

#### Planar Array Antenna, 2300–2690 MHz, 90° HPBW, 1xIntRET

- For use in beamforming system, includes a calibration port
- Planar array antenna 4 columns
- Single internal RET control for all four antenna arrays
- Optimized for software defined split six sector applications

This product will be discontinued on: March 30, 2024

#### General Specifications

Antenna Type Sector

**Band** Single band

Calibration Connector InterfaceMQ5Calibration Connector Quantity1

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
 PVC, UV resistant

Reflector Material Aluminum

RF Connector Interface MQ4 | MQ5

**RF Connector Location**Bottom

RF Connector Quantity, high band 8
RF Connector Quantity, total 8

### Remote Electrical Tilt (RET) Information

**RET Hardware** CommRET v1

**RET Interface** 8-pin DIN Female | 8-pin DIN Male

**RET Interface, quantity** 1 female | 1 male

Input Voltage10-30 VdcInternal Bias TeeCal Port

Internal RET High band (1)

Power Consumption, idle state, maximum 1 W

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Power Consumption, normal conditions, maximum 8 W

Protocol 3GPP/AISG 2.0 (Single RET)

**Dimensions** 

**Width** 307 mm | 12.087 in

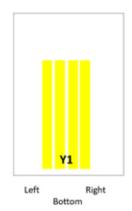
**Depth** 118 mm | 4.646 in

**Length** 1610 mm | 63.386 in

Net Weight, without mounting kit 15.6 kg | 34.392 lb

**TDD Column Spacing** 58 mm | 2.283 in

#### Array Layout



Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
Y1	2300-2690	1-8	1	CPxxxxxxxxxxxxxxY1

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

# Port Configuration



### **Electrical Specifications**

**Impedance** 50 ohm

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Operating Frequency Band 2300 – 2690 MHz

Polarization ±45°

**Total Input Power, maximum** 500 W @ 50 °C

# **Electrical Specifications**

Frequency Band, MHz	2300-2400	2496-2690
Gain, dBi	17.3	17.8
Beamwidth, Horizontal, degrees	99	95
Beamwidth, Vertical, degrees	5.1	4.8
Beam Tilt, degrees	2-12	2-12
USLS (First Lobe), dB	16	17
Front-to-Back Ratio at 180°, dB	30	30
Coupling level, Amp, Antenna port to Cal port, dB	26	26
Coupling level, max Amp $\Delta$ , Antenna port to Cal port, dB	±2	±2
Coupler, max Amp $\Delta$ , Antenna port to Cal port, dB	0.9	0.9
Coupler, max Phase $\Delta$ , Antenna port to Cal port, degrees	7	7
Isolation, Cross Polarization, dB	24	24
Isolation, Co-polarization, dB	18	18
VSWR   Return loss, dB	1.5   14.0	1.5   14.0
PIM, 3rd Order, 2 x 20 W, dBc	-130	-130
Input Power per Port at 50°C, maximum, watts	150	150

### Electrical Specifications, BASTA

Frequency Band, MHz	2300-2400	2496-2690
Gain by all Beam Tilts, average, dBi	16.8	16.9
Gain by all Beam Tilts Tolerance, dB	±0.7	±1.2
Beamwidth, Horizontal Tolerance, degrees	±16.8	±14.3
Beamwidth, Vertical Tolerance, degrees	±0.3	±0.4
USLS, beampeak to 20° above beampeak, dB	15	13
Front-to-Back Total Power at 180° ± 30°, dB	22	24
CPR at Boresight, dB	20	17
CPR at Sector, dB	11	7

Electrical Specifications, Broadcast 65°

Frequency Band, MHz 2300-2400 2496-2690

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Gain, dBi	18	18.6
Beamwidth, Horizontal, degrees	65	65
Beamwidth, Vertical, degrees	5.1	4.8
Front-to-Back Total Power at 180° ± 30°, dB	31	32
USLS (First Lobe), dB	16	16

# Electrical Specifications, Service Beam

Frequency Band, MHz	2300-2400	2496-2690
Steered 0° Gain, dBi	22.3	22.3
Steered 0° Beamwidth, Horizontal, degrees	27	26
Steered 0° Front-to-Back Total Power at 180° ± 30°, dB	33	33
Steered 0° Horizontal Sidelobe, dB	12	11
Steered 30° Gain, dBi	21.6	21.6
Steered 30° Beamwidth, Horizontal, degrees	30	28
Steered 30° Front-to-Back Total Power at 180° ± 30°, dB	31	31

# Electrical Specifications, Soft Split

Frequency Band, MHz	2300-2400	2496-2690
Gain, dBi	20.7	21
Beamwidth, Horizontal, degrees	35	33
Front-to-Back Total Power at 180° ± 30°, dB	32	32
Horizontal Sidelobe, dB	22	20

# Mechanical Specifications

Wind Loading @ Velocity, frontal	586.0 N @ 150 km/h (131.7 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	123.0 N @ 150 km/h (27.7 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	1,385.0 N @ 150 km/h (311.4 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	709.0 N @ 150 km/h (159.4 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

### Packaging and Weights

Width, packed	413 mm   16.26 in
Depth, packed	257 mm   10.118 in
Length, packed	1740 mm   68.504 in
Weight, gross	25.5 kg   56.218 lb

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# Regulatory Compliance/Certifications

Agency Classification

CHINA-ROHS Above maximum concentration value

ROHS Compliant/Exempted UK-ROHS Compliant/Exempted



#### 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