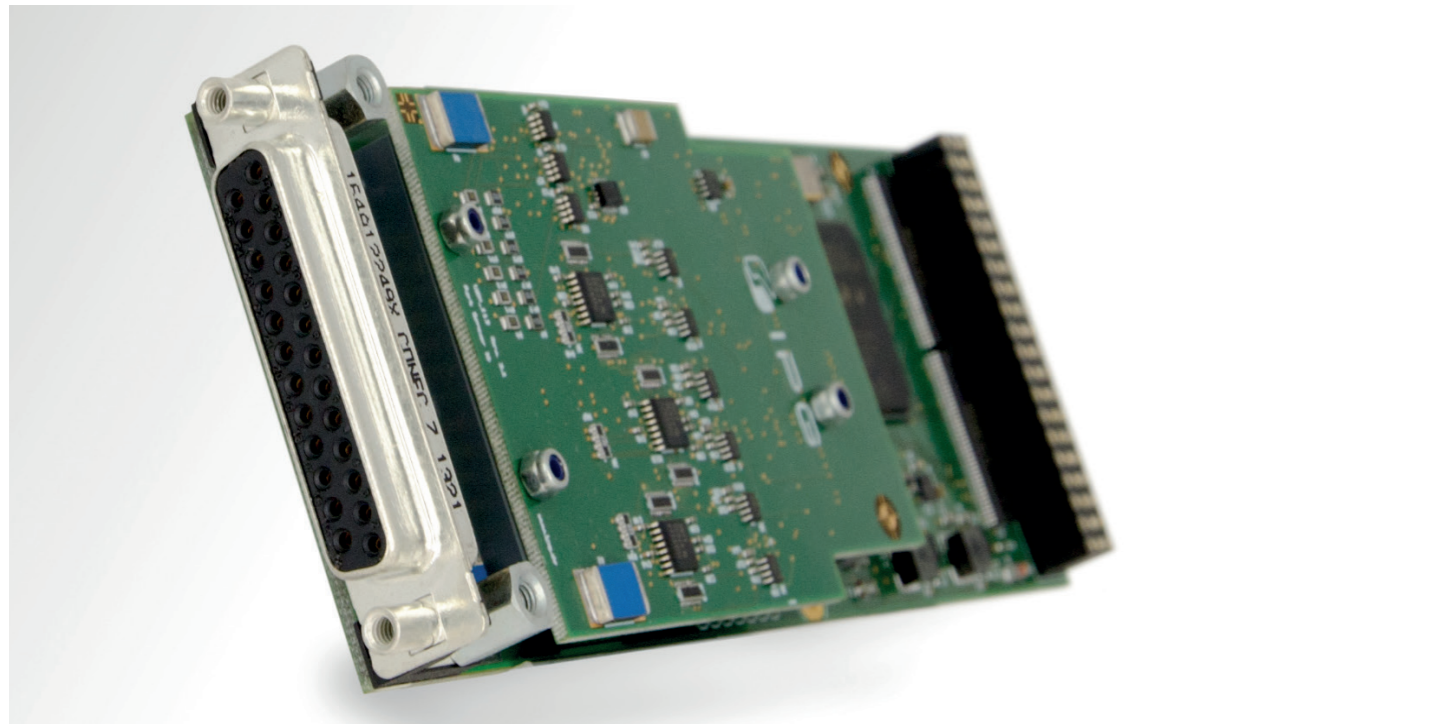


M412 – Park Sensor Simulation



Features

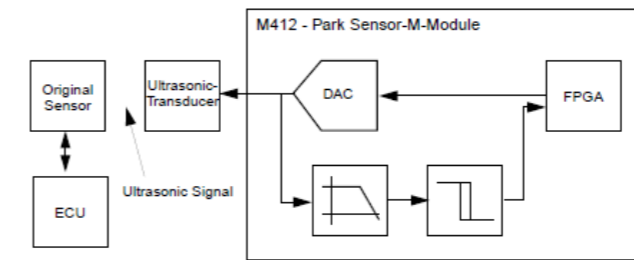
- Simulation of 6 ultrasonic sensors per module
- Frequency range: 25-100 kHz
- Distance resolution: 1us ~ 0.15mm
- Input sensitivity: 30mVpp
- 2 Simulation modes available:
 - Mode 1: Ultrasonic Mode - Module creates (cross-) echoes on ultrasonic signals of original sensor. In this mode the obstacle is simulated by the module
 - Mode 2: Binary Mode - Module is connected to the control lines of the ECU. In this mode the behavior of the original sensor is emulated
- Cross-echo emulation for up to 16 echoes per sensor
- Variably configurable protocol in binary mode
- Galvanic isolation between system ground and IO-ground for binary signal

Use Cases

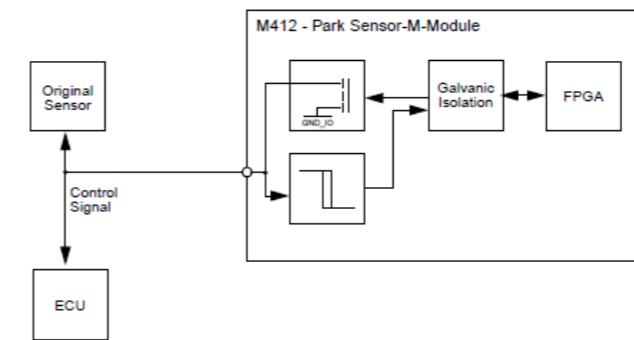
- Emulating object- and cross echoes for testing complete parking assistance systems in HIL applications
- Emulating the digital sensor interface to test parking systems ECUs

Block Diagram

Block Diagram of one Transducer Channel



Block Diagram of one Binary Channel



Technical Data

Channels	6 (transducer), 6 (binary)
Transducer output	<ul style="list-style-type: none"> • +/-4V differential output voltage range • +/-50mA output current • 12 Bit output resolution
Transducer input	<ul style="list-style-type: none"> • 0..12V input voltage range • about 20mV input voltage treshold
Binary I/O	<ul style="list-style-type: none"> • 0..30V voltage range • 5V input voltage treshold
Sampling rate	1MHz
Address space	A08D16 and A24D32
Connectors	25 pin SUBD receptacle connector , female

Order Information

Order Number	IO-M412
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