# 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

# N45C-1XB1

| | |
|---|---|
| **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<br>6 ° \| 18.0<br>12 ° \| 17.7 | 0 ° \| 18.6<br>6 ° \| 18.6<br>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 |
| **Mechanical Tilt Range** | 0°–11° |
| **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 (150 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** |
|---|---|

# N45C-1XB1

| | |
|---|---|
| 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-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 |