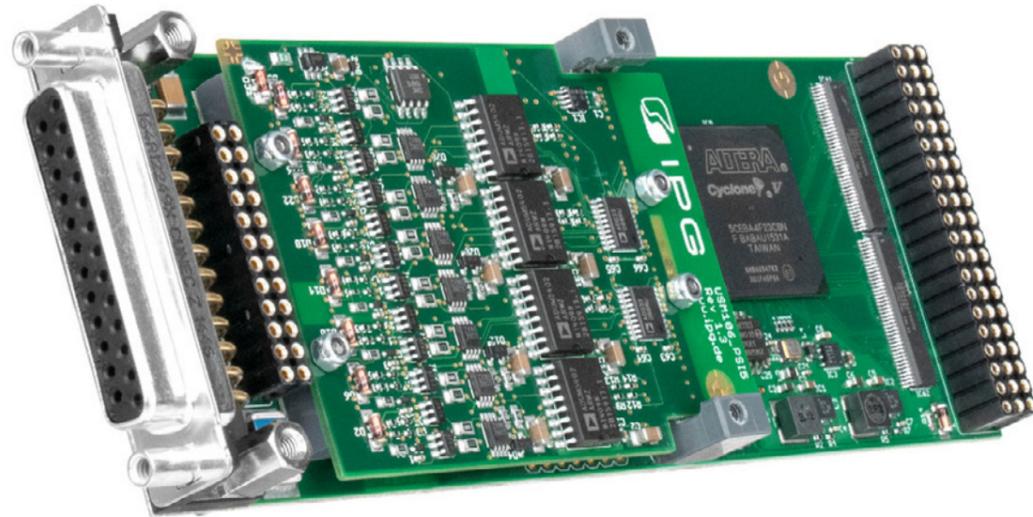


## M406 - PSI5 Interface



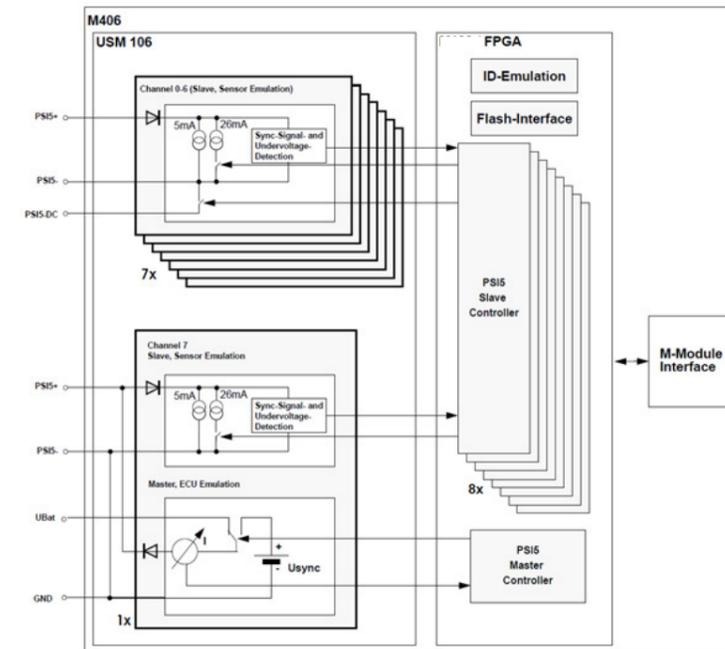
### Features

- 8 independent slave channels
- 1 master channel
- Up to 4 sensors per channel
- Support of PSI5 Rev 1.3
- Galvanical isolation of all channels against each other and against system supply
- User defined baudrates between 1kBaud and 1MBaud
- Cycle time configurable between 50us and 300ms
- User configurable initialization phase
- Error detection: CRC3 or Parity
- Supported Modes:
  - Asynchronous Operation (PSI5-A)
  - Synchronous Parallel Operation (PSI5-P)
  - Synchronous Universal Operation (PSI5-U)
  - Synchronous Daisy Chain Operation (PSI5-D)
- Any number of data bits from 0 to 32
- Manual or automatic re-initialization due to under voltage condition
- Supply voltage range : 5..25V

### Use Cases

- Emulating crash sensors for testing airbag ECUs in passenger safety systems
- Interfacing sensors and actuators in powertrain and vehicle dynamic applications

### Block Diagram



### Technical Data

PSI5 channels	<ul style="list-style-type: none"> <li>• 8</li> <li>• Each channel is galvanically isolated against each other and against system supply</li> </ul>
Supported slaves per channel	4
Baud rate	1kBaud .. 1MBaud
Supported PSI5 specification versions	1.3 and partially 2.0
Output stage supply voltage	7..27V, reverse voltage protected
Overtoltage protection	-30V .. +30V
Supply current	500mA
Address space	<ul style="list-style-type: none"> <li>• A08D16 and A24D32</li> <li>• The PSI5 registers are available in the A24D32 address space only</li> </ul>
Available connectors	25 Pin SubD connector, female

### Order Information

Order Number	IO-M406
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### Alternatives

M407	For SPI based sensor emulations
M410	For CAN FD communication interfaces
M405	For LIN communication interfaces
M414	For SENT communication interfaces