Keysight M8070EDAB Error Distribution Analysis Package

The functionalities of the M8070B system software can be enhanced by this package. This package requires M8070B SW 10.5 or later.

Software licensing

The M8070B baseline software is free-of-charge and doesn't require any license. In order to use the Error Distribution Analysis Package features a valid M8070EDAB license is required. For more details on the required license refer to "License Information" section in the user guide for this package described in Related Document.

Related Document

For detailed information on this package and its functionalities, refer to the following document after installing the package.

- "ErrorDistributionAnalysisPackageUserGuide.pdf"

This document can be found at the following location after you install the package:

C:\Program Files\Keysight\M8070B\Plugins\M8070EDAB\doc

The M8070B documents can be located by clicking *Start > All Programs > Keysight M8070B > Keysight M8070B Documentation*. Alternatively, you can also visit www.keysight.com/find/M8070B to find the latest versions of M8070B documents.

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Installation Steps

To install the Keysight M8070EDAB package, perform the following steps:

- Start the M8070B software. To do so, go to *Start Menu > All Programs > Keysight M8070B.*

- Click *Utilities –> Plugin Manager menu*.

- Click on the **Install Plug-in from File** button. A **File Open** dialog is displayed.

- Locate the M8070EDA.M8KP to install and click **OK**. On the successful installation of M8070EDAB package, a message is displayed.

- Install the required licenses via the **Keysight License Manager** (if not done before). To know about the details of required licenses, refer to the user guide mentioned above.

- Restart the M8070B software. You should be able to use Error Distribution Analysis feature thru "Measurements" menu. To know more about how to use the features of this package, refer to the user guide mentioned above.

Release 1.10.80.6

Released Date:	December 04, 2023
M8070B Required Minimum Release:	S10.5.x
Operating System:	Microsoft Windows 10 (64 bit) Version 1607 (Anniversary Update) or newer
Controller requirements:	Same as M8070B System Software
Display resolution:	Same as M8070B System Software
Software pre-requisites:	Same as M8070B System Software
File Name:	M8070EDAB_1.10.80.6.m8kp

Fixed Defects

M8K-2356   Burst counters are not getting accumulated during multiple runs.

M8K-3126   Poisson distribution not displayed correctly with real time analysis.

Release 1.9.40.2

Released Date:	June 16, 2023
Operating System:	Microsoft Windows 10 (64 bit) Version 1607 (Anniversary Update) or newer
Controller requirements:	Embedded PC: Choose M8020A-BU3 or M8040A-BU3 for a pre-installed embedded controller M9537A including pre-installation of M8070B software and module licenses. Otherwise: M9537A 1-slot AXIe embedded controller, choose options for Windows 10, 8 or 16 GB RAM, USB External PC: USB connection recommended between external PC and AXIe chassis. Minimum of 8 GB RAM recommended. For PCIe connectivity please refer to list of tested PCs for AXIe Technical Note, pub no. 5990-7632EN
Display resolution:	Minimum requirement 1024 x 768
Software pre-requisites:	M8070B SW version 10.0.70.2 or higher Keysight IO Library rev. 18.0.22209.2 or above AXIe Chassis Firmware (Embedded System Module (ESM) from Keysight Technologies) greater than or equal to version 1.3.42
File Name:	M8070EDAB_1.9.40.2.m8kp

New Feature

- Export EDAB measurement tab results in .csv

Release 1.8.160.2

Released Date:	May 24, 2022
Operating System:	Microsoft Windows 10 (64 bit) Version 1607 (Anniversary Update) or newer
Controller requirements:	Embedded PC: Choose M8020A-BU3 or M8040A-BU3 for a pre-installed embedded controller M9537A including pre-installation of M8070B software and module licenses. Otherwise: M9537A 1-slot AXIe embedded controller, choose options for Windows 10, 8 or 16 GB RAM, USB External PC: USB connection recommended between external PC and AXIe chassis. Minimum of 8 GB RAM recommended. For PCIe connectivity please refer to list of tested PCs for AXIe Technical Note, pub no. 5990-7632EN
Display resolution:	Minimum requirement 1024 x 768
Software pre-requisites:	M8070B SW version 9.0.350.2 or higher Keysight IO Library rev. 18.0.22209.2 or above
	AXIe Chassis Firmware (Embedded System Module (ESM)
	from Keysight Technologies) greater than or equal to version 1.3.42
File Name:	M8070EDAB_1.8.160.2.m8kp

New Feature

- Real time error distribution analysis for M8046A module.

Fixed Defects

M8K-2355   Fixed an infrequent crash when displaying the error map.

M8K-2326   Improved description for "Trigger on Error" functionality.

Release 1.6.180.2

Released Date:	October 29, 2021
Operating System:	Microsoft Windows 7 (64 bit) SP1, Microsoft Windows 8 (64 bit) Microsoft Windows 8.1 (64 bit) Microsoft Windows 10 (64 bit) Version 1607 (Anniversary Update) or newer
Controller requirements:	Embedded PC: Choose M8020A-BU3 or M8040A-BU3 for a pre-installed embedded controller M9537A including pre-installation of M8070B software and module licenses. Otherwise: M9537A 1-slot AXIe embedded controller, choose options for Windows 7 or 10, 8 or 16 GB RAM, USB External PC: USB connection recommended between external PC and AXIe chassis. Minimum of 8 GB RAM recommended. For PCIe connectivity please refer to list of tested PCs for AXIe Technical Note, pub no. 5990-7632EN
Display resolution:	Minimum requirement 1024 x 768
Software pre-requisites:	M8070B SW version 8.5.250.6 or higher Keysight IO Library rev. 18.0.22209.2 or above AXIe Chassis Firmware (Embedded System Module (ESM) from Keysight Technologies) greater than or equal to version 1.3.42
File Name:	M8070EDAB_1.6.180.2.m8kp

Enhancements

- Licensing: Auto checkout of floating license in deprecated. User must use borrow license feature of KLM6 instead.

Release 1.5.160.18

Released Date:	May 13, 2021
Operating System:	Microsoft Windows 7 (64 bit) SP1,
	Microsoft Windows 8 (64 bit)
	Microsoft Windows 8.1 (64 bit)
	Microsoft Windows 10 (64 bit) Version 1607 (Anniversary Update) or newer
Controller requirements:	Embedded PC: Choose M8020A-BU3 or M8040A-BU3 for a pre-installed embedded controller M9537A including pre-installation of M8070B software and module licenses. Otherwise: M9537A 1-slot AXIe embedded controller, choose options for Windows 7 or 10, 8 or 16 GB RAM, USB External PC: USB connection recommended between external PC and AXIe chassis. Minimum of 8 GB RAM recommended. For PCIe connectivity please refer to list of tested PCs for AXIe Technical Note, pub no. 5990-7632EN
Display resolution:	Minimum requirement 1024 x 768
Software pre-requisites:	M8070B SW version 8.0.200.18 or higher Keysight IO Library rev. 18.0.22209.2 or above
	AXIe Chassis Firmware (Embedded System Module (ESM)
	from Keysight Technologies) greater than or equal to version 1.3.42
File Name:	M8070EDAB_1.5.160.18.m8kp

Fixed Defects

M8K-1908   EDAB: capture starts after the first. Now the first burst starts in the middle of the captured window.

Release 1.4.560.6

Released Date:	February 10, 2021
Operating System:	Microsoft Windows 7 (64 bit) SP1,
	Microsoft Windows 8 (64 bit)
	Microsoft Windows 8.1 (64 bit)
	Microsoft Windows 10 (64 bit) Version 1607 (Anniversary Update) or newer
Controller requirements:	Embedded PC: Choose M8020A-BU3 or M8040A-BU3 for a pre-installed embedded controller M9537A including pre-installation of M8070B software and module licenses. Otherwise: M9537A 1-slot AXIe embedded controller, choose options for Windows 7 or 10, 8 or 16 GB RAM, USB External PC: USB connection recommended between external PC and AXIe chassis. Minimum of 8 GB RAM recommended. For PCIe connectivity please refer to list of tested PCs for AXIe Technical Note, pub no. 5990-7632EN
Display resolution:	Minimum requirement 1024 x 768
Software pre-requisites:	M8070B SW version 7.5.700.8 or higher Keysight IO Library rev. 18.0.22209.2 or above
	AXIe Chassis Firmware (Embedded System Module (ESM)
	from Keysight Technologies) greater than or equal to version 1.3.42
File Name:	M8070EDAB_1.4.560.6.m8kp

Features

- Trigger acquisition on errors.

  Using this together with the M8046A's 'Multiple Errors' error event improves analyzing error bursts in the received data.

Fixed Defects

M8K-465	Bits per symbol and Symbols per frame parameters not getting updated after recalling settings.
M8K-712	RED (M8045A + G-Max Senior): M8070B crashes while running the measurement with lower no. of frames.
M8K-713	RED (M8045A + G-Max Senior): Getting incorrect error distance results. M8K-1099 User unable to use captured pattern file without analyzer.

Release 1.3.200.4

Released Date:	April 09, 2020
Operating System:	Microsoft Windows 7 (64 bit) SP1,
	Microsoft Windows 8 (64 bit)
	Microsoft Windows 8.1 (64 bit)
	Microsoft Windows 10 (64 bit) Version 1607 (Anniversary Update) or newer
Controller requirements:	Embedded PC: Choose M8020A-BU3 or M8040A-BU3 for a pre-installed embedded controller M9537A including pre-installation of M8070B software and module licenses. Otherwise: M9537A 1-slot AXIe embedded controller, choose options for Windows 7 or 10, 8 or 16 GB RAM, USB External PC: USB connection recommended between external PC and AXIe chassis. Minimum of 8 GB RAM recommended. For PCIe connectivity please refer to list of tested PCs for AXIe Technical Note, pub no. 5990-7632EN
Display resolution:	Minimum requirement 1024 x 768
Software pre-requisites:	M8070B SW version 7.0.600.4 or higher Keysight IO Library rev. 18.0.22209.2 or above
	AXIe Chassis Firmware (Embedded System Module (ESM)
	from Keysight Technologies) greater than or equal to version 1.3.42
File Name:	M8070EDAB_1.3.200.4.m8kp

Fixed Defects

M8K-187   Stopping measurement throws error for higher acquisition setting resulting capturing more than 1 GB (approx.) of data in one step. Workaround is to reduce the no. of frames in acquisition parameters.

Release 1.2.800.2

Released Date:	October 14, 2019
Operating System:	Microsoft Windows 7 (64 bit) SP1,
	Microsoft Windows 8 (64 bit)
	Microsoft Windows 8.1 (64 bit)
	Microsoft Windows 10 (64 bit) Version 1607 (Anniversary Update) or newer
Controller requirements:	Embedded PC: Choose M8020A-BU1 or M8040A-BU1 for a pre-installed embedded controller M9536A/M9537A including pre-installation of M8070A software and module licenses. Otherwise: M9536A/M9537A 1-slot AXIe embedded controller, choose options for Windows 7 or 8, 8 or 16 GB RAM, USB External PC: USB connection recommended between external PC and AXIe chassis. Minimum of 8 GB RAM recommended. For PCIe connectivity please refer to list of tested PCs for AXIe Technical Note, pub no. 5990-7632EN
Display resolution:	Minimum requirement 1024 x 768
Software pre-requisites:	M8070B SW version 6.7 or higher
	Keysight IO Library rev. 17.2.20605 or above
	AXIe Chassis Firmware (Embedded System Module (ESM) from Keysight Technologies) greater than or equal to
	version 1.3.42
File Name:	M8070EDAB_1.2.800.2.m8kp

Fixed Defects

M8K-161   Measurement crashes when switching the vertical axis scale to logarithmic when no. of frames is set to 1.

572045   At higher acquisition depth on RED channel, measurement takes time to stop.

Known Defects

M8K-187   Stopping measurement throws error for higher acquisition setting resulting capturing more than 1 GB (approx.) of data in one step. Workaround is to reduce the no. of frames in acquisition parameters.

Release 1.1.550.2

Released Date:	July 18, 2019
Operating System:	Microsoft Windows 7 (64 bit) SP1,
	Microsoft Windows 8 (64 bit)
	Microsoft Windows 8.1 (64 bit)
	Microsoft Windows 10 (64 bit) Version 1607 (Anniversary Update) or newer
Controller requirements:	Embedded PC: Choose M8020A-BU1 or M8040A-BU1 for a pre-installed embedded controller M9536A/M9537A including pre-installation of M8070A software and module licenses. Otherwise: M9536A/M9537A 1-slot AXIe embedded controller, choose options for Windows 7 or 8, 8 or 16 GB RAM, USB External PC: USB connection recommended between external PC and AXIe chassis. Minimum of 8 GB RAM recommended. For PCIe connectivity please refer to list of tested PCs for AXIe Technical Note, pub no. 5990-7632EN
Display resolution:	Minimum requirement 1024 x 768
Software pre-requisites:	M8070B SW version 6.5 or higher
	Keysight IO Library rev. 17.2.20605 or above
	AXIe Chassis Firmware (Embedded System Module (ESM)
	from Keysight Technologies) greater than or equal to version 1.3.42
File Name:	M8070EDAB.m8kp

Features

- Parameter preset for frame definition of different specs.

- Highlight burst in error map and calculated results for burst errors. User customizable burst definition. Random and burst error count are displayed under calculated results.

- Display data pattern and navigate to the error pattern from error map. Click on any error bit in error map will display the pattern in the window below.

- Usability enhancements

  o Open captured pattern when there is no analyzer available in the current setup.

  o After opening an already captured pattern, acquisition parameters changes apply automatically i.e. user do not have to open the pattern again to view the results according to changed frame definition.

  o Display graph data in tooltips on mouse hover.

  o Data Tab will display grouped data.

  o Displaying `progress when opening a pattern.

Fixed Defects

563408   Getting wrong error distance in EDA measurement on M8062A and Loki setup

563300   EDA: Error Distance Graph is becoming slow for higher BER.

570199   M8070EDAB: M8070B crashes on Zoom- In

Known Defects

572045   At higher acquisition depth on RED channel, measurement takes time to stop.

Release 1.0.70.0

Released Date:	March 07, 2019
Operating System:	Microsoft Windows 7 (64 bit) SP1,
	Microsoft Windows 8 (64 bit)
	Microsoft Windows 8.1 (64 bit)
	Microsoft Windows 10 (64 bit) Version 1607 (Anniversary Update) or newer
Controller requirements	Embedded PC: Choose M8020A-BU1 or M8040A-BU1 for a pre-installed embedded controller M9536A/M9537A including pre-installation of M8070A software and module licenses. Otherwise: M9536A/M9537A 1-slot AXIe embedded controller, choose options for Windows 7 or 8, 8 or 16 GB RAM, USB External PC: USB connection recommended between external PC and AXIe chassis. Minimum of 8 GB RAM recommended. For PCIe connectivity please refer to list of tested PCs for AXIe Technical Note, pub no. 5990-7632EN
Display resolution	Minimum requirement 1024 x 768

Features

- Symbol-error per frame distribution
- Consecutive bit-error distance distribution
- Error map
- Frame Loss Ratio counting and estimation

Fixed Defects

563101	Fit To view stops working on switching between histories.
565617	Measurement crash when resizing the graph display window or switching between tabs on relatively smaller size of no of frames.
565696	Calculated results data overflows when measurement is run for long duration with high BER.
566065	Data display continues to refresh after resetting the measurement from toolbar.

Known Defects

563107	Acquisition Parameters are not getting disabled while running the measurement.
566107	Error on running the measurement on small values of symbols and frames resulting in very low count of bits to compare e.g. 100 bits.
565623	When running the measurement with history enabled very small values of symbols and frames; data tab refresh is delayed till the measurement end or switching between measurement history items.
565621	Measurement takes longer duration when opening a captured pattern of very large size e.g. 1Gb
563300	Error Distance graph becomes slower when running the measurement with high BER for longer durations.
563408	Error distance graph showing more error distance bars than expected while using fixed error insertion e.g. 1e-4.
566056	Measurement displays errored frames while there is no error being insert using error insertion.

Release 1.0.50.0

Released Date:	December 17, 2018
Operating System:	Microsoft Windows 7 (64 bit) SP1,
	Microsoft Windows 8 (64 bit)
	Microsoft Windows 8.1 (64 bit)
	Microsoft Windows 10 (64 bit) Version 1607 (Anniversary Update) or newer
Controller requirements:	Embedded PC: Choose M8020A-BU1 or M8040A-BU1 for a pre-installed embedded controller M9536A/M9537A including pre-installation of M8070A software and module licenses. Otherwise: M9536A/M9537A 1-slot AXIe embedded controller, choose options for Windows 7 or 8, 8 or 16 GB RAM, USB External PC: USB connection recommended between external PC and AXIe chassis. Minimum of 8 GB RAM recommended. For PCIe connectivity please refer to list of tested PCs for AXIe Technical Note, pub no. 5990-7632EN
Display resolution:	Minimum requirement 1024 x 768
Software pre-requisites:	M8070B SW version 6.0 or higher
	Keysight IO Library rev. 17.2.20605 or above
	AXIe Chassis Firmware (Embedded System Module (ESM) from Keysight Technologies) greater than or equal to
	version 1.3.42
File Name:	M8070EDAB.m8kp

Features

- Symbol-error per frame distribution
- Consecutive bit-error distance distribution
- Error map
- Frame Loss Ratio counting and estimation

Known Defects

563101	Fit To view stops working on switching between histories.
563107	Acquisition Parameters are not getting disabled while running the measurement.