



CT10459 Controller Board Specification

PCAP Atmel® mxT640T I²C

Supports Sizes 8.4in to 10.1in

**Sustaining Quality,
Exceeding Expectations**

DawarTouch®



1. General Description

The CT10459 is a controller board custom designed for Dawar's line of standard projected capacitive (PCAP) touch sensors. It is based on the Atmel® mxT640T MaxTouch® controller. The communications interface is standard I²C @ 400kHz. CT10459 supports touch sensor sizes from 8.4in to 10.1in. Refer to the [Dawar website](#) for a complete list of compatible touch sensors.

For more information on the mxT640T controller refer to the following Atmel® documentation:

- ▶ mxT640T Datasheet
- ▶ mxT640T Protocol Guide

Please contact Dawar® to request copies of these documents.

2. Functional Description

The CT10459 controller supports the following features:

- ▶ Up to 16 finger touches
- ▶ Stylus touches (4mm tip)
- ▶ Glove touches
- ▶ Thick cover lenses (up to 4mm glass, 2mm plastic)
- ▶ Greater than 100Hz report rate
- ▶ Low latency (<10ms for first touch report from idle mode)
- ▶ Automatic self-calibration
- ▶ Aggressive noise avoidance and noise cancellation features
- ▶ Maximum resolution of 4095 x 4095

Additional tuning support from Dawar is available for specialized applications.

3. Electrical Specifications

Parameter	Min	Typ	Max	Units	Remarks
Digital Power Supply (VDD)	3.0	3.3	3.4	V	
Active Current	-	20	-	mA	Note 1
Sleep Current	-	476	-	µA	
X Electrodes	-	30	-	-	
Y Electrodes	-	20	-	-	

Note 1: Active power depends on configuration settings and number of touches.

4. Mechanical Specifications

4.1. Board Dimensions

Parameter	Min	Typ	Max	Units	Remarks
Length	-	65	-	mm	
Width	-	25	-	mm	
Height	-	2.3	-	mm	

4.2. Connector

Connector part number is Molex 503480-0800.

Pin	Description	Note
1	GPIO1	GPIO – contact Dawar for information
2	GPIO2	GPIO – contact Dawar for information
3	/RESET	Active low reset
4	/CHG	Active low interrupt indicating data is available
5	SDA	I2C data
6	SCL	I2C clock
7	GND	
8	3.3V	

5. Environmental Specifications

Parameter	Min	Typ	Max	Units	Remarks
Operating Temperature	-40	-	85	°C	
Storage Temperature	-40	-	90	°C	
Relative Humidity	0	-	95	%RH	Note 1

Note 1: RH is defined at 60°C, non-condensing.

6. Operating System Support

Operating System	Supported	Remarks
Microsoft Windows XP	No	Note 1
Microsoft Windows 7	No	Note 1
Microsoft Windows 8	No	Note 1
Microsoft Windows 10	No	Note 1
Linux	Yes	Note 2

Note 1: Windows HID over I²C is supported on custom designs.

Note 2: Contact Dawar for information on Linux driver.

7. Product Life

Dawar Technologies is committed to providing products stability and support to our valued customers throughout the life of the product. All Dawar Touch products meet the following minimum requirements:

- ▶ 5 year minimum product lifecycle
- ▶ 12 month end of life (EOL) notification
- ▶ Last time buy option with EOL notification
- ▶ 60 day change notification for any change that affects form, fit, or function

Revision History

Revision	Date	Content	Author
A	12-18-15	Initial Release	Tony Gray Kerri Dzinglski