



AW3725-E-F

Common Name 24 Port,(4P/8P/8P/4P), 65° Panel Low Band, Mid Band, CBRS & LAA, Small Cell

Frequency	Ports	Tilt	Gain	Beamwidth
617-894MHz	4	Fixed	11	65°
1695-2690MHz	8	eRET	14	65°
3300-4200MHz	8	Fixed	11	65°
5150-5925MHz	4	Fixed	6	65°

PRODUCT INFORMATION

This product design is intended to offer multiple ports across multiple bands. There are four Low Band ports, eight Mid Band Ports, eight CBRS ports and four LAA ports. The Low Band extends down to the 617MHz band using wideband technology.

On Midband there is Enclosed Remote Electrical tilt (eRET). The eight Midband ports are split into two groups of four and tilt is controlled as per table below.

eRET	Control
AISG Motor 1	Ports 1-4
AISG Motor 2	Ports 5-8

Low band, CBRS and LAA are Fixed Tilt.

Unit meets FCC Part 15.407 (a) (1) (i) for U-NII Band requirements.

APPLICATION

This Alpha Wireless multi-port multi-band small cell provides a solution where 48" height is important. This antenna has been designed for use in both Venue and Right of Way type deployments.

There are a number of mounting options available making deployments on lamp posts, utility poles, walls and other vertical structures possible. A bracket that straps the antenna vertical to a pole comes as standard. This can be upgraded to a mount bracket that enables mechanical tilt if required.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

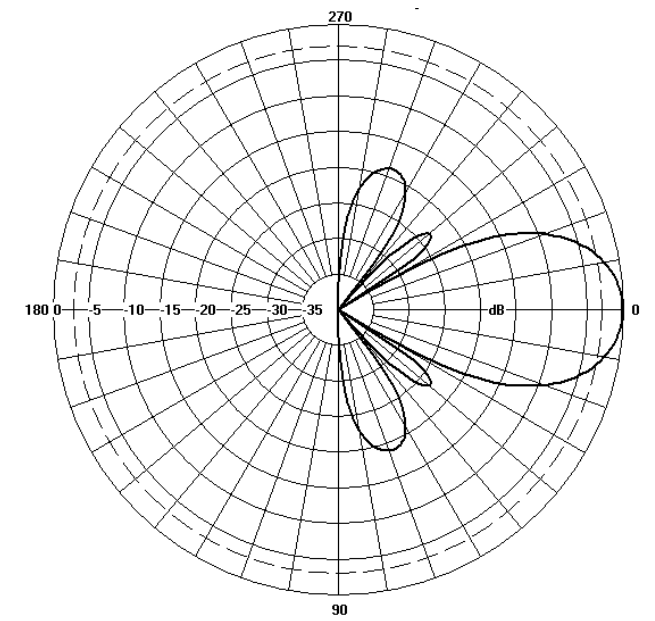
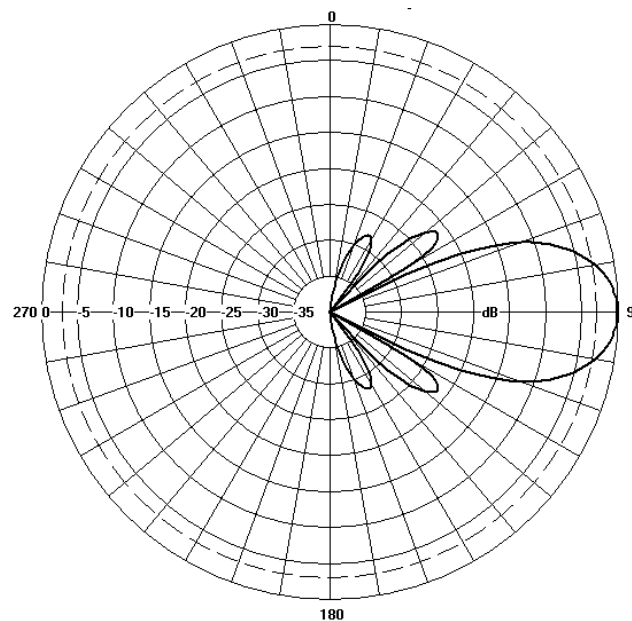
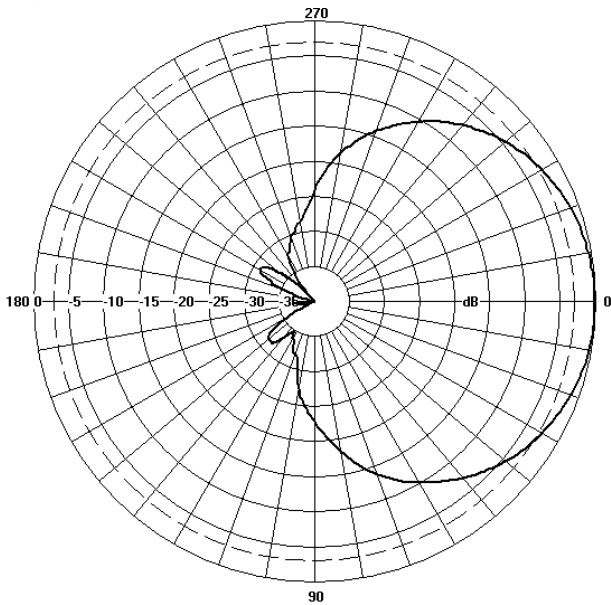
- High Port count enabling multiple operators.
- High Data rate frequency bands covered including Mid Band, CBRS and LAA.
- Low Band extends down to 617MHz
- Compact design for low visual impact.
- Meets current U-NII-1 requirements for gain and upper side lobe performance.
- eRET on Midband only.

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

TECHNICAL SPECIFICATION

Electrical Specifications		Low Band				Mid Band				3.5/ 5.5GHz		
Frequency Range	MHz	617-686	686-755	755-824	824-894	1695-1995	1920-2170	2170-2500	2500-2690	3300-4200	5150-5925	
Polarisation		+/- 45° Slant Linear										
Gain	Basta	dB	9.7±0.5	10.2±0.5	10.8±0.5	11.2±0.5	12.1±0.5	12.6±0.5	13.1±0.5	13.5±0.5	10.5±0.5	6.0±0.5
	Max	dB	10.2	10.7	11.3	11.7	12.6	13.1	13.6	14.0	11.0	6.0
Azimuth Beamwidth	Degree	78° ±8°	75° ±8°	69° ±7°	64° ±7°	68° ±7°	66° ±7°	62° ±7°	58° ±6°	60° ±6°	57° ±6°	
Azimuth Beam Squint	Degree <	5°	5°	5°	5°	5°	5°	5°	5°	5°	5°	
Elevation Beamwidth	Degree	40° ±4°	37° ±4°	34° ±4°	32° ±4°	19° ±2°	17° ±2°	15° ±2°	13° ±2°	33° ±4°	26° ±3°	
Electrical Downtilt	Degree	T0°	T0°	T0°	T0°	T2°-T10°	T2°-T10°	T2°-T10°	T2°-T10°	T0°	T0°	
Electrical Downtilt Deviation	Degree <	3°	3°	3°	3°	1.5	1.5	1.5	1.5	3.0	3.0	
Impedance	Ohms	50	50	50	50	50	50	50	50	50	50	
VSWR	NA <	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
Return Loss	dB >	14	14	14	14	14	14	14	14	14	14	
Front to Back Ratio: Total Power +/-30°	dB >	25	25	25	25	27	27	27	27	25	25	
Isolation	dB>	25	25	25	25	25	25	25	25	25	25	
Passive Intermodulation	dBc <	-153	-153	-153	-153	-153	-153	-153	-153	-145	N/A	
Cross Polar Discrimination	dB >	16	16	16	16	16	16	16	16	16	16	
Maximum Effective Power Per Port	W	100	100	100	100	250	250	250	250	50	1	

Representative Pattern Files



1695 - 2690MHz

3.5GHz / 5.5GHz

Azimuth

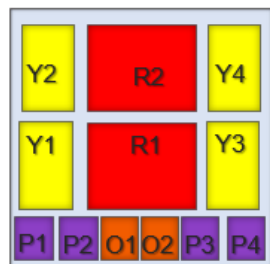
Elevation

TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	1219 (48) x 499 (19.6) x 164 (6.5) - (LxWxH)
Packing Size (LxWxD)	mm (in)	1270 (50) x 600 (23.6) x 200 (7.9)
Net Weight (antenna)	kg (lb)	14 (31)
Net Weight (mount)	kg (lb)	1.5 (3.3)
Shipping Weight	kg (lb)	15.5 (34.3)
Connector Type (Female)	-	4.3-10
Connector Position	-	Bottom
Connector Position Quantity	-	24 (4P Low-band, 8P Mid-band, 8P High-band CBRS & 4P High-band LAA)
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	591 (133)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	183 (30.9)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV Stabilised PVC
Radome Colour	RAL	7035
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



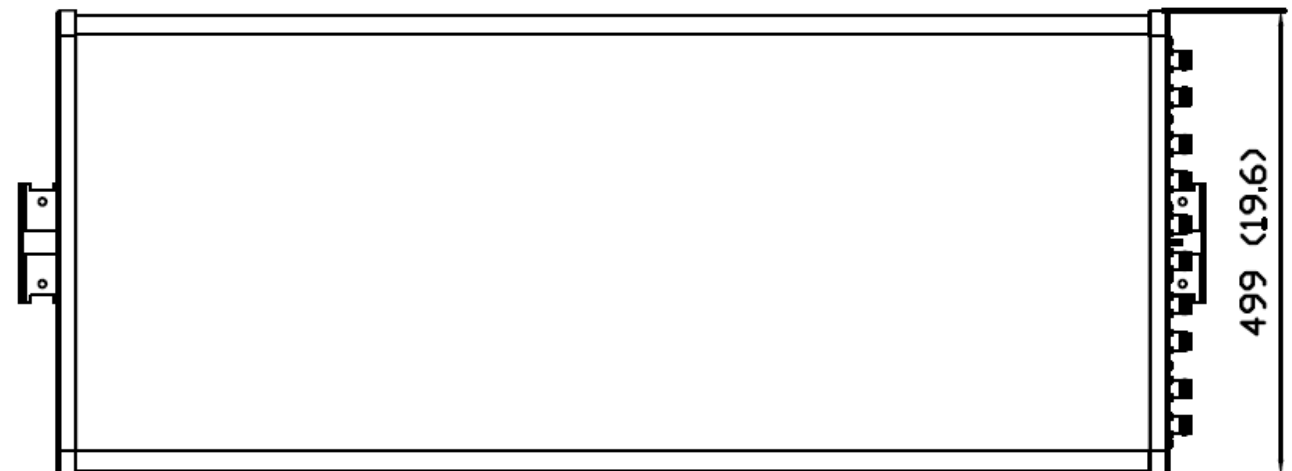
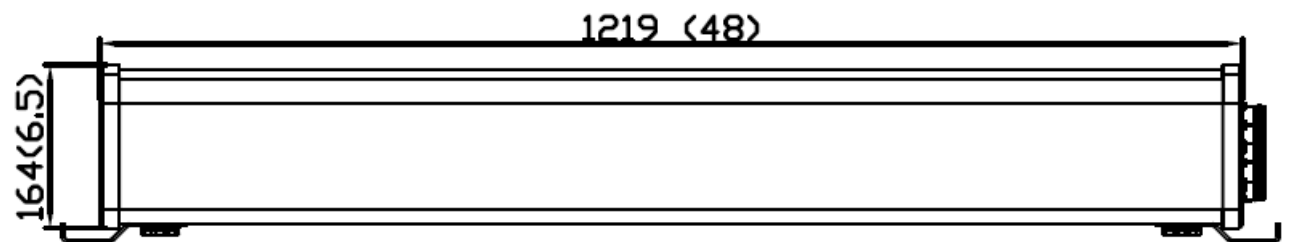
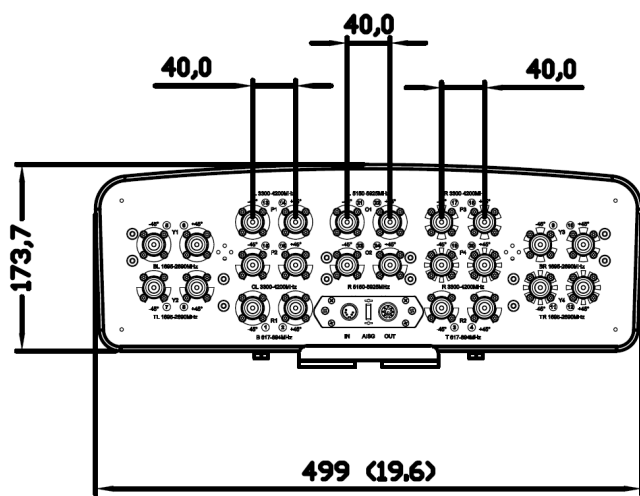
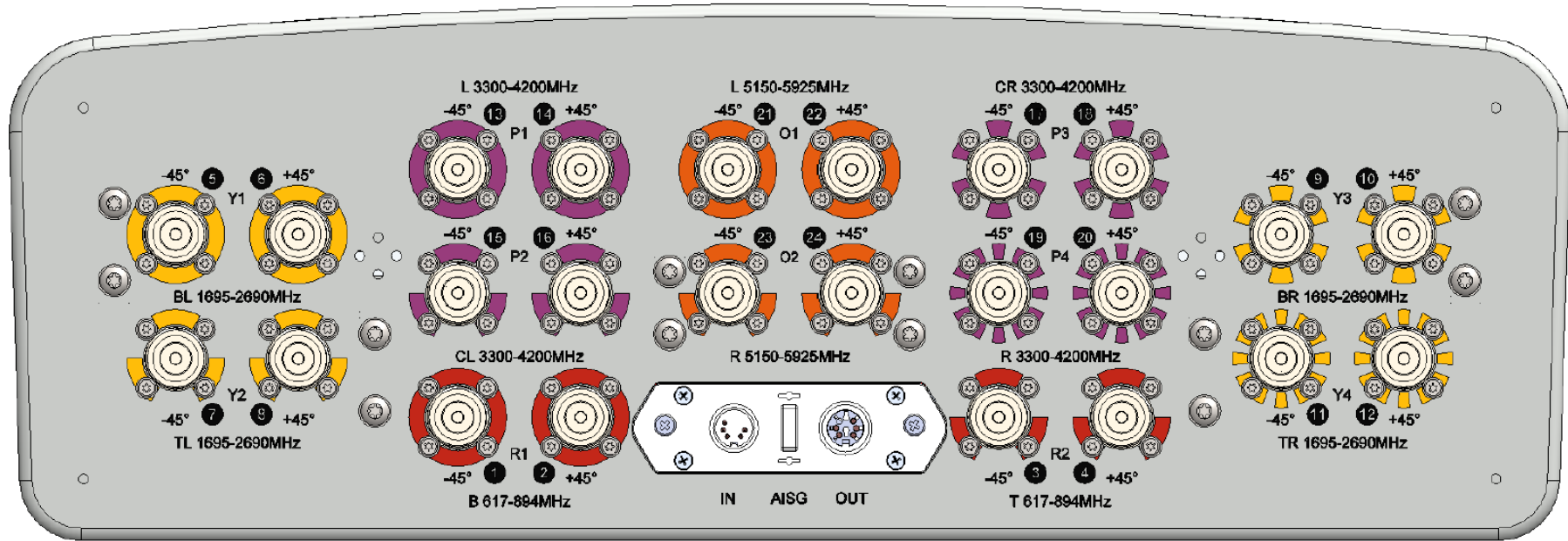
Note: Coloured box sizes do not represent antenna sizes.

Array	Frequency MHz	Ports	RET ID
R1	617 - 894	1 - 2	N/A
R2	617 - 894	3 - 4	N/A
Y1	1695-2690	5 - 6	1
Y2	1695-2690	7 - 8	1
Y3	1695-2690	9 - 10	2
Y4	1695-2690	11 - 12	2
P1	3300-4200	13 - 14	N/A
P2	3300-4200	15 - 16	N/A
P3	3300-4200	17 - 18	N/A
P4	3300-4200	19 - 20	N/A
O1	5150-5925	21 - 22	N/A
O2	5150-5925	23 - 24	N/A

Configuration	
617 - 894MHz	Fixed Tilt
1695-2690MHz	One RET for Two arrays: Y1, Y2 & Y3, Y4
3300-4200MHz	Fixed Tilt
5150-5925MHz	Fixed Tilt
Total Quantity	Two 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

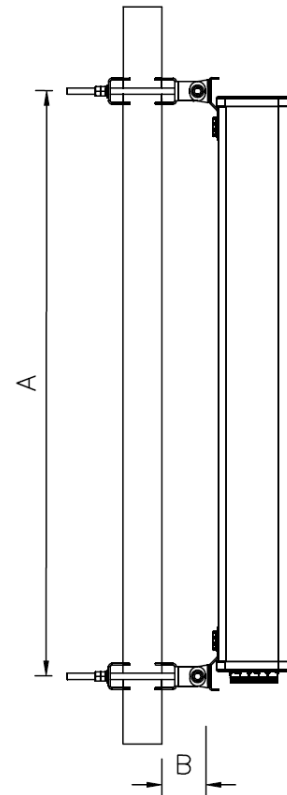
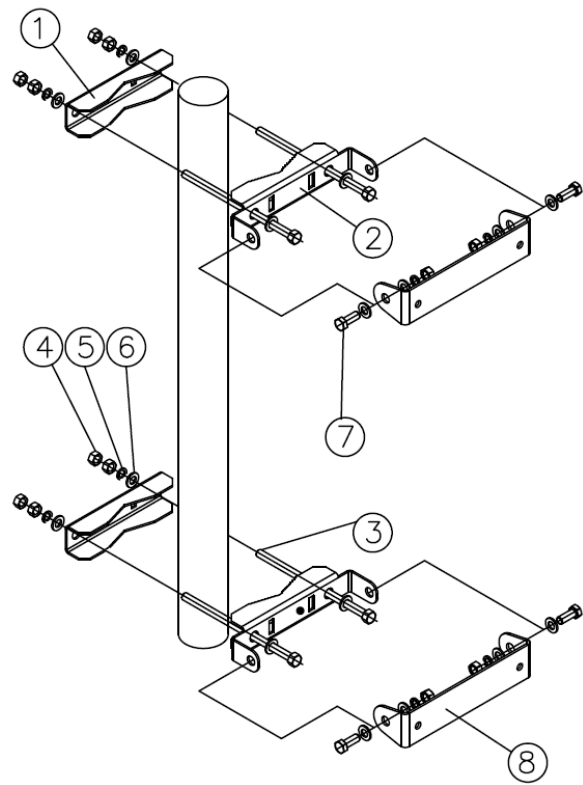
Mechanical Illustration



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-195 M8 Panel Bracket

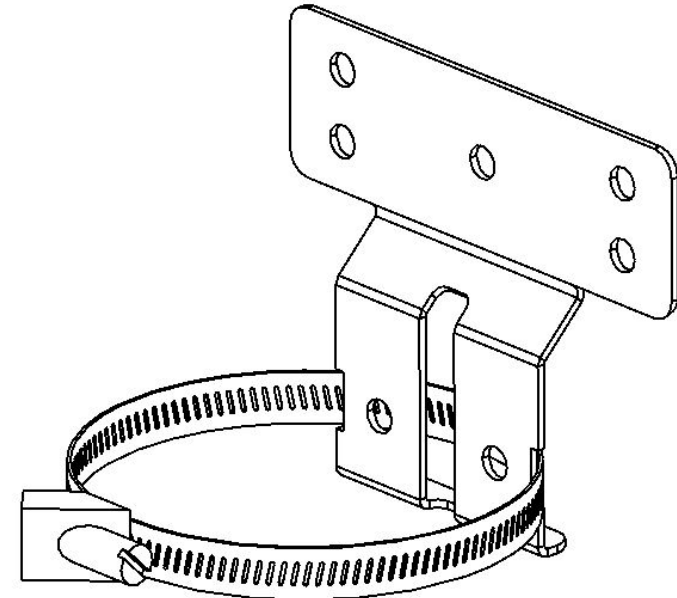
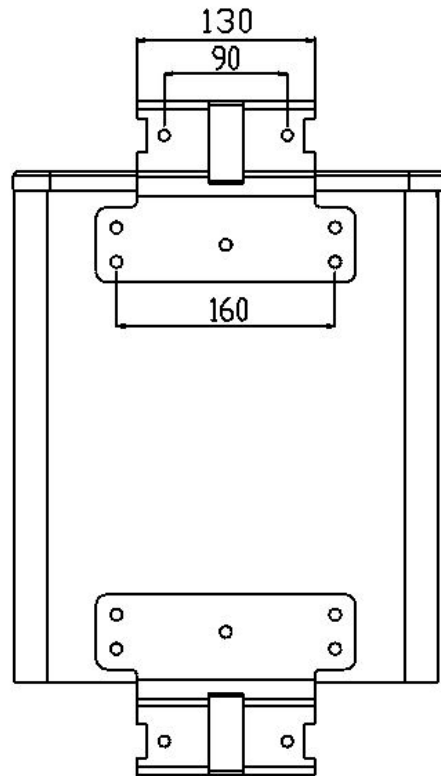


Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
0	Stainless Steel	50mm-115mm (2" to 4.5")

TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-119 (Mounting Kit included with Antenna) **Please Note** - Mounting Straps are not included with antenna



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
0°	Stainless Steel	50mm(2") to 241mm(9.5")

Ordering Info

Order Code - Antenna	Description
AW3725-E-F	Enclosed Remote Electrical Tilt (eRET) with 4.3-10 Connectors
Order Code - Accessories	Description
AW1012-2-FM-FM	RF Jumper Cable, connector types 4.3-10 (m) / 4.3-10 (m), length 2 metres (6'6")
AW1012-2-FM-NM	RF Jumper Cable, connector types 4.3-10 (m) / N-Type (m), length 2 metres (6'6")
AW1014-2-FM-TM	RF Jumper Cable, connector types 4.3-10 (m) / Nex10 (m), length 2 metres (6'6")
PADC 1000	Portable AISG Controller
SADC 2000	Site AISG Controller
AW0326-3-PM-PF	AISG Jumper Cable Lengths 3 metres (9' 10")
AW0326-10-PM-PF	AISG Jumper Cable Lengths 10 metres (32' 9")
AW0326-25-PM-PF	AISG Jumper Cable Lengths 25 metres (82')
AW0326-50-PM-PF	AISG Jumper Cable Lengths 50 metres (164')

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