

# FFV4-65C-R3-V1

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12-port sector antenna, 4x 617-894 and 8x 1695-2690 MHz, 65° HPBW, 3x RET

## General Specifications

<b>Antenna Type</b>	Sector
<b>Band</b>	Multiband
<b>Color</b>	Light Gray (RAL 7035)
<b>Grounding Type</b>	RF connector inner conductor and body grounded to reflector and mounting bracket
<b>Performance Note</b>	Outdoor usage   Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN
<b>Radome Material</b>	Fiberglass, UV resistant
<b>Radiator Material</b>	Aluminum   Low loss circuit board
<b>Reflector Material</b>	Aluminum
<b>RF Connector Interface</b>	4.3-10 Female
<b>RF Connector Location</b>	Bottom
<b>RF Connector Quantity, high band</b>	8
<b>RF Connector Quantity, low band</b>	4
<b>RF Connector Quantity, total</b>	12

## Remote Electrical Tilt (RET) Information

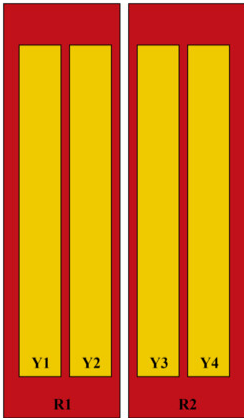
<b>RET Hardware</b>	CommRET v2
<b>RET Interface</b>	8-pin DIN Female   8-pin DIN Male
<b>RET Interface, quantity</b>	1 female   1 male
<b>Input Voltage</b>	10-30 Vdc
<b>Internal RET</b>	High band (2)   Low band (1)
<b>Power Consumption, idle state, maximum</b>	2 W
<b>Power Consumption, normal conditions, maximum</b>	10 W
<b>Protocol</b>	3GPP/AISG 2.0 (Single RET)

## Dimensions

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<b>Width</b>	640 mm   25.197 in
<b>Depth</b>	235 mm   9.252 in
<b>Length</b>	2437 mm   95.945 in
<b>Net Weight, antenna only</b>	59.8 kg   131.836 lb

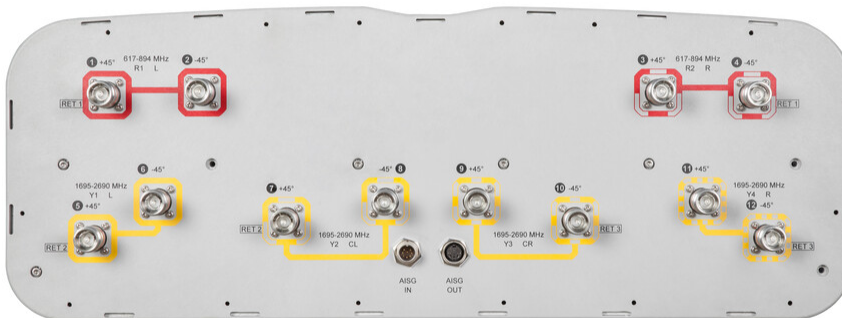
## Array Layout



Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	AISG RET UID
R1	617-894	1 - 2	1	AISG1	CPxxxxxxxxxxxxxxxxR1
R2	617-894	3 - 4			
Y1	1695-2690	5 - 6	2	AISG1	CPxxxxxxxxxxxxxxxxY1
Y2	1695-2690	7 - 8			
Y3	1695-2690	9 - 10	3	AISG1	CPxxxxxxxxxxxxxxxxY3
Y4	1695-2690	11 - 12			

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

## Port Configuration



## Electrical Specifications

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<b>Impedance</b>	50 ohm
<b>Operating Frequency Band</b>	1695 – 2690 MHz   617 – 894 MHz
<b>Polarization</b>	±45°
<b>Total Input Power, maximum</b>	900 W @ 50 °C

## Electrical Specifications

Frequency Band, MHz	617–698	698–894	1695–1880	1850–1990	1920–2200	2300–2500	2500–2690
<b>Gain, dBi</b>	15.7	16.3	17.7	18.1	18.6	18.7	19.2
<b>Beamwidth, Horizontal, degrees</b>	64	62	62	61	61	60	60
<b>Beamwidth, Vertical, degrees</b>	10.4	8.6	5.6	5.3	5	4.3	4
<b>Beam Tilt, degrees</b>	2–13	2–13	2–12	2–12	2–12	2–12	2–12
<b>USLS (First Lobe), dB</b>	18	17	19	18	20	19	19
<b>Front-to-Back Ratio at 180°, dB</b>	29	32	33	31	30	30	31
<b>Isolation, Cross Polarization, dB</b>	25	25	25	25	25	25	25
<b>Isolation, Inter-band, dB</b>	28	28	28	28	28	28	28
<b>VSWR   Return loss, dB</b>	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
<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-150	-153	-153	-153	-153	-153	-153
<b>Input Power per Port at 50°C, maximum, watts</b>	250	250	200	200	200	200	200

## Electrical Specifications, BASTA

Frequency Band, MHz	617–698	698–894	1695–1880	1850–1990	1920–2200	2300–2500	2500–2690
<b>Gain by all Beam Tilts, average, dBi</b>	15.5	15.8	17.3	17.7	18	18.3	18.6
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.4	±0.5	±0.5	±0.5	±0.6	±0.6	±0.7
<b>Gain by Beam Tilt, average, dBi</b>	2° 15.3 7° 15.6 13° 15.5	2° 15.7 7° 16.0 13° 15.6	2° 17.2 7° 17.4 12° 17.2	2° 17.6 7° 17.8 12° 17.6	2° 17.7 7° 18.1 12° 18.1	2° 18.2 7° 18.6 12° 18.1	2° 18.4 7° 18.8 12° 18.3
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±3	±5	±4.4	±4.8	±5.7	±6.9	±10.1
<b>Beamwidth, Vertical Tolerance, degrees</b>	±0.6	±1.1	±0.3	±0.3	±0.4	±0.3	±0.2
<b>USLS, beampeak to 20° above beampeak, dB</b>	18	13	13	14	16	15	14
<b>Front-to-Back Total Power at</b>	22	22	27	26	24	25	24

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180° ± 30°, dB

<b>CPR at Boresight, dB</b>	17	16	20	20	18	16	16
<b>CPR at Sector, dB</b>	9	8	6	5	4	5	7

## Mechanical Specifications

<b>Wind Loading @ Velocity, frontal</b>	1,055.0 N @ 150 km/h (237.2 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	355.0 N @ 150 km/h (79.8 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	1,433.0 N @ 150 km/h (322.2 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	1,086.0 N @ 150 km/h (244.1 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241 km/h (150 mph)

## Packaging and Weights

<b>Width, packed</b>	752 mm   29.606 in
<b>Depth, packed</b>	382 mm   15.039 in
<b>Length, packed</b>	2590 mm   101.969 in
<b>Weight, gross</b>	86.5 kg   190.7 lb

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
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 <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant/Exempted



## Included Products

BSAMNT-4	-	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-M4	-	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