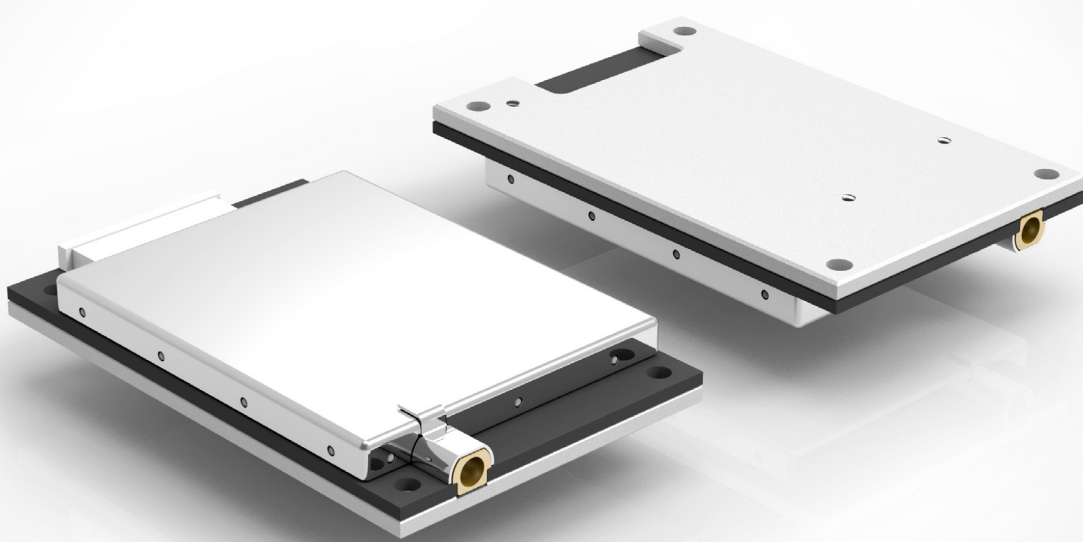


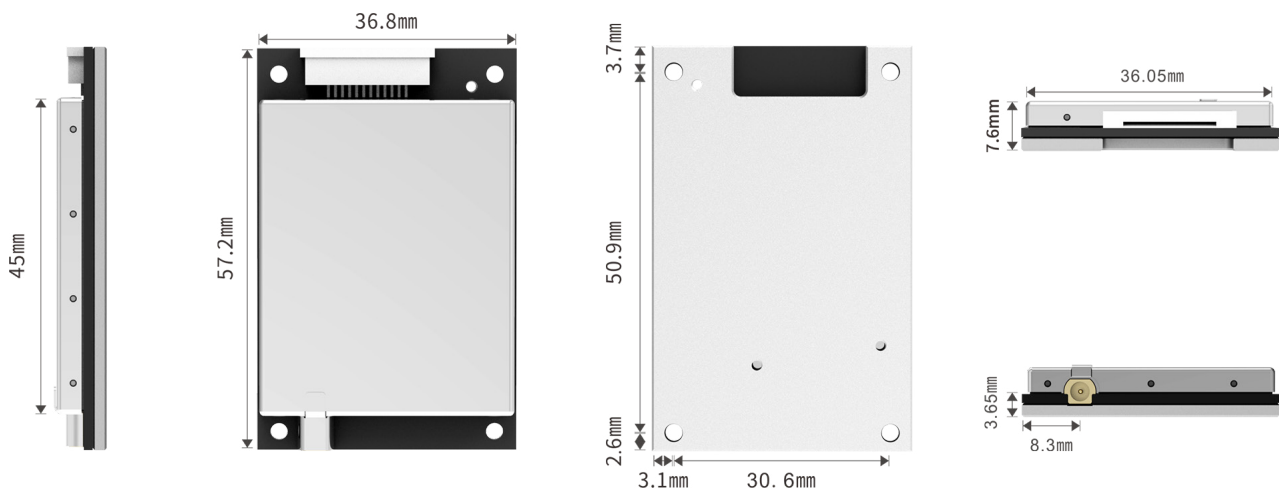


CMX10-1

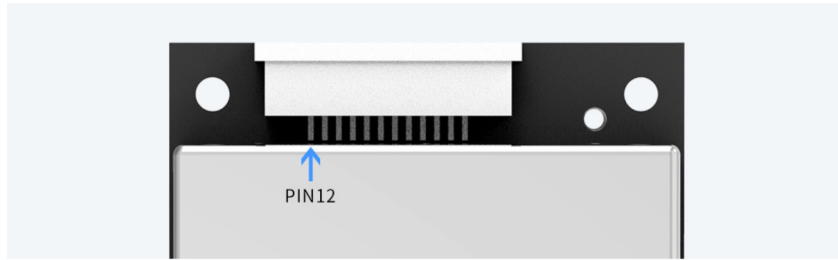
1-Port RFID Module

CM710-1 / CM510-1 / CM310-1 is a 1-port RFID module based on Impinj E710 / E510 / E310 chip. It can be integrated in mobile RFID readers, fixed RFID readers, card issuers and etc. With high integration level, it is small in size, low in power consumption, resistant to electromagnetic interference and good at heat dispersion. The module appeals to challenging industries like warehousing, logistics, apparel, production lines and such.

Dimensions



Interface Definition (12 PIN)



PIN#	Interface	Description
1	VIN	3.5-5.25VDC
2	VIN	
3	GND	Ground
4	GND	Ground
5	EN	High LLT level (>1.2V) boot the module Low LLT level (<0.4V) out the module
6	IO1	Reserved GPIO 3.3V TTL level
7	IO2	Reserved GPIO 3.3V TTL level
8	IO3	Reserved GPIO 3.3V TTL level
9	RXD	UART receive 3.3V TTL level
10	TXD	UART transmit 3.3V TTL level
11	NC	
12	NC	

Specification

Model		Communication Interface	
1-Ports RFID Module	CM710-1 / CM510-1 / CM310-1	Connector	12 PIN FPC Connector
Development Board Module	CM-X_EDCB	Host Communication	UART 3.3V TTL Level Baud Rate: 115200bps
Physical Characteristics		Power Supply	
Dimensions	57.2 mm x 36.8 mm x 7.6 mm	Input Voltage	DC 3.5-5.25V
Weight	26.0 g / 0.92 oz.	Power Consumption in RF Output Mode	7.5W
RFID Features		Power Consumption in Standby (EN high TTL level)	0.175W;
RF Chip	Impinj E710 / 510 / 310	Power Consumption in Power Down (EN low TTL level)	42.5uW
Air Interface Protocol	EPCglobal Gen2 (ISO18000-6C)	User Environment	
Working Frequency	865-868 / 920-925 / 902-928 MHz (custom-design for frequency band)	Operating Temp.	-13°F to 149°F / -25°C to 65°C
Output Power	1-30dBm adjustable; 1dB step interval; +/- 0.5dB precision	Storage Temp.	-40°F to 185°F / -40°C to 85°C
Output Power Flatness	+/- 0.2dB	Humidity	10% - 95%
Antenna Interface	50Ω RF connector MMCX Receptacle	Reading Performance	
Regions Supported	FCC 902-928 MHz; ETSI 865.6-867.6 MHz; China 920-925MHz; Others for customization (865-868, 902-928MHz)	Fastest Read Rate	CM710-1 : 950+ tags/s; CM510-1: 550+ tags/s; CM310-1: 250+ tags/s;
Receive Sensitivity	CM710-1 : < -87 dBm; CM510-1: < -81 dBm; CM310-1: < -74 dBm;	Reading Range	Up to 10m (with 4dBi antenna)
Tag RSSI	Supported		
Antenna Detector	Supported		
Ambient Temp Monitor	Supported		
Working Mode	Single/DRM		

Notice: Product specifications are subject to change without prior notice. / Model: CM710-1 / CM510-1/CM310-1 / Update Date: 2022-04-02

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FCC Information

RF Exposure Information: To maintain compliance with FCC RF exposure requirements, use the product that maintain a 20cm separation distance between the user's body and the host.

FCC statements:

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications or changes to this equipment. Such modifications or changes could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device is intended only for OEM integrators under the following conditions:

1. The antenna must be installed such that 20 cm is maintained between the antenna and users. 2. The transmitter module may not be co-located with any other transmitter or antenna. As long as the two conditions above are met, additional transmitter testing will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required for the installed module.

Important Note:

In the event that these conditions cannot be met (for example certain laptop configurations or co-location with another transmitter), then the Federal Communications Commission of the U.S. Government (FCC) and the Canadian Government authorizations are no longer considered valid and the FCC ID cannot be used on the final product. In these circumstances, the OEM integrator shall be responsible for re-evaluating the end-product (including the transmitter) and obtaining a separate FCC authorization in the U.S. and Canada.

OEM Integrators - End Product Labeling Considerations:

This transmitter module is authorized only for use in device where the antenna may be installed such that 20 cm may be maintained between the antenna and users. The final end product must be labeled in a visible area with the following: "Contains, FCC ID: 2ABGH-RC101ML". The grantee's FCC ID can be used only when all FCC compliance requirements are met.

OEM Integrators - End Product Manual Provided to the End User:

The OEM integrator shall not provide information to the end user regarding how to install or remove this RF module in end product user manual. The end user manual must include all required regulatory information and warnings as outlined in this document.