Patch Cord: LC-UPC/FC-UPC Duplex Length: 10m Diameter: 2mm Fiber: Single Mode	No	50		
14	LC-SC Duplex Single Patch fiber Optic Patch Cord, 2m	Patch Cord: LC-UPC/SC-UPC Duplex Length: 2m Diameter: 2mm Fiber: Single Mode	No	75		
15	LC-SC Duplex Single Patch fiber Optic Patch Cord, 5m	Patch Cord: LC-UPC/SC-UPC Duplex Length. 5m Diameter: 2mm Fiber: Single Mode	No	50		Package-II
16	LC-SC Duplex Single Patch fiber Optic Patch Cord, 10m	Patch Cord: LC-UPC/SC-UPC Duplex Length: 10m Diameter: 2mm Fiber: Single Mode	No	25		
17	OLT 1U Standalone GPON 8 PON Ports + 4 GE uplink optic ports(SFP)/4 GE uplink UTP ports + 2 10GE uplink optic ports(SFP+) Commercial Temperature , Single -48V DC Power supply 1 USB interface SPO GS8424-D	Specification Attached	PCS	15		
18	Transceiver GPON OLT SFP 1490nmTx/1310nmRx 2.488G/1.244G Class C+ SC Interface with DDM Commercial Temperature SPT-GT4321-SC2AD	Specification Attached	PCS	120		
19	Transceiver SFP 1310nm 1.25G 2km LC Interface	Specification Attached	PCS	15		
20	GPON ONU 4*10/100/1000M Ethernet interface, 2 POTS interface, support 2.4GHz and 5GHz WIFI 802.11ac, 1 USB interface SPU-G422WD-H1	Specification Attached	PCS	1500		

Procurement Officer
Procurement and Inventory Section
Tashi InfoComm Pvt Ltd.
Thinliphu:Bhutan

Splitter PLC Type Plugin 1× 8 G.657.A1 Input SC/UPC Output SC/UPC SPS-1×8-A1-I-SSU-PP enclosed within outdoor distribution box Outdoor  23 Splitter PLC Type Plugin 1× 16 G.657.A1 Input SC/UPC Output SC/UPC SPS-1×15-A1-I-SSU-PP enclosed within outdoor distribution box Outdoor  Terminal Box Indoor desktop 2 ports Simplex SC/Upuex LC type with adaptors , pigtails and splitter Plastic type A SPDF-I4SCT-TPA  Specification Attached Specification Attached	PCS PCS	60	
23 SC/UPC Output SC/UPC SPS-1×15-A1-I-SSU-PP enclosed within outdoor distribution box Outdoor  Terminal Box Indoor desktop 2 ports Simplex SC/Duplex LC type with adaptors, pigtails and splitter Plastic type A SPDF-I4SCT-TPA  Specification Attached  Specification Attached			
24 SC/Duplex LC type with adaptors , pigtails and splitter Plastic type A SPDF-I4SCT-TPA  Specification Attached	PCS	1500	
	1	1	
1U Fiber Optic Patch Panel Front Panel Port: 24 Ports Duplex Adapter Type: LC Duplex Capacity: LC 48 Core Number of Tray: 2 minimum Pigtail: LC 48 Fiber  Specification Attached	Pcs	15	
Patch Cord, Simplex SC/UPC -SC/UPC G.652D Specification Attached 2.0mm Imeter length LSZH.	Pcs	1500	
27 Mini Ducting Rod (150M) Specification Attached			
Indoor Termination FTTH Optical Fiber Distribution Box Enclosure for the 8mm Diameter drop cable 2 entry ports with 6 SC/UPC loaded adapter & SC/UPC pigtails-1 Specification Attached	Nos	50	
Indoor Termination FTTH Optical Fiber Distribution Box Enclosure for the 8mm Diameter drop cable 2 entry ports with SC/UPC loaded adapter & SC/UPC pigtails-1  Specification Attached	Nos	250	
Patch Cord-SC/UPC-SC/UPC, Duplex single mode patch cord, 2 meters, dia 2.0mm  Specification Attached	Pcs	250	
Patch Cord-SC/UPC-LC/UPC single mode, duplex, 2 meters, dia 2.0mm  Specification Attached  Total Amount for Package-II	Pcs	100	

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SN	Description	Specification	Qty	Unit	Unit Price	Amount	Sample Image
1	ADSS 24 Core Fiber Optic Cable, 120m span, G.652D, Singlemode fiber cable, 11mm dia	Span: 150m Fiber: 24F, Color Coded Standard: G.652D Fiber Cable: Single Mode Diameter: 11-12mm Striping Material: 2 X Rip Cord Loose Tube: Gel filled Central Strength Member: FRP Peripheral Strength Member: Aramid Yarns Inner Jacket: Black Color PE with UV Protection Outer Jacket: Track Resistent PE with UV Protction	60.569	Km			Lear the Selection of the Anthony of
2	Anti-Rodent, 24F, Arieal	Cable Label: Tashicell Fiber: 24F, Color Coded Standard: G.652D Fiber Cable: Single Mode Striping Material: Rip Cord Loose Tube: Gel filled Central Strength Member: FRP Anti-Rodent Armour: Glass Yarns Inner & Outer Jacket: LSZH Sheath Diameter: 10-12mm Span: 120m Cable Label: Tashicell	16.916	Km			Optical Fiber  Optical Fiber  Anti-rodents arean/Class pans)  Losse Table  Central strength member (Fibr)
2	ADSS 48 Core, 120M spam, G.652D, Singlemode fiber cable, 11mm dia	Span: 150m Fiber: 48F, Color Coded Standard: G.652D Fiber Cable: Single Mode Diameter: 11-12mm Striping Material: 2 X Rip Cord Loose Tube: Gel filled Central Strength Member: FRP Peripheral Strength Member: Aramid Yarns Inner Jacket: Black Color PE with UV Protection Outer Jacket: Track Resistent PE with UV Protction Cable Label: Tashicell	17.331	Km			Liene bit is districted.  Reflectional  Consideration and or First Model 2001  Their independent  Earth despine and the Anthony and the Anthon

3	96F UG Fiber Cable, Single Armour Double Jacket	Fiber: 96F, Color Coded Standard: G.652D Fiber Cable: Single Mode Striping Material: Rip Cord Loose Tube: Gel filled Central Strength Member: FRP Armour: Corrugated Steel Armoured Inner & Outer Jacket: Black HDPE Diameter: 14mm Tensile Strength: 1000N Cable Label: Tashicell	2	Km	\$	Outer Jacket Inner Sheath Loois Tube FRF Strongth Member  Cornegated Steel Amount Water Blocking Tape Optic Fiber  Cornegated Steel Amount Members Inner Tube Inner T
	24F UG Fiber Cable, Single Armour	Fiber: 24F, Color Coded Standard: G.652D Fiber Cable: Single Mode Striping Material: Rip Cord Loose Tube: Gel filled Central Strength Member: FRP Armour: Corrugated Steel Armoured Inner & Outer Jacket: Black HDPE Diameter: 11-12mm Tensile Strength: 1000N Cable Label: Tashicell	4	Km		Outer Jacket Inner Sharth Loop Table FBP Strength Membe
5	Two ways Pole Clamp Tension set	Two ways Pole Clamp Tension set for 11- 12mm Dia fiber cable including-Bow Shackle, extension link,bolts,clevis thimble & reinforcing Thimble, dia 80-100mm	1940	Set		
6	Fiber Closure Vertical Splicing type	96 Cores Max , 24 Cores Splice Tray 2 IN 2 OUT Mechanical Splicing type B SPFC-NV- 96M-2/2B, Dome Shape	97	No		

7	Terminal Box Indoor 19inch rack drawer	1U Fiber Optic Patch Panel Front Panel Port: 12 Ports Duplex Adapter Type: LC Duplex Capacity: LC 24 Core Number of Tray: 2 Pigtail: LC 24 Fiber	60	No		
8	Terminal Box Indoor 19inch rack drawer	1U Fiber Optic Patch Panel Front Panel Port: 24 Ports Duplex Adapter Type: LC Duplex Capacity: LC 48 Core Number of Tray: 2 minimum Pigtail: LC 48 Fiber	10	No		William William Control of the Contr
9	Terminal Box Indoor 19inch rack drawer 48 ports Duplex LC with adaptors , pigtails	2U Fiber Optic Patch Panel Front Panel Port: 48 Ports Duplex Adapter Type: LC Duplex Capacity: LC 96 Core Number of Tray: 4 minimum Pigtail: LC 96 Fiber	5	No		
10	Terminating Helix	Material: Galvanized Iron Colour: Grey Shape: Helically Formed Application: Aerial Installation of ADSS Cable Thickness: 2.5mm Size: 11-13 mm	3880	No		

11	Spiral Vibration Damper	L= 1346 mm  ADSS size= 12mm diameter  Made of weather resistant & non corrosive plastic  Helically form Damper	3880	No	53	CARLE 1. For J. demonstrate step priori
12	Downward Lead Clamp	Material: Stainless steel/ UV stabilized plastic Cable Diameter: 9~20mm Specific parameter; stripe size:19x0.7mm, stripe length:1.2 meters	1940	No		
13	LC-LC Duplex Single Patch fiber Optic Patch Cord, 2m	Patch Cord: LC-UPC/LC-UPC Duplex Length: 2m Diameter: 2mm Fiber: Single Mode	150	No		
14	LC-LC Duplex Single Patch fiber Optic Patch Cord, 5m	Patch Cord: LC-UPC/LC-UPC Duplex Length: 5m Diameter: 2mm Fiber: Single Mode	70	No		
15	LC-LC Duplex Single Patch fiber Optic Patch Cord, 10m	Patch Cord: LC-UPC/LC-UPC Duplex Length: 10m Diameter: 2mm Fiber: Single Mode	35	No		

	LC-FC Duplex Single Patch fiber Optic Patch Cord, 5m	Patch Cord: LC-UPC/FC-UPC Duplex Length: 5m Diameter: 2mm Fiber: Single Mode	50	No	0.5	
17	LC-FC Duplex Single Patch fiber Optic Patch Cord, 10m	Patch Cord: LC-UPC/FC-UPC Duplex Length: 10m Diameter: 2mm Fiber: Single Mode	50	No		
18	LC-SC Duplex Single Patch fiber Optic Patch Cord, 2m	Patch Cord: LC-UPC/SC-UPC Duplex Length: 2m Diameter: 2mm Fiber: Single Mode	75	No		Total di
19	LC-SC Duplex Single Patch fiber Optic Patch Cord, 5m	Patch Cord: LC-UPC/SC-UPC Duplex Length: 5m Diameter: 2mm Fiber: Single Mode	50	No		
20	LC-SC Duplex Single Patch fiber Optic Patch Cord, 10m	Patch Cord: LC-UPC/SC-UPC Duplex Length: 10m Diameter: 2mm Fiber: Single Mode	25	No		

SL No	Description	Qunatity	UOM	Unit Price(\$)	Total Price(\$)	Sample Photos
1	OLT 1U Standalone GPON 8 PON Ports + 4 GE uplink optic ports(SFP)/4 GE uplink UTP ports + 2 10GE uplink optic ports(SFP+) Commercial Temperature , Single -48V DC Power supply 1 USB interface SPO GS8424-D	15	PCS			
2	Transceiver GPON OLT SFP 1490nmTx/1310nmRx 2.488G/1.244G Class C+ SC Interface with DDM Commercial Temperature SPT-GT4321-SC2AD	120	PCS			
3	Transceiver SFP 1310nm 1.25G 2km LC Interface	15	PCS			
4	GPON ONU 4*10/100/1000M Ethernet interface, 2 POTS interface, support 2.4GHz and 5GHz WIFI 802 11ac, 1 USB interface SPU-G422WD-H1	1500	PCS			
	Splitter PLC Type Plugin 1× 4 G.657.A1 Input SC/UPC Output SC/UPC SPS-1×4-A1-I-SSU-PP enclosed within outdoor distribution box Outdoor	60	PCS			
	Splitter PLC Type Plugin 1× 8 G.657.A1 Input SC/UPC Output SC/UPC SPS-1×8-A1-I-SSU-PP enclosed within outdoor distribution box Outdoor	60	PCS			
5	Splitter PLC Type Plugin 1× 16 G.657.A1 Input SC/UPC Output SC/UPC SPS-1×15-A1-I-SSU-PP enclosed within outdoor distribution box Outdoor	60	PCS	5		6.3
7	Terminal Box Indoor desktop 2 ports Simplex SC/Duplex LC type with adaptors , pigtails and splitter Plastic type A SPDF-I4SCT-TPA	1500	PCS	6	903 <u>\$</u> 13	
8	1U Fiber Optic Patch Panel Front Panel Port: 24 Ports Duplex Adapter Type: LC Duplex Capacity: LC 48 Core Number of Tray: 2 minimum Pigtail: LC 48 Fiber	15	Pcs	3		West Transmitted to the second
9	Patch Cord, Simplex SC/UPC -SC/UPC G.652D 2.0mm 1meter length LSZH.		Pcs			
10	4F FTTH fiber optic drop cable	15	Km			1 1 1 1 1
11	12F FTTH fiber optic drop cable	15	Km	1		



## नग्रैषानम् र्नेषानुन् तन्नेषान्नेमान्ने कंत्रावहिषा

## Tashi InfoComm Private Limited

1. Drop fiber cables, 24 Fibers, 8mm cable diameter with aramid Yarn (self-supporting)-GYFTY-24 B1.3

Optical Fiber Characteristics (ITU-T G.652D).

Parameters		Speciation			
	Before Cable	After Cable			
Fiber Type SM G652D Fiber					
Mode Field Diameter (um) 9.2±0.4 (@1310nm)					
Cladding Diameter (um)	125±0.7	125±0.7			
Coating Diameter (um)	245 <u>±</u> 10	245±10			
Core Concentricity Error (um)	≤ 0.6	≤ 0.6			

Fiber attenuation	@1310nm	≤ 0.35
(dB/Km		
	@1550nm	≤ 0.21
Macro Bending	30mm radius, 100turns	$\leq 0.05 \ @1550nm$
Loss (dB)		

**Fiber Cable Specifications** 

Fiber Cable Specific	ations	
Parameters		Specifications
Fiber Count		24
	<u></u>	
	Materials	PBT
Loose Tube	Diameter	2.0
	Fiber/tube	12 fibers/tube
	Filling compound	Fiber jelly
	Material	FRP
Strength member	Diameter (mm)	0.8
	Number	2
Additional strength	Material	HDPE
member		
Jacket	Colour	Black
	Nominal Thickness	1.8
	(mm)	
Approx. Cable Diame	eter $(\pm 0.5)$	8mm
Cable weight Approx	. (kg/Km)	33
Tensile Strength (N)	Long Term	2000
	Short Term	1000
Crush Resistance	Short Term	2000
(N/100mm)		
Bending Radius	Dynamic	20D



## नग्रीषानम् र्नेष नकुन् तमेवा क्षेत्र क्षेत्र वर्षेषा

## Tashi InfoComm Private Limited

(mm)		
	Static	10D
Cable Attenuation	@1310	≤ 0.36
(dB/Km)	@1550	≤ 22
Package (Km/drum)		2
Operating Temp (°C)		-10~ + 45

2. Drop fiber cables, 12 Fibers, 8mm cable diameter with aramid Yarn (self-supporting)

Optical Fiber Characteristics (ITU-T G.652D).

Parameters	Spe	Speciation		
	Before Cable	After Cable		
Fiber Type	SM G652D Fiber			
Mode Field Diameter (um)	9.2±0.4 (@1310nm)			
Cladding Diameter (um)	125±0.7			
Coating Diameter (um)	245 <u>+</u> 10			
Core Concentricity Error (um)	≤ 0.6			

Fiber attenuation (dB/Km	@1310nm	≤ 0.35
	@1550nm	$\leq 0.21$
Macro Bending	30mm radius, 100turns	$\leq 0.05 \ @1550nm$
Loss (dB)		

Fiber Cable Specifications

Fiber Cable Specific	cauons	
Parameters		Specifications
Fiber Count		12
	Materials	PBT
Loose Tube	Diameter	2.0
	Fiber/tube	12 fibers/tube
	Filling compound	Fiber jelly
	Material	FRP
Strength member	Diameter (mm)	0.8
	Number	2
Additional strength	Material	HDPE
member		
Jacket	Colour	Black
	Nominal Thickness	1.8
	(mm)	
Approx. Cable Diameter (±0.5)		8mm



## नग्रीयानम्'र्नेव्'नक्कुन्'तन्नेवान्नेत्रान्नेरान्नेरान्नेर्जन्'तम्ब्

## Tashi InfoComm Private Limited

Cable weight Approx.	. (kg/Km)	33
Tensile Strength (N)	Long Term	2000
	Short Term	1000
Crush Resistance	Short Term	2000
(N/100mm)		
Bending Radius	Dynamic	20D
(mm)		
	Static	10D
Cable Attenuation	@1310	≤ 0.36
(dB/Km)	@1550	≤ 22
Package (Km/drum)		2
Operating Temp (°C)		-10~ + 45

### Fiber Colours

NO.	1	2	3	4	5	6	7	8	9	10	11	12
12 fiber	Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua
Color												

Address: P.O. Box # 1502, Norzin Lam, Thimphu, Bhutan Phone: +975 77889977 Website: <a href="www.tashicell.com">www.tashicell.com</a>



## चग्रीबाचम् र्नेब चक्कुन् तद्येवा क्षेत्र क्षेर क्षेर तस्व॥

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3. Drop fiber cables, 6 Fibers, 8mm cable diameter with aramid Yarn (self-supporting)

Optical Fiber Characteristics (ITU-T G.652D).

Parameters	}	Speciation		
	Before Cable	After Cable		
Fiber Type	SM G652D Fiber	r		
Mode Field Diameter (um)	9.2±0.4 (@1310r	nm)		
Cladding Diameter (um)	125±0.7			
Coating Diameter (um)	245 <u>±</u> 10			
Core Concentricity Error (um)	≤ 0.6			

Fiber attenuation	@1310nm	≤ 0.35
(dB/Km		
	@1550nm	≤ 0.21
Macro Bending	30mm radius, 100turns	$\leq 0.05 \ @1550nm$
Loss (dB)		

**Fiber Cable Specifications** 

Parameters		Specifications
Fiber Count		6
	Materials	PBT
Loose Tube	Diameter	2.0
	Fiber/tube	12 fibers/tube
	Filling compound	Fiber jelly
	Material	FRP
Strength member	Diameter (mm)	0.8
	Number	2
Additional strength	Material	HDPE
member		
Jacket	Colour	Black
	Nominal Thickness	1.8
	(mm)	
Approx. Cable Diame	ter $(\pm 0.5)$	8mm
Cable weight Approx.	(kg/Km)	33
Tensile Strength (N)	Long Term	2000
	Short Term	1000
Crush Resistance	Short Term	2000
(N/100mm)		
Bending Radius	Dynamic	20D
(mm)		
	Static	10D



## नग्रीषानम् र्नेष नकुन् तमेशा क्षेत्र हो र्कन् तमेषा

## Tashi InfoComm Private Limited

Cable Attenuation	@1310	≤ 0.36	
(dB/Km)	@1550	≤ 22	
Package (Km/drum)		2	
Operating Temp (°C)		-10~ + 45	

4. Indoor Termination FTTH Optical Fiber Distribution Box Enclosure for the 8mm diameter drop cable 2 entry ports with 6 SC/ UPC loaded adapter & SC/UPC pigtails-1 mtr.



5. Indoor Termination FTTH Optical Fiber Distribution Box Enclosure for the 8mm diameter drop cable with 2 SC/ UPC loaded adapter & SC/UPC pigtail-1 mtr.





## नग्रीयानम्'र्नेव्'नक्कुन्'तन्नेवान्नेत्रान्नेरान्नेरान्नेत्रा

## Tashi InfoComm Private Limited

## **Description:**

Fiber Termination Box, Wall Mount FTTH, Loaded 2 SC/APC Adapters and Pigtail, Indoor, Plastic for 8mm fiber drop cable.

6. Patch cord-SC/UPC- SC/UPC, duplex Single mode Patch Cord, 2 meters, dia.2.0mm



### **Description:**

Patch cord-SC/UPC- SC/UPC, duplex Single mode Patch Cord, 2 meters, dia.2.0mm.

7. Patch cord- SC/UPC- LC/UPC single mode, Duplex 2 meters, Dia.2.0mm.





## नग्रीबानम्'र्नेव'नकुन्'तन्नेवान्नेम'न्नेम'न्ने'र्कन्'तम्बा

## Tashi InfoComm Private Limited

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_			P	•	

Patch cord-SC/UPC-LC/UPC single mode, Duplex, 2 meters, Dia.2.0mm.