

MODEL M87

UHF RAIN RFID Modules

THE RFID CORE FOR YOUR CUSTOM DESIGN

The M87 module, powered by the Impinj E710, delivers exceptional read performance and high-speed data capture, making it an ideal choice for a wide range of RFID applications. Offered in 1-port, 4-port, and 8-port configurations, it provides flexible antenna connectivity to meet diverse system requirements—from compact embedded solutions to large-scale deployments.



Designed for seamless integration, the M87 enables faster development cycles and efficient system deployment. Its reliable performance and scalable architecture make it well-suited for integration into various devices, including handheld readers, fixed readers, kiosks, and access control systems.

With its compact form factor and versatile design, the M87 supports efficient item tracking, precise inventory management, and real-time operational visibility across industries such as retail, logistics, manufacturing, and healthcare. Combining performance, flexibility, and scalability, the M87 stands out as a powerful and dependable solution for modern RFID systems.



SPECIFICATIONS

RFID CHARACTERISTICS & PERFORMANCE

Air Protocols	ISO 18000-63 (EPC Class1 Gen2 v2)
Frequency Range	860~930 MHz
RF Power Output	Up to 33 dBm; adjustable in 0.1dBm steps
RX Sensitivity	<-83 dBm
Fastest Read Rate	>1,000 tags/s
Demodulation	ASK/PR-ASK
Modulation Depth	90% normally
Data Encoding	FM0 or Miller
DRM Mode	Supported

CHIPSET & CONNECTIVITY

Chipset	MTI MS710 SIP with Impinj E710
Input Power	5V 1.4A max
Interface	14-Pin 1.0mm Pitch FPC
Protocol	UART, Baud Rate 921600 bps
Antenna Connector	MMCX Receptacle, 50Ω, Mono-Static
General Purpose I/O	4x GPIO
Trigger Run Mode	Supported

REGULATORY/CERTIFICATION

Supported Regions & Certification	USA/FCC 14 CFR 15.247 EU/ETSI EN 302 208 Japan/Giteki 2-1-6-2 Taiwan/NCC LP0002 and other worldwide regions
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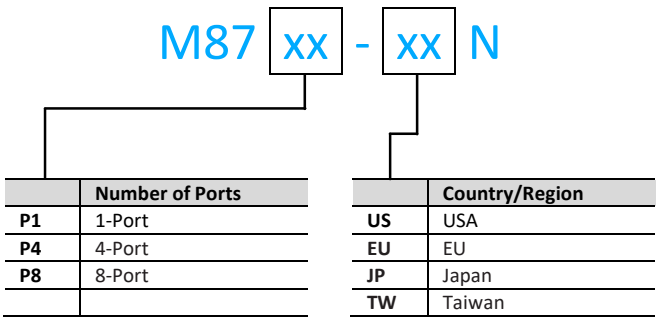
PHYSICAL & ENVIRONMENTAL CHARACTERISTIC

Dimensions	M87P1: 55.5 L x 37.5 W x 4.3 H (mm) M87P4: 70 L x 45 W x 4.3 H (mm) M87P8: 75 L x 80 W x 4.3 H (mm)
Weight	M87P1: 13.7 gr / 0.48 oz M87P4: 21.8 gr / 0.77 oz M87P8: 32.8 gr / 1.16 oz
Operating Temp.	-20°C to 70°C / -4°F to 158°F
Storage Temp.	-40°C to 85°C / -40°F to 185°F
Humidity	10%~85% non-condensing

COUNTRY OF ORIGIN

Taiwan

ORDERING INFORMATION



Example: **M87P4-USN** is UHF RAIN RFID 4-port modules for USA market.