

IWRL1432 Boost with flashed demo (changed sysconfig and compiled in CSS, then flashed in visualizer GUI with built .appimage):

“motion_and_presence_detection_demo_xwrL14xx-evm_m4fss0-0_freertos_ti-arm-clang”

->sysconfig changed in CSS with ADC Streaming via SPI enabled:

MMWAVE_DEMO (1 of 1 Added)	
CONFIG_MMWAVE_DEMO0	
Name	CONFIG_MMWAVE_DEMO0
Feature Lite Build	Disable
ADC STREAMING via SPI	Enable
MONITORS	Disable

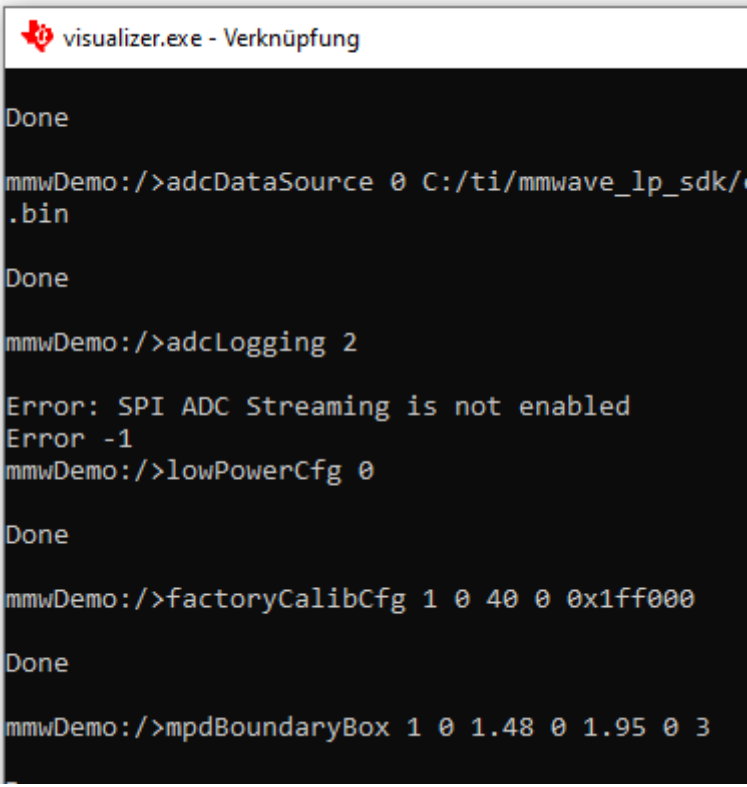
.cfg Sent via Visualizer.exe GUI

C:\ti\MMWAVE_L_SDK_05_04_00_01\examples\mmw_demo\motion_and_presence_detection\profiles\xwrL14xx-evm\MotionDetect.cfg

Changed parameters in \MotionDetect.cfg:

adcLogging 2

lowPowerCfg 0



```
visualizer.exe - Verknüpfung
Done
mmwDemo:/>adcDataSource 0 C:/ti/mmwave_lp_sdk/
.bin
Done
mmwDemo:/>adcLogging 2
Error: SPI ADC Streaming is not enabled
Error -1
mmwDemo:/>lowPowerCfg 0
Done
mmwDemo:/>factoryCalibCfg 1 0 40 0 0x1ff000
Done
mmwDemo:/>mpdBoundaryBox 1 0 1.48 0 1.95 0 3
```

After sending MotionDetect.cfg: Terminal of visualizer.exe still showing “SPI ADC Streaming is not enabled”.

From TI Resource Explorer: xWRL1432 MMWAVE-L-SDK 05.04.00.01:

“RAW ADC data streaming / Steps for SPI based streaming”

Connected as seen in picture:

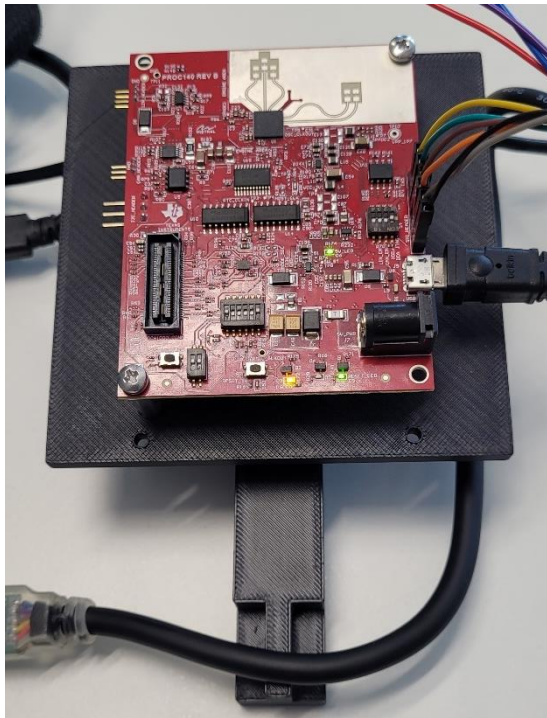


Figure 1: C232HM-DDHSL-0


SWITCH S1.6 ON

adcDataSPIFTDI.exe:

Tried different Parameter Settings. .txt is generated but only containing "-1"

```
C:\ti\MMWAVE_L_SDK_05_04_00_01\tools\spi_adc_streaming\adcDataSPIFTDI.exe
"1" for AOP
"2" for FCCSP
Enter Device:
2
Enter no of adc samples:
256
Enter no of chirps per burst:
2
Enter no of bursts per frame:
64
Enter no of frames:
0
Enter no of rx antennas:
3
196608
FTDI device opened:
{'type': 8, 'id': 67330068, 'description': b'C232HM-DDHSL-0', 'serial': b'FT780TC5'}
Starting write loop...

Press Any Key To Exit
```



```
C:\ti\MMWAVE_L_SDK_05_04_00_01\tools\spi_adc_streaming\adcDataSPIFTDI.exe
"1" for AOP
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FTDI device opened:
{'type': 8, 'id': 67330068, 'description': b'C232HM-DDHSL-0', 'serial': b'FT780TC5'}
Starting write loop...
```

adcdData.txt is generated with only containing "-1"

Also tried to configure Radar with CLI Tool

C:\ti\radar_toolbox_2_10_00_04\tools\studio_cli\gui\mmw_cli_tool:

With same .cfg and changed mmwaveconfig.txt (port/ADC/filepath etc.)

mmwave_studio_cli.exe is connecting the device. Configuring stops after few Parameters "done" without error Code.

Questions:

- Is there a more detailed description of the correct order of the steps in **figure 2**? How do I set the SensorStart/Sensor stop Command without using visualizer GUI? If I use mmw_cli_tool for sensorStart, how do I config mmwaveconfig.txt in this case?
- How do I use adcDataSPIFTDI.exe with CLI Tool/Visualizer.exe to get raw Data via SPI?
(The Default Demo of this example without ADC rawdata is working, plots showing data etc...)
- Is it possible to config the board completely with CSS IDE (mmwcli.h) ?

- Ensure that switch S1.6 is ON.
- Run the demo and use configuration with "adcLogging 2" to enable this feature.
- Run the adcDataSPIFTDI.exe application located in tools/spi_adc_streaming folder after issuing the configuration (via Visualizer or serial term etc.) and before the sensor start command is sent to device.
- Give all the inputs to adcDataSPIFTDI application like Device Type, Number of ADC samples, Number of chirps in burst, Number of burst in frame, Number of Frames, Number of Rx Antennas as given in configuration file. Ensure that this is done before "sensorStart" command is sent.
- After the demo starts, Raw ADC Data for given number of frames will get stored in a adcdData.txt file in spi_adc_streaming folder.

Figure 2: xWRL1432 MMWAVE-L-SDK 05.04.00.01/RAW ADC Streaming/Steps for SPI based streaming