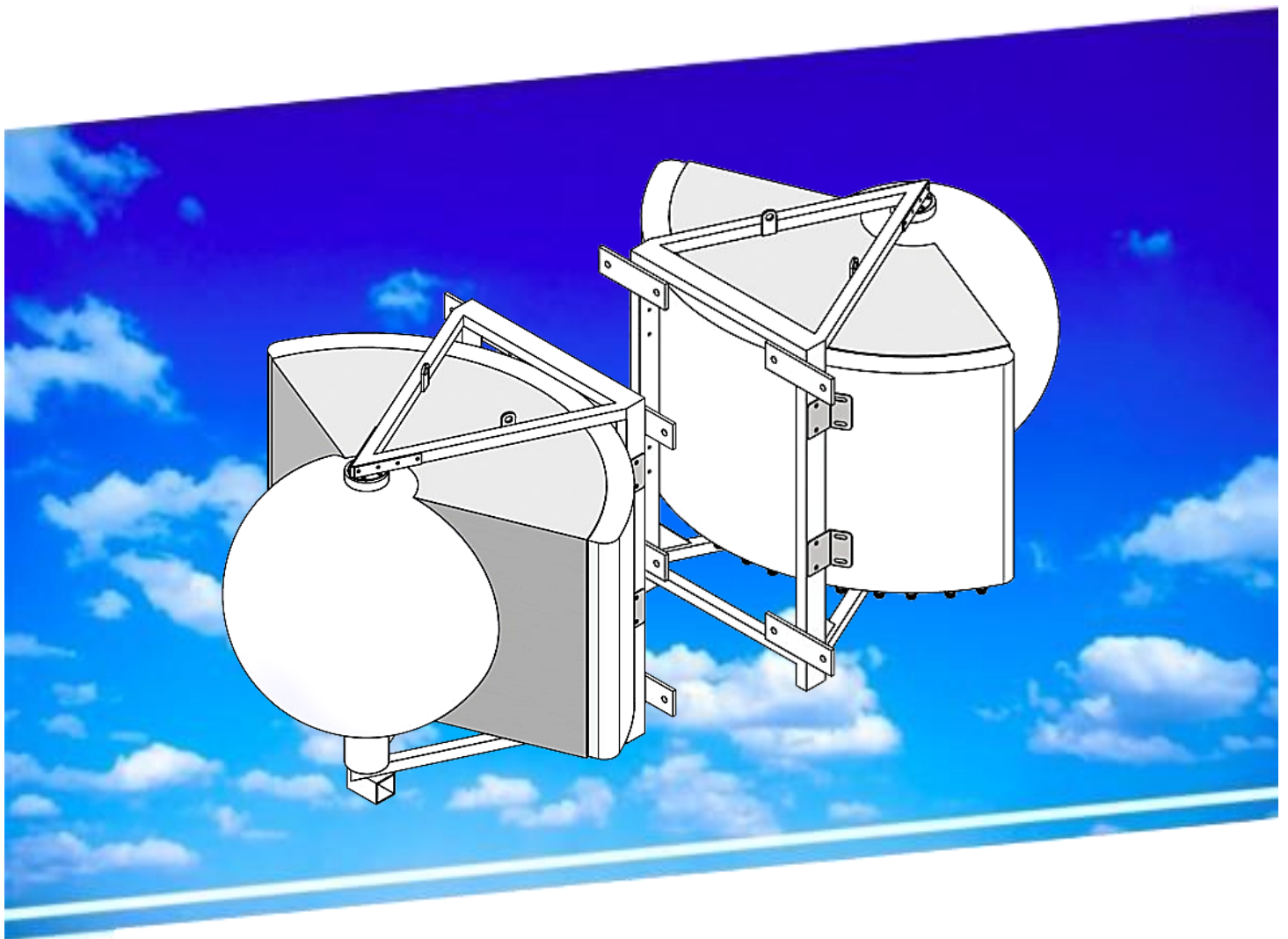


# MATSING<sup>®</sup>

LENS TECHNOLOGY ENABLED

## MS-8H60

Instruction Manual



[www.matsing.com](http://www.matsing.com)    [technicalsupport@matsing.com](mailto:technicalsupport@matsing.com)    phone: (800) 867-6429

**LTE**<sup>®</sup>  
LENS TECHNOLOGY  
ENABLED

# Table of Contents

## 1.00 Pattern diagram

- 1.10 Horizontal pattern (Top Row)
- 1.20 Horizontal pattern (Bottom Row)
- 1.30 Vertical pattern

## 2.00 Beams and connectors

- 2.10 Plan view resultants beam direction
  - 2.11 Top row
  - 2.12 Bottom row
- 2.20 Connector port table
- 2.30 Connector layout

## 3.00 Transportation and installation

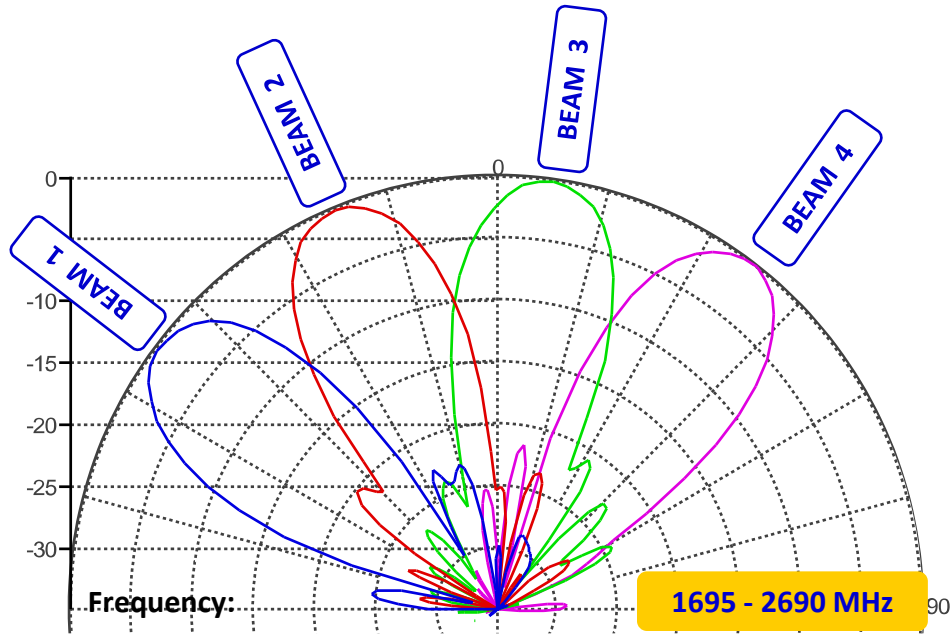
- 3.10 Transportation (From point to point)
- 3.20 Bracket mounting
- 3.30 Installation using a crane
  - 3.31 Lifting the antenna
- 3.40 Antenna Installation
  - 3.41 Antenna Levelling (After Installation)
  - 3.42 Digital level gauge calibration
  - 3.43 Adjustment requirement

### Revision History:

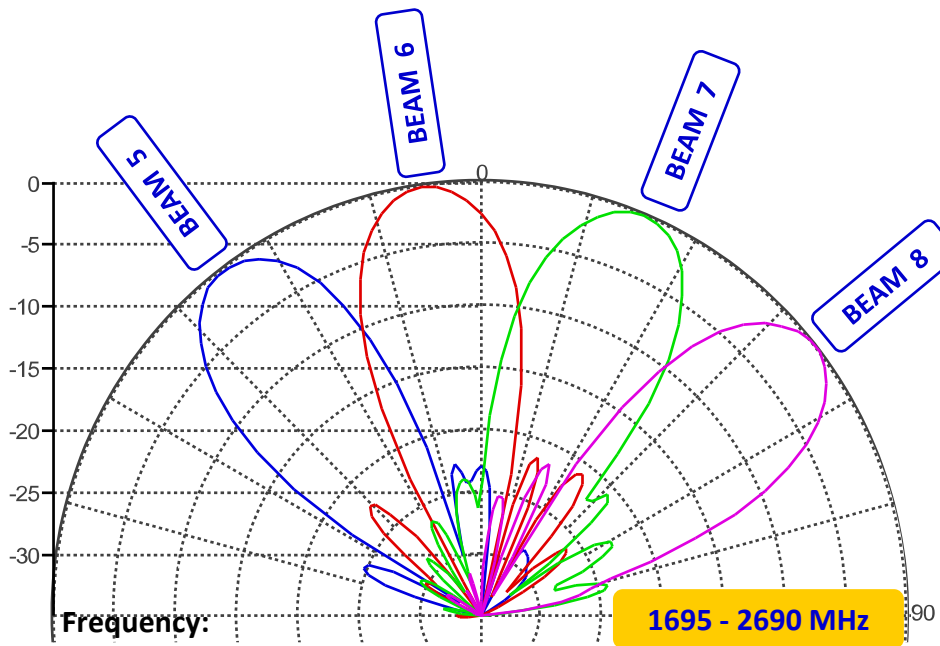
<u>Date</u>	<u>Description</u>	<u>Rev By</u>	<u>Check By</u>	<u>Rev no</u>
11-Jun-2021	Initial Release	RL	Pavel	0
24-Sep-2021	General update	RL	Pavel	1
16-May-2025	New cover page	RL	Pavel	2

# 1.00 Pattern diagram

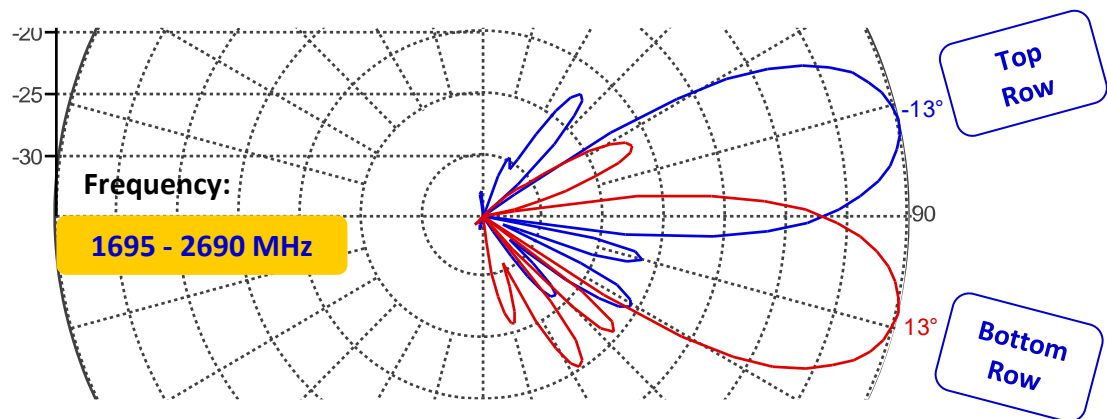
## 1.10 Horizontal pattern (Top Row)



## 1.20 Horizontal pattern (Bottom Row)



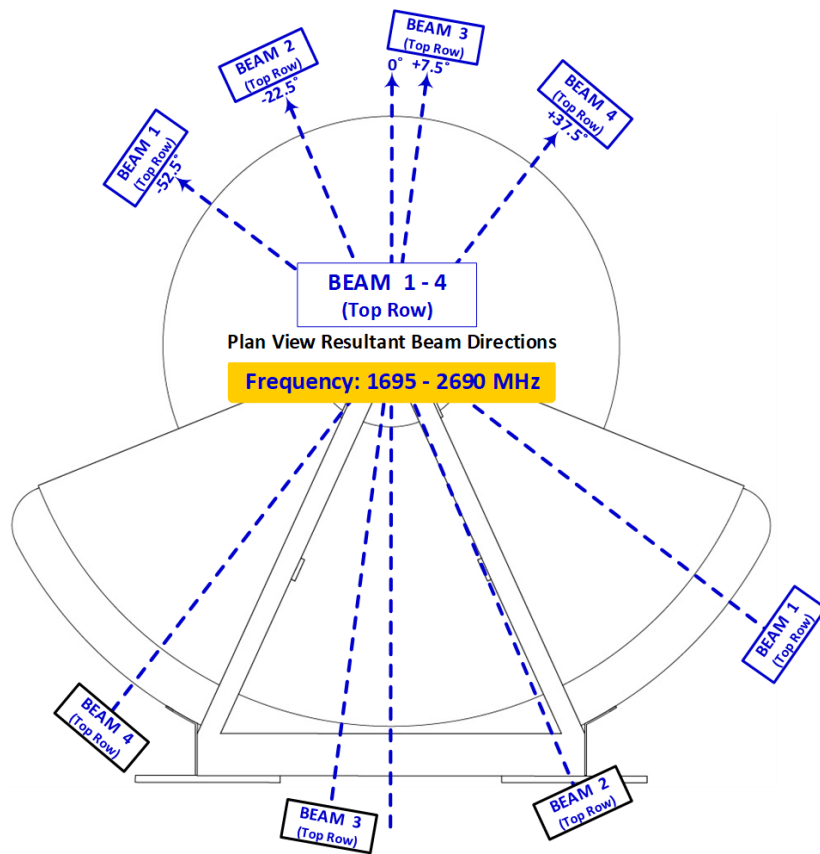
## 1.30 Vertical pattern



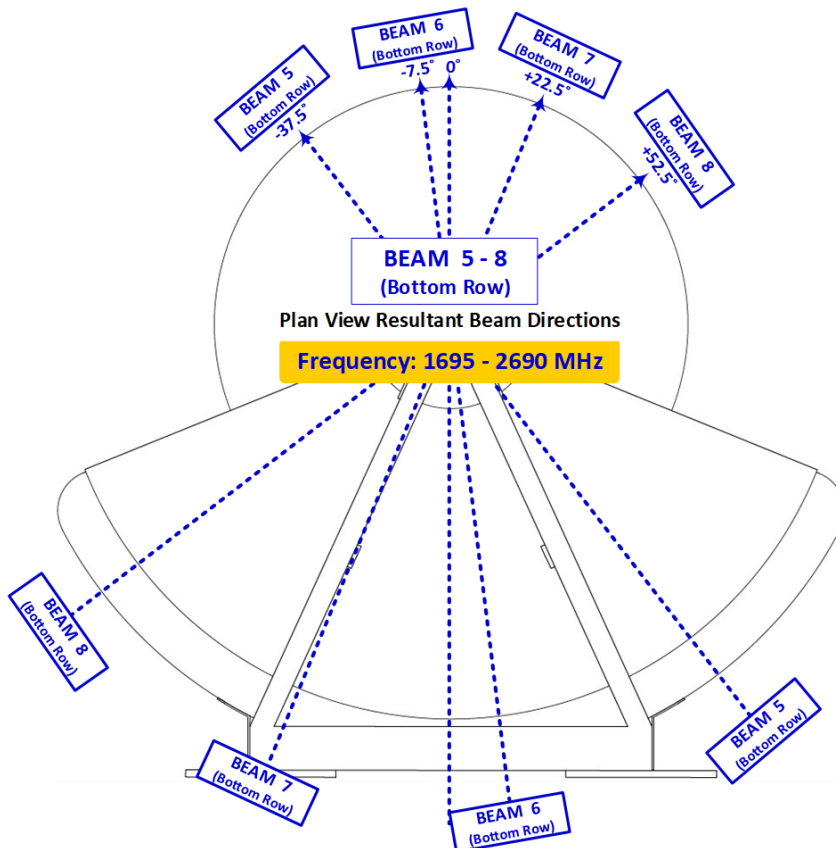
## 2.00 Beams and connectors

### 2.10 Plan view resultants beam direction

#### 2.11 Top row



#### 2.12 Bottom row



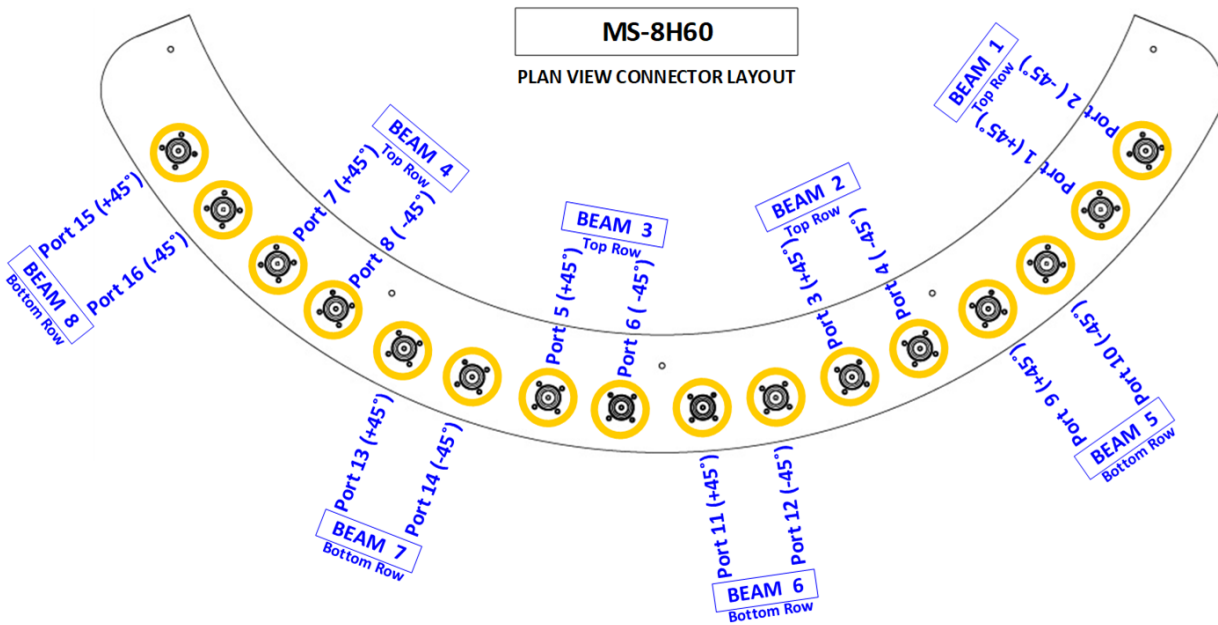
2.20 Connector port table

TOP ROW							
BEAM 4		BEAM 3		BEAM 2		BEAM 1	
Port 7 (+45°)	Port 8 (-45°)	Port 5 (+45°)	Port 6 (-45°)	Port 3 (+45°)	Port 4 (-45°)	Port 1 (+45°)	Port 2 (-45°)

BOTTOM ROW							
BEAM 8		BEAM 7		BEAM 6		BEAM 5	
Port 15 (+45°)	Port 16 (-45°)	Port 13 (+45°)	Port 14 (-45°)	Port 11 (+45°)	Port 12 (-45°)	Port 9 (+45°)	Port 10 (-45°)

2.30 Connector layout

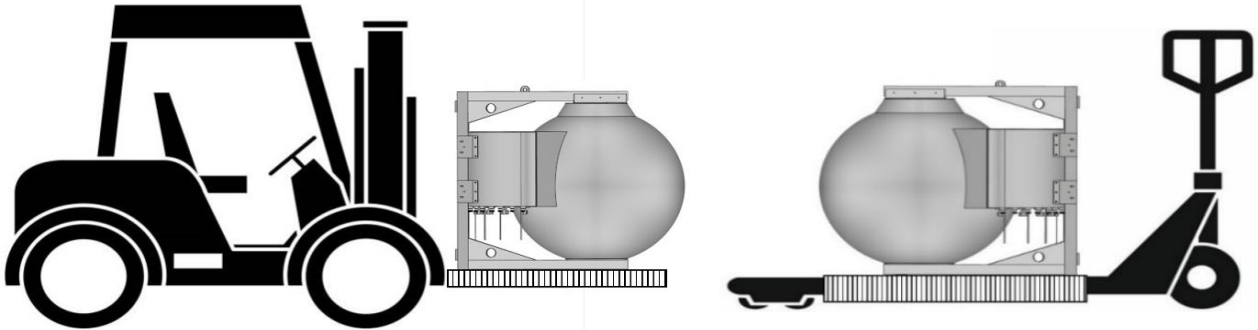


### 3.00 Transportation and installation

#### 3.10 Transportation (From point to point)

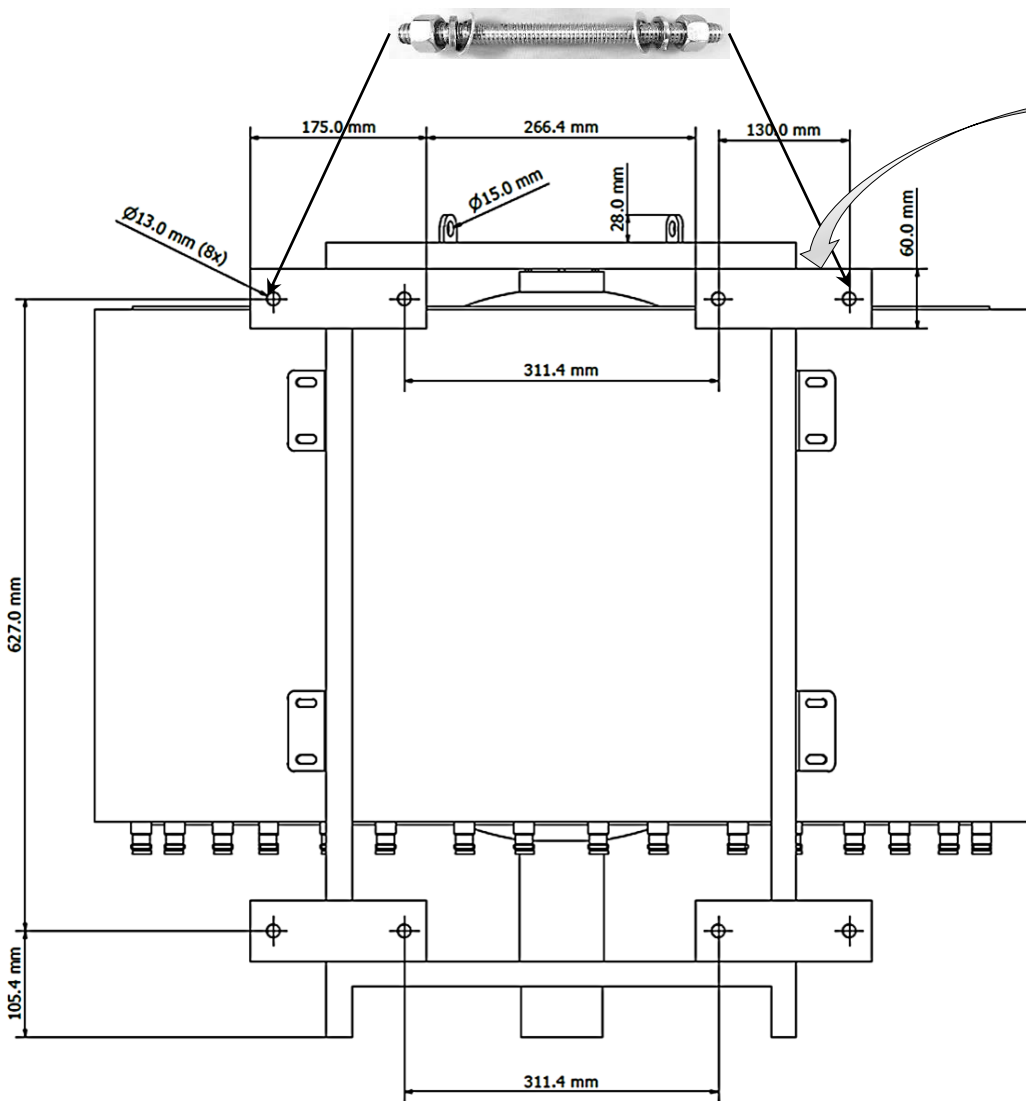
Strictly comply with the local authority and regulations on workplace safety and health control and measure when moving and transporting large or heavy equipment; an appropriate material handling machine should be used.

**(Risk Assessment apply 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



Attached the bracket tighten with specified bolts sets.

**Important Notes:**  
End User is require to Custom-Make the additional supporting bracket and tighten to the existing Antenna bracket to meet the deployment needs.

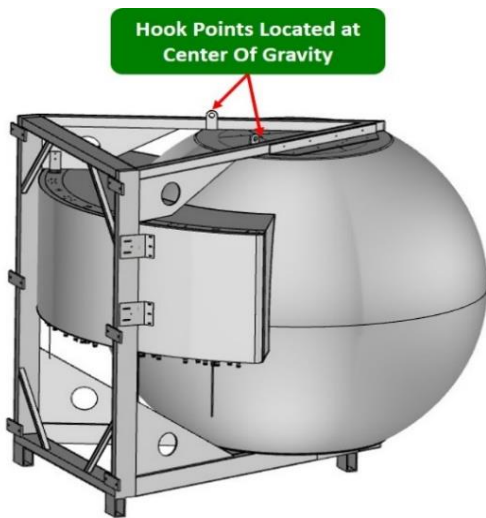
### 3.30 Installation using a crane

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 uplifting 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.

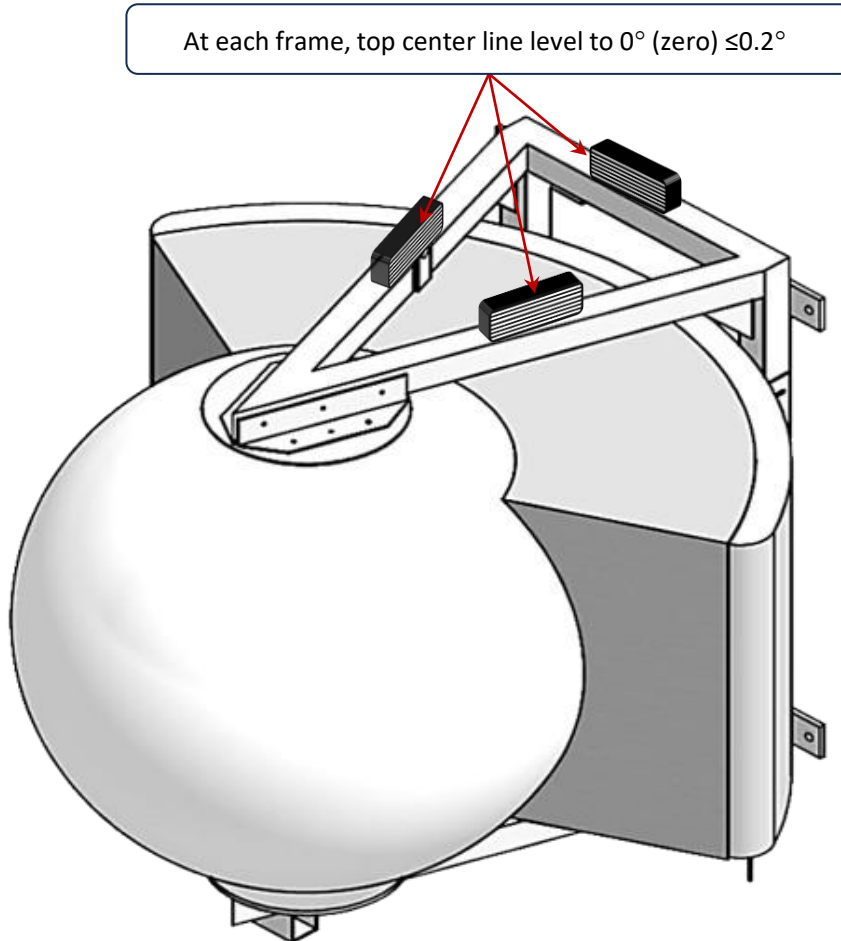


### 3.40 Antenna Installation

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, and 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

