

The Kathrein ARU 3570 antenna reader 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 3570 antenna reader supports all market-leading transponder chip features for security, authentication and encoding.



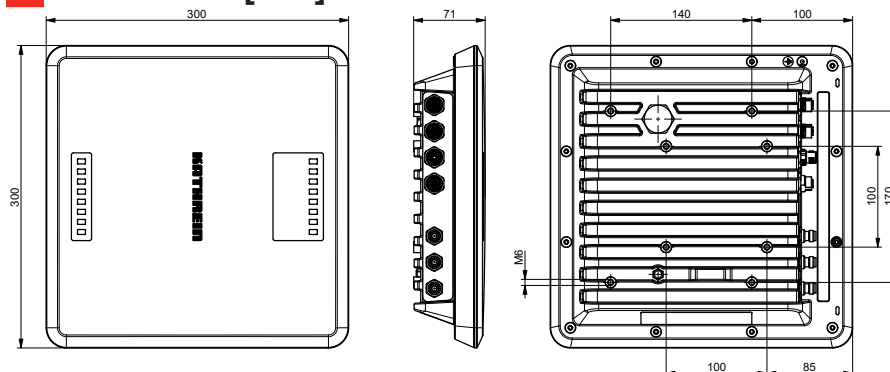
## > Features

- ruggedised high-end RAIN RFID reader with an integrated antenna
- powerful IoT gateway
- enhanced RF design
- integrated high secure memory module
- 3 antenna ports
- +33 dBm port power
- GPIO
- PoE+
- 2G/3G wireless interface
- basic computing module
- embedded dual-core 800 MHz PC
- open source Linux OS
- advanced LED visualisation
- IP67 outdoor use
- type approval for Europe, US and RoW

## > Key Applications

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

## > 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).

**> General Specifications**

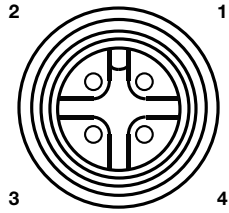
Type		ETSI Version ARU 3570	FCC Version ARU 3570
Order number		52010294	52010302
<b>RFID</b>			
Frequency range	[MHz]	865–868	902–928
Impedance antenna port	[Ohm]	50	
Max. TX power conducted	[dBm]	33	30 (33 dBm with extended cable length)
Max. TX power radiated	[ERP (ETSI)/ EIRP (FCC)]	33	36
RX sensitivity	[dBm]	typ. –80	
Number of antenna ports	[R-TNC]	3	
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
<b>Antenna</b>			
Half-power beam width	[°]	65	
Gain, linear	[dBi]	–	
Gain, circular	[dBiC]	7.0	
<b>Voltage</b>			
Local supply	[VDC]	+10 to +30	
Connector		M12, A-coded, 4-pole	
Remote feed	[VDC]	PoE+ according to 802.3at (35–57) <ul style="list-style-type: none"> <li>▶ Make sure that the router/switch supports 30 W in the static mode.</li> <li>▶ Use the cable the length of which does not exceed 100 m.</li> <li>▶ Make sure to use a Cat 6 cable or a higher level cable.</li> <li>▶ Note that the internal supply of GPIO-VCC-pin is not possible with PoE+.</li> </ul>	
Connector		M12, X-coded, 8-pole, port 1 only	
<b>Power consumption</b>			
Local supply	[W]		
Remote feed	[W]	25.4	
<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		12	
Fixed		1 (power LED)	

**> General Specifications**

Type		ETSI Version ARU 3570	FCC Version ARU 3570
Order number		52010294	52010302
<b>2G/3G</b>			
Frequency range GSM/GPRS/EDGE	[MHz]	850/900/1800/1900	
Frequency range UMTS/HSPA	[MHz]	800/850/900/1900/2100	
max. TX power (dependent on class and modulation)	[dBm]	33	
<b>GPIO</b>			
Type		3 inputs, 3 outputs (double insulation possible)	
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	
<b>Mechanical properties</b>			
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	

**> Power Supply**

M12, A-coded, 4-pin, male

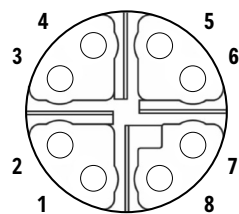


**Pinout Power Supply**

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

**> Ethernet**

M12, X-coded, 8-pin, female



**Pinout communication PoE+**

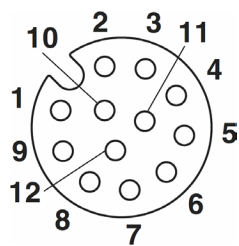
Pin	Allocation
1	TX+ / PoE+1
2	TX- / PoE+1
3	RX+ / PoE+2
4	RX- / PoE+2
5	PoE+1
6	PoE+1
7	PoE+2
8	PoE+2

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