

The Kathrein RRU 4000 reader family is the next generation of RAIN RFID reader and the leading IoT device for all professional AutoID solutions.

With its best in class 33 dBm UHF RF unit and connectivity interface PoE+ and the powerful scalable processing unit. The way how identification works.

Base on the latest RFID standards like EPC Gen2v2 / ISO 18000-63 Kathrein RRU 4000 series supporting all market leading transponder chip features for security, authentication and encoding.



RRU 4500 Reader Unit

➤ Features

Type	ETSI Version RRU 4500		FCC Version RRU 4500	
Order No.	52010288		52010296	
Embedded PC				
Processor	ARMv7-A based processor, 2 cores @ 800 MHz			
Flash memory (eMMC)	[Gbyte]	8		
RAM DDR3	[Gbyte]	1		
Operating system	Linux			
Ethernet				
Number of Ethernet ports			2	
Data rate	[Mbit/s]	10/100		
Connector	M12, X-coded, 8-pole			
©KRAI				
TX Frequency	[kHz]	22		
Supply voltage (output)	[V]	5		
Max. current per port	[mA]	100		
LED visualisation				
Freely programmable	high-end LED			

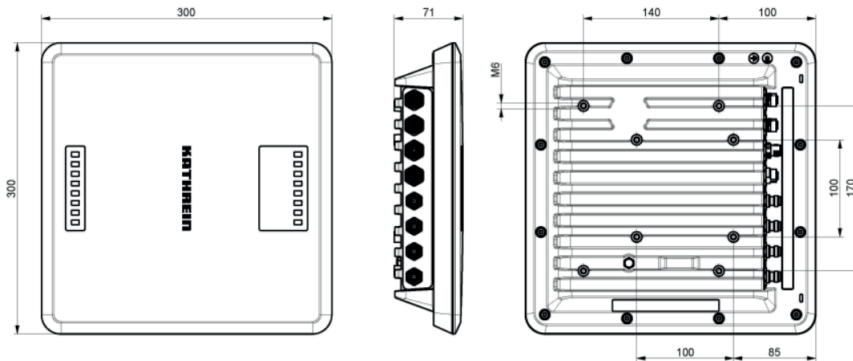
> General Specifications

Type		ETSI Version RRU 4500	FCC Version RRU 4500
Order No.		52010288	52010296
RFID			
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	
Voltage			
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	
Power consumption			
In situ	[W]	25.4	
Remote-fed	[W]	25.4	
GPIO			
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	
RFID controller			
Processor		ARMv7-A based processor with 600 MHz	
Flash memory eMMC	[Gbyte]	4	
RAM DDR2	[Mbyte]	128	
Operating system		Linux	
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	
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

Key Application

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

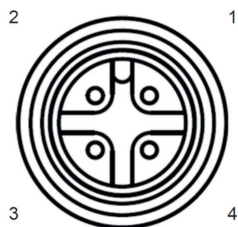
➤ **Dimensions [mm]**



➤ **Power Supply**

M12, A-coded, 4 pin, male

Pinout power supply



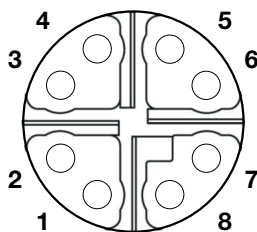
Pin	Allocation
1	+24 V DC
2	GND
3	GND
4	+24 V DC

➤ **Ethernet**

M12, X-coded, 8 pin, female

Pinout communication PoE+

Pinout communication LAN



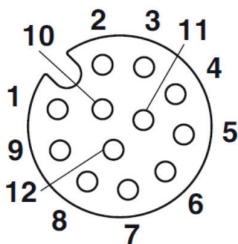
Pin	Allocation
1	TX+ / PoE+1
2	TX- / PoE+1
3	RX+ / PoE+2
4	RX- / PoE+2
5	PoE+1
6	PoE+1
7	PoE+2
8	PoE+2

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