

### 3 BEAMS | 1695-2690MHz | 4T4R

Lens Technology Enabled™ Multi-Beam Cylindrical Base-Station Lens Antenna:

- Utilizes a patented cylindrical lens design
- 3 isolated cross-polarized beams for Mid-Band
- 120° coverage with highest beam stability
- 4x4 MIMO capability per beam
- RET AISG 2.0 & Smart Bias Tee
- Independent tilt per beam from 2° to 15°
- 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

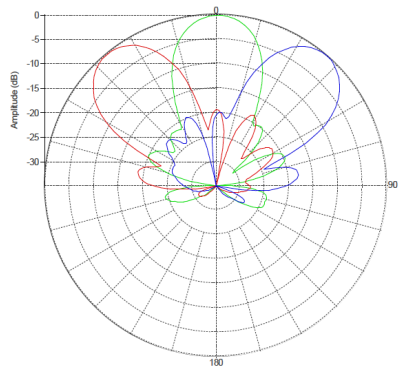
FREQUENCY, MHZ	1695-1880	1850-1990	1920-2170	2300-2400	2490-2690
GAIN, BY ALL TILTS/PORTS, DBI	18.3+/-0.5	18.6+/-0.5	19.2+/-0.5	19.5+/-0.5	19.5+/-0.7
VSWR	1.5:1	1.5:1	1.5:1	1.5:1	1.5:1
HORIZONTAL COVERAGE, DEG	120	120	120	120	120
HORIZONTAL BEAM CENTERS, DEG	-40±1.5; 0±1.5; 40±1.5				
HORIZONTAL BEAMWIDTH, DEG	25±1	24±1	23±1	22±0.5	21±0.7
BEAM CROSSOVER, DB	8	9	10	11	12
HORIZONTAL SIDELOBE, DB	-17.5	-17	-16.5	-17	-17
FRONT-TO-BACK RATIO TOTAL POWER AT 180±30°, DB	30	30	30	30	30
CPR AT BORESIGHT, DB	23	22	20	20	21
CPR AT 10DB BEAMWIDTH, DB	13	12	11	11	11
REMOTE ELECTRICAL BEAM TILT, DEG	2 - 15				
VERTICAL BEAMWIDTH, DEG	16±1	15±0.7	14±0.7	12.7±0.5	11.5±0.6
USLS, BEAMPEAK TO 20° ABOVE BEAMPEAK, DB	15	16	16	16	16
ISOLATION PORT TO PORT, POLARIZATION, DB	26	26	26	26	26
ISOLATION PORT TO PORT, BEAM, DB	24	24	24	24	24
PIM, 3RD ORDER, 2X20W, DBC	-153				
MAX. POWER PER PORT, W	150 (at 40°C ambient temperature)				

## ELECTRICAL SPECIFICATIONS

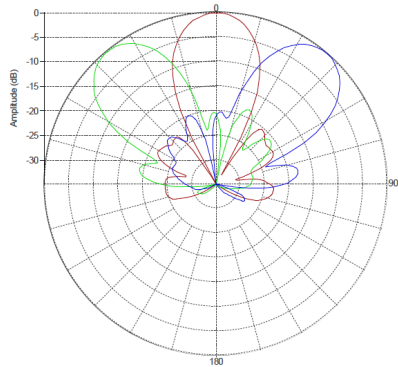
<b>IMPEDANCE</b>	50 Ohm
<b>OPERATING FREQUENCY BAND</b>	1695-2690MHz
<b>POLARIZATION</b>	$\pm 45^\circ$
<b>NUMBER OF BEAMS</b>	3
<b>NUMBER OF PORTS PER BEAM</b>	4
<b>CONNECTOR QUANTITY AND TYPE</b>	12 x 4.3-10 female
<b>TOTAL POWER, MAX</b>	1200W

# PATTERN RESULTS

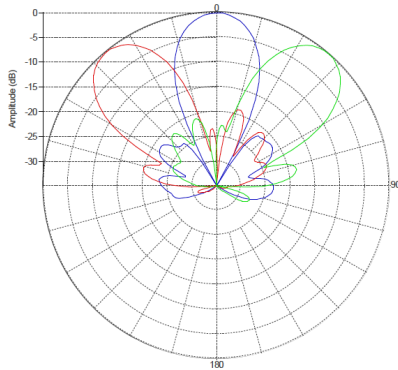
## Horizontal Patterns



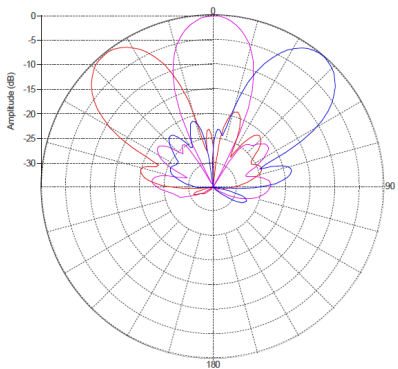
1.80GHz



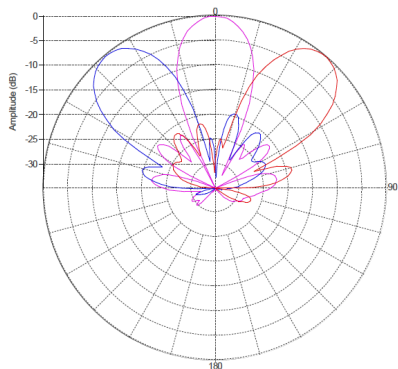
1.95GHz



2.1GHz

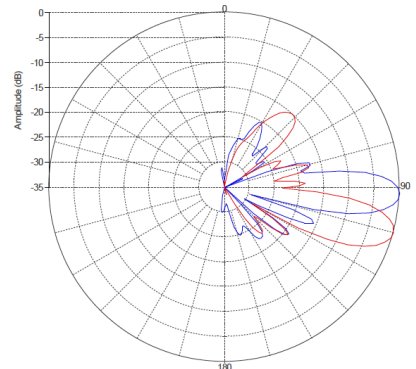
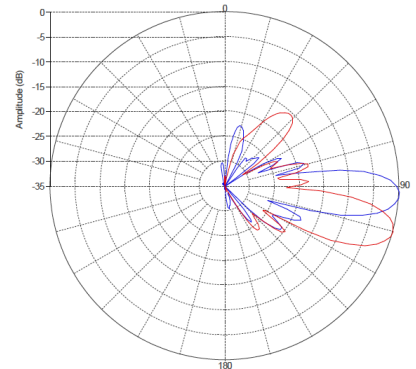
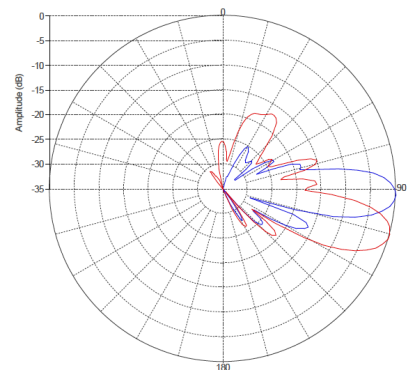
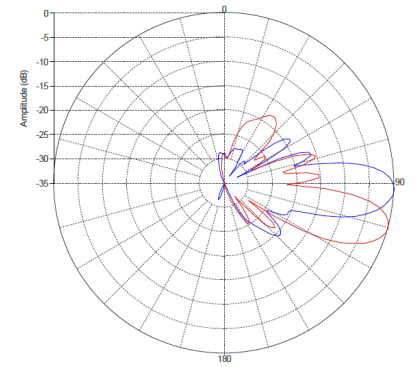
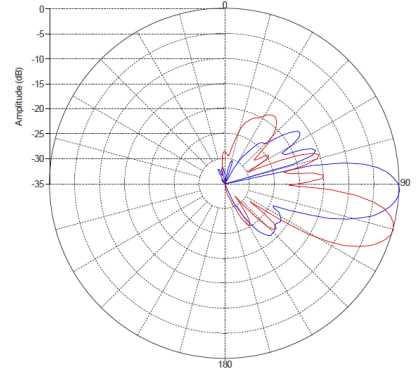


2.36GHz



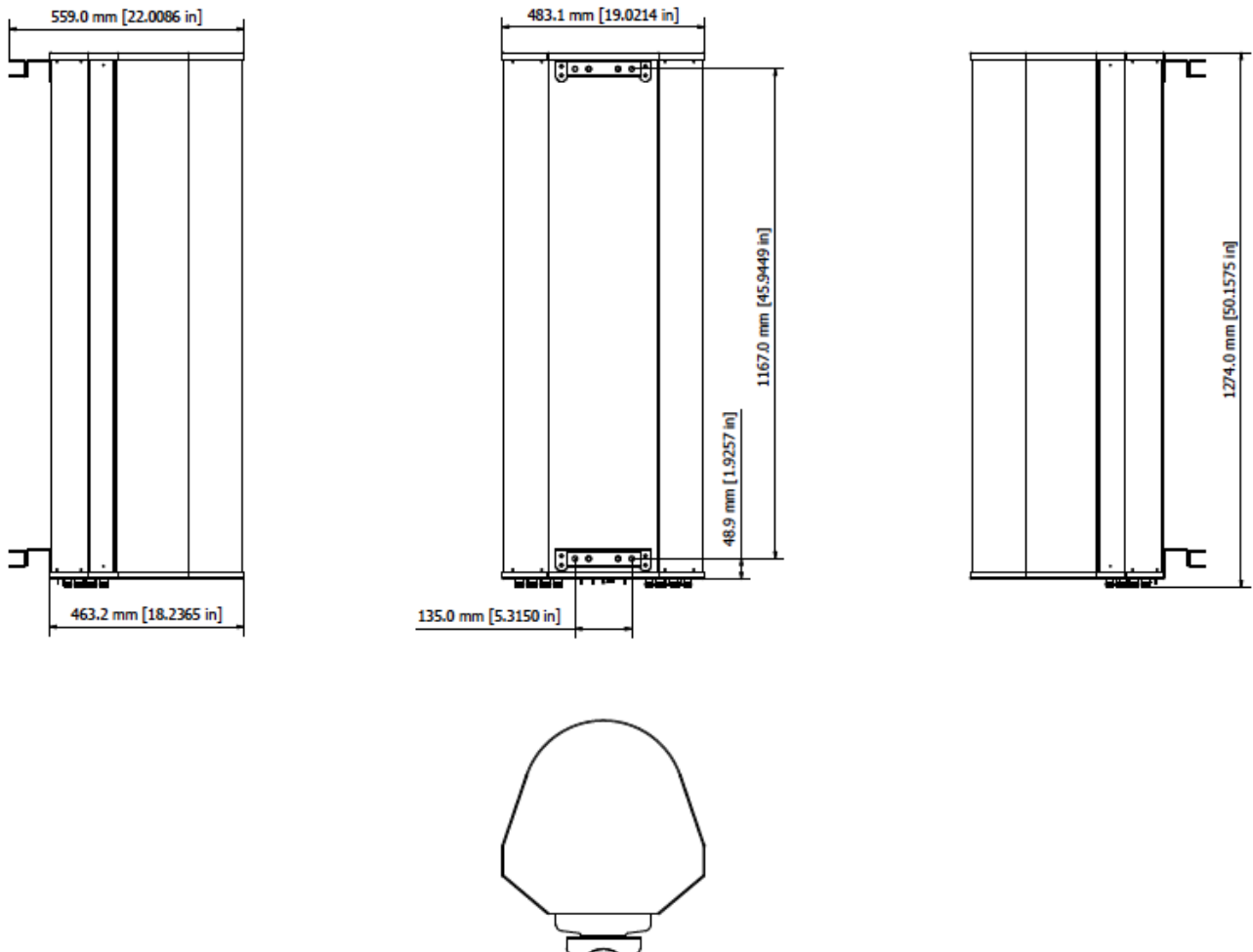
2.59GHz

## Vertical Patterns (2°, 15°)



# MECHANICAL SPECIFICATIONS

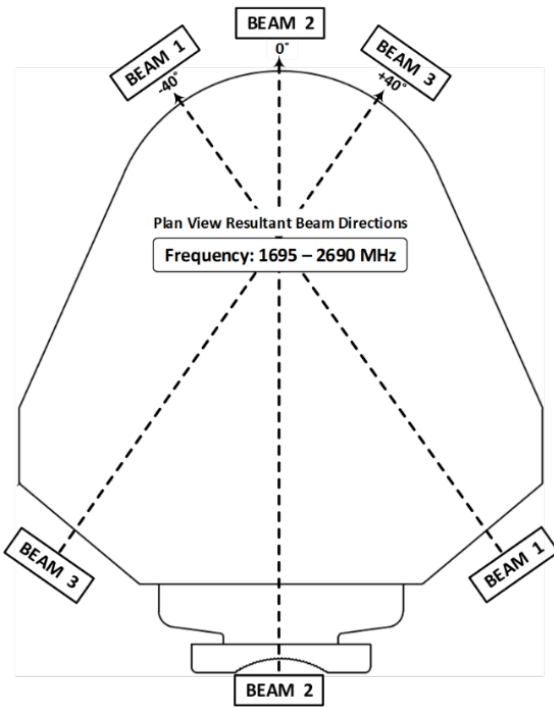
ANTENNA WEIGHT (WITHOUT BRACKET)	83.7lbs	38kg
ANTENNA WEIGHT (WITH BRACKET)	87.18lbs	39.54kg
HEIGHT	50 inches	127cm
WIDTH	19 inches	48.2cm
DEPTH	22 inches	55.8cm
RADOME MATERIAL	Fiberglass	
RADOME COLOR	RAL 7005	
WIND LOADING @150KM/HR FRONTAL	471N	106lbf
WIND LOADING @150KM/HR LATERAL	429N	96lbf
WIND LOADING @150KM/HR REAR	471N	106lbf



# ENVIRONMENTAL RATINGS

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

# BEAM, PORT, RF CONNECTOR & RET LAYOUT

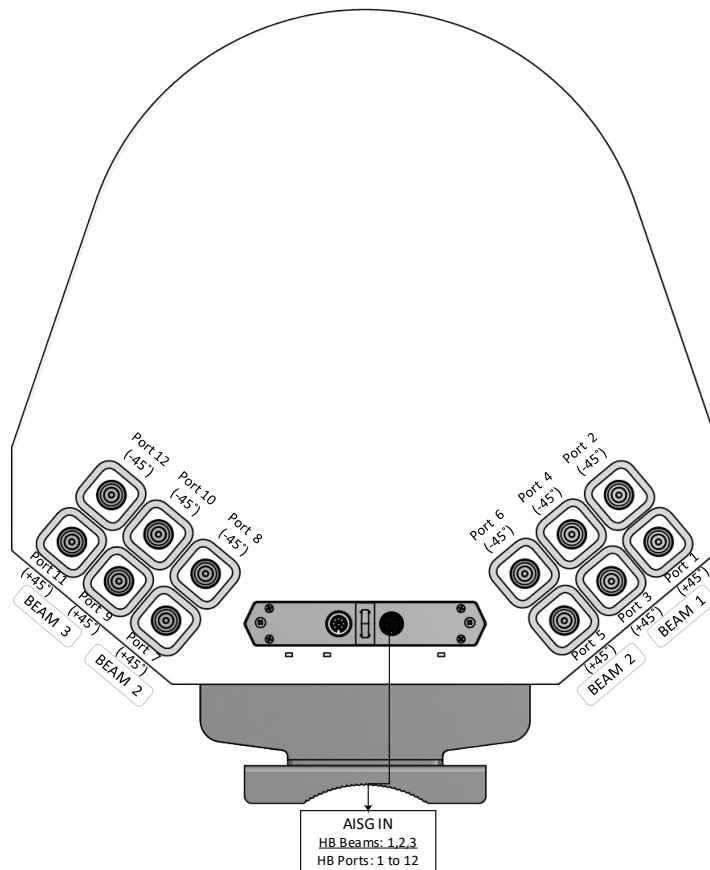


Antenna top view

BEAM 1			
Port 3 (+45°)	Port 4 (-45°)	Port 1 (+45°)	Port 2 (-45°)
BEAM 2			
Port 7 (+45°)	Port 8 (-45°)	Port 5 (+45°)	Port 6 (-45°)
BEAM 3			
Port 11 (+45°)	Port 12 (-45°)	Port 9 (+45°)	Port 10 (-45°)

Connector port table

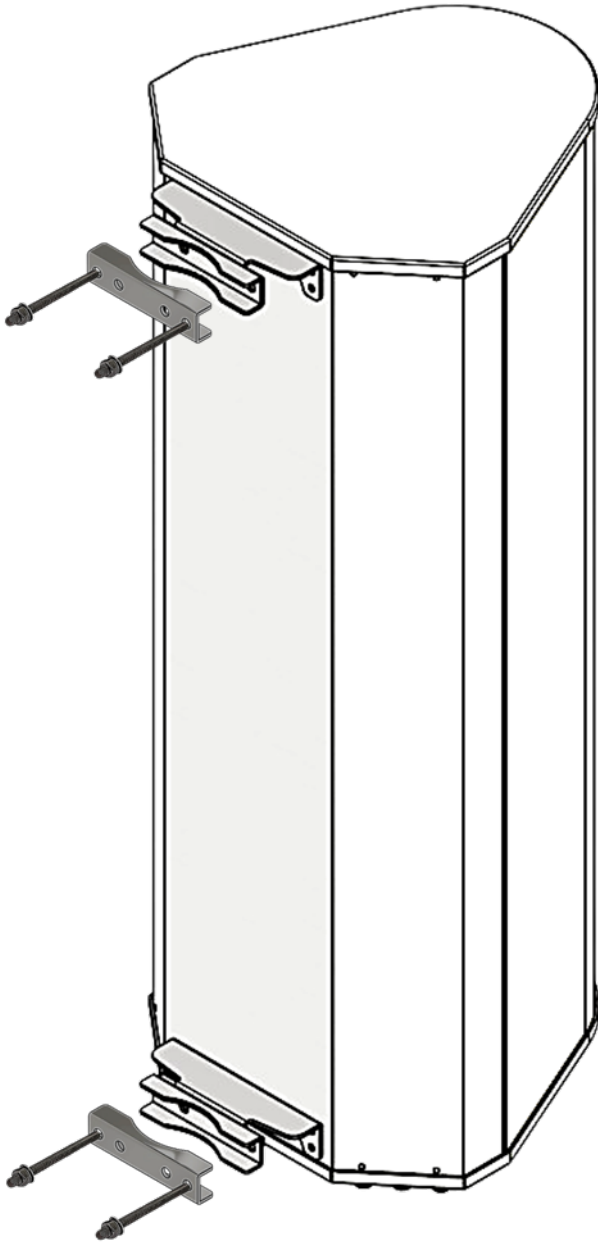
MS-MBC-3-H4-12  
PLAN VIEW CONNECTOR LAYOUT



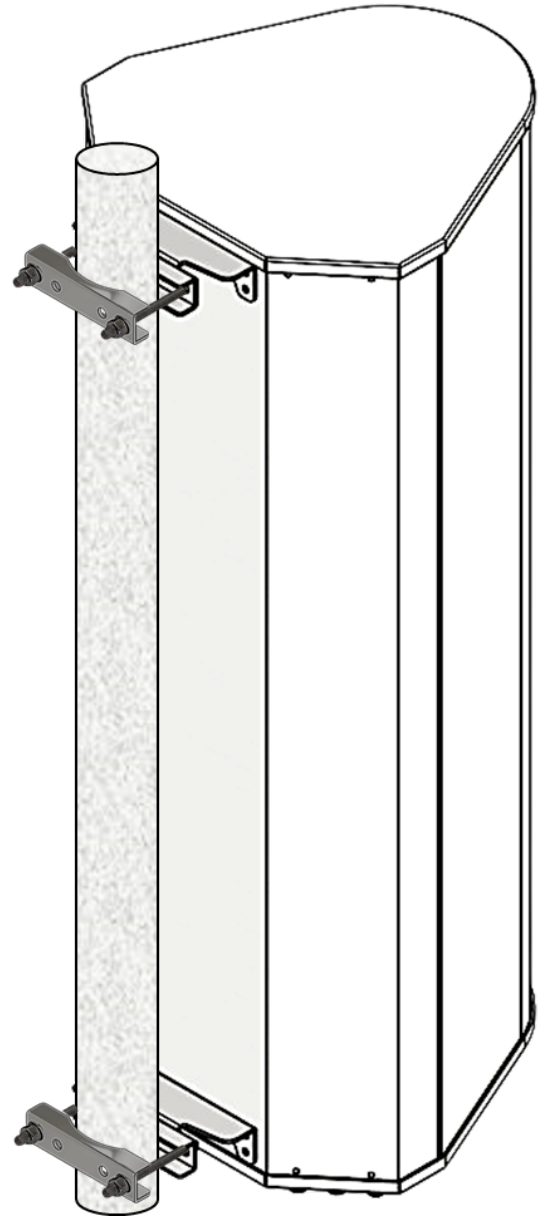
Antenna top view

## 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	
11/15/2024	Initial BASTA Datasheet Released	
11/27/2024	Antenna Outline & Dimensions Updated	
12/13/2024	Dimensions Updated	