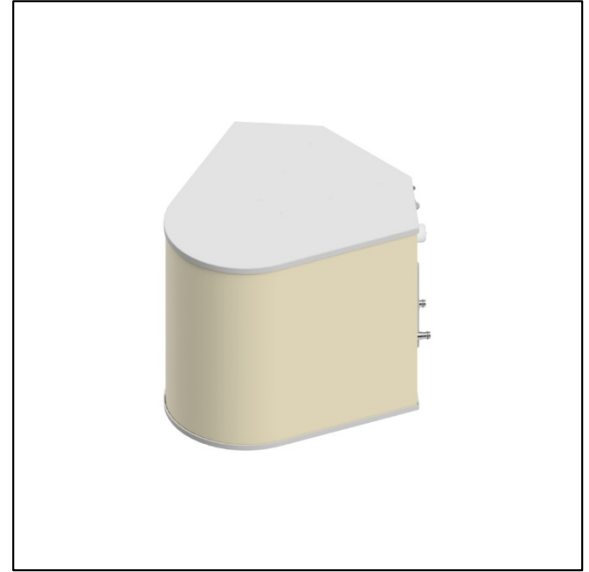


3 BEAMS | 1695-2690MHz | 2T2R

Lens Technology Enabled™ Multi-Beam Antenna:

- Utilizes a patented spherical lens design
- 3 isolated cross-polarized beams for Mid-Band
- 120° coverage with highest beam stability
- 2x2 MIMO capability per beam
- RET AISG 2.0, independent tilt per beam from 0° to 30°
- No beam squinting as compared to Butler matrix antennas
- Low sidelobes for all beam tilts
- Excellent Front-to-Back and CPR performance
- High-capacity solution for stadiums, arenas & special events
- Rugged mechanical design



ELECTRICAL SPECIFICATIONS, BASTA

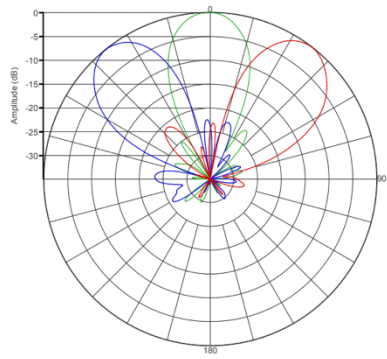
FREQUENCY BAND, MHZ	1695-1880	1850-1990	1920-2170	2300-2500	2490-2690
GAIN BY ALL BEAM TILTS (AVERAGED BY ALL 6 PORTS), DBI	0° 16.8	0° 17.1	0° 17.5	0° 18.3	0° 18.2
	10° 17.0	10° 17.1	10° 17.6	10° 18.3	10° 18.3
	30° 17.0	30° 17.3	30° 17.7	30° 18.3	30° 18.3
GAIN BY ALL BEAM TILTS, TOLERANCE, DBI	±0.5	±0.5	±0.5	±0.5	±0.5
BEAMWIDTH, HORIZONTAL, DEGREES	26	24	23	22	22
BEAMWIDTH, HORIZONTAL TOLERANCE, DEGREES	±2	±2	±2	±1.5	±2
HORIZONTAL BEAM CENTERS, DEGREES	-40±2, 0±2, 40±2				
BEAMWIDTH, VERTICAL, DEGREES	25	23.5	22.5	21	20.5
BEAMWIDTH, VERTICAL TOLERANCE, DEGREES	±2	±1.5	±1.5	±1.5	±2
USLS, BEAMPEAK TO 20° ABOVE BEAMPEAK, DB	N/A	N/A	N/A	N/A	N/A
FRONT-TO-BACK TOTAL POWER AT 180° ± 30°, DB	27	27	28	28	28
CPR AT BORESIGHT, DB	22	22	20	20	18
CPR AT SECTOR, DB	12	12	11	11	10

ELECTRICAL SPECIFICATIONS

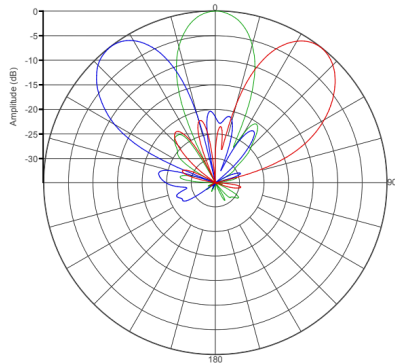
FREQUENCY BAND	1695 – 1880 MHZ	1850 – 1990 MHZ	1920 – 2170 MHZ	2300 – 2500 MHZ	2490 – 2690 MHZ
GAIN	17.2dBi	17.4dBi	17.9dBi	18.3dBi	18.3dBi
VSWR	1.5:1	1.5:1	1.5:1	1.5:1	1.5:1
POLARIZATION	±45°	±45°	±45°	±45°	±45°
HORIZONTAL COVERAGE	120°	120°	120°	120°	120°
BEAM CROSS-OVER	9dB typical	9.5dB typical	10dB typical	11dB typical	11dB typical
TOTAL NUMBER OF BEAMS	3				
NUMBER OF PORTS PER BEAM	2				
NUMBER OF PORTS TOTAL	6				
BEAM TILT (RET)	0° to 30°	0° to 30°	0° to 30°	0° to 30°	0° to 30°
FIRST SIDELobe LEVEL	-16dB	-16dB	-16dB	-16dB	-16dB
ISOLATION PORT TO PORT – POLARIZATION	26dB	26dB	26dB	26dB	26dB
ISOLATION PORT TO PORT – BEAM	25dB	25dB	25dB	25dB	25dB
POWER RATING PER PORT, MAX AT 40° C	200W	200W	200W	200W	200W
TOTAL POWER MAX AT 40° C	900W				
PIM, 3rd ORDER, 2 x 20W	153dBc	153dBc	153dBc	153dBc	153dBc
IMPEDANCE	50 ohm				
CONNECTOR QUANTITY AND TYPE	6 x 4.3-10 female				

PATTERN RESULTS

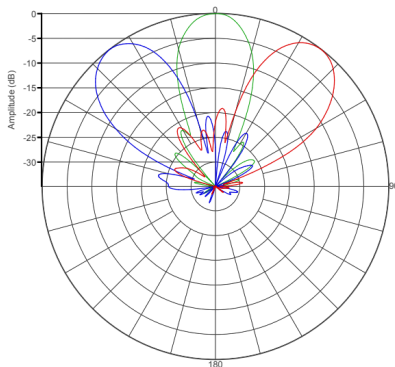
Horizontal Patterns



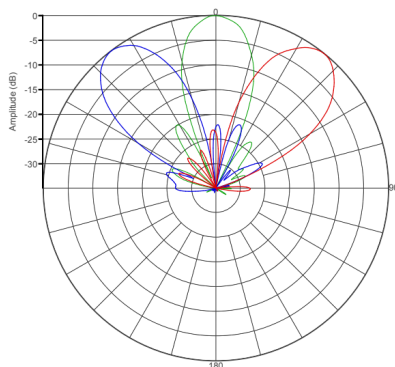
1.80GHz



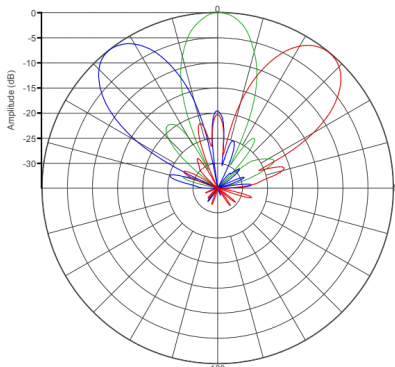
1.95GHz



2.1GHz

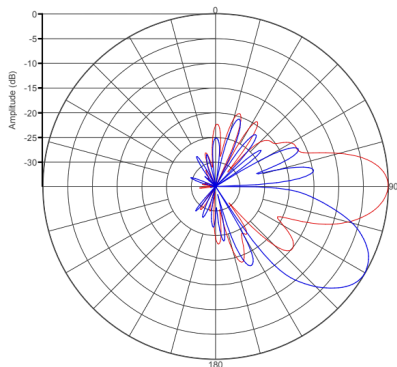
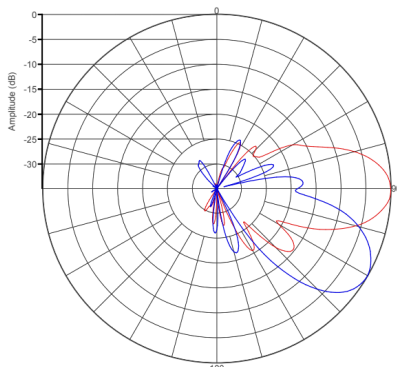
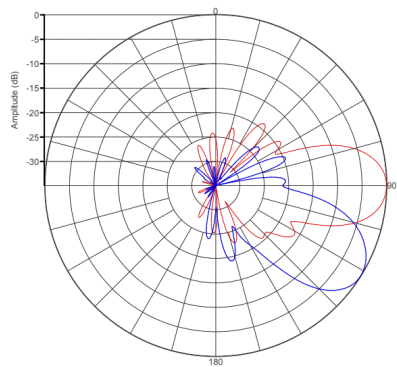
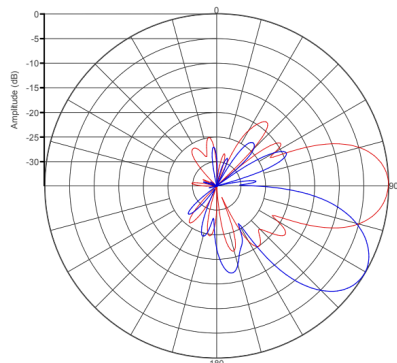
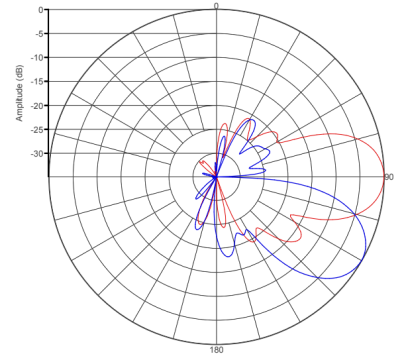


2.36GHz



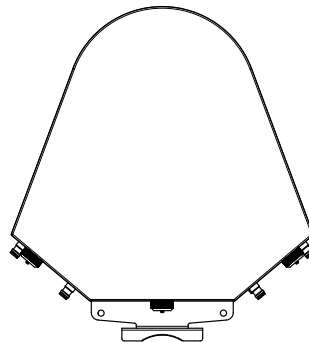
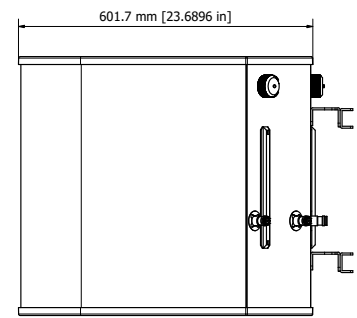
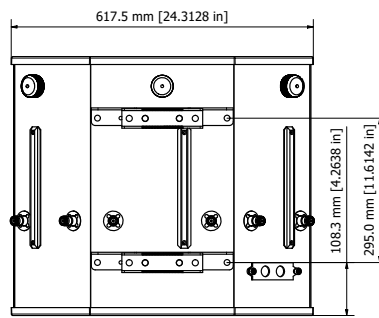
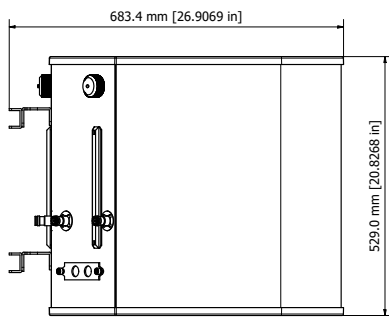
2.59GHz

Vertical Patterns (0°, 30°)



MECHANICAL SPECIFICATIONS

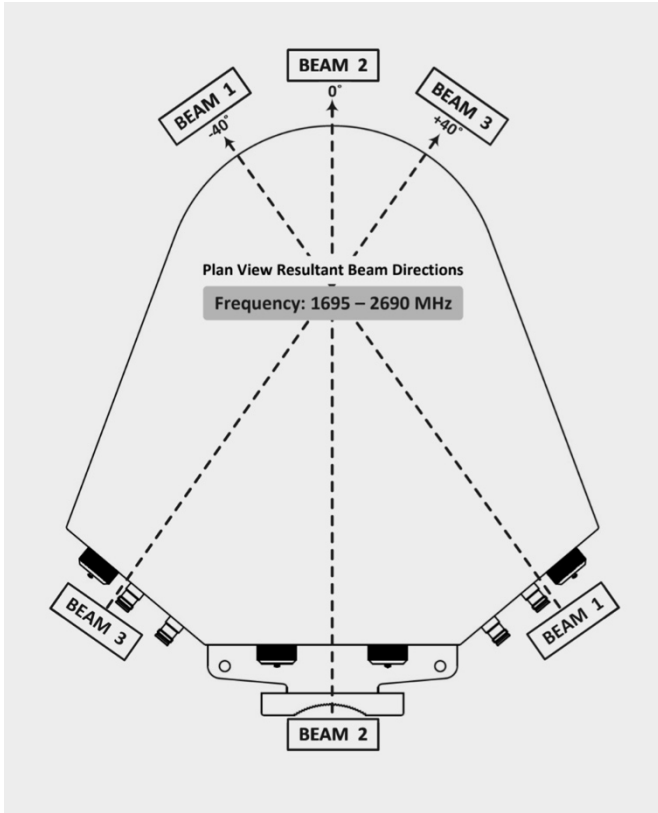
ANTENNA WEIGHT (WITHOUT BRACKET)	43.43lbs	19.70kg
ANTENNA WEIGHT (WITH BRACKET)	46.91lbs	21.28kg
HEIGHT	20.7 inch	52.5cm
WIDTH	23.9 inch	60.7cm
DEPTH	26.7 inch	67.8cm
RADOME MATERIAL	Fiberglass	
RADOME COLOR	RAL 7005	
WIND LOADING @150KM/HR FRONTAL	225N	50.6lbf
WIND LOADING @150KM/HR LATERAL	323N	72.6lbf
WIND LOADING @150KM/HR REAR	264N	59.4lbf



ENVIRONMENTAL RATINGS

HUMIDITY	95% RH @ +30°C
TEMPERATURE	-40°C to +70°C

BEAM, PORT, RF CONNECTOR & RET LAYOUT



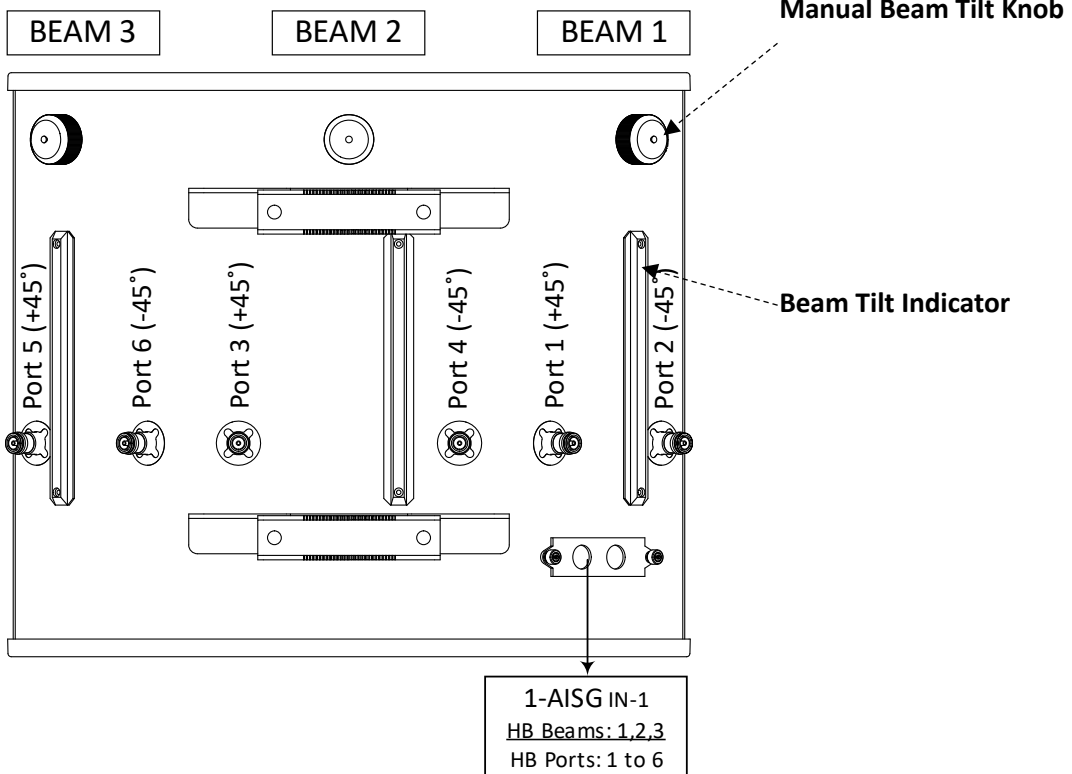
Antenna top view

BEAM 3		BEAM 2		BEAM 1	
Port 5 (+45°)	Port 6 (-45°)	Port 3 (+45°)	Port 4 (-45°)	Port 1 (+45°)	Port 2 (-45°)

Connector port table

MS-MBA-3-H2

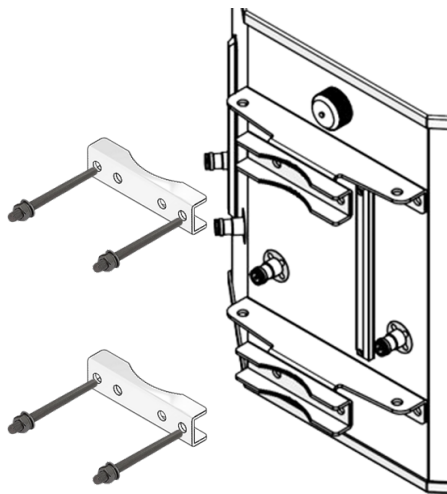
REAR VIEW CONNECTOR LAYOUT



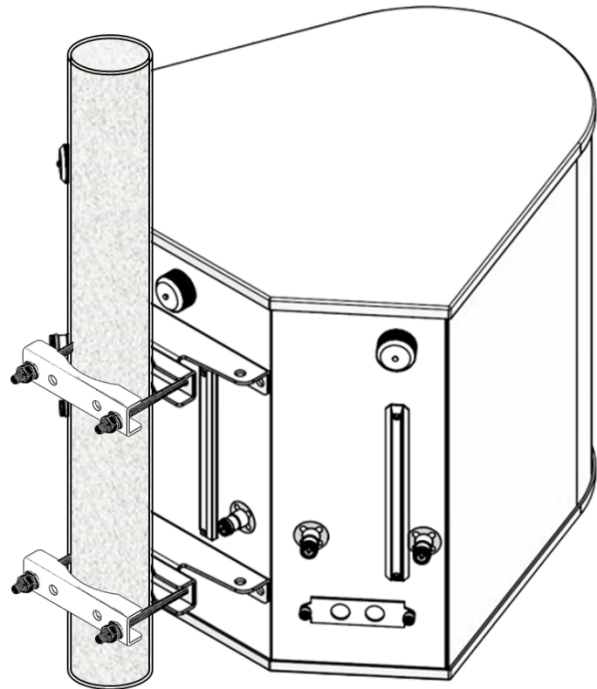
Antenna rear view

MOUNTING

COMPATIBLE PIPE DIAMETER	2.4 – 4.5 inch	6.1 – 11.4 cm
BRACKET WEIGHT	3.48lbs	1.58kg



Before Installation



After Installation

REVISION HISTORY

DATE	DOCUMENT	
11/01/2024	Initial BASTA Datasheet Released	