FF2HH-6533A-R5

12-Port Sector/multibeam antenna, 4x 617–894 MHz 65° HPBW and 8x 1695–2360 MHz 4x 33° HPBW, 5x RET

- All Internal RET actuators are connected in “Cascaded SRET” configuration
- Uses the 4.3-10 connector which is 40 percent smaller than the 7-16 DIN connector
- Enhances network capacity through six sectors on high band while maintaining low band coverage layer through three sectors with only three antenna faces
- Each High Band antenna down tilt can be independently adjusted for greater flexibility in network optimization

General Specifications

Antenna Type	Multibeam
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
Radome Material	Fiberglass, UV resistant
Radiator Material	Low loss circuit board
Reflector Material	Aluminum
RF Connector Interface	4.3-10 Female
RF Connector Location	Bottom
RF Connector Quantity, high band	8
RF Connector Quantity, low band	4
RF Connector Quantity, total	12

Remote Electrical Tilt (RET) Information

RET Hardware	CommRET v2
RET Interface	8-pin DIN Female | 8-pin DIN Male
RET Interface, quantity	1 female | 1 male
Input Voltage	10–30 Vdc
Internal RET	High band (4) | Low band (1)
Power Consumption, active state, maximum	8 W
Power Consumption, idle state, maximum	1 W

FF2HH-6533A-R5

Protocol	3GPP/AISG 2.0 (Single RET)

Dimensions

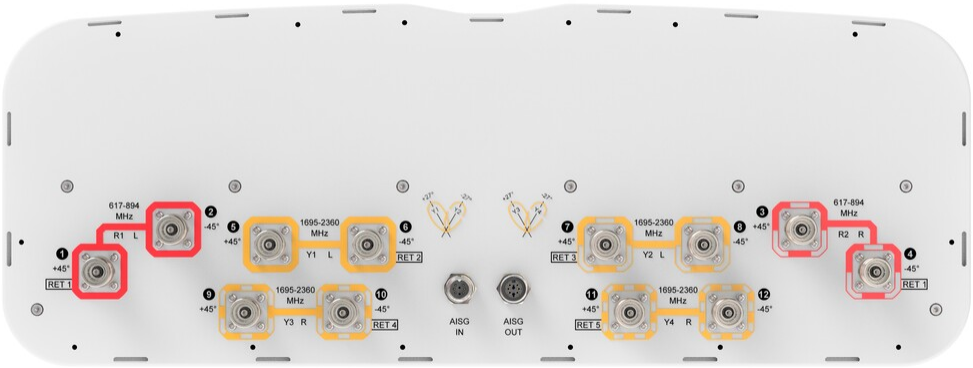
Width	640 mm | 25.197 in
Depth	235 mm | 9.252 in
Length	1224 mm | 48.189 in
Net Weight, without mounting kit	40.1 kg | 88.405 lb

Array Layout

Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	617-894	1-2	1	CPxxxxxxxxxxxxxxxR1
R2	617-894	3-4		
Y1	1695-2360	5-6	2	CPxxxxxxxxxxxxxxxY1
Y2	1695-2360	7-8	3	CPxxxxxxxxxxxxxxxY2
Y3	1695-2360	9-10	4	CPxxxxxxxxxxxxxxxY3
Y4	1695-2360	11-12	5	CPxxxxxxxxxxxxxxxY4

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

Port Configuration



Electrical Specifications

FF2HH-6533A-R5

Impedance	50 ohm
Operating Frequency Band	1695 – 2360 MHz | 617 – 894 MHz
Polarization	±45°
Total Input Power, maximum	1,000 W @ 50 °C

Electrical Specifications

Frequency Band, MHz	**617–698**	**698–806**	**806–894**	**1695–1880**	**1850–1990**	**1920–2180**	**2300–2360**
Gain, dBi	12.6	13.2	13.1	18.1	19	19.4	18.7
Beam Centers, Horizontal, degrees				±27	±27	±27	±27
Beamwidth, Horizontal, degrees	72	63	64	36	35	32	29
Beamwidth, Vertical, degrees	21.3	18.8	16.4	7.4	6.9	6.5	5.8
Beam Tilt, degrees	5–22	5–22	5–18	2–10	2–10	2–10	2–10
USLS (First Lobe), dB	16	18	20	16	16	18	19
Front-to-Back Ratio at 180°, dB	29	33	27	35	36	36	31
Isolation, Cross Polarization, dB	25	25	25	25	25	25	25
Isolation, Inter-band, dB	25	25	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	1.5 | 14.0	1.5 | 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-150	-153	-153	-153	-153	-153	-153
Input Power per Port at 50°C, maximum, watts	250	250	250	200	200	200	200

Electrical Specifications, BASTA

Frequency Band, MHz	**617–698**	**698–806**	**806–894**	**1695–1880**	**1850–1990**	**1920–2180**	**2300–2360**
Gain by all Beam Tilts, average, dBi	12.3	12.8	12.7	17.4	18.6	19	18
Gain by all Beam Tilts Tolerance, dB	±0.6	±0.6	±0.8	±0.8	±0.5	±0.4	±1.5
Gain by Beam Tilt, average, dBi	5 ° | 12.4 13 ° | 12.3 22 ° | 12.0	5 ° | 13.0 13 ° | 12.8 22 ° | 12.3	5 ° | 12.9 11 ° | 12.8 18 ° | 12.1	2 ° | 17.3 6 ° | 17.5 10 ° | 17.5	2 ° | 18.5 6 ° | 18.7 10 ° | 18.7	2 ° | 18.9 6 ° | 19.1 10 ° | 18.9	2 ° | 17.7 6 ° | 18.1 10 ° | 18.0
Beamwidth, Horizontal Tolerance, degrees	±6.6	±7.9	±10.7	±2	±1.8	±2.6	±3.4
Beamwidth, Vertical Tolerance, degrees	±2.1	±1.8	±1.2	±0.3	±0.2	±0.4	±0.2
USLS, beampeak to 20° above	15	15	16	15	16	17	17

beampeak, dB							
Front-to-Back Total Power at 180° ± 30°, dB	21	22	21	26	29	29	25
CPR at Boresight, dB	18	19	18	18	20	19	12
CPR at Sector, dB	10	9	11				
CPR at 10 dB Horizontal Beamwidth, dB				12	12	13	4

Mechanical Specifications

Wind Loading @ Velocity, frontal	505.0 N @ 150 km/h (113.5 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	156.0 N @ 150 km/h (35.1 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	688.0 N @ 150 km/h (154.7 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	520.0 N @ 150 km/h (116.9 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	752 mm | 29.606 in
Depth, packed	387 mm | 15.236 in
Length, packed	1379 mm | 54.291 in
Weight, gross	52.5 kg | 115.743 lb

Regulatory Compliance/Certifications

Agency	**Classification**
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system

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