

Quick Start Guide SPRUIK7-May 2018

DCA1000EVM Quick Start Guide



This guide describes how to get started with raw ADC data capture from the xWR mmWave sensor EVMs.

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1 Getting Started

1. Interface the DCA1000 board with the xWR mmWave sensor EVMs, as shown in Figure 1.



Figure 1. Hardware Connection: DCA1000 With xWR mmWave Sensor EVMs

2. Connect the microUSB and Ethernet cables to the PC interface, as shown in Figure 2. The DCA1000 and the xWR EVM are powered with 5-V, 2.5-A supplies.







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3. Select the static IP address in the PC local area network properties, as shown in Figure 3.

Internet Protocol Version 4 (TCP/IPV4) Properties		
General		
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings. Obtain an IP address automatically Use the following IP address: IP address: Subnet mask: Default gateway:		
Obtain DNS server address automatically		
Our Use the following DNS server addresses:		
Preferred DNS server:		
Alternate DNS server:		
Validate settings upon exit Advanced		

Figure 3. Configure Static IP Address on the PC

- 4. Download and install the mmWave Studio tool from the following link: http://www.ti.com/tool/MMWAVE-STUDIO. Install the Matlab Runtime Engine from here.
- 5. When the EVMs are powered and connected to the PC, install the FTDI drivers available from the mmWave Studio installer package. For details on the FTDI driver installation, refer to the mmWave Studio User Guide.
- The device manager shows the COM ports, as shown in Figure 4. The RS232 COM port is shown as XDS110 Class Application/User UART.



Figure 4. COM Ports



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- **NOTE:** If the XDS110 ports do not appear in the device manager, install the EMUPACK from http://processors.wiki.ti.com/index.php/XDS_Emulation_Software_Package.
- 7. Issue a board reset and connect the RS232 COM port.
- 8. Select the DataCapturedemo_xWR.lua file from the \mmwaveStudio\Scripts\ folder by clicking on the browse button, then click on the run button.

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Click **'Run'** after selecting the file

Click 'Browse' and select DataCAptureDemo_xWR.lua





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Data is captured by the captured card for a sample profile and frame, and the captured data is processed and displayed as shown in Figure 6.



Figure 6. Visualization of the Captured Raw ADC Data

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