

## ISP interface gets stuck during download

**Questions:**

When the ISP serial interface is used for download, it will occasionally get stuck, causing that PC is unable to release the interface, and that ISP cannot be used before restarting PC.

**Answer:**

Based on the phenomenon recurrence and code debugging, it is stuck in the USB-to-serial interface driver of windows OS, that is, there is something wrong with the USB-to-serial interface device. The chip used in USB-to-serial interface device is PX-2303, often unstable, pirated and with stuck issue. Even if the device is unplugged, the interface still cannot be released, the last resort is to restart PC. In comparison, FT232 and CH340 are more stable, in particular, FT232 with strong stability but higher price.

In addition, this issue is also related to the electrical characteristics of USB-to-serial interface device. For example, cheap products without filter capacitors, and their signal lines without EMC filter measures will result in stuck problems as well.

**Solutions:**

It is recommended to use the USB-to-serial interface device with FT232 and CH340 chips, or genuine products with PX-2303 chips featuring good electrical characteristics.

**Type:** Development tool

**Applicable products:** All MCUs

**Main function:** None

**Minor function:** None

## Document revision history

Date	Revision	Changes
2022.2.15	2.0.0	Initial release

**IMPORTANT NOTICE – PLEASE READ CAREFULLY**

Purchasers are solely responsible for the selection and use of ARTERY's products and services, and ARTERY assumes no liability whatsoever relating to the choice, selection or use of the ARTERY products and services described herein.

No license, express or implied, to any intellectual property rights is granted under this document. If any part of this document deals with any third party products or services, it shall not be deemed a license grant by ARTERY for the use of such third party products or services, or any intellectual property contained therein, or considered as a warranty regarding the use in any manner whatsoever of such third party products or services or any intellectual property contained therein.

Unless otherwise specified in ARTERY's terms and conditions of sale, ARTERY provides no warranties, express or implied, regarding the use and/or sale of ARTERY products, including but not limited to any implied warranties of merchantability, fitness for a particular purpose (and their equivalents under the laws of any jurisdiction), or infringement of any patent, copyright or other intellectual property right.

Purchasers hereby agrees that ARTERY's products are not designed or authorized for use in: (A) any application with special requirements of safety such as life support and active implantable device, or system with functional safety requirements; (B) any air craft application; (C) any automotive application or environment; (D) any space application or environment, and/or (E) any weapon application. Purchasers' unauthorized use of them in the aforementioned applications, even if with a written notice, is solely at purchasers' risk, and is solely responsible for meeting all legal and regulatory requirement in such use.

Resale of ARTERY products with provisions different from the statements and/or technical features stated in this document shall immediately void any warranty grant by ARTERY for ARTERY products or services described herein and shall not create or expand in any manner whatsoever, any liability of ARTERY.

© 2022 Artery Technology -All rights reserved