

LabWindows/CVI, VxiPnp driver history for the R&S® HMC8012 Digital Multimeter

[HMC8012](#)



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1 Supported Instruments

In the following table, the supported R&S instruments and firmware versions are listed:

Which instruments are supported?		
Instrument	Supported Firmware	Remarks
HMC8012	1.400	

2 Revision History

2.1 Version 1.7.0 / 04 – 2024

* Updated core to version 4.7.0. The core is incompatible with the Cores 3.x. If you work with drivers that use both core 4.x and 3.x, please contact our customer support, we will update your Core 4.x drivers to the newest version.

* New:

- hmdmm_FetchSecondFunctionMeasurement
- hmdmm_OPCTSyncWriteEnable
- hmdmm_OPCTSyncQueryEnable
- hmdmm_SetOpcSyncQueryMechanism

* Deleted:

- hmdmm_ReadInstrData
- hmdmm_SetAttributeViSession
- hmdmm_GetAttributeViSession
- hmdmm_CheckAttributeViInt32
- hmdmm_CheckAttributeViReal64
- hmdmm_CheckAttributeViString
- hmdmm_CheckAttributeViBoolean
- hmdmm_CheckAttributeViSession

2.2 Version 1.5.1 / 05 – 2020

- Fixed init problem when compiled in LabWindows/CVI
- Added feature to use an external Visa Session
- Added hmdmm_GetOPCTimeout(), hmdmm_SetOPCTimeout()
- Improved help for hmdmm_init(), hmdmm_InitWithOptions()
- Optimized help texts for status codes

* New driver core 3.8.0

2.3 Version 1.5.0 / 06 – 2019

* New driver core 3.5.0

* Improved

- Included automatic repetition of a measurement when the instrument returns an invalid measured value, e.g. during changing the range in auto range mode.

Affected functions:

- hmdmm_Measure
- hmdmm_FetchMeasurement
- hmdmm_ReadMeasurement

* New

- hmdmm_ConfigureAutoSystemErrQuery
- hmdmm_ConfigureMultiThreadLocking
- hmdmm_GetOpcTimeout / hmdmm_SetOpcTimeout
- hmdmm_GetAttributeRepCapName

2.4 Version 1.4.0 / 06 – 2017

* New

- hmdmm_BeeperMeasurementState
- hmdmm_ThresholdMeasurement
- hmdmm_TemperatureMeasurement
- hmdmm_ADCCRate
- hmdmm_DataLogging
- hmdmm_ConfigureDataLogging
- hmdmm_SetDataLoggingFileName
- hmdmm_ReadLoggingFileData
- hmdmm_DeleteLoggingFileData
- hmdmm_GetNumberOfLoggingFiles
- hmdmm_ListAllLoggingFilesData

* Modified

- hmdmm_Measure
- hmdmm_ReadMeasurement
- hmdmm_ActiveMathOperation
- hmdmm_MeasurementFunction
- hmdmm_SetRange
- hmdmm_Configure

2.5 Version 1.2.0 / 05 – 2016

* New

- hmdmm_ClearStatus
- hmdmm_IDQueryResponse
- hmdmm_ProcessAllPreviousCommands
- hmdmm_QueryOPC

* New attributes:

- HMDMM_ATTR_PROCESS_ALL_PREVIOUS_COMMANDS (Process All Previous Commands)
- HMDMM_ATTR_LOGGING (Logging)

* Modified attributes:

- HMDMM_ATTR_HARDCOPY_FORMAT (Hardcopy Format) - Added *WAI to SCPI command
- HMDMM_ATTR_HARDCOPY_SIZE_X (Hardcopy Size X) - Added *WAI to SCPI command
- HMDMM_ATTR_HARDCOPY_SIZE_Y (Hardcopy Size Y) - Added *WAI to SCPI command
- HMDMM_ATTR_ID_QUERY_RESPONSE (ID Query Response) - Added empty callbacks and default value

* Modified Range Tables:

- HmDmm_rngTemperatureSensorType.HMDMM_VAL_SENSOR_PT100 -
Description changed ("Pt 100", "")
- HmDmm_rngTemperatureSensorType.HMDMM_VAL_SENSOR_PT500 -
Description changed ("Pt 500", "")
- HmDmm_rngTemperatureSensorType.HMDMM_VAL_SENSOR_PT1000 -
Description changed ("Pt 1000", "")

2.6 Version 1.1.0 / 03 – 2016

- * Modified:
 - USB-VCP and USB-TMC support added
 - Support for alternative ID Query string
 - cosmetic changes in documentation

2.7 Version 1.0.0 / 07 – 2013

- * Initial Release

3 Getting Started

3.1 LabWindows/CVI driver

The Rohde & Schwarz **hmdmm** Instrument driver can be used in LabWindows/CVI 6 and later. In order to be able to compile an application it is required to add following files to your LabWindows/CVI project:

- *hmdmm.c + hmdmm.h*
- *hmdmm_attributes.c + hmdmm_attributes.h*
- *hmdmm_utility.c + hmdmm_utility.h*
- *rscore.c + rscore.h*
- *hmdmm_callbacks.c*
- *hmdmm.fp + hmdmm.sub*

3.2 VXIplug&play driver in C/C++, LabWindows/CVI

The compiled source code from LabWindows/CVI driver is used. The compiled ANSI-C libraries exist for Windows 7 64-bit and newer.

Add the following files to your 64-bit target project:

- C:\Program Files\IVI Foundation\VISA\Win64\Include\hmdmm.h
- C:\Program Files\IVI Foundation\VISA\Win64\Lib_x64\msc\hmdmm64.lib (static)
- C:\Program Files\IVI Foundation\VISA\Win64\Bin\hmdmm_64.dll (dynamic)
- C:\Program Files\IVI Foundation\VISA\Win64\hmdmm\hmdmm.fp (in CVI only)
- C:\Program Files\IVI Foundation\VISA\Win64\hmdmm\hmdmm.sub (in CVI only)

3.3 VXIplug&play driver in MATLAB

MATLAB instrument driver **hmdmm.mdd** can be found here:

C:\Program Files\IVI Foundation\VISA\Win64\hmdmm\hmdmm.mdd

For more, refer to [1MA171 - How to use R&S instrument in MATLAB](#)

3.4 Linux and Mac OS X

To be able to use Rohde & Schwarz **hmdmm** Instrument driver in Linux or macOS, the functioning VISA is required. Check out [R&S VISA](#) for Linux or macOS.

3.5 Additional Help

LabWindows/CVI and VXIplug&play instrument driver contains the documentation in a compressed HTML format (Windows CHM help file **hmdmm_vxi.chm**):

C:\Program Files\IVI Foundation\VISA\Win64\hmdmm\hmdmm_vxi.chm

4 Customer support

Technical support – where and when you need it

For quick, expert help with any Rohde & Schwarz product, contact our customer support center. A team of highly qualified engineers provides support and works with you to find a solution to your query on any aspect of the operation, programming or applications of Rohde & Schwarz products.

Contact information

Contact our customer support center at www.rohde-schwarz.com/support or follow this QR code:

