

2H-33A-R2



4-port multibeam antenna, 4x 1695–2400 MHz, 2x 38° HPBW, 2x RET

- Enhances network capacity through six sectors site application with only three antenna faces
- Maximizes frequency spectrum utilization to increase Average Revenue Per User (ARPU)
- Reduces antenna count to minimize Cap-Ex and Op-Ex costs
- High gain with excellent sector edge roll-off and azimuth sidelobe suppression
- Each antenna downtilt can be independently adjusted for greater flexibility in network optimization

Electrical Specifications

Frequency Band, MHz	1695–1880	1850–1990	1920–2180	2300–2400
Gain, dBi	19.1	19.6	19.9	19.1
Beam Centers, Horizontal, degrees	±27	±27	±27	±27
Beamwidth, Horizontal, degrees	38	36	34	30
Beamwidth, Vertical, degrees	7.5	7.0	6.5	5.9
Beam Tilt, degrees	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	20	20	19	18
Front-to-Back Ratio at 180°, dB	34	37	37	30
Isolation, Cross Polarization, dB	28	28	28	28
Isolation, Inter-band, dB	16	16	16	16
VSWR Return Loss, dB	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
Input Power per Port, maximum, watts	250	250	250	250
Polarization	±45°	±45°	±45°	±45°
Impedance	50 ohm	50 ohm	50 ohm	50 ohm

Electrical Specifications, BASTA*

Frequency Band, MHz	1695–1880	1850–1990	1920–2180	2300–2400
Gain by all Beam Tilts, average, dBi	18.7	19.3	19.6	18.7
Gain by all Beam Tilts Tolerance, dB	±0.5	±0.4	±0.6	±0.6
Gain by Beam Tilt, average, dBi	2 ° 18.6 7 ° 18.8 12 ° 18.6	2 ° 19.1 7 ° 19.4 12 ° 19.2	2 ° 19.5 7 ° 19.8 12 ° 19.0	2 ° 19.0 7 ° 18.8 12 ° 18.3
Beamwidth, Horizontal Tolerance, degrees	±1.3	±1.3	±2.2	±1.7
Beamwidth, Vertical Tolerance, degrees	±0.4	±0.3	±0.5	±0.2
USLS, beampeak to 20° above beampeak, dB	14	15	15	15
Front-to-Back Total Power at 180° ± 30°, dB	28	29	27	24
CPR at Boresight, dB	23	24	19	13

* CommScope® supports NGMN recommendations on Base Station Antenna Standards (BASTA). To learn more about the benefits of BASTA, [download the whitepaper Time to Raise the Bar on BSAs](#).

General Specifications

Operating Frequency Band	1695 – 2400 MHz
Antenna Type	Multibeam
Band	Single band
Performance Note	Outdoor usage

Mechanical Specifications

RF Connector Quantity, total	4
RF Connector Quantity, high band	4
RF Connector Interface	4.3-10 Female
Color	Light gray
Grounding Type	RF connector inner conductor and body grounded to reflector and mounting bracket
Radiator Material	Low loss circuit board
Radome Material	Fiberglass, UV resistant
Reflector Material	Aluminum
RF Connector Location	Bottom
Wind Loading, frontal	221.0 N @ 150 km/h 49.7 lbf @ 150 km/h
Wind Loading, lateral	185.0 N @ 150 km/h 41.6 lbf @ 150 km/h
Wind Loading, maximum	469.0 N @ 150 km/h 105.4 lbf @ 150 km/h
Wind Speed, maximum	241 km/h 150 mph

Dimensions

Length	1400.0 mm 55.1 in
Width	350.0 mm 13.8 in
Depth	208.0 mm 8.2 in
Net Weight, without mounting kit	17.6 kg 38.8 lb

Remote Electrical Tilt (RET) Information

Input Voltage	10–30 Vdc
Internal RET	High band (2)
Power Consumption, idle state, maximum	2 W
Power Consumption, normal conditions, maximum	13 W
Protocol	3GPP/AISG 2.0 (Single RET)
RET Interface	8-pin DIN Female 8-pin DIN Male
RET Interface, quantity	2 female 2 male

2H-33A-R2

Packed Dimensions

Length	1544.0 mm 60.8 in
Width	447.0 mm 17.6 in
Depth	354.0 mm 13.9 in
Shipping Weight	30.0 kg 66.1 lb

Regulatory Compliance/Certifications

Agency	Classification
RoHS 2011/65/EU	Compliant by Exemption
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
China RoHS SJ/T 11364-2014	Above Maximum Concentration Value (MCV)
CE	Compliant with the relevant CE product directives



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