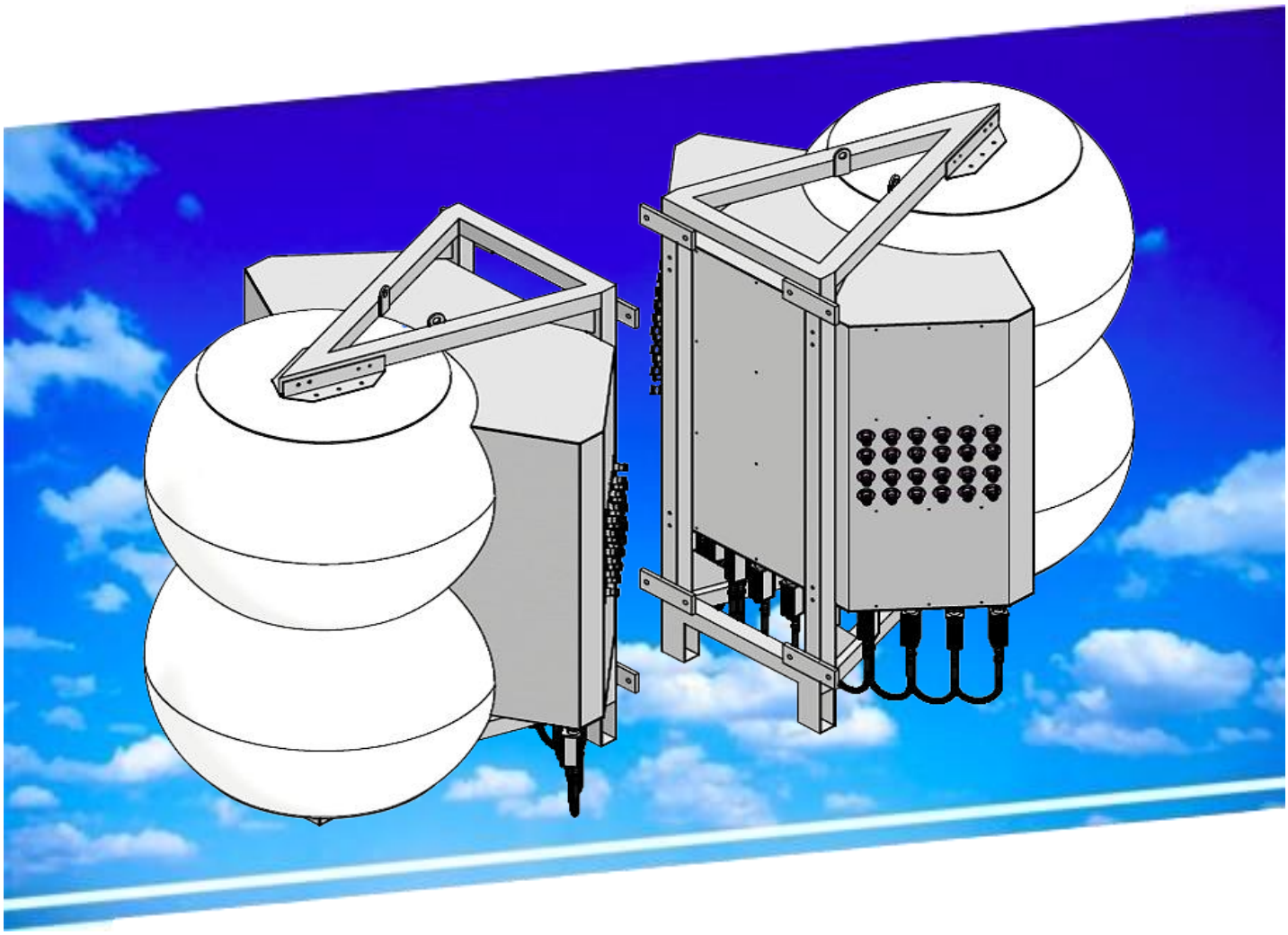
MATSING®

LENS TECHNOLOGY ENABLED

MS-12.12F90

Instruction Manual



www.matsing.com technicalsupport@matsing.com phone: (800) 867-6429

LENS TECHNOLOGY ENABLED

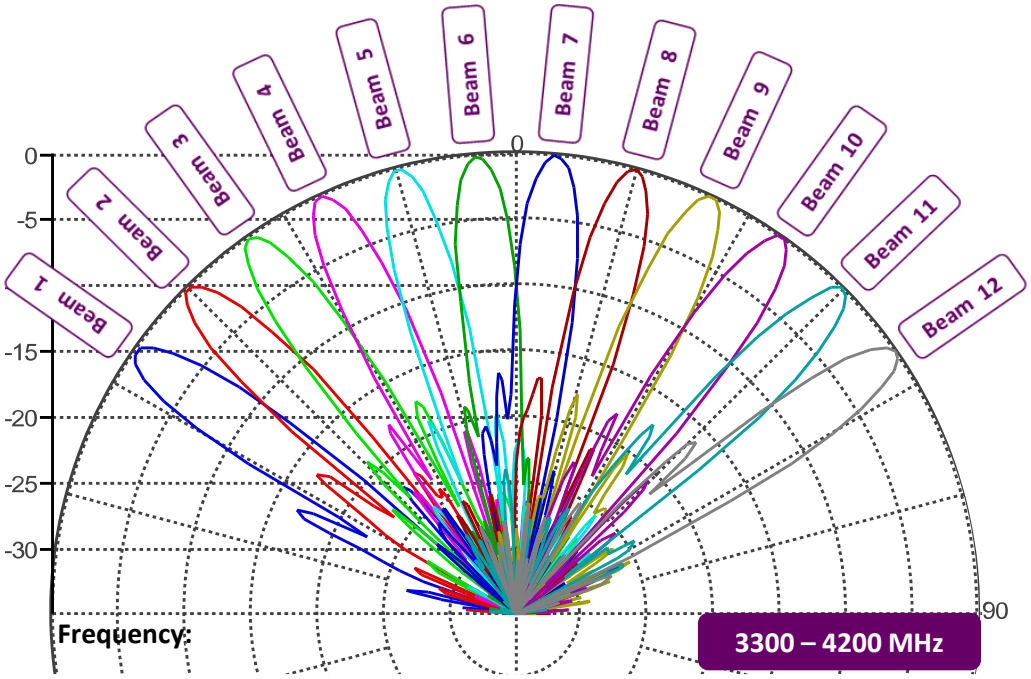
Table of Contents

Revision History:

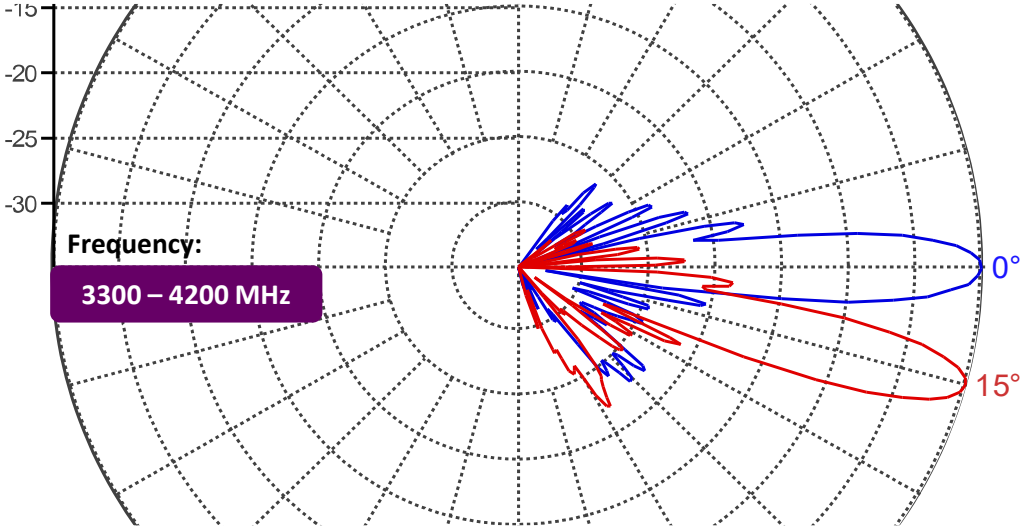
Date	*Description*	*Rev By*	*Check By*	*Rev no*
29-Sep-2025	*Initial Release*	*RL*	*Pavel*	*0*

1.00 Pattern diagram

1.10 Horizontal pattern



1.20 Vertical pattern



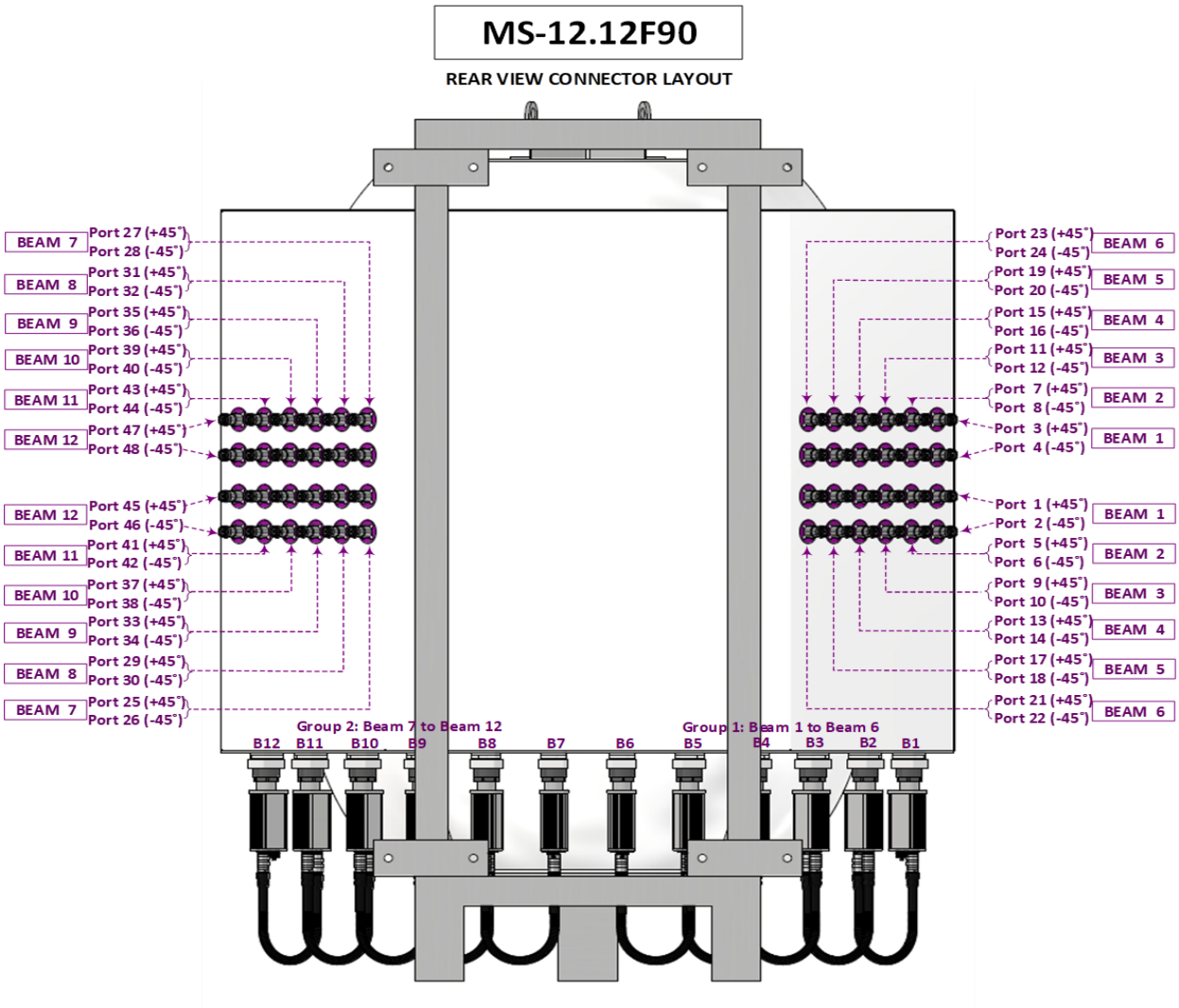
2.00 Beams and connectors

2.10 Connector port table

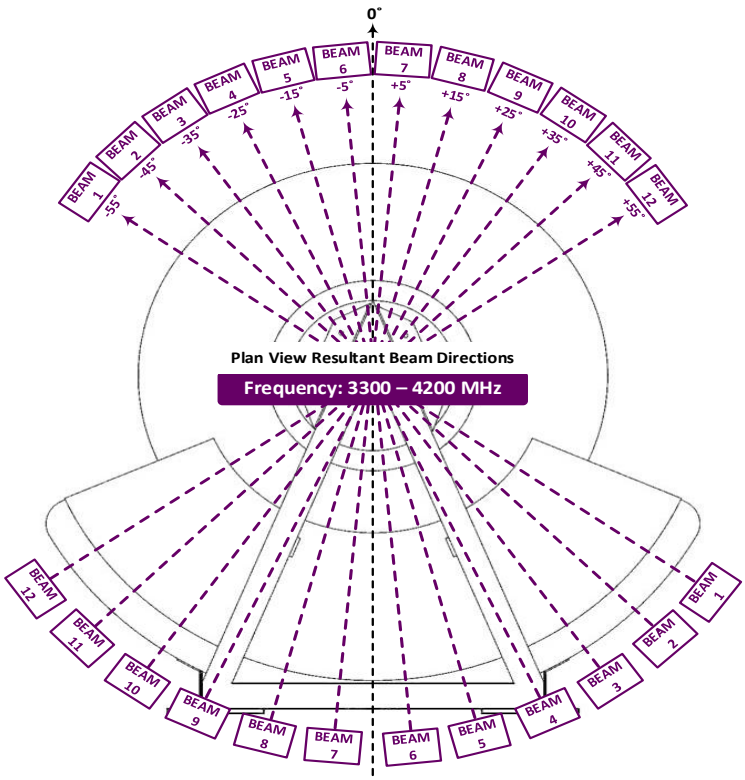
BEAM 12	BEAM 11	BEAM 10	BEAM 9	BEAM 8	BEAM 7
PORT 47 (+45°)	PORT 43 (+45°)	PORT 39 (+45°)	PORT 35 (+45°)	PORT 31 (+45°)	PORT 27 (+45°)
PORT 48 (-45°)	PORT 44 (-45°)	PORT 40 (-45°)	PORT 36 (-45°)	PORT 32 (-45°)	PORT 28 (-45°)
PORT 45 (+45°)	PORT 41 (+45°)	PORT 37 (+45°)	PORT 33 (+45°)	PORT 29 (+45°)	PORT 25 (+45°)
PORT 46 (-45°)	PORT 42 (-45°)	PORT 38 (-45°)	PORT 34 (-45°)	PORT 30 (-45°)	PORT 26 (-45°)

BEAM 6	BEAM 5	BEAM 4	BEAM 3	BEAM 2	BEAM 1
PORT 23 (+45°)	PORT 19 (+45°)	PORT 15 (+45°)	PORT 11 (+45°)	PORT 7 (+45°)	PORT 3 (+45°)
PORT 24 (-45°)	PORT 20 (-45°)	PORT 16 (-45°)	PORT 12 (-45°)	PORT 8 (-45°)	PORT 4 (-45°)
PORT 21 (+45°)	PORT 17 (+45°)	PORT 13 (+45°)	PORT 9 (+45°)	PORT 5 (+45°)	PORT 1 (+45°)
PORT 22 (-45°)	PORT 18 (-45°)	PORT 14 (-45°)	PORT 10 (-45°)	PORT 6 (-45°)	PORT 2 (-45°)

2.20 Rear view connector layout



2.30 Plan view resultants beam direction

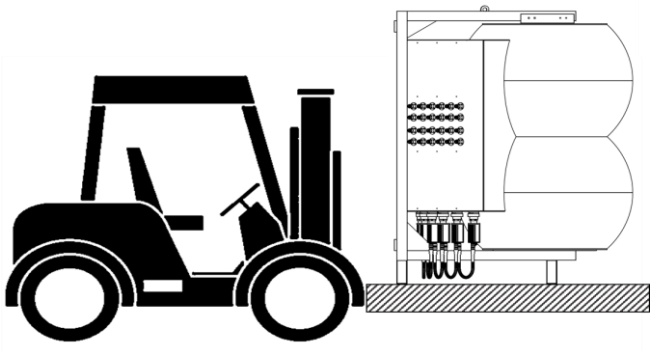


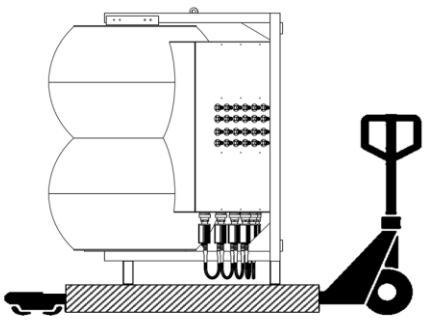
3.00 Transportation and installation

3.10 Transportation (From point to point)

Strictly comply with the local authority and regulations on workplace safety and health control and measure when moving and transporting large or heavy equipment; an appropriate material handling machine should be used.

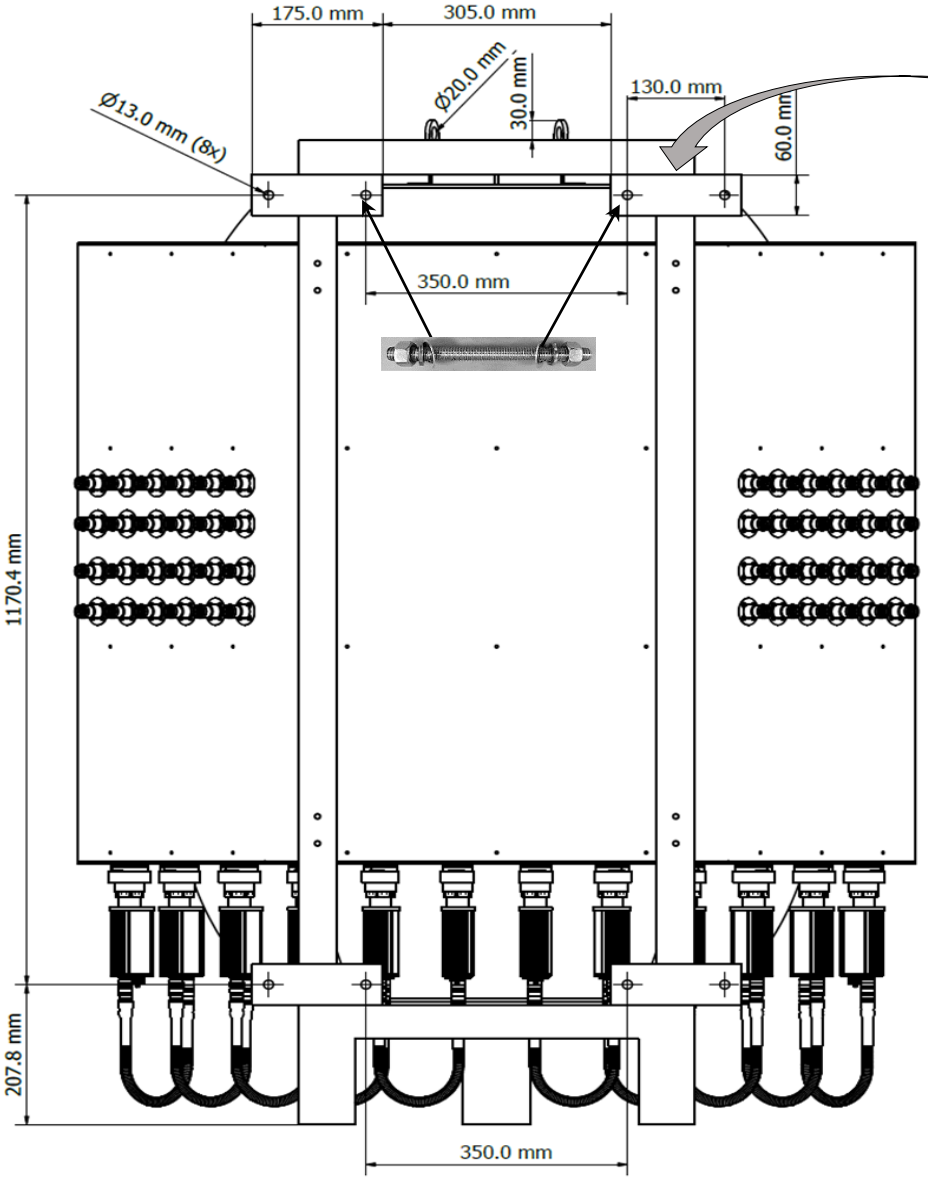
(Risk Assessment apply for Forklift or Pallet Truck Lifting)





3.20 Bracket mounting

Item	Lens	Hole Size	Bracket Qty	Bolt & Nuts Sets
1	30 - 120 cm	Ø13mm x 8	4	M12 x 20cm=8 sets



Attached the bracket tighten with specified bolts sets.

Important Notes:
End User is require to Custom-Make the additional supporting bracket and tighten to the existing Antenna bracket to meet the deployment needs.

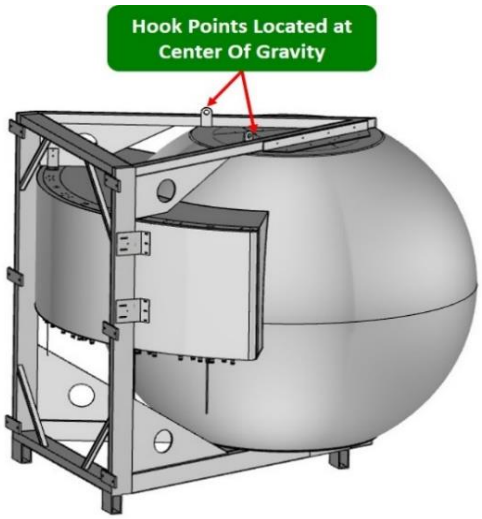
3.30 Installation using a crane

Strictly comply with the local authority and regulations on workplace safety, health control, and measures when performing lifting of large or heavy equipment; an appropriate material handling machine should be used, and only certified personnel should perform the task.

(The risk assessment requirement applies for both uplifting and down lifting.)

3.31 Lifting the antenna

The antenna has 2 hook points installed on the top frame (located slightly behind the center of the sphere). These hooks are designed at the center of gravity of the antenna. A cable and rope can be securely fastened to the hooks, and the antenna can be lifted using a crane, as pictured below.

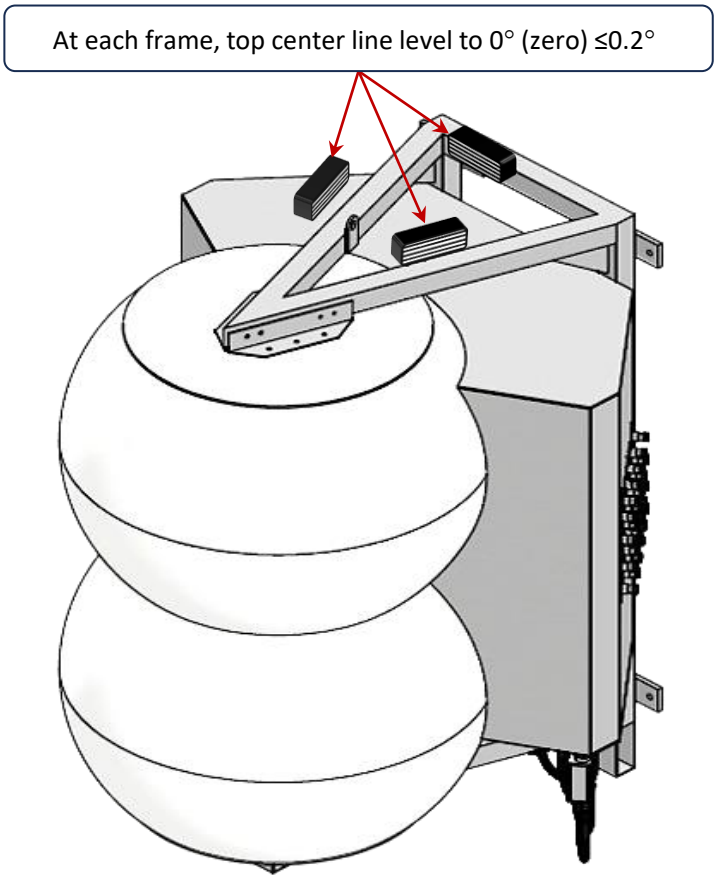


3.40 Antenna Installation

With reference to the "bracket mounting" procedure, the end user is required to custom-make the additional supporting bracket and tighten it to the existing antenna bracket to meet the deployment needs.

3.41 Antenna Levelling (After Installation)

After the antenna is mounted to the bracket, it is required to be adjusted to 0˚ (zero degree) with ≤0.2˚ on 3 sides of the frame top level. (rear, right, and left, as shown in picture)



3.42 Digital level gauge calibration

3.43 Adjustment requirement