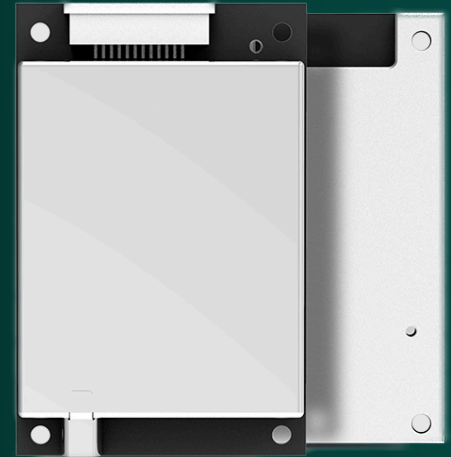


## UHF | RAIN - Reader Module CHAINWAY - CMX10-1

- EPCglobal Gen2 (ISO18000-6C)
- Based on Impinj E710 / E510 / E310 chipsets
- Adjustable RF output power up to 30 dBm
- UART host communication (3.3V TTL)
- Low power consumption



### UHF | RAIN - Reader Module 1-port UHF RFID module for OEM integration

The Chainway CMX10-1 series is a compact, high-performance 1-port UHF RFID module designed for seamless OEM integration. Based on Impinj E710, E510 or E310 chipsets and supporting Gen2X, the module delivers reliable UHF performance for both mobile and fixed RFID systems.

Its high level of integration, low power consumption and efficient heat dissipation make the CMX10-1 suitable for space-constrained and performance-critical designs. With adjustable RF output power, strong receive sensitivity and UART-based host communication, the module enables flexible integration into readers, card issuers and embedded RFID platforms operating in challenging industrial environments.

#### Common Applications

- Embedded RFID terminals
- Warehouse and logistics solutions
- Apparel and retail inventory systems
- Production line automation
- Mobile RFID readers



## TECHNICAL SPECIFICATIONS

### Physical Characteristics

Dimensions	57.2 mm x 36.8 mm x 7.6 mm
Weight	26.0 g / 0.92 oz.

### RFID Features

RF Chip	Impinj E710 / 510 / 310
Impinj Gen2X	Supported
Air Interface Protocol	EPCglobal Gen2 (ISO18000-6C)
Working Frequency	865-868 / 920-925 / 902-928 MHz (custom-design for frequency band )
Output Power	1-30dBm adjustable; 1dB step interval; +/- 0.5dB precision
Output Power Flatness	+/- 0.2dB
Antenna Interface	50Ω RF connector MMCX Receptacle
Regions Supported	FCC 902-928 MHz; ETSI 865.6-867.6 MHz; China 920-925MHz; Others for customization (865-868, 902-928MHz)
Receive Sensitivity	CM710-1 : < -87 dBm; CM510-1: < -81 dBm; CM310-1: < -74 dBm;
Tag RSSI	Supported
Antenna Detector	Supported
Ambient Temp Monitor	Supported
Working Mode	Single/DRM

### Communication Interface

Connector	12 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	7.5 W
Power Consumption in Standby (EN high TTL level)	0.175 W
Power Consumption in Power Down (EN low TTL level)	42.5 uW

### User Environment

Operating Temp.	-13°F to 149°F / -25°C to 65°C
Storage Temp.	-40°F to 185°F / -40°C to 85°C
Humidity	10% - 95%

### Reading Performance

Fastest Read Rate	CM710-1: 950+ tags/s; CM510-1: 550+ tags/s; CM310-1: 250+ tags/s;
Reading Range	CM710-1: Up to 30m (with 4dBi antenna & M750 tag) CM510-1: Up to 20m (with 4dBi antenna & M750 tag) CM310-1: Up to 10m (with 4dBi antenna & M750 tag)

### Model

1-Ports RFID Module	CM710-1 / CM510-1 / CM310-1
Development Board Module	CM-X_EDCB