

5964308NG

3-Band, 6-Port, 65°, XPOL, Panel Antenna, Variable Tilt, 1997 mm

- Tri band antenna, dual polarisation, 6 connectors
- Independent tilt on each band 2-12° / 2-12° / 2-12°
- RET version, 3GPP/AISG2.0 with three integrated RCUs and three indicators

ACCESS PORT DESCRIPTION (CONNECTORS)

The antenna has 6 colour-coded connectors located at the bottom face.

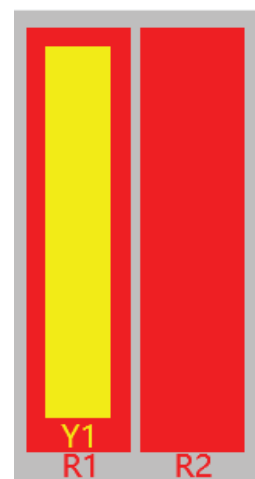
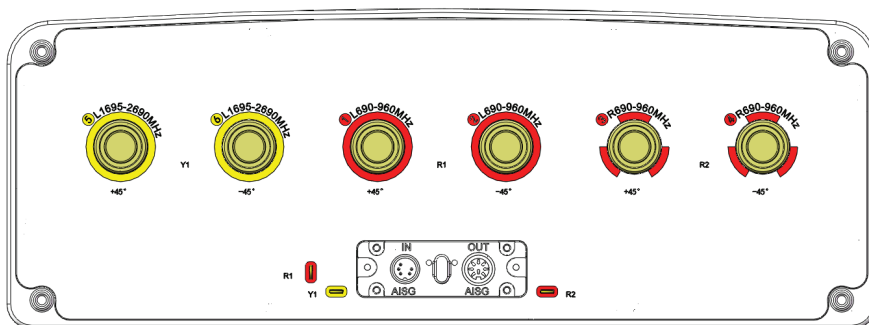
| Frequency Designation | R1 | R2 | Y1 |
|---|---------------------|--|--------------------|
| Frequency Range | 690-960 MHz | 690-960 MHz | 1695-2690 MHz |
| Polarisation | Xpol | Xpol | Xpol |
| Horizontal Beamwidth | 65° | 65° | 65° |
| Electrical Downtilt Range | 2-12° | 2-12° | 2-12° |
| Connector Type | (2x) 4.3/10 Female | (2x) 4.3/10 Female | (2x) 4.3/10 Female |
| ELECTRICAL CHARACTERISTICS | | R1, R2 | |
| Frequency Bands | | 690-960 MHz | |
| | | 690-806 MHz | 790-894 MHz |
| | | | 880-960 MHz |
| Gain | At Mid Tilt | 14.5 dBi | 15.3 dBi |
| | Over All Tilts | 14.3 ± 0.6 dBi | 15.1 ± 0.5 dBi |
| Input Impedance | | 50Ω | |
| VSWR | | < 1.5 | |
| Return loss | | > 14 | |
| Polarisation | | ±45° | |
| Horizontal Beamwidth (-3 dB) | | 70° ± 5.4° | 65° ± 5.1° |
| Vertical Beamwidth (-3 dB) | | 11.4° ± 1.1° | 10.6° ± 0.9° |
| Electrical Downtilt Range | | 2-12° | |
| Interband Isolation | | > 26 dB | |
| Cross Polar Isolation | | > 26 dB | |
| Port to Port Isolation | | > 26 dB (R1 // R2), > 28 dB (Y1 // R1, R2) | |
| First Upper Sidelobe Suppression | | > 16 dB | > 16 dB |
| Upper Sidelobe Suppression (Peak to 20°) | | > 15 dB | > 15 dB |
| Front-to-Back Ratio, 180° ± 30° | | > 23 dB | > 24 dB |
| Cross Polar Ratio | Main Direction (0°) | > 17 dB | > 18 dB |
| | Sector Edges (±60°) | > 7.0 dB | > 8.0 dB |
| Maximum Power (Per Port, 50° C) | | 350 W | |
| Intermodulation 3rd Order for 2 x 43 dBm Carriers | | < -150 dBc | |



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| ELECTRICAL CHARACTERISTICS | | Y1 | | | | |
|--|---------------------|----------------|----------------|----------------|----------------|----------------|
| | | 1695-2690 MHz | | | | |
| Frequency Bands | | 1695-1880 MHz | 1850-1990 MHz | 1920-2170 MHz | 2300-2400 MHz | 2490-2690 MHz |
| Gain | At Mid Tilt | 16.8 dBi | 17.2 dBi | 17.5 dBi | 17.7 dBi | 17.5 dBi |
| | Over All Tilts | 16.6 ± 0.5 dBi | 17.0 ± 0.5 dBi | 17.3 ± 0.5 dBi | 17.5 ± 0.5 dBi | 17.3 ± 0.5 dBi |
| Input Impedance | | 50Ω | | | | |
| VSWR | | < 1.5 | | | | |
| Return loss | | > 14 | | | | |
| Polarisation | | ±45° | | | | |
| Horizontal Beamwidth (-3 dB) | | 66° ± 6.5° | 65° ± 6.5° | 64° ± 6.5° | 58° ± 5.0° | 58° ± 6.5° |
| Vertical Beamwidth (-3 dB) | | 7.4° ± 0.5° | 6.8° ± 0.4° | 6.1° ± 0.5° | 5.7° ± 0.5° | 5.2° ± 0.6° |
| Electrical Downtilt Range | | 2-12° | | | | |
| Interband Isolation | | > 26 dB | | | | |
| Cross Polar Isolation | | > 26 dB | | | | |
| Port to Port Isolation | | > 28 dB | | | | |
| First Upper Sidelobe Suppression | | > 16 dB | > 16 dB | > 16 dB | > 15 dB | > 15 dB |
| Upper Sidelobe Suppression (Peak to 20°) | | > 15 dB | > 15 dB | > 15 dB | > 15 dB | > 14 dB |
| Front-to-Back Ratio, 180° ± 30° | | ≥ 25 dB | ≥ 25 dB | > 25 dB | ≥ 26 dB | ≥ 26 dB |
| Cross Polar Ratio | Main Direction (0°) | > 16 dB | > 16 dB | > 17 dB | > 18 dB | > 19 dB |
| | Sector Edges (±60°) | > 7.0 dB | > 8.0 dB | > 8.0 dB | > 6.5 dB | > 4.5 dB |
| Maximum Power (Per Port, 50° C) | | 250 W | | | | |
| Intermodulation 3rd Order for 2 x 43 dBm Carriers | | < -150 dBc | | | | |



Several patents pending regarding this product. Quoted performance parameters are provided to offer typical, peak or range values only and may vary as a result of normal testing, manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to products may be made without notice.

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| INTEGRATED RET PROPERTIES | |
|------------------------------|--|
| Power Supply | 10-30VDC Compliant with 3GPP/AISGv2.0 |
| Power Consumption | < 2W (Idle), < 10W (In Motion) |
| Hardware Interface | Pin 3: RS485B; Pin 5: RS485A; Pin 6: 10-30V; Pin 7: DC Return; According to AISG/3GPP |
| Protocol Supported | Compliant to AISG v2.0 and 3GPP |
| Adjustment Time (Full Range) | ≤ 90 seconds (typical, dependent on antenna type) |
| Adjustment Cycles | > 20,000 |
| Torque Max | ≥ 160 mN.m |
| Safety Standard | Compliant to EN 60950/UL 60950/ RoHS, CE |
| Lightning Protection Rating | IEC 61000-4-5 Current Pulse Profile, 8/20 μs 10 Repetitions Min. @ 8 kA IEC 61312-1B Protection against lightning electromagnetic impulse 10/350 μs, 200 @ 0.6 kA |
| Connectors | (2x) 8-Pin Circle Connector According to IEC 60130-9 and AISG.C-485 Daisy Chain In: Male; Daisy Chain Out: Female |

| ENVIRONMENTAL CHARACTERISTICS | | PACKAGING |
|--|--|---|
| Lightning Protection | DC Ground | Carton Box 2.197 x 0.562 x 0.287 m (86.4 x 22.1 x 11.2 in) |
| MECHANICAL CHARACTERISTICS | | |
| Dimensions (Height x Width x Depth) | 1997 x 467 x 167 mm (78.6 x 18.3 x 6.5 in) | |
| Weight (excluding mounting accessory) | 28.5 kg (62.8 lbs) | |
| Shipping Weight | 33 kg (72.7 lbs) | |
| Radome Material | Fiberglass | |
| Maximum Wind Speed | 200 km/h (124.3 mph) | |
| Wind Load at 150 km/h | Frontal | 860 N (193.3 lbf) |
| | Rear | 965 N (216.9 lbf) |
| | Lateral | 320 N (71.9 lbf) |
| MOUNTING KIT OPTIONS | POLE DIAMETER | MECHANICAL TILT |
| All mounting bracket kits are ordered separately unless otherwise indicated. | | |
| Mounting and Downtilt Bracket Kit (Included) | Ø50-Ø125 mm (Ø2.0-Ø4.9 mm) | 0-12° |

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