

**4-Port Antenna
Frequency Range
Dual Polarization
HPBW**

B1	B2
1710-2200	1710-2200
X	X
65°	65°
0°-15°	0°-15°
18dB	18dB

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Adjust. Electr. DT

Enhanced Sidelobe Suppression

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

4-Port Antenna 1710-2200/1710-2200 65°/65° 18/18dB 0°-15°/0°-15°T ESLS

Type No.		80010510v01			
Highbands		B1; B2			
		1710-2200			
Frequency range	MHz	1710 – 1880	1850 – 1990	1920 – 2170	2000 – 2200
Polarization	°	+45, -45	+45, -45	+45, -45	+45, -45
Gain at 0° tilt	dBi	17.5	17.6	17.7	17.8
Horizontal Pattern:					
Half-power beam width	°	65	63	62	62
Front-to-back ratio (180°±30°)	dB	≥ 30	≥ 30	≥ 30	≥ 28
Cross polar ratio	0°	24	24	24	26
Sector	±60°	≥ 9	≥ 9	> 10	≥ 10
Vertical Pattern:					
Half-power beam width	°	7.9	7.5	7.2	6.9
Electrical tilt	°	0-15, continuously adjustable			
Sidelobe suppression	°T	0 ... 5 ... 10 ... 15	0 ... 5 ... 10 ... 15	0 ... 5 ... 10 ... 15	0 ... 5 ... 10 ... 15
- for first sidelobe above main beam	dB	≥ 17 ... 20 ... 18 ... 17	≥ 16 ... 20 ... 18 ... 18	≥ 15 ... 19 ... 18 ... 17	≥ 14 ... 18 ... 18 ... 16
- within 0°-20° sector above horizon		≥ 16 ... 18 ... 18 ... 16	≥ 16 ... 17 ... 17 ... 16	≥ 15 ... 17 ... 17 ... 16	≥ 14 ... 16 ... 16 ... 15
Null-fill at 0° tilt	dB	23	22	21	20
Impedance	Ω	50			
VSWR		< 1.5			
Isolation, between ports	dB	> 30			
Intermodulation IM3	dBc	< -153 (2 x 43 dBm carrier)			
Max. power per input	W	250 (at 50 °C ambient temperature)			
Max. effective 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: 580 130 Maximal: 635 148
Max. wind velocity	km/h mph	200 124
Height / width / depth	mm inches	1389 / 323 / 71 54.7 / 12.7 / 2.8
Category of mounting hardware	M (Medium)	
Weight	kg lb	17 / 19.2 (clamps incl.) 37.5 / 42.3 (clamps incl.)
Packing size	mm inches	1686 x 337 x 112 66.4 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	

936.4894/b Subject to alteration.



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

Accessories

General Information

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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: Tin-plated copper. **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.

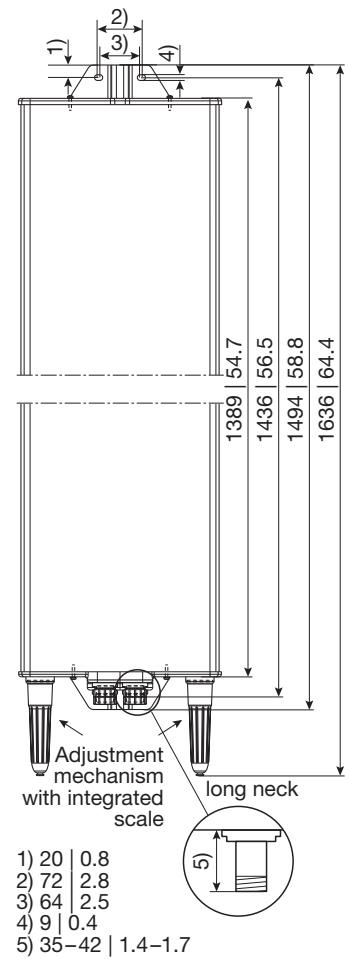
Grounding:

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

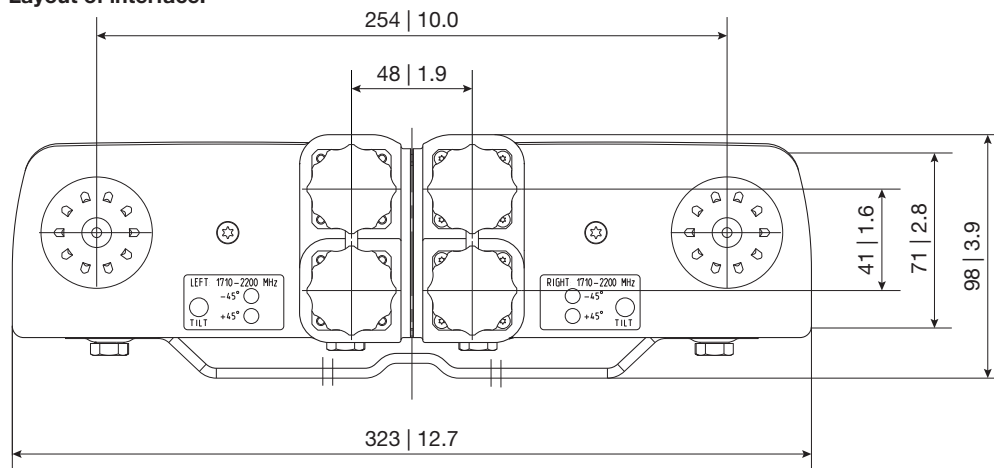


Correlation Table

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



Layout of interface:



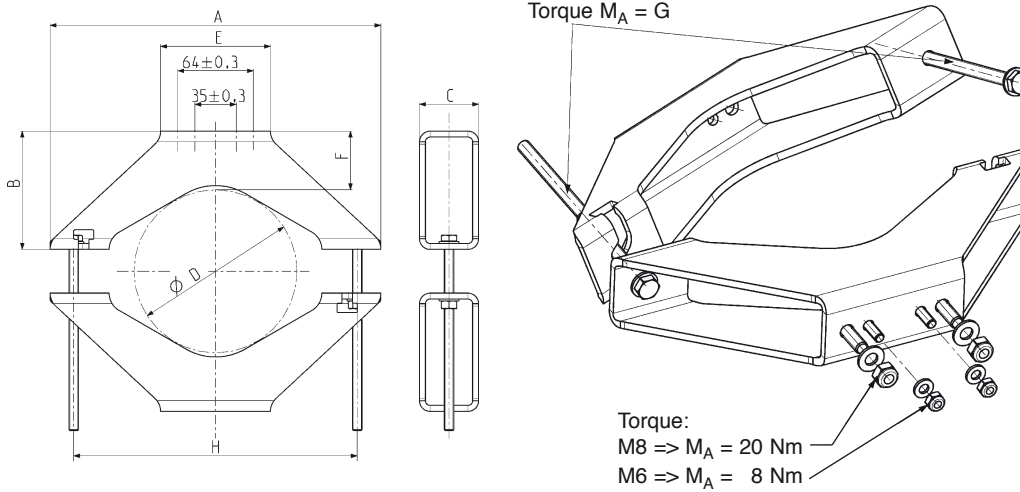
Bottom view
 All dimensions in mm | inches

Any previous data sheet issues have now become invalid.

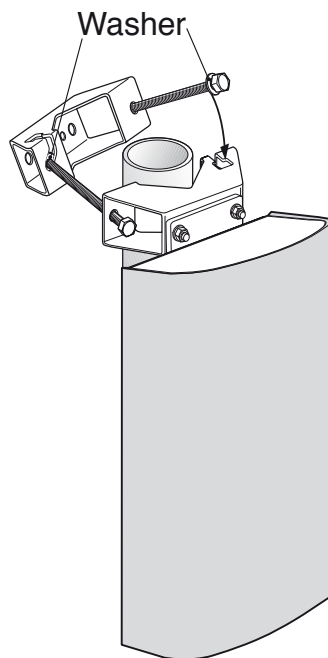
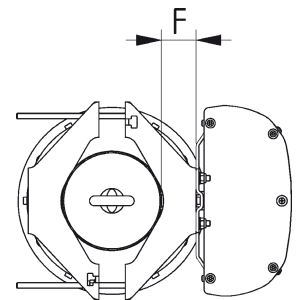
Mounting Hardware

Clamp included in the scope of supply

Suitable for mast diameter	50 – 115 mm
Antenna – mast distance F	18 – 26 mm
Number of pieces	1 clamp
Material of clamp and screws	Hot-dip galvanized steel / stainless steel
Weight	1.0 kg



A	B	C	D	E	F	G	H
152 mm	40 mm	40 mm	50–115 mm	93 mm	18–26 mm	20 Nm	125 mm



936.4123 Subject to alteration.

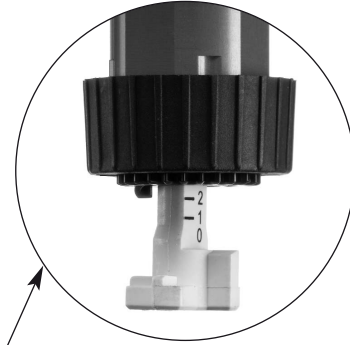
Description of the adjustment mechanism (protective cap removed):



- 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.

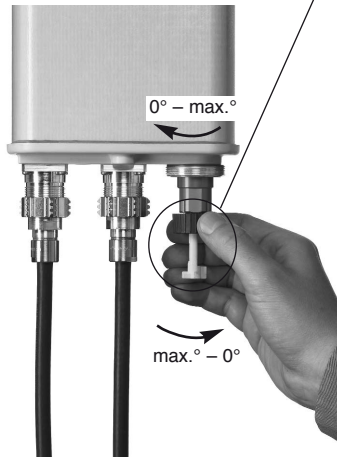


To set the downtilt angle exactly, you must look horizontally at the scale. The lower edge of the gear-wheel must be used for alignment.

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:



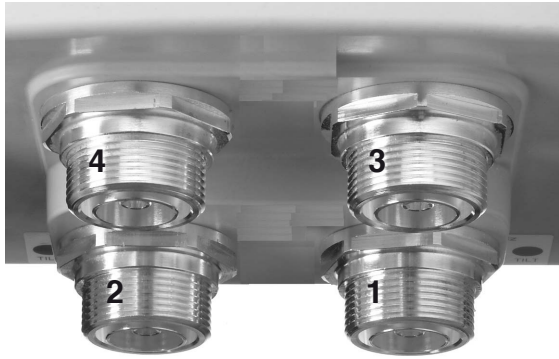
936.4144 Subject to alteration.

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

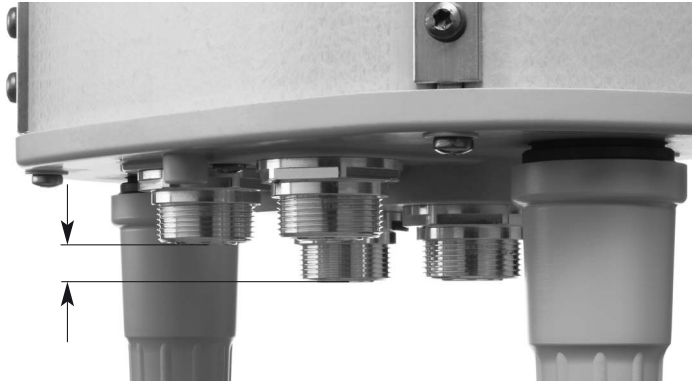
General Instructions for Feederline Installation on Panels with four Connectors arranged on two Levels

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.