MX04FIT865-03E

NWAV™ X-Pol 4-Port Antenna

X-Pol 4-Port 8 ft 65° macro FIT (Form in Tighter):

4 ports 698/798-824/894 MHz

- Excellent passive intermodulation (PIM) performance reduces harmful interference.
- Fully integrated (iRETs) with independent RET control for 700 MHz and 850 MHz for ease of network optimization
- Enhanced low band 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-T reduce leasing costs
- Optimized width and lighter weight for reduced wind loading

Electrical specification (minimum/maximum)	Ports 1, 2, 3, 4	
Frequency bands, MHz	698-798	824-894
Polarization	± 45°	
Maximum gain over all tilts, dBi	16.1	16.9
Average gain over all tilts, dBi	15.8 ± 0.3	16.6 ± 0.3
Horizontal beamwidth (HBW), degrees	67	62
Front-to-back ratio, co-polar power @180°± 30°, dB	>27	>28
X-Pol discrimination (CPR) at boresight, dB	>20	>20
Sector power ratio, percent[1]	<4.6	<3.6
Vertical beamwidth (VBW), degrees[1]	9.3	8.4
Electrical downtilt (EDT) range, degrees	2-12	2-12
First upper side lobe (USLS) suppression, dB[1]	≤-16.0	≤-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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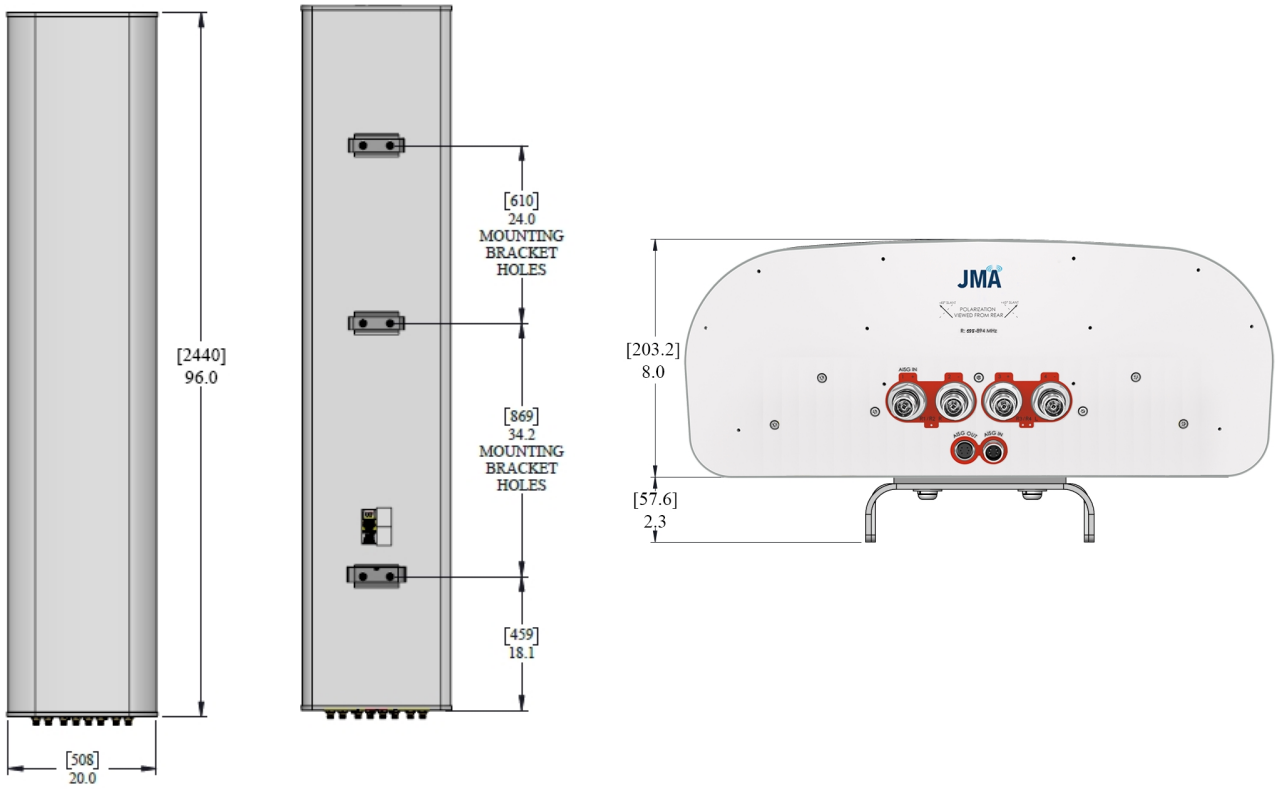
Mechanical specifications	
Dimensions height/width/depth, inches (mm)	96/ 20/ 8(2440/ 510/ 203)
Shipping dimensions length/width/height, inches (mm)	100.6/ 23.8/ 14.5(2555/ 605/ 368)
No. of RF input ports, connector type, and location	4 x 4.3-10 female, bottom
RF connector torque	96 lbf·in (10.85 N·m or 8 lbf·ft)
Net antenna weight, lb (kg)	140 (63.5)
Shipping weight, lb (kg)	Not to exceed 250 (113.4)
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 and lateral, ft^2, (m^2)	7.7 (0.72), 3.6 (0.33)

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



Ordering information	
Antenna model	**Description**
MX04FIT865-03E	8F X-Pol 4 PORT FIT 65°, 2-12°, 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)

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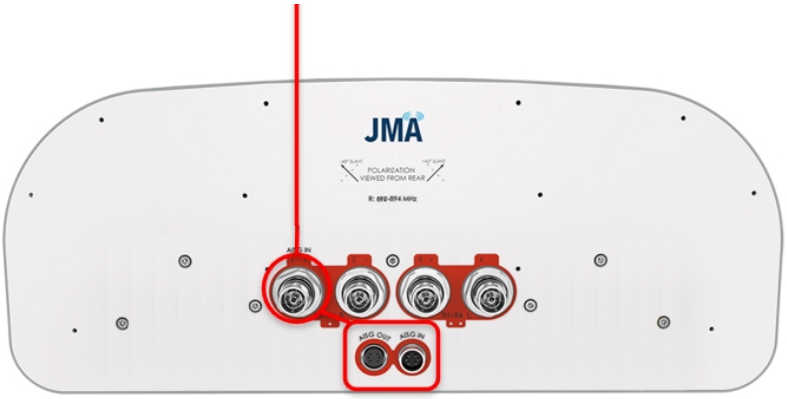
Remote electrical tilt (RET 1000) information	
RET location	Integrated into antenna
RET interface connector type	8-pin AISG connector per IEC 60130-9 or RF port bias-t
RET connector torque	Min 0.5 N·m to max 1.0 N·m (hand pressure & finger tight)
RET interface connector quantity	1 pair of AISG male/female connectors and 1 RF port Bias T
RET interface connector location	Bottom of the antenna
Total no. of internal RETs (low bands)	2
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:

Band	RF port
698-894	1-4



Array topology

2 sets of radiating arrays

R1/R2: 698-798 / 824-894 MHz
R3/R4: 698-798 / 824-894 MHz

Band	RF port
698-798 / 824-894	1-2
698-798 / 824-894	3-4