

# Low Range RFID UHF Antenna

## LORA-ETSI

Order-No. 52010084

# KATHREIN

## RFID

### Technical features:

- minimal dimensions
- extremely high selectivity
- extremely high resistance to interference (multi-reader applications)
- suitable for use in industrial environments
- optimized for near field applications
- high IP 67 degree of protection
- suitable for outdoor use

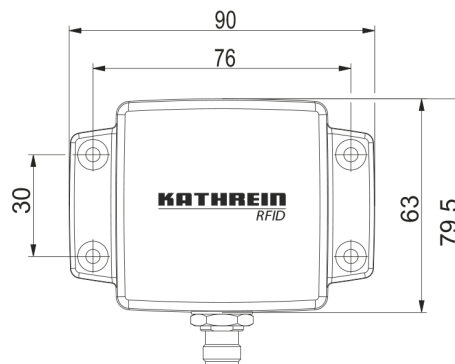


Order-No.		52010084
Frequency range	MHz	865-868
Antenna gain	dBi	-15
EIFF *	dB	20
VSWR		< 1.3:1
Impedance	$\Omega$	50
max. input power (ETSI EN 302 208)	dBm	+27 (at antenna port)
Range of near field tags **	cm	7
Selectivity of near field tags **	cm	5
Range of far field tags **	cm	-
Selectivity of far field tags **	cm	-
Connection		TNC female
Operating temperature range	$^{\circ}\text{C}$	-20 to +55
Storage temperature range	$^{\circ}\text{C}$	-40 to +85
Degree of protection		IP 67
Weight	kg	0.11
Dimensions (L x W x H)	mm	79.5 x 90 x 31
Packing size (L x W x H)	mm	approx. 165 x 250 x 50

\* The Effective Isotropic Field Factor (EIFF) shows the field isolation from far field to near field standardised to an isotropic radiator. The values were determined with 3 cm spacing

\*\* dependant upon transmission power and tag type

### Dimensions in [mm]:



### Material:

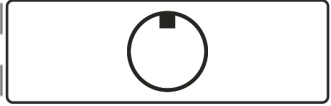


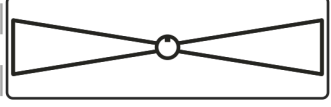

- Antenna cover: tough, weather-resistant polymer blend, colour: RAL7045

### Mounting options:

- four through-holes  $\varnothing$  4.2 mm for M4 screws



Tag type:

<p>looped tags (near field tags)</p>			<p><b>LORA</b> (Low Range) suitable for: - near field tags</p>
<p>Hybrid tags</p>			
<p>dipolar tags (far field tags)</p>			<p><b>ULORA</b> (Ultra Low Range) suitable for: - near field tags - Hybrid tags - far field tags 52010092 (ETSI/FCC)</p>

Description:

The Ultra Low Range Antenna (ULORA) and Low Range Antenna (LORA) feature a high field concentration in the near field with simultaneously extremely minimised antenna gain in the far field.

With these properties the antennas achieve outstanding reading and writing results with ranges up to 10 cm with a typical selectivity of 5 cm. The special design of these antennas guarantees interference-free operation in multi-reader environments.

The ULORA was especially developed to read dipolar tags (far field tags) at very limited distances. In addition this antenna can address looped tags (near field tags) up to 3 cm. The LORA version was developed in order to increase the range for near field tags, with which ranges up to 7 cm can be achieved. The range of applications of the antennas according to tag type is displayed in the tag association table.

Example applications:

- Pharmaceutical industry (e.g. individual tag capture on liquid-filled vessels and blister packs)
- access controls
- automation industry



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