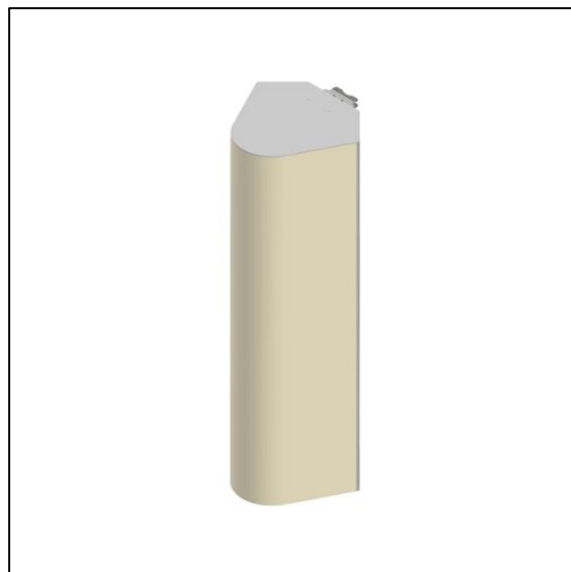


4-4-2 BEAMS | 3700-4200MHz, 1695-2690MHz, 698-960MHz | 2T2R

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

- Utilizes a patented cylindrical lens design
- 4 isolated cross-polarized beams for C-Band
- 4 isolated cross-polarized beams for Mid-Band
- 2 isolated cross-polarized beams for Low-Band
- 120° coverage with highest beam stability
- 2x2 MIMO capability per beam
- RET AISG 2.0, 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 macro network
- Rugged mechanical design



BASTA SPECIFICATIONS, TABLE 1 OF 2

FREQUENCY, MHZ	1695-1880	1850-1990	1920-2170	2300-2400	2490-2690
GAIN, BY ALL TILTS/PORTS, DBI	19+/-0.5	19.3+/-0.5	20+/-0.5	20.5+/-0.5	21.3+/-0.5
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	-45±1.5; -15±1.5; 15±1.5; 45±1.5				
HORIZONTAL BEAMWIDTH, DEG	20±1	19±1	18.5±1	16.3±0.5	16.5±0.5
BEAM CROSSOVER, DB	7	8	9	11	13
HORIZONTAL SIDELOBE, DB	-17.5	-17	-15.5	-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	18
CPR AT 10DB BEAMWIDTH, DB	14	13	10	10	9
REMOTE ELECTRICAL BEAM TILT, DEG	2 -15				
VERTICAL BEAMWIDTH, DEG	16±1	15±0.7	14±0.7	12±0.5	11±0.6
USLS, BEAMPEAK TO 20° ABOVE BEAMPEAK, DB	17	18	16	15	16
ISOLATION PORT TO PORT, POLARIZATION, DB	26	26	26	26	26
ISOLATION PORT TO PORT, BEAM, DB	24	24	24	24	24
PIM, 3 RD ORDER, 2X20W, DBC	-153				
MAX. POWER PER PORT, W (AT 40°C AMBIENT TEMPERATURE)	150				
NUMBER OF BEAMS	4				

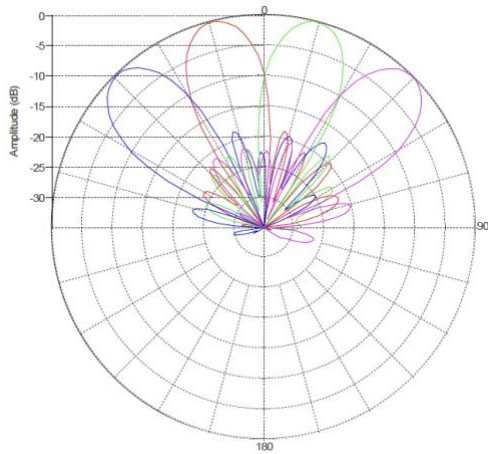
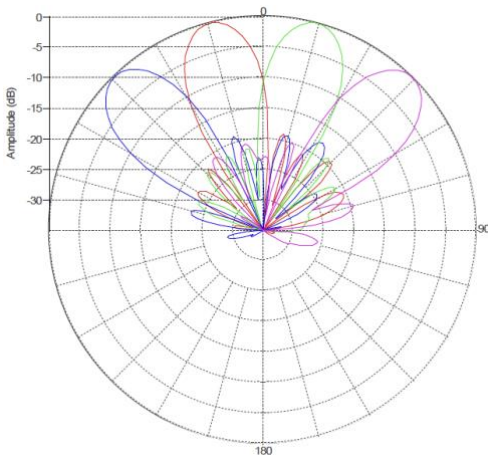
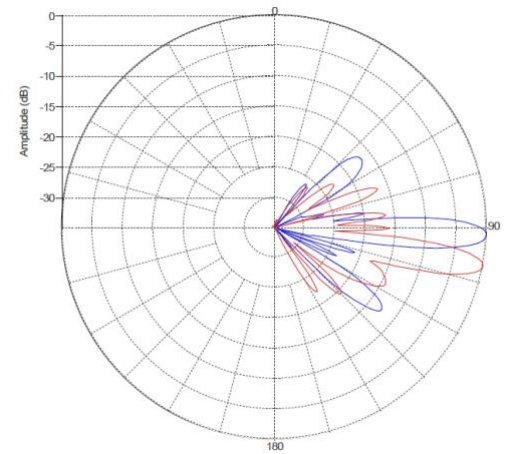
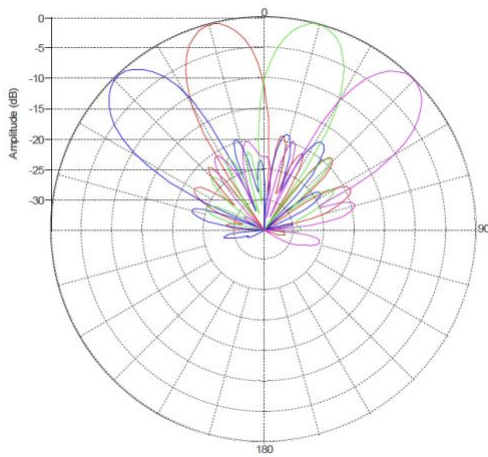
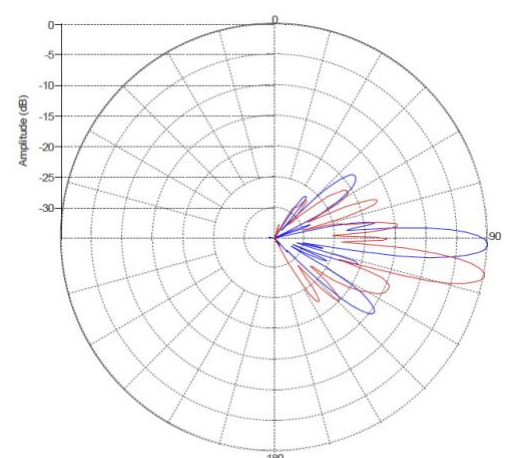
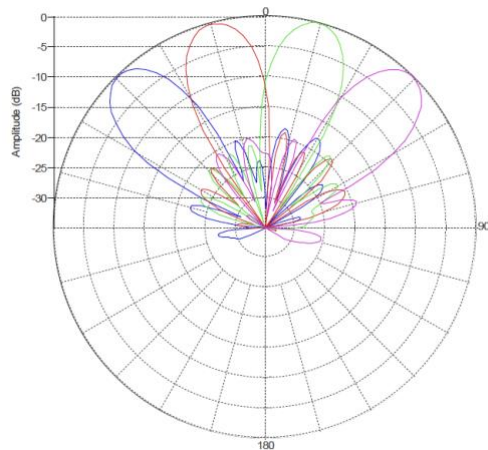
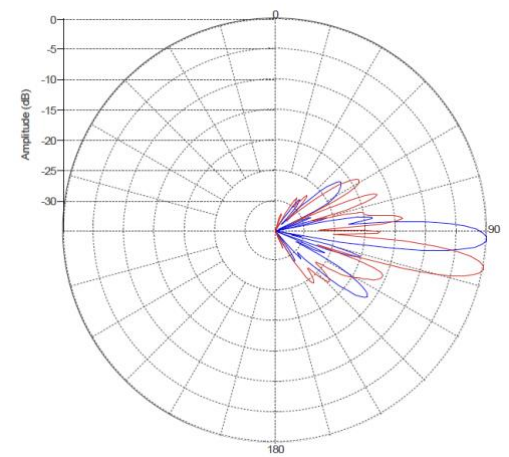
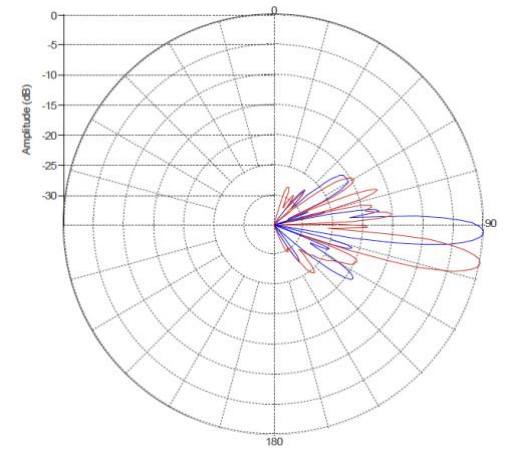
BASTA SPECIFICATIONS, TABLE 2 OF 2

FREQUENCY, MHZ	698-900	790 - 960	3700	4000
GAIN, BY ALL TILTS/PORTS, DBI	14.6+/-1.5	15.5+/-1	22.7±0.7	22.5±0.7
VSWR	1.5:1		1.5:1	1.5:1
HORIZONTAL COVERAGE, DEG	120		120	120
HORIZONTAL BEAM CENTERS, DEG	-30+/-2; 30+/-2		-45±1.5; -15±1; 15±1; 45±1.5	
HORIZONTAL BEAMWIDTH, DEG	34±6	33±4	17.5±0.5	17.0±0.5
BEAM CROSSOVER, DB	10	11	10	10.5
HORIZONTAL SIDELobe, DB	-17	-16	-18	-19
FRONT-TO-BACK RATIO TOTAL POWER AT 180±30°, DB	25	27	32	32
CPR AT BORESIGHT, DB	16	15	14	14
CPR AT 10DB BEAMWIDTH, DB	11	13	10	10
REMOTE ELECTRICAL BEAM TILT, DEG	2 - 20		2-12	
VERTICAL BEAMWIDTH, DEG	23	21	6.5±0.5	6.4±0.5
USLS, BEAMPEAK TO 20° ABOVE BEAMPEAK, DB	N/A	N/A	17	15
ISOLATION PORT TO PORT, POLARIZATION, DB	25	25	28	30
ISOLATION PORT TO PORT, BEAM, DB	24	24	28	28
PIM, 3 RD ORDER, 2X20W, DBC	-153		-153	-153
MAX. POWER PER PORT, W (AT 40°C AMBIENT TEMPERATURE)	250		150 (at 40°C ambient temperature)	
NUMBER OF BEAMS	2		4	

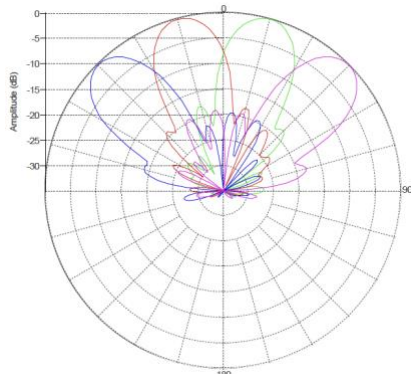
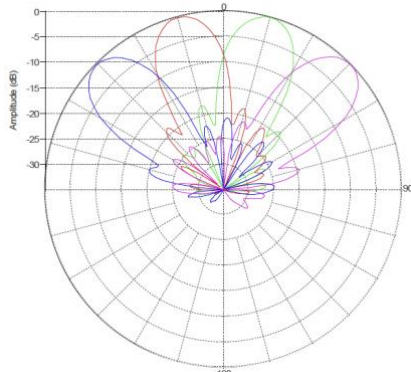
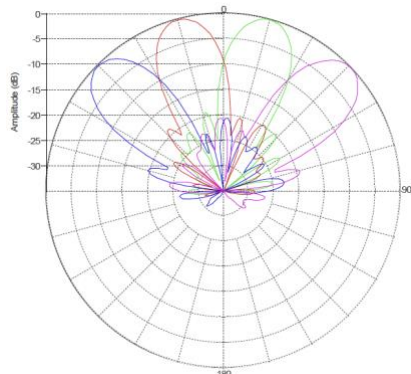
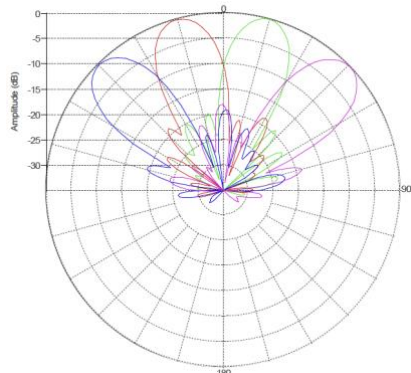
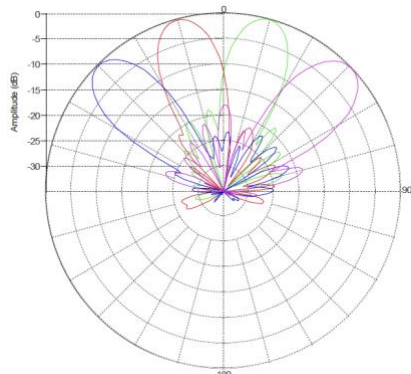
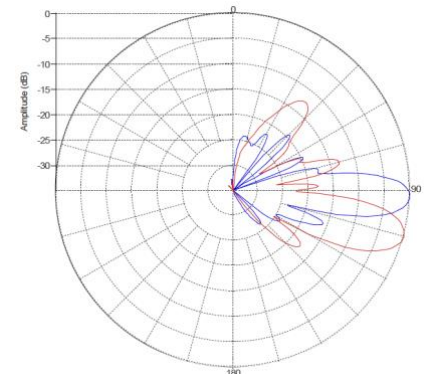
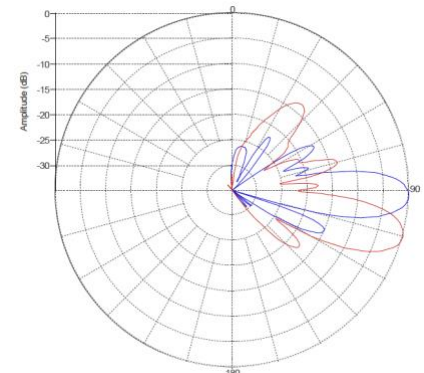
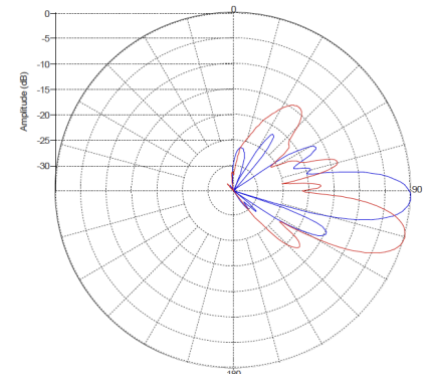
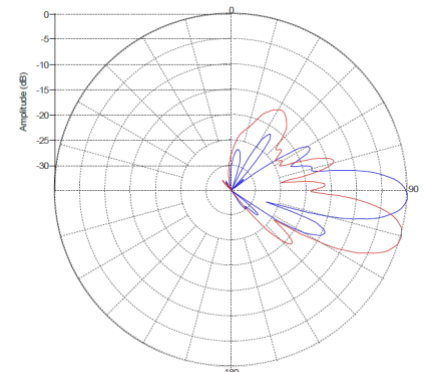
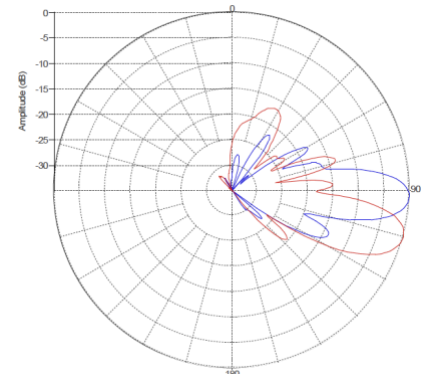
ELECTRICAL SPECIFICATIONS

IMPEDANCE	50 Ohm
OPERATING FREQUENCY BAND	3700-4200MHz 1695-2690MHz 698-960MHz
POLARIZATION	±45°
NUMBER OF BEAMS	4+4+2
NUMBER OF PORTS PER BEAM	2
CONNECTOR QUANTITY AND TYPE	20 x 4.3-10 female
TOTAL POWER, MAX	2000W

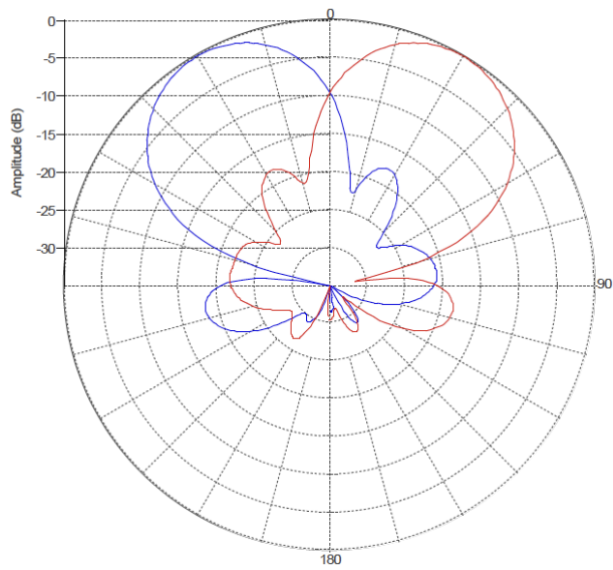
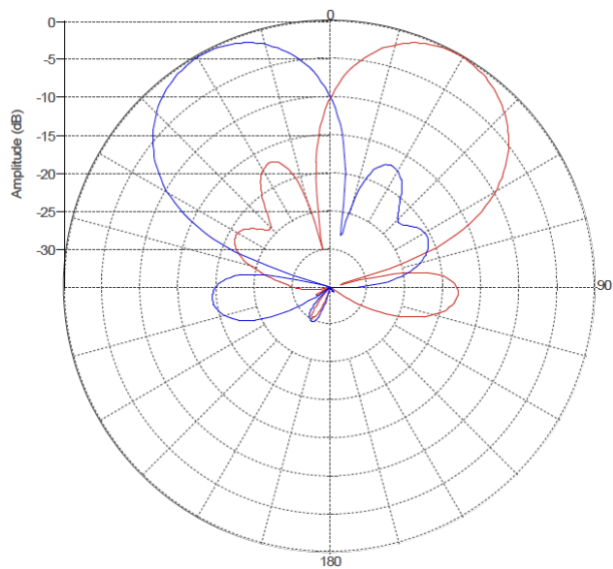
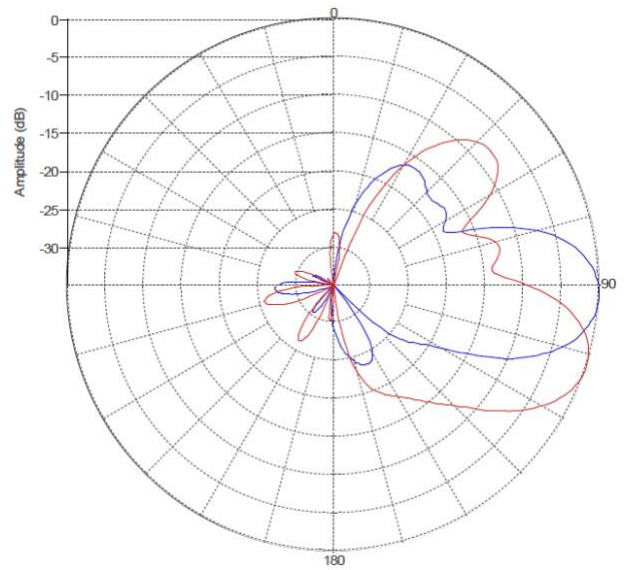
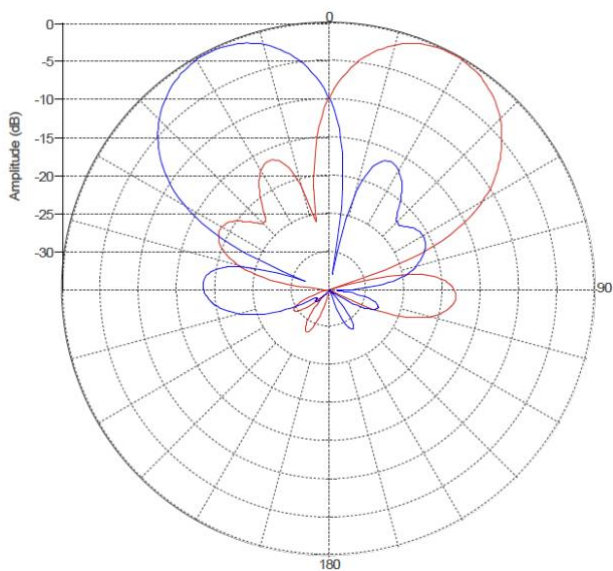
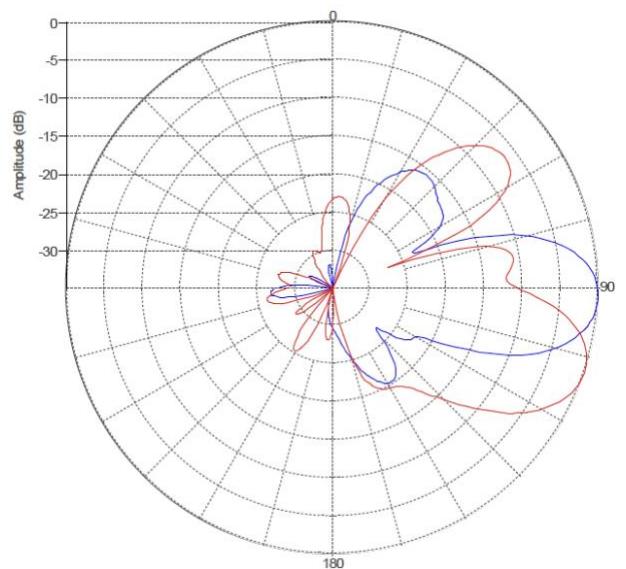
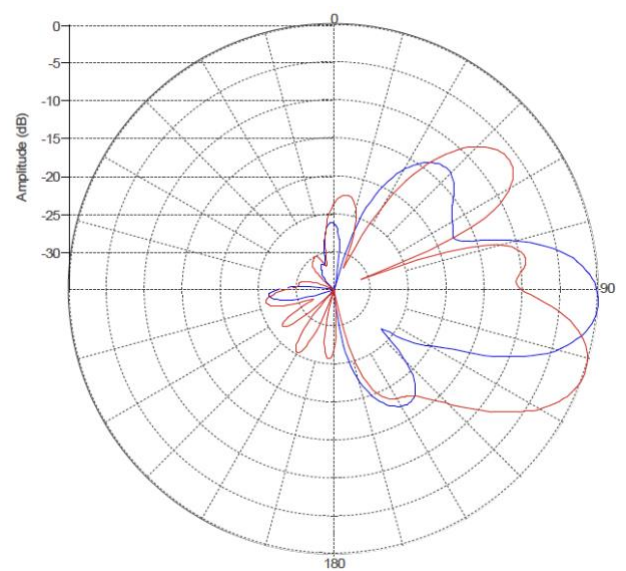
PATTERN RESULTS | C BAND

Horizontal Patterns**3.7GHz****Vertical Patterns, 2° - 10°****3.8GHz****3.9GHz****4GHz**

PATTERN RESULTS | H BAND

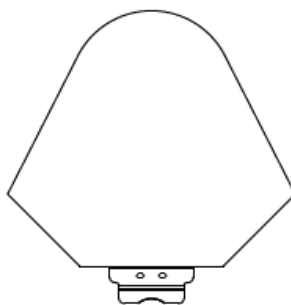
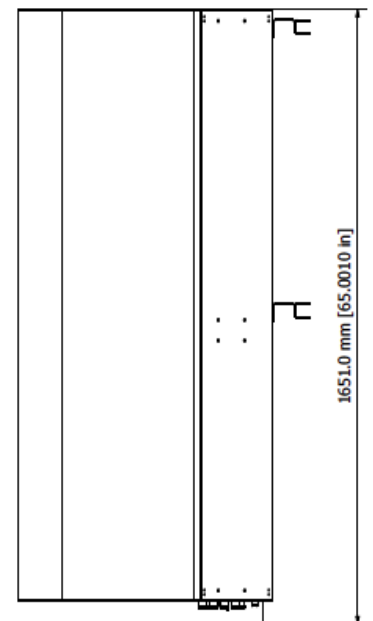
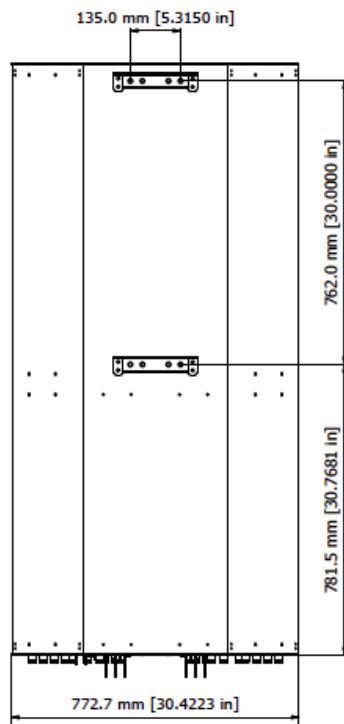
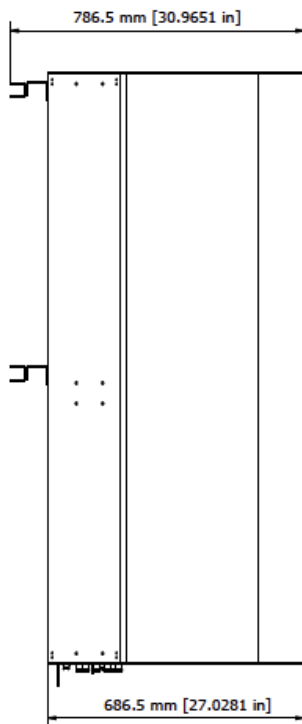
Horizontal Patterns**1.8GHz****1.95GHz****2.1GHz****2.36GHz****2.59GHz****Vertical Patterns, 2° - 15°**

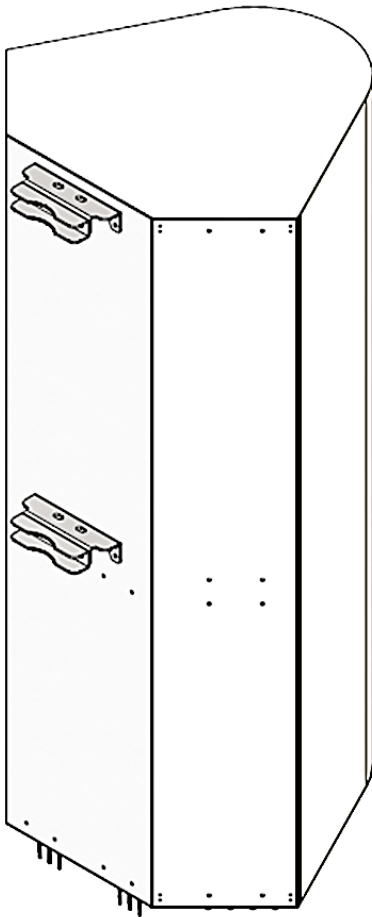
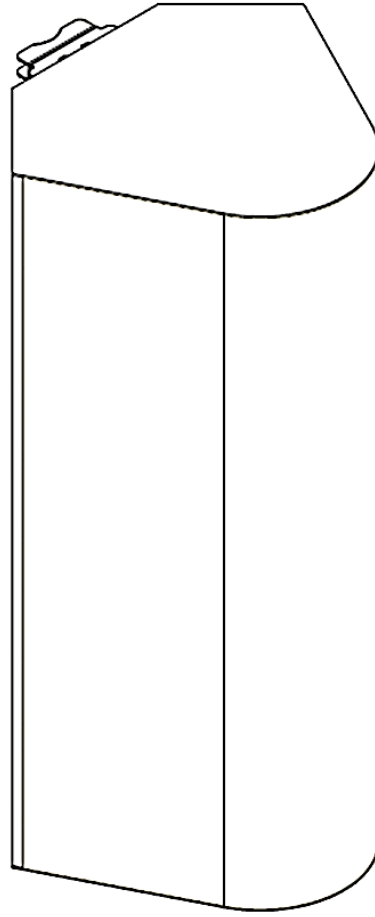
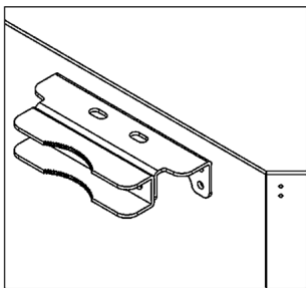
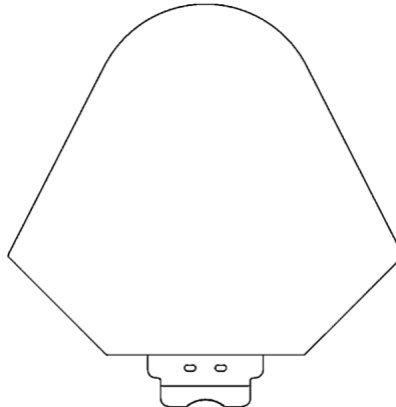
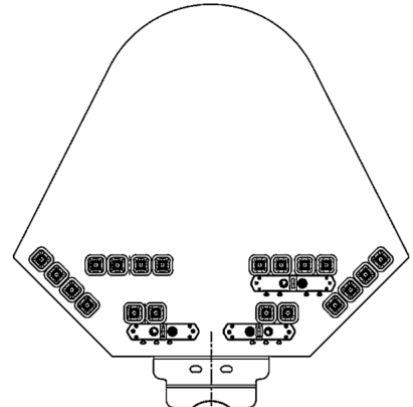
PATTERN RESULTS | L BAND

Horizontal Patterns**800 MHz****Vertical Patterns, 2° - 20°****850 MHz****900MHz**

MECHANICAL SPECIFICATIONS

ANTENNA WEIGHT (WITHOUT BRACKET)	141 lb.	64 kg
ANTENNA WEIGHT (WITH BRACKET)	144.5 lb.	65.6 kg
HEIGHT	65 inch	165 cm
WIDTH	30.4 inch	77.2 cm
DEPTH	30.9 inch	78.4 cm
RADOME MATERIAL	Fiberglass	
RADOME COLOR	RAL 7005	
WIND LOADING @150KM/HR FRONTAL	901 N	202.6 lbf
WIND LOADING @150KM/HR LATERAL	1113 N	250.2 lbf
WIND LOADING @150KM/HR REAR	1042 N	234.3 lbf

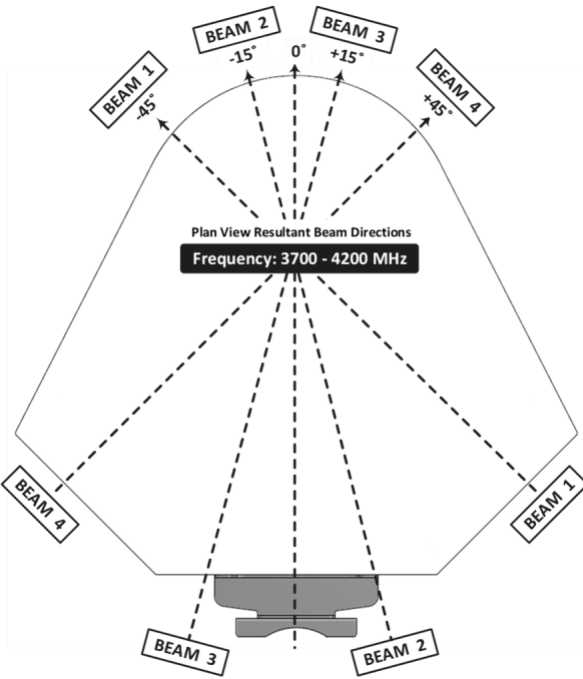


**Antenna Rear View****Antenna Front View****Mounting Detail****Antenna Top View****Antenna Bottom View**

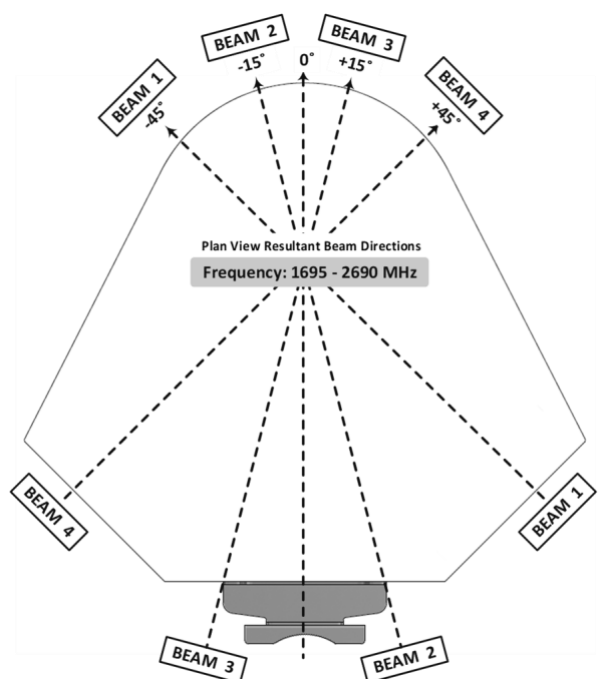
ENVIRONMENTAL RATINGS

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

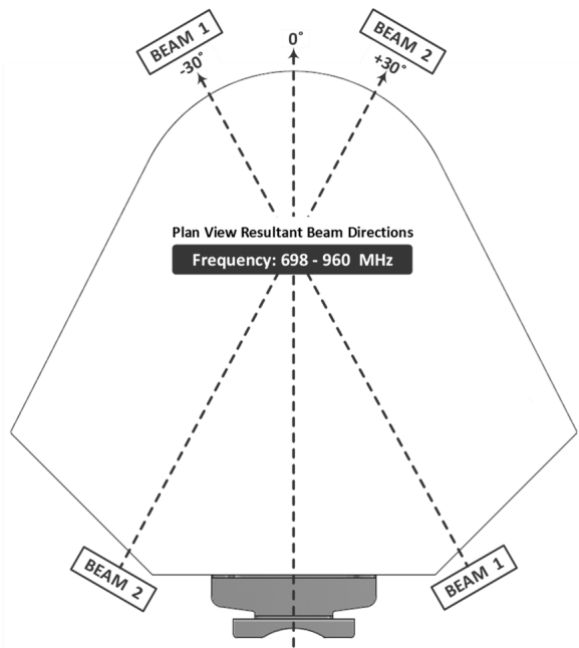
BEAM, PORT, RF CONNECTOR & RET LAYOUT



Antenna Top View



Antenna Top View

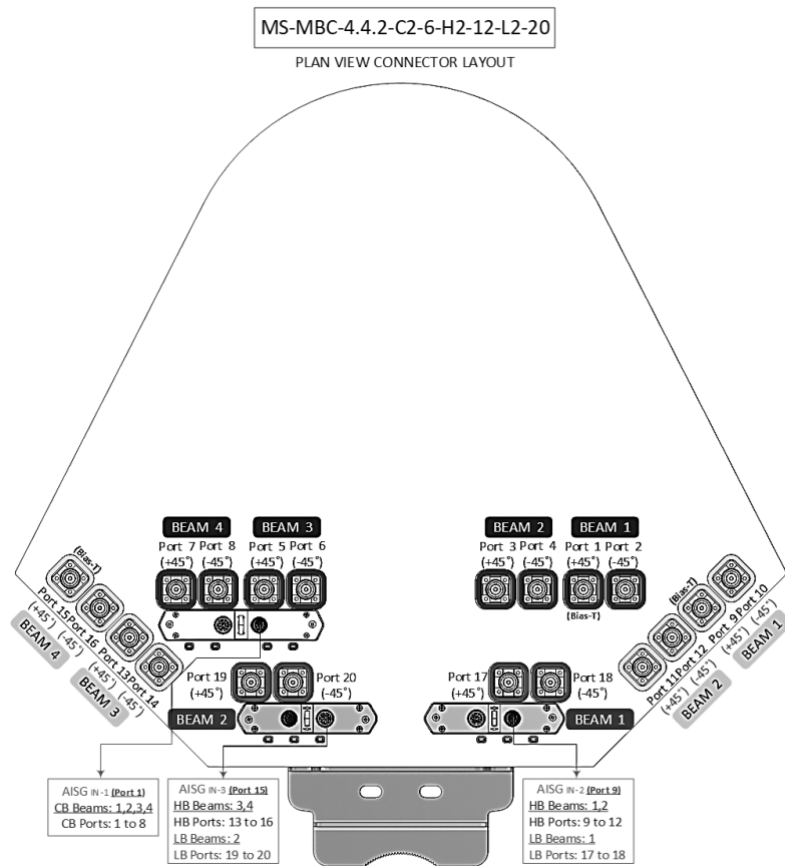


Antenna Top View

BEAM 4		BEAM 3	
Port 7	Port 8	Port 5	Port 6
(+45°)	(-45°)	(+45°)	(-45°)
BEAM 4		BEAM 3	
Port 15	Port 16	Port 13	Port 14
(+45°)	(-45°)	(+45°)	(-45°)
		BEAM 2	
		Port 19	Port 20
		(+45°)	(-45°)

BEAM 2		BEAM 1	
Port 3	Port 4	Port 1	Port 2
(+45°)	(-45°)	(+45°)	(-45°)
BEAM 2		BEAM 1	
Port 11	Port 12	Port 9	Port 10
(+45°)	(-45°)	(+45°)	(-45°)
BEAM 1			
Port 17	Port 18		
(+45°)	(-45°)		

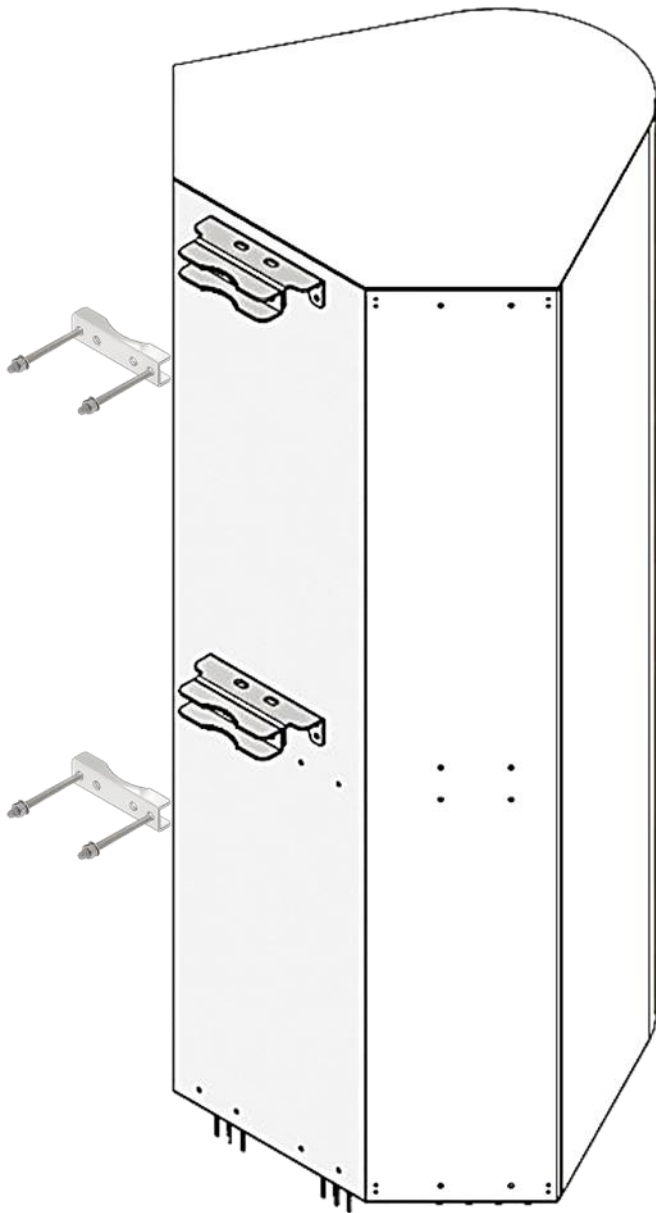
Connector Port Table



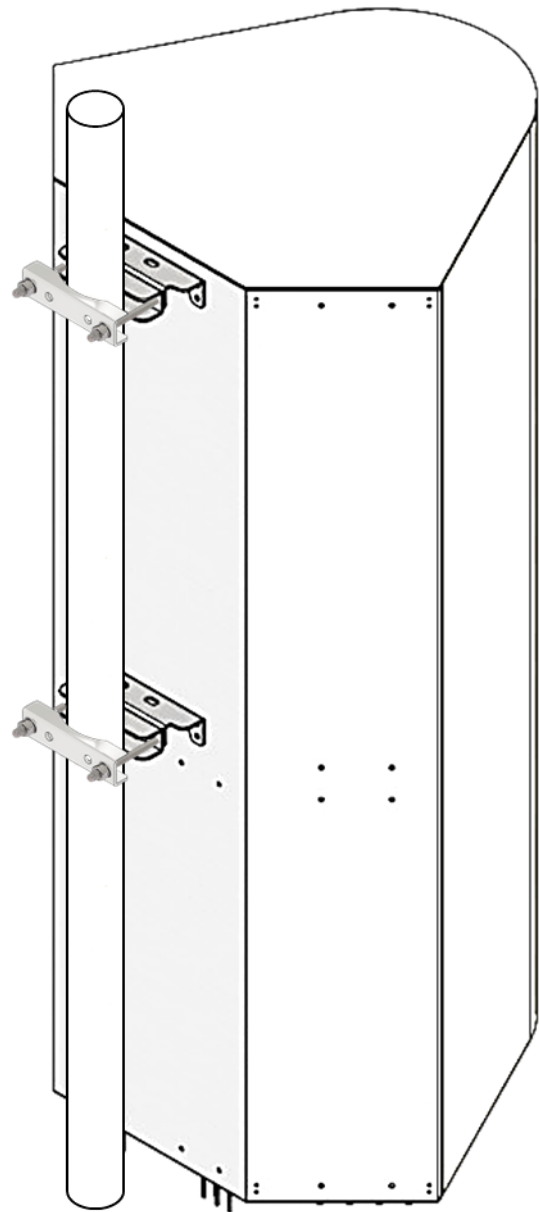
Antenna Top View

MOUNTING

COMPATIBLE PIPE DIAMETER	2.4 – 4.5 in	6.1 – 11.4 cm
BRACKET WEIGHT	3.48 lb.	1.58 kg



Before Installation



After Installation

REVISION HISTORY

DATE	DOCUMENT	
	Initial BASTA Datasheet Released	