

MATSING[®]

LENS TECHNOLOGY ENABLED

MS-MBA-3.2-H8-L4

(Standard Version)

Instruction Manual

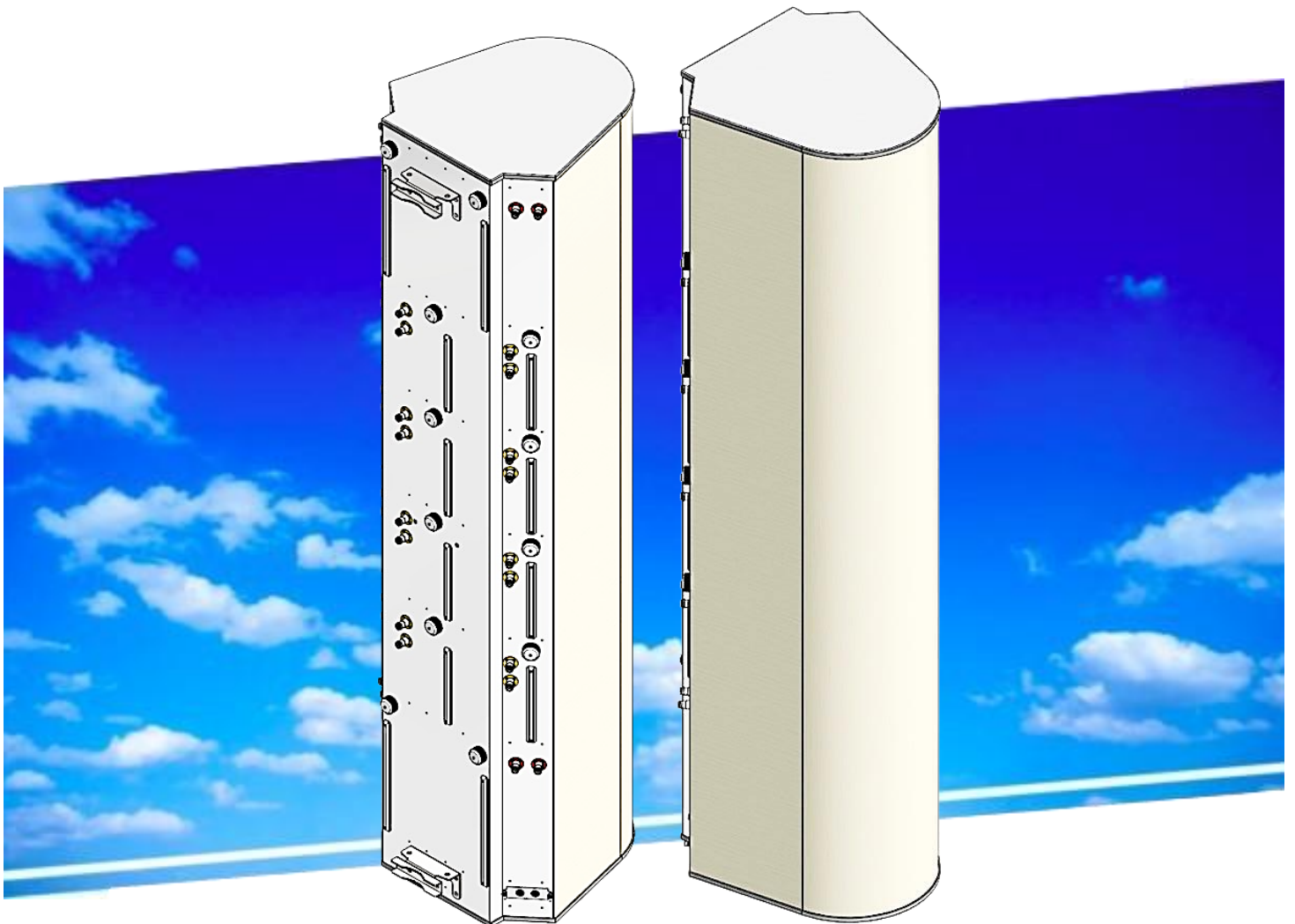


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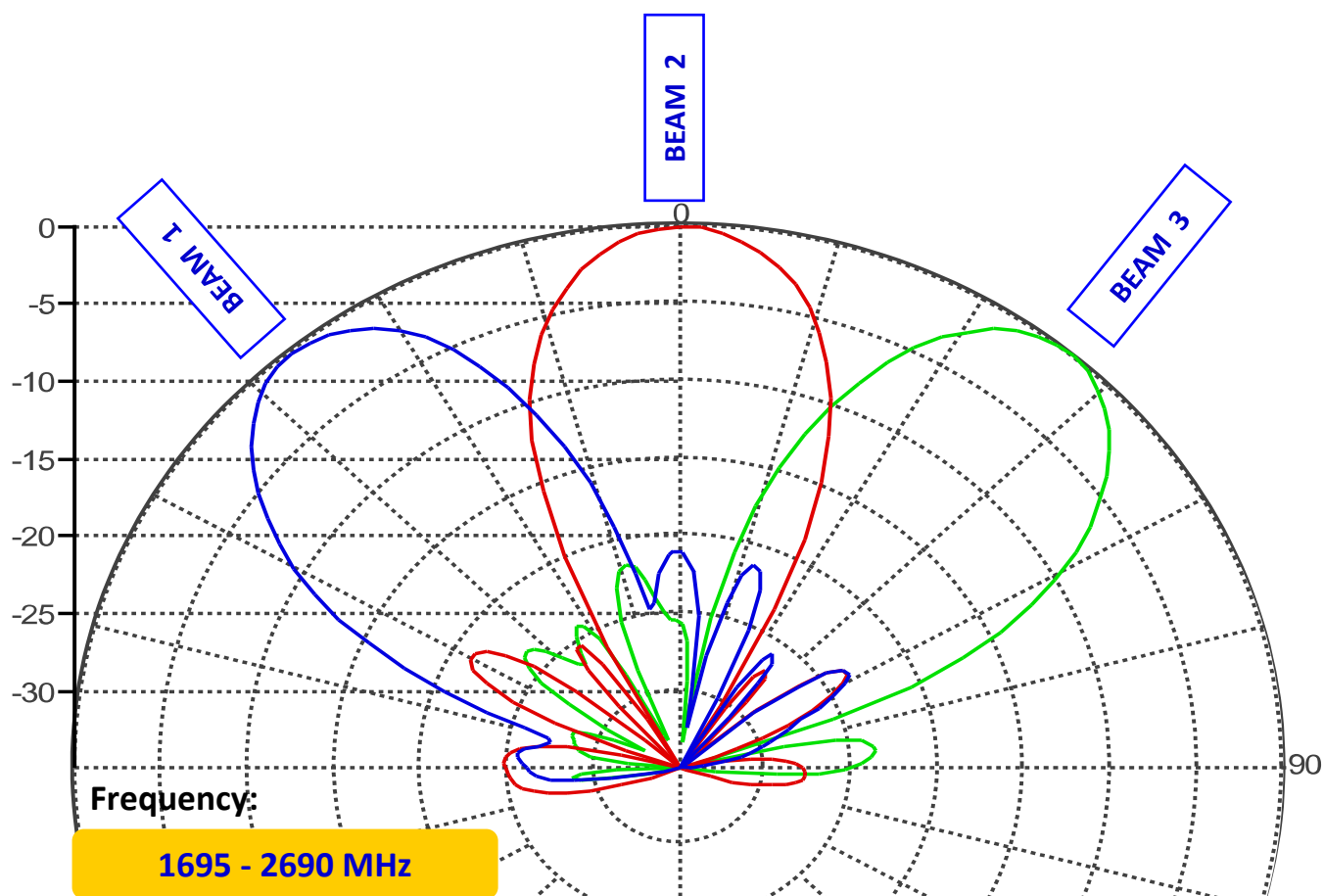
Revision History:

<u>Date</u>	<u>Description</u>	<u>Rev By</u>	<u>Check By</u>	<u>Rev no</u>
15-Apr-2021	Initial Release	RL	Pavel	0
31-May-2021	Revised HB frequency to 1710 - 2690MHz.	RL	Pavel	1
16-Jun-2021	Remove T4 model and add in bracket installation	RL	Pavel	2
20-Jan-2022	Add RET Handle Caution Sticker	RL	Pavel	3
21-Feb-2024	To Include RET Operations/Information	RL	Pavel	4
05-Aug-2024	General Update	RL	Pavel	5
10-Dec-2024	Revised HB from 1710 - 2690 MHz to 1695 - 2690 MHz	RL	Pavel	6
29-May-2025	Add Standard version on the title page	RL	Pavel	7

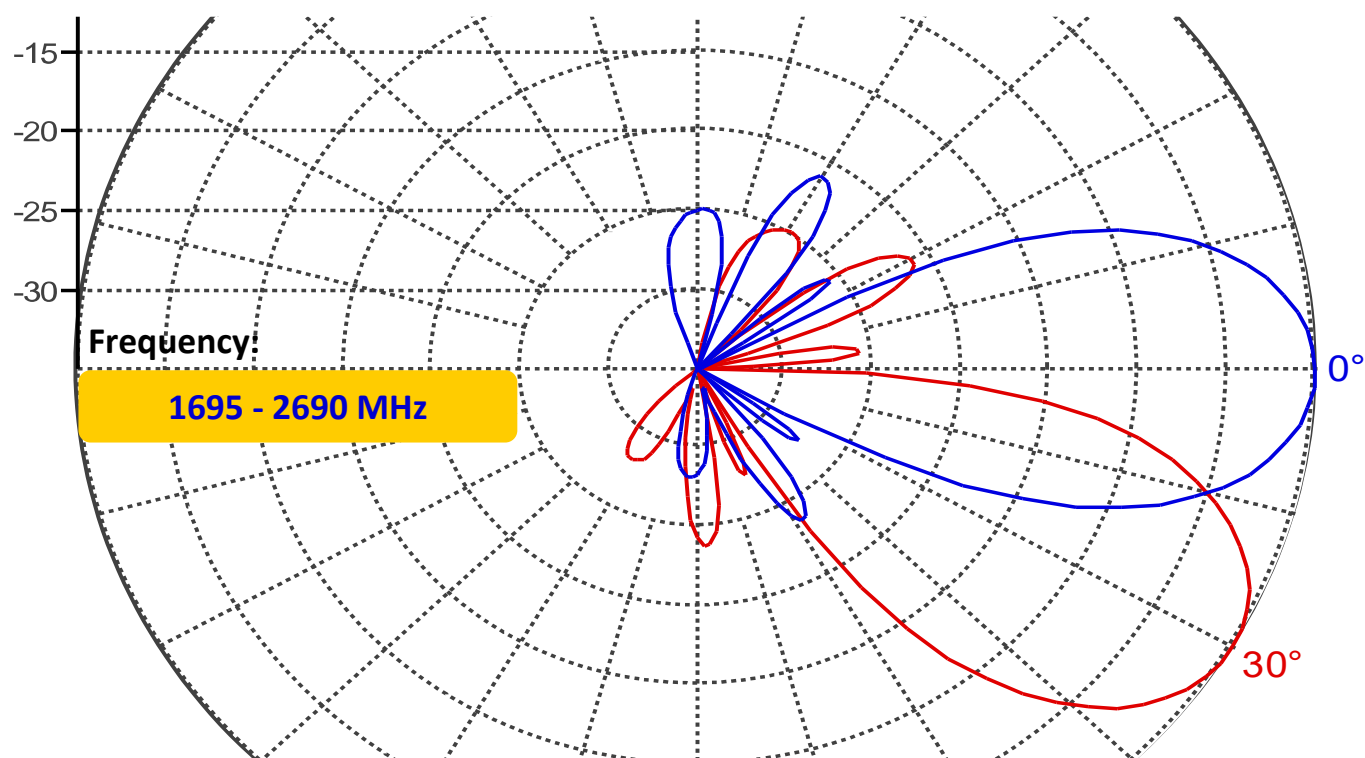
1.00 Pattern diagram

1.10 High band

1.11 Horizontal pattern

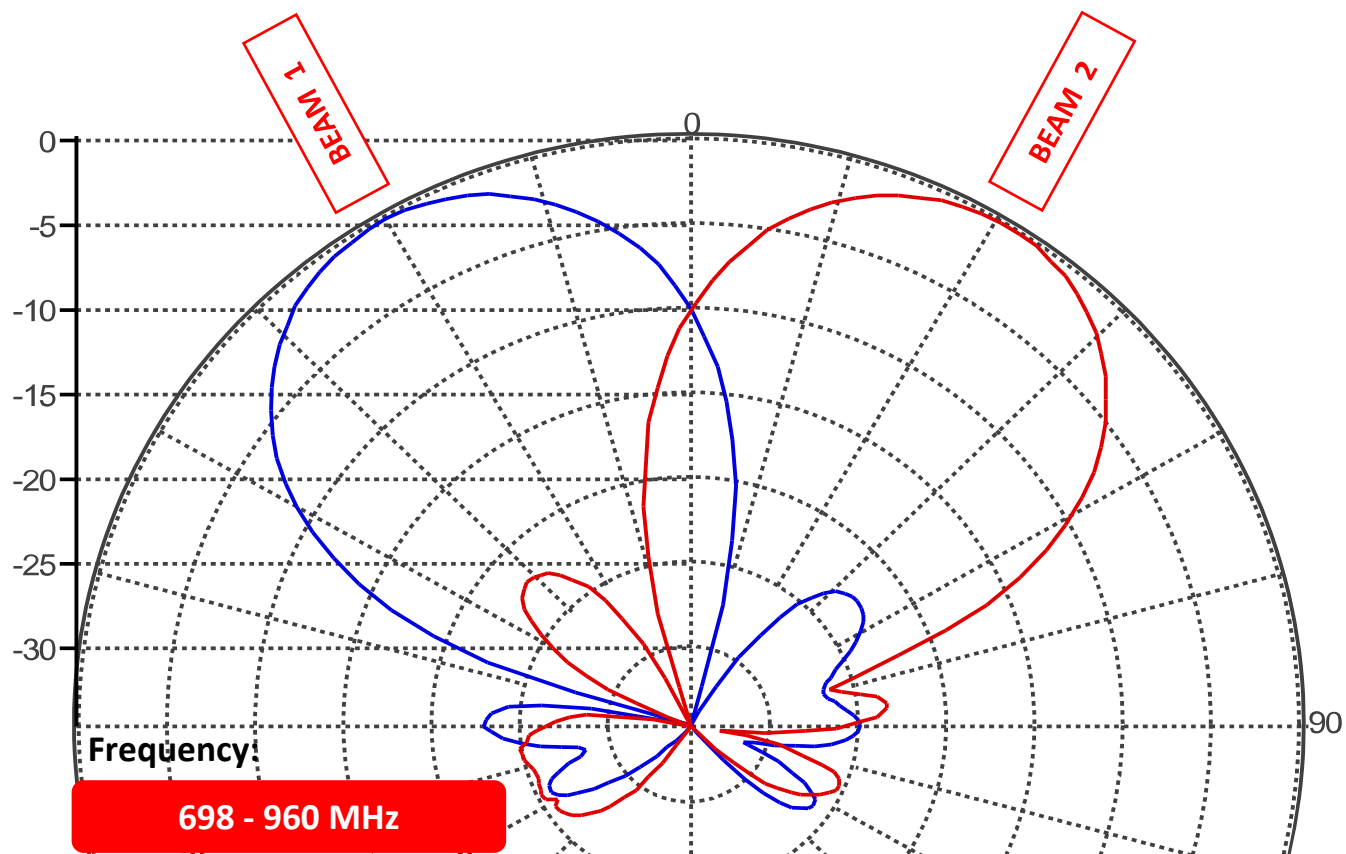


1.12 Vertical pattern

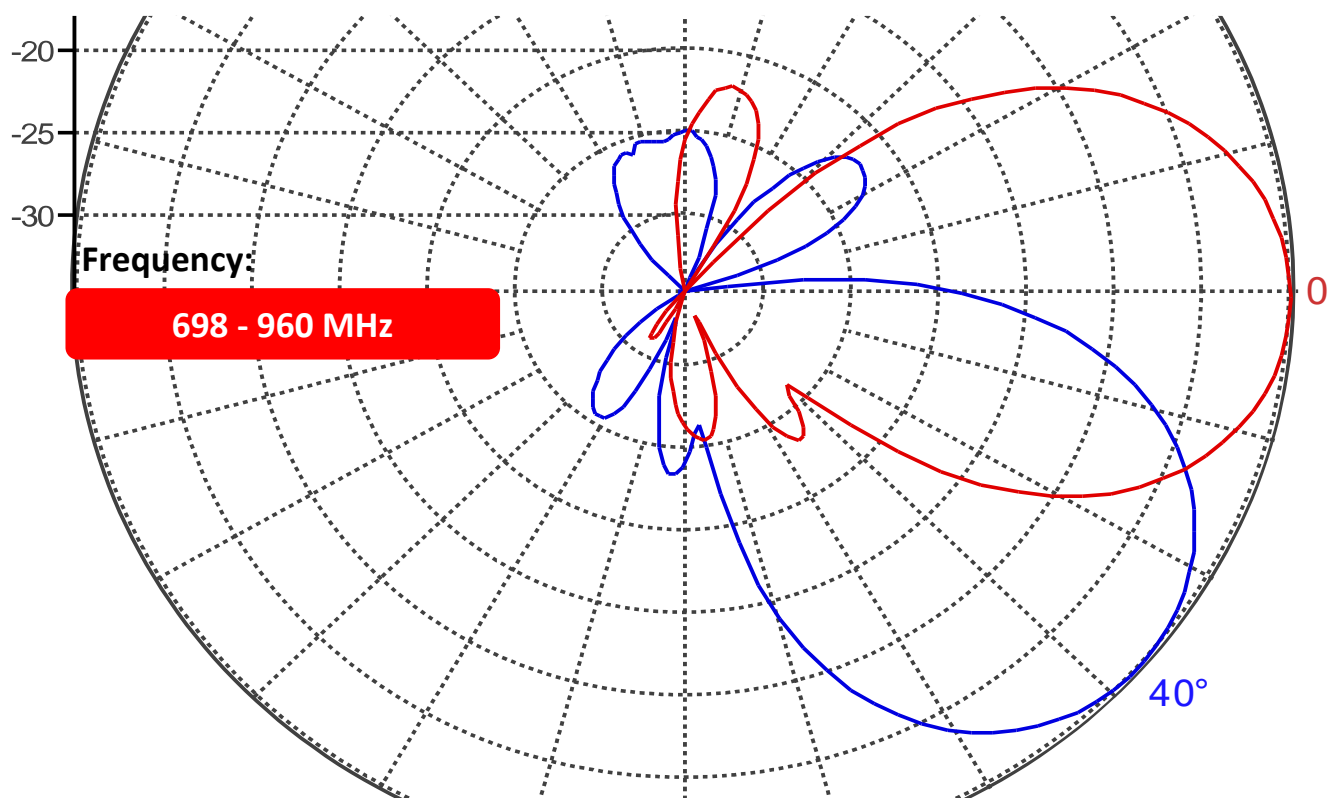


1.20 Low band

1.21 Horizontal pattern

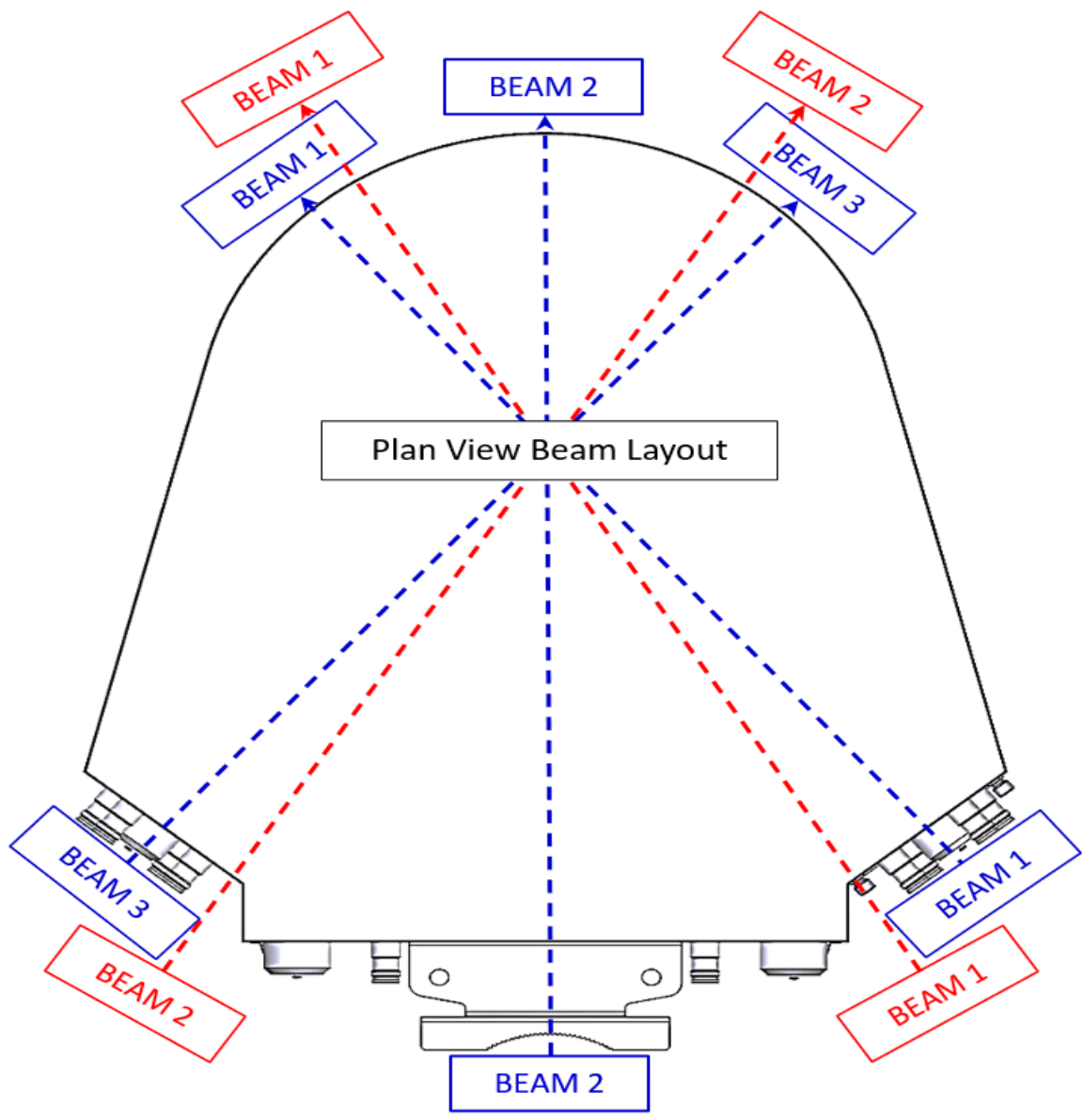


1.22 Vertical pattern



2.00 Beams and connector

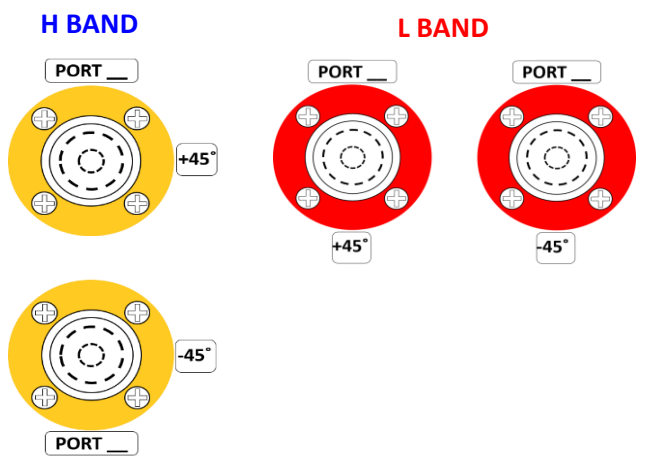
2.10 Plan view resultant beam layout



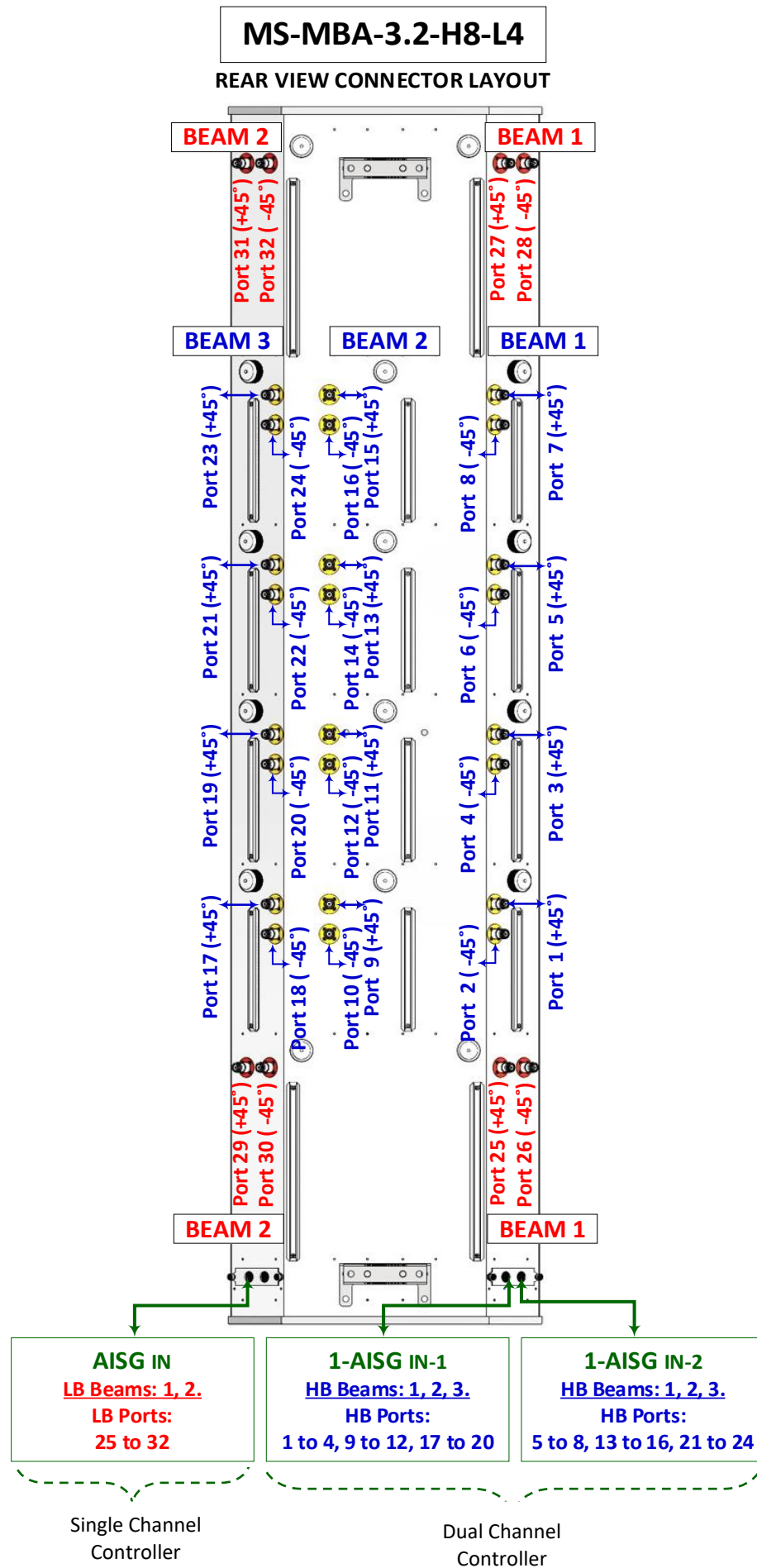
2.20 Connector port table

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

2.30 Connector detail



2.41 1 Dual channel + 1 Single channel controller



3.00 RET operations and information's

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 Example of s/nos label reference



Model No. : MS-MBA-3.2-H8-L4
Serial No. : MS-MBA-3.2-H8-L4-00030!
Frequency: 698 - 960 MHz
1695 – 2690 MHz

RET Controller Serial #
MBA32H8L400030AMM
MBA32H8L400030BMM
MBA32H8L400030CMM

**1 Dual Channel +
1 Single Channel
Controller**

Add Zero in front if the serial nos is Less than 5 digits

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

3.11 1 Dual + 1 Single channel controller display

ALD List												
NO	HDLC	Vendor	Serial Number	Product Number	H/W Version	S/W Version	3GPP	Device	AISG	Connect	Link	
1	1	MS	MBA32H8L400030AMM	ACS-RMC20	1.00	1.17	6	Multi RET	2	Connect	Link	
2	2	MS	MBA32H8L400030BMM	ACS-RMC20	1.00	1.17	6	Multi RET	2	Connect	Link	
3	3	MS	MBA32H8L400030CMM	ACS-RMC00	1.00	1.17	6	Multi RET	2	Connect	Link	

MBA32H8L400030AMM ACS-RMC20
MBA32H8L400030BMM ACS-RMC20
MBA32H8L400030CMM ACS-RMC00

(Dual Channel Controller 1-AISG IN-1)
(Dual Channel Controller 1-AISG IN-2)
(Single Channel Controller AISG IN)

Model s/no. 5 digits

3.12 Beam nos and port nos display

RET ID : MSMBA32H8L400030AMM

RET Status and Control

Antenna Information List

NO	Sector ID	Ant Model	BEAM 3		BEAM 2		BEAM 1	
			Port 19 (+45°)	Port 20 (-45°)	Port 11 (+45°)	Port 12 (-45°)	Port 3 (+45°)	Port 4 (-45°)
1/6	HB 1 (P1,2)	MBA-3.2-H8-L4						
2/6	HB 2 (P9,10)	MBA-3.2-H8-L4						
3/6	HB 3 (P17,18)	MBA-3.2-H8-L4						
4/6	HB 1 (P3,4)	MBA-3.2-H8-L4	Port 17 (+45°)	Port 18 (-45°)	Port 9 (+45°)	Port 10 (-45°)	Port 1 (+45°)	Port 2 (-45°)
5/6	HB 2 (P11,12)	MBA-3.2-H8-L4						
6/6	HB 3 (P19,20)	MBA-3.2-H8-L4						

RET ID : MSMBA32H8L400030BMM

RET Status and Control

Antenna Information List

NO	Sector ID	Ant Model	BEAM 3		BEAM 2		BEAM 1	
			Port 23 (+45°)	Port 24 (-45°)	Port 15 (+45°)	Port 16 (-45°)	Port 7 (+45°)	Port 8 (-45°)
1/6	HB 1 (P5,6)	MBA-3.2-H8-L4						
2/6	HB 2 (P13,14)	MBA-3.2-H8-L4						
3/6	HB 3 (P21,22)	MBA-3.2-H8-L4						
4/6	HB 1 (P7,8)	MBA-3.2-H8-L4	Port 21 (+45°)	Port 22 (-45°)	Port 13 (+45°)	Port 14 (-45°)	Port 5 (+45°)	Port 6 (-45°)
5/6	HB 2 (P15,16)	MBA-3.2-H8-L4						
6/6	HB 3 (P23,24)	MBA-3.2-H8-L4						

RET ID : MSMBA32H8L400030CMM

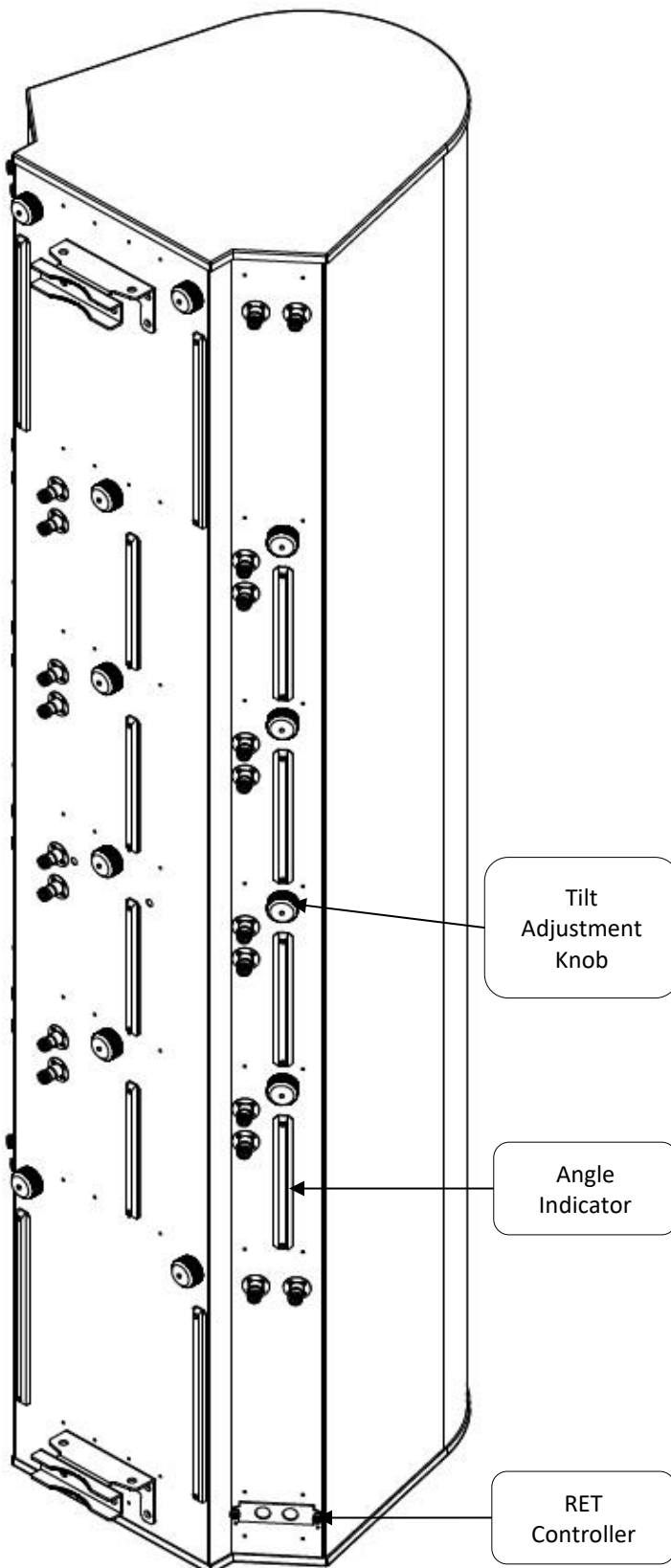
RET Status and Control

Antenna Information List

NO	Sector ID	Ant Model	Ant Serial	BEAM 2		BEAM 1	
				Port 31 (+45°)	Port 32 (-45°)	Port 27 (+45°)	Port 28 (-45°)
1/4	LB 1 (P25,26)	MBA-3.2-H8-L4	MBA3.2H8L400030				
2/4	LB 2 (P29,30)	MBA-3.2-H8-L4	MBA3.2H8L400030				
3/4	LB 1 (P27,28)	MBA-3.2-H8-L4	MBA3.2H8L400030	Port 29 (+45°)	Port 30 (-45°)	Port 25 (+45°)	Port 26 (-45°)
4/4	LB 2 (P31,32)	MBA-3.2-H8-L4	MBA3.2H8L400030				

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.



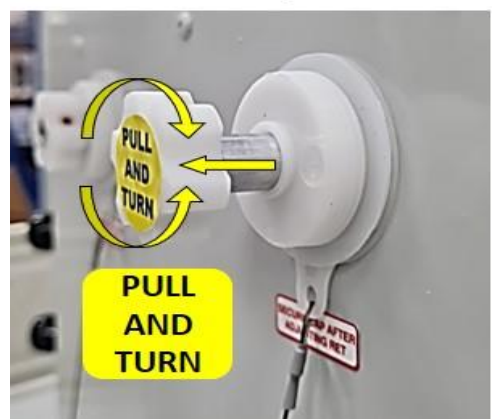
**Unscrew/Screw the cap
for tilt adjustment process**



**Engaged with internal
RET motor position**



**Pull handle out to disengaged
RET for tilt adjustment**



5.00 Bracket installation

5.10 Bolts and nuts and tools

5.11 Bolts and nuts



5.12 Bracket



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

5.20 Tools requirement

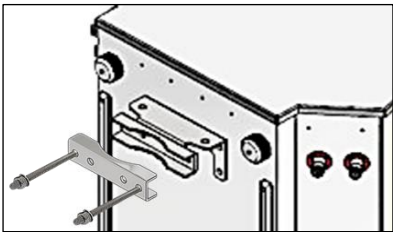
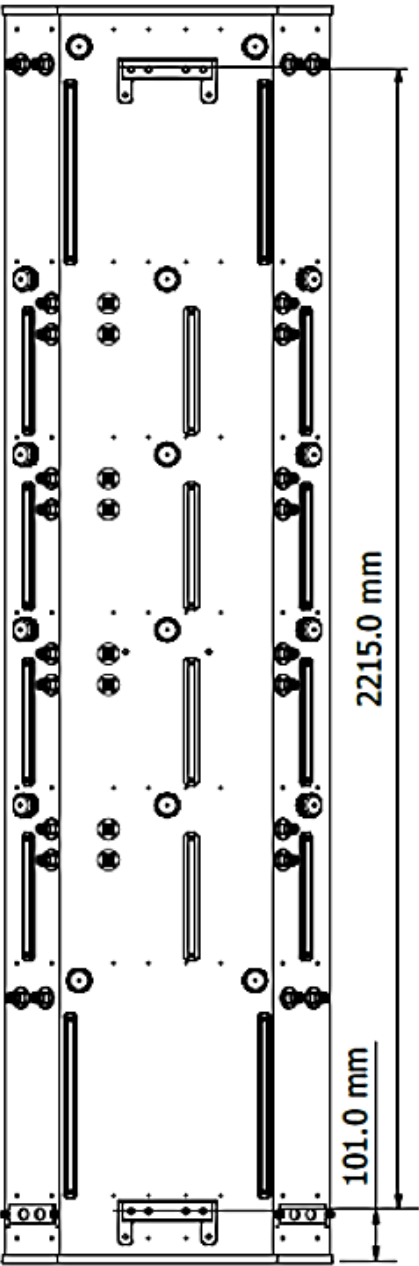
5.21 Adjustable spanner



5.22 M12 Spanner



5.30 Bracket spacing and installation sample



Before
installation

