## FFHH-65C-R3



8-port sector antenna, 4x 617-806 and 4x 1695–2360 MHz, 65° HPBW, 3x RET, 600 MHz-Ready Antenna Technology

#### OBSOLETE

 This product was discontinued on: November 30, 2023

 Replaced By:
 NNHH-65C-R4
 8-port sector antenna, 4x 698–896 and 4x 1695–2360 MHz, 65° HPBW, 4x RETs

### General Specifications

Antenna Type	Sector
Band	Multiband
Color	Light Gray (RAL 7035)
Grounding Type	RF connector inner conductor and 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   Low loss circuit board
Reflector Material	Aluminum
RF Connector Interface	4.3-10 Female
RF Connector Location	Bottom
RF Connector Quantity, high band	4
RF Connector Quantity, mid band	0
RF Connector Quantity, low band	4
RF Connector Quantity, total	8

#### 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

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Internal RET	High band (2)   Low band (1)
Power Consumption, idle state, maximum	1 W
Power Consumption, normal conditions, maximum	10 W
Protocol	3GPP/AISG 2.0 (Single RET)
Dimensions	
Width	640 mm   25.197 in
Depth	235 mm   9.252 in
Length	2437 mm   95.945 in
Net Weight, without mounting kit	57.9 kg   127.647 lb

## Array Layout



Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	617-806	1-2	1	A.N
R2	617-806	3-4	T	ANxxxxxxxxxxxxxxxx1
Y1	1695-2360	5-6	2	ANxxxxxxxxxxxxxx2
Y2	1695-2360	7-8	3	ANxxxxxxxxxxxxxxx3

Right Bottom

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

## Port Configuration

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## **Electrical Specifications**

Impedance	50 ohm
Operating Frequency Band	1695 – 2360 MHz   617 – 806 MHz
Polarization	±45°
Total Input Power, maximum	900 W @ 50 °C

## **Electrical Specifications**

Frequency Band, MHz	617-698	698-806	1695-1880	1850-1990	1920-2200	2300-2360
Gain, dBi	15.4	15.8	17.9	18.4	18.8	19.6
Beamwidth, Horizontal, degrees	66	61	64	65	64	56
Beamwidth, Vertical, degrees	10.2	9.2	5.7	5.3	4.9	4.4
Beam Tilt, degrees	2-13	2-13	2-12	2-12	2-12	2-12
USLS (First Lobe), dB	18	17	19	19	19	22
Front-to-Back Ratio at 180°, dB	33	31	38	41	40	38
Isolation, Cross Polarization, dB	28	28	28	28	28	28
Isolation, Inter-band, dB	28	28	28	28	28	28
VSWR   Return loss, dB	1.5   14.0	1.5   14.0	1.5   14.0	1.5   14.0	1.5   14.0	1.5   14.0





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PIM, 3rd Order, 2 x 20 W, dBc	-150	-153	-153	-153	-153	-153	
Input Power per Port at 50°C, maximum, watts	250	250	250	250	250	200	
Mechanical Specifica	ations						
Mechanical Tilt Range			0°-10°				
Wind Loading @ Velocity, frontal			1,055.0 N @ 150 km/h (237.2 lbf @ 150 km/h)				
Wind Loading @ Velocity, lateral			355.0 N @ 150 km/h (79.8 lbf @ 150 km/h)				
Wind Loading @ Velocity, maximum			1,433.0 N @ 150 km/h (322.2 lbf @ 150 km/h)				
Wind Loading @ Velocity, rear			1,086.0 N @ 150 km/h (244.1 lbf @ 150 km/h)				
Wind Speed, maximum			241 km/h (150	mph)			

### Packaging and Weights

Width, packed	752 mm   29.606 in
Depth, packed	382 mm   15.039 in
Length, packed	2590 mm   101.969 in
Weight, gross	82 kg   180.779 lb

### Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.andrew.com/ProductCompliance
ROHS	Compliant
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

**Performance Note** 

Severe environmental conditions may degrade optimum performance

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