

GP2403

DALI USB controller

Connect PC and DALI bus device via USB
and insulate DALI bus power supply
Applicable to DALI product development
and debugging, production testing and
system configuration



Overview

GP2403 is a USB interface controller that meets DALI (Digital Address Dimming Interface) standard. It can debug, test and deploy DALI devices by connecting PC and DALI bus.

The GP2403 has built-in isolated DALI bus power supply, which eliminates the need for external independent bus power supply, facilitating rapid testing. Up to 10mA DALI bus current can be provided, which can meet the needs of connecting 3-4 devices.

The GP2403 panel has a test button that can switch on and off the system and dimmer the system even when not connected to a PC. The indicators on the GP2403 panel provide their own status as well as DALI bus status indicators.

GP2403 supports MDA Master applications on The Windows platform and also provides an open software development interface. Users can develop their own applications or apply for application customization as required.

features

- Suitable for DALI control device debugging and testing
- Applicable to DALI system deployment and configuration
- Built-in isolated DALI bus power supply, can provide a maximum of 10mA bus current
- Connect to PC host via USB
- It has one button and three status indicators
- Supports MDA Master applications on the Windows platform
- Its firmware can be updated online via USB

Directory

An overview of the	1
features	1
directory	2
specification	3
Shape structure	4
Outline dimension drawing	4
The interface definition	4
Interfaces and identifiers.....	4
DALI interface.....	5
The USB interface	5
Typical applications	6
DALI equipment development and debugging.....	6
DALI equipment production test	6
DALI is deployed and configured	6
Order information	7
Model in the list.....	7

specification

The main specifications of the product are listed in the following table.

parameter	specifications
Support agreement (Command support is provided through PC applications.)	IEC 62386-101ed2.0 IEC 62386-102ed2.0 IEC 62386-103ed1.0 IEC 62386-207ed2.0/IEC 62386-207ed1.0
Equipment of power supply	USB power supply (rated current 100mA);
DALI bus signal	Voltage: 9.5 ~ 22.5VDC Current: < 2.0mA and control circuit isolation voltage: 3000Vac
Built-in DALI bus power output	Rated voltage 16Vdc, range 14.5~ 17.5VDC; Rated current 10mA(USB power supply)
Equipment power supply and DALI bus electrical isolation voltage	3000Vac
The USB interface	USB Type C terminal USB cable length 1m
The work environment	Temperature: -25~45C, humidity: 8% ~ 70%
Storage environment	Temperature: -25~65C, humidity: 8% ~ 90%
Shape structure	Dimensions (L * W * H) : 88.5mm*56.7mm*20.7mm
Installation	The surface of the place
Weight	120g

Shape structure

Outline

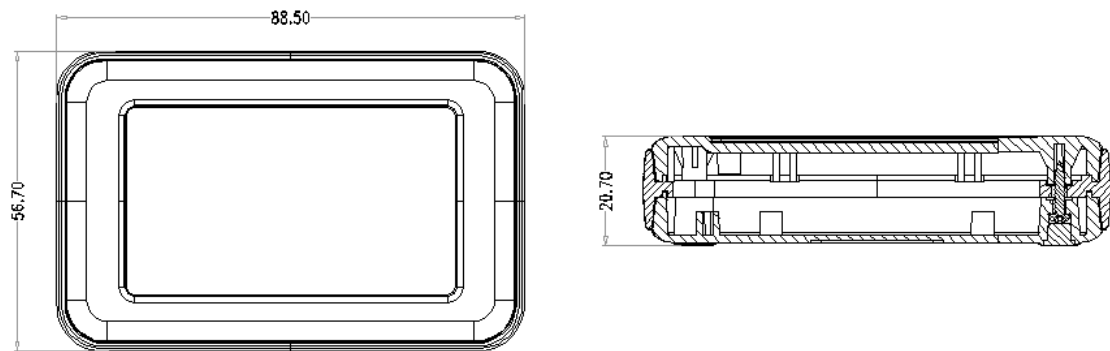


FIG. 1 Outline dimension diagram

The interface definition

Interfaces and identifiers



LED - 3 x status indicator

KEY-1 x KEY

1 - DALI interface

2 - USB port

3 - Bus power switch

Figure 2 Interface and identity

DALI interface

The pin	The name of the	Functional description
1	DA (+)	Built-in isolated bus power supply output positive pole
2	DA (-)	Built-in isolation bus power output negative pole

The USB interface

The USB port is a USB Type-C Female terminal and supports THE USB HID protocol. No special driver is required on Windows.

Typical applications

DALI equipment development and debugging

When THE GP2403 is used for DALI device development and debugging, connect the DALI interface of the GP2403 device directly to the DALI terminal, and connect the USB interface to the PC to connect the MDA Master application.

When the bus power switch is ON, press the button ON the panel to make the second indicator ON the panel light up, and the internal bus power supply can work normally. Besides, the button ON the panel has the function of short press to turn ON and off the broadcast light, and long press to turn ON and turn off the light.

When only the USB port is connected to the DALI bus, the output current of the built-in DALI bus power supply is 10mA, which can be connected to only a small number of devices. If the device to be debugs needs to draw more current from the bus, turn off the switch of the internal bus power supply and use the external DALI bus power supply.

DALI equipment production test

When GP2403 is used in DALI equipment for mass production testing, users may need to use open software application interfaces for secondary development, or they may contact us for software application customization or firmware customization.

If the output current of the built-in bus power supply still cannot meet the requirements of production and test, users can connect an independent external bus power supply. However, it is necessary to ensure that the internal and external bus power supply is not enabled at the same time. Otherwise, the total current output capacity of the bus exceeds the standard 250mA and the DALI interface circuit of the bus device may be damaged.

DALI is deployed and configured

When DALI is deployed, the DALI Master application or DALI Master application can be used to allocate addresses, group addresses, and create scenarios.

Note: Please pay attention to the official website for GP2403 firmware updates and DALI Master application updates.

Order information

Model in the list

model	The order code	describe	note
GP2403	GP2403	DALI USB controller with built-in isolated bus power supply	Including USB data cable, DALI wiring terminal, and other accessories