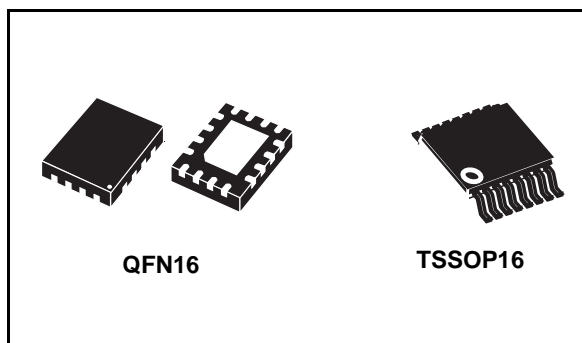


8-bit port expander with advanced touch screen controller

Data Brief

Features

- 8 GPIOs
- 1.8-3.3V operating voltage
- Integrated 4-wire touch screen controller
- Interrupt output pin
- Wake-up feature on each I/O
- SPI and I²C interface
- Up to 2 devices sharing the same bus in I²C mode (1 address line)
- 8-input 12-bit ADC
- Touch screen controller buffer depth of 128
- Touch screen movement detection algorithm to avoid excessive data
- 8kV HBM ESD protection



Description

The STMPE811 is a GPIO (General Purpose Input/Output) port expander able to interface a main digital ASIC via the two-line bidirectional bus (I²C). A separate GPIO expander IC is often used in mobile-multimedia platforms to solve the problems of the limited amounts of GPIOs usually available on the digital engine.

The STMPE811 offers great flexibility as each I/Os can be configured as input, output or specific functions. The device has been designed with very low quiescent current and includes a wake-up feature for each I/O, to optimize the power consumption of the IC.

A 4-wire touch screen controller is built into the STMPE811. The touch screen controller is enhanced with movement tracking algorithm, 128-depth buffer and a programmable active window feature.

Table 1. Device summary

Order code	Package	Packaging
STMPE811QTR	QFN16	Tape and reel
STMPE811TTR	TSSOP16	Tape and reel

1 Revision history

Table 1. Revision history

Date	Revision	Changes
24-Jul-2007	1	Initial release

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