

## KATHREIN

### ARU 8500: RAIN RFID Antenna Reader Unit, 865-868MHz, CSB Ant. ,POE, Linux

The RAIN RFID reader with a unique 3-zones built-in antenna ARU8500 is the perfect solution for registering goods movement in the industrial, logistics and retail sectors. This feature is ideal for dock doors to detect goods and their direction of movement, as well as an anti-theft system to check whether the goods have been paid for when customers leave the store.

Ubiquity means the ability to be present everywhere. However, it is also a requirement for industrial production or logistics processes that shipped goods or commodities are tracked at all times. The transitions between the production areas or individual parts in the supply chain are of central importance. The new ARU8500 reader enables a reliable detection of goods and the direction of movement.



The core function of the ARU 8500 is a circular switch-beam antenna. In contrast to standard RFID antennas, the antenna beam here can be swivelled in three areas to track the direction of movement in a gantry or when the goods pass through a gate. The otherwise easily detected pass-through area is divided into three zones in order to reliably determine the direction of movement when the goods pass through the gate (zone 1 to 3; zone 3 to 1).

Particularly helpful here is the ability to distinguish the transported goods that pass through all three zones from the unmoved goods that are only detectable in one zone.

#### Main features of the antenna reader Kathrein ARU-8500

- Automatic loading verification
- Integrated phased array antenna for direction detection
- 3 additional external antenna port
- s 3 x 7 m typical detection area for gate solutio
- ns Cost-effective overhead mount

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# Technical Description

## Functionality & Operation

Memory	1GB RAM DDR3
Data memory	8GB Flash eMMC
CPU Type	ARMv7-A based, 2 cores @ 800 MHz
Operating system	Linux
RFID transponder protocols	UCODE DNA, EPC Class 1 Gen2, ISO 18000-6C
Frequency	UHF: 865 - 868 MHz (EU)
Maximal transmit power	33dBm
Antennas, Antenna inputs	3 mono-static ports, integrated RFID antenna, circularly, 3-phased
Connectors	GPIO, TNC Male
Reading/writing distance	6m
Polarization	circular
Indicators	5 high-end programmable LED
Communication interface	10/100 BaseT Ethernet (RJ45) w/ POE, GPIO, KRAI ©, LLRP, PROFINET

## Electrical

DC resistance	50Ohm
Gain	7dBi (left & right zone of the internal antenna)
Gain	8dBi (middle zone of the internal antenna)
Beam width	80°
Front to back ratio	2

## Mechanical

Dimensions	Width: 365mm, Height: 112mm Length: 656mm
Weight	8kg
Color	light grey

## Environment

Operating temperature	-20 to 55°C
Storage temperature	-40 to 85°C
Ingress protection	IP40

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