

## TEMU *GRCAN Model*

Mattias Holm

Version 1.0, 2019-12-12

# Table of Contents

1. Introduction .....	1
2. Loading the Plugin .....	1
3. Attributes .....	1
3.1. Properties .....	1
3.2. Interfaces .....	2
3.3. Ports .....	2
4. Registers .....	2
4.1. Register Bank default .....	2
4.1.1. Register cfg .....	2
4.1.2. Register stat .....	3
4.1.3. Register ctrl .....	3
4.1.4. Register syncMaskFilt .....	3
4.1.5. Register syncCodeFilt .....	3
4.1.6. Register pendIrq .....	3
4.1.7. Register irqMask .....	4
4.1.8. Register txChanCtrl .....	4
4.1.9. Register txChanAddr .....	4
4.1.10. Register txChanSize .....	4
4.1.11. Register txChanWr .....	5
4.1.12. Register txChanRd .....	5
4.1.13. Register txChanIrq .....	5
4.1.14. Register rxChanCtrl .....	5
4.1.15. Register rxChanAddr .....	6
4.1.16. Register rxChanSize .....	6
4.1.17. Register rxChanWr .....	6
4.1.18. Register rxChanRd .....	6
4.1.19. Register rxChanIrq .....	6
4.1.20. Register rxChanMask .....	7
4.1.21. Register rxChanCode .....	7
5. Limitations .....	7

# 1. Introduction

The GRCAN model is available in the GrCan plugin.

## 2. Loading the Plugin

```
import GrCan
```

## 3. Attributes

### 3.1. Properties

Name	Type	Description
bus	iref / CanBusIface	CAN bus
cfg	uint32_t	Configuration register
config.irq	uint8_t	Interrupt number
config.singleIrq	uint8_t	Single interrupt
ctrl	uint32_t	Control register
irqCtrl	iref / IrqCtrlIface	IRQ controller
irqMask	uint32_t	Interrupt register
mem	iref / MemoryIface	Memory
object.timeSource	object	Time source object (a cpu or machine object)
pendIrq	uint32_t	Pending interrupt register
rxChanAddr	uint32_t	RX channel address register
rxChanCode	uint32_t	RX channel code register
rxChanCtrl	uint32_t	RX channel control register
rxChanIrq	uint32_t	RX channel irq register
rxChanMask	uint32_t	RX channel mask register
rxChanRd	uint32_t	RX channel read register
rxChanSize	uint32_t	RX channel size register
rxChanWr	uint32_t	RX channel write register
stat	uint32_t	Status register
syncCodeFilt	uint32_t	SYNC code filter register

Name	Type	Description
syncMaskFilt	uint32_t	SYNC mask filter register
txChanAddr	uint32_t	TX channel address register
txChanCtrl	uint32_t	TX channel control register
txChanIrq	uint32_t	TX channel irq register
txChanRd	uint32_t	TX channel read register
txChanSize	uint32_t	TX channel size register
txChanWr	uint32_t	TX channel write register

## 3.2. Interfaces

Name	Type	Description
ApbIface	ApbIface	APB P&P interface
CanDevIface	CanDevIface	CAN device interface
MemAccessIface	MemAccessIface	Memory access interface (registers)

## 3.3. Ports

Prop	Iface	Description
-	-	-

# 4. Registers



Register support is currently experimental!

## 4.1. Register Bank default

### 4.1.1. Register cfg

Congifuation register

Cold reset value: 0x0

Warm reset value: 0x0

Field	Mask	Cold	Warm	Description
-	-	-	-	-

### 4.1.2. Register stat

Status register

Cold reset value: 0x0

Warm reset value: 0x0

Field	Mask	Cold	Warm	Description
-	-	-	-	-

### 4.1.3. Register ctrl

Control register

Cold reset value: 0x0

Warm reset value: 0x0

Field	Mask	Cold	Warm	Description
-	-	-	-	-

### 4.1.4. Register syncMaskFilt

SYNC mask filter register

Cold reset value: 0x0

Warm reset value: 0x0

Field	Mask	Cold	Warm	Description
-	-	-	-	-

### 4.1.5. Register syncCodeFilt

SYNC code filter register

Cold reset value: 0x0

Warm reset value: 0x0

Field	Mask	Cold	Warm	Description
-	-	-	-	-

### 4.1.6. Register pendlrq

Pending interrupt register

Cold reset value: 0x0

Warm reset value: 0x0

Field	Mask	Cold	Warm	Description
-	-	-	-	-

#### 4.1.7. Register irqMask

Interrupt register

Cold reset value: 0x0

Warm reset value: 0x0

Field	Mask	Cold	Warm	Description
-	-	-	-	-

#### 4.1.8. Register txChanCtrl

TX channel control register

Cold reset value: 0x0

Warm reset value: 0x0

Field	Mask	Cold	Warm	Description
-	-	-	-	-

#### 4.1.9. Register txChanAddr

TX channel address register

Cold reset value: 0x0

Warm reset value: 0x0

Field	Mask	Cold	Warm	Description
-	-	-	-	-

#### 4.1.10. Register txChanSize

TX channel size register

Cold reset value: 0x0

Warm reset value: 0x0

Field	Mask	Cold	Warm	Description
-	-	-	-	-

#### 4.1.11. Register txChanWr

TX channel write register

Cold reset value: 0x0

Warm reset value: 0x0

Field	Mask	Cold	Warm	Description
-	-	-	-	-

#### 4.1.12. Register txChanRd

TX channel read register

Cold reset value: 0x0

Warm reset value: 0x0

Field	Mask	Cold	Warm	Description
-	-	-	-	-

#### 4.1.13. Register txChanIrq

TX channel irq register

Cold reset value: 0x0

Warm reset value: 0x0

Field	Mask	Cold	Warm	Description
-	-	-	-	-

#### 4.1.14. Register rxChanCtrl

RX channel control register

Cold reset value: 0x0

Warm reset value: 0x0

Field	Mask	Cold	Warm	Description
-	-	-	-	-

#### 4.1.15. Register rxChanAddr

RX channel address register

Cold reset value: 0x0

Warm reset value: 0x0

Field	Mask	Cold	Warm	Description
-	-	-	-	-

#### 4.1.16. Register rxChanSize

RX channel size register

Cold reset value: 0x0

Warm reset value: 0x0

Field	Mask	Cold	Warm	Description
-	-	-	-	-

#### 4.1.17. Register rxChanWr

RX channel write register

Cold reset value: 0x0

Warm reset value: 0x0

Field	Mask	Cold	Warm	Description
-	-	-	-	-

#### 4.1.18. Register rxChanRd

RX channel read register

Cold reset value: 0x0

Warm reset value: 0x0

Field	Mask	Cold	Warm	Description
-	-	-	-	-

#### 4.1.19. Register rxChanIrq

RX channel irq register



Cold reset value: 0x0

Warm reset value: 0x0

Field	Mask	Cold	Warm	Description
-	-	-	-	-

#### 4.1.20. Register rxChanMask

RX channel mask register

Cold reset value: 0x0

Warm reset value: 0x0

Field	Mask	Cold	Warm	Description
-	-	-	-	-

#### 4.1.21. Register rxChanCode

RX channel code register

Cold reset value: 0x0

Warm reset value: 0x0

Field	Mask	Cold	Warm	Description
-	-	-	-	-

## 5. Limitations

- None