

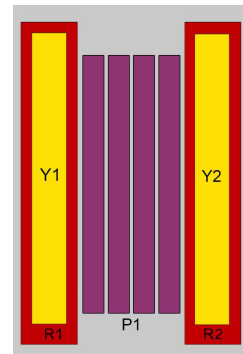
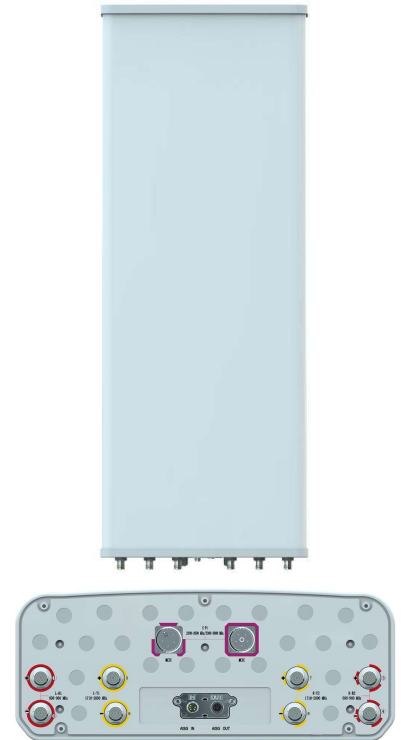
TDD : XXXXPol 2300~2690MHz/3300~3800MHz BCH 65°/65° 16/16.5dBi 2~12° Beamforming
FDD : XXXXPol 698~960MHz×2/1710~2690MHz×2 65°/65° 14/17dBi 2°~12°/2°~12° Integrated and replaceable
RCU (Remote Control Unit) Antenna

Electrical Specifications-TDD					
General Parameters	Frequency range(MHz)		2300~3800		
			2300~2690	3300~3800	
	Polarization		±45°		
	Electrical downtilt(°)		2~12		
Electrical downtilt tolerance(°)		±1			
Calibration and Electrical Parameters	Coupling factor between calibration port and each antenna port(dB)		-26±2		
	Max.amplitude tolerance from calibration port to input ports(dB)		<0.9		
	Max.phase tolerance from calibration port to input ports(°)		≤8		
	Ports VSWR		≤1.5		
	Co-polarization isolation between ports(dB)		≥20@2~4°;≥22@5~12°		
Cross-polarization isolation between ports(dB)		≥ 22			
Radiation Parameters	Single Column Beam	Horizontal 3dB beam width(°)		90±15	65±15
		Gain(dBi)		14.5±0.5	15.2±0.7
		Vertical 3dB beam width(°)		6.5±0.5	4.5±0.5
		Cross polar ratio(0°)(dB)		≥15	≥15
		Cross polar ratio(±60°)(dB)		≥8	≥8
		Front to back ratio(dB)		≥21	≥23
	Broadcast Beam	Gain(dBi)		15.8±0.7	16.2±0.8
		SPR(±60°)(%)		≥90	≥90
		Vertical 3dB beam width(°)		6.5±0.5	4.5±0.5
		Cross polar ratio(0°)(dB)		≥15	≥15
		Front to back ratio(dB)		≥25	≥25
	Vertical sidelobe suppression for first sidelobe above main beam(dB)		≥15	≥15	
	Service beam	0° direct beam gain(dBi)		20.0±0.7	20.8±0.8
		0° direct beam horizontal 3dB beam width(°)		27±3	20±3
		0° direct beam sidelobe suppression(dB)		≥10	≥10
		0° direct beam cross polar ratio(axial)(dB)		≥18	≥18
		0° direct beam front to back ratio(dB)		≥25	≥20
		±30° direct beam gain(dBi)		18.5±0.7	18.5±0.8

Electrical Specifications				
Frequency range (MHz)	R1/R2 -698~960			
	698~803	790~862	824~894	880~960
Polarization	±45°			
Gain at mid tilt (dBi)	12.7	13.0	13.2	13.6
Gain over all tilts (dBi)	12.7±0.6	12.9±0.5	13.1±0.6	13.5±0.7
Horizontal 3dB beamwidth (°)	73±7	70±5	69±6	68±5
Vertical 3dB beamwidth (°)	17.5±1.2	15.6±0.9	14.8±0.8	14.0±0.8
Front to back ratio (dB) Total power, ±30°	>21	>22	>22	>23
Cross polar ratio (dB) (at Boresight)	>16	>17	>17	>15
Electrical downtilt (°)	2~12			
Sidelobe suppression (dB) (First sidelobe above main beam)	>15	>15	>15	>15
VSWR	<1.5			
Isolation: intra-system (dB)	≥25			
Isolation: inter-system (dB)	R1//R2≥25 R1,R2//other≥28			
Intermodulation IM3 (2×43dBm carrier)	≤-150 dBc			
Impedance (Ω)	50			
Max. power per input (W) @50°C	400			
Lightning protection	Dc Ground			

Electrical Specifications				
Frequency Range (MHz)	Y1/Y2 -1710~2690			
	1710~1990	1920~2200	2200~2490	2490~2690
Polarization	±45°			
Gain at mid tilt (dBi)	16.3	16.8	17.2	17.0
Gain over all tilts (dBi)	16.1±0.6	16.6±0.5	17.0±0.5	16.8±0.5
Horizontal 3dB beamwidth (°)	68±6	65±5	63±5	60±5
Vertical 3dB beamwidth (°)	7.5±0.5	6.8±0.5	6.0±0.5	5.5±0.4
Front to back ratio (dB) Total power, ±30°	>25	>26	>26	>25
Cross polar ratio (dB) (at Boresight)	>17	>18	>18	>17
Electrical downtilt (°)	2~12			
Sidelobe suppression (dB) (First sidelobe above main beam)	>16	>16	>16	>16
VSWR	<1.5			
Isolation: intra-system (dB)	≥25			
Isolation: inter-system (dB)	Y1,Y2//other≥28			
Intermodulation IM3 (2×43dBm carrier)	≤-150 dBc			
Impedance (Ω)	50			
Max. power per input (W) @50°C	200			
Lightning protection	Dc Ground			

Mechanical Specifications	
Connector	TDD:1×(MQ4+MQ5)-Male FDD:8×4.3-10-Female
Connector position	Bottom
Height × width × depth (mm)	1399×499×198
Packing size (mm)	1690×565×250
Antenna weight (kg)	29.7
Installation kit weight (kg)	5.5
Packing weight (kg)	41.3
Wind load (N,at 150km/h) Frontal/Lateral/Rearside	760/156/770
Max. wind velocity (km/h)	216
Radome material	Fiberglass
Radome color	Gray
Mechanical tilt (°)	0~15
Operating temperature (°C)	-50~65
Mounting hardware (mm)	Φ50~Φ115
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 x 8 Pin circle connector according To IEC 60130-9 And AISG. Daisy chain in:Male,Daisychain out :Female Pin1:12V;Pin3:RS485B;Pin5:RS485A;Pin6:10-30V;Pin7:GND; Pin2 & Pin4 & Pin8:N/C



Ant Array	RET Unique ID
R1	TY00000.....R1
R2	TY00000.....R2
Y1	TY00000.....Y1
Y2	TY00000.....Y2
P1	TY00000.....P1

Antenna Pattern Sample For Reference

