

MATSING[®]

LENS TECHNOLOGY ENABLED

MS-MBA-3.3.2-F2-H2-L2

Instruction Manual

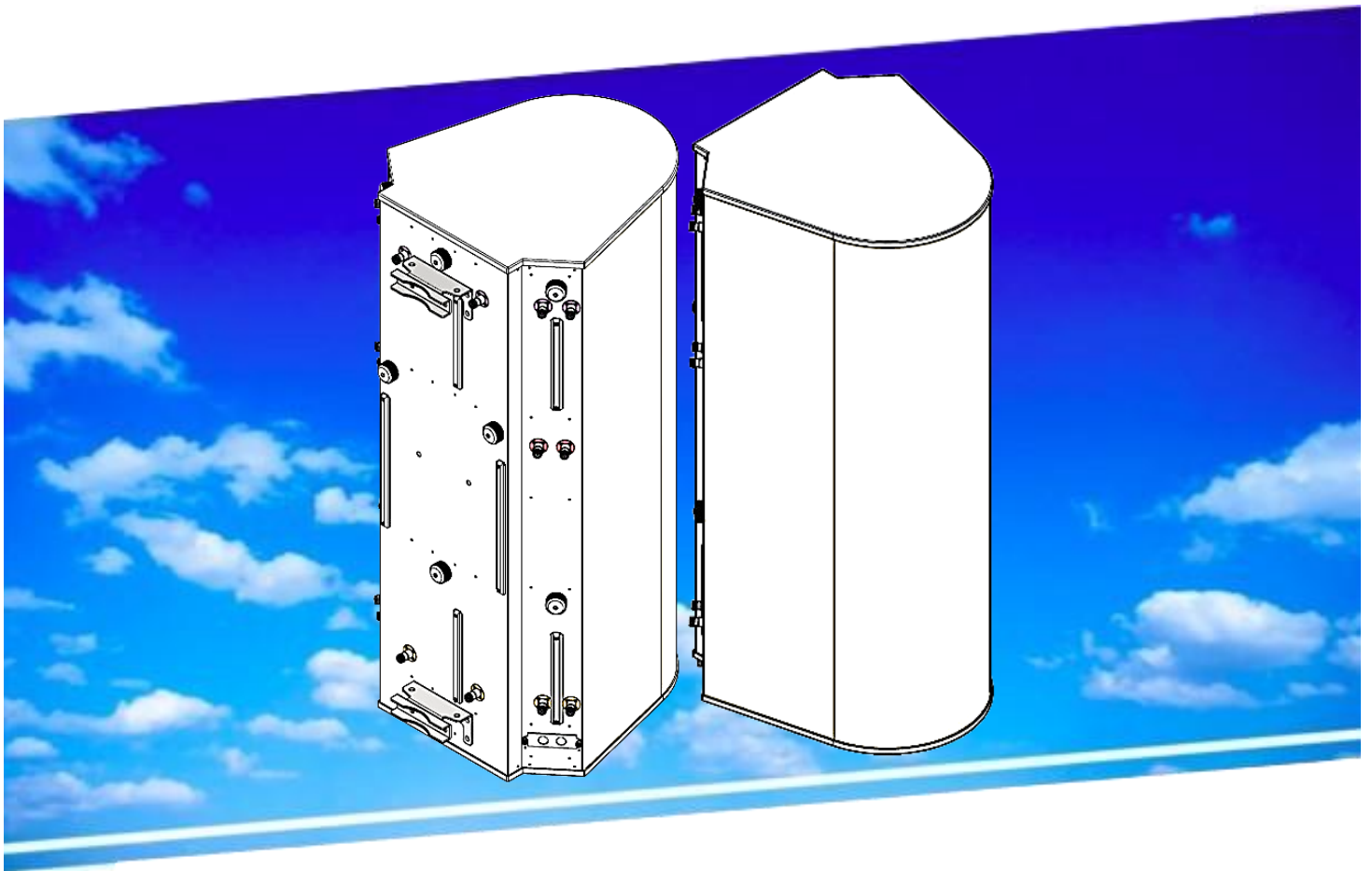


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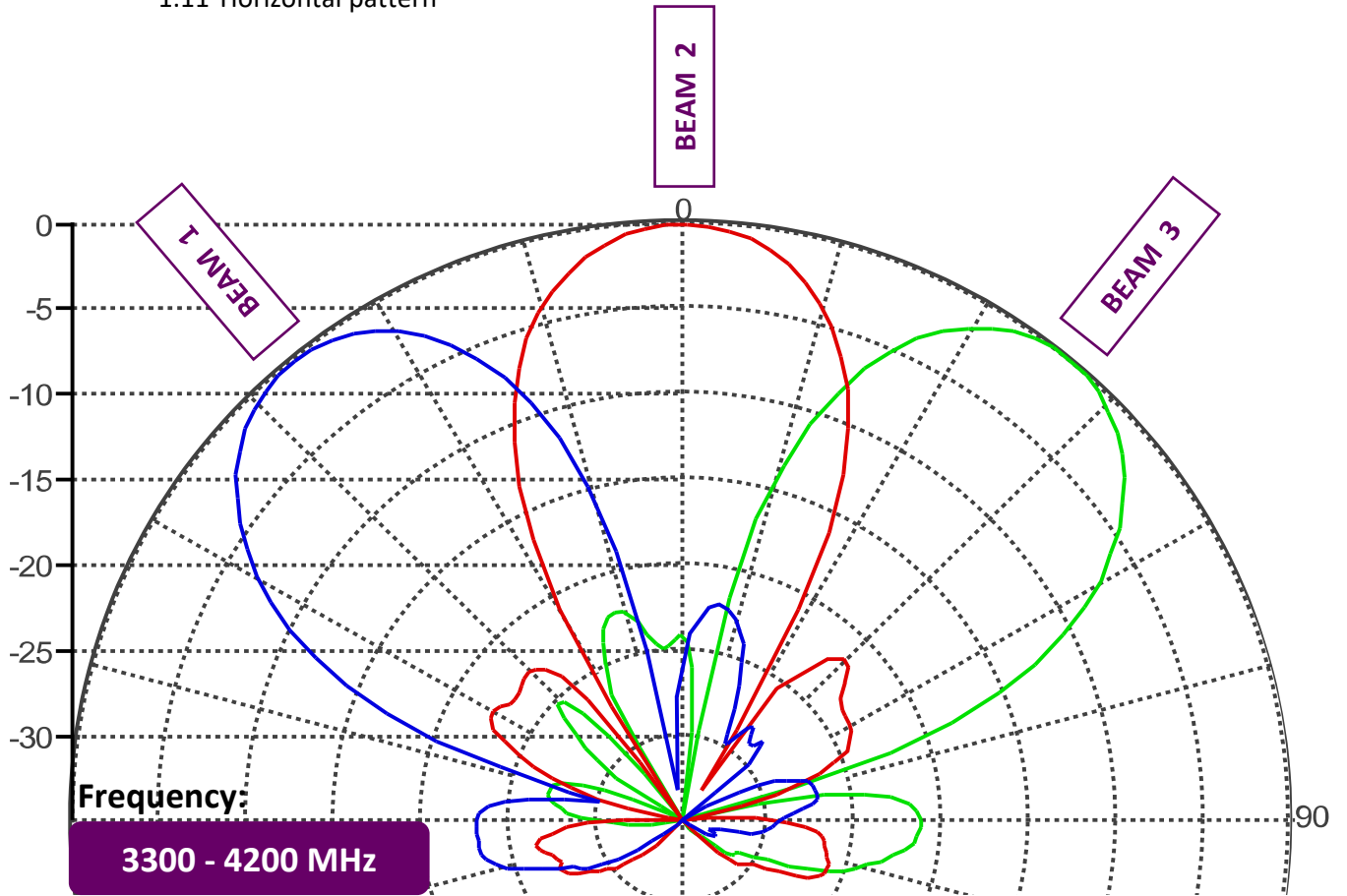
Revision History:

<u>Date</u>	<u>Description</u>	<u>Rev By</u>	<u>Check By</u>	<u>Rev no</u>
04-Apr-2022	Initial Release	RL	Pavel	0
26-Feb-2024	To Include RET Operations/Information	RL	Pavel	1
12-Dec-2024	Revised HB from 1710 - 2690 MHz to 1695 - 2690 MHz	RL	Pavel	2

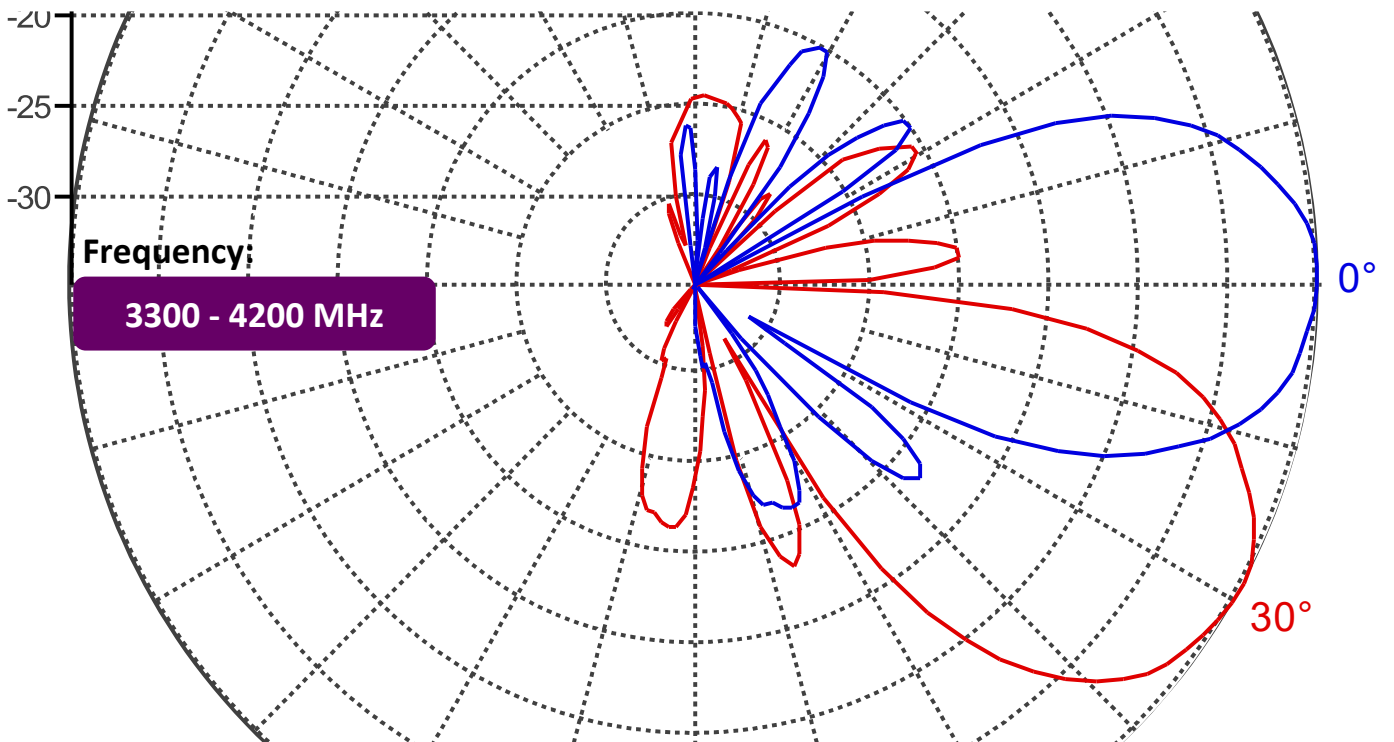
1.00 Pattern diagram

1.10 F Band

1.11 Horizontal pattern

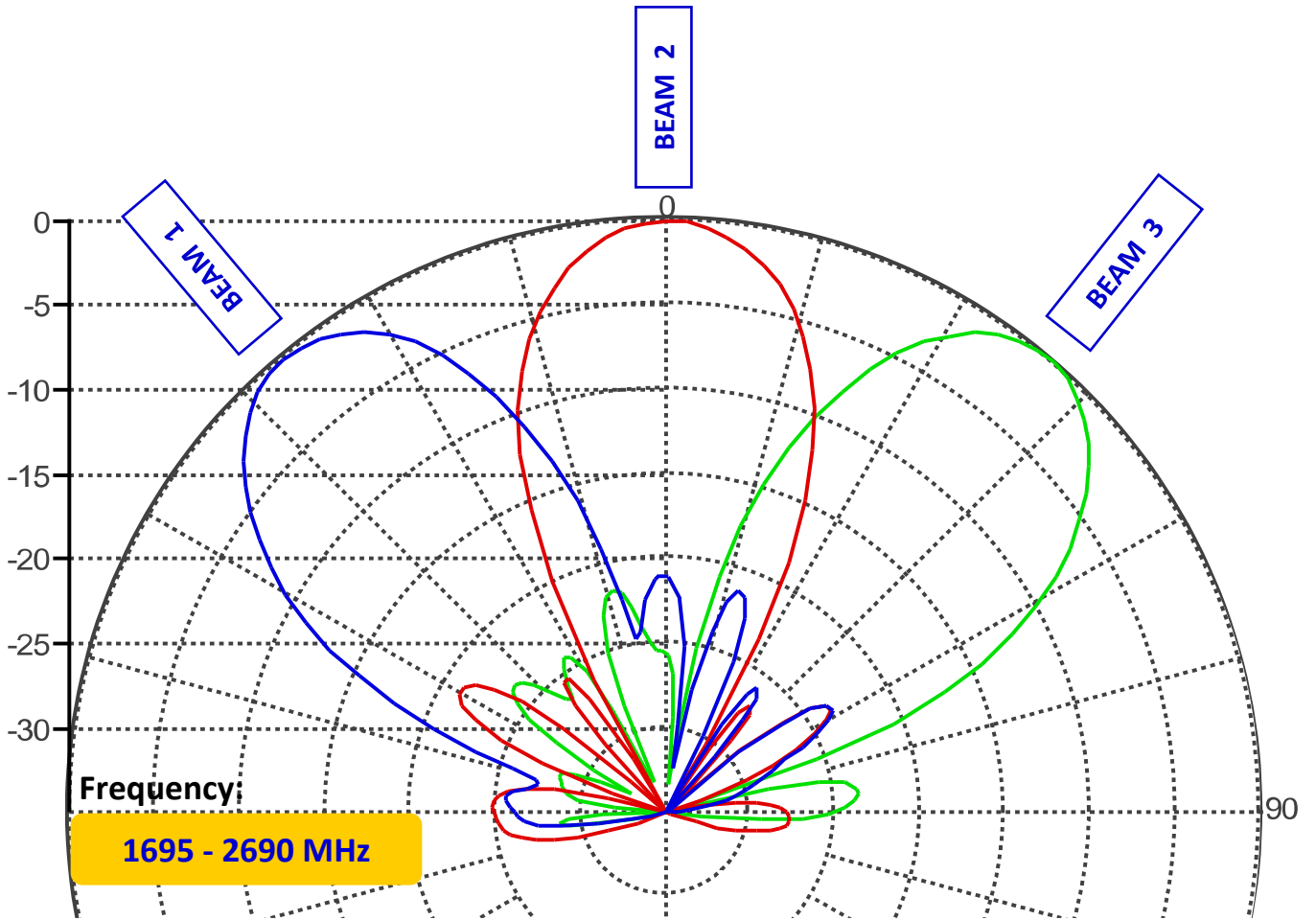


1.12 Vertical pattern

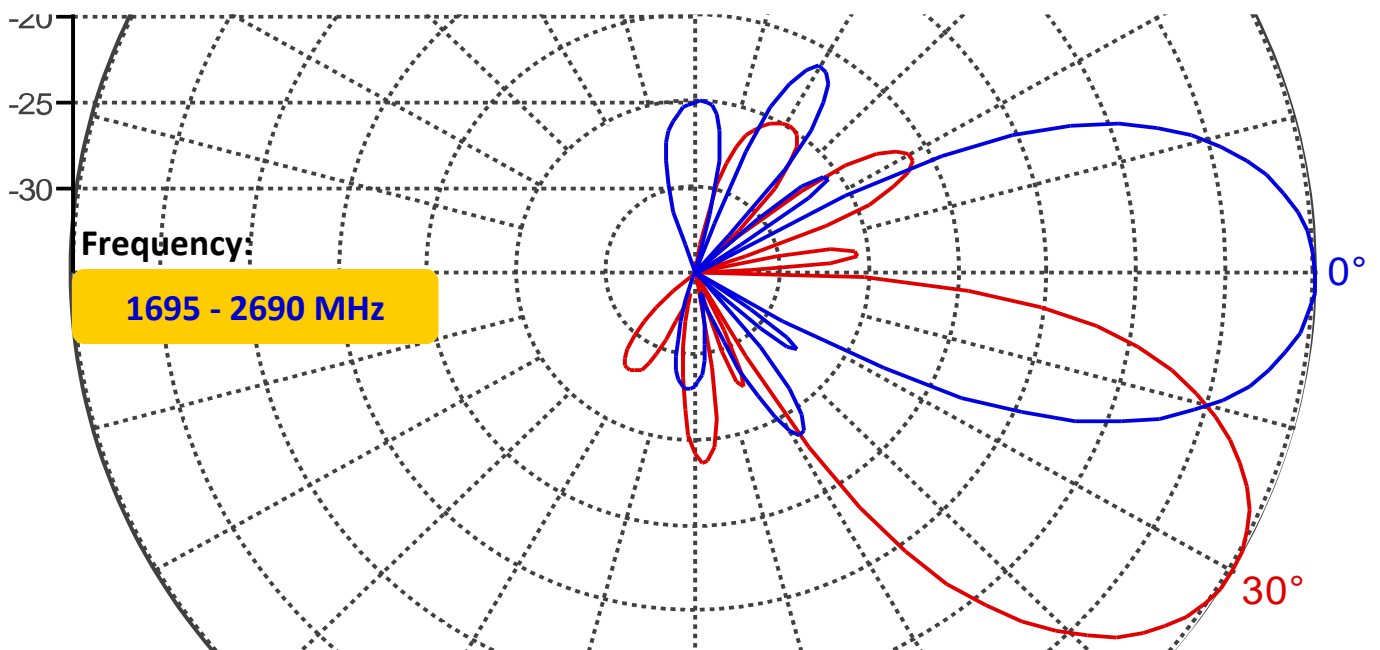


1.20 High band

1.21 Horizontal pattern

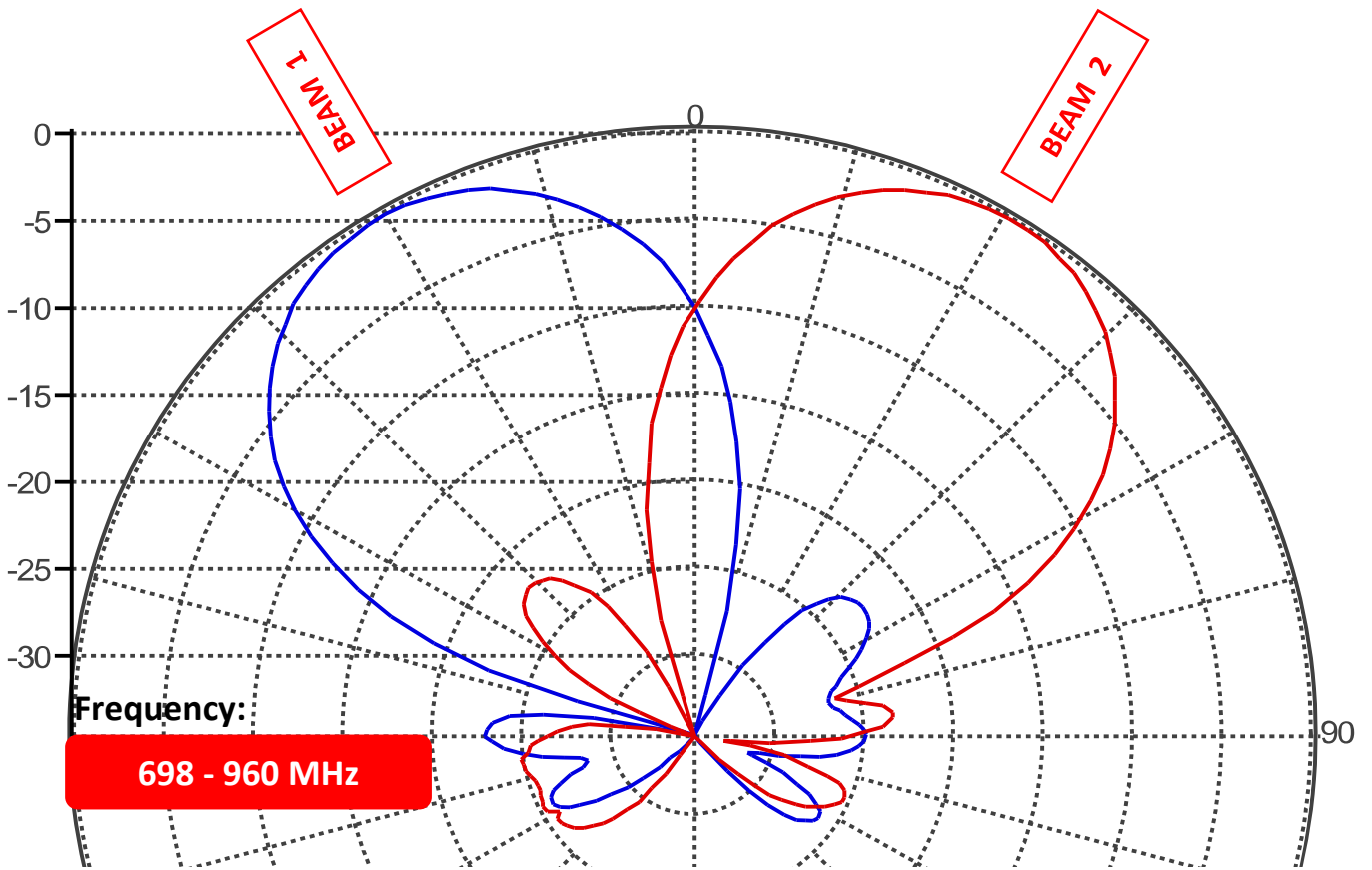


1.22 Vertical pattern

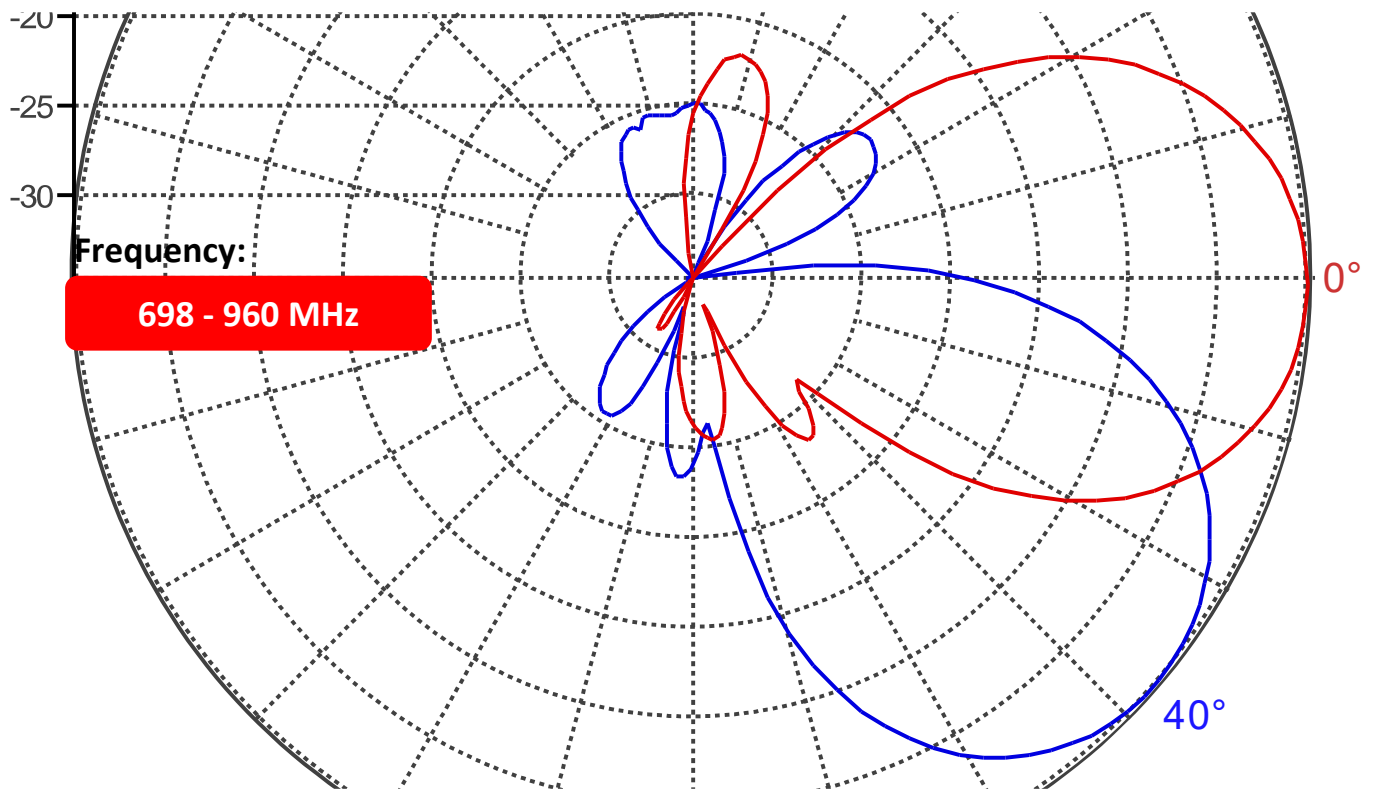


1.30 Low band

1.31 Horizontal pattern

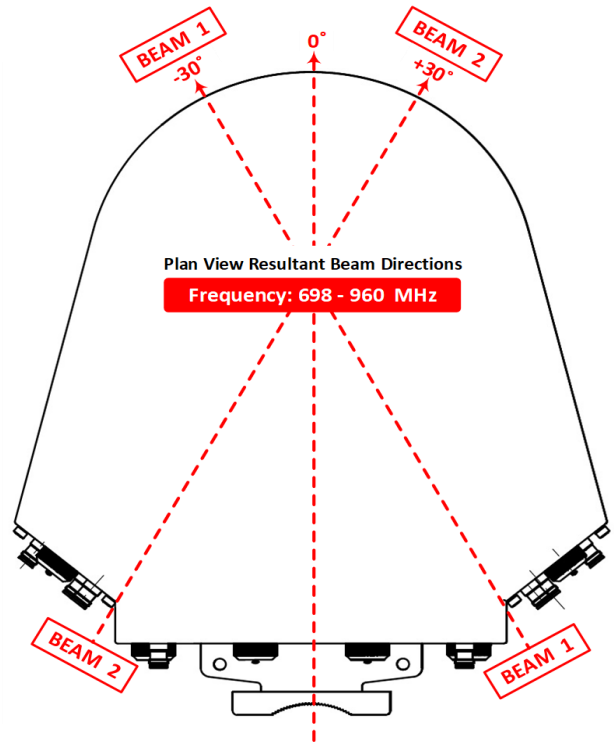
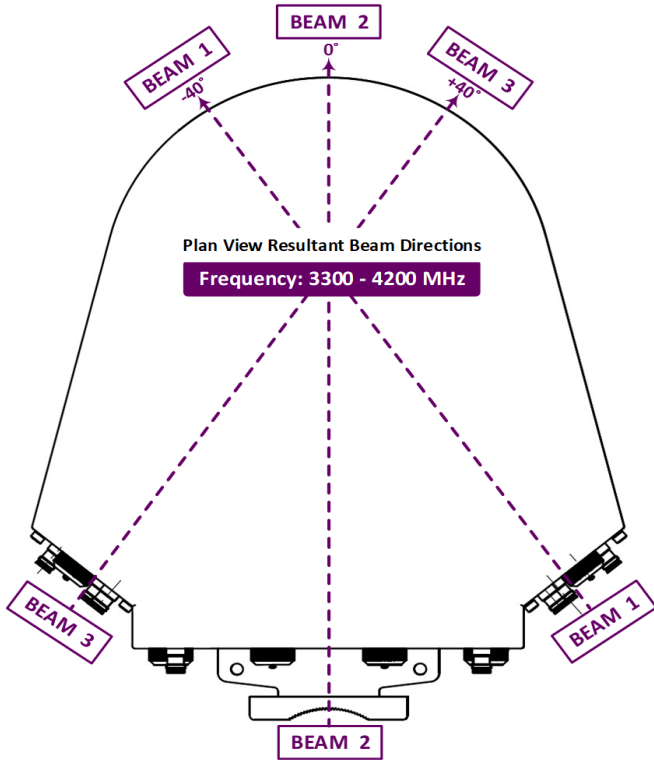


1.32 Vertical pattern

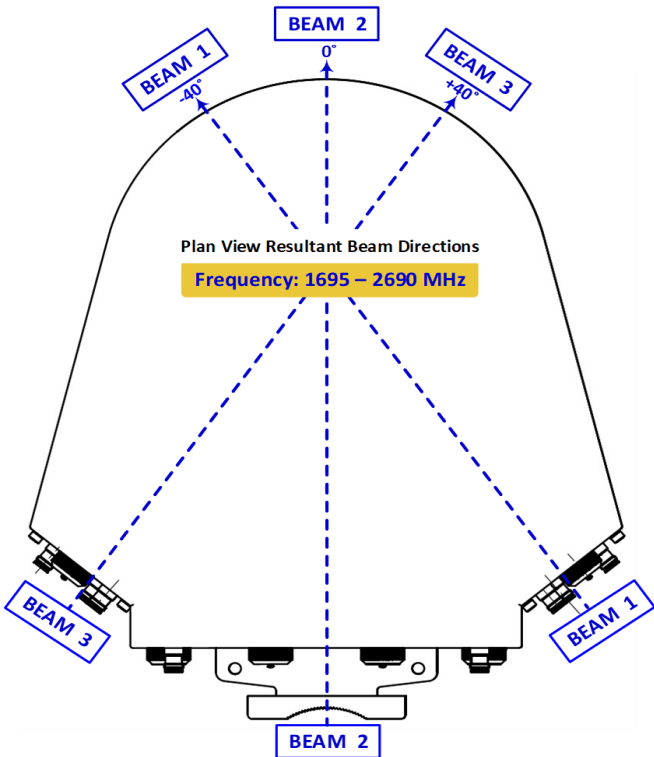


2.00 Beams and connectors

2.10 Plan view resultant beam layout



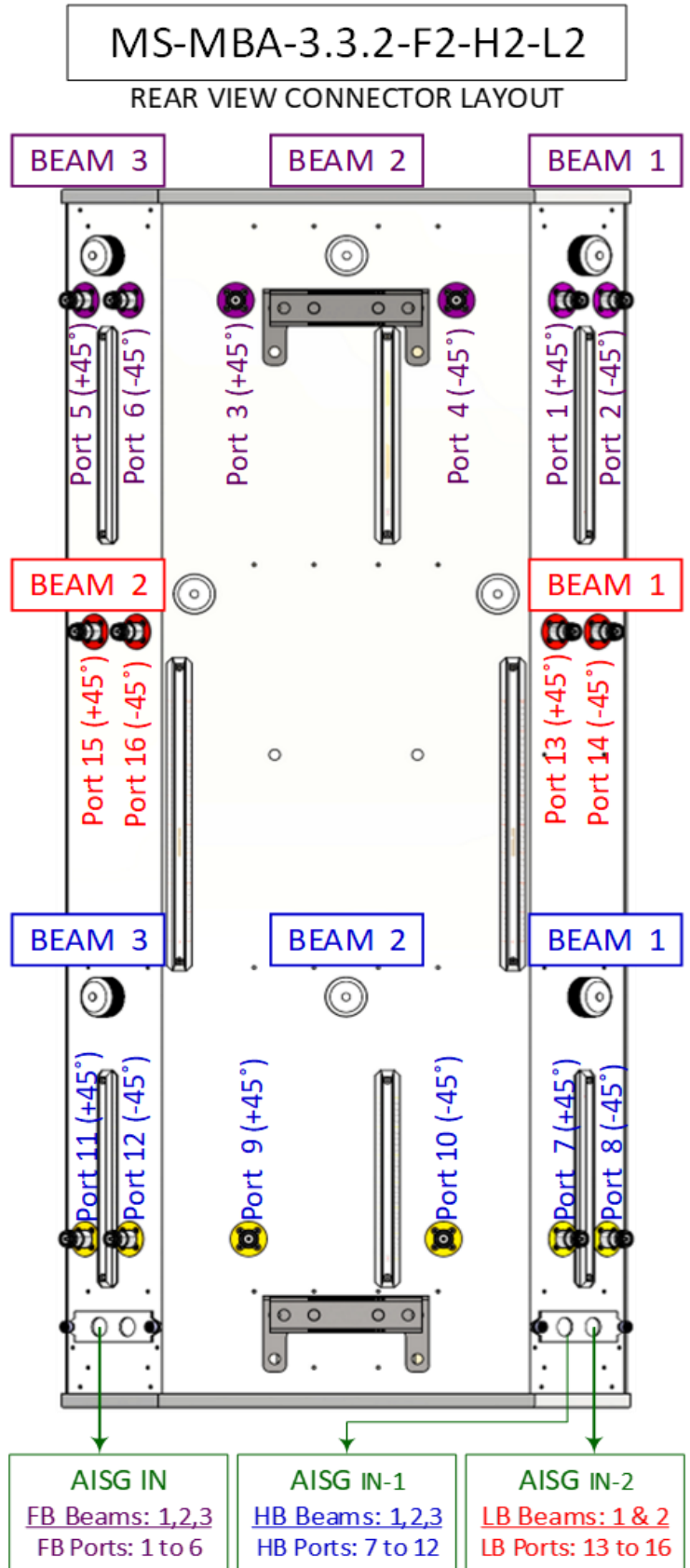
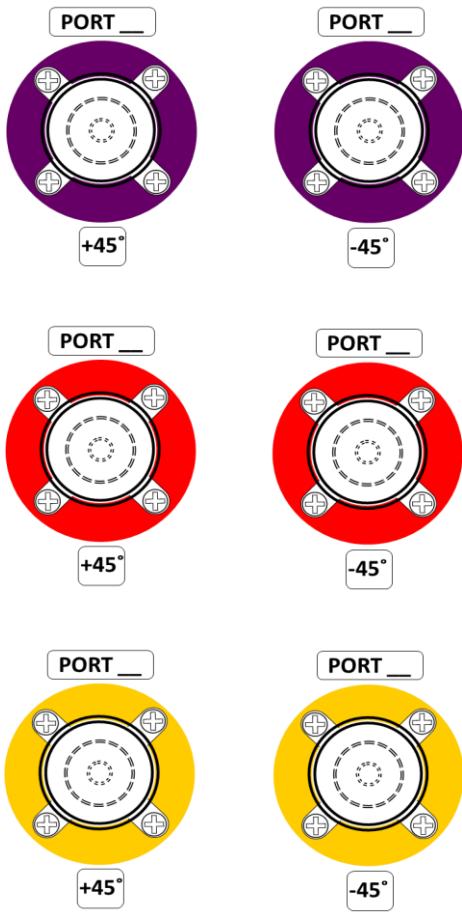
2.20 Connector port table



F Band	BEAM 3		BEAM 2		BEAM 1	
	Port 5 (+45°)	Port 6 (-45°)	Port 3 (+45°)	Port 4 (-45°)	Port 1 (+45°)	Port 2 (-45°)
L Band	BEAM 2			BEAM 1		
	Port 15 (+45°)	Port 16 (-45°)	Port 13 (+45°)	Port 14 (-45°)		
H Band	BEAM 3		BEAM 2		BEAM 1	
	Port 11 (+45°)	Port 12 (-45°)	Port 9 (+45°)	Port 10 (-45°)	Port 7 (+45°)	Port 8 (-45°)

2.30 Connector detail


2.40 Connector layout



3.00 RET operations / 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



RET Controller Serial #
 MBA332FHL00053AMM
 MBA332FHL00053BMM
 MBA332FHL00053CMM

1 Dual Channel +
1 Single Channel
Controller

Model No. : MS-MBA-3.3.2-F2-H2-L2
 Serial No. : MS-MBA-3.3.2-F2-H2-L2-0053
 Frequency: 698 - 960 MHz
 1695 – 2690 MHz
 3300 – 4200 MHz

Add Zero in front if the serial nos is shorter 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	MBA332FHL00053AMM	ACS-RMC00	1.00	1.17	6	Multi RET	2	Connect	Link
2	2	MS	MBA332FHL00053BMM	ACS-RMC20	1.00	1.17	6	Multi RET	2	Connect	Link
3	3	MS	MBA332FHL00053CMM	ACS-RMC20	1.00	1.13a	6	Multi RET	2	Connect	Link

MBA332FHL00053AMM	ACS-RMC00	(Single Channel Controller AISG IN)
MBA332FHL00053BMM	ACS-RMC20	(Dual Channel Controller 1-AISG IN-1)
MBA332FHL00053CMM	ACS-RMC20	(Dual Channel Controller 1-AISG IN-2)

Model s/no. 5 digits

3.12 Beam nos and port nos display

RET ID : MSMBA332FHL00053AMM

RET Status and Control

Antenna Information List

NO	Sector ID	Ant Model	BEAM 3		BEAM 2		BEAM 1	
			Port 5 (+45°)	Port 6 (-45°)	Port 3 (+45°)	Port 4 (-45°)	Port 1 (+45°)	Port 2 (-45°)
1/3	FB1 (P1,2)	MBA-3.3.2F2H2L2						
2/3	FB2 (P3,4)	MBA-3.3.2F2H2L2						
3/3	FB3 (P5,6)	MBA-3.3.2F2H2L2						

RET ID : MSMBA332FHL00053BMM

RET Status and Control

Antenna Information List

NO	Sector ID	Ant Model	BEAM 3		BEAM 2		BEAM 1	
			Port 11 (+45°)	Port 12 (-45°)	Port 9 (+45°)	Port 10 (-45°)	Port 7 (+45°)	Port 8 (-45°)
1/3	HB1 (P7,8)	MBA-3.3.2F2H2L2						
2/3	HB2 (P9,10)	MBA-3.3.2F2H2L2						
3/3	HB3 (P11,12)	MBA-3.3.2F2H2L2						

RET ID : MSMBA332FHL00053CMM

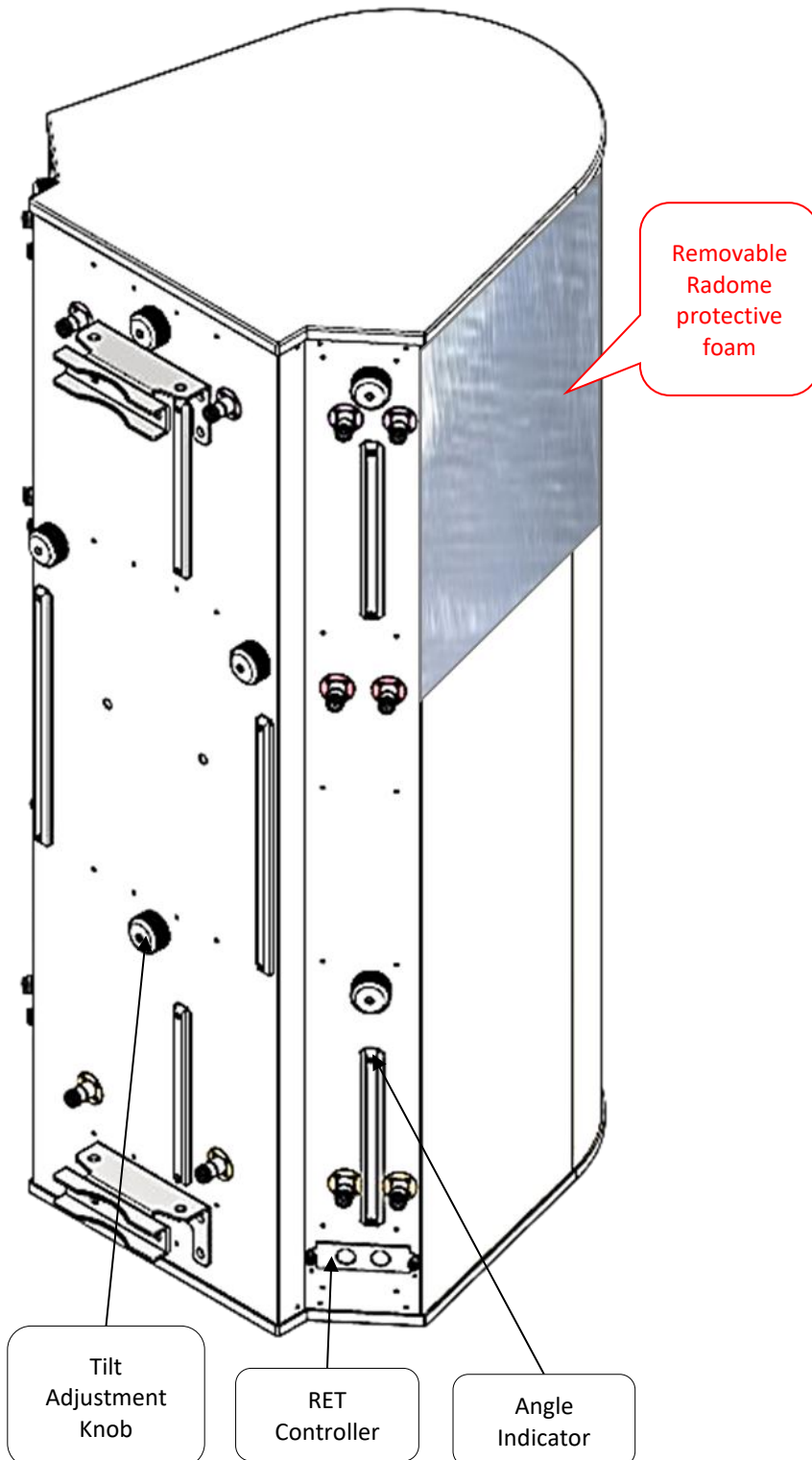
RET Status and Control

Antenna Information List

NO	Sector ID	Ant Model	BEAM 2		BEAM 1	
			Port 15 (+45°)	Port 16 (-45°)	Port 13 (+45°)	Port 14 (-45°)
1/2	LB1 (P13,P14)	MBA-3.3.2F2H2L2				
2/2	LB2 (P15,P16)	MBA-3.3.2F2H2L2				

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



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

5.12 Bracket



5.20 Tools requirement

5.21 Adjustable spanner



5.22 M12 Spanner



5.30 Bracket spacing and installation sample

Remove Radome protective foam after antenna installed

