Instructions on how to create the EEPROM binary:
Ensure you have python 2.7 installed in your host system. This is needed to run the Eeprom.py tool.
Ensure you have the latest BIOS.

1. Edit the Joule project file JoulePrj.cfg file -
    a)   Project file is located in ..\GT-Firmware-201X-XX-XX-XXX\EEPROM\Joule\JoulePrj.cfg
    b)   In the project file, go to EepromHeader and increment Version
    This indicates the version of the EEPROM binary
    ```
    StructureType   = EepromHeader
    Version         = 0x00000001   //if this version is
    0x00000000, then the BIOS will overwrite its own pin
    configuration with the EEPROM table. Make sure always have
    incremental version than the existing one.
    ```

2. Edit the JoulePrj.cfg with the help of readme to make the required changes for GPIO.

3. Build the EEPROM binary using the Eeprom.py tool:
    Ensure you have python 2.7 installed in your host system
    a)   Go to ..\GT-Firmware-201X-XX-XX-XXX \EEPROM\Joule\
    b)   Execute the command: python ..\eeprom.py -d JouleDefs.cfg -p JoulePrj.cfg -b
        JouleEeprom.bin
        Where:
        – d <definitions file> //path to the definition file for the image
        – p <project file>   // path to the project configuration file
        – b <output binary file> //output binary filename
    c)   The resulting output binary file, JouleEeprom.bin, can now be found in current directory

Instructions to update the EEPROM with a given binary:
1. Copy Eeprom.efi & JouleEeprom.bin to a FAT32 formatted USB thumb drive
        Users with NDA have access to the EEPROM zip file.
    a)   Copy the zip file & extract to desired location in your host system

    b)   Copy the eeprom.efi to your thumb drive
        i.   Eeprom.efi is located in ..\GT-Firmware-201X-XX-XX-XXX \EEPROM
        ii. For example: In the case of BIOS 193 the parent folder is "GT-Firmware-2016-12-18-
             193" go to C:\<your_path_here>\GT-Firmware-2016-12-18-193\EEPROM
        iii. Copy to your thumb drive

    c)   Copy your EEPROM binary to your thumb drive

2. Boot into the EFI Shell with the USB thumb drive attached
    •   Ensure your Joule has the latest BIOS, if not please update to the latest. Refer to the BIOS
        Flashing instructions.
    •   Ensure you can boot into the EFI shell.
            > In the boot manager, select "EFI internal shell"
            You should have the following connected:

     i.   The micro USB Type B cable attached to micro USB port of Joule and other end of cable to your host regular USB port.

    ii.   A terminal running (For example Tera Term)

   iii.   The power cable connected to the development platform and other end to wall outlet.

3. At the EFI Shell prompt, type these 3 commands:
   a) fs0:
   b) eeprom.efi -w JouleEeprom.bin

      You will get this message if successful:

      "JouleEeprom.bin is successfully written to EEPROM"
   c) reset -c