



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 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 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
- Built 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	MAX9295A
	2x TX serial link out	MAX9296A
Shielded twisted pair version	H-MTD® – High-Speed Modular Twisted-Pair connector	neutral coding Z water blue
Coaxial version	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 TAP 1GCT1GCT-2	B21671-MDI-001-0003	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