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Evaluates: DS28C36, DS2476

DS28C36 Evaluation System

General Description

The DS28C36 evaluation system (EV system) provides the hardware and software necessary to evaluate the DS28C36 and DS2476. The EV system consists of five DS28C36/DS2476 devices in a 6-pin TDFN package, a DS9121AQ+ evaluation TDFN socket board, and a DS9481P-300# USB-to-I²C/1-Wire[®] adapter. The evaluation software runs on Windows[®] 10, Windows 8, and Windows 7 operating systems (64- and 32-bit versions). The EV system provides a handy user interface to exercise the features of the DS28C36 and DS2476.

EV System Contents

QTY	DESCRIPTION
5	Includes five DS28C36BQ+ DeepCover Secure Authenticators (6-pin TDFN)
5	DS2476BQ+ DeepCover Secure Coprocessor (6-pin TDFN)
1	DS9121AQ+ socket board (6-pin TDFN)
1	DS9481P-300# USB-to-I ² C/1-Wire Adapter
1	USB Type-A to USB Mini Type-B cable

Benefits and Features

- Demonstrates the Features of the DS28C36 DeepCover[®] Secure Authenticator
- Demonstrates the Features of the DS2476 DeepCover Secure Coprocessor
- I²C and 1-Wire Communication is Logged to Aid Firmware Designers Understanding of the DS2476 and DS28C36
- I²C/1W-USB Adapter Creates a Virtual COM Port on Any PC
- Fully Compliant with USB Specification v2.0
- Software Runs on Windows 10, Windows 8, and Windows 7 for Both 64-Bit and 32-Bit Versions
- 3.3V ±3% 1-Wire Operating Voltage
- Convenient On-Board Test Points and TDFN Socket
- Evaluation Software Available by Request
- Proven PCB Layout
- Fully Assembled and Tested

Ordering Information appears at end of data sheet.

DS28C36 EV System

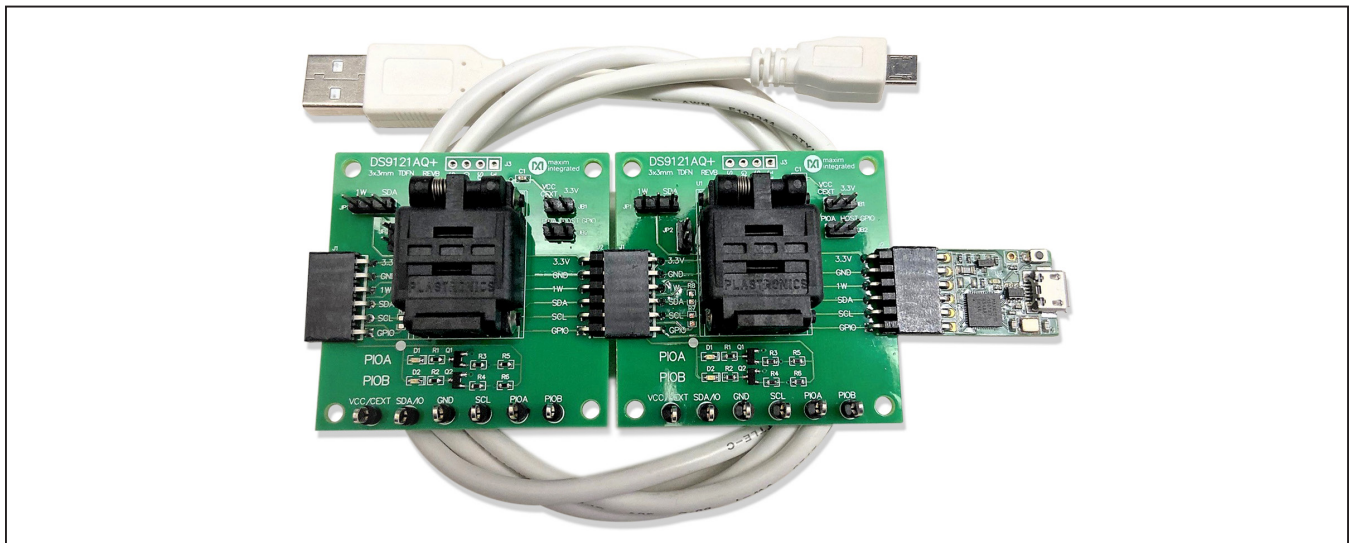


Figure 1. DS28C36EV with USB Cable

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Windows is a registered trademark and registered service mark of Microsoft Corporation.

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DS28C36 Evaluation System

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Detailed Description of Software

The DS28C36 evaluation program user interface (Figure 13) has four tabs, **General Commands**, **SHA2 Commands**, **ECDSA Commands**, and **Other Coprocessor Commands**. The **Setup** section is used to make the device selections that apply to the **General Commands**, **SHA2 Commands**, **ECDSA Commands**, and **Other Coprocessor Commands** tabs. Here is a summary of the function of each tab:

- **General Commands** is used as the main tool to evaluate the DS28C36/DS2476 general functions to write or read from the user memory pages, crypto-related memory pages, decrement counter, RNG, and protection registers.

- **SHA2 Commands** is used to evaluate the DS28C36/DS2476 symmetric (SHA-256) security function commands.
- **ECDSA Commands** is used to evaluate the DS28C36/DS2476 integrated asymmetric (ECC-P256) security function commands.
- **Other Coprocessor Commands** is used to evaluate the DS2476 coprocessor that computes any required HMACs or ECDSA signatures with its additional command set to do any operations on the DS28C36. **Note:** Grayed out when DS28C36 is selected.

All tabs include a communications **Log** area consisting of an I²C Log or 1-Wire Log output.

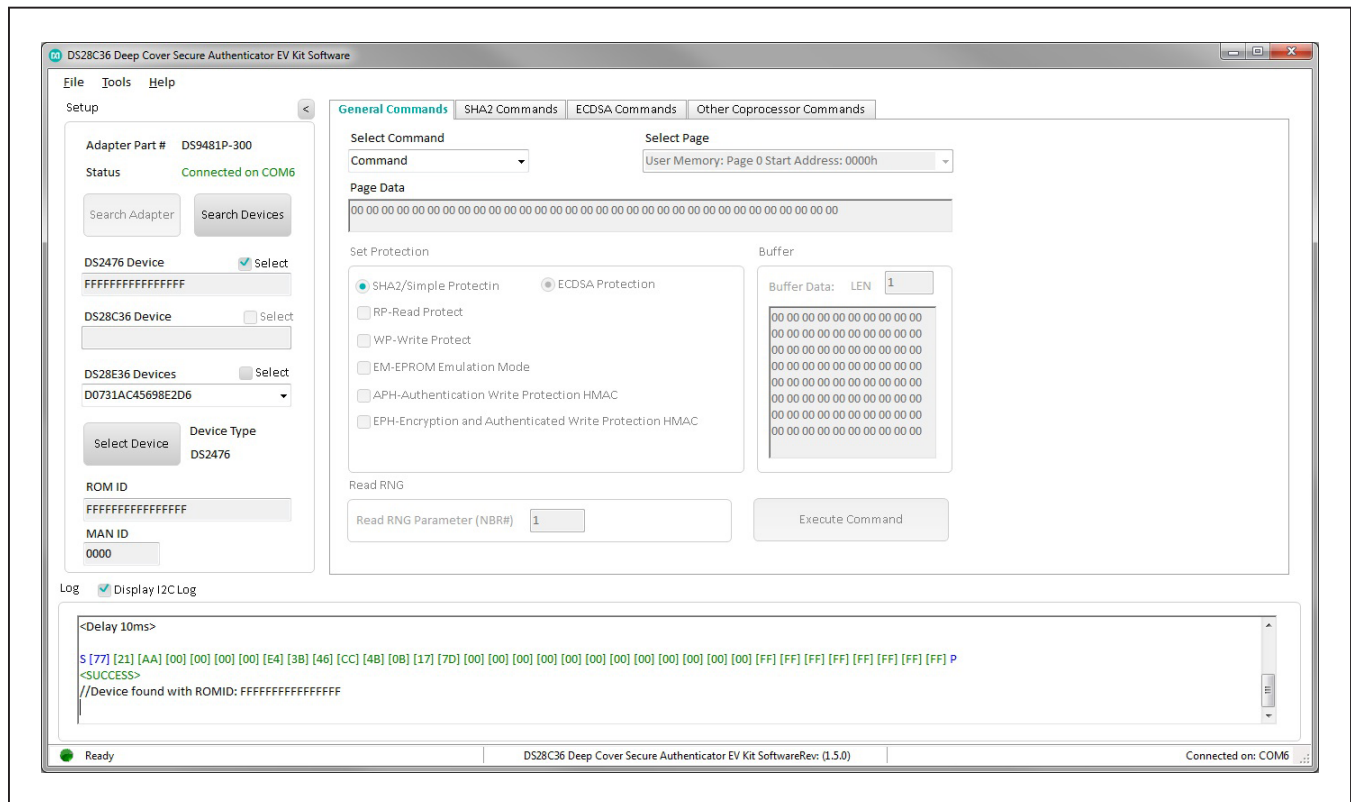


Figure 13. DS28C36 EVKIT Program (Default View Upon Opening)