

Date	Prepared by	Approved by	Document nos	Rev
2 Feb 2024	Ray Ling	Pavel	MBA-3-L4A2-001	3

INSTRUCTION MANUAL MS-MBA-3-L4A2

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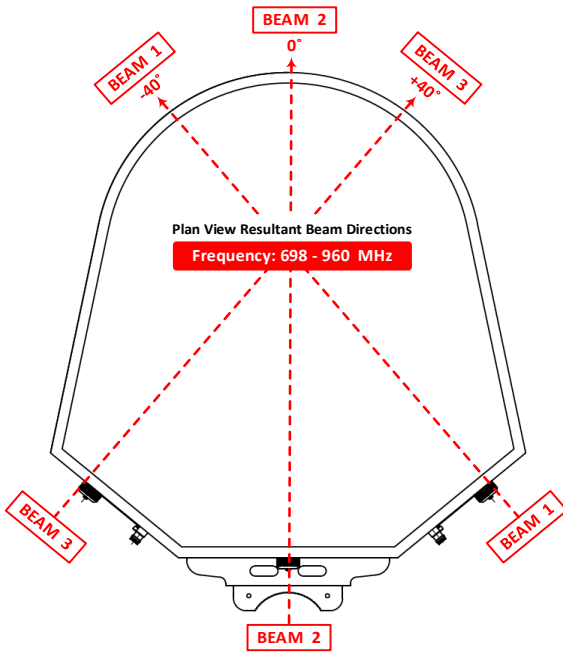
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Revision History:

Date	Description	Revised by	Revision nos.
27-Jul-23	Revised L-Band Frequency Range From 698-960 to 698-896MHz	Ray	1
16-Nov-23	General Update	Ray	2
02-Feb-24	To Include RET Operations/Information & Add in RET Serial nos. Sticker on the Antenna Backshell	Ray	3

1.00 BEAMS & CONNECTORS:

1.10 Plan View Resultant Beam Layout



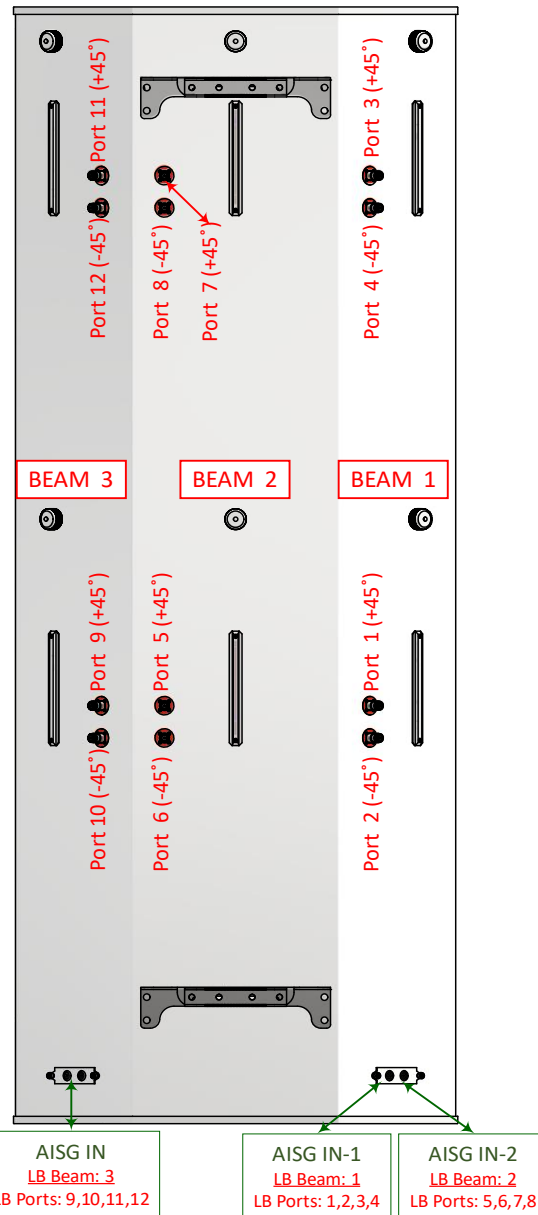
1.20 Connector Port Table

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°)

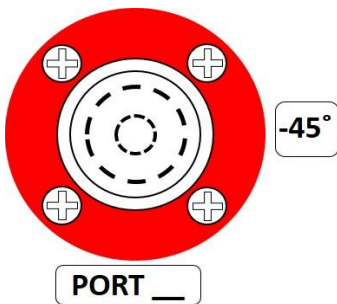
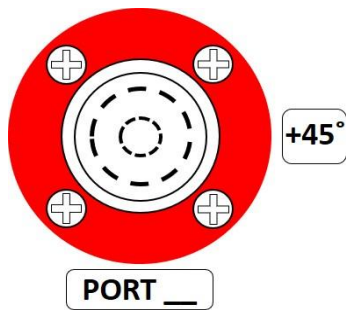
1.40 Connector Layout

MS-MBA-3-L4A2

REAR VIEW CONNECTOR LAYOUT

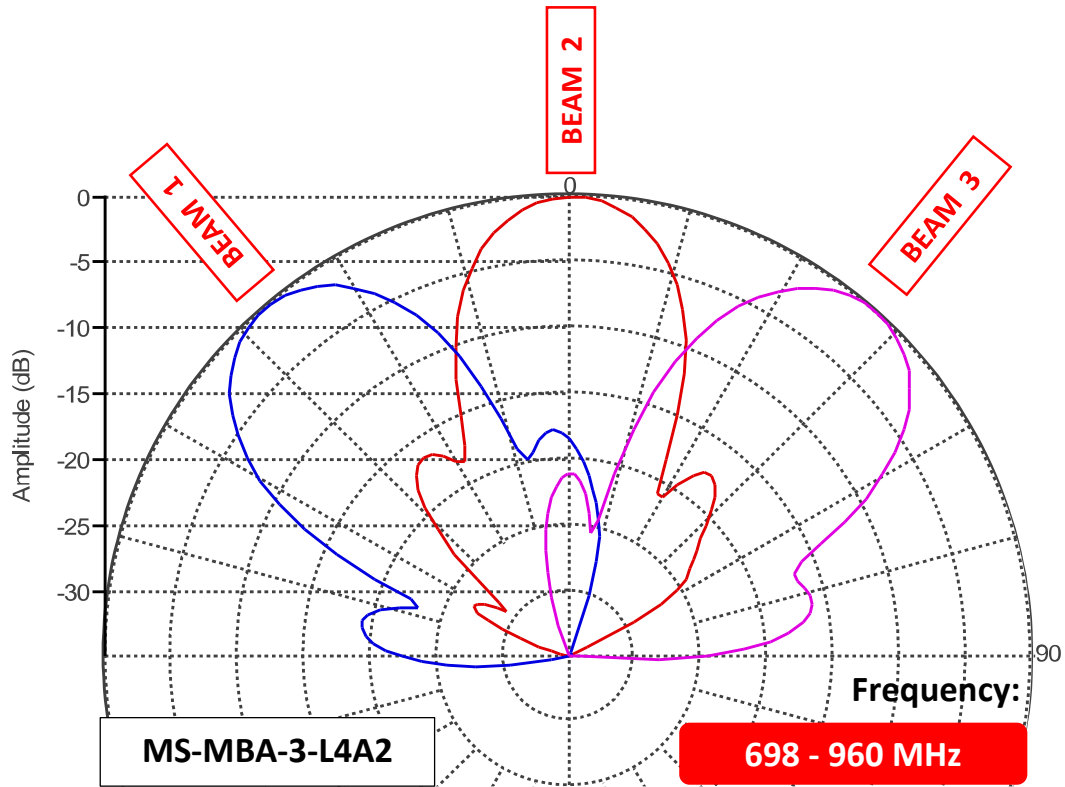


1.30 Connector Detail

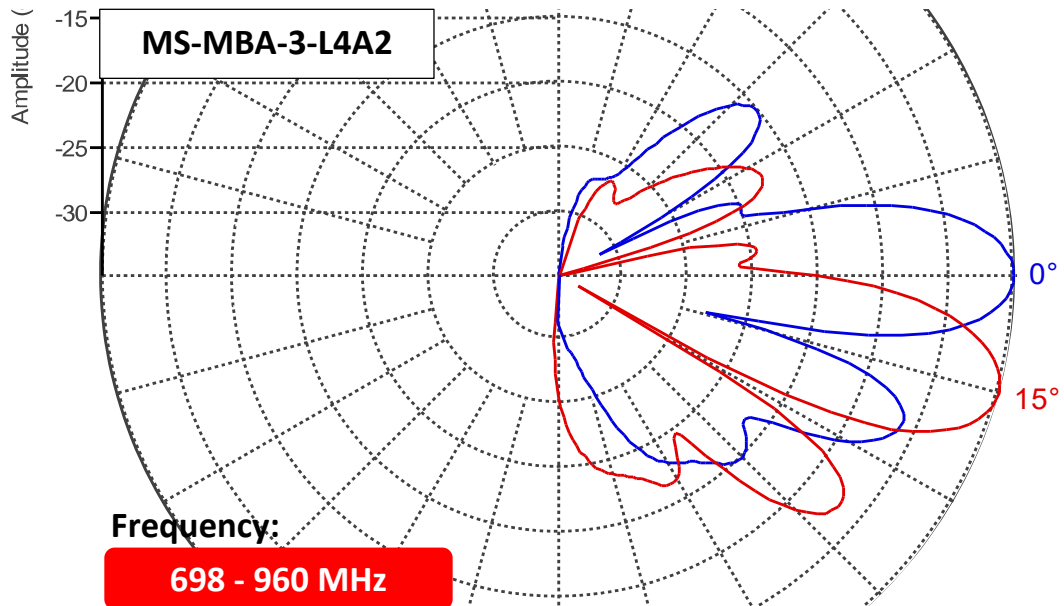


2.00 PATTERN DIAGRAM

2.10 Horizontal Pattern



2.20 Vertical Pattern



3.00 RET Operations / 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 Display & Information Reference (Example of Antenna Unit s/n 6)

ALD List

NO	HDLC	Vendor	Serial Number	Product Number	H/W Version	S/W Version	3GPP	Device	AISG	Connect	Link
1	1	MS	MBA3L4A2000006AMM	ACS-RMC20	1.00	1.17	6	Multi RET	2	Connect	Link
2	2	MS	MBA3L4A2000006BMM	ACS-RMC20	1.00	1.17	6	Multi RET	2	Connect	Link
3	3	MS	MBA3L4A2000006CMM	ACS-RMC00	1.00	1.17	6	Multi RET	2	Connect	Link



3.20 Model & S/N Reference From Label

MATSING
LENS TECHNOLOGY ENABLED

Model No. : MS-MBA-3-L4A2
Serial No. : MS-MBA-3-L4A2-00006
Frequency: 698 - 960 MHz

RET Controller Serial #
MBA3L4A2000006AMM
MBA3L4A2000006BMM
MBA3L4A2000006CMM

Antenna s/nos Sticker

RET Controller s/nos Sticker

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

Add Zero in front if the serial nos is shorter than 6 digits

3.30 Beam Nos & Port Nos Display

RET ID : MSMBA3L4A2000006AMM

Beam 1, ACS-RMC20_IN-1 (Port Assigned)

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	MSMBA3L4A20000006	0.0	Normal
2/2	LB Beam 1 (Ports 3, 4)	MS-MBA-3-L4A2	MSMBA3L4A20000006	0.0	Normal

RET ID : MSMBA3L4A2000006BMM

Beam 2, ACS-RMC20_IN-2 (Port Assigned)

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	MSMBA3L4A20000006	0.0	Normal
2/2	LB Beam 2 (Ports 7, 8)	MS-MBA-3-L4A2	MSMBA3L4A20000006	0.0	Normal

RET ID : MSMBA3L4A2000006CMM

Beam 3, ACS-RMC00_IN (Port Assigned)

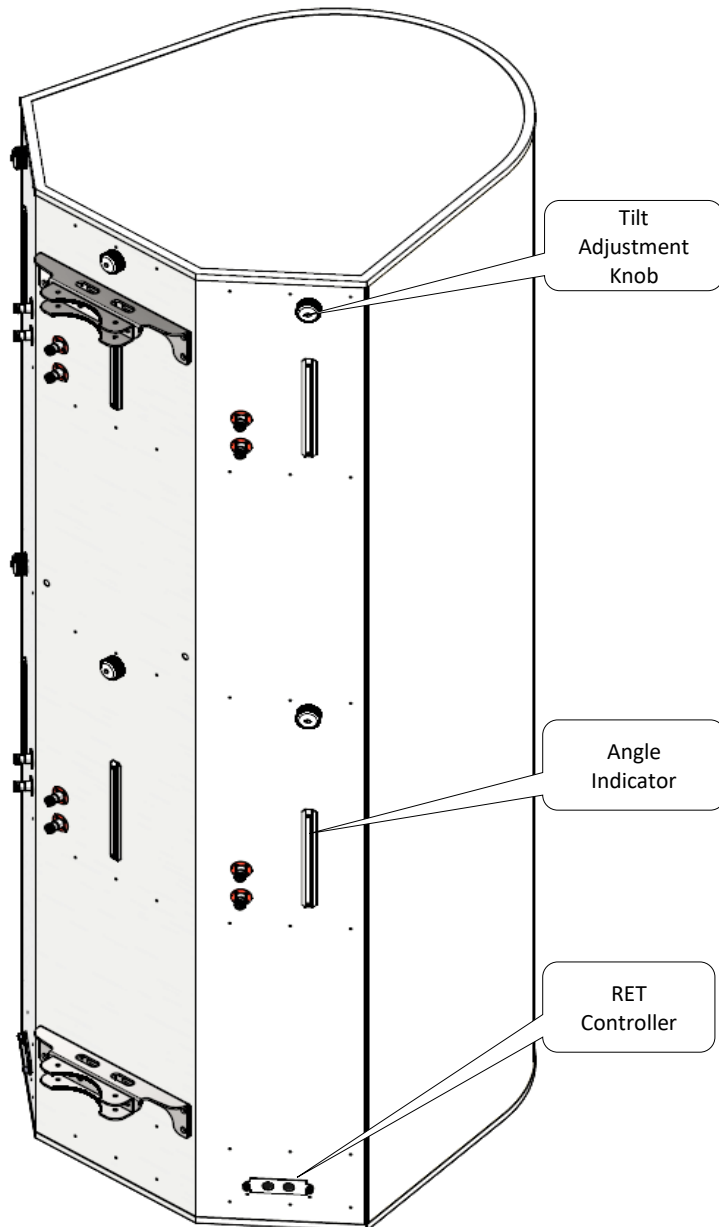
RET Status and Control

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	MSMBA3L4A20000006	0.0	Normal
2/2	LB Beam 3 (Ports 11, 12)	MS-MBA-3-L4A2	MSMBA3L4A20000006	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

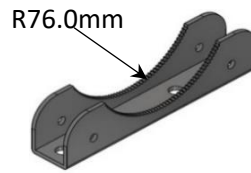
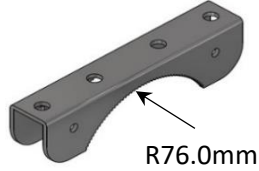
5.10 Bolts & Nuts Requirements

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

5.11 Bolts & Nuts



5.12 Bracket



5.20 Tools Requirement

5.21 Adjustable Spanner



5.22 M12 Spanner



5.30 Bracket Spacing & Installation Sample

