



AW3864-E-F

Common Name - 8 Port (4P/4P) 2.7M Multi-Band Panel

Frequency	Ports	Tilt	Gain	Beamwidth
617-894MHz	4	eRET	17.6	65°
1710-2690MHz	4	eRET	18.3	65°

PRODUCT INFORMATION

This antenna has four Low Band ports and four Mid Band ports. Remote Electrical tilt allows tilt optimisation to improve coverage and throughput. Designed for compact, aesthetically pleasing applications.

APPLICATION

This antenna solution is designed to be deployed on roofs and macro pole applications globally. It is a multi-frequency solution, designed for compact, aesthetically pleasing applications.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

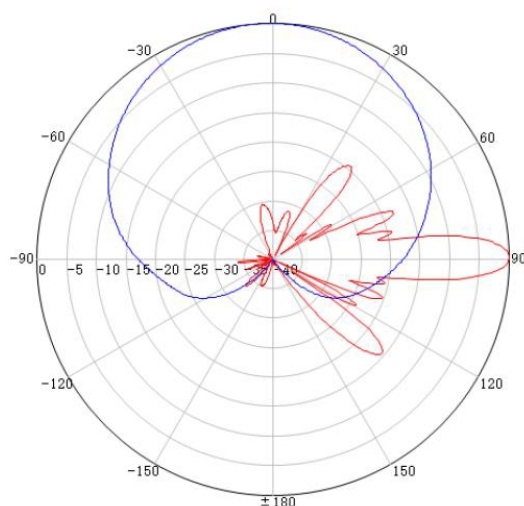
- Multi-band antenna 617 - 894 / 1710 - 2690MHz.
- Compact design for low visual impact.
- Independent tilt control on each radiator array.
- Mechanical scissor clamp for downtilt (included)
- Low PIM performance to reduce interference.

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

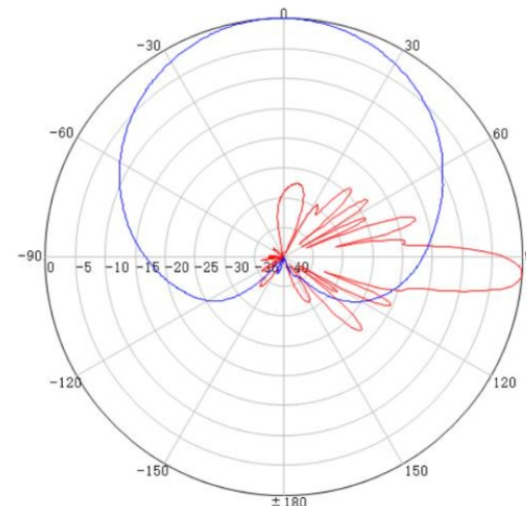
TECHNICAL SPECIFICATION

Electrical Specifications								
Frequency Range	MHz	617-745	745-894	1710-1920	1920-2200	2490-2690		
Polarisation	Degree	+/- 45° Slant Linear						
Gain	Basta	dBi	16.4±0.5	17.1±0.5	17.1±0.5	17.3±0.5	17.8±0.5	
	Max	dBi	16.9	17.6	17.6	17.8	18.3	
Azimuth Beamwidth	Degree	68°±3	64°±3	62°±5	68°±5	63°±5		
Elevation Beamwidth	Degree	8.0°±1.5	7.2°±0.8	7.0°±0.5	6.5°±0.5	6.0°±0.5		
Electrical Downtilt	Degree	T2° - T12°	T2° - T12°	T2° - T12°	T2° - T12°	T2° - T12°		
Electrical Downtilt Deviation	Degree<	1°	1°	1°	1°	1°		
Impedance	Ohms	50						
VSWR	<	1.5						
Return Loss	dB>	14						
Isolation	dB>	25	25	25	25	25		
Isolation Interband	dB	28	28	28	28	28		
Front to Back Ratio: Total Power +/-30°	dB>	25	25	25	25	25		
Passive Intermodulation	dBc<	-150	-150	-150	-150	-150		
Upper Sidelobe Suppression, Peak to 20°	dB>	16	16	17	17	17		
Cross-Polar Discrimination	dB>	15	15	15	15	15		
Maximum Effective Power Per Port	W	300	300	250	250	250		

Representative Pattern Files



617-894 MHz



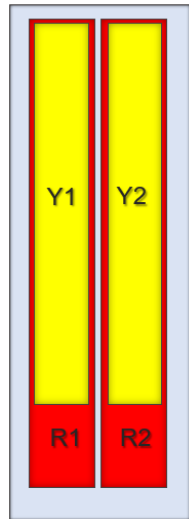
1710-2690 MHz

For radiation pattern files, please login at www.alphawireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	2700(106.3) x 499(19.6) x 200(7.9)
Packing Size (LxWxD)	mm (in)	2930(115.1) x 560(22) x 305(12)
Net Weight (antenna)	kg (lb)	30.5 (67.2)
Net Weight (mount)	kg (lb)	7.3(16)
Shipping Weight	kg (lb)	46.5 (102.5)
Connector Type (Female)	-	4.3-10
Connector Position	-	Bottom
Connector Quantity	-	8 (4P Low Band, 4P Mid Band)
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	1332 (300)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	555 (124)
Survival Wind Speed	km/h (mph)	242 (150)
Radome Material	-	Fiberglass
Radome Colour	RAL	9010
Product Compliance Environmental	-	RoHS
Lightning Protection	-	DC Grounded
Cold Temperature Survival	Celsius (Fahrenheit)	-40 (-40)
Hot Temperature Survival	Celsius (Fahrenheit)	70 (158)

Array Layout and RET Information



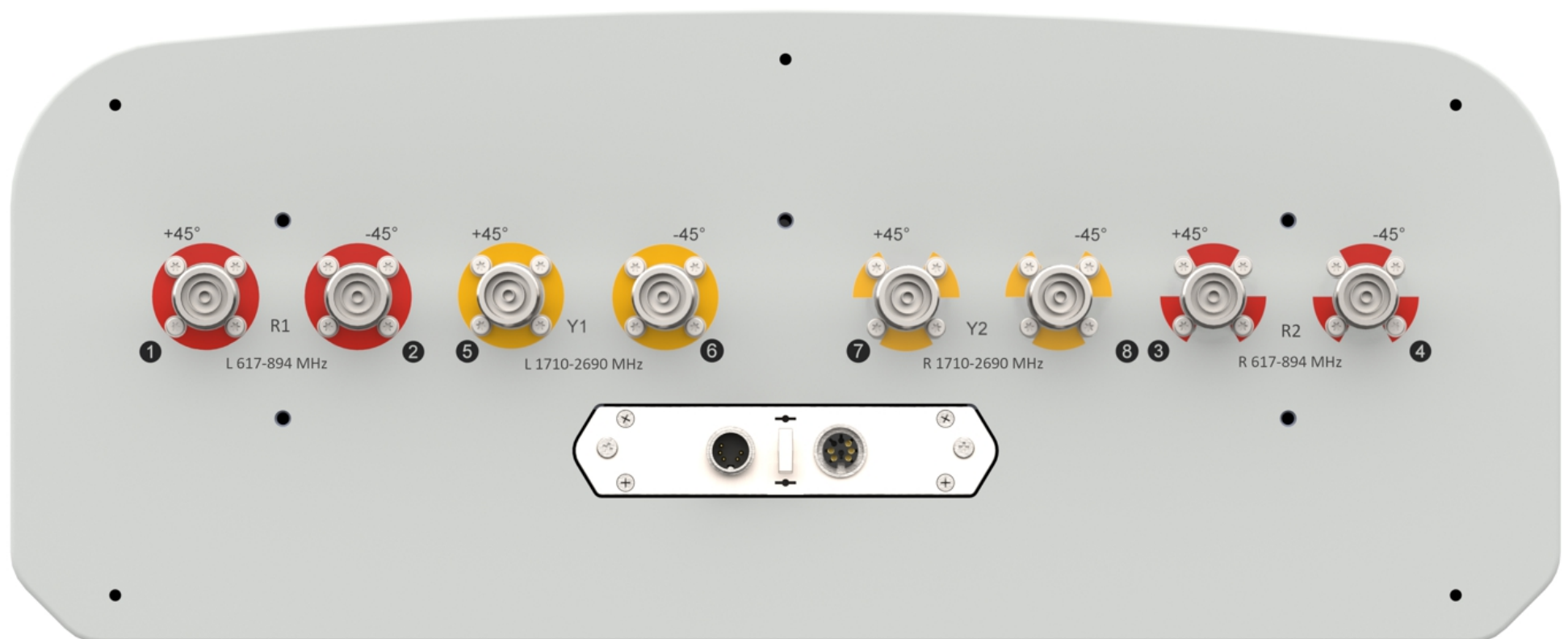
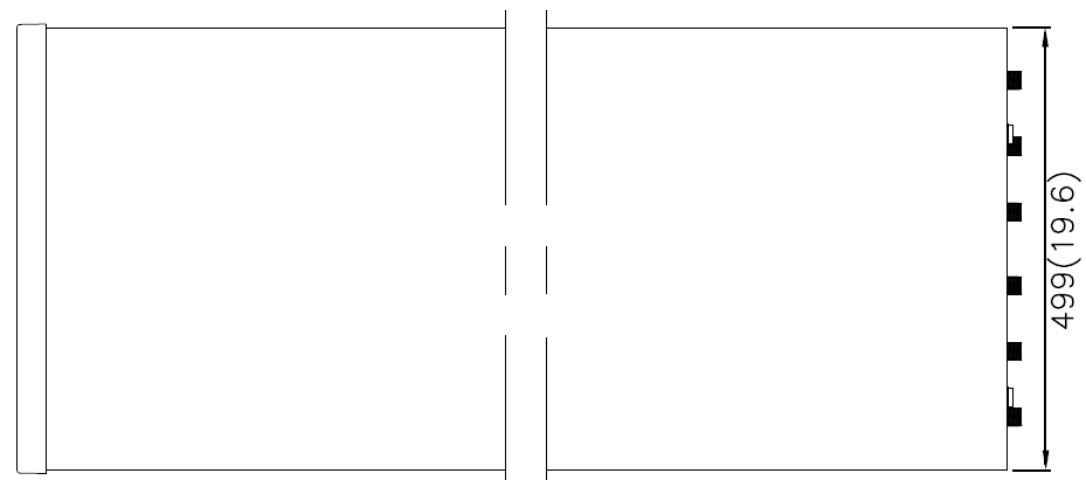
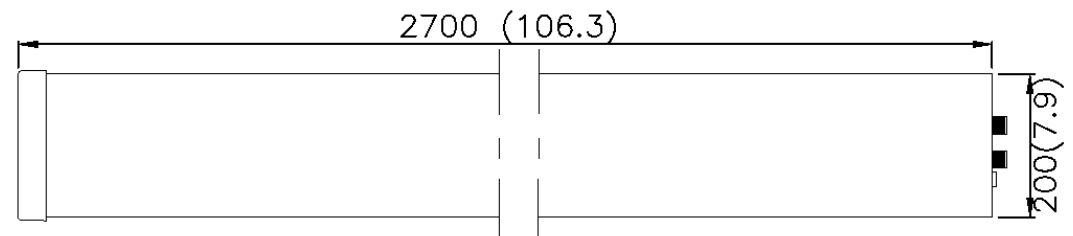
Note: Coloured box sizes do not represent antenna sizes.

Array	Frequency MHz	Ports	RET
R1	617 - 894	1 - 2	1
R2	617 - 894	3 - 4	2
Y1	1710 - 2690	5 - 6	3
Y2	1710 - 2690	7 - 8	4

Configuration	
617 - 894 MHz	One RET for each array: R1, R2
1710 - 2690 MHz	One RET for each array: Y1, Y2
Total Quantity	Four RET Motor Controllers
Location and Interface	
RET Controller Location	Inside antenna radome housing
RET Interface	Pair of AISG 8 Pin DIN connectors, one male, one female
RET Interface Quantity	One pair of AISG 8 Pin DIN connectors
RET Interface Location	On connector plate located at bottom of antenna
Electrical	
Input Voltage	10 - 30V
Power Idle Mode	< 1W
Power Active Mode	< 10W
Protocol	3GPP / AISG 2.0

TECHNICAL SPECIFICATION

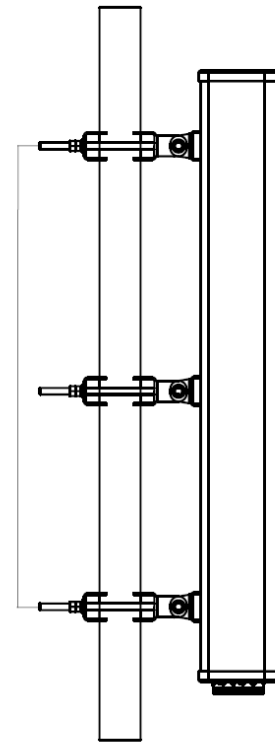
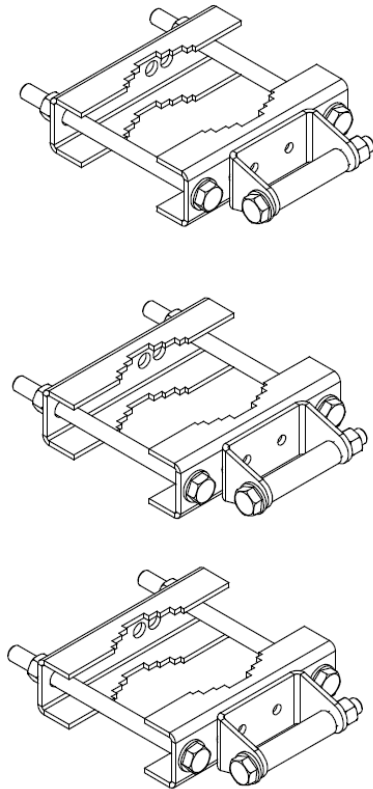
Mechanical Illustration



TECHNICAL SPECIFICATION

Mounting Bracket Kit

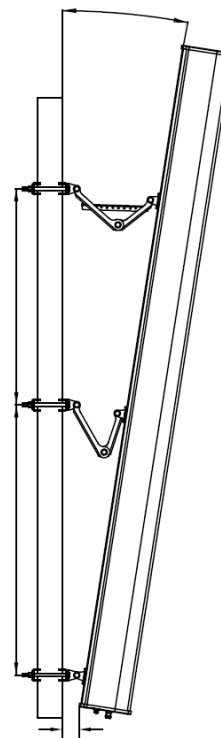
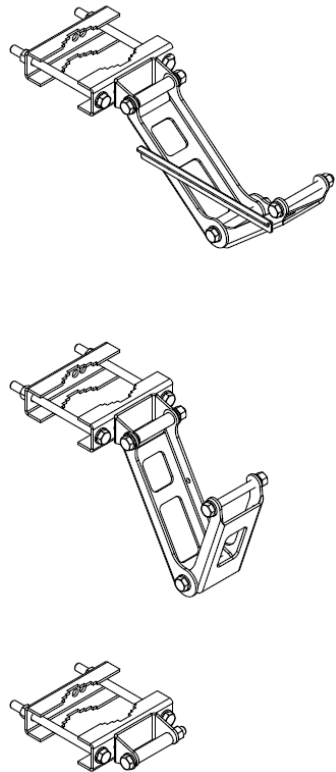
CL-V-204 Adjustable Mount Kit (Mount Kit included with the antenna)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
0	Galvanized Steel	50mm-115mm (2" to 4.5")

Mounting Bracket Kit

CL-V-194 Adjustable Mount Kit (Not included with antenna. To be ordered separately)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
0° to 10°	Galvanized Steel	50mm-115mm (2" to 4.5")

Order Code - Antenna**Order Code - Antenna**

AW3864-E-F

Order Code - Accessories

AW1012-2-FM-FM

AW1012-2-FM-NM

AW1014-2-FM-TM

PADC 1000

AW0326-3-PM-PF

AW0326-10-PM-PF

AW0326-25-PM-PF

AW0326-50-PM-PF

Description

Enclosed Remote Electrical Tilt (eRET) with 4.3-10 connectors.

Description

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

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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