

|                       |                          |
|-----------------------|--------------------------|
| Frequency Range       | 617-894x2<br>1695-2690x4 |
| Polarization          | ±45°                     |
| Half-Power Beam Width | 65°                      |
| Electrical Downtilt   | 2° - 12°x6               |

Type DOD8-2A4J-RF65



## Base Station Antenna

12-ports 617-894 / 617-894 /1695-2690 /1695-2690 /1695-2690 /1695-2690 MHz 65°, 16 / 16 / 17.5 / 17.5 / 17.5 / 17.5 dBi, 2°-12° / 2°-12° / 2°-12° / 2 - 12 ° / 2°-12° / 2 - 12 °Tilt Antenna With 6 Integrated RCUs.

### Electrical Specifications

| Frequency Range(MHz)                                  |                    | 2x617-894                   |         |         | 4x1695-2690 |           |           |           |
|-------------------------------------------------------|--------------------|-----------------------------|---------|---------|-------------|-----------|-----------|-----------|
|                                                       |                    | 617-698                     | 698-824 | 824-894 | 1695-1920   | 1920-2180 | 2300-2400 | 2400-2690 |
| Polarization                                          |                    | ±45°                        |         |         |             |           |           |           |
| Horizontal 3dB Beamwidth(° )                          |                    | 70                          | 65      | 60      | 66          | 63        | 58        | 60        |
| Vertical 3dB Beamwidth(° )                            |                    | 10.4                        | 9.1     | 8.0     | 7.5         | 6.5       | 6         | 5.5       |
| Gain (dBi)                                            |                    | 15.0                        | 15.5    | 16.0    | 16.5        | 17.0      | 17.5      | 17.8      |
| Electrical Downtilt                                   |                    | 2°-12°                      |         |         | 2°-12°      |           |           |           |
| Upper Sidelobe Suppression(dB)                        | First              | ≥16                         | ≥16     | ≥16     | ≥16         | ≥16       | ≥16       | ≥16       |
| Front-to-Back Ratio<br>Total Power, ± 30° (dB)        |                    | ≥23                         | ≥24     | ≥25     | ≥25         | ≥25       | ≥25       | ≥25       |
| Cross polar ratio                                     | Main direction(dB) | ≥17                         | ≥17     | ≥17     | ≥17         | ≥17       | ≥17       | ≥17       |
|                                                       | ± 60° (dB)         | ≥7                          | ≥7      | ≥7      | ≥7          | ≥7        | ≥7        | ≥7        |
| Isolation ports                                       |                    | ≥25 dB                      |         |         |             |           |           |           |
| Isolation Frequency                                   |                    | ≥30 dB                      |         |         |             |           |           |           |
| VSWR                                                  |                    | < 1.5                       |         |         |             |           |           |           |
| Intermodulation IM3                                   |                    | < -153 dBc(2x43dBm carrier) |         |         |             |           |           |           |
| Impedance                                             |                    | 50 Ω                        |         |         |             |           |           |           |
| Max. Power per Input<br>(at 50°C ambient temperature) |                    | 500 W                       |         |         | 300 W       |           |           |           |
| Lightning Protection                                  |                    | DC Ground                   |         |         |             |           |           |           |



### Mechanical Specifications

|                                                      |                                                                          |
|------------------------------------------------------|--------------------------------------------------------------------------|
| Radome Material                                      | ASA                                                                      |
| Connector Type and Location                          | 4.3-10x12 ,Bottom<br>iRCU in:1 x 8 pin male<br>iRCU out:1 x 8 pin female |
| Dimensions,HxWxD(mm)/(inches)                        | 2438 x 533 x 160 / 96.0 x 21.0x 6.3                                      |
| Packing Size(mm)/(inches)                            | 2750 x 655 x 305 / 108.3 x 25.8 x 12.0                                   |
| Weight ,w/o Mounting kit(kg)/(lbs)                   | 47 / 103.4                                                               |
| Weight w/ Downtilt Bracket(kg)/(lbs)                 | 53 / 116.6                                                               |
| Weight w/ Fixed Bracket(kg)/(lbs)                    | 51 / 112.2                                                               |
| Packing Weight (w/ Downtilt Bracket) (kg)/(lbs)      | 63 / 138.6                                                               |
| Packing Weight (w/ Fixed Bracket) (kg)/(lbs)         | 61 / 134.2                                                               |
| 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)) | 1502/278/1081                                                            |

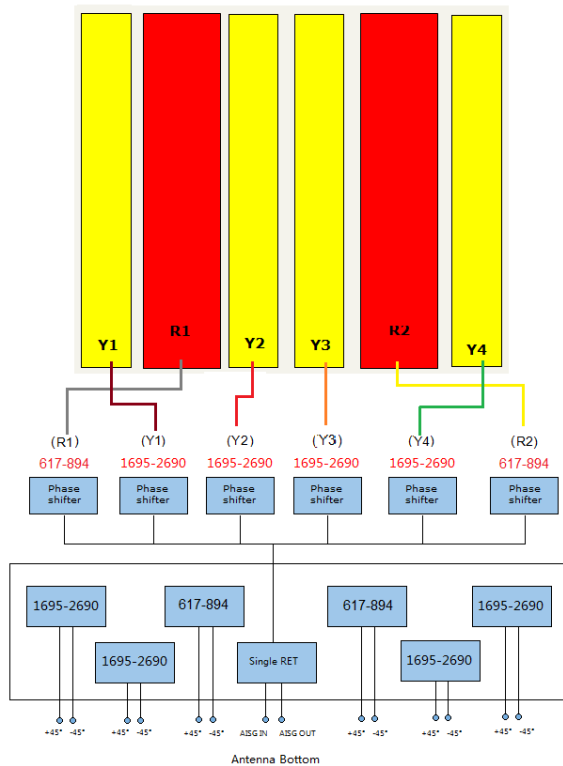
|                       |                          |
|-----------------------|--------------------------|
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### Integrated RET Properties

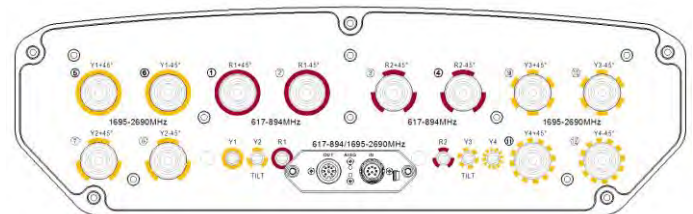
|                             |                                                                                                                                                           |                                                                                                      |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| RET Type                    | 6x 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       |
|-----------------|-------|---------------------|
| 617-894MHz      | R1    | NDPMXXXXXXXX-6089R1 |
| 617-894MHz      | R2    | NDPMXXXXXXXX-6089R2 |
| 1695-2690MHz    | Y1    | NDPMXXXXXXXX-1727Y1 |
| 1695-2690MHz    | Y2    | NDPMXXXXXXXX-1727Y2 |
| 1695-2690MHz    | Y3    | NDPMXXXXXXXX-1727Y3 |
| 1695-2690MHz    | Y4    | NDPMXXXXXXXX-1727Y4 |

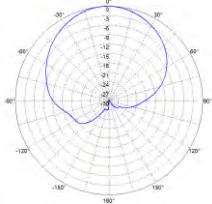
Note: (1) Physical RET Unit containing (6) Single RET



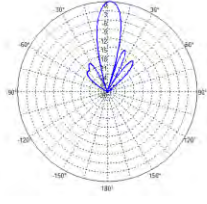
|                       |                          |
|-----------------------|--------------------------|
| Frequency Range       | 617-894x2<br>1695-2690x4 |
| Polarization          | $\pm 45^\circ$           |
| Half-Power Beam Width | 65°                      |
| Electrical Downtilt   | 2° - 12°x6               |

Type DOD8-2A4J-RF65

Radiation Pattern (617 - 824 MHz)

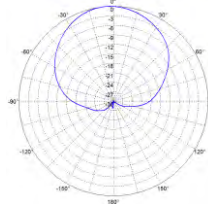


Horizontal Pattern

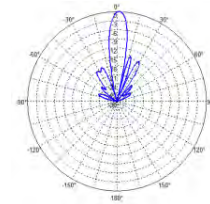


Vertical Pattern

Radiation Patterns (824 - 894 MHz)

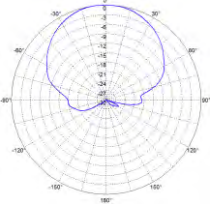


Horizontal Pattern

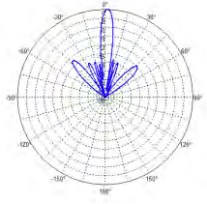


Vertical Pattern

Radiation Pattern (1695 - 1920 MHz)

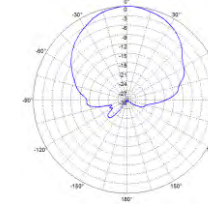


Horizontal Pattern

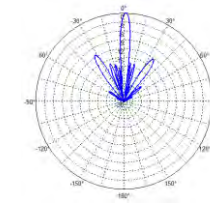


Vertical Pattern

Radiation Patterns (1920 - 2180 MHz)

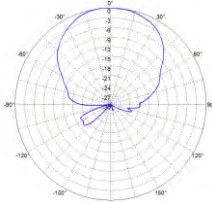


Horizontal Pattern

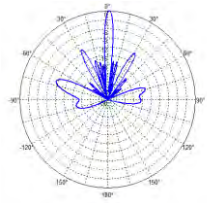


Vertical Pattern

Radiation Pattern (2300 - 2690 MHz)



Horizontal Pattern



Vertical Pattern