

CCVWPX305.10R

Multiband Antenna, 2x 790–960 and 2x 1695–2690 MHz, 65° horizontal beamwidth, internal electrical tilt with manual override.



- Integrated Internal Remote Electrical Tilt (RET), with independent control of electrical tilt with manual override on all arrays
- All Internal RET actuators are connected in “Cascaded SRET” configuration

Electrical Specifications

Frequency Band, MHz	790–862 880–960		1695–1880	1850–1990	1920–2180	2300–2500	2500–2690
Gain, dBi	12.9	13.7	16.4	16.7	17.3	18.1	18.2
Beamwidth, Horizontal, degrees	72	63	63	67	69	63	64
Beamwidth, Vertical, degrees	17.8	16.4	8.2	7.5	7.1	6.1	5.7
Beam Tilt, degrees	0–10	0–10	0–10	0–10	0–10	0–10	0–10
USLS (First Lobe), dB	18	18	18	18	18	18	18
Front-to-Back Ratio at 180°, dB	35	35	34	38	37	38	40
Isolation, dB	28	28	28	28	28	28	28
Isolation, Intersystem, dB	28	28	28	28	28	28	28
VSWR Return Loss, dB	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-150	-150	-150	-150	-150	-150	-150
Input Power per Port, maximum, watts	300	300	250	250	250	250	250
Polarization	±45°	±45°	±45°	±45°	±45°	±45°	±45°
Impedance	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm

Electrical Specifications, BASTA*

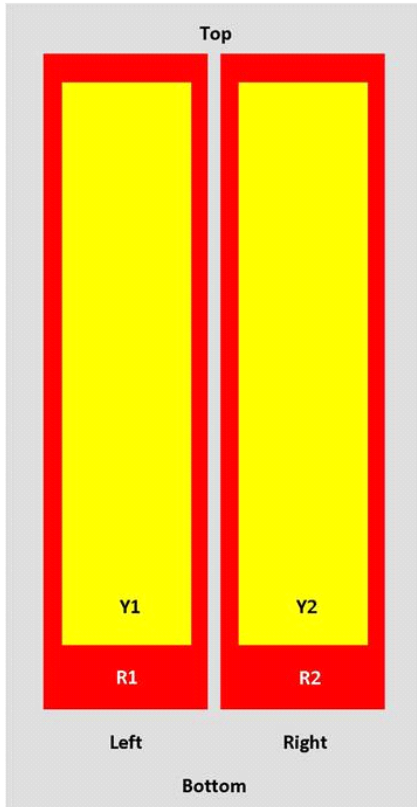
Frequency Band, MHz	790–862	880–960	1695–1880	1850–1990	1920–2180	2300–2500	2500–2690
Gain by all Beam Tilts, average, dBi	12.6	13.5	16.1	16.3	16.8	17.8	17.9
Gain by all Beam Tilts Tolerance, dB	±0.6	±0.2	±0.4	±0.4	±0.8	±0.4	±0.3
	0 ° 12.7	0 ° 13.5	0 ° 16.1	0 ° 16.3	0 ° 16.8	0 ° 17.9	0 ° 17.8
Gain by Beam Tilt, average, dBi	5 ° 12.6	5 ° 13.5	5 ° 16.1	5 ° 16.3	5 ° 16.8	5 ° 17.9	5 ° 17.9
	10 ° 12.6	10 ° 13.6	10 ° 16.2	10 ° 16.3	10 ° 16.7	10 ° 17.6	10 ° 17.8
Beamwidth, Horizontal Tolerance, degrees	±4.9	±5.4	±4.1	±8.5	±4.5	±3.3	±2.8
Beamwidth, Vertical Tolerance, degrees	±1	±0.8	±0.6	±0.4	±0.5	±0.2	±0.2
USLS, beampeak to 20° above beampeak, dB	17	18	18	16	17	16	17
Front-to-Back Total Power at 180° ± 30°, dB	22	23	28	31	30	32	32
CPR at Boresight, dB	23	19	19	21	19	18	19
CPR at Sector, dB	7	7	9	11	12	10	12

* CommScope® supports NGMN recommendations on Base Station Antenna Standards (BASTA). To learn more about the benefits of BASTA, [download the whitepaper Time to Raise the Bar on BSAs.](#)

Array Layout

CCWPX305.1OR

CCVVPX



Array	Freq (MHz)	Coms	RET (SRET)	AISG RET UID
R1	790-960	1-2	1	ARxxxxxxxxxxxxxxxxx1
R2	790-960	3-4	2	ARxxxxxxxxxxxxxxxxx2
Y1	1695-2690	5-6	3	ARxxxxxxxxxxxxxxxxx3
Y2	1695-2690	7-8	4	ARxxxxxxxxxxxxxxxxx4

View from the front of the antenna

(Sizes of colored boxes are not true depictions of array sizes)

General Specifications

Operating Frequency Band	1695 – 2690 MHz 790 – 960 MHz
Antenna Type	Sector
Band	Multiband
Performance Note	Outdoor usage

Mechanical Specifications

RF Connector Quantity, total	8
RF Connector Quantity, low band	4
RF Connector Quantity, high band	4
RF Connector Interface	7-16 DIN Female
Color	Gray

CCWPX305.10R

Grounding Type	RF connector inner conductor and body grounded to reflector and mounting bracket
Radiator Material	Low loss circuit board
Radome Material	Fiberglass, UV resistant
Reflector Material	Aluminum
RF Connector Location	Bottom
Wind Loading, frontal	867.0 N @ 150 km/h 194.9 lbf @ 150 km/h
Wind Loading, lateral	152.0 N @ 150 km/h 34.2 lbf @ 150 km/h
Wind Loading, rear	853.0 N @ 150 km/h 191.8 lbf @ 150 km/h
Wind Speed, maximum	241 km/h 150 mph

Dimensions

Length	1396.0 mm 55.0 in
Width	498.0 mm 19.6 in
Depth	197.0 mm 7.8 in
Net Weight, without mounting kit	28.0 kg 61.7 lb

Remote Electrical Tilt (RET) Information

Input Voltage	10–30 Vdc
Internal RET	High band (2) Low band (2)
Power Consumption, idle state, maximum	2.0 W
Power Consumption, normal conditions, maximum	13.0 W
Protocol	3GPP/AISG 2.0 (Single RET)
RET Interface	8-pin DIN Female 8-pin DIN Male
RET Interface, quantity	1 female 1 male

Packed Dimensions

Length	1570.0 mm 61.8 in
Width	565.0 mm 22.2 in
Depth	300.0 mm 11.8 in
Shipping Weight	46.0 kg 101.4 lb

Regulatory Compliance/Certifications

Agency	Classification
RoHS 2011/65/EU	Compliant by Exemption
China RoHS SJ/T 11364-2006	Above Maximum Concentration Value (MCV)
ISO 9001:2008	Designed, manufactured and/or distributed under this quality management system



Included Products

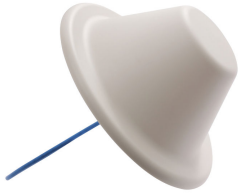
CCWPX305.1OR

T-041-GL-E — Adjustable Tilt Pipe Mounting Kit for 2.0"-4.5" (50-115mm) OD round members for panel antennas. Includes 2 clamp sets.

* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance
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CELLMAX-O-CPUSEI



Cell-Max™ Omni In-building Antenna, 698–960 MHz and 1710–2700 MHz

Product Classification

Product Type	In-building antenna
Product Brand	Cell-Max™

General Specifications

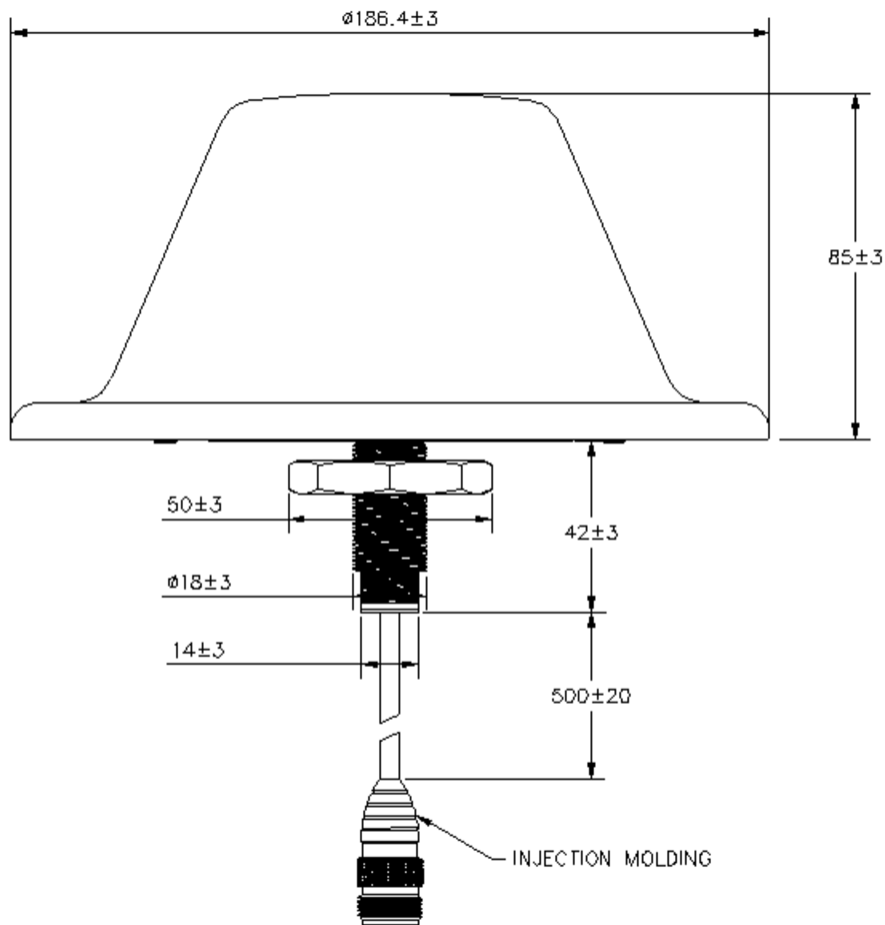
Antenna Type	Omni
Application	Indoor
Color	White
Mounting	Thru-hole ceiling mount (optional)
Pigtail Cable	670-141SXE, plenum rated
RF Connector Interface	N Female

Dimensions

Height	85 mm 3.346 in
Pigtail Length	500 mm 19.685 in
Outer Diameter	186 mm 7.323 in

CELLMAX-O-CPUSEI

Outline Drawing



Electrical Specifications

Electrical Note	PIM specifications are less than or equal to the stated value	
Impedance	50 ohm	
Operating Frequency Band	1710 – 2700 MHz	698 – 960 MHz
Polarization	Vertical	

Electrical Specifications

Frequency Band, MHz	698–800	800–960	1710–2700
Gain, dBi	2	2	5
Beamwidth, Horizontal, degrees	360	360	360

CELLMAX-O-CPUSEI

VSWR Return loss, dB	1.8 10.9	1.5 14.0	1.5 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-140	-140	-140
Input Power per Port, maximum, watts	50	50	50

Material Specifications

Radome Material ABS

Environmental Specifications

Operating Temperature -40 °C to +60 °C (-40 °F to +140 °F)

Relative Humidity Up to 100%

Packaging and Weights

Height, packed 135 mm | 5.315 in

Width, packed 195 mm | 7.677 in

Length, packed 195 mm | 7.677 in

Packaging quantity 1

Weight, gross 0.4 kg | 0.882 lb

Weight, net 0.3 kg | 0.661 lb

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
ROHS	Compliant



CMAX-DM60-43-V53



Cell-Max™ Low PIM Directional High Capacity Venue MIMO Antenna, 698–960 MHz and 1710–2700 MHz, 60°, 8.0 dBi

Product Classification

Product Type	Indoor/outdoor antenna
Product Brand	Cell-Max™

General Specifications

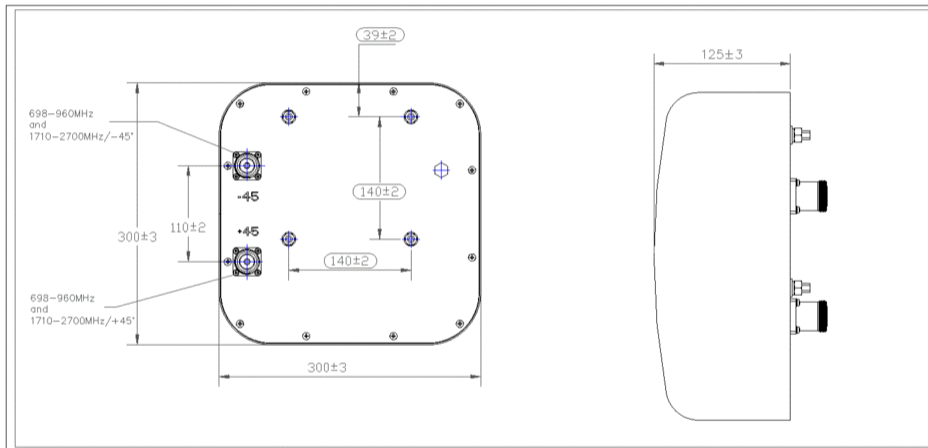
Antenna Type	Directional
Application	Indoor Outdoor
Color	White
Number of Ports, all types	2
RF Connector Interface	4.3-10 Female

Dimensions

Width	299.7 mm 11.799 in
Length	299.7 mm 11.799 in
Depth	124.5 mm 4.902 in

CMAX-DM60-43-V53

Outline Drawing



Electrical Specifications

Impedance	50 ohm
Lightning Protection	dc Ground
Polarization	±45°

Electrical Specifications

Frequency Band, MHz	698–800	800–960	1695–1880	1850–1990	1920–2180	2200–2700	2300–2360
Gain, dBi	8.6	9.2	9.3	9.1	9.3	9.7	9.4
Beamwidth, Horizontal, degrees	60	59	55	54	56	59	61
Beamwidth, Vertical, degrees	61	58	56	58	58	57	59

CMAX-DM60-43-V53

Front-to-Back Total Power at 180° ± 30°, dB	24	26	24	26	28	26	28
CPR at Boresight, dB	24	24	20	20	20	20	20
Isolation, Cross Polarization, dB	30	30	30	30	30	30	30
VSWR Return loss, dB	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153	-153
Input Power per Port, maximum, watts	200	200	200	200	200	200	200

Material Specifications

Radome Material ABS, UV resistant

Mechanical Specifications

Wind Loading at Velocity, maximum 294.0 N @ 216 km/h | 66.1 lbf @ 216 km/h

Wind Speed, maximum 216 km/h | 134.216 mph

Environmental Specifications

Operating Temperature -40 °C to +60 °C (-40 °F to +140 °F)

Relative Humidity Up to 100%

Ingress Protection Test Method IEC 60529:2001, IP65

Vibration Test Method ASTM D4169 | IEC 60068-2-6

Packaging and Weights

Width, packed 350 mm | 13.78 in

Depth, packed 230 mm | 9.055 in

Length, packed 520 mm | 20.472 in

Included Mounting bracket

Packaging quantity 1

Weight, gross 7.3 kg | 16.094 lb

Weight, net 2.9 kg | 6.393 lb

CMAX-DM60-CPUSEV53



Cell-Max™ Low PIM Directional High Capacity Venue MIMO Antenna, 698–960 MHz and 1710–2700 MHz, 60°, 8.0 dBi

Product Classification

Product Type	Indoor/outdoor antenna
Product Brand	Cell-Max™

General Specifications

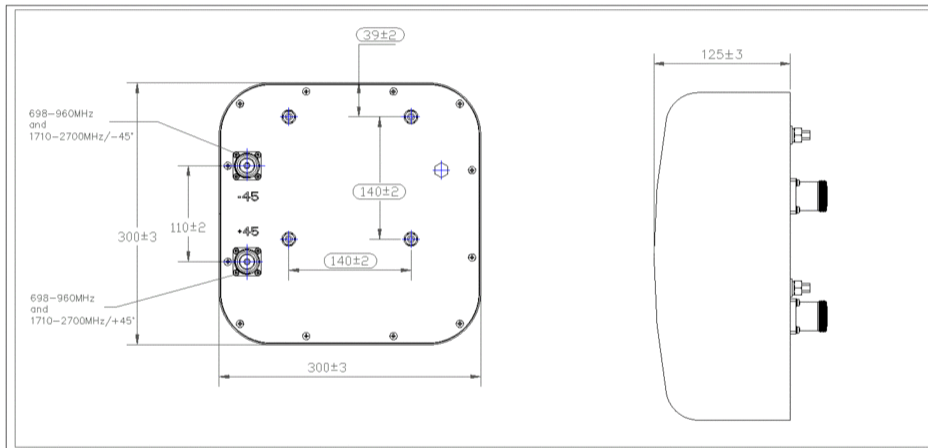
Antenna Type	Directional
Application	Indoor Outdoor
Color	White
Number of Ports, all types	2
RF Connector Interface	7-16 DIN Female

Dimensions

Width	299.7 mm 11.799 in
Length	299.7 mm 11.799 in
Depth	124.5 mm 4.902 in

CMAX-DM60-CPUSEV53

Outline Drawing



Electrical Specifications

Impedance	50 ohm
Lightning Protection	dc Ground
Polarization	±45°

Electrical Specifications

Frequency Band, MHz	698–800	800–960	1695–1880	1850–1990	1920–2180	2200–2700	2300–2360
Gain, dBi	8.6	9.2	9.3	9.1	9.3	9.7	9.4
Beamwidth, Horizontal, degrees	60	59	55	54	56	59	61
Beamwidth, Vertical, degrees	61	58	56	58	58	57	59

CMAX-DM60-CPUSEV53

Front-to-Back Total Power at 180° ± 30°, dB	24	26	24	26	28	26	28
CPR at Boresight, dB	24	24	20	20	20	20	20
Isolation, Cross Polarization, dB	30	30	30	30	30	30	30
VSWR Return loss, dB	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153	-153
Input Power per Port, maximum, watts	200	200	200	200	200	200	200

Material Specifications

Radome Material ABS, UV resistant

Mechanical Specifications

Wind Loading at Velocity, maximum 294.0 N @ 216 km/h | 66.1 lbf @ 216 km/h

Wind Speed, maximum 216 km/h | 134.216 mph

Environmental Specifications

Operating Temperature -40 °C to +60 °C (-40 °F to +140 °F)

Relative Humidity Up to 100%

Ingress Protection Test Method IEC 60529:2001, IP65

Vibration Test Method ASTM D4169 | IEC 60068-2-6

Packaging and Weights

Width, packed 350 mm | 13.78 in

Depth, packed 230 mm | 9.055 in

Length, packed 520 mm | 20.472 in

Included Mounting bracket

Packaging quantity 1

Weight, gross 7.7 kg | 16.976 lb

Weight, net 2.9 kg | 6.393 lb

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Above maximum concentration value
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant/Exempted

CMAX-DM60-CPUSEV53



CMAX-EXT-43-153

Cell-Max™ Low PIM Directional Outdoor Antenna, 698–960 MHz and 1710–2700 MHz, 4.3-10

Product Classification

Product Type	Indoor/outdoor antenna
Product Brand	Cell-Max™

General Specifications

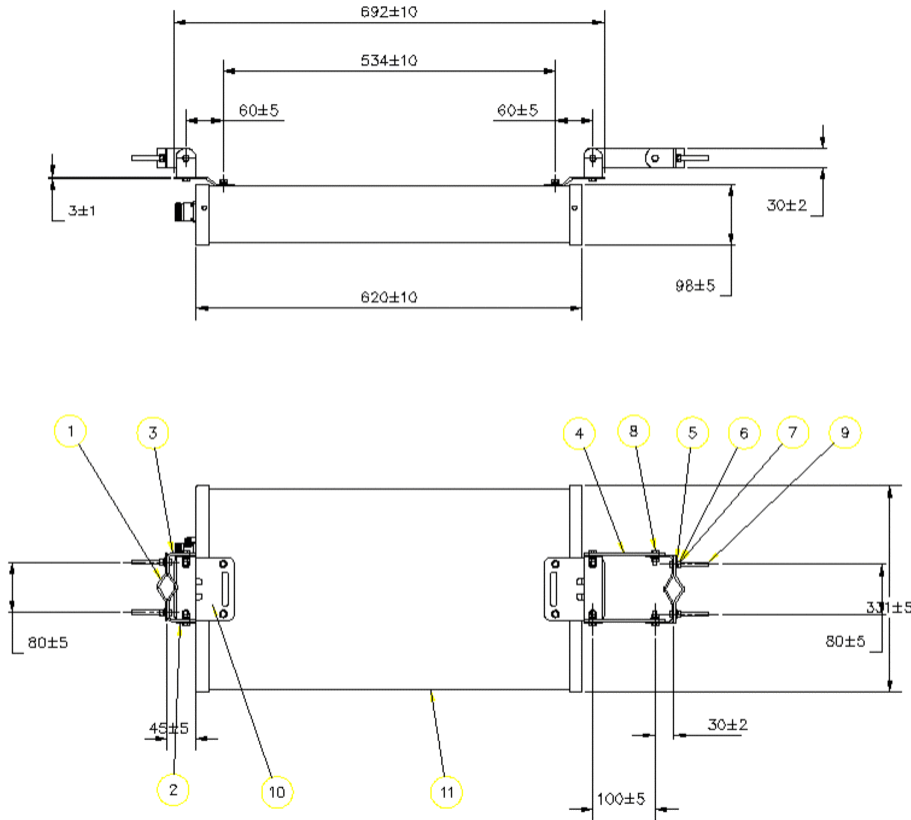
Antenna Type	Directional
Application	Outdoor
Color	White
Mounting	Poles between 25–60 mm with supplied clamps
Number of Ports, all types	1
RF Connector Interface	4.3-10 Female

Dimensions

Width	331 mm 13.032 in
Length	620 mm 24.409 in
Depth	98 mm 3.858 in

CMAX-EXT-43-153

Outline Drawing



Electrical Specifications

Impedance	50 ohm
Lightning Protection	dc Ground
Operating Frequency Band	1710 – 2700 MHz 698 – 960 MHz
Polarization	Vertical

Electrical Specifications

Frequency Band, MHz	698–800	800–960	1710–2200	2200–2700
Gain, dBi	10	11	11	11
Beamwidth, Horizontal, degrees	68	60	60	52

CMAX-EXT-43-153

Beamwidth, Vertical, degrees	30	28	30	30
Front-to-Back Ratio at 180°, dB	18	18	20	20
VSWR Return loss, dB	1.8 10.9	1.8 10.9	1.8 10.9	1.8 10.9
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153
Input Power per Port, maximum, watts	100	100	100	100

Material Specifications

Radome Material PVC, UV resistant

Mechanical Specifications

Wind Loading at Velocity, maximum 154.2 lbf @ 216 km/h | 686.0 N @ 216 km/h

Wind Speed, maximum 216 km/h | 134.216 mph

Environmental Specifications

Operating Temperature -40 °C to +60 °C (-40 °F to +140 °F)

Relative Humidity Up to 100%

Ingress Protection Test Method IEC 60529:2001, IP66

Packaging and Weights

Width, packed 350 mm | 13.78 in

Depth, packed 160 mm | 6.299 in

Length, packed 830 mm | 32.677 in

Packaging quantity 1

Weight, gross 7.4 kg | 16.314 lb

Weight, net 4.7 kg | 10.362 lb

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant



LDX-3319DS-VTM | LDX-3319DS-A1M



2-port sector antenna, 2x 790–960 MHz, 33° HPBW, RET compatible

- Narrow horizontal beamwidth ideal for corridor coverage or six sector solutions
- Azimuth sidelobe suppression greater than 18 dB

General Specifications

Antenna Type	Sector
Band	Single band
Color	Light gray
Grounding Type	RF connector inner conductor and body grounded to reflector and mounting bracket
Performance Note	Outdoor usage
RF Connector Interface	7-16 DIN Female
RF Connector Location	Bottom
RF Connector Quantity, low band	2
RF Connector Quantity, total	2

Remote Electrical Tilt (RET) Information, General

Model with Factory Installed AISG 2.0 Actuator	LDX-3319DS-A1M
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Dimensions

Width	591 mm 23.268 in
Length	2581 mm 101.614 in
Depth	182 mm 7.165 in

Array Layout



Array	Freq (MHz)	Conns
R1	790-960	1-2

Bottom

(Sizes of colored boxes are not true depictions of array sizes)

Electrical Specifications

Operating Frequency Band

790 – 960 MHz

Electrical Specifications

Frequency Band, MHz	790–806	806–896	870–960
Gain, dBi	19.4	19.8	20.5
Beamwidth, Horizontal, degrees	35	35	34
Beamwidth, Vertical, degrees	7.9	7.5	7.1
Beam Tilt, degrees	0–8	0–8	0–8
USLS (First Lobe), dB	14	15	14
Front-to-Back Ratio at 180°, dB	31	33	35
Isolation, Cross Polarization, dB	27	30	30

LDX-3319DS-VTM | LDX-3319DS-A1M

VSWR Return loss, dB	1.4 15.6	1.4 15.6	1.4 15.6
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153
Input Power per Port, maximum, watts	300	300	300

Electrical Specifications, BASTA

Frequency Band, MHz	790–806	806–896	870–960
Gain by all Beam Tilts, average, dBi	19.4	19.6	19.9
Gain by all Beam Tilts Tolerance, dB	±0.2	±0.3	±0.4
Gain by Beam Tilt, average, dBi	0° 19.2 8° 19.3 4° 19.4	0° 19.5 4° 19.6 8° 19.6	0° 19.8 4° 20.0 8° 19.9
Beamwidth, Horizontal Tolerance, degrees	±1.7	±1.1	±1.1
Beamwidth, Vertical Tolerance, degrees	±0.2	±0.4	±0.3
USLS, beampeak to 20° above beampeak, dB	14	14	15
Front-to-Back Total Power at 180° ± 30°, dB	27	30	31
CPR at Boresight, dB	20	17	15

Material Specifications

Radiator Material	Aluminum
Radome Material	Fiberglass, UV resistant

Mechanical Specifications

Wind Loading at Velocity, frontal	1,149.0 N @ 150 km/h 258.3 lbf @ 150 km/h
Wind Loading at Velocity, lateral	230.0 N @ 150 km/h 51.7 lbf @ 150 km/h
Wind Speed, maximum	241 km/h 149.75 mph

Packaging and Weights

Width, packed	782 mm 30.787 in
Depth, packed	346 mm 13.622 in
Length, packed	3020 mm 118.898 in
Net Weight, without mounting kit	29 kg 63.934 lb
Weight, gross	50.5 kg 111.333 lb

Regulatory Compliance/Certifications

Agency	Classification
CE	Compliant with the relevant CE product directives
CHINA-ROHS	Below maximum concentration value

LDX-3319DS-VTM | LDX-3319DS-A1M

ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant



Included Products

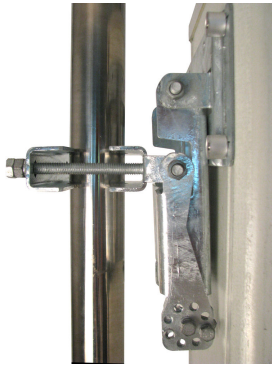
BSAMNT-3 — Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

BSAMNT-M — Middle Downtilt Mounting Kit for Long Antennas for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor bracket set.

* Footnotes

Performance Note Severe environmental conditions may degrade optimum performance

BSAMNT-3



Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

General Specifications

Application	Outdoor
Color	Silver

Dimensions

Compatible Diameter, maximum	114.3 mm 4.5 in
Compatible Diameter, minimum	61 mm 2.402 in

Material Specifications

Material Type	Galvanized steel
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Packaging and Weights

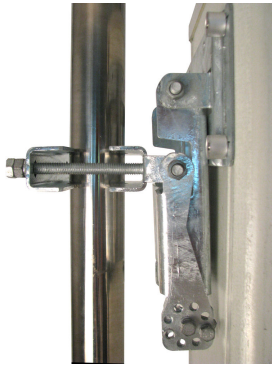
Included	Brackets Hardware
Packaging quantity	1

Regulatory Compliance/Certifications

Agency	Classification
CE	Compliant with the relevant CE product directives
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant



BSAMNT-M



Middle Downtilt Mounting Kit for Long Antennas for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor bracket set.

General Specifications

Application	Outdoor
Color	Silver

Dimensions

Compatible Diameter, maximum	114.3 mm 4.5 in
Compatible Diameter, minimum	61 mm 2.402 in

Material Specifications

Material Type	Galvanized steel
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Packaging and Weights

Included	Brackets Hardware
Packaging quantity	1

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant



LDXX-9013DS-VTM

4-port sector antenna, 4x 790–960 MHz, 90° HPBW, RET compatible

- Two DualPol® antennas under one radome
- Each DualPol® array can be independently adjusted for greater flexibility
- Engineered to provide wideband capability to support “Digital Dividend” band applications, future ready

General Specifications

Antenna Type	Sector
Band	Single band
Color	Light gray
Grounding Type	RF connector inner conductor and body grounded to reflector and mounting bracket
Performance Note	Outdoor usage
RF Connector Interface	7-16 DIN Female
RF Connector Location	Bottom
RF Connector Quantity, low band	4
RF Connector Quantity, total	4

Dimensions

Width	549 mm 21.614 in
Length	1830 mm 72.047 in
Depth	165 mm 6.496 in

Electrical Specifications

Operating Frequency Band	790 – 960 MHz
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Electrical Specifications

Frequency Band, MHz	790–862	824–894	870–960
Gain, dBi	14.4	14.8	15.3
Beamwidth, Horizontal, degrees	88.9	86.4	83
Beamwidth, Vertical, degrees	11.3	11.1	10.5
Beam Tilt, degrees	0–10	0–10	0–10
USLS (First Lobe), dB	14	14	15

LDXX-9013DS-VTM

Front-to-Back Ratio at 180°, dB	26	27	27
CPR at Boresight, dB	18	18	19
CPR at Sector, dB	10	11	11
Isolation, Cross Polarization, dB	30	30	30
VSWR Return loss, dB	1.5 14.0	1.5 14.0	1.5 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-150	-150	-150
Input Power per Port, maximum, watts	300	300	300

Electrical Specifications, BASTA

Frequency Band, MHz	790–862	824–894	870–960
Gain by all Beam Tilts, average, dBi	14	14.3	14.9
Gain by all Beam Tilts Tolerance, dB	±0.4	±0.6	±0.6
Gain by Beam Tilt, average, dBi	0° 14.1 5° 14.1 10° 13.8	0° 14.4 5° 14.4 10° 14.0	0° 15.1 5° 15.0 10° 14.6
Beamwidth, Horizontal Tolerance, degrees	±4.2	±5.1	±3.7
Beamwidth, Vertical Tolerance, degrees	±0.5	±0.5	±0.8
USLS, beampeak to 20° above beampeak, dB	16	16	16
Front-to-Back Total Power at 180° ± 30°, dB	23	23	23
CPR at Boresight, dB	21	20	21
CPR at Sector, dB	11	12	11

Material Specifications

Radiator Material	Aluminum
Radome Material	Fiberglass, UV resistant

Mechanical Specifications

Wind Loading at Velocity, frontal	1,188.0 N @ 150 km/h 267.1 lbf @ 150 km/h
Wind Loading at Velocity, lateral	189.0 N @ 150 km/h 42.5 lbf @ 150 km/h
Wind Speed, maximum	241 km/h 149.75 mph

Packaging and Weights

Width, packed	711 mm 27.992 in
Depth, packed	333 mm 13.11 in
Length, packed	2249 mm 88.543 in
Net Weight, without mounting kit	30 kg 66.139 lb
Weight, gross	49.5 kg 109.129 lb

LDCX-9013DS-VTM

Regulatory Compliance/Certifications

Agency	Classification
CE	Compliant with the relevant CE product directives
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant



Included Products

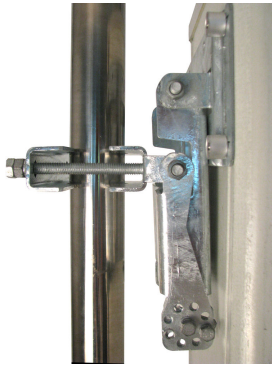
BSAMNT-3 — Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

BSAMNT-M — Middle Downtilt Mounting Kit for Long Antennas for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor bracket set.

* Footnotes

Performance Note Severe environmental conditions may degrade optimum performance

BSAMNT-3



Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

General Specifications

Application Outdoor
Color Silver

Dimensions

Compatible Diameter, maximum 114.3 mm | 4.5 in
Compatible Diameter, minimum 61 mm | 2.402 in

Material Specifications

Material Type Galvanized steel

Packaging and Weights

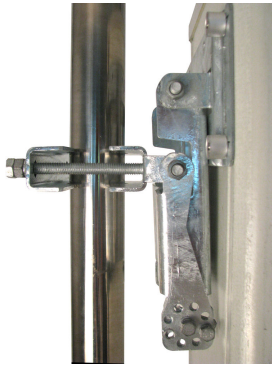
Included Brackets | Hardware
Packaging quantity 1

Regulatory Compliance/Certifications

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ROHS	Compliant



BSAMNT-M



Middle Downtilt Mounting Kit for Long Antennas for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor bracket set.

General Specifications

Application	Outdoor
Color	Silver

Dimensions

Compatible Diameter, maximum	114.3 mm 4.5 in
Compatible Diameter, minimum	61 mm 2.402 in

Material Specifications

Material Type	Galvanized steel
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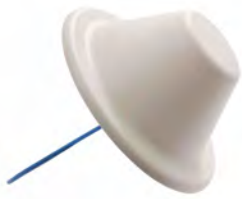
Packaging and Weights

Included	Brackets Hardware
Packaging quantity	1

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant





CELLMAX-O-CPUSEi

Cell-Max™ Omni In-building Antenna, 698–960 MHz and 1710–2700 MHz

Electrical Specifications

Frequency Band, MHz	698–800	800–960	1710–2700
Gain, dBi	2.0	2.0	5.0
Beamwidth, Horizontal, degrees	360	360	360
VSWR Return Loss, dB	1.8 10.9	1.5 14.0	1.5 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-140	-140	-140
Input Power per Port, maximum, watts	50	50	50
Polarization	Vertical	Vertical	Vertical
Impedance	50 ohm	50 ohm	50 ohm

General Specifications

Antenna Type	Omni
Application	Indoor
Operating Frequency Band	1710 – 2700 MHz 698 – 960 MHz
Brand	Cell-Max™
Mount Type	Thru-hole ceiling mount (optional)
Package Quantity	1
Pigtail Cable	670-141SXE, plenum rated

Electrical Specifications

Electrical Note	PIM specifications are less than or equal to the stated value
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Mechanical Specifications

Color	White
Pigtail Length	500.0 mm 19.7 in
Radome Material	ABS, UV resistant
RF Connector Interface	N Female

Environmental Specifications

Operating Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Relative Humidity	Up to 100%

Dimensions

Height	85.00 mm 3.35 in
Outer Diameter	186.0 mm 7.3 in
Net Weight	0.3 kg 0.7 lb

Packed Dimensions

Height	135.00 mm 5.31 in
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Product Specifications

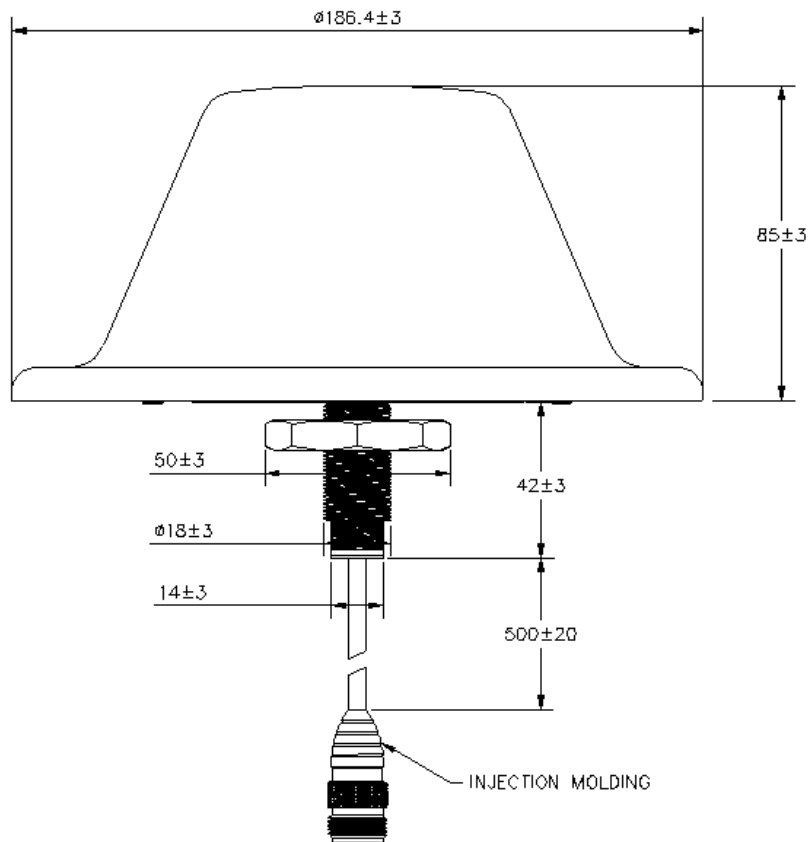


CELLMAX-OCPUSEi

Length	195.0 mm 7.7 in
Width	195.0 mm 7.7 in
Shipping Weight	0.4 kg 1.0 lb

CELLMAX-O-CPUSEi

Outline Drawing



Regulatory Compliance/Certifications

Agency

RoHS 2011/65/EU
ISO 9001:2008

Classification

Compliant by Exemption
Designed, manufactured and/or distributed under this quality management system



RVV-33B-R3



6-port sector antenna, 2x 694–960 and 4x 1695–2690 MHz, 33° HPBW, 3x RET

- All Internal RET actuators are connected in “Cascaded SRET” configuration

General Specifications

Antenna Type	Sector
Band	Multiband
Grounding Type	RF connector inner conductor and body grounded to reflector and mounting bracket
Performance Note	Outdoor usage Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN
RF Connector Interface	4.3-10 Female
RF Connector Location	Bottom
RF Connector Quantity, high band	4
RF Connector Quantity, low band	2
RF Connector Quantity, total	6

Remote Electrical Tilt (RET) Information, General

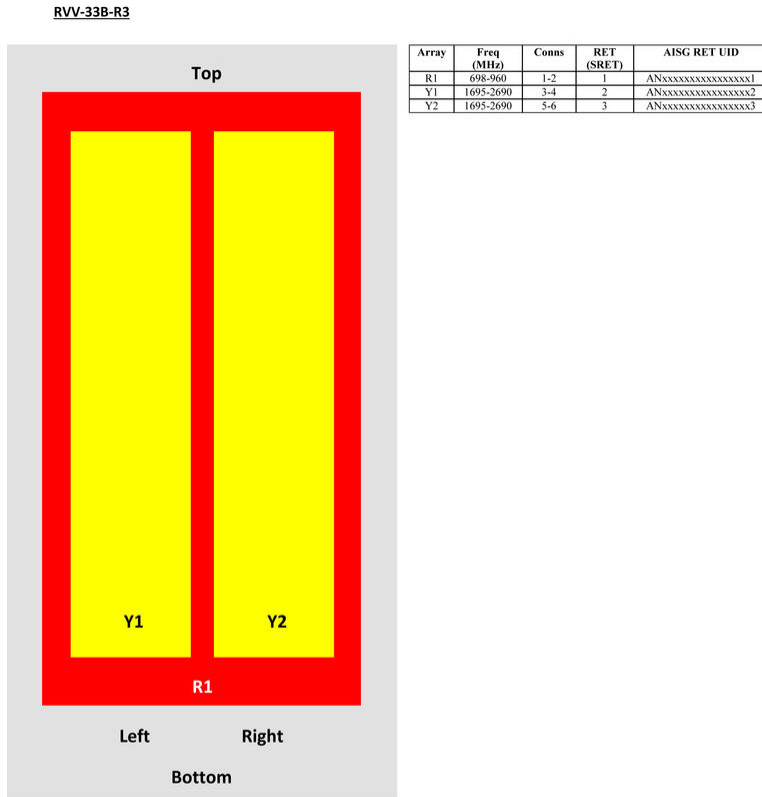
RET Interface	8-pin DIN Female 8-pin DIN Male
RET Interface, quantity	1 female 1 male

Dimensions

Width	640 mm 25.197 in
Length	1830 mm 72.047 in
Depth	235 mm 9.252 in

Array Layout

RVV-33B-R3



View from the front of the antenna
(Sizes of colored boxes are not true depictions of array sizes)

Electrical Specifications

Operating Frequency Band 1695 – 2690 MHz | 694 – 960 MHz

Total Input Power, maximum 900 W @ 50 °C

Remote Electrical Tilt (RET) Information, Electrical

Protocol 3GPP/AISG 2.0 (Single RET)

Power Consumption, idle state, maximum 2 W

Power Consumption, normal conditions, maximum 13 W

Input Voltage 10–30 Vdc

Internal RET High band (2) | Low band (1)

Electrical Specifications

RVV-33B-R3

Frequency Band, MHz	694–790	790–890	890–960	1695–1920	1920–2200	2300–2500	2500–2690
Gain, dBi	17.7	18.3	18.7	20	20.8	21.6	21.5
Beamwidth, Horizontal, degrees	37	32	30	35	33	28	26
Beamwidth, Vertical, degrees	12.5	11.3	10.5	5.7	5.1	4.5	4.2
Beam Tilt, degrees	2–13	2–13	2–13	2–12	2–12	2–12	2–12
Horizontal Sidelobe, dB	21	20	21	19	18	17	16
USLS (First Lobe), dB	20	20	20	19	20	17	18
Front-to-Back Ratio at 180°, dB	33	35	35	35	36	34	35
Isolation, Cross Polarization, dB	28	26	26	28	28	28	28
Isolation, Inter-band, dB	30	30	30	30	30	30	30
VSWR Return loss, dB	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-150	-150	-150	-150	-150	-150	-150
Input Power per Port at 50° C, maximum, watts	300	300	300	200	200	200	200

Electrical Specifications, BASTA

Frequency Band, MHz	694–790	790–890	890–960	1695–1920	1920–2200	2300–2500	2500–2690
Gain by all Beam Tilts, average, dBi	17.2	18.1	18.5	19.6	20.3	21.2	21.1
Gain by all Beam Tilts Tolerance, dB	±0.5	±0.3	±0.4	±0.7	±0.6	±0.5	±0.6
Gain by Beam Tilt, average, dBi	2° 17.2 8° 17.3 13° 17.2	2° 18.0 8° 18.2 13° 18.0	2° 18.4 8° 18.6 13° 18.4	2° 19.1 7° 19.6 12° 19.7	2° 19.8 7° 20.4 12° 20.5	2° 20.6 7° 21.3 12° 21.3	2° 20.3 7° 21.3 12° 21.3
Beamwidth, Horizontal Tolerance, degrees	±2.6	±1.9	±1.2	±1.4	±2.1	±2.3	±0.8
Beamwidth, Vertical Tolerance, degrees	±0.8	±0.6	±0.3	±0.4	±0.3	±0.3	±0.3
USLS, beampeak to 20° above beampeak, dB	20	20	19	17	19	17	17
Front-to-Back Total Power at 180° ± 30°, dB	27	28	27	28	28	29	29
CPR at Boresight, dB	20	20	18	19	21	20	22
CPR at 10 dB Horizontal Beamwidth, dB	11	9	17	14	14	12	11

Material Specifications

Radiator Material

Aluminum | Low loss circuit board

Radome Material

Fiberglass, UV resistant

RVV-33B-R3

Reflector Material Aluminum

Mechanical Specifications

Wind Loading at Velocity, frontal 172.7 lbf @ 150 km/h | 765.0 N @ 150 km/h
Wind Loading at Velocity, lateral 251.0 N @ 150 km/h | 56.4 lbf @ 150 km/h
Wind Loading at Velocity, maximum 1,041.0 N @ 150 km/h | 234.0 lbf @ 150 km/h
Wind Speed, maximum 241 km/h | 149.75 mph

Packaging and Weights

Width, packed 797 mm | 31.378 in
Depth, packed 402 mm | 15.827 in
Length, packed 1982 mm | 78.032 in
Net Weight, without mounting kit 44 kg | 97.003 lb
Weight, gross 70.7 kg | 155.867 lb

Regulatory Compliance/Certifications

Agency	Classification
CE	Compliant with the relevant CE product directives
CHINA-ROHS	Above maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant/Exempted



Included Products

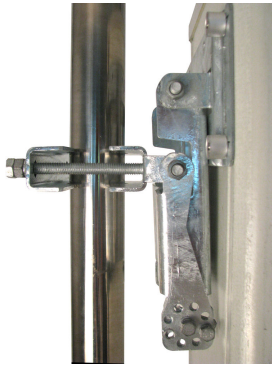
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BSAMNT-M — Middle Downtilt Mounting Kit for Long Antennas for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor bracket set.

* Footnotes

Performance Note Severe environmental conditions may degrade optimum performance

BSAMNT-3



Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

General Specifications

Application	Outdoor
Color	Silver

Dimensions

Compatible Diameter, maximum	114.3 mm 4.5 in
Compatible Diameter, minimum	61 mm 2.402 in

Material Specifications

Material Type	Galvanized steel
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Packaging and Weights

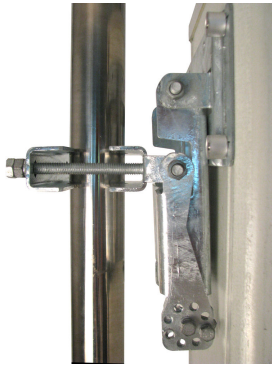
Included	Brackets Hardware
Packaging quantity	1

Regulatory Compliance/Certifications

Agency	Classification
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REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant



BSAMNT-M



Middle Downtilt Mounting Kit for Long Antennas for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor bracket set.

General Specifications

Application	Outdoor
Color	Silver

Dimensions

Compatible Diameter, maximum	114.3 mm 4.5 in
Compatible Diameter, minimum	61 mm 2.402 in

Material Specifications

Material Type	Galvanized steel
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Packaging and Weights

Included	Brackets Hardware
Packaging quantity	1

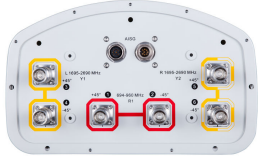
Regulatory Compliance/Certifications

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REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant



RVV65B-C3-3XR

6-port sector antenna, 2x 694–960 and 4x 1695–2690 MHz, 65° HPBW, 3x RET



- All Internal RET actuators are connected in “Cascaded SRET” configuration
- Uses the 4.3-10 connector which is 40 percent smaller than the 7-16 DIN connector

General Specifications

Antenna Type	Sector
Band	Multiband
Grounding Type	RF connector inner conductor and body grounded to reflector and mounting bracket
Performance Note	Outdoor usage Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN
RF Connector Interface	4.3-10 Female
RF Connector Location	Bottom
RF Connector Quantity, high band	4
RF Connector Quantity, low band	2
RF Connector Quantity, total	6

Remote Electrical Tilt (RET) Information, General

RET Interface	8-pin DIN Female 8-pin DIN Male
RET Interface, quantity	1 female 1 male

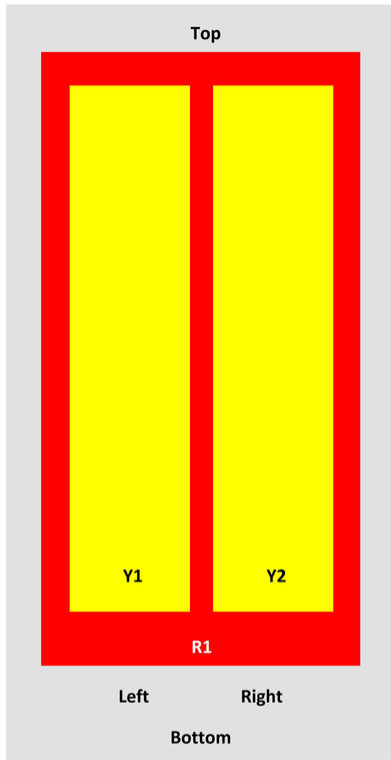
Dimensions

Width	301 mm 11.85 in
Length	1850 mm 72.835 in
Depth	180 mm 7.087 in

Array Layout

RVV65B-C3-3XR

RVV65B-C3-3XR, RVV65D-C3-3XR



Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	694-960	1-2	1	ANXXXXXXXXXXXXX1
Y1	1695-2690	3-4	2	ANXXXXXXXXXXXXX2
Y2	1695-2690	5-6	3	ANXXXXXXXXXXXXX3

View from the front of the antenna
(Sizes of colored boxes are not true depictions of array sizes)

Electrical Specifications

Operating Frequency Band	1695 – 2690 MHz 694 – 960 MHz
Total Input Power, maximum	500 W @ 50 °C

Remote Electrical Tilt (RET) Information, Electrical

Protocol	3GPP/AISG 2.0 (Single RET)
Power Consumption, idle state, maximum	2 W
Power Consumption, normal conditions, maximum	13 W
Input Voltage	10–30 Vdc
Internal RET	High band (2) Low band (1)

Electrical Specifications

RVV65B-C3-3XR

Frequency Band, MHz	694–790	790–890	890–960	1695–1920	1920–2180	2300–2500	2500–2690
Gain, dBi	15.2	15.5	15.4	18.3	19.1	19.4	19.3
Beamwidth, Horizontal, degrees	71	71	68	63	61	61	62
Beamwidth, Vertical, degrees	11.7	10.5	9.9	5.6	5	4.3	4.1
Beam Tilt, degrees	0–13	0–13	0–13	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	16	16	16	21	19	20	17
Front-to-Back Ratio at 180°, dB	29	34	30	30	33	35	32
Isolation, Cross Polarization, dB	28	28	28	28	28	28	28
Isolation, Inter-band, dB	30	30	30	30	30	30	30
VSWR Return loss, dB	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-150	-150	-150	-150	-150	-150	-150
Input Power per Port at 50° C, maximum, watts	300	300	300	250	250	250	250

Electrical Specifications, BASTA

Frequency Band, MHz	694–790	790–890	890–960	1695–1920	1920–2180	2300–2500	2500–2690
Gain by all Beam Tilts, average, dBi	14.9	15.3	15.2	17.7	18.7	19.1	18.9
Gain by all Beam Tilts Tolerance, dB	±0.4	±0.3	±0.5	±0.9	±0.5	±0.4	±0.6
Gain by Beam Tilt, average, dBi	0° 14.8 6° 15.0 13° 14.8	0° 15.3 6° 15.4 13° 15.1	0° 15.3 6° 15.4 13° 14.6	2° 17.5 7° 17.8 12° 17.6	2° 18.5 7° 18.8 12° 18.5	2° 18.9 7° 19.2 12° 18.8	2° 18.7 7° 19.1 12° 18.6
Beamwidth, Horizontal Tolerance, degrees	±1.3	±1.3	±2	±4.1	±5.4	±5.2	±4.6
Beamwidth, Vertical Tolerance, degrees	±0.7	±0.6	±0.5	±0.4	±0.4	±0.2	±0.2
USLS, beampeak to 20° above beampeak, dB	16	16	17	14	16	16	14
Front-to-Back Total Power at 180° ± 30°, dB	23	24	23	24	26	27	25
CPR at Boresight, dB	23	24	23	17	18	19	21
CPR at Sector, dB	11	14	11	12	8	6	9

Material Specifications

Radome Material	Fiberglass, UV resistant
Reflector Material	Aluminum

Mechanical Specifications

RVV65B-C3-3XR

Wind Loading at Velocity, frontal	283.0 N @ 150 km/h 63.6 lbf @ 150 km/h
Wind Loading at Velocity, lateral	234.0 N @ 150 km/h 52.6 lbf @ 150 km/h
Wind Loading at Velocity, maximum	122.3 lbf @ 150 km/h 544.0 N @ 150 km/h
Wind Speed, maximum	241 km/h 149.75 mph

Packaging and Weights

Width, packed	409 mm 16.102 in
Depth, packed	299 mm 11.772 in
Length, packed	2036 mm 80.158 in
Net Weight, without mounting kit	23 kg 50.706 lb
Weight, gross	34 kg 74.957 lb

Regulatory Compliance/Certifications

Agency	Classification
CE	Compliant with the relevant CE product directives
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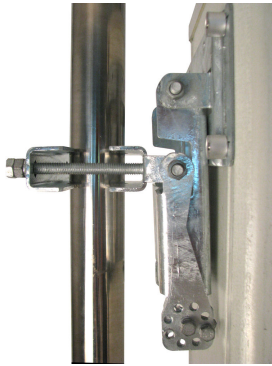
Included Products

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* Footnotes

Performance Note Severe environmental conditions may degrade optimum performance

BSAMNT-3



Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

General Specifications

Application	Outdoor
Color	Silver

Dimensions

Compatible Diameter, maximum	114.3 mm 4.5 in
Compatible Diameter, minimum	61 mm 2.402 in

Material Specifications

Material Type	Galvanized steel
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Packaging and Weights

Included	Brackets Hardware
Packaging quantity	1

Regulatory Compliance/Certifications

Agency	Classification
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