3X-S4-90M-R3

24-port tri-sector Antenna, 3 planar arrays pointing 0-120-240 degrees, 3300–4000 MHz, 90° HPBW, 3x RET

- Designed for beamforming, includes calibration port
- Trisector, three 4-column beamforming arrays
- Three DualPol® antennas under one radome
- Fully integrated flange mounting system for ease of installation
- Ideal concealment solution for areas with special regulations regarding visual impact
- Includes M-LOC type cluster connector(s)

General Specifications

Antenna Type	DualPol® tri-sector
Band	Single band
Calibration Connector Interface	M-LOC
Calibration Connector Quantity	3
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	ASA, UV stabilized
Reflector Material	Aluminum
RF Connector Interface	M-LOC
RF Connector Location	Bottom
RF Connector Quantity, high band	24
RF Connector Quantity, total	24

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 (3)
Power Consumption, active state, maximum	10 W
Power Consumption, idle state, maximum	2 W

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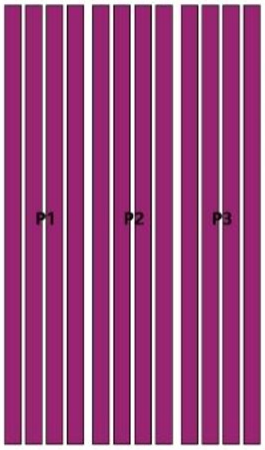
Protocol	3GPP/AISG 2.0

Dimensions

Length	880 mm | 34.646 in
Net Weight, without mounting kit	21.9 kg | 48.281 lb
Outer Diameter	370 mm | 14.567 in
TDD Column Spacing	41 mm | 1.614 in

Array Layout



Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	AISG RET UID
P1	3300-4000	1 - 8	1	AISG1	CPxxxxxxxxxxxxxxP1
P2	3300-4000	9 - 16	2	AISG1	CPxxxxxxxxxxxxxxP2
P3	3300-4000	17 - 24	3	AISG1	CPxxxxxxxxxxxxxxP3

(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	3300 – 4000 MHz
Polarization	±45°
Total Input Power, maximum	900 W @ 50 °C

Electrical Specifications

Frequency Band, MHz	**3300–3600**	**3600–4000**
Gain, dBi	15.2	15.7
Beamwidth, Horizontal, degrees	100	90
Beamwidth, Vertical, degrees	6.4	6
Beam Tilt, degrees	2–12	2–12
USLS (First Lobe), dB	15	15
Front-to-Back Ratio at 180°, dB	30	31
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, Inter-band, dB	19	19
Isolation, Co-polarization, dB	19	19
VSWR | Return loss, dB	1.5 | 14.0	1.5 | 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-145	-145
Input Power per Port at 50°C, maximum, watts	75	75

Electrical Specifications, BASTA

Frequency Band, MHz	**3300–3600**	**3600–4000**
Gain by all Beam Tilts, average, dBi	14.6	15
Gain by all Beam Tilts Tolerance, dB	±0.7	±0.8
Beamwidth, Horizontal Tolerance, degrees	±11.8	±10.2
Beamwidth, Vertical Tolerance, degrees	±0.5	±0.4
USLS, beampeak to 20° above beampeak, dB	13	12
Front-to-Back Total Power at 180° ± 30°, dB	26	26
CPR at Boresight, dB	17	18
CPR at Sector, dB	9	9

Electrical Specifications, Broadcast 65°

Frequency Band, MHz	**3300–3600**	**3600–4000**
Gain, dBi	17.6	17.9
Beamwidth, Horizontal, degrees	65	64
Beamwidth, Vertical, degrees	6.5	6
Front-to-Back Total Power at 180° ± 30°, dB	30	29
USLS (First Lobe), dB	19	18

Electrical Specifications, Service Beam

Frequency Band, MHz	**3300–3600**	**3600–4000**
Steered 0° Gain, dBi	20.6	21
Steered 0° Beamwidth, Horizontal, degrees	27	25
Steered 0° Front-to-Back Total Power at 180° ± 30°, dB	33	33
Steered 0° Horizontal Sidelobe, dB	13	12
Steered 0° USLS (First Lobe), dB	21	21
Steered 30° Gain, dBi	20	20.3
Steered 30° Beamwidth, Horizontal, degrees	29	27

Steered 30° Front-to-Back Total Power at 180° ± 30°, dB	32	31

Electrical Specifications, Soft Split

Frequency Band, MHz	**3300–3600**	**3600–4000**
Gain, dBi	19.7	19.8
Beamwidth, Horizontal, degrees	33	32
Front-to-Back Total Power at 180° ± 30°, dB	32	31
Horizontal Sidelobe, dB	18	19
USLS (First Lobe), dB	20	21

Mechanical Specifications

Effective Projective Area (EPA), frontal	0.17 m² | 1.83 ft²
Effective Projective Area (EPA), lateral	0.17 m² | 1.83 ft²
Wind Loading @ Velocity, frontal	186.0 N @ 150 km/h (41.8 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	186.0 N @ 150 km/h (41.8 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	186.0 N @ 150 km/h (41.8 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	186.0 N @ 150 km/h (41.8 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	478 mm | 18.819 in
Depth, packed	464 mm | 18.268 in
Length, packed	1169 mm | 46.024 in
Weight, gross	26.6 kg | 58.643 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
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant/Exempted
UK-ROHS	Compliant/Exempted

* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance