

# NNV4-45A-R6



12-port sector antenna, 4x 698–896 and 8x 1695–2690 MHz, 45° HPBW, 6x RET

- Independent tilt for all arrays
- Array configuration provides capability for 4T4R (4x MIMO) on Low band and Dual 4T4R (4x MIMO) on Mid band
- Optimized SPR performance across all operating bands
- Excellent wind loading characteristics

## General Specifications

<b>Antenna Type</b>	Sector
<b>Band</b>	Multiband
<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
<b>RF Connector Location</b>	Bottom
<b>RF Connector Quantity, mid band</b>	8
<b>RF Connector Quantity, low band</b>	4
<b>RF Connector Quantity, total</b>	12

## Remote Electrical Tilt (RET) Information

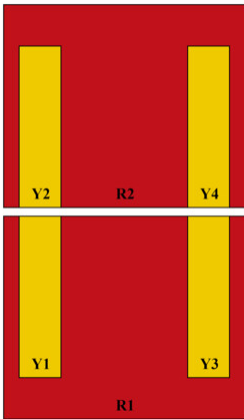
<b>RET Hardware</b>	CommRET v2
<b>RET Interface</b>	8-pin DIN Female   8-pin DIN Male
<b>RET Interface, quantity</b>	1 female   1 male
<b>Input Voltage</b>	10–30 Vdc
<b>Internal RET</b>	Low band (2)   Mid band (4)
<b>Power Consumption, active state, maximum</b>	8 W
<b>Power Consumption, idle state, maximum</b>	1 W
<b>Protocol</b>	3GPP/AISG 2.0 (Single RET)

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## Dimensions

<b>Width</b>	457 mm   17.992 in
<b>Depth</b>	178 mm   7.008 in
<b>Length</b>	1399 mm   55.079 in
<b>Net Weight, without mounting kit</b>	27.2 kg   59.966 lb

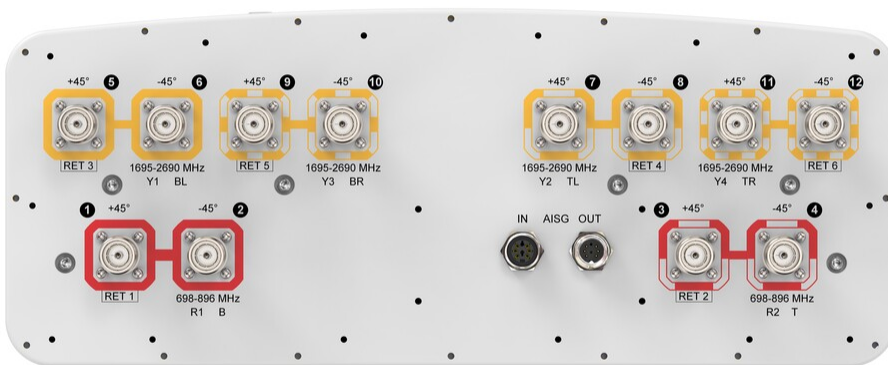
## Array Layout



Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	AISG RET UID
R1	698-896	1 - 2	1	AISG1	CPxxxxxxxxxxxxxxxxR1
R2	698-896	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

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

## Port Configuration



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## Electrical Specifications

<b>Impedance</b>	50 ohm
<b>Operating Frequency Band</b>	1695 – 2690 MHz   698 – 896 MHz
<b>Polarization</b>	±45°
<b>Total Input Power, maximum</b>	900 W @ 50 °C

## Electrical Specifications

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2180	2300–2500	2300–2690
<b>Gain, dBi</b>	12.6	13.5	15.4	16	16.7	17.1	17.1
<b>Beamwidth, Horizontal, degrees</b>	49	45	44	43	40	34	34
<b>Beamwidth, Vertical, degrees</b>	36	31	15	14	13	11	11
<b>Beam Tilt, degrees</b>	2–18	2–18	2–12	2–12	2–12	2–12	2–12
<b>USLS (First Lobe), dB</b>	17	17	19	17	17	17	16
<b>Front-to-Back Ratio at 180°, dB</b>	33	34	35	35	33	32	31
<b>Isolation, Cross Polarization, dB</b>	25	25	25	25	25	25	25
<b>Isolation, Inter-band, dB</b>	25	25	25	25	25	25	25
<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>	300	300	250	250	250	200	200

## Electrical Specifications, BASTA

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2180	2300–2500	2300–2690
<b>Gain by all Beam Tilts, average, dBi</b>	12.2	13.2	14.9	15.5	16.1	16.6	16.6
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.6	±0.6	±0.9	±0.7	±1	±0.8	±0.8
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±2.2	±2.7	±4	±2.6	±3	±3.5	±3.1
<b>Beamwidth, Vertical Tolerance, degrees</b>	±2.8	±3.1	±1.4	±1.1	±1.2	±1.2	±1.3
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	24	24	26	28	28	26	25
<b>CPR at Boresight, dB</b>	20	21	16	18	19	20	21

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<b>CPR at 10 dB Horizontal Beamwidth, dB</b>	10	10	7	8	11	9	7
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## Mechanical Specifications

<b>Wind Loading @ Velocity, frontal</b>	788.0 N @ 150 km/h (177.1 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	157.0 N @ 150 km/h (35.3 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	788.0 N @ 150 km/h (177.1 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	692.0 N @ 150 km/h (155.6 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241 km/h (150 mph)

## Packaging and Weights

<b>Width, packed</b>	563 mm   22.165 in
<b>Depth, packed</b>	355 mm   13.976 in
<b>Length, packed</b>	1572 mm   61.89 in
<b>Weight, gross</b>	38.8 kg   85.539 lb

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
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.
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## \* Footnotes

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