N45C-1XB1

2-port sector antenna, 2x 698–896 MHz, 45° HPBW, 1x RET, internal SBT

- Broadband, providing future-ready single antenna for application in 700 MHz and existing 850 MHz cellular operation
- Specifically designed to have physical dimensions similar to most existing cellular antennas

General Specifications

Antenna Type	Sector
Band	Single band
Color	Light Gray (RAL 7035)
Grounding Type	RF connector body grounded to reflector and mounting bracket
Performance Note	Outdoor usage | Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN
Radome Material	Fiberglass, UV resistant
Radiator Material	Aluminum | Copper | Low loss circuit board
Reflector Material	Aluminum
RF Connector Interface	7-16 DIN Female
RF Connector Location	Bottom
RF Connector Quantity, low band	2
RF Connector Quantity, total	2

Remote Electrical Tilt (RET) Information

RET Interface	8-pin DIN Female | 8-pin DIN Male
RET Interface, quantity	1 female | 1 male
Input Voltage	10–30 Vdc
Internal Bias Tee	Port 1
Internal RET	Low band (1)
Power Consumption, idle state, maximum	2 W
Power Consumption, normal conditions, maximum	13 W
Protocol	3GPP/AISG 2.0 (Single RET)

Dimensions

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Width	457 mm | 17.992 in
Depth	178 mm | 7.008 in
Length	2437 mm | 95.945 in
Net Weight, without mounting kit	32 kg | 70.548 lb

Array Layout

Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	698-896	1-2	1	ANxxxxxxxxxxxxxxxx1

Bottom

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

Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	698 – 896 MHz
Polarization	±45°

Electrical Specifications

Frequency Band, MHz	**698–806**	**806–896**
Gain, dBi	18.2	18.5
Beamwidth, Horizontal, degrees	47	43
Beamwidth, Vertical, degrees	9	8.3
Beam Tilt, degrees	2–12	2–12
USLS (First Lobe), dB	14	14
Front-to-Back Ratio at 180°, dB	29	30
CPR at Boresight, dB	24	20
CPR at 10 dB Horizontal Beamwidth, dB	11	13

Isolation, Cross Polarization, dB	25	25
VSWR | Return loss, dB	1.5 | 14.0	1.5 | 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153
Input Power per Port, maximum, watts	350	350

Electrical Specifications, BASTA

Frequency Band, MHz	**698–806**	**806–896**
Gain by all Beam Tilts, average, dBi	17.9	18.5
Gain by all Beam Tilts Tolerance, dB	±0.5	±0.2
Gain by Beam Tilt, average, dBi	0 ° | 17.9 6 ° | 18.0 12 ° | 17.7	0 ° | 18.6 6 ° | 18.6 12 ° | 18.3
Beamwidth, Horizontal Tolerance, degrees	±1.9	±1.9
Beamwidth, Vertical Tolerance, degrees	±0.6	±0.3
USLS, beampeak to 20° above beampeak, dB	17	16
Front-to-Back Total Power at 180° ± 30°, dB	24	26
CPR at Boresight, dB	27	21
CPR at 10 dB Horizontal Beamwidth, dB	12	16

Mechanical Specifications

Effective Projective Area (EPA), frontal	1.4 m² | 15.069 ft²
Effective Projective Area (EPA), lateral	0.3 m² | 3.229 ft²
Wind Loading @ Velocity, frontal	1,485.0 N @ 150 km/h (333.8 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	315.0 N @ 150 km/h (70.8 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	1,304.0 N @ 150 km/h (293.2 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h | 149.75 mph

Packaging and Weights

Width, packed	567 mm | 22.323 in
Depth, packed	311 mm | 12.244 in
Length, packed	2559 mm | 100.748 in
Weight, gross	51.7 kg | 113.979 lb

Regulatory Compliance/Certifications

Agency	**Classification**
CHINA-ROHS	Above maximum concentration value

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ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
ROHS	Compliant/Exempted
UK-ROHS	Compliant/Exempted

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.
BSAMNT-M	–	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

Performance Note	Severe environmental conditions may degrade optimum performance