CT11182 Controller Board Specification

PCAP EETI® EXC80H84 USB and I²C

Sustaining Quality,
Exceeding Expectations

DawarTouch®

1.   General Description

The CT11182 is a programmed to work with 23.8in Dawar sensor DW03396. The unprogrammed board is CT11105. The board uses the EETI® EXC80H84 controller. The board supports both USB 2.0 full speed and I^{2}C. The I^{2}C connector is not populated on the base board. Dawar can provide custom SKUs with different I^{2}C headers.

For more information on the EETI controller contact Dawar Technologies.

2.   Functional Description

The CT11182 controller supports the following features:

- ▶ Up to 10 finger touches
- ▶ 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

Additional tuning support from Dawar is available for specialized applications.

3.   Electrical Specifications

3.1.   USB Interface

Parameter	Min	Typ	Max	Units	Remarks
Digital Power Supply (VDD)	-	5	-	V	USB standard
Active Current	-	90	-	mA	Note 1
Sleep Current	-	1	-	mA	
X Electrodes	-	-	21	-	
Y Electrodes	-	-	27	-	

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

3.2.   I^{2}C Interface

Parameter	Min	Typ	Max	Units	Remarks
Digital Power Supply (VDD)	3.3	5.0	5.0	V	
Active Current	-	90	-	mA	Note 1
Sleep Current	-	1	-	mA	
X Electrodes	-	-	21	-	
Y Electrodes	-	-	27	-	

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

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June 29, 2020
Rev A

4. Connector

Connector locations are shown below:
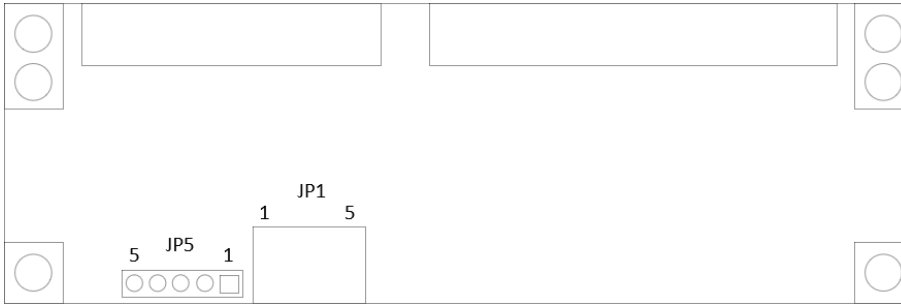
4.1. USB Interface

JP1 USB	
Pin	**Description**
1	GND
2	5V
3	GND
4	D+
5	D-

USB board connector part number is Most Well 2WF2HD-201505T121A01 (compatible with JST S5B-PH-K-S).

Mating cable connector is Most Well 2HG2CT-201105NPA1A01 with crimp contact 2F2CA-PT1701 (compatible with JST PHR-5 and SPH-002T-P0.5L).

4.2. I^{2}C Connector

Pin	Description	Note
1	GND	
2	SDA	I2C data with 4.7k pull-up to 3.3 V
3	SCL	I2C clock with 4.7k pull-up to 3.3 V
4	VDD	
5	/INT	Active low interrupt indicating data is available with 3.3k pull-up to 3.3 V

I^{2}C connector is not populated by default. Header layout is standard 0.1" center thru-hole. Dawar can provide custom SKU with customer specified header.

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 driver. Contact Dawar for support.
Note 2: Compatible with Microsoft HID. No driver required.
Note 3: Kernel version 2.6.38 or later. Refer to http://www.eeti.com.tw/drivers_Linux.html.

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

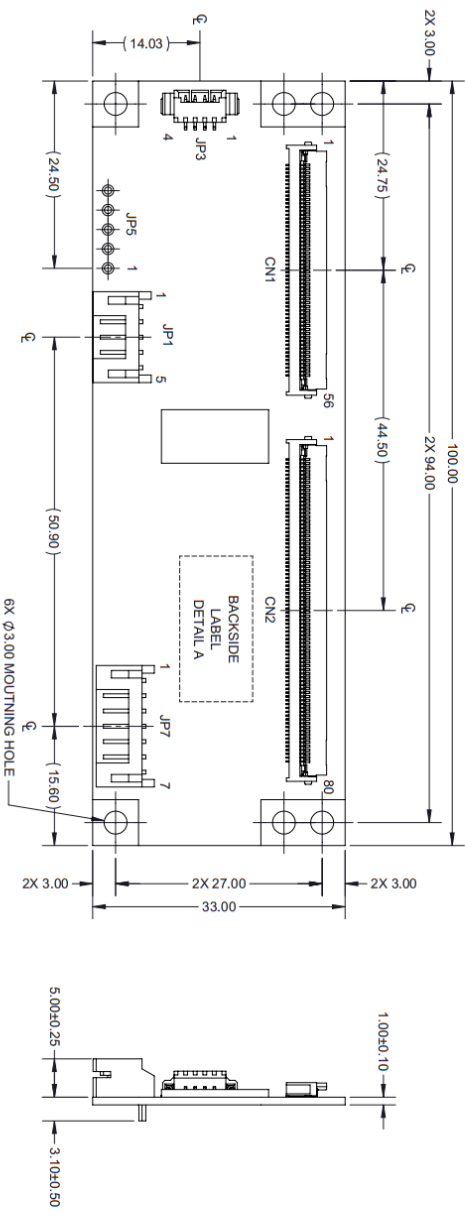▶ 60 day change notification for any change that affects form, fit, or function

NOTES:

1. CONNECTOR FOR JP1: MOST WELL 2WF2HD-20150ST121A01 (COMPATIBLE WITH JST S5B-PH-K-S)
   MATING CONNECTOR FOR JP1: MOST WELL HOUSING 2H2GCT-20110SNPA1A01 AND CRIMP CONTACT
   2F2CA-PTT701 (COMPATIBLE WITH JST HOUSING PHR-5 AND CRIMP CONTACT SPH-002T-P0.5L)

2. CONNECTOR FOR JP7: MOST WELL 2WF2HD-20150TT121A01 (COMPATIBLE WITH JST S7B-PH-K-S)
   MATING CONNECTOR FOR JP7: MOST WELL HOUSING 2H2GCT-20110TNPA1A01 AND CRIMP CONTACT
   2F2CA-PTT701 (COMPATIBLE WITH JST HOUSING PHR-7 AND CRIMP CONTACT SPH-002T-P0.5L)

3. DIMENSIONS IN PARENTHESIS ARE FOR REFERENCE ONLY.

JP1 - USB

PIN	FUNCTION
1	GND_E
2	VDD
3	GND
4	D+
5	D-

JP3 - STYLUS

PIN	FUNCTION
1	GND_D
2	TX_PEN
3	VDD
4	GND_D

JP5 - I2C

PIN	FUNCTION
1	GND
2	I2C_SDA
3	I2C_SCL
4	VDD
5	I2C_INT

JP7 - RS232

PIN	FUNCTION
1	UR_CTS
2	UR_TX
3	UR_RX
4	UR_RTS
5	GND_E
6	VDD
7	GND

LABEL
DETAIL A

CT11182-A
FW00636-A-1
DATE CODE

9.53
19.05

14.03
(24.50)
(24.75)
2X 3.00
100.00
2X 94.00
(44.50)
(50.90)
(15.60)
6X Ø3.00 MOUNTING HOLE
2X 3.00   2X 27.00   2X 3.00
33.00
5.00±0.25
1.00±0.10
3.10±0.50

JP3
JP5
JP1
JP7
CN1
CN2
BACKSIDE LABEL DETAIL A

56
80

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BASE CONTROLLER		
CT11105-A		

FIRMWARE	UNIFORMITY TABLE	
FW00636-A-1	UT00067-A	

DESCRIPTION		
PCB - EETI 84H 56x80 USB+I2C+RS232		

ITEM/DRAWING NO.		
CT11182-A		

UNIT	TOLERANCE	
MM [INCH]	±0.25 [0.010] UNLESS SPECIFIED	

SHEET	DRAWN BY	DATE
1 OF 1	EMK	07/01/20

DWG. REV.
1

REVISIONS

ITEM REV.	DWG REV.	ECO	DESCRIPTION	DWN	DATE
A	1	-	INITIAL RELEASE	EMK	07/01/20

THIRD ANGLE PROJECTION

Controlled
ENGINEERING / GRAPHICS
Eric Konvolinka
2020.07.01
08:16:18 -04'00'

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June 29, 2020
Rev A

Revision History

Revision	Date	Content	Author
A	6-29-2020	Initial Release	Tony Gray