
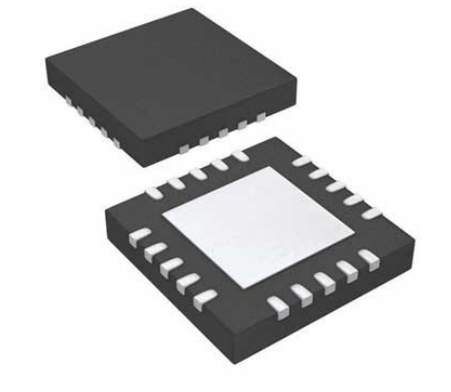


Resistive Touch Screen 4-Wire 20-Pin WQFN EP T/R

Manufacturer:	Texas Instruments, Inc
Package/Case:	QFN20
Product Type:	Drivers
RoHS:	RoHS Compliant/Lead free 
Lifecycle:	Active



Images are for reference only

[Inquiry](#)

General Description

The TSC2004 is a very low-power touch screen controller designed to work with power-sensitive, handheld applications that are based on advanced low-voltage processors. It works with a supply voltage as low as 1.2V, which can be supplied by a single-cell battery. It contains a complete, ultralow-power, 12-bit, analog-to-digital (A/D) resistive touch screen converter, including drivers and the control logic to measure touch pressure.

In addition to these standard features, the TSC2004 offers preprocessing of the touch screen measurements to reduce bus loading, thus reducing the consumption of host processor resources that can then be redirected to more critical functions.

The TSC2004 supports an I2C serial bus and data transmission protocol in all three defined modes: standard, fast, and high-speed. It offers programmable resolution of 10 or 12 bits to accommodate different screen sizes and performance needs.

The TSC2004 is available in a miniature, 18-lead, 5 x 5 array, (2.554 ±0.54)mm x (2.554 ±0.54)mm wafer chip-scale package (WCSP), and a 20-pin, 4 x 4 QFN package. Both packages are characterized for the -40°C to +85°C industrial temperature range.

Key Features

4-Wire Touch Screen Interface

Ratiometric Conversion

Single 1.2V to 3.6V Supply

Preprocessing to Reduce Bus Activity

High-Speed I2C-Compatible Interface

Internal Detection of Screen Touch

Register-Based Programmable:
10-Bit or 12-Bit Resolution

Sampling Rates

System Timing

On-Chip Temperature Measurement

Touch Pressure Measurement

Auto Power-Down Control

Low Power:
760 μ W at 1.8V, 50SSPS

580 μ W at 1.6V, 50SSPS

285 μ W at 1.2V, 50SSPS

74 μ W at 1.6V, 8.2kSPS Eq. Rate

47 μ W at 1.2V, 8.2kSPS Eq. Rate

Enhanced ESD Protection:
 \pm 8kV HBM

\pm 1kV CDM

\pm 25kV Air Gap Discharge

\pm 12kV Contact Discharge

2.5 x 2.5 WCSP-18 and 4 x 4 QFN-20 Package

APPLICATIONS

Cellular Phones

Portable Instruments

MP3 Players, Pagers

Multiscreen Touch Control

U.S. Patent No. 6,246,394; other patents pending.

I2C is a trademark of NXP Semiconductors. All other trademarks are the property of their respective owners

Recommended For You

TSC2007IPWR

Texas Instruments, Inc
TSSOP16

TSC2046IPWR

Texas Instruments, Inc
TSSOP16

TSC2013QRSARQ1

Texas Instruments, Inc
QFN16

TSC2046IPW

Texas Instruments, Inc
TSSOP16

TSC2046IRGVR

Texas Instruments, Inc
QFN16

TSC2014IYZGR

Texas Instruments, Inc
DSBGA

TSC2007IYZGR

Texas Instruments, Inc
DSBGA12

TSC2003IPWR

Texas Instruments, Inc
TSSOP16

TSC2007IPW

Texas Instruments, Inc
TSSOP16

TSC2004IYZKR

Texas Instruments, Inc
BGA

TSC2046EIPWR

Texas Instruments, Inc
TSSOP16

TSC2003IPW

Texas Instruments, Inc
TSSOP16

TSC2013QPWRQ1

Texas Instruments, Inc
TSSOP-16

TSC2046EIPW

Texas Instruments, Inc
TSSOP-16

TSC2200IPW

Texas Instruments, Inc
TSSOP-28