

**XXPoI 2300~2690MHz/3300~3800MHz 90°/90° 16/16dBi 2°~12°/2°~10° Integrated and replaceable RCU
(Remote Control Unit) Antenna**

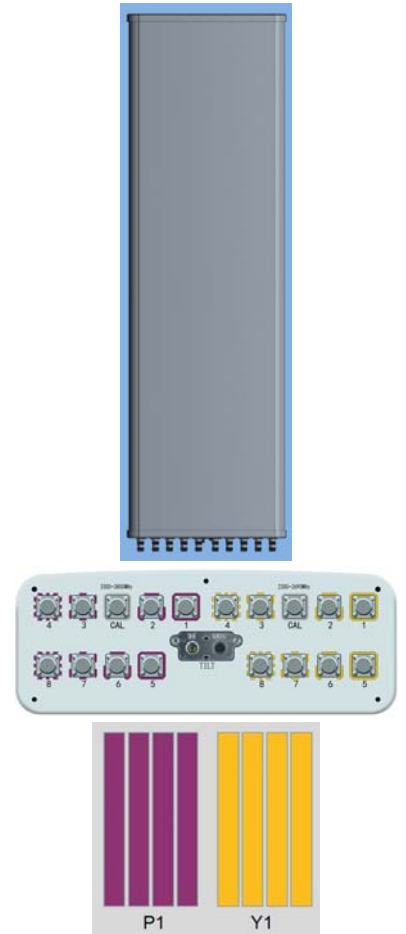
Electrical specifications-TDD					
General parameters	Frequency range(MHz)	2300~2690		3300~3800	
		2300~2496	2496~2690	3300~3800	
	Polarization	±45°	±45°	±45°	
	Electrical downtilt(°)	2-12	2-12	2-10	
	Electrical downtilt tolerance(°)	±1	±1	±1	
Calibration and electrical parameters	Coupling factor between calibration port and each antenna port(dB)	-26±2	-26±2	-26±2	
	Max.amplitude tolerance from calibration port to input ports(dB)	≤0.9	≤0.9	≤0.9	
	Max.phase tolerance from calibration port to input ports(°)	≤7	≤7	≤7	
	Ports VSWR	≤1.5	≤1.5	≤1.5	
	Co-polarization isolation between ports(dB)	≥20	≥20	≥20	
	Cross-polarization isolation between ports(dB)	≥25	≥25	≥25	
	Inter array spacing(mm)	58		43	
Radiation parameters	Single column beam	Horizontal 3dB beam width(°)	100±15	90±15	90±15
		Gain(dBi)	15±0.7	15.2±0.7	15.2±0.7
		Vertical 3dB beam width(°)	6.5±0.5	6±0.5	5.3±0.5
		Cross polar ratio(0°)(dB)	≥15	≥15	≥15
		Cross polar ratio(±60°)(dB)	≥6	≥6	≥6
		Front to back ratio(dB)	≥23	≥23	≥23
	Broadcast beam	Horizontal 3dB beam width(°)	65±9	65±9	65±9
		Gain(dBi)	15±0.9	15.2±0.9	15.2±0.9
		Vertical 3dB beam width(°)	6.5±0.5	6±0.5	5.3±0.5
		Cross polar ratio(0°)(dB)	≥15	≥15	≥15
		Front to back ratio(dB)	≥25	≥25	≥25
		Vertical sidelobe suppression for first sidelobe above main beam(dB)	≥15	≥15	≥15
	Service beam	0° direct beam gain(dBi)	20.5±0.9	20.7±0.9	20.7±0.9
		0° direct beam horizontal 3dB beam width(°)	25±5	25±5	25±5
		0° direct beam sidelobe suppression(dB)	≥11	≥11	≥11
		0° direct beam cross polar ratio(axial)(dB)	≥18	≥18	≥18
		0° direct beam front to back ratio(dB)	≥28	≥26	≥26
		±30° direct beam gain(dBi)	18±0.9	18.5±0.9	18.5±0.9

Mechanical specifications

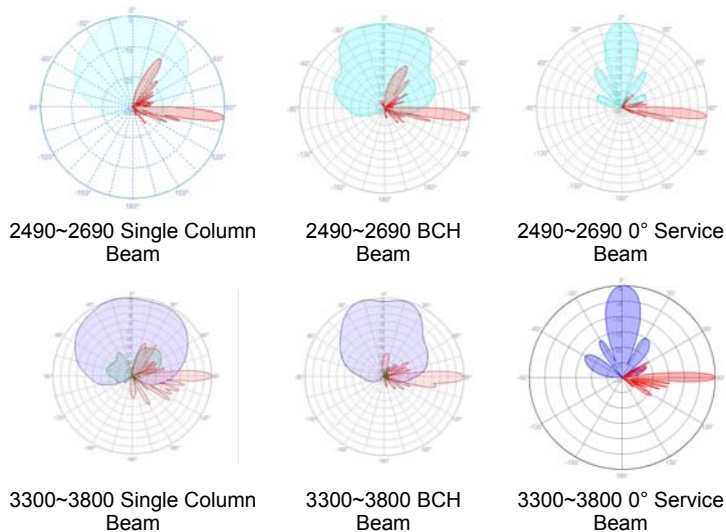
Connector	18×4.3-10-Female
Connector position	Bottom
Height × width × depth (mm)	1499×446×165
Packing size (mm)	1895×540×265
Antenna weight (kg)	26.9
Installation kit weight (kg)	5.4
Packing weight (kg)	40.3
Wind load (N,at 150km/h) Frontal/Lateral/Rearside	740/191/827
Max. wind velocity (km/h)	216
Radome material	Fiberglass
Radome color	Gray
Mechanical tilt (°)	0~10
Operating temperature (°C)	-50~65
Mounting hardware (mm)	50~115

Integrated RET properties

RET model	TRCU-TQ10P2V01
RET type	Integrated (Replaceable)
RET protocol	AISG 2.0 / 3GPP
Power supply(V)	10-30 DC
Power consumption(W)	≤0.6 (Idle, 12V), ≤6 (in Motion, 12V)
Adjustment time (Full Range)	<4Mins
Adjustment cycles	> 50,000
Temperature range (°C)	-40~65
Lightning protection	3KA(8/20μs) @ Pin5& Pin3; 5KA(8/20μs) @ Pin1/ Pin6& Pin7
Connectors	2×8 Pin circle connector according to IEC 60130-9 and AISG. Daisy chain in:Male,Daisy chain out:Female Pin1:12V;Pin3:RS485B;Pin5:RS485A;Pin6:10-30V; Pin7:GND;Pin2&Pin4&Pin8:N/C



Ant Array	RET Unique ID
Y1	TY00000.....Y1
P1	TY00000.....P1

Antenna pattern sample for reference


Beamforming Weights

Broadcast beamwith 65°		Frequency Range(MHz)	port	port1	port2	port3	port4	port5	port6	port7	port8
P0	Fullpower broadcast tilt2-4	2300~2690	Amplitude	0.4	1	1	0.6	0	0	0	0
			Phase(°)	9	0	9	178	0	0	0	0
P1	Fullpower broadcast tilt2-4	2300~2690	Amplitude	0	0	0	0	0.4	1	1	0.6
			Phase(°)	0	0	0	0	9	0	9	178
P0	Fullpower broadcast tilt5-9	2300~2690	Amplitude	0.4	1	1	0.6	0	0	0	0
			Phase(°)	0	0	0	178	0	0	0	0
P1	Fullpower broadcast tilt5-9	2300~2690	Amplitude	0	0	0	0	0.4	1	1	0.6
			Phase(°)	0	0	0	0	0	0	0	178
P0	Fullpower broadcast tilt10-12	2300~2690	Amplitude	0.4	1	1	0.6	0	0	0	0
			Phase(°)	-13	0	-13	178	0	0	0	0
P1	Fullpower broadcast tilt10-12	2300~2690	Amplitude	0	0	0	0	0.4	1	1	0.6
			Phase(°)	0	0	0	0	-13	0	-13	178
P0	Fullpower broadcast tilt5-9	3300~3800	Amplitude	0.4	1	1	0.55	0	0	0	0
			Phase(°)	0	0	0	180	0	0	0	0
P1	Fullpower broadcast tilt5-9	3300~3800	Amplitude	0	0	0	0	0.4	1	1	0.55
			Phase(°)	0	0	0	0	0	0	0	180
P0	Fullpower broadcast tilt5-9	3300~3800	Amplitude	0.4	1	1	0.55	0	0	0	0
			Phase(°)	0	0	-10	180	0	0	0	0
P1	Fullpower broadcast tilt5-9	3300~3800	Amplitude	0	0	0	0	0.4	1	1	0.55
			Phase(°)	0	0	0	0	0	0	-10	180
Service beam		Frequency Range(MHz)	port	port1	port2	port3	port4	port5	port6	port7	port8
+ 45°	0°for tilt2-12	2300-2690	Amplitude	1	1	1	1	0	0	0	0
			Phase(°)	0	0	0	0	0	0	0	0
-45°	0°for tilt2-12	2300-2690	Amplitude	0	0	0	0	1	1	1	1
			Phase(°)	0	0	0	0	0	0	0	0
+ 45°	0°for tilt2-10	3300~3800	Amplitude	1	1	1	1	0	0	0	0
			Phase(°)	0	0	0	0	0	0	0	0
-45°	0°for tilt2-10	3300~3800	Amplitude	0	0	0	0	1	1	1	1
			Phase(°)	0	0	0	0	0	0	0	0

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