

4-Port Antenna R1 B1
Frequency Range 790-960 1710-2180
Dual Polarization X X
HPBW 65° 65°
Adjust. Electr. DT 0°-14° 0°-8°

set by hand or by optional RCU (Remote Control Unit)

4-Port Antenna 790-960/1710-2180 65°/65° 14.5/17.5dBi 0°-14°/0°-8°T

Type No.		742264v02		
Low band		R1, connector 1-2		
		790-960		
Frequency Range	MHz	790 – 862	824 – 894	880 – 960
Gain at mid Tilt	dBi	14.1	14.2	14.3
Gain over all Tilts	dBi	14.1 ± 0.2	14.2 ± 0.3	14.3 ± 0.3
Horizontal Pattern:				
Azimuth Beamwidth	°	69 ± 1.1	68 ± 1.2	67 ± 1.4
Front-to-Back Ratio, Total Power, ± 30°	dB	> 25	> 26	> 28
Cross Polar Discrimination at Boresight	dB	> 24	> 26	> 26
Cross Polar Discrimination over Sector	dB	> 13.0	> 12.5	> 12.5
Azimuth Beam Port-to-Port Tracking	dB	< 1.0	< 1.0	< 1.5
Vertical Pattern:				
Elevation Beamwidth	°	16.7 ± 0.6	16.2 ± 0.9	15.4 ± 0.9
Electrical Downtilt continuously adjustable	°	0.0 – 14.0		
Tilt Accuracy	°	< 0.5	< 0.5	< 0.7
First Upper Side Lobe Suppression	dB	> 15	> 17	> 18
Cross Polar Isolation	dB	> 30		
Port to Port Isolation	dB	> 45 (R1 // B1)		
Max. Effective Power per Port	W	300 (at 50 °C ambient temperature)		
Max. Effective Power Port 1-2	W	600 (at 50 °C ambient temperature)		



Values based on NGMN-P-BASTA (version 9.6) requirements.

High band		B1, connector 3-4		
			1710-2180	
Frequency Range	MHz	1710 – 1880	1850 – 1990	1920 – 2180
Gain at mid Tilt	dBi	17.3	17.5	17.5
Gain over all Tilts	dBi	17.2 ± 0.3	17.4 ± 0.2	17.4 ± 0.3
Horizontal Pattern:				
Azimuth Beamwidth	°	61 ± 2.1	59 ± 2.7	59 ± 2.9
Front-to-Back Ratio, Total Power, ± 30°	dB	> 29	> 28	> 26
Cross Polar Discrimination at Boresight	dB	> 27	> 27	> 28
Cross Polar Discrimination over Sector	dB	> 12.5	> 16.0	> 13.5
Azimuth Beam Port-to-Port Tracking	dB	< 1.0	< 0.5	< 1.0
Vertical Pattern:				
Elevation Beamwidth	°	7.4 ± 0.3	7.1 ± 0.4	6.8 ± 0.5
Electrical Downtilt continuously adjustable	°	0.0 – 8.0		
Tilt Accuracy	°	< 0.4	< 0.4	< 0.4
First Upper Side Lobe Suppression	dB	> 14	> 13	> 13
Cross Polar Isolation	dB	> 30		
Port to Port Isolation	dB	> 45 (R1 // B1)		
Max. Effective Power per Port	W	250 (at 50 °C ambient temperature)		
Max. Effective Power Port 3-4	W	500 (at 50 °C ambient temperature)		

Values based on NGMN-P-BASTA (version 9.6) requirements.

Electrical specifications, all systems		
Impedance	Ω	50
VSWR		< 1.5
Return Loss	dB	> 14
Interband Isolation	dB	> 45
Passive Intermodulation	dBc	< -150 (2 x 43 dBm carrier)
Polarization	$^\circ$	+45, -45
Max. Effective Power for the Antenna	W	900 (at 50 °C ambient temperature)

Values based on NGMN-P-BASTA (version 9.6) requirements.

Mechanical specifications		
Input	4 x 7-16 female long neck	
Connector Position	bottom	
Adjustment Mechanism	2x, Position bottom continuously adjustable	
Wind load (at Rated Wind Speed: 150 km/h)	N lbf	Maximum 600 135 Frontal 560 126 Lateral 260 58 Rearside 600 135
Max. Wind Velocity	km/h mph	200 124
Height / Width / Depth	mm inches	1334 / 261 / 146 52.5 / 10.3 / 5.7
Category of Mounting Hardware	M (Medium)	
Weight	kg lb	16.0 / 18.2 (clamps incl.) 35.3 / 40.1 (clamps incl.)
Packing Size	mm inches	1646 / 282 / 182 64.8 / 11.1 / 7.2
Scope of Supply	Panel and 2 units of clamps for 42–115 mm 1.7–4.5 inches diameter	

Accessories (order separately if required)

Type No.	Description	Remarks mm inches	Weight approx. kg lb	Units per antenna
731651	1 clamp	Mast diameter: 28 – 60 1.1 – 2.4	0.8 1.8	2
85010002	1 clamp	Mast diameter: 110 – 220 4.3 – 8.7	2.7 6.0	2
85010003	1 clamp	Mast diameter: 210 – 380 8.3 – 15.0	4.8 10.6	2
737978	1 downtilt kit	Downtilt angle: 0° – 16°	2.3 5.1	1

Accessories (included in the scope of supply)

738546	1 clamp	Mast diameter: 42 – 115 1.7 – 4.5	1.1 2.4	2
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For downtilt mounting use the clamps for an appropriate mast diameter together with the downtilt kit.
Wall mounting: No additional mounting kit needed.

Material:

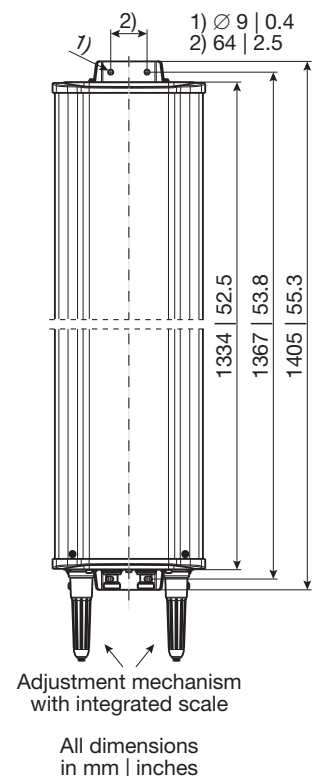
Reflector screen: Weather-proof aluminum.

Fiberglass housing: It covers totally the internal antenna components. The special design reduces the sealing areas to a minimum and guarantees the best weather protection. Fiberglass material guarantees optimum performance with regards to stability, stiffness, UV resistance and painting. The color of the radome is light grey.

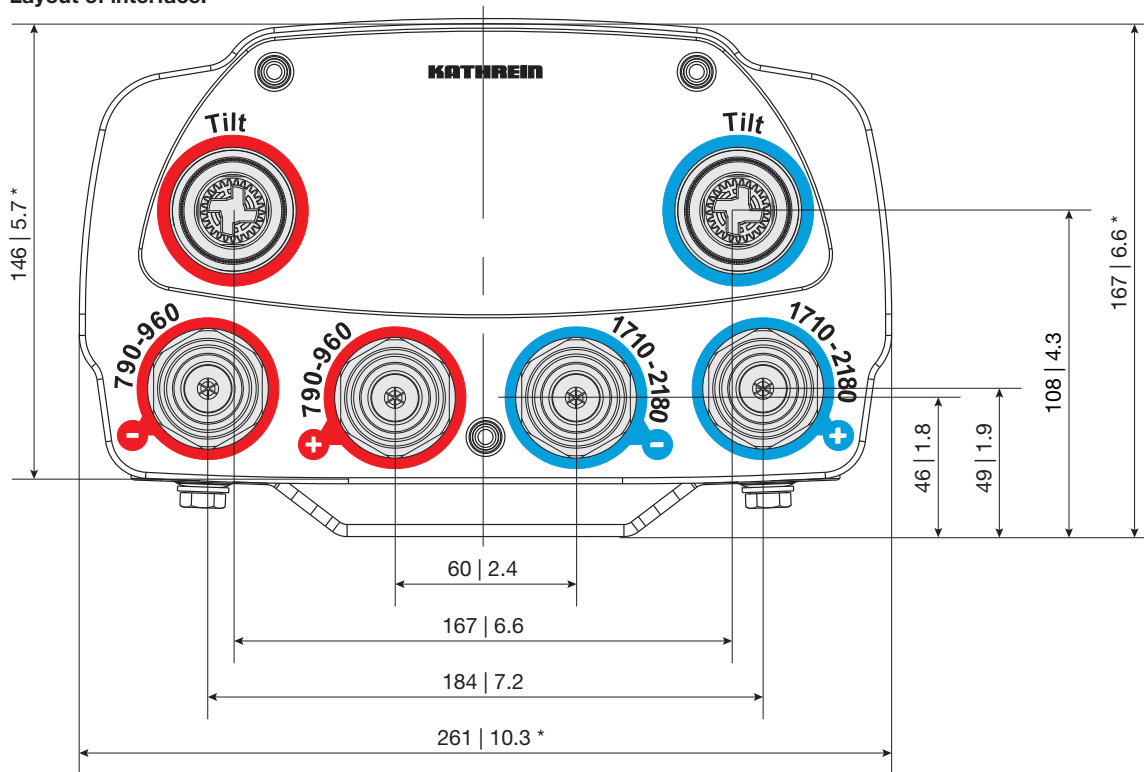
All screws and nuts: Stainless steel or hot-dip galvanized steel.

Grounding:

The metal parts of the antenna including the mounting and the inner conductors are DC grounded.



Layout of interface:



Bottom view
 * Dimensions refer to radome
 All dimensions in mm | inches

Correlation Table

Frequency range	Array	Connector
790- 960 MHz	R1	1-2
1710-2180 MHz	B1	3-4

