# MX06FHG665-HG

***NWAV™ X-Pol Hex-Port Antenna***

**X-Pol Hex-Port 6 ft 65° Form in Tighter High Gain (FHG) with Smart Bias Ts, 698-2180 MHz:**
**2 ports 698-894 MHz and 4 ports 1695-2200 MHz**

- Industry-leading high gain for MB and LB for extended cell coverage
- Excellent passive intermodulation (PIM) performance reduces harmful interference.
- Fully integrated (iRETs) with independent RET control for low and high bands for ease of network optimization
- Suitable for LTE/CDMA/PCS/UMTS/GSM air interface technologies
- Integrated Smart Bias-Ts reduce leasing costs
- Optimized width for reduced wind loading

nWAV™

| Electrical specification (minimum/maximum) | Ports 1, 2 | | Ports 3, 4, 5, 6 | | |
|---|---|---|---|---|---|
| **Frequency bands, MHz** | 698-806 | 806-894 | 1695-1880 | 1850-1990 | 1920-2200 |
| **Polarization** | ± 45° | | ± 45° | | |
| **Max gain over all tilts, dBi** | 15.5 | 16.0 | 18.9 | 19.0 | 19.6 |
| **Average gain, dBi** | 15.3 ± 0.2 | 15.8 ± 0.2 | 18.8 ± 0.1 | 18.8 ± 0.2 | 19.3 ± 0.3 |
| **Horizontal beamwidth (HBW), degrees** | 67.0 | 64.0 | 63.0 | 64.0 | 64.0 |
| **Front-to-back ratio, co-polar power @180°± 30°, dB** | >25.0 | >25.0 | >28.0 | >26.0 | >25.0 |
| **X-Pol discrimination (CPR) at boresight, dB** | >20.0 | >18.0 | >25 | >20 | >18 |
| **Sector power ratio, percent[1]** | <4.0 | <3.6 | <5.0 | <3.8 | <3.6 |
| **Vertical beamwidth (VBW), degrees[1]** | 14.0 | 12.5 | 5.8 | 5.5 | 5.2 |
| **Electrical downtilt (EDT) range, degrees** | 0-12 | | 0-9 | | |
| **First upper side lobe (USLS) suppression, dB[1]** | ≤-16.0 | ≤-15.0 | ≤-16.0 | ≤-16.0 | ≤-16.0 |
| **Cross-polar isolation, port-to-port, dB[1]** | 25 | 25 | 25 | 25 | 25 |
| **Max VSWR / return loss, dB** | 1.5:1 / -14.0 | | 1.5:1 / -14.0 | | |
| **Max passive intermodulation (PIM), 2x20W carrier, dBc** | -153 | | -153 | | |
| **Max input power per any port, watts** | 300 | | 250 | | |
| **Total composite power all ports, watts** | 1500 | | | | |

[1] Typical value over frequency and tilt

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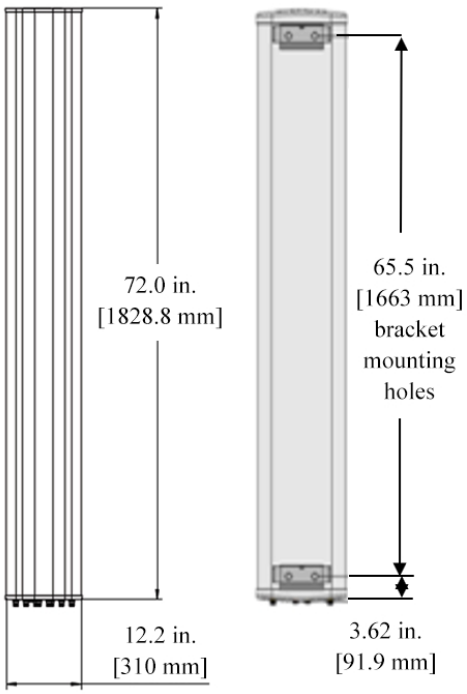
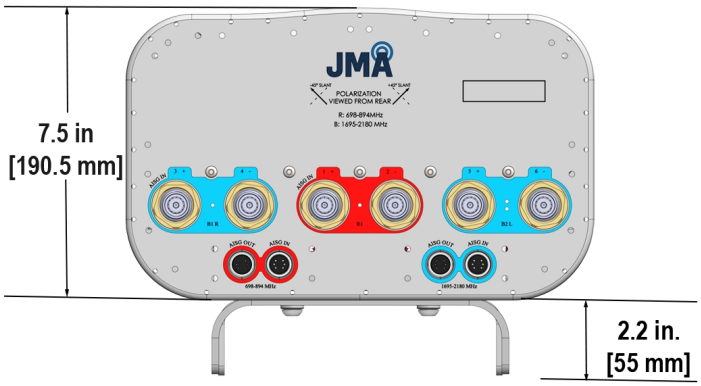
| Mechanical specifications | |
|---|---|
| **Dimensions height/width/depth, inches (mm)** | 72.0/ 12.2/ 7.5 (1828.8/ 310/ 191) |
| **Shipping dimensions length/width/height, inches (mm)** | 76/ 20/ 14.5 (1930/ 508/ 368) |
| **No. of RF input ports, connector type, and location** | 6 x 4.3-10 female, bottom |
| **RF connector torque** | 96 lbf·in (10.85 N·m or 8 lbf·ft) |
| **Net antenna weight, lb (kg)** | 41 (18.6) |
| **Shipping weight, lb (kg)** | 86 (39.0) |
| **Antenna mounting and downtilt kit included with antenna** | 91900318 |
| **Net weight of the mounting and downtilt kit, lb (kg)** | 26 (11.82) |
| **Range of mechanical up/down tilt** | -2° to 12° |
| **Rated wind survival speed, mph (km/h)** | 150 (241) |
| **Frontal and lateral wind loading @ 150 km/h, lbf (N)** | 66.9 (292.6), 60.0 (266.9) |
| **Equivalent flat plate @ 100 mph and Cd=2, sq ft** | 1.41 |
| **EPA frontal and lateral, $ft^2$, ($m^2$)** | 2.0 (0.28), 3.6 (0.33) |

**Front view** **Back view** **Bottom view**




| Ordering information | |
|---|---|
| **Antenna model** | **Description** |
| MX06FHG665-HG | 6F X-Pol HEX FHG 65°, 0-12° / 0-9° RET, 4.3-10 & SBT |
| **Optional accessories** | |
| AISG cables | M/F cables for AISG connections |
| PCU-1000 RET controller | Stand-alone controller for RET control and configurations |

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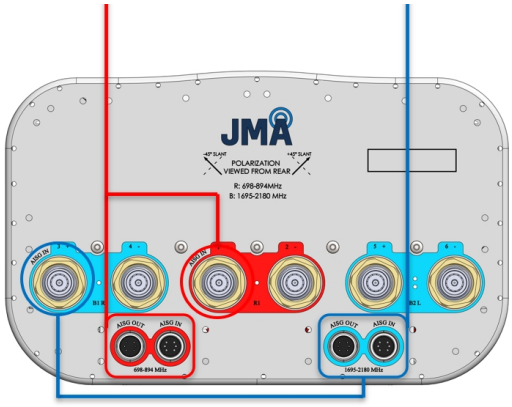
## *NWAV™ X-Pol Hex-Port Antenna*

| Remote electrical tilt (RET 1000) information | |
|---|---|
| **RET location** | Integrated into antenna |
| **RET interface connector type** | 8-pin AISG connector per IEC 60130-9 |
| **RET connector torque** | Min 0.5 N·m to max 1.0 N·m (hand pressure & finger tight) |
| **RET interface connector quantity** | 2 pairs of AISG male/female connectors |
| **RET interface connector location** | Bottom of the antenna |
| **Total no. of internal RETs (low bands)** | 1 |
| **Total no. of internal RETs (high bands)** | 1 |
| **RET input operating voltage, vdc** | 10-30 |
| **RET max power consumption, idle state, W** | ≤ 2.0 |
| **RET max power consumption, normal operating conditions, W** | ≤ 13.0 |
| **RET communication protocol** | AISG 2.0 / 3GPP |

| RET and RF connector topology | |
|---|---|
| Each RET device can be controlled either via the designated external AISG connector or RF port as shown below: | |

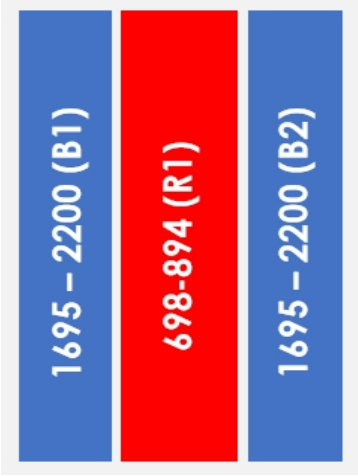
| RET device | Band | RF port |
|---|---|---|
| R1 | 698-894 | 1-2 |

| RET device | Band | RF port |
|---|---|---|
| B1/B2 | 1695-2200 | 3-6 |




| Array topology | | |
|---|---|---|
| 3 sets of radiating arrays<br><br>R1: 698-894 MHz<br>B1: 1695-2200 MHz<br>B2: 1695-2200 MHz | | |

| Band | RF port |
|---|---|
| 1695-2200 | 3-4 |
| 698-894 | 1-2 |
| 1695-2200 | 5-6 |

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