



CT10405 Controller Board Specification

PCAP Atmel® mxT1664T3 USB

Supports Sizes 8.4in to 10.1in



**Sustaining Quality,
Exceeding Expectations**

DawarTouch®

1. General Description

The CT10405 is a controller board custom designed for Dawar’s line of standard projected capacitive (PCAP) touch sensors. It is based on the Atmel® mxT1664T3 MaxTouch® controller. The communications interface is standard USB 2.0 full speed. CT10405 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 mxT1664T3x controller refer to the following Atmel® documentation:

- ▶ mxT1664T3 Datasheet
- ▶ mxT1664T3 Protocol Guide

Please contact Dawar® to request copies of these documents.

2. Functional Description

The CT10405 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)	-	5	-	V	USB standard
Active Current	-	44	-	mA	Note 1
Sleep Current	-	366	-	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	-	36	-	mm	
Height	-	6	-	mm	

4.2. Connector

Connector part number is Most Well W2000-R2051221.

Pin	Description	Note
1	GND	
2	5V	
3	GND	
4	D+	
5	D-	

Mating connector is Most Well A2001H-05P.

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	Yes	Note 1
Microsoft Windows 7	Yes	Note 2
Microsoft Windows 8	Yes	Note 2
Microsoft Windows 10	Yes	Note 2
Linux	Yes	Note 3

Note 1: Requires custom mouse emulation program. Contact Dawar for support.

Note 2: Compatible with Microsoft HID. No driver required.

Note 3: Kernel version 2.6.38 or later. Contact Dawar for support.

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