BodyCom™ Technology

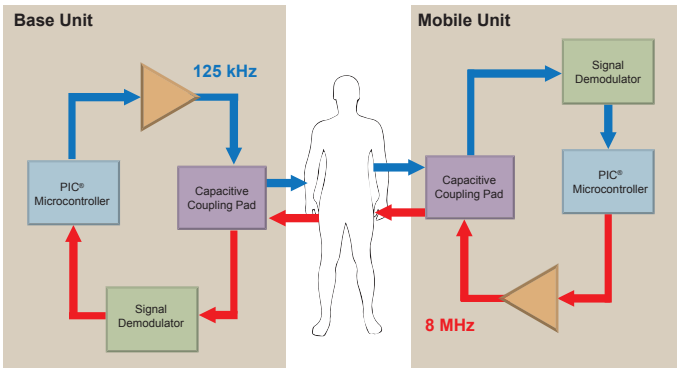
Summary

Microchip's BodyCom Technology is a short-range, low-data-rate communication solution for securely connecting to a wide range of wireless applications.

Compared to other existing wireless technologies BodyCom Technology offers lower active and standby energy usage, increases security through bidirectional authentication, provides a secure communication channel using the human body and allows for simpler circuit-level designs.

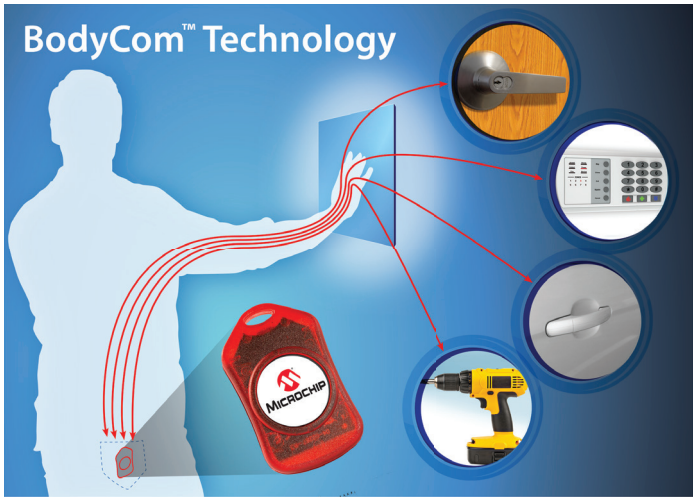
How Does BodyCom Technology Work?

Activated by capacitively coupling to the human body, the system communicates bidirectionally between a centralized controller and one or more wireless mobile units. Intra-body communication takes place using the human body as the transmission medium.



Applications

- Access control
  - Passive Keyless Entry (PKE)
  - Security systems
  - Home/industrial door locks
  - Pet doors
- Personal safety & security
  - Equipment access/disable
  - Power Tools
  - Firearms
  - Computer systems
- Medical
  - Patient monitoring
  - Hospital room access
  - Equipment tracking
- Consumer
  - Profile Management for gaming consoles
  - Exercise equipment

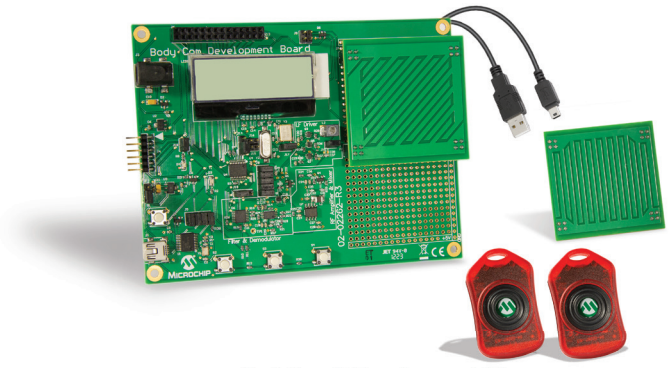


Benefits

- Simpler implementation
  - No RF antenna design necessary
  - Low-frequency design using common microcontroller and AFE frequencies (125 kHz/8 MHz), no external crystals needed
  - Complies with FCC Part 15-B, Radiated Emissions
  - Lower overall BOM, compared to existing technologies
- Lower power consumption
  - No wireless transceiver required for two-way communication
  - Not using high-power inductive fields
- More secure communication channel
  - Provides bidirectional authentication through the human body
  - Prevents the "Relay Attack" problem typical in PKE solutions
- Supports advanced encryption solutions
  - Such as KEELOQ® Technology with AES-128

MICROCHIP

Development Support



BodyCom™ Development Kit
(Part # DM160213)

- **Free** BodyCom Technology Development V1.0 Framework supplied via *free* software libraries for *all* PIC® MCUs
  - BodyCom Technology communication library
  - Application code examples
  - PC development GUI
- BodyCom Technology Development Kit (DM160213)
  - Central controller unit + two wireless mobile units

Applications Notes and Data Sheets

- AN1391: *Introduction to the BodyCom Technology*
- DS41391: *PIC16F/LF1826/27, 18/20/28-Pin Flash Microcontrollers with nanoWatt XLP Technology*
- DS22304: *MCP2035 Analog Front-End Device for BodyCom Technology Applications*

MICROCHIP

www.microchip.com/bodycom

Visit our web site for additional product information and to locate your local sales office.

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