

# ATMXT1664T3\_JTPCBA01

**Projected Capacitive Touchscreen Controller** 

ATMXT1664T3\_JTPCBA01 is a projected capacitive (PCAP) touch screen controller that powered by Microchip's high performance MCU ATMXT1664T3. By integrating the advantages of self and mutual capacitance sensing technology, built-in high driving voltage transceiver and a powerful MCU, this controller incorporate most desired features to boost the noise immunity, and support high demand applications in most categories.



#### Features

- USB and I2C interface
- Support advanced water resistance
- Support glove
- Support passive stylus
- Support DITO, G/F, G/F/F, G/G, and Metal Mesh sensor
- Comprehensive driver support
- maXTouch studio tool support
- RoHS compliant



### **OS Support Matrix**

| OS      | Version   | Interfaces |
|---------|---|------------|
|         | Windows 10 / Windows 8 / Windows 7 /                  |            |
| Windows | Windows 2000 / Windows XP                             | USB/I2C    |
|         | (I2C interface: need additional system configuration) |            |
| Win CE  | Win Embedded Compact 2013 / Win Embedded Compact 7    | USB        |
| Linux   | CentOS, Debian, Fedora, Gentoo, Mandrake (Mandriva),  |            |
|         | Meego, Red Hat, Slackware, SuSE (OpenSuSE), Ubuntu    |            |
|         | (Xubuntu) and Yellow Dog etc.                         | USB/I2C    |
|         | Support most 32/64 bit Linux distribution versions,   |            |
|         | including Kernel 2.6.x / 3.x.x / 4.x.x                |            |
| Android | Android 2.3 to latest version                         | USB / I2C  |
|         |   |            |

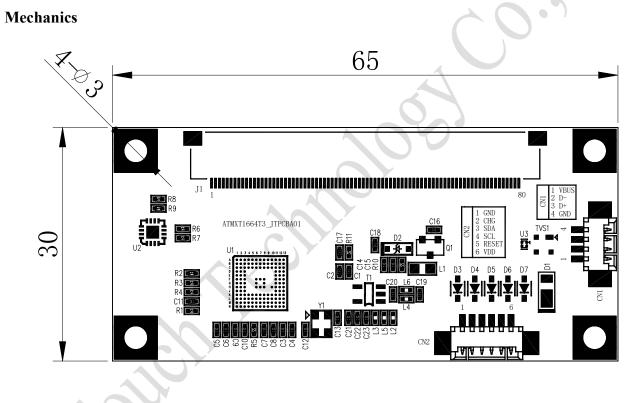
## **Technical Specifications**

| Technical Specifications |   |  |  |  |
|--------------------------|---|--|--|--|
| Circuit Board Dimension  | 65mm x 30mm x 5.0mm   |  |  |  |
| Channels of Panel        | Max. TX26 RX46  |  |  |  |
| Input Voltage            | 5V(USB), 3.3V(I2C)  |  |  |  |
| Operating Temperature    | -40 to 85°C   |  |  |  |
| Storage Temperature      | -40 to 90°C   |  |  |  |
| Relative Humidity        | 90% at 60 °C, RH Non-condensing                                       |  |  |  |
|                          | Line drawing accuracy :   |  |  |  |
| Linearity*               | 1pt +/- 1mm offset /10mm  |  |  |  |
|                          | Touch (point) accuracy : 1pt +/- 1mm                                  |  |  |  |
| Interface                | USB HID interface   |  |  |  |
| Interface                | I2C: up to 400KHz, Voltage Level 3.3V.                                |  |  |  |
| Resolution               | 16384 x 16384 resolution  |  |  |  |
| Power consumption        | Active Mode: < 45mA, depends on firmware                              |  |  |  |
| rower consumption        | Deep Sleep : < 360uA  |  |  |  |
| Report rate(points/sec)* | Up to 250 Hz reporting rate for one finger (subject to configuration) |  |  |  |
|                          | Average latency < 25 ms   |  |  |  |
| Response time            | Initial touch latency <10 ms for first touch from idle                |  |  |  |
|                          | (subject to configuration)  |  |  |  |



#### Disclaimer

- Performance spec such as report rate can be vary depends on touch sensor channel number, cover thickness, system condition and other parameters.
- Special input performance can be influenced depends on module condition, contact material and volume, subjects including through thick glass touch, gloved-hand input, water resistance and noise immunity etc.
- Special features require to be pre-defined and pre-tuned during project development.



| CN1 USB connector:<br>Molex 53261-0471 |      | CN2 I2C connector:<br>Molex 53261-0671 |       |
|--|------|--|-------|
| 1                                      | VBUS | 1                                      | GND   |
| 2                                      | D-   | 2                                      | CHG   |
| 3                                      | D+   | 3                                      | SDA   |
| 4                                      | GND  | 4                                      | SCL   |
|  |      | 5                                      | RESET |
|  |      | 6                                      | GND   |

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