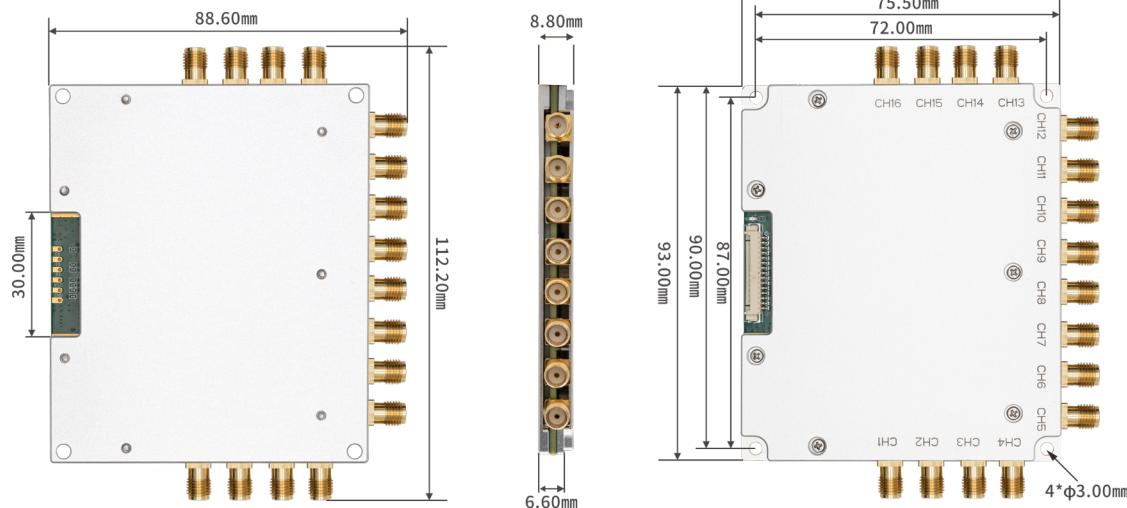


# CM710-16

## 16-Port RFID Module

Chainway CM710-16 is a 16-port RFID module based on Impinj E710 chip that can be integrated in fixed UHF RFID readers and etc. With high integration level and superb performance, this module is low in power consumption as well. It is also resistant to electromagnetic interference and good at heat dispersion. The module is ideal for industries like warehousing, logistics, apparel, production lines and such to boost efficiency.

### Dimensions



## Interface Definition (15 PIN)

PIN	Interface	Description
1	GND	Negative
2	GND	
3	VIN	Positive Input voltage range: 3.5-5.25 VDC
4	VIN	
5	GPIO3	Reserved GPIO 3.3V TTL level
6	GPIO4	Reserved GPIO 3.3V TTL level
7	GPIOI	Reserved GPIO 3.3V TTL level
8	BUZZ	Driving 3.3V buzzer
9	UART_RXD	UART receive 3.3V TTL level
10	UART_TXD	UART send 3.3V TTL level
11	USB_DM	USB_DATA(-)
12	USB_DP	USB DATA(+)
13	GPIO2	Reserved GPIO 3.3V TTL level
14	EN	>1.25V power-on mode <1.18V standby mode
15	GPIO_5	Reserved GPIO 3.3V TTL level

## Specification

Model	
16-Ports RFID Module	CM710-16
Development Board Module	CM-X_EDCB
Physical Characteristics	
Dimensions	112.2 x 88.6 x 8.8mm / 4.42 x 3.48 x 0.35in.
Weight	253.0 g / 8.92 oz.
RFID Features	
RF Chip	Impinj E710
Air Interface Protocol	EPC global Gen2 (ISO18000-6C)
Working Frequency	865-868 / 920-925 / 902-928 MHz (custom-design for frequency band)
Output Power	5-30dBm adjustable; 1dB step interval; +/- 1dB precision
Output Power Flatness	+/- 0.2dB
Antenna Interface	16-channel 50Ω RF connector SMA Receptacle
Regions Supported	FCC 902-928 MHz; ETSI 865.6-867.6 MHz; China 920-925 MHz; Others for customization (865-868, 902-928 MHz)
Receive Sensitivity	< -86 dBm
Tag RSSI	Supported
Antenna Detector	Supported
Ambient Temp Monitor	Supported
Working Mode	Single/DRM

Communication Interface	
Connector	15 PIN FPC Connector
Host Communication	UART 3.3V TTL Level Baud Rate: 115200bps
Power Supply	
Input Voltage	DC 3.5-5.25V
Power Consumption in RF Output Mode	7.5W
Power Consumption in Standby (EN high TTL level)	0.175W
Power Consumption in Power Down (EN low TTL level)	42.5µW
User Environment	
Operating Temp.	-25°C to 65°C
Storage Temp.	-40°C to 85°C
Humidity	10% - 95%
Reading Performance	
Fastest Read Rate	950+ tags/s
Reading Range	Up to 10m (with 6dBi antenna, Alien9662 tag)

Notice: Product specifications are subject to change without prior notice. / Model: CM710-16 / Update Date: 2023-03-31

**CHAINWAY®**

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Do not use the device in the environment at too high or too low temperature, never expose the device under strong sunshine or too wet environment. The suitable temperature for the product and accessories is -25°C~+65°C

RF exposure information: The Maximum Permissible Exposure (MPE) level has been calculated based on a distance of d=20 cm between the device and the human body. To maintain compliance with RF exposure requirement, use product that maintain a 20cm distance between the device and human body.

**This product can be used across EU member states.**

#### **EU Regulatory Conformance**

Hereby, Shenzhen Chainway Information Technology Co., Ltd declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address:  
<https://www.chainway.net>



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.

**Federal Communication Commission (FCC) Radiation Exposure Statement**

When using the product, maintain a distance of 20cm from the body to ensure compliance with RF exposure requirements.

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 and IC 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 and IC 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: 2AC6ACM71016". 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.