No power required to configure products when using an I²C enabled RFID tag

The Customer's Challenge:

The ability to configure or modify product after the device has been assembled without powering it up.

Stakeholders:

Design & development team, logistics & inventory control, engineering, management, production team, etc.

Customer Challenges:

- Eliminate wired interface to device
- Ability to update firmware and settings without the need to power on the device.
- Utilize low cost wireless interface to reconfigure product
- Reduce customer specific inventory
- Ability to customize product per customer request
- Production line tracking & tracing

The Murata Solution:

The Product:

P/N – LXMS2HACNF-165
Ultra small UHF RFID Tag – MAGICSTRAP® with I²C interface

How It Works:

- MAGICSTRAP® is mounted on the PCB during production process.
- Firmware and/or settings are sent wirelessly to MAGICSTRAP® using an RFID reader/writer.
- Information is stored in MAGICSTRAP®'s internal memory (3.3kbit).
- Upon power up, the device looks to the MAGICSTRAP® memory for data updates through the I²C interface.
- If updates are found, the device reconfigures per the updated instruction set.

RFID with I²C:

Value added features:

- Product configuration
  - Reduced costs – eliminate wired interface, simplify product configuration time.
- Inventory optimization – shared customer inventory
- Device customization
  - Personalize specific requests – languages, features, etc.
  - Product differentiation – latest options and functionality
  - Dynamic reconfiguration – late stage configuration after packaging
- Brand protection – product authentication, warranty & returns
- Asset Tracking – production and logistics tracking
- Design flexibility

More info:

For further information about RFID solutions, please contact your local sales manager.

Data sheets and application notes for Murata Electronics products can be found at:

www.murataamericas.com

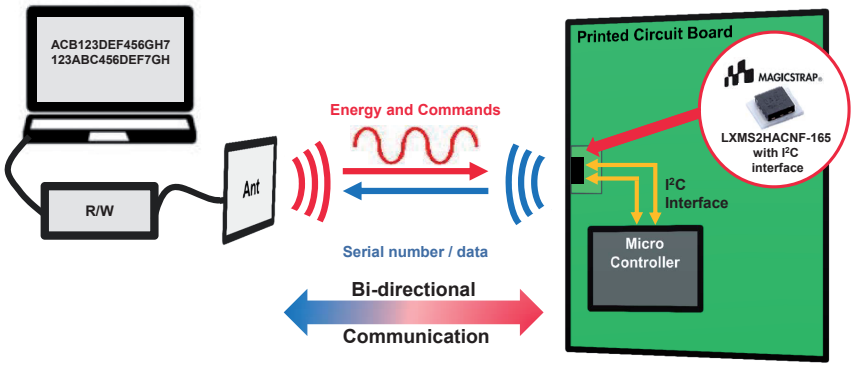
MAGICSTRAP®

LXMS2HACNF-165
with I²C interface

To see more RFID solutions, visit www.murataamericas.com/rfid

Features of MAGICSTRAP® – LXMS2HACNF-165

- Compliant with EPC Class 1 Gen2, ISO 18000-6C
- Supports global RFID frequency bands
  - 865-868MHz (EU), 902-928MHz (US/Japan)
- Operating temperature range of -40˚C to +85˚C
- Internal 3.3kbit user memory
- Compact package – 2.5mm x 2.0mm x 1.0mm



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