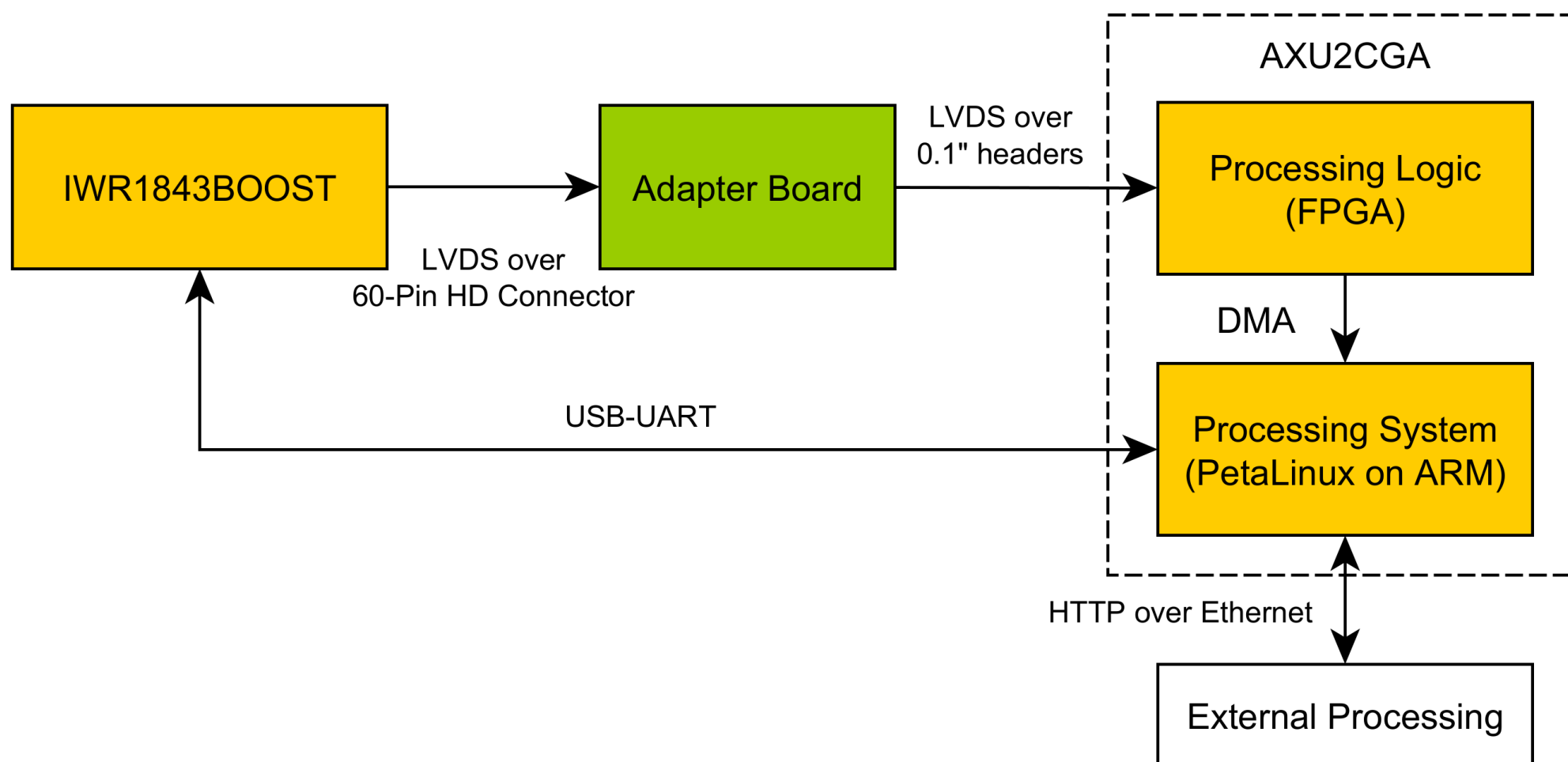


Data Capture Module

For Texas Instrument's mmWave Radar Sensors

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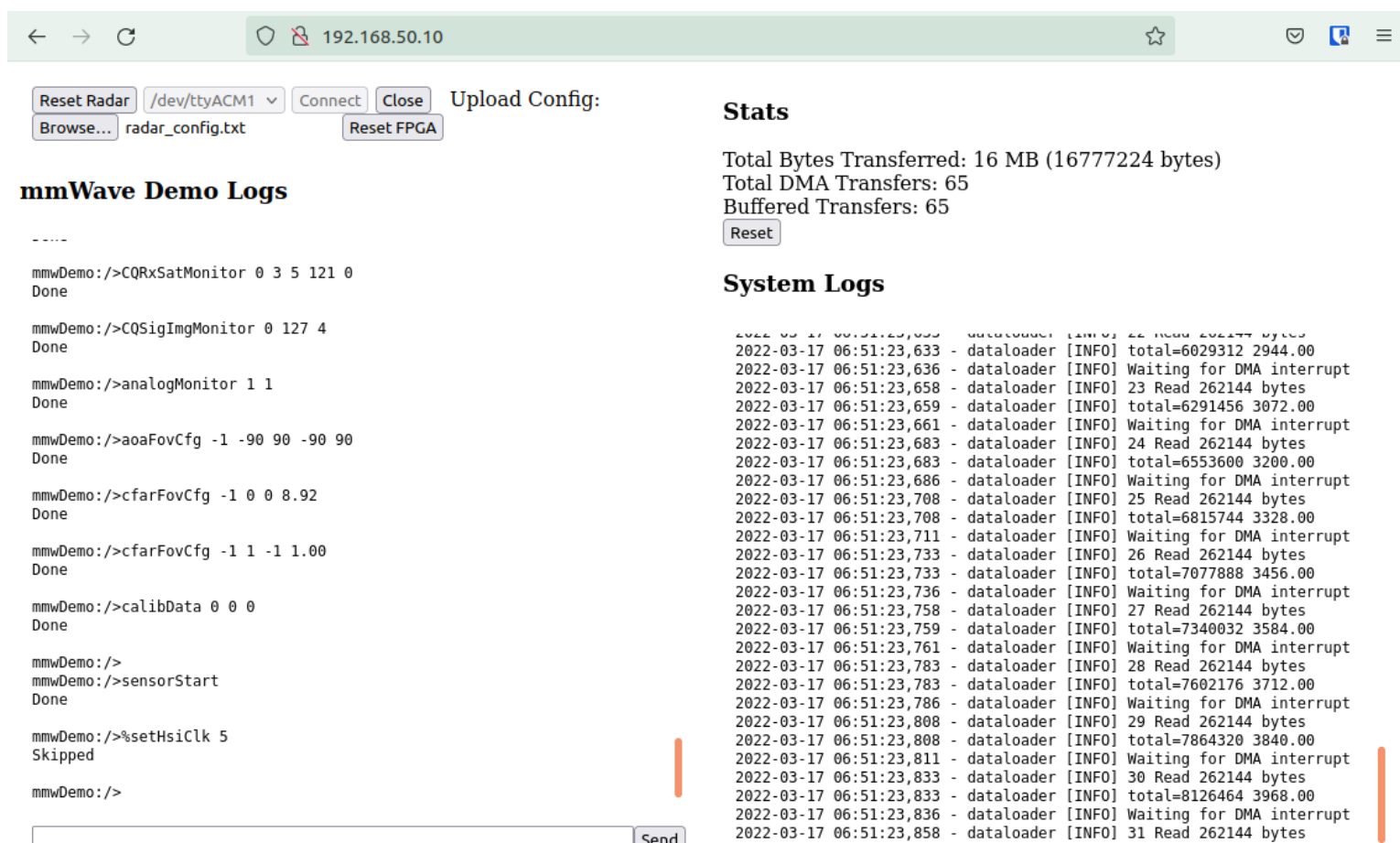


Background

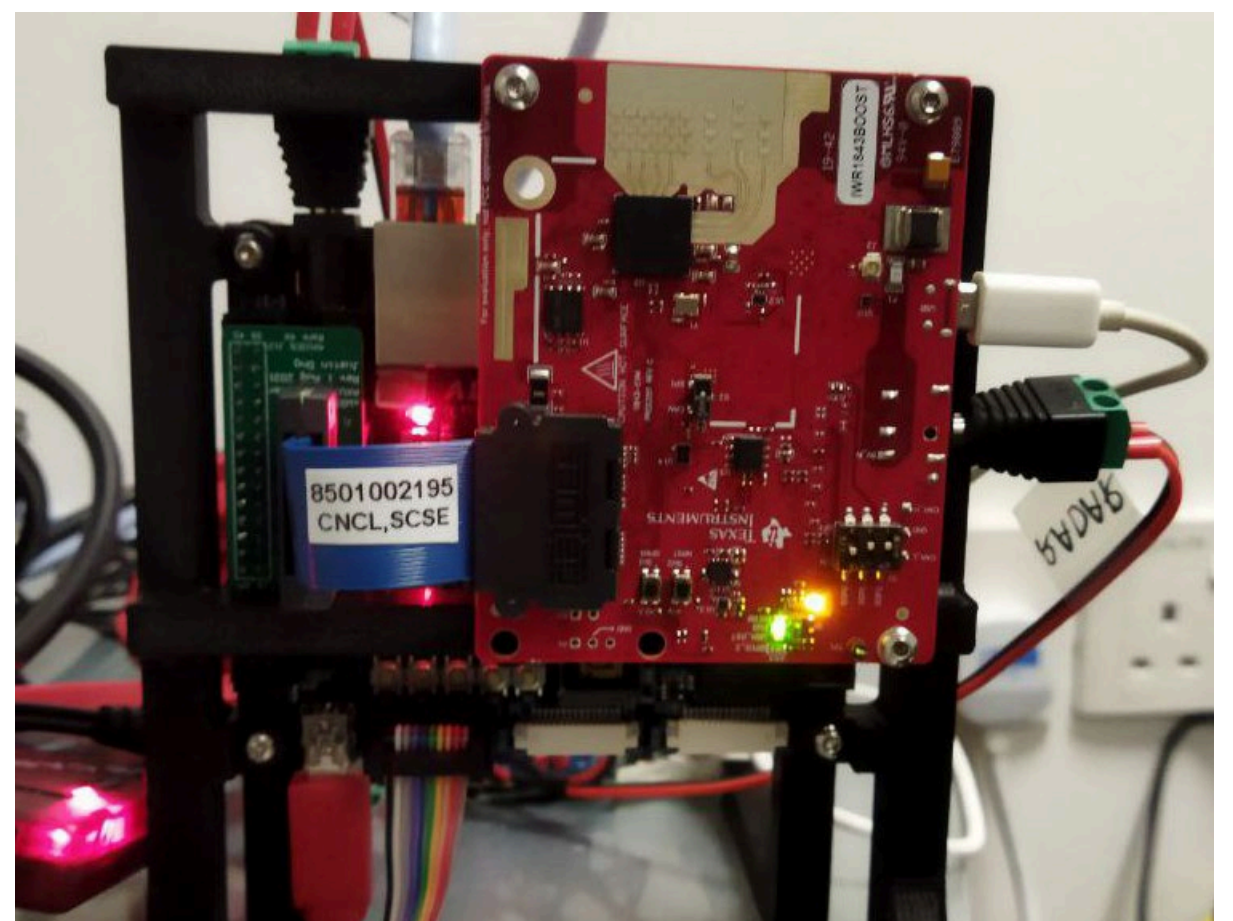
Advances in technology has made available radar sensors in compact packages, integrating both the analog frontend and digital signal processors into a single chip. To facilitate research in alternate methods of extracting useful information from the radar sensors, it is necessary to extract the raw data from the sensor, which can be challenging due to the high bandwidth requirements.

Project Objectives

This project involved the building of a data capture module for one of TI's mmWave radar sensors. A development board based on the Zynq UltraScale+ MPSoC is used to deserialize LVDS data from a IWR1843BOOST, then transfer the data to the processing system. A HTTP server then allows control of the radar and streaming data off-board to an external system for further processing.



Web Interface for Module Control & Feedback



mmWave Radar mounted to FPGA development board