FFV4Q4-65A-R7

20-port sector antenna, 4x 617-894, 8x 1695-2690 MHz 65° HPBW and 8x 2500-4000 MHz, Beamformer, 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

This product will be discontinued on: December 31, 2025

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	1 female | 1 male
Input Voltage	10–30 Vdc
Internal RET	High band (1) | Low band (2) | Mid band (4)

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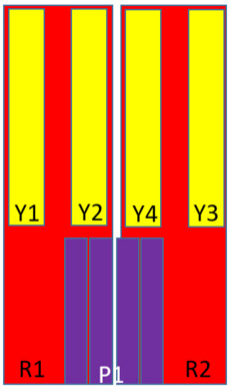
Power Consumption, active state, maximum	8 W
Power Consumption, idle state, maximum	1 W
Protocol	3GPP/AISG 2.0 (Single RET)

Dimensions

Width	498 mm | 19.606 in
Depth	197 mm | 7.756 in
Length	1499 mm | 59.016 in
Net Weight, antenna only	35 kg | 77.162 lb
TDD Column Spacing	58 mm | 2.283 in

Array Layout



Left Right
Bottom

Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	617-894	1-2	1	CPxxxxxxxxxxxxxxR1
R2	617-894	3-4	2	CPxxxxxxxxxxxxxxR2
Y1	1695-2690	5-6	3	CPxxxxxxxxxxxxxxY1
Y2	1695-2690	7-8	4	CPxxxxxxxxxxxxxxY2
Y3	1695-2690	9-10	5	CPxxxxxxxxxxxxxxY3
Y4	1695-2690	11-12	6	CPxxxxxxxxxxxxxxY4
P1	2500-4000	13-20	7	CPxxxxxxxxxxxxxxP1

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

Port Configuration

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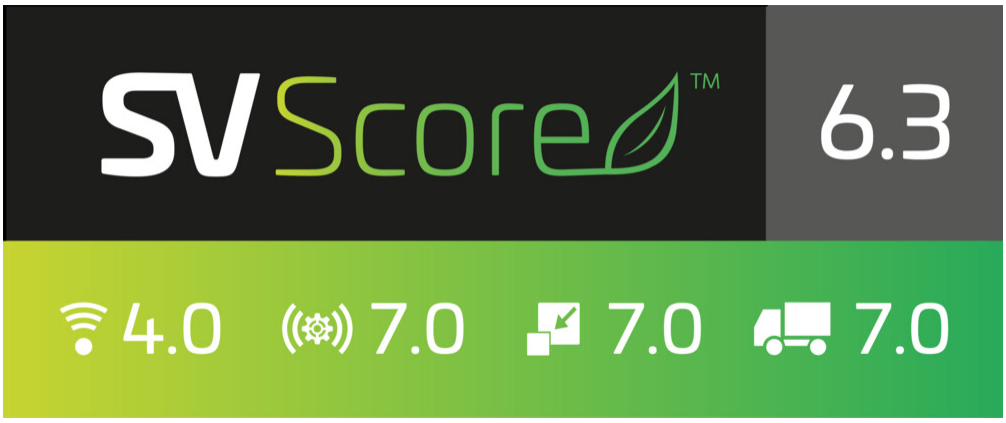
Logo Image



Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2690 MHz | 2500 – 4000 MHz | 617 – 894 MHz
Polarization	±45°
Total Input Power, maximum	1,400 W @ 50 °C

Electrical Specifications

	R1,R2	R1,R2	Y1,Y3	Y1,Y3	Y1,Y3	Y2,Y4	Y2,Y4	Y2,Y4
Frequency Band, MHz	**617–698**	**698–894**	**1695–1920**	**1920–2200**	**2490–2690**	**1695–1920**	**1920–2200**	**2490–2690**
RF Port	1-4	1-4	5,6,9,10	5,6,9,10	5,6,9,10	7,8,11,12	7,8,11,12	7,8,11,12
Gain, dBi	12.9	13.4	16	16.7	17.1	15.8	16.5	16.7
Beamwidth, Horizontal, degrees	69	59	74	69	56	68	64	58
Beamwidth, Vertical, degrees	18.2	15.5	6.6	6	5.1	8.8	7.9	6.4
Beam Tilt, degrees	4–18	4–18	2–12	2–12	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	17	17	19	18	19	18	18	17
Front-to-Back Ratio at 180°, dB	28	30	32	33	27	35	36	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,	250	250	200	200	200	200	200	200

maximum, watts

Electrical Specifications

	P1	P1	P1
Frequency Band, MHz	**2500–2690**	**3300–3800**	**3700–4000**
RF Port	13-20	13-20	13-20
Gain, dBi	11.8	13.4	13.7
Beamwidth, Horizontal, degrees	93	65	65
Beamwidth, Vertical, degrees	16.9	12.1	11.7
Beam Tilt, degrees	2–12	2–12	2–12
USLS (First Lobe), dB	12	15	15
Front-to-Back Ratio at 180°, dB	28	25	24
Coupling level, Amp, Antenna port to Cal port, dB	26	26	26
Coupling level, max Amp Δ, Antenna port to Cal port, dB	±2	±2	±2
Coupler, max Amp Δ, Antenna port to Cal port, dB	0.9	0.9	0.9
Coupler, max Phase Δ, Antenna port to Cal port, degrees	7	7	7
Isolation, Cross Polarization, dB	25	25	25
Isolation, Inter-band, dB	25	25	25
Isolation, Co-polarization, dB	18	18	18
VSWR | Return loss, dB	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-140	-140	-140
Input Power per Port at 50°C, maximum, watts	80	80	80

Electrical Specifications, Broadcast 65°

Frequency Band, MHz	**2500–2690**	**3300–3800**	**3700–4000**
Gain, dBi	14	14.5	14.8
Beamwidth, Horizontal, degrees	65	65	65
Beamwidth, Vertical, degrees	16.5	11.9	11.5
Front-to-Back Total Power at	26	21	21

180° ± 30°, dB			
USLS (First Lobe), dB	18	16	17

Electrical Specifications, Envelope Pattern

Frequency Band, MHz	**2500–2690**	**3300–3800**	**3700–4000**
Gain, dBi	16.5	18.3	18.4
Beamwidth, Horizontal at 10 dB, degrees	120	124	122
Beamwidth, Vertical at 3 dB, degrees	16.7	12	11.4
Front-to-Back Total Power at 180° ± 30°, dB	26	23	22
USLS (First Lobe), dB	20	20	20

Electrical Specifications, Service Beam

Frequency Band, MHz	**2500–2690**	**3300–3800**	**3700–4000**
Steered 0° Gain, dBi	16.6	18.3	18.4
Steered 0° Beamwidth, Horizontal, degrees	25	19	18
Steered 0° Front-to-Back Total Power at 180° ± 30°, dB	28	25	23
Steered 0° Horizontal Sidelobe, dB	12	12	11
Steered 30° Gain, dBi	15.8	16.3	16.4
Steered 30° Beamwidth, Horizontal, degrees	29	21	19
Steered 30° Front-to-Back Total Power at 180° ± 30°, dB	28	22	21

Electrical Specifications, Soft Split

Frequency Band, MHz	**2500–2690**
Gain, dBi	15.7
Beamwidth, Horizontal, degrees	32
Front-to-Back Total Power at 180° ± 30°, dB	28
Horizontal Sidelobe, dB	17

Mechanical Specifications

Wind Loading @ Velocity, frontal	510.0 N @ 150 km/h (114.7 lbf @ 150 km/h)

Wind Loading @ Velocity, lateral	133.0 N @ 150 km/h (29.9 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	677.0 N @ 150 km/h (152.2 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	351.0 N @ 150 km/h (78.9 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	1686 mm | 66.378 in
Weight, gross	47.4 kg | 104.499 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.

* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance