ARU-CSB Reader Unit

KATHREIN

The Kathrein Reader ARU-CSB-ELC offers an Ethernet communication interface and an integrated 30° Wide Range antenna with three selectable read zones. Active and passive RFID tags can be read out in the frequency range from 865 to 868 MHz (865 to 867 MHz for India) and from 902 to 928 MHz (916 to 928 MHz for Peru). The device can read and write tags conforming to the EPC Gen2v2 standard (ISO 18000-63C). The three well defined read zones of the integrated 30° Wide Range antenna will be controlled by the reader, to offer optimized solution for logistics, intralogistics and retail application. An EAS anti-theft protection system is also possible with this unit. Due to an embedded Linux-based module, the reader can be used as a stand-alone system, running applications and parameterization directly on the reader without the need for a remote PC.

Quality made in Germany

RAIN RFID

General Specifications

Order No.		52010263	52010264
Frequency		ARU-CSB-ELC-ETSI	ARU-CSB-ELC-FCC
Frequency range	[MHz]	865 - 868 (865 - 867 for India)	902 - 928 (916 - 928 for Peru)
Emitted output power (max.)	[dBm]	+32 e.r.p.	+35 EIRP
Protocols		EPC Class1 Gen2/ISO 18000-6C	
RX input sensitivity	[dBm]	typ. -80	
Internal antenna			
Far field half-power beam width	[°]	30 vertical 80 horizontal	
Switchable read field	[°]	+35 / 0 / -35	
Polarization		circular	
Antenna gain left/straight/right	[dBiC]	6.5 / 7.5 / 6.5	7.5 / 8.5 / 7.5
Axial ratio	[dB]	typ. 2	
Communication interface		Ethernet 10/100 MBit/s	
Operating system reader		Kathrein firmware @ ARM 9 processor	
Embedded PC module			
Processor		ARMv7-A compatible processor 1GHz	
Flash memory		eMMC 4GB	
RAM		512MB 200MHz DDR SDRAM	
Linux kernel		> version 2.6	
Digital interfaces (GPIO)		4 digital inputs; 4 digital outputs	
Current load digital interfaces (DO)	[mA]	500 each; max. 1500	
Supply voltage	[V DC]	+10 to +30	
Current consumption (at 24 V DC)	[mA]	typ. 800 (without GPIO); max. 2500 (incl. GPIO)	
Connector (male) power supply		1x M12, 4-pole, A-coded	
Connector (female) Ethernet		1x M12, 4-pole, D-coded	
Connector (female) GPIO		2x M12, 8-pole, A-coded	
Operating temperature range	[°C]	-20 to +55	
Storage temperature range	[°C]	-40 to +85	
Housing materials		galvanized steel, fibreglass radome (UV resistance)	
Dimensions (L x W x H) (without brackets)	[mm]	approx. 620 x 386 x 112	
Weight	[kg]	9.0	
Degree of protection		IP65 (at covering of not used connectors)	
Standards		EN 60529, EN301489-1, EN 302208-1, EN 302208-2, EN 60950-1:2006, EN 50364	FCC part 15, UL pending, IC-FCB

Remarks

Accessories optional

- All accessories can be found at: https://http://www.kathrein-solutions.com/products/hardware/accessories

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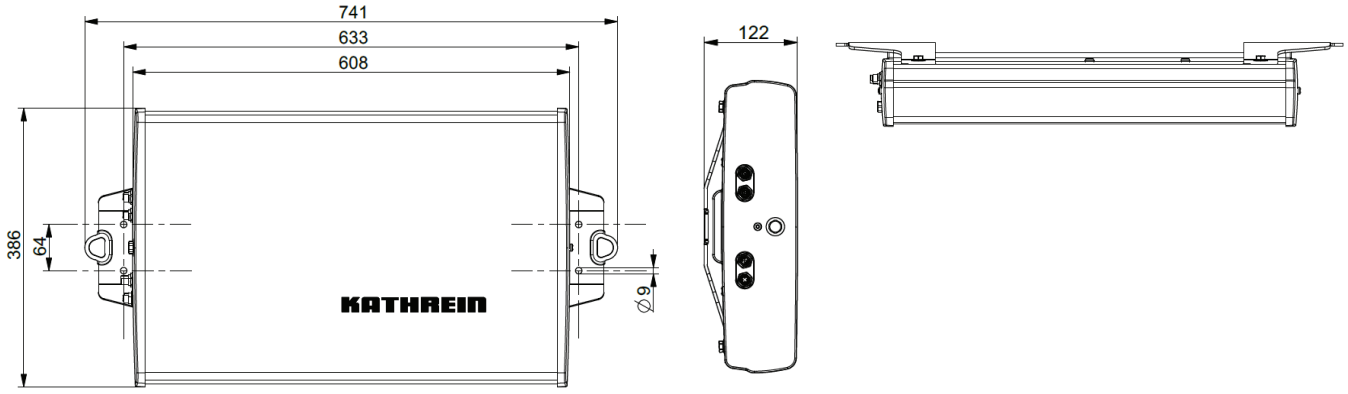
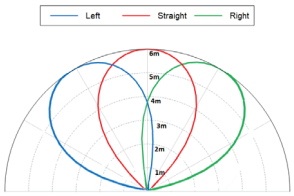
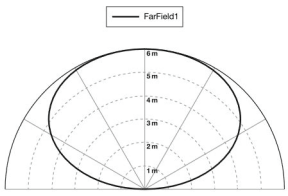
Dimensions [mm]



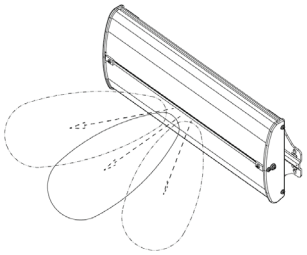
Read range vertical cut



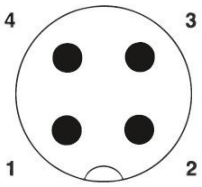
Read range horizontal cut
(if mounted like picture)



Directions of the switched beam

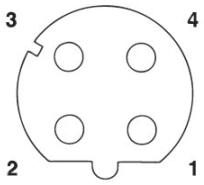


Power supply



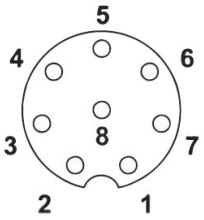
Pin	Allocation
1	+24 V DC
2	n.c.
3	GND
4	n.c.

Ethernet



Pin	Allocation
1	TD+
2	RD+
3	TD-
4	RD-

GPIO



Pin	GPIO 1	GPIO 1
1	OUT_CMN	OUT_CMN
2	INPUT 3	INPUT 0
3	INP_CMN	INP_CMN
4	GND	GND
5	Vcc	Vcc
6	OUTPUT 3	OUTPUT 1
7	OUTPUT 2	OUTPUT 0
8	INPUT 2	INPUT 2

Features

- System compliant to EPC Class 1 Gen2v2/ISO 18000-63C standards
- Full System Support for NXP Ucode DNA Chipset
- Integrated Circular-Switch-Beam antenna with three read zones
- Dense Reader Mode (DRM)
- Output power adjustable in 0.25 dB steps

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