

Date	Prepared by	Approved by	Document nos	Rev
19 Jan 2022	Ray Ling	Pavel	MBA-442-F4H2L2-001	2

**INSTRUCTION MANUAL MS-MBA-4.4.2-F4-H2-L2**

**TABLE OF CONTENTS:**

**1.00 BEAMS & CONNECTORS:**

- 1.10 Plan View Resultant Beam Layout
- 1.20 Connector Ports Table
- 1.30 Connector Detail
- 1.40 Connector Layout

**2.00 PATTERN DIAGRAM**

- 2.10 Frequency: 3300 - 4200 MHz
- 2.11 Horizontal Pattern
- 2.12 Vertical Pattern
- 2.20 Frequency: 1695 - 2690 MHz
- 2.21 Horizontal Pattern
- 2.22 Vertical Pattern
- 2.30 Frequency: 698 - 960 MHz
- 2.31 Horizontal Pattern
- 2.32 Vertical Pattern

**3.00 MANUAL TILT ADJUSTMENT**

**4.00 BRACKET INSTALLATION**

- 4.10 Bolts & Nuts Requirements
- 4.11 Bolts & Nuts
- 4.12 Bracket
- 4.20 Tools Requirement
- 4.21 Adjustable Spanner
- 4.22 M12 Spanner
- 4.30 Bracket Spacing & Installation Sample
- 4.40 Installation Complete, Remove Protective Foam

**5.00 GENERAL LIFTING GUIDE**

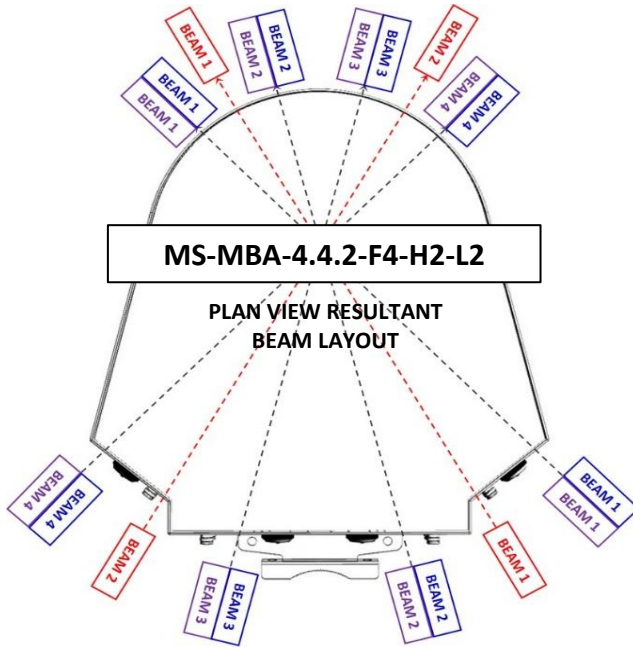
- 5.10 Lifting Belts & Shackle (Item not included in shipping)**
- 5.11 Lifting Belts
- 5.12 Shackle
- 5.20 Single Belt Sample
- 5.30 Dual Belts Sample
- 5.40 Example of Slanting installation

**Revision History:**

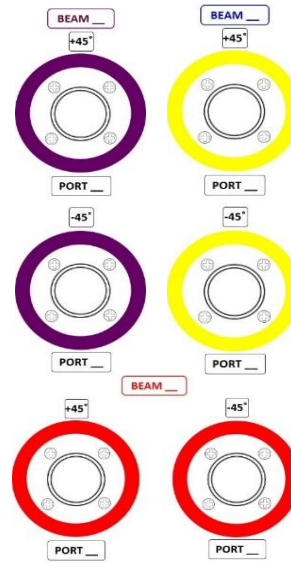
Date	Description	Revised by	Revision nos.
28-Oct-21	To include removable protective foam for Radome and antenna lifting and installation guide.	Ray Ling	1
19-Jan-22	Add RET Handle Caution Sticker	Ray Ling	2

# 1.00 BEAMS & CONNECTORS:

## 1.10 Plan View Resultant Beam Layout



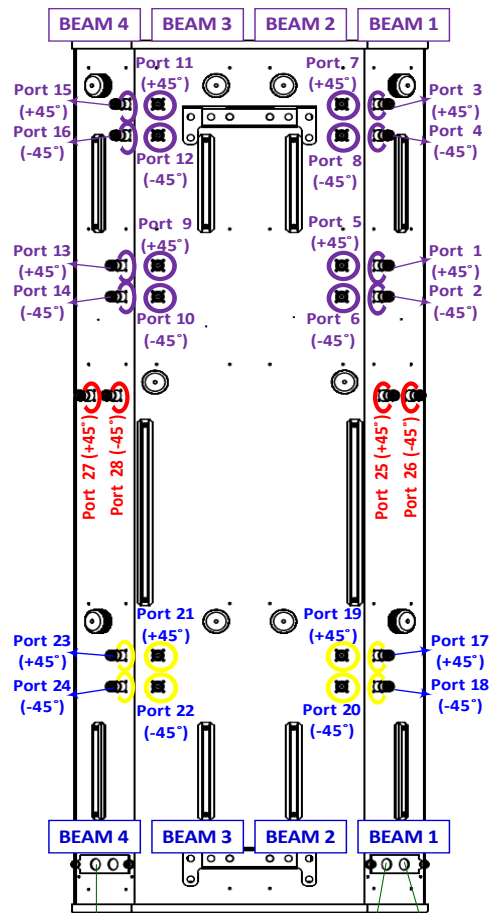
## 1.30 Connector Detail



## 1.40 Connector Layout

### MS-MBA-4.4.2-F4-H2-L2

#### REAR VIEW CONNECTOR LAYOUT



## 1.20 Connector Ports Table

MS-MBA-4.4.2-F4-H2-L2			
Connector Table			
BEAM 4	BEAM 3	BEAM 2	BEAM 1
Port 15 (+45°)	Port 11 (+45°)	Port 7 (+45°)	Port 3 (+45°)
Port 16 (-45°)	Port 12 (-45°)	Port 8 (-45°)	Port 4 (-45°)
Port 13 (+45°)	Port 9 (+45°)	Port 5 (+45°)	Port 1 (+45°)
Port 14 (-45°)	Port 10 (-45°)	Port 6 (-45°)	Port 2 (-45°)
<b>BEAM 2</b>		<b>BEAM 1</b>	
Port 27 (+45°)		Port 25 (+45°)	
Port 28 (-45°)		Port 26 (-45°)	
BEAM 4	BEAM 3	BEAM 2	BEAM 1
Port 23 (+45°)	Port 21 (+45°)	Port 19 (+45°)	Port 17 (+45°)
Port 24 (-45°)	Port 22 (-45°)	Port 20 (-45°)	Port 18 (-45°)

**AISG IN**  
FB Beams:  
 1,2,3,4  
 FB Ports:  
 1 to 16

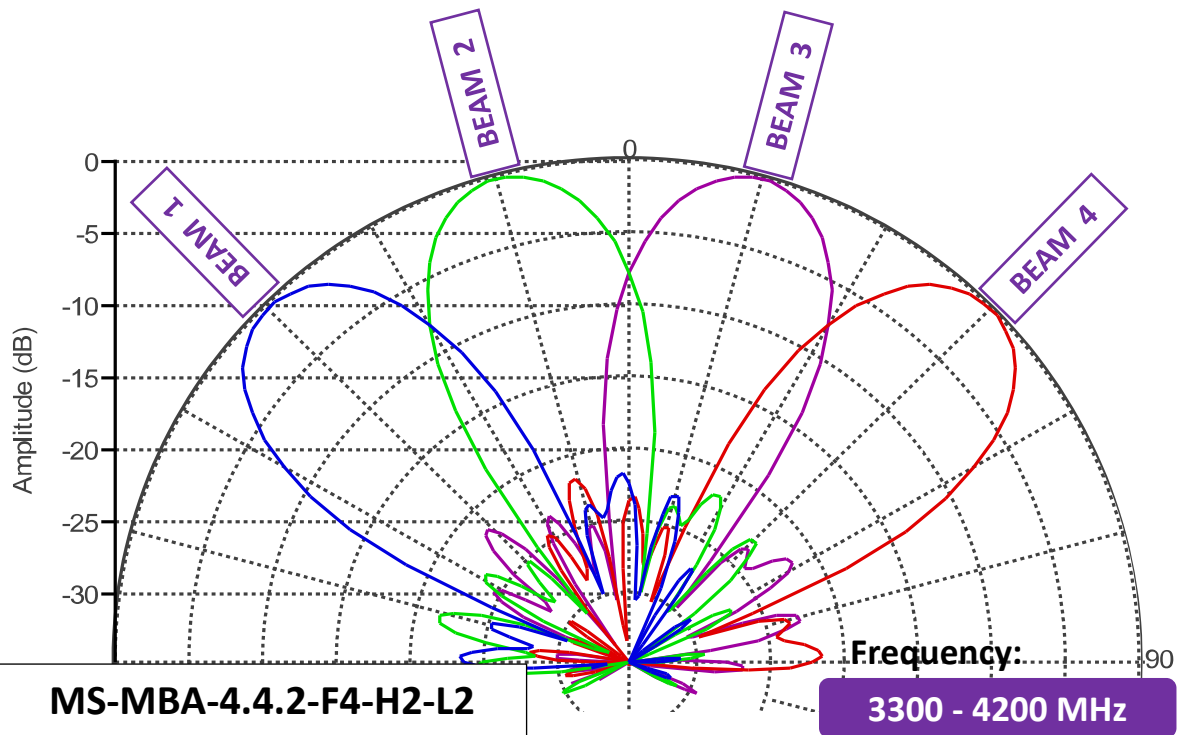
**AISG IN-1**  
HB Beams:  
 1,2,3,4  
 HB Ports:  
 17 to 24

**AISG IN-2**  
LB Beams:  
 1 & 2  
 LB Ports:  
 25 to 28

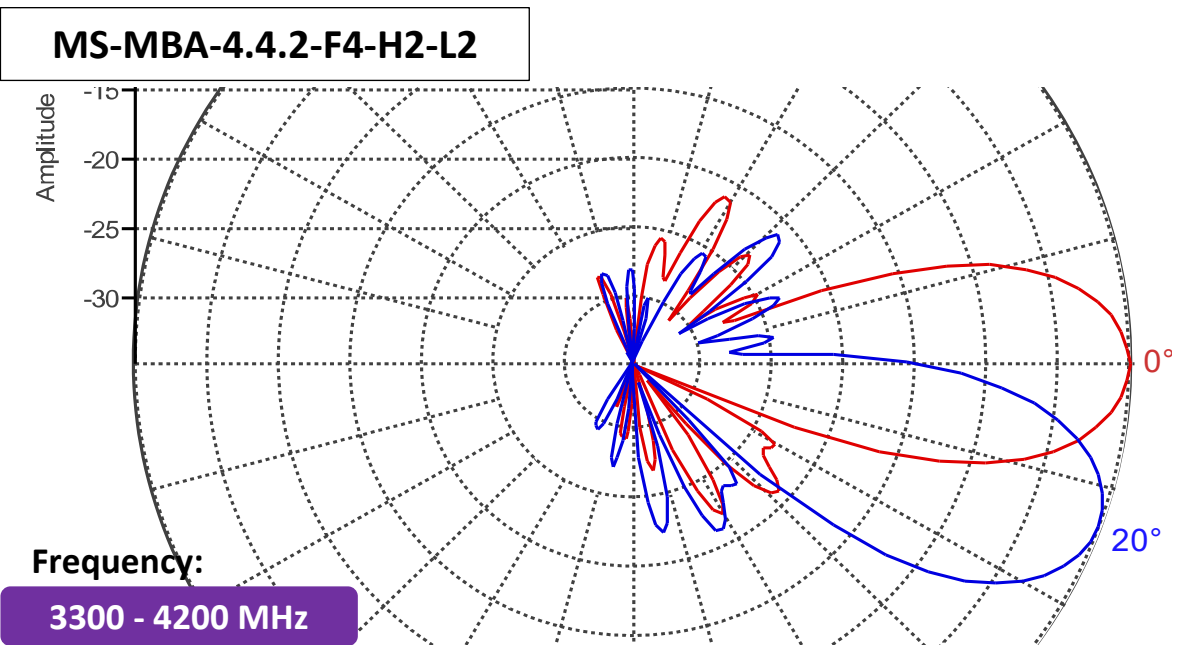
## 2.00 PATTERN DIAGRAM

2.10 Frequency: 3300 - 4200 MHz

2.11 Horizontal Pattern

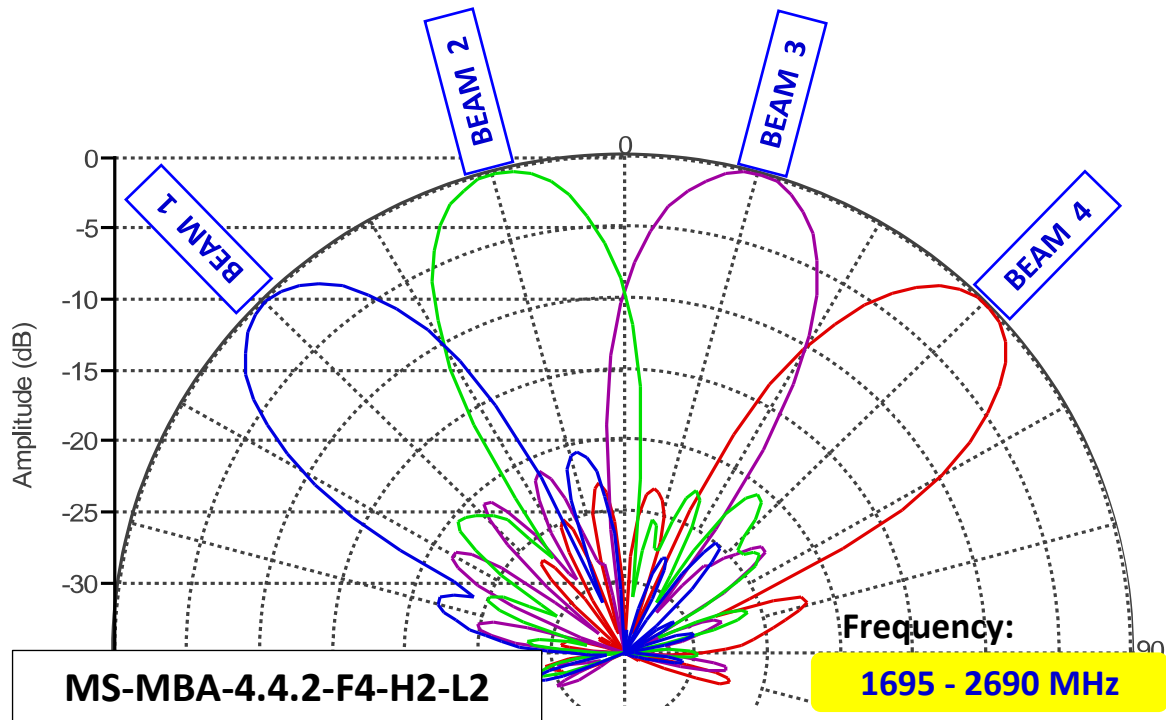


2.12 Vertical Pattern

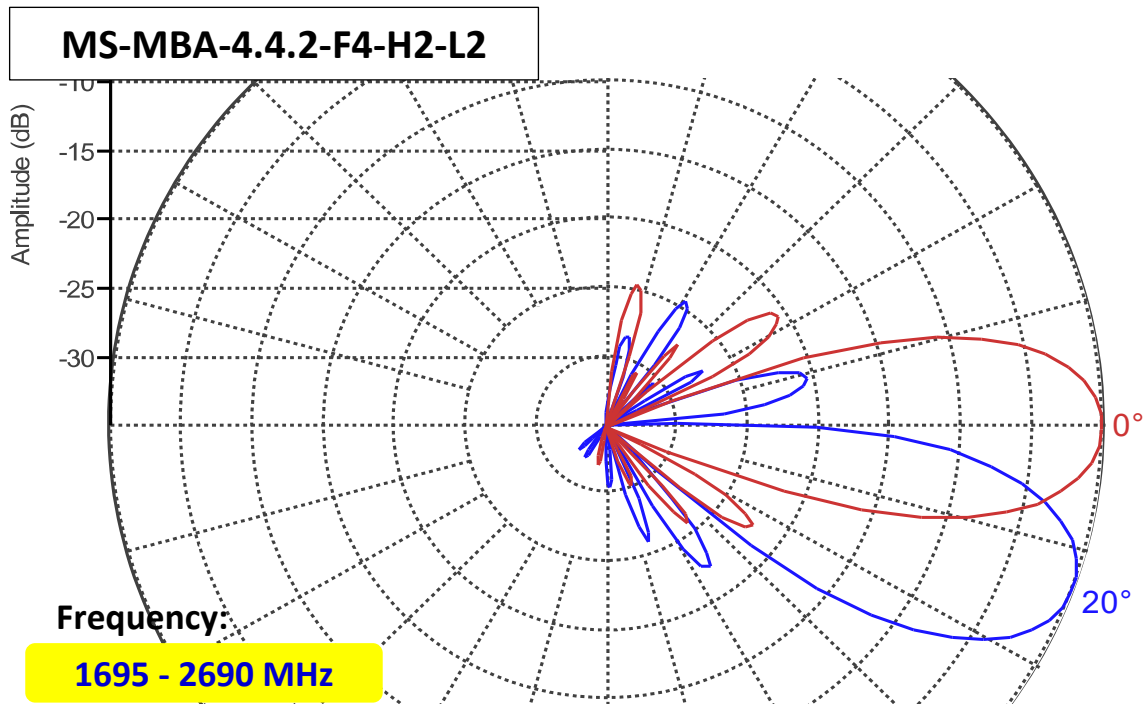


2.20 Frequency: 1695 - 2690 MHz

2.21 Horizontal Pattern

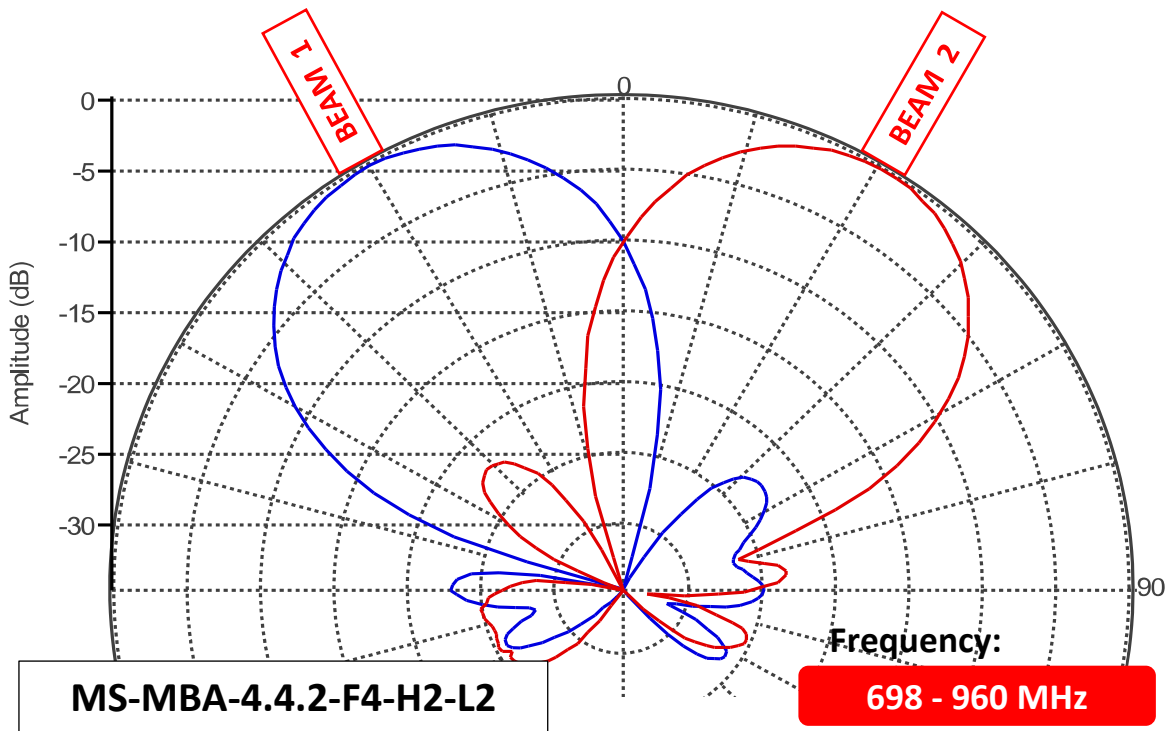


2.22 Vertical Pattern

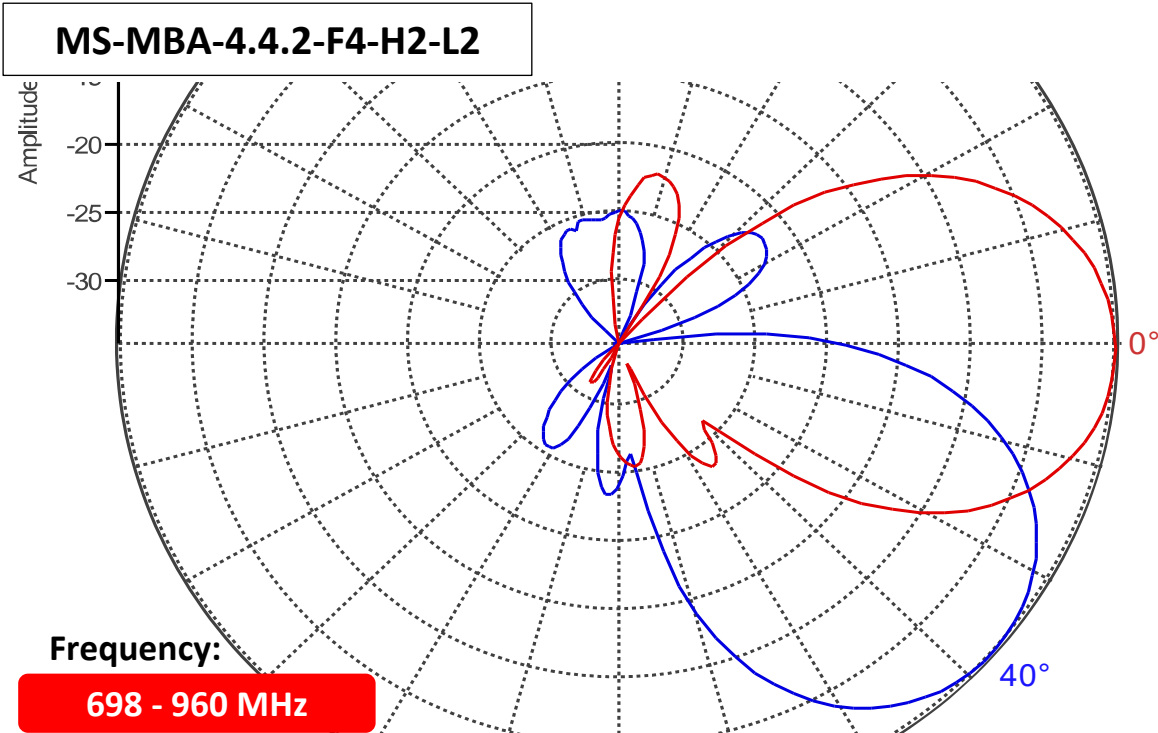


2.30 Frequency: 698 - 960 MHz

2.31 Horizontal Pattern

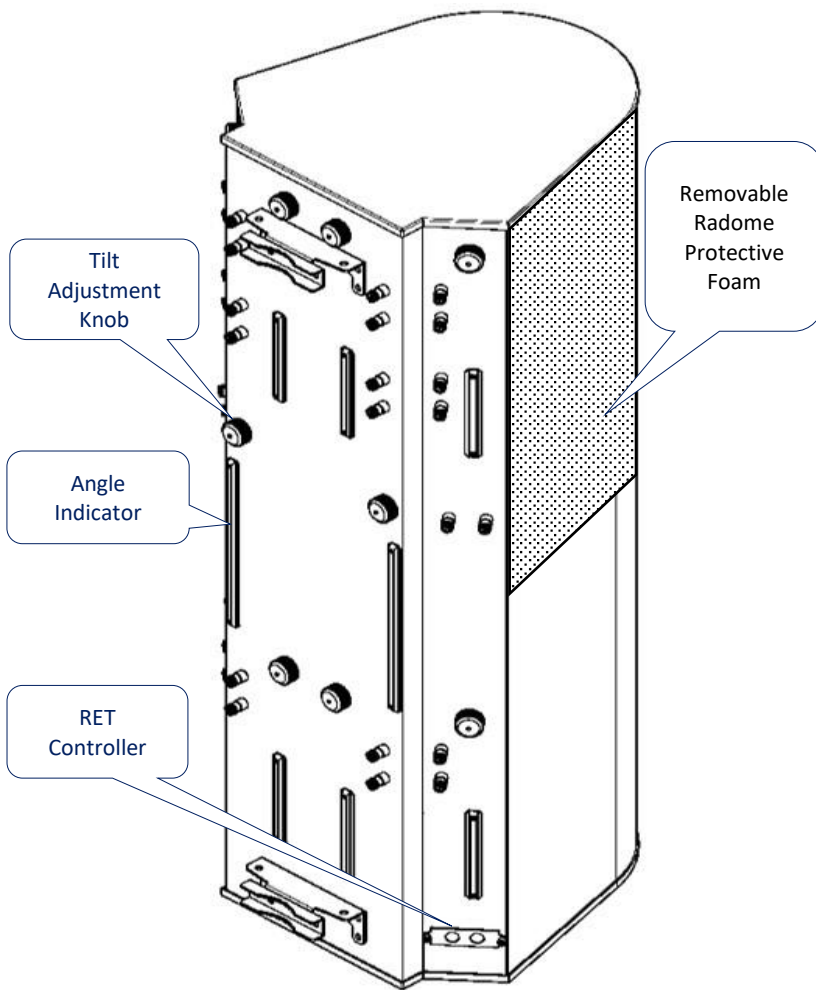


2.32 Vertical Pattern



### 3.00 MANUAL TILT ADJUSTMENT

1	The MBA antenna come in RET mode as default, but if needed can also be manually adjusted. To do so, please unscrew the waterproof cap behind the element whose tilt is to be adjusted.
2	By Default the knob is on engaged mode, pull out the handle for manual tilt adjustment, turn the handle to change the tilt.
3	When done, push the handle back in, screw the waterproof cap back to the position.



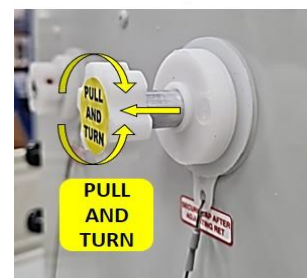
Unscrew/Screw the cap for tilt adjustment process



Engaged with internal RET motor position



Pull handle out to disengaged RET for tilt adjustment

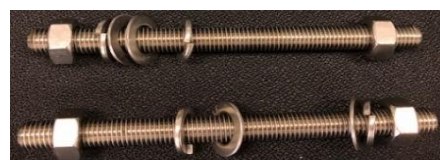


### 4.00 BRACKET INSTALLATION

#### 4.10 Bolts & Nuts Requirements

Bracket Qty	Bolts		Nuts	
	Size	Qty	Size	Qty
2	M12 x 200mm	4	M12	10

#### 4.11 Bolts & Nuts



#### 4.12 Bracket





#### 4.20 Tools Requirement

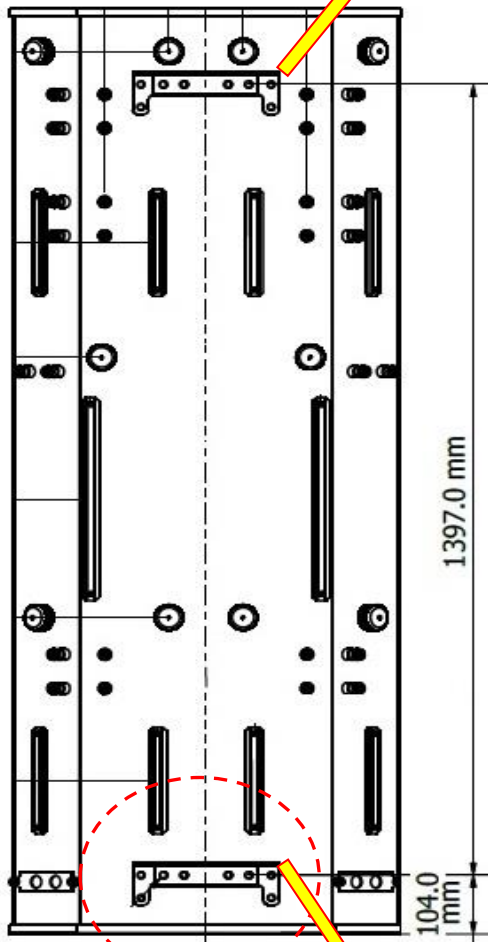
##### 4.21 Adjustable Spanner



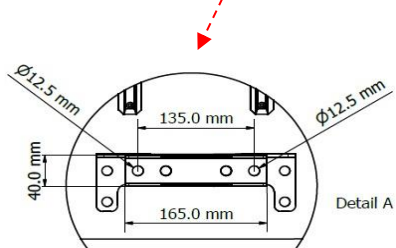
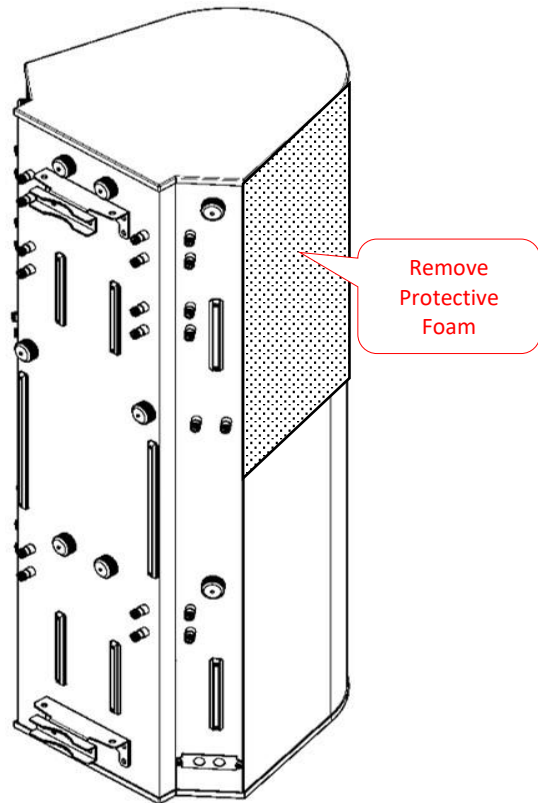
##### 4.22 M12 Spanner



#### 4.30 Bracket Spacing & Installation Sample



#### 4.40 Installation Complete, Remove Protective Foam



## 5.00 GENERAL LIFTING GUIDE

### 5.10 Lifting Belts & Shackle (Item not included in shipping)

#### 5.11 Lifting Belts



#### 5.12 Shackle



#### 5.20 Single Belt Sample



#### 5.30 Dual Belts Sample



#### 5.40 Example of Slanting installation

