



Data Sheet

## MDILink QX035 FPDLinkIII

### Measurement Data Interface

**4 channel FPGA based measurement data interface with FPDLinkIII serializer and deserializer for lossless raw data acquisition in ADAS and AD environments.**

With the MDILink you get a SerDes measurement data converter that allows a smooth transition from the development stage and validation results to series production. MDILink is part of the b-plus AVETO Toolbox, see [www.b-plus.com](http://www.b-plus.com) for more details.

### Highlights

- Optimized for high bandwidth data throughput
- Up to 2,9 Gbit/s for each camera
- 2x 10 Gb Ethernet downstream ports
- Time synchronization IEEE 1588 PTP and gPTP
- Modular design
- Flexible FPGA SoC architecture
- Configuration via web interface
- Built in Data Generator
- Full transparent TAP in mode
- Robust design for rough environment



MDILink QX035



## Features

### Interfaces

FPDLinkIII	2x RX serial link in	DS90UB954-Q1
	2x TX serial link out	DS90UB953-Q1
Connector	Fakra	
Power over coax	PoC forwarding	external or TX forward (ECU)
Backchannel	I2C backchannel communication and logging	host to sensor and MDILink to sensor
Internal	MIPI CSI2, 4 channel	
Downstream	2x 10Gb Ethernet	configurable channel assignment
Management	1Gb Ethernet	configuration via website
time synchronization	IEEE 1588 PTP and 802.1AS gPTP	
tap mode	full transparent tap mode	
Data-format	ASAM CMP* b-plus RX-API	
Architecture	FPGA SoC	

## Specifications

### Electrical Specification

Supply Voltage	wide range 8 - 32 V	6,5 V crank safe
Power consumption	typ. 15 W external power on (ignition) control	Up to 25 W
Power over Coax	6 – 15 V max. 300 mA	external supply, separate for channel 0 and channel 1

### Environment Specification

operation Temperature	-25 °C to +70 °C
non operation	-40 °C to +85 °C
Relative Air Humidity	maximum 90 %, non-condensing

### Mechanical Specification

Dimensions	159,7 mm (W) x 140 mm (D) x 38 mm (H)	mounting, without connectors
Weight	approx. 0,8 kg	

**Certification** CE, RoHS, REACH

## Order Information

Name	Part Number	Description
MDILink QX035 1FCT1FCT-2	B21671-MDI-001-0002	Measurement Data Interface (LVDS, SerDes) 2x FPDLinkIII TAP coaxial Link to 2x 10GbE, including cables for power and Ethernet
Network cable M12	2001931	Network cable M12-X male plug 8-pin to RJ45, 2 m
Power Cable	2001932	Open end power cable w/ M12-A female plug 2 m, 5 wires, 0.75 mm <sup>2</sup>
Power Cable PoC	2001934	Open end power cable w/ M12-A female plug 3 m, 4 wires, 0.5 mm <sup>2</sup>