

# FFV4S4-65B-R7



20-port sector antenna, 4x 617-894, 8x 1695-2690 MHz 65° HPBW and 8x 3300-3800 MHz, 90° HPBW, 7x RET

- All Internal RET actuators are connected in "Cascaded SRET" configuration
- Cluster connectors for the beam-forming array, including eight RF ports plus one calibration port

## General Specifications

<b>Antenna Type</b>	Sector and beamforming
<b>Band</b>	Multiband
<b>Calibration Connector Interface</b>	M-LOC
<b>Calibration Connector Quantity</b>	1
<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>Reflector Material</b>	Aluminum
<b>RF Connector Interface</b>	4.3-10 Female   M-LOC
<b>RF Connector Location</b>	Bottom
<b>RF Connector Quantity, high band</b>	8
<b>RF Connector Quantity, mid band</b>	8
<b>RF Connector Quantity, low band</b>	4
<b>RF Connector Quantity, total</b>	20

## 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 (1)   Low band (2)   Mid band (4)
<b>Power Consumption, active state, maximum</b>	8 W
<b>Power Consumption, idle state, maximum</b>	1 W

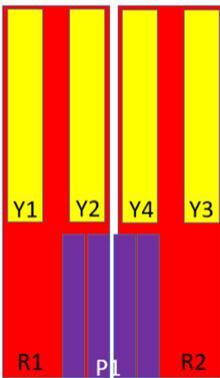
# FFV4S4-65B-R7

**Protocol** 3GPP/AISG 2.0 (Single RET)

## Dimensions

**Width** 498 mm | 19.606 in  
**Depth** 197 mm | 7.756 in  
**Length** 2000 mm | 78.74 in  
**Net Weight, antenna only** 43 kg | 94.799 lb  
**TDD Column Spacing** 42 mm | 1.654 in

## Array Layout



Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	617-894	1-2	1	CPxxxxxxxxxxxxxxxxR1
R2	617-894	3-4	2	CPxxxxxxxxxxxxxxxxR2
Y1	1695-2690	5-6	3	CPxxxxxxxxxxxxxxxxY1
Y2	1695-2690	7-8	4	CPxxxxxxxxxxxxxxxxY2
Y3	1695-2690	9-10	5	CPxxxxxxxxxxxxxxxxY3
Y4	1695-2690	11-12	6	CPxxxxxxxxxxxxxxxxY4
P1	3300-3800	13-20	7	CPxxxxxxxxxxxxxxxxP1

Left Bottom Right

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

## Port Configuration



# FFV4S4-65B-R7

<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	-150	-150	-150	-150	-150	-150
<b>Input Power per Port at 50° C, maximum, watts</b>	250	250	200	200	200	200	200

## Electrical Specifications

	<b>Y2,Y4</b>	<b>Y2,Y4</b>	<b>Y2,Y4</b>	<b>P1</b>
<b>Frequency Band, MHz</b>	<b>1850–1990</b>	<b>1920–2200</b>	<b>2490–2690</b>	<b>3300–3800</b>
<b>RF Port</b>	7,8,11,12	7,8,11,12	7,8,11,12	13,14,15,16,17,18,19,20
<b>Gain, dBi</b>	16	16.2	16.5	15.7
<b>Beamwidth, Horizontal, degrees</b>	64	62	59	86
<b>Beamwidth, Vertical, degrees</b>	7.8	7.4	6.1	6.1
<b>Beam Tilt, degrees</b>	2–12	2–12	2–12	2–12
<b>USLS (First Lobe), dB</b>	18	18	17	15
<b>Front-to-Back Ratio at 180°, dB</b>	37	36	31	28
<b>Coupling level, Amp, Antenna port to Cal port, dB</b>				26
<b>Coupling level, max Amp Δ, Antenna port to Cal port, dB</b>				±2
<b>Coupler, max Amp Δ, Antenna port to Cal port, dB</b>				0.9
<b>Coupler, max Phase Δ, Antenna port to Cal port, degrees</b>				7
<b>Isolation, Cross Polarization, dB</b>	25	25	25	25
<b>Isolation, Inter-band, dB</b>	25	25	25	25
<b>Isolation, Co-polarization, dB</b>				20
<b>VSWR   Return loss, dB</b>	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	-150	-150	-140
<b>Input Power per Port at 50° C, maximum, watts</b>	200	200	200	75

## Electrical Specifications, Broadcast 65°

# FFV4S4-65B-R7

<b>Frequency Band, MHz</b>	<b>3300–3800</b>
<b>Gain, dBi</b>	17.3
<b>Beamwidth, Horizontal, degrees</b>	65
<b>Beamwidth, Vertical, degrees</b>	6.2
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	25
<b>USLS (First Lobe), dB</b>	20

## Electrical Specifications, Service Beam

<b>Frequency Band, MHz</b>	<b>3300–3800</b>
<b>Steered 0° Gain, dBi</b>	20.3
<b>Steered 0° Beamwidth, Horizontal, degrees</b>	25
<b>Steered 0° Front-to-Back Total Power at 180° ± 30°, dB</b>	29
<b>Steered 0° Horizontal Sidelobe, dB</b>	14
<b>Steered 30° Gain, dBi</b>	19.7
<b>Steered 30° Beamwidth, Horizontal, degrees</b>	27
<b>Steered 30° Front-to-Back Total Power at 180° ± 30°, dB</b>	28

## Electrical Specifications, Soft Split

<b>Frequency Band, MHz</b>	<b>3300–3800</b>
<b>Gain, dBi</b>	19.1
<b>Beamwidth, Horizontal, degrees</b>	32
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	27
<b>Horizontal Sidelobe, dB</b>	18

## Mechanical Specifications

<b>Wind Loading @ Velocity, frontal</b>	759.0 N @ 150 km/h (170.6 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	259.0 N @ 150 km/h (58.2 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	984.0 N @ 150 km/h (221.2 lbf @ 150 km/h)

# FFV4S4-65B-R7

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<b>Wind Loading @ Velocity, rear</b>	625.0 N @ 150 km/h (140.5 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241 km/h (150 mph)

## Packaging and Weights

<b>Width, packed</b>	565 mm   22.244 in
<b>Depth, packed</b>	309 mm   12.165 in
<b>Length, packed</b>	2187 mm   86.102 in
<b>Weight, gross</b>	56.8 kg   125.222 lb

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
CHINA-ROHS	Above maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
ROHS	Compliant/Exempted
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.
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## \* Footnotes

<b>Performance Note</b>	Severe environmental conditions may degrade optimum performance
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