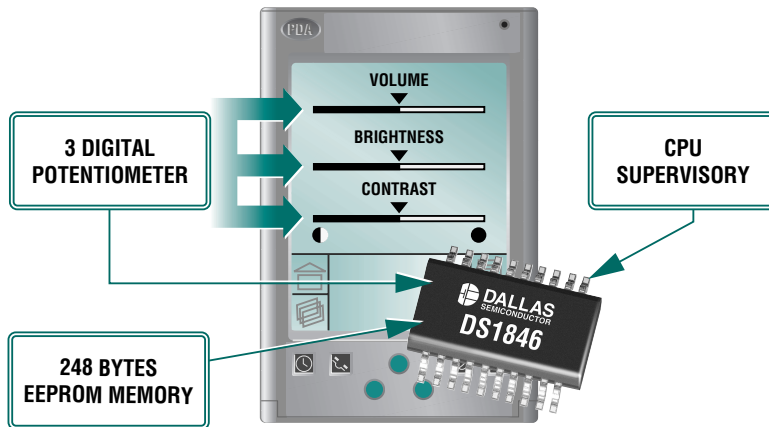


# INTRODUCING THE FIRST TRIPLE DIGITAL POTENTIOMETER THAT INCLUDES 248 BYTES EEPROM PLUS CPU SUPERVISOR

## Cuts Cost and Eliminates Components

The DS1846 is a highly integrated chip that combines three linear taper potentiometers, 248 bytes of EEPROM memory, and a CPU supervisor. The part communicates over the industry standard 2-wire interface and is available in a 20-pin TSSOP. The DS1846 is optimized for use in a variety of embedded systems where microprocessor supervisory, nonvolatile (NV) storage, and control of analog functions are required. Common applications include gigabit transceiver modules, portable instrumentation, PDAs, cell phones, and a variety of personal multimedia products.



- ◆ Three Linear Taper Potentiometers
  - ◆ Two 10kΩ, 100-Position
  - ◆ One 100kΩ, 256-Position
- ◆ 248 Bytes User NV Memory
- ◆ On-Chip CPU Supervisor
  - ◆ Debounced Pushbutton Reset Input
  - ◆ NMI Output
- ◆ Single 5V Supply
- ◆ Industrial Temperature Range
- ◆ Industry-Standard 2-Wire Bus

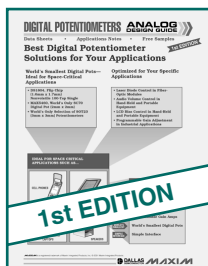
### Other Applications Include:

- ◆ PDAs and Cell Phones
- ◆ Portable Electronics
- ◆ Multimedia Products
- ◆ Instrumentation and Industrial Controls
- ◆ PC Power Supply Calibration

**PDA Application Example:** The DS1846 is well-suited for use in portable electronics such as data terminals, pagers, and PDAs. The triple potentiometers are used for setting display contrast, backlight level, and audio volume. The NV memory array provides storage for critical system parameters that cannot be lost while batteries are either removed or allowed to discharge. Additionally, the on-chip CPU supervisor further reduces size and cost by eliminating the need for this commonly required function.

| PART        | DESCRIPTION   | TEMP RANGE (°C) | PIN-PACKAGE | PRICE† (\$) |
|-------------|---|-----------------|-------------|-------------|
| DS1846E-010 | Triple digital potentiometer memory & CPU supervisory | -40 to +85      | 20-TSSOP    | 2.43        |

†1000-up recommended resale. Prices provided are for design guidance and are FOB USA. International prices will differ due to local duties, taxes, and exchange rates. Not all packages are offered in 1k increments, and some may require minimum order quantities.



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