

# 2NN2H4-33B-R6B



24-Port antenna, 8 x 698-896 MHz, 16 x 1710-2400 MHz, 33° HPBW, 6 x RETs, 4x SBTs, 6ft Length

- Provides 4 ports per beam for low band and 8 ports per beam for mid band
- Twin beam patterns are optimized for minimum beam crossover providing for improved 4G and 5G data throughput

## General Specifications

<b>Antenna Type</b>	Multi-beam
<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>Radiator Material</b>	Low loss circuit board
<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>	16
<b>RF Connector Quantity, low band</b>	8
<b>RF Connector Quantity, total</b>	24

## Remote Electrical Tilt (RET) Information

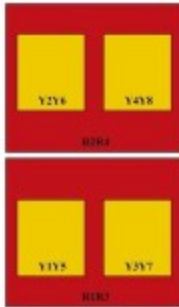
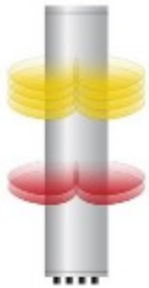
<b>RET Hardware</b>	CommRET v2
<b>RET Interface</b>	8-pin DIN Female   8-pin DIN Male
<b>RET Interface, quantity</b>	4 female   4 male
<b>Input Voltage</b>	10-30 Vdc
<b>Internal Bias Tee</b>	Port 1   Port 17   Port 5   Port 9
<b>Internal RET</b>	Low band (2)   Mid band (4)
<b>Power Consumption, active state, maximum</b>	10 W
<b>Power Consumption, idle state, maximum</b>	2 W
<b>Protocol</b>	3GPP/AISG 2.0 (Single RET)

# 2NN2H4-33B-R6B

## Dimensions

<b>Width</b>	640 mm   25.197 in
<b>Depth</b>	235 mm   9.252 in
<b>Length</b>	1828 mm   71.969 in
<b>Net Weight, without mounting kit</b>	59.5 kg   131.175 lb

## Array Layout



Array ID	Frequency (MHz)	RF Connector	RET No.	AISG No.	SBT # of coils	SBT No.	RET UID
R1	606-696	1 - 2	1	AISG1	1	1	CXXXXXXXXXXXXR1
R2	606-696	3 - 4	1	AISG1	1	1	CXXXXXXXXXXXXR1
R3	606-696	5 - 6	2	AISG2	5	2	CXXXXXXXXXXXXR3
R4	606-696	7 - 8	2	AISG2	5	2	CXXXXXXXXXXXXR3
Y1	1710-2400	9 - 10	3	AISG3	9	3	CXXXXXXXXXXXXY1
Y2	1710-2400	11 - 12	3	AISG3	9	3	CXXXXXXXXXXXXY1
Y3	1710-2400	13 - 14	4	AISG1			CXXXXXXXXXXXXY3
Y4	1710-2400	15 - 16	4	AISG1			CXXXXXXXXXXXXY3
Y5	1710-2400	17 - 18	5	AISG4	17	4	CXXXXXXXXXXXXY5
Y6	1710-2400	19 - 20	5	AISG4	17	4	CXXXXXXXXXXXXY5
Y7	1710-2400	21 - 22	6	AISG4			CXXXXXXXXXXXXY7
Y8	1710-2400	23 - 24	6	AISG4			CXXXXXXXXXXXXY7

Sizes of colored boxes are not true depiction of array sizes

## Port Configuration



## Electrical Specifications

# 2NN2H4-33B-R6B

<b>Impedance</b>	50 ohm
<b>Operating Frequency Band</b>	1710 – 2400 MHz   698 – 896 MHz
<b>Polarization</b>	±45°
<b>Total Input Power, maximum</b>	2,000 W @ 50 °C

## Electrical Specifications

	<b>R1-R4</b>	<b>R1-R4</b>	<b>Y1-Y8</b>	<b>Y1-Y8</b>	<b>Y1-Y8</b>	<b>Y1-Y8</b>
<b>Frequency Band, MHz</b>	<b>698–806</b>	<b>824–896</b>	<b>1710–1880</b>	<b>1850–1990</b>	<b>1920–2200</b>	<b>2300–2400</b>
<b>RF Port</b>	1-8	1-8	9-24	9-24	9-24	9-24
<b>Gain, dBi</b>	14	14.6	16.2	17.1	17.9	18.4
<b>Beam Centers, Horizontal, degrees</b>	±27	±27	±27	±27	±27	±27
<b>Beamwidth, Horizontal, degrees</b>	41	37	34	33	30	28
<b>Beamwidth, Vertical, degrees</b>	25	22.4	10.2	9.3	8.7	7.7
<b>Beam Tilt, degrees</b>	2–20	2–20	2–12	2–12	2–12	2–12
<b>USLS (First Lobe), dB</b>	16	18	15	16	16	16
<b>Front-to-Back Ratio at 180°, dB</b>	27	30	31	34	32	32
<b>CPR at Boresight, dB</b>	18	18	16	16	17	14
<b>Isolation, Cross Polarization, dB</b>	25	25	25	25	25	25
<b>Isolation, Inter-band, dB</b>	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
<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-153	-153	-153	-153	-153	-153
<b>Input Power per Port at 50°C, maximum, watts</b>	300	300	250	250	250	250

## Mechanical Specifications

<b>Wind Loading @ Velocity, frontal</b>	715.0 N @ 150 km/h (160.7 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	206.0 N @ 150 km/h (46.3 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	911.0 N @ 150 km/h (204.8 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	446.0 N @ 150 km/h (100.3 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241 km/h (150 mph)

## Packaging and Weights

# 2NN2H4-33B-R6B

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<b>Width, packed</b>	752 mm   29.606 in
<b>Depth, packed</b>	387 mm   15.236 in
<b>Length, packed</b>	1982 mm   78.032 in
<b>Weight, gross</b>	80 kg   176.37 lb

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
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-4	-	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-M4	-	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

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