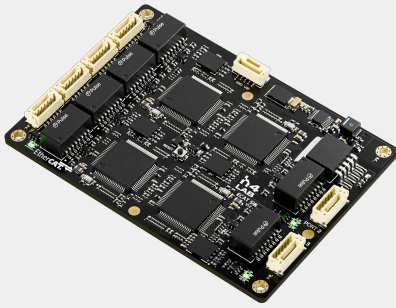
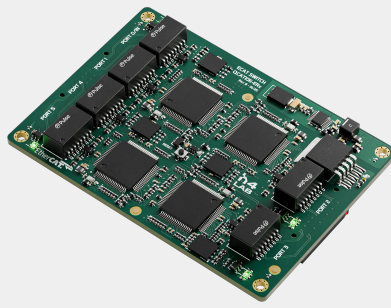




JST-GH Connector board



Samtec ERM8 Header board

QCAT106 Datasheet

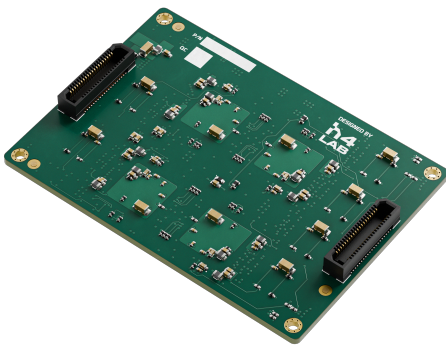
Description:

H4-lab's QCAT106 is an extremely compact 6-port EtherCAT® switch that enables easy integration of EtherCAT® communication in embedded systems.

This 6-port switch was designed with the smallest footprint achievable to fit seamlessly in almost any system. Whether it is to connect our QMU201 EtherCAT® IMU or any other devices, our switch is here to make your life easier.

JST-GH and ERM8 versions:

The QCAT106 board comes in two versions: a JST-GH connector version and a board-to-board header ERM8 connector version that allows to integrate the board seamlessly in your system.



Bottom view of the ERM8 board, showing the board-to-board header connectors

Features and benefits:

- JST or ERM8 connectors
- EtherCAT® communication
- Small footprint
- Plug and play

Technical specifications:

Feature	Condition	Value	Unit	Note
Mechanical Specifications				
Length		85	mm	
Width		65	mm	
Height		9.3	mm	
Weight		40	g	
Electrical Specifications				
Supply Voltage	DC	6-60	V	
Nominal Voltage*	DC	24	V	
Current Consumption		120mA @ 24V 240mA @ 12V	mA	
Communication Interface		Full-Duplex 100BASE-TX	Mbit/s	EtherCAT®

*Highest efficiency at nominal voltage

QCAT106 Development board:

A QCAT106 development board is also available. Equipped with RJ45 connectors, it allows you to easily test and debug your EtherCAT® network.

Board Connector

Part # ERF8-020-05.0-L-DV-TR

Mating Connector

Part # ERM8-020-xx.x-S-DV

Contents

1	Revision History:	3
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1 Revision History:

Revision A:

Added nominal voltage in the Technical Specifications, page 1
Correction to the Electrical Pinout ERM8, page 5.

Revision B:

Correction Table Technical Specifications: "Comsumption" changed to "Consumption".

Revision C:

Correction Table Technical Specifications: Corrected "Communication Interface" value.

2 Naming Convention:

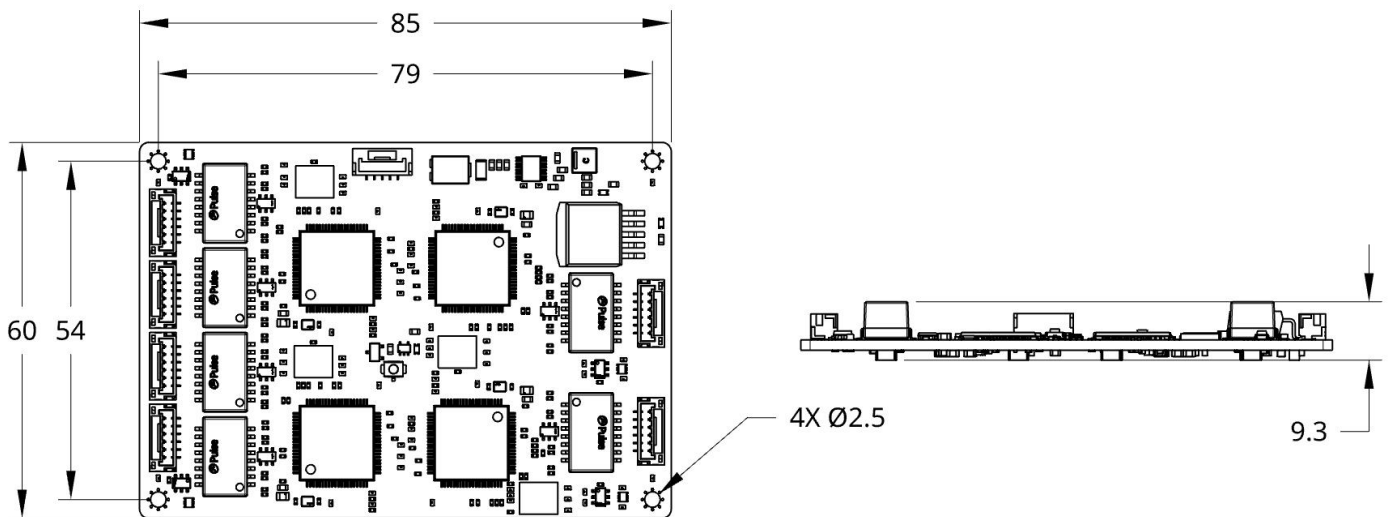
QCAT10X - YYYY

Connector type: JST or ERM8

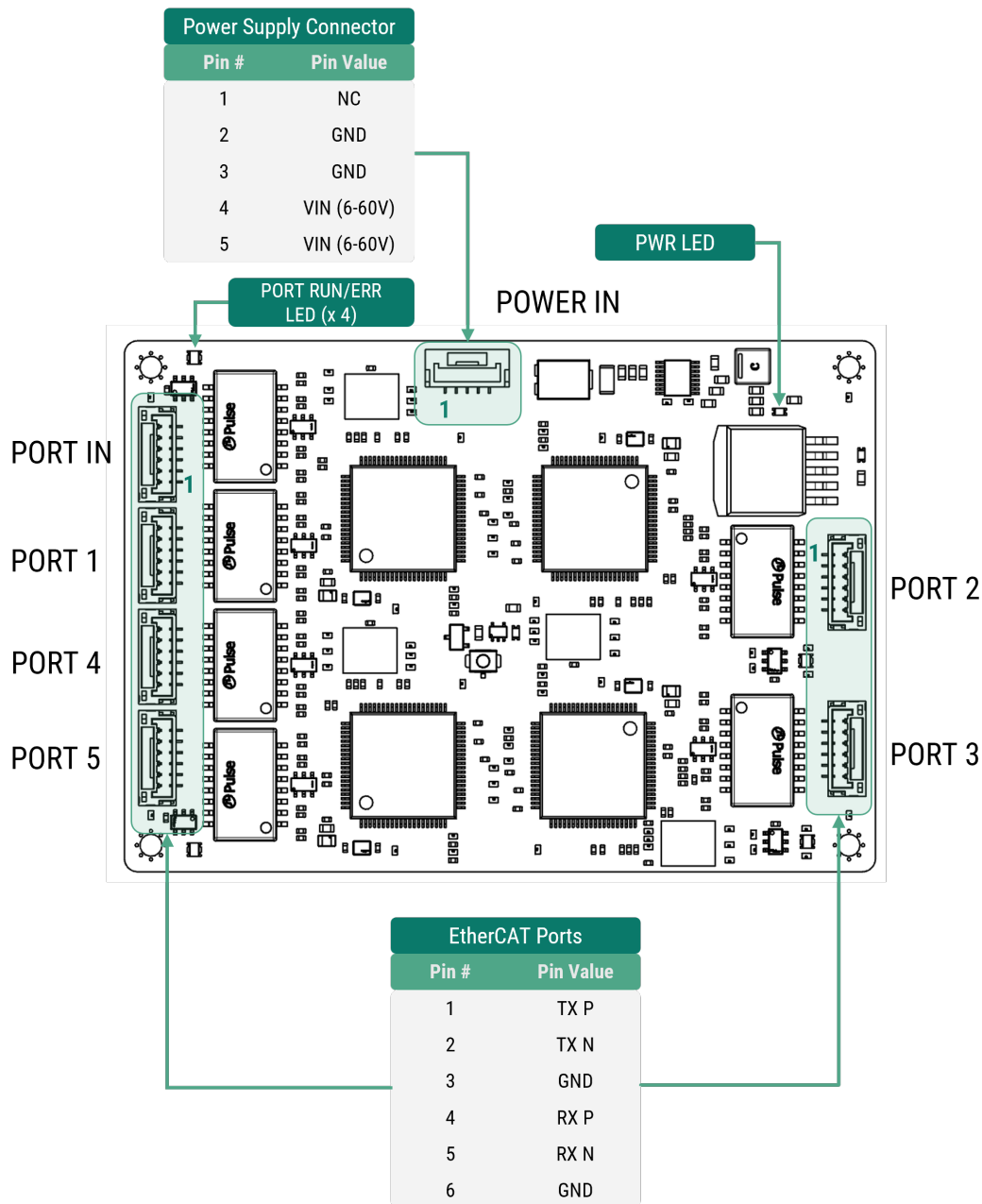
Number of EtherCAT ports: 4 or 6

3 Mechanical drawing JST-GH version:

All dimensions displayed are in millimeters (mm)

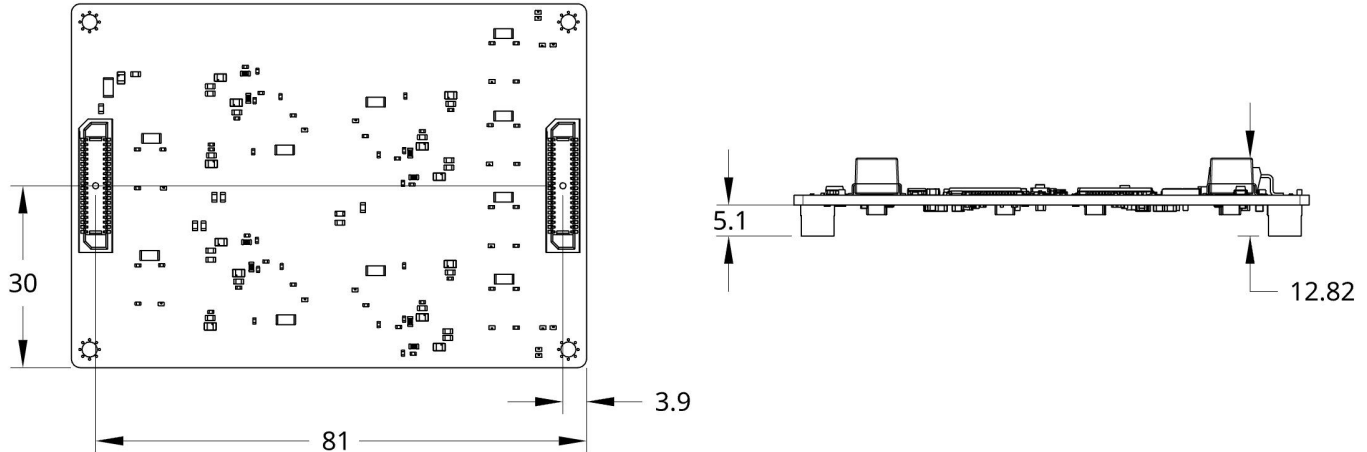


4 Electrical pinout JST-GH:



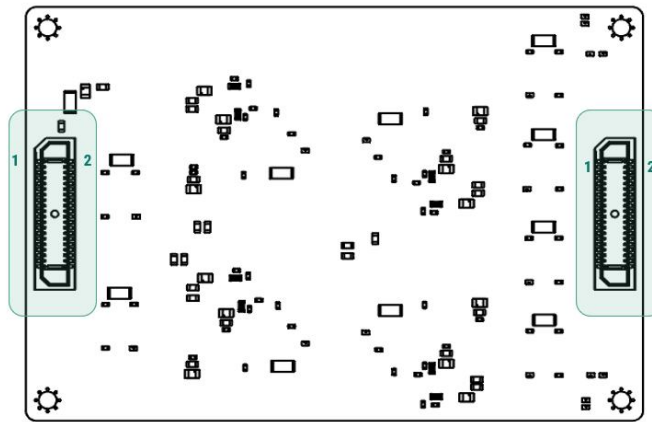
5 Mechanical drawing board to board header (ERM8) Version:

All dimensions displayed are in millimeters (mm)



6 Electrical pinout board to board header (ERM8) Version:

GND	1	2	PORT 2 TX_P
GND	3	4	PORT 2 TX_N
GND	5	6	VIN
GND	7	8	VIN
GND	9	10	VIN
GND	11	12	VIN
GND	13	14	VIN
GND	15	16	VIN
GND	17	18	VIN
GND	19	20	PORT 2 RX_P
GND	21	22	PORT 2 RX_N
GND	23	24	VIN
GND	25	26	VIN
GND	27	28	VIN
GND	29	30	VIN
GND	31	32	VIN
GND	33	34	VIN
GND	35	36	VIN
PORT 3 RX_N	37	38	PORT 3 TX_N
PORT 3 RX_P	39	40	PORT 3 TX_P



PORT 1 RX_N	1	2	PORT 0 RX_N
PORT 1 RX_P	3	4	PORT 0 RX_P
RESET	5	6	VIN
GND	7	8	VIN
GND	9	10	VIN
PORT 1 TX_N	11	12	PORT 0 TX_N
PORT 1 TX_P	13	14	PORT 0 TX_P
GND	15	16	VIN
GND	17	18	VIN
GND	19	20	VIN
GND	21	22	VIN
GND	23	24	VIN
GND	25	26	VIN
PORT 4 RX_N	27	28	PORT 5 RX_N
PORT 4 RX_P	29	30	PORT 5 RX_P
GND	31	32	VIN
GND	33	34	VIN
GND	35	36	VIN
PORT 4 TX_N	37	38	PORT 5 TX_N
PORT 4 TX_P	39	40	PORT 5 TX_P