



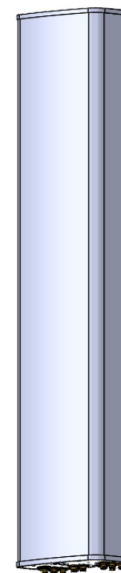
MX10FIT645-02

NWAV™ X-Pol Ten-Port Antenna

X-Pol Ten-Port 6 ft, 45° Form in Tighter, with Smart Bias Ts, 698-4200 MHz:

2 ports 698-894 MHz, 4 ports 1695-2200 MHz, and 4 ports 3400-4200 MHz

- Excellent passive intermodulation (PIM) performance reduces harmful interference.
- Fully integrated (iRETs) with independent RET control for low band and mid band
- FET configured with internal RET for 3.4-4.2 GHz and ease of future network optimization.
- Optimized CBRS vertical beamwidth to maximize EIRP and RSRP performance
- SON-Ready array spacing supports beamforming capabilities
- Integrated Smart Bias-Ts reduce leasing costs



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°		
Average gain over all tilts, dBi	16.0	16.5	18.0	18.5	18.8
Horizontal beamwidth (HBW), degrees ¹	47.5	45.0	46.0	45.0	43.0
Front-to-back ratio, co-polar power @180°± 30°, dB	>22.0	>21.0	>25.0	>25.0	>25.0
X-Pol discrimination (CPR) at boresight, dB	>18.0	>15.0	>18	>18	>15
Vertical beamwidth (VBW), degrees ¹	13.5	12.5	6.0	5.8	5.5
Electrical downtilt (EDT) range, degrees	2-14		0-9		
First upper side lobe (USLS) suppression, dB ¹	≤-15.0	≤-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 (1-10), watts	1500				

¹ Typical value over frequency and tilt

Electrical specification (minimum/maximum)	Ports 7, 8, 9, 10			
Frequency bands, MHz	3400-3550	3550-3700	3700-3950	3950-4200



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Electrical specification (minimum/maximum)	Ports 7, 8, 9, 10			
Polarization	± 45°			
Average gain over all tilts, dBi	13.0	13.4	13.7	14.0
Horizontal beamwidth (HBW), degrees	50	48	46	42
Front-to-back ratio, co-polar power @180°± 30°, dB	>22	>22	>22	>22
Vertical beamwidth (VBW), degrees ¹	25	24	23	22
Electrical downtilt (EDT) range, degrees	2-12			
First upper side lobe (USLS) suppression, dB ¹	≤-15	≤-15	≤-15	≤-15
Cross-polar isolation, port-to-port, dB ¹	25	25	25	25
Max VSWR / return loss, dB	1.5:1 / -14.0			
Max input power per any port, watts	100			
Total composite power all ports (1-10), watts	1500			

¹ Typical value over frequency and tilt

Ordering information	
Antenna model	Description
MX10FIT645-02	6F X- Pol 10 Port FIT 45° 2-14°/ 0-9°/ 2-12°, 4.3-10 & SBTs
Optional accessories	
AISG cables	M/F cables for AISG connections
PCU-1000 RET controller	Stand-alone controller for RET control and configurations
91900314-02	Dual Mount Bracket (see 91900314 bracket document for details)

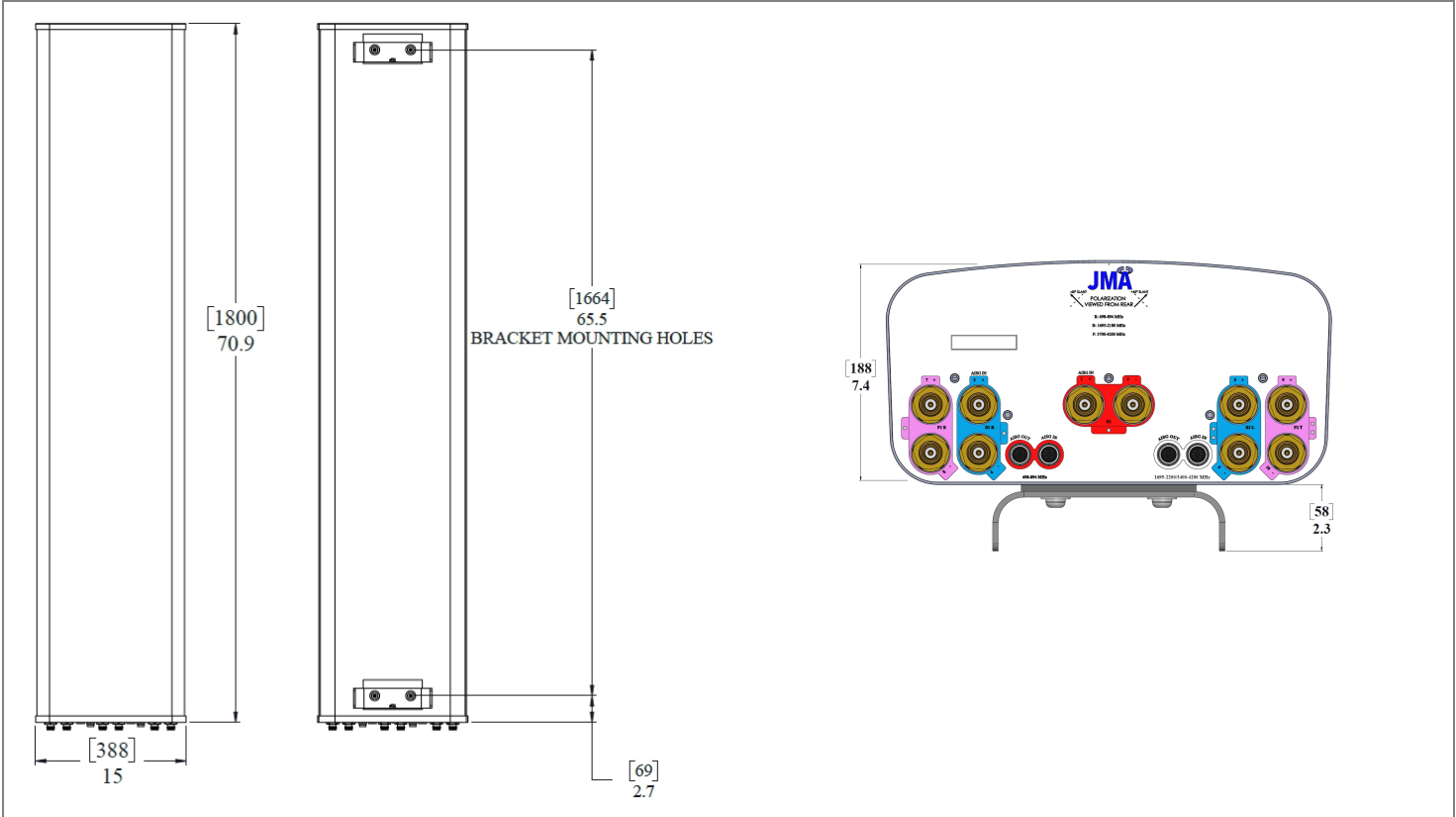


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Mechanical specifications	
Dimensions height/width/depth, inches (mm)	70.9/ 15/ 7.4 (1801/ 381/ 188)
Shipping dimensions length/width/height, inches (mm)	76.2/ 23.8/ 14.5 (1935/ 605/ 368)
No. of RF input ports, connector type, and location	10 x 4.3-10 female, bottom
RF connector torque	96 lbf-in (10.85 N·m or 8 lbf-ft)
Net antenna weight, lb (kg)	55.4 (25.1)
Shipping weight, lb (kg)	87.6 (39.7)
Antenna mounting and downtilt kit included with antenna	91900318
Net weight of the mounting and downtilt kit, lb (kg)	18 (8.2)
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)	157.3 (699.7), 56.9 (253.1)
EPA frontal and lateral, ft ² , (m ²)	7.1 (0.66), 2.6 (0.24)

Front view	Back view	Bottom view
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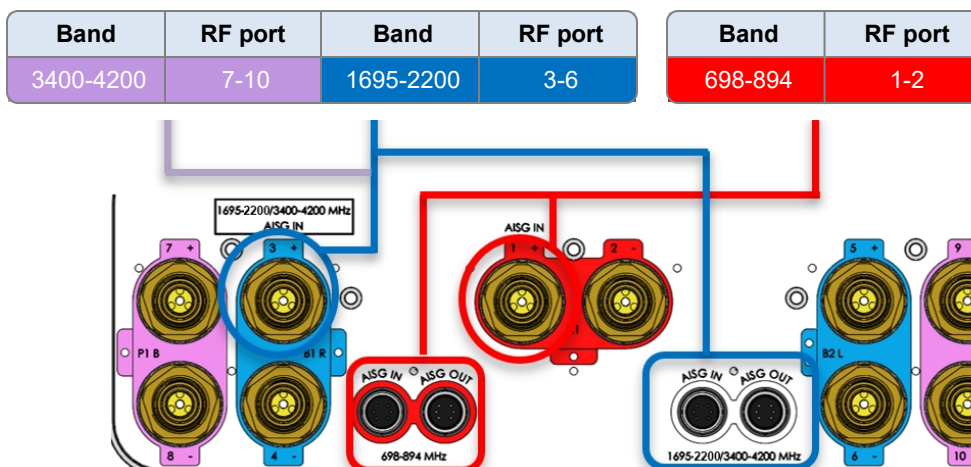


Remote electrical tilt (RET 1000) information

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	2 pairs of AISG male/female connectors and 2 RFport bias-ts
RET interface connector location	Bottom of the antenna
Total no. of internal RETs 698-894 MHz	1
Total no. of internal RETs 1695-2180 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:



Note: The RET Device for 3400-4200 MHz is connected via the 1695-2200 Port 3 Bias T port or 1695-2200/3400-4200 MHz AISG ports.

Array topology

5 sets of radiating arrays

- R1: 698-894 MHz
- B1: 1695-2180 MHz
- B2: 1695-2180 MHz
- P1: 3400-4200 MHz
- P2: 3400-4200 MHz

Band	RF port
698-894	1-2
1695-2180	3-4
1695-2180	5-6
3400-4200	7-8
3400-4200	9-10

