



# MX06FHG865-HG

NWAV™ X-Pol Hex-Port Antenna

**X-Pol Hex-Port 8 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



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	17.2	17.6	19.4	19.5	20.0
Average gain, dBi	17.1 ± 0.1	17.3 ± 0.3	19.3 ± 0.1	19.2 ± 0.3	19.7 ± 0.3
Horizontal beamwidth (HBW), degrees	67.0	65.0	63.0	63.0	62.0
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 <sup>1</sup>	<4.0	<3.6	<5.0	<3.8	<3.6
Vertical beamwidth (VBW), degrees <sup>1</sup>	9.3	8.4	5.0	4.9	4.5
Electrical downtilt (EDT) range, degrees	0-10		0-7		
First upper side lobe (USLS) suppression, dB <sup>1</sup>	≤-16.0	≤-15.0	≤-16.0	≤-16.0	≤-16.0
Cross-polar isolation, port-to-port, dB <sup>1</sup>	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				

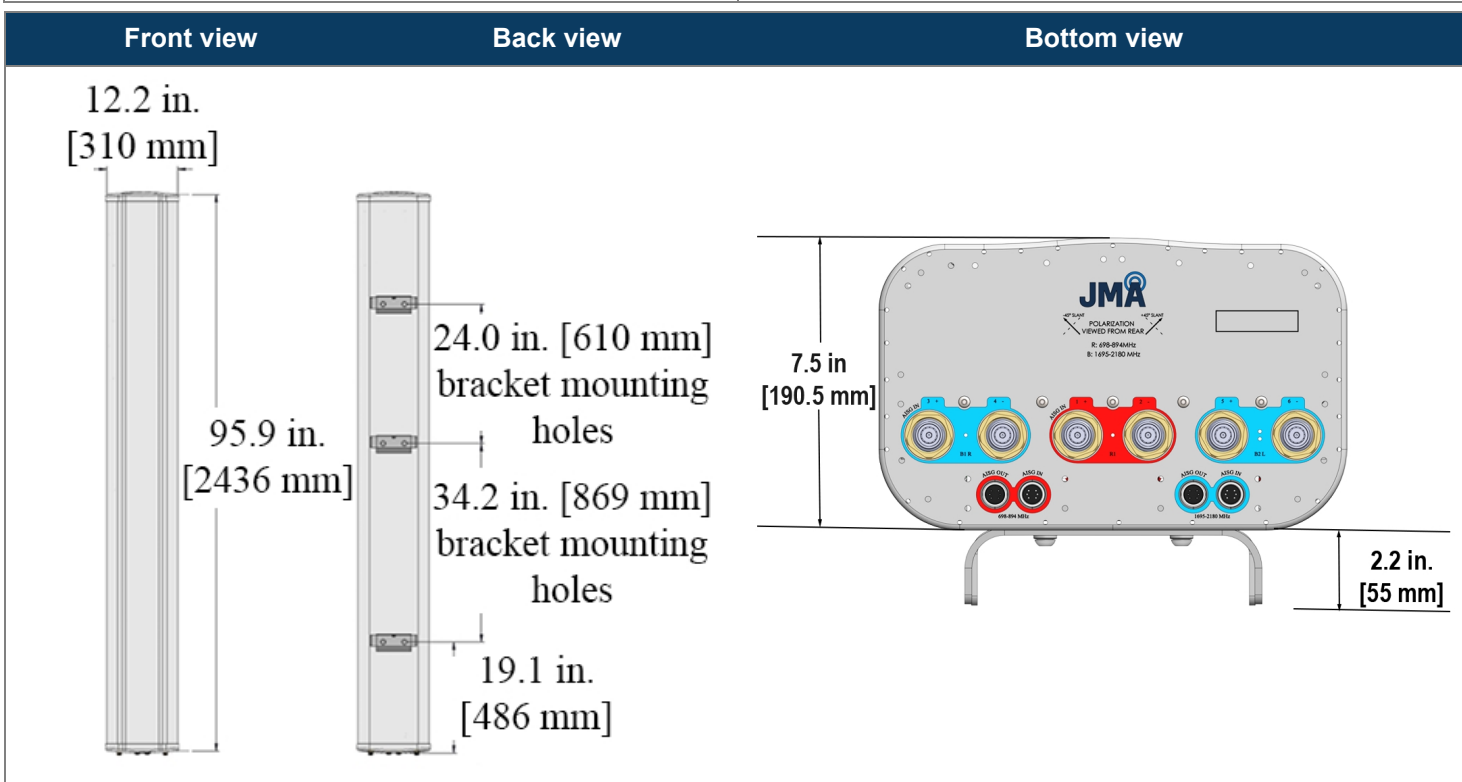
<sup>1</sup> Typical value over frequency and tilt



# MX06FHG865-HG

## NWAV™ X-Pol Hex-Port Antenna

Mechanical specifications	
Dimensions height/width/depth, inches (mm)	95.9/ 12.2/ 7.5 (2436/ 310/ 191)
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)	51 (23.1)
Shipping weight, lb (kg)	100 (45.3)
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 <sup>2</sup> , (m <sup>2</sup> )	4.1 (0.38), 2.2 (0.20)



Ordering information	
Antenna model	Description
MX06FHG865-HG	8F X-Pol HEX FHG 65°, 0-10° / 0-7° RET, 4.3-10 & SBT
Optional accessories	
<a href="#">AISG cables</a>	M/F cables for AISG connections
<a href="#">PCU-1000 RET controller</a>	Stand-alone controller for RET control and configurations



# MX06FHG865-HG

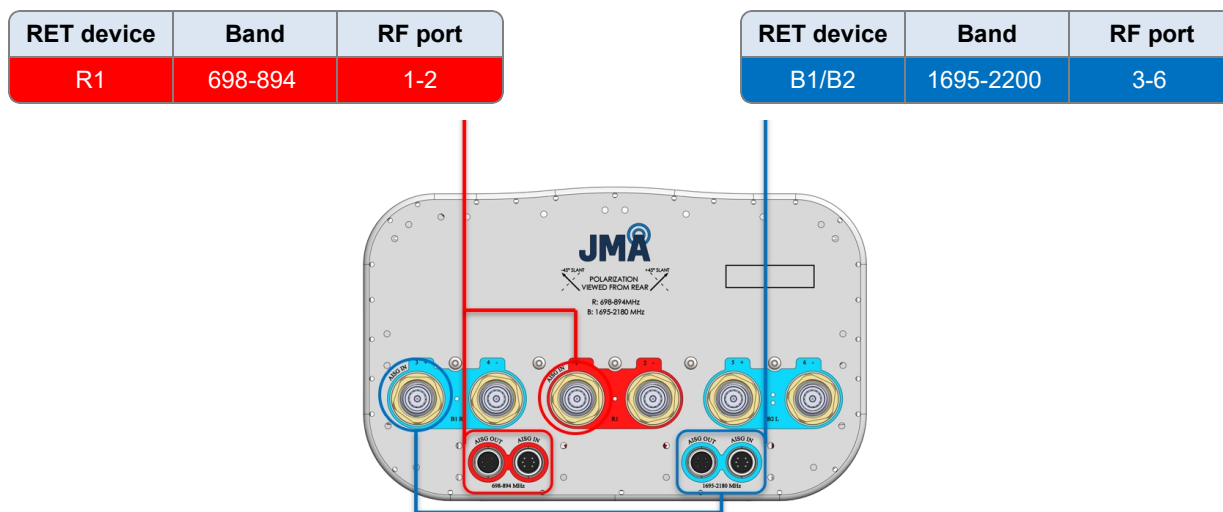
## NWAV™ X-Pol Hex-Port Antenna

### 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:



### Array topology

<p>3 sets of radiating arrays</p> <p>R1: 698-894 MHz B1: 1695-2200 MHz B2: 1695-2200 MHz</p>	<table border="1"> <thead> <tr> <th>Band</th> <th>RF port</th> </tr> </thead> <tbody> <tr> <td>1695-2200</td> <td>3-4</td> </tr> <tr> <td>698-894</td> <td>1-2</td> </tr> <tr> <td>1695-2200</td> <td>5-6</td> </tr> </tbody> </table>	Band	RF port	1695-2200	3-4	698-894	1-2	1695-2200	5-6	
Band	RF port									
1695-2200	3-4									
698-894	1-2									
1695-2200	5-6									