AVAD2: Detector for Audio Signals from the Dashboard

Driver assistant systems (ADAS) are creating alerts e.g. when departing lanes, when approaching vehicles, bikes, pedestrians or other obstacles or parking aids. When evaluating these systems, the timing of the warning is critical depending on the scenario.

The AVAD2 detects the time of triggering of acoustic signals with high precision and with lowest possible latency (<5 ms) and impots these events into your existing measurement technology via CAN or as TTL signal.

The AVAD2 has a microphone whose signals are processed by an adjustable amplifier and then passed through a configurable bandpass. When an adjustable threshold is exceeded, a signal at the CAN-Output Bus is switched from ON to OFF each time and a TTL level is set to Hi.

The microphone is placed in the cockpit. Noise from passing vehicles, radio noise and conversations in the vehicle are largely suppressed via an adjustable bandpass.

The AVAD2 has an additional switching access with which, for example, the time of impact of the vehicle or the opening of a door can be recorded.

The CAN-Bus has an adjustable baud rate (10 kBd to 1000 kBd), the output rate is 200 Hz.

Specification:

- Microphone-input with amplifier and settable bandpass filter 200 … 2400 Hz
- Voltage Out- and Input for external switch (e.g. bump detection)
- Configuration for gain, threshold and bandpass filter frequency from software via USB
- I/O-connector (9-pol. Sub-D) for event outputs, power, external switch
- 6 LEDs for status and trigger indication
- CAN output (9-pol. Sub-D) for 3 triggers HI-LOW continuously 200 Hz
- Baudrate 10 ..1000 kBaud selectable
- Overall latency < 5 ms
- Power 9-36 VDC
- Operating temperature -30° … + 70°C.
- Dimensions 140 x 80 x 55 mm
- Weight approx. 250 g

Delivery:

- AVAD2 Detection box
- Microphone
- Control software
- Not included:
- CAN-, USB- cable
- I/O Connector and cable

ATTENTION: Subject to change and additions!

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