

The Kathrein ARU 3000 antenna reader family is the next generation of RAIN RFID readers with an integrated 65° wide-range antenna. It is the first choice for professional IoT solutions, such as industrial automation and vehicle identification in ruggedised environments.

Its best-in-class 33-dBm UHF RF unit, optional connectivity modules, e.g. PoE+, Wi-Fi, 3G mobile interface and the powerful scalable processing unit change the way identification works.

Based on the latest RFID standards, such as EPC Gen2v2 / ISO 18000-63, Kathrein ARU 3000 series support all market-leading transponder chip features for security, authentication and encoding.



## > Features

Type		ETSI Version ARU 3560	FCC Version ARU 3560
Order No.		52010293	52010301
<b>Embedded PC</b>			
Processor		ARMv7-A based processor, 2 cores @ 800 MHz	
Flash memory (eMMC)	[Gbyte]	8	
RAM DDR3	[Gbyte]	1	
Operating system		Linux	
<b>Ethernet</b>			
Number of Ethernet ports		2	
Data rate	[Mbit/s]	10/100	
Connector		M12, X-coded, 8-pole	
<b>LED visualisation</b>			
Freely programmable		high-end LED	
<b>Wi-Fi</b>			
Supported standards		a, b, g, n	
2.5 GHz band	[GHz]	2.412–2.484	
max. TX power (dependent on country)	[dBm]	max. 17.3	
5 GHz band	[GHz]	4.910–5.825	
max. TX power (dependent on country)	[dBm]	max. 18	
max. channel bandwidth	[MHz]	max. 40	
<b>Bluetooth</b>			
Frequency range	[GHz]	2.402–2.480	
max. TX power	[dBm]	11.7	

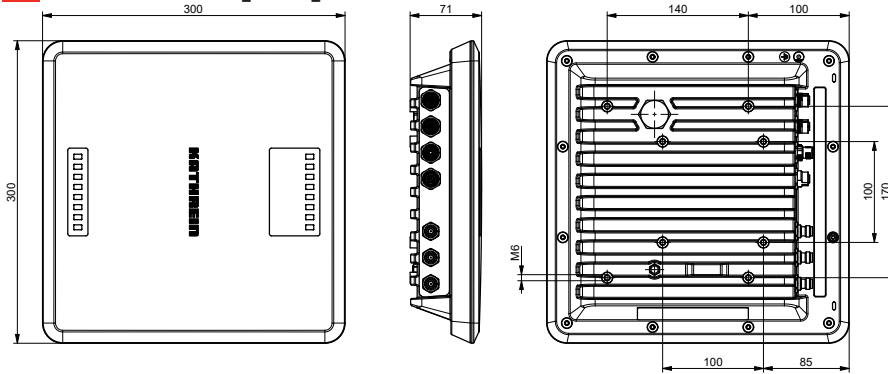
## > Key Applications

- Logistics
- Industry Automation
- Vehicle Identification
- Smart City Applications

**> General Specifications**

Type		ETSI Version ARU 3560	FCC Version ARU 3560
Order number		52010293	52010301
<b>RFID</b>			
Frequency range	[MHz]	865–868	902–928
Impedance antenna port	[Ohm]	50	
Max. TX power conducted	[dBm]	33	30 (33 dmB with extended cable length)
Max. TX power radiated	[ERP (ETSI)/ EIRP (FCC)]	33	36
RX sensitivity	[dBm]	typ. –80	
Number of antenna ports	[R-TNC]	3	
<b>Antenna</b>			
Half-power beam width	[°]	65	
Gain, linear	[dBi]	7.0	
Gain, circular	[dBiC]	6.5	
<b>Voltage</b>			
In situ	[VDC]	+10 to +30	
Connector		M12, A-coded, 4-pole	
Remote-fed	[VDC]	PoE+ according to 802.3at (10–57) (internal supply of GPIO-VCC-pin not possible with PoE+)	
Connector		M12, X-coded, 8-pole, port 1 only	
<b>Power consumption</b>			
In situ	[W]		
Remote-fed	[W]	25.4	
<b>GPIO</b>			
Max. input voltage	[V]	30	
Max. output voltage	[V]	30	
Max. current per output port	[mA]	500	
Max. current over all outputs	[mA]	1500	
Connector		M12, A-coded, 12-pole	
<b>RFID controller</b>			
Processor		ARMv7-A based processor with 600 MHz	
Flash memory eMMC	[Gbyte]	4	
RAM DDR2	[Mbyte]	128	
Operating system		Linux	
Weight	[kg]	4.26	
Degree of protection		IP67	
Operating temperature range	[°C]	–20 to +55	
Storage temperature range	[°C]	–40 to +85	
Dimensions (L x W x H)	[mm]	300 x 300 x 71	
Standards		EN302208-2 V2.1.1, EN301489-3, EN50364, EN62368-1, EN60529, EPC Gen2 V2, UCODE DNA	FCC Part15, UL, IC, EPC Gen2 V2, UCODE DNA

**> Dimensions [mm]**



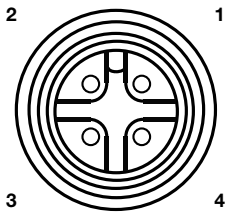
**> Note**

**Risk of material damage!**

- ▶ Make sure that the depth at which the screws are put into the housing of the reader does not exceed 10 mm (the tightening torque is 5 Nm).

**> Power Supply**

M12, A-coded, 4-pin, male

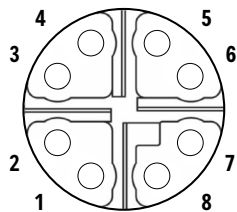


**Pinout Power Supply**

Pin	Allocation
1	+24 V DC
2	GND
3	GND
4	+24 V DC

**> Ethernet**

M12, X-coded, 8-pin, female



**Pinout communication PoE+**

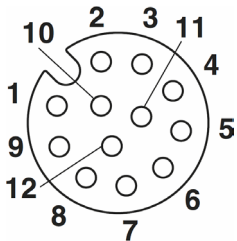
Pin	Allocation
1	TX+ / PoE+1
2	TX- / PoE+1
3	RX+ / PoE+2
4	RX- / PoE+2
5	PoE+1
6	PoE+1
7	PoE+2
8	PoE+2

**Pinout communication LAN**

Pin	Allocation
1	TX+
2	TX-
3	RX+
4	RX-
5	
6	
7	
8	

**> GPIO**

M12, A-coded, 12-pin, female



**Pinout general purpose input output**

Pin	Allocation
1	OUT_CMN
2	OUTPUT_1
3	INPUT_3
4	INPUT_CMN
5	INPUT_1
6	GND
7	UB
8	OUTPUT_4
9	OUTPUT_3
10	OUTPUT_2
11	INPUT_2
12	INPUT_4