

# D113

## Multi Purpose MVB Interface Platform



### D113 Overview

The D113 is a general multi purpose MVB interface platform with enhanced processing power. It is available in different configurations:

#### D113L - Passive MVB interface:

- **MDFULL** UART emulation with 4095 MVB process data communication ports.
- Easy programmable with Duagon's **MDFULL** driver kit.

#### D113 - Server Platform:

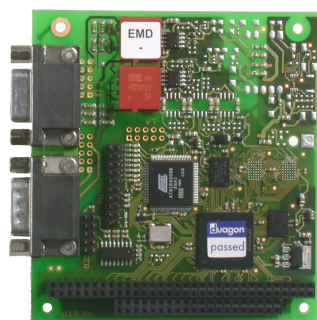
- Best suited if MVB message as well as process data are used.
- Running full MVB communication stack on board. I.e. host is released from all real-time requirements out of the MVB.
- SW driver for message data communication included as ANSI C source code.

#### D113H - Controller:

- "Stand - alone" MVB platform to carry user applications on board.
- Full development environment with real-time OS (eCOS), Flash File System, MVB library and more included.
- Can operate also as PC/104 master to control other PC/104 interface cards.

#### Option: MVB Bus Administrator

All above configurations are available with integrated MVB bus administrator.



D113 with EMD and MVB SUB-D connectors.

Order code: D113.T-P4B

### HW Integration

The interface family D113 behaves like an UART device. It can be integrated on almost any host system through only 8 registers (each 8-bit long).

### HW Options

**MVB Interfaces:** EMD, ESD+ or OGF

**MVB Connectors:** SUB-D or Header

**HW Interfaces:** PC/104 or custom specific pin out.

The D113 is a general multi purpose MVB interface platform on a PC/104 footprint. It has an ARM7 CPU integrated and it is available with different configurations:

- **MDFULL** (passive Interface)
- **SERVER** (active interface)
- **CONTROLLER** (to be used as powerful CPU platform)

Each configuration is available with or without integrated MVB Bus Administrator.

The platform is designed for the harsh traction environment and conforms to EN50155 /50121 standards. This includes:

- Operation conditions -40°C to 85°C
  - Coated against humidity
  - Enhanced EMI resistance
- Different hardware options as well as connector types are available for easy integration into your system.

## Technical Data

<b>Power Consumption</b>	Max. 2W (full MVB operation)
<b>Form Factor</b>	PC/104 compliant (90mm x 96 mm)
<b>Operation Conditions</b>	<ul style="list-style-type: none"> <li>• Temperature: -40 to +85°C (EN 50155, Class TX)</li> <li>• Relative humidity: 75%, max. 95% for 30 days per year (conformal coating)</li> <li>• Shock and vibration: According to EN 61373 category 1, Class B</li> <li>• EMI: According to EN 50155 and EN 50121</li> <li>• MVB: According to IEC61375</li> </ul>

## Order Code and HW Options

<b>D113</b>	<b>.T</b>	<b>-P4</b>	<b>A</b>	<b>2XL</b>	<b>-I1</b>	<b>-X</b>
<b>MVB Function:</b>						
MDFULL	<b>D113L</b>					
MDFULL+BA	<b>D113LF</b>					
SERVER	<b>D113</b>					
SERVER+BA	<b>D113F</b>					
CONTROLLER+BA	<b>D113HF</b>					
<b>MVB Type:</b>						
EMD	<b>.T</b>					
ESD+	<b>.D</b>					
ESD	<b>.E</b>					
<b>PC/104 Form Factor</b>						
<b>Connector Type:</b>						
Header			<b>A</b>			
SUB-D			<b>B</b>			
Carrier Mount			<b>C</b>			
Carrier Mount PC/104			<b>S</b>			
<b>Connector Options (Add all characters that apply):</b>						
With 64-pin AND 40-pin PC/104 connectors				<b>2</b>		
PC/104 no stackthrough pins					<b>X</b>	
Header with long cable locks						<b>L</b>
SUB-D with long hangover						<b>H</b>
SUB-D with UNC4/40 cable locks						<b>U</b>
SUB-D without screw locks						<b>N</b>
defaults						<b>&lt;empty&gt;</b>
<b>MVB Receiver Thresholds:</b>						
-50/-150mV					<b>-I1</b>	
±350mV					<b>-I3</b>	
Standard RS485					<b>&lt;empty&gt;</b>	
<b>MVB EMD Options:</b>						
High differential input resistance (DC)						<b>-X</b>
Transformer directly attached to differential line						<b>&lt;empty&gt;</b>

## Related Documents

Data Sheet	d113_ds.pdf
SW Driver Overview	f_driver.pdf
SW Driver Kit	
<b>MDFULL</b>	mdfull_d113.zip
<b>SERVER</b>	server_d113.zip
<b>CONTROLLER</b>	contr_d113.zip
<b>For Advanced Users and Debugging:</b>	
HW Integration Guide	integ_pc104.pdf
PC/104	
<b>Accessories and Related Documents</b>	
Accessories Overview	f_misc.pdf
Diagnostic Systems Overview	f_d412_d213.pdf
Connector Counter Parts	count_part_ds.pdf

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