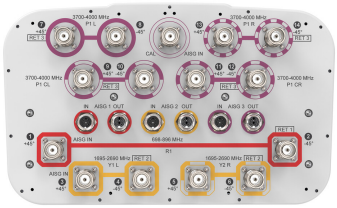
NVVS4-65A-R3B



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)

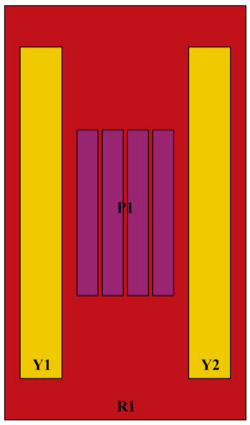
NVVS4-65A-R3B

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

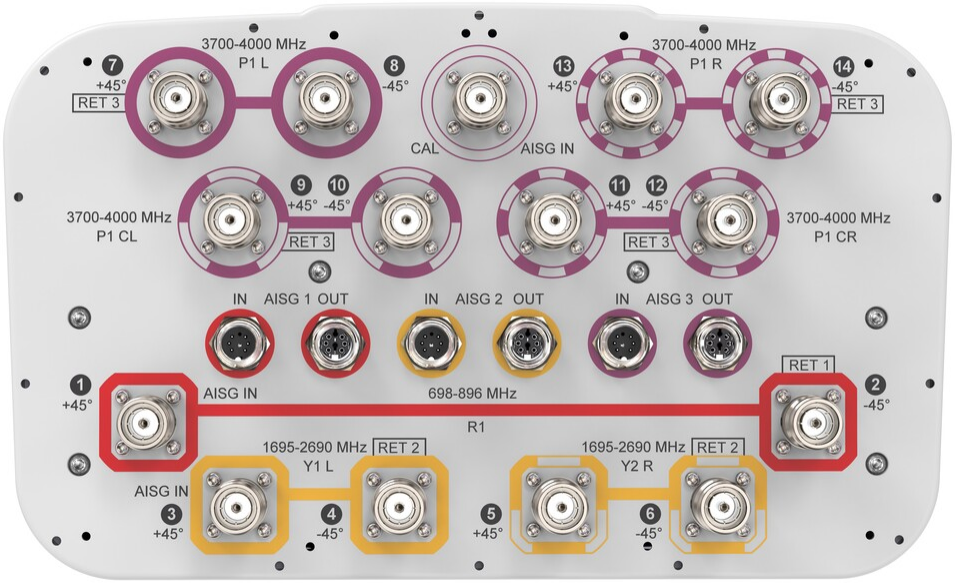


Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	AISG RET UID
R1	698-896	1 - 2	1	AISG1	CPxxxxxxxxxxxxxxR1
Y1	1695-2690	3 - 4	2	AISG2	CPxxxxxxxxxxxxxxY1
Y2	1695-2690	5 - 6			
P1	3700-4000	7 - 14	3	AISG3	CPxxxxxxxxxxxxxxP1

(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

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
Isolation, Inter-band, dB	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
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-150	-150	-145
Input Power per Port at 50°C, maximum, watts	300	300	250	250	250	200	200	75

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

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	27

Total Power at 180° ± 30°, dB

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

Regulatory Compliance/Certifications

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

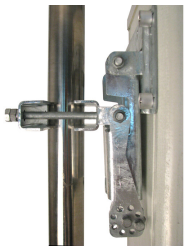
Included Products

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

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.

Product Classification

Product Type	Downtilt mounting kit

General Specifications

Application	Outdoor
Color	Silver

Dimensions

Compatible Diameter, maximum	115 mm | 4.528 in
Compatible Diameter, minimum	60 mm | 2.362 in
Weight, net	6.2 kg | 13.669 lb

Material Specifications

Material Type	Galvanized steel

Packaging and Weights

Included	Brackets | Hardware
Packaging quantity	1
Weight, gross	6.4 kg | 14.11 lb

Regulatory Compliance/Certifications

Agency	Classification
CE	Compliant with the relevant CE product directives
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.andrew.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant