2-Multi-band Panel
Dual Polarization
Half-power Beam Width
Adjust. Electr. Downtilt

824–960	824–960
X	X
65°	65°
0°–8°	0°–8°

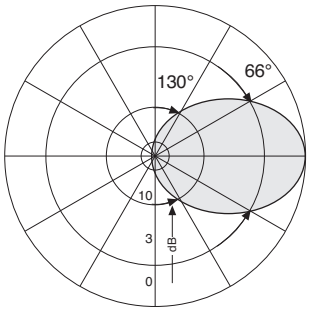
set by hand or by optional RCU (Remote Control Unit)

KATHREIN
Antennen · Electronic

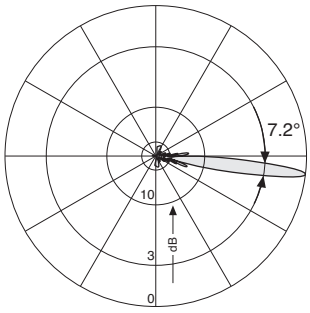
XXPol Panel 824–960/824–960 65°/65° 17/17dBi 0°–8°/0°–8°T

Type No.	80010517V01	
	824–960	
Frequency range	824 – 894 MHz	880 – 960 MHz
Polarization	+45°, –45°; +45°, –45°	+45°, –45°; +45°, –45°
Gain at 0° tilt	4 x 16.5 dBi	4 x 16.7 dBi
Horizontal Pattern:		
Half-power beam width	66°	61°
Front-to-back ratio	> 25 dB	> 25 dB
Cross polar ratio 0° Sector ±60°	Typically: 16 dB > 8 dB	Typically: 17 dB > 10 dB
Vertical Pattern:		
Half-power beam width	7.2°	6.8°
Electrical tilt	0°–8°, continuously adjustable	
Sidelobe suppression for first sidelobe above main beam	0° ... 4° ... 8° T ≥ 15 ... 15 ... 15 dB	0° ... 4° ... 8° T ≥ 15 ... 16 ... 15 dB
Impedance	50 Ω	
VSWR	< 1.5	
Isolation, between ports	Typically: > 25 dB	> 28 dB
Intermodulation IM3	< –150 dBc (2 x 43 dBm carrier)	
Max. power per input	500 W (at 50 °C ambient temperature)	

824 – 894 MHz: +45°/–45° Polarization

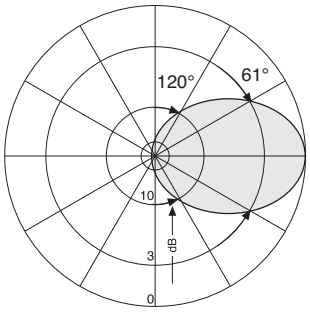


Horizontal Pattern

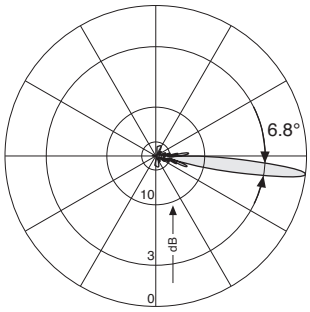


Vertical Pattern
0°–8° electrical downtilt

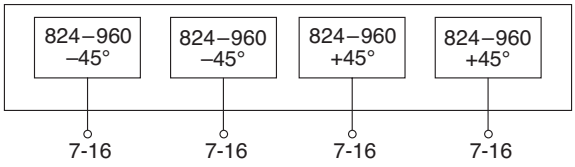
880 – 960 MHz: +45°/–45° Polarization



Horizontal Pattern



Vertical Pattern
0°–8° electrical downtilt



Mechanical specifications	
Input	4 x 7-16 female
Connector position	Rearside, pointing downwards
Adjustment mechanism	2x, Position bottom continuously adjustable
Wind load	Frontal: 1210 N (at 150 km/h) Lateral: 400 N (at 150 km/h) Rearside: 1540 N (at 150 km/h)
Max. wind velocity	200 km/h
Height/width/depth	2631 / 374 / 169 mm
Category of mounting hardware	H (Heavy)
Weight	28 kg / 30 kg (clamps incl.)
Packing size	2896 x 392 x 222 mm
Scope of supply	Panel and 2 units of clamps for 50 – 115 mm diameter

936.4176 Subject to alteration.

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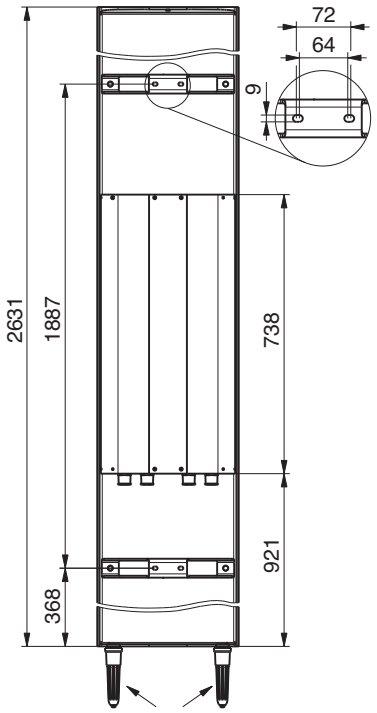
Accessories

Type No.	Description	Remarks	Weight approx.	Units per antenna
738546	**1 clamp**	**Mast: 50 – 115 mm diameter**	**1.0 kg**	**2 (included in the scope of supply)**
85010002	1 clamp	Mast: 110 – 220 mm diameter	2.7 kg	2 (order separately if required)
85010003	1 clamp	Mast: 210 – 380 mm diameter	4.8 kg	2 (order separately if required)



Adjustment mechanism with integrated scale

Material:
Reflector screen: Weather-proof aluminum.
Fiberglass radome: The grey fiberglass radomes of these antennas are very stable and extraordinarily stiff. They are resistant to ultraviolet radiation and can also be painted to match their surroundings.
All screws and nuts: Stainless steel.

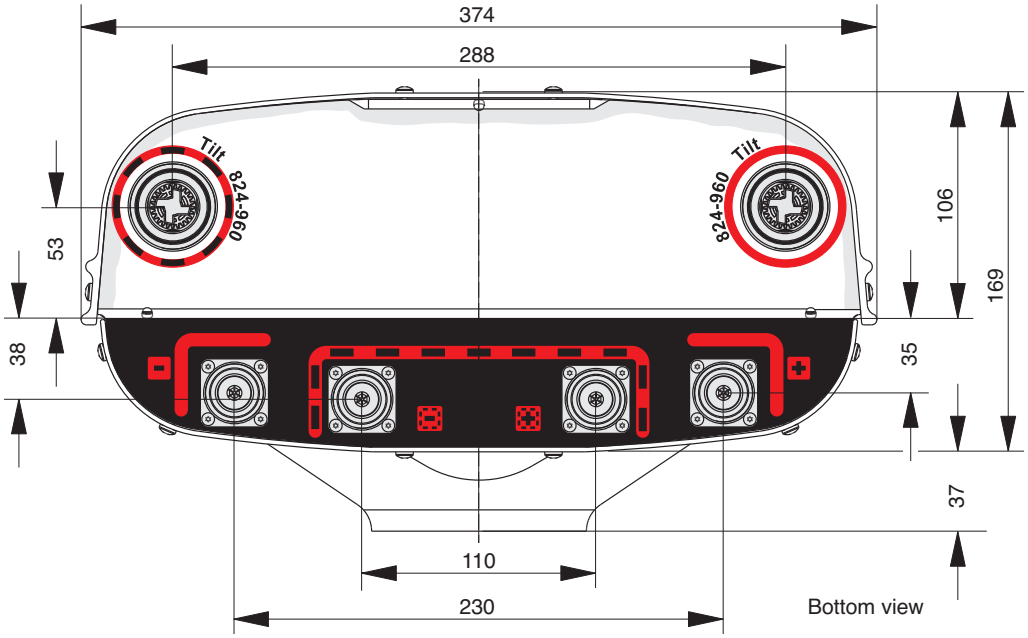
Grounding:
The metal parts of the antenna including the mounting kit and the inner conductors are DC grounded.

Environmental conditions:
Kathrein cellular antennas are designed to operate under the environmental conditions as described in ETS 300 019-1-4 class 4.1 E.
The antennas exceed this standard with regard to the following items:
– Low temperature: –55 °C
– High temperature (dry): +60 °C

Ice protection: Due to the very sturdy antenna construction and the protection of the radiating system by the radome, the antenna remains operational even under icy conditions.

Environmental tests:
Kathrein antennas fulfil the stated specifications after completion of the environmental tests as defined in ETS 300 019-2-4. The homogenous design of Kathrein's antenna families uses identical modules and materials. Extensive tests have been performed on typical samples and modules.

Layout of interface:



Bottom view

Please note:
As a result of more stringent legal regulations and judgements regarding product liability, we are obliged to point out certain risks that may arise when products are used under extraordinary operating conditions.

The mechanical design is based on the environmental conditions as stipulated in ETS 300 019-1-4 and thereby respects the static mechanical load imposed on an antenna by wind at maximum velocity. Wind loads are calculated according to DIN 1055-4. Extraordinary operating conditions, such as heavy icing or exceptional dynamic stress (e.g. strain caused by oscillating support structures), may result in the breakage of an antenna or even cause it to fall to the ground. These facts must be considered during the site planning process.

The installation team must be properly qualified and also be familiar with the relevant national safety regulations.
The details given in our data sheets have to be followed carefully when installing the antennas and accessories.
The limits for the coupling torque of RF-connectors, recommended by the connector manufacturers must be obeyed.

Any previous datasheet issues have now become invalid.

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