

CY3295-MTK TrueTouch Manufacturing Test Kit V1.9.60 Release Notes

About this document

Scope and purpose

Thank you for your interest in the CY3295-MTK TrueTouch™ manufacturing test kit. This document lists installation requirements, software and hardware updates, limitations, and known issues with the kit. This kit includes the release of the Touchscreen test executive version 1.9.60.

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Notes

System requirements

1 System requirements

Table 1 System requirements

Hardware/operating system requirements	Minimum	Recommended
Processor speed	1 GHz	2 GHz
RAM	1 GB (32-bit) 2 GB (64-bit)	2 GB (32-bit) 2 GB (64-bit)
Free hard drive space	800 MB	1 GB
Screen resolution	1024 x 768	1280 x 1024
USB	Full Speed	2.0 Hi-Speed
Operation system	Windows 7 (32-bit, 64 bit), Windows 8 (32-bit, 64-bit), Windows 8.1 (32-bit, 64-bit) or Windows 10 (32-bit, 64-bit)	
Software prerequisites	Minimum	Recommended
Microsoft Internet Explorer	11	11+
Adobe Reader (for PDF Documentation)	9.4.6	9.4.6+
Windows installer	3.1	3.1+
.NET framework	3.5	3.5+
PSoC™ Programmer™	3.29	3.29

2 Installation

To install MTK, run CY3295Setup.exe and follow the installation instructions.

Note:

1. For the latest version of PSoC Programmer, go to www.cypress.com/go/psocprogrammer. Uninstall any previous installation of PSoC Programmer before reinstalling. To uninstall the software, go to **Start > Control Panel > Add or Remove Programs**. Click **Remove** adjacent to the software. Follow the instructions to uninstall.
2. To install and run Touchscreen test executive, you may also need to install additional software. If these programs are not already installed, the Installer will guide you through the process. Uninstall any previous version of the Touchscreen test executive software from the Windows control panel before installing.
3. Do not plug the kit hardware (TrueTouch bridge) into the USB port of PC until all software installation is complete.

3 New in MTK v1.9.60

- Added support of new firmware solutions for CYAT817X, CYAT8165X/6165X and CYAT816X device families.
- Next new features are implemented in the MTK tool:
 - Extended upper limit (>100) for all values that measure in percentage for all tests.
 - Improved the skip programming option for program first/second image tests by adding extra check for the configuration CRC value.
 - Updated the Sensor Cm validation test with the following changes:
 - Added extra fields in the csv log file that report default and non-default values of TX_PERIOD_MC register values, if MC_TX_PERIOD_MC_REG_UPDATE = True.
 - Improved the “Automatic gain values adjustment” action. Now it updates and restores TX_PERIOD_MC register, if MC_TX_PERIOD_MC_REG_UPDATE = True.
 - Added the extra CM_TX_PERIOD_MC_REG_DEVIATION_ALGORITHM_ENABLE option.
 - Added new WinSock command intended for robot automation validation of line draw (extended) test.
 - Added extra BORDERLESS_DIALOG_MODE option in line draw (extended) test.
 - Added extra CHECK_LINE_BREAK option in line draw (extended) test for CYAT817X crypto device family.
 - Added possibility to check in parallel multi TPINs on the header of TrueTouch bridge in GPIO test.

4 Device families and firmware versions supported in MTK v1.9.60

Table 2 Device families and firmware versions supported in MTK v1.9.60

#	Part number/device family	Firmware versions supported
	CY8CTMA616AA/884AA CY8CTMA616AE/884AE	2.2.798772 2.1.662250 2.0.409014 2.0.381917
	CY8CTMA460AA/AS CY8CTMA768AA/AS CY8CTMA1036AA/AS	2.4.898065 2.3.866954 2.2.830541 2.1.802429 2.0.672495
	CY8CTMA461AA/AS/LWA/LWS	1.2.911463 1.1.883949 1.0.853813 1.0.841549
	CYAT816X	1.5.1132348 1.4.1084642 1.3.1036671 1.2.935791 1.1.921302 1.0.886795 1.0.843908
	CYAT6XL_LPWB	1.5.1132348 1.4.1084642
	CYAT8165X/6165X	1.6.1142214 1.5.1093522 1.4.1053878 1.3.1046111 1.2.1004589 1.1.966753 1.0.951457
	CYAT817X	1.3.1158852 1.2.1087468 1.1.1070689 1.0.1053084
	CYAT837X CYAT847X	1.0.1116972

Notes

Known issues and solutions

5 Known issues and solutions

The following issues are known to exist in the 1.9.60 release of the MTK software.

Table 3 Known issues and solutions

Defect description	Impact / workaround
For TMA46x devices, the 'update DUT configuration' test passes even when configuration files from other device families are used for this test.	If an incorrect configuration file is used, this defect can generate a false pass. Use the correct configuration file as the workaround for this issue.
Values entered in the X Signal Type field in the DUT Configuration tab are not validated by the MTK software.	Tests may not execute correctly if the exact word Rows or Columns is not used in the X Signal Type field. Use either Rows or Columns to ensure correct operation of the tests.
For TMA44x/TMA46x/TMA768 and TMA1036 devices, opening the configuration files built with MTK versions 1.4.5 and earlier does not permit configuration of limits for both sensors and buttons in Global IDAC test.	The configuration file for MTK 1.7.1 needs to be manually created instead of importing directly from 1.4.5.
Changes to the Device ID Required to Start Tests option in the engineering mode is not saved when switching to normal mode.	Click Save to manually save the configuration file every time changes to the Device ID Required to Start Tests option is made in the engineering mode.
The MTK software does not provide an option to switch between 'Decimal' and 'Hexadecimal' representations of data.	The data type for the field is displayed as a tooltip when mouse is hovered over it. The option to select decimal/hexadecimal representations will be provided in a future release.
The MTK software can detect and connect to more than four DUTs for testing.	The MTK Software reliably supports only up to four DUT connections. Connecting more than four DUTs is not recommended and test results are not guaranteed.
Per-element Limits tab contains redundant field limits for mutual buttons in all self-cap tests. Also, non-self-cap tests contains self-cap buttons limits.	The workaround is to set up limits for the redundant fields to the wide range values. It causes software to always pass the unnecessary subtest related with validation of self-cap or mutual buttons in the current test.
Error: Insufficient system resources exist to complete the requested service	Related to the issue with the USB library which software uses for communication with touch controller, after the long-time term operations (approximate ≥ 8 hours) a failure message "Insufficient system resources exist to complete the requested service" may occurs. The workaround is to restart the application.

6 Platform-specific guidance

For all platforms if a device reports an external or pin-to-pin short, it will be disabled from further testing during the current test session.

7 Documentation

Kit documents are in the `\Documentation` folder in the root directory of MTK installation.

After installing the test executive software, see the required documentation from the Windows start menu:

- Cypress → Touch Screen Test Executive 1.9.60 → Release Notes
- Cypress → Touch Screen Test Executive 1.9.60 → CY3295-MTK User Guide

After installing the Test Executive software, you can access the *CY3295-MTK user guide* from the **Help** menu.

8 Feedback on manufacturing test kit (MTK) v1.9.60

The MTK team encourages you to give valuable feedback on the MTK software and the manufacturing steps in your projects. Your feedback will help us refine our MTK strategy, so that we may provide the best possible value back to you. Please email your responses to mtk_feedback@cypress.com.

The MTK usage questionnaire is an MS Excel spreadsheet that is in the *\Documentation* folder of the software installation.

Please provide as much details as possible in the questionnaire, including steps from the bare sensor all the way to the shipping end-product (mobile phone, tablet, and so on).

For each step, you will find the following fields in the questionnaire:

1. **Location/Factory:** Indicates the place where the manufacturing step is performed.
2. **Build stage:** Indicates the integration level of the touch sensor (that is, bare sensor, LCD + Module, and so on).
3. **Step Objective:** Indicates the objective of a TrueTouch MTK, or what the objective should be if MTK does not support this step currently.
4. **MTK OK “as is”:** Specify whether the current MTK system (software, hardware, documentation) meets your requirements.
5. **Effort required:** If your response to question #4 was no, mention how much manual effort is needed to meet the step requirement.
6. **Commonly encountered problems:** Select the most frequent problem you encountered with this manufacturing step.
7. **Notes:** Include any information you think will help refine the strategy or provide a background about the step.

See the **Example** tab in the if these instructions are not clear.

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