# 1-Wire iButton User Guide
## For GVxxx-Series Devices

ACCEACB100UG001

Revision: 1.00

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# 0. Revision history

| Revision | Date | Author | Description of change |
|---|---|---|---|
| 1.00 | 2012-07-09 | Cid Xu | Initial |
| | | | |
| | | | |

# 1. General Description

AC100 is a convert cable, which is designed for connect 1-wire device to GVxxx-series device of Queclink.

This 1-Wire iButton uses Maxim DS1972 1024-bit EEPROM iButton (Note1).

Using AC100, GVxxx-series device can support reading multiple 1-Wire devices at the same time.

**Note1:**
The DS1972 is a 1024-bit, 1-Wire® EEPROM chip organized as four memory pages of 256 bits each in a rugged iButton® package. Data is written to an 8-byte scratchpad, verified, and then copied to the EEPROM memory. As a special feature, the four memory pages can individually be write protected or put in EPROM emulation mode, where bits can only be changed from a 1 to a 0 state. The DS1972 communicates over the single-conductor 1-Wire bus. The communication follows the standard 1-Wire protocol. Each device has its own unalterable and unique 64-bit ROM registration number that is factory lasered into the device. The registration number is used to address the device in a multi-drop, 1-Wire net environment.

# 2. Product Specification

## 2.1. Appearance

**1-Wire iButton Reader**

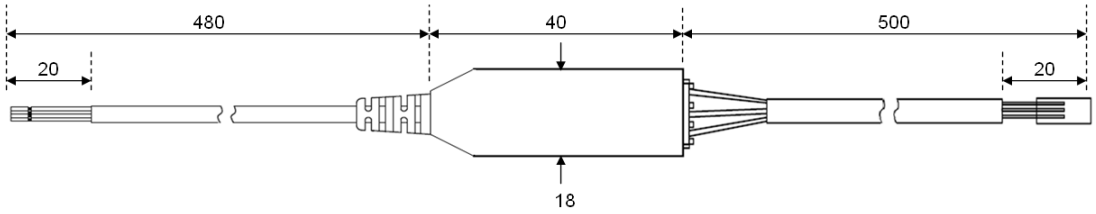
**1-Wire iButton (With Handle)**

**AC100**

## 2.2. Parts List

| Name | Picture | Remark |
|---|---|---|
| AC100 |  | Convert RS232 UART to 1-Wire interface |
| 1-Wire iButton Reader |  | 1-Wire iButton Reader with 18CM Cable |
| iButton Key (With Handle) |  | 1-Wire iButton DS1972 (With Handle) |

## 2.3. Product Outside Overview




Unit: mm

**AC100**

# 3. Installation

## 3.1. Interface Description

There are 4 wires input and 3 wires output interface on AC100, the description of the wires and sample connection between AC100, iButton Reader and GV200/GV300 are showed as follow.

## 3.2. 4Pin Input Interface

**AC100 Input Interface Connect to GVxxx**

| AC100 | PIN Name | Color | Description | Connect to GV300 | Connect to GV200 |
|---|---|---|---|---|---|
| **Input Interface** | **PWRIN** | RED | 8~32V input, can be connected to the vehicle battery directly. | PIN11 PWR | PIN24 VIN |
| | **GND** | BLACK | Ground | PIN6 GND | PIN18 GND |
| | **TXD_232** | WHITE | RS232 level, receiver data, connect to TXD of GVxxx devices | PIN5 TXD | PIN11 TXD2 |
| | **RXD_232** | GREEN | RS232 level, transmit data, connect to RXD of GVxxx devices | PIN4 RXD | PIN9 RXD2 |

## 3.3. 3Pin Output Interface

**AC100 Output Interface Connect to 1-Wire iButton Reader**

| AC100 | PIN Name | Color | Description | iButton Reader |
|---|---|---|---|---|
| **3PIN 1-Wire Interface** | **VDD** | RED | Power output to the 1-Wire devices, the voltage output is 3.4V | NC |
| | **GND** | BLACK | Ground | 1-Wire ground (GREEN) |
| | **1WIRE** | GRAY | 1-Wire data | 1-Wire data (YELLOW) |

# 4. Message Format and Operation

Reference GVxxx @Track Air Interface Protocol.