

Title (en)

APPARATUS AND MEASUREMENT METHOD FOR ASCERTAINING THE INTERNAL DELAY TIME OF A CAN BUS ACCESS UNIT

Title (de)

VORRICHTUNG UND MESSVERFAHREN ZUR ERMITTLUNG DER INTERNEN VERZÖGERUNGSZEIT EINER CAN-BUSANSCHLUSSEINHEIT

Title (fr)

DISPOSITIF ET PROCÉDÉ DE MESURE POUR DÉTERMINER LE TEMPS DE RETARD INTERNE D'UNE UNITÉ D'INTERFACE DE BUS CAN

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Application

EP 14730143 A 20140611

Priority

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- DE 102013218075 A 20130910
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Abstract (en)

[origin: WO2015000668A1] An apparatus (5) and a measurement method for ascertaining the internal delay time of a CAN bus access unit (11, 21, 31) are provided in order to check correct operation of serial data transmission in a bus system (4) having at least two subscriber stations (11, 21, 31), wherein the subscriber stations (10, 20, 30) are connected to the bus (40) by means of a bus access unit (11, 21, 31) and exchange messages (41) via the bus (40), wherein transmission access to the bus (40) for each message (41) is allocated to a subscriber station (10, 20, 30) by the arbitration method according to CAN standard ISO 11898-1, which subscriber station becomes the transmitter for this message (41). The apparatus (5) has a unit for ascertaining the internal delay time (DELTA_T) with a delay counter (305) for ascertaining the delay time (DELTA_T) between a transmitted signal (CAN_TX) and a received signal (CAN_RX), which delay counter (305) is stopped if both the received signal (CAN_RX) has a dominant level and the counter reading of the delay counter (305) is greater than or equal to a prescribed configuration value (T_MIN), or for ascertaining the internal delay time (DELTA_T) on the basis of the maximum and minimum delay times of the bus access unit (11, 21, 31). Stopping the delay counter only after a minimum counter reading increases the measurement accuracy in the event of signal perturbations, e.g. as a result of signal reflections.

IPC 8 full level

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CPC (source: EP US)

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Citation (search report)

See references of WO 2015000668A1

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