

Part 1

QUIZ

✓ Congratulations! You have passed this quiz achieving 100%

NEXT LESSON

1. The CAN bus is a _____ type of bus.

- ☐ logical
- ☐ oscilloscope
- ☐ message type

☒ broadcast

CORRECT
ANSWER

2. How many types of messages are defined in the CAN standard?

- ☐ 3
- ☒ 4
- ☐ 2
- ☐ 1

CORRECT
ANSWER

3. What tool helps you calculate the CAN bus parameters and register settings?

- ☐ bit-wise arbitration
- ☒ bit timing caculator
- ☐ message priority
- ☐ error handling

CORRECT
ANSWER

Your score is: 3/3

RETAKE

FINISH

Part 2

Quiz

✓ Congratulations! You have passed this quiz achieving 100%

NEXT LESSON

1. There are four types of data frames, the data frame, the remote frame, the error frame, and the overload frame

☒ error

CORRECT ANSWER

☐ CPU

☐ 82526

☐ arbitration

2. Which type of frame requests information from the bus?

☐ data

☐ overload

☒ remote

CORRECT ANSWER

☐ error

3. Which is the least common type of CAN frame to encounter?

☐ remote

☐ error

☒ overload

CORRECT ANSWER

☐ data

4. Which is the most common frame?

☒ data

CORRECT ANSWER

☐ remote

☐ error

☐ overload

5. Which type of frame deliberately violates the framing rules of CAN?

☐ remote

☒ error

CORRECT ANSWER

☐ overload

☐ data

Your score is: 5/5

Part 3

Quiz

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NEXT LESSON

1. Which CAN controllers are allowed to begin transmitting on an idle bus?

- ☐ The master CAN controller
- ☐ None
- ☐ The CAN controller with the highest priority

☒ Any CAN controller

CORRECT
ANSWER

2. When two or more controllers start transmitting a message at the same time, one controller wins the arbitration by sending a recessive bit when the others have sent dominant bits.

☐ True

☒ False

CORRECT
ANSWER

3. CAN uses message addresses to determine where to send messages.

☐ True

☒ False

CORRECT
ANSWER

4. "Full CAN" and "Basic CAN" are fully compatible.

☒ True

☐ False

CORRECT
ANSWER

Your score is: 4/4

Part 4

Quiz

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RETRY QUIZ

1. The CAN bus uses _____ with bit-stuffing.

☒ Non-Return To Zero (NRZ)

CORRECT ANSWER

☐ bit-wise arbitration

☐ SAE J2411

☐ error counters

2. How many wires are used in high speed CAN?

☐ 1

☒ 2

CORRECT ANSWER

☐ 3

3. What is the maximum speed of a classical CAN bus, according to the standard?

☐ 512 kbit/second

☐ 256 kbit/second

☐ 2.4 Mbit/second

☒ 1 Mbit/second

CORRECT ANSWER

4. At a speed of 1 Mbit/s, what is the a maximum cable length of the CAN bus?

☐ 100 meters (330 ft)

☐ 200 meters (650 ft)

☐ 500 meters (1600 ft)

☒ about 40 meters (130 ft.)

CORRECT ANSWER

5. An ISO 11898 CAN bus must always be _____ regardless of its speed.

☐ at 125 kbit/s

☒ terminated

CORRECT ANSWER

☐ arbitrated

☐ monitored

6. There is no standard at all for CAN bus connectors.

☒ True

CORRECT ANSWER

☐ False

Your score is: 6/6

Part 5

Part 6

Part 7

Quiz

Quiz

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NEXT LESSON

1. How long is the Synchronization Segment?

- ☐ 3 quanta
☐ 2 quanta
☐ 4 quanta

☒ 1 quanta

CORRECT
ANSWER

2. When adjusting the on-bit clock, the _____ value of these bit time adjustments are termed the Synchronization Jump Width, SJW.

- ☐ total
☐ average

☒ maximum

CORRECT
ANSWER

☐ minimum

3. Most CAN controllers allows the programmer to set the bit timing using several parameters, including:

☒ A clock prescaler value

CORRECT
ANSWER

- ☐ The desired bit-rate
☐ The type of hardware you are using
☐ The type of vehicle you're measuring

4. Each bit on the CAN bus is, for timing purposes, divided into at least ____ quanta.

- ☐ 1 quanta
☐ 2 quanta
☐ 3 quanta

☒ 4 quanta

CORRECT
ANSWER

Your score is: 4/4

RETAKE

FINISH

Part 8

Quiz

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NEXT LESSON

1. Only certain CAN controllers along a bus will try to detect errors within a message.

☐ True

☒ False

CORRECT
ANSWER

2. Each node on a bus maintains two error counters, the Transmit Error Counter and the _____:

☐ Jump Width Error Counter

☒ Receive Error Counter

CORRECT
ANSWER

☐ FIFO Error Counter

☐ NRZ Counter

3. Bit Stuff occurs when: After _____ consecutive bits of the same level having been transmitted by a node, another bit of the opposite level is added to the outgoing bit stream.

☐ 7

☐ 4

☒ 5

CORRECT
ANSWER

☐ 6

4. All nodes on the bus that correctly receives a message (regardless of their being "interested" of its contents or not) are expected to send a dominant level in the so-called Acknowledgement Slot in the message.

☒ True

CORRECT
ANSWER

☐ False

Your score is: 4/4