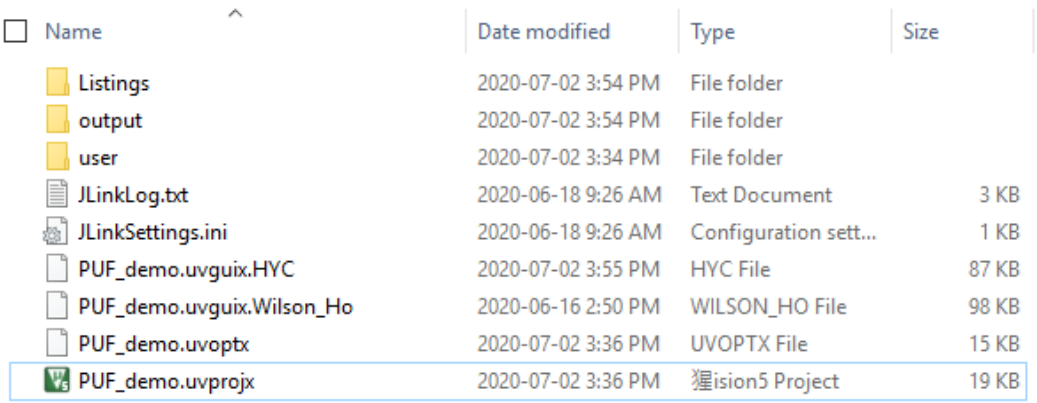
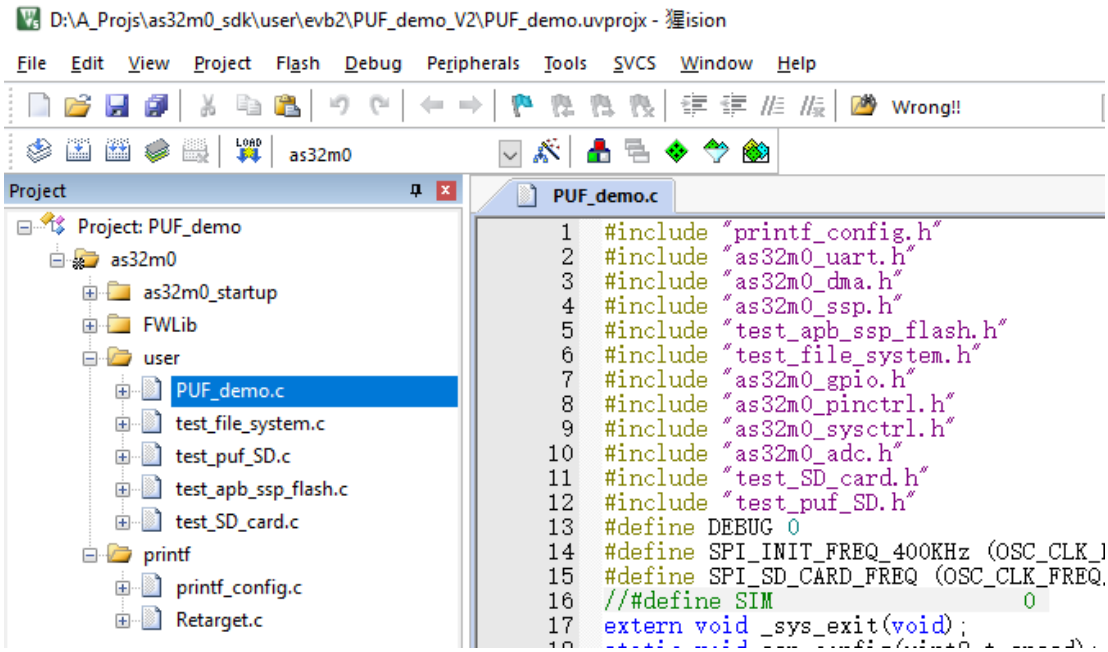
MCU007 Evaluation Guide PUF_demo

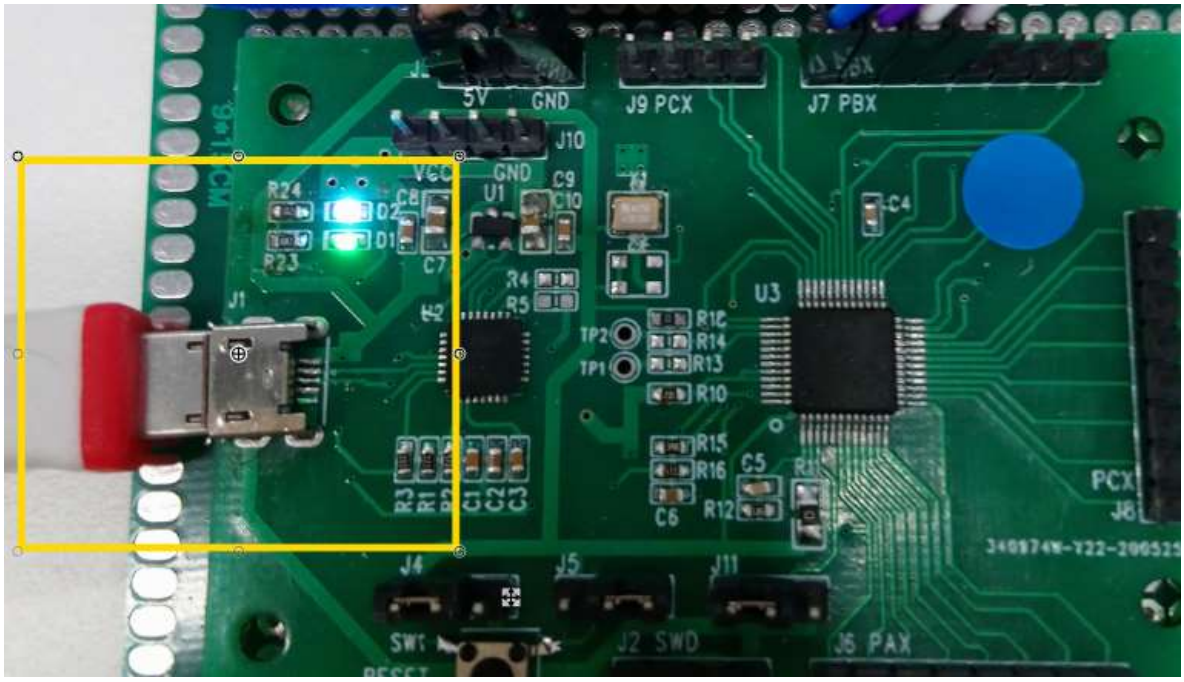
1. Prepare Keil ARM IDE
   https://www.keil.com/download/product/

2. Open SDK demo project

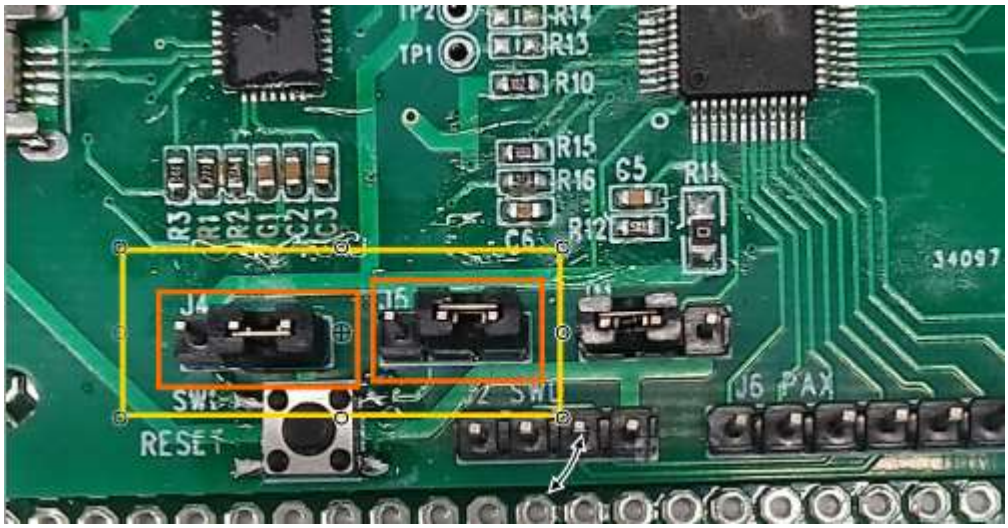




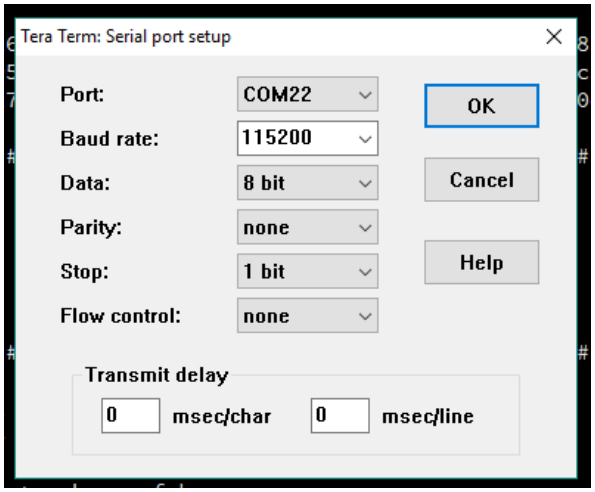
3. Build the project
4. Hook up evaluation board



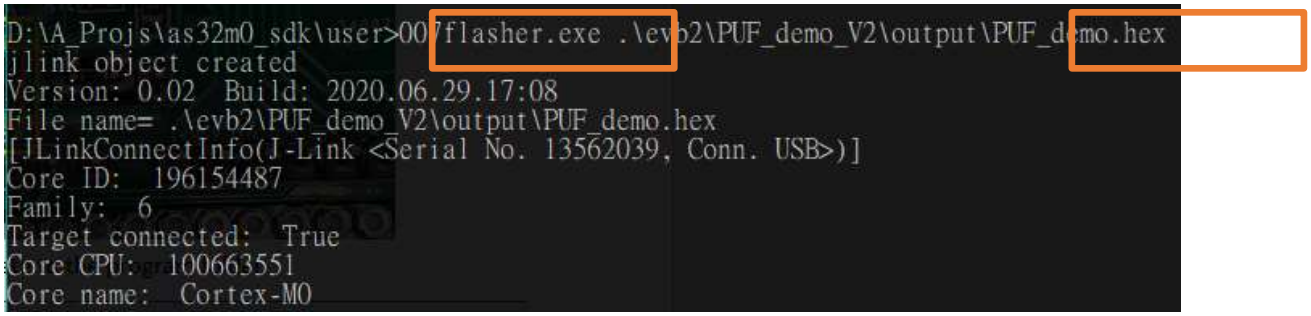
5. Set to SWD mode



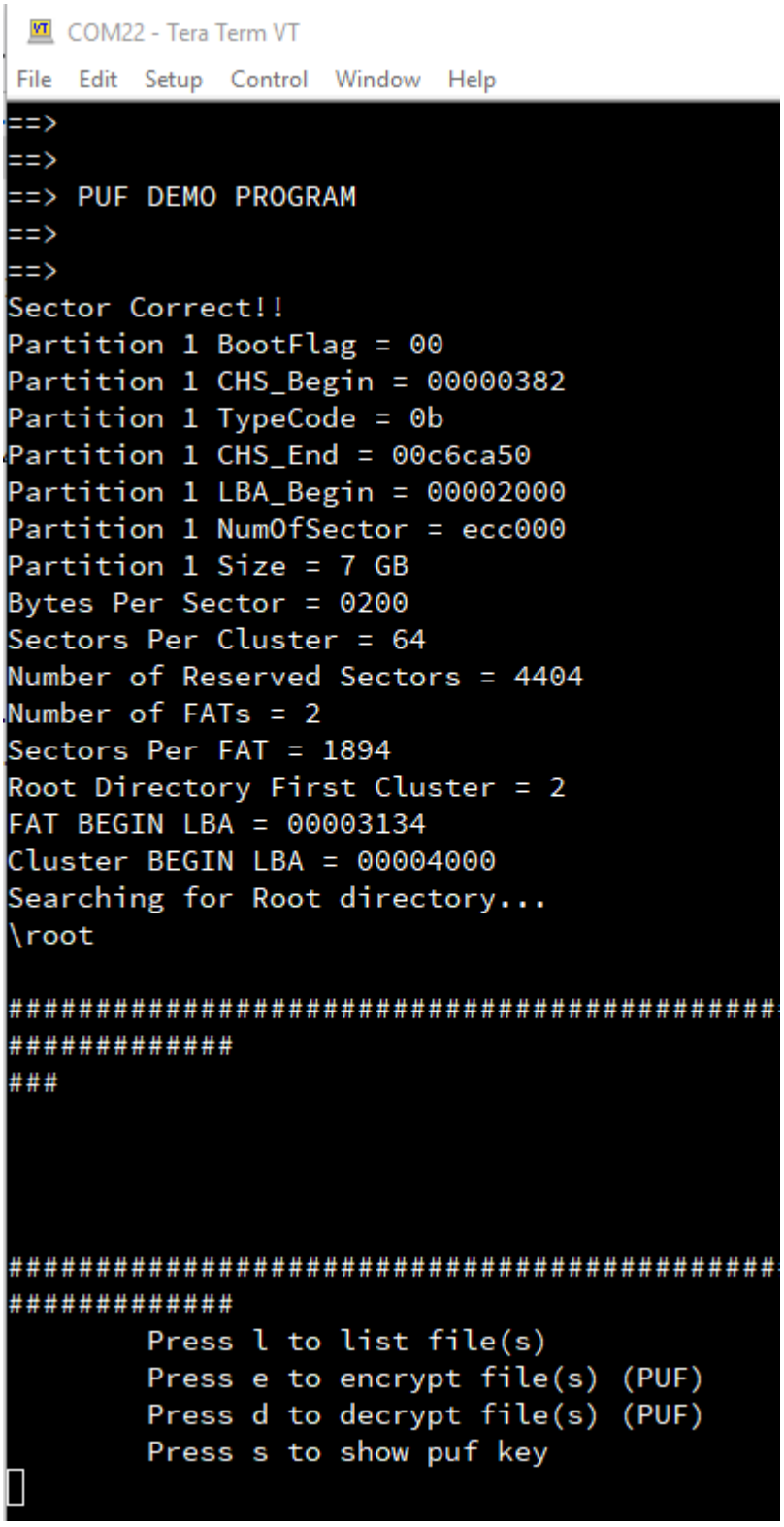
6. Open Tera Term VT terminal



7. Download built HEX file to MCU007 evaluation board



8. Program downloaded



9. Follow the Menu; Press l -> list files on SD card …

10. File after PUF Encryption show **.PUF** in extension name

```
Analyze ...
1. README~1.HTM
2. README  .PDF
3. YESTER~1.MP3
4. WITHOU~1.MP3
5. SANFRA~1.MP3
Enter a number to select the file : 2

File: README  .PDF
Encrypting.............
Processing.......0%
First Cluster Sector: 3139
File Name_Sector : 00004000
File Exten_index : 000000a8
File First_Cluster_number : 0000005b
End Sector : 33
sectors_per_cluster : 64

Processing.......Done
Encrypt Done
```

```
 5 File(s)
Analyze ...
1. README~1.HTM
2. README  .PUF
3. YESTER~1.MP3
4. WITHOU~1.MP3
5. SANFRA~1.MP3
```

11. Decrypt the PUF file will resume original file

```
        Press d to decrypt file(s) (PUF)
        Press s to show puf key

 5 File(s)
Analyze ...
1. README  .PUF
Enter a number to select the file :
```

```
First Cluster Sector: 20003a9c
File Name_Sector : 00004000
File Exten_index : 000000a8
File First_Cluster_number : 0000005b
End Sector : 34
sectors_per_cluster : 64
File: README  .PUF
Decrypting............
Processing.......0%
Processing.......Done
Decrypt Done
```

please note **ONLY can decryption file which encrypted by this **CHIP**

12. Press s show CHIP's PUF key series

    768 bits, each chip is difference with true random generated.

```
        Press s to show puf key

 PUF Key: 0x7b621d5881e7c4e1a9dd952f2836885fbd34c2e408edb073d6de4e2cf654
8a89b4d58b5e6ea46c3f4c4184a8330008759949057be501d1537a972580bbc5aafb0746
71f0db6b61be596392efb9db852ed8df7fefb85f33787da97cb23483b3a5
```