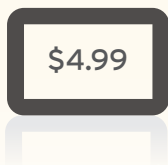![Impinj]

# Introducing
# Monza® X Chips

Impinj's Monza® X-2K Dura and Monza® X-8K Dura chips enable users to communicate wirelessly with the processor inside electronic devices using standard UHF Gen 2 RFID readers, unlocking many new benefits for consumer electronics manufacturers, retailers and end users. Embedded directly into the circuit board of an electronic device, Monza X chips link to the device's processor through a standard I2C bus, enabling the processor or a UHF reader to read and write the Monza X chip memory even when the electronic device is powered off. By enabling electronic devices to communicate with RFID readers, Monza X chips deliver a wide range of extended capabilities such as theft deterrence in the supply chain and wireless device configuration at point of sale and beyond.
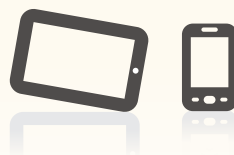
## Monza X chip features include:

> 2 kbits or 8 kbits user memory accessible through both RF to reader devices and I2C interface to microprocessors

> Impinj's QT® technology and one time programmable memory blocks for privacy and security of sensitive information stored in the chip

> Superior passive read/write sensitivity and the ability to boost sensitivity by supplying DC power

> Two fully independent antenna ports, enabling multiple configurations for far field and near field RFID applications

> Ability to wake up the microprocessor from low power states in response to RF write event, enabling power efficient electronic devices

## KEY APPLICATIONS
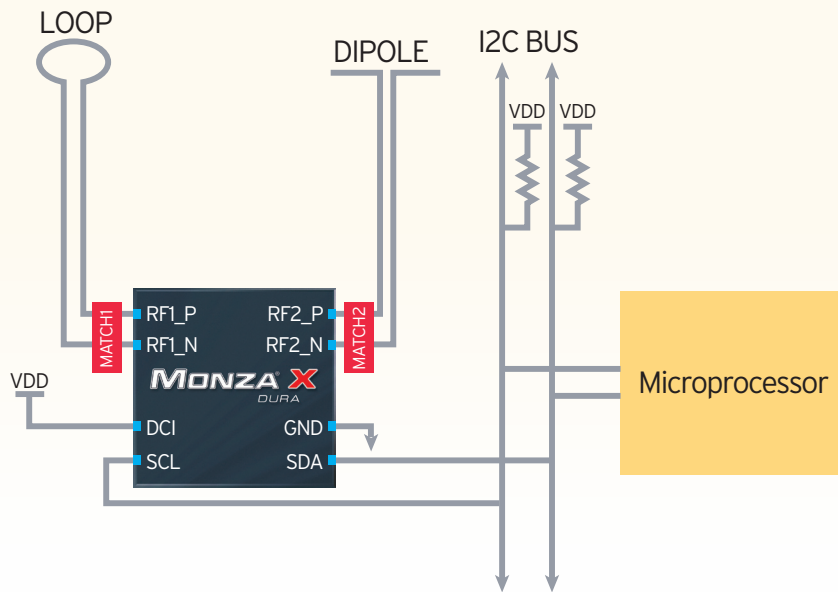
Wireless Displays
and Sensors

Product Activation/
Theft Deterrent

Late Stage Upgrades
and Configurations

| Description | Measure |
|---|---|
| Read Sensitivity | -17 dBm with single antenna port<br>-24 dBm with DC Input |
| Write Sensitivity | -12 dBm with single antenna port<br>-24 dBm with DC Input |
| EPC Memory | Up to 128 bits |
| Tag Identification (TID) Memory | 48 bits |
| Microprocessor Interface | I2C |
| Air Interface Protocol | EPCglobal UHF Class 1 Gen 2 / ISO 18000-6C |

## Monza X Dura Chip Models

| Model | Part Number | User Memory | Package Size |
|---|---|---|---|
| Monza X-2K Dura | IPJ-P6001-Q2AT | 2,176 bits | 1.6 x 1.6 x 0.35 mm |
| Monza X-8K Dura | IPJ-P6005-X2AT | 8,192 bits | 2.0 x 2.0 x 0.35 mm |

**Impinj.**®