

OpenCPI

TX Event Ctrlr Component Data Sheet

OpenCPI Release: v2.4.7

Revision History

Revision	Description of Change	Date
v1.4	Initial release.	9/2018
v1.5	Updated tx_event_ctrlr.rcc to version 2 (OWD change only).	4/2019
v1.6	Version bump only.	11/2019
v1.7	Erroneous doc property tables updated for accuracy.	4/2020

Summary - TX Event Ctrlr

Name	tx_event_ctrlr
Worker Type	Application
OpenCPI Release	v2.4.7
Last Update	04/2020
Component Library	ocpi.assets.util_comps
Workers	tx_event_ctrlr.rcc
Tested Platforms	CentOS7

Worker Implementation Details

When writing a value to the `txen` property that is different from its current value, there will be some finite delay before that write action's correspond ZLM is sent to the output port. Because the value read from the `txen` property is indicative of the *current* state (i.e. the *last* ZLM sent), the readback value of `txen` may differ from the value previously written until some amount of time has passed. If multiple property writes somehow occur before their corresponding ZLMs can be sent, they are queued for processing. The following table gives an example.

Action	Time
write txen=false	0 sec
txOff ZLM sent	0.1 sec
readback value of txen is false	1 sec
write txen=true	2 sec
readback value of txen is false	2.1 sec
txOn ZLM sent	2.1 sec
readback value of txen is true	2.2 sec
readback value of txen is true	2.4 sec
readback value of txen is true	2.6 sec
readback value of txen is true	2.8 sec

Block Diagrams

```

<!--                                     -->
<!--         txen property                                     -->
<!--         |                                               -->
<!--         |                                               -->
<!--         V                                               -->
<!-- +-----+-----+-----+-----+-----+-----+-----+ -->
<!-- |         .         +                                     -->
<!-- |         .         |                                     -->
<!-- |         .....| -> out port sends ZLMs w/ tx0n or tx0ff opcode -->
<!-- |         |         |                                     -->
<!-- +-----+-----+-----+-----+-----+-----+-----+ -->
<!--                                     -->

```

Component Properties

Name	Type	SequenceLength	ArrayDimensions	Accessibility	Valid Range	Default	Description
txen	Bool	-	-	Volatile, Writable	Standard	True	TX enable.

Worker Properties

tx_event_ctrlr.rcc

Name	Type	SequenceLength	ArrayDimensions	Accessibility	Valid Range	Default	Description
txen	Bool	-	-	Volatile, Writable, ReadSync, WriteSync	Standard	True	TX enable.

Component Ports

Name	Producer	Protocol	Optional
out	True	tx_event-prot	False

Worker Interfaces

tx_event_ctrlr.rcc

Name	Producer	Protocol	Optional
out	True	tx_event-prot	False