



MINISTRY OF DIGITAL ECONOMY AND ENTREPRENEURSHIP
(MoDEE)

Request for Proposal

**All-dielectric self-supporting (ADSS) cables and all related accessories
Procurement for MODEE**

P.O.BOX 9903 AMMAN 11191 JORDAN

**PROPOSAL DEADLINE: 15/5/2024
RFP NO: 5/NBN /2024**

1 Table of Contents

2	OVERVIEW:.....	3
3	RFP ORGANIZATION.....	4
4	Scope of Work and Deliverables:.....	5
4.1	Winning Bidder Activities:	5
4.2	ADSS cables and all related accessories Specifications	6
4.2.1	ADSS cables size 48 fiber strands	6
4.2.2	Optical Distribution Frame	17
4.2.3	Technical Specifications of Mini Optical Distribution Frame and its related accessories	19
4.2.4	TECHNICAL SPECIFICATIONS OF OPTICAL CONNECTORS AND ADAPTERS.....	21
4.2.5	TECHNICAL SPECIFICATIONS OF OPTICAL CABLE SPLICE ENCLOSURES	23
4.2.6	ADSS cables accessories	25
5	ADMINISTRATIVE PROCEDURES AND REQUIREMENTS.....	37
5.1	RESPONSE PROCEDURES	37
5.2	RESPONSE SUBMISSION.....	38
5.3	RESPONSE EVALUATION	39
5.4	FINANCIAL TERMS	39
5.5	LEGAL TERMS	41
5.6	CONFLICT OF INTEREST	47
5.7	SECRECY AD SECURITY.....	47
5.8	DOCUMENT PROPERTY	47
5.9	REMOVAL AND REPLACEMENT OF PERSONNEL	48
5.10	OTHER PROJECT RELATED TERMS	48
6	Bill of Quantity (BoQ).....	49
	GENERAL PREAMBLES	50
	BILL NO.1-A: Fiber Work	50
	BILL NO.1-B: Accessories Works	50
	SUMMARY TABLE FOR BILL NO.1 (A AND B)	50
	PRICING SUMMARY.....	50
7	Annexes.....	2
7.1	Sample Arabic Agreement	2
7.2	Key RFP Dates	2
7.3	Confidentiality Undertaken	2

2 OVERVIEW:

The Ministry of Digital Economy and Entrepreneurship (MoDEE) is soliciting proposals from Bidders for procuring, delivering, maintaining and providing warranty for the needed All-dielectric self-supporting (ADSS) cables and all related accessories as detailed in section 3 of this RFP.

Details for all of the above items are illustrated under section 3: Scope of work and Deliverables. Responses to this Request for Proposals (RFP) must conform to the procedures, format and content requirements outlined in this document in Section 4 of this RFP. Deviation may be ground for disqualification.

3 RFP ORGANIZATION

This RFP document provides the information needed to enable bidders to submit written proposals for the sought scope. The organization of the RFP is as follows:

Section 1: OVERVIEW

This section outlines the RFP's purpose and the related projects.

Section2: RFP ORGANIZATION

Section 3: SCOPE OF WORK

This section defines the requirements, scope of work, and deliverables for the required scope presented in this RFP.

Section 4: ADMINISTRATIVE PROCEDURES AND REQUIREMENTS

This section describes the administrative rules and procedures that guide the proposal and its processes.

Section 5: BoQ

Section 6: ANNEXES

4 Scope of Work and Deliverables:

Important Notes:

- There are certain activities to be performed and deliverables to be provided by the winning bidder during execution of the project. More detailed information on each of them is given in the next paragraphs.
- Final deliverables submitted by the bidder should be attached to original official letters properly bounded, stamped and signed by the winning bidder as shall be defined and approved by MoDEE.
- The duration time for the project will **be 90 calendar days** starting from the commencement date. In addition to 12 months support, maintenance and warranty services.
- Responses to this Request for Proposal (RFP) must conform to the procedures, format and content requirements outlined in this document in BoQ Section of this RFP. Deviation for any content may be grounds for disqualification.
- Important definitions:
 1. Preliminary Acceptance: the official acceptance by MODEE after the winning bidder finishes and delivers all work defined in the scope of work and before the start of maintenance.
 2. Final Acceptance: the official acceptance by MODEE after the winning bidder finishes and delivers all work in the contract and after the maintenance period.
 3. The bidder should provide the sample of each cable accessory with its datasheet and these samples will be returned to the bidder after the end of the assessment .Not providing the samples /data sheets will be a ground for disqualification of the offer.
 4. The accessories mentioned in this tender must be fit for the cable in this tender
 5. All items should be delivered to a warehouses inside Amman, the location of warehouses will be decided by MODEE

4.1 Winning Bidder Activities:

The winning bidder shall perform the following besides any additional related activities needed for the successful implementation of the project, and its cost shall be included in the fixed lump sum price submitted by the bidder:

- Procure, deliver and handover all for each item supplied as listed in Sections 3.2 and 5 below.
- Provide 12 months warranty for the offered ADSS cables and all related accessories.

4.2 ADSS cables and all related accessories Specifications

The specifications of items mentioned in the Bill of Quantity are listed below:

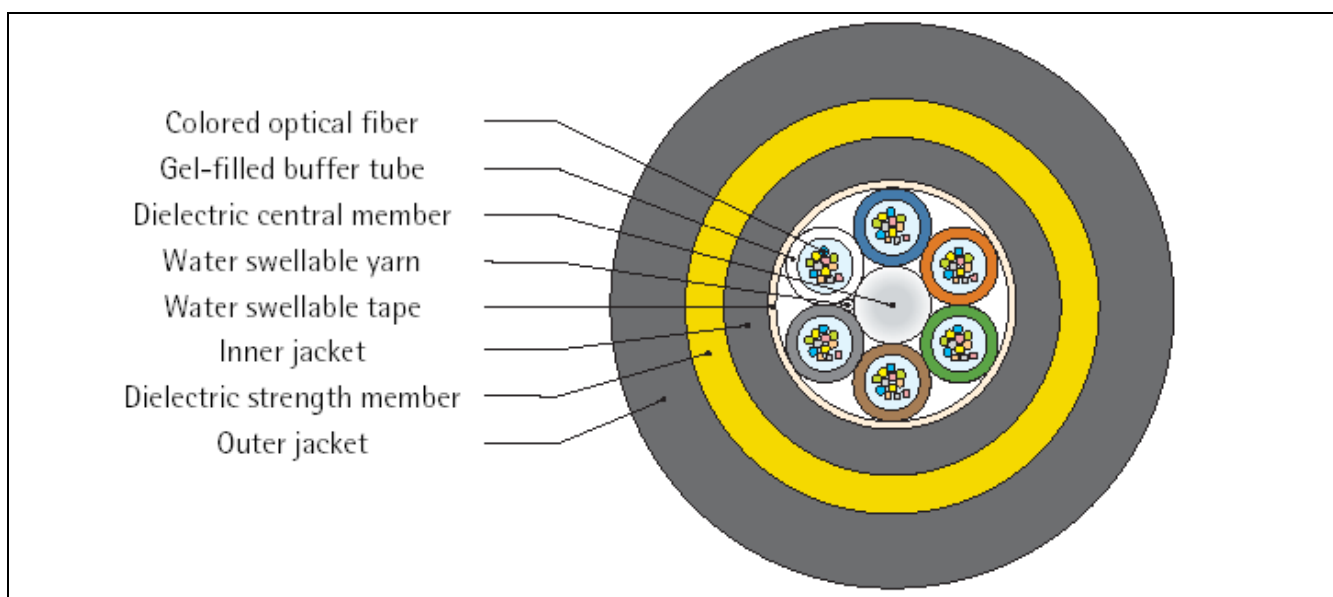
4.2.1 ADSS cables size 48 fiber strands

TECHNICAL SPECIFICATIONS OF OPTICAL FIBER CABLE - (G.652 D).

- **AERIAL : (ADSS) TYPE**
- **LOOSE TUBES.**
- **DOUBLE OUTER JACKET.**
- **BLACK OUTER SHEATH.**
- **SIZE OF CABLES IS 48 FIBER STRANDS**

1. General Considerations

All aerial optic fiber cables shall be of All-Dielectric Self Supporting (ADSS) type and have the configuration shown below. The aerial optic fiber cable shall be designed for stable optical performance at extreme temperatures where thermal expansion or contraction is negligible over a wide temperature range. The cable shall be ready to be installed on medium and low voltage electricity poles. The cable shall be installed on utility structures without interrupting power.



All-Dielectric Self Supporting Optic Fiber Cable Components

- This specification describes the cable design, properties of the fibers and the cable, the testing and the quality assurance during manufacturing, the final acceptance tests and the packaging.
- Single mode optical fiber cables which are optimized for use in both wave lengths windows of 1310 nm and 1550 nm are required. The optical fiber cables shall meet the requirements stated in ITU-T Rec. G.652 D.
- The cable shall be new, unused and of current design and manufacture.

2. Standards

- The specification refers to the following standards:
 - IEC60793-1: Optical Fibers - Part 1: Generic Specification.
 - IEC60793-2: Optical Fibers - Part 2: Product Specifications.
 - IEC60794-1: Optical Fiber Cables - Part 1: Generic Specification.
 - IEC60794-4: Optical Fiber Cables - Part 4: Sectional Specifications for OCEPL.
 - EIA/TIA 598: Color Coding of Fiber Optic Cables.

3. Fiber Characteristics

3.1. General Fiber Specifications

- The fibers shall meet all requirements according to IEC 60793-2 Category B1.
- All optical fibers shall be sufficiently free of surface imperfections and inclusions to meet the optical, mechanical, and environmental requirements of this specification.
- **Factory made optical fiber splices are not allowed.**
- Each optical fiber shall consist of a SiO₂ core doped with GeO₂ and a fused SiO₂ cladding (matched clad) giving a fiber with a step profile of the refractive index.
- The coating shall be easily strippable by means of a mechanical stripping tool without damaging the fibers. No chemicals shall be required.
- The fibers shall be completely phosphorus free.

3.2. Optical and Mechanical Characteristics of Standard Single Mode Fibers

- Single-mode Low Water Peak fiber shall be utilized in these optical fiber cables and shall meet the ITU recommendation G.652 D, "Characteristics of a Single-Mode Optical Fiber Cable".
- This requirement defines standard single-mode fibers for use across a broad wavelength range including the extended band (1360 nm - 1460 nm).
- These fibers shall have the specified performance and geometry values except as noted below:

Mode field diameter (1310 nm):	9.2 $\mu\text{m} \pm 0.4 \mu\text{m}$
Mode field diameter (1550 nm):	10.4 $\mu\text{m} \pm 0.5 \mu\text{m}$
Cladding diameter:	125 $\mu\text{m} \pm 0.7 \mu\text{m}$
Mode field concentricity error:	$\leq 0.5 \mu\text{m}$
Cladding non circularity:	$\leq 0.8 \%$
Refractive index profile:	step
Design:	matched cladding
Effective group index of refraction N_{eff} (at 1310nm):	1.4677
Effective group index of refraction N_{eff} (at 1550nm):	1.4682
Cut off wavelength of cabled fiber:	$\leq 1260 \text{ nm}$
Attenuation at 1310 nm:	$\leq 0.35 \text{ dB/km}$
Attenuation at 1383 nm:	$\leq 0.35 \text{ dB/km}$
Attenuation at 1550 nm:	$\leq 0.22 \text{ dB/km}$
Attenuation at 1625 nm:	$\leq 0.24 \text{ dB/km}$

- The attenuation measurements shall be made after finally winding the cable on its shipping drum. Cable ends shall then be hermetically sealed.
- Each fiber in each cable delivery length shall have a zero-dispersion over the range 1300 - 1324 nm.
- Maximum chromatic dispersion at the wavelength 1330 nm shall not exceed 3.2 ps/nm.km or as pair ITU-T recommendation G.652 D.

3.3. Core Material

- The core of the optical fiber, with a higher refractive index compared to the cladding, is made of SiO_2 (Silicon dioxide) doped with GeO_2 (Germanium dioxide).

3.4. Cladding Material

- The cladding of the optical fiber is made of SiO_2 (Silicon dioxide).

3.5. Type of Primary Coating

- The primary coating is made of an UV-curable acrylate. It is applied in two layers, each of a different Young's modulus.
- The inner layer is somewhat softer than the outer one.
- This make-up protects the fiber against micro bending losses and against abrasion.

3.6. Dimension of Primary Coating

- The dimension of the primary coating is $245 \pm 5 \mu\text{m}$.

Mechanical Characteristics of the Primary Coating

- The primary coating is easily strippable by means of a mechanical stripping tool. No chemicals shall be used.

3.7. Mechanical Characteristics of Fiber

- A nonmetallic central core shall be provided which may constitute the strength member designed to withstand all longitudinal stresses or its strength may be supplemented by an additional stress sharing sheath. The core shall be of a non-hygroscopic material.

Proof test stress:

- 8 N for 1 second; strain: 1 %.

Each optical fiber shall be proof tested by the fiber manufacturer at

- A minimum of 100 kpsi (0.7 GN/m^2).

Cable shall be able to contain 48 F Colored fibers. Color coded binders shall be used to segregate the fibers into color coded groups. To the extent possible, colored fibers shall be segregated in groups of 12.

The loose buffer tube of the fibers shall be distinguishable by means of color coding in accordance with TIA/EIA-598-B, "Optical Fiber Cable Color Coding".

Fiber Color Coding:	fiber-# 1 : Blue
	fiber-# 2 : Orange
	fiber-# 3 : Green
	fiber-# 4 : Brown

- The buffer tube shall be filled with a non-hygroscopic, non-nutritive to fungus, electrically non-conductive, homogenous gel in order to prevent water penetration and migration. The gel shall be free from dirt and foreign matter. The gel shall be readily removable with conventional nontoxic solvents.

- The diameter of loose tube must be 2.5mm.
- The central strength member shall be surrounded by a high density polyethylene (HDPE) jacket which shall have a bright color (e.g. orange, red, blue). The nominal jacket thickness shall be minimal 1 mm. The jacket shall not promote the growth of fungus.
- **The outer jacket:**
 1.
 - The cable shall have two jackets, i.e. inner and outer jackets.
 - The jacket shall be continuous, circular, joints free, pinholes free, splits free, blisters free, or other imperfections. The jacket shall have a consistent, uniform thickness; pressure extruded jackets are not acceptable. Thickness of the sheath shall be uniform & shall not be less than 1.5 mm. The jacket shall be smooth, as is consistent with the best commercial practice. The jacket shall provide the cable with a tough, flexible, protective coating, able to withstand the stresses expected in normal installation and service.
 - Easy to strip.
 - A high-density polyethylene (Black HDPE) must make the outer jacket.
 - The outer jacket should be black of color.
 - Cable Diameter should be not less than 10mm.
- **RIP Cord:**
 2. Two suitable rip cords shall be provided in the cable, which shall be used to open the HDPE sheath of the cable. The rip cords shall be placed diametrically opposite to each other. It shall be capable of consistently slitting the sheath without breaking for a length of 1 meter at the installation temperature. The rip cords (3 ply & twisted) shall be non-wicking type and shall not work as a water carrier.
- **Cable outer jacket shall be marked with:**
 - Manufacturer's name, month and year of manufacture, sequential meter markings.
 - Telecommunication handset symbol
 - "MODEE-NBN" Ministry of Digital Economy and Entrepreneurship.as required by Section 350G of the National Electrical Safety Code® (NESC®),
 - Fiber count and fiber type.
 - The actual length of the cable shall be within +/- 1 % of the length markings.
- **The print color shall be contrast** with the cable jacket .The letters must be **engraved** on the Cable jackets clearly, not dimmed and the ink must be suitable for cable jacket material. The size of the marking letters shall be approximately 2.5 mm.

If the initial marking fails to meet the specified requirements (i.e., improper text statement, color, legibility, or print interval), the cable may be remarked using a contrasting alternate color. The numbering sequence will differ from the previous numbering sequence, and a tag will be attached to both the outside end of the cable and to the reel to indicate the sequence of remarking.

- **Temperature range:**
 - Shipping and storage -40°C to +70°C
 - Operating temperature -40°C to +70°C
 - Installation temperature -5°C to +70°C

4. **General Cable Performance Specifications**

The cable shall fulfill the following mechanical, thermal and electrical characteristics. If applicable, during and after the tests, the attenuation shall be monitored at the operating wavelength.

4.1. **Tensile Performance**

- The cable shall be tested in accordance with IEC 60794-1-E1.
- The cable shall be able to withstand a permanent load (10 min) of > 9000 N.
- Short term load (1 min) of > 13000 N.
- Breaking tensile load of > 17000 N. No fibers shall exhibit a measurable change in attenuation after load removal.
- Also, the cable shall not have evidence of jacket cracking or splitting.
- The maximum allowable pulling tension is 20000 N.

4.2. **Crush Resistance**

- The cable shall withstand a compressive long term load of 5000 N for duration of 10 minutes.
- Short term load of 6000 N for duration of 1 minute.
- The load shall be applied uniformly over the length of the compression plate.
- The crush resistance for the aerial optic fiber cables shall be 3000 N/100mm.
- The cable shall be tested in accordance with IEC 60794-1-E3. No fibers shall exhibit a measurable change in attenuation after load removal.

4.3. **Cable Bend**

- The minimum static bending radius of the cable shall be **more than 10 times the outer diameter.**
- The minimum dynamic bending radius of the cable shall be **more than 15 times the outer diameter.**
- It shall be tested in accordance with IEC 60794-1-E11. After the test there shall be no change in fiber attenuation greater than the uncertainty of measurement.

4.4. **Temperature Cycling**

The cable shall be subjected to

- Minimum temperature of -40°C.
- Maximum temperature of +70°C.
- The test shall be performed in accordance with IEC 60794-1-F1.
- The cable shall meet the temperature cycling test without exhibiting an average increase in fiber attenuation greater than 0.1 dB/Km for single mode fiber.
- This value includes the repeatability of the measurement system, which shall not be greater than +/- 0.05 dB.

4.5. Water Penetration

- A 1 m sample of the cable shall be subjected to a water penetration test according to IEC 60794-1-F5.
- After duration of 24 hours no water shall be detected at the open end of the cable core.

5. Testing

5.1. Type Test

- The type tests given in Section 6 shall be performed on the fiber optic cable.

5.2. Factory Acceptance Test

- The cable performance shall be proved by showing detailed test reports of the optical attenuation (if applicable) during and after the test and all relevant test parameters of the type test.

5.3. Routine Test

- The optical attenuation coefficient as required in Section 3.2 shall be verified at 1550 nm on all production cable lengths. The test shall be performed according to IEC 60793-1-C1C (Backscattering technique).

6. Quality Assurance Provision

- The manufacturer shall carry out quality inspection and keep a record of the test results to an extent agreed.
- The manufacturer shall also have a trace ability of the materials used, and of the production steps, used in the manufacturing of the cable to an extent agreed.
- The supplier shall provide details of his quality control procedures that shall include the methodical recording of the results of production measurements.
- Test result shall include the following:

1. Cable designation.

2. Number of fibers.

3. Fiber type.

4. Refractive index.

5. Drum no.

6. Length of cable.
7. Data of measurements.
8. Attenuation for every fiber at 1310 nm.
9. Attenuation for every fiber at 1550 nm.
10. Zero-dispersion wavelength for every fiber.
11. Zero-dispersion slope for every fiber.
12. Maximum and minimum value of mode field diameter of fibers in the cable.
13. Maximum and minimum value of cut-off wavelength in the cable.
14. A core-concentricity error of fibers in the cable.
15. Dispersion.
16. The test results shall be attached on the drum.

7. Packaging

Cables shall be uniformly wound with no gaps between successive turns.

Cable ends shall be effectively sealed against physical damage, the ingress of water and loss of jelly filling, opening and re-sealing being possible at least ten times.

Identification of the cable drum shall include the following parameters:

1. Name of manufacturer and month and year of production.
2. Cable designation and content.
3. Cable ID numbers.
4. Physical Cable length of cable and start and finish mark.
5. Order no.
6. Any other useful information.
7. Attenuation per Km. of each fibre at 1310 & 1550 nm h).
8. Group refractive index of fibres.
9. Length of each fibre as measured by OTDR.

10. Each reel shall have a weather resistant reel tag attached identifying the reel and cable.

- Drum size shall preferably be suitable for cable lengths **4000 m** as one piece.
- Tenderers shall state the maximum drummed cable length of each cable type offered and the size and gross weight of loaded drums.
- The cables shall be supplied on a wooden drum. Each length of cable shall be wound on a separate drum.
- The diameter of the drum barrel shall be large enough to prevent damage to the cable during reeling or unreeling. The diameter of the barrel shall not be smaller than 40 times the outer diameter of the cable.
- The drum shall be durable and constructed such as to prevent damage to the cables during shipment and handlings.
- Lags or other suitable means of protection shall be applied to the drum to prevent damage to the cables during shipment and storage. Nails and staples used in the construction of the drum must not be placed in a position where they can damage the cables. The drums shall be non-returnable.
- Drums with a ramp should be used. For test purposes, a length of approx. 4 - 5 m of the inner end shall be accessible.
- The cable ends shall be sealed with shrinking caps and fastened tightly. A protective wrap shall be applied over the outer layer of the cable on each reel. The wrap shall be weather resistant and shall not be removed until the cable is installed.

Marking plates, containing following information shall be securely attached to the outer side on each drum flange:

- Type and size of cable.
- Cable length in meters.
- Gross weight in kilograms.
- Reel number.
- Manufacturer's name.
- Year of manufacture.
- Project name and number.
- Arrow showing roll direction.

The plates shall be made of an all-weather resistant non-corrosive material.

Identification of the cable drum shall include the following parameters:

1. Name of manufacturer and year of production.
2. Cable designation and content.
3. Cable ID numbers.
4. Length of cable and start and finish mark.

5. Order no.

6. Any other useful information.

Drum size shall preferably be suitable for cable lengths of at least 3000 m as one piece. Longer pieces are preferable.

Tenderers shall state the maximum drummed cable length of each cable type offered and the size and gross weight of loaded drums.

The cables shall be supplied on a wooden drum. Each length of cable shall be wound on a separate drum.

The diameter of the drum barrel shall be large enough to prevent damage to the cable during reeling or unreeling. The diameter of the barrel shall not be smaller than 40 times the outer diameter of the cable.

The drum shall be durable and constructed such as to prevent damage to the cables during shipment and handlings.

Lags or other suitable means of protection shall be applied to the drum to prevent damage to the cables during shipment and storage. Nails and staples used in the construction of the drum must not be placed in a position where they can damage the cables. The drums shall be non-returnable.

Drums with a ramp should be used. For test purposes a length of approx. 4 - 5 m of the inner end shall be accessible.

The cable ends shall be sealed with shrinking caps and fastened tightly. A protective wrap shall be applied over the outer layer of the cable on each reel. The wrap shall be weather resistant and shall not be removed until the cable is installed.

Marking plates, containing following information shall be securely attached to the outer side on each drum flange:

- Type and size of cable.
- Cable length in meters.
- Gross weight in kilograms.
- Reel number.
- Manufacturer's name.
- Year of manufacture.
- Project name and number.
- Arrow showing roll direction.

The plates shall be made of an all-weather resistant non-corrosive material

8. Miscellaneous

- The cable manufacturer shall introduce and maintain a quality system according to ISO 9001.
- All optical fibers in each manufactured length shall be tested for attenuation according to Section 5.3.
- The measured attenuation coefficients (in dB/km) shall be provided with each cable reel.
- For lengths less than one kilometer, in consideration of test limitations, values that are within 0.05 dB of the specified end to end attenuation may be reported as the specification limit coefficient.

At the request of the Employer, the cable manufacturer shall provide installation procedures, all necessary equipment for the installation process and technical support concerning the items contained in this specification.

4.2.2 Optical Distribution Frame

TECHNICAL SPECIFICATIONS OF OPTICAL DISTRIBUTION FRAME (ODF).

Scope

This specification covers the requirements for Optical Distribution Frames (ODF) to be used for termination of optical fiber cables in Technical Rooms

1. Definitions

- For the purpose of this specification the following definitions are applicable:

Optical Distribution Frame (ODF)

- The system required for the termination and/or through connection of optical fiber cables in an orderly, systematic and flexible way in order to gain simple and reliable access to the optical fibers.

Patch Cord

A specified length of tight-buffered optical fiber, with or without a strength member of aramid yarns stranded around the fiber and covered by an outer sheath, fitted with optical connectors at both ends.

Pig-tail

A specified length of tight-buffered optical fiber, with or without a strength member of aramid yarns stranded around the fiber and covered by an outer sheath, fitted with optical connectors on one end only. **And should be colored pig tails.**

1. Design

- The ODF shall have a flexible and modular design, with provisions for future expansions, possibility to add new cables, or to remove existing ones. The parts and components shall be pre-assembled, as far as possible, in order to minimize the amount of work to be carried out at site when the ODF is installed.

- The ODF shall comprise a system of racks, panels, etc. which shall be possible to order in units according to requirements, any other design arrangement may be offered.
- The design of the ODF system shall take into account the handling properties of the optical indoor cable with special regard to the minimum allowed bending radius of the cable.
- It shall be reasonably simple to add new optical cables to the ODF and to install the corresponding patch-panels, etc.
- The overall design shall be such that each optical connector is easy to access, connect or disconnect.
- The ODF system shall include facilities for systematic and safe storage of excess lengths on optical patch cords. The minimum requirement is that it shall be possible to store at least 4 meters of excess length on each 3 mm diameter optical patch cord without causing excessive strain on the fibers.
- The design and materials used for the ODF shall be compatible for use in a protected environment with controlled temperature and humidity and only occasional exposure to the temperature and humidity of a tropical coastal environment.
- The ODF shall be of rack mounted type. Suppliers may offer as an option for wall mounted type.
- The ODF shall be capable of operating over a full temperature range of (-30°C to +70°C), without any damage or significant change in performance.

2. Optical Connectors

- The optical connectors to be used shall be of high-grade SC/UPC or FC/UPC type as described below.

3. SC/UPC Connector Plug and Adapter

- The optical fibers shall be terminated with PC-polished optical connector plugs of SC type

4.1.SC/UPC Adapter

- The patch panels of the ODF shall be furnished with adapters for optical connectors.

4. FC/UPC Connector Plug and Adapter

- The optical fibers shall be terminated with PC-polished optical connector plugs of FC type.

5.1 FC/UPC Adapter

- The patch panels of the ODF shall be furnished with adapters for optical connectors

4.2.3 Technical Specifications of Mini Optical Distribution Frame and its related accessories

1. Scope

This specification covers the requirements for Mini Optical Distribution Frames to be used for termination of optical fiber cables in Technical Rooms where a smaller number of optical fibers are expected to be involved (Connection Points).

1.1. Definitions

For the purpose of this specification the following definitions are applicable:

Mini Optical Distribution Frame

The system required for the termination and/or through connection of optical fiber cables in an orderly, systematic and flexible way in order to gain simple and reliable access to the optical fibers.

1.2. Patch Cord

A specified length of tight-buffered optical fiber, with or without a strength member of aramid yarns stranded around the fiber and covered by an outer sheath, fitted with optical connectors at both ends.

1.3. Pig-tail:

- **Should be colored pig tails**
- A specified length of tight-buffered optical fiber, with or without a strength member of aramid yarns stranded around the fiber and covered by an outer sheath, fitted with optical connectors on one end only.

2. Design

Mini ODF is used for applications in shared or growing networks. It is designed for splicing and cross-connecting fibers. The splicing function is handled by one or two cassettes, accommodating fusion splices protected by heat shrink sleeves. Connection and cross-connection are done by using any standard connector. The Sliding Patch & Splice Panel provides easy access to connections from the front of the frame, and accommodates left or right patch cord exit. The Mini ODF is ideal for use where networks may change more frequently or become complex.

- 3.1. The design of the Mini ODF system shall take into account the handling properties of the optical indoor cable with special regard to the minimum allowed bending radius of the cable. At no place may the optical fibers be bent below a minimum allowed bending radius of 35 millimeters, and provisions shall be made in order to prevent the fibers from being squeezed anywhere in the rack.
- 3.2. The overall design shall be such that each optical connector is easy to access, connect or disconnect
- 3.3. The design and materials used for the ODF shall be compatible for use in a protected environment with controlled temperature and humidity and only occasional exposure to the temperature and humidity of a tropical coastal environment.
- 3.4. The Mini ODF shall be capable of operating over a full temperature range of (-30°C to +70°C), without any damage or significant change in performance.

3. Optical Connectors

- The optical connectors to be used shall be of high-grade SC/UPC type as described below.

3.1. SC/UPC Connector Plug and Adapter

- The optical fibers shall be terminated with PC-polished optical connector plugs of SC type.

3.2. SC/UPC Adapter

- The patch panels of the Mini ODF shall be furnished with adapters for optical connectors.

4.2.4 TECHNICAL SPECIFICATIONS OF OPTICAL CONNECTORS AND ADAPTERS

1. Scope

This document specifies the requirement of optical connector sets of SC/UPC-type or FC/UPC-type to be used in single-mode optical fiber telecommunication systems.

A connector set is: "The complete set of connector components required to provide demountable coupling between optical fibers". The length of fiber or cable on each side of the connector set shall be 3 meters (minimum).

2. Design

2.1. General

The ferrule of the optical connector shall be made of zirconia stabilized ceramic.

When the connector is mounted on a cable (or a tight buffered fiber) the fiber shall be fixed with epoxy in the cavity of the ferrule. Then the end face of the ferrule with the fiber shall be polished. In order to ensure physical contact the shape of the ferrule shall be spherical.

The cable (jacket and strength members) shall be fixed to the connector by means of a crimp sleeve.

Mating with another connector shall be accomplished by the means of an adapter with a split sleeve.

2.2. Material

The supplier shall give details of the materials used in different parts of the proposed connector.

The connector housing shall be of an all-metal design.

2.3. Ferrule

The ferrule end face shall be UPC-polished and meet the following requirements:

Ferrule end face curvature (r)	$10 < r < 25 \text{ mm}$
Vertex offset of ferrule tip (convex vertex eccentricity from ferrule center)	$< 50 \text{ }\mu\text{m}$
Fiber undercut from ferrule end face:	$\leq 0.05 \text{ }\mu\text{m}$
Fiber protrusion from ferrule end face:	$\leq 0.10 \text{ }\mu\text{m}$
Outside diameter (A)	$2.4990 \pm 0.0005 \text{ mm}$
Tolerance of cavity diameter	$+1, -0 \text{ }\mu\text{m}$
Concentricity error C.E. of cavity	$< 1.4 \text{ }\mu\text{m}$
Angular misalignment Θ	$< 0.2^\circ$

3. Performance Requirements

3.1. Visual Inspection

3.1.1. Overall Inspection of Connectors

Each connector shall be properly packed. The package shall be marked with, the name of the manufacturer and the manufacturing date.

The connector itself shall be legibly and durably marked with the identity mark of the manufacturer and the manufacturing date code.

3.1.2. Inspection of the End Face

The end face shall be clean and free from residues of glue. Using a microscope with a maximum magnification of 200x no scratches or break out of glass pieces shall be seen.

3.2. Insertion Loss

Requirements:

	Mean	Maximum
Allowable attenuation:	≤ 0.25 dB	≤ 0.50 dB

3.3. Return Loss

Requirements:

Allowable return loss:	≥ 40 dB
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4. Temperature

The connector shall be capable of operating over a full temperature range of (-30° C to +70° C), without any damage or significant change in optical performance

4.2.5 TECHNICAL SPECIFICATIONS OF OPTICAL CABLE SPLICE ENCLOSURES

1. Scope

This specification covers the requirements of splice enclosures to be used for splicing of all types of optical cables. Thus it is applicable for both duct and aerial cables.

2. General

The design of the splice closure shall consider ITU-T recommendation L.13 “Sheath joints and organizers of optical fiber cables in the outside plant” and the requirements of this specification.

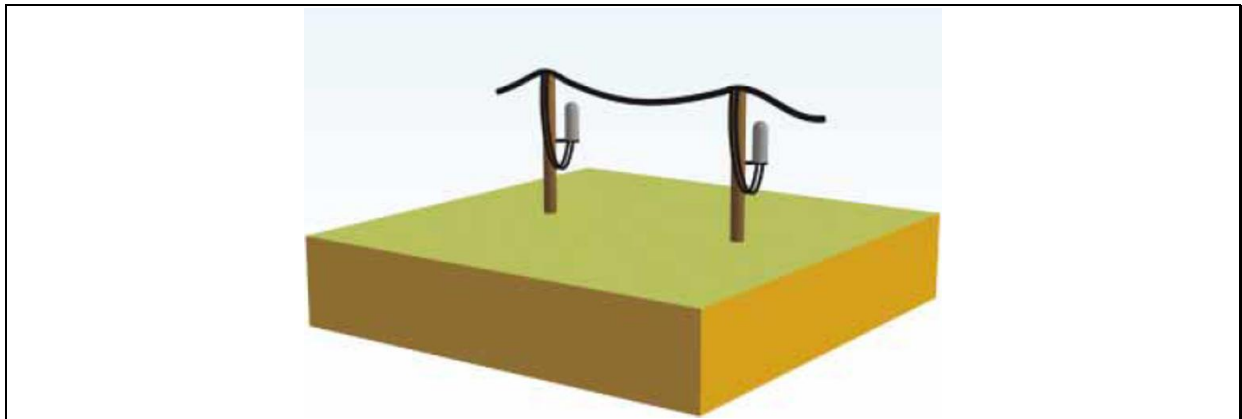
It shall be possible to use the splice closure installed in manholes, in handholes, on poles, in cable vault, etc. It is the intention to use the splice closure to be installed in chambers or on poles.

The closure shall be re-enterable, i.e. possible to open and close several times, without wear or impairment of its water tightness and/or other essential features, **Dome type**

The closure shall be equipped with fiber cassettes and organizers that are easy to use and which provide full protection to the fibers.

3. Handling Aspects

- 3.1. The splice closure shall have a robust and reliable design and well adapted to the conditions in the field. It has to work even if minor un-intentional deviations at the installation procedure are made.
- 3.2. The method of work shall be described in an easy to understand installation instruction or manual enclosed with each closure in English and Modern Standard Arabic.
- 3.3. All the parts of the splice closure, except for the materials required for jointing of the fibers, shall be packed in one package, with a clear marking of its contents if required. If the storage time is limited that shall be stated on the package.



Splice Closures for Aerial Cable



Example of a Splice Closures for Aerial Cable

4.2.6 ADSS cables accessories

These accessories includes cables fitting accessories of different types.

The supplier must provide an integrated technical solution including the installation of ADSS cables according to the technical specification for each ADSS cable and to take into consideration that the installation will be over electric poles and must comply with global installation standards for each cable type.

The supplier should provide a detailed explanation of the operational fiber cabling with clamping system must follow not drilling or modifying these electric poles, and the clamping system shall be capable of use with tubular and lattice steel poles with line span up to 100 meter and different angles.

Supplier should mention in the proposal all fitting accessories galvanization materials and thickness.

Supplier shall provide the full solution details for tension set, suspension set or any fitting accessories recommended from his side.

4.2.6.1 TENSION SET

Feeder and distribution ADSS cables installation requires a special tangent assembly or a mechanical dead-end at each pole, all of the tension set must:

- Be hot-dip galvanized
- Comply with each cable diameter (96 & 48 cables)
- Be compatible with span length (100 m)
- Be compatible with tension of min 15KN
- Supplier should mention in his proposal the tension set required for each cable based on cable type and specifications

The tension set should contain the following, which is illustrated in Figure (1):

- **Tension Bracket:** 1- dimensions in mm 2- Hot dip galvanized 3- Standard break load 15KN (Figure (6) is showing a sample)
- **Tension bracket kit :** the tension bracket accessories shown as below
- **Tension clamp helical spiral:** 1- supplier should clarify the number of rods, which should cover all cable sides, where the minimum number of rods is 6 for 48/96 cables 2- The thickness of each rod should be clearly defined, which minimally should be 2.5 mm for all cable sizes, and should be compatible with fitting accessories 3- The helical spiral length should be clearly defined, where the acceptable range is 900 mm to 1050 mm for 96 cables, and 850mm to 9500 mm for 48 cable, and should support 100m span length 4- The spiral should have glue

powder to fix the cable 5- each spiral should be color-coded based on the size of each cable (Figure (2) is showing a sample), the color coding should be as follows: (Blue for feeder cable [192 cores], Black for distribution cable [96 cores], Red for distribution cable [24, 48 cores])

- **Turnbuckle:** 1- Should be compatible with tension set 2- Should be opened and closed so both eye screws meet on the middle to control the tensile of the cable and should have 2 bolts 3- thickness should be minimum 10mm and screws should be M16 4- should be hot dip galvanized (Figure (5) is showing a sample)
- **D-Shackle:** 1- Should be compatible with tension screws 2- Should be M12 3- Should be hot dip galvanized (Figure (4) is showing a sample)
- **Heart ring:** 1- Should be compatible with tension set thickness 2.5mm 2- Should be hot dip galvanized (Figure (6) is showing a sample)

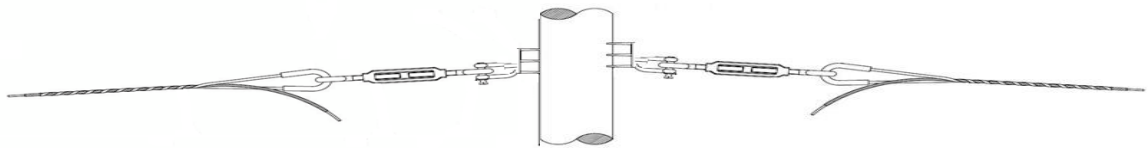


Figure 1 Tension Set

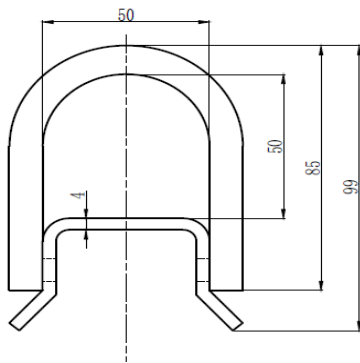


Figure 3 Tension Brackets

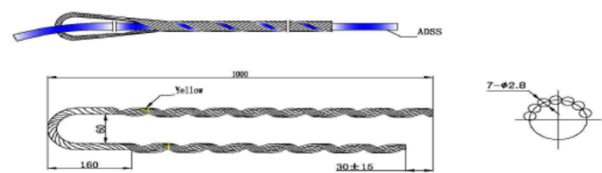


Figure 2 Helical Spiral

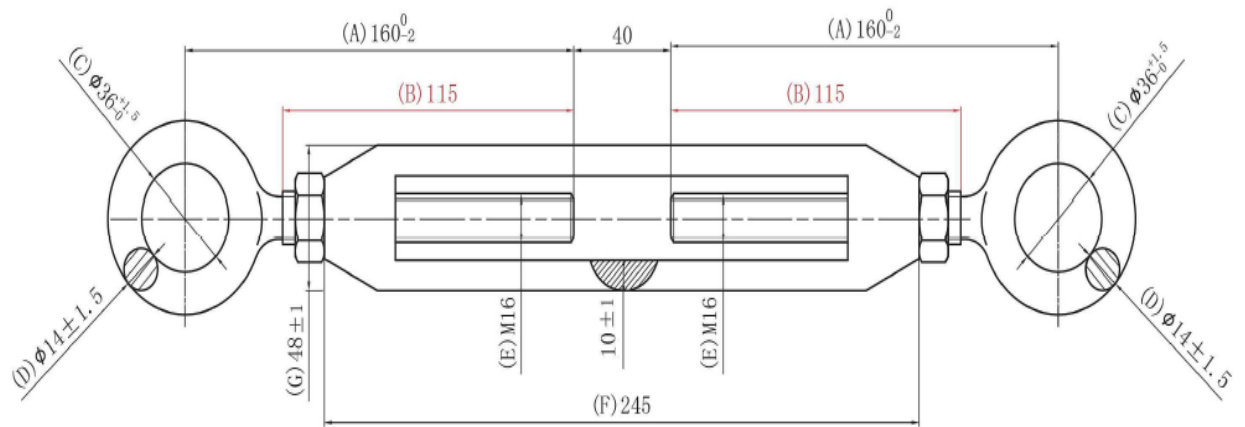


Figure 5 Turnbuckle

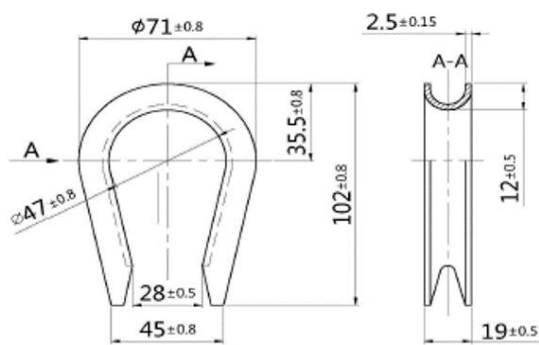


Figure 6 Heart Ring

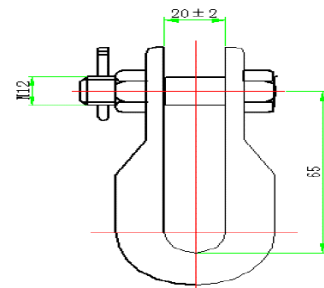


Figure 4 D-Shackle

4.2.6.2 SUSPENSION SET:

Suspension set must:

- Be hot-dip galvanized
- Comply with each cable diameter (96 & 48 cables)
- Be compatible with span length (100 m)

The suspension set should contain the following, which is illustrated in Figure (7):

- **Suspension clamp hook:** (Figure (9) is showing a sample), be aware that dimensions are important
- **Supply suspension bracket kit:**
- **Protective rods (inner rods):** 1- supplier should clarify the number of rods, which should cover all cable sides, where the minimum number of rods is 18 for 96 cable and 14 for 48 cable 2- The thickness of each rod should be clearly defined, which minimally should be 2.3 mm for all cable sizes, and should be compatible with fitting accessories 3- Rods length should be clearly defined, where the minimum acceptable range is 900 mm to 1000 mm for all cable sizes, and should support 100m span length 4- should support up to 15KN 5- should have glue powder to fix the cable 6- each set should be color-coded based on the size of each cable (Figure (8) is showing a sample)
- **Suspension rods (outer rods):** 1- Supplier should clarify number of rods, which minimally should be 3 and should carry the inner rods 2- rods dimension should be clearly defined, where the minimum recommended thickness is 2.9 for all cable sizes, and should be compatible with fitting accessories 3- rods length should be clearly defined, where the acceptable range is 1000 mm to 1100 mm for all cable sizes, and should support 100m span length 4- should support up to 15KN 5- should have glue powder to fix the cable 6- each set should be color-coded based on the size of each cable (Figure (10) is showing a sample)
- **Thimble:** (Figure (11) is showing a sample)

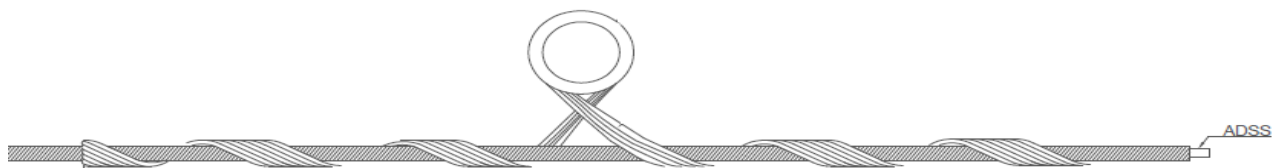
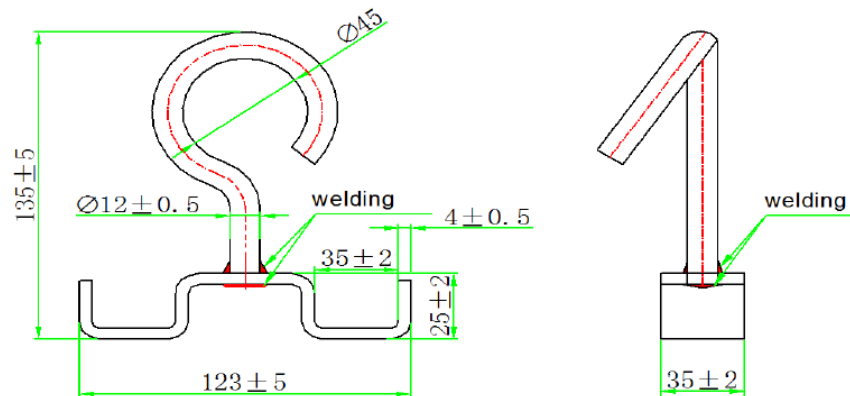


Figure 7 Suspension Set



No dimensional tolerance as per:

Tolerance: ± 1.5 for dimensions ≤ 30 mm; and $\pm 5\%$ for dimensions > 30 mm.

Figure 9 Clamp Hook

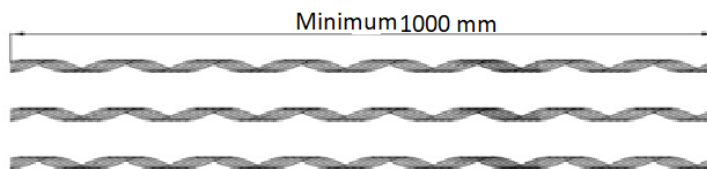


Figure 8 Protective Rods

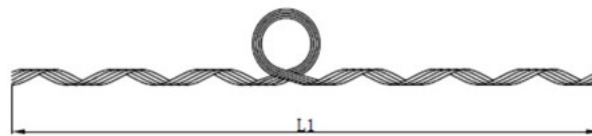


Figure 1 Suspension Rods

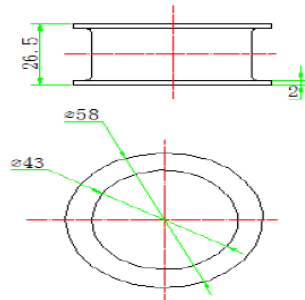


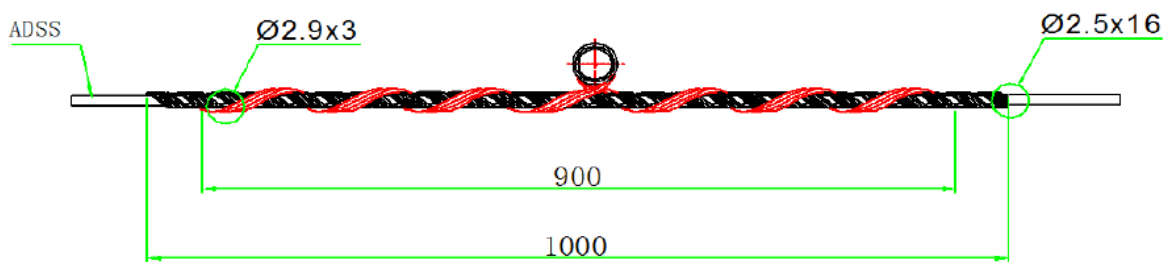
Figure 11 Thimble

- Suspension Set for cable specifications:

NO.	ITEM	Specifications	Note
1	Color code	Red	
2	Cable diameter	Suitable for $\Phi 13.0 < OD. \leq \Phi 13.6\text{mm}$ ADSS cable	
3	Span	$\leq 100\text{m}$	
4	Applicable standard	ISO 1461	

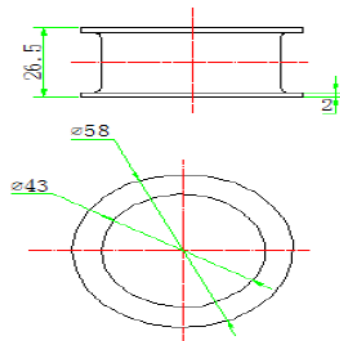
2.2 Specification for each parts

NO.	Name	Specifications	Quantity	Note
1	Inner preformed rods	ACLBS 1360-NY-001	1 pcs	Aluminum clad steel
2	Outer preformed rods	ACLBS 1360-WZ-001	1 pcs	Aluminum clad steel
3	Ring	YH-46	1 pcs	Hot dip galvanized



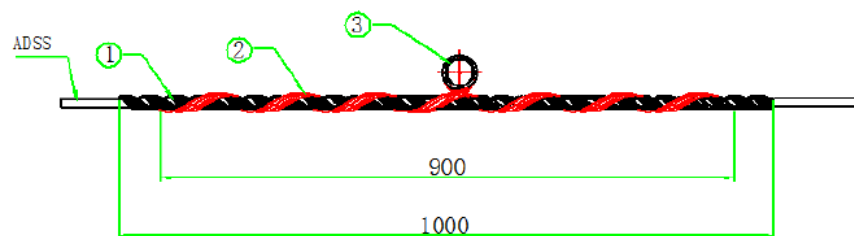
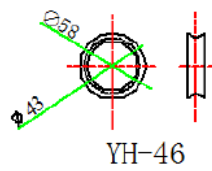
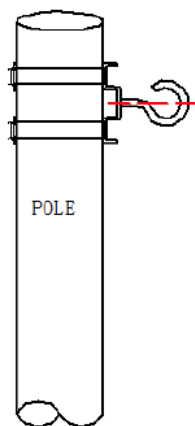
Name : preformed rods
 TYPE: ACLBS 1360-Z-001
 Material: Aluminum clad steel
 Unit: mm

GENERAL TOLERANCE	
≤ 30	$\pm 1.5\text{mm}$
≥ 30	$\pm 5\%$
ANGLE	\pm
MAX.	$\pm 20\text{mm}$



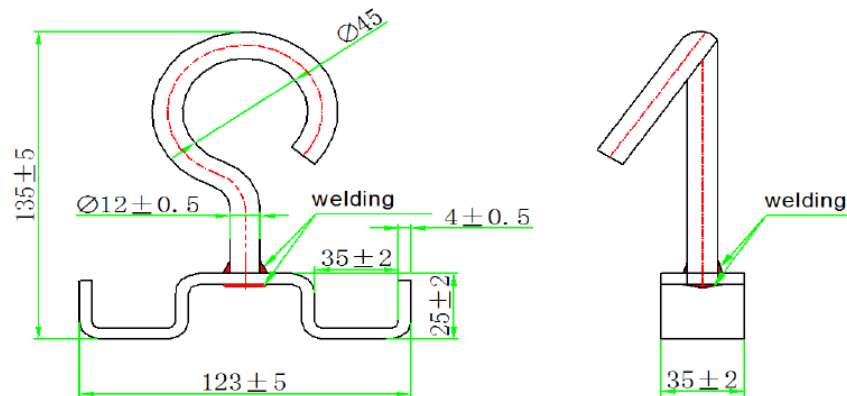
Name : Ring
 TYPE: YH-46
 Material: galvanized steel
 Unit: mm

GENERAL TOLERANCE	
≤ 30	$\pm 1.5\text{mm}$
≥ 30	$\pm 5\%$
ANGLE	\pm
MAX.	$\pm 20\text{mm}$



- Suspension bracket:

NO.	ITEM	Specifications	Note
1	Material	Hot dip galvanized steel	
2	Max strength loading	$\geq 15\text{kN}$	



No dimensional tolerance as per:

Tolerance: ± 1.5 for dimensions ≤ 30 mm; and $\pm 5\%$ for dimensions > 30 mm.

4.2.6.3 STAINLESS STEEL STRAP

The supplier must send his proposal for stainless steel strap and its buckles based on the fact that the ADSS cables fitting accessories, fiber closures, cross joint, and drop cables will be installed over low and medium voltage electric power network over electric distribution poles.

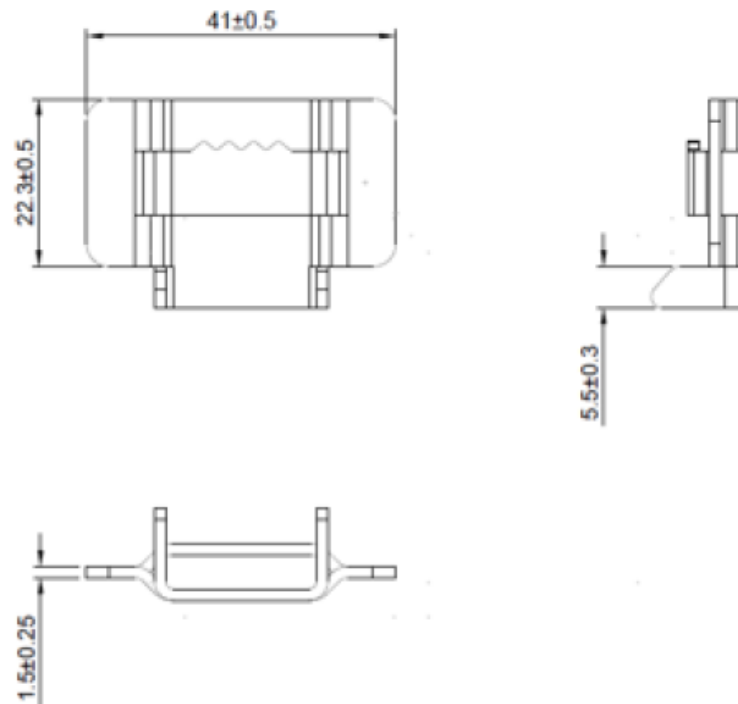
Stainless steel strap (Figure 12) must follow the below:

- A thickness of 0.9mm and a width 19mm
- Buckle should fit stainless steel strap
- Each steel roll should consist of 50 meters
- Tension tolerance 20 KN minimum
- Stainless steel strap to be used with cross joints, (each cross needs 2 hoops with a steel thickness of 0.9mm x 1.9mm x 1250mm)



Figure 2 Stainless Steel Strap

Buckle:



4.2.6.4 CROSS JOINT

Cross joint (Figure 13) has multi purposes as below:

- Storage for ADSS and drop slack cable
- Hold the FAT drop joint and cable on electric poles
- Hold any loops of ADSS cables on electric poles

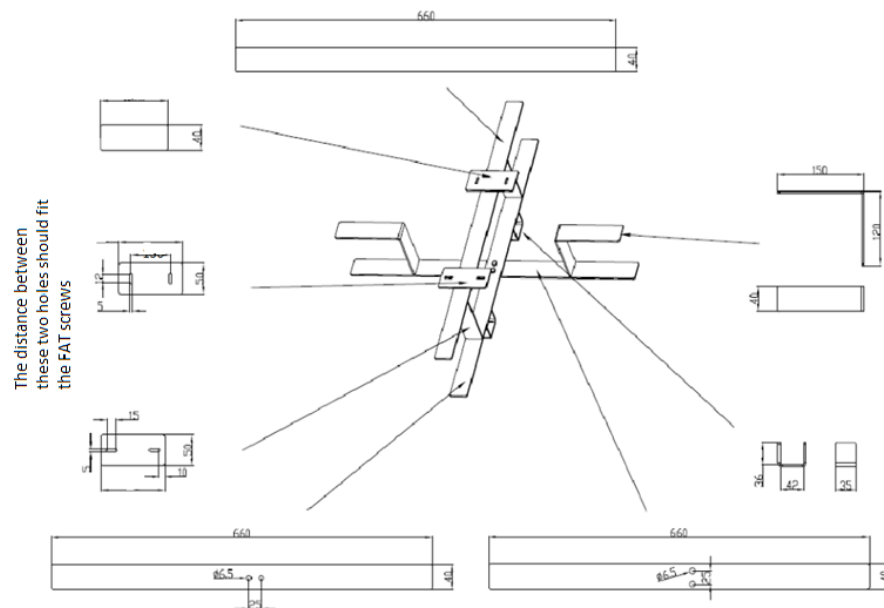
The cross joint must:

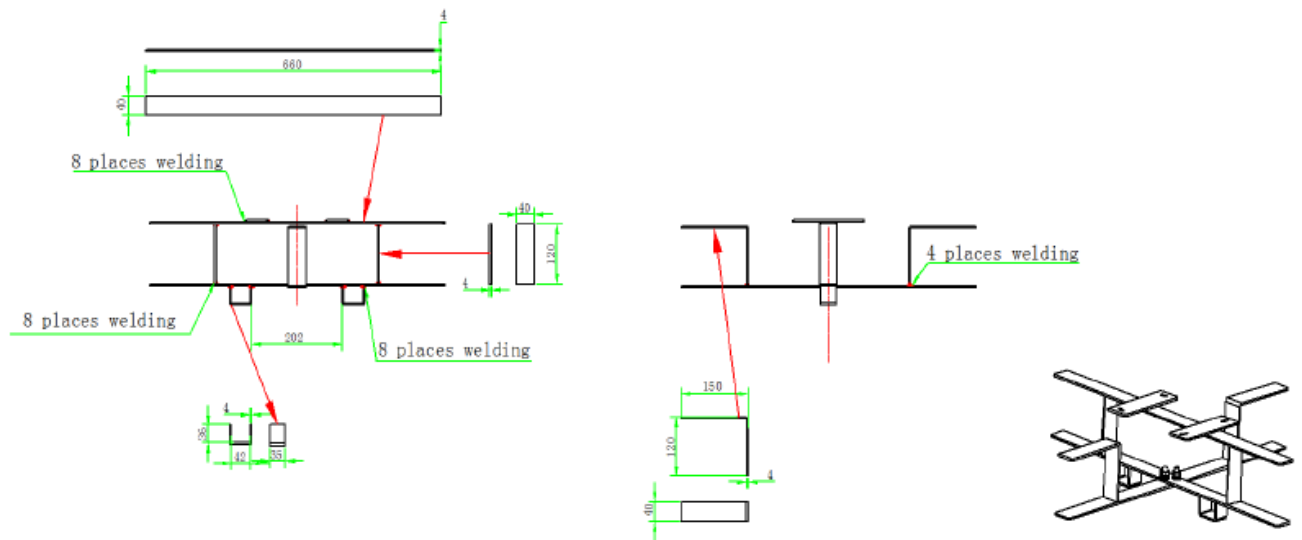
- Be able to store up to 50 meters of ADSS cable
- Be rigid
- Be fixed on electric pole without drilling and using stainless steel
- Be compatible with drop joints
- Be hot dip galvanized to ISO 1461.
- Cross joint dimensions: 660x660 mm
- Cross joint thickness: 2.5mm

- The welding shall be high quality.



Figure 3 Cross Joint

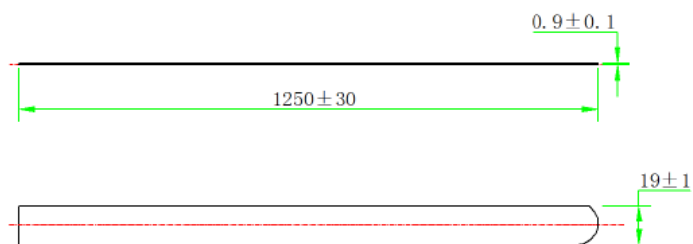




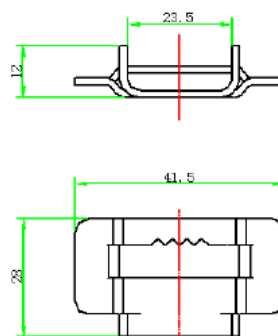
No dimensional tolerance as per:

Tolerance: ± 1.5 for dimensions $\leq 30\text{mm}$; and $\pm 5\%$ for dimensions $> 30\text{mm}$.

Steel band



Buckle



5 ADMINISTRATIVE PROCEDURES AND REQUIREMENTS

5.1 RESPONSE PROCEDURES

All inquiries with respect to this RFP are to be addressed to MoDEE in writing by mail, e-mail or fax with the subject "All-dielectric self-supporting (ADSS) cables and all related accessories Procurement for MODEE". All Inquiries can only be addressed to [\[NBN_tenders@modee.gov.io\]](mailto:NBN_tenders@modee.gov.io) by day 30/4/2024. Responses will be sent in writing no later than day 7/5/2024. Questions and answers will be shared with all Bidders' primary contacts.

Part I-A: Technical Proposal

The technical proposal shall include the approach to achieve the scope of work defined in this RFP and delivering each of the major components as specified in the Scope of Work and Deliverables section.

In order for the evaluation to progress quickly and effectively, bidders are requested to provide this part of their proposal in the following format:

- Section 1: Executive Summary: An overview of the main points contained in the proposal with references to sections where more detailed discussion of each point can be found).
- Section 2: Compliance sheet showing the BoQ and all Item described in section 3 scope of work beside any additional related activities needed for the successful implementation of the project.

The bidder should provide deliverables in English only.

Part I-B: Financial proposal

The financial proposal must include the unit prices (rates) for each item identified in the Bill of Quantities. Bidders should fill in their lump sum prices and unit rates and sign the Bill of Quantities (remuneration schedule) and attach both to the financial proposal.

The financial proposal must provide the lump sum prices for all technical activities mentioned in section 3 (Scope of Work), where the cost of each activity should be clearly identified.

The supporting detailed cost analysis should provide a breakdown and details of the financial including cost for hardware/software, etc. The daily rates and expenses for any project staff should be included separately, along with the time for which they will be required.

The financial offer should be inclusive of taxes and fees.

- على الفريق الثاني ان يشمل سعره الضريبة العامة على المبيعات بنسبة (16 %) الا اذا كانت الشركة خاضعة للضريبة العامة على المبيعات بنسبة (0) % (بموجب كتاب رسمي من هيئة الاستثمار يرفق مع العرض المالي) ويتم عكس هذه النسبة على السعر المقدم من قبلها.
- في حال عدم توضيح الضريبة العامة على المبيعات على السعر المقدم من قبل الشركة يعتبر سعر الشركة شامل للضريبة العامة على المبيعات بنسبة 16 %.

Part II: Bid Security

This part includes the original Bid Guarantee.

5.2 RESPONSE SUBMISSION

Bidders must submit their proposals to this RFP to the secretary of Special Purchase committee \ procurements Department at the Ministry of Digital Economy and Entrepreneurship no later than **12:00 pm on 15/5/2024**.

Ministry of digital economy and entrepreneurship (MoDEE)

Tender No: 5/NBN/2024

Purchase committee Department – 3rd floor

Ministry of digital economy and entrepreneurship (MoDEE)

8th circle

P.O. Box 9903

Amman 11191 Jordan

Tel: 00 962 6 5805642

Fax: 00 962 6 5861059

Proposals should be submitted as 2 separate parts each part in a separate well-sealed and wrapped envelope clearly marked, respectively, as follows:

- **Part I “All-dielectric self-supporting (ADSS) cables and all related accessories Procurement for MODEE– Technical and Financial Proposal”**. This part (envelope) should contain 1 Original hard copies and 1 softcopy (Flash memory) [in Microsoft Office 2010 or Office 2010 compatible formats]. This part should not contain any reference to cost or price.

- **Part II “All-dielectric self-supporting (ADSS) cables and all related accessories Procurement for MODEE– Bid Bond”** This part (envelope) should contain 1 hard copy. This part should not contain any reference to cost or price. Inclusion of any cost or price information in the technical proposal will result in the bidder’s proposal being disqualified as irresponsible.

Note: Each Flash memory should be enclosed in the relevant envelope. Late submissions will not be accepted nor considered and in case of discrepancy between the original hard copy and other hard copies and/or the soft copy of the proposal, the hard copy marked as original will prevail and will be considered the official copy. Proposals may be withdrawn or modified and resubmitted in writing any time before the submission date.

Regardless of method of delivery, the proposals must be received by MoDEE no later **12:00 pm on 15/5/2024** (Amman Local Time). MoDEE will not be responsible for premature opening of proposals not clearly labeled.

5.3 RESPONSE EVALUATION

The overall proposal will be evaluated both technically and financially, and will be evaluated and awarded according to the clause number 29 of the Government Procurement instructions of the government Procurement By-Law No8 of 2022 based on a compliance sheet that should be submitted through the technical bidder proposal. MoDEE reserves the right not to select any offer. MoDEE also assumes no responsibility for costs of bidders in preparing their submissions.

Note: Technical and Financial proposals will be opened at the same time for all bidders.

5.4 FINANCIAL TERMS

Bidders should take into consideration the following general financial terms when preparing and submitting their proposals:

- All prices should be quoted in Jordanian Dinars inclusive of all expenses, governmental fees and taxes, including sales tax.
- على الفريق الثاني ان يشمل سعره الضريبة العامة على المبيعات بنسبة (16 %) الا اذا كانت الشركة خاضعة للضريبة العامة على المبيعات بنسبة (0) % (بموجب كتاب رسمي من هيئة الاستثمار يرفق مع العرض المالي) ويتم عكس هذه النسبة على السعر المقدم من قبلها .
- في حال عدم توضيح الضريبة العامة على المبيعات على السعر المقدم من قبل الشركة يعتبر سعر الشركة شامل للضريبة العامة على المبيعات بنسبة 16 %.
- The type of contract will be a fixed lump sum price contract including costs of all software or/and hardware, licensees, documentation, maintenance, support, , warranty, and professional fees, profits and overheads and all other expenses incurred

- A clear breakdown (table format) of the price should be provided including price for consulting time, other expenses, etc.
- The bidder shall bear all costs associated with the preparation and submission of its proposal and MoDEE will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the proposal process.
- The bidders shall furnish detailed information listing all commissions and gratuities, if any, paid or to be paid to agents relating to this proposal and to contract execution if the bidder is awarded the contract. The information to be provided shall list the name and address of any agents, the amount and currency paid and the purpose of the commission or gratuity.
- The Bidder shall submit a (Tender Bond) proposal security on a form similar to the attached format in Jordanian Dinars for a flat sum of **1500 J.D** (in a separate sealed envelope)) . The bond will be in the form of certified cheque or bank guarantee from a licensed bank, located in Jordan, selected by the bidder. The bidder shall ensure that the (tender bond) proposal security shall remain valid for a period of 120 days after the bid closing date or 30 days beyond any extension subsequently requested by the Purchase committee, and agreed to by the bidder.
- Any proposal not accompanied by an acceptable proposal security (tender bond) shall be rejected by the Purchase committee as being non-responsive pursuant to RFP.
- The proposal security of the unsuccessful bidders will be returned not later than 30 days after the expiration of the proposal validity period.
- The winning bidder is required to submit a performance bond of 10% of the total value of the contract within 10 days as of the date of award notification letter.
- The proposal security of the winning bidder will be returned when the bidder has signed the contract and has furnished the required performance bond.
- The proposal security may, in the sole discretion of the Purchase committee , be forfeited:
 - If the bidder withdraws its proposal during the period of proposal validity as set out in the RFP.
 - In the case of winning bidder, if the bidder fails within the specified time limit to sign the contract; or furnish the required performance security as set out in the contract.
- The winning bidder has to pay the fees of the RFP advertisement issued in the newspapers.
- MoDEE is not bound to accept the lowest bid and will reserve the right to reject any bids without the obligation to give any explanation.
- Bidders must take into consideration that payments will be as specified in the tender documents and will be distributed upon the winning submission and acceptance of the scope of work and of the deliverables and milestones of the scope of work defined for the project by the first party.
- MoDEE takes no responsibility for the costs of preparing any bids and will not reimburse any Bidder for the cost of preparing its bid whether winning or otherwise.

5.5 LEGAL TERMS

Bidders should take into consideration the following general legal terms when preparing and submitting their proposals:

- The bidders shall not submit alternative proposal. Alternative proposals will be returned unopened or unread. If the bidder submits more than one proposal and it is not obvious, on the sealed envelope(s), which is the alternative proposal, in lieu of returning the alternative proposal, the entire submission will be returned to the bidder and the bidder will be disqualified.
- **All Bidders must register on the national e-invoicing system** نظام الفوترة الوطني.
- The proposal shall be signed by the bidder or a person or persons duly authorized to bind the bidder to the contract. The latter authorization shall be indicated by duly-legalized power of attorney. All of the pages of the proposal, except un-amended printed literature, shall be initialed by the person or persons signing the proposal.
- Any interlineations, erasures or overwriting shall only be valid if they are initialed by the signatory (ies) to the proposal.
- The bid shall contain an acknowledgement of receipt of all Addenda to the RFP, the numbers of which must be filled in on the Form of Bid attached to the Arabic Sample Agreement.
- Modee requires that all parties to the contracting process observe the highest standard of ethics during the procurement and execution process. The Purchase Committee will reject a proposal for award if it determines that the Bidder has engaged in corrupt or fraudulent practices in competing for the contract in question.

Corrupt Practice means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution>

Fraudulent Practice means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of MoDEE, and includes collusive practice among Bidders (prior to or after proposal submission) designed to establish proposal prices at artificial non-competitive levels and to deprive MoDEE of the benefits of free and open competition.

- No bidder shall contact MoDEE, its employees or the Purchase Committee or the technical committee members on any matter relating to its proposal to the time the contract is awarded. Any effort by a bidder to influence MoDEE, its employees, the Purchase Committee or the technical committee members in the tendering committee's proposal evaluation, proposal comparison, or contract award decision will result in rejection of the bidder's proposal and forfeiture of the proposal security

- The remuneration of the Winning Bidder stated in the Decision of Award of the bid shall constitute the Winning Bidder sole remuneration in connection with this Project and/or the Services, and the Winning Bidder shall not accept for their own benefit any trade commission, discount, or similar payment in connection with activities pursuant to this Contract or to the Services or in the discharge of their obligations under the Contract, and the Winning Bidder shall use their best efforts to ensure that the Personnel, any Sub-contractors, and agents of either of them similarly shall not receive any such additional remuneration.
- A business registration certificate should be provided with the proposal
- The laws and regulations of The Hashemite Kingdom of Jordan shall apply to awarded contracts.
- The Bidder accepts to comply with all provisions, whether explicitly stated in this RFP or otherwise, stipulated in the governmental Procurement By-Law No. 8 of 2022 and its amendments, and any other provisions stated in the Standard Contracting sample Arabic Contract Agreement annexed to this RFP including general and special conditions, issued pursuant to said Governmental Procurement By-Law and Tendering Instruction.
- MoDEE takes no responsibility for the costs of preparing any bids and will not reimburse any bidder for the cost of preparing its bid whether winning or otherwise.
- Bidders must review the Sample Arabic Contract Agreement provided with this RFP and that will be the Contract to be signed with the winning bidder. Provisions in this Sample Arabic Contract Agreement are not subject to any changes; except as may be amended by SCPD before tender submission; such amendments are to be issued as an addenda.
- Proposals shall remain valid for a period of (120) days from the closing date for the receipt of proposals as established by the Purchase Committee.
- The Purchase Committee may solicit the bidders' consent to an extension of the proposal validity period. The request and responses thereto shall be made in writing or by fax. If a bidder agrees to prolong the period of validity, the proposal security shall also be suitably extended. A bidder may refuse the request without forfeiting its proposal security; however, in its discretion, the Purchase Committee may cease further review and consideration of such bidder's proposal. A bidder granting the request will not be required nor permitted to modify its proposal, except as provided in this RFP.
- MoDEE reserves the right to accept, annul or cancel the bidding process and reject all proposals at any time without any liability to the bidders or any other party and/withdraw this tender without providing reasons for such action and with no legal or financial implications to MoDEE.
- MoDEE reserves the right to disregard any bid which is not submitted in writing by the closing date of the tender. An electronic version of the technical proposal will only be accepted if a written version has also been submitted by the closing date.
- MoDEE reserves the right to disregard any bid which does not contain the required number of proposal copies as specified in this RFP. In case of discrepancies between the original

- hardcopy, the other copies and/or the softcopy of the proposals, the original hardcopy will prevail and will be considered the official copy.
- MODEE reserves the right to enforce penalties on the winning bidder in case of any delay in delivery defined in accordance with the terms set in the sample Arabic contract. The value of such penalties will be determined in the Sample Arabic contract for each day of unjustifiable delay.
 - Bidders may not object to the technical or financial evaluation criteria set forth for this tender.
 - The winning bidder will be expected to provide a single point of contact to which all issues can be escalated. MODEE will provide a similar point of contact.
 - MODEE is entitled to meet (in person or via telephone) each member of the consulting team prior to any work, taking place. Where project staff is not felt to be suitable, either before starting or during the execution of the contract, MODEE reserves the right to request an alternative staff at no extra cost to MODEE.
 - Each bidder will be responsible for providing his own equipment, office space, secretarial and other resources, insurance, medical provisions, visas and travel arrangements. MODEE will take no responsibility for any non-Government of Jordan resources either within Jordan or during travel to/from Jordan.
 - Any source code, licenses, documentation, hardware, and software procured or developed under "All-dielectric self-supporting (ADSS) cables and all related accessories Procurement for MODEE" is the property of MODEE upon conclusion of "The Project". Written consent of MODEE must be obtained before sharing any part of this information as reference or otherwise.
 - Bidders are responsible for the accuracy of information submitted in their proposals. MODEE reserves the right to request original copies of any documents submitted for review and authentication prior to awarding the tender.
 - The bidder may modify or withdraw its proposal after submission, provided that written notice of the modification or withdrawal is received by the tendering committee prior to the deadline prescribed for proposal submission. Withdrawal of a proposal after the deadline prescribed for proposal submission or during proposal validity as set in the tender documents will result in the bidder's forfeiture of all of its proposal security (tender bond).
 - A bidder wishing to withdraw its proposal shall notify the Purchase Committee in writing prior to the deadline prescribed for proposal submission. A withdrawal notice may also be sent by fax, but it must be followed by a signed confirmation copy, postmarked no later than the deadline for submission of proposals.
 - The notice of withdrawal shall be addressed to the Purchase Committee at the address in RFP, and bear the contract name "All-dielectric self-supporting (ADSS) cables and all related accessories Procurement for MODEE" and the words "Withdrawal Notice".
 - Proposal withdrawal notices received after the proposal submission deadline will be ignored, and the submitted proposal will be deemed to be a validly submitted proposal.

- No proposal may be withdrawn in the interval between the proposal submission deadline and the expiration of the proposal validity period. Withdrawal of a proposal during this interval may result in forfeiture of the bidder's proposal security.
- The Bidder accepts to comply with all provisions, that are explicitly stated in this RFP and any other provisions stated in the Standard Sample Arabic Contract Agreement attached hereto and Tendering Instruction, attached hereto.
- The winning bidder shall perform the Services and carry out their obligations with all due diligence, efficiency, and economy, in accordance with the highest generally accepted professional techniques and practices, and shall observe sound management practices, and employ appropriate advanced technology and safe methods. The Winning Bidder shall always act, in respect of any matter relating to this Contract or to the Services, as faithful advisers to MODEE, and shall at all times support and safeguard MODEE's legitimate interests in any dealings with Sub-contractors or third parties.
- If there is any inconsistency between the provisions set forth in the Sample Arabic Contract Agreement attached hereto or this RFP and the proposal of Bidder; the Sample Arabic Contract Agreement and /or the RFP shall prevail
- MODEE reserves the right to furnish all materials presented by the winning bidder at any stage of the project, such as reports, analyses or any other materials, in whole or part, to any person. This shall include publishing such materials in the press, for the purposes of informing, promotion, advertisement and/or influencing any third party. MODEE shall have a perpetual, irrevocable, non-transferable, paid-up right and license to use and copy such materials mentioned above and prepare derivative works based on them.
- Bidders are not allowed to submit more than one proposal for this RFP.
- Amendments or reservations on any of the Tender Documents: Bidders are not allowed to amend or make any reservations on any of the Tender Documents or the Arabic Sample contract agreement attached hereto. In case any bidder does not abide by this statement, his proposal will be rejected for being none-responsive to this RFP. If during the implementation of this project; it is found that the winning bidder has included in his proposal any amendments, reservations on any of the tender documents or the Contract; then such amendments or reservations shall not be considered and the items in the tender documents and the Contract shall prevail and shall be executed without additional cost to MODEE and the winning bidder shall not be entitled to claim for any additional expenses or take any other legal procedures.
- Nothing contained herein shall be construed as establishing a relation of principal and agent as between MODEE and the Winning Bidder. The Winning Bidder has complete charge of Personnel and Sub-contractors, if any, performing the Services and shall be fully responsible for the Services performed by them or on their behalf hereunder.
- The Winning Bidder, their Sub-contractors, and the Personnel of either of them shall not, either during the term or after the expiration of the Contract, disclose any proprietary or confidential information relating to the Project, the Services, the Contract, or MODEE's

business or operations without the prior written consent of MODEE. The Winning Bidder shall sign a Non-Disclosure Agreement with MODEE as per the standard form adopted by MODEE. A confidentiality undertaking is included in annex 6.3.

- Sample Arabic Contract Agreement Approval:

Bidders must review the Sample Arabic Contract Agreement version provided with the RFP, which shall be binding and shall be signed with winning bidder.

Bidders must fill out, stamp and duly sign the Form of Bid (نموذج عرض المناقصة) attached to the Arabic Sample Agreement under (3) ملحق رقم 3 and enclose it in their financial proposals.

Bidders must fill out the summary payment schedule form sub annex 2 (الملحق رقم 2) which is part of the Arabic Sample Contract version provided with the RFP, sign and stamp it, and enclose it with the Financial Proposal.

Proposals that do not include these signed forms are subject to rejection as being none responsive.

- PROHIBITION OF CONFLICTING ACTIVITIES

Neither the Winning Bidder nor their Sub-contractors nor their personnel shall engage, either directly or indirectly, in any of the following activities:

- During the term of the Contract, any business or professional activities in Jordan or abroad which would conflict with the activities assigned to them under this bid; or
- After the termination of this Project, such other activities as may be specified in the Contract.

- INTELLECTUAL PROPERTY RIGHTS PROVISIONS

- Intellectual Property for the purpose of this provision shall mean all copyright and neighboring rights, all rights in relation to inventions (including patent rights), plant varieties, registered and unregistered trademarks (including service marks), registered designs, Confidential Information (including trade secrets and know how) and circuit layouts, and all other rights resulting from intellectual activity in the industrial, scientific, literary or artistic fields.
- Contract Material for the purpose of this provision shall mean all material (includes documents, equipment, software, goods, information and data stored by any means):
 - a) Brought into existence for the purpose of performing the Services;
 - b) incorporated in, supplied or required to be supplied along with the Material referred to in paragraph (a); or
 - c) Copied or derived from Material referred to in paragraphs (a) or (b);
- Intellectual Property in all Contract Material vests or will vest in MODEE. This shall not affect the ownership of Intellectual Property in any material owned by the Winning Bidder, or a Sub-contractor, existing at the effective date of the Contract. However, the Winning Bidder grants to MODEE, or shall procure from a Sub-contractor, on behalf of MODEE, a permanent, irrevocable, royalty-free, worldwide, non-exclusive license

(including a right of sub-license) to use, reproduce, adapt and exploit such material as specified in the Contract and all relevant documents.

- If requested by MODEE to do so, the Winning Bidder shall bring into existence, sign, execute or otherwise deal with any document that may be necessary or desirable to give effect to these provisions.
- The Winning Bidder shall at all times indemnify and hold harmless MoDEE, its officers, employees and agents from and against any loss (including legal costs and expenses on a lawyer/own client basis) or liability incurred from any claim, suit, demand, action or proceeding by any person in respect of any infringement of Intellectual Property by the Winning Bidder, its officers, employees, agents or Sub-contractors in connection with the performance of the Services or the use by MoDEE of the Contract Material. This indemnity shall survive the expiration or termination of the Contract.
- The Winning Bidder not to benefit from commissions discounts, etc. The remuneration of the Winning Bidder stated in the Decision of Award of the bid shall constitute the Winning Bidder sole remuneration in connection with this Project and/or the Services, and the Winning Bidder shall not accept for their own benefit any trade commission, discount, or similar payment in connection with activities pursuant to this Contract or to the Services or in the discharge of their obligations under the Contract, and the Winning Bidder shall use their best efforts to ensure that the Personnel, any Sub-contractors, and agents of either of them similarly shall not receive any such additional remuneration.

- THIRD PARTY INDEMNITY

Unless specified to the contrary in the Contract, the Winning Bidder will indemnify MODEE, including its officers, employees and agents against a loss or liability that has been reasonably incurred by MODEE as the result of a claim made by a third party:

- Where that loss or liability was caused or contributed to by an unlawful, negligent or willfully wrong act or omission by the Winning Bidder, its Personnel, or sub-contractors; or
- Where and to the extent that loss or liability relates to personal injury, death or property damage.

- LIABILITY

- The liability of either party for breach of the Contract or for any other statutory cause of action arising out of the operation of the Contract will be determined under the relevant

law in the Hashemite Kingdom of Jordan as at present in force. This liability will survive the termination or expiry of the Contract. Winning bidder's total liability relating to contract shall in no event exceed the fees Winning bidder receives hereunder, such limitation shall not apply in the following cases (in addition to the case of willful breach of the contract):

- gross negligence or willful misconduct on the part of the Consultants or on the part of any person or firm acting on behalf of the Consultants in carrying out the Services,
- an indemnity in respect of third party claims for damages to third parties caused by the Consultants or any person or firm acting on behalf of the Consultants in carrying out the Services,
- infringement of Intellectual Property Rights

5.6 CONFLICT OF INTEREST

- The Winning bidder warrants that to the best of its knowledge after making diligent inquiry, at the date of signing the Contract no conflict of interest exists or is likely to arise in the performance of its obligations under the Contract by itself or by its employees and that based upon reasonable inquiry it has no reason to believe that any sub-contractor has such a conflict.
- If during the course of the Contract a conflict or risk of conflict of interest arises, the Winning bidder undertakes to notify in writing MoDEE immediately that conflict or risk of conflict becomes known.
- The Winning bidder shall not, and shall use their best endeavors to ensure that any employee, agent or sub-contractor shall not, during the course of the Contract, engage in any activity or obtain any interest likely to conflict with, or restrict the fair and independent performance of obligations under the Contract and shall immediately disclose to MODEE such activity or interest.
- If the Winning bidder fails to notify MODEE or is unable or unwilling to resolve or deal with the conflict as required, MODEE may terminate this Contract in accordance with the provisions of termination set forth in the Contract.

5.7 SECRECY AD SECURITY

The Winning bidder shall comply and shall ensure that any sub-contractor complies, so far as compliance is required, with the secrecy and security requirements of MoDEE, or notified by MoDEE to the Winning bidder from time to time.

5.8 DOCUMENT PROPERTY

All plans, drawings, specifications, designs, reports, and other documents and software submitted by the Winning bidder in accordance with the Contract shall become and remain

the property of MODEE, and the Winning bidder shall, not later than upon termination or expiration of the Contract, deliver all such documents and software to MODEE, together with a detailed inventory thereof. Restrictions about the future use of these documents, if any, shall be specified in the Special Conditions of the Contract.

5.9 REMOVAL AND REPLACEMENT OF PERSONNEL

- Except as MODEE may otherwise agree, no changes shall be made in the key Personnel. If, for any reason beyond the reasonable control of the Winning bidder, it becomes necessary to replace any of the key Personnel, the Winning bidder shall provide as a replacement a person of equivalent or better qualifications and upon MODEE approval.
- If MODEE finds that any of the Personnel have (i) committed serious misconduct or have been charged with having committed a criminal action, or (ii) have reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Winning bidder shall, at MODEE's written request specifying the grounds thereof, provide as a replacement a person with qualifications and experience acceptable to MODEE.

5.10 OTHER PROJECT RELATED TERMS

MoDEE reserves the right to conduct a technical audit on the project either by MoDEE resources or by third party.

6 Bill of Quantity (BoQ)

Bidder should comply with the below BoQ. References to any financial quotes or terms should be included in the bidder's financial proposal only.

NATIONAL BROADBAND NETWORK PROGRAMME (NBN)

BILL OF QUANTITIES

REQUEST FOR PROPOSAL FOR ALL-DIELECTRIC SELF-SUPPORTING (ADSS) CABLES AND ALL RELATED ACCESSORIES

BILL OF QUANTITIES

TABLE OF CONTENTS

GENERAL PREAMBLES	3
BILL NO.1-A: Fiber Works	5
BILL NO.1-B: Accessories Works	6
SUMMARY TABLE FOR BILL NO.1 (A AND B)	7
PRICING SUMMARY	8

GENERAL PREAMBLES

1. QUANTITIES

- 1.01 Quantities set out in the Bills of Quantities are the estimated quantities and they shall not be taken as the actual and correct quantities for ordering or purchasing of materials.
- 1.02 Works shall be measured net as fixed in position in accordance with the rules contained in this Method of Measurement or except where otherwise stated in a measurement rule applicable to the work.
- 1.03 Dimensions used in calculating quantities are taken to the nearest 10 mm (i.e. 5 mm and over is regarded as 10 mm as and less than 5 mm is disregarded).

2. SYMBOLS, ABBREVIATIONS AND DEFINITIONS

The following symbols and abbreviations are used in these Preambles and in the Bills of Quantities:

LM	:	Linear Meter
No.	:	Number
Strand	:	Fiber Strand
Month	:	Month

BILLS OF QUANTITIES

BILL NO.1-A
Fiber Cable Works

Item No.	Description	Unit	Est. Qty		* Unit Rate J.D.		Amount
			Number	Words	Number	Words	J.D.
1	توريد كيبيل الياف ضوئية هوائية Supply Optical Fiber Cable (ADSS)						
1.1	توريد كيبيل الياف ضوئية هوائي سعة 48 شعرة.	LM	44000	اربعة واربعون الف			
2	توريد وصلات كوابل الاليف الضوئية الهوائية التي تعلق على أعمدة الكهرباء Supply Splicing Enclosure(DOMME TYPE) for ADSS Cables Delivery						
2.1	توريد وصلة للكوابل الهوائية سعة 48 شعرة مع إكسسواراتها.	No.	11	احدى عشر			
3	توريد صندوق توزيع كيبيل الاليف الضوئية Supply Optical Distribution Frame						
3.1	توريد صندوق توزيع كيبيل الاليف الضوئية سعة 48 شعرة مع جميع الاكسسوارات نوع (SC)	No	6	ستة			
3.2	توريد صندوق توزيع كيبيل الاليف الضوئية سعة 24 شعرة مع جميع الاكسسوارات نوع (SC)	No	27	سبعة وعشرون			
3.3	توريد صندوق توزيع كيبيل الاليف الضوئية سعة 24 شعرة مع جميع الاكسسوارات نوع (FC)	No	12	اثنا عشر			
4	Supply Patch Cord						
4.1	توريد كيبيل توصيل (Patch Cords) بين الأجهزة ووحدة توزيع الفايبر (LC-SC duplex) طول 5م.	No	6	ستة			
4.2	توريد كيبيل توصيل (Patch Cords) بين الأجهزة ووحدة توزيع الفايبر (LC-SC duplex) طول 3م.	No	54	اربع وخمسون			
4.3	توريد كيبيل توصيل (Patch Cords) بين الأجهزة ووحدة توزيع الفايبر (FC-FC duplex) طول 5م.	No	140	مائة واربعون			

BILL NO.1-B
Accessories Works

Item No.	Description TECHNICAL SPECIFICATIONS FOR AERIAL CABLE HARDWARE AND SUPPORT ACCESSORIES	Unit	Est. Qty		* Unit Rate J.D.		Amount
			Number	Words	Number	Words	J.D.
1	Supply cable storage – Cross joint						
1.1	توريد حاضنة كوابل	No.	132	مائة واثنان وثلاثون			
2	Supply Tension Bracket						
2.1	توريد بركت شد	No.	528	خمسمائة وثمانية وعشرون			
3	Supply Tension Bracket kit						
3.1	توريد طقم جدلة شد	Set	968	تسعمائة وثمانية وستون			
4	Supply Suspension clamp hook						
4.1	توريد بركت استقامة	No.	396	ثلاثمائة وستة وتسعون			
5	Supply suspension bracket kit						
5.1	توريد طقم جدلة استقامة	Set	396	ثلاثمائة وستة وتسعون			
6	Supply Steel strap						
6.1	توريد شريط سنيل	m	1188	الف ومائة وثمانية وثمانون			
7	Supply Stainless steel Buckle						
7.1	توريد عصفورة سنيل	No.	2376	الفان وثلاثمائة وستة وسبعون			
8	Supply U-Guard						
8.1	توريد U-Guard	m	10	عشرة			

Summary Table for Bill No.1 (A and B)

Item	Amount
Subtotal for Bill # 1-A carried From Page No. 5	
Subtotal for Bill # 1-B carried From Page No. 6	
Sub Total For Bills No. 1(A and B) (Will be Carried to price's Summary)	

Signature of Bidder (Authorized signatory) & his seal

All prices should be quoted in Jordanian Dinars inclusive of all expenses, governmental fees and taxes.

7 Annexes

7.1 Sample Arabic Agreement

<Attached>

7.2 Key RFP Dates

ITEM	DATE (DD/MM/YY)
Date of RFP distribution	23/4/2024
Deadline for submission of bidders' questions to RFP	30/4/2024
Expected date for answers to bidders' questions	7/5/2024
Proposal deadline	15/5/2024

7.3 Confidentiality Undertaken

Confidentiality Undertaking

This Undertaking is made on [DATE] by [NAME] "[Contracting Party]" to the benefit of MODEE, "[Principal]" [Entity Address].

WHEREAS, MODEE possesses certain financial, technical, administrative and other valuable Information (referred to hereinafter as Confidential Information)

WHEREAS, [Contracting Party], while performing certain tasks required by the Principal in connection with the (The Project), did access such Confidential Information,

WHEREAS, the Principal considers the Confidential Information to be confidential and proprietary.

Confidential Information:

As used in this Agreement, the term "Confidential Information" means all information, transmitted by Principal or any of its subsidiaries, affiliates, agents, representatives, offices and their respective personnel, consultants and winning bidders, that is disclosed to the Winning bidder or coming to his knowledge in the course of evaluating and/or implementing the Project and shall include all information in any form whether oral, electronic, written, type written or printed form. Confidential Information shall mean

information not generally known outside the Principal, it does not include information that is now in or hereafter enters the public domain without a breach of this Agreement or information or information known to Winning bidder by Third Party who did not acquire this information from Principal”.

The Contracting Party hereby acknowledges and agrees that;

- (1) The Confidential Information will be retained in the Principal’s premises and will not be moved without the express written consent of the Principal. All Confidential Information shall be and remain the property of the Principal, and such Confidential Information and any copies thereof, as well as any summaries thereof, shall be promptly returned to the Principal upon written request and/or destroyed at the Principal's option without retaining any copies. The Winning bidder shall not use the Confidential Information for any purpose after the Project.
- (2) It will use all reasonable means and effort, not less than that used to protect its own proprietary information, to safeguard the Confidential Information.
- (3) The Winning bidder shall protect Confidential Information from unauthorized use, publication or disclosure.
- (4) It will not, directly or indirectly, show or otherwise disclose , publish, communicate, discuss , announce, make available the contents of the Confidential Information or any part thereof to any other person or entity except as authorized in writing by the Principal.
- (5) It will make no copies or reproduce the Confidential Information, except after the Principal's written consent.

Remedy and damages:

The Winning bidder acknowledges that monetary damages for unauthorized disclosure may not be less than 20% of the Project and that Principal shall be entitled, in addition to monetary damages and without waiving any other rights or remedies, to such injunctive or equitable relief as may be deemed proper by a court of competent jurisdiction.

Employee Access and Control of Information

It is understood that the Winning bidder might need from time to time to discuss the details of confidential Information with other individuals employed within its own or associated companies in order to support, evaluate, and/or advance the interests of the subject business transaction. Any such discussion will be kept to a minimum, and the details disclosed only on a need to know basis. Prior to any such discussion, the Winning bidder shall inform each such individual of the proprietary and confidential nature of the Confidential Information and of the Winning bidder’s obligations under this Agreement. Each such individual shall also be informed that by accepting such access, he thereby agrees to be bound by the provisions of this Agreement. Furthermore, by allowing any such access, the Winning bidder agrees to be and remain jointly and severally liable for any disclosure by any such individual that is not in accordance with this Agreement.

Miscellaneous

The obligations and rights of the Parties shall be binding on and inure to the benefit of their respective heirs, successors, assigns, and affiliates. This Agreement may be amended or modified only by a subsequent agreement in writing signed by both parties. Winning bidder may not transfer or assign the Agreement or part thereof. No provision of this Agreement shall be deemed to have been waived by any act or acquiescence on the part of the Principal, its agents or employees, nor shall any waiver of any provision of this Agreement constitute a waiver of any other provision(s) or of the same provision on another occasion. This Agreement shall be construed and enforced according to Jordanian Law. The Winning bidder hereby agrees to the jurisdiction of the Courts of Amman, Jordan and to the jurisdiction of any courts where the Principal deems it appropriate or necessary to enforce its rights under this Agreement.

Term of Agreement

The obligations of the parties under this Agreement shall continue and survive the completion of the Project and shall remain binding even if any or all of the parties abandon their efforts to undertake or continue the Project.

IN WITNESS WHEREOF, the Winning bidder hereto has executed this Agreement on the date first written above.

Contracting Party

By: _____

Authorized Officer

All bidders shall disclose and fill the below information using the following template:
Please note that if any bidder fails to fill the below information or gives incorrect information, it will be disqualified

Required info	Details
The name of the company (as in the registration license)	
The location of the company	
The owners of the company	
The name and owners of the subcontractor company (if any)	
The name of the Joint Venture members and their owners (if any)	
The name and owners of the local partner (in case of international bidder)	
The human resources working on this tender (names, experience, current employer ...)	
The registration license of the bidder (the subcontractor and the JV member)	Attachment