



MX06FIT865-03E

NWAV™ X-Pol Hex-Port Antenna

X-Pol Hex-Port 8 ft 65° macro FIT (Form in Tighter):

2 ports 698/798-824/894 MHz and 4 ports 1695-2200 MHz

- 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
- Enhanced low band and midband pattern performance
- Compatible with dual band 700/850 MHz radios with independent 700 and 850 MHz EDT without external diplexers
- Superior cross polarization and front-to-back performance
- Suitable for 5G/LTE/CDMA/PCS/UMTS/GSM air interface technologies
- Integrated Smart Bias-Ts reduce leasing costs
- Optimized width and lighter weight for reduced wind loading



| Electrical specification (minimum/maximum) | Ports 1, 2 | | Ports 3, 4, 5, 6 | | |
|---|---------------|------------|------------------|------------|------------|
| Frequency bands, MHz | 698-798 | 824-894 | 1695-1880 | 1850-1990 | 1920-2200 |
| Polarization | ± 45° | | ± 45° | | |
| Maximum gain over all tilts, dBi | 15.6 | 16.4 | 18.3 | 18.6 | 18.7 |
| Average gain over all tilts, dBi | 15.3 ± 0.3 | 16.0 ± 0.3 | 18.0 ± 0.3 | 18.3 ± 0.3 | 18.4 ± 0.3 |
| Horizontal beamwidth (HBW), degrees | 67 | 65 | 66 | 65 | 64 |
| Front-to-back ratio, co-polar power @180°± 30°, dB | >27 | >28 | >30 | >32 | >30 |
| X-Pol discrimination (CPR) at boresight, dB | >20 | >20 | >25 | >20 | >20 |
| Sector power ratio, percent ¹ | <4.6 | <3.6 | <4.1 | <3.8 | <3.6 |
| Vertical beamwidth (VBW), degrees ¹ | 9.3 | 8.4 | 5.8 | 5.6 | 5.2 |
| Electrical downtilt (EDT) range, degrees | 0-12 | 0-12 | 0-9 | | |
| First upper side lobe (USLS) suppression, dB ¹ | ≤-16.0 | ≤-16.0 | ≤-18.0 | ≤-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 | | | | |

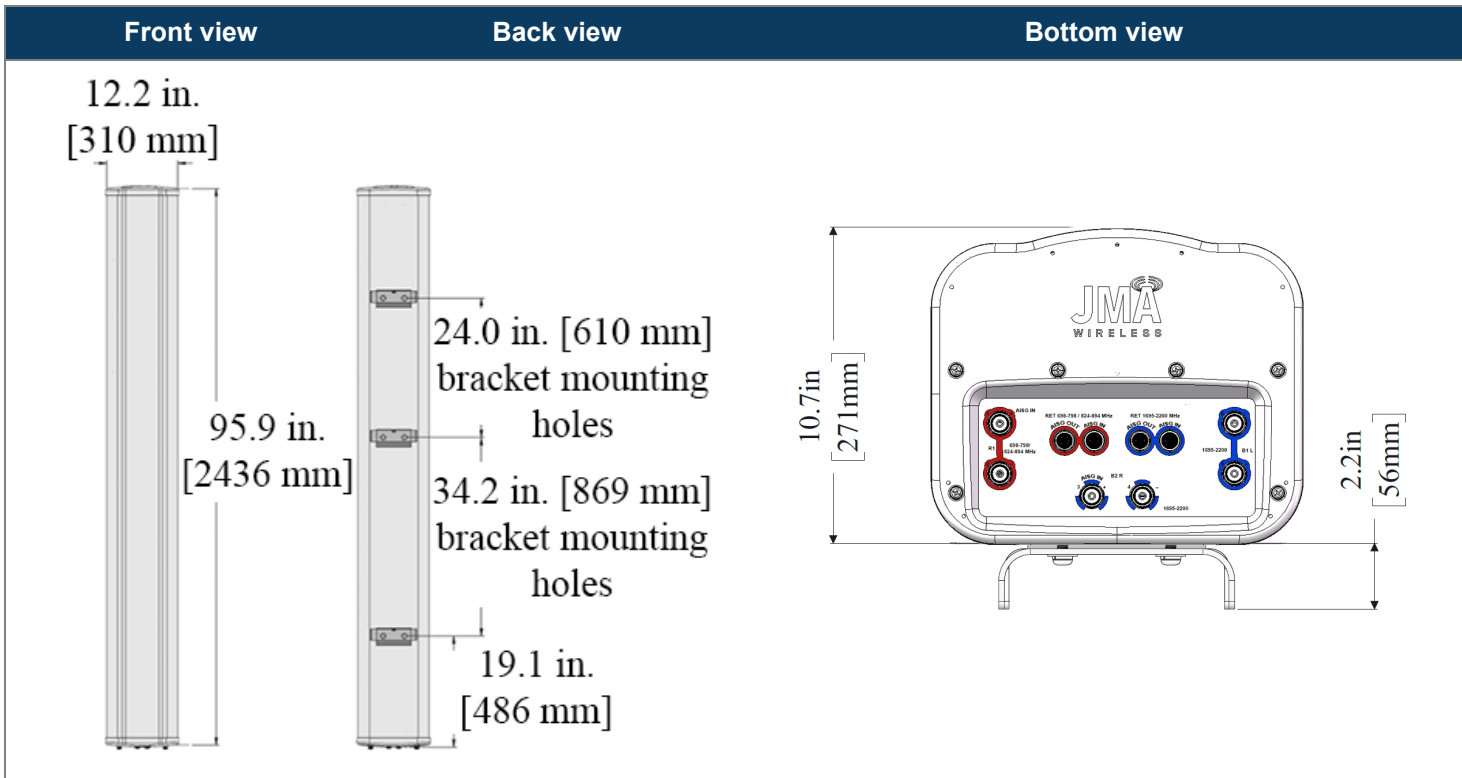
¹ Typical value over frequency and tilt



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| Mechanical specifications | |
|--|-------------------------------------|
| Dimensions height/width/depth, inches (mm) | 95.9/ 12.2/ 10.7 (2436/ 310/ 273) |
| Shipping dimensions length/width/height, inches (mm) | 106/ 20/ 15 (2692/ 508/ 381) |
| 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) | 74.9 (34) |
| Shipping weight, lb (kg) | 124.8 (56.6) |
| Antenna mounting and downtilt kit included with antenna | 91900318, 91900319 (middle bracket) |
| 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) | 90.5 (402.6), 81.2 (361.2) |
| Equivalent flat plate @ 100 mph and Cd=2, sq ft | 2.27 |
| EPA frontal and lateral, ft ² , (m ²) | 4.1 (0.38), 2.2 (0.20) |



| Ordering information | |
|---|--|
| Antenna model | Description |
| MX06FIT865-03E | 8F X-Pol HEX FIT 65°, 0-12° / 0-9° RET, 4.3-10 & SBT, independent tilt 700/850 RET |
| Optional accessories | |
| AISG cables | M/F cables for AISG connections |
| PCU-1000 RET controller | Stand-alone controller for RET control and configurations |
| 91900314-03 | Dual Mount Bracket (see 91900314 bracket document for details) |

Remote electrical tilt (RET 1000) information

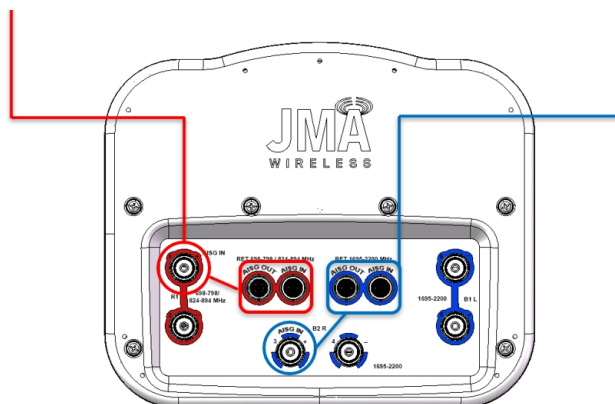
| | |
|---|---|
| RET location | Integrated into antenna |
| RET interface connector type | 8-pin AISG connector per IEC 60130-9 |
| RET connector torque | Min 0.5 N·m to max 1.0 N·m (hand pressure & finger tight) |
| RET interface connector quantity | 2 pairs of AISG male/female connectors |
| RET interface connector location | Bottom of the antenna |
| Total no. of internal RETs (low bands) | 2 |
| 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 | 698-798 | 1-2 |
| R2 | 824-894 | 1-2 |

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



Array topology

3 sets of radiating arrays

R1/R2: 698-798 / 824-894 MHz
 B1: 1695-2200 MHz
 B2: 1695-2200 MHz

| Band | RF port |
|-------------------|---------|
| 1695-2200 | 3-4 |
| 698-798 / 824-894 | 1-2 |
| 1695-2200 | 5-6 |

