

FFV4S4-65C-R7



20-port sector antenna, 4x 617-894, 8x 1695-2690 MHz, 65° HPBW and 8x 3300-4200 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
- Antenna shape optimized for wind load reduction

General Specifications

Antenna Type	Sector and beamforming
Band	Multiband
Calibration Connector Interface	M-LOC
Calibration Connector Quantity	1
Color	Light Gray (RAL 7035)
Grounding Type	RF connector inner conductor and body grounded to reflector and mounting bracket
Performance Note	Outdoor usage
Radome Material	Fiberglass, UV resistant
Reflector Material	Aluminum
RF Connector Interface	4.3-10 Female M-LOC
RF Connector Location	Bottom
RF Connector Quantity, high band	8
RF Connector Quantity, mid band	8
RF Connector Quantity, low band	4
RF Connector Quantity, total	20

Remote Electrical Tilt (RET) Information

RET Hardware	CommRET v2
RET Interface	8-pin DIN Female 8-pin DIN Male
RET Interface, quantity	2 female 2 male
Input Voltage	10-30 Vdc
Internal RET	High band (1) Low band (2) Mid band (4)
Power Consumption, active state, maximum	8 W
Power Consumption, idle state, maximum	1 W

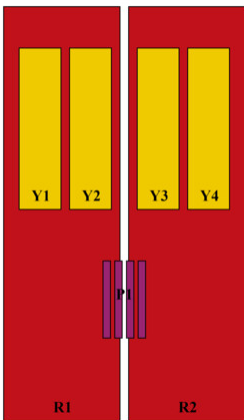
FFV4S4-65C-R7

Protocol 3GPP/AISG 2.0 (Single RET)

Dimensions

Width 498 mm | 19.606 in
Depth 197 mm | 7.756 in
Length 2438 mm | 95.984 in
Net Weight, antenna only 49.6 kg | 109.349 lb
TDD Column Spacing 41 mm | 1.614 in

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	2	AISG1	CPxxxxxxxxxxxxxxxxR2
Y1	1695-2690	5 - 6	3	AISG1	CPxxxxxxxxxxxxxxxxY1
Y2	1695-2690	7 - 8	4	AISG1	CPxxxxxxxxxxxxxxxxY2
Y3	1695-2690	9 - 10	5	AISG1	CPxxxxxxxxxxxxxxxxY3
Y4	1695-2690	11 - 12	6	AISG1	CPxxxxxxxxxxxxxxxxY4
P1	3300-4200	13 - 20	7	AISG1	CPxxxxxxxxxxxxxxxxP1

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

Port Configuration



FFV4S4-65C-R7

Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2690 MHz 3300 – 4200 MHz 617 – 894 MHz
Polarization	±45°
Total Input Power, maximum	1,400 W @ 50 °C

Electrical Specifications

	R1,R2	R1,R2	Y1-Y4	Y1-Y4	Y1-Y4	Y1-Y4	P1	P1
Frequency Band, MHz	617-698	698-894	1695-1880	1850-1990	1920-2200	2490-2690	3300-3800	3700-4200
RF Port	1,2,3,4	1,2,3,4	5,6,7,8,9,10,11,12	5,6,7,8,9,10,11,12	5,6,7,8,9,10,11,12	5,6,7,8,9,10,11,12	13,14,15,16,17,18,19,20	13,14,15,16,17,18,
Gain, dBi	15.1	15.6	16.4	16.8	17.2	17.6	15.6	16.4
Beamwidth, Horizontal, degrees	67	57	63	64	61	57	85	77
Beamwidth, Vertical, degrees	10.2	8.6	6.7	6.3	5.9	5	6.2	5.7
Beam Tilt, degrees	2-13	2-13	2-12	2-12	2-12	2-12	0-10	0-10
USLS (First Lobe), dB	17	15	17	17	17	18	14	14
Front-to-Back Ratio at 180°, dB	29	30	34	34	34	28	30	29
Coupling level, Amp, Antenna port to Cal port, dB							26	26
Coupling level, max Amp Δ, Antenna port to Cal port, dB							±2	±2
Coupler, max Amp Δ, Antenna port to Cal port, dB							0.9	0.9

FFV4S4-65C-R7

Coupler, max Phase Δ, Antenna port to Cal port, degrees								7	7
Isolation, Cross Polarization, dB	25	25	25	25	25	25	25	25	25
Isolation, Inter-band, dB	25	25	25	25	25	25	25	25	25
Isolation, Co-polarization, dB								19	19
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	1.5 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-150	-150	-150	-150	-150	-150	-140	-140	-140
Input Power per Port at 50°C, maximum, watts	250	250	200	200	200	200	75	75	75

Electrical Specifications, Broadcast 65°

Frequency Band, MHz		3300–3800	3700–4200
Gain, dBi		17.7	18.2
Beamwidth, Horizontal, degrees		65	65
Beamwidth, Vertical, degrees		6.2	5.7
Front-to-Back Total Power at 180° ± 30°, dB		27	26
USLS (First		17	18

FFV4S4-65C-R7

Lobe), dB

Electrical Specifications, Service Beam

Frequency Band, MHz	3300–3800	3700–4200
Steered 0° Gain, dBi	20.3	20.7
Steered 0° Beamwidth, Horizontal, degrees	25	24
Steered 0° Front-to-Back Total Power at 180° ± 30°, dB	30	29
Steered 0° Horizontal Sidelobe, dB	12	13
Steered 0° USLS (First Lobe), dB	18	19
Steered 30° Gain, dBi	19.6	20.1
Steered 30° Beamwidth, Horizontal, degrees	27	23
Steered 30° Front-to-Back Total Power at 180° ± 30°, dB	28	28

Electrical Specifications, Soft Split

Frequency Band, MHz	3300–3800	3700–4200
Gain, dBi	19.5	19.8
Beamwidth, Horizontal, degrees	31	29
Front-to-	29	28

FFV4S4-65C-R7

**Back Total
Power at
180° ± 30°,
dB**

**Horizontal
Sidelobe, dB**

19

18

**USLS (First
Lobe), dB**

18

19

Mechanical Specifications

Wind Loading @ Velocity, frontal

865.0 N @ 150 km/h (194.5 lbf @ 150 km/h)

Wind Loading @ Velocity, lateral

268.0 N @ 150 km/h (60.2 lbf @ 150 km/h)

Wind Loading @ Velocity, maximum

1,037.0 N @ 150 km/h (233.1 lbf @ 150 km/h)

Wind Loading @ Velocity, rear

595.0 N @ 150 km/h (133.8 lbf @ 150 km/h)

Wind Speed, maximum

241 km/h (150 mph)

Packaging and Weights

Width, packed

565 mm | 22.244 in

Depth, packed

309 mm | 12.165 in

Length, packed

2685 mm | 105.709 in

Weight, gross

70.5 kg | 155.426 lb

Regulatory Compliance/Certifications

Agency

Classification

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-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

FFV4S4-65C-R7

Performance Note Severe environmental conditions may degrade optimum performance