

# FFV4Q4-65A-R7



20-port sector antenna, 4x 617-894, 8x 1695-2690 MHz 65° HPBW and 8x 2500-4000 MHz, Beamformer, 7x RET

- All Internal RET actuators are connected in "Cascaded SRET" configuration
- Cluster connectors for the beam-forming array, including eight RF ports plus one calibration port

## 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>	4
<b>RF Connector Quantity, total</b>	20

## Remote Electrical Tilt (RET) Information

<b>RET Hardware</b>	CommRET v2
<b>RET Interface</b>	8-pin DIN Female   8-pin DIN Male
<b>RET Interface, quantity</b>	1 female   1 male
<b>Input Voltage</b>	10–30 Vdc
<b>Internal RET</b>	High band (1)   Low band (2)   Mid band (4)
<b>Power Consumption, active state, maximum</b>	8 W
<b>Power Consumption, idle state, maximum</b>	1 W

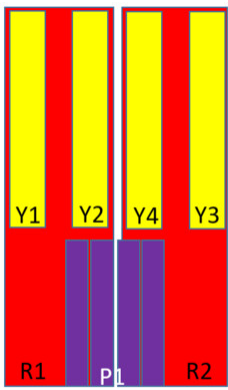
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**Protocol** 3GPP/AISG 2.0 (Single RET)

## Dimensions

**Width** 498 mm | 19.606 in  
**Depth** 197 mm | 7.756 in  
**Length** 1499 mm | 59.016 in  
**Net Weight, antenna only** 35 kg | 77.162 lb  
**TDD Column Spacing** 58 mm | 2.283 in

## Array Layout



Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	617-894	1-2	1	CPxxxxxxxxxxxxxxxxR1
R2	617-894	3-4	2	CPxxxxxxxxxxxxxxxxR2
Y1	1695-2690	5-6	3	CPxxxxxxxxxxxxxxxxY1
Y2	1695-2690	7-8	4	CPxxxxxxxxxxxxxxxxY2
Y3	1695-2690	9-10	5	CPxxxxxxxxxxxxxxxxY3
Y4	1695-2690	11-12	6	CPxxxxxxxxxxxxxxxxY4
P1	2500-4000	13-20	7	CPxxxxxxxxxxxxxxxxP1

Left Right  
Bottom

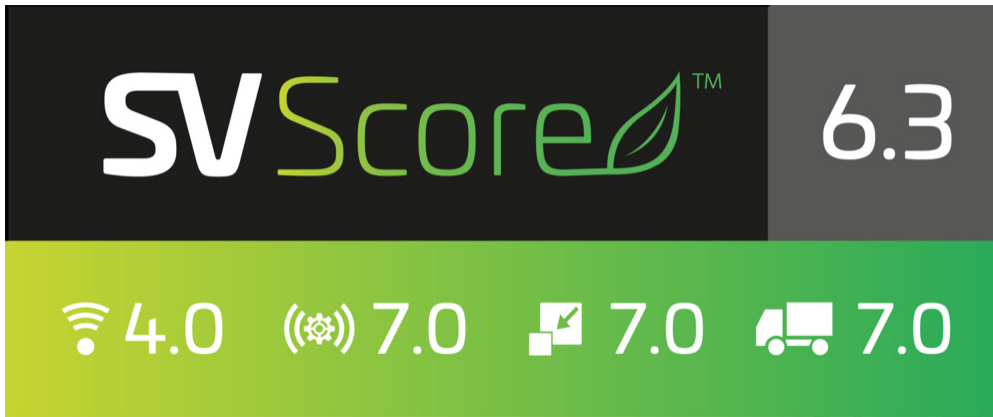
(Sizes of colored boxes are not true depictions of array sizes)

## Port Configuration



## Logo Image

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## Electrical Specifications

<b>Impedance</b>	50 ohm
<b>Operating Frequency Band</b>	1695 – 2690 MHz   2500 – 4000 MHz   617 – 894 MHz
<b>Polarization</b>	±45°
<b>Total Input Power, maximum</b>	1,400 W @ 50 °C

## Electrical Specifications

	R1,R2	R1,R2	Y1,Y3	Y1,Y3	Y1,Y3	Y2,Y4	Y2,Y4	Y2,Y4	P1	P1	P1
<b>Frequency Band, MHz</b>	617-698	698-894	1695-1920	1920-2200	2490-2690	1695-1920	1920-2200	2490-2690	2500-2690	3300-3800	3700-4000
<b>RF Port</b>	1-4	1-4	5,6,9,10	5,6,9,10	5,6,9,10	7,8,11,12	7,8,11,12	7,8,11,12	13-20	13-20	13-20
<b>Gain, dBi</b>	12.9	13.4	16	16.7	17.1	15.8	16.5	16.7	11.8	13.4	13.7
<b>Beamwidth, Horizontal, degrees</b>	69	59	74	69	56	68	64	58	93	65	65
<b>Beamwidth, Vertical, degrees</b>	18.2	15.5	6.6	6	5.1	8.8	7.9	6.4	16.9	12.1	11.7
<b>Beam Tilt, degrees</b>	4-18	4-18	2-12	2-12	2-12	2-12	2-12	2-12	2-12	2-12	2-12
<b>USLS (First Lobe), dB</b>	17	17	19	18	19	18	18	17	12	15	15
<b>Front-to-Back Ratio at 180°, dB</b>	28	30	32	33	27	35	36	31	28	25	24
<b>Coupling level, Amp, Antenna</b>									26	26	26

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port to Cal port, dB											
Coupling level, max Amp Δ, Antenna port to Cal port, dB									±2	±2	±2
Coupler, max Amp Δ, Antenna port to Cal port, dB									0.9	0.9	0.9
Coupler, max Phase Δ, Antenna port to Cal port, degrees									7	7	7
Isolation, Cross Polarization, dB	25	25	25	25	25	25	25	25	25	25	25
Isolation, Inter-band, dB	25	25	25	25	25	25	25	25	25	25	25
Isolation, Co-polarization, dB									18	18	18
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	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	-150	-150	-140	-140	-140
Input Power per Port at 50°C, maximum, watts	250	250	200	200	200	200	200	200	80	80	80

## Electrical Specifications, BASTA

Frequency Band, MHz      617-698 698-894 1695-1920 1920-2200 2490-2690 1695-1920 1920-2200 2490-2690 2500-2690 3300-3800 3700-4000

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<b>Gain by all Beam Tilts, average, dBi</b>	12.5	13	15.6	16.3	16.6	15.4	16.1	16.4	11.3	12.8	13
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.6	±0.8	±0.8	±0.4	±0.7	±0.7	±0.5	±0.6	±0.8	±0.7	±0.8
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±10	±9	±5	±7	±5	±5	±7	±5	±18	±12	±11
<b>Beamwidth, Vertical Tolerance, degrees</b>	±1.8	±1.9	±0.4	±0.5	±0.4	±0.7	±0.6	±0.5	±2	±1.5	±1.3
<b>USLS, beampeak to 20° above beampeak, dB</b>			16	15	13	16	16	12		14	15
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	19	20	23	25	21	26	29	26	22	18	18
<b>CPR at Boresight, dB</b>	14	14	19	20	16	17	20	18	19	16	16
<b>CPR at Sector, dB</b>	8	7	7	6	3	7	9	5	7	7	7

## Electrical Specifications, Broadcast 65°

<b>Frequency Band, MHz</b>	<b>2500-2690 3300-3800 3700-4000</b>		
<b>Gain, dBi</b>	14	14.5	14.8
<b>Beamwidth, Horizontal, degrees</b>	65	65	65
<b>Beamwidth, Vertical, degrees</b>	16.5	11.9	11.5
<b>Front-to-Back Total</b>	26	21	21

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Power at  
180° ± 30°,  
dB

USLS (First  
Lobe), dB

18 16 17

## Electrical Specifications, Envelope Pattern

Frequency  
Band, MHz

**2500-2690 3300-3800 3700-4000**

Gain, dBi

16.5 18.3 18.4

Beamwidth,  
Horizontal  
at 10 dB,  
degrees

120 124 122

Beamwidth,  
Vertical at 3  
dB, degrees

16.7 12 11.4

Front-to-  
Back Total  
Power at  
180° ± 30°,  
dB

26 23 22

USLS (First  
Lobe), dB

20 20 20

## Electrical Specifications, Service Beam

Frequency  
Band, MHz

**2500-2690 3300-3800 3700-4000**

Steered 0°  
Gain, dBi

16.6 18.3 18.4

Steered 0°  
Beamwidth,  
Horizontal,  
degrees

25 19 18

Steered 0°  
Front-to-  
Back Total  
Power at  
180° ± 30°,  
dB

28 25 23

Steered 0°

12 12 11

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## Horizontal Sidelobe, dB

Steered 30° Gain, dBi	15.8	16.3	16.4
Steered 30° Beamwidth, Horizontal, degrees	29	21	19
Steered 30° Front-to-Back Total Power at 180° ± 30°, dB	28	22	21

## Electrical Specifications, Soft Split

Frequency Band, MHz	2500–2690
Gain, dBi	15.7
Beamwidth, Horizontal, degrees	32
Front-to-Back Total Power at 180° ± 30°, dB	28
Horizontal Sidelobe, dB	17

## Mechanical Specifications

Wind Loading @ Velocity, frontal	510.0 N @ 150 km/h (114.7 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	133.0 N @ 150 km/h (29.9 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	677.0 N @ 150 km/h (152.2 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	351.0 N @ 150 km/h (78.9 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

## Packaging and Weights

Width, packed	565 mm   22.244 in
Depth, packed	309 mm   12.165 in
Length, packed	1686 mm   66.378 in

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**Weight, gross**

45 kg | 99.208 lb

## Regulatory Compliance/Certifications

**Agency**

**Classification**

CHINA-ROHS

Above maximum concentration value

ISO 9001:2015

Designed, manufactured and/or distributed under this quality management system

ROHS

Compliant/Exempted

UK-ROHS

Compliant/Exempted



## Included Products

BSAMNT-2F

- Mounting bracket for cylindrical pipe installations (60-115mm pipe diameter) for fix mechanical tilt applications.

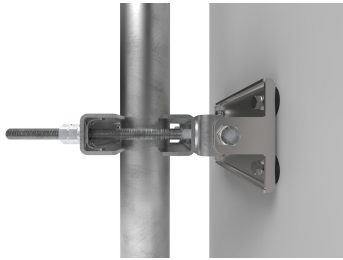
## \* Footnotes

**Performance Note**

Severe environmental conditions may degrade optimum performance



# BSAMNT-2F



Mounting bracket for cylindrical pipe installations (60-115mm pipe diameter) for fix mechanical tilt applications.

## Product Classification

**Product Type** Fixed tilt mounting kit

## General Specifications

**Application** Outdoor

**Color** Silver

## Dimensions

**Compatible Diameter, maximum** 115 mm | 4.528 in

**Compatible Diameter, minimum** 60 mm | 2.362 in

**Weight, net** 3.8 kg | 8.378 lb

## Material Specifications

**Material Type** Galvanized steel

## Packaging and Weights

**Included** Brackets | Hardware

**Packaging quantity** 1

**Weight, gross** 4 kg | 8.818 lb

## Regulatory Compliance/Certifications

Agency	Classification
CE	Compliant with the relevant CE product directives
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 <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant

# BSAMNT-2F

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