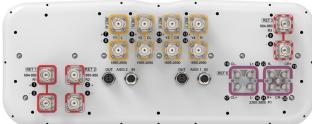


# EGRV4Q4-65D-R8



22-port sector antenna, 2 x 694-862 MHz (R1), 2 x 880-960 MHz (R2), 2 x 694-960 MHz (R3), and 8 x 1695-2690 MHz (Y1-Y4) 65° HPBW, 8 x 2300-3800 MHz (P1), 90° HPBW, 8 x RET

- Includes 1x 4-Column Array for 2300-3800MHz and calibration port. Column spacing optimized to support Soft Split Beamforming
- Q4 array uses M-LOC cluster connectors
- Eight internal RETs control the antenna arrays
- New aerodynamic endcaps for wind load optimization

## OBsolete

This product was discontinued on: February 28, 2025

## General Specifications

<b>Antenna Type</b>	Sector and beamforming
<b>Band</b>	Multiband
<b>Calibration Connector Interface</b>	M-LOC
<b>Calibration Connector Quantity</b>	1
<b>Color</b>	Light Gray (RAL 7035)
<b>Grounding Type</b>	RF connector inner conductor and body grounded to reflector and mounting bracket
<b>Performance Note</b>	Outdoor usage
<b>Radome Material</b>	Fiberglass, UV resistant
<b>Reflector Material</b>	Aluminum
<b>RF Connector Interface</b>	4.3-10 Female   M-LOC
<b>RF Connector Location</b>	Bottom
<b>RF Connector Quantity, high band</b>	8
<b>RF Connector Quantity, mid band</b>	8
<b>RF Connector Quantity, low band</b>	6
<b>RF Connector Quantity, total</b>	22

## Remote Electrical Tilt (RET) Information

<b>RET Hardware</b>	CommRET v2
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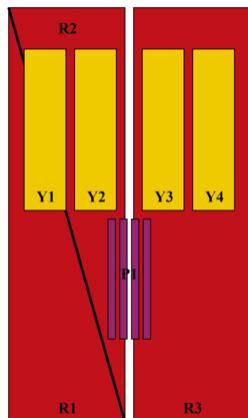
# EGRV4Q4-65D-R8

<b>RET Interface</b>	8-pin DIN Female   8-pin DIN Male
<b>RET Interface, quantity</b>	2 female   2 male
<b>Input Voltage</b>	10–30 Vdc
<b>Internal RET</b>	High band (1)   Low band (3)   Mid band (4)
<b>Power Consumption, active state, maximum</b>	8 W
<b>Power Consumption, idle state, maximum</b>	1 W
<b>Protocol</b>	3GPP/AISG 2.0

## Dimensions

<b>Width</b>	498 mm   19.606 in
<b>Depth</b>	197 mm   7.756 in
<b>Length</b>	2688 mm   105.827 in
<b>Net Weight, without mounting kit</b>	60.6 kg   133.6 lb
<b>TDD Column Spacing</b>	58 mm   2.283 in

## Array Layout

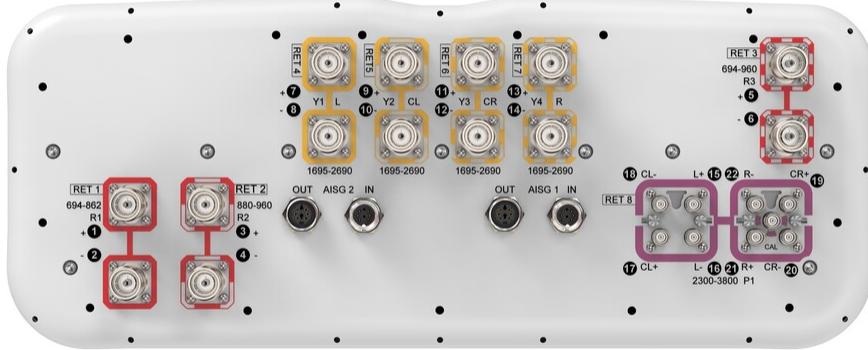


Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	AISG RET UID
R1	694-862	1 - 2	1	AISG1	CPxxxxxxxxxxxxxxR1
R2	880-960	3 - 4	2	AISG1	CPxxxxxxxxxxxxxxR2
R3	694-960	5 - 6	3	AISG1	CPxxxxxxxxxxxxxxR3
Y1	1695-2690	7 - 8	4	AISG1	CPxxxxxxxxxxxxxxY1
Y2	1695-2690	9 - 10	5	AISG1	CPxxxxxxxxxxxxxxY2
Y3	1695-2690	11 - 12	6	AISG1	CPxxxxxxxxxxxxxxY3
Y4	1695-2690	13 - 14	7	AISG1	CPxxxxxxxxxxxxxxY4
P1	2300-3800	15 - 22	8	AISG1	CPxxxxxxxxxxxxxxP1

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

## Port Configuration

# EGRV4Q4-65D-R8



## Electrical Specifications

<b>Impedance</b>	50 ohm
<b>Operating Frequency Band</b>	1695 – 2690 MHz   2300 – 3800 MHz   694 – 862 MHz   694 – 960 MHz   880 – 960 MHz
<b>Polarization</b>	$\pm 45^\circ$
<b>Total Input Power, maximum</b>	900 W @ 50 °C

## Electrical Specifications

Frequency Band, MHz	694-862	880-960	694-960	1695-1920	1920-2200	2300-2690	2300-2690	3400-3800
<b>Gain, dBi</b>	16	16.4	16.3	16	17.2	17.8	15.9	16.6
<b>Beamwidth, Horizontal, degrees</b>	68	63	66	69	63	59	85	63
<b>Beamwidth, Vertical, degrees</b>	8.6	7.4	8.1	7.3	6.5	5.4	6	5.1
<b>Beam Tilt, degrees</b>	2-12	2-12	2-12	2-12	2-12	2-12	2-12	2-12
<b>USLS (First Lobe), dB</b>	16	16	16	16	16	16	14	14
<b>Front-to-Back Ratio at 180°, dB</b>	31	32	31	31	31	31	30	27
<b>Coupling level, Amp, Antenna port to Cal port, dB</b>						26	26	
<b>Coupling level, max Amp <math>\Delta</math>, Antenna port to Cal port, dB</b>						$\pm 2$	$\pm 2$	
<b>Coupler, max Amp <math>\Delta</math>, Antenna</b>						0.9	0.9	

# EGRV4Q4-65D-R8

## port to Cal port, dB

<b>Coupler, max Phase Δ, Antenna port to Cal port, degrees</b>						7	7
<b>CPR at Boresight, dB</b>	20	19	19	20	21	21	16
<b>Isolation, Cross Polarization, dB</b>	28	28	28	25	25	25	23
<b>Isolation, Inter-band, dB</b>	28	28	28	25	25	25	25
<b>Isolation, Co-polarization, dB</b>						20	20
<b>VSWR   Return loss, dB</b>	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
<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-150	-150	-150	-150	-150	-150	-140
<b>Input Power per Port at 50°C, maximum, watts</b>	250	250	300	200	200	150	75

## Electrical Specifications, Broadcast 65°

<b>Frequency Band, MHz</b>			<b>2300–2690 3400–3800</b>
<b>Gain, dBi</b>			18.2 17.1
<b>Beamwidth, Horizontal, degrees</b>			25 75
<b>Beamwidth, Vertical, degrees</b>			5.8 5.1
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>			27 23
<b>USLS (First Lobe), dB</b>			15 14

## Electrical Specifications, Envelope Pattern

<b>Frequency Band, MHz</b>			<b>2300–2690 3400–3800</b>
<b>Gain, dBi</b>			20.5 21.9
<b>Beamwidth, Horizontal at 10 dB, degrees</b>			125 120
<b>Beamwidth, Vertical at 3 dB, degrees</b>			5.9 5.1
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>			27 27
<b>USLS (First Lobe), dB</b>			15 15

## Electrical Specifications, Service Beam

<b>Frequency Band, MHz</b>			<b>2300–2690 3400–3800</b>
<b>Steered 0° Gain, dBi</b>			20.5 21.9
<b>Steered 0° Beamwidth,</b>			24 18

# EGRV4Q4-65D-R8

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## Horizontal, degrees

<b>Steered 0° Front-to-Back</b>	30	29
<b>Total Power at 180° ± 30°, dB</b>		
<b>Steered 0° Horizontal Sidelobe, dB</b>	12	13
<b>Steered 30° Gain, dBi</b>	20	19.8
<b>Steered 30° Beamwidth, Horizontal, degrees</b>	28	22
<b>Steered 30° Front-to-Back</b>	29	25
<b>Total Power at 180° ± 30°, dB</b>		

## Electrical Specifications, Soft Split

<b>Frequency Band, MHz</b>	<b>2300–2690</b>
<b>Gain, dBi</b>	19.8
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	29
<b>Horizontal Sidelobe, dB</b>	19

## Mechanical Specifications

<b>Wind Loading @ Velocity, frontal</b>	944.0 N @ 150 km/h (212.2 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	292.0 N @ 150 km/h (65.6 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	1,130.0 N @ 150 km/h (254.0 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	650.0 N @ 150 km/h (146.1 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241 km/h (150 mph)

## Packaging and Weights

<b>Width, packed</b>	565 mm   22.244 in
<b>Depth, packed</b>	368 mm   14.488 in
<b>Length, packed</b>	2874 mm   113.15 in
<b>Weight, gross</b>	82.2 kg   181.22 lb

## 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.

# EGRV4Q4-65D-R8

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## \* Footnotes

**Performance Note** Severe environmental conditions may degrade optimum performance