

Other Links

Buy/Sample Options

APGRD001

[Contact Microchip](#)
[Development Tool Selector](#)
[Microchip Advanced Parts Selector \(MAPS\)](#)

Programming

[Design Center Home](#)

Programming Home

Programming Specifications

Code Examples

Code Templates

Firmware Drivers

Gerber Files

Application Maestro™
Software

Resources

Technical Support

24/7 Technical Support

Third Party Development Tools and Design Resources

Online Discussion Groups

Passive Keyless Entry Reference Design [Buy it Now](#)

Part Number: APGRD001

The PKE Reference Design (APGRD001) demonstrates a fully functional Passive Keyless Entry system. This solution contains 3 independent boards: the Key Fob, the Base Station and the Receiver/Decoder.

The Base Station starts the RF communication by sending out a 125Khz signal. The Key Fob receives and decodes the Low Frequency challenge from the Base Station. If there is a match, the Key Fob will transmit a 432Mhz signal back to the Receiver/Decode. If the Receiver/Decode recognizes the Key Fob as a valid device it will send out a signal to unlock the door.

Features

Base Station:

- Can be commanded by various types of inputs
 - Simple momentary switch
 - Proximity detector
 - Serial-numbered challenge
 - CAN and LIN network support

Key Fob:

- Supports up to five pushbutton inputs
- Two LED outputs for valid button and valid low -frequency challenge indication

Receiver/Decoder:

- Automatic baud rate detection
- Automatic Normal or Secure learn detection
- Six learnable transmitters
- LIN network support

The three boards are pre-programmed with the application code. The PIC16F639 and PIC16F636 can be re-programmed in circuit via the PICKit 2. The PIC18F2680 can be re-programmed in circuit via the MPLAB ICD 2. A CD-ROM is also included in the kit which contains full documentation about the board, application notes and software libraries. For more information on the applications, tools and software libraries please refer to the Automotive Design Center on the Microchip web site.

Web Links

AN1024 - PKE System Design Using the PIC16F639

Downloads

Title	Date Published	Size	D/L
Passive Keyless Entry (PKE) Reference Design User's Manual (Chinese)	11/9/2006 1:24:06 AM	525 KB	
PKE Board Hardware and Software Documentation	2/14/2006 2:32:00 PM	1691 KB	