

KEELOQ® 3 Development Kit

Summary

The low-cost KEELOQ 3 Development Kit is designed to help engineers get up to speed quickly using PIC® microcontrollers (MCUs), and provides everything needed to program, debug, and develop secure authentication applications for a variety of markets such as security systems (keypads, remote sensors and access control); remote keyless entry (automotive) and authentication (identity and property) applications.

The kit provides new enhanced features over the KEELOQ II system such as a patented secure-learning algorithm that prevents differential power-analysis attack techniques. Additionally, the technology now supports 128-bit encryption keys, longer data transmissions, bidirectional communication authentication; and also supports alternative encryption algorithms, such as XTEA and AES. The enhanced microcontroller-based encoder solution enables customization, so that further security enhancements can be implemented over time. The kit comes complete with a controller board containing a 28-pin 8-bit PIC16F886 Flash MCU, two programmable transmitter boards, one receiver board and a PICKit™ 2 programmer. All source-code files and application notes are also included.



The KEELOQ 3 Development Kit (part # DM303007) comes complete with the following:

- **NEW!** Controller board with onboard 28-pin PIC16F886 MCU, LCD Display and PICKit Serial Analyzer Interface
- **NEW!** Two programmable KEELOQ transmitter boards with user-accessible test points (HCS362 encoder and PIC16F636 MCU that show 128-bit encryption key solutions)
- One receiver board
- PICKit 2 device for programming the microcontrollers included in the kit (HCS362, PIC16F636 and PIC16F886)
- **NEW!** KEELOQ 3 MPLAB® IDE integrated plug-in for device configuration and programming support
- **NEW!** PC-based I²C™ GUI to help with development of host-controlled systems
- CD with source code and application notes showing software implementations of the KEELOQ transmitter (encoder) and receiver (decoder) solutions
- Detailed documentation including User's and Quick-Start Guides



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Host System Requirements

- PC-compatible system with an Intel Pentium® class or higher processor, or equivalent
- CD-ROM drive
- Available USB port
- Microsoft Windows® 2000, Windows XP® or Windows Vista®

Support

Microchip is committed to supporting its customers in developing products faster and more efficiently. We maintain a worldwide network of field applications engineers and technical support ready to provide product and system assistance. In addition, the following service areas are available at:

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- **Support** link provides a way to get questions answered fast: <http://support.microchip.com>
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Part Numbers and Ordering Information

KEELOQ® 3

Part Number	Description	Availability
DM303007	KEELOQ 3 Development Kit	Now

Additional Development Tools Available from Microchip

Part Number	Development Tool	Description
DV164035	MPLAB ICD 3 In-Circuit Debugger	High-performance Debugger for Flash DSC and MCU devices
SW006011	MPLAB C Compiler for PIC18 MCUs	C Compiler for PIC18CXXX MCUs
SW006012	MPLAB C Compiler for PIC24 MCUs and dsPIC® DSCs	C Compiler for dsPIC30F MCUs
SW006015	MPLAB C Compiler for PIC32 MCUs	C Compiler for PIC32 MCUs
DV007004	MPLAB PM3 Universal Device Programmer	Full-featured Modular Device Programmer
DM240001	Explorer 16 Development Board	Modular Development System for 16-bit MCUs
DV244005	MPLAB REAL ICE™ Probe Kit	High-speed Emulator for Flash DSC and MCU devices
DM320001	PIC32 Starter Kit	Starter Kit for High-performance PIC32 MCU family
DM240011	MPLAB Starter Kit for PIC24F	Starter Kit for PIC24F MCU family
DM330011	MPLAB Starter Kit for dsPIC DSC	Starter Kit for dsPIC DSC devices



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