OpenCPI
TX Event Test App Guide

Version 1.4

Revision History

Revision	Description of Change	Date
v1.4	Initial Release	8/2018

Table of Contents

1 Description

This application directory containts several OAS files which allow for the testing of the `tx_event` protocol using the `qdac` component's `event_in` port in multiple scenarios include both `event_in` port connected and unconnected. The application transmits a single tone at a frequency set via the `tx` component's `frequency_MHz` property in each OAS. OAS files exist for each supported hardware setup for two different behaviors: 1) transmitted tone is toggled (on/off) at a rate of once per second (`event_in` port is connected), and 2) transmitted tone is constant over duration of application (`event_in` port is unconnected). The application duration is set via ocpirun ... -t <duration_sec> ...).

2 Example usage

2.1 Example 1 - Zedboard/FMCOMMS3 w/ SMA TX1A connected to spectrum analyzer w/ 2.4 GHz visible

```
OCPI_LIBRARY_PATH=../../hdl/assemblies/data_src_to_dac_test_tx_event/:../../hdl/:../../\
    components/:$OCPI_LIBRARY_PATH ocpirun -t 10 \
    tx_event_test_toggle_fmcomms3_control_plane_100_MHz.xml
```

Spectrum analyzer is used to observe tone at 2.4 GHz toggle on/off once a second for 10 sec.

2.2 Example 2 - Zedboard/FMCOMMS3 w/ SMA TX1A connected to spectrum analyzer w/ 2.4 GHz visible

```
OCPI_LIBRARY_PATH=../../hdl/assemblies/data_src_to_dac/:../../hdl/:../../components/:\
    $OCPI_LIBRARY_PATH ocpirun -t 10 tx_event_test_const_tone_fmcomms3.xml
```

Spectrum analyzer is used to observe constant tone at 2.4 GHz for 10 sec.