

DIAS Automotive Electronic L246 NFC Reader Module User **Manual**

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NFC USER MANUAL VERSION 1.0 RELEASE DATE Jul,5th ,2023

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Product Overview

1.1 Product Introduction

In LPCD mode, the near field communication module can wake up the NFC device on the vehicle side when the NFC card or mobile phone is near, and then enter the standard Polling mode.

When a matching card is detected, the polling mode is activated. LIN informs VKM and CAN informs BCM to open or close the door.

1.2 Technical Specification

Product specifications are as follows

Table:1-1 Product specification parameter

Product name Product Features Processor Storage External Interface Consumption Ambient Communication Mode Digital Key Protocol	NFC Reader Module				
	Model	L246	Dimension	85x19x6mm	
	Material	PC+ABS	Weight	<80g	
	Power Supply	DC 6-16V	Waterproof class	IP6K8	
	32bit 120MHz				
	RAM	32KB ROM		512KB	
	1 LIN, 1 KL30, 1 GND				
	Detecting Period(30ms) : <0.45mA				
	Operating Temperat ure	-40 — 85°C	Storage Temperature	-55 — 90°C	
	ISO/IEC 14443A/B/MIFIARE				
	ICCE				
Operating Frequency	13.56MHz				

Hardware Introduction

2.1 Appearance Introduction

The dimensions of the NFC body are about $85 \times 19 \times 6$ mm, and the front and rear shells are affixed with double-sided tape. The sides are LIN, ground, and power interfaces, as shown in Figure 2-1.

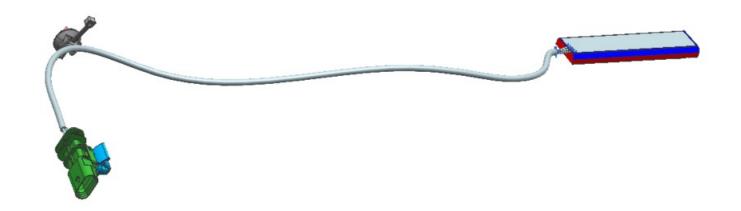


Figure 2-1 L246 Appearance

2.1.1 Interface

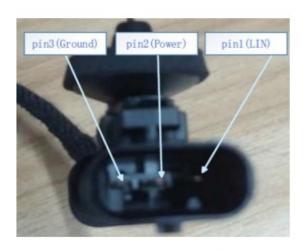


Figure 2-2 Interface

Interface definition

Tale2-1: Interface Definition

SN	Name	Description
1	LIN	LIN signal
2	Power	Supply power KL30.
3	GND	GND

2.2 Assembly Introduction

The L246 is placed inside the B pillar and do not require extra fixing. Figure 2-3 show the installation positions.



Figure 2-3 Place in B Pillar

Operation Instruction

The NFC valid card is placed near the NFC module, and the NFC module transmits information to the ECU with SE at the end of the car through LIN, and unlocks the car after the NFC card is certified.

3.1 Setup-Up

Before the module can start normally, it is necessary to prepare a power supply, a valid NFC card, a wire harness, and a LIN communication tool. In addition to connecting the NFC reader module, the wiring harness also needs to connect to the LIN communication tool. After the power supply is powered on, if the current is about 20mA, the NFC module is started. Figure 3-1 shows the following

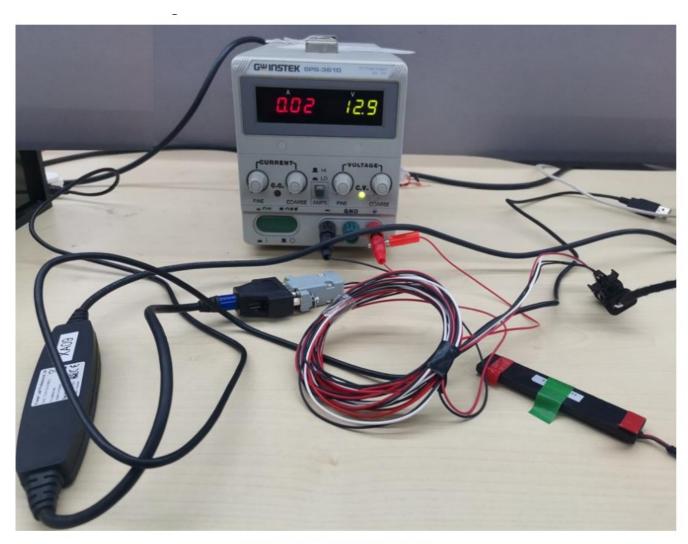


Figure 3-1Power On Setup

3.2 Swipe CarePlace a valid NFC card close to the NFC module, as shown in Figure 3-2

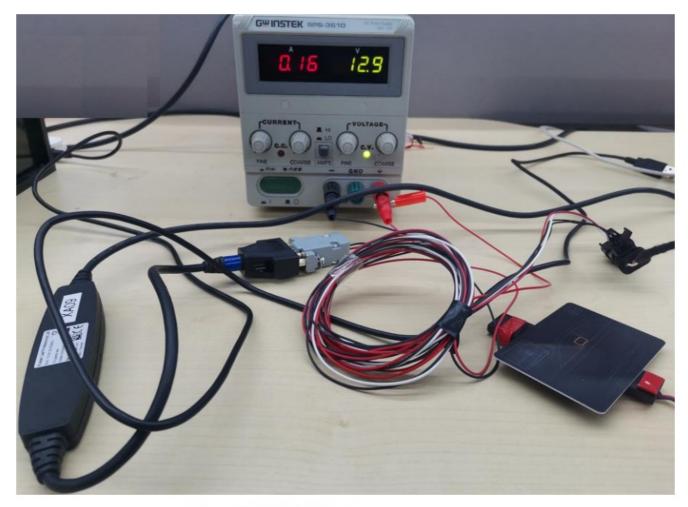


Figure 3-2 NFC Polling

3.3 Query Version

3.3.1 LIN Communication

Connect the DB9 port of Kvaser Lin on the wiring harness, connect the USB port of Kvaser Lin on the PC, and power on the device. The port shown in Figure 3-3 is identified in the device manager on the PC



Figure 3-3 Ports on the Kavser Lin device

the Kvaser Lin device is normal.

🔏 LIN FLASH		×
- 刷新 - 刷新文件	选择	连接设备
配置文件	选择	执行脚本
一快捷功能 App版本号		
[09:40:52:769]: ** LIN Hardware Init OK. **		^

Figure 3-4 Kavser Lin Normal

3.3.2 Query Version

Click "App Version Number" in the LIN FLASH tool, and the message "62 f1 95 02 06 01 04 14 00." is displayed in Figure 3-5. Indicates that the version information of F195 is read.

🔒 LIN FLASH		×
刷新文件	选择	连接设备
配置文件	选择	执行脚本
快捷功能 App版本号		
Thread Begin .Loop times: 1 [09:13:22:162]: *** LIN Hardware Init OK. ***		^
[09:13:22:176]: -> 10 83 [09:13:23:040]: -> 10 03 [09:13:23:095]: <- 50 03 00 32 01 f4 [09:13:23:400]: -> 22 f1 95 [09:13:23:479]: <- 62 f1 95 02 06 01 04 14 00 [09:13:23:482]: *** SUCCESS ***		

Figure 3-5 Query Version Normal

FCC ID

Table 3-1 FCC ID

Model	FCC ID
L246	2BBZ4NFCL246

Product Information

DIAS Automotive Electronic Systems Co.,Ltd.

Product NFC Reader Module

Mode L246

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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.

DIAS Automotive Electronic Systems Co.,Ltd.

Documents / Resources

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