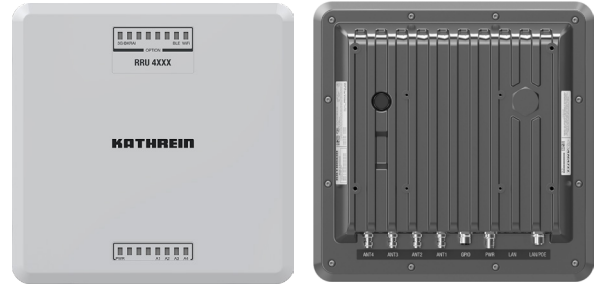


The Kathrein RRU 4570 reader is the next generation of RAIN RFID readers and the leading IoT device for all professional AutoID solutions. It is the first choice for professional AutoID solutions, such as industrial automation and vehicle identification in ruggedised environments.

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 RRU 4570 reader supports all market leading transponder chip features for security, authentication and encoding.



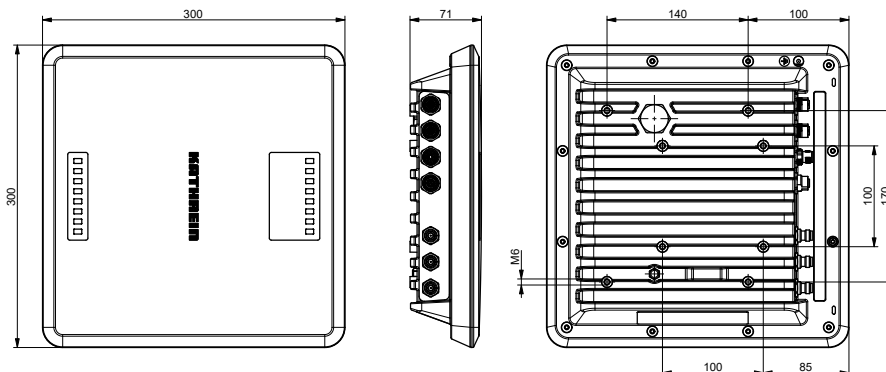
## > Features

- ruggedised high-end RAIN RFID reader
- powerful IoT gateway
- enhanced RF design
- integrated high secure memory module
- 4 antenna ports
- +33 dBm port power
- @KRAI antenna support
- 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**

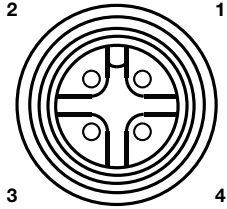
Type		ETSI Version RRU 4570	FCC Version RRU 4570
Order number		52010290	52010298
<b>RFID</b>			
Frequency range	[MHz]	865–868	902–928
Impedance antenna port	[Ohm]	50	
Max. TX power, conducted	[dBm]	33	30 (33 dBm with extended cable length)
Max. TX power, radiated	[ERP (ETSI)/ EIRP (FCC)]	33	36
RX sensitivity	[dBm]	typ. –80	
Number of antenna ports	[R-TNC]	4	
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>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]	25.4	
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	
Datarate	[Mbit/s]	10/100	
Connetor		M12, X-coded, 8-pole	
<b>©KRAI</b>			
TX Frequency	[kHz]	22	
Supply voltage (output)	[V]	5	
Max. current per port	[mA]	100	
<b>LED visualisation</b>			
Freely programmable		12	
Fixed		1 (power LED)	

**> General Specifications**

Type		ETSI Version RRU 4570	FCC Version RRU 4570
Order number		52010290	52010298
<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>			
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]	4.00	
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	

**> Power Supply**

M12, A-coded, 4-pin, male

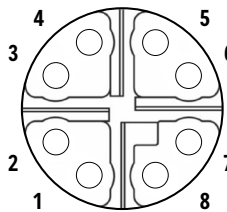


Pinout Power Supply

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

**> Ethernet**

M12, X-coded, 8-pin, female



Pinout communication PoE+

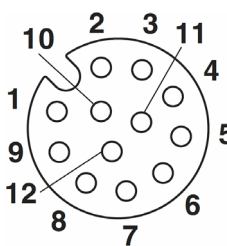
Pin	Allocation
1	TX+ / PoE+1
2	TX- / PoE+1
3	RX+ / PoE+2
4	RX- / PoE+2
5	PoE+1
6	PoE+1
7	PoE+2
8	PoE+2

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