HHTTV-65A-R3

10-Port Antenna, 4x 1695–2200 (HB1), 4x 2490-2690 (HB2) and 2x 1695-2690 (HB3) MHz, 65° horizontal beamwidth, 3x Internal RET

- Provides a future-ready antenna solution with flexibility to reassign antenna, for example GSM 1800 service to 2.6GHz LTE at a later date
- One RET for H-bands, one RET for T-bands, one RET for V-band
- Excellent for 4x MIMO applications and maximizing capacity
- Employs state-of-the-art ultra wideband technology providing excellent RF performance in all bands

OBSOLETE

This product was discontinued on: March 30, 2024

General Specifications

Antenna Type	Sector
Band	Single band
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
RF Connector Interface	4.3-10 Female
RF Connector Location	Bottom
RF Connector Quantity, high band	10
RF Connector Quantity, total	10

Remote Electrical Tilt (RET) Information

RET Interface	8-pin DIN Female | 8-pin DIN Male
RET Interface, quantity	1 female | 1 male
Internal RET	High band (3)
Power Consumption, idle state, maximum	1 W
Power Consumption, normal conditions, maximum	10 W

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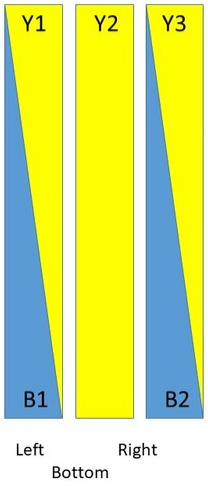
Protocol	3GPP/AISG 2.0 (Single RET)

Dimensions

Width	504 mm | 19.843 in
Depth	118 mm | 4.646 in
Length	1322 mm | 52.047 in
Net Weight, without mounting kit	21 kg | 46.297 lb

Array Layout



Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
B1	1695-2200	1-2	1	CPxxxxxxxxxxxxxx1
B2	1695-2200	9-10		
Y2	1695-2690	5-6	2	CPxxxxxxxxxxxxxx2
Y1	2490-2690	3-4	3	CPxxxxxxxxxxxxxx3
Y3	2490-2690	7-8		

(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 – 2180 MHz | 1695 – 2690 MHz | 2490 – 2690 MHz
Polarization	±45°
Total Input Power, maximum	500 W @ 50 °C

Electrical Specifications

	HB1	HB1	HB2	HB3	HB3	HB3
Frequency Band, MHz	**1695–1880**	**1920–2200**	**2490–2690**	**1695–1920**	**1920–2180**	**2490–2690**
Gain, dBi	16.7	17.2	17.2	17.2	17.7	17.5
Beamwidth, Horizontal, degrees	63	63	58	62	65	60
Beamwidth, Vertical, degrees	7.5	6.6	5.5	7.4	6.5	5.3
Beam Tilt, degrees	2–12	2–12	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	19	20	21	17	17	19
Front-to-Back Ratio at 180°, dB	30	30	33	33	32	33
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
PIM, 3rd Order, 2 x 20 W, dBc	-150	-150	-150	-150	-150	-150
Input Power per Port at 50°C, maximum, watts	300	300	250	300	300	250

Electrical Specifications, BASTA

Frequency Band, MHz	**1695–1880**	**1920–2200**	**2490–2690**	**1695–1920**	**1920–2180**	**2490–2690**
Gain by all Beam Tilts, average, dBi	16.3	16.9	16.8	16.8	17.4	17.2
Gain by all Beam Tilts Tolerance, dB	±0.6	±0.5	±0.6	±0.6	±0.4	±0.5
Gain by Beam Tilt, average, dBi	2 ° | 16.1 7 ° | 16.4 12 ° | 16.3	2 ° | 16.6 7 ° | 17.1 12 ° | 16.8	2 ° | 16.4 7 ° | 17.1 12 ° | 16.5	2 ° | 16.7 7 ° | 16.9 12 ° | 16.8	2 ° | 17.1 7 ° | 17.6 12 ° | 17.2	2 ° | 16.8 7 ° | 17.4 12 ° | 17.0
Beamwidth, Horizontal Tolerance, degrees	±3.7	±2.6	±3.7	±2.6	±2.1	±4.0
Beamwidth, Vertical Tolerance, degrees	±0.5	±0.5	±0.3	±0.5	±0.5	±0.2
USLS, beampeak to 20° above beampeak, dB	14	15	17	17	16	12
Front-to-Back Total Power at 180° ± 30°, dB	24	25	24	29	29	26
CPR at Boresight, dB	22	21	19	21	22	19
CPR at Sector, dB	15	10	7	13	10	8

Mechanical Specifications

Mechanical Tilt Range	0°–19°
Wind Loading @ Velocity, frontal	855.0 N @ 150 km/h (192.2 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	141.0 N @ 150 km/h (31.7 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	872.0 N @ 150 km/h (196.0 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	613 mm | 24.134 in
Depth, packed	226 mm | 8.898 in
Length, packed	1450 mm | 57.087 in
Weight, gross	29.4 kg | 64.816 lb

Regulatory Compliance/Certifications

HHTTV-65A-R3

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