



# DATASHEET

## AW3923-T0-F

**Common Name-** 4 Port, 29.5", 65° C-Band Panel

3300-4200MHz	4	Fixed	18	65°
Frequency	Ports	Tilt	Gain	Beamwidth

### PRODUCT INFORMATION

This solution was developed for fixed wireless applications to cover the extender C-band 3300-4200MHz. This four port antenna supports 4x4 MIMO applications.

This compact sector antenna supports 4x4 MIMO for fixed-wireless access (FWA) and mobile private networks operating in the 3.5 GHz Citizens Broadband Radio Service (CBRS, n48, n78) and extended C-band (n77). Equally spacing three or four of the AW3923-T0-F 65° sector panels around the tower infrastructure would enable complete 360° of coverage. Panel antennas are the most used solution to provide directive coverage in a wireless network. These panel antennas offer multiple ports and frequency bands and are designed to deliver high gain across the sector. They are commonly available with 33°, 45°, 60°, 90°, and 120° beamwidths. Alpha Wireless provides a wide array of sector panel solutions that meet the needs of the most intricate deployment requirements.



### APPLICATION

Alpha Wireless panel antennas provide wireless network operators the highest performance and quality. Panel antennas are generally used in sectorized applications. These antennas are designed for optimal radiation patterns improving overall network performance. A horizontally spaced array provides enhance MIMO performance with full 4x4 operation or receive diversity RF functions.

### FEATURES

- Wide Band antenna covering 3300-4200MHz
- 4x4 MIMO for maximum throughput
- Supports NR bands n48, n77, & n78
- Fixed electrical down tilt
- Mounting bracket with variable tilt (included).

### STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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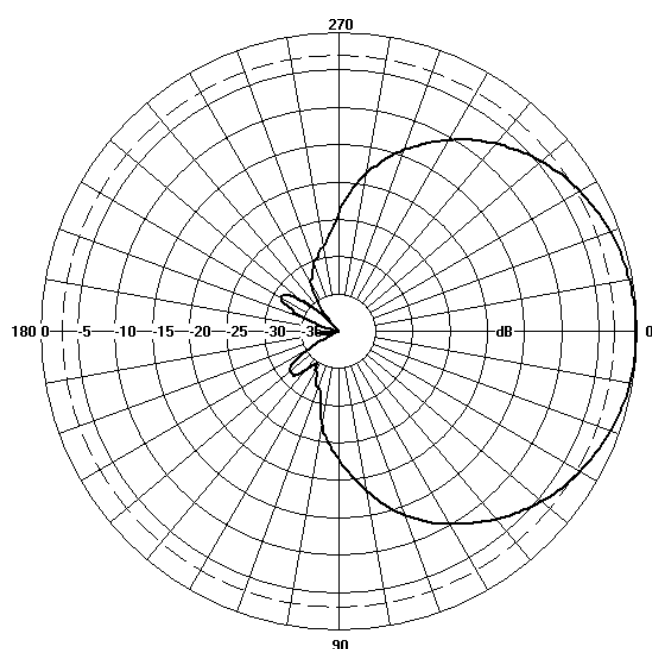


*The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.*

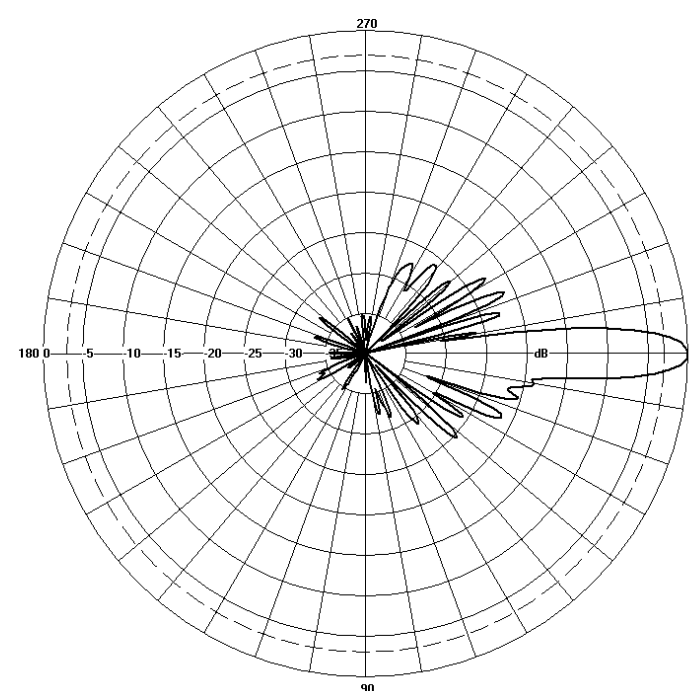
## TECHNICAL SPECIFICATION

Electrical Specifications				
Frequency Range		MHz	3300 - 3800	3800 - 4200
Polarisation		Degree	+/- 45° Slant Linear	
Gain	Basta	dBi	17.5±0.5	17.5±0.5
	Max	dBi	18	18
Azimuth Beamwidth		Degree	65°	
Elevation Beamwidth		Degree	7°	7°
Electrical Downtilt		Degree	T0°	
Electrical Downtilt Deviation		Degree<	1°	
Impedance		Ohms	50	
VSWR		<	1.5	
Return Loss		dB>	14	
Isolation		dB>	25	
Front to Back Ratio: Total Power +/-30°		dB>	30	
Upper Sidelobe Suppression, Peak to 20°		dB>	18	
Cross-Polar Discrimination		dB>	16	
Maximum Effective Power Per Port		W	150	

## Representative Pattern Files



Azimuth



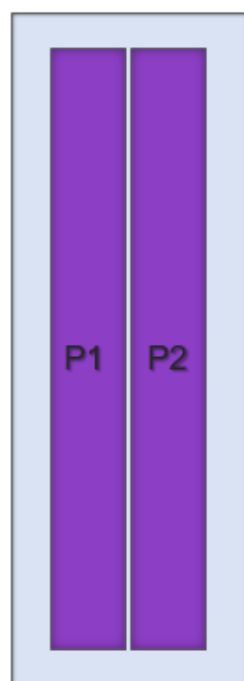
Elevation

For radiation pattern files, please login at [www.alphawireless.com](http://www.alphawireless.com)

## TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	750 (29.5) x 280 (11) x 85 (3.3) - (LxWxD)
Packing Size (LxWxD)	mm (in)	823 (32.4) x 337 (13.2) x 175 (6.9)
Net Weight (antenna)	kg (lb)	4.3 (9.6)
Net Weight (mount)	kg (lb)	1.5 (3.4)
Shipping Weight	kg (lb)	5.8 (12.8)
Connector Type (Female)	-	4.3-10
Connector Quantity	-	4
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	220 (50)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	80 (18)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	ASA
Radome Colour	RAL	7035
Product Compliance Environmental	-	RoHS
Lightning Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

## Array Layout and RET Information



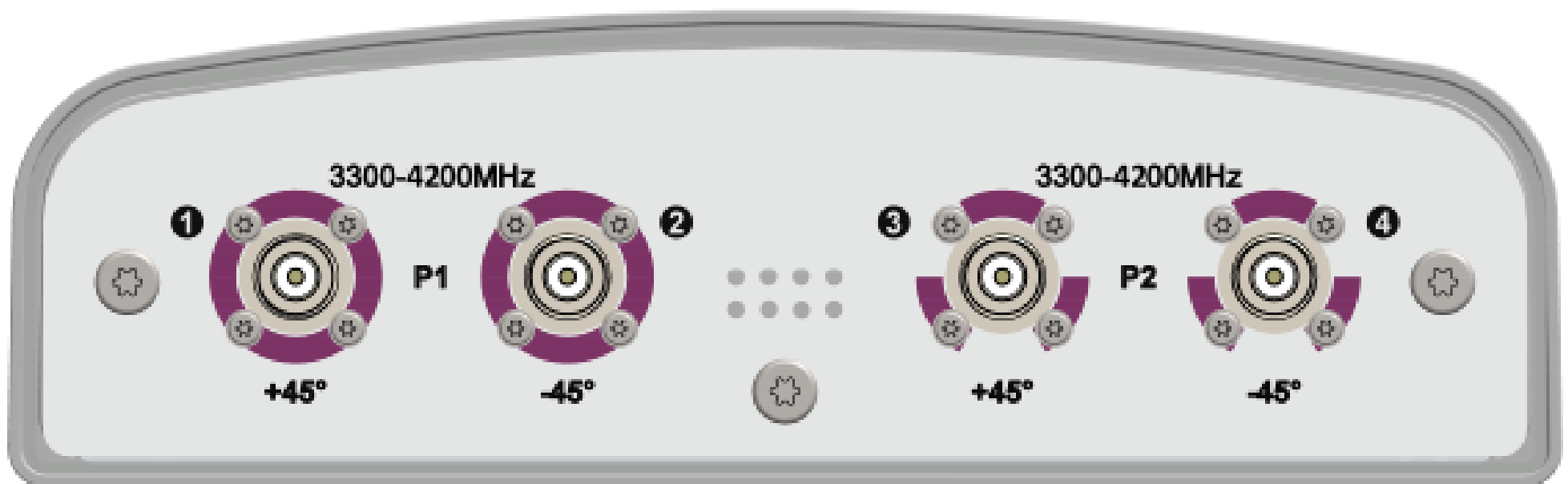
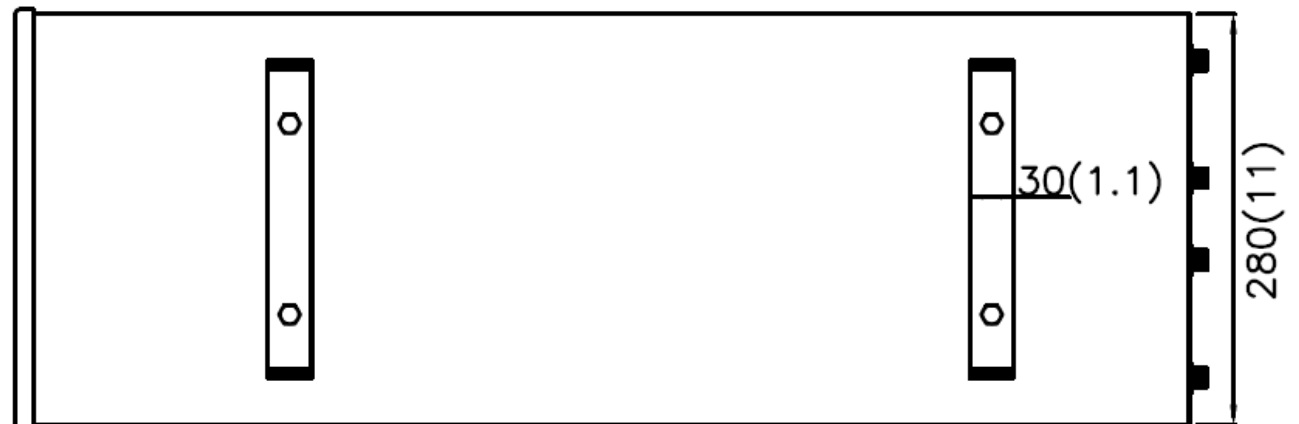
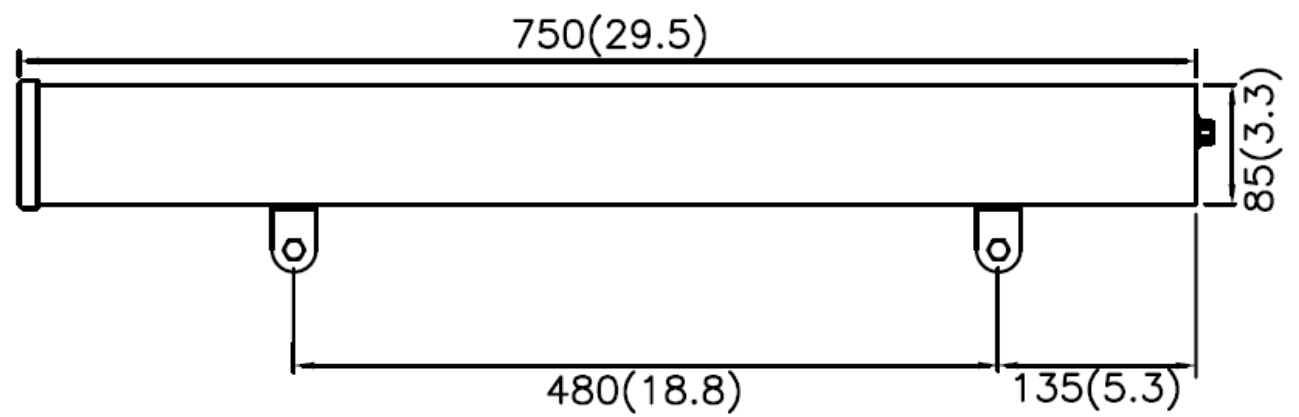
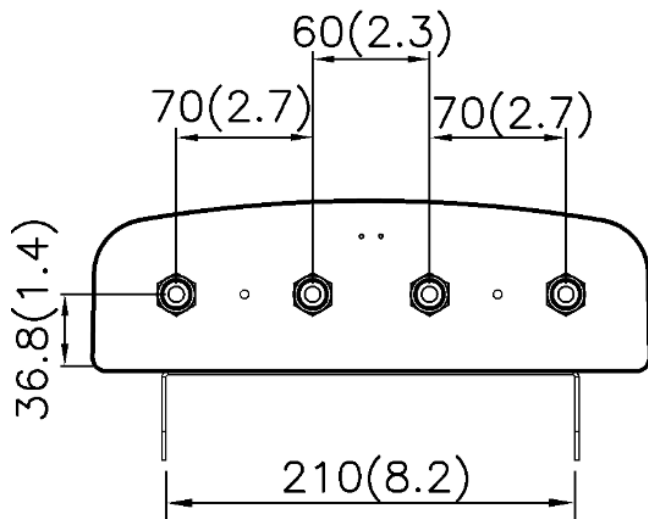
Array	Frequency MHz	Ports
P1	3300 - 4200	1 - 2
P2	3300 - 4200	3 - 4

*Note: Coloured box sizes do not represent antenna sizes.*

## TECHNICAL SPECIFICATION

## Mechanical Illustration

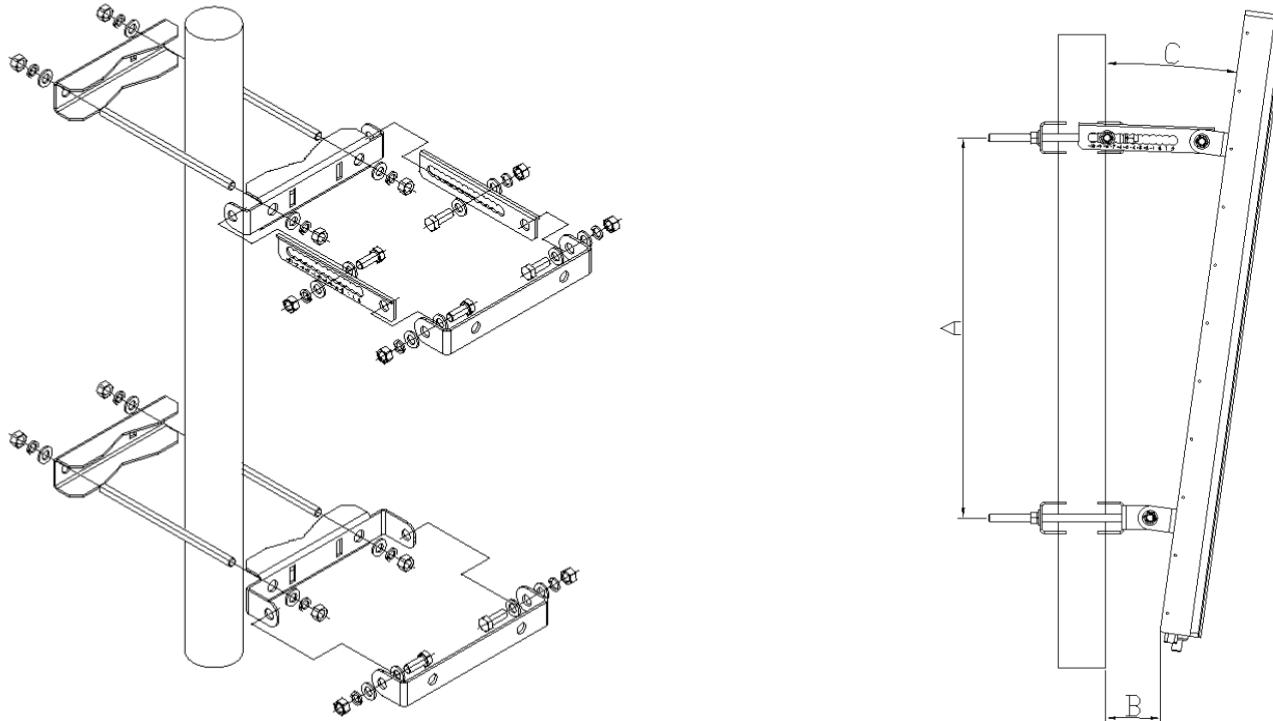
All measurements are in mm (in)



## TECHNICAL SPECIFICATION

### Mounting Bracket Kit

CL-V-104 Mount Kit (Mount Kit included with antenna)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
+2° to -10°	Stainless Steel	50mm-115mm (2" to 4.5")

### Ordering Info

#### Order Code - Antenna

AW3923-T0-F

#### Description

AW1012-2-FM-FM  
 AW1012-2-FM-NM  
 AW1014-2-FM-TM  
 PADC 1000  
 SADC 2000  
 AW0326-3-PM-PF  
 AW0326-10-PM-PF  
 AW0326-25-PM-PF  
 AW0326-50-PM-PF

#### Description

Zero Degrees Fixed Tilt with 4.3/10 Connectors

#### Order Code - Antenna

RF Jumper Cable, connector types 4.3-10 (m) / 4.3-10 (m), length 2 metres (6'6")  
 RF Jumper Cable, connector types 4.3-10 (m) / N-Type (m), length 2 metres (6'6")  
 RF Jumper Cable, connector types 4.3-10 (m) / Nex10 (m), length 2 metres (6'6")  
 Portable AISG Controller  
 Site AISG Controller  
 AISG Jumper Cable Lengths 3 metres (9' 10")  
 AISG Jumper Cable Lengths 10 metres (32' 9")  
 AISG Jumper Cable Lengths 25 metres (82')  
 AISG Jumper Cable Lengths 50 metres (164')

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