

Date	Prepared by	Approved by	Document nos	Revision
16 Jun 2021	Ray Ling	Pavel	MS-MBA-32-84-001	2

## INSTRUCTION MANUAL MS-MBA-3.2-H8-L4

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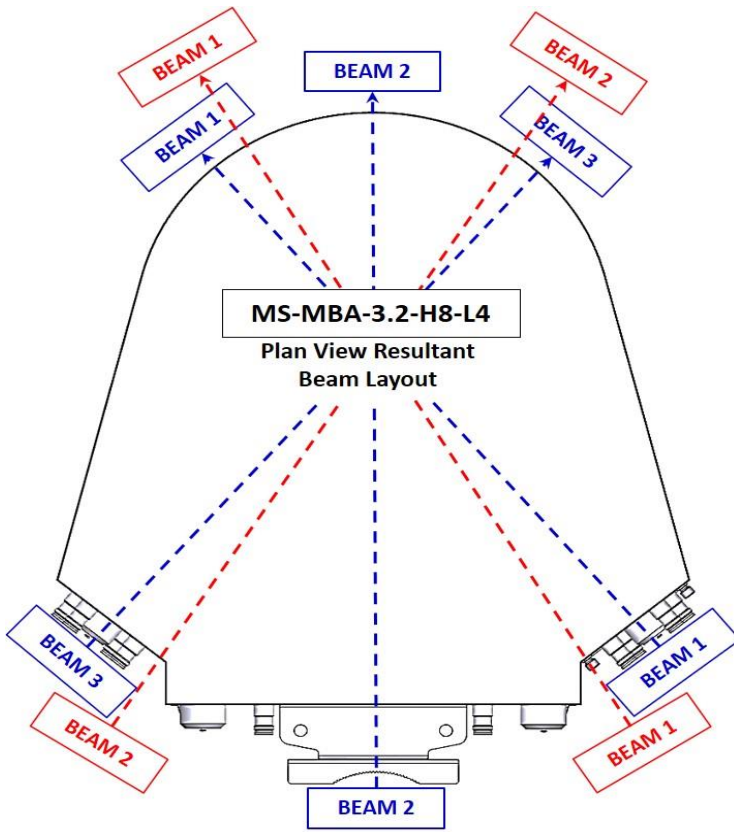
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#### Revision History:

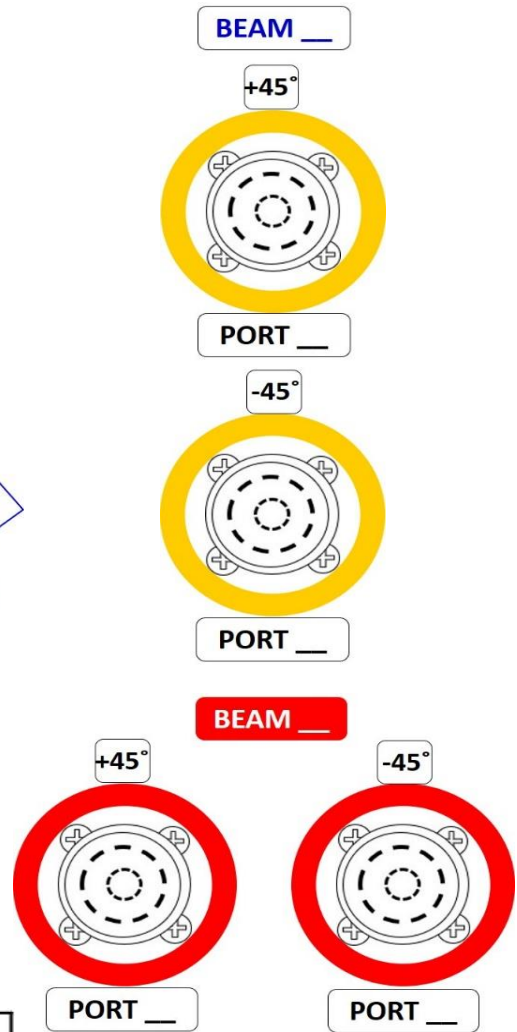
Date	Description	Revised by	Revision nos.
31-May-21	Revised HB frequency to 1710 - 2690MHz.	Ray Ling	1
16-Jun-21	Remove T4 model and add in bracket installation	Ray Ling	2

**1.00 BEAMS & CONNECTORS:**

**1.10 Plan View Resultant Beam Layout**



**1.30 Connector Detail**



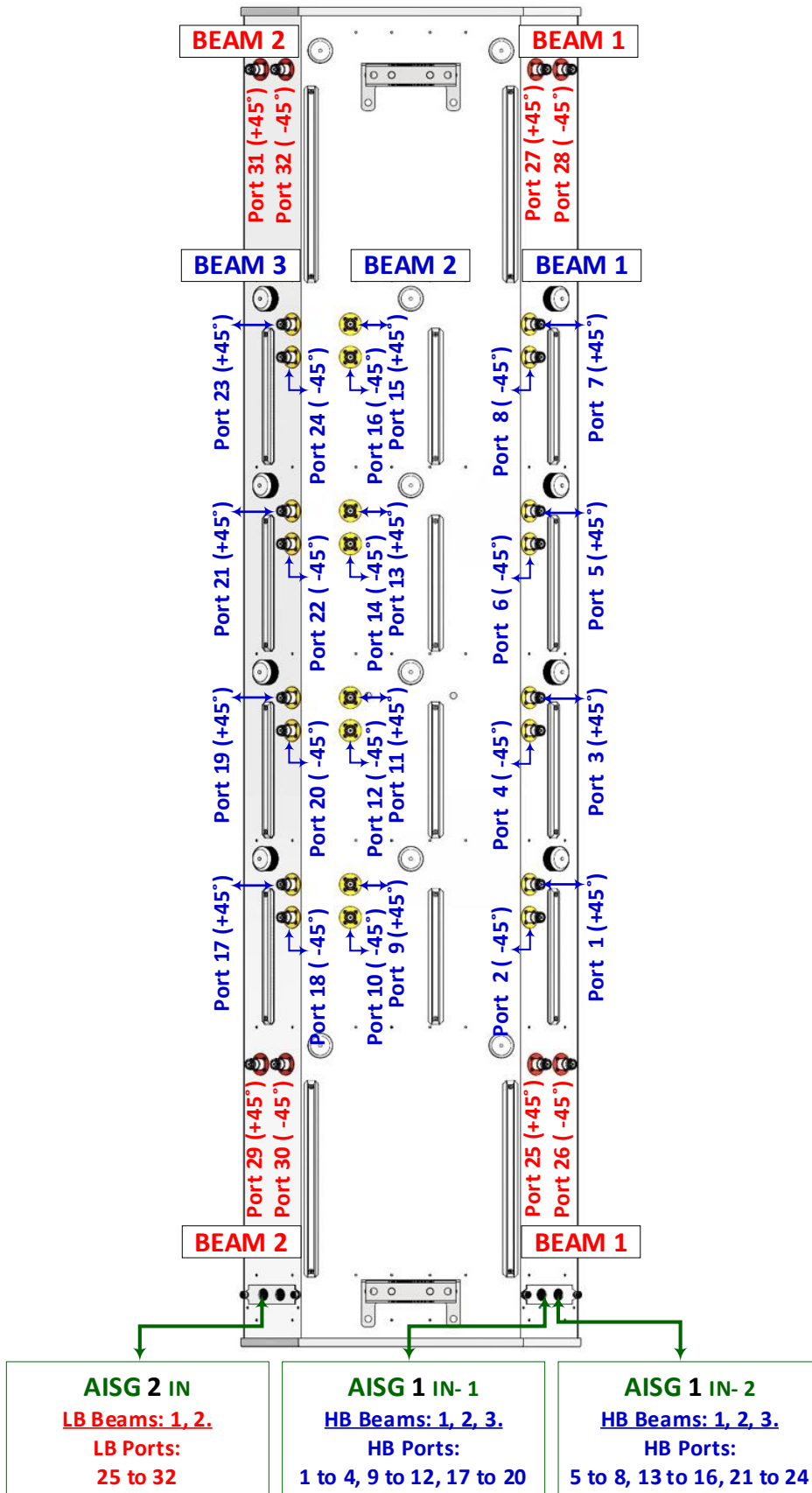
**1.20 Connector Ports Table**

MS-MBA-3.2-H8-L4					
<b>BEAM 2</b>				<b>BEAM 1</b>	
Port 31 (+45°)	Port 32 (-45°)			Port 27 (+45°)	Port 28 (-45°)
<b>BEAM 3</b>		<b>BEAM 2</b>		<b>BEAM 1</b>	
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°)
<b>BEAM 2</b>				<b>BEAM 1</b>	
Port 29 (+45°)	Port 28 (-45°)			Port 25 (+45°)	Port 26 (-45°)

1.40 Connector Layout

**MS-MBA-3.2-H8-L4**

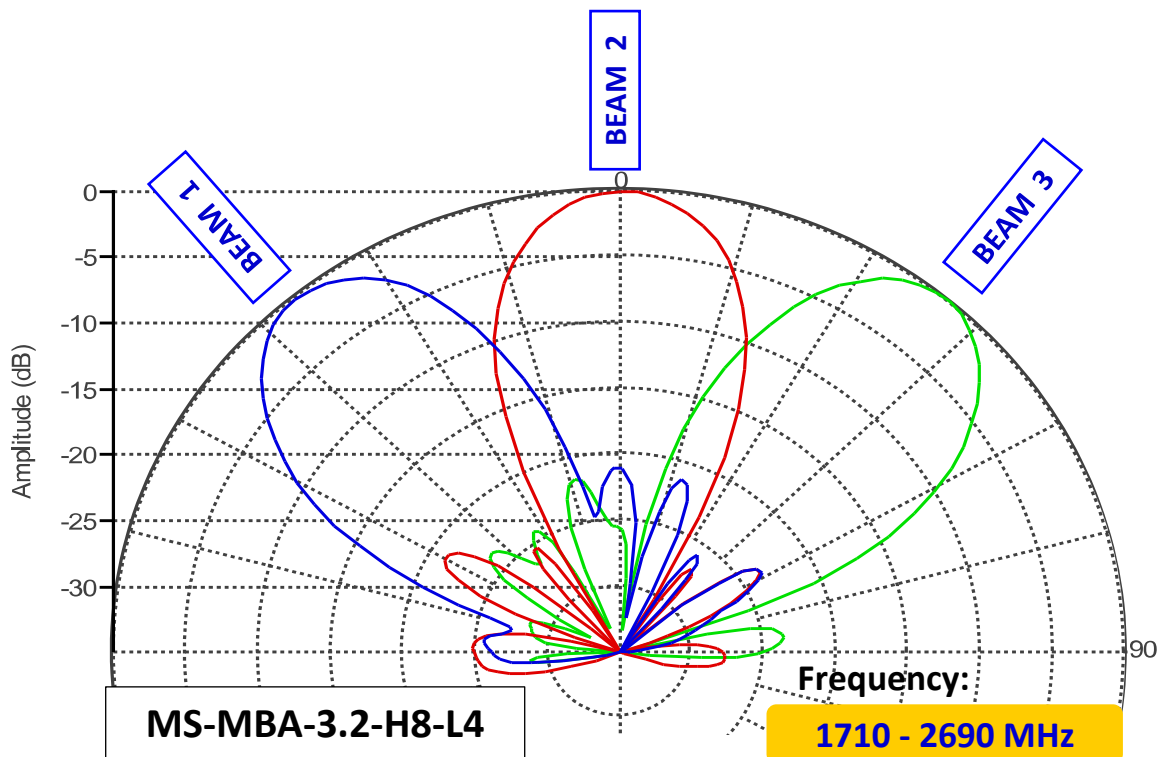
**REAR VIEW CONNECTOR LAYOUT**



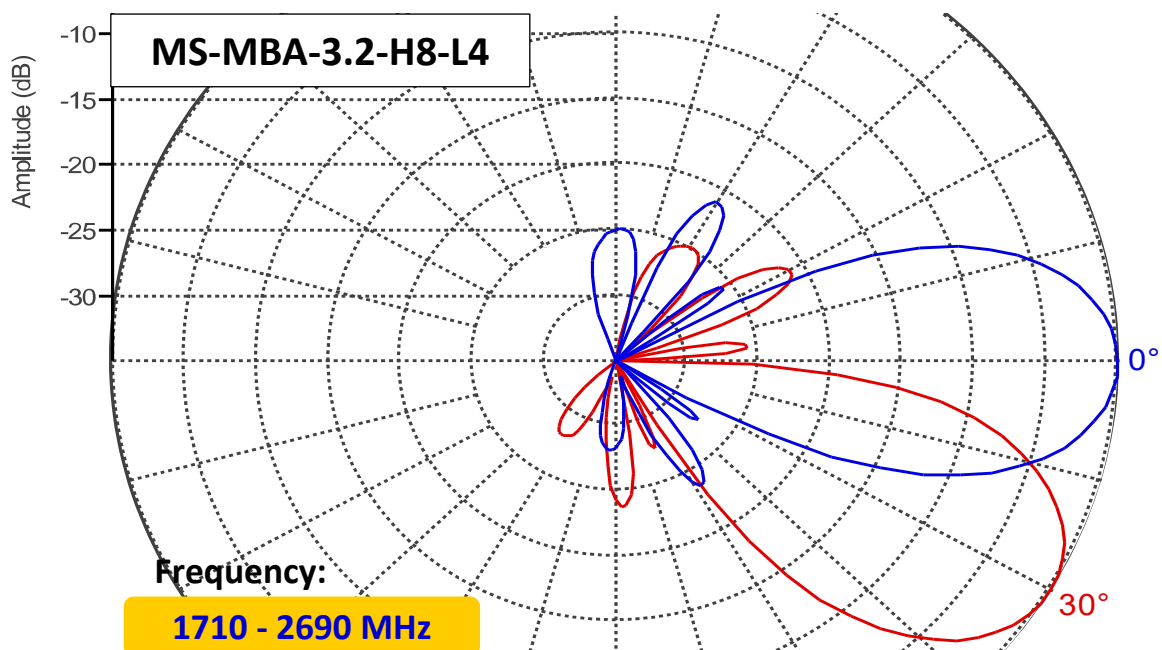
## 2.00 PATTERN DIAGRAM

2.10 Frequency: 1710 - 2690 MHz

2.11 Horizontal Pattern

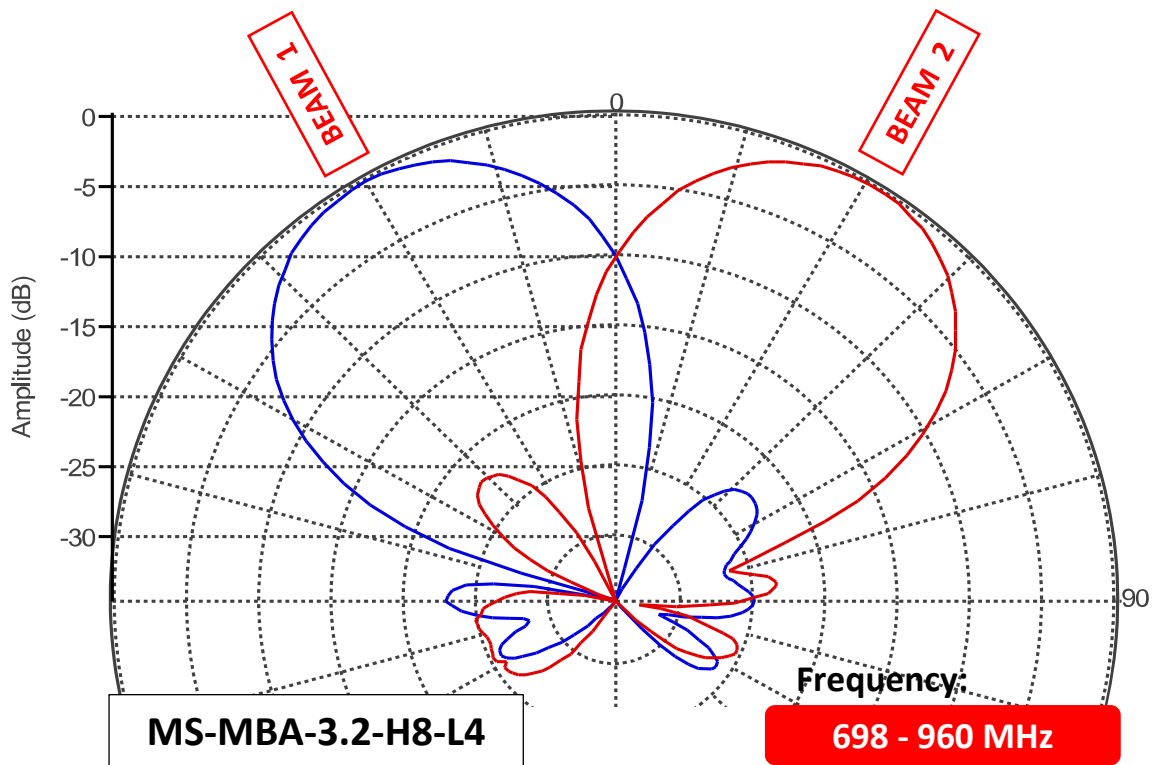


2.12 Vertical Pattern

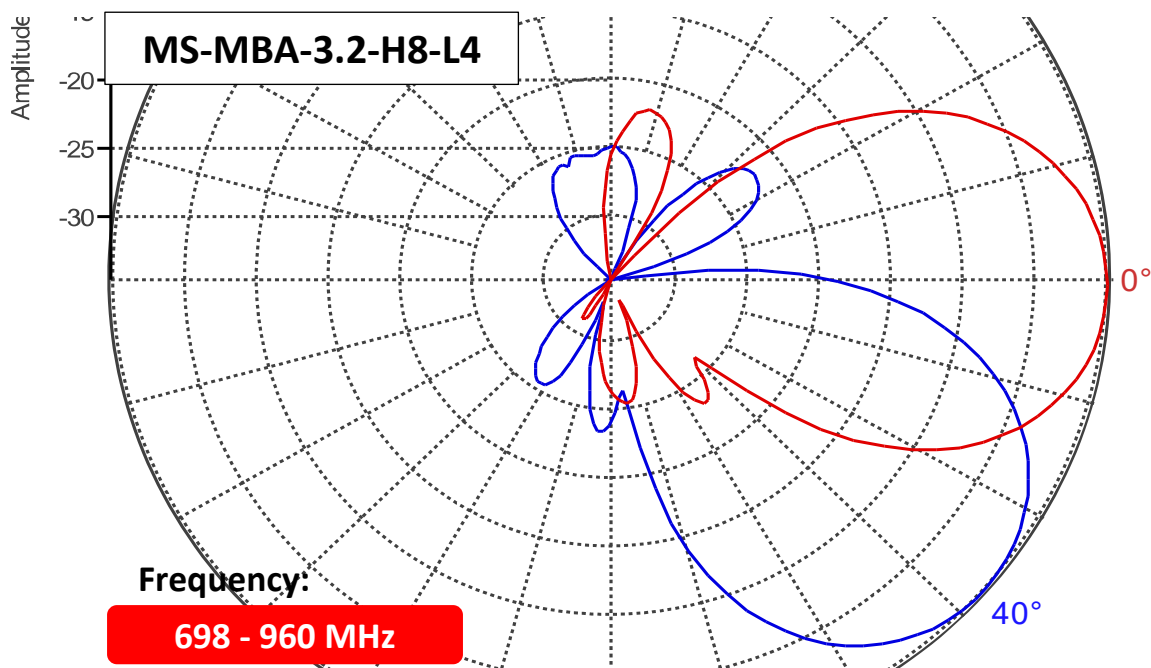


2.20 Frequency: 698 - 960 MHz

2.21 Horizontal Pattern

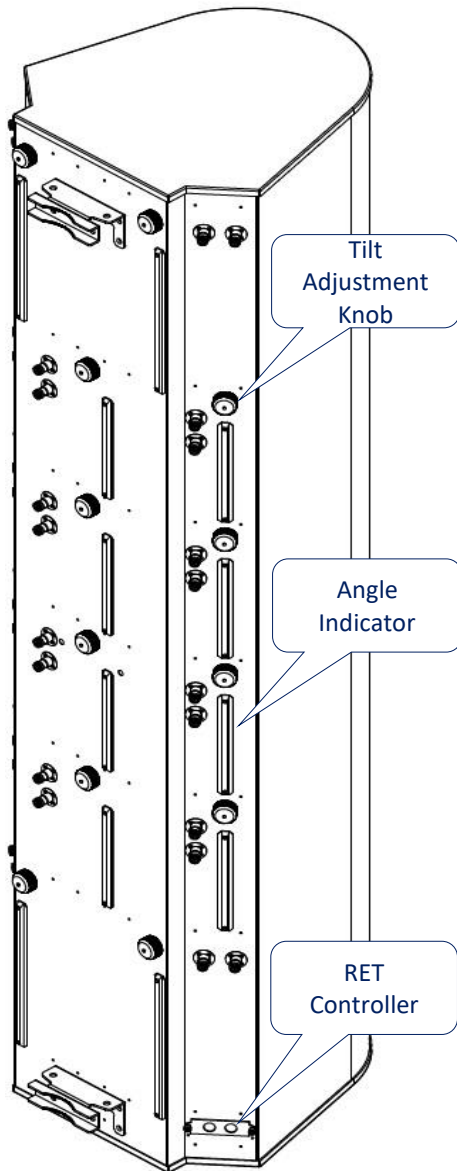


2.22 Vertical Pattern



### 3.00 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.



**1. Engaged with internal RET motor position**



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



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



### 4.00 BRACKET INSTALLATION

#### 4.10 Bolts & Nuts Requirements

All MBA's Antenna

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

#### 4.11 Bolts & Nuts



#### 4.12 Bracket





#### 4.20 Tools Requirement

##### 4.21 Adjustable Spanner



##### 4.22 M12 Spanner



#### 4.30 Bracket Spacing & Installation Sample

