### Version 8.28

#### 1. Update information

These release notes describe changes between Perception (including GEN series firmware) versions V8.00.21327 and V8.28.22200.

#### 2. Mid- and long-term support roadmap

Starting with Perception V8.00 some legacy features, mainframe and card support are no longer present. (A Perception V7.6x maintenance version is available for critical bug fix support.)

#### Supported on latest Windows versions

Including all updates until July 2021:

• Windows 10 Pro 1607 and higher (64 bit only)

Installation requirements:

- Dot Net Framework V4.8
- (distributed with the install CD and available for download on the internet)
- Microsoft Direct3D® capable graphics card.

#### Downgrade

Perception V8.0x can be downgraded to the following versions:

- Perception V7.6x
- Perception V7.5x

#### 3. Perception versions

Version	Description	
	Perception Standard	Free
1-PERC-AD-0x	Perception Advanced	Paid
1-PERC-VA-0x	Perception Viewer Enterprise	Paid
1-PERC-E64-0x	Perception Enterprise	Paid

#### Perception supports the following application extensions:

Version	Description	
1-PERC-OP-EDR	eDrive application (setup, live and efficiency mapping table)	Paid
1-PERC-OP-STL	Advanced High Voltage/High Power analysis according STL standards	Paid
1-PERC-OP-HIA	High Voltage Impulse Analysis	Paid
1-PERC-OP-CSI	CSI Runtime extensions (Customized Software Interfaces)	Paid









#### 4. Known Issues

Below table lists known issues.

**GN310B Card** The GN310B card supports Power Calibration. Currently Perception fails to show the correct power calibration date. The date shown maps on '12/30/1899'.

#### 5. New Features

Perception – General new Features

Perception – New ePower Suite Features

#### **New Features for Hardware**

Samsung 870 EVO 1TB Support for the Samsung 870 EVO 1TB has been added

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#### 6. Improvements

#### **Improvements in Perception**

Perception file location	The last loaded workbench is now created in the diagnostics folder.	
Perception	Exporting data now properly supports recordings where certain channels have no data at all.	
Exporting data	Also exporting using %recname% as output file now also works when display page contains only formulas.	

#### Improvements in the Perception ePower Suite

#### Improvements for CAN and GEN DAQ API

Connection with timeout mechanism	Two new functions are added to support timeout handling on the connections over the GEN DAQ API: GHSConnectWithTimeout and GHSInitiateDataTransferWithTimeout See helpfile for explanation of the function arguments of the new functions.
Fieldbus output	Improved GEN DAQ API fieldbus consistent output, the data posted now matches with the posted timestamp.
Connection	(Re-)Connecting GEN DAQ API after the physical network connection was interrupted has been fixed.
Version	GEN DAQ API .Net client DLL has been updated to API version 6.
Demo application	GEN DAQ API sales demo application freeze after clicking the 'Stop Streaming' button has been fixed.
Documentation	GEN DAQ API documentation has been updated.
CAN	CAN recording message filter filtered out too many messages, this has been resolved.

#### Improvements for Hardware

GN610B, GN611B, GN310B, GN311B, GN840B, GN1640B, GN8101B, GN1202B, GN815, GN3210, GN3211	Quadrature Angle mode now supports up to 32767 pulses per rotation improving the precision of the signal.		
RTFDB number of channels available for storage			
	Mainframe type	Available number of RTFDB channels for storage before	Available number of RTFDB channels for storage, after update

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Stability	Improved long term stability in start/stop sequences		
Firmware upgrade	Before you can upgrade to Perception 8.30, you must upgrade to Perception 8.28 first! This step is required due to changes to the update mechanism.		
EtherCAT (G082)	Support added to downgrade the G082 EtherCAT firmware from Perception version 8.30 and higher. Downgrading from Perception 8.30 to a version lower than Perception 8.28 requires downgrading to 8.28 first.		
Configured boot	Resolved an error condition while storing and restoring of configured boot on cards with RTFDB support, but with an empty RTFDB configuration.		
	GEN17tA	256	1000
	GEN7t / GEN7i / GEN7iA	256	1000
	GEN4tB	256	500
	GEN3iA	200	000
	GEN3t / GEN3i /	256 256	256 300







#### 7. Supported Genesis HighSpeed Mainframes

The following Genesis HighSpeed Mainframes are supported:

- GEN2tB
- GEN3t
- GEN4tB
- GEN7tA
- GEN17tA
- GEN3i
- GEN3iA
- GEN7i
- GEN7iA
- BE3200

#### 8. Supported QuantumX Modules

The following QuantumX models are supported:

- MX1609KB
- MX1609TB
- MX471B
- MX809B
- CX27B as single network access point only, no setup or control of CX27B

Data streaming is available for all other B type QuantumX modules.

**Note**: Former Release notes mentioned to support MX471B / MX471C, but this should have been only the MX471B. The MX471C might work in some cases, but this is not guaranteed.

Note: Perception includes and only works with the following QuantumX software components:

- QuantumX firmware: V4.12.32.0
- HBM common API: V4.0.0.56

Patents no: 7,868,886

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