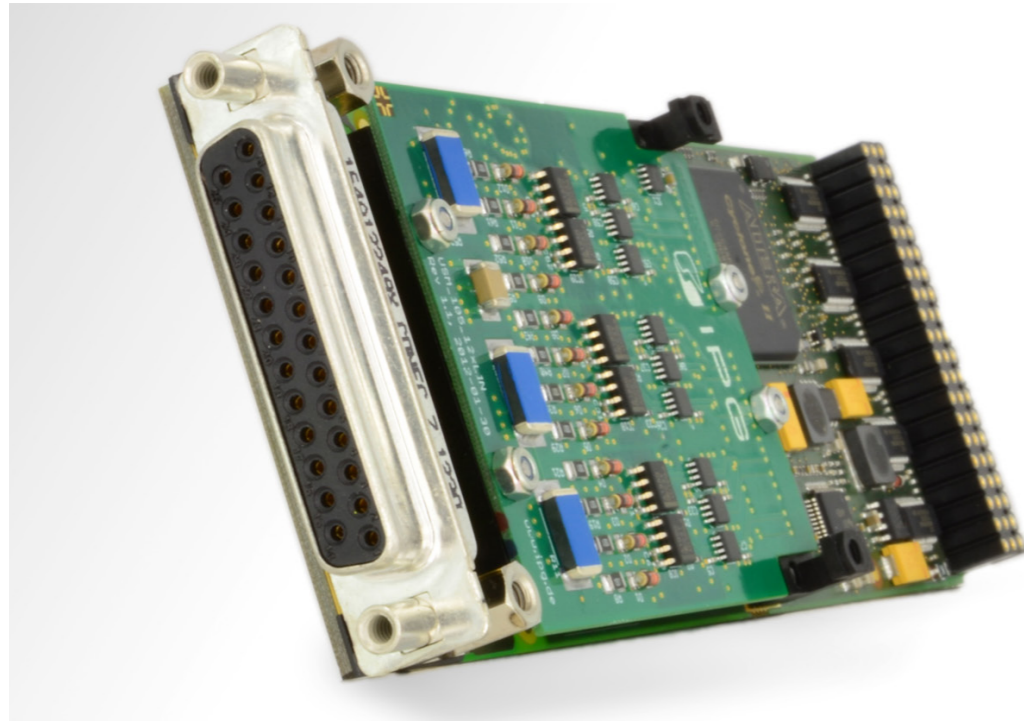


## M405 – LIN Interface



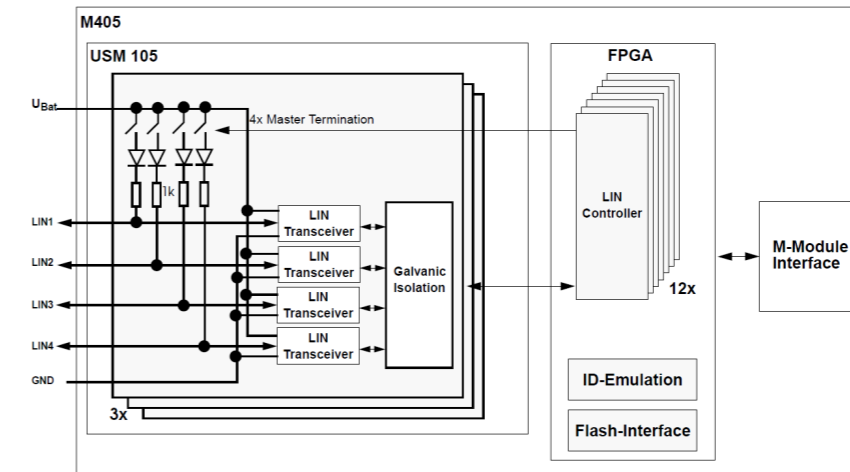
### Features

- 12 independent LIN channels
- Supports LIN specification 1.3, 2.0 and 2.1
- Up to 16 slaves per channel
- All channels are individually configurable as master or slave
- 30kOhms slave termination resistor
- Additional bus termination resistor for master (1kOhm) can be switched on by software
- Baud rate range: 2.4kBaund .. 20kBaund
- LIN channels are galvanically isolated against system supply
- Usable for LIN bus voltages up to 30V
- Special trace mode available for bus traces
- Each 4 channels are grouped and are galvanically isolated against each other group

### Use Cases

- Simulating LIN nodes like HMI components, window servos, seatbelt tighteners
- Controlling actuators like servos of advanced front-lighting systems
- Acquiring user inputs from e.g. steering wheel buttons

### Block Diagram



### Technical Data

LIN channels	<ul style="list-style-type: none"> <li>• 12 channels, arranged to 3 groups with 4 channels each</li> <li>• 16 slaves per channel supported</li> <li>• Each group is galvanically isolated against each other</li> </ul>
Number of bytes per message	8 (Tx-message), 16 (Rx-message)
Baud rate	2.4 .. 20kBaund <sup>a</sup>
Supported LIN specification versions	1.3, 2.0 and 2.1, configurable per software
Features	<ul style="list-style-type: none"> <li>• Each channel configurable as master or slave node</li> <li>• Master termination switchable</li> <li>• Wake-up capability</li> <li>• Unpowered nodes do not disturb the network</li> </ul>
Output stage supply voltage	7..27V, reverse voltage protected
Overvoltage protection	-40V .. +40V
Supply current	<ul style="list-style-type: none"> <li>• 30mA per group (all channels slave mode)</li> <li>• 80mA per group (all channels master mode, 12V Operation)</li> </ul>
Address space	<ul style="list-style-type: none"> <li>• A08D16 or A24D32</li> <li>• Recommended: Use A24D32 for faster access times.</li> </ul>
Available connectors	25 Pin SubD connector, female

<sup>a</sup>. An assembly variant with baudrates down to 1kBaund is available on request.

### Order Information

Order Number	IO-M405
--------------	---------

### Alternatives

M410	For CAN FD communication interfaces
M406	For PSI5 communication interfaces
M407	For SPI based sensor emulations
M414	For SENT communication interfaces