

Single Channel Wire Master I2C Interface 3.3V/5V 8-Pin SOIC N T/R



Images are for reference only

[Inquiry](#)

Manufacturer: [Maxim Integrated](#)

Package/Case: SOP8

Product Type: Drivers

RoHS: RoHS Compliant/Lead free 

Lifecycle: Active

General Description

The DS2482-100 is an I2C to 1-Wire[®] bridge device that interfaces directly to standard (100kHz max) or fast (400kHz max) I2C masters to perform bidirectional protocol conversion between the I2C master and any downstream 1-Wire slave devices. Relative to any attached 1-Wire slave device, the DS2482-100 is a 1-Wire master. Internal factory trimmed timers relieve the system host processor from generating time-critical 1-Wire waveforms, supporting both standard and Overdrive 1-Wire communication speeds. To optimize 1-Wire waveform generation, the DS2482-100 performs slew rate control on rising and falling 1-Wire edges and provides additional programmable features to match drive characteristics to the 1-Wire slave environment. Programmable strong pullup features support 1-Wire power delivery to 1-Wire devices such as EEPROMs and sensors. The DS2482-100 combines these features with an output to control an external MOSFET for enhanced strong pullup application. The I2C slave address assignment is controlled by two binary address inputs, resolving potential conflicts with other I2C slave devices in the system.

Key Features

- Supply voltage range from 2.9V to 3.7V (3.3V) and 4.5V to 5.5V (5V)
- Operating temperature range from -40°C to 85°C
- 1-wire master IO with selectable active or passive 1-wire pull-up
- Provides reset/presence, 8bit, single bit and 3bit 1-wire IO sequences
- Standard and overdrive 1-wire communication speeds
- Two address inputs for I2C address assignment
- Minimizes line noise reducing system EMI
- Strong 1-wire pull-up provided by an internal low impedance signal path
- PCTLZ output to optionally control an external MOSFET for stronger pull-up requirements
- Operating current of 0.75mA and power-on reset trip point of 2.2V

Application

- Cell Phones/PDAs
- Industrial Sensors
- Medical Instruments
- Printers

Recommended For You

DS21T07E

Maxim Integrated

TSSOP20

DS21455+

Maxim Integrated

BGA

DS21348T+

Maxim Integrated

TQFP44

DS2155L

Maxim Integrated

QFP

DS8023-RJX+T&R

Maxim Integrated

TSSOP28

DS21S07AE

Maxim Integrated

TSSOP20

DS2108S

Maxim Integrated

SOP24

DS2482S-800+T&R

Maxim Integrated

SOP-16

DS21352L

Maxim Integrated

QFP

DS21T07S

Maxim Integrated

SOP

DS2482S-100+

Maxim Integrated

SOP8

DS8500-JND+

Maxim Integrated

TQFN-20

DS21348TN+

Maxim Integrated

TQFP44

DS2485Q+T

Maxim Integrated

SMDSMT

DS2118MB

Maxim Integrated

SOP