

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

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

Base on the latest RFID standards like EPC Gen2v2 / ISO 18000-63 Kathrein ARU 3000 Series supporting all market leading Transponder Chip Features for security, authentication and encoding.



## ARU 3000 Antenna Reader Overview

### Features

Type No.	ARU 3400	ARU 3500	ARU 3560	ARU 3570
ETSI Order no.	52010291	52010292	52010293	52010294
FCC Order no.	52010299	52010300	52010301	52010302
Basic computing module			✓	
Dual core embedded PC			✓	
Number of ethernet ports	1		2	
GPIO			✓	
PoE+			✓	
LED visulatization			✓	
Wi-Fi			✓	
Bluetooth			✓	
2G/3G				✓
Polarization switch antenna			✓	

### Remarks

#### Accessories optional

- RRU/ARU Connecting Cable DC 10 m or 3 m (Order No. 52010358 or 52010359)
- RRU/ARU Connecting Cable Ethernet 10 m or 3 m (Order No. 52010360 or 52010361)
- RRU/ARU Connecting Cable GPIO 10 m or 3 m (Order No. 52010362 or 52010363)
- RRU/ARU Conneting Cable Ethernet Bridge (Order No. 52010373)
- RRU/ARU AC/DC Adapter 90 W or 30 W or 90 W (Order No. 52010364 or 52010365 or 52010366)
- RRU/ARU Power Supply PoE+ Ethernet Switch (Order No. 52010369)
- RRU/ARU Power Supply PoE+ Injector 30W, 100Mbit (Order No. 52010370)
- Wall/Poll Mount Kit (Order No. 52010351)
- Wall Mount Kit for RRU/ARU, WIRA 70 (Order No. 52010261)
- Vandalism Protective Cover (Order No. 52010367)
- RRU/ARU Protective Caps (Order No. 52010376)

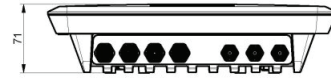
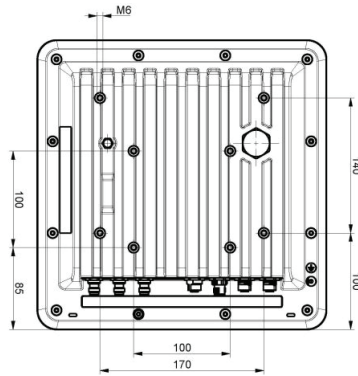
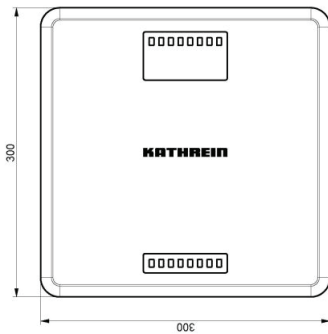
**> General specifications**

RFID UHF Reader Overview		ETSI Version		FCC Version	
		ARU 34xx	ARU 35xx	ARU 34xx	ARU 35xx
<b>RFID</b>					
Frequency range	[MHz]	865-868		902-928	
Impedance antenna port	[Ohm]	50			
Max.TX power conducted	[dBm]	30	33	30	30 (33 dBm with extended cable length)
Emitted output powe (max.) int. antenna	[dBm]	33 e.r.p.		36 EIRP	
RX sensitivity	[dBm]	typ. -80			
Number of antenna ports	[R-TNC]	3			
<b>Antenna integration</b>					
Half-power beam width	[°]	65			
Gain linear	[dBi]		ARU 3560 = 7.0		ARU 3560 = 7.0
Gain circular	[dBic]	ARU 3400 = 8.5	ARU 3500 = 8.5 ARU 3560 = 6.5 ARU 3570 = 7.0	ARU 3400 = 8.5	ARU 3500 = 8.5 ARU 3560 = 6.5 ARU 3570 = 7.0
<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]	12.5	25.4	12.5	25.4
Remote-fed	[W]	12.5	25.4	12.5	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 600MHz			
Flash memory eMMC	[Gbyte]	4			
RAM DDR2	[Mbyte]	128			
Operating system		Linux			
Weight	[kg]	4.00		4.00	
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	

➤ **Optionale specifications**

RFID UHF Reader Overview		ETSI Version				FCC Version			
		ARU 3400	ARU 3500	ARU 3560	ARU 3570	ARU 3400	ARU 3500	ARU 3560	ARU 3570
Order No.		52010291	52010292	52010293	52010294	52010299	52010300	52010301	52010302
<b>Embedded PC</b>									
Processor	ARMv7-A based processor, 2 cores @ 800MHz								
Flash memory (eMMC)	8 [Gbyte]			✓				✓	
RAM DDR3	1 [Gbyte]								
Operating system	Linux								
<b>Ethernet</b>									
Number of ethernet ports		1		2		1		2	
Datarate	10/100 [Mbit/s]								
Connetor									M12, X-coded, 8-pole
<b>4 LED visualization</b>									
freely programmable		Basic LED		Hig-end LED		Basic LED		Hig-end LED	
<b>Wi-Fi</b>									
Supported standards	a, b, g, n								
2.5GHz Band	2.412 - 2.484 [GHz]								
Max. TX power (dependent on country)	max. 17.3 [dBm]			✓				✓	
5GHz Band	4.910 - 5.825 [GHz]								
Max. TX power (dependent on country)	max. 18 [dBm]								
Max. channel bandwidth	max. 40 [MHz]								
<b>Bluetooth</b>									
Frequency range	2.402 - 2.480 [GHz]			✓				✓	
Max. TX power	11.7 [dBm]								
<b>2G/3G</b>									
Frequency range GSM/ GPRS/ EDGE	850/ 900/ 1800/ 1900 [MHz]								
Frequency range UMTS/ HSPA	800/ 850/ 900/ 1900/ 2100 [MHz]				✓				✓
Max.TX power (dependent of class and modulation)	33 [dBm]								

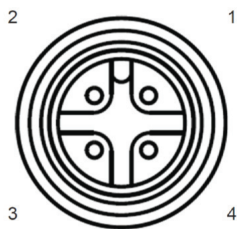
➤ **Dimensions [mm]**



➤ **Power supply**

M12, A-coded, 4 pin, male

Pinout power supply



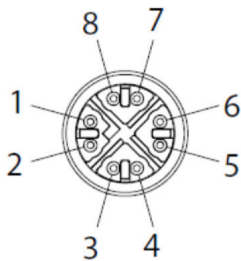
Pin	Allocation
1	x
2	x
3	GND
4	GND

➤ **Ethernet**

M12, X-coded, 8 pin, female

Pinout communication PoE+

Pinout communication LAN



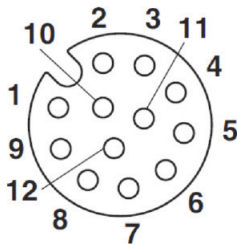
Pin	Allocation
1	TX+ / PoE+1
2	TX- / PoE+1
3	RX+ / PoE+2
4	RX- / PoE+2
5	PoE+1
6	PoE+1
7	PoE+2
8	PoE+2

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_0
3	INPUT_2
4	INPUT_CMN
5	INPUT_0
6	GND
7	UB
8	OUTPUT_3
9	OUTPUT_2
10	OUTPUT_1
11	INPUT_1
12	INPUT_3