

Multi-band Panel Dual Polarization Half-power Beam Width Fixed Electrical Downtilt

1710–2170

X

65°

0°

KATHREIN

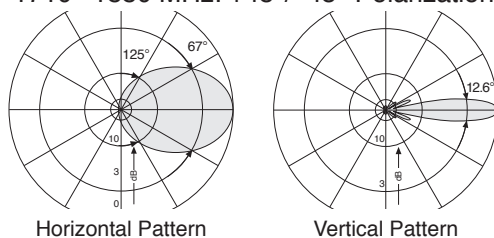
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XPol Panel 1710–2170 65° 16dBi 0°T

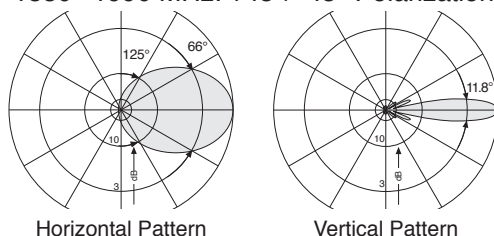
Type No.	742196v01			
	1710–2170			
Frequency range	1710 – 1880 MHz	1850 – 1990 MHz	1920 – 2170 MHz	
Polarization	+45°, –45°	+45°, –45°	+45°, –45°	
Gain	2 x 15.3 dBi	2 x 15.6 dBi	2 x 15.8 dBi	
Horizontal Pattern:				
Half-power beam width	67°	66°	64°	
Front-to-back ratio (180°±30°)	Copolar: > 30 dB Total power: > 25 dB	Copolar: > 30 dB Total power: > 25 dB	Copolar: > 30 dB Total power: > 25 dB	
Cross polar ratio Maindirection Sector	0° ±60° Typically: 25 dB > 10 dB	Typically: 25 dB > 10 dB	Typically: 25 dB > 10 dB	
Tracking, Avg.	0.5 dB			
Squint	±1.5°			
Vertical Pattern:				
Half-power beam width	12.6°	11.8°	11°	
Sidelobe suppression for first sidelobe above horizon	> 14 dB	> 16 dB	> 14 dB	
Impedance				50 Ω
VSWR				< 1.4
Isolation, between ports				> 30 dB
Intermodulation IM3				< –150 dBc (2 x 43 dBm carrier)
Max. power per input				300 W (at 50 °C ambient temperature)



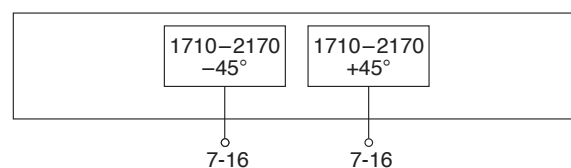
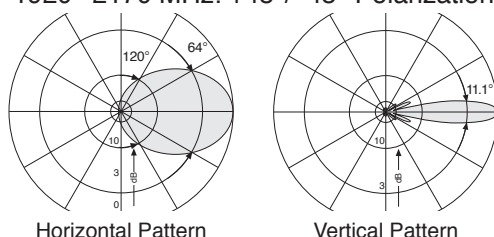
1710–1880 MHz: +45°/–45° Polarization



1850–1990 MHz: +45°/–45° Polarization



1920–2170 MHz: +45°/–45° Polarization



Mechanical specifications

Input	2 x 7-16 female
Connector position*	Bottom or top
Wind load	Frontal: 185 N (at 150 km/h) Lateral: 65 N (at 150 km/h) Rearside: 220 N (at 150 km/h)
Max. wind velocity	200 km/h
Height/width/depth	735 / 155 / 69 mm
Category of mounting hardware	L (Light)
Weight	4.5 kg (tension bands incl.)
Packing size	1000 x 172 x 95 mm
Scope of supply	Panel and 1 unit of tension bands for 45 – 125 mm diameter

* Inverted mounting:
Connector position top: Chainge drain hole screw

936.3968/a Subject to alteration.

Accessories General Information

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Accessories

Type No.	Description	Remarks	Weight approx.	Units per antenna
734365	2 tension bands	Mast: 45 – 125 mm diameter	0.08 kg	1 (included in the scope of supply)
734360	2 tension bands	Mast: 34 – 60 mm diameter	0.06 kg	1 (order separately if required)
734361	2 tension band	Mast: 60 – 80 mm diameter	0.07 kg	1 (order separately if required)
734362	2 tension bands	Mast: 80 – 100 mm diameter	0.08 kg	1 (order separately if required)
734363	2 tension bands	Mast: 100 – 120 mm diameter	0.09 kg	1 (order separately if required)
734364	2 tension bands	Mast: 120 – 140 mm diameter	0.11 kg	1 (order separately if required)
738546	1 clamp	Mast: 50 – 115 mm diameter	1.0 kg	2 (order separately if required)
731651	1 clamp	Mast: 28 – 60 mm diameter	0.8 kg	2 (order separately if required)
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)
732327	1 downtilt kit	Downtilt angle: 0° – 17°	1.0 kg	1 (order separately if required)

For downtilt mounting use the clamps for an appropriate mast diameter together with the downtilt kit.
Wall mounting: No additional mounting kit needed.

Please note: Using a downtilt kit is only possible in combination with clamps 738546 or 85010002 or 85010003.

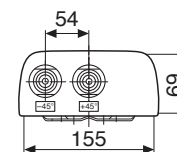
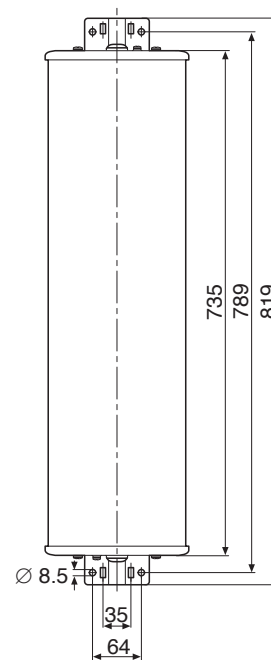
Material: **Reflector screen:** Tin-plated copper. **Radiator:** Tin-plated zinc.
Flat fiberglass radome: The max. radome depth is only 69 mm. Fiberglass material guarantees optimum performance with regards to stability, stiffness, UV resistance and painting. The color of the radome is grey.
All screws and nuts: Stainless steel.

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

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 have passed environmental tests as recommended in ETS 300 019-2-4. The homogenous design of Kathrein's antenna families use identical modules and materials. Extensive tests have been performed on typical samples and modules.



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.

