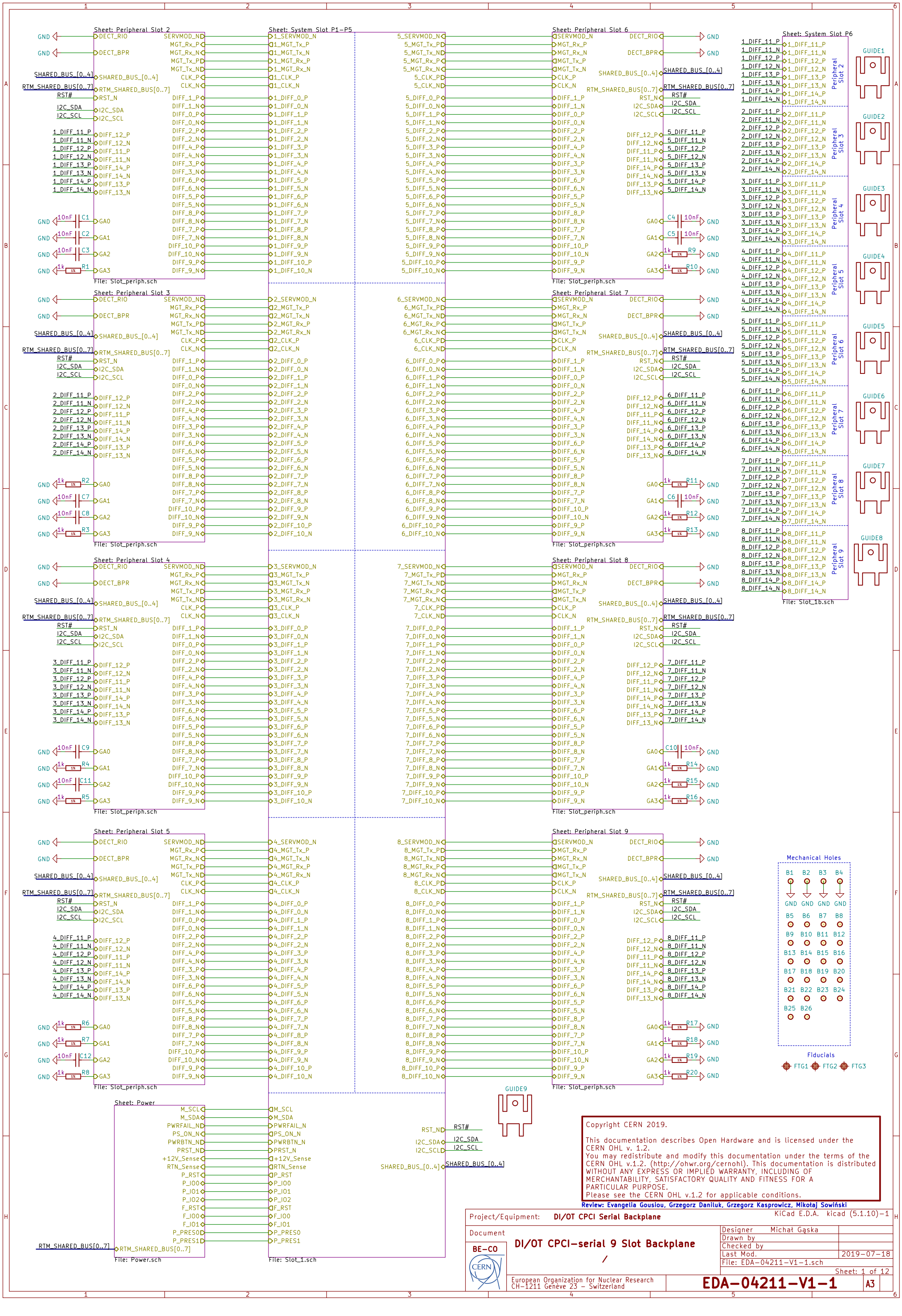

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Review: Evangelia Gousiou, Grzegorz Daniluk, Grzegorz Kasprowicz, Mikołaj Sowiński

Project/Equipment: DI/OT CPCI Serial Backplane

KiCad E.D.A. kicad (5.1.10)-1

Document

DI/OT CPCI-serial 9 Slot Backplane

/

BE-CO

Designer	Michał Gąska
Drawn by	
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Last Mod.	2019-07-18
File:	EDA-04211-V1-1.sch
Sheet:	1 of 12

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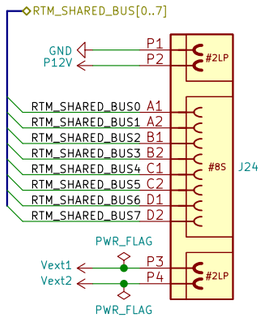
CH-1211 Genève 23 – Switzerland

EDA-04211-V1-1

A3

External Power slot



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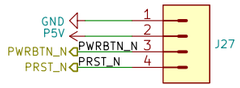
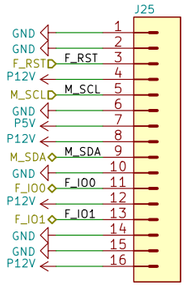


FANTRAY



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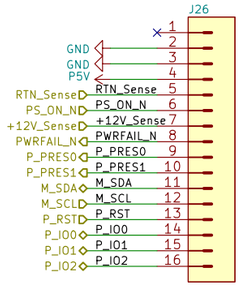
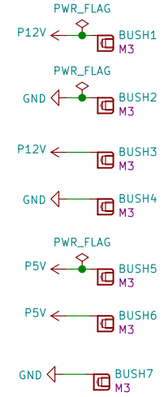


Power bushing connectors



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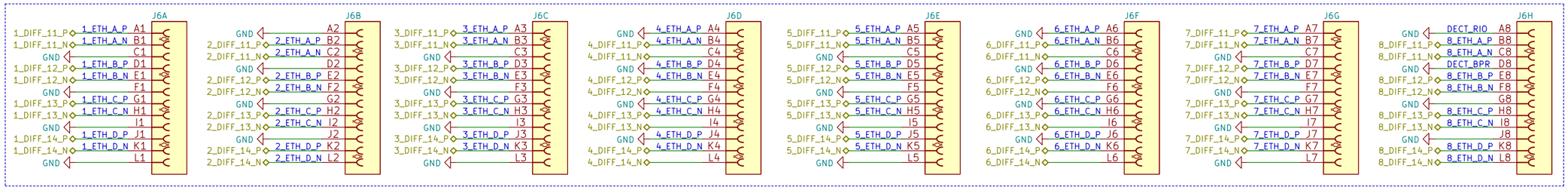
Project/Equipment: **DI/OT CPCI Serial Backplane**		KiCad E.D.A. kicad (5.1.10)-1
Document		
DI/OT CPCI-serial 9 Slot Backplane	Designer Michał Gąska	
/Power/	Drawn by	
	Checked by	
	Last Mod.	2019-07-18
	File: Power.sch	
		Sheet: 2 of 12
BE-CO		
European Organization for Nuclear Research CH-1211 Genève 23 – Switzerland	**EDA-04211-V1-1**	A3

P6



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Project/Equipment: **DI/OT CPCI Serial Backplane**

KiCad E.D.A. kicad (5.1.10)-1

Document

DI/OT CPCI-serial 9 Slot Backplane

/System Slot P6/

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Designer	Michał Gąska
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Checked by	
Last Mod.	2019-07-18
File: Slot_1b.sch	
Sheet: 3 of 12	

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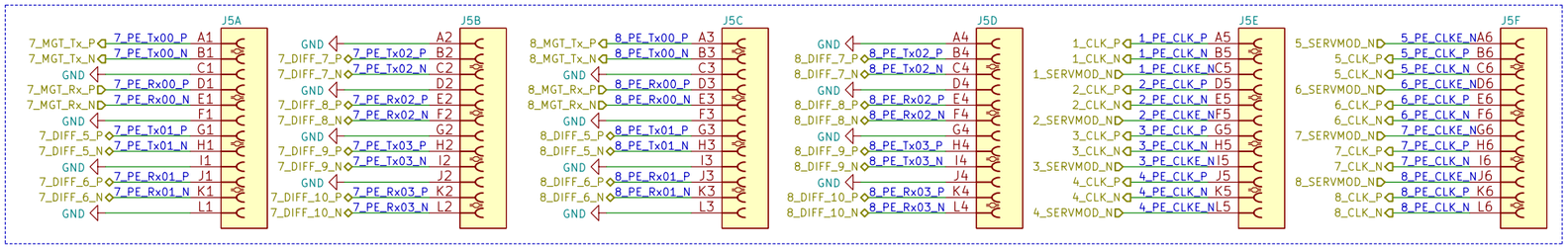
P5



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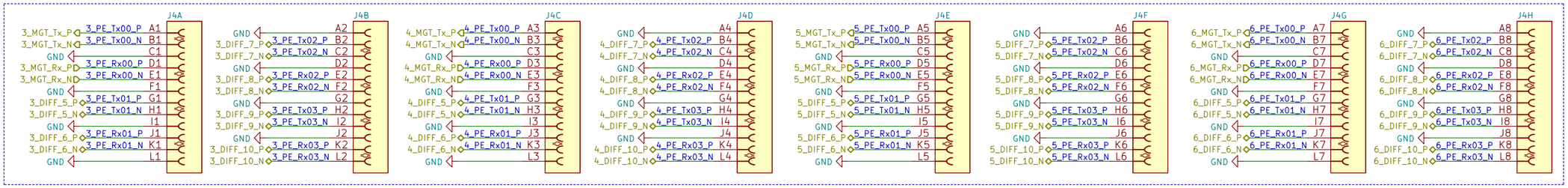

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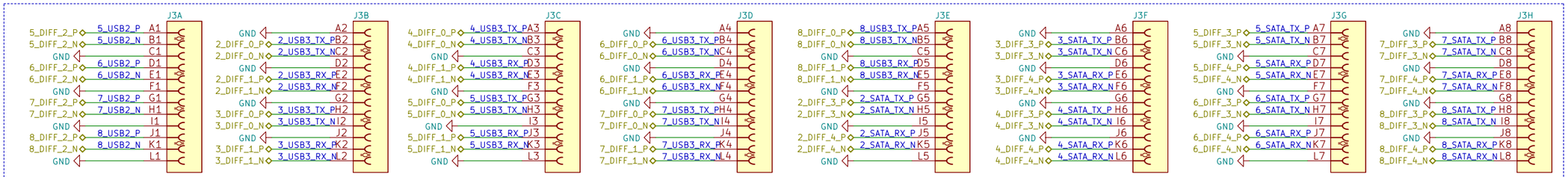

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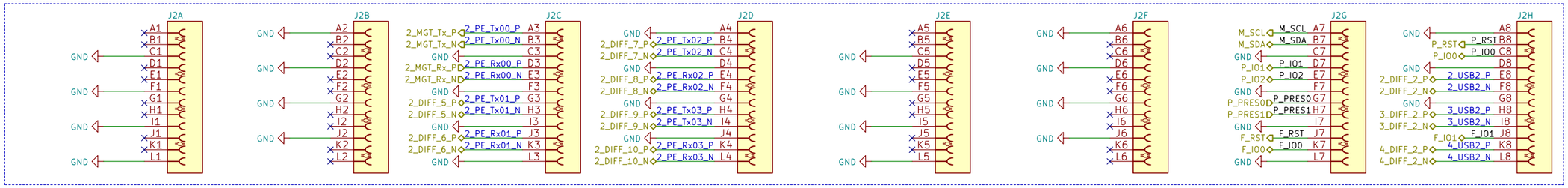

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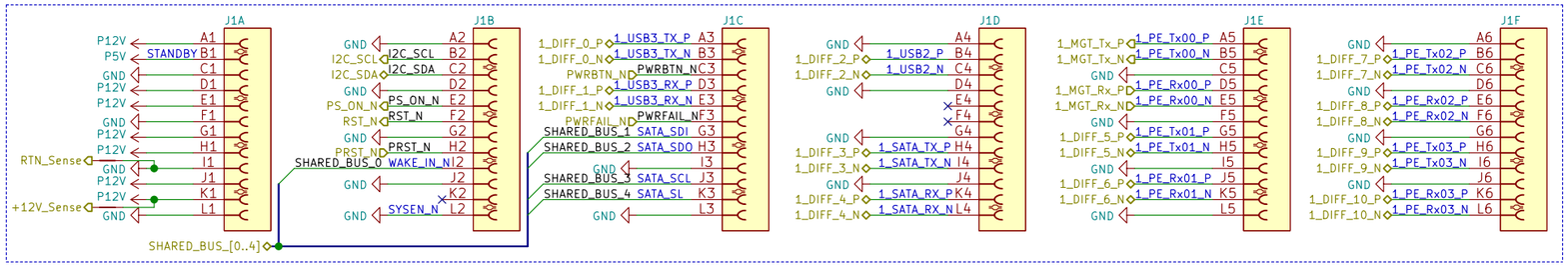

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Length matching:
– between the two MGT lines per slot [MGT_Rx, MGT_Tx]; these 2 diff–pairs are matched for the same slot
– among the eight CLK [1_CLK..8_CLK]; these 8 diff–pairs are length–matched.

All n_MGT_Tx/n_MGT_Rx signals mast have controlled differential impedance of 100 Ohm

GUIDE10
GUIDE11
GUIDE12
GUIDE13
GUIDE14
GUIDE15
GUIDE16
GUIDE17

Project/Equipment:	**DI/OT CPCI Serial Backplane**	KiCad E.D.A. kicad (5.1.10)–1
Document	**DI/OT CPCI–serial 9 Slot Backplane** /System Slot P1–P5/	Designer Michał Gąska
BE–CO		Drawn by
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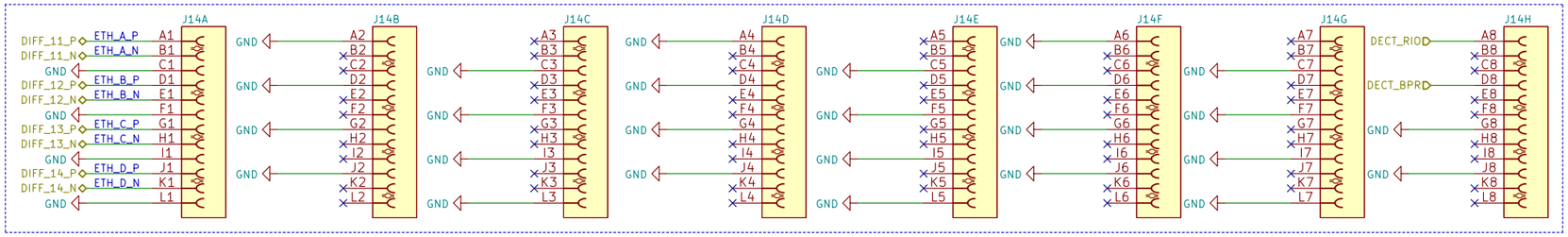
		Last Mod. 2019–07–18
		File: Slot_1.sch
		Sheet: 4 of 12
European Organization for Nuclear Research CH–1211 Genève 23 – Switzerland	**EDA–04211–V1–1**	A3

P6



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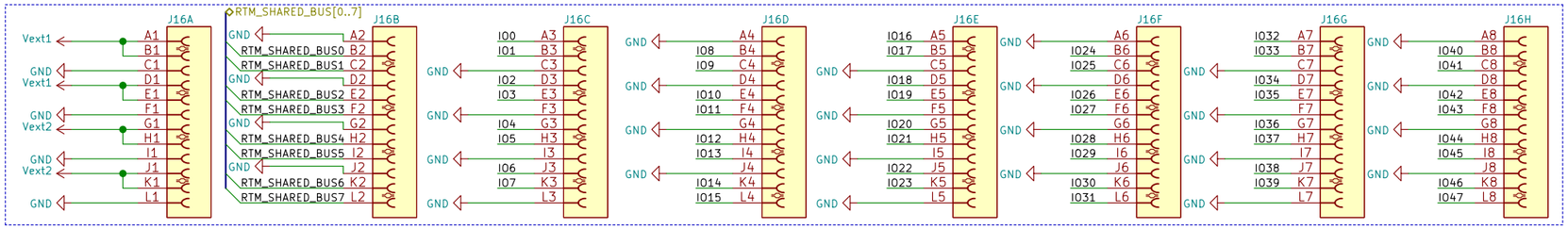
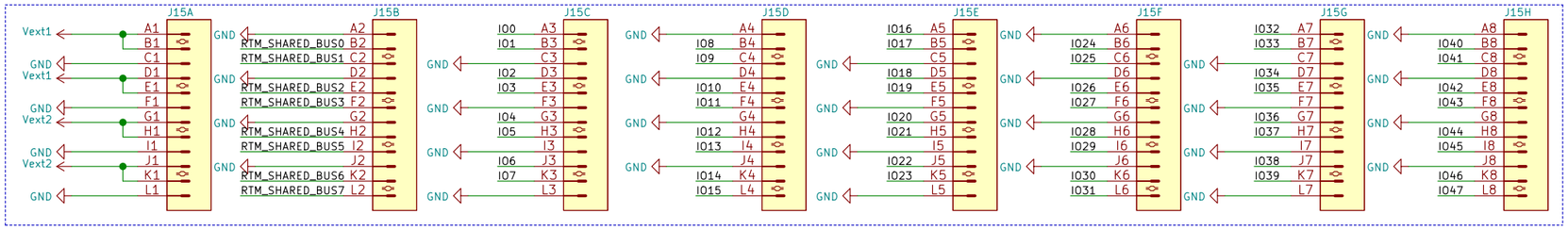
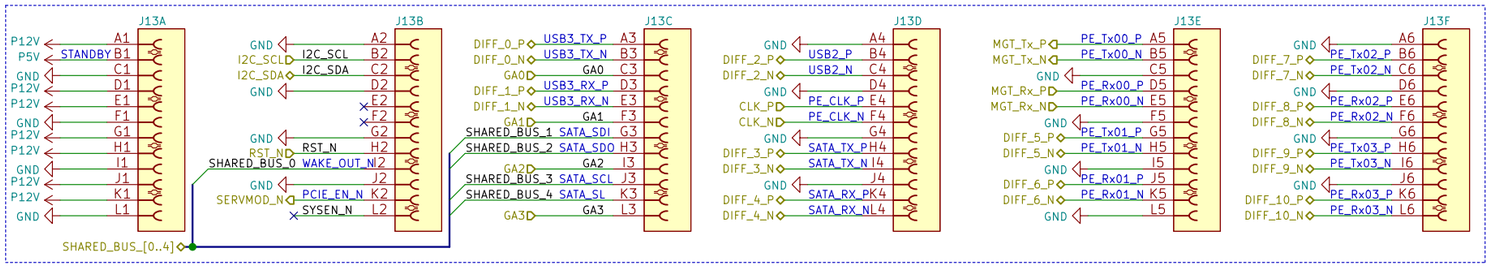


RTM connector



P1

All MGT_Tx/MGT_Rx signals mast have controlled differential impedance of 100 Ohm



CPCI-S.0 REQ 4.73 Backplane System Slot Identification 2
The SYSEN_N pin shall be connected to GND at the system slot and left open on peripheral slots.

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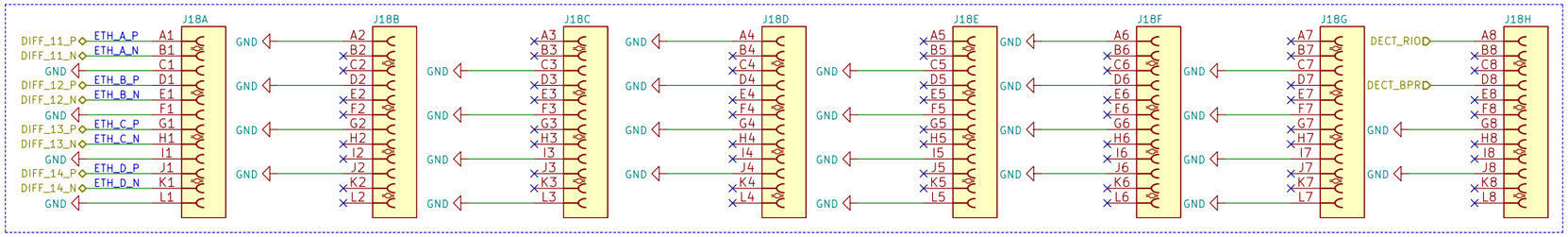
Project/Equipment: **CPCIS Backplane**		KiCad E.D.A. kicad (5.1.10)-1
Document: **DI/OT CPCI-serial 9 Slot Backplane** /Peripheral Slot 4/	Designer Michał Gąska	
	Drawn by	
	Checked by	
	Last Mod.	2019-07-18
	File: Slot_periph.sch	
		Sheet: 5 of 12
BE-CO CERN	European Organization for Nuclear Research CH-1211 Genève 23 – Switzerland	**EDA-04211-V1-1** A3

P6



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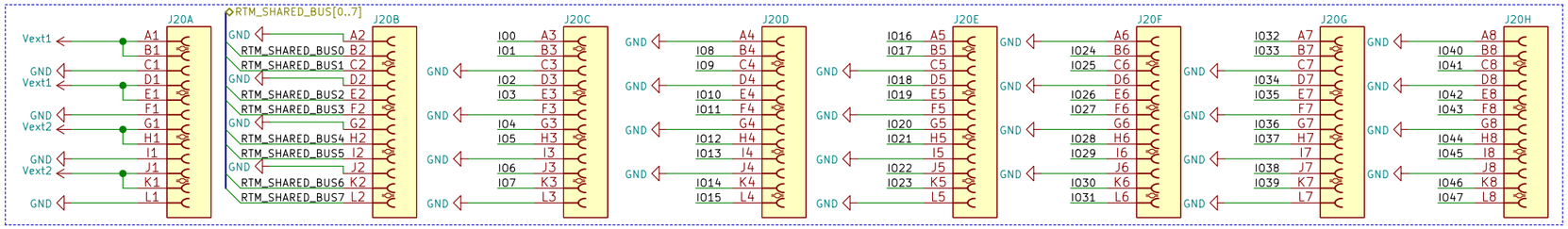
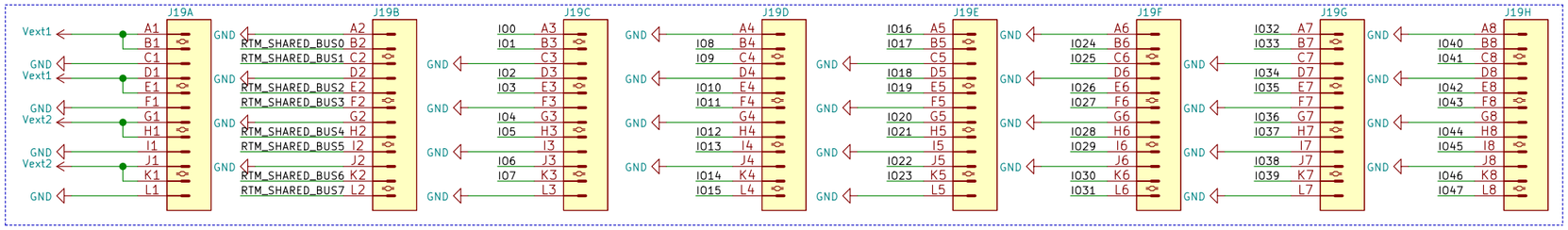
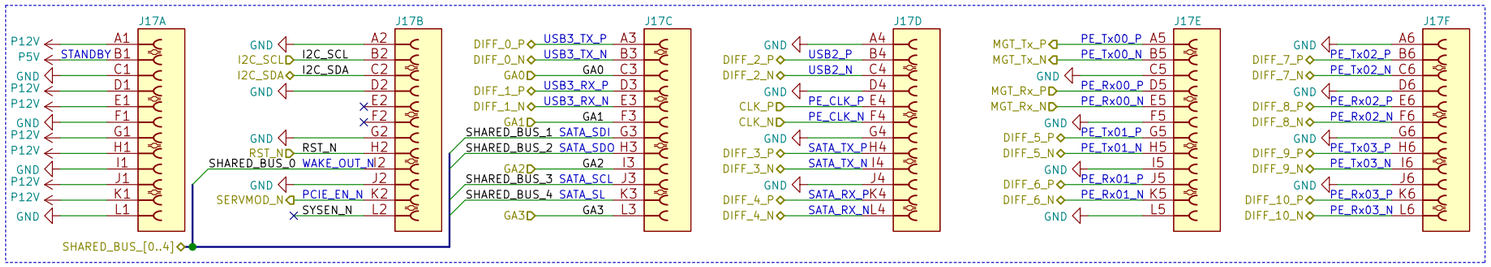


RTM connector



P1

All MGT_Tx/MGT_Rx signals mast have controlled differential impedance of 100 Ohm



CPCI-S.0 REQ 4.73 Backplane System Slot Identification 2
The SYSEN_N pin shall be connected to GND at the system slot and left open on peripheral slots.

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Project/Equipment: **CPCIS Backplane**		KiCad E.D.A. kicad (5.1.10)-1
Document: **DI/OT CPCI-serial 9 Slot Backplane** /Peripheral Slot 5/	Designer Michał Gąska	
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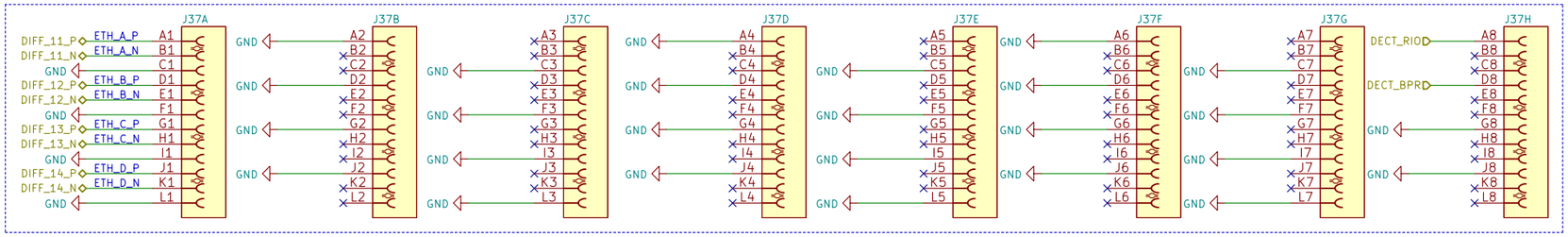
	Last Mod.	2019-07-18
	File: Slot_periph.sch	
		Sheet: 6 of 12
BE-CO	European Organization for Nuclear Research CH-1211 Genève 23 – Switzerland	**EDA-04211-V1-1** A3

P6



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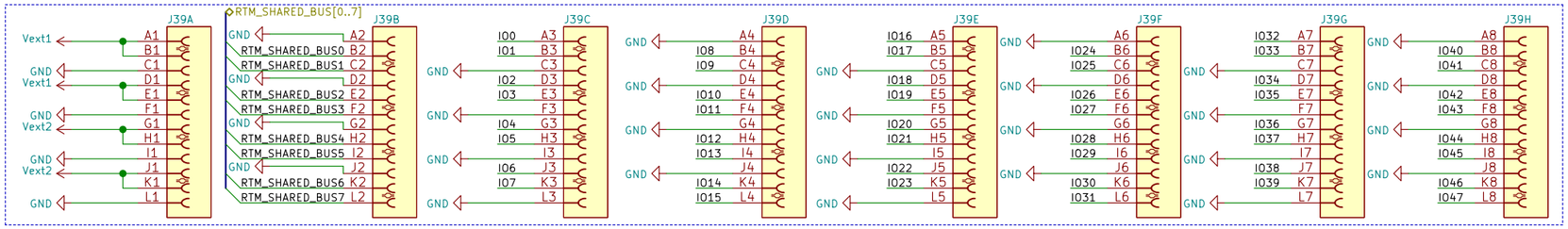
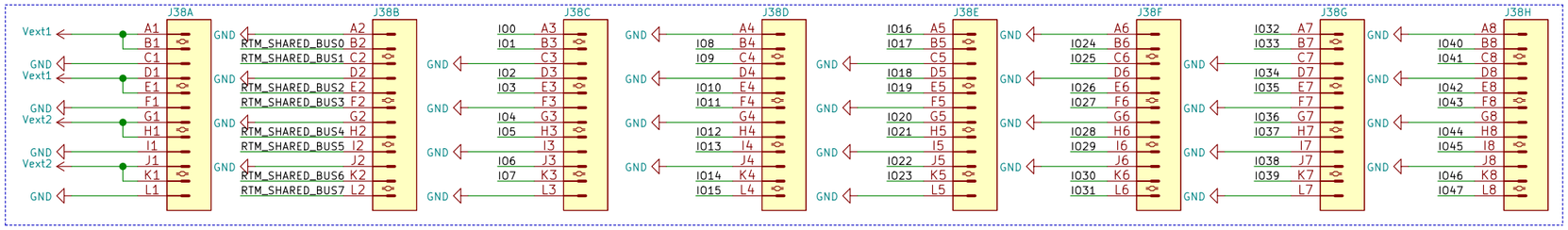
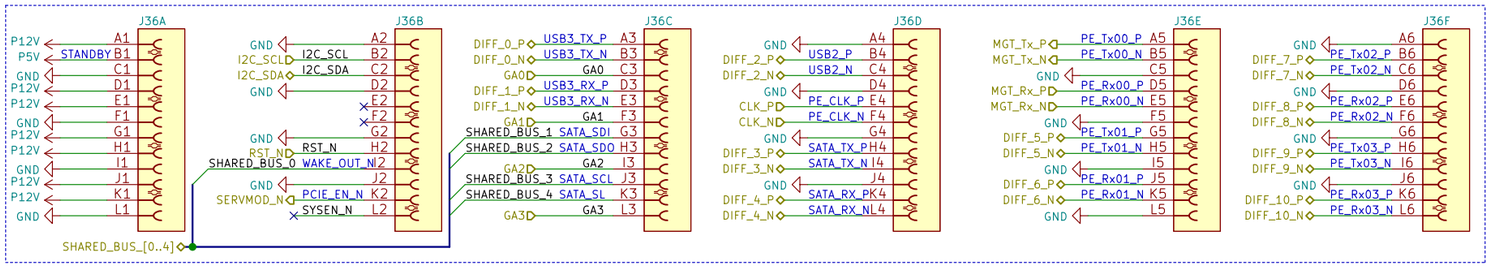


RTM connector



P1

All MGT_Tx/MGT_Rx signals mast have controlled differential impedance of 100 Ohm



CPCI-S.0 REQ 4.73 Backplane System Slot Identification 2
The SYSEN_N pin shall be connected to GND at the system slot and left open on peripheral slots.

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Project/Equipment: **CPCIS Backplane**		KiCad E.D.A. kicad (5.1.10)-1
Document: **DI/OT CPCI-serial 9 Slot Backplane** /Peripheral Slot 7/	Designer: Michał Gąska	
	Drawn by	
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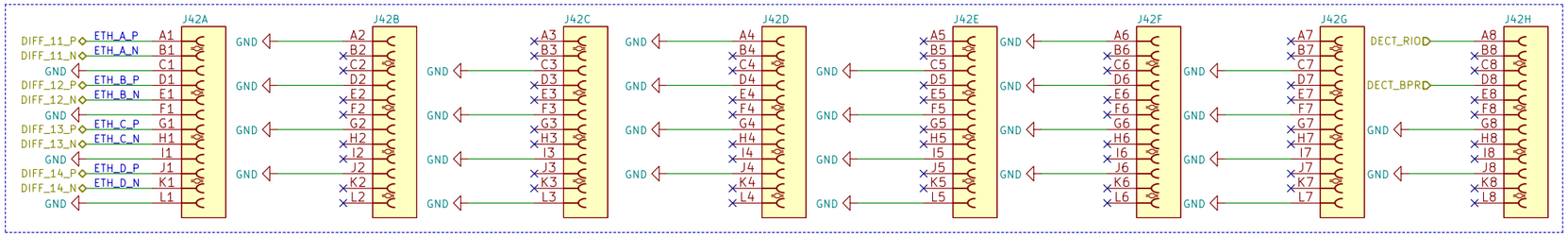
	Last Mod.	2019-07-18
	File: Slot_periph.sch	
		Sheet: 7 of 12
BE-CO	European Organization for Nuclear Research CH-1211 Genève 23 – Switzerland	**EDA-04211-V1-1** A3

P6



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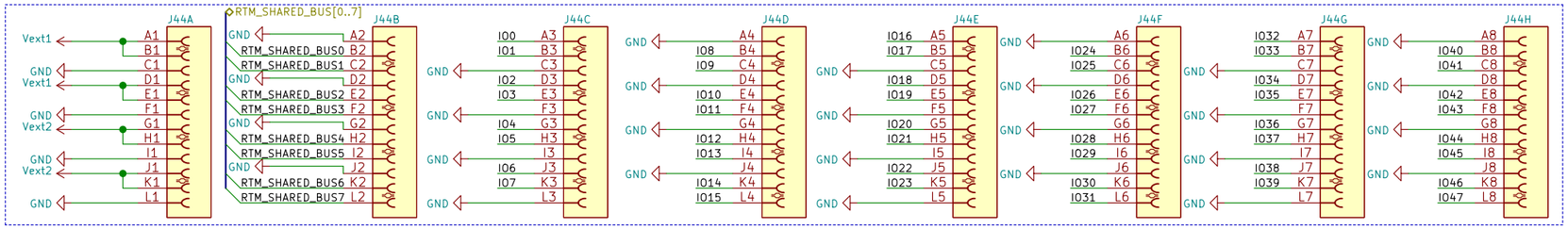
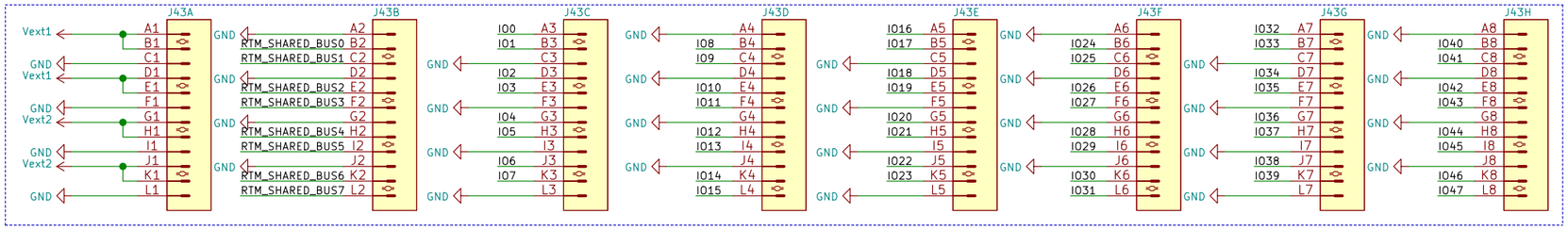
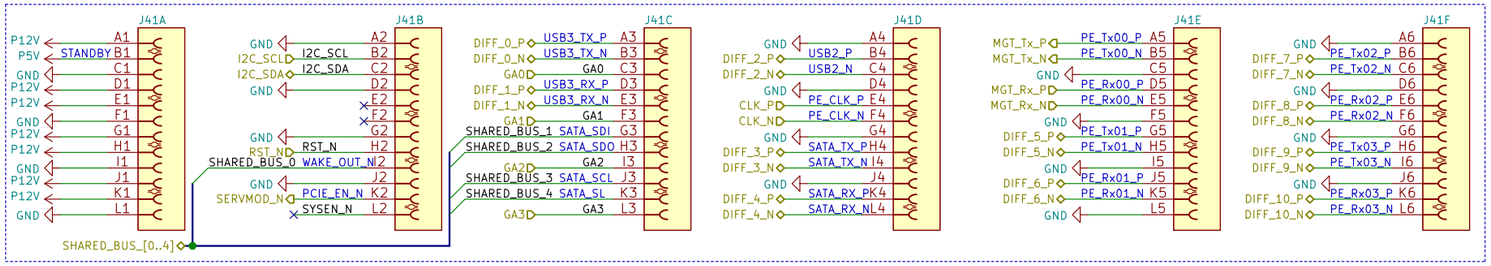


RTM connector



P1

All MGT_Tx/MGT_Rx signals mast have controlled differential impedance of 100 Ohm



CPCI-S.0 REQ 4.73 Backplane System Slot Identification 2
The SYSEN_N pin shall be connected to GND at the system slot and left open on peripheral slots.

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Project/Equipment: **CPCIS Backplane**		KiCad E.D.A. kicad (5.1.10)-1
Document: **DI/OT CPCI-serial 9 Slot Backplane** /Peripheral Slot 8/	Designer Michał Gąska	
	Drawn by	
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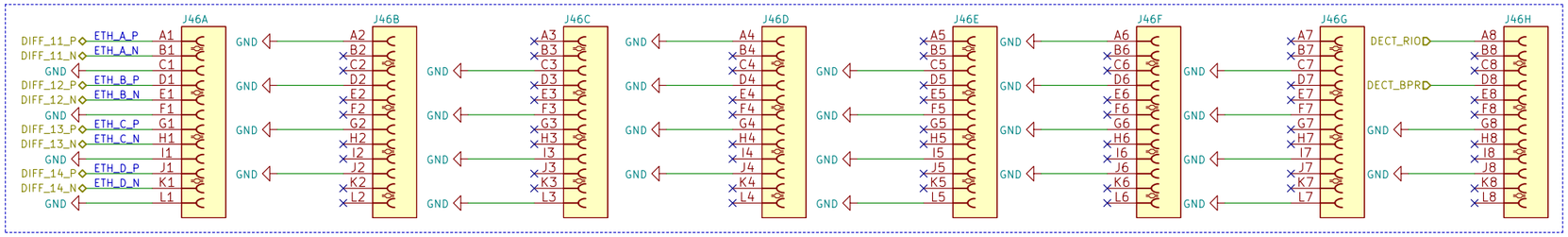
	Last Mod.	2019-07-18
	File: Slot_periph.sch	
		Sheet: 8 of 12
BE-CO	European Organization for Nuclear Research CH-1211 Genève 23 – Switzerland	**EDA-04211-V1-1** A3

P6



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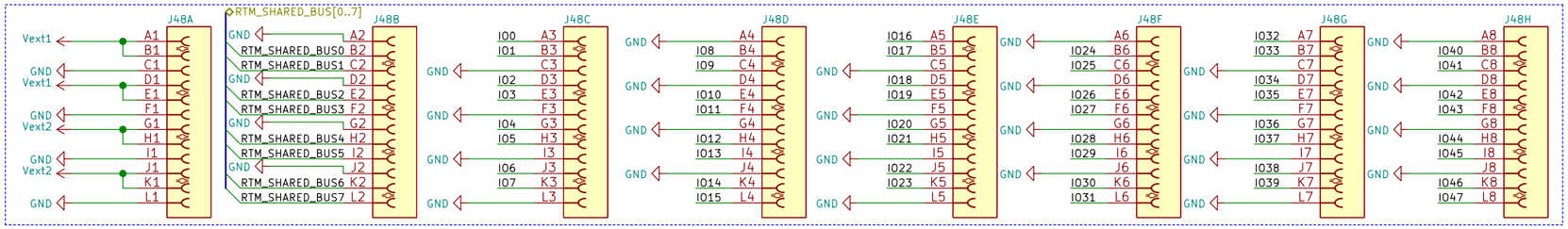
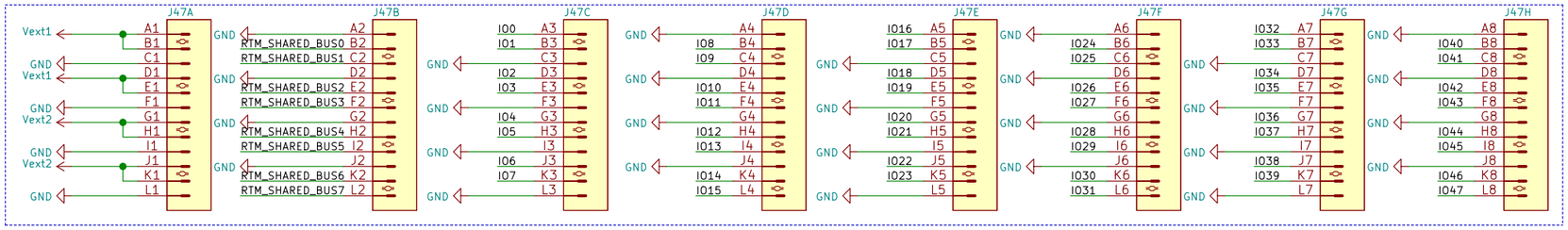
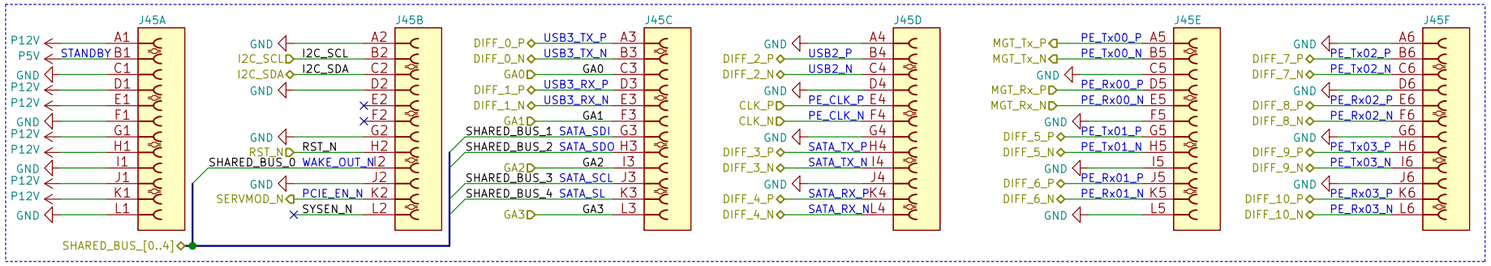


RTM connector



P1

All MGT_Tx/MGT_Rx signals mast have controlled differential impedance of 100 Ohm



CPCI-S.0 REQ 4.73 Backplane System Slot Identification 2
The SYSEN_N pin shall be connected to GND at the system slot and left open on peripheral slots.

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Project/Equipment: **CPCIS Backplane**		KiCad E.D.A. kicad (5.1.10)-1
Document: **DI/OT CPCI-serial 9 Slot Backplane** /Peripheral Slot 9/	Designer Michał Gąska	
	Drawn by	
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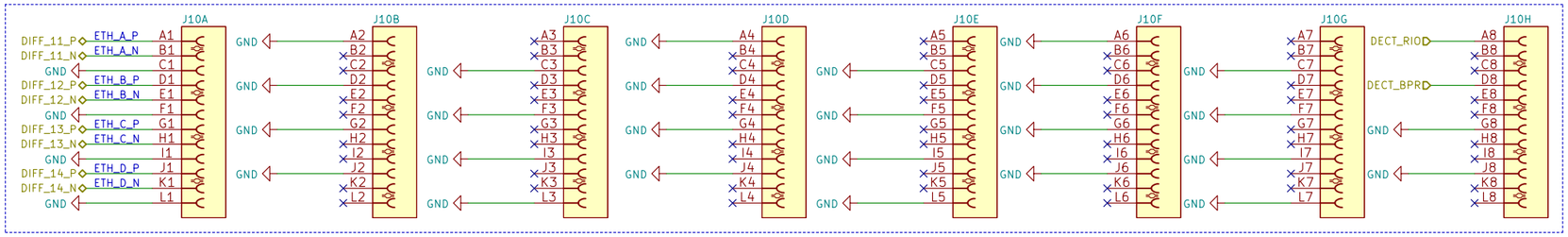
	Last Mod.	2019-07-18
	File: Slot_periph.sch	
		Sheet: 9 of 12
BE-CO	European Organization for Nuclear Research CH-1211 Genève 23 – Switzerland	**EDA-04211-V1-1** A3

P6



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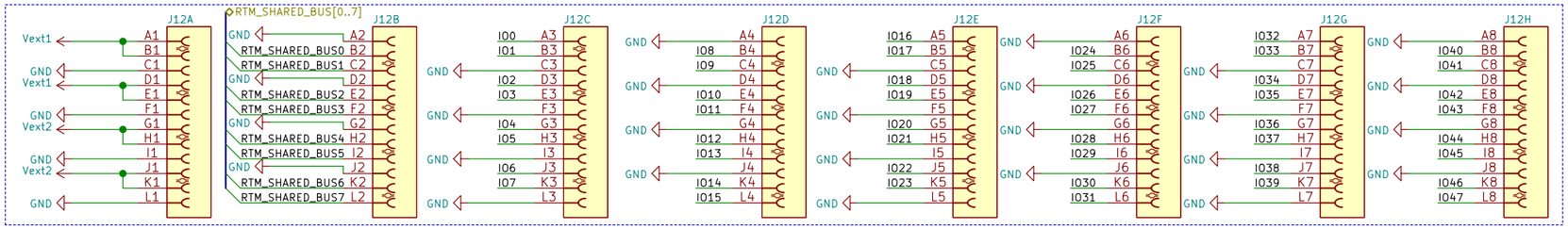
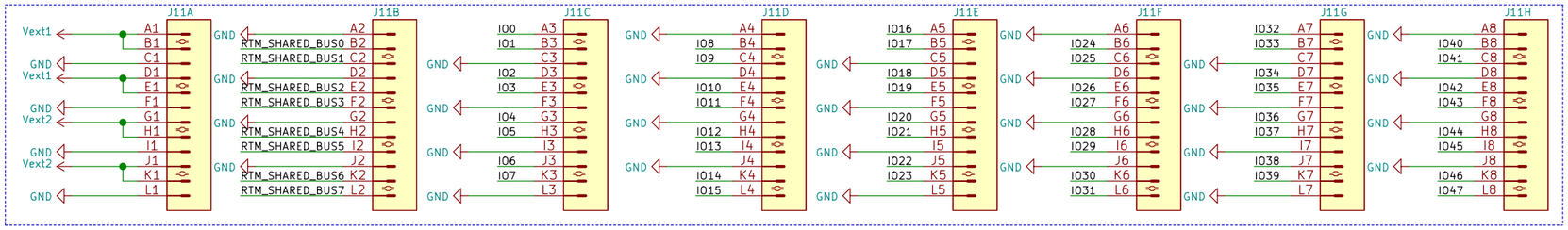
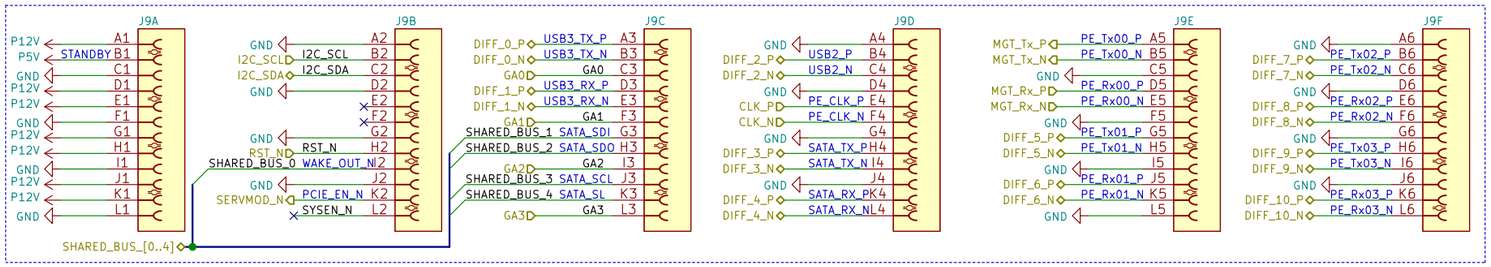


RTM connector



P1

All MGT_Tx/MGT_Rx signals mast have controlled differential impedance of 100 Ohm



CPCI-S.0 REQ 4.73 Backplane System Slot Identification 2
The SYSEN_N pin shall be connected to GND at the system slot and left open on peripheral slots.

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Project/Equipment: **CPCIS Backplane**		KiCad E.D.A. kicad (5.1.10)-1
Document: **DI/OT CPCI-serial 9 Slot Backplane** /Peripheral Slot 3/	Designer Michał Gąska	
	Drawn by	
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	Last Mod.	2019-07-18
	File: Slot_periph.sch	
	Sheet: 10 of 12	
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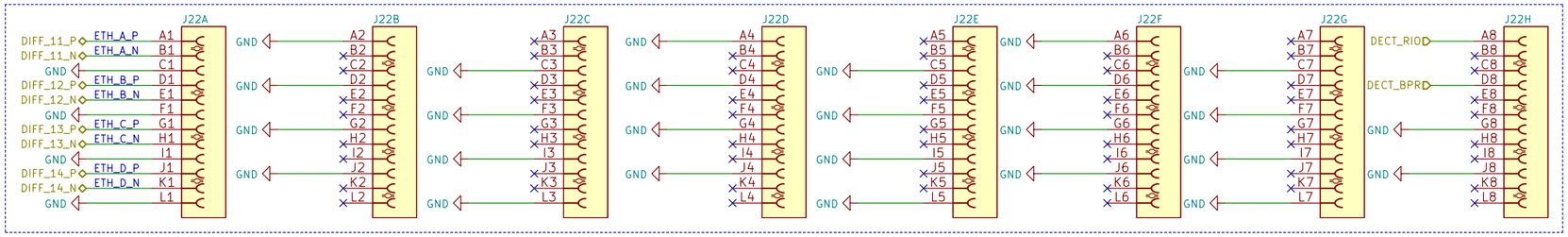
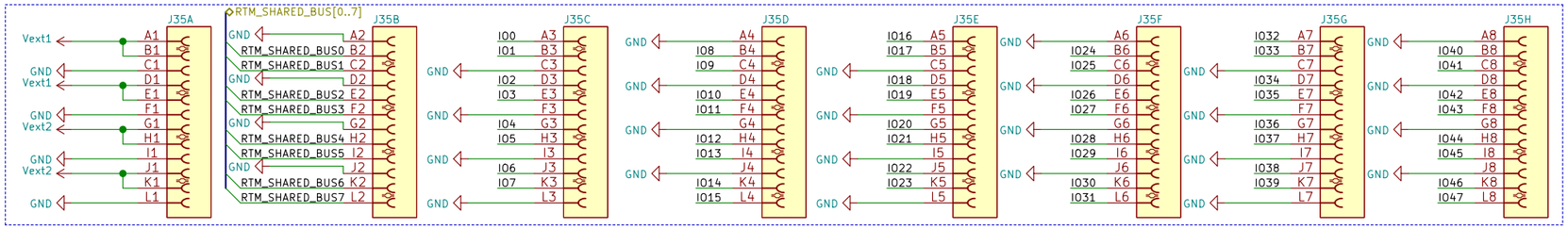
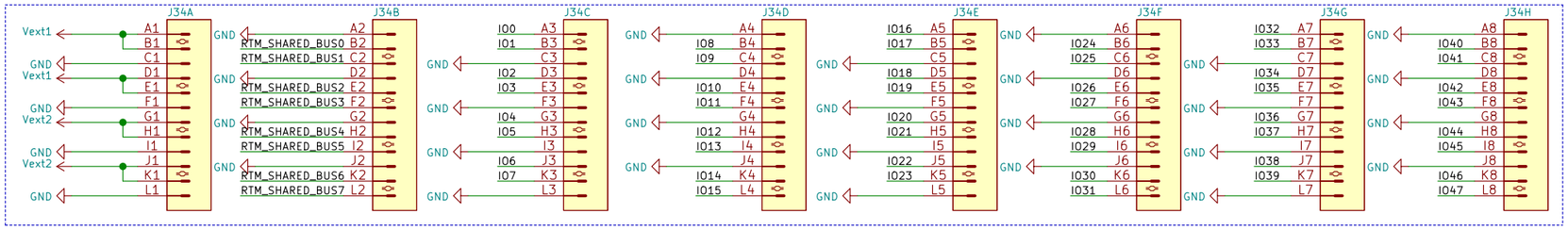
P6



P4

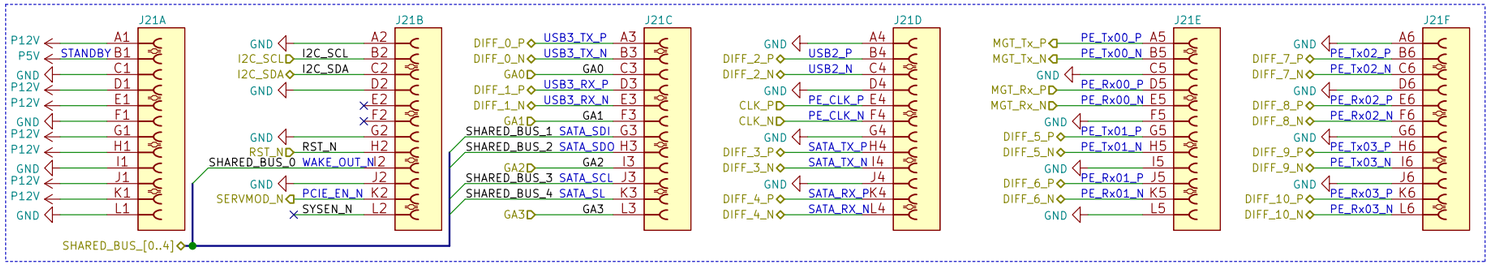


RTM connector



P1

All MGT_Tx/MGT_Rx signals mast have controlled differential impedance of 100 Ohm



CPCI-S.0 REQ 4.73 Backplane System Slot Identification 2
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Project/Equipment: **CPCIS Backplane**		KiCad E.D.A. kicad (5.1.10)-1
Document: **DI/OT CPCI-serial 9 Slot Backplane** /Peripheral Slot 6/	Designer: Michał Gąska	
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	Sheet: 11 of 12	
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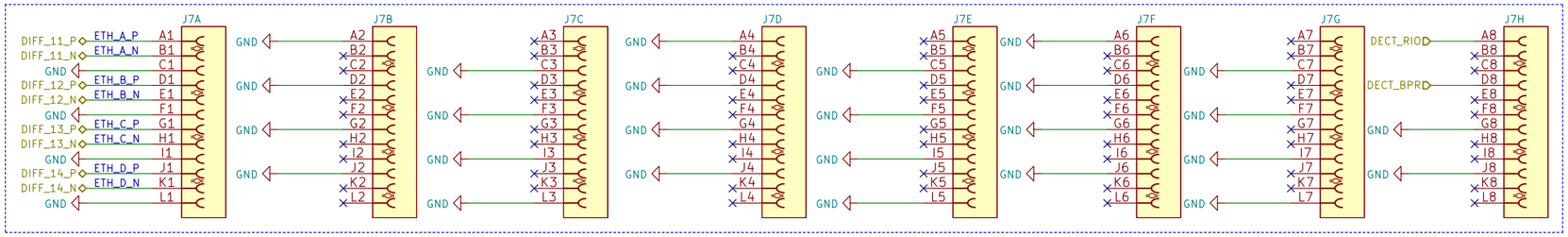
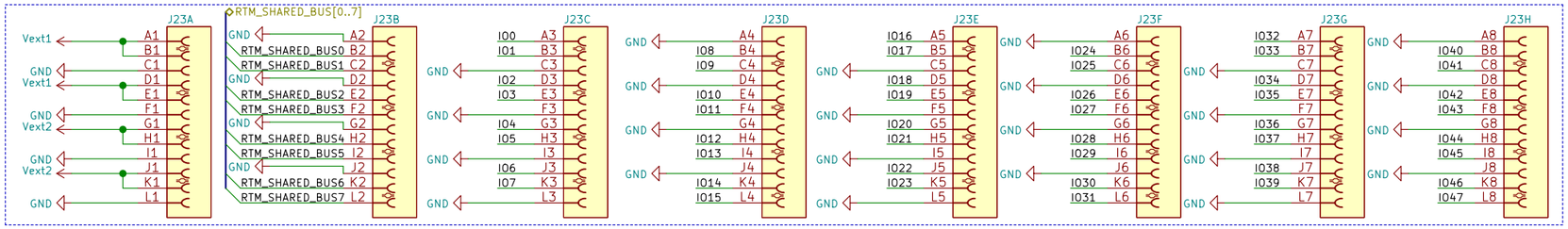
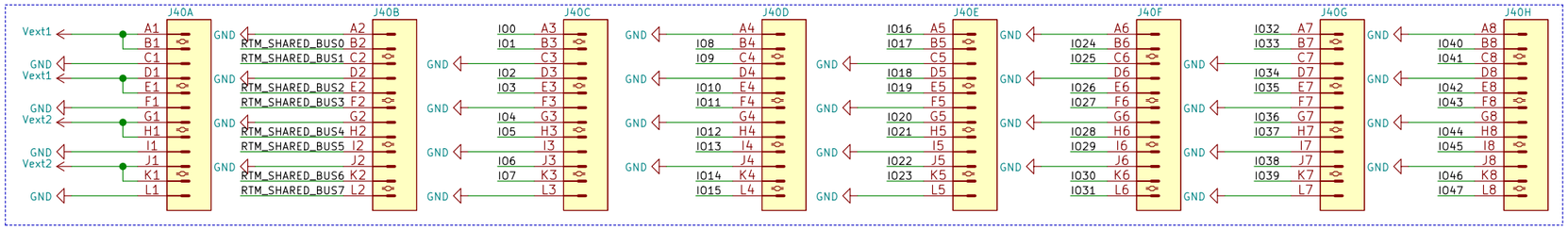
P6



P4

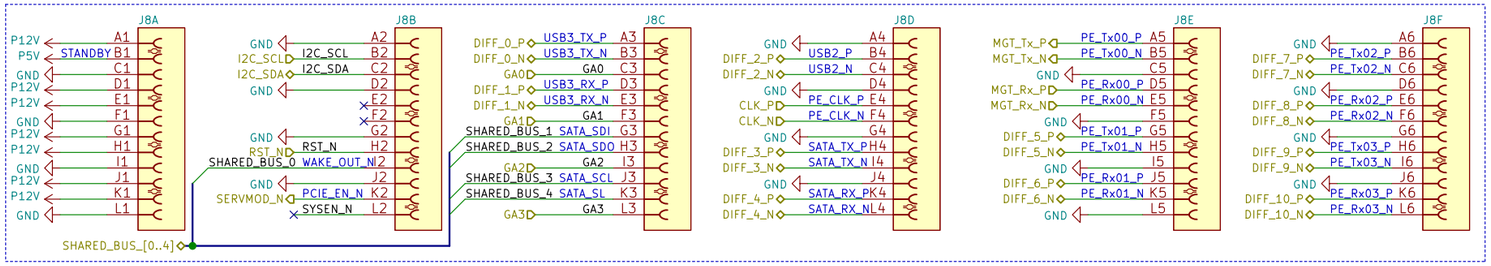


RTM connector



P1

All MGT_Tx/MGT_Rx signals mast have controlled differential impedance of 100 Ohm



CPCI-S.0 REQ 4.73 Backplane System Slot Identification 2
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Document: **DI/OT CPCI-serial 9 Slot Backplane** /Peripheral Slot 2/	Designer Michał Gąska	
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