

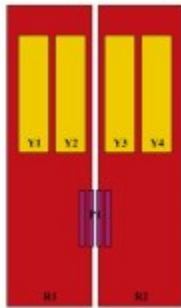
FFV4Q4-65D-R7-BG

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 TDD beam-forming array at 2500-4000MHz
- 1695-2690MHz Ports Support additional 8T8R Beamforming capability by integrating calibration networks

Array Layout



Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	RET UID
R1	617-894	1 - 2	1	AISG1	CPxxxxxxxxxxxxxxxxR1
R2	617-894	3 - 4	2	AISG1	CPxxxxxxxxxxxxxxxxR2
Y1	1695-2690	5 - 6	3	AISG1	CPxxxxxxxxxxxxxxxxY1
Y2	1695-2690	7 - 8	4	AISG1	CPxxxxxxxxxxxxxxxxY2
Y3	1695-2690	9 - 10	5	AISG1	CPxxxxxxxxxxxxxxxxY3
Y4	1695-2690	11 - 12	6	AISG1	CPxxxxxxxxxxxxxxxxY4
P1	2500-4000	13 - 20	7	AISG1	CPxxxxxxxxxxxxxxxxP1

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

Port Configuration

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Electrical Specifications

	R1,R2	R1,R2	Y1-Y4	Y1-Y4	Y1-Y4
Frequency Band, MHz	617-698	698-894	1695-1920	1920-2200	2490-2690
RF Port	1,2,3,4	1,2,3,4	5-12	5-12	5-12
Gain, dBi	15.5	16.6	16.9	17.9	18
Beamwidth, Horizontal, degrees	72	62	70	67	56
Beamwidth, Vertical, degrees	9.1	7.7	6.8	6.1	5
Beam Tilt, degrees	2-12	2-12	2-12	2-12	2-12
USLS (First Lobe), dB	15	17	17	15	18
Front-to-Back Ratio at 180°, dB	28	31	32	35	31
Coupling level, Amp, Antenna port to Cal port, dB			26	26	26
Coupling level, max Amp Δ, Antenna port to Cal port, dB			±2	±2	±2

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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
CPR at Boresight, dB	17	17	22	23	19
Isolation, Cross Polarization, dB	25	25	25	25	25
Isolation, Inter-band, dB	25	25	25	25	25
Isolation, Co-polarization, dB			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
PIM, 3rd Order, 2 x 20 W, dBc	-150	-150	-150	-150	-150
Input Power per Port at 50°C, maximum, watts	250	250	150	150	150

Electrical Specifications, Service Beam

Frequency Band, MHz	1695–1920	1920–2200	2490–2690
Steered 0° Gain, dBi	22.2	23.3	23.4
Steered 0° Beamwidth, Horizontal, degrees	18	16	12
Steered 0° Front-to-Back Total Power at 180° ± 30°, dB	34	36	31
Steered 0° Horizontal Sidelobe, dB	12	12	13

Electrical Specifications, Soft Split

Frequency Band, MHz	1695–1920	1920–2200	2490–2690
Gain, dBi	20.6	21.5	20.9
Beamwidth, Horizontal, degrees	22	20	16
Front-to-Back Total Power at 180° ± 30°, dB	32	34	31

Electrical Specifications

	P1	P1	P1	P1
Frequency Band, MHz	2500–2690	3100–3300	3300–3800	3700–4000
RF Port	13-20	13-20	13-20	13-20
Gain, dBi	16.6	16.9	16.9	16.3
Beamwidth, Horizontal, degrees	84	67	60	64

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Beamwidth, Vertical, degrees	5.8	5.8	5.7	6
Beam Tilt, degrees	2-12	2-12	2-12	2-12
USLS (First Lobe), dB	16	16	16	15
Front-to-Back Ratio at 180°, dB	33	32	29	27
Coupling level, Amp, Antenna port to Cal port, dB	26	26	26	26
Coupling level, max Amp Δ, Antenna port to Cal port, dB	±2	±2	±2	±2
Coupler, max Amp Δ, Antenna port to Cal port, dB	0.9	0.9	0.9	0.9
Coupler, max Phase Δ, Antenna port to Cal port, degrees	7	7	7	7
CPR at Boresight, dB	16	15	14	13
Isolation, Cross Polarization, dB	25	25	25	25
Isolation, Inter-band, dB	25	25	25	25
Isolation, Co-polarization, dB	18	18	18	18
VSWR Return loss, dB	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-140	-140	-140	-140
Input Power per Port at 50°C, maximum, watts	80	80	80	80

Electrical Specifications, Broadcast 65°

Frequency Band, MHz	2500-2690	3100-3300	3300-3800	3700-4000
Gain, dBi	18.8	17.4	17.1	16.6
Beamwidth, Horizontal at 3 dB, degrees	65	65	65	65
Beamwidth, Horizontal at 10 dB, degrees	106	115	108	105
Beamwidth, Vertical, degrees	5.9	5.7	5.6	5.8
Front-to-Back Total Power at 180° ± 30°, dB	30	27	24	22
USLS (First Lobe), dB	17	17	18	17

Electrical Specifications, Envelope Pattern

Frequency Band, MHz	2500-2690	3100-3300	3300-3800	3700-4000
Gain, dBi	21.2	21.6	21.4	21.1

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Beamwidth, Horizontal at 10 dB, degrees	118	132	120	121
Front-to-Back Total Power at 180° ± 30°, dB	31	28	26	25
USLS (First Lobe), dB	18	20	18	18

Electrical Specifications, Service Beam

Frequency Band, MHz	2500–2690	3100–3300	3300–3800	3700–4000
Steered 0° Gain, dBi	21.2	21.6	21.3	20.9
Steered 0° Beamwidth, Horizontal, degrees	25	19	19	19
Steered 0° Front-to-Back Total Power at 180° ± 30°, dB	33	32	28	26
Steered 0° Horizontal Sidelobe, dB	12	13	11	11
Steered 30° Gain, dBi	20.6	19.6	19.7	19.4
Steered 30° Beamwidth, Horizontal, degrees	27	24	21	18
Steered 30° Front-to-Back Total Power at 180° ± 30°, dB	32	26	26	25

Electrical Specifications, Soft Split

Frequency Band, MHz	2500–2690
Gain, dBi	20.4
Beamwidth, Horizontal, degrees	30
Front-to-Back Total Power at 180° ± 30°, dB	32

Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
UK-ROHS	Compliant

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.

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.

Product Classification

Product Type Downtilt 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 6.5 kg | 14.33 lb

Material Specifications

Material Type Galvanized steel

Packaging and Weights

Included Brackets | Hardware

Packaging quantity 1

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



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.

Product Classification

Product Type Downtilt 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 4.6 kg | 10.141 lb

Material Specifications

Material Type Galvanized steel

Packaging and Weights

Included Brackets | Hardware

Packaging quantity 1

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

