Yagi Multi-band Antenna
Dual Polarization
Half-power Beam Width
Integrated Combiner

790–960	1710–2170
+45°	–45°
38°	28°
C	

KATHREIN
Antennen · Electronic

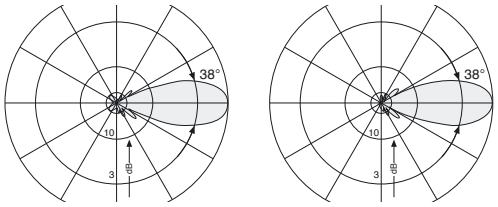
Preliminary Issue

Dual Yagi 790–960/1710–2170 C 38°/28° 14/15.5dBi

Type No.	80010828V01			
	790–960		1710–2170	
Frequency range	790 – 870 MHz	870 – 960 MHz	1710 – 1880 MHz	1920 – 2170 MHz
VSWR	< 1.5	< 1.5	< 1.5	< 1.5
Gain (average)	13 dBi	14 dBi	13 dBi	15.5 dBi
Impedance	50 Ω	50 Ω	50 Ω	50 Ω
Polarization	+45°	+45°	–45°	–45°
Front-to-back ratio	≥ 25 dB	≥ 25 dB	≥ 27 dB	≥ 27 dB
Half-power beam width (avg.) horizontal vertical	 38° 38°	 32° 32°	 28° 28°	 22° 22°
Max. power	100 W (at 50 °C ambient temperature)			
Integrated combiner	The insertion loss is included in the given antenna gain values.			

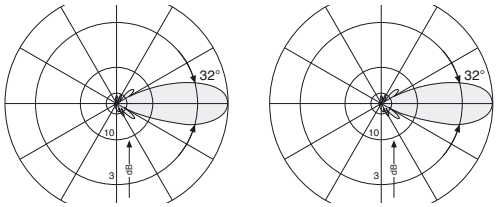
Please note: This antenna is suitable for tunnel applications.

790 – 960 MHz: +45° Polarization



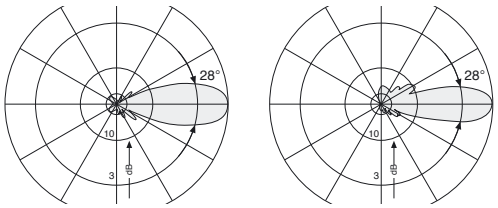
Horizontal Pattern | Vertical Pattern

870 – 960 MHz: +45° Polarization



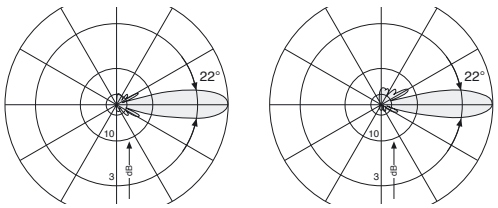
Horizontal Pattern | Vertical Pattern

1710 – 1880 MHz: –45° Polarization

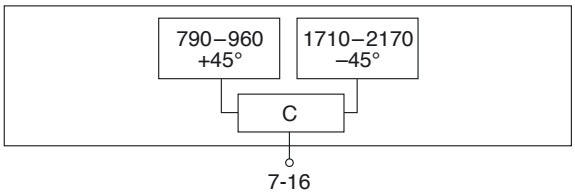


Horizontal Pattern | Vertical Pattern

1920 – 2170 MHz: –45° Polarization



Horizontal Pattern | Vertical Pattern



Mechanical specifications	
Input	1 x 7-16 female
Connector position	Rearside
Weight	6 kg / 10 kg (clamps incl.)
Wind load	200 N (at 150 km/h)
Max. wind velocity	215 km/h
Packing size	1350 x 260 x 220 mm
Dimensions	1184 / Ø 170 mm

936.A3017a Subject to alteration.

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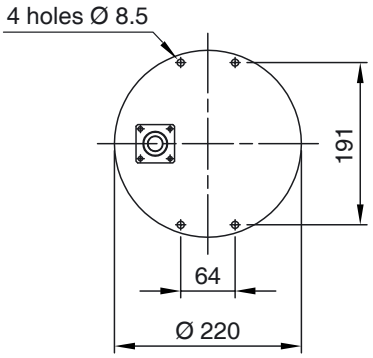
Material: **Reflector:** Aluminum, brass. **Radome:** Fiberglass, color: grey.
Base: Weather-proof aluminum. **All screws and nuts:** Stainless steel.

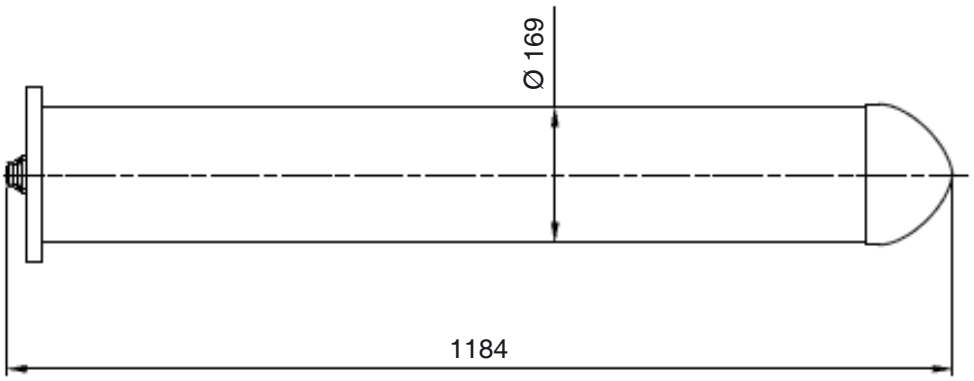
Mounting: The antenna can be mounted on a tubular mast with a diameter of 42 to 115 mm, with supplied clamps.

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

Environmental tests: The antenna has passed a pressure test and meets the requirements according to Official Journal of the European Communities L245/171 from 12.09.2002 for the use of the antenna in train tunnels for high speed railways. The antenna exceeds the standard as follows.
Pressure difference according to L245/171: 10 kPa
Pressure difference during test: 100 kPa (const. 24 h)





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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