The Kathrein ARU 2000 reader family is a basic RAIN RFID reader with an integrated 60° Wide Range antenna for indoor applications in logistics, manufacturing and supply chain.

Its best in class 30 dBm UHF RF unit and connectivity interface PoE as well as the basic level processing unit allow for a flexible integration into Industry 4.0 and IoT solutions.

Based on the latest RFID standards, such as EPC Gen2v2/ISO 18000-63, Kathrein ARU 2000 series supports all market leading transponder chip features. The ARU 2401 is the version for countries where FCC rules apply.

IMPINJ CONNECTED | Quality made in Germany | RAIN RFID

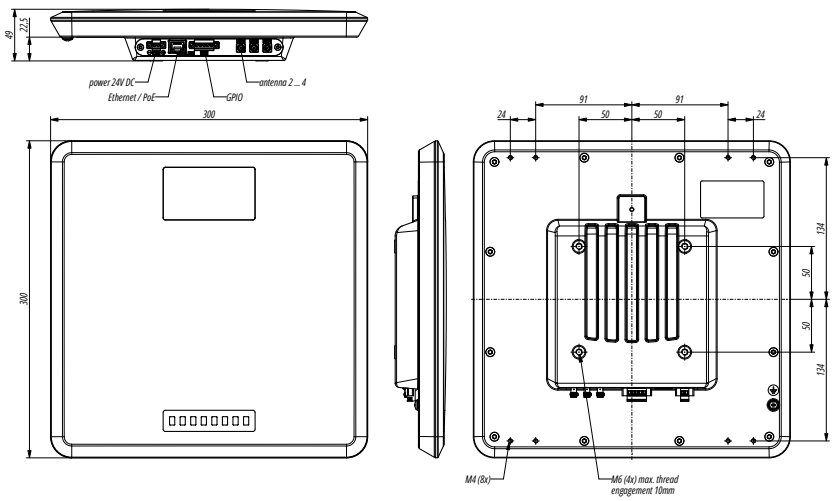
Features

- RAIN RFID reader with embedded computing module
- Easy to install due to open connectors and FAKRA antenna sockets
- Ready for shelf mounting with ITEM
- 60° antenna integrated
- 3 antenna ports
- SMA antenna connector
- +30 dBm port power
- @KRAI antenna support
- GPIO: 2 inputs, 2 outputs
- PoE
- Basic LED visualisation
- IP40 indoor use
- Type approval for Europe, US and RoW

Key Applications

- Manufacturing and Automotive
- Logistics
- Track & Trace
- eKanBan
- Healthcare

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).

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936B226/G/1022 | Subject to change.

General Specifications

Type		ETSI Version ARU 2400	FCC Version ARU 2401
Order number		**52010721**	**52010722**
RFID			
Frequency range	[MHz]	865–868 (865–867 for India)	902–928
Impedance antenna port	[Ohm]	50	
Max. TX power conducted	[dBm]	30	30
Max. TX power radiated	[ERP (ETSI)/ EIRP (FCC)]	30.25	32.5
RX sensitivity	[dBm]	typ. –70	
Number of antenna ports		3 SMA sockets	
Standards		GS1 EPC Gen2V2, GS1 EPC Gen2V3, UCODE DNA, EN 29167-10, ISO 18000-63	
		EN302208-2 V2.1.1, EN301489-3, EN50364, EN62368-1, EN60529	FCC Part15, UL, IC
Antenna			
Half-power beam width	[°]	60	
Gain, circular	[dBiC]	typ. 5.5	
Voltage			
Local supply	[VDC]	+10 to +30	
Connector		printed circuit-board connector, 2-pole, screw connection with tension sleeve	
Remote-fed	[VDC]	PoE Class 0 according to 802.3at (10–57)	
Connector		RJ45, 8-pole	
Power consumption			
Local supply	[W]	5.7	
Remote-fed	[W]	6.7 – PoE Class 0 (10,5 W)	
Ethernet			
Number of Ethernet ports		1	
Data rate	[Mbit/s]	10/100	
Connetor		RJ45, 8-pole	
©KRAI			
Supply voltage (output)	[V]	5	
Max. current per port	[mA]	100	
LED visualisation			
Freely programmable		Basic LED	

General Specifications

Type		ETSI Version ARU 2400	FCC Version ARU 2401
Order number		**52010721**	**52010722**
GPIO			
Type		2 inputs, 2 outputs	
Max. input voltage	[V]	30	
Max. output voltage	[V]	30	
Max. current per output port, open drain	[mA]	190	
Connector		printed circuit-board connector, 5-pole, screw connection with tension sleeve	
RFID controller			
Processor		ARMv7-A based processor with 600 MHz	
Flash memory eMMC	[Gbyte]	4	
RAM DDR2	[Mbyte]	128	
Operating system		Linux	
Mechanical properties			
Weight	[kg]	1.86	
Degree of protection		IP40	
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 49	

Accessories (optional)

Order number	Type	Description
52010451	R-AC 1 SMA-FAKRA	RFID antenna cable L=1 m, IP40, FAKRA Z-coded to SMA (m); right angle antenna plug
52010452	R-AC 3 SMA-FAKRA	RFID antenna cable L=3 m, IP40, FAKRA Z-coded to SMA (m); right angle antenna plug
52010453	R-AC 5 SMA-FAKRA	RFID antenna cable L=5 m, IP40, FAKRA Z-coded to SMA (m); right angle antenna plug
52010727	R-AC 0.5 SMA-SMA	RFID antenna cable L=0.5 m, IP40, SMA to SMA
52010728	R-AC 1 SMA-SMA	RFID antenna cable L=1 m, IP40, SMA to SMA
52010729	R-AC 3 SMA-SMA	RFID antenna cable L=3 m, IP40, SMA to SMA
52010730	R-AC 5 SMA-SMA	RFID antenna cable L=5 m, IP40, SMA to SMA
52010738	R-AC 1 TNC-SMA	RFID antenna cable L=1 m, IP40, TNC to SMA
52010739	R-AC 3 TNC-SMA	RFID antenna cable L=3 m, IP40, TNC to SMA
52010740	R-AC 5 TNC-SMA	RFID antenna cable L=5 m, IP40, TNC to SMA
52010474	R-RPA 24VDC-18W	AC/DC adapter 24V/18 W AC 110-230 V-plug power supply unit
52010351		Wall mount kit outdoor
52010736		Wall mount kit indoor

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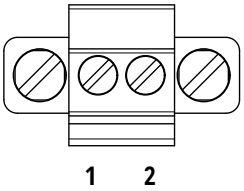
Power Supply

Printed circuit board connector 2-pole, screw connection with tension sleeve

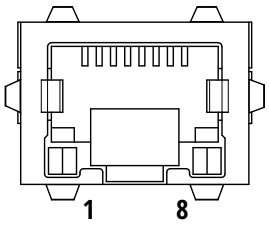


Pinout Power Supply

Pin	Allocation
1	GND
2	+24 V DC

Ethernet

RJ45, 8-pole

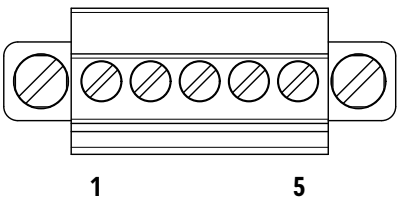


Pinout communication PoE

Pin	Data	PoE
1	TX+	PoE Mode A
2	TX-	PoE Mode A
3	RX+	PoE Mode A
4		PoE Mode B
5		PoE Mode B
6	RX-	PoE Mode A
7		PoE Mode B
8		PoE Mode B

GPIO

Printed circuit board connector, 5-pole, screw connection with tension sleeve



Pinout general purpose input output

Pin	Allocation
1	GND OUT_CMN
2	INPUT_1
3	INPUT_2
4	OUTPUT_1 (open drain)
5	OUTPUT_2 (open drain)

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