1-Wire iButton User Guide For GVxxx-Series Devices

ACCEACB100UG001

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0. Revision history

Revision	Date	Author	Description of change
1.00	2012-07-09	Cid Xu	Initial
2.00	2012-07-27	Cid Xu	Updated the iButton from DS1972 to DS1990R

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 DS1990R Serial Number iButton (Note1).

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

Note1:
The DS1990R serial number iButton® is a rugged data carrier that serves as an electronic registration number for automatic identification. Data is transferred serially through the 1-Wire® protocol, which requires only a single data lead and a ground return. Every DS1990R is factory lasered with a guaranteed unique 64-bit registration number that allows for absolute traceability. The durable stainless-steel iButton package is highly resistant to environmental hazards such as dirt, moisture, and shock. Its compact coin-shaped profile is self-aligning with mating receptacles, allowing the DS1990R to be used easily by human operators. Accessories enable the DS1990R iButton to be mounted on almost any object, including containers, pallets, and bags.

2. Product Specification

2.1. Appearance

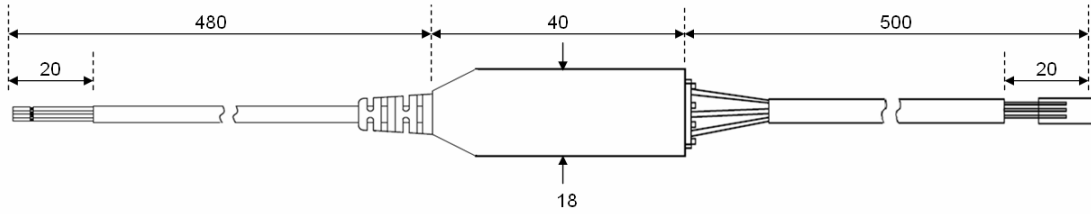

1-Wire iButton Reader

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 DS1990R (With Handle)

2.3. Product Outside Overview

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.