# DALLAS
SEMICONDUCTOR

DS2501–UNW/DS2502–UNW
UniqueWare[TM] Add Only Memory

SPECIAL FEATURES

- 512 bits (DS2501–UNW) or 1024 bits (DS2502–UNW) 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. Family code 91H for the DS2501–UNW, 89H for the DS2502–UNW

- Built–in multidrop controller ensures compatibility with other MicroLAN[TM] products

- EPROM partitioned into two (DS2501–UNW) or four (DS2502–UNW) 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

- Directly connects to a single port pin of a microprocessor and communicates at up to 16.3k bits per second

- Presence detector acknowledges when reader first applies voltage

- Low cost TO–92 or 8–pin SOIC and TSOC surface mount packages

- Reads over a wide voltage range of 2.8V to 6.0V from –40°C to +85°C; programs at 11.5V to 12.0V from –40°C to + 50°C

SILICON LABEL DESCRIPTION

The DS2501–UNW and DS2502–UNW are factory programmed versions of the DS2502 1K–bit Add–Only Memory. They differ from the standard DS2502 in their custom ROM family code 91H (DS2501–UNW) and 89H (DS2502–UNW) respectively, and the UniqueWare Identifier 5E7 in place of the upper 12 bits of the standard serialization field. With the DS2501–UNW, the upper two memory pages are not accessible; they always read FFH and cannot be programmed. Otherwise, the electrical and logical behavior is identical to

TO–92

DALLAS
DS2501/2
-UNW

1 2 3
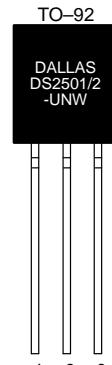
BOTTOM VIEW
See Mech. Drawings
Section
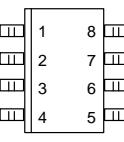
8–Pin SOIC
(150 MIL)
See Mech. Drawings
Section

TSOC PACKAGE

TOP VIEW
3.7 X 4.0 X 1.5 mm
See Mech. Drawings
Section

PIN ASSIGNMENT

	TO–92	TSOC	SOIC
Pin 1	Ground	Ground	NC
Pin 2	Data	Data	NC
Pin 3	NC	NC	Data
Pin 4	——	NC	Ground
Pins 5 to 8	——	NC	NC

ORDERING INFORMATION

DS2501–UNW	TO–92 package
DS2501S–UNW	8–pin SOIC package
DS2501P–UNW	6–pin TSOC package
DS2502–UNW	TO–92 package
DS2502S–UNW	8–pin SOIC package
DS2502P–UNW	6–pin TSOC package

that of the DS2502. For technical details please refer to the DS2502 data sheet.

The DS2501–UNW and DS2502–UNW are only available preprogrammed with customer specific and write–protected UniqueWare data. Memory pages not used for UniqueWare data can be programmed in the application. For more details on UniqueWare, please refer to the UniqueWare Project Setup Manual, available as Application Note 99 from Dallas Semiconductor.