

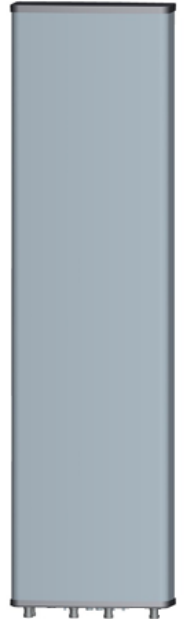
Type QUA6-2HX-BR65

## Base Station Antenna

4-ports 1695-2690 /1695-2690 MHz  $65^\circ$ , 20 / 20 dBi,  $2^\circ - 10^\circ$  /  $2^\circ - 10^\circ$  Tilt Antenna With 2 Integrated RCUs.


### Electrical Specifications

| Frequency Range(MHz)                                                |       | 2x1695-2690          |           |           |           |           |
|---------------------------------------------------------------------|-------|----------------------|-----------|-----------|-----------|-----------|
|                                                                     |       | 1695-1880            | 1850-1990 | 1920-2200 | 2300-2500 | 2500-2690 |
| Polarization                                                        |       | $\pm 45^\circ$       |           |           |           |           |
| Horizontal 3dB Beamwidth( $^\circ$ )                                |       | 67                   | 66        | 63        | 62        | 60        |
| Vertical 3dB Beamwidth( $^\circ$ )                                  |       | 5.1                  | 4.8       | 4.5       | 3.8       | 3.5       |
| Gain (dBi)                                                          |       | 18.3                 | 18.6      | 18.9      | 19.5      | 19.8      |
| Electrical Downtilt                                                 |       | $2^\circ - 10^\circ$ |           |           |           |           |
| Upper Sidelobe Suppression(dB)                                      | First | $\geq 18$            | $\geq 18$ | $\geq 18$ | $\geq 18$ | $\geq 18$ |
| Front-to-Back Ratio<br>Total Power, $\pm 30^\circ$ (dB)             |       | $\geq 27$            | $\geq 27$ | $\geq 27$ | $\geq 27$ | $\geq 27$ |
| Isolation ports                                                     |       | $\geq 28$ dB         |           |           |           |           |
| VSWR                                                                |       | $< 1.5$              |           |           |           |           |
| Intermodulation IM3 dBc<br>(2x43dBm carrier)                        |       | $< -153$             |           |           |           |           |
| Impedance                                                           |       | 50 $\Omega$          |           |           |           |           |
| Max. Power per Input<br>(at $50^\circ\text{C}$ ambient temperature) |       | 200 W                |           |           |           |           |
| Lightning Protection                                                |       | DC Ground            |           |           |           |           |



### Electrical Specifications,BASTA

| Frequency Range(MHz)                                    |                     | 2x1695-2690    |           |           |           |           |
|---------------------------------------------------------|---------------------|----------------|-----------|-----------|-----------|-----------|
|                                                         |                     | 1695-1880      | 1850-1990 | 1920-2200 | 2300-2500 | 2500-2690 |
| Polarization                                            |                     | $\pm 45^\circ$ |           |           |           |           |
| Beamwidth, Horizontal Tolerance ( $^\circ$ )            |                     | $\pm 4.2$      | $\pm 4.0$ | $\pm 4.1$ | $\pm 3.9$ | $\pm 4.2$ |
| Beamwidth, Vertical Tolerance ( $^\circ$ )              |                     | $\pm 0.3$      | $\pm 0.4$ | $\pm 0.4$ | $\pm 0.3$ | $\pm 0.3$ |
| Gain by all Beam Tilts, average, (dBi)                  |                     | 18.1           | 18.3      | 18.6      | 19.2      | 19.4      |
| Gain by all Beam Tilts, Tolerance, (dB)                 |                     | $\pm 0.4$      | $\pm 0.4$ | $\pm 0.5$ | $\pm 0.5$ | $\pm 0.5$ |
| Gain by all Beam Tilt, average (dBi)                    |                     | 2   18.1       | 2   18.3  | 2   18.4  | 2   19.1  | 2   19.1  |
|                                                         |                     | 6   18.2       | 6   18.4  | 6   18.7  | 6   19.5  | 6   19.6  |
|                                                         |                     | 10   17.9      | 10   18.2 | 10   18.5 | 10   19.1 | 10   19.2 |
| Front-to-Back Ratio<br>Total Power, $\pm 30^\circ$ (dB) |                     | $\geq 27$      | $\geq 27$ | $\geq 27$ | $\geq 27$ | $\geq 27$ |
| Cross polar ratio                                       | Main direction(dB)  | $\geq 20$      | $\geq 20$ | $\geq 20$ | $\geq 20$ | $\geq 20$ |
|                                                         | $\pm 60^\circ$ (dB) | $\geq 10$      | $\geq 10$ | $\geq 10$ | $\geq 10$ | $\geq 10$ |

|                       |             |
|-----------------------|-------------|
| Frequency Range       | 1695-2690x2 |
| Polarization          | ±45°        |
| Half-Power Beam Width | 65°         |
| Electrical Downtilt   | 2° - 10°x2  |

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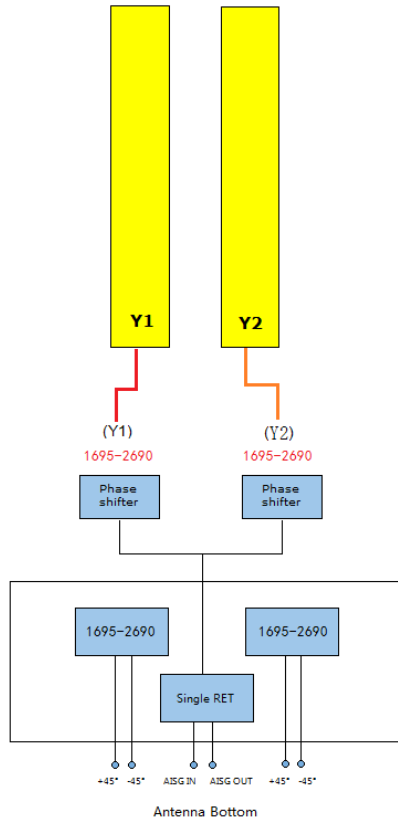
### Mechanical Specifications

|                                                      |                                                                         |
|------------------------------------------------------|-------------------------------------------------------------------------|
| Radome Material                                      | Fiberglass                                                              |
| Connector Type and Location                          | 4.3-10x4 ,Bottom<br>iRCU in:1 x 8 pin male<br>iRCU out:1 x 8 pin female |
| Dimensions,HxWxD(mm)/(inches)                        | 1850 x 320 x 105 / 72.8 x 12.6x 4.1                                     |
| Packing Size(mm)/(inches)                            | 2160 x 440 x 250 / 85.0 x 17.3 x 9.8                                    |
| Weight ,w/o Mounting kit(kg)/(lbs)                   | 20/44                                                                   |
| Weight w/ Downtilt Bracket(kg)/(lbs)                 | 26/57.2                                                                 |
| Weight w/ Fixed Bracket(kg)/(lbs)                    | 24/52.8                                                                 |
| Packing Weight (w/ Downtilt Bracket) (kg)/(lbs)      | 34/74.8                                                                 |
| Packing Weight (w/ Fixed Bracket) (kg)/(lbs)         | 32/70.4                                                                 |
| Max. Wind Velocity(mph)                              | 150                                                                     |
| Mounting hardware                                    | ϕ 50 mm ~ ϕ 115 mm                                                      |
| Operational Temperature(°C)                          | -40 to +65                                                              |
| Operational Humidity(%)                              | <95                                                                     |
| Wind Load at 100mph<br>(Frontal/lateral/Rearside(N)) | 844/142/607                                                             |

### Integrated RET Properties

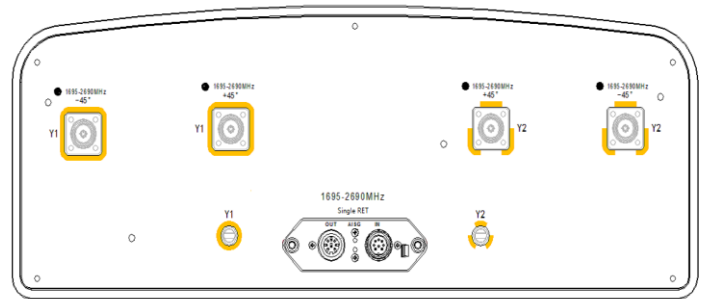
|                             |         |                                                                                                                                                           |
|-----------------------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| RET Type                    |         | 2x Type 1 Single RET                                                                                                                                      |
| Protocols                   |         | Compliant to AISG 2.0/3GPP                                                                                                                                |
| Input voltage range         |         | +10~+30VDC(pin 6)                                                                                                                                         |
| Power consumption           |         | <2W(stand by);<13W(motor activated)                                                                                                                       |
| Connectors                  | AISG    | 2 x 8 pin connector acc. To IEC 60130-9<br>Acc.to AISG Daisy chain in:male<br>Daisy chain out:female                                                      |
|                             | Antenna | Two motor shaft(Embedded motor)                                                                                                                           |
| Hardware interface          | AISG    | RS485A/B(pin5/pin3);Power supply(pin6);<br>DC return(pin7)Acc.to AISG                                                                                     |
| Adjustment time(full range) |         | 40 sec(typically,depending on antenna)                                                                                                                    |
| Adjustment Cycles           |         | ≥10000                                                                                                                                                    |
| Torque Max                  |         | ≥160mN.m                                                                                                                                                  |
| Lightning Protection Rating |         | IEC 61000-4-5 Current Pulse Profile,8/20 μs 10 Repetitions Min.@ 6kA<br>IEC 61312-1 Annex B Current Pulse Profile, 10/350 μs,200 Repetitions Min. @ 0.6kA |

## COMPREHENSIVE TILT CONFIGURATION

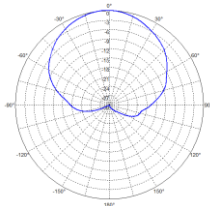


| Frequency Range | Array | RET Unique ID       |
|-----------------|-------|---------------------|
| 1695-2690MHz    | Y1    | NDPMXXXXXXXX-1727Y1 |
| 1695-2690MHz    | Y2    | NDPMXXXXXXXX-1727Y2 |

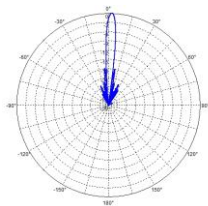
Note: (1) Physical RET Unit containing (2) Single RET



Radiation Pattern (1695 - 2200 MHz)

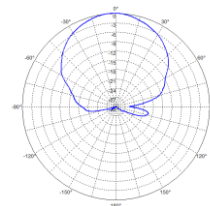


Horizontal Pattern

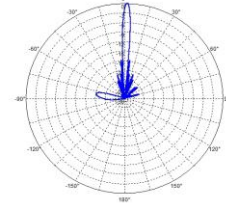


Vertical Pattern

Radiation Patterns (2300 - 2500 MHz)

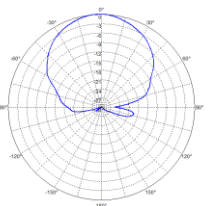


Horizontal Pattern

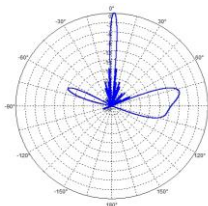


Vertical Pattern

Radiation Pattern (2500 - 2690 MHz)



Horizontal Pattern



Vertical Pattern