



MX08FHG865-BHG

NWAV™ X-Pol 8-Port Antenna

X-Pol 8-Port 8 ft, 65° Form In Tighter High Gain (FHG) with Smart Bias Ts, 698-4200 MHz:

4 ports 698-894 MHz and 4 ports 3400-4200 MHz

- High efficiency macro panel antenna with optimized 4T4R MIMO performance for low and high band with industry-leading high gain for extended coverage
- Enhanced pattern performance with superior cross-pol performance and front-to-back ratio
- Fully integrated (iRETs) with independent RET control for low band and high band
- Optimized CBRS radiation patterns for improved RSRP and maximum EIRP
- Excellent passive intermodulation (PIM) performance reduces harmful interference.
- Suitable for 4G and 5G interface technologies
- Integrated Smart Bias-Ts reduce leasing costs
- Optimized form factor for reduced wind loading



NWAV™

Electrical specification (minimum/maximum)	Ports 1, 2, 3, 4	
Frequency bands, MHz	698-806	806-894
Polarization	$\pm 45^\circ$	
Maximum gain over all tilts, dBi	17.0	17.3
Average gain over all tilts, dBi	16.7 ± 0.3	17.0 ± 0.3
Horizontal beamwidth (HBW), degrees ¹	67	64
Front-to-back ratio, co-polar power @ $180^\circ \pm 30^\circ$, dB	>28.0	>28.0
SPR (Sector Power Ratio), %	5	4.5
X-Pol discrimination (CPR) at boresight, dB	>20.0	>20.0
Vertical beamwidth (VBW), degrees ¹	9	8
Electrical downtilt (EDT) range, degrees	0-10	
First upper side lobe (USLS) suppression, dB ¹	≤ -18.0	≤ -16.0
Cross-polar isolation, port-to-port, dB ¹	25	25
Max VSWR / return loss, dB	1.5:1 / -14.0	
Max passive intermodulation (PIM), 2x20W carrier, dBc	-153	
Max input power per any port, watts	300	
Total composite power all ports, watts	1500	

¹ Typical value over frequency and tilt



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Electrical specification (minimum/maximum)	Ports 5, 6, 7, 8		
Frequency bands, MHz	3400-3550	3550-3980	3980-4200
Polarization	± 45°		
Maximum gain over all tilts, dBi	14.7	14.9	15.1
Average gain over all tilts, dBi	14.5 ± 0.2	14.7 ± 0.2	14.9 ± 0.2
Horizontal beamwidth (HBW), degrees	71	69	67
Front-to-back ratio, co-polar power @180°± 30°, dB	>25	>25	>25
Vertical beamwidth (VBW), degrees ¹	16.7	15.9	15.1
Electrical downtilt (EDT) range, degrees	2-12		
First upper side lobe (USLS) suppression, dB ¹	≤-15	≤-15	≤-15
Cross-polar isolation, port-to-port, dB ¹	25	25	25
Max VSWR / return loss, dB	1.5:1 / -14.0		
Max passive intermodulation (PIM), 2x20W carrier, dBc	-145		
Max input power per any port, watts	150		

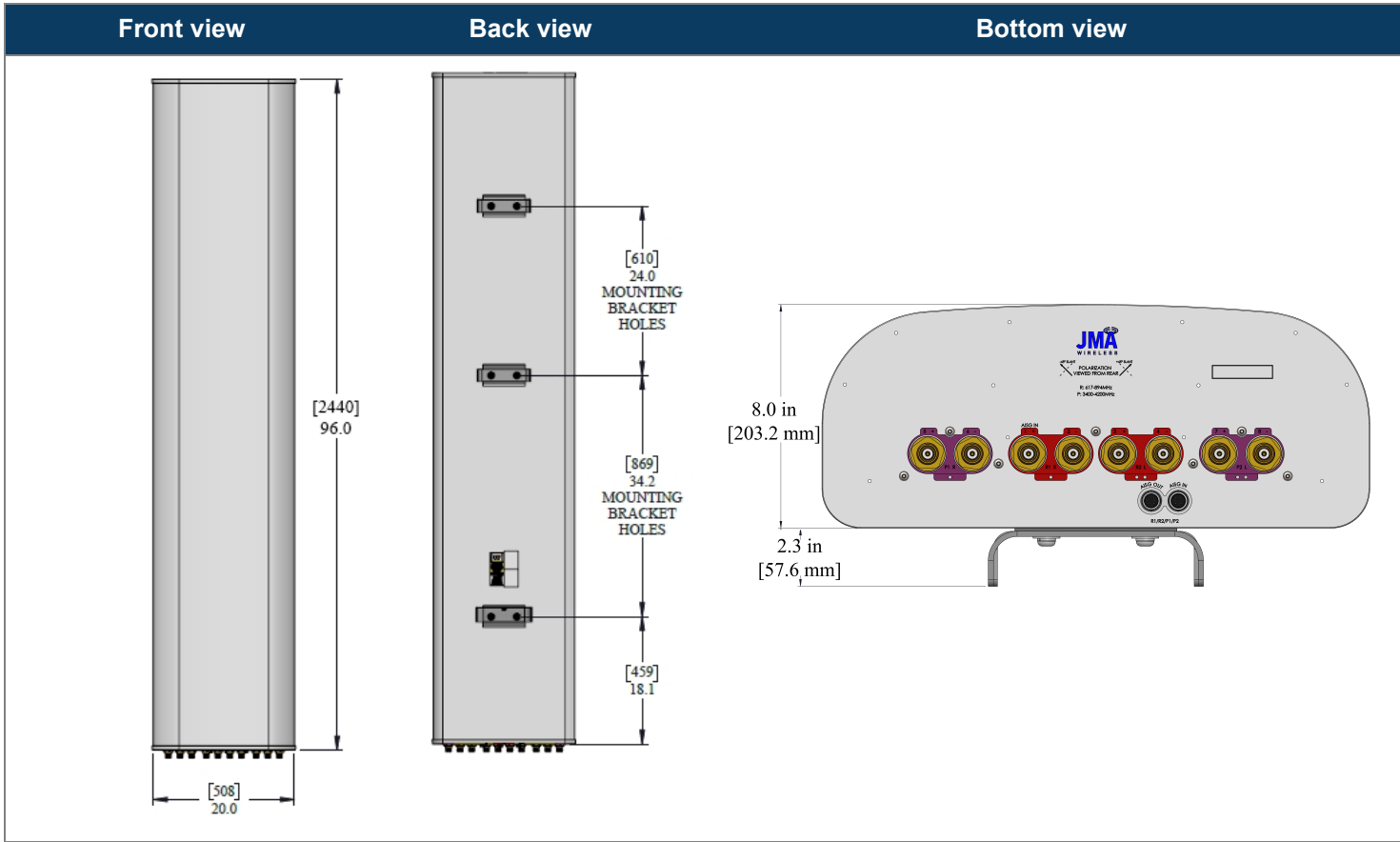
Ordering information	
Antenna model	Description
MX08FHG865-BHG	8F X- Pol 8 PORT FIT 65° 0-10°/2-12°, 4.3-10 & SBT
Optional accessories	
AISG cables	M/F cables for AISG connections
PCU-1000 RET controller	Stand-alone controller for RET control and configurations
91900314-03	Dual Mount Bracket (see 91900314 bracket document for details)



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Mechanical specifications	
Dimensions height/width/depth, inches (mm)	96/ 20/ 8(2440/ 510/ 203)
Shipping dimensions length/width/height, inches (mm)	100.6/ 23.8/ 14.5(2555/ 605/ 368)
No. of RF input ports, connector type, and location	8 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)	63 (28.6)
Shipping weight, lb (kg)	120 (54.4)
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)	172.3 (766.4), 79.8 (355.0)
EPA frontal, ft², (m²)	7.7 (0.72)

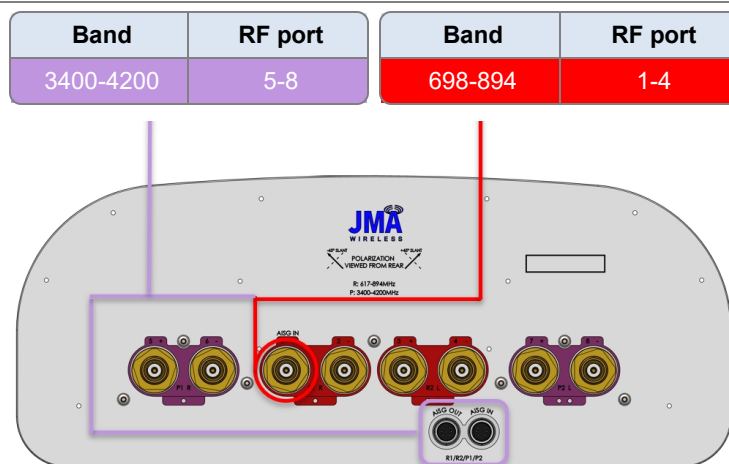


Remote electrical tilt (RET 1000) information

RET location	Integrated into antenna
RET interface connector type	8-pin AISG connector per IEC 60130-9 or RF port bias-t
RET connector torque	Min 0.5 N·m to max 1.0 N·m (hand pressure & finger tight)
RET interface connector quantity	1 pair of AISG male/female connectors and 1 RF port Bias T
RET interface connector location	Bottom of the antenna
Total no. of internal RETs 698-894 MHz	1
Total no. of internal RETs 3400-4200 MHz	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 smart bias-t port as shown below:



Array topology

4 sets of radiating arrays

R1: 698-894 MHz
R2: 698-894 MHz
P1: 3400-4200 MHz
P2: 3400-4200 MHz

Band	RF port
698-894	1-4
3400-4200	5-8

