KEYSIGHT
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Dear Valued Customer,

i3070 In-Circuit Test Software release 10.10p Release Notes

Keysight Technologies is pleased to introduce the latest software release version 10.10p for i3070 Series 6 and existing i3070 in-circuit testers. This release can be installed on test systems and test development stations running Windows 10 Professional 64-bit operating systems.

Some of the key highlights are:

- Additional slew rate option for N67xx Power Supplies for matching different circuitry performance characteristics (CR568764).

- MKS upgraded to version 10.2 for Win 10 OS supportability (CR574278).

- "Baseline" command is now simpler to use, user can specify the exact file to monitor changes (CR568853).

- New XTPB Control Card firmware for improved stability in digital testing (CR580873)

- Upgraded the Keysight IO to version 18.1.24715.0

For up-to-date detailed user's guide, please refer to the i3070 10.10p Online-Help Manual.

As always, I'd like to take this opportunity to thank you for your continuous support and look forward to providing you more value-added features and services.

Yours faithfully,

Eric CHUA
Product Manager for i3070
Keysight Technologies
eric-kw_chua@keysight.com

System Requirements

The minimum hardware and software requirements for the installation of the i3070 10.10p software release are as follows:

Table 1   System Requirements

Platform	Windows 10 Professional 64-bit NOTE: Windows 10 Version 1809 is not supported
Hardware	Processor – recommended Intel Core i5 (4th Generation or newer) or equivalent Memory – recommended 8 GB RAM (minimum 4 GB RAM) Disk space – recommended 10 GB, must be on C: drive
Other	Minimum screen resolution – 1280 x 1024 pixels Color quality: at least 16-bit Language Setting: Must be English (United States)

NOTE   If you are upgrading a controller to Windows 10, ensure that it meets the Windows system requirements and there are no compatibility issues.

Software Licenses

Note that software version 10.00p or later has a new license string format, however the software feature and functionality remain the same.

Existing license string example:

FEATURE **i3070Mux_System_TestHead** aglntict 09.20 **permanent** uncounted \
        HOSTID=14abc59b6617 NOTICE="Licensed to Keysight Technologies" \
        TS_OK SIGN=81A51B84CC18

New license string example:

Product: K8203A-1FP   K8203A, i3070 Mux System Testhead, GTE 10.00p, node-locked perpetual license Expires: permanent
FEATURE **i3070Mux_System_TestHead** agileesofd 1.0 **permanent** uncounted
VENDOR_STRING="14ABC59B6617 : OGSIWKY PSUIMEJ 2HFKJKL NFBGVYI SDTF2NG VZBUJZE
LGCYPBH JEUJMGW 2IUCN" **HOSTID=14abc59b6617** ISSUER=LICENSEID=3341316 ISSUED=08-Jul-2019
START=08-Jul-2019 TS_OK SIGN="0081 B90C 9BEB B799 E81D 7A57 B0EC 8408 F8DF 127B 9F03 710A
3071 EB46 5CFE 7D81 F735 A555 BD06 6D3E 923E"

The licenses are redeemable via www.keysight.com/find/softwaremanager
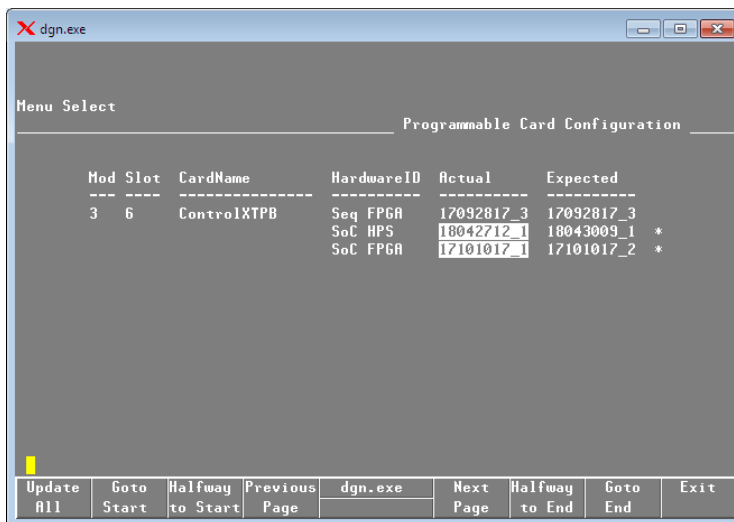
Compatibility Statement

Existing board test programs that run on 3070 or i3070 systems with earlier software releases (09.xx, 08.xx and 07.xx) will continue to run on software version 10.10p.

Board test programs developed on Windows-based software revisions prior to 05.40p should be converted to run on release 05.40p at the minimum, before running them on systems with i3070 software release 10.10p or later.

Updating Firmware for XTPB Control Card

Following are the steps to upgrade your XTPB Control Card firmware, that is distributed with this release:

1. Perform software version 10.10p installation.
2. The firmware files named XTPB_SoC_HPS_Mux.img or XTPB_SoC_HPS_UnMux.img (depending on system type) can be found in *c:\i3070_ICT\lib* folder.
3. Launch DGN.
4. Select Configuration > Programmable Card Config
5. Any available firmware updates will be highlighted as shown below:

6. Select "Update All" to begin the update.
7. Whenever the User Account Control dialog box appears, select "Yes" to allow the system to proceed.
8. When installation is completed, the testhead is automatically rebooted.
9. End of XTPB Control Card firmware update.

Appendix A: Improvements

Improvements and enhancements in the i3070 10.10p software based on customer requests list.

Table 2   Change requests

CR ID	Description
583203	09.20p: i3070: Resolved T3022 failed at confirmation test but passed at Auto-Adjust and Full DGN test.
582617	10.00p: i3070: Resolved software internal error 4202 occurred after learn CRC with new XTPB firmware.
581338	09.20p: i3070: Resolved long test time of BScan in Medalist and BTI.
580934	10.00p: i3070: Resolved analog sub test time increases with new XTPB firmware.
580873	10.00p: i3070: Resolved Intermittent digital test failures with new XTPB firmware.
579980	09.20pc: i3070: Resolved network storage File permission error on Win10 O/S.
579408	09.20pc: i3070: Resolved incorrect @BLOCK log record when "log using" command used.
579060	09.20pc: i3070: Resolved additional "{" in front of @BLOCK log record.
578336	10.00p: BTI: Resolved compile base instead of new version of Powered Analog test.
578045	09.20pc: i3070: Amended the status to 2 instead of 7 when MOA compliance occurred.
577915	09.20pc: nanoVTEP: Resolved Internal error 119/27/0 has occurred running Probe Select.
577756	09.20p: i3070: Resolved incorrect timing module in wirelist for manually created digital test if advanced throughput multiplier enabled.
574835	09.20pc: i3070: Resolved incorrect actual "wait" timing for "sps" command.
574278	09.20p: i3070: Updated latest MKS to improve performance when executed "get testplan".
572901	09.20p: BTI: Enhanced with compact view option.
572898	09.20pc: BTI: Resolved Long time to load the test program if a lot of board versions.
572693	09.20pc: PLD ISP: Compile with missing STAPL file still produces an object file resolved.
568853	09.20p: i3070: Enhanced with new "create baseline on "testplan" command

568764	09.01p: i3070: Enhanced "sps" command with slew rate option.
567851	09.20p: i3070: Resolved "baseline delete on all" prompt "load board" not issued (R288).
563647	09.20p: i3070: Resolved "T359 Testhead integer result type not received" error when running flash70 programming in mixed test

Appendix C: Compatibility Matrix

Table 3   Compatibility matrix

	Keysight i3070 Series 5 UnMux	Keysight i3070 Series 5 Mux	Keysight i3070 Series 6 Unmux	Keysight i3070 Series 6 Mux	Remarks
Software Revision	09.20p & below	09.20p & below	10.00p & above	10.00p & above	Series 5 system upgradable to latest software
Operating System	Windows 7 / Windows 10	Windows 7 / Windows 10	Windows 10 Pro 64-bit	Windows 10 Pro 64-bit	10.00p is last supported software for Win 7 09.20p or later works on Win10. 09.00p or later works on Win7.
Controller Hardware	HP rp5700/ HP rp5800/ HP rp5810*	HP rp5700/ HP rp5800/ HP rp5810*	rp5810 / HP Engage Pro	rp5810 / HP Engage Pro	rp5700 models cannot support Windows 10 * Default to Windows 10 64-bit
Software Features					
Simplate Express Fixturing	√	√	√	√	
Analog In-circuit Test	√	√	√	√	
Analog Functional Test	√	√	√	√	
Timing Sets	x	√	√	√	
In-circuit Boundary-Scan	√	√	√	√	
InterconnectPlus Boundary-Scan	√	√	√	√	
PanelTest	√	√	√	√	
Throughput Multiplier	√	√	√	√	
nanoVTEP Capability	√*	√*	√	√	Works on 09.20p or later
VTEP v2.0 *Powered!* (VTEP, iVTEP, NPM and Cover-Extend)	√ (1)	√ (1)	√	√	(1) NPM works on 07.10p or later CET works on 07.20p or later
Cover-Extend Technology	√*	√*	√	√	Works on 07.20p or later
Polarity Check	√	√	√	√	
Connect Check	x	√	√	√	
Software Revision B	x	√	x	√	
Powered Testing	√	√	√	√	
All High Accuracy Resources	x	√	x	√	
Drive Thru	√	√	√	√	

Table 3 Compatibility matrix

	Keysight i3070 Series 5 UnMux	Keysight i3070 Series 5 Mux	Keysight i3070 Series 6 Unmux	Keysight i3070 Series 6 Mux	Remarks
Flash70	√	√	√	√	
Advanced Fixturing	√	√	√	√	
Silicon Nails	√	√	√	√	
Flash ISP	√	√	√	√	Needs Control XTP and above
PLD ISP	√	√	√	√	Needs Control XTP and above
Diagnose Relays	√	√	√	√	
System Calibration	√	√	√	√	
Interactive Pin Locator	√	√	√	√	
Automatic Analog Debug (AutoDebug)	√	√	√	√	
AutoOptimizer	√	√	√	√	Needs Control XTP and above
Operator Interface	√	√	√	√	
Debug Interface	√	√	√	√	
ICT Browser	√	√	√	√	
Coverage Analyst	√	√	√	√	
Fixture Consultant	x*	√	x*	√	uses ICT Browser
Board Consultant	x*	√	x*	√	uses TTM Development Software
Test Consultant	x*	√	x*	√	uses TTM Development Software
TTM Development Software	√	x*	√	x*	i3070 Mux uses Board Consultant, Fixture Consultant and Test Consultant
Pushbutton Debug	√	√	√	√	
Access Consultant	√	√	√	√	
Part Description Editor	√	√	√	√	
Device Test Library	√	√	√	√	
BT-Basic Test Language	√	√	√	√	
Setup Test Editor	√	√	√	√	
Analog Test Language	√	√	√	√	

Table 3   Compatibility matrix

	Keysight i3070 Series 5 UnMux	Keysight i3070 Series 5 Mux	Keysight i3070 Series 6 Unmux	Keysight i3070 Series 6 Mux	Remarks
Vector Control Language	√	√	√	√	
Pattern Capture Format	√	√	√	√	
Digital In-circuit Test	√	√	√	√	
Analog Functional Test Language	√	√	√	√	
IPG-II Program Generator	√	√	√	√	
Multiple Board Versions	√	√	√	√	
Dual-Well Shared Wiring	√	√	√	√	
Short-wire Fixture Technology	√	√	√	√	
Board Test Grader	√	√	√	√	
Datalogging	√	√	√	√	
DataLog Converter	√*	√*	√	√	Available on 08.40p and later
Board Test Insight	√*	√*	√	√	Available on 09.00p and later
Pushbutton Q-STATS	√	√	√	√	
Advanced Throughput Multiplier	√	√	√	√	
Automation Enabler	x	x	√	√	Industry 4.0 Supported Standards: IPC-CFX, Hermes, iLNB, MQTT, REST-API, AMQP
Networked Licensing	x	x	√	√	
Advanced Probe Spacing	√	√	√	√	
Automatic 6 Wire Analog ICT Tests	√	√	√	√	
Automatic Digital Test Generation	√	√	√	√	
Safeguard ICT Analysis	√	√	√	√	
Quick Report	√	√	√	√	
System Configuration and Hardware Diagnostics	√	√	√	√	
RS232 Control	√	√	√	√	

Table 3   Compatibility matrix

	Keysight i3070 Series 5 UnMux	Keysight i3070 Series 5 Mux	Keysight i3070 Series 6 Unmux	Keysight i3070 Series 6 Mux	Remarks
Hardware Features					
ASRU Rev C	√	√	x	x	
ASRU Rev D	√	√	x	x	
ASRU Rev N	√*	√*	√	√	Works with Control XTP and 08.00p or later
N1139A PDU	x	x	√	√	
ControlXTP	√	√	√*	√*	Not tested on Series 6 and 10.00p onwards
ControlXTPA	√*	√*	√	√	Works on 08.30pb or later
ControlXTPB	√*	√*	√	√	Works on 10.00p or later
HybridPlus DD 6/12/20 MP/s	x	√	x	√	
HybridPlus 144 unmux	√	x	√	x	
AnalogPlus (DD)	x	√	x	√	
AccessPlus (SD)	x	√	x	√	
Utility Card	√*	√*	√	√	Works on 08.00p or later
LED Measurement Analyzer	√*	√*	√	√	Works on 08.30p or later
Guided Probe and Footswitch	√	√	√	√	
Strip Printer	√	√	√	√	
Debug Ports	√	√	√	√	
Functional Test Access Ports	√	√	√	√	
Performance Port	√	√	√	√	
DUT Power Supplies					
6621A, 6624A, 6634B, 6642A	√	√	x	x	
N5747A	√*	√*	√	√	Works on 08.20p or later
N6751A, N6752A, N6746A, N6773A	√*	√*	√	√	Works on 08.40p or later
Vacuum	√	√	√	√	
Compressed Air Quick Connect Tap	√	√	√	√	
Support Bay	√	√	x	x	
Detachable Side POD	x	x	√	√	
2mod Inline Board Handler	√*	√*	√	√	Use 09.00p or later to develop fixture/program
4mod Inline Board Handler	√*	√*	√	√	Use 10.00p or later to develop fixture/program

Appendix D: Software Validation Process

All software releases for i3070 have been reviewed and tested in accordance to a Software Quality and Verification Plan. This effort consists of design and code reviews; unit and regression tests; system testing, and multi-day simulated production runs. This process ensures that the software has not regressed due to enhancements or fixes implemented and continues to stay functional for the purpose of operating the i3070 within the parameters described by the product documentation.

This statement describes the high-level measures Keysight Technologies has taken to ensure continual delivery of quality products to our customers. This however, in no way supersedes any Keysight instructions or specifications for the use of the i3070 and related software release, or the terms and conditions of sale. This statement does not constitute any additional expressed or implied warranty.

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