

T-EMU: GRLIB APBUART Device Model Manual



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Record of Changes

Author	Description	Rev	Date
Mattias Holm	Cleanup	1.2	2017-01-06
Mattias Holm	Auto gen tables	1.1	2016-05-12
Mattias Holm	Initial Version	1.0	2015-03-01

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1. Introduction

The APBUART is part of the GRLIB device library from Gaisler. The ApbUart model supports both infinite speed UARTs (where bytes are sent when the register is written) and the emulation of FIFOs and send times based on the scaler.

2. Attributes

2.1. Properties

Name	Type	Description
config.clockDivider	uint32_t	
config.fifoSize	uint8_t	
config.infiniteUartSpeed	uint8_t	
config.interrupt	uint8_t	
control	uint32_t	
data	uint32_t	
fifo_debug	uint32_t	
irqCtrl	iref	
object.timeSource	object	Time source object (a cpu or machine object)
pnv.bar	uint32_t	
pnv.config	uint32_t	
rxFifo.data	[32 x uint8_t]	



Name	Type	Description
rxFifo.size	uint8_t	
rxFifo.start	uint8_t	
rxFifo.usage	uint8_t	
scaler	uint32_t	
status	uint32_t	
tx	iref	
txFifo.data	[32 x uint8_t]	
txFifo.size	uint8_t	
txFifo.start	uint8_t	
txFifo.usage	uint8_t	
txShift	uint8_t	

2.2. Interfaces

Name	Type	Description
ApbIface	ApbIface	
DeviceIface	DeviceIface	
MemAccessIface	MemAccessIface	
ResetIface	ResetIface	
UartIface	SerialIface	

2.3. Ports

Prop	Iface	Description
tx	UartIface	serial port

3. Limitations

- Loop back mode is not presently supported.
- Control flow (cts) is not supported