TONGYU

T2013S6R012

XXXXXXPol
694~960MHz×2/1710~2170MHz/2490~2690MHz/1710~2690MHz/1427~2690MHz
65°/65°/65°/65°/65° 14.5/16.6/17.2/17.8/17.7dBi 2°~14°/2°~12°/2°~12°/2°~12°/2°~12°
Integrated and replaceable RCU (Remote Control Unit) Antenna

Electrical specifications

Frequency Range (MHz)	R1/R2 -694~960×2				Y3 - 1710~2690			
	694~803	790~862	824~894	880~960	1710~1990	1920~2200	2200~2490	2490~2690
Polarization	±45°							
Gain over all tilts (dBi)	13.5±0.5	14.1±0.5	14.3±0.5	14.5±0.5	16.9±0.6	17.2±0.5	17.3±0.5	17.7±0.6
Horizontal 3dB beamwidth (°)	68±6	66±5	66±5	66±6	67±5	65±4	60±6	58±4
Vertical 3dB beamwidth (°)	15.8±1.5	14.3±0.8	13.8±0.5	13.3±0.8	6.9±0.5	6.1±0.4	5.5±0.4	5.1±0.3
Front to back ratio (dB) Total power, ±30°	>22	>24	>23	>24	>27	>27	>27	>25
Cross polar ratio (dB) (at Boresight)	>16	>19	>19	>18	>22	>20	>20	>20
Electrical downtilt (°)	2~14				2~12			
Sidelobe suppression (dB) (First sidelobe above main beam)	>17	>17	>16	>16	>18	>19	>17	>16
VSWR	<1.5				<1.5			
Isolation: intra-system (dB)	＞25				＞25			
Isolation: inter-system (dB)	＞25(R1//R2) ＞28(R1,R2// B1,Y1,Y2,Y3)				＞28(Y3//R1,R2) ＞30(Y3//B1,Y1,Y2)			
Intermodulation IM3 (2×43dBm carrier)	≤-153 dBc							
Impedance (Ω)	50							
Max. power per input (W) @50°C	500				250			
Lightning protection	Dc Ground							

Electrical specifications

Frequency Range (MHz)	B1-1710~2170		Y1-2490~2690	Y2- 1427~2690				
	1710~1990	1920~2170	2490~2690	1427~1518	1710~1990	1920~2200	2200~2490	2490~2690
Polarization	±45°							
Gain over all tilts (dBi)	16.4±0.5	16.6±0.5	17.1±0.5	16.0±0.3	17.2±0.5	17.3±0.5	17.4±0.5	17.5±0.6
Horizontal 3dB beamwidth (°)	67±5	66±5	58±4	70±8	61±4	60±6	63±6	60±3
Vertical 3dB beamwidth (°)	6.2±0.6	5.5±0.5	4.5±0.5	8.9±0.4	7.4±0.7	6.5±0.6	6.0±0.4	5.3±0.6
Front to back ratio (dB) Total power, ±30°	>26	>26	>25	>27	>27	>28	>29	>27
Cross polar ratio (dB) (at Boresight)	>20	>20	>18	>19	>19	>18	>17	>19
Electrical downtilt (°)	2~12		2~12	2~12				
Sidelobe suppression (dB) (First sidelobe above main beam)	>16	>15	>15	>18	>18	>16	>18	>18
VSWR	<1.5		<1.5	<1.5				
Isolation: intra-system (dB)	＞25		＞25	＞25				
Isolation: inter-system (dB)	＞30		＞30	＞28				
Intermodulation IM3 (2×43dBm carrier)	≤-153 dBc							
Impedance (Ω)	50							
Max. power per input (W) @50°C	250		250	250				
Lightning protection	Dc Ground							

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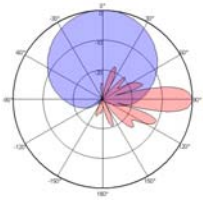
Mechanical specifications	
Connector	12×4.3-10 -Female
Connector position	Bottom
Height × width × depth (mm)	1499×469×198
Packing size (mm)	1880×585×350
Antenna weight (kg)	33.5
Installation kit weight (kg)	5.4
Packing weight (kg)	44.7
Wind load (N,at 150km/h) Frontal/Lateral/Rearside	629/202/657
Max. wind velocity (km/h)	216
Radome material	Fiberglass
Radome color	Gray
Mechanical tilt (°)	0-15
Operating temperature (℃)	-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 (℃)	-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

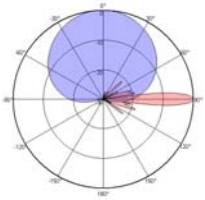
View from the front of the antenna

Ant Array	RET Unique ID
R1	TY00000……R1
R2	TY00000……R2
B1	TY00000……B1
Y1	TY00000……Y1
Y2	TY00000……Y2
Y3	TY00000……Y3

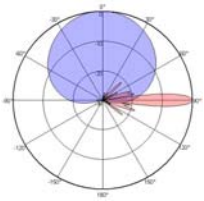
Antenna pattern sample for reference



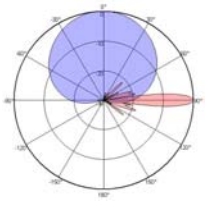
694~960MHz



1427~2690MHz



1710~2170MHz



2490~2690MHz

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