

DCA1000 Debug Handbook

Matlab Issues

- 1) If there is an error message when the Matlab Engine is started, check that the correct Matlab Runtime Library required in the Release Notes is installed.

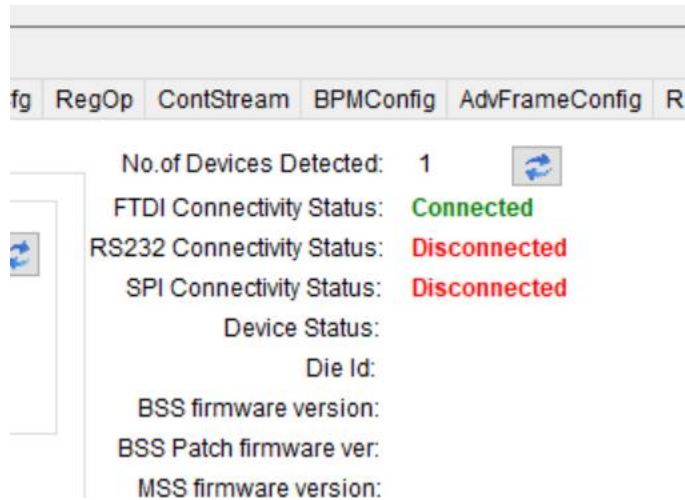
```
Starting Matlab Engine..  
[06:29:04] [RadarAPI]:  
Matlab Engine Started!  
[06:29:07] [RadarAPI]:
```

Connection Issues

- 1) When the mmWave board and the DCA1000 board are connected to the PC using USB cables the following COM ports should be observed in the Device Manager. If these are not observed potential issues could be:
 - USB port on PC: try another one
 - USB cables: try other USB cables
 - FTDI drivers: make sure the latest one are installed from mmwave studio download page



- 2) When mmWave Studio is started and the DCA1000 and mmwave board are powered on, the Device should be Detected as shown below. If the device is not detected make sure that all the connections are correct.



Firmware Version Issues

- 1) If the capture process hangs on after loading MSS firmware potential causes are:
- The firmware loaded is not for correct device
 - The firmware loaded is not for correct ES version of the device. Double check firmware release notes for device supported.

```
[15:33:34] [RadarAPI]: ar1.GetMSSFwVersion()  
[15:33:34] [RadarAPI]: MSSFwVersion:(02.00.00.03 (27/08/19))  
[15:33:34] MSS FW Download Success  
[15:33:38] [RadarAPI]: ar1.PowerOn(0, 1000, 0, 0)  
[15:33:38] Status: Failed, Error Type: RESP TIMEOUT  
[15:33:43] MSS Power Up async event was not received!
```

Ethernet Issues

1) If the following error message is observed "Ethernet Cable is disconnected" there could be several reasons

- Firewall is enabled: disable it.
- WiFi or other LAN enabled: Disable Wifi and disconnect other Ethernet cables

```
[14:14:37] ConnectRFDCCard Status: RRFDDCARD_SUCCESS
```

```
[14:14:37] Ethernet Cable is disconnected Please check.....!!!
```

FPGA Issues

Sometimes there may be corruption of the FPGA. This can be manifested as follows. In this case it is recommended to re-flash the FPGA

```
[19:25:59] [RadarAPI]:
```

```
[19:25:59]
```

```
[19:25:59] Unable to read FPGA Version. [error -5]
```

Capture Issues

- 1) StartFrame command TIMEOUT. The reason for this issue could be that there is not sufficient power to support RF transmission. A power supply 5V/3A should be used. 5V/2.5A may not be sufficient sometimes.

```
[16:36:03] [RadarAPI]: Status: Passed
[16:36:03] [RadarAPI]: RECORD_START_CMD_CODE Async event recieved(5)
[16:36:15] [RadarAPI]: ari.StartFrame()
[16:36:18] Status: Failed, Error Type: RESP TIMEOUT
[16:36:27] [RadarAPI]: Packet Recorder Utility Started...please wait...
[16:36:27] [RadarAPI]: ari.PacketRecorderFill("C:\ti\mmwave_studio_02_00_02\mmWaveStudio\PostProc\adc_data_Raw_0.bin", "C:\ti\mmwave_studio_02_00_02\mmWaveStudio\PostProc\adc_data.bin", "C:\ti\mmwave_studio_02_00_02\mmWaveStudio\PostProc\pkclogfile.txt")
[16:36:32] [RadarAPI]: Packet Recorder Utility process completed!
[16:36:33] [RadarAPI]: STS_NO_LVDS_DATA Async event recieved(0)
[16:36:47] [RadarAPI]: ari.StartMatlabPostProc("C:\ti\mmwave_studio_02_00_02\mmWaveStudio\PostProc\adc_data.bin")
[16:36:47] [RadarAPI]: Error:
[16:36:47] ... MMIOCR::EvaluateFunction error ...
[16:36:47] 07-Dec-2019 16:36:47: The file C:\ti\mmwave_studio_02_00_02\mmWaveStudio\PostProc\adc_data.bin is empty. Please capture more data...!
[16:36:47] Error in => process_adc_data.m at line 52.
[16:36:47]
```

- 2) Raw Data Capture File is empty.

In this case, there is usually no error, however the raw data captured file is empty. In this case, the Packet Delay in the DCA1000 configuration should be increased to 100-300us

