T4-90A-R1-V6

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: December 31, 2025

General Specifications

Antenna Type	Sector and beamforming
Band	Single band
Calibration Connector Interface	4.3-10 Female
Calibration Connector Quantity	1
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
Radiator Material	Low loss circuit board
Reflector Material	Aluminum
RF Connector Interface	4.3-10 Female
RF Connector Location	Bottom
RF Connector Quantity, high band	8
RF Connector Quantity, mid band	0
RF Connector Quantity, low band	0
RF Connector Quantity, total	8

Remote Electrical Tilt (RET) Information

RET Hardware	CommRET v2
RET Interface	8-pin DIN Female | 8-pin DIN Male
RET Interface, quantity	1 female | 1 male
Input Voltage	10–30 Vdc

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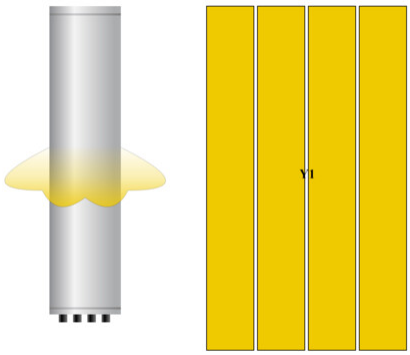
Power Consumption, active state, maximum	10 W
Power Consumption, idle state, maximum	2 W
Protocol	3GPP/AISG 2.0

Dimensions

Width	307 mm | 12.087 in
Depth	118 mm | 4.646 in
Length	1610 mm | 63.386 in
Net Weight, without mounting kit	14.2 kg | 31.306 lb

Array Layout



Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	AISG RET UID
Y1	2300-2690	1 - 8	1	AISG1	CPxxxxxxxxxxxxxxY1

(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	2300 – 2690 MHz
Polarization	±45°

Electrical Specifications

Frequency Band, MHz	**2300–2400**	**2496–2690**
Beamwidth, Horizontal, degrees	95	86
Beamwidth, Vertical, degrees	5.1	4.8
Beam Tilt, degrees	2–12	2–12
USLS (First Lobe), dB	19	18
Front-to-Back Ratio at 180°, dB	30	29
Coupling level, Amp, Antenna port to Cal port, dB	26	26
Coupling level, max Amp Δ, Antenna port to Cal port, dB	±2	±2
Coupler, max Amp Δ, Antenna port to Cal port, dB	0.9	0.9
Coupler, max Phase Δ, Antenna port to Cal port, degrees	7	7
CPR at Boresight, dB	18	16
Isolation, Cross Polarization, dB	24	24

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Isolation, Inter-band, dB	24	24
Isolation, Co-polarization, dB	20	20
VSWR | Return loss, dB	1.5 | 14.0	1.5 | 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-150	-150
Input Power per Port at 50°C, maximum, watts	150	150

Electrical Specifications, Broadcast 65°

Frequency Band, MHz	**2300–2400**	**2496–2690**
Beamwidth, Horizontal, degrees	65	65
Beamwidth, Vertical, degrees	5.1	4.7
Front-to-Back Total Power at 180° ± 30°, dB	29	29
USLS (First Lobe), dB	19	17

Electrical Specifications, Service Beam

Frequency Band, MHz	**2300–2400**	**2496–2690**
Steered 0° Gain, dBi	22.6	22.7
Steered 0° Beamwidth, Horizontal, degrees	26	25
Steered 0° Front-to-Back Total Power at 180° ± 30°, dB	34	34
Steered 0° USLS (First Lobe), dB	20	18
Steered 30° Gain, dBi	21.6	21.7
Steered 30° Front-to-Back Total Power at 180° ± 30°, dB	30	31

Electrical Specifications, Soft Split

Frequency Band, MHz	**2300–2400**	**2496–2690**
Gain, dBi	21.3	21.3
Beamwidth, Horizontal, degrees	35	32
Front-to-Back Total Power at 180° ± 30°, dB	30	30
Horizontal Sidelobe, dB	17	17

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, rear	709.0 N @ 150 km/h (159.4 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

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Width, packed	413 mm | 16.26 in
Depth, packed	257 mm | 10.118 in
Length, packed	1740 mm | 68.504 in
Weight, gross	24.1 kg | 53.131 lb

Regulatory Compliance/Certifications

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