

TDD : XXXXXXXXXPoI 2300~2690MHz×4/3300~3800MHz×4 BCH 65° 16/16.5dBi 2°~12°/2°~12° Beamforming
FDD : XXXXXXXXXPoI 698~960MHz×2/1710~2690MHz×2/1427~2690MHz×2 65°/65°/65° 15.1/15.7/16dBi 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 2300~2690	P1-3300~3800 3300~3800	
	Polarization		±45°	±45°	
	Electrical downtilt(°)		2~12	2~12	
	Electrical downtilt tolerance(°)		±1	±1	
Calibration and electrical parameters	Coupling factor between calibration port and each antenna port(dB)		-26±2	-26±2	
	Max.amplitude tolerance from calibration port to input ports(dB)		<0.9	<0.9	
	Max.phase tolerance from calibration port to input ports(°)		≤8	≤8	
	Ports VSWR		≤1.5	≤1.5	
	Co-polarization isolation between ports(dB)		≥20@2~5°;≥25@6~12°	≥20@2~5°;≥25@6~12°	
	Cross-polarization isolation between ports(dB)		≥22	≥22	
	Max. power per input (W) @50°C		120	80	
Radiation parameters	Single column beam	Horizontal 3dB beam width(°)		90±15	90±15
		Gain(dBi)		14.5±0.6	15.0±0.6
		Vertical 3dB beam width(°)		6.5±0.6	6.2±0.6
		Cross polar ratio(0°)(dB)		≥15	≥15
		Cross polar ratio(±60°)(dB)		≥10	≥8
		Front to back ratio(dB)		≥22	≥25
		Vertical sidelobe suppression for first sidelobe above main beam(dB)		≥15	≥14
	Broadcast beam	Gain(dBi)		16.5±0.8	16.5±0.8
		SPR(±60°)(%)		≥90	≥90
		Vertical 3dB beam width(°)		6.5±0.6	6.2±0.6
		Front to back ratio(dB)		≥25	≥25
	Service beam	0° direct beam gain(dBi)		20.6±0.8	20.8±0.8
		0° direct beam horizontal 3dB beam width(°)		24±3	24±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	≥25
		±30° direct beam gain(dBi)		18.6±0.8	19.0±0.8

Electrical specifications

Frequency Range (MHz)	R1/R2 -698~960				Y2/Y5 -1710~2690			
	698~803	790~862	824~894	880~960	1710~1990	1920~2200	2200~2490	2490~2690
Polarization	±45°							
Gain at mid tilt (dBi)	14.0	14.6	14.9	15.1	15.0	15.4	15.7	15.6
Gain over all tilts (dBi)	13.9±0.6	14.4±0.5	14.7±0.6	14.9±0.5	14.9±0.5	15.2±0.5	15.5±0.5	15.4±0.5
Horizontal 3dB beamwidth (°)	69±4	67±4	66±4	65±4	68±6	67±6	61±5	58±6
Vertical 3dB beamwidth (°)	11±1	10±0.7	9.7±0.5	9.3±0.5	8.8±0.6	8.0±0.5	7.1±0.5	6.3±0.5
Front to back ratio(dB) Total power, 180°	>21	>23	>25	>24	>25	>25	>25	>23
Cross polar ratio (dB) (at Boresight)	>18	>19	>17	>18	>17	>18	>17	>16
Electrical downtilt (°)	2~12				2~12			
Sidelobe suppression (dB) (First sidelobe above main beam)	>15	>15	>16	>16	>15	>15	>15	>15
VSWR	<1.5				<1.5			
Isolation: intra-system (dB)	≥25				≥25			
Isolation: inter-system (dB)	R1//R2≥25 R1,R2//others≥28				≥28			
Intermodulation IM3 (2×43dBm carrier)	≤-150 dBc							
Impedance (Ω)	50							
Max. power per input (W) @50°C	400				200			
Lightning protection	Dc Ground							

Electrical specifications

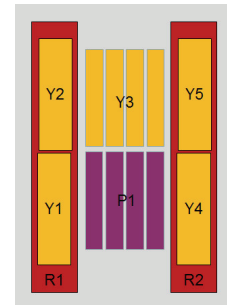
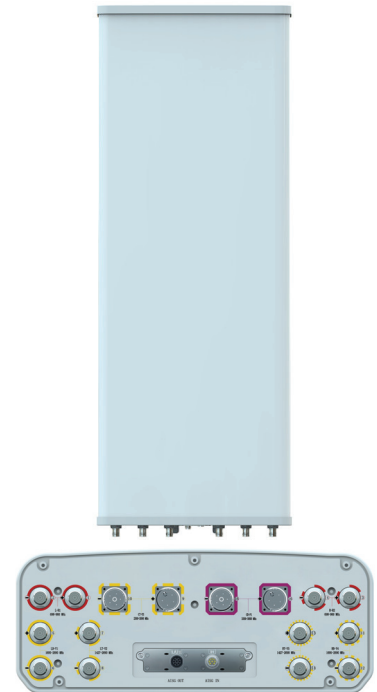
Frequency Range (MHz)	Y1/Y4 -1427~2690				
	1427~1518	1710~1990	1920~2200	2200~2490	2490~2690
Polarization	±45°				
Gain at mid tilt (dBi)	14.6	15.4	15.7	15.8	16.0
Gain over all tilts (dBi)	14.4±0.5	15.2±0.5	15.5±0.6	15.6±0.8	15.8±0.5
Horizontal 3dB beamwidth (°)	68±5	67±6	64±5	61±4	59±5
Vertical 3dB beamwidth (°)	10.8±0.5	9.4±1.0	8.6±0.8	7.6±0.7	6.6±0.6
Front to back ratio (dB) Total power, ±30°	>26	>26	>25	>25	>24
Cross polar ratio (dB) (at Boresight)	>20	>20	>20	>19	>18
Electrical downtilt (°)	2~12				
Sidelobe suppression (dB) (First sidelobe above main beam)	>16	>15	>14	>16	>15
VSWR	<1.5				
Isolation: intra-system (dB)	≥25				
Isolation: inter-system (dB)	≥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:2×(MQ4+MQ5)Connector-Male FDD:12×4.3-10-Female
Connector position	Bottom
Height × width × depth (mm)	2080×499×198
Packing size (mm)	2465×620×330
Antenna weight (kg)	51.5
Installation kit weight (kg)	5.4
Packing weight (kg)	65
Wind load (N,at 150km/h) Frontal/Lateral/Rearside	1100/325/1240
Max. wind velocity (km/h)	216
Radome material	Fiberglass
Radome color	Gray
Mechanical tilt (°)	0~10
Operating temperature (°C)	-50~65
Mounting hardware (mm)	Φ50~Φ115

Integrated RET properties

RET model	TRCU-TQ20P3V01
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

Antenna pattern sample for reference
