

4-Port Antenna

B1 **B2**

Frequency Range **1710-2200** **1710-2200**

Dual Polarization **X** **X**

HPBW **65°** **65°**

Adjust. Electr. DT **0°-10°** **0°-10°**

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



4-Port Antenna 1710-2200/1710-2200 65°/65° 18/18dBi 0°-10°/0°-10°T

Type No.		742236v01		
		B1; B2		
		1710-2200		
Frequency range	MHz	1710 – 1880	1850 – 1990	1920 – 2200
Polarization	°	+45, -45	+45, -45	+45, -45
Gain	dBi	17.6	17.8	18
Horizontal Pattern:				
Half-power beam width	°	64	64	62
Front-to-back ratio	dB	Copolar: > 30 Total power: > 25	Copolar: > 30 Total power: > 25	Copolar: > 30 Total power: > 25
Cross polar ratio	dB	Typically: 25 > 10	Typically: 25 > 10	Typically: 25 > 10
Main direction	0°			
Sector	±60°			
Vertical Pattern:				
Half-power beam width	°	7	6.8	6.5
Electrical tilt	°	0-10, continuously adjustable		
Sidelobe suppression for first sidelobe above main beam	°T dB	0 ... 5 ... 10 20 ... 18 ... 16	0 ... 5 ... 10 20 ... 18 ... 16	0° ... 5° ... 10 16 ... 18 ... 16
Impedance	Ω	50		
VSWR		< 1.5		
Isolation, between ports	dB	> 30		
Intermodulation IM3	dBc	< -150 (2 x 43 dBm carrier)		
Max. power per input	W	250 (at 50 °C ambient temperature)		
Max. eff. power per antenna	W	800 (at 50 °C ambient temperature)		



Mechanical specifications			
Input	4 x 7-16 female		
Connector position	Bottom		
Adjustment mechanism	2x, Position bottom continuously adjustable		
Wind load (at Rated Wind Speed: 150 km/h)	N lbf	Frontal	660 148
		Lateral	166 37
		Rearside	690 155
Max. wind velocity	km/h mph	200 124	
Height / width / depth	mm inches	1319 / 323 / 71 51.9 / 12.7 / 2.8	
Category of mounting hardware	M (Medium)		
Weight	kg lb	15 / 17.2 (clamps incl.) 33.1 / 37.9 (clamps incl.)	
Packing size	mm inches	1600 x 337 x 112 63.0 x 13.3 x 4.4	
Scope of supply	Panel and 2 units of clamps for 42-115 mm 1.7-4.5 inches diameter		

936.4881/a Subject to alteration.

All specifications are subject to change without notice.
The latest specifications are available at www.kathreinusa.com

Accessories

General Information

KATHREIN

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° – 15°	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: Aluminum. **Radiator:** Tin-plated zinc.
Flat fiberglass radome: The max. radome depth is only 71 mm. Fiberglass material guarantees optimum performance with regards to stability, stiffness, UV resistance and painting. The color of the radome is grey.
All screws and nuts: Stainless steel or hot-dip galvanized steel.

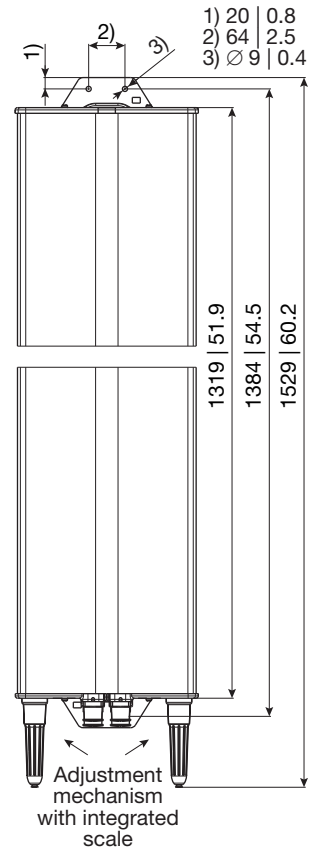
Grounding:

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



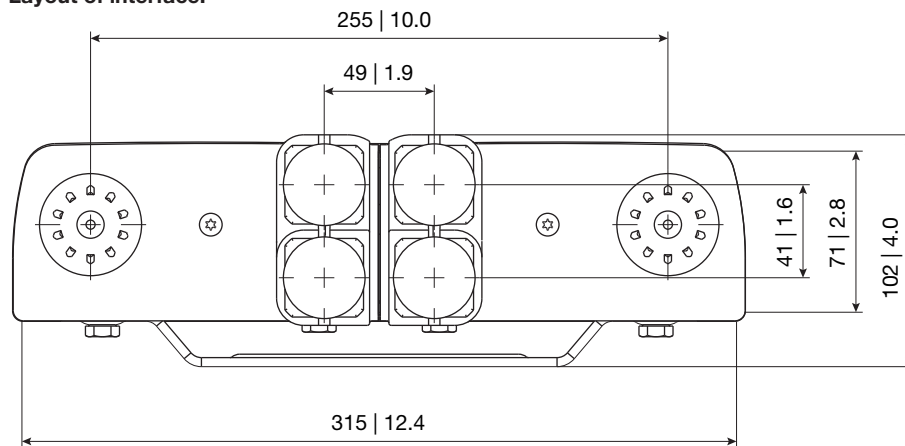
Correlation Table

Frequency range	Array	Connector
1710–2200 MHz	B1	1–2
1710–2200 MHz	B2	3–4



All dimensions in mm | inches

Layout of interface:



Bottom view
Dimensions in mm | inches

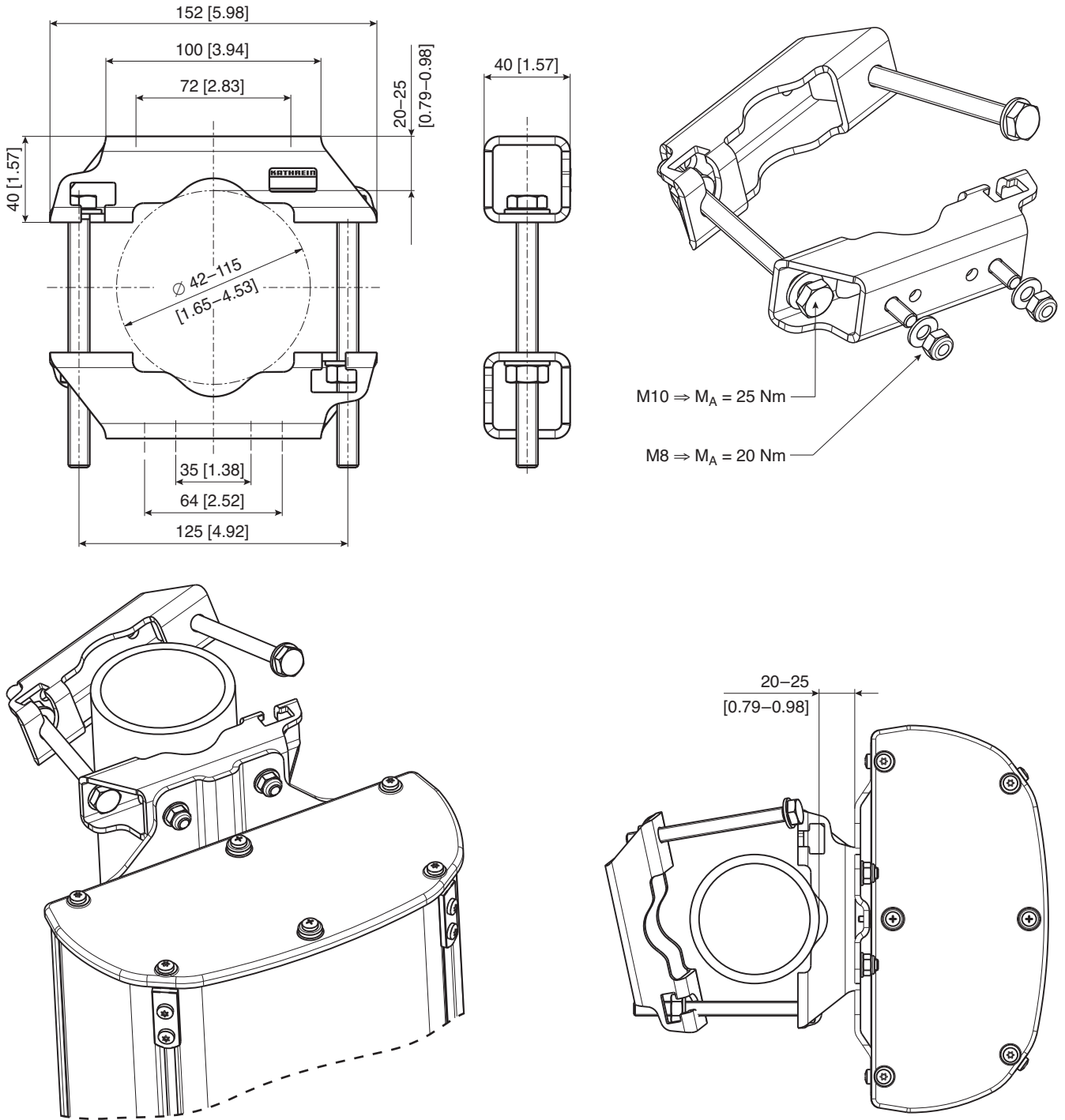
All previous data sheet issues have now become invalid.

Mounting Hardware

Clamp Included in the Scope of Supply

KATHREIN

Suitable for mast diameter	(mm) [inches]	42 – 115 [1.65 – 4.53]
Antenna – mast distance	(mm) [inches]	20 – 25 [0.79 – 0.98]
Material of clamp and screws		Hot-dip galvanized steel / stainless steel
Weight	(kg) [lb]	1.1 [2.43]



936.3920/c Subject to alteration.

**Please note: Kathrein does not recommend to use counter nuts.
The additional nuts supplied are only meant as spares.**

All dimensions in mm and [inches]

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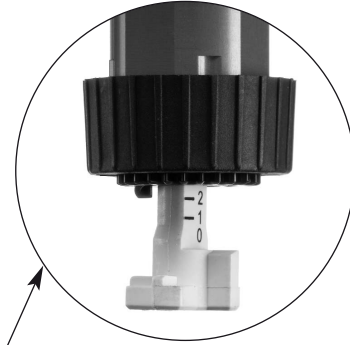
Description of the adjustment mechanism (protective cap removed):



- ① Adjustment wheel with twist-lock function.
- ② Downtilt spindle with integrated scale.



- ① Thread for fixing the protective cap or the RCU (Remote Control Unit).
- ② Gearwheel for RCU power drive.

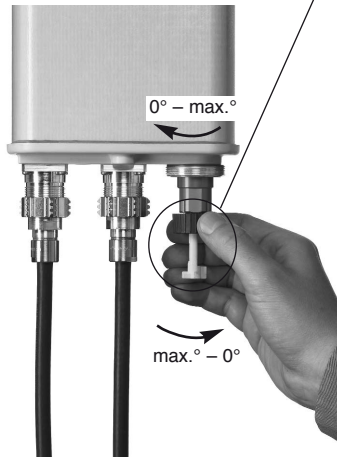


To set the downtilt angle exactly, you must look horizontally at the scale. The lower edge of the gear-wheel must be used for alignment.

Manual adjustment procedure:



Remove the protective cap.



Set downtilt angle by rotating the adjustment wheel.



Screw on the protective cap again.

Optional: RCU (Remote Control Unit) for remote-controlled downtilt adjustment:



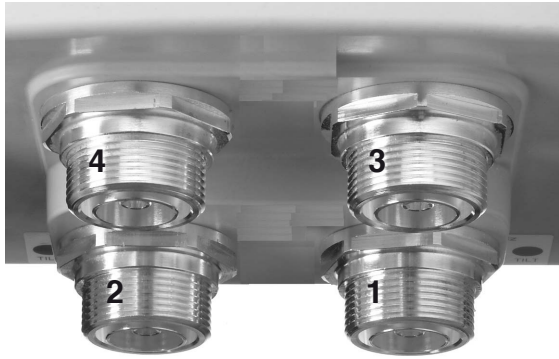
936.4144 Subject to alteration.

For a description of RCU installation please refer to the respective data sheet.

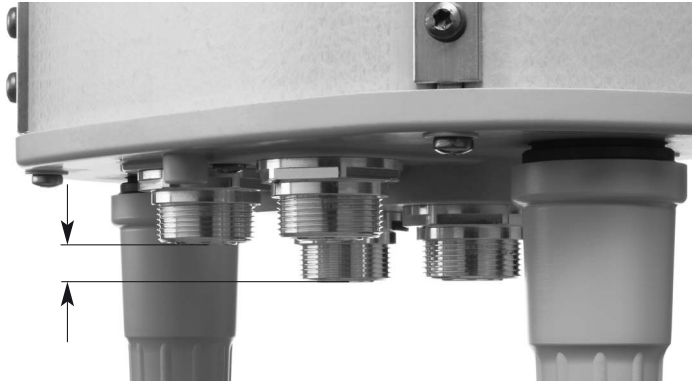
General Instructions for Feederline Installation on Panels with four Connectors arranged on two Levels

Please note: In order not to damage the interfaces, please make sure that only the right tools are used. Tighten the feederline connector interfaces solely by using a common torque-wrench with a suitable wrench width.

Description of connector arrangement:



There are four interfaces for feeding the antenna located at the bottom.



The connectors are mounted at two levels in order to facilitate feederline installation.

Attachment of the feederline connector and RCU (optional):

In order to protect the adjustment mechanism the protective caps have to be attached during feederline installation!



Start with the rearside located interface no. 1.

Place the connector carefully and fix the nut using a torque-wrench (according to the manufacturers guidelines).

The further sequence for the installation is: feederlines no. 2, 3, 4.



After feederline installation the optional remote control units (RCU) can be mounted if required.



For a full description of RCU installation please refer to the respective data sheet.

Please note: Additional weather sealing of correctly installed feederline connector interfaces is not required, nor is it recommended by the connector manufacturers.