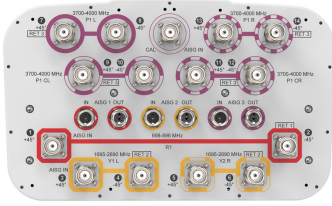


NVVS4-65A-R3B



14 Port Sector Antenna, 2x698-896 MHz, 4x1695-2690 MHz 65° HPBW, and 8x3700-4000 MHz Beamformer, 3XRET and 3x SBTs

- One Low Band RET, One Mid Band RET and One High Band RET. Each RET controlled individually through internal SBTs

General Specifications

Antenna Type	Sector- and beamforming
Band	Multiband
Calibration Connector Interface	4.3-10 Female
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
Radiator Material	Low loss circuit board
Reflector Material	Aluminum
RF Connector Interface	4.3-10 Female
RF Connector Location	Bottom
RF Connector Quantity, high band	8
RF Connector Quantity, mid band	4
RF Connector Quantity, low band	2
RF Connector Quantity, total	14

Remote Electrical Tilt (RET) Information

RET Hardware	CommRET v2
RET Interface	8-pin DIN Female 8-pin DIN Male
RET Interface, quantity	3 female 3 male
Input Voltage	10–30 Vdc
Internal Bias Tee	Cal Port Port 1 Port 3
Internal RET	High band (1) Low band (1) Mid band (1)

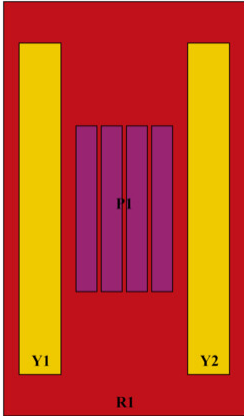
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Power Consumption, active state, maximum	10 W
Power Consumption, idle state, maximum	2 W
Protocol	3GPP/AISG 2.0 (Single RET)

Dimensions

Width	350 mm 13.78 in
Depth	208 mm 8.189 in
Length	1413 mm 55.63 in
Net Weight, without mounting kit	23 kg 50.706 lb

Array Layout

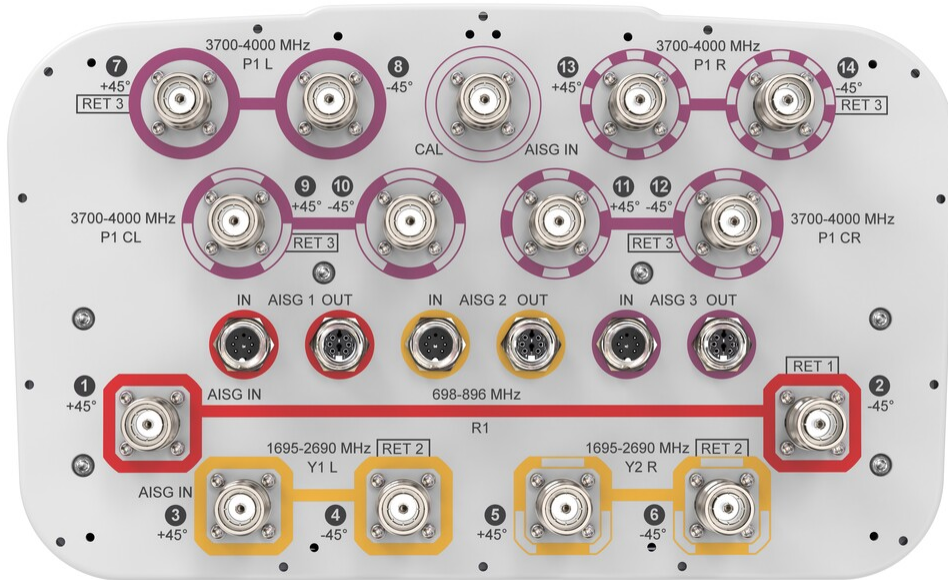


Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	AISG RET UID
R1	698-896	1 - 2	1	AISG1	CPxxxxxxxxxxxxxxxxR1
Y1	1695-2690	3 - 4	2	AISG2	CPxxxxxxxxxxxxxxxxY1
Y2	1695-2690	5 - 6			
P1	3700-4000	7 - 14	3	AISG3	CPxxxxxxxxxxxxxxxxP1

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

Port Configuration

NVVS4-65A-R3B



Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2690 MHz 3700 – 4000 MHz 698 – 896 MHz
Polarization	±45°
Total Input Power, maximum	1,000 W @ 50 °C

Electrical Specifications

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2200	2300–2500	2500–2690	3700–4000
Gain, dBi	14	14.2	16.6	16.7	16.8	17.1	17.2	16.2
Beamwidth, Horizontal, degrees	69	67	67	66	69	69	67	83
Beamwidth, Vertical, degrees	16.9	15.2	6.7	6.2	5.8	5.4	5.1	5.8
Beam Tilt, degrees	0–18	0–18	0–10	0–10	0–10	0–10	0–10	0–10
USLS (First Lobe), dB	20	19	15	16	17	20	22	14
Front-to-Back Ratio at 180°, dB	39	36	31	36	35	33	34	30
Coupling level, Amp, Antenna port to Cal port, dB								26
Coupling level, max Amp Δ, Antenna port to Cal port, dB								±2

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Coupler, max Amp Δ , Antenna port to Cal port, dB									0.9
Coupler, max Phase Δ , Antenna port to Cal port, degrees									14
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
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	-153	-153	-153	-153	-153	-150	-150	-145	-145
Input Power per Port at 50°C, maximum, watts	300	300	250	250	250	200	200	75	75

Electrical Specifications, BASTA

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2200	2300–2500	2500–2690	3700–4000
Gain by all Beam Tilts, average, dBi	13.8	13.8	16.1	16.5	16.5	16.9	17	15.5
Gain by all Beam Tilts Tolerance, dB	±0.4	±0.5	±0.7	±0.4	±0.4	±0.4	±0.3	±0.9
Beamwidth, Horizontal Tolerance, degrees	±2.9	±2.4	±7.8	±6.5	±5.7	±6.7	±6	±17.3
Beamwidth, Vertical Tolerance, degrees	±1	±1	±0.4	±0.3	±0.3	±0.3	±0.3	±0.4
Front-to-Back Total Power at 180° ± 30°, dB	27	24	24	28	28	27	26	23
CPR at Boresight, dB	23	24	19	23	25	24	21	16
CPR at Sector, dB	12	7	11	12	10	9	6	4

Electrical Specifications, Broadcast 65°

Frequency Band, MHz	3700–4000
Gain, dBi	17.2
Beamwidth, Horizontal, degrees	65
Beamwidth, Vertical, degrees	6
Beamwidth, Vertical Tolerance, degrees	±0.3
Front-to-Back Total Power at 180° ± 30°, dB	25
USLS (First Lobe), dB	17

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Electrical Specifications, Service Beam

Frequency Band, MHz	3700–4000
Steered 0° Gain, dBi	20.8
Steered 0° Gain Tolerance, dBi	±0.8
Steered 0° Beamwidth, Horizontal, degrees	22
Steered 0° Front-to-Back Total Power at 180° ± 30°, dB	29
Steered 0° Horizontal Sidelobe, dB	11
Steered 30° Gain, dBi	19.9
Steered 30° Beamwidth, Horizontal, degrees	27
Steered 30° Front-to-Back Total Power at 180° ± 30°, dB	27

Electrical Specifications, Soft Split

Frequency Band, MHz	3700–4000
Gain, dBi	19.2
Beamwidth, Horizontal, degrees	33
Front-to-Back Total Power at 180° ± 30°, dB	26
Horizontal Sidelobe, dB	15

Mechanical Specifications

Wind Loading @ Velocity, frontal	224.0 N @ 150 km/h (50.4 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	187.0 N @ 150 km/h (42.0 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	474.0 N @ 150 km/h (106.6 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	237.0 N @ 150 km/h (53.3 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	448 mm 17.638 in
Depth, packed	355 mm 13.976 in
Length, packed	1557 mm 61.299 in
Weight, gross	33.4 kg 73.634 lb

NVVS4-65A-R3B

Regulatory Compliance/Certifications

Agency

ISO 9001:2015



Classification

Designed, manufactured and/or distributed under this quality management system

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