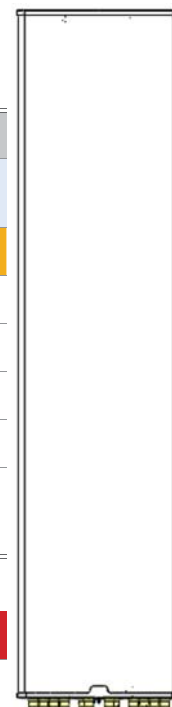


5978308NG

6-Band, 12-Port, 65°, XPOL, Panel Antenna, Variable Tilt, 1987 mm

- Hex band antenna, dual polarisation, 12 connectors
- Independent, continuously adjustable tilt on each band 2-12°
- RET version, 3GPP/AISG2.0 with six integrated RCUs



| ACCESS PORT DESCRIPTION (CONNECTORS) | | | | | | |
|--|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| The antenna has 12 colour-coded connectors located at the bottom face. | | | | | | |
| Frequency Designation | R1 | R2 | Y1 | Y2 | Y3 | Y4 |
| Frequency Range | 690-960 MHz | 690-960 MHz | 1695-2690 MHz | 1695-2690 MHz | 1695-2690 MHz | 1695-2690 MHz |
| Polarisation | Xpol | Xpol | Xpol | Xpol | Xpol | Xpol |
| Horizontal Beamwidth | 65° | 65° | 65° | 65° | 65° | 65° |
| Electrical Downtilt Range | 2-12° | 2-12° | 2-12° | 2-12° | 2-12° | 2-12° |
| Connector Type | (2x) 4.3/10 Female | (2x) 4.3/10 Female | (2x) 4.3/10 Female | (2x) 4.3/10 Female | (2x) 4.3/10 Female | (2x) 4.3/10 Female |

| ELECTRICAL CHARACTERISTICS | | R1 | | |
|---|---------------------|---|----------------|----------------|
| Frequency Bands | | 698-960 MHz | | |
| | | 698-824 MHz | 806-896 MHz | 880-960 MHz |
| Gain, Over All Tilts | | 14.2 ± 0.5 dBi | 15.2 ± 0.5 dBi | 15.5 ± 0.4 dBi |
| Input Impedance | | 50Ω | | |
| VSWR | | < 1.5 | | |
| Polarisation | | ±45° | | |
| Horizontal Beamwidth (-3 dB) | | 68° ± 4.4° | 65° ± 3.6° | 60° ± 4.6° |
| Vertical Beamwidth (-3 dB) | | 11.0° ± 0.9° | 9.8° ± 0.6° | 9.6° ± 0.6° |
| Electrical Downtilt Range | | 2-12° | | |
| Inter Band Isolation | | > 26 dB | | |
| Cross-Polar Isolation | | > 26 dB | | |
| Port-to-Port Isolation | | > 26 dB (R1/R2); > 28 dB (R1/Y1, Y2, Y3 & Y4) | | |
| Upper Sidelobe Suppression (typical) | | > 15 dB | > 15 dB | > 15 dB |
| Upper Sidelobe Suppression (20° Sector above main beam) | | > 15 dB | > 15 dB | > 15 dB |
| Front-to-Back Ratio (@ 180° ± 30°) | | > 24 dB | > 25 dB | > 25 dB |
| Cross Polar Ratio | Main Direction (0°) | > 18 dB | > 18 dB | > 18 dB |
| | Sector Edges (±60°) | > 10 dB | > 7.5 dB | > 6.5 dB |
| Maximum Average Power Per Port (at 50° C ambient temperature) | | 200 W | | |
| Intermodulation 3rd Order, 2 x 43 dBm carrier | | < -153 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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6-Band, 12-Port, 65°, XPOL, Panel Antenna, Variable Tilt, 1987 mm

| ELECTRICAL CHARACTERISTICS | | R2 | | |
|---|---------------------|---|----------------|----------------|
| Frequency Bands | | 698-960 MHz | | |
| | | 698-824 MHz | 806-896 MHz | 880-960 MHz |
| Gain, Over All Tilts | | 14.2 ± 0.5 dBi | 15.2 ± 0.5 dBi | 15.5 ± 0.4 dBi |
| Input Impedance | | 50Ω | | |
| VSWR | | < 1.5 | | |
| Polarisation | | ±45° | | |
| Horizontal Beamwidth (-3 dB) | | 68° ± 5.4° | 65° ± 3.6° | 59° ± 4.6° |
| Vertical Beamwidth (-3 dB) | | 11.0° ± 0.9° | 9.8° ± 0.6° | 9.6° ± 0.6° |
| Electrical Downtilt Range | | 2-12° | | |
| Inter Band Isolation | | > 26 dB | | |
| Cross-Polar Isolation | | > 26 dB | | |
| Port-to-Port Isolation | | > 26 dB (R1//R2); > 28 dB (R1//Y1, Y2, Y3 & Y4) | | |
| Upper Sidelobe Suppression (typical) | | > 15 dB | > 15 dB | > 15 dB |
| Upper Sidelobe Suppression (20° Sector above main beam) | | > 15 dB | > 15 dB | > 15 dB |
| Front-to-Back Ratio (@ 180° ± 30°) | | > 24 dB | > 25 dB | > 25 dB |
| Cross Polar Ratio | Main Direction (0°) | > 18 dB | > 18 dB | > 18 dB |
| | Sector Edges (±60°) | > 10 dB | > 7.5 dB | > 6.5 dB |
| Maximum Average Power Per Port (at 50° C ambient temperature) | | 200 W | | |
| Intermodulation 3rd Order, 2 x 43 dBm carrier | | < -153 dBc | | |

| ELECTRICAL CHARACTERISTICS | | Y1 | | | | |
|---|---------------------|----------------|----------------|----------------|----------------|----------------|
| Frequency Bands | | 1695-2690 MHz | | | | |
| | | 1695-1880 MHz | 1850-1990 MHz | 1920-2170 MHz | 2300-2400 MHz | 2500-2690 MHz |
| Gain, Over All Tilts | | 14.7 ± 0.6 dBi | 14.7 ± 0.5 dBi | 15.2 ± 0.5 dBi | 15.7 ± 0.4 dBi | 16.0 ± 0.5 dBi |
| Input Impedance | | 50Ω | | | | |
| VSWR | | < 1.5 | | | | |
| Polarisation | | ±45° | | | | |
| Horizontal Beamwidth (-3 dB) | | 66° ± 3.6° | 64° ± 3.2° | 66° ± 3.5° | 65° ± 3.4° | 64° ± 5.2° |
| Vertical Beamwidth (-3 dB) | | 9.8° ± 0.5° | 9.8° ± 0.5° | 8.9° ± 0.5° | 8.0° ± 0.5° | 7.2° ± 0.5° |
| Electrical Downtilt Range | | 2-12° | | | | |
| Inter Band Isolation | | > 26 dB | | | | |
| Cross-Polar Isolation | | > 26 dB | | | | |
| Port-to-Port Isolation | | > 28 dB | | | | |
| Upper Sidelobe Suppression (typical) | | > 16 dB | > 16 dB | > 16 dB | > 16 dB | > 16 dB |
| Upper Sidelobe Suppression (20° Sector above main beam) | | > 16 dB | > 16 dB | > 16 dB | > 16 dB | > 15 dB |
| Front-to-Back Ratio (@ 180° ± 30°) | | > 25 dB | > 24 dB | > 24 dB | > 26 dB | > 26 dB |
| Cross Polar Ratio | Main Direction (0°) | > 18 dB | > 21 dB | > 20 dB | > 18 dB | > 18 dB |
| | Sector Edges (±60°) | > 10 dB | > 9.5 dB | > 9 dB | > 8 dB | > 5.5 dB |
| Maximum Average Power Per Port (at 50° C ambient temperature) | | 200 W | | | | |
| Intermodulation 3rd Order, 2 x 43 dBm carrier | | < -153 dBc | | | | |

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6-Band, 12-Port, 65°, XPOL, Panel Antenna, Variable Tilt, 1987 mm

| ELECTRICAL CHARACTERISTICS | | Y2 | | | | |
|---|---------------------|----------------|----------------|----------------|----------------|----------------|
| Frequency Bands | | 1695-2690 MHz | | | | |
| | | 1695-1880 MHz | 1850-1990 MHz | 1920-2170 MHz | 2300-2400 MHz | 2500-2690 MHz |
| Gain, Over All Tilts | | 14.7 ± 0.6 dBi | 14.7 ± 0.5 dBi | 15.2 ± 0.5 dBi | 15.7 ± 0.4 dBi | 16.0 ± 0.5 dBi |
| Input Impedance | | 50Ω | | | | |
| VSWR | | < 1.5 | | | | |
| Polarisation | | ±45° | | | | |
| Horizontal Beamwidth (-3 dB) | | 66° ± 3.6° | 64° ± 3.2° | 66° ± 3.5° | 65° ± 3.4° | 64° ± 5.2° |
| Vertical Beamwidth (-3 dB) | | 9.8° ± 0.5° | 9.8° ± 0.5° | 8.9° ± 0.5° | 8.0° ± 0.5° | 7.2° ± 0.5° |
| Electrical Downtilt Range | | 2-12° | | | | |
| Inter Band Isolation | | > 26 dB | | | | |
| Cross-Polar Isolation | | > 26 dB | | | | |
| Port-to-Port Isolation | | > 28 dB | | | | |
| Upper Sidelobe Suppression (typical) | | > 16 dB | > 16 dB | > 16 dB | > 16 dB | > 16 dB |
| Upper Sidelobe Suppression (20° Sector above main beam) | | > 16 dB | > 16 dB | > 16 dB | > 16 dB | > 15 dB |
| Front-to-Back Ratio (@ 180° ± 30°) | | > 25 dB | > 24 dB | > 24 dB | > 26 dB | > 26 dB |
| Cross Polar Ratio | Main Direction (0°) | > 18 dB | > 21 dB | > 20 dB | > 18 dB | > 18 dB |
| | Sector Edges (±60°) | > 10 dB | > 9.5 dB | > 9 dB | > 8 dB | > 5.5 dB |
| Maximum Average Power Per Port (at 50° C ambient temperature) | | 200 W | | | | |
| Intermodulation 3rd Order, 2 x 43 dBm carrier | | < -153 dBc | | | | |

| ELECTRICAL CHARACTERISTICS | | Y3 | | | | |
|---|---------------------|----------------|----------------|----------------|----------------|----------------|
| Frequency Bands | | 1695-2690 MHz | | | | |
| | | 1695-1880 MHz | 1850-1990 MHz | 1920-2170 MHz | 2300-2400 MHz | 2500-2690 MHz |
| Gain, Over All Tilts | | 14.2 ± 0.6 dBi | 14.2 ± 0.5 dBi | 14.7 ± 0.5 dBi | 15.2 ± 0.4 dBi | 15.5 ± 0.5 dBi |
| Input Impedance | | 50Ω | | | | |
| VSWR | | < 1.5 | | | | |
| Polarisation | | ±45° | | | | |
| Horizontal Beamwidth (-3 dB) | | 67° ± 3.4° | 65° ± 3.2° | 66° ± 4.4° | 65° ± 4.5° | 64° ± 4.7° |
| Vertical Beamwidth (-3 dB) | | 10.3° ± 0.5° | 10.3° ± 0.5° | 9.4° ± 0.5° | 8.4° ± 0.5° | 7.7° ± 0.5° |
| Electrical Downtilt Range | | 2-12° | | | | |
| Inter Band Isolation | | > 26 dB | | | | |
| Cross-Polar Isolation | | > 26 dB | | | | |
| Port-to-Port Isolation | | > 28 dB | | | | |
| Upper Sidelobe Suppression (typical) | | > 16 dB | > 16 dB | > 16 dB | > 16 dB | > 16 dB |
| Upper Sidelobe Suppression (20° Sector above main beam) | | > 16 dB | > 16 dB | > 16 dB | > 16 dB | > 15 dB |
| Front-to-Back Ratio (@ 180° ± 30°) | | > 25 dB | > 24 dB | > 24 dB | > 26 dB | > 26 dB |
| Cross Polar Ratio | Main Direction (0°) | > 18 dB | > 19 dB | > 19 dB | > 18 dB | > 18 dB |
| | Sector Edges (±60°) | > 10 dB | > 9 dB | > 9 dB | > 7.5 dB | > 5.2 dB |
| Maximum Average Power Per Port (at 50° C ambient temperature) | | 200 W | | | | |
| Intermodulation 3rd Order, 2 x 43 dBm carrier | | < -153 dBc | | | | |

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| ELECTRICAL CHARACTERISTICS | | Y4 | | | | |
|---|---------------------|----------------|----------------|----------------|----------------|----------------|
| Frequency Bands | | 1695-2690 MHz | | | | |
| | | 1695-1880 MHz | 1850-1990 MHz | 1920-2170 MHz | 2300-2400 MHz | 2500-2690 MHz |
| Gain, Over All Tilts | | 14.2 ± 0.6 dBi | 14.2 ± 0.5 dBi | 14.7 ± 0.5 dBi | 15.2 ± 0.4 dBi | 15.5 ± 0.5 dBi |
| Input Impedance | | 50Ω | | | | |
| VSWR | | < 1.5 | | | | |
| Polarisation | | ±45° | | | | |
| Horizontal Beamwidth (-3 dB) | | 67° ± 3.4° | 65° ± 3.2° | 66° ± 4.4° | 65° ± 4.5° | 63° ± 4.7° |
| Vertical Beamwidth (-3 dB) | | 10.3° ± 0.5° | 10.3° ± 0.5° | 9.4° ± 0.5° | 8.4° ± 0.5° | 7.7° ± 0.5° |
| Electrical Downtilt Range | | 2-12° | | | | |
| Inter Band Isolation | | > 26 dB | | | | |
| Cross-Polar Isolation | | > 26 dB | | | | |
| Port-to-Port Isolation | | > 28 dB | | | | |
| Upper Sidelobe Suppression (typical) | | > 16 dB | > 16 dB | > 16 dB | > 16 dB | > 16 dB |
| Upper Sidelobe Suppression (20° Sector above main beam) | | > 16 dB | > 16 dB | > 16 dB | > 16 dB | > 15 dB |
| Front-to-Back Ratio (@ 180° ± 30°) | | ≥ 25 dB | ≥ 25 dB | > 25 dB | ≥ 25 dB | ≥ 25 dB |
| Cross Polar Ratio | Main Direction (0°) | > 18 dB | > 19 dB | > 19 dB | > 18 dB | > 18 dB |
| | Sector Edges (±60°) | > 10 dB | > 9 dB | > 9 dB | > 7 dB | > 5 dB |
| Maximum Average Power Per Port (at 50° C ambient temperature) | | 200 W | | | | |
| Intermodulation 3rd Order, 2 x 43 dBm carrier | | < -153 dBc | | | | |

| INTEGRATED RET PROPERTIES | |
|------------------------------|--|
| Power Supply | 10-30VDC Compliant with 3GPP/AISGv2.0 |
| Power Consumption | ≤ 2W (Idle), ≤ 10W (In Motion) |
| Hardware Interface | RS485 and Power |
| Logical Interface | HEX Coded Commands Based on HDLC Protocol |
| Protocol Supported | AISG v2.0 |
| Adjustment Time (Full Range) | < 4Min |
| Adjustment Cycles | > 10,000 |
| Torque Max | ≥ 160 mN.m |
| Lightning Protection Rating | IEC 61000-4-5 Current Pulse Profile, 8/20 μs 10 Repetitions Min. @ 8 kA |
| Connectors | (2x) 8-Pin Circle Connector According to IEC 60130-9 and AISG Daisy Chain In: Male; Daisy Chain Out: Female Pin 3: RS485+; Pin 5: RS485-; Pin 6: 10~30V; Pin 7: GND |

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| ENVIRONMENTAL CHARACTERISTICS | | PACKAGING |
|--|--|--|
| Lightning Protection | DC Ground | |
| MECHANICAL CHARACTERISTICS | | Carton Box 3.00 x 0.50 x 0.255 m (118.1 x 19.7 x 10.0 in) |
| Dimensions (Height x Width x Depth) | 1987 x 447 x 157 mm (78.2 X 17.6 X 6.2 in) | |
| Weight (excluding mounting accessory) | 42 kg (92.6 lbs) | |
| Shroud | Fiberglass | |
| Wind Speed | Survival: 300 km/h (186.4 mph) | |
| MOUNTING KIT OPTIONS | | POLE DIAMETER |
| All mounting bracket kits are ordered separately unless otherwise indicated. | | |
| Mounting and Downtilt Bracket Kit (Included) | | Ø50-Ø125 mm (Ø2.0-Ø4.9 mm) |

