

TDD : XXXXPol2490~2690MHz/3300~3800MHz BCH 65°/65° 16.5/16.5dBi 2~12°/2~12° Beamforming
 FDD : XXXXPol 698~862MHz×1/880~960MHz×1/1710~2170MHz×1/2490~2690MHz×1 65°/65°/65°/65°
 14.5/15/16.5/17dBi 2~12°/2~12°/2~12°/2~12° Integrated and replaceable RCU (Remote Control Unit) Antenna

Electrical Specifications-TDD

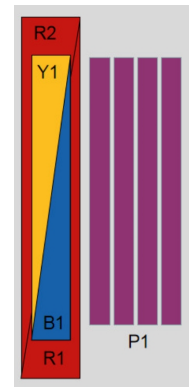
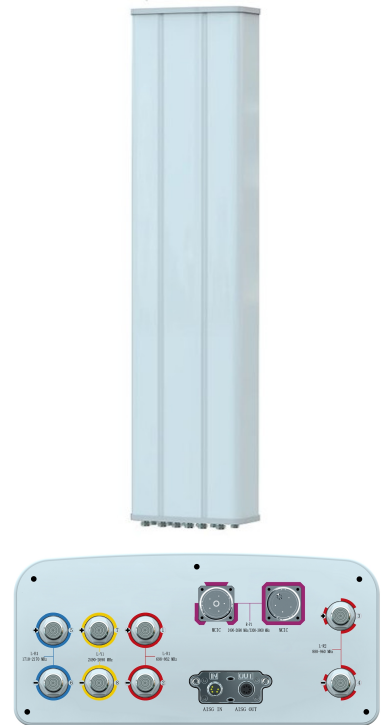
| Electrical Specifications-TDD | | | | | |
|---------------------------------------|--|--|---------------------------------|-----------|----------|
| General Parameters | Frequency range(MHz) | | P1-2490~3800 | | |
| | | | 2490~2690 | 3300~3800 | |
| | Polarization | | ±45° | | |
| | Electrical downtilt(°) | | 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@2~5°;≥25@6~12° | | |
| | Cross-polarization isolation between ports(dB) | | ≥ 22 | | |
| | Inter array spacing(mm) | | 55(0.47λ@2590MHz,0.65λ@3550MHz) | | |
| Radiation Parameters | Single Column Beam | Horizontal 3dB beam width(°) | | 80±15 | 65±15 |
| | | Gain(dBi) | | 14.3±0.4 | 14.8±0.4 |
| | | Vertical 3dB beam width(°) | | ≥6.5 | ≥4.5 |
| | | Cross polar ratio(0°)(dB) | | ≥15 | |
| | | Cross polar ratio(±60°)(dB) | | ≥10 | |
| | | Front to back ratio(dB) | | ≥22 | |
| | | Vertical sidelobe suppression for first sidelobe above main beam(dB) | | ≥15 | |
| | Broadcast Beam | Gain(dBi) | | 16.5±0.7 | 16.5±0.8 |
| | | SPR(±60°)(%) | | ≥90 | |
| | | Vertical 3dB beam width(°) | | ≥6.5 | ≥4.5 |
| | | Cross polar ratio(0°)(dB) | | ≥18 | |
| | | Front to back ratio(dB) | | ≥25 | |
| | Service Beam | 0° direct beam gain(dBi) | | 20±0.8 | 21±0.8 |
| | | 0° direct beam horizontal 3dB beam width(°) | | ≤28 | |
| | | 0° direct beam sidelobe suppression(dB) | | ≥10 | |
| | | 0° direct beam cross polar ratio(axial)(dB) | | ≥18 | |
| | | 0° direct beam front to back ratio(dB) | | ≥25 | |
| | | ±30° direct beam gain(dBi) | | 18±0.8 | 19±0.8 |

| Electrical Specifications | | | |
|---|------------|----------|------------|
| Frequency range (MHz) | R1-698~862 | | R2-880~960 |
| | 698~803 | 790~862 | 880~960 |
| Polarization | ±45° | | |
| Gain at mid tilt (dBi) | 14.0 | 14.5 | 15.0 |
| Gain over all tilts (dBi) | 13.9±0.7 | 14.4±0.6 | 14.9±0.6 |
| Horizontal 3dB beamwidth (°) | 69±6 | 67±5 | 65±6 |
| Vertical 3dB beamwidth (°) | 11.0±0.9 | 9.9±0.7 | 9.1±0.5 |
| Front to back ratio(dB) Total power, 180° | >20 | >22 | >23 |
| Cross polar ratio (dB) (at Boresight) | >17 | >18 | >18 |
| Electrical downtilt (°) | 2~12 | | |
| Sidelobe suppression (dB) (First sidelobe above main beam) | >15 | >15 | >16 |
| 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 | 400 | | |
| Lightning protection | Dc Ground | | |

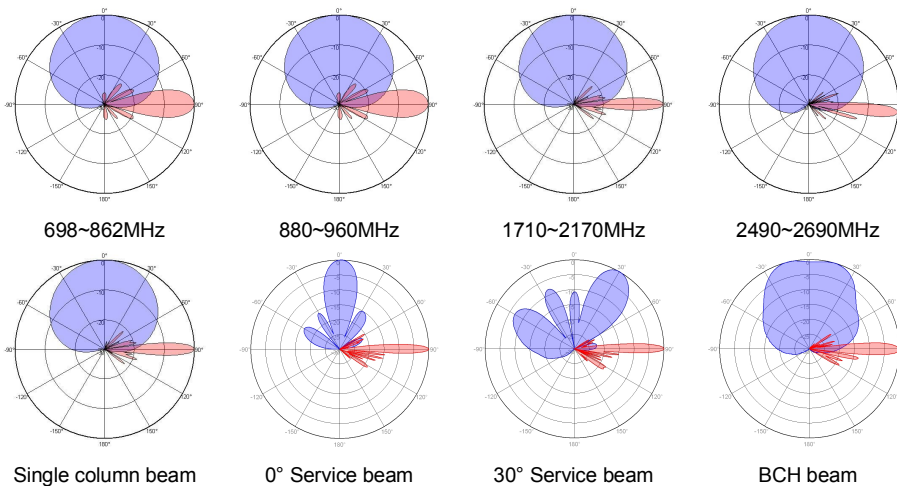
| Electrical Specifications | | | |
|---|---------------|-----------|---------------|
| Frequency Range (MHz) | B1 -1710~2170 | | Y1 -2490~2690 |
| | 1710~1990 | 1920~2170 | 2490~2690 |
| Polarization | ±45° | | |
| Gain at mid tilt (dBi) | 16.5 | 16.8 | 17.2 |
| Gain over all tilts (dBi) | 16.3±0.6 | 16.6±0.6 | 17.0±0.6 |
| Horizontal 3dB beamwidth (°) | 67±6 | 64±5 | 59±5 |
| Vertical 3dB beamwidth (°) | 6.8±0.4 | 6.0±0.5 | 4.7±0.3 |
| Front to back ratio (dB) Total power, ±30° | >25 | >26 | >25 |
| Cross polar ratio (dB) (at Boresight) | >17 | >20 | >19 |
| Electrical downtilt (°) | 2~12 | | |
| Sidelobe suppression (dB) (First sidelobe above main beam) | >16 | >15 | >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:1×(MQ4+MQ5) Connector-Male FDD:8×4.3-10-Female |
| Connector position | Bottom |
| Height × width × depth (mm) | 2080×379×177 |
| Packing size (mm) | 2465×485×275 |
| Antenna weight (kg) | 34 |
| Installation kit weight (kg) | 5.5 |
| Packing weight (kg) | 44.5 |
| Wind load (N,at 150km/h) Frontal/Lateral/Maximum | 936/294/1046 |
| 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-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 |



Antenna Pattern Sample For Reference



| Ant Array | RET Unique ID |
|-----------|----------------|
| R1 | TY00000.....R1 |
| R2 | TY00000.....R2 |
| B1 | TY00000.....B1 |
| Y1 | TY00000.....Y1 |
| P1 | TY00000.....P1 |

| Beamforming Weights | | | | | | | | | | | |
|------------------------|------------------------------|----------------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| Broadcast beamwith 65° | | Frequency Range(MHz) | port | port1 | port2 | port3 | port4 | port5 | port6 | port7 | port8 |
| P0 | Fullpower broadcast tilt2-12 | 2490~2690 | Amplitude | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |
| | | | Phase(°) | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| P1 | Fullpower broadcast tilt2-12 | 2490~2690 | Amplitude | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 |
| | | | Phase(°) | 0 | 0 | 0 | 50 | 50 | 0 | 0 | 0 |
| P0 | Fullpower broadcast tilt2-12 | 3300~3800 | Amplitude | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |
| | | | Phase(°) | 90 | 0 | 0 | 0 | 0 | 0 | 0 | 90 |
| P1 | Fullpower broadcast tilt2-12 | 3300~3800 | Amplitude | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 |
| | | | Phase(°) | 0 | 0 | 0 | 90 | 90 | 0 | 0 | 0 |
| Service Beam | | Frequency Range(MHz) | port | port1 | port2 | port3 | port4 | port5 | port6 | port7 | port8 |
| +45° | 0°for tilt2-12 | 2490~3800 | Amplitude | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| | | | Phase(°) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -45° | 0°for tilt2-12 | 2490~3800 | Amplitude | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| | | | Phase(°) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| +45° | 30°for tilt2-12 | 2490~2690 | Amplitude | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| | | | Phase(°) | 0 | 100 | 200 | 300 | 0 | 0 | 0 | 0 |
| -45° | 30°for tilt2-12 | 2490~2690 | Amplitude | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| | | | Phase(°) | 0 | 0 | 0 | 0 | 0 | 100 | 200 | 300 |
| +45° | 30°for tilt2-12 | 3300~3800 | Amplitude | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| | | | Phase(°) | 0 | 130 | 260 | 390 | 0 | 0 | 0 | 0 |
| -45° | 30°for tilt2-12 | 3300~3800 | Amplitude | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| | | | Phase(°) | 0 | 0 | 0 | 0 | 0 | 130 | 260 | 390 |