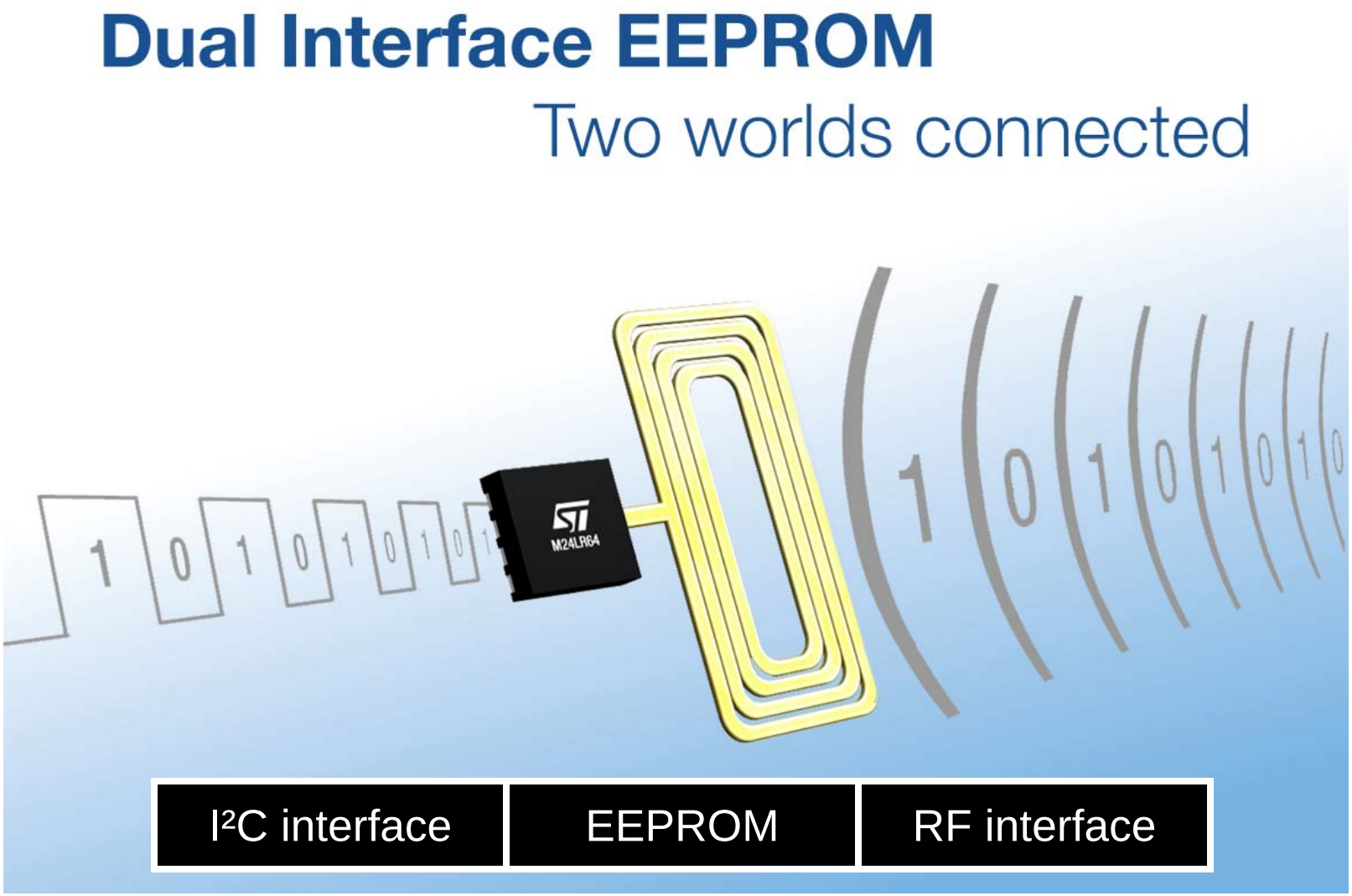
Dual Interface EEPROM

Overview

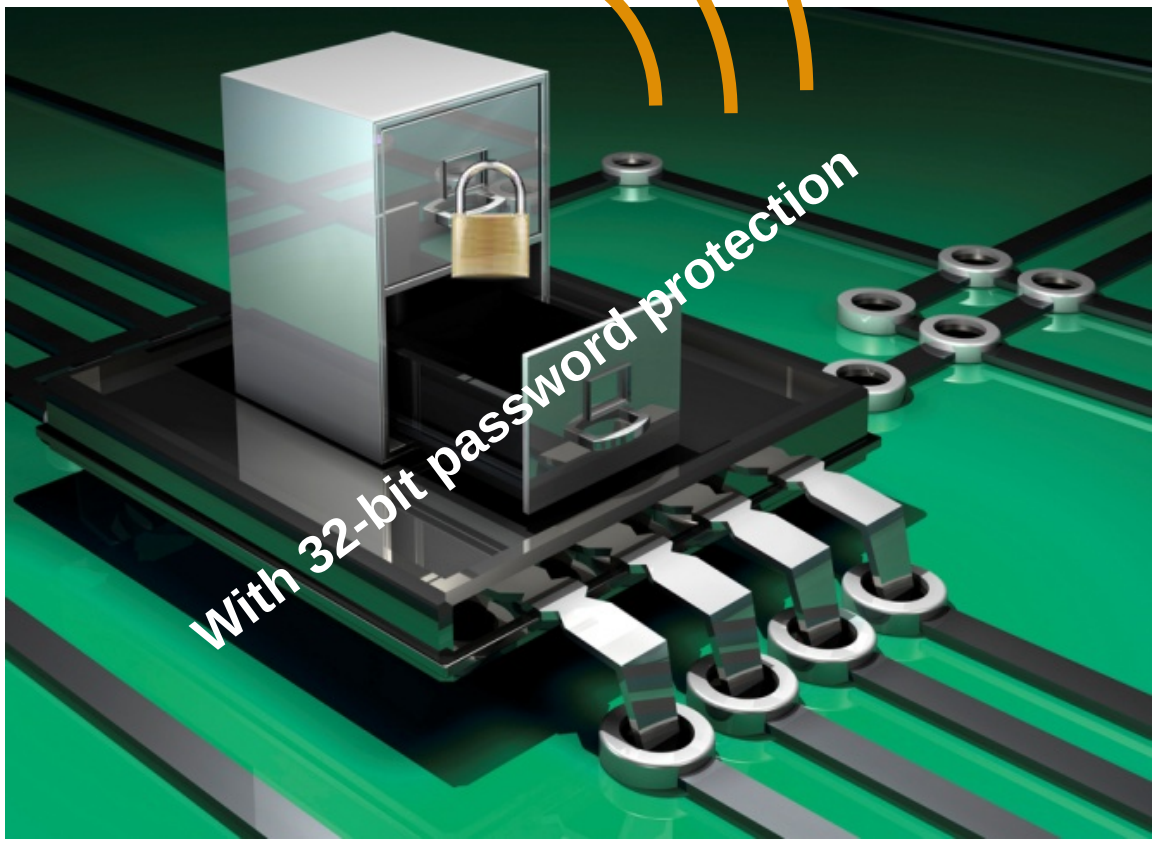
Introduction



New perspectives for Data Management

Wireless access

- Operating data
- User settings
- Traceability information
- Application data
- Event log
- Identification data

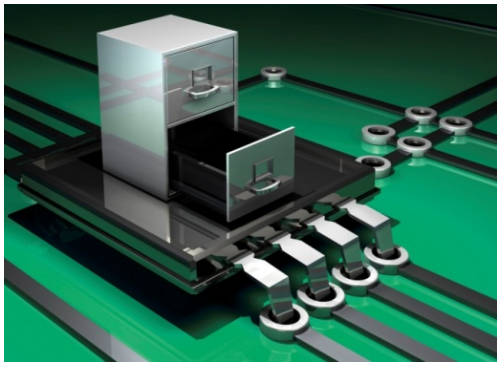


Embedded Data Management…

- Flexible
  - Wireless read-write
  - Read-write from the inside of your application (I²C)
  - Byte granularity
  - 64 sectors of 1k-bit each with 32-bit password protection

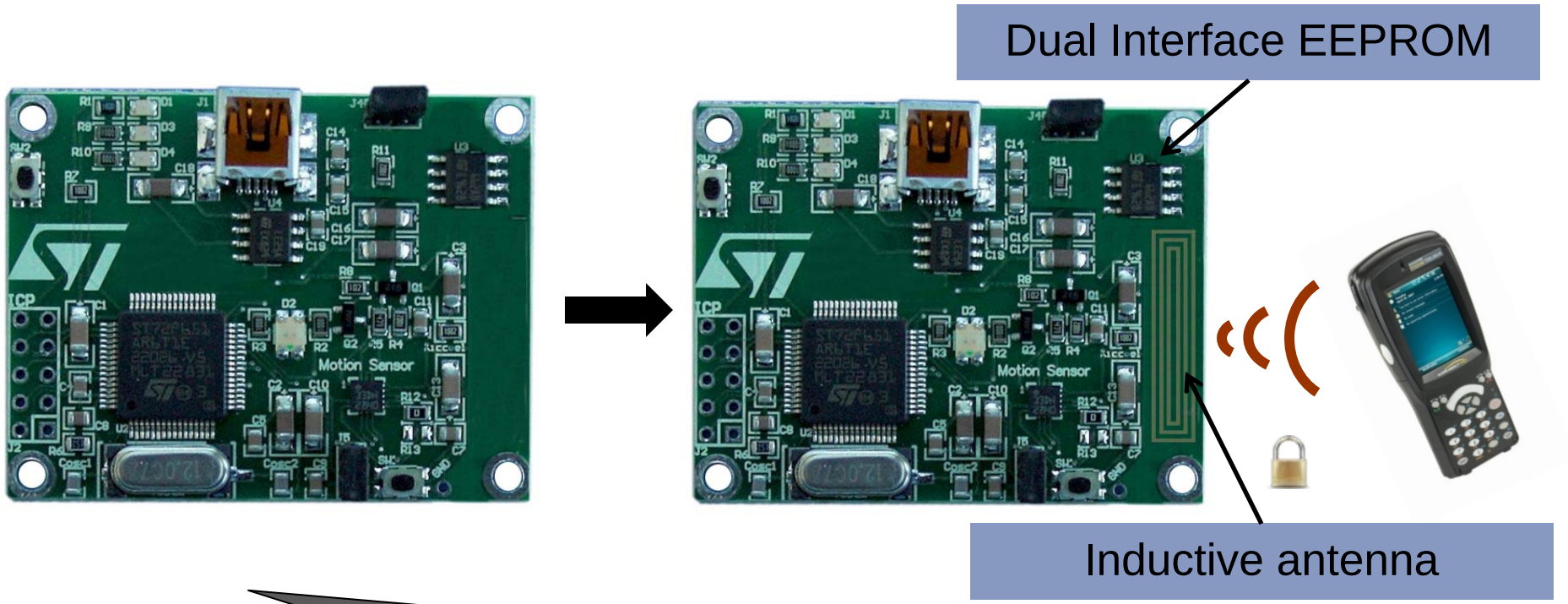
- Green
  - Zero on-board power RF interface
  - Low voltage 1.8V-5.5V

- Reliable and Standard
  - 40-year data retention
  - 1 Million erase write cycles
  - Standard I²C bus
  - Standard ISO15693 RF interface



How it works

- Based on Passive RFID technology
  - Just add a 13.56 MHz inductive antenna onto your PCB



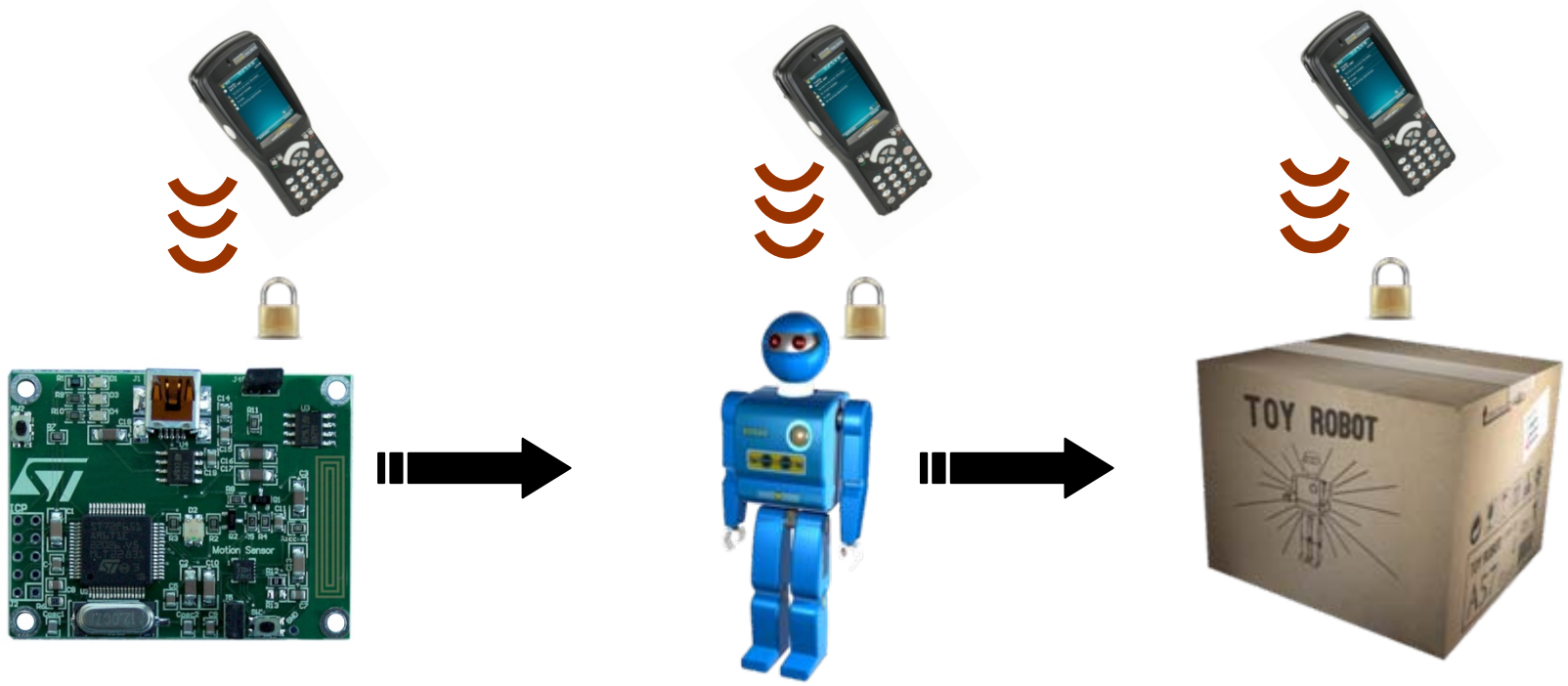
No battery needed to operate the dual interface EEPROM in RF mode

Benefits

- Remotely program and update your application …

  …during the entire product lifetime

➔ During manufacturing, in warehouse, when your product is operating, during maintenance, with after sales servicing



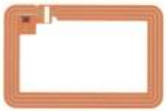
Applications

Industrial
Medical
Metering
Factory automation

- Calibration
- Parameter update
- Diagnostics
- Maintenance
- Asset tracking
- Activation

RFID

- Data loggers
- Identification
- Traceability
- Sensors/cold chain
- Large RFID memory



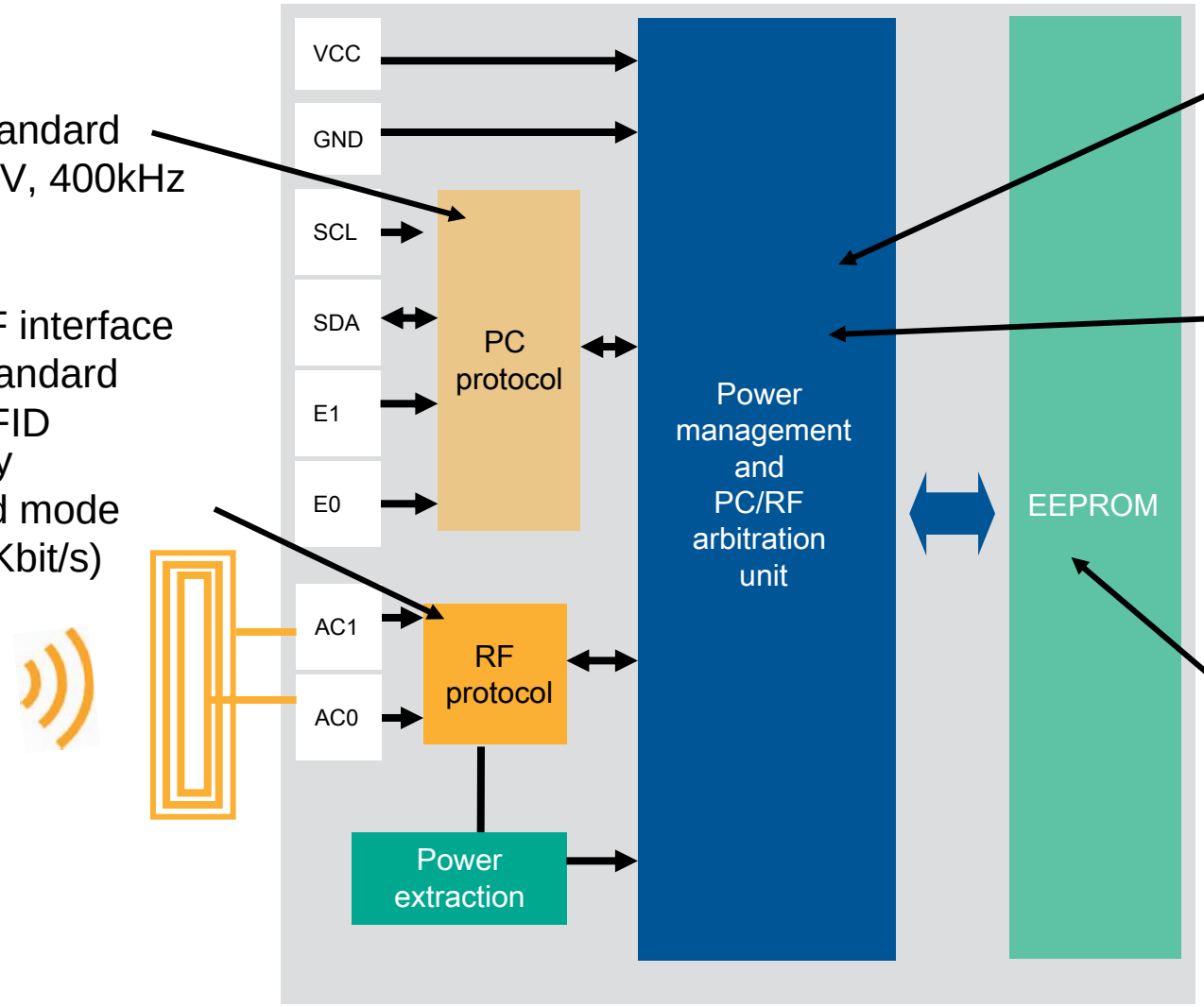
Peripherals
Communication
Consumer

- Parameter update
- Diagnostics
- Maintenance
- Traceability
- Asset tracking
- Activation

M24LR64-R architecture overview

I²C interface
- industry standard
- 1.8v to 5.5V, 400kHz

ISO 15693 RF interface
- industry standard
- passive RFID technology
- high-speed mode (up to 53 Kbit/s)



Password protection scheme

I²C/RF arbitration

64-Kbit EEPROM

Conclusion

Innovation based on 2 industry-standard protocols

Enables cost reduction and flexibility at all product life steps

www.st.com/dualeeprom