

DALLAS
SEMICONDUCTOR

DS1420
Serial ID Button

FEATURES

- Provides a unique 64-bit serial number
- No external power required
- Uses inexpensive 1-wire protocol
- Universally portable across platforms

DESCRIPTION

Authorization Buttons are sophisticated microelectronics, sealed into miniature stainless steel cans, creating a low cost, portable medium for storing and controlling access to sensitive information.

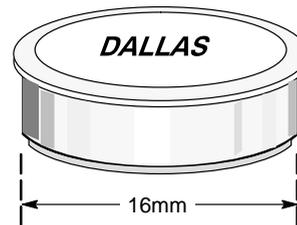
Buttons are used with Button Holders as a hardware based protection system for software. Buttons help protect the right to copy software by actually protecting the right to execute it. Software can now be locked to a user, a machine, or an application with a complete audit trail and guaranteed uniqueness.

The DS1420 is a Button that provides a 64-bit unique ID number, and is typically used to uniquely identify a person or a machine.

Hardware communication with Buttons is conducted via a 1-wire interface. The conversion from a PC I/O port to the 1-wire interface is the responsibility of the Button Holder.

Software applications communicate with the Button using Dallas' Access System, which is contained in any

PACKAGE OUTLINE



of the Button Holder Developer's kits. The Access System provides software developers with easy to use commands which are embedded into the application in order to utilize the Button resources during run time.

For more information on the Access System, please reference any of the Button Holder data sheets.

Each Dallas Button is uniquely serialized with a 64-bit code that is laser-etched in the silicon. This unique ID provides a basic level of security, is traceable in the field, and makes it possible to identify the specific Button in a field of many.

The serial number is divided into three parts (see Figure 1). The 8-bit family code tells the Access System (and consequently the developer) what type of Button is being used. The next 48 bits are lasered sequentially with no two numbers the same. The last 8 bits contain a Cyclic Redundancy Check (CRC) value that has been calculated across the family code and the 48-bit serial number. The CRC ensures that Button communication is error free.

SERIAL NUMBER ORGANIZATION Figure 1

		FAMILY CODE 82H
8-BIT CRC CODE	48-BIT SERIAL NUMBER NUMBER	1000001

MSB