

X Pol Panel TD Antenna 2300-2690MHz 90° 15.0dBi 2°-12° Replaceable RET

XX Pol Panel Antenna 2×690-960MHz 65° 14.0dBi 2°-12° Replaceable RET

General Electrical Properties		
General Parameters	Frequency Range (MHz)	2300-2690(Y1)
	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 (dB)	-26±2
	Max Amp/Phase Deviation:	≤1.0/ 11°
	VSWR:	≤1.5
	Co- polarization Isolation between ports (dB):	≥21
	Cross-polarization Isolation Between Ports (dB)	≥21
	Avg. power per input(W):	≥150
	Connector Type:	9×4.3-10 Female

Beamforming Electrical Properties				
	Frequency Range (MHz)		2300-2400	2400-2690
	Radiation parameters	Single Column	Horizontal 3dB Beamwidth (°):	90
Gain(dBi):			14.7±0.5	14.7±0.5
Vertical 3dB Beamwidth (°):			6.7	6.2
Cross Polar Ratio 0° (dB):			≥14	≥14
Front to Back Ratio (dB):			≥23	≥23
First upper Side lobe suppression (dB)			≥13	≥13
Broadcast Beam		Horizontal 3dB Beamwidth (°):	65±10	65±10
		Gain(dBi):	16.5±1.0	17.0±1.0
		±60° Gain roll-off at sector edge (dB)	12±6	12±6
		Vertical 3dB Beamwidth (°):	6.7	6.2
		Cross Polar Ratio 0° (dB):	≥15	≥15
		Cross Polar Ratio ±60° (dB):	≥8	≥8
		Front to Back Ratio (dB):	≥23	≥23
		First upper Side lobe suppression (dB)	≥13	≥13
Service Beam @ 0deg		Gain(dBi):	20.0±1.0	20.5±1.0
		Horizontal 3dB Beamwidth (°):	24	23
		Horizontal sidelobe level (°):	≤-12	≤-12
		Cross Polar Ratio 0° (dB):	≥15	≥15
		Front to Back Ratio (dB):	≥23	≥23
Service Beam@ ±60deg		Gain(dBi):	16.5±1.0	17.0±1.0
	Horizontal 3dB Beamwidth (°):	26	25	
	Horizontal sidelobe level (°):	≤-3	≤-3	

**BASTA Electrical Specifications**

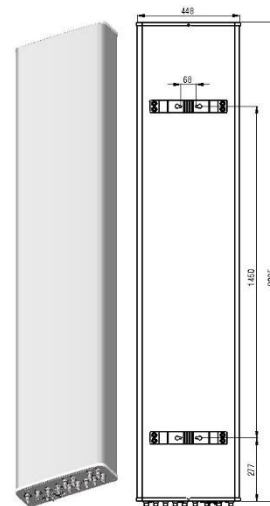
Frequency Range(MHz):	2300-2400(Y1)	2500-2690(Y1)
Average Gain by all Beam Tilts (dBi):	14.7	14.7
Gain by all Beam Tilts Tolerance(dB):	±0.4	±0.4
Average Gain by Beam Tilt (dBi):	2° 14.5 7° 15.0 12° 14.6	2° 14.7 7° 15.0 12° 14.5
Horizontal Beamwidth Tolerance(°):	±15	±10
Vertical Beamwidth Tolerance(°):	±0.5	±0.5
1st Upper Sidelobe Suppression (dB) :	15.5	14.3
Front to back Total Power at 180° ± 30°(dB):	25	24
CPR at Boresight(dB):	19.5	19

Frequency Range (MHz) :	690-960(R1)			690-960(R2)		
	690-806	806-880	880-960	690-806	806-880	880-960
Gain (dBi) :	12.6±0.5	13.4±0.5	13.6±0.5	11.9±0.5	12.6±0.5	13.2±0.5
Return Loss (dB) :	>14 (VSWR<1.5)					
Polarization :	±45°					
Horizontal 3dB Beamwidth (°) :	65	60	58	66	61	57
Vertical 3dB Beamwidth (°) :	16.4	14.2	12.7	16.9	15.2	13.4
Electrical Downtilt (°) :	2-12 Independently Continuously Adjustable					
RET Type:	Cascade SRET, AISG 2.0, Upgradeable					
Intraband Isolation (dB):	>25					
Interband Isolation (dB):	>25					
Max. Power Per Port (W):	250					
Intermodulation IM3 (dBc):	<-150(2×43 dBm)					
Impedance (ohm):	50					
Lightning Protection:	DC Grounded					
Connector Type:	4×4.3-10Female					

**BASTA Electrical Specifications**

Frequency Range(MHz):	690-960(R1)			690-960(R2)		
	690-806	806-880	880-960	690-806	806-880	880-960
Average Gain by all Beam Tilts(dBi):	12.5	13.2	13.6	11.9	12.5	13.0
Gain by all Beam Tilts Tolerance(dB):	±0.2	±0.5	±0.7	±0.4	±0.6	±0.5
Average Gain by Beam Tilts (dBi):	2° 12.6 7° 12.5 12° 12.4	2° 13.3 7° 13.4 12° 12.9	2° 13.6 7° 13.6 12° 13.4	2° 11.9 7° 11.9 12° 11.7	2° 12.6 7° 12.5 12° 12.2	2° 13.2 7° 13.1 12° 12.7
Horizontal Beamwidth Tolerance(°):	±4.3	±4.2	±4.5	±5.0	±6.4	±8.0
Vertical Beamwidth Tolerance(°):	±1.2	±0.9	±0.7	±1.6	±1.2	±1.0
1 <sup>st</sup> Upper Sidelobe Suppression(dB):	17.3	16.9	13.8	15.0	17.0	14.5
Front to back Total Power at 180° ± 30°(dB)	21.3	21.7	24.9	21.1	22.7	22.9
CPR at Boresight(dB):	17.3	19.3	21.8	20.6	18.7	23.7
CPR at Sector(dB):	6.5	6.0	10.8	9.6	7.2	7.0

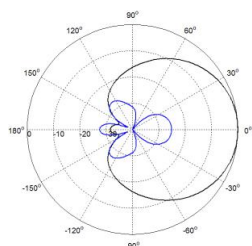
Mechanical Data	
Antenna Dimensions (mm):	2095×448×145
Packing Dimensions (mm):	2365×535×240
Antenna Net Weight/Bracket (kg):	30/5.9
Antenna Gross Weight (kg):	42
Radome Material:	Fiberglass
Pipe OD (mm):	50-115
Mounting Kits (Included):	BA.K.04.00069101, Adjustable Downtilt 0°-12°
Humidity:	95%RH@+30°C
Temperature (°C):	-40~+70
Wind Load @150 km/h (N):	Frontal/Lateral/Rearside: 1200/174/1314
Max. Wind velocity(km/h):	200



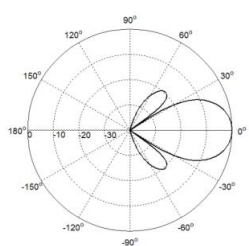
### Internal RET Specifications

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)

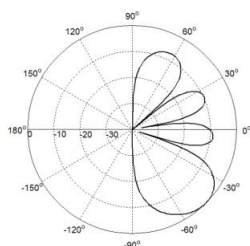
### Typical Patterns



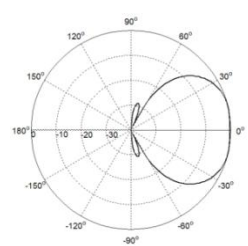
Single Column



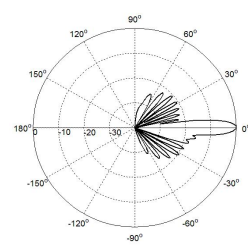
Service Beam @0deg



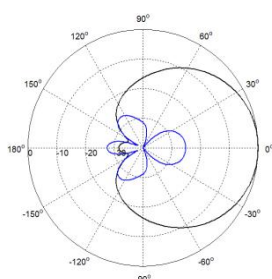
Service Beam @60deg



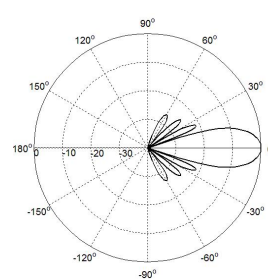
Broadcast Beam



Elevation



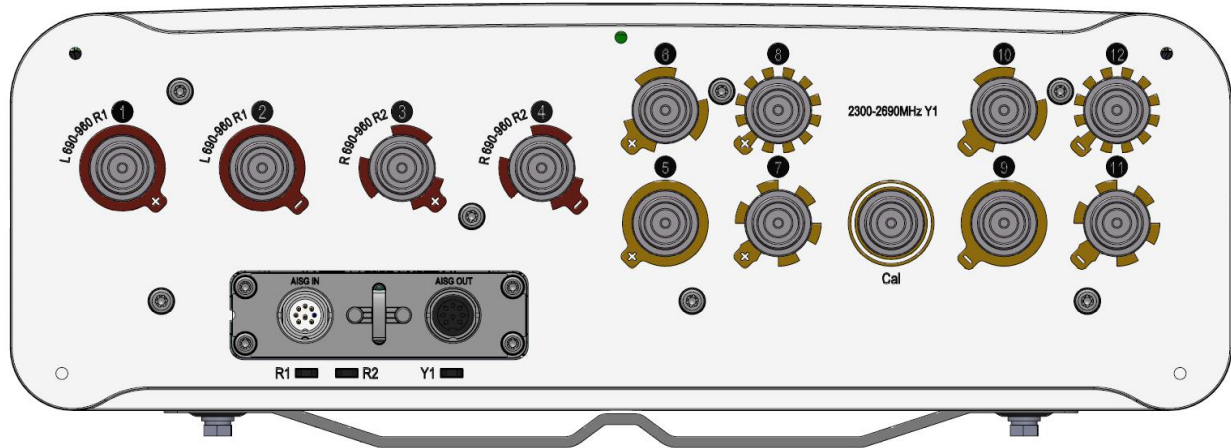
Azimuth(690-960MHz)



Elevation(690-960MHz)

# S-HU2PX10.6P-E2-C

Bottom View



Correlation Table

Frequency Range	Array	Connector
690–960 MHz	R1	1-2
690– 960 MHz	R2	3-4
2300–2690 MHz	Y1	5-12

