



Chengdu Ebyte Electronic Technology Co.,Ltd

# Wireless Modem

## User Manual

ECAN-F01



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# 1. Product introduction

## 1.1. Product Introduction

The ECAN-F01 is a single high-performance CAN-to-fiber optic communication device. The low transmission loss of optical fiber greatly increases the transmission distance and stability. The ECAN-F01 can be used in CAN networks with baud rates up to 500Kbps. ECAN-F01 complies with CAN Specification 2.0A (11-bit CAN Identifier) and 2.0B (29-bit CAN Identifier). Transparent transmission is supported, making it suitable for a wide range of applications. The ECAN-F01 supports adaptive baud rates, which automatically adjust the baud rate to match the network up to 500Kbps when connected to a CAN network. At the same time, the device has electrical protection and built-in 120Ω resistance, and the design of single-mode single fiber also brings convenience to installation.



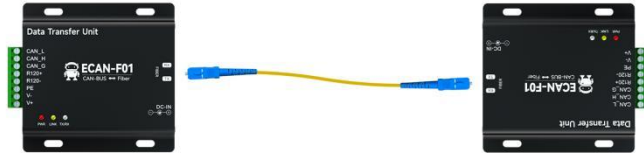
## 1.2. Features

- Single-mode single-fiber SC interface, easy to install;
- 1-way CAN-bus interface, using plug-in terminal wiring;
- Support for CAN2.0A and CAN2.0B frame formats in accordance with iso/DIS 11898 specification;
- CAN-bus supports adaptive communication baud rates up to 500Kbps
- Maximum data conversion traffic: 8000 frames per second
- CAN-bus interface adopts TVS electrical protection;
- Contains 120 ohm resistor, can be selected for terminal wiring;
- Operating temperature range: -40°C~+85°C;
- The interface adopts electrical isolation, isolation module insulation voltage: DC3000V;
- Three-proof protection.

## 2. Quickstart

You need to prepare ECON-F01A\*1 ECAN-F01B\*1 power adapter\*2 Fiber Optic 1 CAN device (2ch).

Connect the ECON-F01A and ECON-F01B to the corresponding interfaces via fiber optics and power them up.



The two CAN interfaces of the CAN device are used to connect the ECAN-F01A and ECAN-F01B respectively, and the ECAN-F01 only needs to be connected to the CAN bus CAN\_H, CAN\_L, CAN\_L.

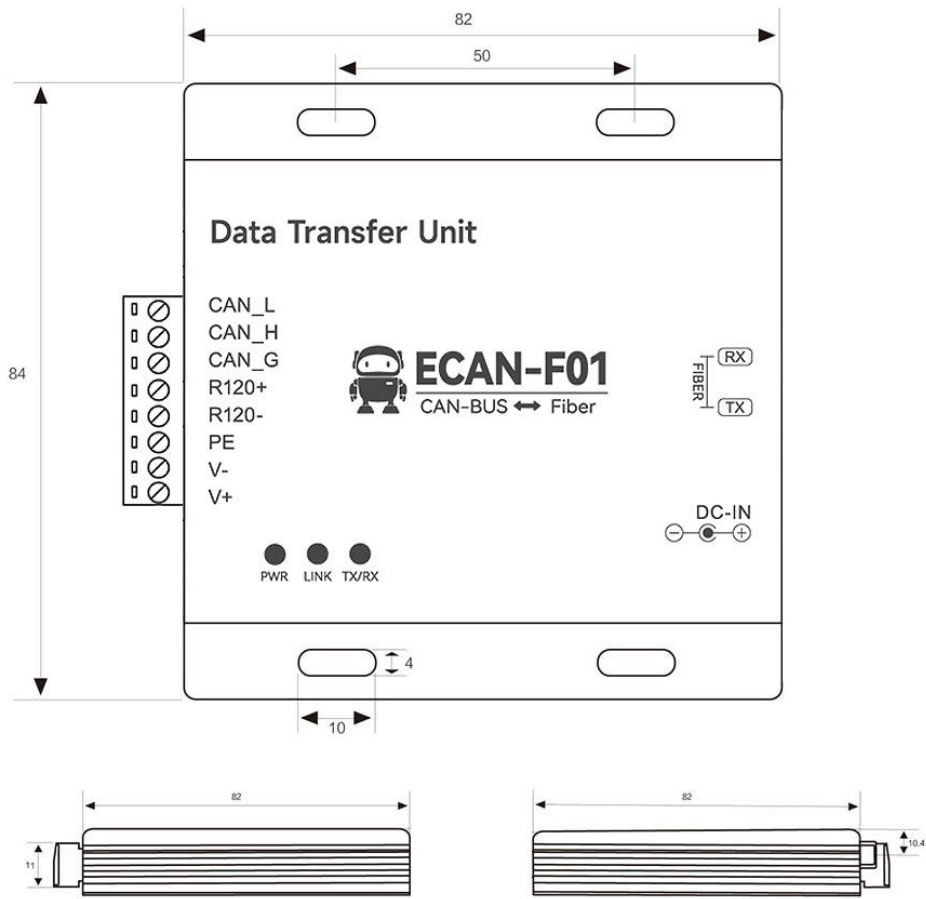
CAN-to-fiber communication can be achieved by using the two CAN1 and CAN2 channels of the CAN device to send data separately.

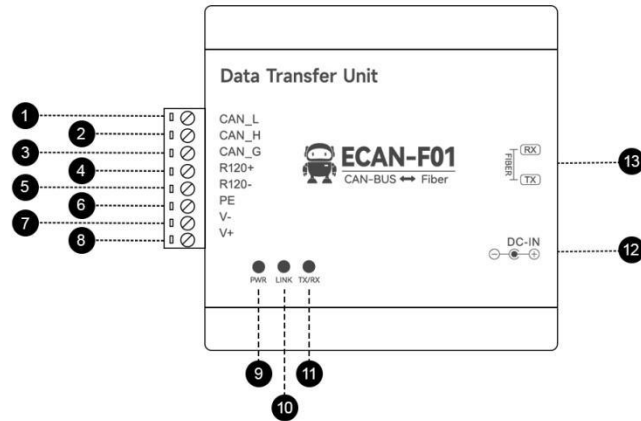
### 3. Technical specifications

#### 3.1. Common specifications

serial number	project	specification
1	Supply voltage	8V ~ 28VDC, more than 28V may burn out, 12V or 24V power supply is recommended
2	Interface specifications	CAN: 3.81mm Phoenix terminal blocks Fiber optic: SC interface, single mode single fiber
3	Simple way of passing through	Through transmission
4	Operating temperature	-40 ~ +85°C, industrial grade
5	Operating humidity	10% ~ 90% , relative humidity, non-condensing
6	Size size	See dimensional drawings
7	Average weight	125g±5g
8	Storage temperature	-40~+125°C, industrial grade

### 3.2. Mechanical dimensional drawings and pin definitions





serial number	Identity name	Function description
1	CAN_L	CAN channel bus low, 3.81mm phoenix terminal blocks
2	CAN_H	CAN channel bus height, 3.81mm phoenix terminal blocks
3	CAN_G	CAN channel bus ground, 3.81mm phoenix terminal blocks
4	R120+	CAN channel 120 ohm resistance access terminal
5	R120-	CAN channel 120 ohm resistance access terminal
6	PE	Connect to the earth
7	V-	Power supply negative, 3.81mm Phoenix terminal blocks, 8-28VDC, and DC block interface to choose between
8	V+	Power positive, 3.81mm Phoenix terminal blocks, 8-28VDC, and D-C socket interfaces are either
9	PWR	Power LED (red)
10	LINK	Optical fiber access indicator (yellow), unaccessed fiber is on, access fiber is off
11	DATA	Data transceiver indicator (blue and green), send data to light green, receive data to light blue
12	DC_IN	Power interface, standard 5.5*2 Choose between 0 power holders, 8-28VDC, and Phoenix terminal interfaces
13	FIBER	Fiber optic interface, S-C interface, single mode single fiber

## 4. Product function introduction

This device is a CAN bus signal to optical signal device, which supports CAN baud rates from 5K to 500K, and can receive forwarded data at adaptive baud rates.

## 5. Important Notice

Ebit reserves the right of final interpretation and modification of all contents of this specification.

Due to the continuous improvement of the hardware and software of the product, this manual may be changed without notice, and the latest version of the manual shall prevail.

Protect the environment, everyone has the responsibility: in order to reduce the use of paper, this manual only prints Chinese part, the English manual only provides electronic documents, if necessary, please download it from our official website; In addition, if it is not a special request of the user, when the user orders in batches, we only provide product manuals according to a certain proportion of the order quantity, and not every digital transmission station is equipped one by one, please understand.

## 6. Revision History

version	Date of revision	Revision Notes	Maintainer
1.0	2022-7-30	first edition	LM
1.1	2022-8-12	Content revision	LM
1.2	2022-9-14	Content revision	XXN
1.3	2022-10-08	Content revision	XXN

## 7. About us

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