Manuals+ — User Manuals Simplified.

Continental ZCD1311A ZCUD Vehicle Networking Multiplex Integrated Control Unit User Manual

Contents

Continental ZCD1311A ZCUD Vehicle Networking Multiplex Integrated Control Unit

Product Specifications

- Carrier Frequency: 125 kHz
- Modulation: ASK
- Supply Voltage: 12 V
- Operating Temperature: -40 to 85°C
- Type of Battery: Car battery
- Range: < 6.0 m
- Operation Voltage: 9V~16V

General Product Functional Description

ZCUD
ZCUD consists of SMART system (PASE part) and MICU (Multiplex Integrated Control Unit) system. Both systems are integrated within a single PCB.

The main features of SMART system including

- Passive Start & Entry (PASE)
- Electronic Steering Column Lock Control (ESCL)
- Terminal State Control (TSC)
- Immobilizer (Limp Home mode)
- RKE
- Diagnostics

The main features of MICU system including:

- Climate control (Seat heating and ventilation)
- Exterior light control on driver side
- Interior light control on driver side
- Door lock control on driver side
- Remote control
- Seat adjustment control on driver side
- Horn control
- Wireless phone charging control
- Theft Protection (Vehicle Alarm system)
- Tire Monitor system
- Alcohol lock control
- IMMO
- EPB lock control
- Vehicle Mode management (Power supply management)
- Wiper control
- Washer control
- Defroster control
- Heat nozzle control
- Power window control on driver side
- Rear mirror control on driver side
- CAN/CANFD/LIN communication and Gateway
- Diagnostics
- Software download etc.

Relevant for Homologation is only the Passive start & entry system, which triggers LF antennas mounted on intended locations around the vehicle. These LF antennas are controlled by an LF driver circuit to transmit 125 kHz telegrams.

Connector PIN assignment
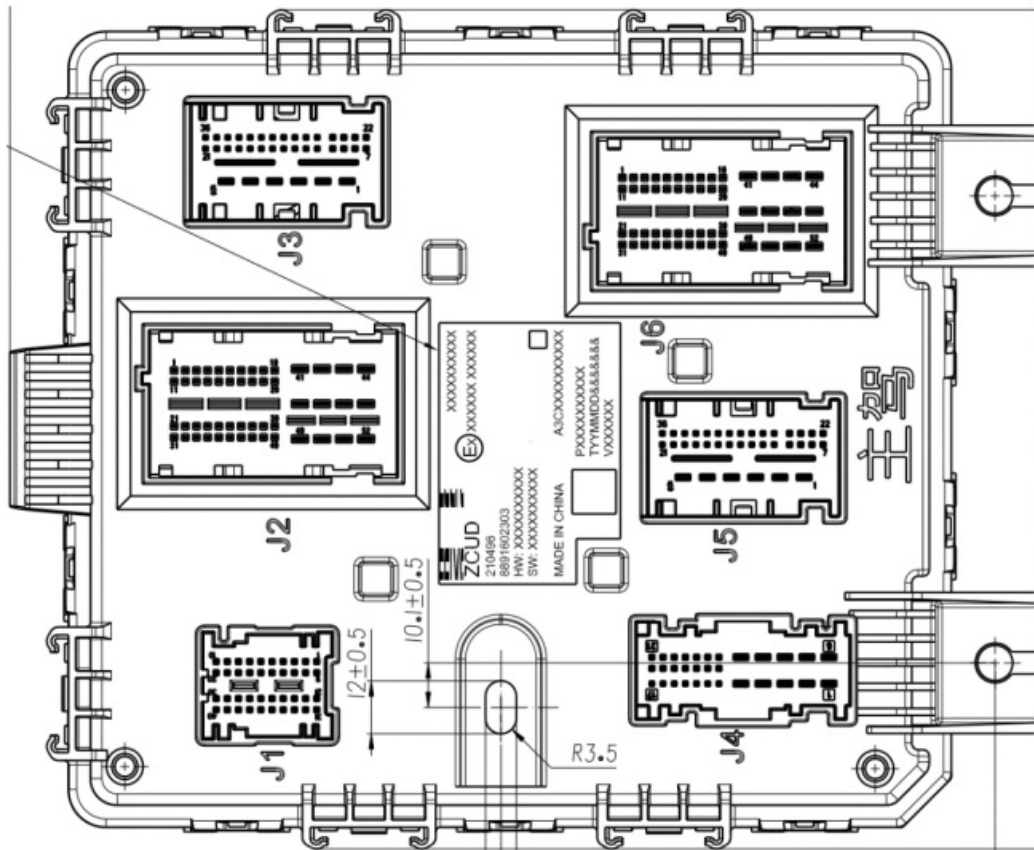
Confidential

Technical description

- Carrier frequency: 125kHz ± 1%
- Modulation: ASK
- Supply voltage: 12 V
- Operating Temperature: -40°C to 85°C
- Type of battery: car battery
- Range: < 6.0 m
- Operation Voltage 9V~16V

LF Output

The LF output scenario used for Homologation is in accordance to the max. possible output power regarding telegram length and duty cycle at one antenna. The transmission period is 500ms and shall simulate the Start Authentication under worst case conditions. 6 antennas are deployed in the product, and they are emitted sequentially.
2 of short antennas send Manchester Code(modulated wave) step by step(antenna current: 500mA and 672mA), then all of antennas send CW(continuous unmodulated waves) step by step(one of antenna current 500mA and others 672mA).

Transmission period: 500ms		
Telegram	Duration	Code
Start Authentication (WUP)	35ms	Manchester (modulated wave)
RSSI	3ms	CW (continuous unmodulated waves)

FCC Compliance Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution
Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FAQ

- **Q: What is the operating temperature range of the product?**

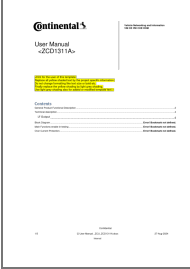 A: The operating temperature range of the product is -40 to 85°C.
- **Q: What is the supply voltage required for the product?**

  A: The product requires a supply voltage of 12 V.
- **Q: How is the LF output controlled?**

  A: The LF output is controlled by an LF driver circuit to transmit 125 kHz telegrams triggered by the Passive start & entry system.

Documents / Resources

Continental ZCD1311A ZCUD Vehicle Networking Multiplex Integrated Control Unit [pdf] User Manual

ZCD1311A, ZCD1311A ZCUD Vehicle Networking Multiplex Integrated Control Unit, ZCUD Vehicle Networking Multiplex Integrated Control Unit, Vehicle Networking Multiplex Integrated Control Unit, Networking Multiplex Integrated Control Unit, Multiplex Integrated Control Unit, Integrated Control Unit

References

- **User Manual**