



DS1982/5/6U
UniqueWare™ iButton™

SPECIAL FEATURES

- 1024 bits, 16K bits or 64K bits Electrically Programmable Read Only Memory (EPROM) communicates with the economy of one signal plus ground
- Unique, factory lasered and tested 64-bit registration number (8-bit family code, 36-bit serialization, 12-bit UniqueWare Identifier 5E7H, 8-bit CRC tester) assures absolute traceability because no two parts are alike.
- EPROM partitioned into 256-bit pages for randomly accessing packetized data records
- Each memory page can be permanently write-protected to prevent tampering
- Device is an "add only" memory where additional data can be programmed into EPROM without disturbing existing data
- Reduces control, address, data, power and programming signals to a single pin
- 8-bit family code specifies device communications requirements to reader
- Presence detector acknowledges when reader first applies voltage
- Reads over a wide voltage range of 2.8V to 6.0V from -40°C to +85°C

iButton DESCRIPTION

UniqueWare iButtons are factory programmed versions of the DS1982 (1024 bit), the DS1985 (16K bit) and the DS1986 (64K bit) Add-Only iButtons, respectively. They differ from the regular devices in their custom ROM family codes (see Ordering Information) and the UniqueWare Identifier 5E7 in place of the upper 12 bits of the standard serialization field. For technical details on the devices please refer to the DS1982, DS1985 and DS1986 data sheets.

UniqueWare Add-Only iButtons are only available pre-programmed with customer-specific and write-protected data. UniqueWare data fills at least one but no

COMMON iButton FEATURES

- Multidrop controller for MicroLAN
- Digital identification and information by momentary contact
- Chip-based data carrier compactly stores information
- Data can be accessed while affixed to object
- Economically communicates to bus master with a single digital signal at 16.3k bits per second
- Standard 16 mm diameter and 1-Wire protocol ensure compatibility with iButton family
- Button Shape is self-aligning with cup-shaped probes
- Durable stainless steel case engraved with registration number withstands harsh environments
- Easily affixed with self-stick adhesive backing, latched by its flange, or locked with a ring pressed onto its rim
- Presence detector acknowledges when reader first applies voltage
- Meets UL#913 (4th edit.); Intrinsically Safe Apparatus, Approved under Entity Concept for use in Class I, Division 1, Group A, B, C and D Locations (application pending)

more than the first four pages of a device, depending on the length of the customer-supplied data. This leaves up to three (DS1982U), 63 (DS1985U) or 255 (DS1986U) memory pages available for programming in the application.

For more details on UniqueWare and how to set up data files, please refer to the UniqueWare Project Setup Manual, available as Application Note 99 from Dallas Semiconductor. The UniqueWare Project Setup Software is available from the Dallas Semiconductor FTP Site at ftp://ftp.dalsemi.com/pub/auto_id_unwsetup.exe.