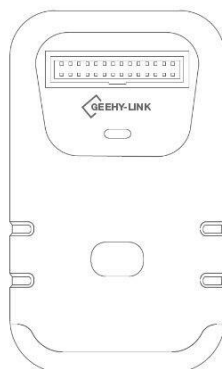# User Manual

APEX-LINK

Version: 2021.03

1. Overview

GEEHY-LINK is an integrated development tool for both emulator and programmer, which enables online test and emulation for full APM 32 series MCU products under keil integrated development environment. It supports full speed operation, single step debugging, breakpoint setting, and etc.

2.   Performance and Features

- ■ Support Windows7/8/10, drive free

- ■ Support full APM32 series MCU code programming

- ■ Support SWD and JTAG modes programming

- ■ Supply power to the target board with button operations

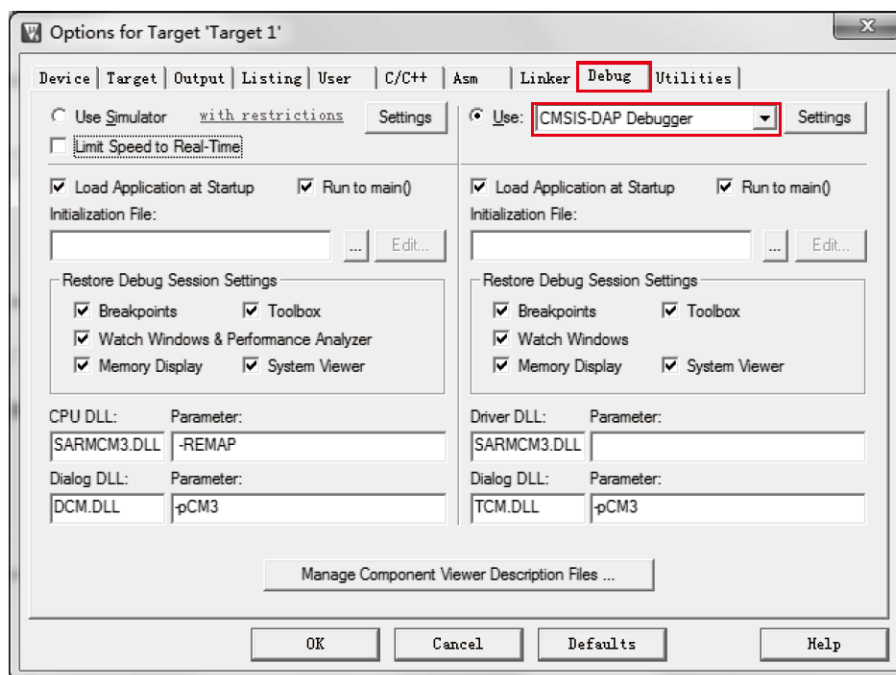- ■ With USB communication interface, which supplies power

3.   Electrical Parameters

- ■ Input voltage 5V   Input current $\geq$ 500mA

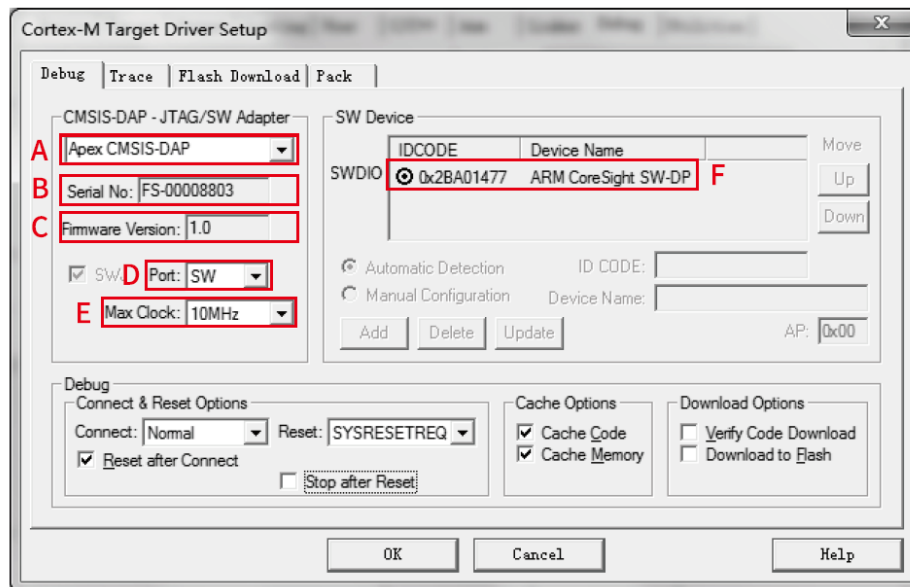- ■ Output voltage 3.3V   Output current $\leq$ 350mA

4. Operation Steps

1) As connected to computer with USB cable, there will be Geehy DAP USB Device, HID-compliant device and USB mass storage device shown on the Device Manager.

2) We can control the power supply to target board by operations on emulator, while it will not supply power in default status. When the red light is on, it means power supply while it means disconnection as the red light is out, which may be switched by long press for 3 seconds on button.

3) Choose SW or JTAG mode on keil software configuration.

    a) Click "Options for Target" , choose "CMSIS-DAP Debugger" in "Debug" interface as picture 1:

(Picture 1)

    b) Click "Settings" and enter into its interface, select SW or JTAG mode, and Max clock as picture2:

（图 2）

A：Emulator Name

B：Serial No.

C：Firmware Version

D：SW & JTAG mode selection (Only the keil version V5.22 supports JTAG)

E：Max Clock: 10M

F：IDCODE will be shown as target board is successfully connected

4) Enter into "Flash Download" interface, select "Programming Algorithm" and "Add" for corresponding Flash.