

T4-90B-R1-V4



8-Port Beamforming Antenna, 2300–2690 MHz, 1xRET

- For use in beamforming systems for 2300-2690 MHz with calibration ports

General Specifications

Antenna Type	Sector- and beamforming
Band	Single band
Calibration Connector Interface	M-LOC
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	Fiberglass, UV resistant
Radiator Material	Aluminum Low loss circuit board
Reflector Material	Aluminum
RF Connector Interface	M-LOC
RF Connector Location	Bottom
RF Connector Quantity, high band	8
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
Internal RET	High band (1)
Power Consumption, active state, maximum	10 W
Power Consumption, idle state, maximum	2 W
Protocol	3GPP/AISG 2.0

T4-90B-R1-V4

Dimensions

Width	407 mm 16.024 in
Depth	120 mm 4.724 in
Length	1829 mm 72.008 in
Net Weight, without mounting kit	23.3 kg 51.368 lb

Port Configuration



Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	2300 – 2690 MHz
Polarization	±45°
Total Input Power, maximum	700 W @ 50 °C

Electrical Specifications

Frequency Band, MHz	2300–2400	2496–2690
Beam Tilt, degrees	0–8	0–8
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
Isolation, Cross Polarization, dB	25	25
Isolation, Co-polarization, dB	20	20
VSWR Return loss, dB	1.5 14.0	1.5 14.0

T4-90B-R1-V4

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
Gain, dBi	17.6	17.6
Beamwidth, Vertical, degrees	4.2	4
CPR at Boresight, dB	18	17
CPR at Sector, dB	16	11
Front-to-Back Total Power at 180° ± 30°, dB	25	22
USLS (First Lobe), dB	22	22

Electrical Specifications, Envelope Pattern

Frequency Band, MHz	2300–2400	2496–2690
Gain, dBi	24	24.1
Beamwidth, Horizontal at 10 dB, degrees	145	123
Front-to-Back Total Power at 180° ± 30°, dB	30	29
USLS (First Lobe), dB	25	27

Electrical Specifications, Service Beam

Frequency Band, MHz	2300–2400	2496–2690
Steered 13° Gain, dBi	24	24.1
Steered 13° Gain Tolerance, dBi	±0.2	±0.4
Steered 13° Beamwidth, Horizontal, degrees	20	18
Steered 13° CPR at Beampeak, dB	18	17
Steered 13° Front-to-Back Total Power at 180° ± 30°, dB	33	32
Steered 13° Horizontal Sidelobe, dB	18	19
Steered 13° USLS (First Lobe), dB	24	28
Steered 42° Gain, dBi	22	22
Steered 42° Gain Tolerance, dBi	±0.3	±0.5
Steered 42° Beamwidth, Horizontal, degrees	26	22
Steered 42° CPR at Beampeak, dB	18	14
Steered 42° Front-to-Back Total Power at 180° ± 30°, dB	29	28
Steered 42° Horizontal Sidelobe, dB	14	14
Steered 42° USLS (First Lobe), dB	22	22

Mechanical Specifications

T4-90B-R1-V4

Wind Loading @ Velocity, frontal	1,063.0 N @ 150 km/h (239.0 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	158.0 N @ 150 km/h (35.5 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	1,063.0 N @ 150 km/h (239.0 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	545 mm 21.457 in
Depth, packed	302 mm 11.89 in
Length, packed	1961 mm 77.205 in
Weight, gross	34 kg 74.957 lb

Regulatory Compliance/Certifications

Agency	Classification
AISG	Compliant



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
-------------------------	---