Product Data Sheet

S-HU2L2PX308.9P-DH2-2C

X Pol Panel TD Antenna 2500-2690MHz 65° 14.5dBi 2°-12° Replaceable RET

XXXXXX Pol Panel Antenna 2×698-960/2×1710-2170/2×2500-2690MHz 65°/65°/65° 15/16.5/17dBi 2°-12°/2°-12°/2°-12° Replaceable RET

General Electrical Properties		
General Parameters	Frequency Range (MHz)	2500-2690(Y3)
	Polarization	±45°
	Electrical Downtilt (°)	2-12 , continuously adjustable
	Lightning Grounding	DC Grounded
Calibration and Electrical Parameters	Coupling Factor between calibration port and each antenna port	-26±2
	Max Amp/Phase Deviation:	≤1.0/ 10°
	VSWR:	≤1.5
	Co- polarization Isolation between ports (dB):	≥20
	Cross-polarization Isolation Between Ports (dB)	≥20
	Avg. power per input(W)	≥150
	Connecter Type:	9×4.3-10 Female

Beamforming Electrical Properties			
Radiation parameters	Frequency Range (MHz)		2500-2690(Y3)
	Single Column	Horizontal 3dB Beamwidth (°):	73±10
		Gain(dBi):	14.5±1
		Vertical 3dB Beamwidth (°):	7.5
		Cross Polar Ratio 0° (dB):	≥15
		Front to Back Ratio (dB):	≥23
		First upper Side lobe suppression (dB)	≥11
	Broadcast Beam	Horizontal 3dB Beamwidth (°):	65±10
		Gain(dBi):	16.2±0.5
		±60° Gain roll-off at sector edge (dB)	12±6
		Vertical 3dB Beamwidth (°):	7.5
		Cross Polar Ratio 0° (dB):	≥13
		Cross Polar Ratio ±60° (dB):	≥4
		Front to Back Ratio (dB):	≥23
		First upper Side lobe suppression (dB)	≥13
	Service Beam @ 0deg	0° Gain(dB):	19.5±0.5
		0° Horizontal 3dB Beamwidth (°):	23
		0° Horizontal sidelobe level (°):	≤-12
		Cross Polar Ratio 0° (dB):	≥15
		Front to Back Ratio (dB):	≥23

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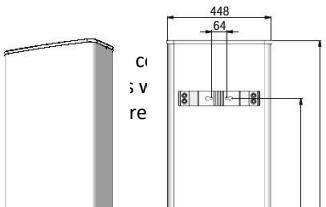
BASTA Electrical Specifications

Frequency Range(MHz):	2500-2690(Y3)
Average Gain by all Beam Tilts (dBi):	14.5
Gain by all Beam Tilts Tolerance(dB):	±1.0
Average Gain by Beam Tilt (dBi):	2°|14.5
Horizontal Beamwidth Tolerance(°):	±9.0
Vertical Beamwidth Tolerance(°):	±0.5
1st Upper Sidelobe Suppression (dB) :	13.0
Front to back Total Power at 180° ± 30°(dB):	27
CPR at Boresight(dB):	19

Frequency Range (MHz):	698-960(R1,R2)			1710-2170(B1,B2)			2500-2690
	698-790	790-862	880-960	1710-1880	1880-2025	2025-2170	(Y1,Y2)
Gain (dBi):	13.7±0.5	14.0±0.5	14.6±0.7	14.9±0.5	14.7±0.5	14.7±0.5	15.5±0.7
Return Loss (dB):	>14 (VSWR<1.5)						
Polarization:	±45°						
Horizontal 3dB Beamwidth (°):	66	65	63	65	67	65	59
Vertical 3dB Beamwidth (°):	12	11	9.7	8.0	7.7	6.8	5.6
Electrical Downtilt (°):	2-12 Independently Continuously Adjustable						
Intraband Isolation (dB):	>25						
Interband Isolation (dB):	>25						
Intermodulation IM3 (dBc):	250			200			
Impedance (ohm):	<-150						
Lightning Protection:	50						
Connector Type:	DC Grounded						
Intermodulation IM3 (dBc):	12×4.3-10 Female						

BASTA Electrical Specifications

Frequency Range(MHz):	690-960(R1,R2)			1710-2170(B1,B2)			2500-2690
	690-806	806-880	880-960	1710-1880	1880-2025	2025-2170	(Y1,Y2)
Average Gain by all Beam Tilts(dBi):	13.5	13.8	14.4	14.8	14.5	14.5	15.1
Gain by all Beam Tilts Tolerance(dB):	±0.8	±0.9	±0.6	±1.0	±0.9	±1.0	±0.7
Average Gain by Beam Tilts (dBi):	2°|13.5 7°|13.7 12°|13.4	2°|13.6 7°|14.0 12|13.7	2°|14.4 7°|14.6 12°|14.3	2°|14.9 7°|14.8 12°|14.5	2°|14.5 7°|14.7 12|14.1	2°|14.7 7°|14.7 12°|14.0	2°|15.2 7°|15.5 12°|14.7
Horizontal Beamwidth Tolerance(°):	±7.0	±7.5	±6.0	±7.2	±7.0	±9.8	±8
Vertical Beamwidth Tolerance(°):	±1.2	±1.0	±1.0	±0.9	±0.6	±0.8	±0.5
1st Upper Sidelobe Suppression(dB):	13	13	14	15	16	14	17
Front to back Total Power at 180° ±	20	20	22	24	24	25	24
CPR at Boresight(dB):	20	18	18	15	18	18	19
CPR at Sector(dB):	11	9	10	5	4	4	5



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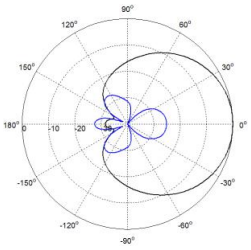
Mechanical Data	
Antenna Dimensions (mm):	2095×448×200
Packing Dimensions (mm):	2360×535×295
Antenna Net Weight/Bracket (kg):	42 / 6.8
Antenna Gross Weight (kg):	55.5
Radome Material:	FRP
Pipe OD (mm):	50-125
Mounting Kits (Included):	Adjustable Downtilt 0°-12°
Humidity:	95%RH@+30℃
Temperature (℃):	-40～+70
Wind Load @150 km/h (N):	Frontal/Lateral/Rearside: 1214/290/1314
Max. Wind velocity(km/h):	200

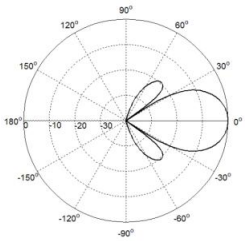
Internal RET Specifications

RET type:	Replaceable RET
RET protocol:	AISG2.0 /3GPP
Input voltage range(V):	10-30 DC
Power consumption(W):	< 5 (motor activated, single RET) < 1 (stand by, single RET), < 1.5 (stand by, 12V)
Adjustment time (full range): (s):	< 120 (typically, depending on antenna type)
RET connector:	1 pair of AISG 5 pin male & female
Pin assignment according AISG:	8-pin circular connector conforming to IEC 60130-9 - Ed. 3.0
Lightning protection (kA):	5 (8/20 μs Differential mode), 8 (8/20 μs Common mode)

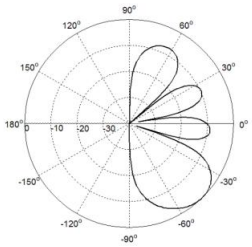
Typical Patterns



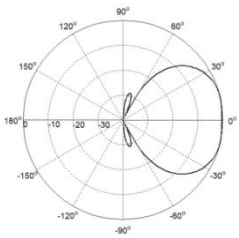
Single Column



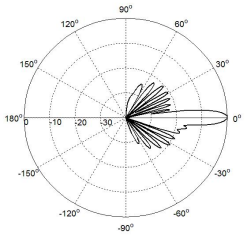
Service Beam @0deg



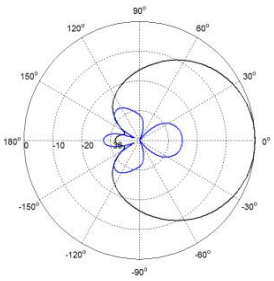
Service Beam @60deg

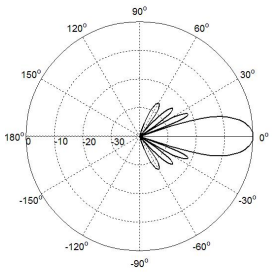


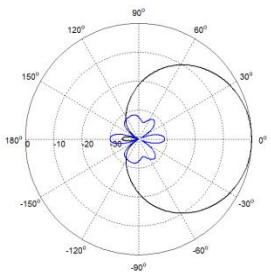
Broadcast Beam

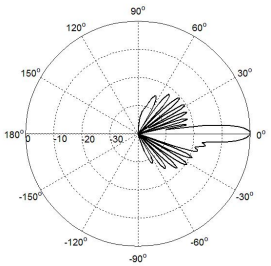


Elevation









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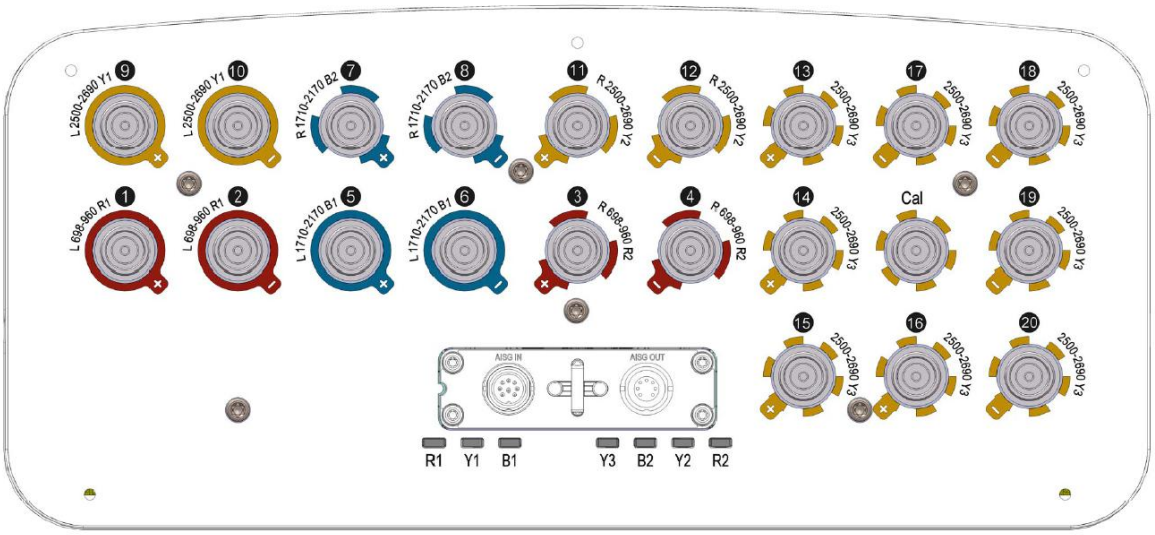
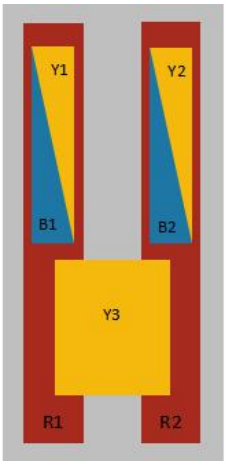
Bottom View



Correlation Table

Frequency range	Array	Connector	RET S/N
698–960 MHz	R1	1-2	BRxxx……1R1
698–960 MHz	R2	3-4	BRxxx……2R2
1710–2170 MHz	B1	5-6	BRxxx……3B1
1710–2170 MHz	B2	7-8	BRxxx……4B2
2500–2690 MHz	Y1	9-10	BRxxx……5Y1
2500–2690 MHz	Y2	11-12	BRxxx……6Y2
2500–2690 MHz	Y3	13-21	BRxxx……7Y3



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