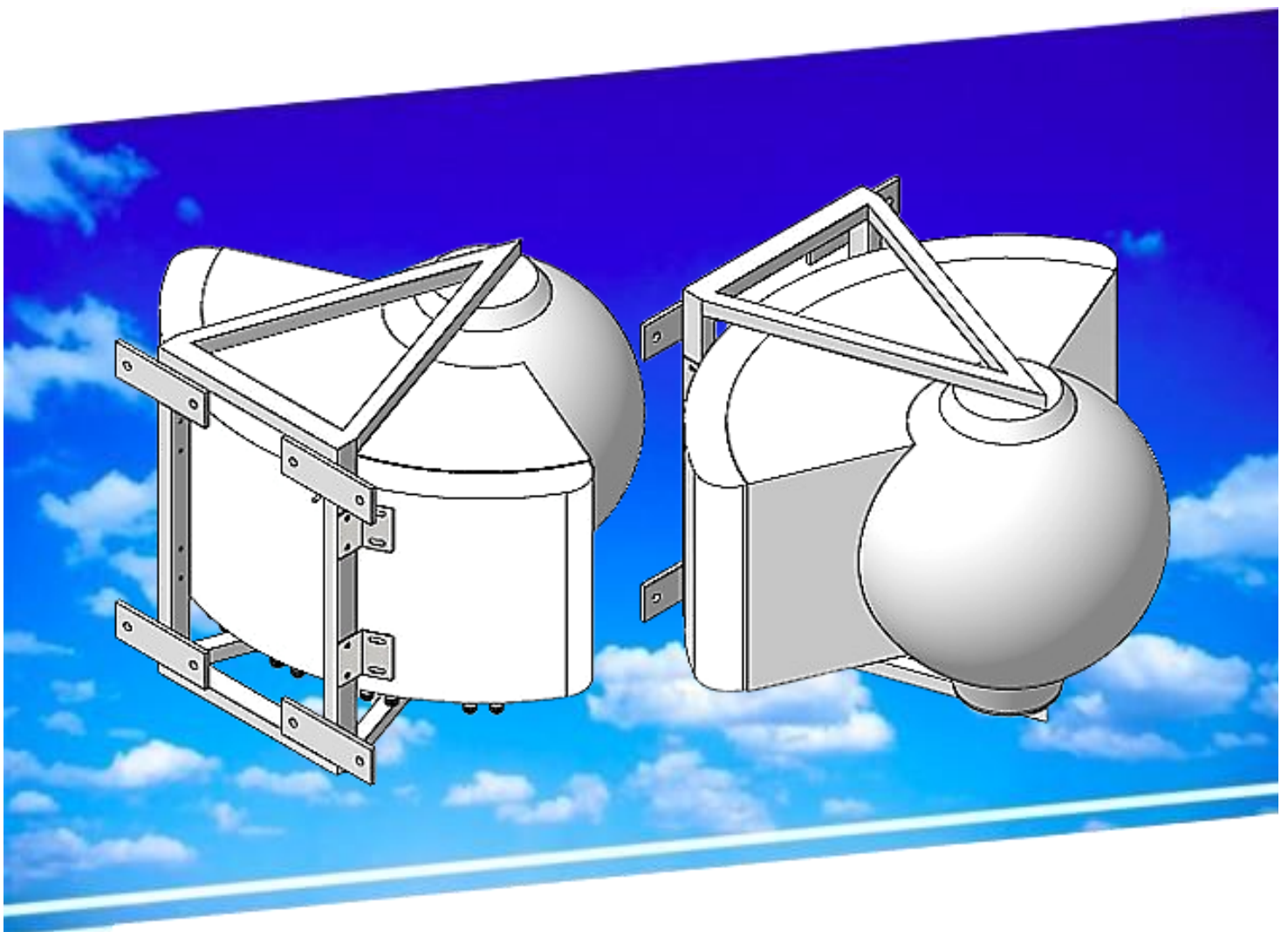


# MATSING<sup>®</sup>

LENS TECHNOLOGY ENABLED

## MS-18C45

Instruction Manual



# Table of Contents

## 1.00 Pattern diagram

- 1.10 Horizontal pattern (Beam 1-6, Beam 13-18)
- 1.20 Horizontal pattern (Beam 7-12)
- 1.30 Vertical pattern

## 2.00 Beam & connector

- 2.10 Plan view resultant beam layout
- 2.20 Connector port table
- 2.30 Connector layout

## 3.00 Transportation & installation

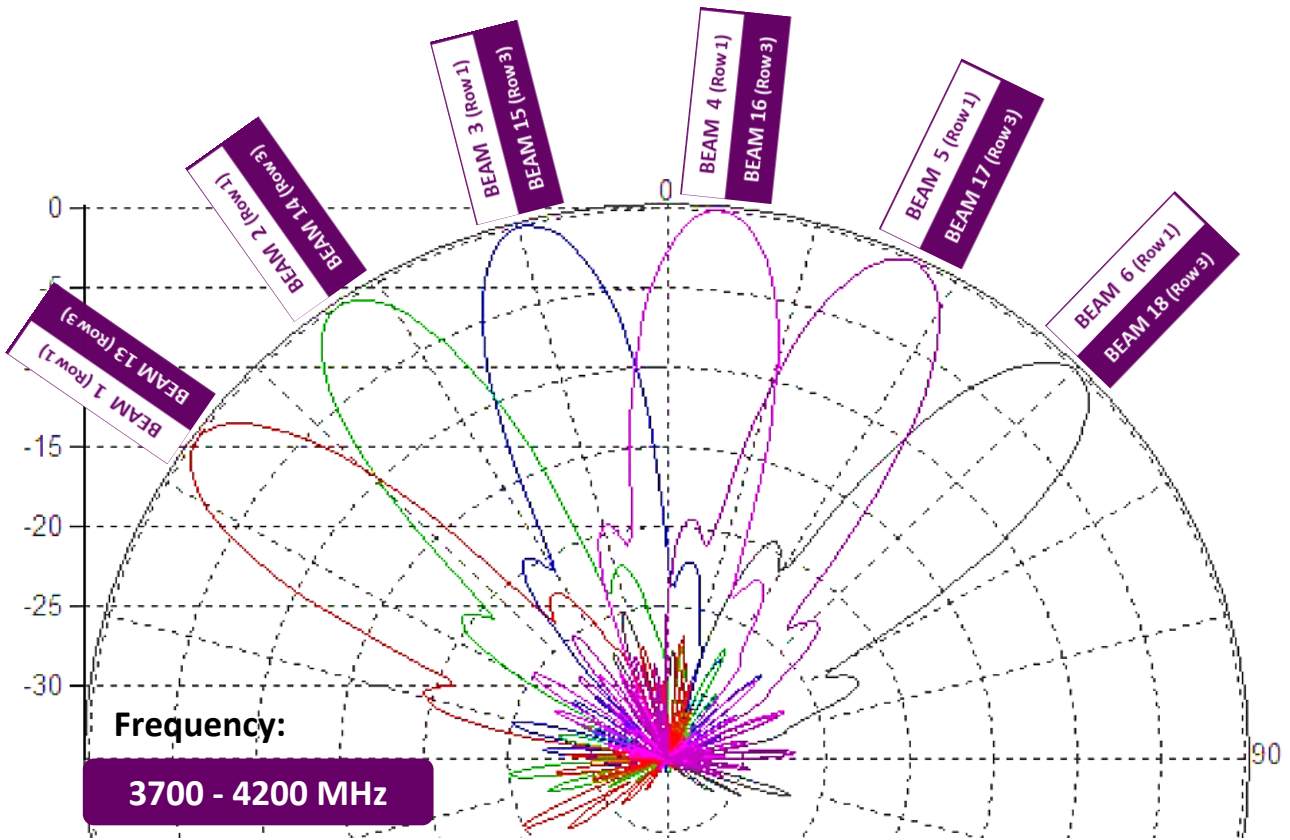
- 3.10 Transportation (From Point to Point)
- 3.20 Bracket mounting
- 3.30 Installation using a crane
  - 3.31 Lifting the antenna
- 3.40 Antenna installation
  - 3.41 Antenna levelling (After installation)
  - 3.42 Digital Level Gauge Calibration
  - 3.43 Adjustment Requirement

### Revision History:

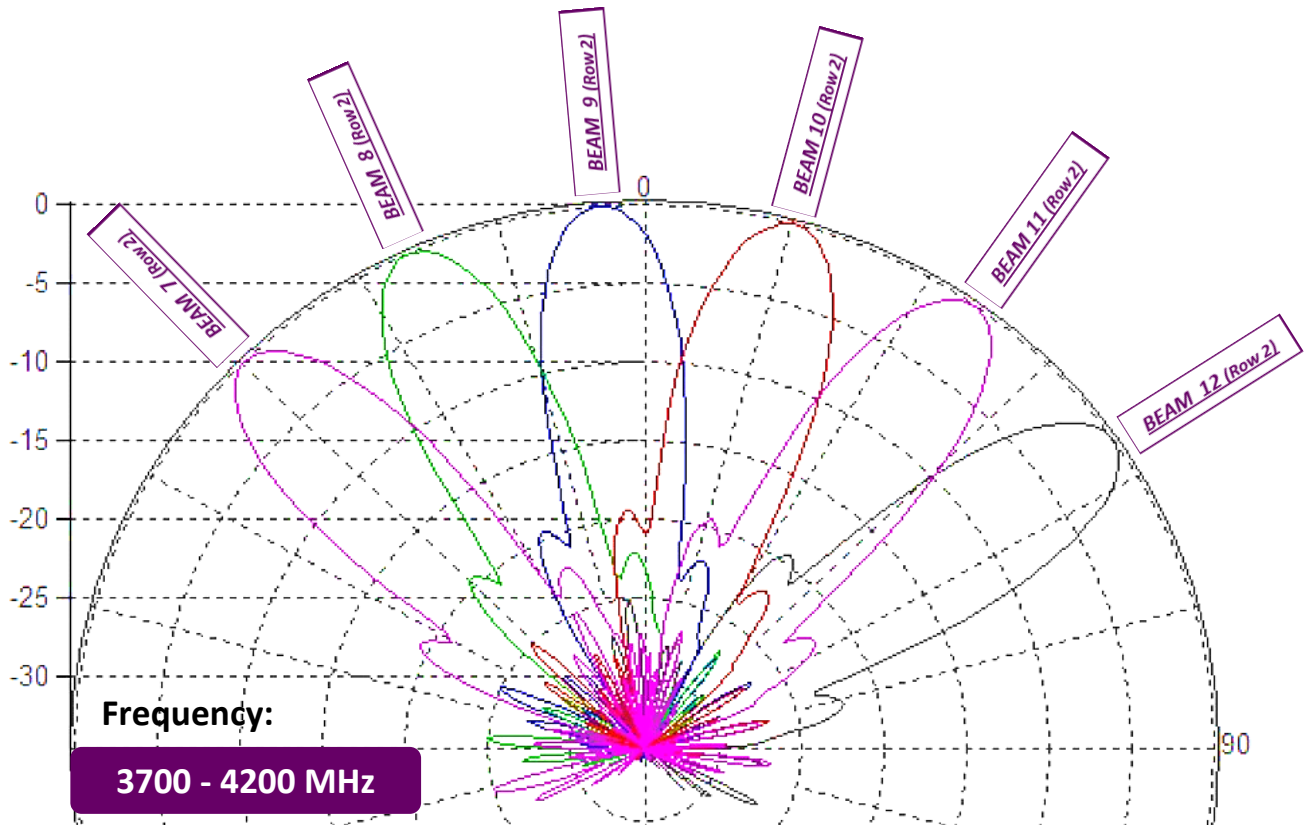
<u>Date</u>	<u>Description</u>	<u>Rev By</u>	<u>Check By</u>	<u>Rev no</u>
29-Aug-2024	Initial Release	RL	Pavel	0

## 1.00 Pattern diagram

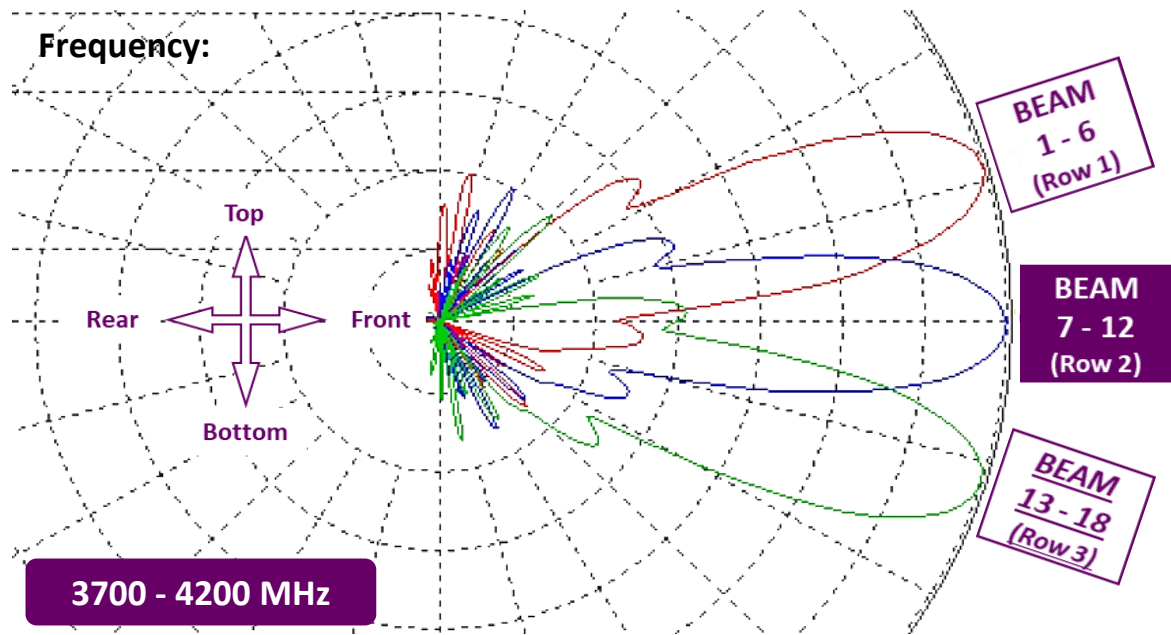
### 1.10 Horizontal pattern (Beam 1-6, Beam 13-18)



### 1.20 Horizontal pattern (Beam 7-12)

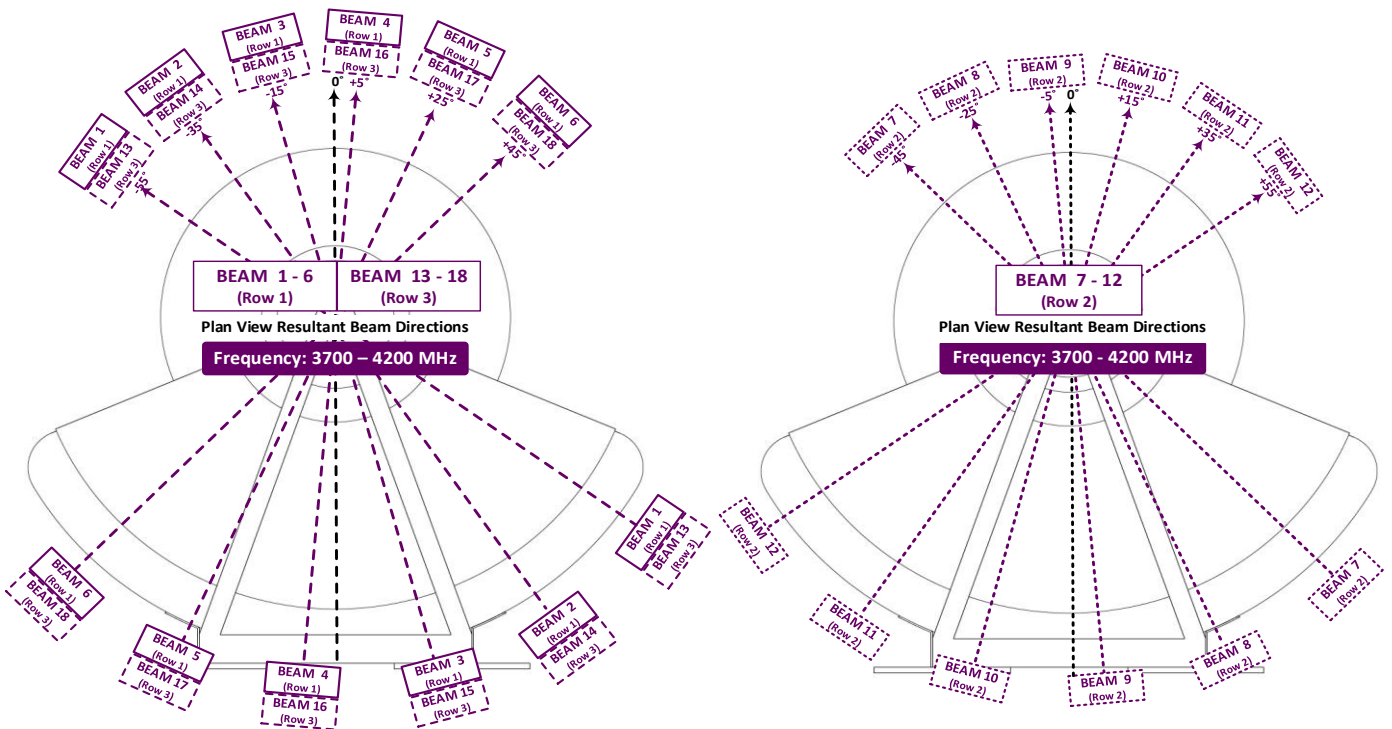


### 1.30 Vertical pattern



## 2.00 Beam & connector

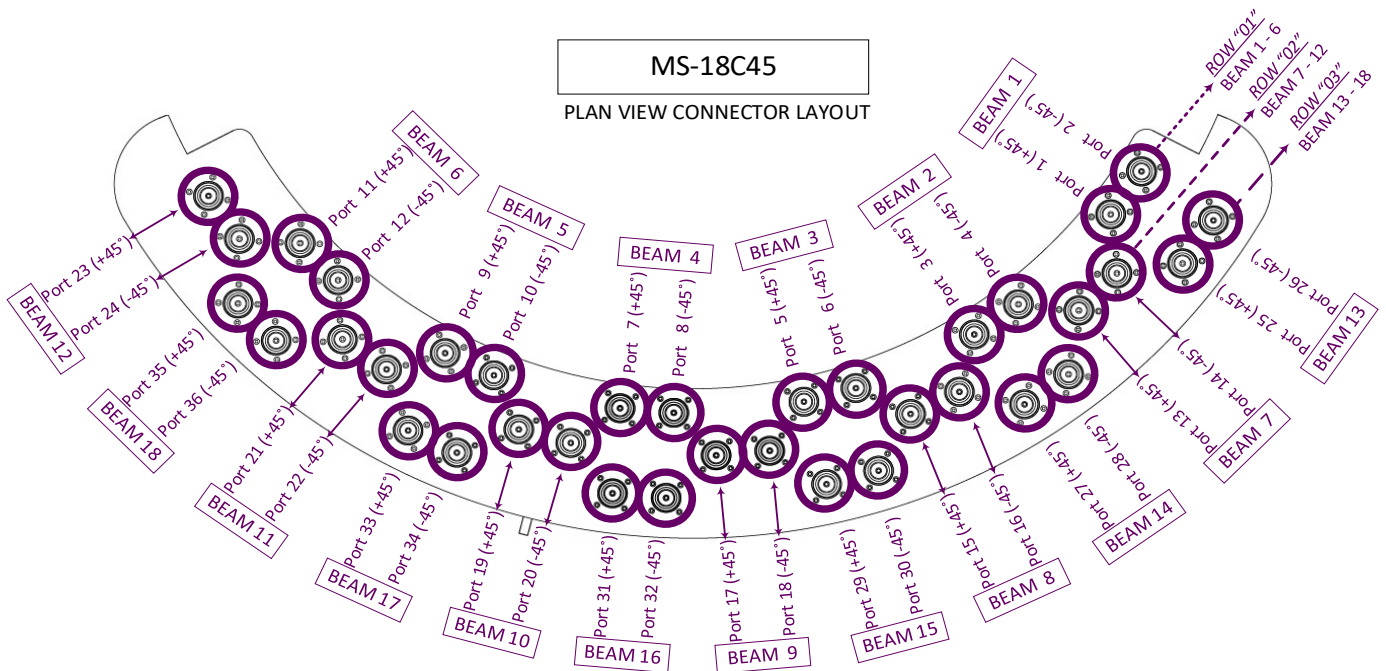
### 2.10 Plan view resultant beam layout



## 2.20 Connector port table

BEAM 6		BEAM 5		BEAM 4		BEAM 3		BEAM 2		BEAM 1		Row 1
Port 11 (+45°)	Port 12 (-45°)	Port 9 (+45°)	Port 10 (-45°)	Port 7 (+45°)	Port 8 (-45°)	Port 5 (+45°)	Port 6 (-45°)	Port 3 (+45°)	Port 4 (-45°)	Port 1 (+45°)	Port 2 (-45°)	
BEAM 12		BEAM 11		BEAM 10		BEAM 9		BEAM 8		BEAM 7		Row 2
Port 23 (+45°)	Port 24 (-45°)	Port 21 (+45°)	Port 22 (-45°)	Port 19 (+45°)	Port 20 (-45°)	Port 17 (+45°)	Port 18 (-45°)	Port 15 (+45°)	Port 16 (-45°)	Port 13 (+45°)	Port 14 (-45°)	
BEAM 18		BEAM 17		BEAM 16		BEAM 15		BEAM 14		BEAM 13		Row 3
Port 35 (+45°)	Port 36 (-45°)	Port 33 (+45°)	Port 34 (-45°)	Port 31 (+45°)	Port 32 (-45°)	Port 29 (+45°)	Port 30 (-45°)	Port 27 (+45°)	Port 28 (-45°)	Port 25 (+45°)	Port 26 (-45°)	

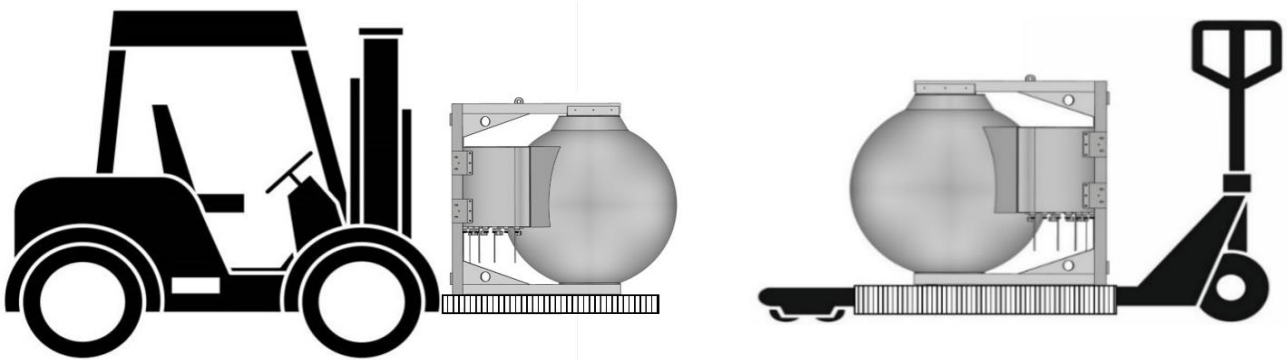
## 2.30 Connector layout



### 3.00 Transportation & installation

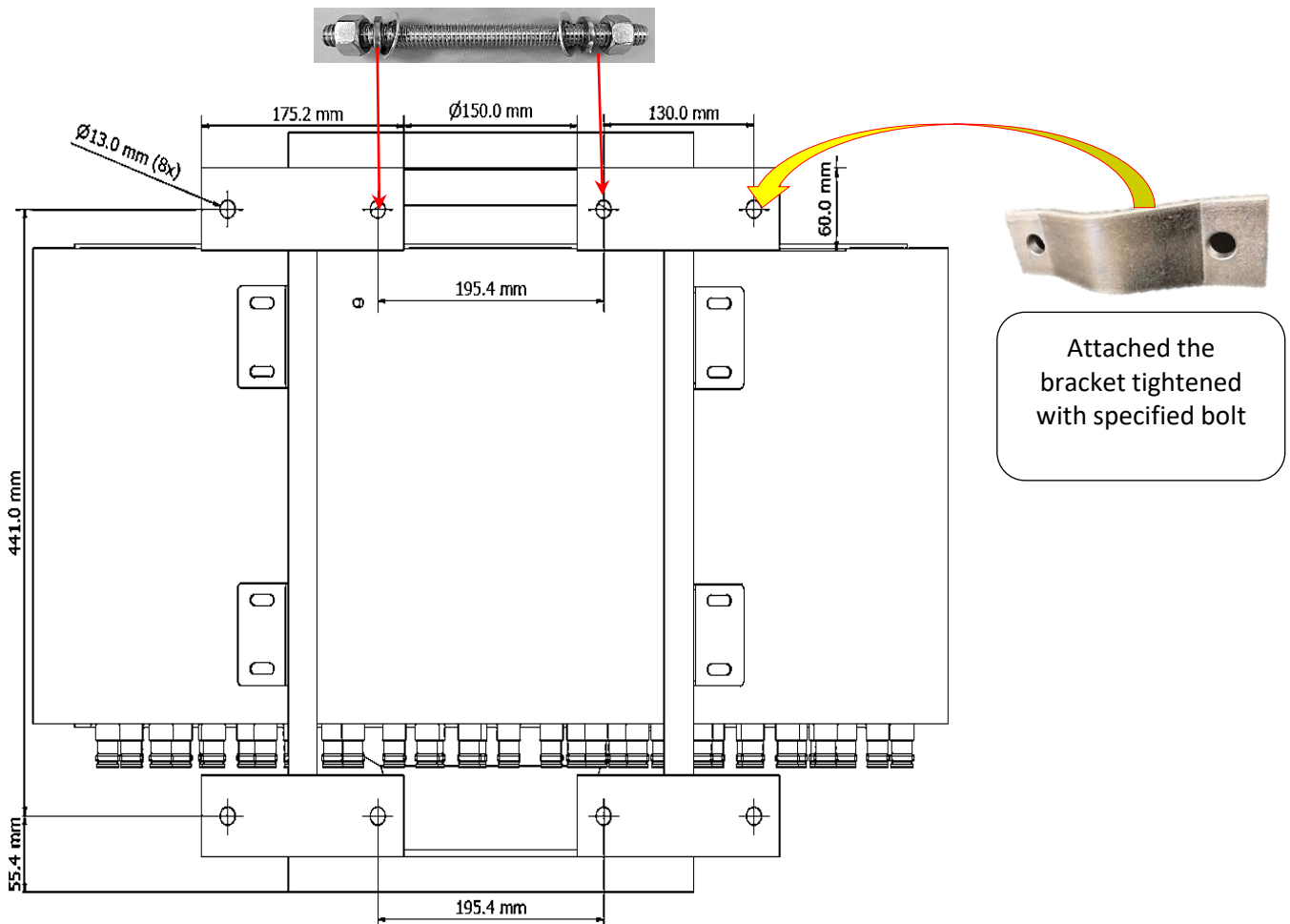
#### 3.10 Transportation (From Point to Point)

Strictly comply with the local authority and regulations on workplace safety and health control and measure when moving and transporting large or heavy equipment; an appropriate material handling machine should be used. **(Risk assessment applies for forklift or pallet truck lifting.)**



#### 3.20 Bracket mounting

Item	Lens Size	Holes Size	Bracket Qty	Bolt & Nuts Sets
1	30 to 120	Ø13mm x 8	4	M12 x 20cm = 8 Sets



#### **Important Notes:**

End User is required to Custom-Make the additional supporting bracket and tighten to the existing antenna bracket to meet the deployment needs.



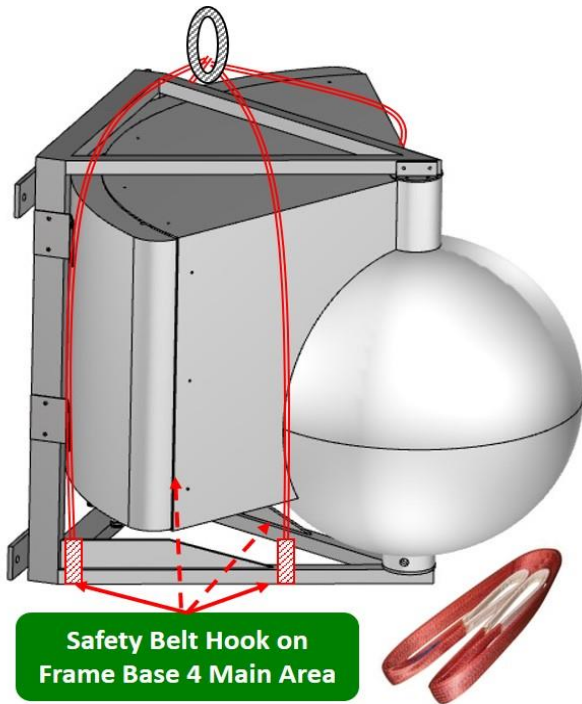
### 3.30 Installation using a crane

Strictly comply with the local authority and regulations on workplace safety, health control, and measures when performing lifting of large or heavy equipment. An appropriate material handling machine should be used, and only certified personnel should perform the task.

**(The risk assessment requirement applies for both up-lifting and down-lifting.)**

### 3.31 Lifting the antenna

The antenna has 2 hook points installed on the top frame (located slightly behind the center of the sphere). These hooks are designed at the center of gravity of the antenna. A cable and rope can be securely fastened to the hooks, and the antenna can be lifted using a crane, as pictured below.

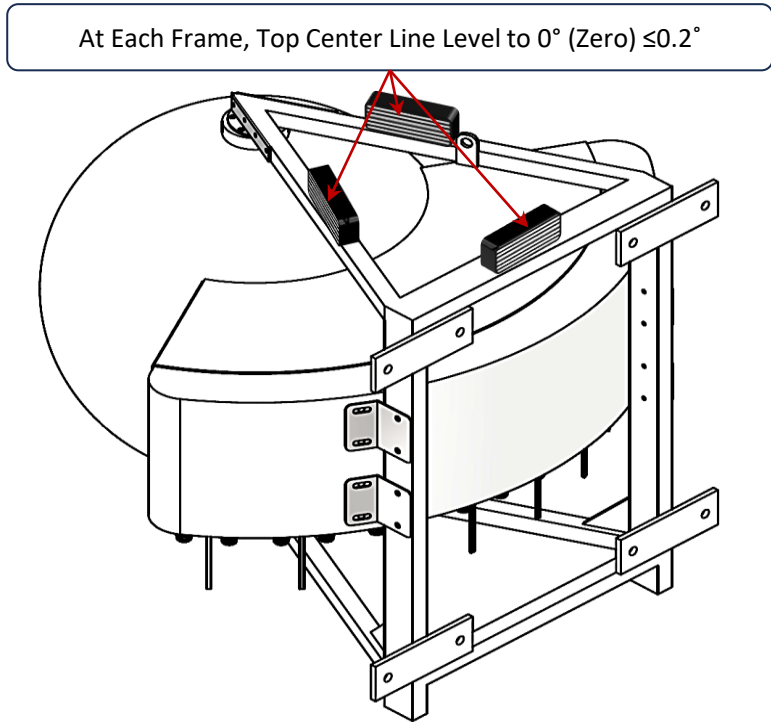


### 3.40 Antenna installation

With reference to the "Bracket Mounting" procedure, the end user is required to custom-make the additional supporting bracket and tighten it to the existing antenna bracket to meet the deployment needs.

### 3.41 Antenna levelling (After installation)

After the Antenna is mounted to the bracket, it is required to be adjusted to 0° (Zero Degree) with  $\leq 0.2^\circ$  on 3 sides of the frame top level. (Rear, Right, & Left=As shown in picture)



### 3.42 Digital Level Gauge Calibration

Calibrate to ZERO Level



### 3.43 Adjustment Requirement

Level with  $\leq 0.2^\circ$  = ACCEPTED



ANTENNA LEVELING ACCEPTED

Level with  $\geq 0.3^\circ$  = NEED ADJUST



REQUIRE ADJUSTMENT