



RailTel Corporation of India Limited

A Government of India (Ministry of Railways) Undertaking

Southern Region Head Quarters, 1-10-39 to 44, 6A, 6th Floor, Gumidelli Towers, Begumpet Airport Road,
Opp. Shoppers Stop, Hyderabad-16 visit www.railtelindia.com, Tel: 040-27821134 Fax: 27820682,
Regd. Office: Plate-A, 6th Floor, Office Tower-2, NBCC Building, East Kidwai Nagar, New Delhi-23.

Corrigendum - I

GeM Bid No. GEM/2026/B/7399140

Date: 17.04.2026

Name of the Work: Supply of Supply of Switches, SFPs as per SOR and Technical Specification.

Ref : GEM/2026/B/7399140 dated 28-03-2026

S.No.	Existing Tender Document	To be read as
1	In SOR & Tech specification no. VIII : 10 G Dual Fiber SFP Module of 40 Km:	Single fiber
2	In SOR & Tech specification no. VIII: Temperature -40 to 85 degree and wavelength of 1350nm Tx/1270nm	Temperature 0 to 70 degrees and wavelength of 1270nm & 1330nm.
3	In SOR & Tech specification no. IX : S. No. 3 Connector Types: Copper: Direct Attach Copper (DAC) cables with integrated QSFP connectors Active Optical Cables (AOCs): For short-range optical connectivity	Deleted.
4	In SOR & Tech specification no. IX : S. No. 6 Distance: CR4 (DAC): Typically 1 to 7 meters	Deleted.
5	In SOR & Tech specification no. X : 10GBase-BX SFP+ Transceiver (SFP+ 1350nm Tx/1270nm Rx , 40km, LC, DOM, -40 to 85C) 10GBase-BXSFP+ Transceiver (SHF, 1270nm Tx/1330nm Rx , 40km, LC, DOM, -40 to 85C)	Temperature 0 to 70 degrees and wavelength of 1270nm & 1330nm.
6	In SOR & Tech specification no. XIV : 10GBase-BX SFP+ Transceiver (SFP+, 1330nmTx/1270nmRx, 60km, LC, DOM, -40 to 85C) 10GBase-BX SFP+ Transceiver (SFP+, 1270nmTx/1350nmRx, 60km, LC, DOM, -40 to 85C)	temperature 0 to 70 degrees
7	Closing date for Submission of Bids: Up to 15:00 hrs. of 20-04-2026 (online)	Up to 15:00 hrs. of 28-04-2026 (online)
8	Opening of Bids: 15:30 hrs. of 20.03.2026 (online)	Up to 15:30 hrs. of 28-04-2026 (online)

All other T&C remain unchanged.

This is issued with the approval of Competent Authority.

-Sd
Sr. DGM/Proj/SR
For RailTel Corporation of India Ltd.,

Additional Terms and Conditions

Name of the Supply: “Supply of Switches, SFPs as per SOR and Technical Specification”

GEM Bid No: GEM/2026/B/7399140 dated 28-03-2026

1. The item/items in this bid should be quoted as per the technical specifications.
2. The bidder should be either OEM or his authorized dealer/distributor.
 - a. In case of the authorized distributor/partner tender specific authorization from the OEM to this effect should be submitted. The firm shall submit MAF as per Form-III.
 - b. If OEM is quoting, then OEM should submit the necessary certificates along with self-certification on MAF as per Form-III
3. Bidders are required to submit duly filled and signed technical compliance for the Technical Specifications.
4. The bidder shall upload the compliance of this ATC along with GEM Bid.
5. Bidder should not have been banned/blacklisted by any Govt./Semi Govt./PSU/State Govt./Any Telecom entity in India for the supply of the material. An undertaking to this effect signed by the authorized signatory to be submitted by the Bidder.
6. **Eligibility Criteria**

i. **Technical Eligibility Criteria:**

The Bidder / OEM {themselves or through reseller(s), should have executed projects 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% (i.e., Rs. 15,83,100)** of estimated bid value; or
- (ii) **Two Orders** of at least **20% (i.e., Rs. 9,04,600)** each of estimated bid value; or
- (iii) **Three Orders** of at least **15% (i.e., Rs. 6,78,500)** each of estimated bid value.

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

Offers not accompanied by copies of POs and work completion certificate (user certificate in the format of Form no.1) may be rejected.

Similar Work: Supply of Switches, SFPs.

The certificates from actual users/s have to be submitted for this purpose along with the bid. The certificates thus submitted should contain the following details:

S.No.	User Customer Name	Signatory or Authorized contact person of the user			Model/Type of equipment	Qty.	Period
		Name	Contact No.	E-mail Id			
1							
2							

Non-submission of any of the documents required for the due fulfilment of eligibility criteria as above may lead to rejection of the offer.

ii. **Financial Eligibility Criteria:**

The tenderer must have received contractual payments in the previous three financial years and the current financial year up to the date of invitation of tender, at least **150% (i.e., Rs. 67,84,500/-)** of the advertised value of the tender. The tenderers shall submit Certificates to this effect which may be an attested Certificate from the concerned department / client or Audited Balance Sheet duly certified by the Chartered Accountant/Certificate from Chartered Accountant duly supported by Audited Balance Sheet.

For Startups recognized by Department of Industrial Policy and Promotion DIPP: The bidder should have minimum cumulative turnover from operation in the previous three financial years and the current financial year, at least **50% (i.e., Rs.22,61,500/-)** of the advertised value of the tender. The tenderers shall submit Certificates to this effect which may be attested.

Certificate from the concerned department / client or Audited Balance Sheet, Trading account and P&L duly certified by the Chartered Accountant/Certificate from Chartered Accountant duly supported by Audited Balance Sheet. The contact details of CA/Statutory Auditor along with UDIN No. shall be mandatorily mentioned on copy of certified Balance Sheet/Certificate.

(Note: Client certificate from other than Govt. Organization should be duly supported by Form 16A/26AS generated through TRACES of Income Tax Department of India).The OEM should have proven facilities for Engineering, manufacture, assembly, integration and testing of Access Point and basic facilities with respect to space, Engineering, Personnel, Test equipment, Manufacture, Training, Repair, Service Centre Supports for at least past three years in the country from where the proposed item are planned to be supplied. In case OEM is located outside India, it should have training repair and service center facilities in India also. The certificates/Undertaking for the same will have to be submitted online a GeM portal.

(The bidder will have to submit the proof of establishment for the facility).

7. Splitting of Quantity: Splitting in quantity will be done as per policy of Make in India and MSEs.

8. Evaluation Criteria:

- a. The bidder shall quote the equipment prices as per the price format given in the tender.
- b. Bidder should quote for all the items. Non-quoting for all items will be render the bid invalid and will not be considered for evaluation.
- c. The offers for respective Item will be determined on Total Unit Rate on CIP destination basis which will include basic rate, GST, freight, insurance, inspection charges and any other charge or cost quoted by the tenderer.
- d. Offers from the tenderer not meeting the eligibility criteria will not be considered.

Note:

- i. RailTel may discharge the tender at any stage without assigning any reason.
- ii. RailTel reserves the right, at its sole discretion, to reject any offer for a product that has previously been deployed within RailTel's network and has demonstrated unsatisfactory or substandard performance

9. Earnest Money Deposit (EMD):

Rs. 90,500/- through payment online through RTGS / internet banking in Beneficiary name RailTel Corporation of India Limited Account No. 33946516594, IFSC Code SBIN0020299, Bank Name: State Bank of India, Branch address: Veer Chambers, Ranga Reddy District, Begumpet – 500016. The Bid received without EMD will be summarily rejected.

EMD/Bid security to be submitted by all tenderers, subject to the following exemptions:

- a. Tender cases of value up to Rs. 5 Lakhs.
- b. Micro and Small Enterprises (MSEs) registered under UDYAM Registration.
- c. Startups recognized by Department of Promotion of Industry and Internal Trade (DPIIT).
- d. And as per GeM GTC latest version.

Note 1: In case the tenderer falls in these categories, the bidder SHOULD furnish a certified copy of its valid registration details and Bid Security Declaration (as per Form VI)

Note 2: Firms registered with UDYAM certification for the tendered item / work or Startups as recognized by Department of Industrial Policy & Promotion (DIPP) are exempted from submission of EMD. Firms claiming for the above exemptions under UDYAM certification or Startup **have to submit supporting documents and Bid Security Declaration.**

UDYAM Certificate with category as Traders are not eligible for EMD exemption and such offers are summarily rejected.

10. Warranty: The materials are to be warranted for a minimum period of 5 Years for Switches and 3 years for SFPs from the date of receipt & acceptance of material at consignee.

1. The supplier shall warrant that material to be supplied shall be new and free from all defects and faults in material, workmanship, and manufacture and shall be of the highest grade consistent with the established and generally accepted standards of materials for the type ordered and shall perform in full conformity with the specifications and drawings. The supplier shall be responsible for any defects (with respect to the specification of the material) that may develop subsequently under the conditions provided in the contract under proper use, arising out of faulty materials, design or workmanship such as corrosion, inadequate quantity of material to meet equipment requirements, deficiencies in design and/ or otherwise and shall remedy such defects at his own cost when called upon to do so by the Purchaser who shall state in writing in what respect the stores are faulty.
 2. If it becomes necessary for the contractor to replace or renew any defective hardware of the supplies under this clause, the provisions of the clause shall apply to the portion/portion/portion of the equipment/ material so replaced or renewed or until the end of the above-mentioned period, whichever may be later. If any defect is not remedied within 72 Hrs., the Purchaser may proceed to do the work at the contractor's risk and expenses, but without prejudice to any other rights which the Purchaser may have against the contractor in respect of such defects.
 3. Replacement under the warranty clause shall be made by the contractor free of all charges at the site including freight, insurance, and other incidental charges.
 4. The Contractor/Seller hereby covenants that it is a condition of the contract that all goods/stores/articles furnished to the Purchaser under this contract shall be of the highest grade free of all defects and faults and of the best materials, quality, manufacture, and workmanship throughout and consistent with the established and generally accepted standards for materials of the type ordered and in full conformity with the contract specification, drawing or sample, if any and shall, if operable, operate properly.
 5. The Contractor also guarantees that the said goods/stores/articles would continue to conform to the description and quality as aforesaid, for a period after their delivery from the date of placement in service whichever shall be sooner, and this warranty shall survive notwithstanding the fact that the goods/stores/articles may have been inspected, accepted and payment thereof made by the Purchaser.
 6. If during the aforesaid period, the said goods/stores/articles be discovered not to conform to the description and quality aforesaid or have deteriorated, otherwise that by fair wear and tear the decision of the Purchaser in that behalf being final and conclusive that the Purchaser will be entitled to reject the said goods/stores/articles or such portions thereof as may be discovered not to conform to the said description and quality. On such rejection, the goods/stores/articles will be at the Seller's risk. If the Contractor/Seller so desires, the rejected goods may be taken over by him or his agents for disposal such manner as he may deem fit within a period of 3 months from the date of such rejection. At the expiry of the period, no claim whatsoever shall lie against the Purchaser in respect of the said goods/stores/articles, which may be disposed of by the Purchaser in such manner as he thinks fit. Without prejudice to the generality of the foregoing, all the provisions in the Standard Conditions of Contract relating to the 'rejection of stores' and 'failure' and 'termination' shall apply.
 7. The Contractor/Seller shall, if required, replace the goods or such portion thereof as have been rejected by the Purchaser, free of cost, at the ultimate destination, or at the option of the Purchaser, the Contractor/Seller shall pay to the Purchaser, the value thereof at the contract price and such other expenditure and damage as may arise by reason of the breach of the conditions hereinbefore specified. Nothing herein contained shall prejudice any other right of the Purchaser in that behalf under this contract or otherwise.
11. **Completion Period of Supply:** The supply should be completed within **45 days** from the date of issue of GeM contract.
12. **Consignee Details:** As per **Annexure-A**.

- 13. Tender Clarifications:**
Contact Person: Sh. Upendra Patel (DGM//Proj/SR)- upendrapatel@railtelindia.com.

14. Schedule of Requirement (SOR):

SN	Description	UOM	QTY	SBC	SC	MAS
1	10G switches (Type-C)	Nos	47	13	24	10
2	40G switch (Type-D)	Nos	4	-	4	-
3	1G switch (Type-B)	Nos	13	-	1	12
4	POE switch 24P (Type-A)	Nos	6	6	-	-
5	40G Uplink Switch (2X40G and 24 X 10G) (Type-D)	Nos	1	-	-	1
6	10G SFP	Nos	70	70	-	-
7	SFP 1xGigE Electrical	Nos	35	20	15	-
8	10 G Dual Fibre SFP Module of 40 Km	Nos	6	-	6	-
9	QSFP+ 40G 40KM	Nos	14	-	14	-
10	QSFP-40GBASE-SR4	Nos	10	-	10	-
11	10G SFP+ Bidi (40 KM)	Nos	4	-	4	-
12	10G SFP+ Bidi(10 KM)	Nos	16	-	16	-
13	1G SFP(10 Km)	Nos	6	-	6	-
14	1G SFP+ Bidi(40KM)	Nos	32	-	32	-
15	1G SFP+ Bidi(40KM) (Units in Pairs)	pairs	17	-	17	-
16	1G SFP+Bidi(10 Km)	Nos	29	-	29	-
17	10G Bi-Di SFP+60 km (Units in Pairs)	pairs	29	-	29	-

15. Performance Security – (Security deposit/Performance Bank Guarantee):

The successful tenderer is required to submit a Performance Security within **30 days** of the issue of LOA/Purchase order for a total value of **10% of the value of issued LOA/PO**, failing which a penal interest of **15% per annum** shall be charged for the delay period i.e. beyond 30 (thirty) days from the date of issue of LOA/PO. This performance security should cover **warranty period plus three months (63 Months)**.

All performance security **up to Rs. 5 Lakhs** will be accepted only through Bank transfer.

In case, performance security is in the form of Bank Guarantee, it shall be issued by a scheduled commercial bank (either private or PSU) but not from any co-operative Bank or NBFC, in the prescribed format at FORM – IV.

As per RBI Guidelines, Bank Guarantee above **Rs. 50,000/-** should be signed by two bank officials. The

minimum gap between BG expiry date and BG claim date should be 12 months.

If required, Bank Guarantee to be extended at least 90 days before its expiry; failure to do so will result in the encashment of the BG.

BG issuing bank must be SFMS enabled. Under SFMS system, a separate advice of the BG (**via SFMS IFN 760COV**) to be sent to the advising bank (RailTel) through SFMS by the issuing Bank (Applicant). Similar process to be followed for bank guarantee amendment also and separate advice (**via SFMS IFN 767COV**) is sent to the advising bank (RailTel).

RailTel SR Bank Details:

Name: RailTel Corporation of India Limited

Account No: 27301010373007,

IFSC Code: UBIN0805050,

Bank Name: Union Bank of India,

Branch address: Union Bank of India, RP Road Branch, Bungalow no 109, New No 1-7-252 to 254, Oxford Street, SD Road, Near ParkLane Center, Secunderabad – 500003.

16. In case, if any contradiction between GeM Bid and Additional Terms G Conditions, RailTel's Bid Specific Additional Terms & Conditions will prevail.

Payment Terms: Payment will be made after submission of the following documents:

- I. Invoice.
- II. Delivery Challan/E-way bill
- III. Contractor's certificate of dispatch
- IV. Receipt and acceptance of material certified by consignee
- V. Warranty guarantee certificate of OEM
- VI. Performance Bank Guarantee
- VII. Insurance Certificate valid till completion of supplies
- VIII. Packing list
- IX. OEM certificate for the ordered quantity/ material supplied as per specification.

100% of the value of the supply of material on receipt and acceptance by the consignee at site and accompanied with above mentioned documents.

17. Bill Passing & Paying Authority:

Bill passing Authority is GM/TM/SC and bill paying Authority is Sr.DGM/Fin/SR/SC. Bills to be submitted to GM/TM/SC for payment.

18. Notarized Affidavit - Form-V:

The tender shall submit a notarized affidavit on a **non-judicial stamp paper** stating that they are not liable to be disqualified, and all their statement/documents submitted along with bid are true and factual. Standard format of the affidavit to be submitted by the bidder is enclosed as **Form-V**. **Non submission of an affidavit by the bidder shall result in summarily rejection of his/their bid.** And it shall be mandatorily incumbent upon the tenderer to identify state and submit the supporting **documents duly self-attested** by which they/he is qualifying the Qualifying Criteria mentioned in the Tender Document. It will not be obligatory on the part of Tender Committee to scrutinize beyond the submitted document of tenderer as far as his qualification for the tender is concerned.

RailTel (RCIL) reserves the right to verify all statements, information and documents submitted by the bidder in his tender offer, and the bidder shall, when so required by the RailTel (RCIL), make available all such information, evidence and documents as may be necessary for such verification. Any such verification or lack of such verification by the RailTel (RCIL) shall not relieve the bidder of its obligations or liabilities hereunder nor will it affect any rights of the RailTel/Railway there under.

In case of any wrong information submitted by tenderer, the contract shall be terminated. Performance Guarantee (PG) of the contract will be forfeited and agency barred for doing business on RailTel (RCIL) for 3years.

19. Online Submissions:

The bidder is required to upload and submit the following documents online before due date & time of bid. The due date & time for closing of the bid is as per GeMBid and the bid will be opened as per GeM Bid.

- a. Bid Security Declaration as per **Form-VI**.
- b. Clause wise compliance along with all mentioned documents/Forms for all clauses of GeMBid and ATC (Information to bidder) documents.
- c. Data Sheet of offered item/equipment along with make and model of offered item.
- d. Financial (Certified copies of audited balance sheets/annual reports of last three preceding financial years) and Technical Eligibility Criteria documents.
- e. Technical Compliance of all Specification of items as per ATC documents.
- f. Proof of document required against Eligibility criteria of OEM (or) Authorized bidder of OEM vide para as applicable.
- g. Statement of deviation as per **Form-II**
- h. MAF/OEM Authorization as per **Form-III**
- i. Notarized affidavit on a non-judicial stamp paper as per **Form-V**.
- j. Notarized Power of Attorney in name of authorized signatory

Submission of scanned documents (online):

- (I) **Notarized Power of attorney in favor of the signatory duly authorizing the signatory.**
- (II) Format for Affidavit as per Form-V on stamp paper of Rs.100/- regarding authenticity of the documents submitted/Information provided in the bid, Non submission of an affidavit by the bidder *may* result in rejection of his/their bid.

Important Note: The above documents shall be submitted **offline** in original by tenderer, **if asked for verification by RailTel officials.** Address submission of these documents is: *RailTel Corporation of India Ltd., CA, C¹^h Floor, Gumidelli Towers, Opp: Shoppers Stop, Begumpet – 50001C.*

20. Make in India:

The provisions of the Public Procurement (Preference to Make in India) Order 2017 dated June 15, 2017 (or subsequent revisions, if any) by Department of Industrial Policy and Promotion, GoI shall apply to this tender to the extent feasible. Minimum Local Content for SOR Items shall be 50% for purchase preference as per the Notification No. 18-10/2017-IP dated 29th August 2018 issued by Department of Telecommunications, Ministry of Communications or as per the latest notification. Bidder shall be required to give a self-certification in his bid that the item offered meets the local content and shall give details of the location(s) at which the local value addition is made. Further the bidder shall provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.

In case of any false declaration, action shall be taken in line with the provisions of the PPP-MIII order.

21. Insurance:

- a. The Contractor shall take out and keep in force a policy or policies of insurance from the date, the delivery of material starts (including the transit portion) against all liabilities of the contractor or the Purchaser. The contractor shall take out and keep in force a Policy or policies of Insurance for all materials covered in schedule of requirement irrespective of whether used up in the portion of work/supplies already done or kept for the use in the balance portion of the work/supplies until such material is provisionally handed over to RailTel. The contractor should ensure the stores are brought to site, against risks as required under the Emergency Risk (Goods) Insurance Act in force from time to time up to contract value.
- b. It may be noted that the beneficiary of the insurance policy should be RailTel, or the policies should be pledged in favor of RailTel. The contractor shall keep the policy/policies current till the item/equipment are handed over to the purchaser and I&C of the same.

22. Constitution of Firm and Power of Attorney:

1. Any individual(s) signing the tender or other documents connected therewith should specify whether he is signing: -
 - (a) As sole proprietor of the concern or as attorney of the sole Proprietor.
 - (b) As partners or partners of the firm.
 - (c) As a Director, Manager or Secretary in the case of Limited Company duly authorized by a resolution passed by Board of Directors or in pursuance of the authority conferred by Memorandum of Association.
2. In the case of a firm not registered under the Indian Partnership Act, all the partners or the attorney duly authorized by all of them should sign the tender and all connected documents. The original Power of Attorney or other documents empowering the individual or individuals to sign should be furnished to the Purchaser for verification, if required.
3. The RailTel will not be bound by Power of Attorney granted by the tenderer or by the changes in the composition of the firm made subsequent to the execution of the contract agreement.
4. In case where Power of Attorney partnership deed has not been executed in English, the true and authenticated of copies of the translation of the same by Advocate, authorized translators of Courts and licensed Petition Writers should be supplied by the contractor(s), while tendering of the work.
5. The duly notarized Power of Attorney shall be submitted in original at the time of bid submission as per clause above.

Note:

- 1) The bidder is required to give acceptance of all the clauses of **GeM bid, ATC** and RailTel's Bid Specific ATC

document. Any deviation / non-acceptance may lead to rejection of the bid.

- 2) Information to Bidder viz. corrigendum /addendum/ amendments etc. for this bid shall be posted on www.railtelindia.com and GeM only.
- 3) This bid is governed by the Specific Additional Terms & Conditions and General Terms & Conditions laid down by the GeM against **GEM/2026/B/xxxxxxx dated xx-01-2026**
- 4) After opening of the technical bid no correspondence/submission of document made at the initiative of the bidder will be entertained. However, the purchaser can, if required, ask for clarifications which need to be submitted before a target date. The clarifications submitted as required by the purchaser before the target date will be considered.

23. Bill Tracking System (BTS) Clause:

Vendors are advised to submit their bills through bill tracking system (<https://bts.rcil.gov.in/Home>) of RailTel for their payment.

24. Trade Receivables Discount System (TReDS):

TReDS feature available.	Yes, on m1xchange portal. (Url: http://www.m1xchange.com)
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1. RailTel is registered with m1xchange TReDS Platform having Buyer registration Number “BUYER00001496”. The URL for m1xchange platform is <http://www.m1xchange.com>. MSE suppliers/vendors are required to register themselves on m1change platform for availing the facility of bill discounting on TReDs portal. The bidder is mandatorily required to submit its TReDS registration number (as provided by M1xchange portal) and GRN (Goods/Service Receipt Note) Number (as provided by RailTel on delivery of Goods/Service) while submitting the invoices if requires to avail TReDS facility.
2. MSE vendors will bear all costs relating to availing the facility of discounting on TreDS platform including but not limited to registration chargers, Transaction chargers for financing, discounting chargers, interest on financing, or any other chargers known by any name shall be borne by MSE vendor.
3. MSE vendor hereby agree to indemnify, hold harmless and keep RailTel and its affiliates, Directors, officers, representatives, agents and employees indemnified, from any and all damages, losses, claims and liabilities (including legal costs) which may arise from sellers submission, posting or display, participation, in any manner, on the TReDS platform or from the use of services or from the buyer’s breach of any of the terms and conditions of the usage Terms or of this Agreement and any applicable Law on a full indemnity basis.
4. RailTel shall not be liable for any special, indirect, punitive, incidental or consequential damages whatsoever (including but not limited to damages for loss of profits or savings, business interruption, loss of information), whether in contract, tort, equity or otherwise or any other damage resulting from using TReDS platform for discounting their (MSE vendor’s) invoices.

25. Bidders sharing a land border with India

Office Memorandum F. No. 6/18/2019-PPD dated 23.07.2020 by Ministry of Finance, Department of Expenditure, Public Procurement Division shall also apply to this tender. A certificate as per **Form-VII**, shall be submitted by all the bidders regarding their compliance with this order. If such certificates are given by a bidder whose bid is accepted is found to be false, this would be ground for immediate termination and further legal action in accordance with law. Registration should be valid at the time of submission of bids and at the time of acceptance of bids. In respect of supply otherwise than by tender, registration should be valid at the time of placement of order.

26. Inspection:

Inspection shall be carried out as per the specification at OEM premises, by RailTel’s authorized representative.

- i. The supplier/manufacturer shall send inspection call letter when the material is ready to be supplied and ready for inspection. The Inspection shall be carried out at supplier’s/Manufacturer’s premises by the Inspecting Authority.
- ii. The supplier/manufacturer shall submit along with inspection call the details of test procedures, test programs, test parameters together with permitted values, etc., and their Quality Assurance Plan.
- iii. In case material/equipment fails during inspection, the fresh lot of same material/ equipment shall be offered without any extra cost, by the manufacturer/supplier. In such a case, total cost of re-inspection including travel, lodging & boarding of the inspecting officials shall be born by manufacturer’s / supplier’s account/cost.
- iv. Inspection of the material including that of raw material if deemed required shall be conducted by approved Govt. inspecting authority/RailTel at the firm’s premises/Govt. approved Test labs. The inspection shall be conducted by the inspection authority as per required test procedures /test plan for ensuring that the material offered meets the required specifications.

- v. The Inspection shall be carried out as per the specifications at OEM premises. The supplier shall make available for inspection all types of equipment's in sufficient number so as to create test set up for carrying out various tests as per the approved test plan and test set up. Travelling, lodging and boarding expenses of RailTel representative and charges for third party inspection if any shall be borne by RailTel, but necessary facilities to carry out test /witness inspection shall be provided by the manufacturer/supplier, free of cost.
- vi. The manufacturer shall maintain stock register (receipt, issue and balance) and defect records for the raw material. The defect records shall be in standard formats and it shall be compiled on a daily/ weekly/ monthly basis and it shall be analysed. "NIL" Report shall be segregated from the accepted material. First-in First-out concept shall be implemented in fool proof manner. The batches of the raw material shall be identified and traceable. All relevant documents necessary to ensure trace-ability shall be maintained. The raw material shall be protected from direct exposure to sunlight, moisture, water ingress and heat etc.
- vii. Finished products shall be tested 100% by the factory QC personnel before being offered to RailTel for acceptance to ensure that it meets all quality requirements as per the relevant specifications. Duly filled in test formats indicating the results of such tests shall be submitted along with material offered for inspection to RailTel.
- viii. RailTel reserves the right to cancel pre dispatch inspection and opt for consignee inspection after receipt of material.

27. Quantity Variation:

The Purchaser reserves the right to increase or decrease the quantity to be ordered by 30 percent of bid quantity at the time of placement of contract. The purchaser also reserves the right to increase the ordered quantity by up to 30% of the contracted quantity during the currency of the contract at the contracted rates. Bidders are bound to accept the orders accordingly.

28. Liquidated damages

0.5% per week or part thereof (with a maximum ceiling of 10% of the order value), shall be applicable if the delivery is not affected within the stipulated delivery period/completion period.

29. DENIAL CLAUSE

Supplier will not be entitled to any benefit of upward statutory variations in GST rates Announced after expiry of the original Delivery Period as per purchase order & in Case of reduction in GST rates if any, benefit will be passed on to RailTel at any stage of the contract.

TECHNICAL SPECIFICATION**1. Purpose**

The purpose of this document is to provide specifications for **Supply of Switches, SFPs as per SOR and Technical Specification.**

2. General Technical Requirements:**i) 10G switch :**

S.No	Switch Type-C : Minimum Specifications	Compliance (Yes/No)
1	Should have minimum 24x1G SFP ports.	
2	Should have minimum 4x10G SFP+ based ports.	
3	Should have at least 128 Gbps switching fabric.	
4	Should have at least 80 Mpps forwarding rate (with 64 Bytes).	
5	Switch should support IEEE 802.3ad, IEEE 802.3az standards	
6	Should support transceiver Digital Diagnostic Monitoring for optical ports.	
7	Should support Auto MDI-II/MDI-X uplink for all the twisted pair ports.	
8	Should support for 802.3x flow control.	
9	Should support at least 16000 entries in the MAC table.	
10	Should support vlan range 1-4000 and at least 256 active VLANs.	
11	Should support jumbo frame (9000 Byte or above)	
12	Should support Port-based VLAN, 802.1Q Tagged VLAN.	
13	Should support LLDP or similar functionality.	
14	Should support port mirroring.	
15	Switch should support IPv6.	
16	Should support 802.1D spanning tree control/RSTP support and MSTP Support	
17	Should support spanning-tree portfast for fast convergence or similar functionality.	
18	Should support spanning-tree root guard or similar functionality.	
19	Should support spanning-tree bpdu guard, bpdu filter or similar functionality.	
20	Should support DHCP snooping.	
21	Should support ITU-T G.8032v2 Ethernet Ring Protection designed for loop protection and fast convergence times (sub 50 ms) in ring topologies	
22	Should support virtual or dedicated stacking.	
23	Should support IGMP v1/v2/v3 and IGMP Snooping.	
24	Should support security features Broadcast, Multicast and Unicast Storm Control.	
25	Should support security features DoS Attack Prevention.	
26	Should support console port and ssh v2 based management.	
27	Should support management features SNMP,Syslog, NTP, RADIUS	
28	Should support 802.1Q VLAN, QnQ, 802.1p priority queues.	
29	Should support Layer 2 QoS.	
30	Should support Strict Priority Queue, Weighted Round Robin (WRR), Rate Limiting (Bandwidth Control) or equivalent.	
31	Should have redundant power, AC Supply 100 to 240 V AC with 50 to 60 Hz and DC Supply - 48V without any external adaptors.	
32	Switch should comply to Operating Temperature range 0°C to 50 °C.	
33	All accessories required for 19" rack mounting should be supplied.	
34	Product should comply to DOT guide lines as "Trusted source and Trusted Product" under National Security Directive on the Telecommunication Sector	

ii) **40G Switch:**

S.No	Switch Type-D(Layer-3) : Minimum Specifications	Compliance (Yes/No)
1	Should have minimum 24x1/10G SFP+ ports.	
2	Should have minimum 4x40/100G QSFP based ports.	
3	Should have at least 1.2 Tbps switching fabric.	
4	Should have at least 600 Mpps forwarding rate (with 64 Bytes).	
5	Switch should support IEEE 802.3ad, IEEE 802.3az standards.	
6	Should support transceiver Digital Diagnostic Monitoring for optical ports.	
7	Should support Auto MDI-II/MDI-X uplink for all the twisted pair ports.	
8	Should support for 802.3x flow control.	
9	Should support at least 64000 entries in the MAC table.	
10	Should support vlan range 1-4000 and at least 1000 active VLANs.	
11	Should support jumbo frame (9000 Byte or above).	
12	Should support Port-based VLAN, 802.1Q Tagged VLAN.	
13	Should support LLDP or similar functionality.	
14	Should support port mirroring.	
15	Switch should support IPv6.	
16	Should support 802.1D spanning tree control/RSTP support and MSTP Support.	
17	Should support spanning-tree portfast for fast convergence or similar functionality.	
18	Should support spanning-tree root guard or similar functionality.	
19	Should support spanning-tree bpdu guard, bpdu filter or similar functionality.	
20	Should support DHCP snooping.	
21	Should support ITU-T G.8032v2 Ethernet Ring Protection designed for loop protection and fast convergence times (sub 50 ms) in ring topologies.	
22	Should support virtual or dedicated stacking.	
23	Should support IGMP v1/v2/v3 and IGMP Snooping.	
24	Should support security features Broadcast, Multicast and Unicast Storm Control.	
25	Should support security features DoS Attack Prevention.	
26	Should support console port and ssh v2 based management.	
27	Should support management features SNMP,Syslog, NTP, RADIUS.	
28	Should support 802.1Q VLAN, QnQ, 802.1p priority queues.	
29	Should support Layer 2 QoS.	
30	Should support Srrict Priority Queue, Weighted Round Robin (WRR), Rate Limiting (Bandwidth Control) or equalent.	
31	Should support routing protocols OSPFv2,OSPFv3, BGPv4, BFD.	
32	Should support ECMP, VRRP.	
33	should support route table size FIB minimum 16,000 routes (IPv4)/ 4,000 routes (IPv6).	
34	Should have redundant hot-swappable Power Supply modules. AC Supply 100 to 240 V AC with 50 to 60 Hz and DC Supply -48V without any external adaptors.	
35	Switch should comply to Operating Temperature range 0°C to 50 °C.	
36	All accessories required for 19" rack mounting should be supplied.	
37	Switch should supplied with 1 Nos of 100G DAC 1mts.	
38	Product should comply to DOT guide lines as "Trusted source and Trusted Product" under National Security Directive on the Telecommunication Sector	

iii) **1G switch:**

S.No	Switch Type-B : Minimum Specifications	Compliance (Yes/No)
1	Should have minimum 24x100/1000 RJ45 ports.	
2	Should have minimum 4 nos. SFP based ports (1G)	
3	Should have at least 56 Gbps switching fabric.	
4	Should have at least 40 Mpps forwarding rate (with 64 Bytes).	
5	Switch should support IEEE 802.3ad, IEEE 802.3az standards.	
6	Should support transceiver Digital Diagnostic Monitoring for optical ports.	
7	Should support Auto MDI-II/MDI-X uplink for all the twisted pair ports.	
8	Should support for 802.3x flow control.	
9	Should support at least 16000 entries in the MAC table.	
10	Should support vlan range 1-4000 and at least 256 active VLANs.	
11	Should support jumbo frame (9000 Byte or above).	
12	Should support Port-based VLAN, 802.1Q Tagged VLAN.	
13	Should support LLDP or similar functionality.	
14	Should support port mirroring.	
15	Switch should support IPv6.	
16	Should support 802.1D spanning tree control/RSTP support and MSTP Support.	
17	Should support spanning-tree portfast for fast convergence or similar functionality.	
18	Should support spanning-tree root guard or similar functionality.	
19	Should support spanning-tree bpdu guard, bpdu filter or similar functionality.	
20	Should support DHCP snooping.	
21	Should support ITU-T G.8032v2 Ethernet Ring Protection designed for loop protection and fast convergence times (sub 50 ms) in ring topologies.	
22	Should support virtual or dedicated stacking.	
23	Should support IGMP v1/v2/v3 and IGMP Snooping.	
24	Should support security features Broadcast, Multicast and Unicast Storm Control.	
25	Should support security features DoS Attack Prevention.	
26	Should support console port and ssh v2 based management.	
27	Should support management features SNMP, Syslog, NTP, RADIUS.	
28	Should support 802.1Q VLAN, QnQ, 802.1p priority queues.	
29	Should support Layer 2 QoS.	
30	Should support Strict Priority Queue, Weighted Round Robin (WRR), Rate Limiting (Bandwidth Control) or equivalent	
31	Should have redundant AC Power Supply 100 to 240 V with 50 to 60 Hz.	
32	Switch should comply to Operating Temperature range 0°C to 50 °C.	
33	All accessories required for 19" rack mounting should be supplied.	
34	Product should comply to DOT guide lines as "Trusted source and Trusted Product" under National Security Directive on the Telecommunication Sector	

iv) **POE switch 24P:**

S.No	Switch Type-A(POE) : Minimum Specifications	Compliance (Yes/No)
1	Should have minimum 8 GE ports.	
2	Should have minimum 2 nos. SFP based 1 GE ports.	
3	Should have at least 20 Gbps switching fabric.	
4	Should support port Trunking of at least 2 nos. 1GE ports.	
5	Should support 802.3af and 802.3at	
6	Should support PoE of 8 ports.	
7	Switch should have minimum POE power budget of 120 watts	
8	Switch should support IEEE 802.3ad, IEEE 802.3az standards	
9	Should support transceiver Digital Diagnostic Monitoring for optical ports.	
10	Should support Auto MDI-II/MDI-X uplink for all the twisted pair ports.	
11	Should support for 802.3x flow control.	
12	Should support at least 8000 entries in the MAC table.	
13	Should support vlan range 1-4000 and at least 32 active VLANs.	
14	Should support jumbo frame (9000 Byte or above)	
15	Should support Port-based VLAN, 802.1Q Tagged VLAN.	
16	Should support LLDP or similar functionality.	
17	Should support port mirroring.	
18	Switch should support IPv6.	
19	Should support 802.1D spanning tree control/RSTP support and MSTP Support	
20	Should support spanning-tree portfast for fast convergence or similar functionality.	
21	Should support spanning-tree root guard or similar functionality.	
22	Should support spanning-tree bpdu guard, bpdu filter or similar functionality.	
23	Should support DHCP snooping	
24	Should support ITU-T G.8032 Ethernet Ring Protection designed for loop protection and fast convergence times (sub 50 ms) in ring topologies	
25	Should support IGMP v1/v2/v3 and IGMP Snooping	
26	Should support security features Broadcast, Multicast and Unicast Storm Control	
27	Should support security features DoS Attack Prevention	
28	Should support console port and ssh v2 based management.	
29	Should support management features SNMP,Syslog, NTP, RADIUS	
30	Should support 802.1Q VLAN, QnQ, 802.1p priority queues.	
31	Should support Layer 2 QoS	
32	Should support Srtict Priority Queue, Weighted Round Robin (WRR), Rate Limiting (Bandwidth Control) or equalent	
33	Should have AC Power Supply 100 to 240 V AC with 50 to 60 Hz without any external adaptors	
34	Switch should comply to Operating Temperature range 0°C to 50 °C	
35	All accessories required for 19" rack mounting should be supplied.	
36	Product should comply to DOT guide lines as "Trusted source and Trusted Product" under National Security Directive on the Telecommunication Sector	

v) **40G Uplink Switch (2X40G and 24 X 10G):**

S.No	Switch Type-D(Layer-3) : Minimum Specifications	Compliance (Yes/No)
1	Should have minimum 24x1/10G SFP+ ports.	
2	Should have minimum 4x40/100G QSFP based ports.	
3	Should have at least 1.2 Tbps switching fabric.	
4	Should have at least 600 Mpps forwarding rate (with 64 Bytes).	
5	Switch should support IEEE 802.3ad, IEEE 802.3az standards.	
6	Should support transceiver Digital Diagnostic Monitoring for optical ports.	
7	Should support Auto MDI-II/MDI-X uplink for all the twisted pair ports.	
8	Should support for 802.3x flow control.	
9	Should support at least 64000 entries in the MAC table.	
10	Should support vlan range 1-4000 and at least 1000 active VLANs.	
11	Should support jumbo frame (9000 Byte or above).	
12	Should support Port-based VLAN, 802.1Q Tagged VLAN.	
13	Should support LLDP or similar functionality.	
14	Should support port mirroring.	
15	Switch should support IPv6.	
16	Should support 802.1D spanning tree control/RSTP support and MSTP Support.	
17	Should support spanning-tree portfast for fast convergence or similar functionality.	
18	Should support spanning-tree root guard or similar functionality.	
19	Should support spanning-tree bpdu guard, bpdu filter or similar functionality.	
20	Should support DHCP snooping.	
21	Should support ITU-T G.8032v2 Ethernet Ring Protection designed for loop protection and fast convergence times (sub 50 ms) in ring topologies.	
22	Should support virtual or dedicated stacking.	
23	Should support IGMP v1/v2/v3 and IGMP Snooping.	
24	Should support security features Broadcast, Multicast and Unicast Storm Control.	
25	Should support security features DoS Attack Prevention.	
26	Should support console port and ssh v2 based management.	
27	Should support management features SNMP, Syslog, NTP, RADIUS.	
28	Should support 802.1Q VLAN, QnQ, 802.1p priority queues.	
29	Should support Layer 2 QoS.	
30	Should support Strict Priority Queue, Weighted Round Robin (WRR), Rate Limiting (Bandwidth Control) or equivalent.	
31	Should support routing protocols OSPFv2, OSPFv3, BGPv4, BFD.	
32	Should support ECMP, VRRP.	
33	should support route table size FIB minimum 16,000 routes (IPv4)/ 4,000 routes (IPv6).	
34	Should have redundant hot-swappable Power Supply modules. AC Supply 100 to 240 V AC with 50 to 60 Hz and DC Supply -48V without any external adaptors.	
35	Switch should comply to Operating Temperature range 0°C to 50 °C.	
36	All accessories required for 19" rack mounting should be supplied.	
37	Switch should supplied with 1 Nos of 100G DAC 1mts.	
38	Product should comply to DOT guide lines as "Trusted source and Trusted Product" under National Security Directive on the Telecommunication Sector	

vi) **10G SFP:**

10GBase-BX SFP+ Transceiver (SFP+, 1330nmTx/1270nmRx, 10km, LC, DOM, -40 to 85C 10GBase-BX SFP* Transceiver (SFP+, 1270nmTx/1330nmRx, 10km, LC, DOM, -40 to 85C		
SN	Description	Compliance (Yes/No)
1	Should be compatible with OEM equipment's like Cisco, Juniper, Techroute, Watchdog, D Link, Zyxel, Edge Core etc.,	
2	Should support 10 km optical distance on single fiber	
3	Should have LC type connector.	
4	Should provide quantity in such a way that pair (BX U & D) can be achieved. In case of odd no. mentioned in the SOR, additional unit to be provided to make pair complete.	
5	Should have 10 Gigabit Ethernet capacity on single mode fiber.	
6	Should support Digital Diagnostic Monitoring feature with following operating parameters: Transceiver temperature Laser bias current Transmitted optical power: -8.2 - 0.5dBm Received optical power: -14.5dBm Transceiver supply voltage: 3.3V It also provides a sophisticated system of alarm and warning flags	
7	OEM should be having valid ISO 9000	
8	Complies with INF-8074 / SFF-8472 Compliance	

vii) **SFP 1xGigE Electrical:**

10/100/1000Base-TX SFP Transceiver (Copper, 100m, RJ-45, -40 to 85C)		
SN	Description	Compliance (Yes/No)
1	Should be compatible with OEM equipment*s like Cisco, Jumper, Techroute, Watchdog, D Link, Zyxet. Edge Core.	
2	RJ-45 Connector & Copper Media Type	
3	IEEE 802.3 compatible & Category 5e UTP	
4	This TX module supports 10/100/1000Base auto-negotiation and can be configured to fit your needs	
5	OEH should be having valid ISO 9000	
6	Should have CE and FCC and UL/ROHS regulatory Certificate	
7	Operating temperature of the SFP should be -d0 to 85°C	
8	Complies with INF-8074 /SFF-8472 Compliance	
9	Should declare Country of origin along with documentary proof.	

viii) **10 G Dual Fibre SFP Module of 40 Km:**

10GBase-BX SFP+ Transceiver (SFP+, 1350nmTx/1270nmRx, 40km, LC, DOM, -40 to 85C 10GBase-BXSFP+ Transceiver(SHF, 1270nmTxYI3d0nmRx, 40km, LC, DOM, -40 to85C		
SN	Description	Compliance (Yes/No)
1	Should be compatible with OEM equipment's like Cisco, Juniper, Techroute, Watchdog, D Link, Zyxel, Edge Core etc.,	
2	Should support 20-40 km optical distance on sinyte fiber	
3	Should have LC type connector.	

10GBase-BX SFP+ Transceiver (SFP+, 1350nmTx/1270nmRx, 40km, LC, DOM, -40 to 85C 10GBase-BXSFP+ Transceiver(SHF, 1270nmTx/13d0nmRx, 40km, LC, DOM, -40 to85C		
SN	Description	Compliance (Yes/No)
4	Should provide quantity in such a way that pair (BX U & D) can be achieved. In case of odd no. mentioned in the SOR, additional unit to be provided to make pair complete.	
5	Should have 10 Gigabit Ethernet capacity on single mode fiber.	
6	Should support Digital Diagnostic Monitoring feature with following operating parameters: Transceiver temperature Laser bias current Transmitted optical power: 0 - +4dBm Received optical power: -15dBm Transceiver supply voltage: 3.3V It also provides a sophisticated system of alarm and warning flags	
7	OEM should be having valid ISO 9000	
8	Should have CE /FCC / UL regulatory Certificate	
9	Operating temperature of the SFP should be minimum 0 to 70°C (23 to 149 °F)	
11	Complies with 1270nm & 1330nm DFB laser transmitter & CPRI Option 7, 8	
12	Should support 9.83G to 11.32Gb/s multi-rate & 2-wire interface for management and diagnostic monitor compliant with SFF-8472	
13	Should declare Country of origin along with documentary proof.	

ix) **QSFP+ 40G 40KM: & QSFP-40GBASE-SR4:**

S.no.	40G QSFP	Compliance (Yes/No)
1	Form Factor	
	a. Standard : QSFP (Quad Small Form-factor Pluggable)	
	b. Compatibility: Hot-pluggable for use in compatible network devices (switches, routers, etc.) . Should be compatible with OEM equipment's like Cisco, Juniper, Techroute, Watchdog, D Link, Zyxel, Edge Core etc.,	
2	Supported Standards	
	Ethernet: 40GBASE-SR4, 40GBASE-LR4, 40GBASE-ER4, 40GBASE-CR4, and others	
3	Connector Types	
	Fiber: MTP/MPO for multimode fiber (SR4) or LC duplex for single-mode fiber (LR4, ER4)	
	Copper: Direct Attach Copper (DAC) cables with integrated QSFP connectors	
	Active Optical Cables (AOCs): For short-range optical connectivity	
4	Wavelength	
	SR4: 850 nm (multimode)	
	LR4: 1270 nm to 1330 nm (four wavelengths over single-mode)	
	ER4: Similar to LR4 but supports extended reach	
5	Data Rate	
	Maximum Data Rate: 40 Gbps	
	Per Channel Rate: 10 Gbps x 4 channels	
6	Distance	
	SR4: Up to 100m on OM3 multimode fiber, 150m on OM4	
	LR4: Up to 10 km on single-mode fiber	
	ER4: Up to 40 km on single-mode fiber	

S.no.	40G QSFP	Compliance (Yes/No)
	CR4 (DAC): Typically 1 to 7 meters	
7	Power Consumption	
	Typical power consumption ranges from 1.5W to 3.5W , depending on the model.	
8	Temperature Range	
	Operating Temperature: 0°C to 70°C (Commercial); -40°C to 85°C (Industrial/Extended)	
	Storage Temperature: -40°C to 85°C	
9	Compliance	
	Compliant with IEEE 802.3ba, SFF-8436, and other relevant standards for 40GbE	
	RoHS compliant (depending on the manufacturer)	
10	Applications	
	Data centers, enterprise networks, and service provider environments	
	High-speed interconnects for switches, routers, and servers	
	High-performance computing (HPC)	
11	Diagnostics	
	Digital Optical Monitoring (DOM): Allows real-time monitoring of parameters like temperature, voltage, bias current, and optical power levels.	
12	Should be compatible with OEM equipment's like Cisco, Juniper, Techroute, Watchdog, D Link, Zyxel, Edge Core etc.,	

x) **10G SFP+ Bidi (40 KM):**

10GBase-BX SFP+ Transceiver (SFP+, 1350nmTx/1270nmRx, 40km, LC, DOM, -40 to 8SC 10GBase-BXSFP+ Transceiver(SHF, 1270nmTxY13d0nmRx, 40km, LC, DOM, -40 to8SC		
SN	Description	Compliance (Yes/No)
1	Should be compatible with OEM equipment's like Cisco, Juniper, Techroute, Watchdog, D Link, Zyxel, Edge Core etc.,	
2	Should support 20-40 km optical distance on sinyte fiber	
3	Should have LC type connector.	
	Should provide quantity in such a way that pair (BX U & D) can be achieved. In case of odd no. mentioned in the SOR, additional unit to be provided to make pair complete.	
5	Should have 10 Gigabit Ethernet capacity on single mode fiber.	
6	Should support Digital Diagnostic Monitoring feature with following operating parameters: Transceiver temperature Laser bias current Transmitted optical power: 0 - +4dBm Received optical power: -15dBm Transceiver supply voltage: 3.3V It also provides a sophisticated system of alarm and warning flags	
7	OEM should be having valid ISO 9000	
8	Should have CE /FCC / UL regulatory Certificate	
9	Operating temperature of the SFP should be minimum 0 to 70°C (23 to 149 °F)	
11	Complies with 1270nm & 1330nm DFB laser transmitter & CPRI Option 7, 8	
12	Should support 9.83G to i1.32Gb/s multi-rate & 2-wire interface for management and diagnostic monitor compliant with SFF-8472	
13	Should dectare Country of origin along with documentary proof.	

xi) **10G SFP+ Bidi (10 KM):**

10GBase-BX SFP+ Transceiver (SFP+, 1330nmTx/1270nmRx, 10km, LC, DOM, -40 to 85C 10GBase-BX SFP* Transceiver (SFP+, 1270nmTx/1330nmRx, 10km, LC, DOM, -40 to 85C		
SN	Description	Compliance (Yes/No)
1	Should be compatible with OEM equipment's like Cisco, Juniper, Techroute, Watchdog, D Link, Zyxel, Edge Core etc.,	
2	Should support 10 km optical distance on single fiber	
3	Should have LC type connector.	
4	Should provide quantity in such a way that pair (BX U & D) can be achieved. In case of odd no. mentioned in the SOR, additional unit to be provided to make pair complete.	
5	Should have 10 Gigabit Ethernet capacity on single mode fiber.	
6	Should support Digital Diagnostic Monitoring feature with following operating parameters: Transceiver temperature Laser bias current Transmitted optical power: -8.2 - 0.5dBm Received optical power: -14.5dBm Transceiver supply voltage: 3.3V It also provides a sophisticated system of alarm and warning flags	
7	OEM should be having valid ISO 9000	
8	Complies with INF-8074 / SFF-8472 Compliance	

xii) **1G SFP(10 Km): & 1G SFP+Bidi (10 Km):**

1000Base-BX SFP Transceiver (Sfp, 1490nmTx/1310nmRx, 10km, LC, DODI, -40 to 85C)		
1000Base-BX SFP Transceiver (Sfp, 1310nmTx/1490nmRx, 10km, LC, DODI, -40 to 85C)		
SN	Description	Compliance (Yes/No)
1	Should be compatible with OEM equipment's like Cisco, Juniper, Techroute, Watchdog, D Link, Zyxel, Edge Core etc	
2	Should support 10 km optical distance on single fiber	
3	Should have Simplex LC type connector.	
4	Should provide quantity in such a way that pair (BX U & D) can be achieved. In case of odd no. mentioned in the SOR, addition al unit to be provide to make pair complete.	
5	Should have 1 Gigabit Ethernet capacity on single mode fiber.	
	Regulatory Compliance: ESD to the Electrical PINs: compatible with MIL-STD-883E Method 3015.4 ESD to the LC Receptacle: compatible with IEC 61000-d-3 ENI/Ef•1C compatible with FCC Part 15 Subpart B Rules, EN55022:2010 Laser Eye Safety compatible with FDA 21CFR, EN60950-1& EN (IEC) 60825-1,2 RoHS compliant with EU RoHS 2.0 directive 2015/863/EU	
7	OEf 1 should be having valid ISO 9000	
8	Should have CE and FCC,UL/ROHS regulatory Certificate	
9	Operating temperature of the SFP should be -40 to 85°C	
10	Complies with INF-8074 /SFF-8472 Compliance	
11	Should declare Country of origin along with documentary proof.	

xiii) **1G SFP+ Bidi(40KM):**

1000Base-BX SFP Transceiver (Sfp, 1490nmTx/1310nmRx, 40km, LC, DOM, -40 to 85C)		
1000Base-BX SFP Transceiver (Sfp, 1310nmTx/1490nmRx, 40km, LC, DOM, -40 to 85C)		
SN	Description	Compliance (Yes/No)
1	Should be compatible with OEM equipment's like Cisco, Juniper, Techroute, Watchdog, D Link, Zyxel, Edge Core. Etc	
2	Should support 20-40 km optical distance on single fiber	
3	Should have Simplex LC type connector.	
	Should provide quantity in such a way that pair (BX U & D) can be achieved. In case of odd no. mentioned in the SOR, additional unit to be provide to make pair complete.	
5	Should have 1 Gigabit Ethernet capacity on single mode fiber.	
	Regulatory Compliance: ESD to the Electrical PINs: compatible with NIL-STD-883E Method 3015.4 ESD to the LC Receptacle: compatible with IEC 61000-4-3 ENI/EMC compatible with FCC Part 15 Subpart B Rules, EN55022:2010 Laser Eye Safety compatible with FDA 21CFR, EN60950-1& EN (IEC) 60825-1,2 RoHS compliant with EU RoHS 2.0 directive 2015/863/EU	
7	OEF 1 should be having valid ISO 9000	
8	Should have CE and FCC UL/ROHS regulatory Certificate	
9	Operating temperature of the SFP should be -40 to 85°C	
10	Complies with INF-8074 / SFF-8472 Compliance	
11	Should declare Country of origin along with documentary proof.	

xiv) **10G Bi-Di SFP+60 km (Units in Pairs):**

10GBase-BX SFP+ Transceiver (SFP+, 1330nmTx/1270nmRx, 60km, LC, DOM, -40 to 85C)		
10GBase-BX SFP+ Transceiver (SFP+, 1270nmTx/1350nmRx, 60km, LC, DOM, -40 to 85C)		
SN	Description	Compliance (Yes/No)
1	Should be compatible with OEM equipment's like Cisco, Juniper, Techroute, Watchdog, D Link, Zyxel, Edge Core etc.,	
2	Should support 60 km optical distance on single fiber	
3	Should have LC type connector.	
	Should provide quantity in such a way that pair (BX U & D) can be achieved. In case of odd no. mentioned in the SOR, additional unit to be provided to make pair complete.	
5	Should have 10 Gigabit Ethernet capacity on single mode fiber.	
6	Should support Digital Diagnostic Monitoring feature with following operating parameters: Transceiver temperature Laser bias current Transmitted optical power: 0 +dBm Received optical power: -15dBm Transceiver supply voltage: 3.3V It also provides a sophisticated system of alarm and warning flags	
7	OEM should be having valid ISO 9000	
8	Should have CE /FCC / UL regulatory Certificate	
9	Operating temperature of the SFP should be minimum Oto 70°C (23 to 1dS°F}	

10GBase-BX SFP+ Transceiver (SFP+, 1330nmTx/1270nmRx, 60km, LC, DOM, -40 to 85C 10GBase-BX SFP+ Transceiver (SFP+, 1270nmTx/1350nmRx, 60km, LC, DOM, -40 to 85C		
SN	Description	Compliance (Yes/No)
10	Complies with SFF-Bd31 SFP* NSA(Multi-Source Agreements Standards)	
11	Complies with 1270nm & 1330nm DFB laser transmitter & CPRI Option 7. 8	
12	Should support 9.83G to 11.82Gb/s multi-rate &2-wire interface for management and diagnostic monitor compliant with SFF-8472	
13	Should declare Country of origin along with documentary proof.	

FORM-I
QUALIFYING CRITERIA USER'S CERTIFICATE

Name of the Firm Contract No. & date

Scope of supply	:	
Contract Amount (in Indian Rupees)	:	
Completion Period as per contract Data of Commencement	:	
Actual date of Successful Completion	:	
Quality of supply	:	Satisfactory/unsatisfactory(Please specify)

Name: Dated: Designation:

E-mail id:

Contact No:

FORM-II
PROFORMA FOR STATEMENT OF DEVIATIONS

(1) The following are the particulars of deviations from the requirements of the tender specification.

Clause	Deviation	Remarks
		(Including justification)

(2) The following are the particulars of deviations from the requirements of the instructions to Tenderers, General and Special Conditions of contract-

Clause	Deviation	Remarks
		(Including justification)

Signature and Seal of the Tenderer

Note: Where there is no deviation, the statement should be returned duly signed with an endorsement indicating "No Deviations".

FORM-III
MANUFACTURER AUTHORIZATION FORM (MAF)

ED/SR,

Dated:

RailTel Corporation of India Ltd.

Subject: Manufacturer Authorization form (MAF) to M/s _____ for _____.

Ref: Tender No. _____.

Dear Sir,

We, M/s _____, are established and reputed manufacturer and service provider of _____ (Product details), having our registered office at _____.

We hereby authorize M/s _____ (Bidder name), Office _____ to participate in bid and subsequently upon award of the bid to execute the supply of our range of products against your above said bid.

We further extend our warranty for _____ years for our range of products offered by M/s _____ against the above-said bid.

Thanking you,

Best regards,

Authorized Signatory

FORM – IV

GUARANTEE BOND FOR PERFORMANCE GUARANTEE

(On Stamp Paper of requisite value)

(To be used by approved Scheduled Banks)

1. In consideration of the RailTel Corporation of India Limited, 1-10-39 to 44, 6A, 6th floor, Gumidelli Towers, Begumpet Airport Road, Begumpet, Hyderabad – 500016. (Herein after called RailTel) having agreed to exempt (Hereinafter called “the said Contractor(s)”) from the demand, under the terms and conditions of an Agreement No.....dated made between.....and.....for (hereinafter called “the said Agreement”) of security deposit for the due fulfillment by the said Contractor (s) of the terms and conditions contained in the said Agreement, on production of a Bank Guarantee for Rs. (Rs..... only). We (indicate the name of the Bank) hereinafter referred to as “the Bank”) at the request of Contractor(s) do hereby undertake to pay the RailTel an amount not exceeding Rs against any loss or damage caused to or suffered or would be caused to or suffered by the RailTel by reason of any breach by the said Contractor(s) of any of the terms or conditions contained in the said Agreement.

2. We,..... Bank and our local branch at New Delhi (indicate detail address of local New Delhi branch with code no.) do hereby undertake to pay the amounts due and payable under this Guarantee without any demur, merely on demand from the RailTel stating that the amount is claimed is due by way of loss or damage caused to or would be caused to or suffered by the RailTel by reason of breach by the said Contractor(s) of any of terms or conditions contained in the said Agreement or by reason of the Contractor(s) failure to perform the said Agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.

3. We,.....banks undertake to pay to the RailTel any money so demanded notwithstanding any dispute or disputes raised by the Contractor(s) / Tenderer(s) in any suit or proceedings pending before any court or Tribunal relating thereto our liability under this present being, absolute and unequivocal. The payment made by us under this Bond shall be a valid discharge of our liability for payment there under and the Contractor(s) / Tenderer(s) shall have no claim against us for making such payment.

4. We,..... Bank further agree that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the RailTel under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till RailTel certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this Guarantee. Unless a demand or claim under the Guarantee is made on us in writing on or before the We shall be discharged from all liability under this Guarantee thereafter.

5. We,..... (indicate the name of Bank) further agree with the RailTel that the RailTel shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the Agreement or to extend time of to postpone for any time or from time to time any of the powers exercisable by the RailTel against the said contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension to the said Contractor(s) or for any forbearance, act or omission on the part of RailTel or any indulgence by the RailTel to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

This Guarantee will not be discharged due to the change in the Constitution of the Bank or the Contractor(s) / Tenderer(s).

We, theBank further agree that this guarantee shall be invocable at our place of business at/New Delhi (indicate detailed address of local New Delhi Branch with code no.). The branch at New Delhi is being advised accordingly. (indicate the name of Bank) lastly undertake not to revoke this Guarantee during its currency except with the previous consent of the RailTel in writing.

Dated the day of 2026

for

 (indicate the name of the Bank)

Witness

1. Signature Name

2. Signature Name

FORM-V**FORMAT FOR AFFIDAVIT TO BE SUBMITTED BY TENDERER ALONG WITH THE TENDER BID DOCUMENTS**

(To be executed in presence of public notary on non-judicial stamp paper of the value of Rs. 100/-. The paper has to be in the name of the tenderer)

I..... (Name and designation) ** appointed as the attorney/authorized signatory of the tenderer (including its constituents),
M/s. _____ (hereinafter called the tenderer) for the purpose of the Tender documents for the work of _____
As per the tender No. _____ of (----- Railway), do hereby affirm and state on the behalf of the tenderer including its constituents as under:

- (i) I/We the tenderer (s) am/are signing this document after carefully reading the contents.
- (ii) I/we the tenderer(s) also accept all the conditions of the tender and have signed all the pages in confirmation thereof.
- (iii) I/We hereby declare that I/We have downloaded the tender documents from RailTel's website www.railtelindia.com or GEM PORTAL. I/We have verified the content of the document from the website and there is no addition, no deletion or no alteration to the content of the tender document. In case of any discrepancy noticed at any stage i.e. evaluation of tenderer's, execution of work or final payment of the contract, the master copy available with the railway Administration shall be final and binding upon me/us.
- (iv) I/We declare and certify that I/we have not made any misleading or false representation in the forms, statements and attachments in proof of the qualification requirements.
- (v) I/We also understand that my/our offer will be evaluated based on the documents/credentials submitted along with the offer and same shall be binding upon me/us.
- (vi) I/We declare that the information and documents submitted along with the tender by me/us are correct and I/we are fully responsible for the correctness of the information and documents submitted by us.
- (vii) I/We undersigned that if the certificates regarding eligibility criteria submitted by us are found to be forged/false or incorrect at any time during process for evaluation of tenders, it shall lead to forfeiture of the tender EMD besides banning of business for five years on entire IR. Further, I/we (insert name of the tenderer) ** _____ and all my/our constituents understand that my/our offer shall be summarily rejected.
- (viii) I/we also understand that if the certificates submitted by us are found to be false/forged or incorrect at any time after the award of the contract, it will lead to termination of the contract, along with forfeiture of EMD/SD and Performance Guarantee besides any other action provided in the contract including banning of business for five year on entire IR.

DEPONEN
T SEAL AND
SIGNATURE OF THE
TENDERER

VERIFICATION

I/We above named tenderer do hereby solemnly affirm and verify that the contents of my/our above affidavit are true and correct. Nothing has been concealed and no part of it is false.

DEPONEN
T SEAL AND
SIGNATURE OF THE
TENDERER

Place:

Dated:

** The contents in Italics are only for guidance purposes. Details as appropriate are to be filled in suitably by tenderer. Attestation before Magistrate/Notary Public.

FORM-VI

FORMAT FOR BID SECURITY DECLARATION

(On non-judicial stamp paper of Rs. 100/-)

Whereas, I/We _____ (Name of Agency) has submitted bid for _____ (Name of Work and Tender No.) and whereas Earnest Money Deposit is being exempted in the aforesaid tender to give relief to the bidders as per Govt. of India guidelines due to severe financial crunch on account of slowdown in the economy due to the pandemic,

I/We hereby submit the following "Bid Security Declaration" in lieu of exemption from submitting Earnest Money Deposit: -

1) If I/We withdraw or modify my/our bid during the bid validity period (including extended validity of tender) specified in the tender documents;

Or

2) If, after the award of work, I/We fail to accept LOA/LOI, or to sign the contract agreement or fail to submit performance guarantee or fail to commence the work within stipulated time period prescribed in tender documents;

Or

3) If I/We furnish any incorrect or false statement / information/ document;

Or

4) If I/We hide any relevant information or do not disclose any material facts in the tender;

Or

5) If I/We commit any breach of integrity Pact;

I/We may be disqualified and banned for a period of three years and shall not be eligible to bid for future tenders in RailTel for a period of three years from date of issue of such orders.

(Signed by the Authorized Representative of Firm)

Name of Authorized Representative _____
Name of Firm _____
Date _____

FORM-VII
CERTIFICATE FOR LAND BORDER SHARING

- 1) 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 [The Competent Authority for the purpose of registration under this Order shall be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT)].
- 2) "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.
- 3) "Bidder from a country which shares a land border with India" for the purpose of this Order means: -
 - a. An entity incorporated, established or registered in such a country; or
 - b. A subsidiary of an entity incorporated, established or registered in such a country; or
 - c. An entity substantially controlled through entities incorporated, established or registered in such a country; or
 - d. An entity whose beneficial owner is situated in such a country; or
 - e. An Indian (or other) agent of such an entity; or
 - f. A natural person who is a citizen of such a country; or
 - g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above.
- 4) The beneficial owner for the purpose of (III) above will be as under:
 1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.

Explanation

 - a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent. of shares or capital or profits of the company;
 - b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;
 2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;
 3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;
 4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
 5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.
- 5) An Agent is a person employed to do any act for another, or to represent another in dealings with third person.
- 6) The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.

Certificate to be given by the Tenderer:

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that I am not from such a country or, if from such a country, I have been registered with the Competent Authority. I hereby certify that I fulfill all requirements in this regard, and I am eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]"

Certificate to be given by Tenderer for Works involving possibility of sub-contracting:

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I certify that I am not from such a country or, if from such a country, I have been registered with the Competent Authority and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority. I hereby certify that I fulfill all requirements in this regard, and I am eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]"

FORM-VIII**BIDDER'S ORGANIZATION DATA SHEET**

1	Name of the Organization	
2	Name of the Authorized Person Submitting the Tender Documents (Submit the proof of authorizing the person to sign the tenders by the company on its behalf)	
3	Main line of Business	
4	Years of Experience	
5	Location (indicate address, tel.no., fax and the year from which they are operating in that location)	
6	Contact person	
7	Address	
8	Tel. No.	
9	Fax No.	
10	E-mail ID	

FORM-IX
OFFER
LETTER

To,
Executive Director,
RailTel Corporation of India
Limited, 2nd Floor, B-Block, Rail
Nilayam, Secunderabad – 500
071.

I/We _____ have read the various conditions detailed in tender documents attached here to and hereby agree to ABIDE BY THE SAID CONDITIONS. I/We also agree to keep this tender open for acceptance for a period of **20 days from the date fixed for opening the same** and in default thereof, I/We will be liable for forfeiture of my/our Earnest Money. I/We offer to **Supply of Switches, SFPs, Attenuator G Patch cords as per SOR and Technical Specification** given in the Tender Document and the rates quoted in the attached schedule and hereby bind myself/ourselves to cover **warranty** from the date of issue of Purchase Order. I/We also hereby agree to abide by the Various Conditions of Contract and to carry out the supplies according to the Specifications for materials and works laid down by the RailTel for the present contract.

EMD for SOR (Supply):

2. A sum of Rs. _____ (or) **UDYAM** is herewith forwarded as “Earnest Money”. The full value of Earnest Money shall stand forfeited without prejudice to any other rights or remedies if, I/We withdraw or modify the offer within validity period to that effect.

SIGNATURE OF SUPPLIER (S) with Seal

Date:

SIGNATURE OF WITNESS CONTRACTOR (S)

ADDRESS 1.

2.

CHECK LIST

SN	Have you submitted the following documents?	Submitted/ Complied or not	Page No/ref no. of Offer
1	User Certificate as per Form-I		
1a	Similar Works carried out table on letterhead vide Clause No.6		
2	Deviation Statement, if any (Chapter wise and Clause wise from Technical Specification & Tender conditions). Form-II		
3	Manufacturer Authorization form (MAF) as per Form-III		
4	Notarized Affidavit as per Form-V		
5	EMD of Rs. 1,00,510/- or Bid Security Declaration, where firms participated availing UDAYM/DPIIT as per Form-VI as per clause 9		
6	Land border certificate as per Form-VII		
7	Bidders Organization data sheet as per Form-VIII		
8	Power of attorney in favor of the signatory duly authorizing the signatory		
G	Complete Tender documents digitally signed or duly signed G stamped on each page in token of acceptance should be submitted online.		
10	Cost breakup of price indicating Basic rate, Packaging & Forwarding, CGST/SGST/IGST, Insurance etc.		
11	Offer Letter duly signed by authorized signatory Form-IX		
12	Compliance to Technical eligibility criteria as per clause 6 (i)		
13	Compliance to Financial eligibility criteria as per clause 6 (ii)		

CONSIGNEE DETAILS

Annexure-A

SN	Description	UOM	QTY	SBC	SC	MAS
1	10G switches (Type-C)	Nos	47	13	24	10
2	40G switch (Type-D)	Nos	4	-	4	-
3	1G switch (Type-B)	Nos	13	-	1	12
4	POE switch 24P (Type-A)	Nos	6	6	-	-
5	40G Uplink Switch (2X40G and 24 X 10G) (Type-D)	Nos	1	-	-	1
6	10G SFP	Nos	70	70	-	-
7	SFP 1xGigE Electrical	Nos	35	20	15	-
8	10 G Dual Fibre SFP Module of 40 Km	Nos	6	-	6	-
9	QSFP+ 40G 40KM	Nos	14	-	14	-
10	QSFP-40GBASE-SR4	Nos	10	-	10	-
11	10G SFP+ Bidi (40 KM)	Nos	4	-	4	-
12	10G SFP+ Bidi(10 KM)	Nos	16	-	16	-
13	1G SFP(10 Km)	Nos	6	-	6	-
14	1G SFP+ Bidi(40KM)	Nos	32	-	32	-
15	1G SFP+ Bidi(40KM) (Units in Pairs)	pairs	17	-	17	-
16	1G SFP+Bidi(10 Km)	Nos	29	-	29	-
17	10G Bi-Di SFP+60 km (Units in Pairs)	pairs	29	-	29	-

Territory	Consignee details (ship to Address)	Bill to Address	GST No	Contact Details
SBC	Railtel corporation of India. No. 36, 6th Cross Road, Kempanna Layout, D. N. Ramaiah Layout, Guttahalli, Bengaluru – 560003.	RAILTEL CORPORATION OF INDIA LTD., 6/1,12th main, Vasanth Nagar, Palace Road, Bengaluru (Bangalore) Urban, Karnataka-560052.	29AABCR7176 C1Z9	Shri Alok Kumar (Asst. Engineer/P&I/SBC) Contact: 9916875981
SC	RAILTEL CORPORATION OF INDIA LIMITED, Plot No. A-6/4, Road No.11 & 5, IDA Nacharam, HYDERABAD, Telangana 500076.	RAILTEL CORPORATION OF INDIA LIMITED, 1-10-39 to 44, 6A, 6C, 6th Floor, Gumidelli Towers, Begumpet, Hyderabad 500016.	36AABCR7176 C1ZE	Shri Shiva Chaitanya: Sr. Manager/ Stores Contact: 9100970642
MAS	RailTel Corporation of india Ltd,4th Floor, 275E, EVR Periyar High road, Chief Administrative office (CAO), Southern Railway, Egmore, Chennai, Tamil Nadu, 600008.	RailTel Corporation of india Ltd,4th Floor, 275E, Southern Railway, Egmore, Chennai, Tamil Nadu, 600008	33AABCR7176 C1ZK	Shri. Venkatesh, Contact: 9003144235