

# NH65S-DG-FOM



2-port small cell antenna, 2x (698-896 and 1710-2180 MHz), 65° HPBW with fixed tilt in the low band and manual tilt in the high band. Contains internal diplexer and active GPS L1 band antenna.

## Electrical Specifications

Frequency Band, MHz	698-806	806-896	1710-1880	1850-1990	1920-2180
Gain, dBi	10.1	10.5	14.0	14.1	14.0
Beamwidth, Horizontal, degrees	69	65	60	60	61
Beamwidth, Vertical, degrees	39.9	35.7	14.1	13.5	13.1
Beam Tilt, degrees	0	0	0-16	0-16	0-16
USLS (First Lobe), dB	15	15	12	13	13
Front-to-Back Ratio at 180°, dB	24	32	24	25	25
Isolation, Cross Polarization, dB	25	25	25	25	25
VSWR   Return Loss, dB	1.5   14.0	1.5   14.0	1.5   14.0	1.5   14.0	1.5   14.0
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153
Input Power per Port, maximum, watts	125	125	125	125	125
Polarization	±45°	±45°	±45°	±45°	±45°
Impedance	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm

## Electrical Specifications, BASTA\*

Frequency Band, MHz	698-806	806-896	1710-1880	1850-1990	1920-2180
Gain by all Beam Tilts, average, dBi	9.5	10.1	13.5	13.8	13.6
Gain by all Beam Tilts Tolerance, dB	±1.3	±0.8	±0.7	±0.5	±0.6
Gain by Beam Tilt, average, dBi			0°   14.0 8°   13.5 16°   12.9	0°   14.2 8°   13.8 16°   13.3	0°   14.0 8°   13.6 16°   13.3
Beamwidth, Horizontal Tolerance, degrees	±7.5	±4.6	±5.1	±5.4	±7.7
Beamwidth, Vertical Tolerance, degrees	±6	±3.2	±1.1	±0.7	±0.8
USLS, beampeak to 20° above beampeak, dB			12	13	13
Front-to-Back Total Power at 180° ± 30°, dB	19	20	21	20	19
CPR at Boresight, dB	16	17	18	16	16
CPR at Sector, dB	9	5	9	9	10

\* 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**

1710 – 2180 MHz | 698 – 896 MHz

**Antenna Type**

Small Cell

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<b>Band</b>	Multiband
<b>Internal GPS frequency band</b>	1575.42 MHz
<b>Internal GPS VSWR</b>	2.0
<b>Performance Note</b>	Outdoor usage

## Mechanical Specifications

<b>RF Connector Quantity, total</b>	2
<b>RF Connector Interface</b>	7-16 DIN Female
<b>Color</b>	Light gray
<b>GPS Connector Interface</b>	4.1-9.5 DIN Female
<b>GPS Connector Quantity</b>	1
<b>Grounding Type</b>	RF connector inner conductor and body grounded to reflector and mounting bracket
<b>Radiator Material</b>	Aluminum   Low loss circuit board
<b>Radome Material</b>	Fiberglass, UV resistant
<b>RF Connector Location</b>	Bottom
<b>RF Connector Quantity, diplexed low and high bands</b>	2
<b>Wind Loading, frontal</b>	98.0 N @ 150 km/h 22.0 lbf @ 150 km/h
<b>Wind Loading, lateral</b>	77.0 N @ 150 km/h 17.3 lbf @ 150 km/h
<b>Wind Loading, maximum</b>	188.0 N @ 150 km/h 42.3 lbf @ 150 km/h
<b>Wind Speed, maximum</b>	241 km/h   150 mph

## Dimensions

<b>Length</b>	728.0 mm   28.7 in
<b>Width</b>	301.0 mm   11.9 in
<b>Depth</b>	181.0 mm   7.1 in
<b>Net Weight, without mounting kit</b>	7.6 kg   16.8 lb

## Packed Dimensions

<b>Length</b>	976.0 mm   38.4 in
<b>Width</b>	409.0 mm   16.1 in
<b>Depth</b>	299.0 mm   11.8 in
<b>Shipping Weight</b>	13.9 kg   30.6 lb

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
RoHS 2011/65/EU	Compliant by Exemption

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ISO 9001:2015  
China RoHS SJ/T 11364-2014

Designed, manufactured and/or distributed under this quality management system  
Above Maximum Concentration Value (MCV)



## 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