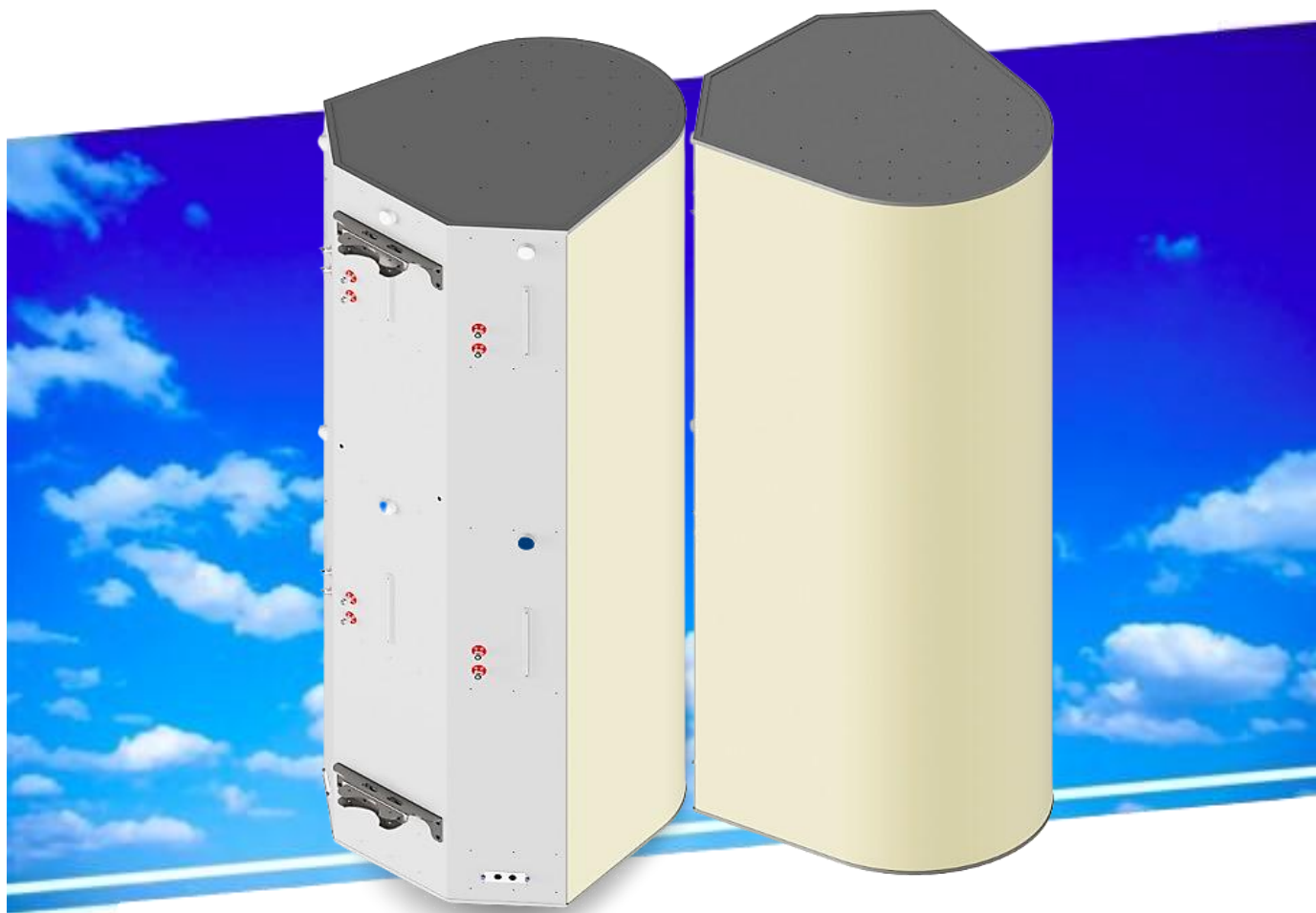


# **MATSING**<sup>®</sup>

LENS TECHNOLOGY ENABLED

## **MS-MBA-3-L4A2**

Instruction Manual



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



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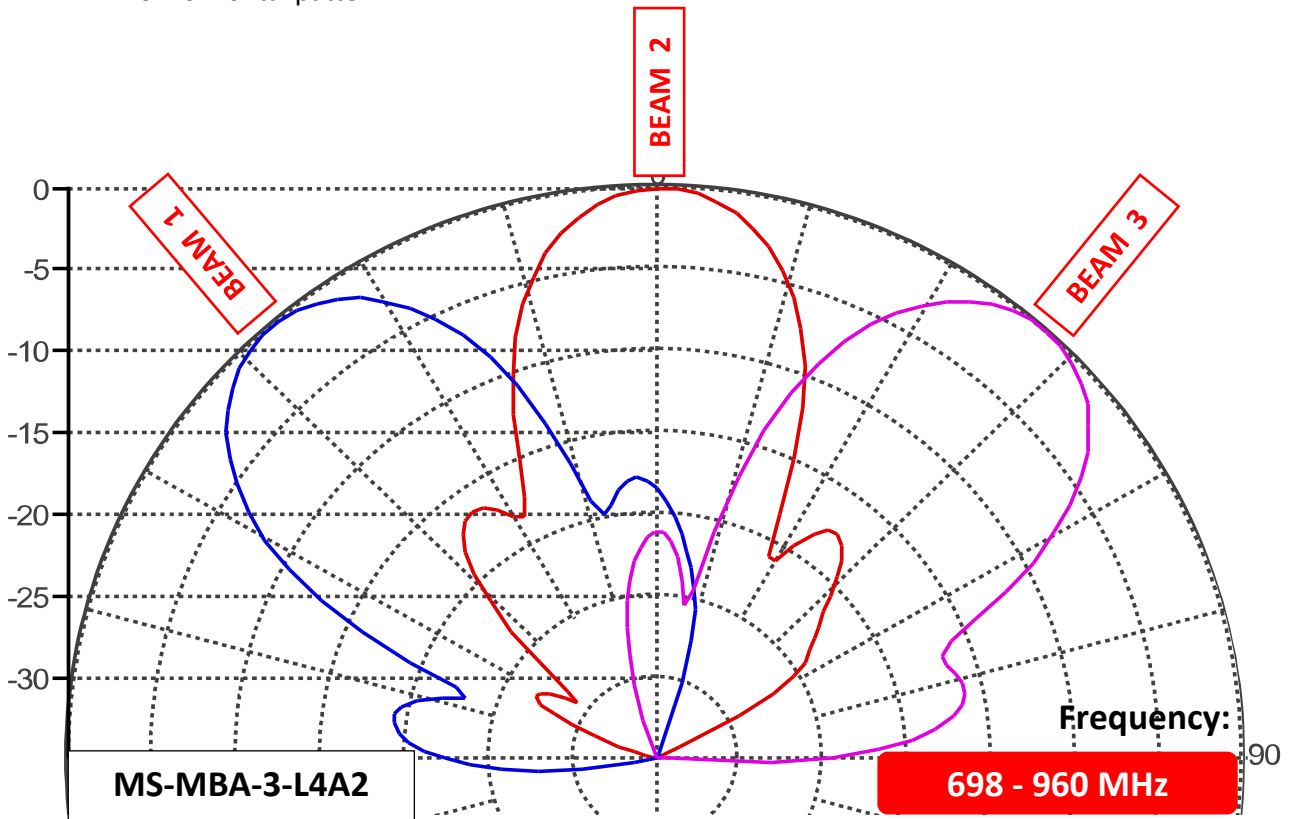
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### Revision History:

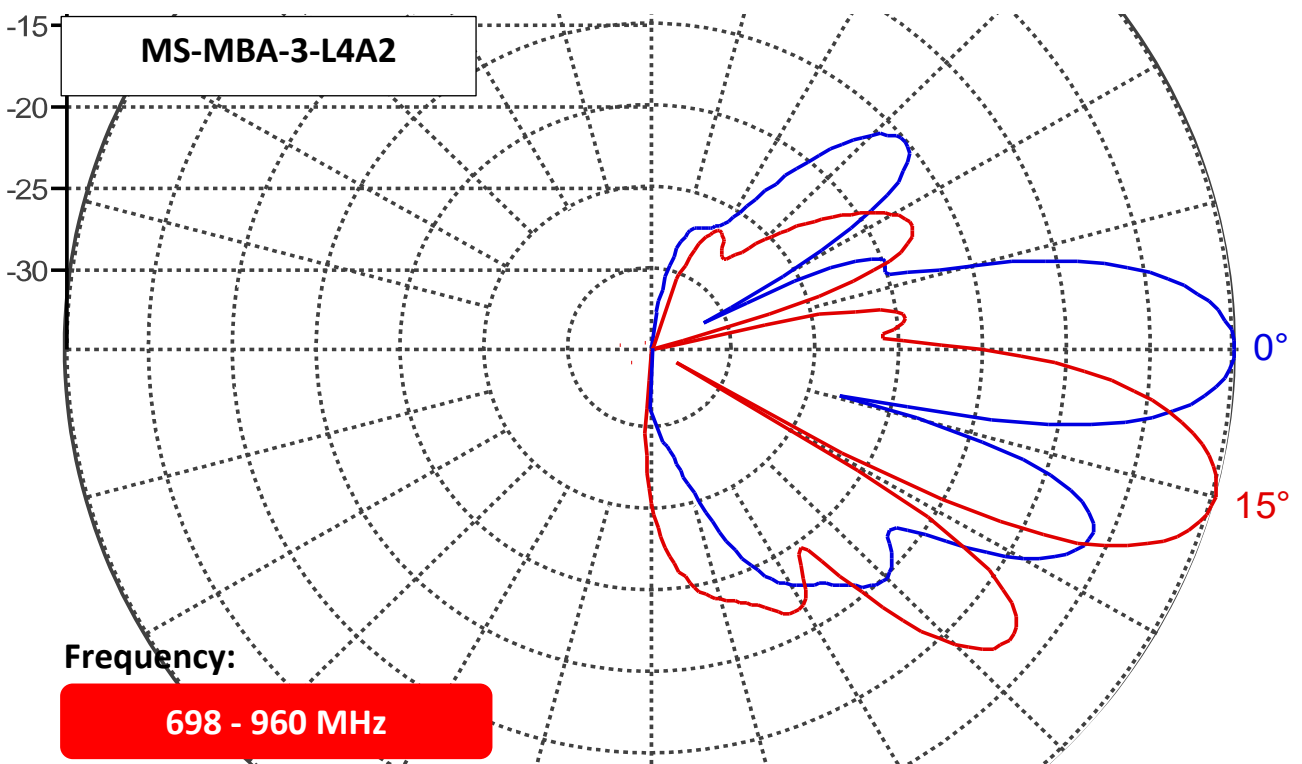
<u>Date</u>	<u>Description</u>	<u>Rev By</u>	<u>Check By</u>	<u>Rev no</u>
01-Jun-2023	Initial Release	RL	Pavel	0
27-Jul-2023	Revised LB Frequency From 698-960 MHz to 698-896MHz	RL	Pavel	1
16-Nov-2002	General Update	RL	Pavel	2
02-Feb-2024	To Include RET Operations / Information	RL	Pavel	3
03-Jul-2024	Revised Dual RET Controller Information Starting From S/N 24	RL	Pavel	4
16-Jul-2024	Include 2 Version of Installed RET Controller Information	RL	Pavel	5
25-May-2026	Revised Production Sticker s/nos to 4digits	BK/RL	Pavel	6

# 1.00 Pattern diagram

## 1.10 Horizontal pattern

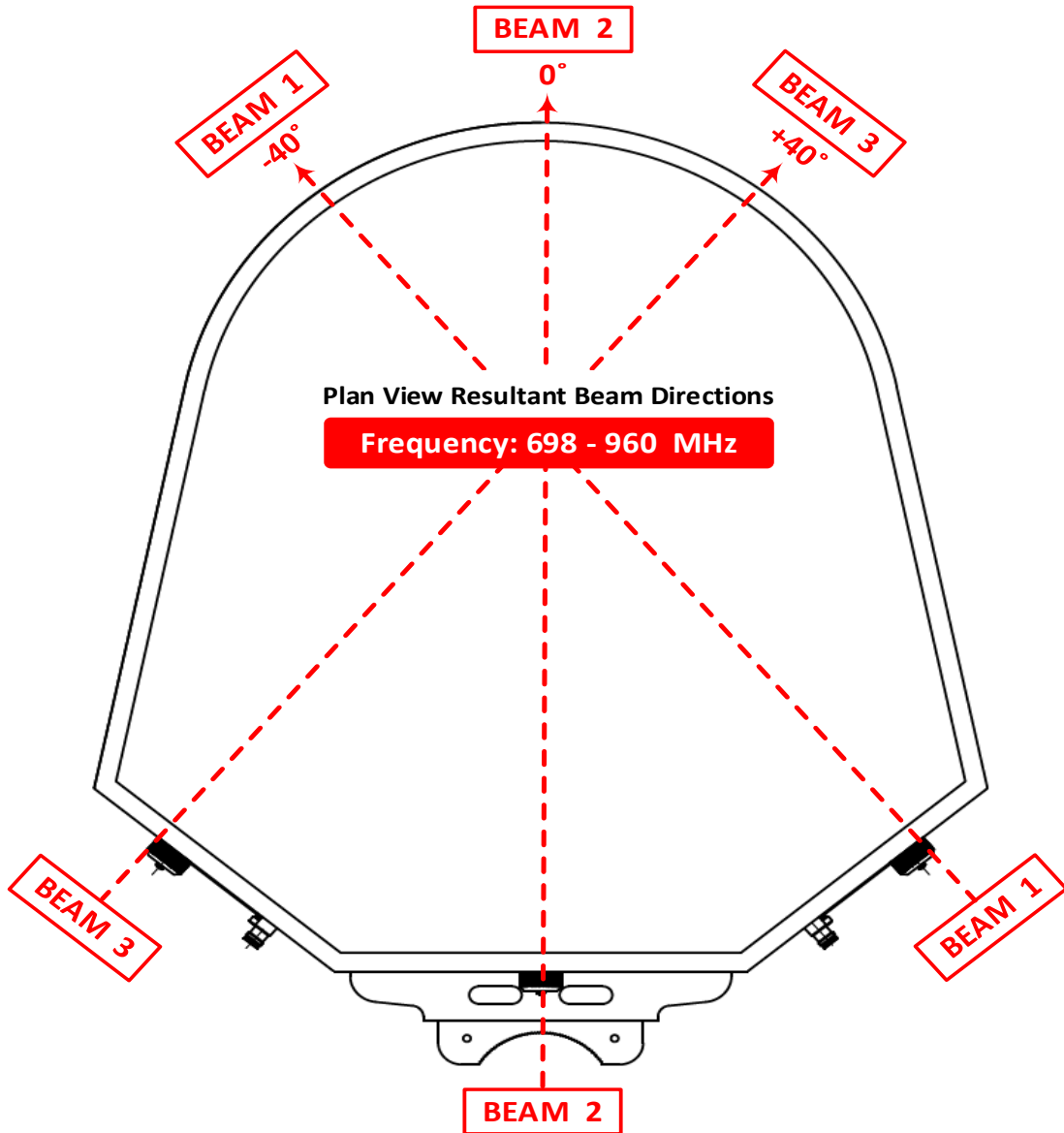


## 1.20 Vertical pattern



## 2.00 Beams and connectors

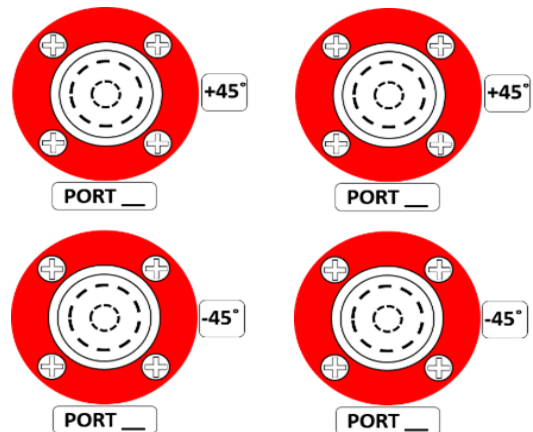
### 2.10 Plan view resultant beam layout



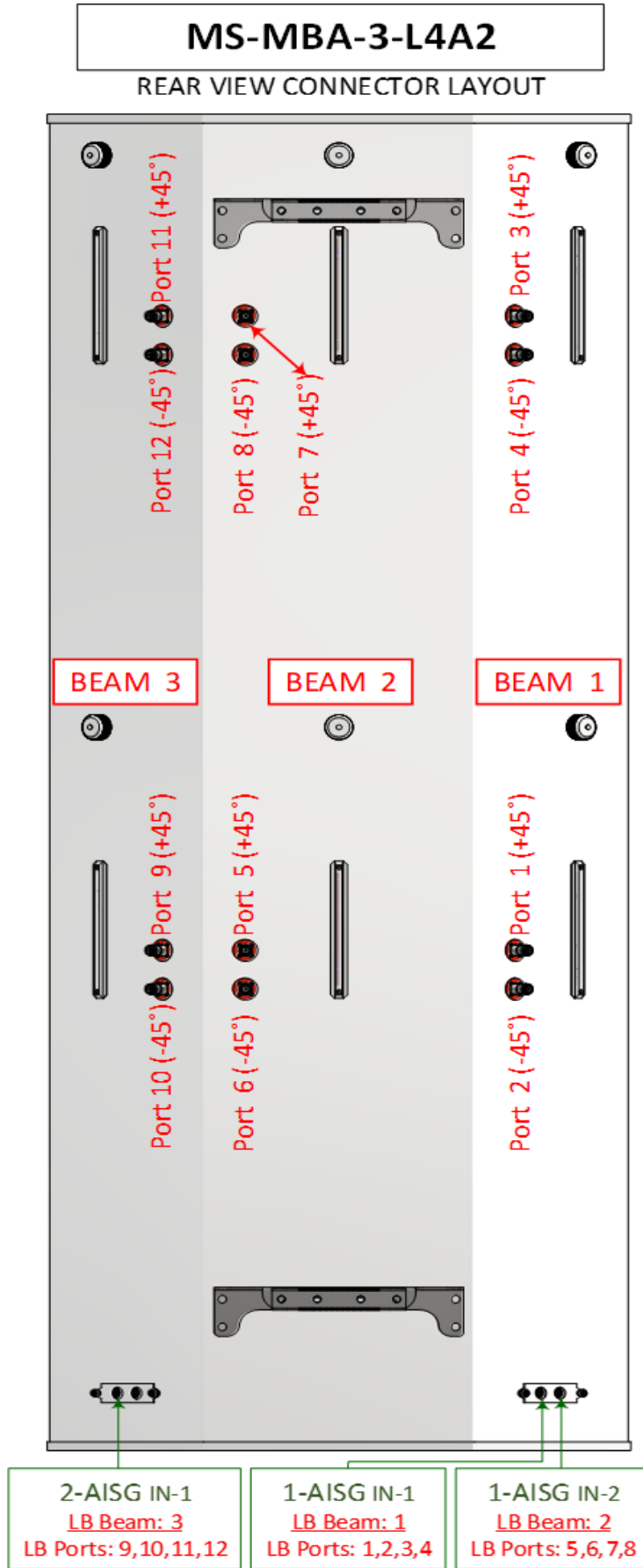
### 2.20 Connector port table

BEAM 3	BEAM 2	BEAM 1
Port 11 (+45°)	Port 7 (+45°)	Port 3 (+45°)
Port 12 (-45°)	Port 8 (-45°)	Port 4 (-45°)
Port 9 (+45°)	Port 5 (+45°)	Port 1 (+45°)
Port 10 (-45°)	Port 6 (-45°)	Port 2 (-45°)

### 2.30 Connector detail




2.40 Connector layout



### 3.00 RET operations and information

A standard AISG 2.0 compliant cable (not included) is used to connect the MDCU to the AISG interface control. Once connected, use an AISG 2.0 compliant Control software to perform a Sub Unit SCAN to identify the RET Elements.

#### 3.10 RET model and serial nos input



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**Model No. : MS-MBA-3-L4A2**  
**Serial No. : MS-MBA-3-L4A20401**  
**Frequency: 698 - 960 MHz**

**Ret Controller Serial #**  
**MBA3L4A2000401AMM**  
**MBA3L4A2000401BMM**  
**MBA3L4A2000401CMM**

17 digits

MBA3L4A2000401AMM  
MBA3L4A2000401BMM  
MBA3L4A2000401CMM

Model      s/nos      Beams  
6 digits

Delete or add zero (0) in front if the label s/nos. is more or less then 6 digits

Reminder: If Information Has Been Edited, Remember to Perform "Radio Hard Reset" for Changes to take Place

#### 3.20 Controller display

ALD List												
NO	HDLCL	Vendor	Serial Number	Product Number	H/W Version	S/W Version	3GPP	Device	AISG	Connect	Link	
1	1	MS	0000000000000000	ACS-RMC20	1.00	1.X	6	Multi RET	2	Connect	Link	
2	2	MS	MBA3L4A2000401AMM	ACS-RMC20	1.00	1.17	6	Multi RET	2	Connect	Link	
3	3	MS	MBA3L4A2000401BMM	ACS-RMC20	1.00	1.17	6	Multi RET	2	Connect	Link	
4	4	MS	MBA3L4A2000401CMM	ACS-RMC20	1.00	1.17	6	Multi RET	2	Connect	Link	

#### 3.21 Beam numbers and ports number display

RET ID : MSMBA3L4A2000401AMM

RET Status and Control

Antenna Information List

NO	Sector ID	Ant Model	Ant Serial	Current Tilt	Status
1/2	LB Beam 1 (Ports 1, 2)	MS-MBA-3-L4A2	MSMBA3L4A20000401	0.0	Normal
2/2	LB Beam 1 (Ports 3, 4)	MS-MBA-3-L4A2	MSMBA3L4A20000401	0.0	Normal

RET ID : MSMBA3L4A2000401BMM

RET Status and Control

Antenna Information List

NO	Sector ID	Ant Model	Ant Serial	Current Tilt	Status
1/2	LB Beam 2 (Ports 5, 6)	MS-MBA-3-L4A2	MSMBA3L4A20000401	0.0	Normal
2/2	LB Beam 2 (Ports 7, 8)	MS-MBA-3-L4A2	MSMBA3L4A20000401	0.0	Normal

RET ID : MSMBA3L4A2000401CMM

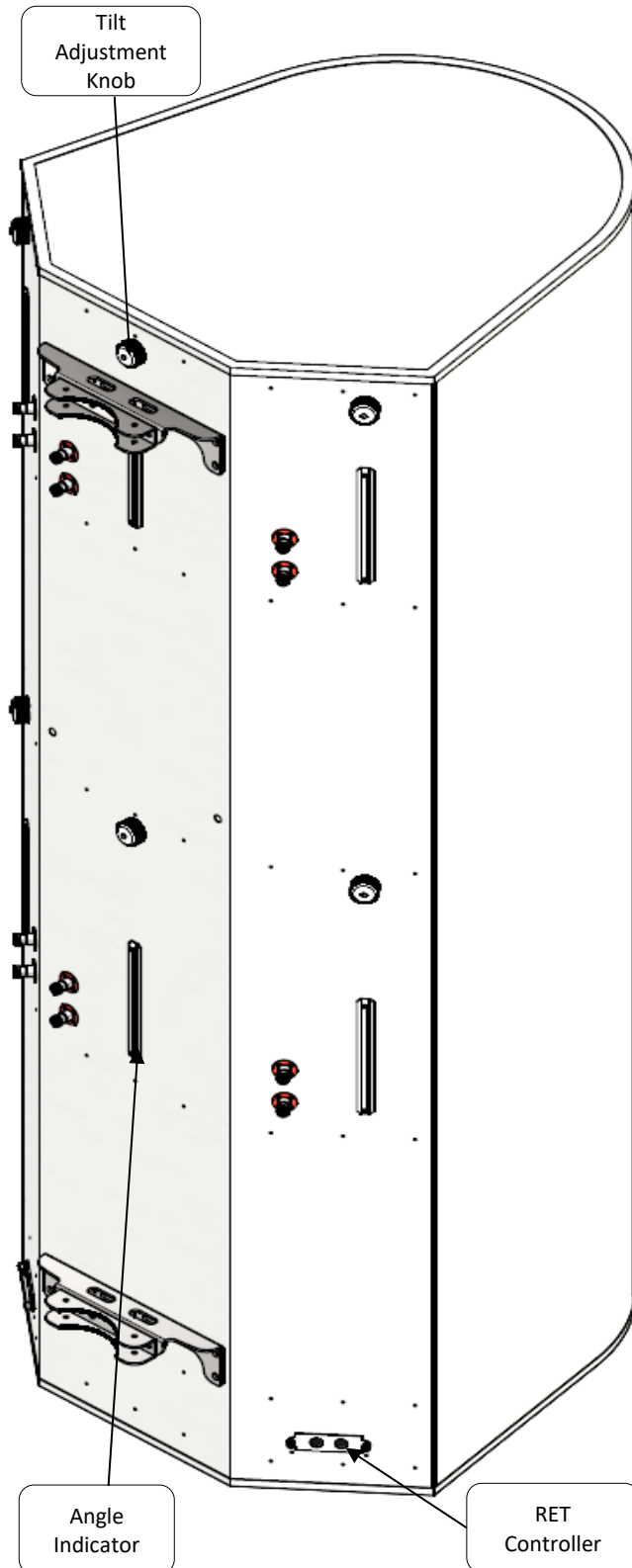
RET Status and Control

Antenna Information List

NO	Sector ID	Ant Model	Ant Serial	Current Tilt	Status
1/2	LB Beam 3 (Ports 9, 10)	MS-MBA-3-L4A2	MSMBA3L4A20000401	0.0	Normal
2/2	LB Beam 3 (Ports 11, 12)	MS-MBA-3-L4A2	MSMBA3L4A20000401	0.0	Normal

#### 4.00 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**



## 5.00 Bracket installation

5.10 Bolts and nuts / tools

5.11 Bolt and nuts set

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



5.12 Bracket



5.20 Tools Requirement

Adjustable spanner



M12 spanner



5.30 Bracket Spacing & Installation Sample

