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TELECOM SYSTEM IOM – STARLINK SYSTEM

B	IFR	Re-Issued for Review	07/12/2026	JH	HS	TS
A	IFR	Issued for Review	27/11/2025	LC	HS	TS
Rev	Status	Reason for Issue	Revision Date	Written by	Reviewed by	Approved by
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REVISION RECORD

<i>Revision. No.</i>	<i>Date</i>	<i>Reason for Issue</i>	<i>Prepared</i>	<i>Checked</i>	<i>Approved</i>
A	27-NOV-2025	Issued for Review	LC	HS	TS
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1 PURPOSE AND SCOPE

1.1 SCOPE OF DOCUMENT

This Installation, Operation & Maintenance (IOM) Manual provides detailed technical guidance for the safe installation, commissioning, operation, and long-term maintenance of the **Starlink High-Performance Satellite Communication System** installed onboard. The document is intended for use by commissioning engineers, operations personnel, and maintenance technicians.

1.2 SYSTEM DESCRIPTION

The system comprises the following main items of equipment:

ITEM	EQUIPMENT DESCRIPTION	MAKE	MODEL	NOS
01	Flat High-Performance Dish	Starlink	High Performance	02
02	Starlink Power Supply	Starlink	High Performance	02
03	Starlink performance Cable (25m)	Starlink	High Performance	02
04	AC Cable (1.5m)	Starlink	High Performance	02
05	DC Cable (1.5m)	Starlink	High Performance	02
06	Ethernet Cable (5m)	Starlink	High Performance	02
07	5 Port Switch	MOXA	EDS-G205-1GTXSFP	02
08	Junction box	CE-TEK	CEX 404021	02
09	Power supply unit	Meanwell	NDR-120-24	02

Each of the main components of the system is described in more detail below.

1.3 EQUIPMENT DESCRIPTION

1.3.1 STARLINK FLAT HIGH-PERFORMANCE DISH

The Starlink High-Performance Dish is a rugged satellite communication antenna engineered to provide reliable, high-bandwidth internet connectivity in challenging and remote operating environments, including offshore FPSO installations. The system can deliver download speeds up to 220 Mbps and upload speeds up to 25 Mbps, with low operational latency typically between 20 and 40 milliseconds, supporting real-time services such as VoIP, video conferencing, remote system access, and operational data exchange.

The antenna employs electronically steered beam technology to continuously track Starlink's Low Earth Orbit (LEO) satellites, automatically optimizing link quality without the need for mechanical movement or manual alignment. This adaptive operation enhances connection stability and reduces service interruptions during normal offshore operations.

Designed for marine and industrial environments, the High-Performance Dish is housed in a weather-resistant enclosure rated IP56 and is suitable for continuous operation at ambient temperatures ranging from -30°C to +50°C. The antenna remains operational in wind conditions exceeding 80 km/h and has an average power consumption of approximately 110–150 W. With a 140° field of view, the system supports dependable connectivity in geographically isolated locations.

Two high-performance dishes are installed at the following locations:

- Port side

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- Starboard

1.3.2 STARLINK POWER SUPPLY

The Starlink Power Supply is a ruggedized unit designed to provide stable and reliable power to the Starlink High-Performance Dish for continuous operation in demanding environments. The unit features a weather-resistant IP66 enclosure, offering effective protection against dust ingress and powerful water jets, making it suitable for outdoor and offshore installations.

The power supply is designed for reliable operation within an ambient temperature range of -30°C to +50°C and includes a dedicated earth terminal to ensure proper grounding and electrical safety in accordance with offshore standards. The unit is supplied with a wall-mounting arrangement, allowing secure and convenient installation near the antenna or within designated equipment areas.

Two Starlink Power Supply are installed at the following locations:

- Port side -Weatherproof JB-(186-RS-303)
- Starboard-Weatherproof JB-(186-RS-304)

1.3.3 5P SWITCH MOXA (EDS-G205-1GTXSFP)

The MOXA is an industrial-grade 5-port unmanaged Ethernet switch used to provide reliable network connectivity between the Starlink Power Supply, the vessel's main LAN switch (86-RQ-521), and associated communication equipment. The switch facilitates stable data transmission between the satellite communication system and the onboard network infrastructure, enabling internet access and voice/data services.

Two MOXA Switch are installed at the following locations:

- Port side -Weatherproof JB-(186-RS-303)
- Starboard-Weatherproof JB-(186-RS-304)

1.3.4 24 VOLT DC INDUSTRIAL DIN-RAIL POWER SUPPLY(NDR-120-24)

The Mean Well NDR-120-24 is a DIN-rail mounted 24 VDC power supply unit used to provide a stable and reliable DC power source to the MOXA EDS-G205-1GTXSFP industrial Ethernet switch installed within the Starlink communication system. The unit converts the incoming AC supply to a regulated 24 VDC output, ensuring continuous and safe operation of the network switch.

The power supply is designed for industrial and marine environments, featuring a compact form factor suitable for installation inside junction boxes. It incorporates built-in protection functions, including overload, over-voltage, and short-circuit protection, enhancing system reliability and equipment safety.

Two Power supply Switch are installed at the following locations:

- Port side -Weatherproof JB-(186-RS-303)
- Starboard-Weatherproof JB-(186-RS-304)

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2 REFERENCE DRAWINGS

The following reference drawings shall be consulted prior to installation, operation, or maintenance of the equipment.

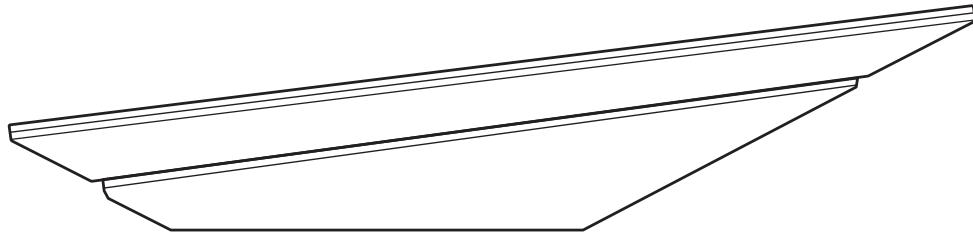
No	Document No.	Rev	Title or Description
1	WCPOKWTP-450-TE-(VAE) BF-028	0	Telecom cable Block Diagram – Starlink System
2	WCPOKWTP-450-TE-(VAE) DS-027	A	Telecom System Data Sheet – Starlink System
3	WCPOKWTP-450-TE-(VAE) LY-035	0	Telecom Device Location Layout Drawing – Starlink System
4	WCPOKWTP-450-TE-(VAE) DG-054	2	Telecom Typical Installation Drawing – Starlink System

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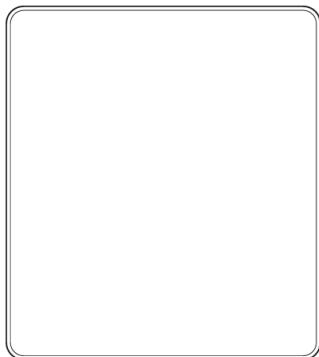
3 MANUFACTURERS' MANUALS

This section includes the manufacturers' manuals for the installation, operation, and maintenance of the equipment.

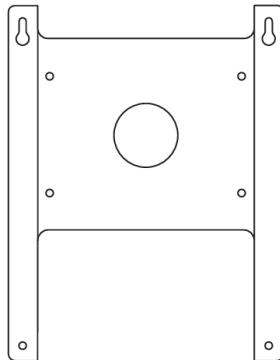
3.1 INSTALLATION INSTRUCTIONS



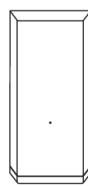
3.1.1 WHAT'S IN THE BOX



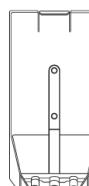
Dish



Wedge Mount



Power Supply



Power Supply Mount



Starlink Cable
25 m
(82 ft)

Ethernet Cable
5 m
(16.5 ft)

AC Cable (Power Supply)
1.8 m
(6 ft)



Sealing Washers
4x



Washers
8x



Lock Nuts
4x



Screws
4x



Wall Anchors
4x



Machine Screws
4x
38.1 mm (1.5 in)



Socket Head Bolts
2x
13 mm (1/2 in)



Shoulder Bolts
2x



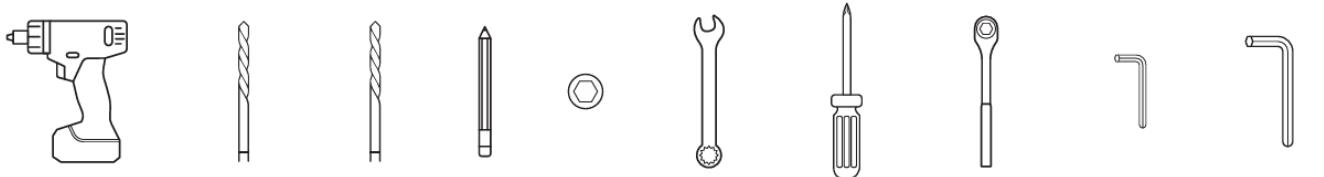
Thread Locker



Silicone Sealant

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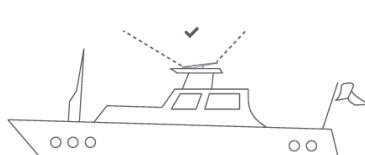
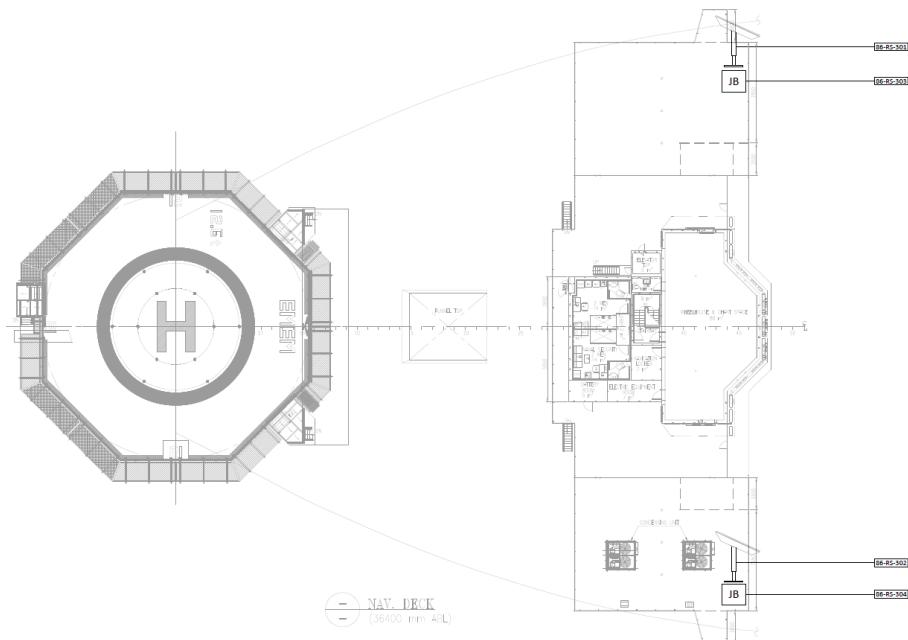
3.1.2 RECOMMENDED TOOLS



Drill / Impact Driver Drill Bit Drill Bit Pencil 7/16 in Socket 7/16 in Wrench Philips Head Screwdriver Socket Wrench 5/32 in Hex Key 3/16 in Hex Key

3.1.3 MOUNTING LOACTION

Starlink requires a clear view of the sky to maintain continuous connectivity with satellites as they move overhead. Objects that obstruct the connection between the Starlink antenna and the satellites can result in service interruptions. For this installation, the Starlink High-Performance Dishes are mounted on dedicated poles on the Navigation Deck, Port and Starboard sides, where an unobstructed sky view has been provided. Obstructions such as vessel structures, cranes, or temporary equipment located within the antenna field of view may affect system performance and shall be avoided to ensure reliable operation.



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3.1.4 PRE-INSTALLATION CHECKS

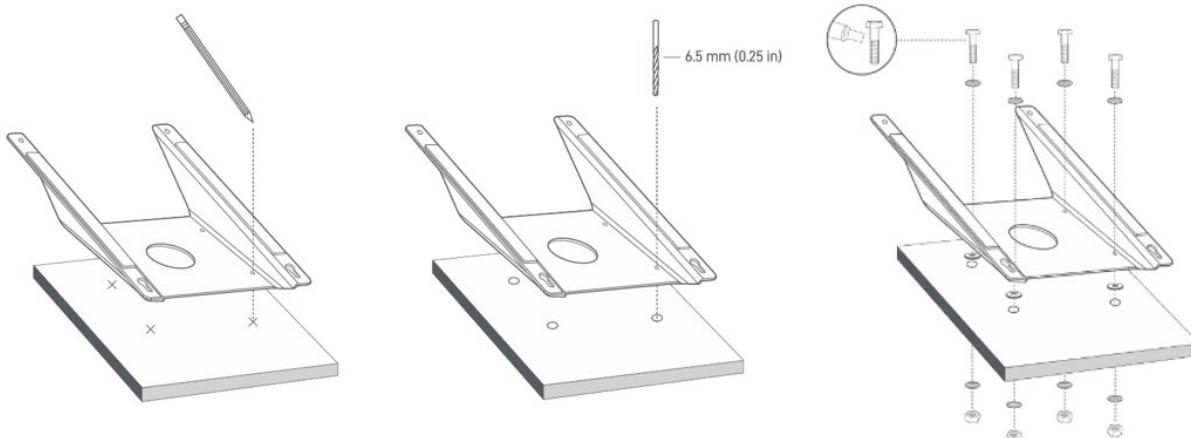
Follow the check list below prior to starting the installation of Starlink system.

- Verify approved typical installation drawing, Telecom cable Block Diagram and Telecom Device Location Layout Drawing of start link.
- Confirm equipment tags and serial numbers against packing list.
- Inspect equipment for transit damage.
- Ensure work permits and risk assessments are approved.

3.1.5 ANTENNA MECHANICAL INSTALLATION

Mark the Pilot Holes

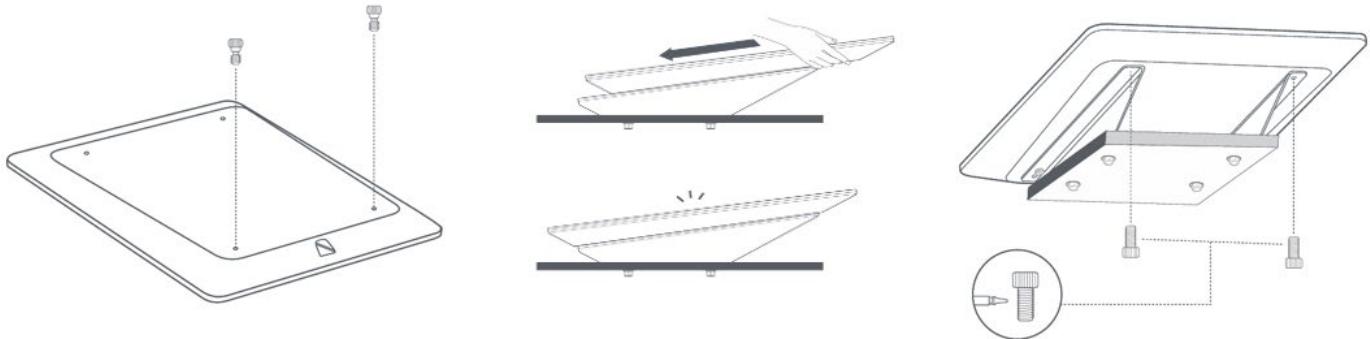
- Mark the location of the four holes on your Wedge Mount using a pen or pencil.
- Drill the holes with a 6.5 mm (0.25 in) drill bit. Remove burst around holes and make sure the surface is free of debris. Place rubber washers over holes followed by mount then Install a washer on each of the four machine screws and insert screws through mount and pre-drilled holes.
- Install a washer and nut on the end of each machine screw and secure mount to surface.
- Use a 7/16 in socket and wrench to tighten screws to snug plus 1/4 turn.
- Do not overtighten.



Install Shoulder Bolt

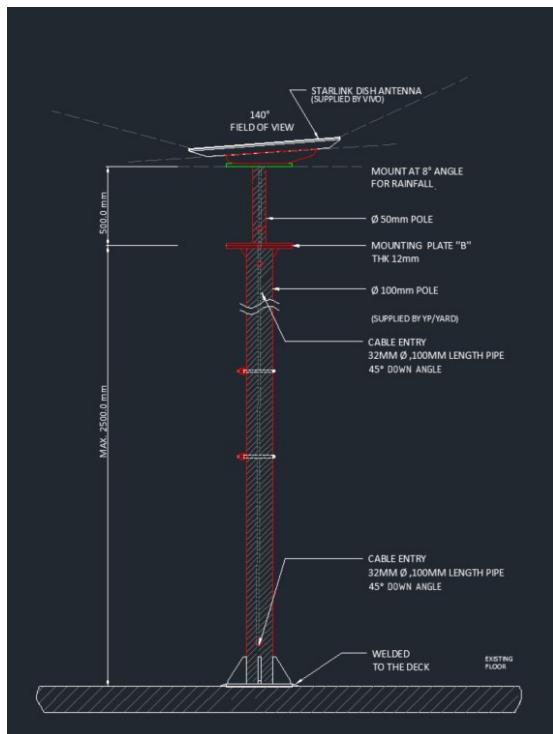
- Install shoulder bolts into threaded holes near the cable port. Use a 5/32 in hex key to tighten bolts to hand tight.
- Align shoulder bolts into the keyway on the bottom of the mount. Push down and slide Starlink forward to lock into place.
- Once secured, fully tighten shoulder bolts.
- Wet threads of the 12.7 mm (0.5 in) socket head bolts with thread locker and install into the two remaining holes to secure Starlink. Use the 3/16 in hex key to tighten screws to snug plus 1/4 turn. Do not overtighten.

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3.1.6 ANTENNA MECHANICAL INSTALLATION

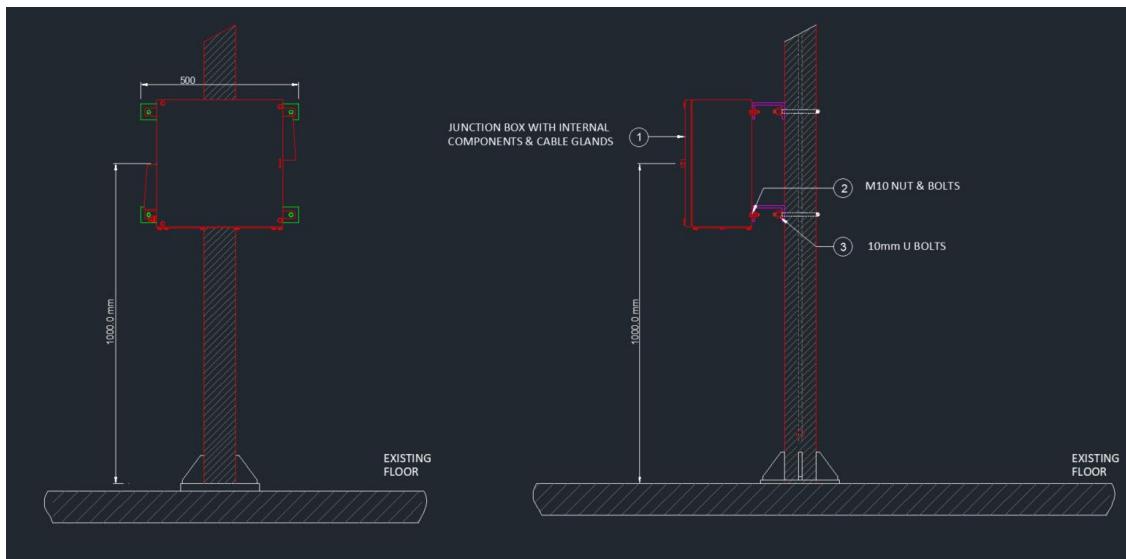
- Verify that the mounting pole assembly is securely welded to the deck and that all structural works are completed in accordance with the approved drawing
- Confirm the pole verticality and ensure the maximum height and clearances comply with the installation layout
- Install the mounting plate ("B", 12 mm thick) onto the 100 mm pole and secure it firmly. Ensure the plate is level and properly aligned.
- Fit the 50 mm upper pole section to the mounting plate and tighten all fasteners to achieve a rigid and stable assembly.
- Position the Starlink High-Performance Dish onto the 50 mm pole mount, ensuring the antenna orientation provides the required 140° field of view and the 8° mounting angle for rainfall drainage, as indicated in the drawing.
- Insert and tighten the mounting bolts evenly using the specified hex key.



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3.1.7 INSTALL JUNCTION BOX (JB) ON MOUNTING POLE

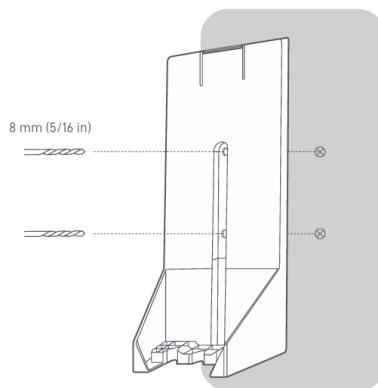
- Verify that the 100 mm GI mounting pole is securely welded to the deck and that all structural works are completed in accordance with the approved drawing.
- Confirm that the mounting surface and pole are free from sharp edges, welding spatter, that may damage cables or equipment.
- Position the junction box (JB) at the specified elevation on the pole as indicated on the installation drawing.
- Install the JB mounting brackets onto the pole and align them to ensure the junction box is mounted vertically and level.
- Secure the JB to the pole using the specified bolts, nuts, and washers. Tighten all fasteners evenly to achieve a firm and vibration-resistant installation. Do not overtighten.



3.1.8 JUNCTION BOX – INTERNAL EQUIPMENT INSTALLATION

Power supply mount installation

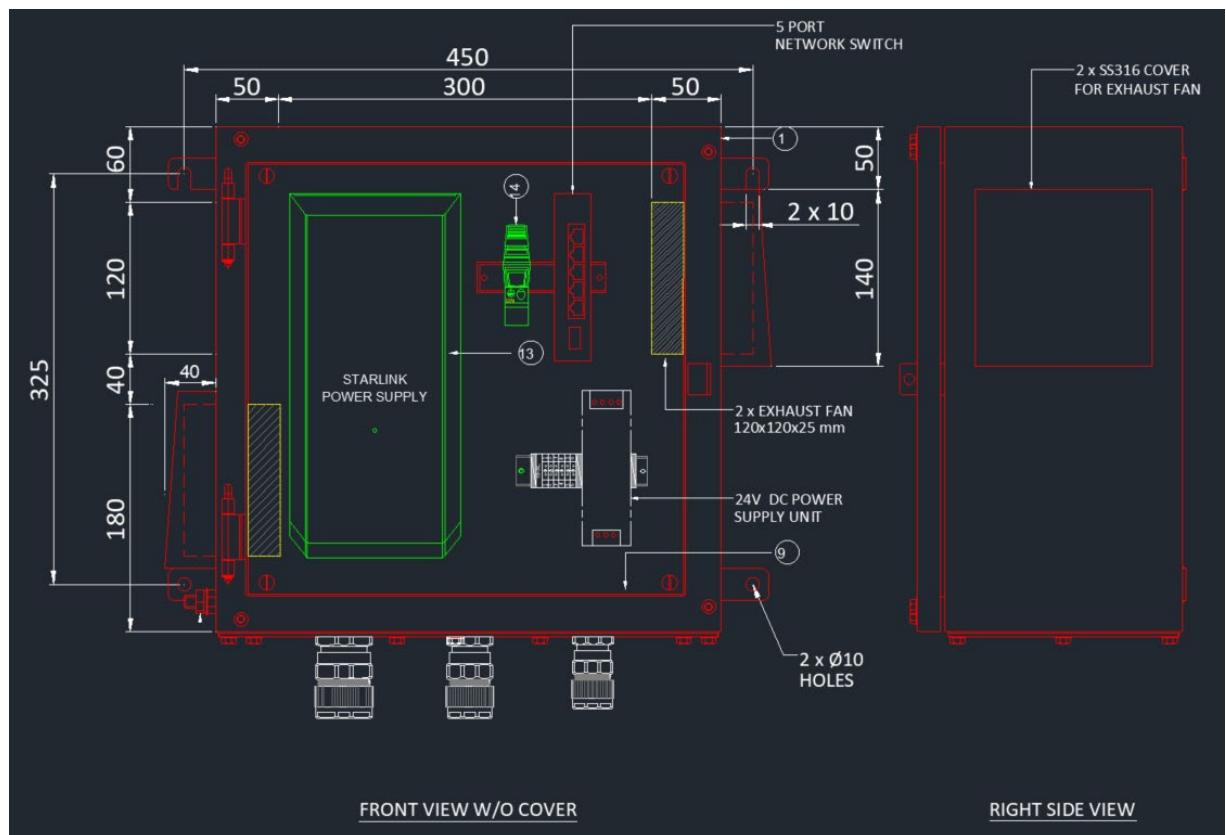
- Drill the holes with 8 mm (5/16 in) drill bit.
- Position the mounting bracket inside the junction box and secure it to the designated mounting points using the specified screws until firmly fixed.
- Plug Starlink AC cables into the power supply. Slide the power supply into the mount, making sure the top clip snaps into place.



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Install (NDR-120-24) Power Supply and (MOXA EDS-G205-1GTXSFP) Switch Inside Junction Box

- Verify that the junction box internal mounting plate is securely installed and that sufficient clearance is available as per the approved layout drawing.
- Confirm that the 24 VDC power supply (Mean Well NDR-120-24) and MOXA EDS-G205-1GTXSFP Ethernet switch are free from visible damage prior to installation.
- Install the first DIN rail at the designated location for the NDR-120-24 power supply using approved fasteners. Ensure the DIN rail is level and firmly secure.
- Install the second DIN rail at the designated location for the MOXA EDS-G205-1GTXSFP switch, maintaining adequate clearance from the power supply for ventilation and cable management.
- Mount the NDR-120-24 power supply onto its dedicated DIN rail by engaging the upper lip and pressing the unit until it locks securely in place.
- Mount the MOXA EDS-G205-1GTXSFP switch onto its dedicated DIN rail and ensure the unit is fully seated and locked.
- Verify that both DIN-mounted devices are securely fixed and cannot move under vibration or normal operating conditions.
- Connect the AC input supply to the NDR-120-24 power supply in accordance with the wiring diagram and terminal markings.
- Connect the 24 VDC output from the NDR-120-24 to the MOXA switch power input terminals, ensuring correct polarity and secure termination.

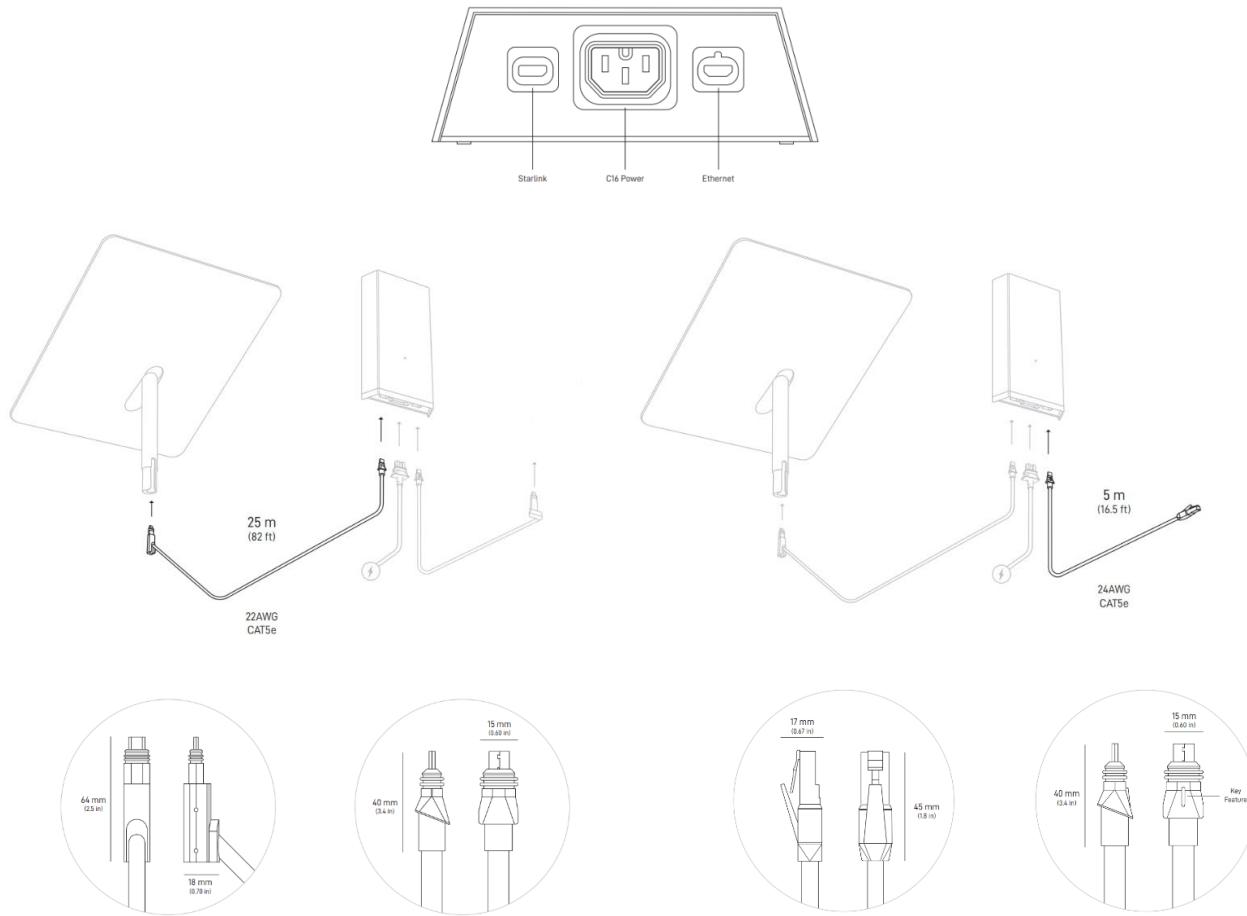


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3.1.9 CABLE TERMINATION AND EARTHING CONNECTIONS

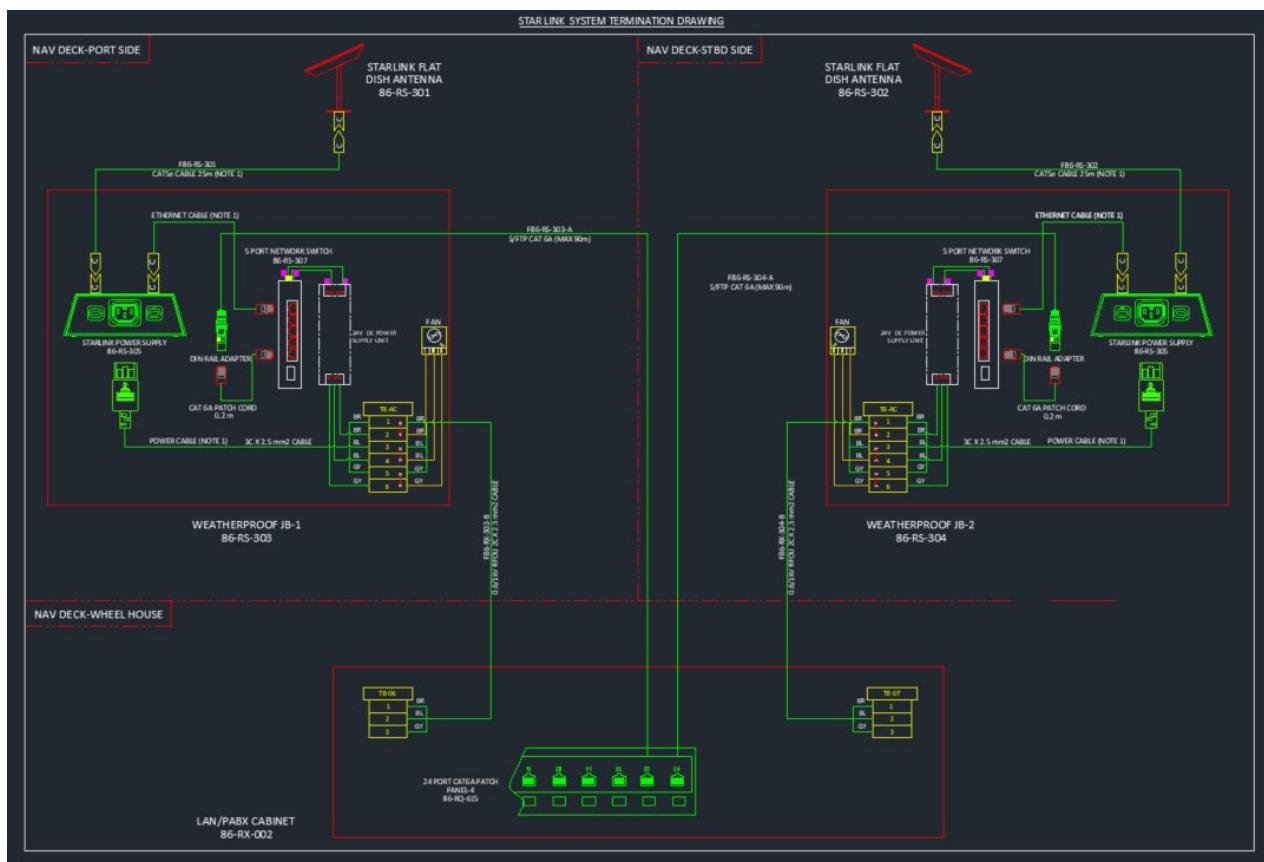
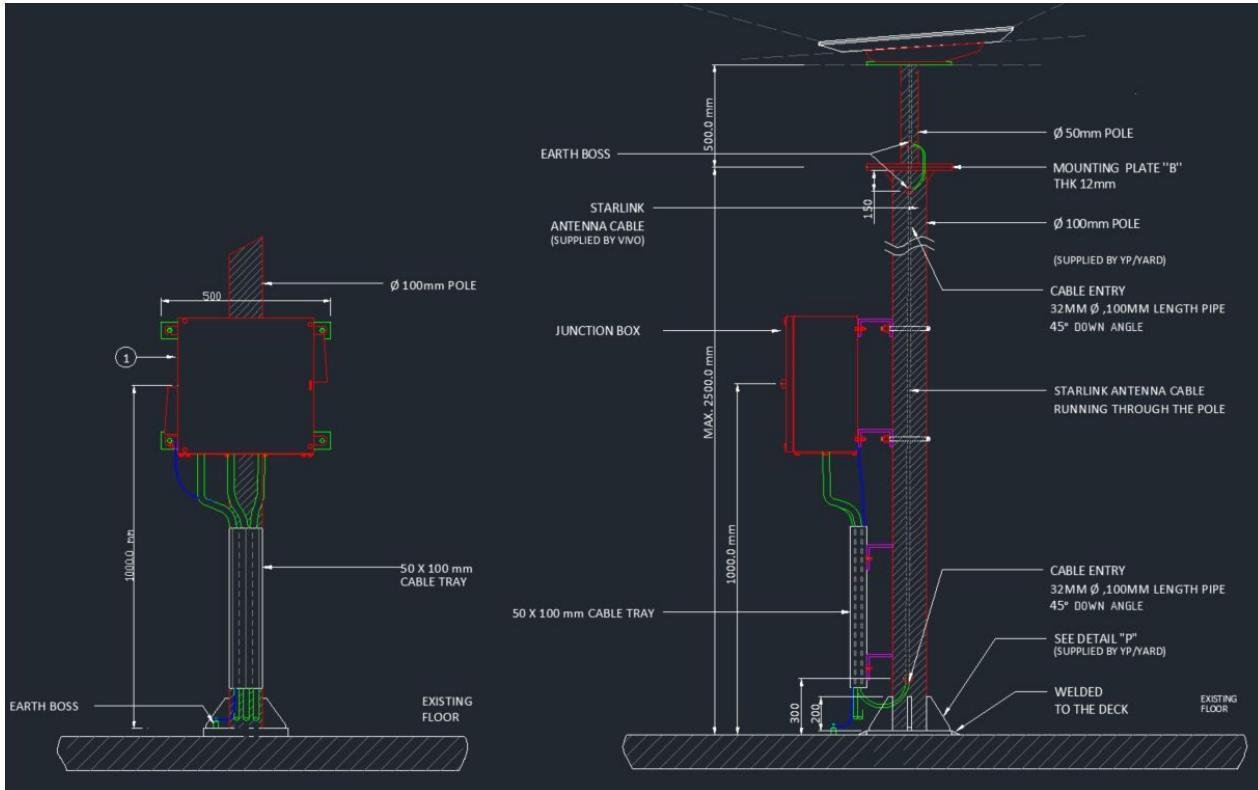
Connecting power and ethernet to Star link DISH

- Plug the Starlink, AC and Ethernet cables into the power supply. Slide the power supply into the mount, making sure the top clip snaps into place.



Cable Routing Arrangement – Pole and Cable Tray

- Route the Starlink cable through the dedicated cable entry pipe (32 mm, 100 mm length, 45° downward angle) provided on the pole to prevent water ingress.
- Route the power and signal cables from the JB through the designated 50 × 100 mm cable tray and/or pole cable entry points as shown in the drawing.
- Secure the cable along the pole using approved clamps, ensuring adequate strain relief and avoiding sharp bends.
- Terminate the Ethernet cables from the Starlink power supply and the vessel's main LAN/PABX switch to the MOXA switch ports as per the network diagram.



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3.2 CONFIGURATION PROCEDURE – STARLINK SYSTEM

3.2.1 PRE-CONFIGURATION CHECKS

- Verify that both Starlink High-Performance Dishes (Port and Starboard) are securely installed and free from obstructions within the 140° field of view.
- Confirm that all power and signal cabling is correctly terminated, labelled, and earthed as per approved drawings.
- Ensure the Starlink Power Supply, MOXA EDS-G205-1GTXSFP switch, and NDR-120-24 power supply are installed inside the junction box and powered OFF.
- Verify AC input supply availability and correct voltage at the power supply terminals.

3.2.2 POWER-UP CONFIGURATION

- Energize the AC supply feeding the Starlink Power Supply and the NDR-120-24 DC power supply.
- Confirm that the 24 VDC output from the NDR-120-24 is present and within acceptable limits.
- Verify that the MOXA Ethernet switch powers ON and status LEDs indicate normal operation.
- Energize the Starlink Power Supply and confirm that the connected antenna powers up.

3.2.3 NETWORK CONFIGURATION

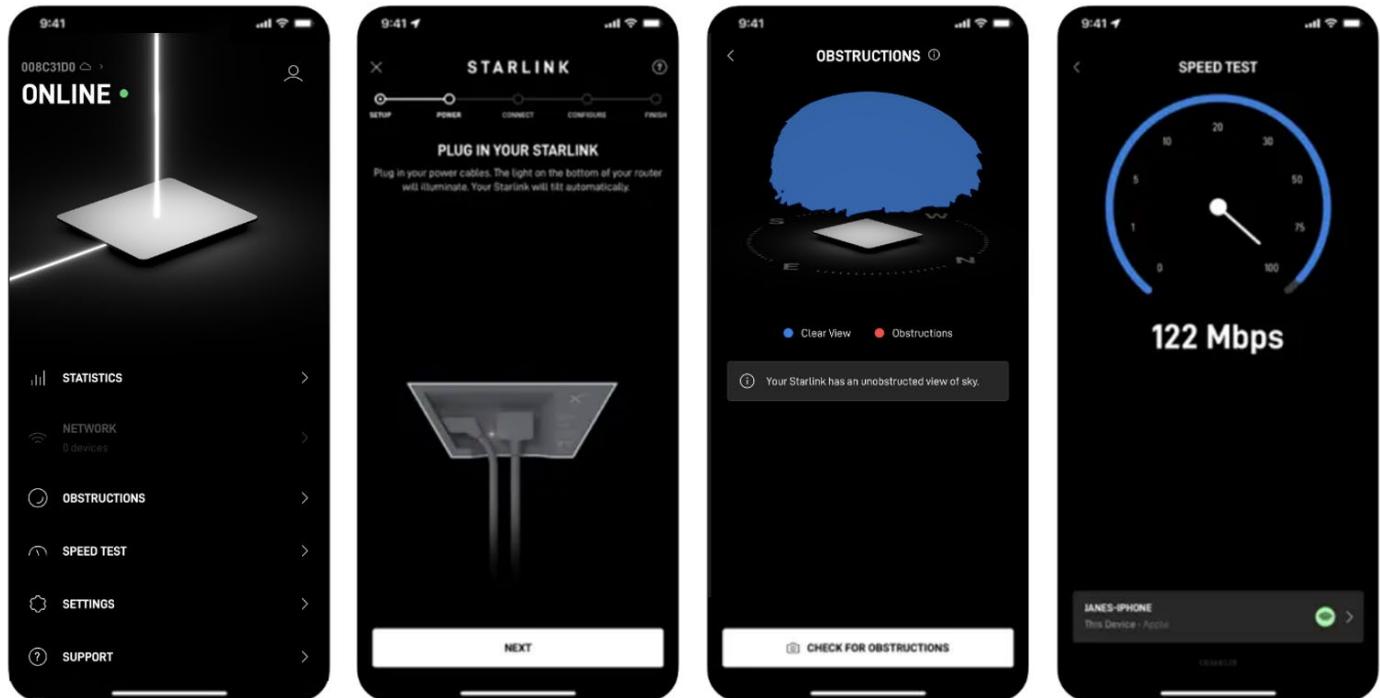
- Connect the Starlink Power Supply Ethernet port to the MOXA switch using the designated Ethernet cable.
- Connect the MOXA switch uplink port to the vessel's main LAN / PABX switch as per the network architecture diagram.
- As the MOXA EDS-G205-1GTXSFP is an unmanaged switch, no configuration is required. Verify link status LEDs on all connected ports.
- Ensure the vessel network routing configuration allows internet access via the Starlink connection

3.2.4 STARLINK SYSTEM INITIALIZATION

- After energizing the Starlink Power Supply, allow the Starlink High-Performance Dish to complete its automatic power-up sequence.
- Using a mobile device or tablet, install and open the Starlink application (Android or iOS) and connect to the Starlink system as instructed by the application.
- Follow the guided alignment procedure provided by the Starlink app to verify that the antenna has a clear and unobstructed view of the sky.
- Confirm that no vessel structures or temporary equipment obstruct the required 140° field of view.
- Verify system status through the Starlink app and confirm that the antenna has successfully acquired satellites and established a stable connection.
- Configure Wi-Fi settings including network name (SSID), security settings, and password, in accordance with vessel IT policies.
- Confirm that automatic software and firmware updates are enabled. The Starlink system will automatically download and install updates to ensure optimal performance and security.
- Allow sufficient time for the system to complete initial software updates and stabilization before placing the system into operational service.
- Upon successful initialization, verify internet connectivity from a user device connected to the vessel network.

 WORLD CARRIER CORPORATION  VIVO ASIA ENGINEERING & TRADING	EMEM FPSO Telecom System IOM – STARLINK System	WCPOKWTP-450-TE-(VAE) MN-051	 ORIENTAL OKWOK
		2024-VIVO-EMEM-TS-ST-036	
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Scan the QR code to download the Starlink App.



Note: Configuration shall be carried out once the vessel is in internation water. Currently, Starlink services are restricted within UAE, China, and list down the countries.

3.3 OPERATION PROCEDURE – STARLINK SYSTEM

3.3.1 NORMAL OPERATION

- The Starlink system operates automatically once powered ON and requires no routine manual adjustment.
- The antenna continuously tracks Low Earth Orbit satellites to maintain optimal connectivity.
- The system supports real-time applications such as data communication, VoIP, and internet access for onboard users.

  	EMEM FPSO	WCPOKWTP-450-TE-(VAE) MN-051	
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3.3.2 MONITORING

- Power supply status indicators
- MOXA switch port and link LEDs
- Physical condition of cables and glands

3.3.3 SHUTDOWN PROCEDURE

- For planned shutdown or maintenance:
 - Isolate the AC power supply feeding the Starlink Power Supply and NDR-120-24.
 - Verify that all equipment is safely de-energized.
 - Do not disconnect antenna or Ethernet cables while the system is energized.

3.3.4 ABNORMAL OPERATION

- In the event of loss of connectivity:
 - Verify power availability to all system components.
 - Check Ethernet link status on the MOXA switch.
 - Inspect for physical obstructions or cable damage.
- Restore power and allow the system to reinitialize automatically.

3.4 MAINTENANCE

The Starlink system is designed for continuous operation with minimal routine maintenance. Maintenance activities shall be limited to visual inspection, cleaning, and functional verification. No internal service of the Starlink antenna, power supply, or network equipment is permitted unless authorized by the manufacturer.

All maintenance work shall be carried out in accordance with vessel safety procedures and permit-to-work requirements.

3.4.1 ROUTINE INSPECTION

The following inspections shall be performed at regular intervals or during planned maintenance activities:

- Verify that the Starlink High-Performance Dishes (Port and Starboard) are securely mounted and free from visible damage.
- Check that no new obstructions have been introduced within the antenna field of view.
- Inspect mounting poles, brackets, and fasteners for corrosion, loosening, or mechanical damage.
- Verify that all cable glands, seals, and entries remain intact and weather tight.
- Inspect Ethernet, power, and earthing connections inside the junction box for security and signs of degradation.
- Confirm that the MOXA Ethernet switch and NDR-120-24 power supply status indicators show normal operation.

3.4.2 CLEANING

- Clean the antenna using fresh water and a soft cloth to remove salt deposits, dust, or contaminants.
- Do not use abrasive materials, solvents, or high-pressure water jets.
- Ensure the antenna surface is free from debris that may affect signal performance.

3.4.3 SOFTWARE AND FIRMWARE MAINTENANCE

- The Starlink system supports automatic software and firmware updates.

 WORLD CARRIER CORPORATION  HBA Offshore (Int) Pte. Ltd  VIVO ASIA ENGINEERING & TRADING	EMEM FPSO	WCPOKWTP-450-TE-(VAE) MN-051	
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- Periodically verify update status using the Starlink application.
- Ensure the system remains powered during update cycles to avoid incomplete updates.

3.4.4 FUNCTIONAL VERIFICATION

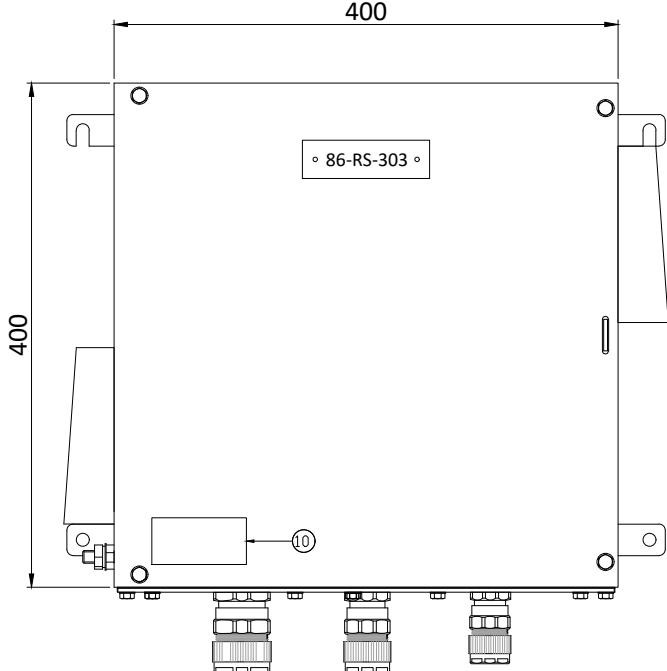
After maintenance or inspection activities:

- Verify that the system powers up correctly.
- Confirm satellite connectivity and internet access via the vessel network.
- Check Ethernet link status indicators on the MOXA switch.
- Confirm normal system status via the Starlink application.

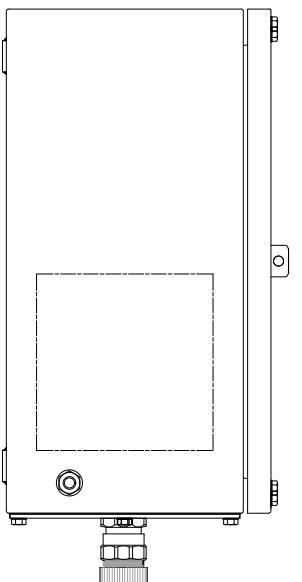
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		2024-VIVO-EMEM-TS-ST-036	
	Telecom System IOM – STARLINK System	Rev: B	Date: 07.01.2026
		Page 20 of 20	Status: IFR

4 PROJECT SPECIFIC DRAWINGS

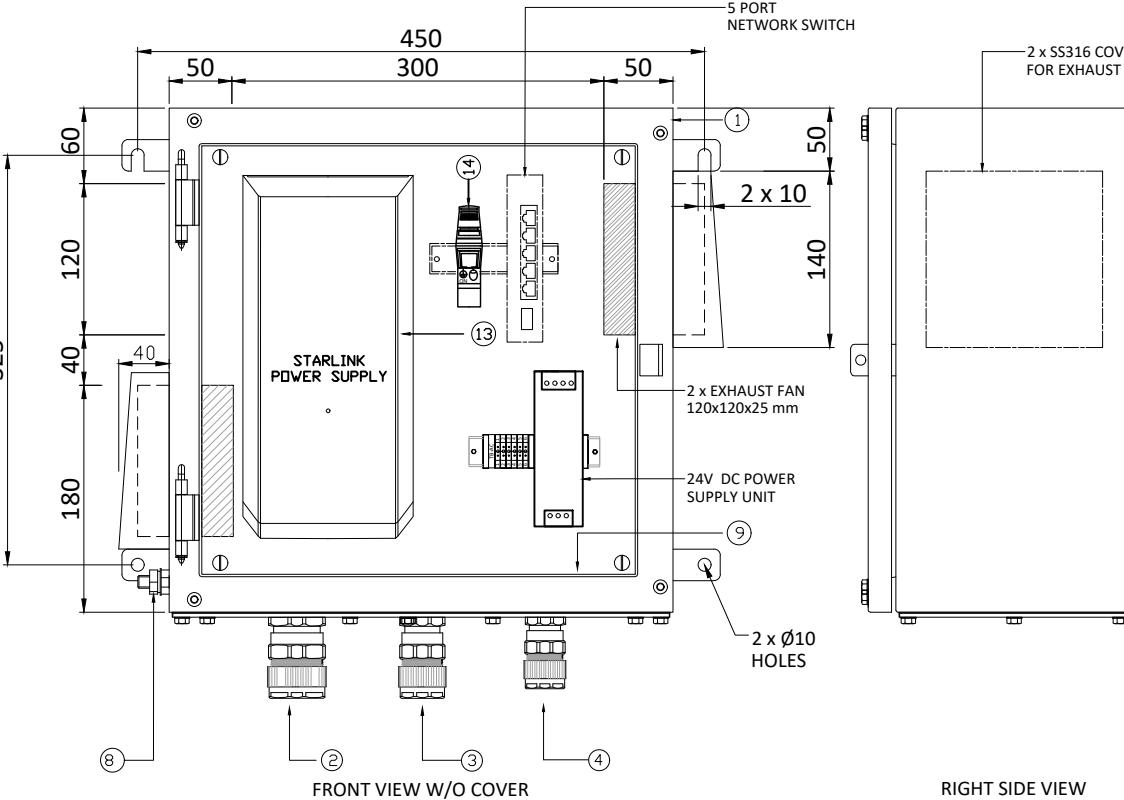
JUNCTION BOX DIMENSION AND MOUNTING DRAWING



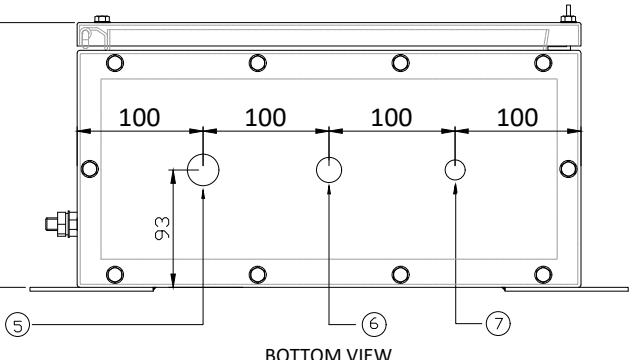
FRONT VIEW C/W COVER



LEFT SIDE VIEW



RIGHT SIDE VIEW



BOTTOM VIEW

ITEM LIST				
ITEM NO.	DESCRIPTION	MANUFACTURER	SUPPLIED BY	MODEL
1	JUNCTION BOX	CE-TEK	BY VIVO	CEX 404021
2	M25 DOUBLE COMPRESSION CABLE GLAND (IP66)	-	BY VIVO	-
3	M20 DOUBLE COMPRESSION CABLE GLAND (IP66)	-	BY VIVO	-
4	M16 DOUBLE COMPRESSION CABLE GLAND (IP66)	-	BY VIVO	-
5	M25F ENTRIES BOTTOM UNTHREADED	-	BY VIVO	-
6	M20 ENTRY BOTTOM UNTHREADED	-	BY VIVO	-
7	M16 ENTRY BOTTOM UNTHREADED	-	BY VIVO	-
8	M10 INTERNAL/EXTERNAL SS316 EARTH STUD	-	BY VIVO	ES10B
9	2mm SS316 INTERNAL MOUNTING PLATE	-	BY VIVO	-
10	ADHESIVE JB LABEL	-	BY VIVO	-
11	5 PORT NETWORK SWITCH	-	BY VIVO	-
12	24V DC POWER SUPPLY UNIT	-	BY VIVO	-
13	ANTENNA POWER SUPPLY	STARLINK	BY VIVO	-
14	DIN RAIL ADAPTER	PHOENIX	BY VIVO	1100077

TECHNICAL SPECIFICATIONS:

1. JUNCTION BOX

ELECTRICAL AND MECHANICAL DIMENSIONS

: 400 x 400 x 210 mm
CE-TEK INDUSTRIAL IP66
HINGED SS316L ENCLOSURE

2. STARLINK POWER SUPPLY

NO ASSEMBLY REQUIRED

ENVIRONMENTAL RATING	: IP56
OPERATING TEMPERATURE	: -30°C to 50°C (-22 to 122°F)
WEIGHT	: 1.5kg (3lbs)
GROUNDED	: DEDICATED EARTH TERMINAL
POWER SPECIFICATIONS	: 100-240V - 6.3A 50 - 60 Hz
MOUNTING	: INCLUDED WALL MOUNT
ANTENNA CABLE LENGTH	: 8m

SCALE: 1:10	DRAWING NO. 2024-VIVO-EMEM-TS-TY-036	WCP DRAWING NO. WCP0KWTP-450-TE-(VAE)DC-054	REV. 2
		SHEET: 03 of 07	

REVISIONS

REV.	DATE	DESCRIPTION	DRWN	CHKD	APPD	CLIENT
3	09.01.2026	RE-ISSUED FOR CONSTRUCTION	JH	HS	TS	
2	03.07.2025	RE-ISSUED FOR CONSTRUCTION	VM	HS	TS	
1	22.03.2025	ISSUED FOR CONSTRUCTION	VM	HS	TS	
0	03.03.2025	ISSUED FOR CONSTRUCTION	VM	HS	TS	

COMPANY:



ADDAX PETROLEUM

CONTRACTOR:



HBA Offshore

VENDOR:



TP : +65 6826 2525
Head Office : 21 Toh Guan Rd E, #06-06A, Singapore 608609
Web : vivoasia.com
E-mail : contact@vivoasia.com

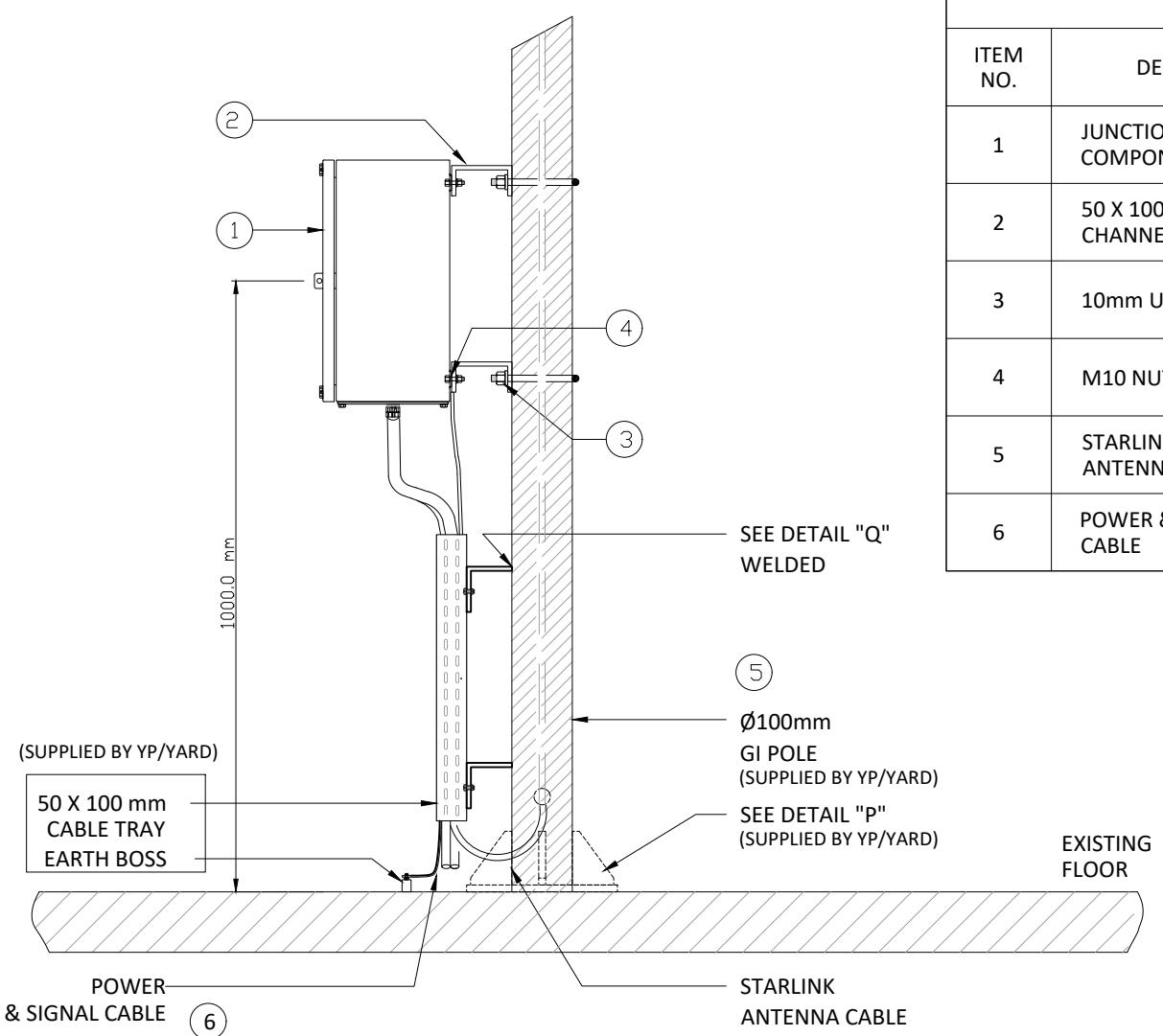
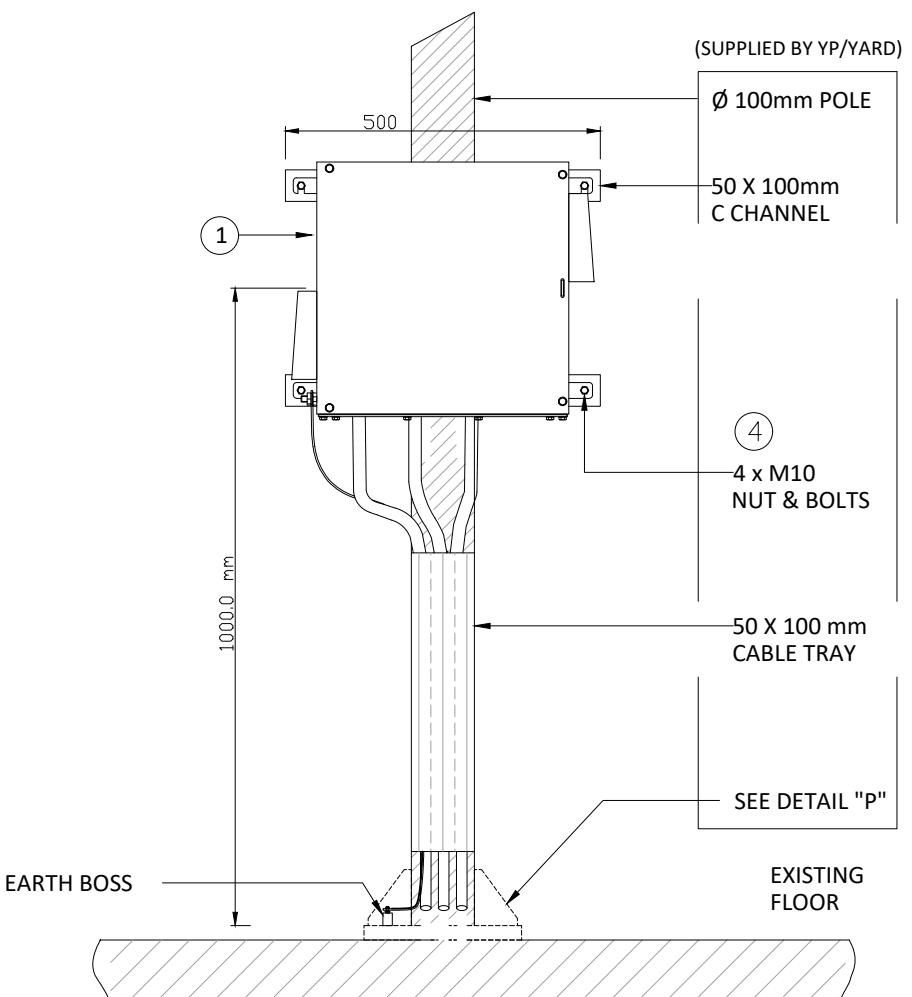
PROJECT:

OKWOK-FPSO
TOPSIDES PRODUCTION FACILITIES

LOCATION: OKWOK FIELD OFFSHORE NIGERIA-OML 67

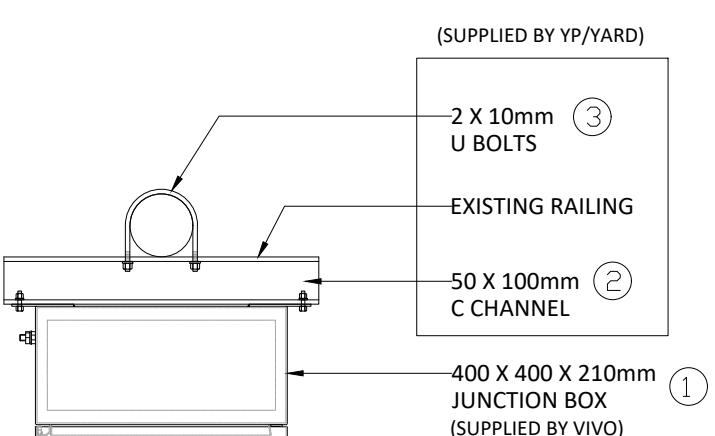
TITLE: TELECOM TYPICAL INSTALLATION DRAWING –
STARLINK SYSTEM

JUNCTION BOX MOUNTING TYPICAL INSTALLATION DRAWING



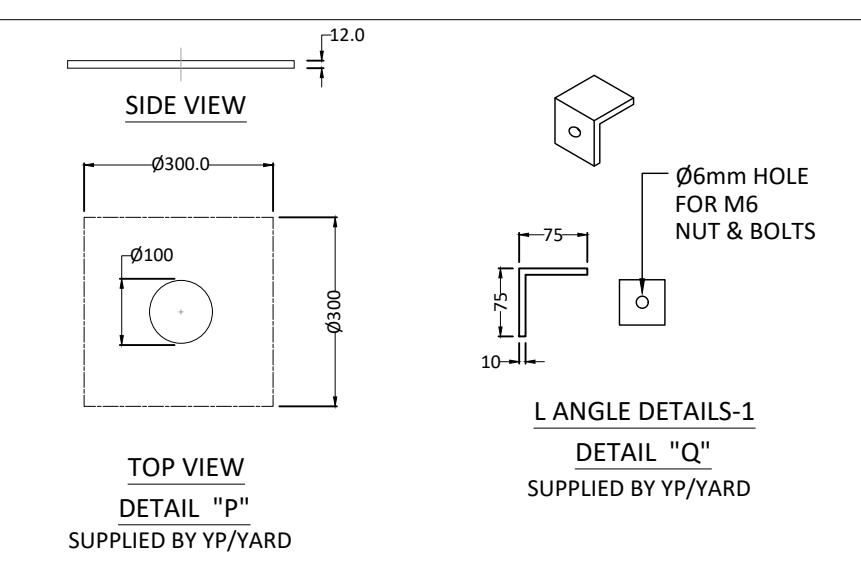
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2	50 X 100mm C CHANNEL	-	BY YP/YARD	02
3	10mm U BOLTS	-	BY YP/YARD	04
4	M10 NUT & BOLTS	-	BY YP/YARD	04
5	STARLINK ANTENNA CABLE	STARLINK	BY VIVO	01
6	POWER & FIBER CABLE	-	BY YP/YARD	02

FRONT VIEW



PLAN VIEW

SIDE VIEW-A



REVISIONS					
REV.	DATE	DESCRIPTION	DRWN	CHKD	APPD
3	09.01.2026	RE-ISSUED FOR CONSTRUCTION	JH	HS	TS
2	03.07.2025	RE-ISSUED FOR CONSTRUCTION	VM	HS	TS
1	22.03.2025	ISSUED FOR CONSTRUCTION	VM	HS	TS
0	03.03.2025	ISSUED FOR CONSTRUCTION	VM	HS	TS

COMPANY: ORIENTAL OKWOK ADDAX PETROLEUM

CONTRACTOR: WORLD CARRIER CORPORATION HBA Offshore

VENDOR: VIVO ASIA ENGINEERING & TRADING TP : +65 6826 2525 Head Office : 21 Toh Guan Rd E, #06-06A, Singapore 608609 Web : vivoasia.com E-mail : contact@vivoasia.com

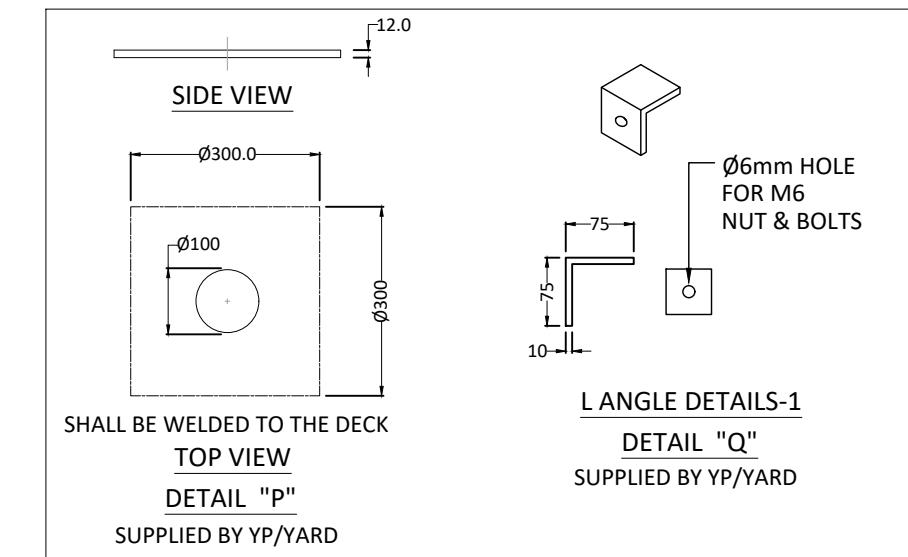
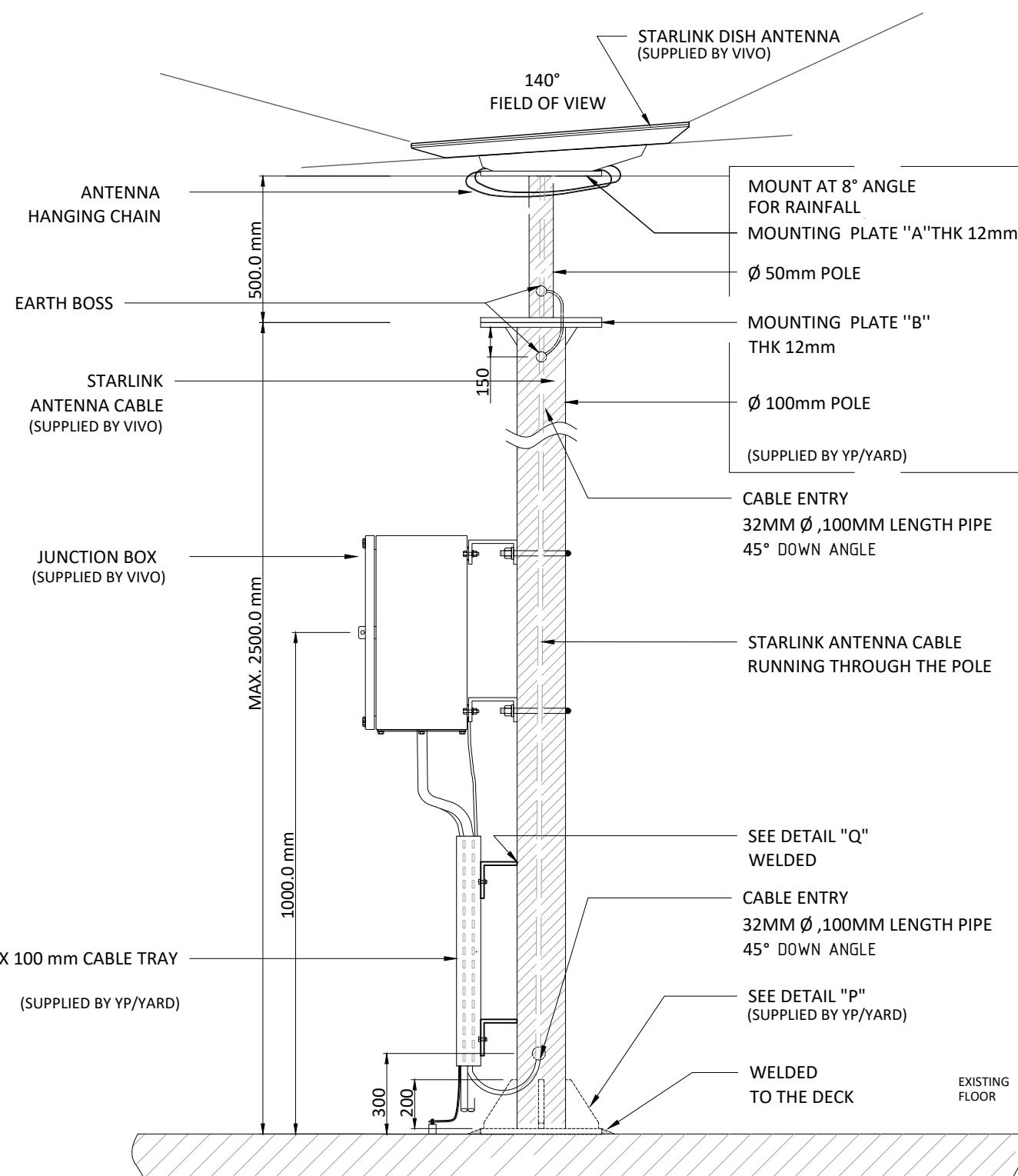
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LOCATION: OKWOK FIELD OFFSHORE NIGERIA-OML 67

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SCALE:	DRAWING NO.	WCP DRAWING NO.
1:10	2024-VIVO-EMEM-TS-TY-036	WCP0KWT-450-TE-(VAE)DC-054
SHEET:	04 of 07	REV.
		2

TYPICAL INSTALLATION STARLINK ANTENNA (MOUNTED ON POLE)

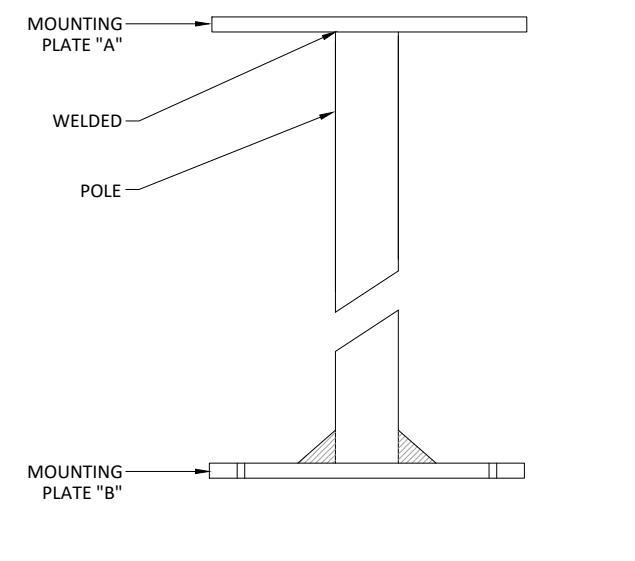
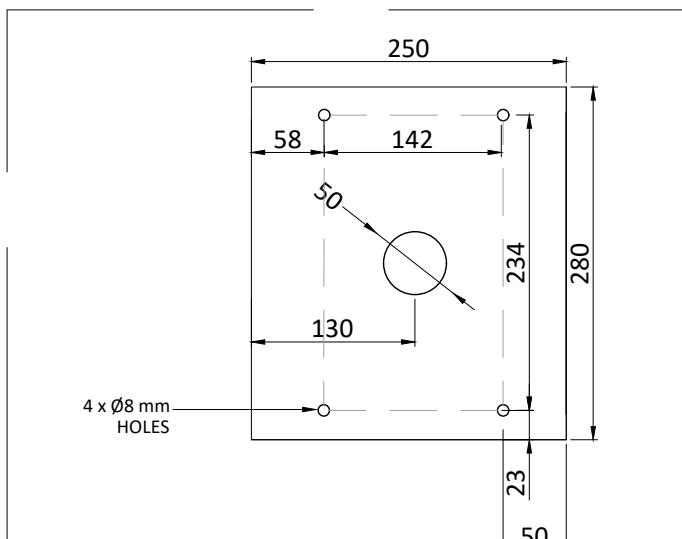


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2	03.07.2025	RE-ISSUED FOR CONSTRUCTION	VM	HS	TS				
1	22.03.2025	ISSUED FOR CONSTRUCTION	VM	HS	TS				
0	03.03.2025	ISSUED FOR CONSTRUCTION	VM	HS	TS				
COMPANY:									
 ORIENTAL OKWOK			 ADDAX PETROLEUM						
CONTRACTOR:									
 WORLD CARRIER CORPORATION				 HBA Offshore					
VENDOR:									
 VIVO ASIA ENGINEERING & TRADING			TP	: +65 6826 2525					
			Web	Head Office : 21 Toh Guan Rd E,#06-06A, Singapore 608609					
			E-mail	: vivoasia.com					
				: contract@vivoasia.com					
PROJECT:									
OKWOK-FPSO TOPSIDES PRODUCTION FACILITIES									
LOCATION:									
OKWOK FIELD OFFSHORE NIGERIA-OML 67									
TITLE:									
TELECOM TYPICAL INSTALLATION DRAWING – STARLINK SYSTEM									
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1:10	2024-VIVO-EMEM-TS-TY-036		WCP0KWT-450-TE-(VAE)DG-054						
SHEET:	05 of 07								
2									

A B C D E F G H I

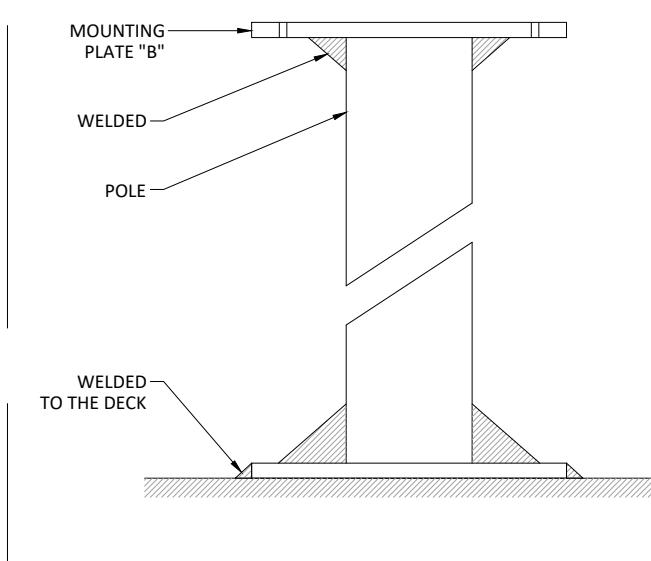
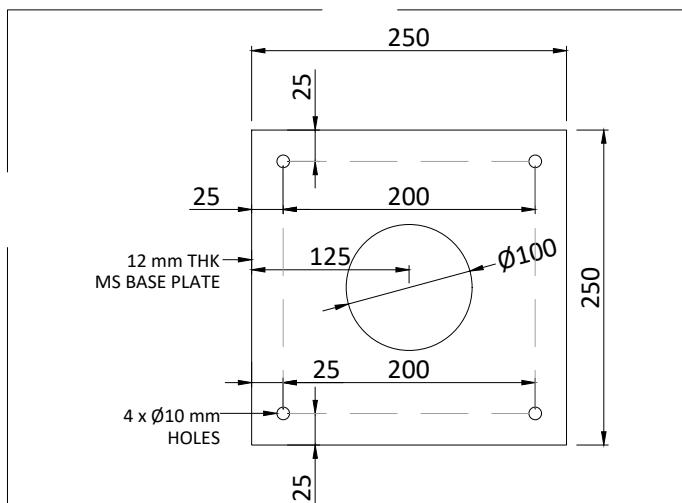
STAR LINK ANTENNA BRACKET DETAIL DRAWING

MOUNTING BRACKET "A"
DETAIL



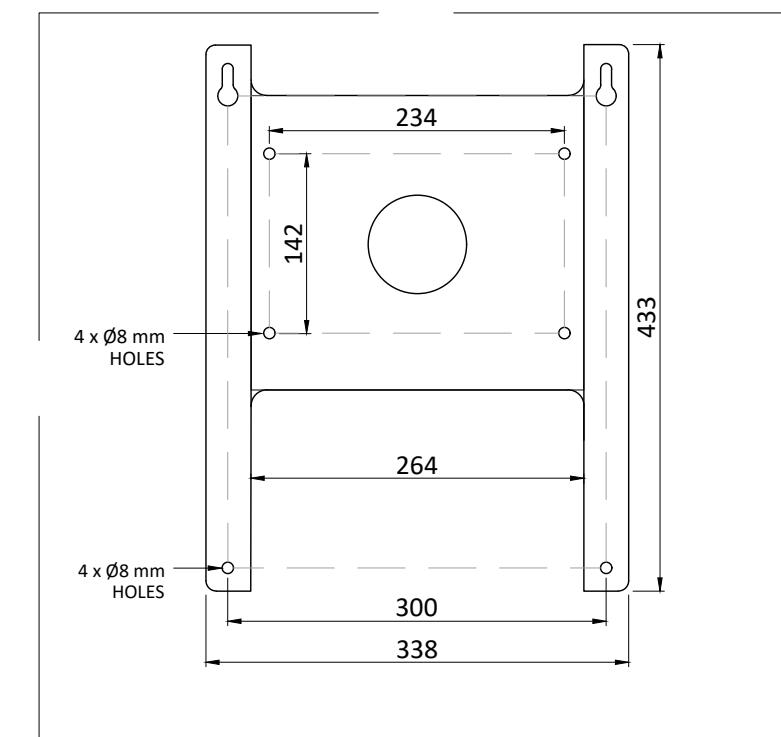
(SUPPLIED BY YP/YARD)

MOUNTING BRACKET "B"
DETAIL



(SUPPLIED BY YP/YARD)

ANTENNA BRACKET BASE
DETAIL



(SUPPLIED BY VIVO)

REVISIONS

REV.	DATE	DESCRIPTION	DRWN	CHKD	APPD	CLIENT
3	09.01.2026	RE-ISSUED FOR CONSTRUCTION	JH	HS	TS	
2	03.07.2025	RE-ISSUED FOR CONSTRUCTION	VM	HS	TS	
1	22.03.2025	ISSUED FOR CONSTRUCTION	VM	HS	TS	
0	03.03.2025	ISSUED FOR CONSTRUCTION	VM	HS	TS	



ADDAX
PETROLEUM



HBA Offshore

VENDOR:	VIVO ASIA ENGINEERING & TRADING	TP : +65 6826 2525 Head Office : 21 Toh Guan Rd E,#06-06A, Singapore 608609 Web : vivoasia.com E-mail : contact@vivoasia.com
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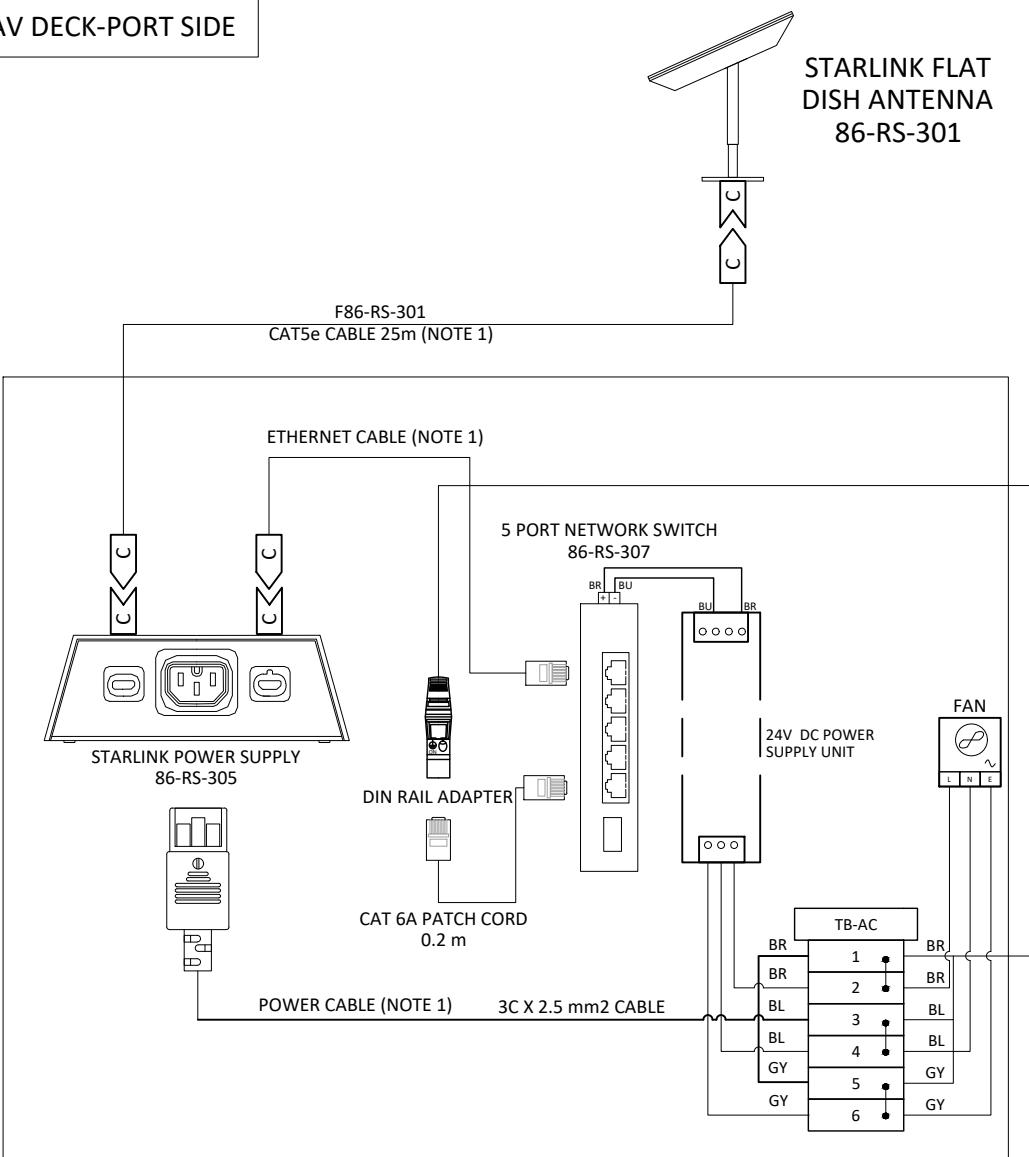
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LOCATION:	OKWOK FIELD OFFSHORE NIGERIA-OML 67
TITLE:	TELECOM TYPICAL INSTALLATION DRAWING – STARLINK SYSTEM

SCALE:	DRAWING NO.	WCP DRAWING NO.	REV.
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SHEET:	06 of 07		2

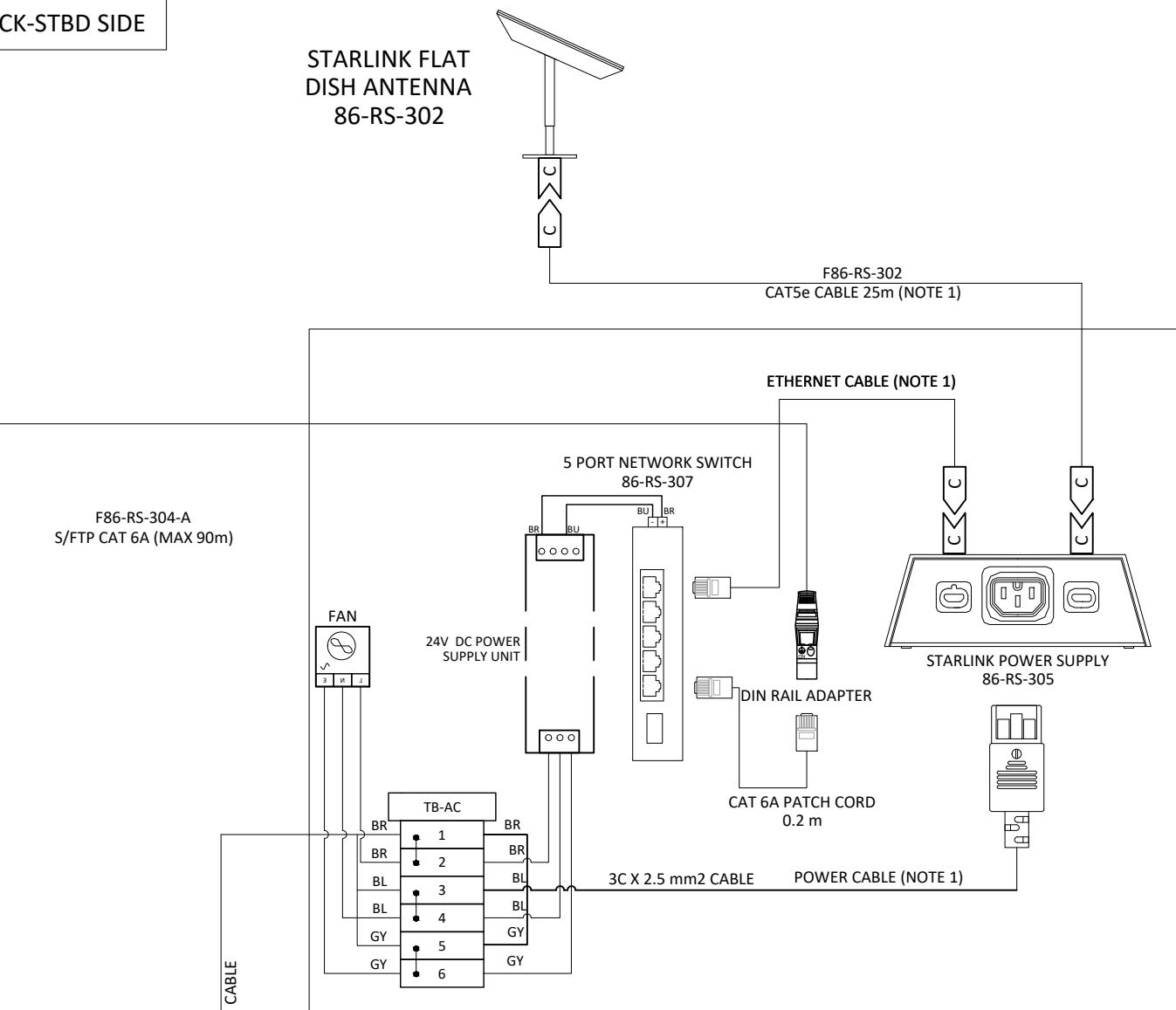
A B C D E F G H I

STAR LINK SYSTEM TERMINATION DRAWING

NAV DECK-PORT SIDE



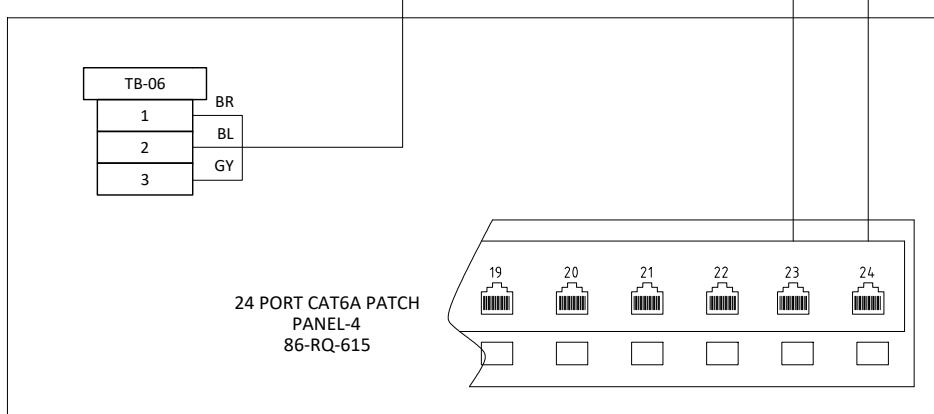
NAV DECK-STBD SIDE



WEATHERPROOF JB-1
86-RS-303

NAV DECK-WHEEL HOUSE

LAN/PABX CABINET
86-RX-002



WEATHERPROOF JB-2
86-RS-304

REVISIONS					
REV.	DATE	DESCRIPTION	DRWN	CHKD	APPD
3	09.01.2026	RE-ISSUED FOR CONSTRUCTION	JH	HS	TS
2	03.07.2025	RE-ISSUED FOR CONSTRUCTION	VM	HS	TS
1	22.03.2025	ISSUED FOR CONSTRUCTION	VM	HS	TS
0	03.03.2025	ISSUED FOR CONSTRUCTION	VM	HS	TS
REV.	DATE	DESCRIPTION	DRWN	CHKD	APPD

COMPANY:

ORIENTAL OKWOK

ADDAX PETROLEUM

CONTRACTOR:

WORLD CARRIER CORPORATION

HBA Offshore

VENDOR:

VIVO ASIA
ENGINEERING & TRADING

TP : +65 6826 2525
Head Office : 21 Toh Guan Rd E,#06-06A, Singapore 608609
Web : vivoasia.com
E-mail : contact@vivoasia.com

PROJECT:

OKWOK-FPSO
TOPSIDES PRODUCTION FACILITIES

LOCATION:

OKWOK FIELD OFFSHORE NIGERIA-OML 67

TITLE:

TELECOM TYPICAL INSTALLATION DRAWING –
STARLINK SYSTEM

SCALE: 1:10 DRAWING NO. 2024-VIVO-EMEM-TS-TY-036 WCP DRAWING NO. WCP0KWT-450-TE-(VAE)DG-054

SHEET: 07 of 07

REV. 2

TELECOM CABLE BLOCK DIAGRAM - STARLINK SYSTEM

