

|             |             |             |                    |     |
|-------------|-------------|-------------|--------------------|-----|
| Date        | Prepared by | Approved by | Document nos       | Rev |
| 25 Mar 2021 | Ray Ling    | Pavel       | MBA-442-F2H2L2-001 | 0   |

## INSTRUCTION MANUAL MS-MBA-4.4.2-F2-H2-L2

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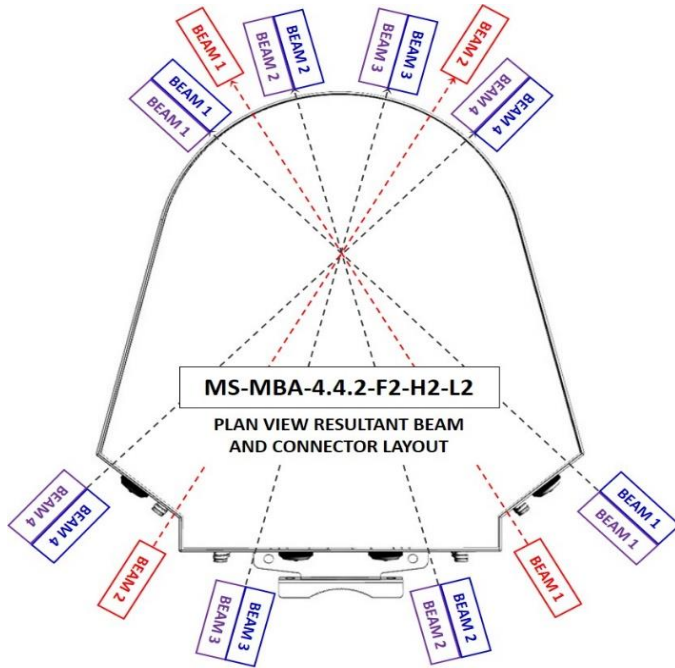
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#### Revision History:

| Date | Description | Revised by | Revision nos. |
|------|-------------|------------|---------------|
|      |             |            |               |
|      |             |            |               |

# 1.00 BEAMS & CONNECTORS:

## 1.10 Plan View Resultant Beam Layout

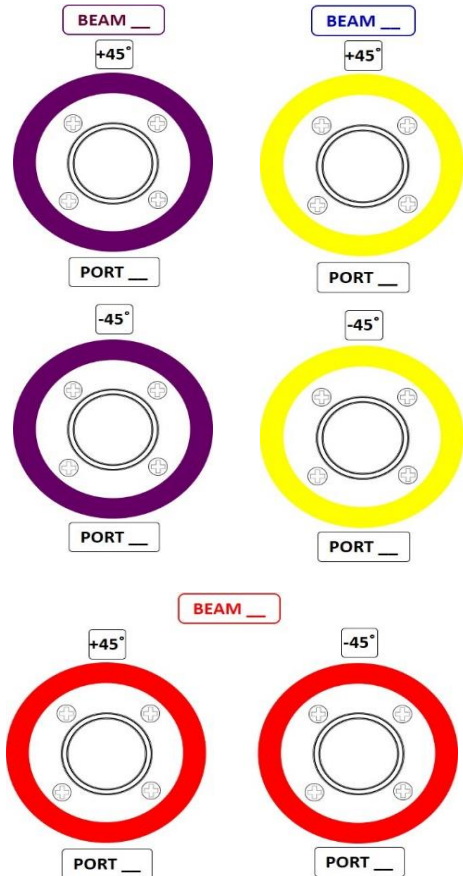


## 1.20 Connector Ports Table

| MS-MBA-4.4.2-F2-H2-L2<br>Connector Table |                |                |                |
|--|----------------|----------------|----------------|
| BEAM 4                                   | BEAM 3         | BEAM 2         | BEAM 1         |
| Port 7 (+45°)                            | Port 5 (+45°)  | Port 3 (+45°)  | Port 1 (+45°)  |
| Port 8 (-45°)                            | Port 6 (-45°)  | Port 4 (-45°)  | Port 2 (-45°)  |
| <b>BEAM 2</b>                            |                | <b>BEAM 1</b>  |                |
| Port 19 (+45°)                           |                | Port 17 (+45°) |                |
| Port 20 (-45°)                           |                | Port 18 (-45°) |                |
| BEAM 4                                   | BEAM 3         | BEAM 2         | BEAM 1         |
| Port 15 (+45°)                           | Port 13 (+45°) | Port 11 (+45°) | Port 9 (+45°)  |
| Port 16 (-45°)                           | Port 14 (-45°) | Port 12 (-45°) | Port 10 (-45°) |

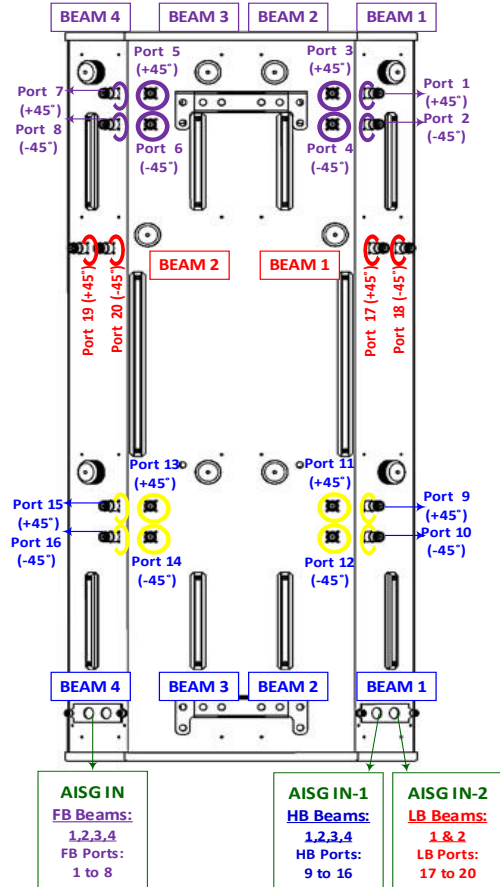
## 1.30 Connector Detail

**MS-MBA-4.4.2-F2-H2-L2**  
PLAN VIEW RESULTANT BEAM AND CONNECTOR LAYOUT



## 1.40 Connector Layout

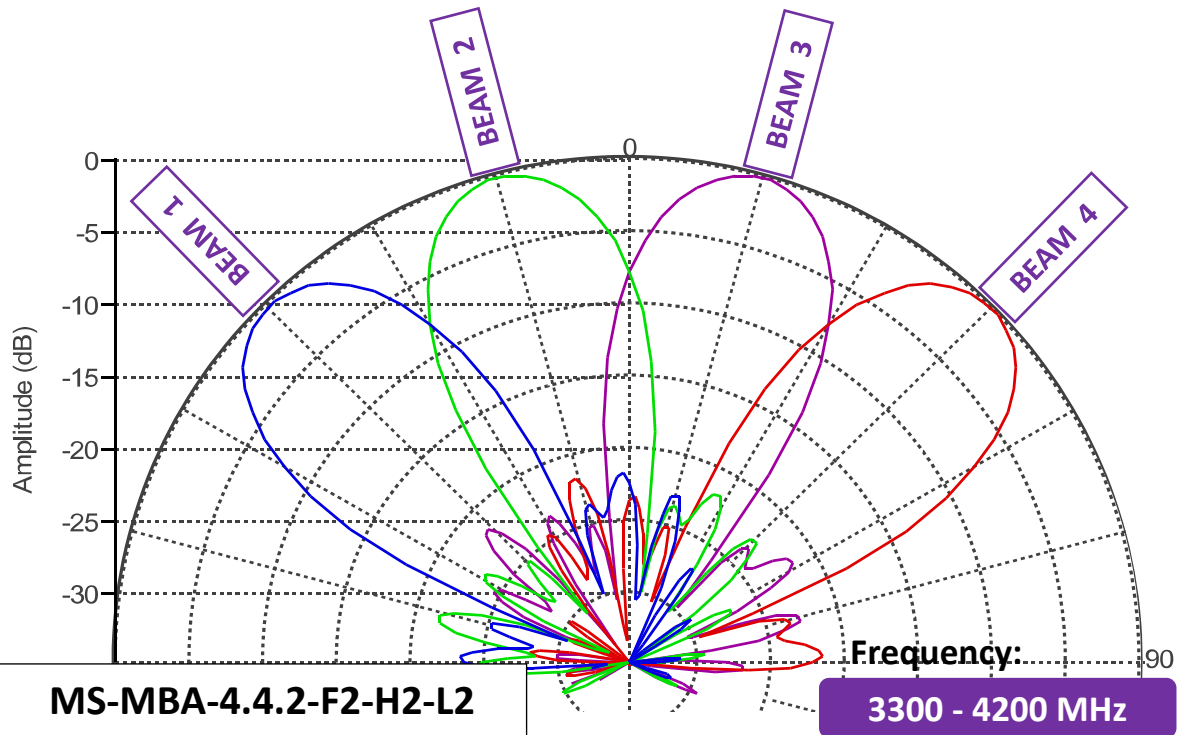
**MS-MBA-4.4.2-F2-H2-L2**  
REAR VIEW CONNECTOR LAYOUT



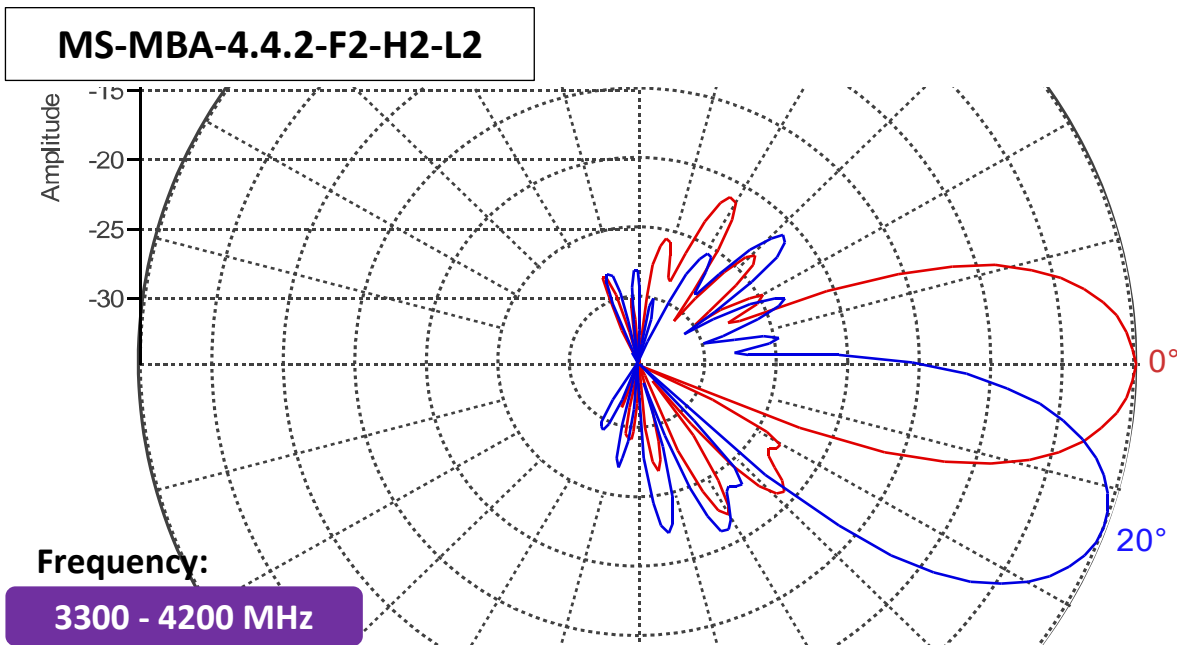
## 2.00 PATTERN DIAGRAM

2.10 Frequency: 3300 - 4200 MHz

2.11 Horizontal Pattern

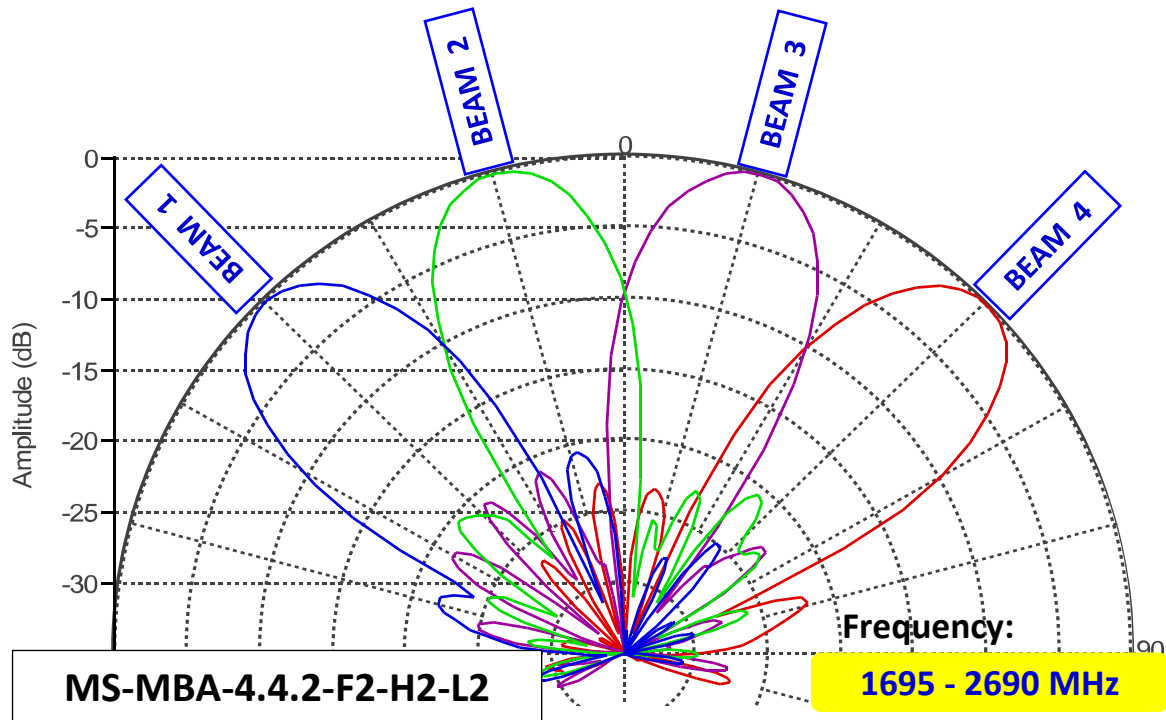


2.12 Vertical Pattern

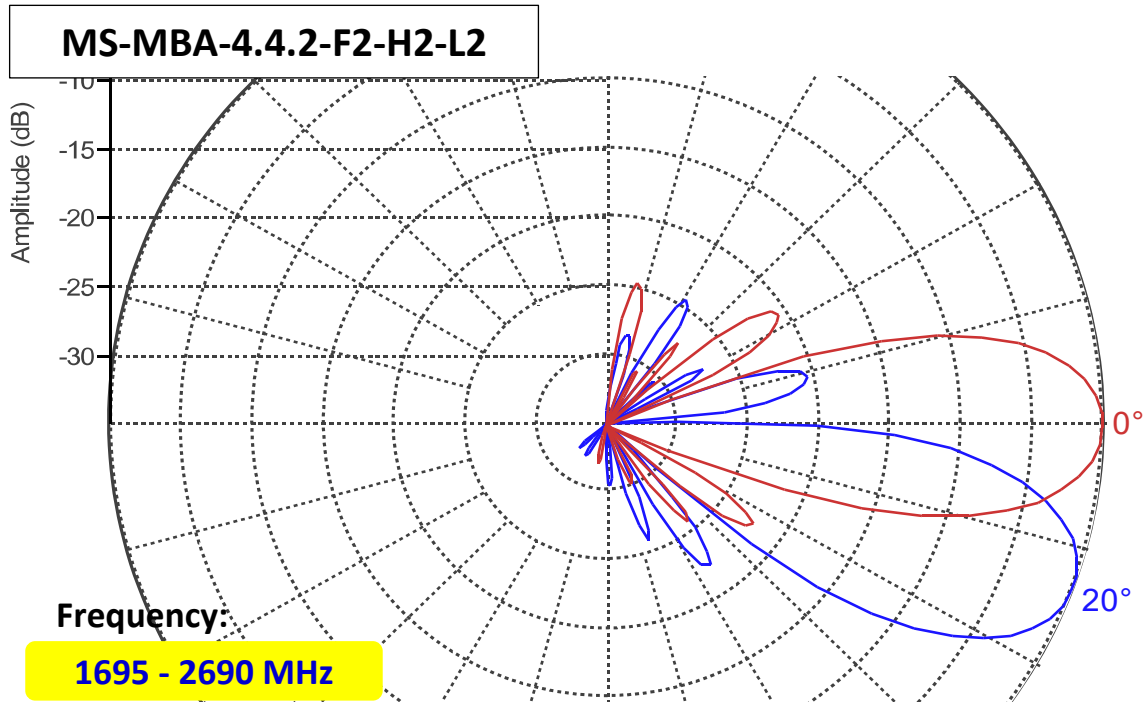


2.20 Frequency: 1695 - 2690 MHz

2.21 Horizontal Pattern

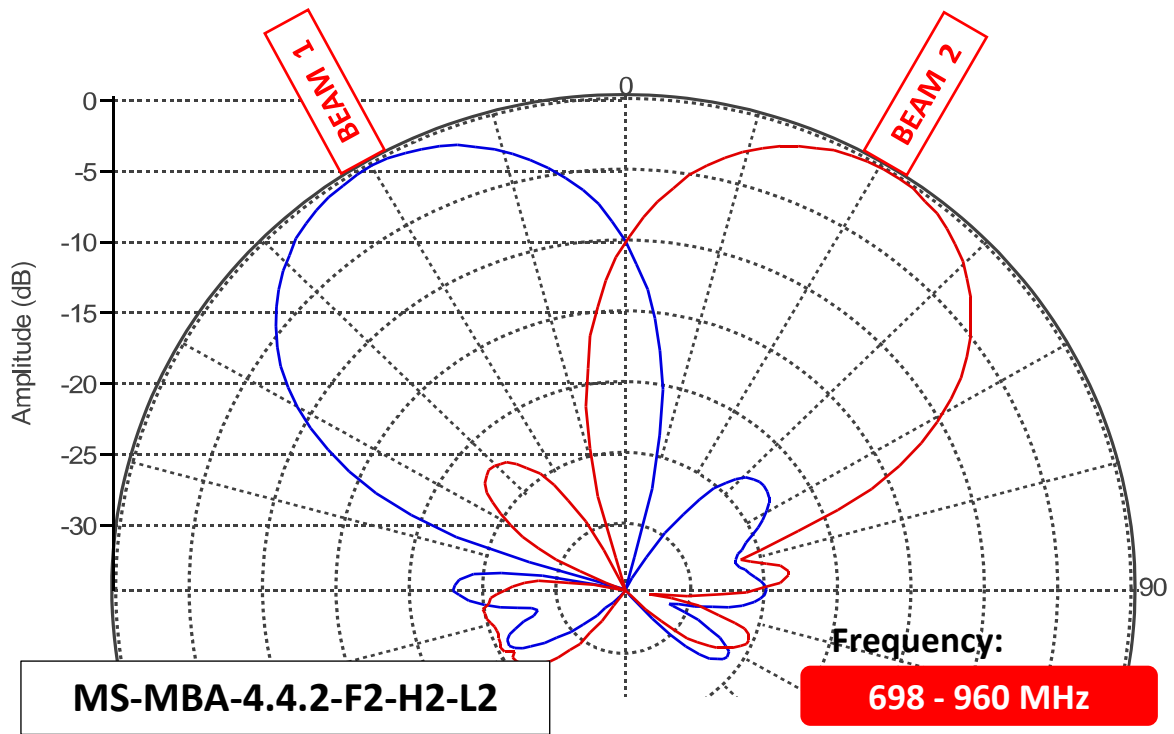


2.22 Vertical Pattern



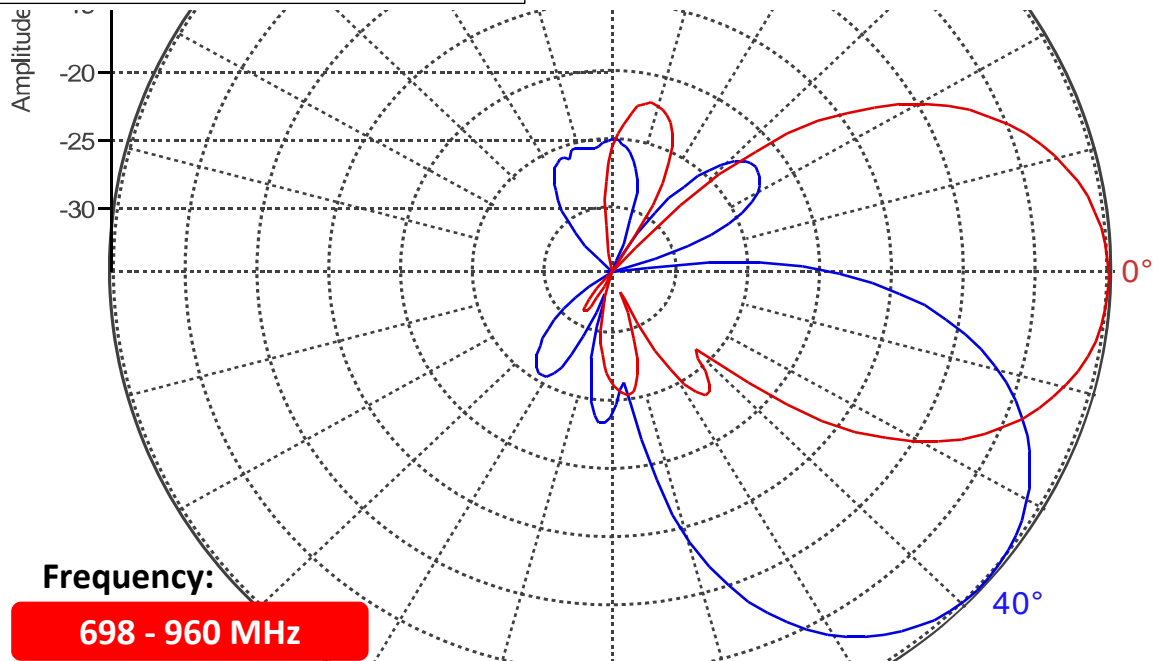
2.30 Frequency: 698 - 960 MHz

2.31 Horizontal Pattern



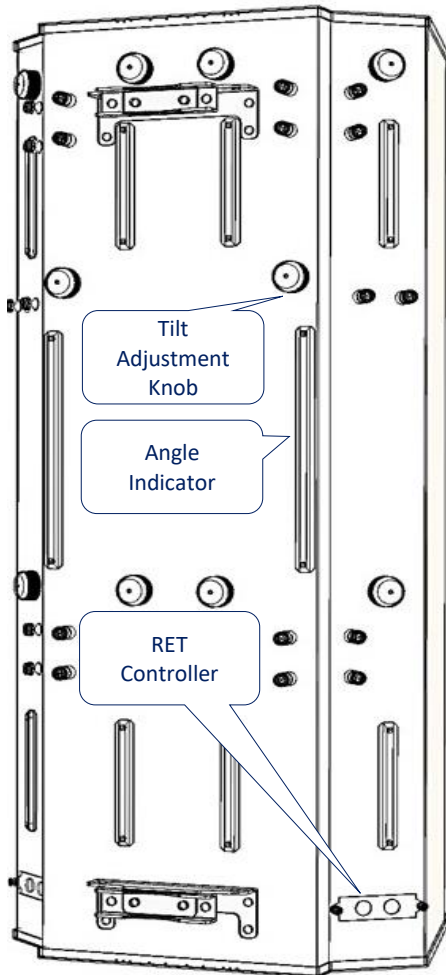
2.32 Vertical Pattern

MS-MBA-4.4.2-F2-H2-L2



### 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.   |



**Engaged with internal RET motor position**



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



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



### 4.00 BRACKET INSTALLATION

#### 4.10 Bolts & Nuts Requirements

| nos | Model Apply        | Bracket | Bolts       |     | Nuts |     |
|-----|--------------------|---------|-------------|-----|------|-----|
|     |                    | Qty     | Size        | Qty | Size | Qty |
| 1   | All MBA's Antennas | 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

