

Impinj M700 Series RAIN RFID Tag Chips with Extended Memory



Impinj M780 and M781 RAIN RFID tag chips have large memory banks and advanced features that enable reliable storage, access, and monitoring of item attribute data—increasing item visibility, reducing waste, and improving consumer safety.

Store extended item data in a dependable, large-memory tag chip

As part of the Impinj M700 series, the Impinj M780 and M781 provide industry-leading performance, features, and manufacturability while enabling customers to expand RAIN programs into new and emerging markets. Ideal for pharmaceutical, food, industrial, and manufacturing applications, these large memory capacity tag chips are designed for capturing extended product attributes such as batch/lot numbers, dates, net weight, or use-by dates. The Impinj M780 and M781 support current GS1 tag encoding recommendations, including the recently announced EPC Tag Data Standard (TDS) v2.0, so supply chain partners can easily pinpoint products of a specific lot or batch for recall and monitor expiry dates to ensure older products ship and are used first.

Reliable performance at a greater distance for harder-to-read applications

Extend read range with best-in-class read sensitivity to capture more items of a RAIN RFID system with these reliable, powerful tag chips. Enhanced AutoTune adaptive tuning optimizes tag performance and allows reads on more materials and in difficult environments. An Impinj-exclusive portfolio of Core3D Antenna™ reference designs enable omni directional reads, eliminating blind spots and improving accuracy. Ensure consistent and accurate data delivery with the Enhanced Integra memory diagnostics suite.



Impinj M780, and M781 tag chips

Digital transformation at scale with proven manufacturing technology

The Impinj M780 and M781 build upon proven Impinj M700 manufacturing technology. The M780 and M781 help optimize tag chip production, enabling high-volume applications and growth into emerging markets. The Impinj Enhanced Enduro bonding pad allows for easier manufacturability and outstanding durability over the lifespan of a tag.

Why use Impinj M700 series chips

Impinj M700 series tag chips bring game-changing advancements to RAIN RFID. Ideal for large-scale, global deployments, ImpinjM700 tag chips deliver high-performance, quality, and reliability.

Read items faster, from farther away: improved tag readability enables items to be read at longer distances, and read faster to reduce inventory time and improve productivity

Support next-generation RAIN solutions: new capabilities enable innovative solutions for consumer privacy, anti-counterfeiting, loss prevention, and embedded tagging

Tag options for all items: allows for small, universal tags that can operate worldwide, simplifying the tag supply chain for a global enterprise

Impinj tag chip features for high performance RAIN RFID tags

Protected Mode tag data protection

Impinj Protected Mode makes a RAIN tag invisible to RAIN readers. The tag can be returned to normal operation, and made visible to RAIN readers, using a secure PIN

Enhanced Enduro bonding technology

Updated bonding pad design provides optimal mechanical stability and assembly consistency for improved tag yield, reliability, and durability

FastID high-speed reading

Reduce inventory time by simplifying the steps needed to identify a tag when using a TID-based numbering system

Enhanced AutoTune adaptive RF tuning







Optimize performance to the tag's environment for improved readability across a range of materials, tag form factors, and operating frequencies

Enhanced Integra memory diagnostics

Suite of diagnostics verify tag chip health and validate data encoding to consistently deliver more accurate data and reliable tags

TagFocus read redundancy prevention

Unique algorithm prevents multiple reads of the same chip so that hard-to-read tags can be read more accurately within a complex population of tags

Impinj Tag Chips								
		M730	M750	M770	M775	M780	M781	
SPECS	Air Interface Protocol	RAIN RFID / ISO 18000-63 and EPCglobal Gen2v2 compliant						
	EPC memory	128	96	128	128	496	128	
	User memory	0	32	32	32	128	512	
	Read sensitivity (dBm)	-24	-24	-24	-24	-23.5	-23.5	
	FEATURES	Impinj Enhanced AutoTune™ automatic RF tuning	✓	✓	✓	✓	✓	✓
		Access/Kill password	Shared	Shared	Shared	Shared	Shared	Shared
		Impinj Enhanced Integra™ memory diagnostics	✓	✓	✓	✓	✓	✓
		Impinj Enduro™ robust bonding construction	Standard	Standard	Standard	Standard	Enhanced	Enhanced
		Impinj Protected Mode	✓	✓	✓	✓	✓	✓
		Impinj Unkillable Mode	-	-	✓	✓	✓	✓
GS1 EPCglobal Gen2 Untraceable / Short-range		✓	✓	✓	✓	✓	✓	
GS1 EPCglobal Gen2 Authenticate		-	-	-	✓	-	-	
RF compatibility		All M700 series tag chips are compatible						
Omnidirectional reading		Impinj Core3D Antenna™						
Impinj TagFocus™ read redundancy protection	✓	✓	✓	✓	✓	✓		
Impinj FastID™ high speed reading	✓	✓	✓	✓	✓	✓		

Impinj product performance is based on Impinj's modeling and test data, actual results may vary.

Ready to discuss how Impinj can help your business?

Contact us: www.impinj.com

Impinj (NASDAQ: PI) helps businesses and people analyze, optimize, and innovate by wirelessly connecting billions of everyday things—such as apparel, automobile parts, luggage, and shipments—to the Internet. The Impinj platform uses RAIN RFID to deliver timely data about these everyday things to business and consumer applications, enabling a boundless Internet of Things.