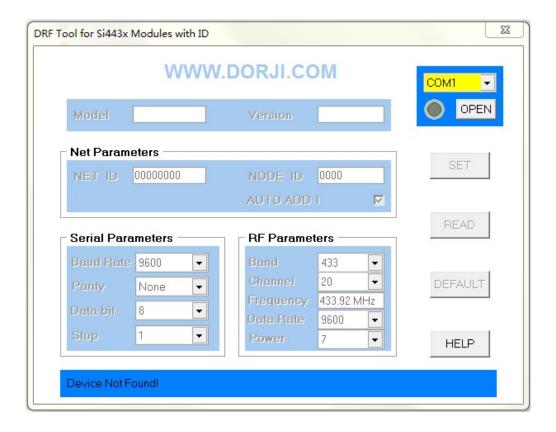


## Operation Manual for USB Converter Board DAC03/13/23

V1.10

DACx3 series USB converter boards are designed for testing DRF4432D20I series of modules. DAC03 board is USB-to-TTL converter board. DAC13 is USB-to-RS232 converter board and DAC23 is USB-to-RS485 converter board. Users need to install USB driver first before using them. The driver can be downloaded from the demo kits page. After installment, users can insert RF modules into USB converter board and the system will prompt which port is available. If missing the information, users can open windows device manager, click PORT (COM & LPT) and will find which port the USB device is using.

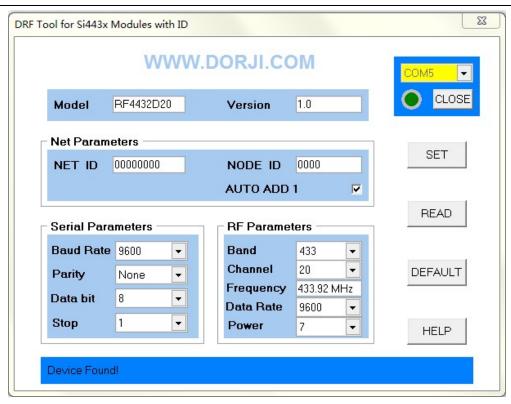
When the USB board with RF module is connected to computer, users can run configuration tool DRF\_Tool\_DRF4432D20I as administrator if operation system is Windows Vista or 7. Users can choose the correct serial port which can be found in the device manager. If the COM port is incorrect, the small circle on the left of OPEN button is in grey (Figure 1) after OPEN button is clicked. If the port is chosen correctly, the circle will be in green (Figure 2) after OPEN button is clicked and "Device is Found" will be showed in the status line at the bottom of the tool.



**Figure 1: COM Port is Incorrect** 

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**Figure 2: COM Port is Correct** 

## 1. DAC03

DAC03 is a USB-to-TTL converter board. It shares the same board with DAC13. There is a jumper which can be used in different modes. In setting mode, the jumper needs to be shorted and in normal work mode it should be kept open. DAC03 board is used to configure DRF4432D20I-M1/M2 modules.

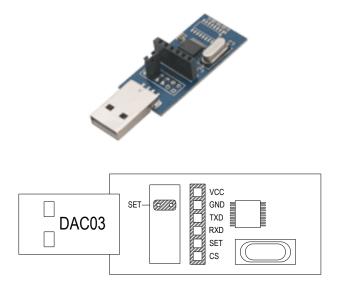


Figure 3: DAC03 USB—TTL Converter Board

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## 2. DAC13

DAC13 is a USB-to-RS232 converter board. There is one jumper which is used to control the level of SET pin. When the jump is shorted, the SET pin will be connected to ground or else it is floated. This board can be used to configure DRF4432D20I-L1 modules.

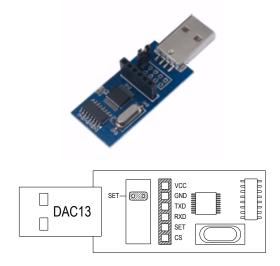


Figure 4: DAC13 USB—RS232 Converter Board

## 3. DAC23

DAC23 is a USB-to-RS485 converter board. There are only two jumpers on board. One is Normal for normal working mode and another is SET for setting mode. Users only can keep one jumper shorted in corresponding mode. DAC23 can be used to configure DRF4432D20I-L2 modules.



Figure 5: DAC23 USB—RS485 Converter Board

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