

# Rosenberger

Micro Harness System for High Power and High Data Transmission  
RosenbergerHPD<sup>®</sup> –  
High Power Super Speed Data

AUTOMOTIVE





## INTRODUCTION

### RosenbergerHPD<sup>®</sup> – for High Power and High Data Transmissions

The new RosenbergerHPD<sup>®</sup> is an universal applicable multicore datalink connection system for high data rates combined with high ampacity.

The optimized design allows transmitting data rates up to 10 Gbps. In addition to high data performance, the central positioned power lane offers a power reserve up to 100 W / 5 A in combination with the cable shield as the ground lane.

Rosenberger has also developed a special multicore cable with an optimized layout for low attenuation. It consists of two fully foil-shielded differential pairs and one sum-shielded differential data pair. Beside the shielding, the patented layout inside the cable and the interface provides an almost interference and crosstalk free transmission performance.




The robust, fully shielded automotive grade connector design qualifies the interface for applications in rough environmental conditions where high frequent data and high ampacity is required (eg. automotive environment).

The advantage to connect complex systems with only one connector, which supplies the application with both – data and power, is a reduction of costs combined with the reduction of installation size.

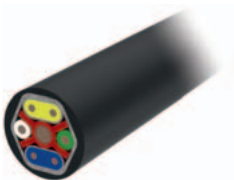


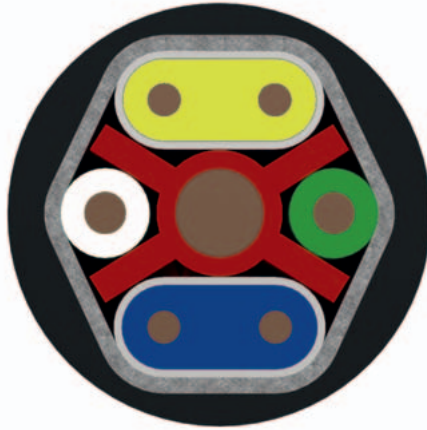
## PRODUCT PORTFOLIO

### RosenbergerHPD® Connectors

Connector Type	Rosenberger No.	
PCB Plug straight	U3S101-40MT5-y*	
PCB Plug right angle	U3S201-40MT5-y*	
Cable Assembly (Cable Jack 2x)	LBB-101-xxxx-y-y*	

\* please fill in: xxxx requested length, y coding  
Further customized products on request

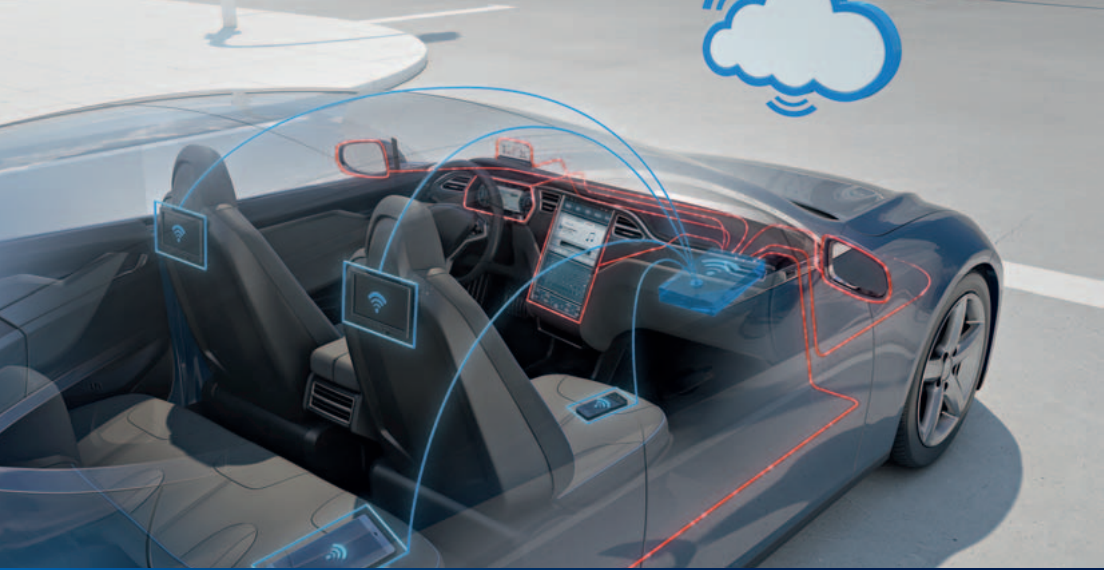




## TECHNICAL DATA

### Technical Data RosenbergerHPD® – Code U3

<b>Electrical Data</b>	
Impedance of connector inclusively transition area to cable	90 Ω ± 10 Ω
Frequency range	DC to 10.0 GHz
Ampacity	≤ 5 A DC
Contact resistance	≤ 10 mΩ
<b>Mechanical Data</b>	
Cable retention force	≥ 110 N
Retention force primary lock	≥ 80 N
Number of codings	6
Coding efficiency	≥ 80 N
<b>Environmental Data</b>	
Temperature range	-40 °C to +105 °C
Thermal shock	DIN EN 60068-2-14
Temperature and humidity	USCar 2 – 4 5.6.2
Vibration	DIN EN 60068-2-64
Mechanical shock	DIN EN 60068-2-27
High temperature exposure	DIN EN 60068-2-2



## RosenbergerHPD® – High Power Super Speed Data

### Features & Applications

#### Product Features

- 2x shielded SuperSpeed differential data lanes (up to 10 GBit)
- 1x shielded HighSpeed differential data lane (up to 1 GBit)
- 1x High Power lane (up to 20 V / 5 A)
- 1x Ground lane (over braid)
- Optimized interface layout for low crosstalk
- Fully shielded interface
- Mechanically robust design
- Shock and vibration proof
- Watertight versions possible
- For highest automotive requirements – LV 214

#### Applications

- USB 2.0, USB 3.1 Gen 1, USB 3.1 Gen 2
- APIX 1-3
- Display Port
- MHL 1,2,3 and superMHL
- High Power Charging
- Power Delivery
- Board-to-Board Communication
- UHD Resolution

#### Application Devices

- Displays
- Smartphones
- Tablets
- Notebooks



## Website

For further information refer to our website:  
[www.rosenberger.com/automotive](http://www.rosenberger.com/automotive)

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Certified by ISO/TS 16949 · DIN EN 9100 · ISO 9001 · ISO 14001

Order No.

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