



# **MS-MBA-8**

## **RET Operation Manual**



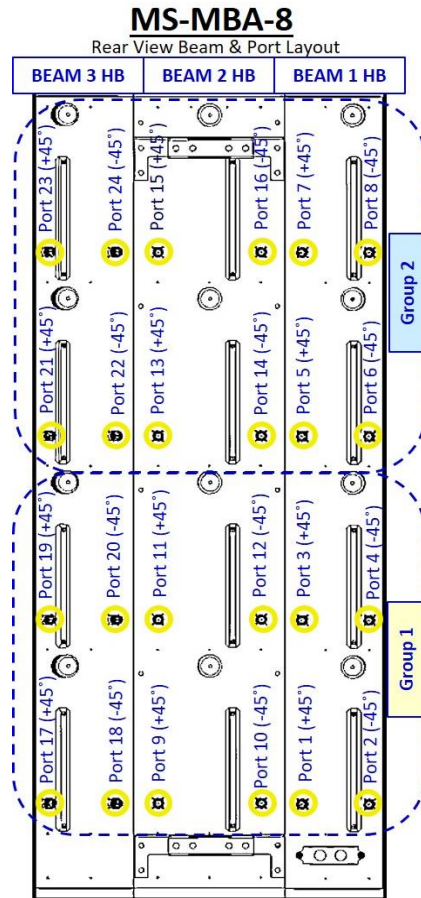
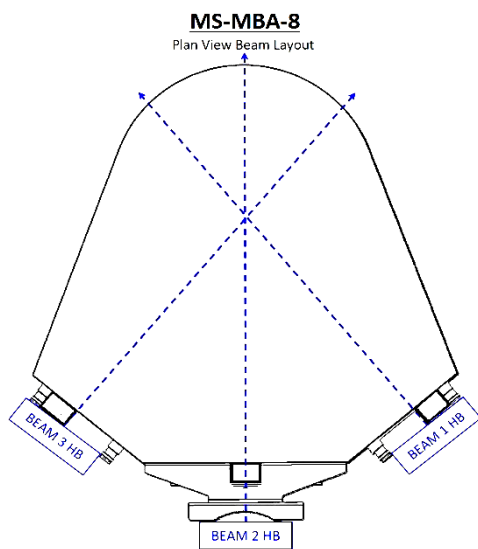
The **MS-MBA-8** antenna comes standard with an MDCU Controller and 10 motorized RET elements. Each motorized RET element control 2 ports +45/-45 of the respected beam.

Factory default firmware for the MDCU Controller is MRET (Type 17), however SRET (Type 1) is available upon request.



**Dual AISG Input**

**IN-1 Controls HB Beams 1-3 (Group 1)**  
**IN-2 Controls HB Beams 1-3 (Group 2)**



**MDCU Controller RET Element mapping for MS-MBA-8**

Beam 3 HB Port 23 & 24	Beam 2 HB Port 15 & 16	Beam 1 HB Port 7 & 8
Beam 3 HB Port 21 & 22	Beam 2 HB Port 13 & 14	Beam 1 HB Port 5 & 6
Beam 3 HB Port 19 & 20	Beam 2 HB Port 11 & 12	Beam 1 HB Port 3 & 4
Beam 3 HB Port 17 & 18	Beam 2 HB Port 9 & 10	Beam 1 HB Port 1 & 2
<b>Dual AISG Input</b>		<b>MDCU</b>

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 **MS-MBA-8** RET Elements.

**RET CONNECTION**

AISG IN-1: "Group1" (HB) Serial End with "AMM"      AISG IN-2: "Group2" (HB) Serial End with "BMM"

ALD List	NO	HDLC	Vendor	Serial Number	Product Number	FW Version	S/W Version	3GPP	Device	AISG	Connect	Link
1	1	MS	MBA8P000000001AMM	ACS-RMC20	1.00	1.13	6	Multi...	2	Con...	●	L...
2	2	MS	MBA8P000000001BMM	ACS-RMC20	1.00	1.13	6	Multi...	2	Con...	●	L...

**RET Tilt Window**

RET ID : MSMBA8P000000001AMM

RET Status and Control

Antenna Information List

NO	Sector ID	Ant Model	Ant Serial	Current Tilt	Status
1/6	Beam 1 (P1,2)	MBA-8	MS-MBA-8-00001	0.0	Normal
2/6	Beam 2 (P9,10)	MBA-8	MS-MBA-8-00001	0.0	Normal
3/6	Beam 3 (P17,18)	MBA-8	MS-MBA-8-00001	0.0	Normal
4/6	Beam 1 (P3,4)	MBA-8	MS-MBA-8-00001	0.0	Normal
5/6	Beam 2 (P11,12)	MBA-8	MS-MBA-8-00001	0.0	Normal
6/6	Beam 3 (P19,20)	MBA-8	MS-MBA-8-00001	0.0	Normal

**RET HB Element to Group 1 Beam & Port Assigned**

RET ID : MSMBA8P000000001AMM

RET Additional Device Data

Antenna Number | Sub Unit : 1/6

Additional Data	Devide Data
ANT NO	1
ANT Model	MBA-8
ANT Serial	MS-MBA-8-00001
Band	UL(1920~1980),DL(2110~2170)...
Band Ext8	
Band Ext9	
Beamwidth #1	22
Beamwidth #2	0
Beamwidth #3	0
Beamwidth #4	0
Gain #1	18.5
Gain #2	0.0
Gain #3	0.0
Gain #4	0.0
Max Tilt	30.0
Min Tilt	0.0
Installation Date	
Installer's ID	
Base Station ID	
Sector ID	Beam 1 (P1,2)
Ant Bearing	0.0
Mechanical Tilt	0.0

**Device Data Management for HB Group 1**

RET ID : MSMBA8P000000001BMM

RET Additional Device Data

Antenna Number | Sub Unit : 1/6

Additional Data	Devide Data
ANT NO	1
ANT Model	MBA-8
ANT Serial	MS-MBA-8-00001
Band	UL(1920~1980),DL(2110~2170)...
Band Ext8	
Band Ext9	
Beamwidth #1	22
Beamwidth #2	0
Beamwidth #3	0
Beamwidth #4	0
Gain #1	18.5
Gain #2	0.0
Gain #3	0.0
Gain #4	0.0
Max Tilt	30.0
Min Tilt	0.0
Installation Date	
Installer's ID	
Base Station ID	
Sector ID	Beam 1 (P5,6)
Ant Bearing	0.0
Mechanical Tilt	0.0

**Device Data Management for HB Group 2**

**RET Tilt Window**

RET ID : MSMBA8P000000001BMM

RET Status and Control

Antenna Information List

NO	Sector ID	Ant Model	Ant Serial	Current Tilt	Status
1/6	Beam 1 (P5,6)	MBA-8	MS-MBA-8-00001	0.0	Normal
2/6	Beam 2 (P13,14)	MBA-8	MS-MBA-8-00001	0.0	Normal
3/6	Beam 3 (P21,22)	MBA-8	MS-MBA-8-00001	0.0	Normal
4/6	Beam 1 (P7,8)	MBA-8	MS-MBA-8-00001	0.0	Normal
5/6	Beam 2 (P15,16)	MBA-8	MS-MBA-8-00001	0.0	Normal
6/6	Beam 3 (P23,24)	MBA-8	MS-MBA-8-00001	0.0	Normal

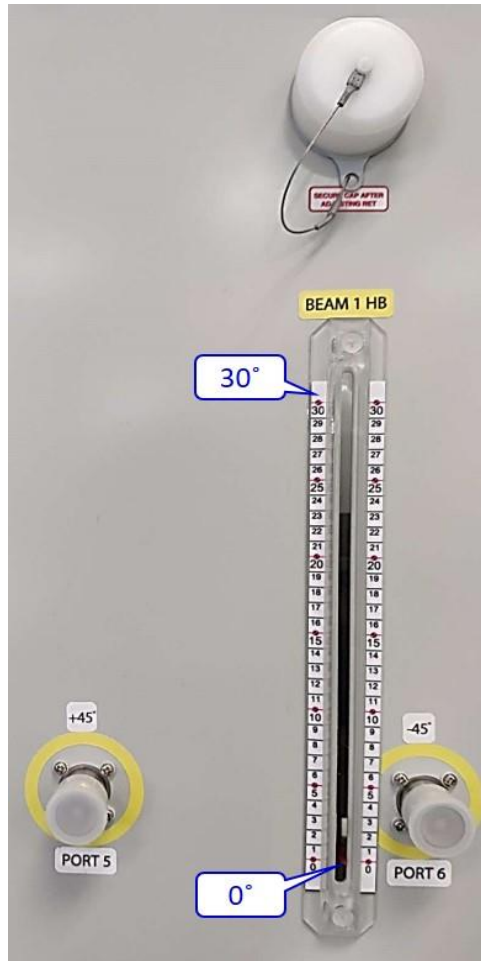
**RET HB Element to Group 2 Beam & Port Assigned**

## Calibration:

Prior to use, RET Element calibration is required.

Re-Calibration is also required if manual mode was used at any point to adjust tilt

During calibration, the RET Element will use an Upper & Lower har-stop to calibrate **0°-30° (HB)** Degree range.



6 Beam / RET HB Elements offer a tilt range from **0° - 30°** degree independently.

The current degree of tilt is indicated by the movable **RED MARKER TIP**.

## Manual Mode

The **MS-MBA-8** antenna offers a manual override option.

Step 1:

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



Step 2:

**Engaged with internal RET Motor position**



Step 3:

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

