XinaBox Datasheet SH01 - Capacitive Touch

SH01 - Capacitive Touch (CAP1296)

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Overview

This xCHIP is based on the CAP1296 which is a multiple channel capacitive touch (https://en.wikip edia.org/wiki/Capacitive_sensing) sensor controller. Each sensor input is calibrated to compensate for system parasitic capacitance and automatically recalibrated to compensate for gradual environmental changes. In addition, the CAP1296 can be configured to detect proximity on one or more channels with an optional signal guard to reduce noise sensitivity. The CAP1296 includes Multiple Pattern Touch recognition that allows the user to select a specific set of buttons to be touched simultaneously. If this pattern is detected, a status bit is set and an interrupt is generated.

Product Highlights

- Six 4 Capacitive Touch Sensor Inputs
- Proximity Detection

Applications

- Desktop and Notebook PCs
- LCD Monitors
- Consumer Electronics
- Appliances

Specifications

- Based on CAP1296 From Microchip Technology
- Multiple Button Pattern Detection
- Power Button Support
- Press and Hold Feature for Volume-like Applications
- I^{2}C
- Operating Ambient Temperature Range: -40 to 125 °C
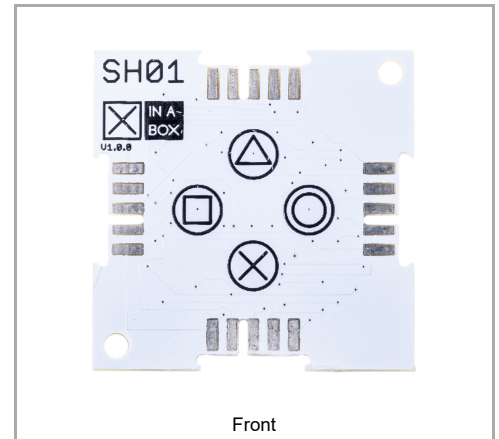- Storage Temperature Range: -55 to 150 °C

External Links

Featured Projects

- Space Invaders on RasPi with OLED and Capacitive Touch (https://www.hackster.io/gotfre dsen/space-invaders-on-raspi-with-oled-and-capacitive-touch-73e9bc)

- Servo Control with Capacitive Touch Using XinaBox (https://www.hackster.io/Luqmaan/ servo-control-with-capacitive-touch-using-xinabox-cd0c3 6)
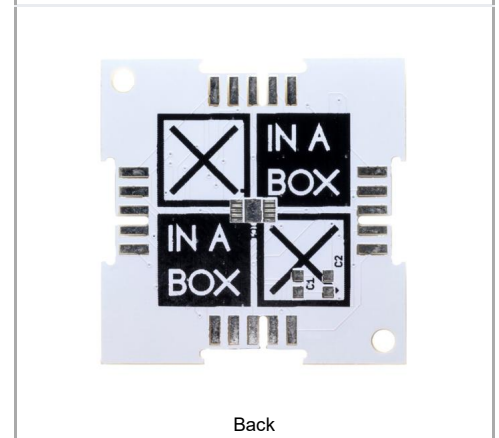
GitHub Libraries

- Arduino (https://github.com/xinabox/Arduino_SH01)
- Zerynth (https://github.com/xinabox/zerynth-SH01)

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⊠CHIP	
Main Category	Sensor
Sub Category	HID (Human Interface Device)
Introduced	1 January 2017
Current version	1.0.0
Current version date	1 January 2017
Dimensions	
Size	2x2U (32x32mm)
Weight	3 g
Height	2.5/0/0.9 mm
Main Chip Set	
Main Chip	CAP1296
I²C Configuration	
Default Address	0x28