

# FFV4-65B-R3-HG



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

- Antenna design optimized to offer high gain performances
- Broadband performance 617-894 MHz and 1695-2690 MHz

## 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
<b>Radome Material</b>	Fiberglass, UV resistant
<b>Radiator Material</b>	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, mid band</b>	8
<b>RF Connector Quantity, low band</b>	4
<b>RF Connector Quantity, total</b>	12

## Remote Electrical Tilt (RET) Information

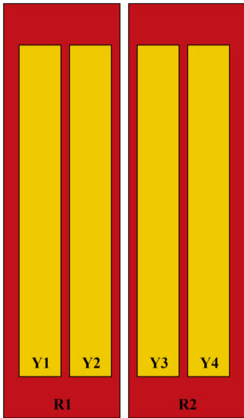
<b>RET Hardware</b>	CommRET v2
<b>RET Interface</b>	8-pin DIN Female   8-pin DIN Male
<b>RET Interface, quantity</b>	1 female   1 male
<b>Input Voltage</b>	10–30 Vdc
<b>Internal RET</b>	Low band (1)   Mid band (2)
<b>Power Consumption, active state, maximum</b>	10 W
<b>Power Consumption, idle state,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

## Dimensions

# FFV4-65B-R3-HG

<b>Width</b>	640 mm   25.197 in
<b>Depth</b>	235 mm   9.252 in
<b>Length</b>	1828 mm   71.969 in
<b>Net Weight, antenna only</b>	48.5 kg   106.924 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

# FFV4-65B-R3-HG

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

## Electrical Specifications

	R1,R2	R1,R2	R1,R2	Y1,Y2,Y3,Y4	Y1,Y2,Y3,Y4	Y1,Y2,Y3,Y4	Y1,Y2,Y3,Y4	Y1,Y2,Y3,Y4
Frequency Band, MHz	617–698	698–806	806–894	1695–1880	1850–1990	1920–2200	2300–2500	2500–2690
RF Port	1-4	1-4	1-4	5-12	5-12	5-12	5-12	5-12
Gain, dBi	14.5	14.8	15.7	18.2	18.5	18.8	19.2	19.7
Beamwidth, Horizontal, degrees	68	64	58	62	62	63	55	51
Beamwidth, Vertical, degrees	12.9	11.7	10.5	5	4.8	4.5	4	3.7
Beam Tilt, degrees	2–12	2–12	2–12	2–9	2–9	2–9	2–9	2–9
USLS (First Lobe), dB	16	17	15	15	16	18	17	17
Front-to-Back Ratio at 180°, dB	30	33	33	32	32	32	31	31
Isolation, Cross Polarization, dB	25	25	25	25	25	25	25	25
Isolation, Inter-band, dB	25	25	25	25	25	25	25	25
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	1.5 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-150	-150	-150	-150	-150	-150	-150	-150
Input Power per Port at 50°C, maximum, watts	250	250	250	200	200	200	200	200

## Electrical Specifications, BASTA

Frequency Band, MHz	617–698	698–806	806–894	1695–1880	1850–1990	1920–2200	2300–2500	2500–2690
Gain by all Beam Tilts, average, dBi	14.1	14.5	15.1	17.7	18.2	18.4	18.8	19.2
Gain by all Beam Tilts Tolerance, dB	±0.5	±0.5	±0.6	±0.6	±0.5	±0.6	±0.5	±0.5
Beamwidth, Horizontal Tolerance, degrees	±5	±4	±4	±4	±6	±6	±7	±5
Beamwidth, Vertical Tolerance, degrees	±0.8	±0.8	±0.7	±0.3	±0.2	±0.3	±0.3	±0.2
Front-to-Back Total Power at 180° ± 30°, dB	22	24	23	26	26	25	25	24
CPR at Boresight, dB	17	17	16	20	25	21	22	19

# FFV4-65B-R3-HG

CPR at Sector, dB                      10                      8                      8                      9                      9                      6                      6                      6

## Mechanical Specifications

<b>Wind Loading @ Velocity, frontal</b>	715.0 N @ 150 km/h (160.7 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	206.0 N @ 150 km/h (46.3 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	911.0 N @ 150 km/h (204.8 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	446.0 N @ 150 km/h (100.3 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241.4 km/h (150 mph)

## Packaging and Weights

<b>Width, packed</b>	752 mm   29.606 in
<b>Depth, packed</b>	387 mm   15.236 in
<b>Length, packed</b>	1982 mm   78.032 in
<b>Weight, gross</b>	64.2 kg   141.537 lb

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system



## 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.

## \* Footnotes

**Performance Note**                      Severe environmental conditions may degrade optimum performance