In addition to the compact, flat dimensions, the antennas' highly selective reading zone is a major feature. The progress for the the new smart-shelf antennas has been done with the FAKRA connectors, known from the automotive industry. These robust and vibration-resistant connectors are coded and lock in place with a click.

With these FAKRA connectors, the smart-shelf antennas are connected in seconds, which makes installation in large rollout projects considerably easier and thus reduces installation costs.

Another advandage, especially in large installations, is the cascading feature of the smart-shelf antennas, suported by the Kathrein @KRAI RFID antenna interface. With this feature, up to 32 smart-shelf antennas can be cascaded and controlled centrally via only one reader.

Features

- robust and vibration-resistant FAKRA connector
- easy to install or retrofit
- strong separation of read/no-read zone
- extremely thin design
- near-field applications
- read range: 0–3 m
- very high, homogenous detection field
- optional cascade function for up to 32 antennas

General Specifications

Order No.		52010523	52010524	52010525	52010526
Type		SMSH Antenna ETSI	SMSH @KRAI Antenna ETSI	SMSH Antenna FCC	SMSH @KRAI Antenna FCC
Frequency range	[MHz]	865–868		902–928	
©KRAI		–	cascading	–	cascading
Protection cover		✓			
Read range	[m]	0–3			
Polarisation		circular, RHCP*			
Antenna gain	[dBiC]	typ. 5	typ. 4.5	typ. 5	typ. 4.5
Axial ratio	[dB]	typ. 2			
Impedance	[Ohm]	50			
VSWR		typ. 1.3:1			
Front-to-back ratio	[dB]	> 20			
Max. input power	[dBm]	+30			
Far-field half-power beam width	[°]	60/60			
Connection		input: FAKRA output: FAKRA			
Weight	[kg]	1.0			
Degree of protection		indoor use only			
Operating temperature range	[°C]	–20 to +55			
Storage temperature range	[°C]	–40 to +85			
Dimensions (L x W x H)	[mm]	340 x 330 x 20			
Package size (L x W x H)	[mm]	approx. 345 x 350 x 35			
Material		thermoplastic radome, UV-resistant, fibreglass-epoxy resin			

Key Applications

- eKanBan applications
- Point of sales verification
- Asset registration
- Book-and-collect workstation

Deliverables

The following parts are items of delivery:

- SMSH-Antenna
- Protective Cover
- 6x Panhead screw Torx T20 M4x8 DIN7985
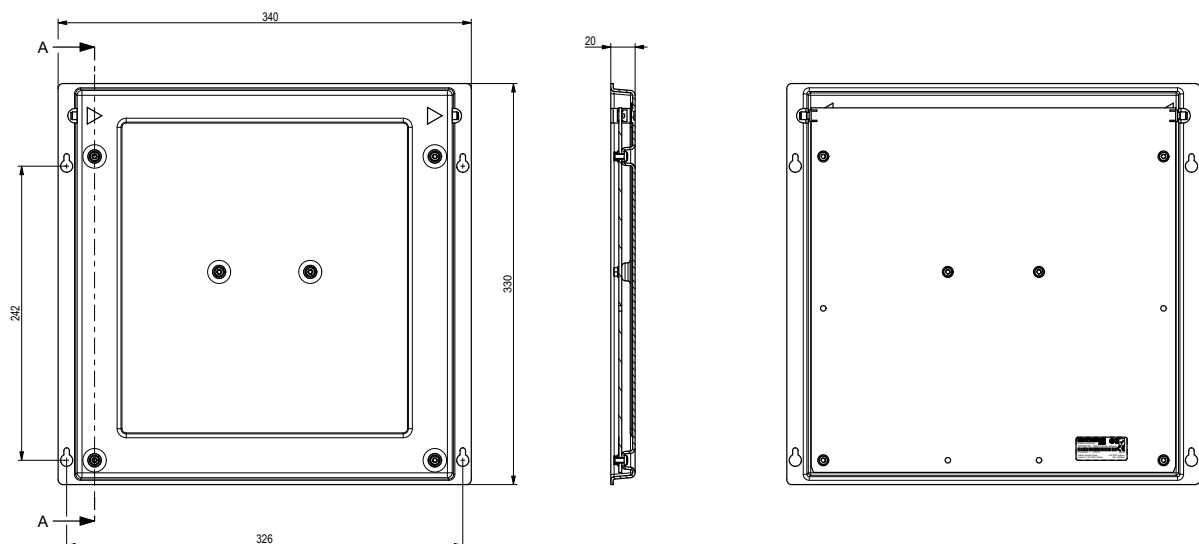- 6x Washer 4.3 DIN 125
- 6x Bolt nut M4 ISO4032

Accessories (Optional)

You can find all accessories at https://www.kathrein-solutions.com/products/rfid/rfid-asseccories.

Mounting Options

- 10 through holes Ø 4.5 mm for M4 screws to mount on wall/ceiling

Dimensions

Note

Risk of material damage!
► Make sure that the depth at which the M6 screws are put into the backplane does not exceed 8 mm.