

XXXXXXPol 698~960MHz×2/1710~2690MHz×2/1427~2690MHz×2 65°/65°/65° 16/19/19dBi 2°~12°/2°~12°/2°~12°
Integrated and replaceable RCU (Remote Control Unit) antenna, with integrated ASU.

Electrical Specifications								
Frequency range (MHz)	R1/R2-698~960				Y1/Y4-1710~2690			
	698~806	790~862	824~894	880~960	1710~1990	1920~2200	2200~2490	2490~2690
Polarization	±45°				±45°			
Gain at mid tilt (dBi)	15.4	15.5	15.7	15.9	17.5	18.0	18.5	18.9
Gain over all tilts (dBi)	15.2±0.5	15.3±0.6	15.5±0.5	15.7±0.6	17.3±0.6	17.8±0.5	18.3±0.5	18.7±0.6
Horizontal 3dB beamwidth (°)	65±6	64±5	63±5	65±6	72±6	69±5	68±6	63±5
Vertical 3dB beamwidth (°)	10.7±1.1	9.8±0.6	9.5±0.7	8.9±0.8	6.0±0.6	5.4±0.4	4.8±0.3	4.4±0.2
Front to back ratio (dB) Total power, ±30°	>23	>23	>23	>24	>25	>26	>28	>28
Cross polar ratio (dB) (at Boresight)	>18	>18	>18	>18	>16	>16	>16	>16
Electrical downtilt (°)	2~12				2~12			
Sidelobe suppression (dB) (First sidelobe above main beam)	>16	>16	>16	>16	>16	>16	>17	>17
Efficiency average(%)	83	82	82	81	81	80	79	78
VSWR	<1.5				<1.5			
Isolation: intra-system (dB)	≥25				≥25			
Isolation: inter-system (dB)	≥25 (R1//R2) ≥26 (Other)				≥26			
Intermodulation IM3 (2×43dBm carrier)	≤-153 dBc				≤-153 dBc			
Impedance (Ω)	50				50			
Max. power per input (W) @50°C	400				250			
Lightning protection	Dc Ground							

Electrical Specifications					
Frequency Range (MHz)	Y2/Y3-1427-2690				
	1427~1518	1710~1990	1920~2200	2200~2490	2490~2690
Polarization	±45°				
Gain at mid tilt (dBi)	16.5	17.8	18.4	18.9	19.3
Gain over all tilts (dBi)	16.3±0.5	17.6±0.5	18.2±0.5	18.7±0.5	19.1±0.5
Horizontal 3dB beamwidth (°)	73±7	68±5	64±6	61±6	58±5
Vertical 3dB beamwidth (°)	7.3±0.3	6.0±0.5	5.4±0.4	4.7±0.3	4.4±0.2
Front to back ratio (dB)	>30	>30	>30	>30	>30
Total power, ±30°					
Cross polar ratio (dB) (at Boresight)	>17	>17	>18	>17	>18
Electrical downtilt (°)	2~12				
Sidelobe suppression (dB) (First sidelobe above main beam)	>16	>16	>16	>17	>16
Efficiency average(%)	82	81	80	79	78
VSWR	<1.5				
Isolation: intra-system (dB)	≥25				
Isolation: inter-system (dB)	≥26				
Intermodulation IM3 (2×43dBm carrier)	≤-153 dBc				
Impedance (Ω)	50				
Max. power per input (W) @50°C	250				
Lightning protection	Dc Ground				

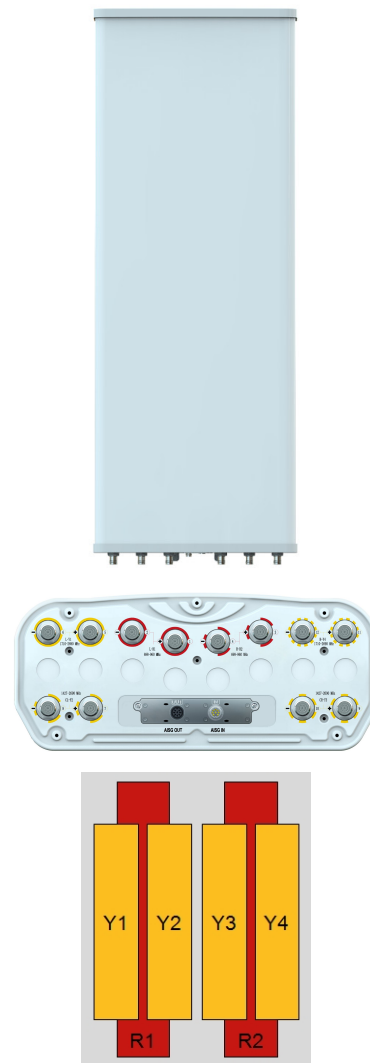
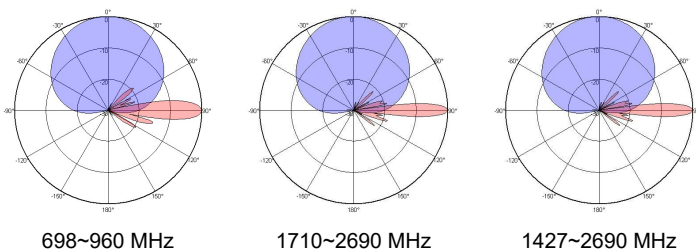
Mechanical Specifications

Connector	12×4.3-10 Female
Connector position	Bottom
Height × width × depth (mm)	2080×469×198
Packing size (mm)	2370×535×250
Antenna weight (kg)	40.3
Installation kit weight (kg)	5.4
Packing weight (kg)	53.5
Wind load (N,at 150km/h) Frontal/Lateral/Maximum	610/230/815
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	2×8 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

Antenna Pattern Sample For Reference



Ant Array	RET Unique ID
R1	TY00000.....R1
R2	TY00000.....R2
Y1	TY00000.....Y1
Y2	TY00000.....Y2
Y3	TY00000.....Y3
Y4	TY00000.....Y4

Antenna Sensor Unit(ASU) Specifications

Module name	TRAE-TDGA02V02
Release Version	A1
Standard	AISG ES-RAE v 2.2.0/3GPP release 10
AISG device type	RAE(0x31)
Input voltage range	10-30V DC
Power consumption	<1W
Data rate	9.6 kbps
Connectors	OOK
Firmware	Remotely upgradeable by .bin or .xml file
Temperature range	-40 °C to +70 °C
Lighting Protection	± 3KA(8/20us)
Accuracy	
Coordinate	± 5m (Open area without obstacles)
Altitude	± 5m (Open area without obstacles)
Azimuth	± 5° (Range: 0 ° ~359.9°)
Mechanical tilt	± 1° (Range:-90 ° ~90°)
First position time	1 minute
First orientation time	3 minutes


Compliance

- 1, Quality assurance system and environmental management system: ISO9001, ISO14001, ISO45001.
- 2, Environmentally relevant standards: CE, RoHS, REACH, WEEE.