## IMPINJ MONZA® 4i TAG CHIP

# Smart Manufacturing through Enhanced Performance



**RAIN RFID tags built with Impinj Monza 4i chips** offer data logging capabilities to record information such as item maintenance, component status and environmental conditions, ensuring the historical record of the item is factual and true.

Ideal for component-level tagging in vehicle and production line manufacturing, Monza 4i tag chips are built with an extended EPC memory to track long serial numbers along with a large amount of user memory to chronicle the production process and components from raw material through final assembly.



TAG CHIPS ARE THE ENDPOINTS OF THE IMPINJ PLATFORM



### MONZA 4i TAG CHIP FEATURES

- Extended User Memory
- Extended EPC Optimized for Automotive Logistics
- Production Line Monitoring
- Manufacturing Control Tracking





# Monza 4 Tag Chip Family Overview

The Impinj Monza family of RAIN RFID tag chips create endpoints when attached to items, providing unique identifiers that allow access to the item's identity, location and authenticity. Monza 4 tag chips are specialty chips that provide application-specific features such as additional privacy, enhanced performance and flexible memory that are optimized for use in manufacturing and supply chain industries.

| PRODUCT DETAILS                    | MONZA 4D  | MONZA 4E   | MONZA 4i  | MONZA 4QT  |
|------------------------------------|---|--|---|--|
| Use Cases                          | Readable through<br>challenging RF<br>environments such<br>as metal and liquids | Monitor long serial<br>numbers without data<br>logging | Track long serial numbers<br>and log data such as<br>component status | Protect item data<br>through a portable,<br>private database |
| EPC Memory (bits)                  | 128   | 496  | 256   | 128  |
| User Memory (bits)                 | 32  | 128  | 480   | 512  |
| Read Sensitivity (dBm)             | -19.5   | -19.5  | -19.5   | -19.5  |
| Write Sensitivity (dBm)            | -16.7   | -16.7  | -16.7   | -16.7  |
| Access Password                    | V   | V  | v   | V  |
| Kill Password                      | V   | V  | v   | V  |
| QT <sup>®</sup> Memory Technology  | -   | -  | _   | V  |
| True3D™ Dual Antenna<br>Technology | ~   | 4  | ~   | V  |
| TagFocus™ Mode                     | V   | V  | v   | V  |
| FastID™ Mode                       | V   | -  | v   | V  |
| Self Serialization                 | V   | V  | v   | V  |
| Range-Reduction Mode               | _   | _  | _   | V  |
| Die Size                           | 590 μm x 590 μm square  |  |   |  |
| Form Factor                        | Wafer   | Wafer or Packaged                                      | Wafer   | Wafer or Packaged  |
| Air Interface Protocol             | RAIN RFID / ISO 18000–63 and EPCglobal Gen2v2 compliant                         |  |   |  |
| Part Number                        | IPJ-W1513-E00   | IPJ-W1510-E00  | IPJ-W1535-E00   | IPJ-W1512-E00  |

## **MONZA 4i USE CASES**



# Monitor Manufacturing Quality and Status

log quality checks for components in a production or assembly line



#### Logistics for Finished Vehicles check the condition of car parts like gearboxes, bumpers, airbags, dashboards, etc. by scanning the final product

## **MONZA 4i SPECS**



## 256 bits EPC Memory

track longer unique identifiers such as a VIN number



#### 480 bits User Memory

log data such as production status and environmental changes



#### True3D Antenna Technology

features two fully independent antenna ports that enable high-performance, omni-directional tags



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