

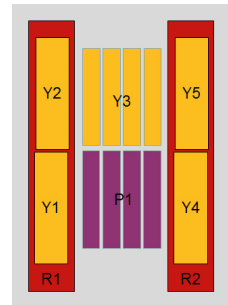
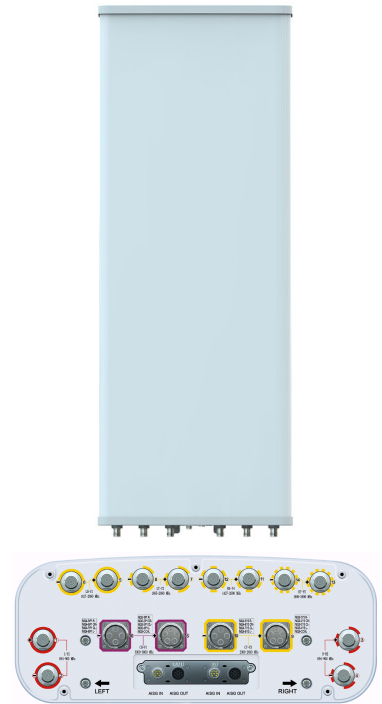
TDD: XXXXXXXXPol 2300~2690MHz/3300~3800MHz BCH 17.7/16.6 dBi 2~12° Beamforming
 FDD: XXXXXXXXPol 694~960MHz×2/1695~2690MHz×2/1427~2690MHz×2 65°/65°/65°16.1/17.8/17.8dBi 2°~12°/2°~12°/2°~12° Integrated and replaceable RCU (Remote Control Unit) Antenna

Electrical Specifications-TDD				
General Parameters	Frequency range(MHz)	Y3-2300~2690	P1-3300~3800	
		2300~2690	3300~3800	
General Parameters	Polarization	±45°	±45°	
	Electrical downtilt(°)	2~12	2~12	
	Electrical downtilt tolerance(°)	±1.5	±1.5	
	Coupling factor between calibration port and each antenna port(dB)	-26±2	-26±2	
Calibration and Electrical Parameters	Max.amplitude tolerance from calibration port to input ports(dB)	<0.9	<0.9	
	Max.phase tolerance from calibration port to input ports(°)	≤7	≤9	
	Ports VSWR	≤1.5	≤1.5	
	Co-polarization isolation between ports(dB)	≥20	≥20	
	Cross-polarization isolation between ports(dB)	≥ 25	≥ 25	
	Max. power per input (W) @50°C	150	75	
Radiation Parameters	Single Column Beam	Horizontal 3dB beam width(°)	90±15	80±18
		Gain(dBi)	15.8±0.9	15.6±0.9
		Vertical 3dB beam width(°)	4.8±0.4	6±0.6
		Cross polar ratio(0°)(dB)	≥15	≥15
		Front to back ratio(dB)	≥23	≥23
		Vertical sidelobe suppression for first sidelobe above main beam(dB)	≥16	≥16
	Broadcast Beam	Horizontal 3dB beam width(°)	60	60
		Gain(dBi)	17.7	16.6
		Vertical 3dB beam width(°)	4.8	6
		Front to back ratio(dB)	28	25
		Vertical sidelobe suppression for first sidelobe above main beam(dB)	16	16
	Service Beam	0° direct beam gain(dBi)	21.3	20.8
		0° direct beam horizontal 3dB beam width(°)	23	20
		0° direct beam sidelobe suppression(dB)	13	12
		0° direct beam cross polar ratio(axial)(dB)	18	18
		0° direct beam front to back ratio(dB)	30	30
		±30° direct beam gain(dBi)	20.4	19.7
	Soft Split multi-beam	Gain (dBi)	20.5	19.8
Horizontal 3dB beam width(°)		32	32	

Electrical Specifications					
Frequency range (MHz)	R1/R2 -694~960			Y2/Y5 -1695~2690	
	694~790	790~890	890~960	1695~2180	2300~2690
Polarization	±45°			±45°	
Gain at mid tilt (dBi)	15.6	15.9	16.1	16.8	17.8
Gain over all tilts (dBi)	15.4±0.5	15.7±0.5	15.9±0.5	16.2±0.8	17.3±0.5
Horizontal 3dB beamwidth (°)	71±6	67±5	64±5	68±7	60±6
Vertical 3dB beamwidth (°)	9.5±0.8	8.4±0.7	7.6±0.5	6.8±0.7	5.3±0.5
Front to back ratio (dB) Total power, ±30°	>22	>22	>22	>25	>25
Cross polar ratio (dB) (at Boresight)	>18	>19	>19	>19	>19
Electrical downtilt (°)	2~12			2~12	
Sidelobe suppression (dB) (First sidelobe above main beam)	>18	>18	>18	>16	>16
VSWR	<1.5			≤1.5	
Isolation: intra-system (dB)	≥25			≥25	
Isolation: inter-system (dB)	R1//R2≥25 R1,R2//others≥28			≥25	
Intermodulation IM3 (2×43dBm carrier)	≤-150 dBc			≤-150 dBc	
Impedance (Ω)	50			50	
Max. power per input (W) @50°C	400			200	
Lightning protection	Dc Ground			Dc Ground	

Electrical Specifications			
Frequency Range (MHz)	Y1/Y4 -1427~2690		
	1427~1518	1695~2180	2300~2690
Polarization	±45°		
Gain at mid tilt (dBi)	14.8	16.7	17.8
Gain over all tilts (dBi)	14.6±0.5	16.2±0.8	17.3±0.5
Horizontal 3dB beamwidth (°)	72±8	68±7	60±6
Vertical 3dB beamwidth (°)	9.4±0.6	7.1±0.6	5.5±0.5
Front to back ratio (dB) Total power, ±30°	>26	>25	>25
Cross polar ratio (dB) (at Boresight)	>18	>19	>19
Electrical downtilt (°)	2~12		
Sidelobe suppression (dB) (First sidelobe above main beam)	>16	>16	>16
VSWR	<1.5		
Isolation: intra-system (dB)	≥25		
Isolation: inter-system (dB)	≥25		
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:2×(MQ4+MQ5)Connector-Male FDD:12×4.3-10-Female
Connector position	Bottom
Height × width × depth (mm)	2680×499×198
Packing size (mm)	2965×565×250
Antenna weight (kg)	57.5
Packing weight (kg)	78.5
Wind load (N,at 150km/h) Frontal/Lateral/Maximum	965/270/1310
Max. wind velocity (km/h)	250
Radome material	GFRPP
Radome color	Gray
Mechanical tilt (°)	0~8
Operating temperature (°C)	-50~65
Mounting hardware (mm)	Φ50~Φ115
Integrated RET Properties	
RET model	TRCU-TQ20P3V02
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
Y3	TY00000.....Y3
Y4	TY00000.....Y4
Y5	TY00000.....Y5
P1	TY00000.....P1

