



Data Sheet

MDILink QX035 GMSL2 TAP

Measurement Data Interface

4 channel FPGA based measurement data Interface with GMSL2 serializer and deserializer for lossless raw data acquisition in ADAS and AD environment

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 for more details.

Highlights

- Optimized for high bandwidth data throughput
- Up to 4,28 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
- Build in Data Generator
- Coaxial or shielded twisted pair interface
- Full transparent tap in mode
- Robust design for rough environment
- GPIO forwarding and backwarding



MDILink QX035



Features

Interfaces

GMSL2	2x Rx serial link in	Deserializer MAX96716
	2x Tx serial link out	Serializer MAX96717
Shielded twisted pair version	H-MTD® – High-Speed Modular Twisted-Pair connector	neutral coding Z water blue
Coaxial version	Fakra	
Power over coax	external supply or PoC forwarding	
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 - 32V	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) x38 mm (H)	mounting, without connectors
Weight	approx. 0,8 kg	

Certification	CE, RoHS, REACH
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Order Information

Name	Part Number	Description
MDILink QX035 TAP 17CT17CT-2	B21671-MDI-001-0013	Measurement Data Interface (LVDS, SerDes) 2x GMSL2 TAP coaxial Link to 2x 10GbE, Including cables for power and Ethernet
MDILink QX035 TAP 1TCT1TCT-2	B21671-MDI-001-0007	Measurement Data Interface (LVDS, SerDes) 2x GMSL2 TAP shielded twisted pair Link to 2x 10GbE, Including cables for power and Ethernet