COVER PAGE

i.MX7-CM

13/10/2020

v2.0

SVN Revision: 1462

DESIGN CONSIDERATIONS

DESIGN NOTE:
Example text for informational design notes.

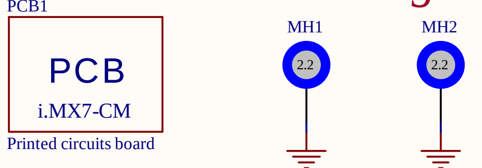
DESIGN NOTE:
Example text for critical design notes.

LAYOUT NOTE:
Example text for critical layout guidelines.

I2C USAGE AND ADDRESS TABLE

NAME	PERIPHERAL	ADDRESS
I2C1	*i.MX7-CM: PMIC control*	*(0x08<<1)+RW*
	i.MX7-CM: EEPROM	*(0x50<<1)+RW*
	Not available on SODIMM204	
I2C2	*i.MX7-MB: PCIe*	
	i.MX7-MB: general use on header	
I2C3	*i.MX7-MB: MIKROBUS*	
	i.MX7-MB: general use on header	
I2C4	*i.MX7-CM: Audio Codec*	*(0x34<<1)+RW*
	i.MX7-CM: LVDS	*(0x2C<<1)+RW*
	i.MX7-MB: PCIe Clock Generator	*(0x68<<1)+RW*
	i.MX7-MB: CSI (Camera)	*(0x3C<<1)+RW*
	i.MX7-MB: general use on header	

Mounting Holes



Mounting holes 5mm pad 2.2mm drill
BOARD MOUNTING HOLES - ONE IN EACH CORNER

Fiducials

FIDICIALS 3x TOP

FIDICIALS 3x BOTTOM

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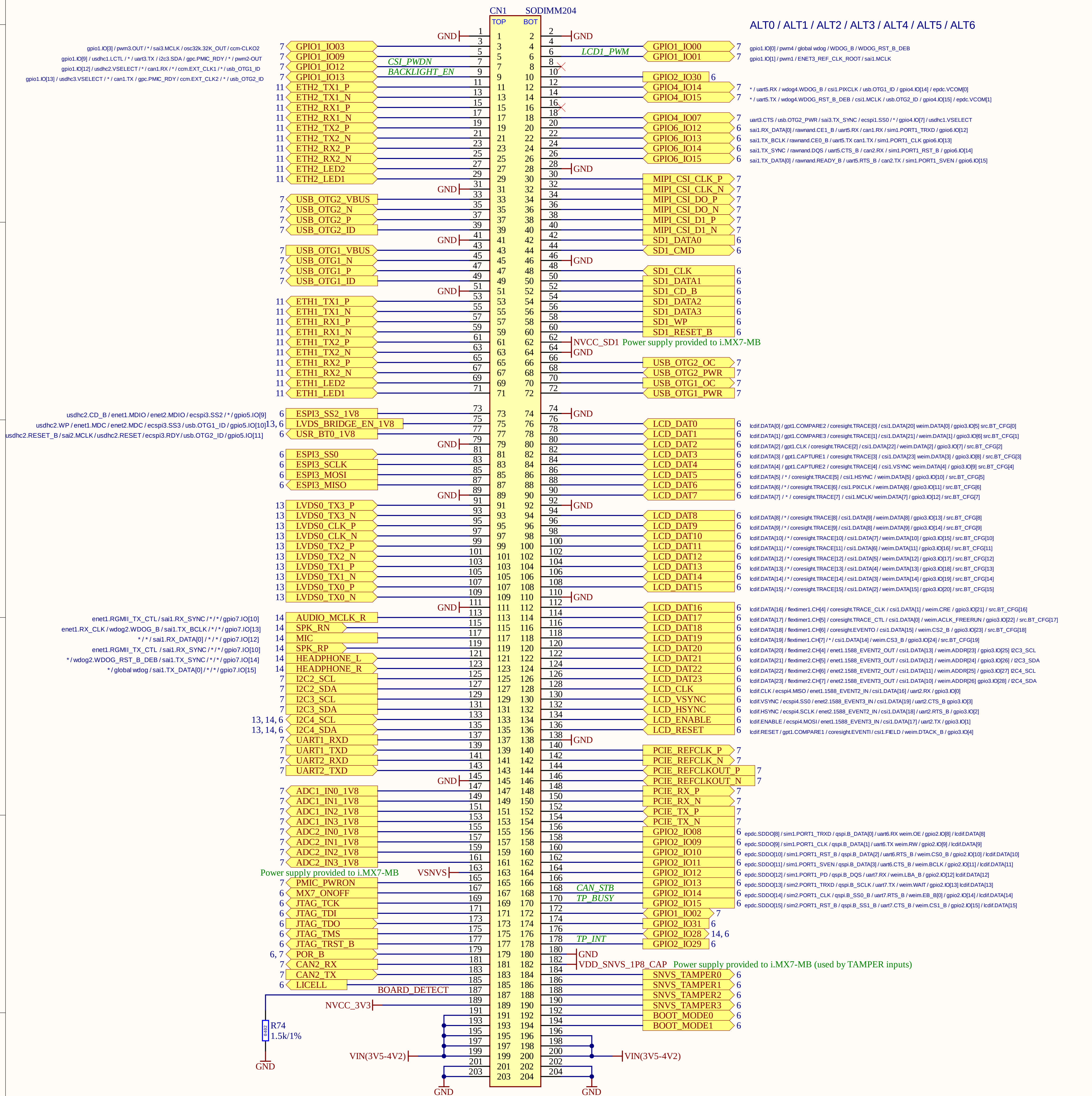
Austria

RONETIX DEVELOPMENT TOOLS

SODIMM204



Title	*SODIMM204*		*Ronetix GmbH* *Hirschstettner Str. 19/Z110* *1220 Vienna* *Austria*
Size: A3	Number: 2	Revision: 2.0	
Date: 13/10/2020	Time: 14:47:44	Sheet 2 of 14	
File: 02_SODIMM204.SchDoc			

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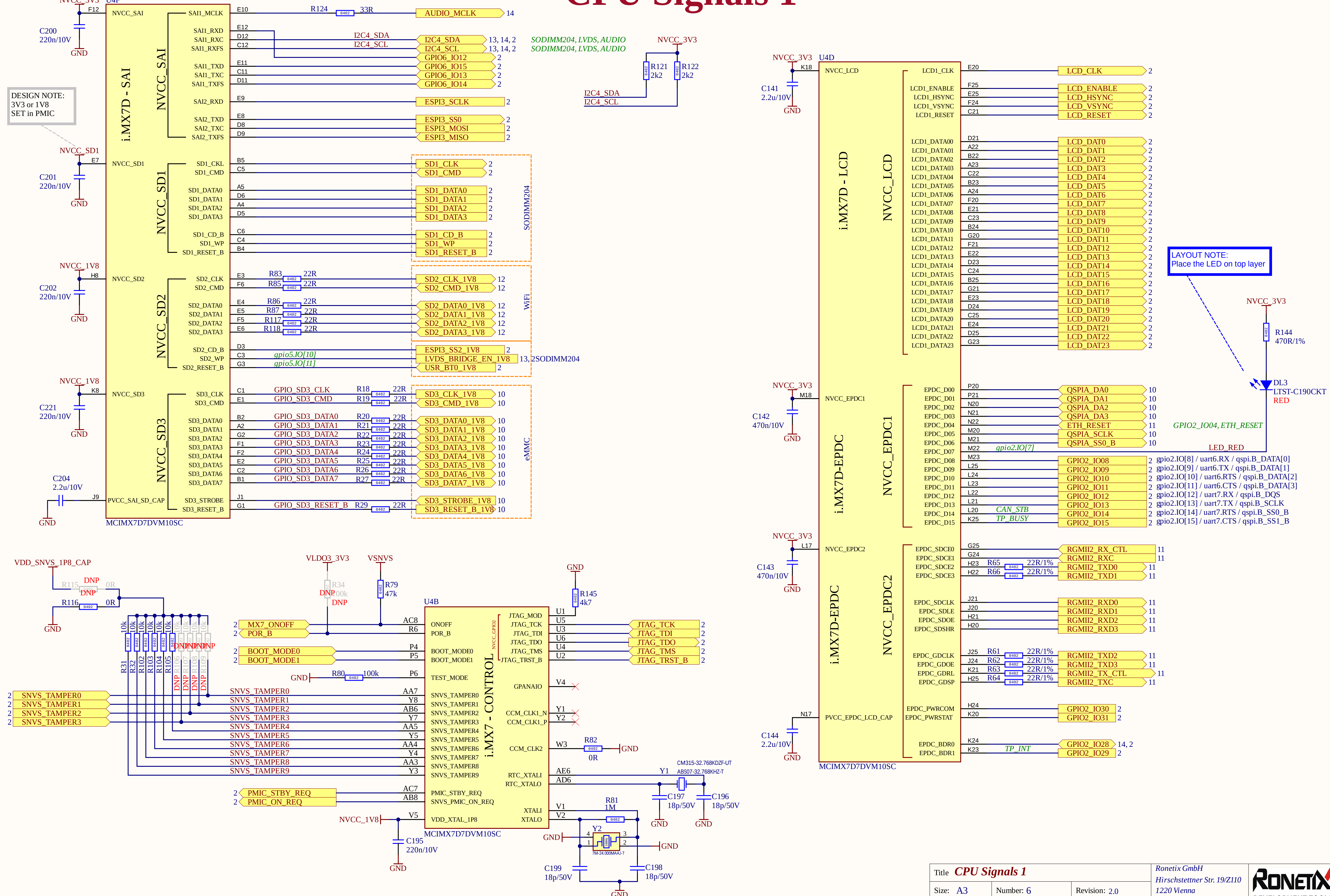
CPU Signals 1



Title	CPU Signals 1		
Size: A3	Number: 6	Revision: 2.0	
Date: 13/10/2020	Time: 14:47:44	Sheet 6 of 14	
File: 06_CPU SIGNAL1.SchDoc			

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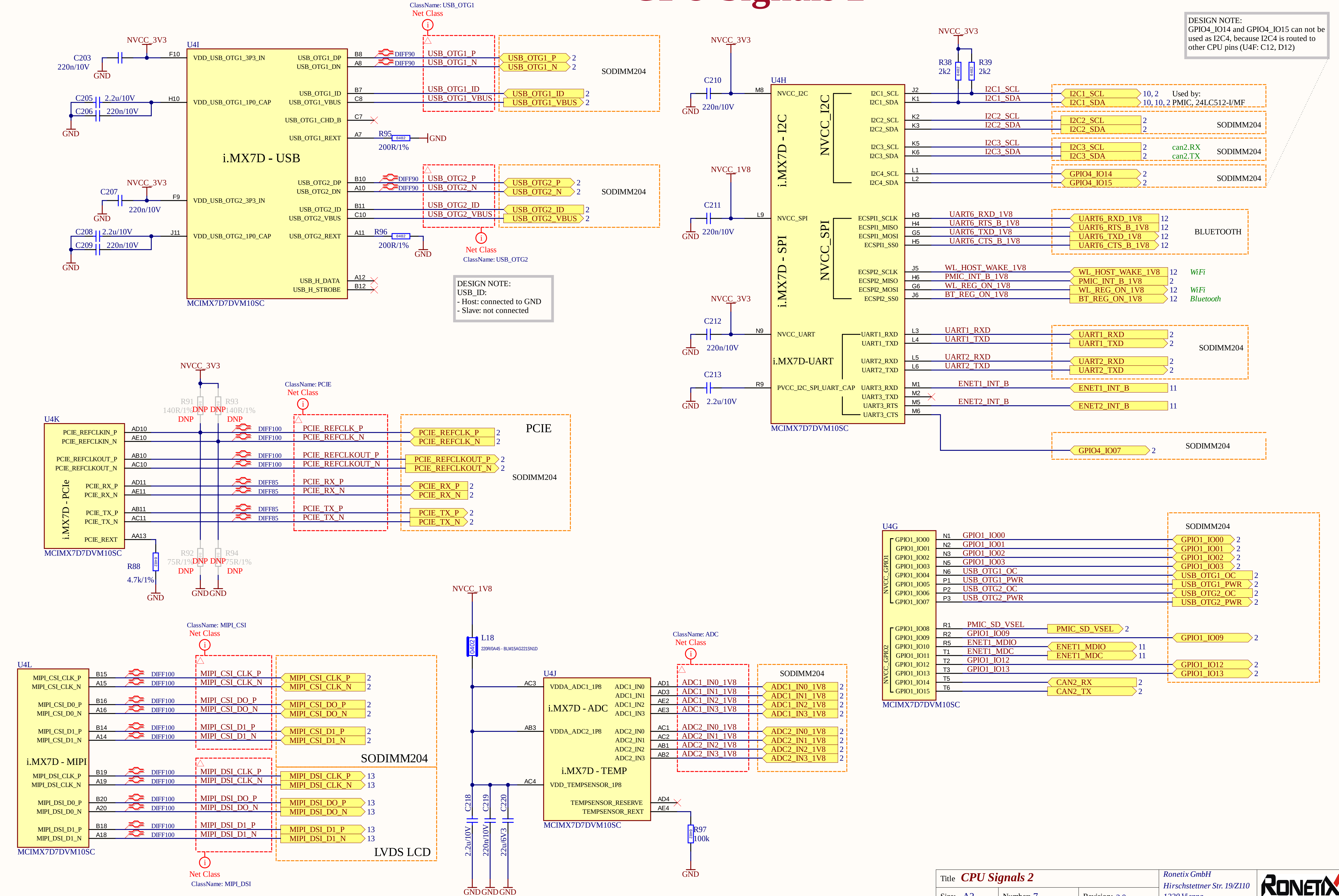
CPU Signals 2



Title: CPU Signals 2
Size: A3 | Number: 7 | Revision: 2.0
Date: 13/10/2020 | Time: 14:47:44 | Sheet 7 of 14
File: 07_CPU SIGNAL2.SchDoc

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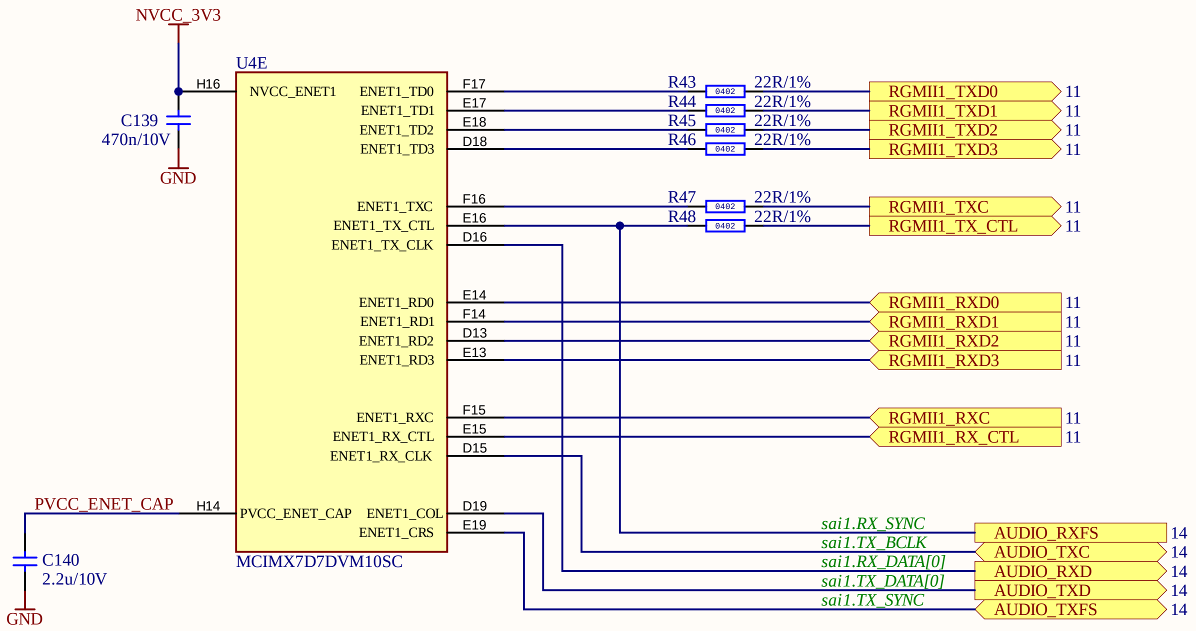
CPU ETH1, AUDIO



Title CPU ETH1, AUDIO		
Size: A4	Number: 8	Revision: 2.0
Date: 13/10/2020 Time: 14:47:44		Sheet 8 of 14
File: 08_CPU_ETH_AUDIO.SchDoc		

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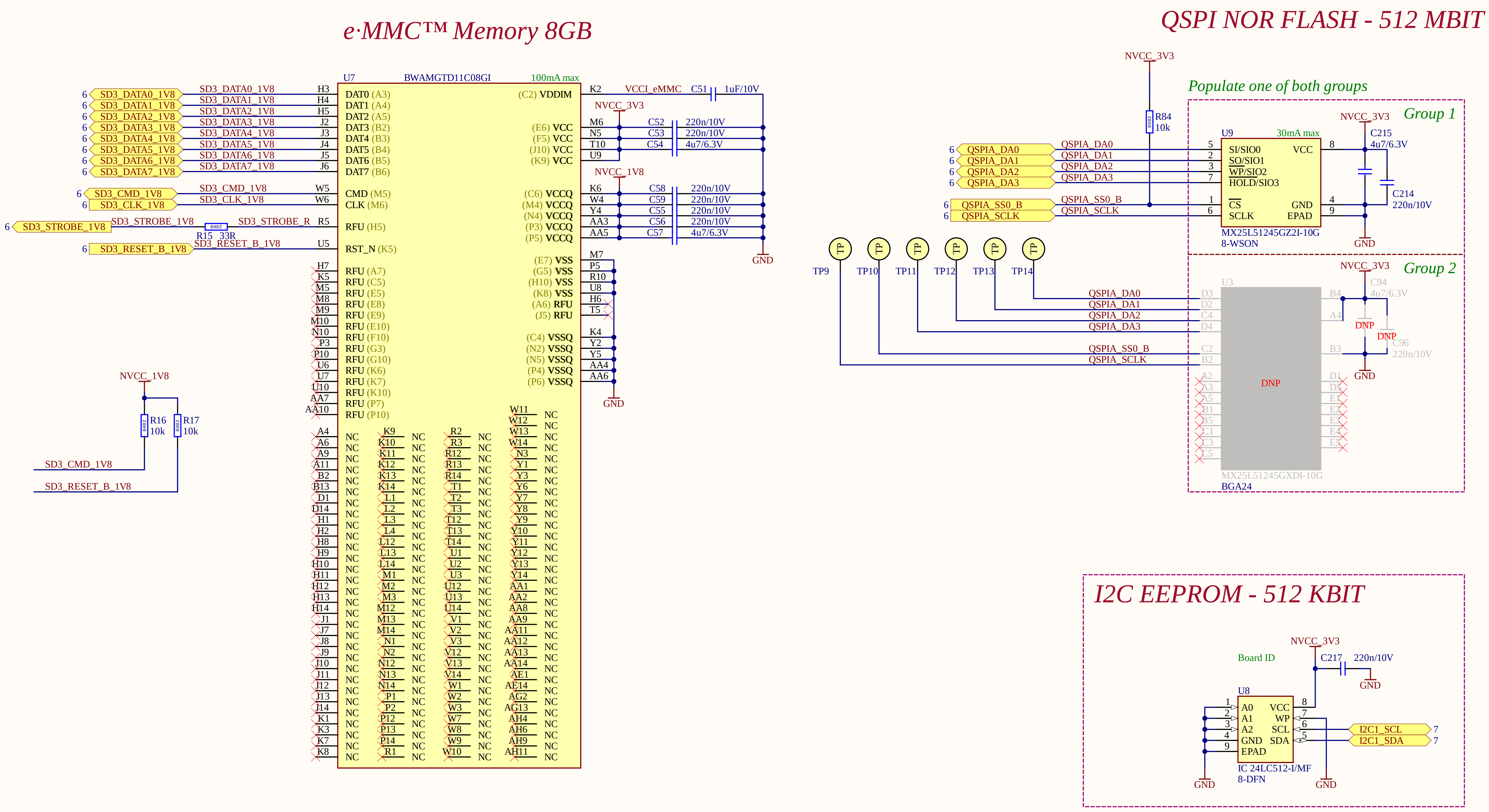
DEVELOPMENT TOOLS

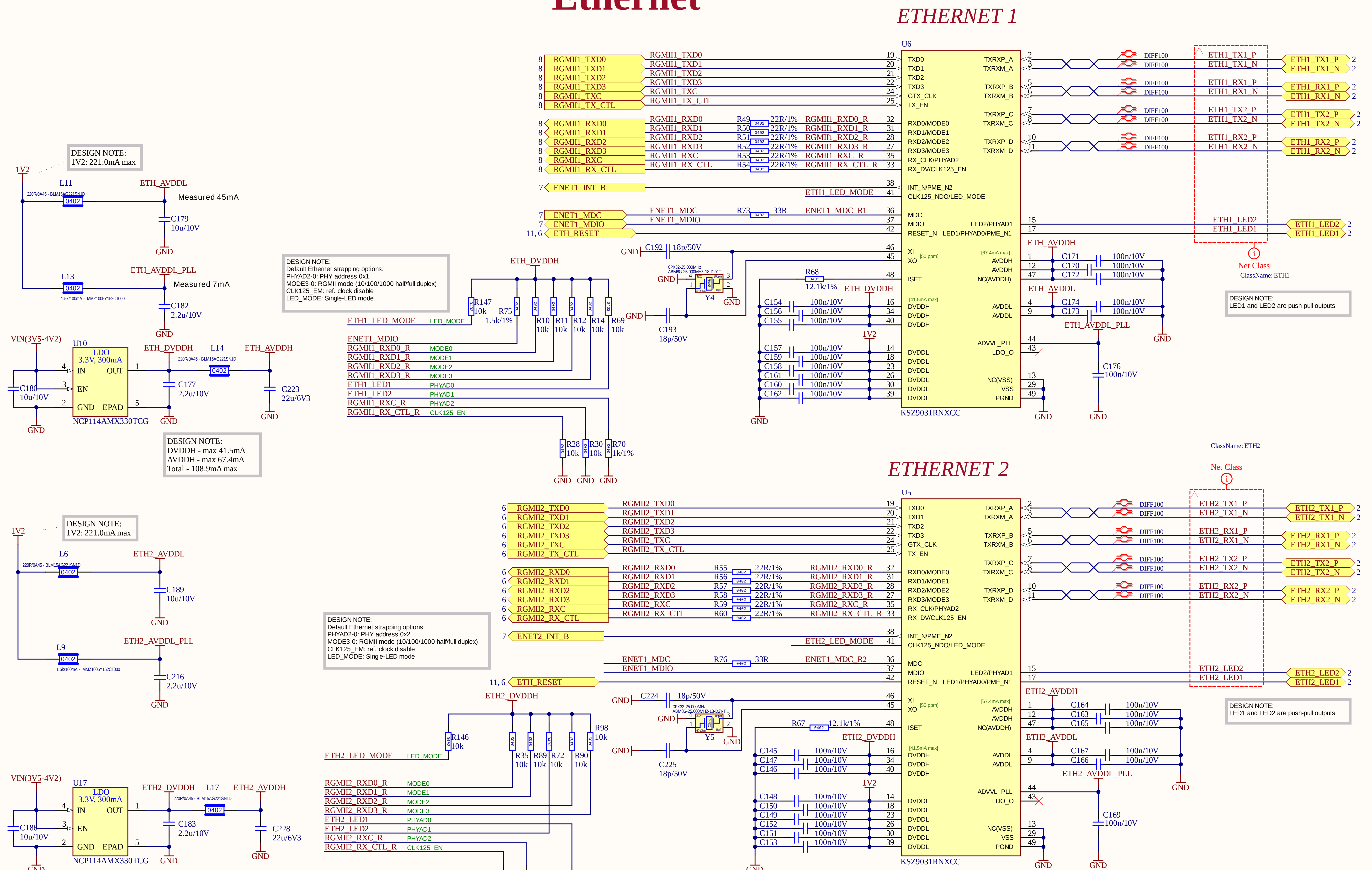
eMMC, SPI Flash, I2C



Title	eMMC, SPI Flash, I2C			Ronetix GmbH Hirschstettner Str. 19/Z110 1220 Vienna Austria
Size: A3	Number: 10	Revision: 2.0		
Date: 13/10/2020	Time: 14:47:45	Sheet 10 of 14		
File: 10_MEMORY IC.SchDoc				

RONETIX DEVELOPMENT TOOLS

Ethernet



RGMII Routing Constraints (Reduced Gigabit Media Independent Interface):

The RGMII signals must be length-matched by TX and RX groups. That is, the TX group should be matched within 0.25 inch (6.35 mm), and the RX group should be matched within 0.25 inch (6.35 mm). Total length should not exceed 1.75 inch (44.5 mm). There is no requirement to match the TX and RX groups because their clocks are not related.

Title *Ethernet*		
Size: A3	Number: 11	Revision: 2.0
Date: 13/10/2020	Time: 14:47:45	Sheet 11 of 14
File: 11_ETHERNET.SchDoc		

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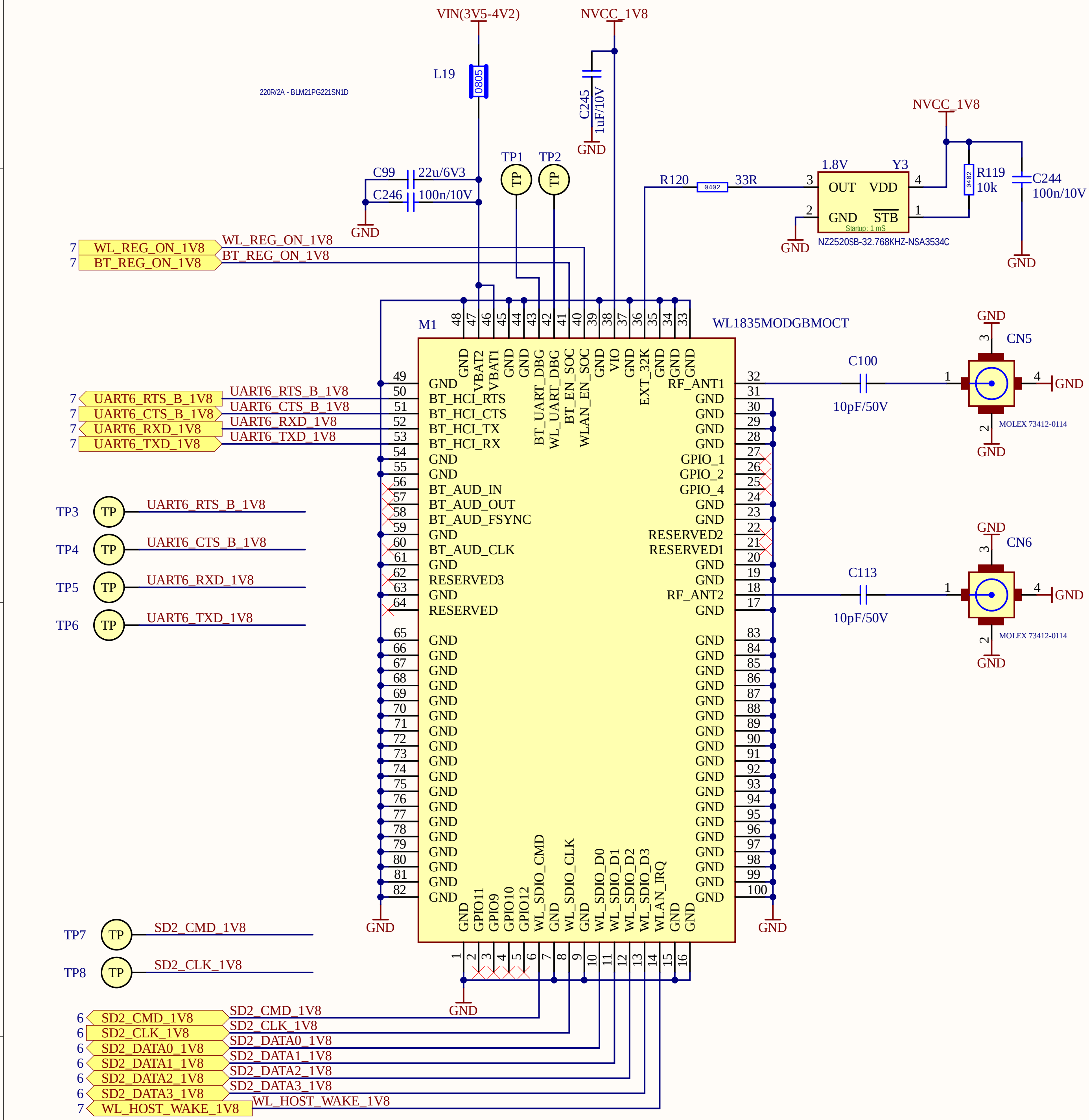
RONETIX DEVELOPMENT TOOLS

Wi-Fi, Bluetooth



Title *Wi-Fi, Bluetooth*			*Ronetix GmbH* *Hirschstettner Str. 19/Z110* *1220 Vienna* *Austria*
Size: A4	Number: 12	Revision: 2.0	
Date: 13/10/2020	Time: 14:47:45	Sheet 12 of 14	
File: 12_WL18xx.SchDoc			

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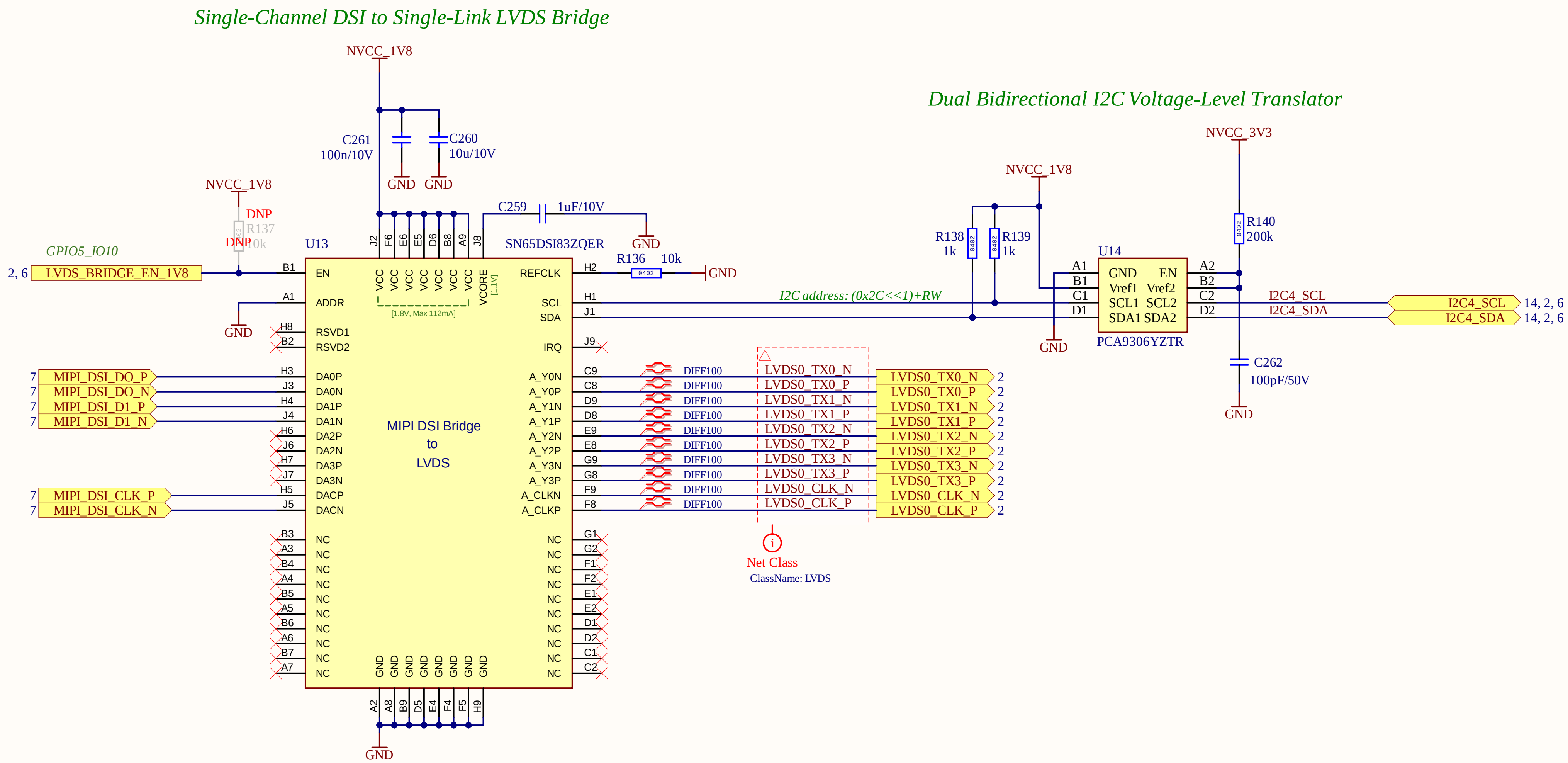
LVDS LCD interface



Title **LVDS LCD interface**			Ronetix GmbH Hirschstettner Str. 19/Z110 1220 Vienna Austria
Size: A4	Number: 13	Revision: 2.0	
Date: 13/10/2020	Time: 14:47:45	Sheet 13 of 14	
File: 13_LVDS.SchDoc			

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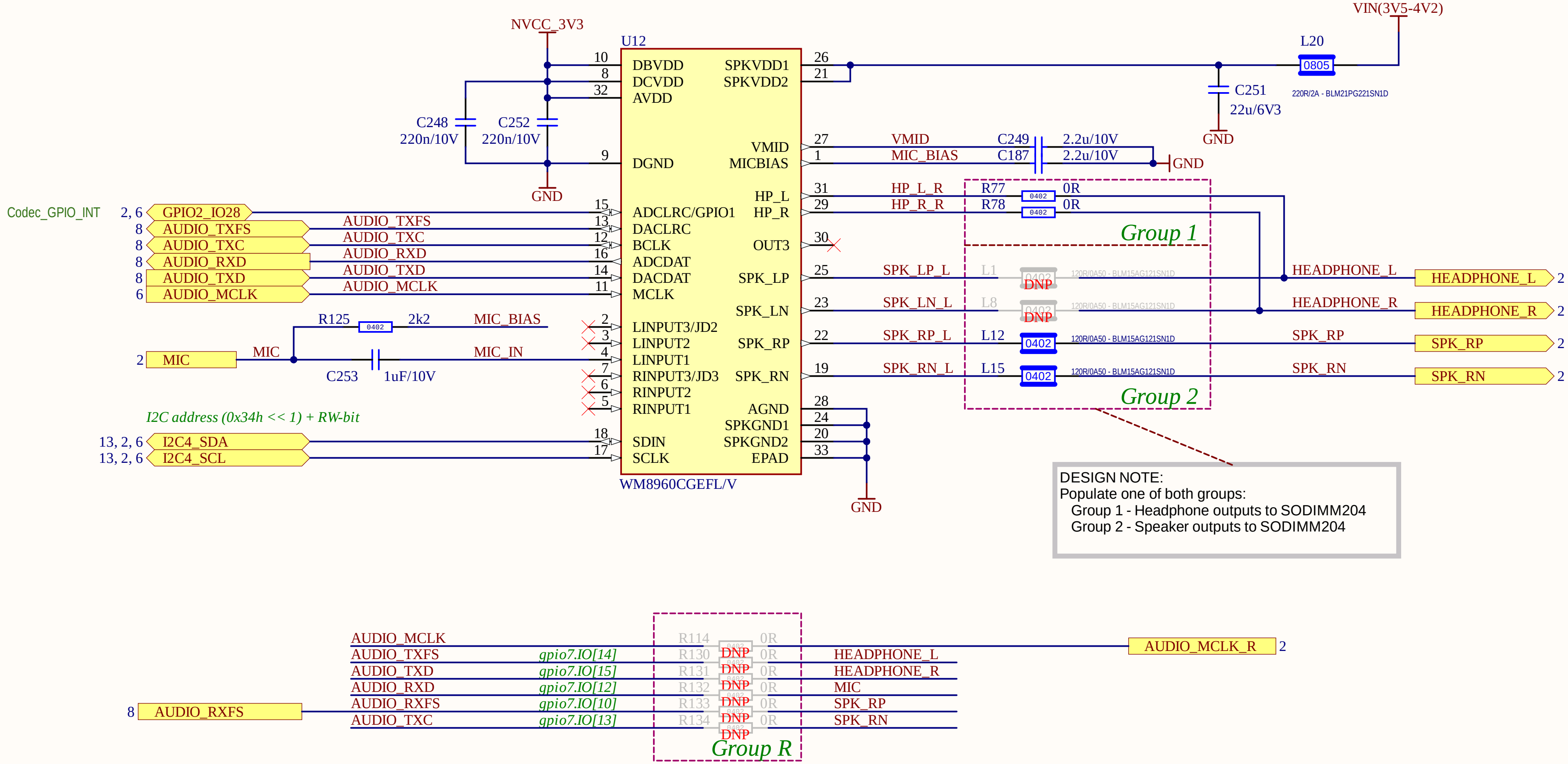
Audio Codec



DESIGN NOTE:
Populate one of both groups:
Group 1 - Headphone outputs to SODIMM204
Group 2 - Speaker outputs to SODIMM204

DESIGN NOTE:
Populate either the Audio Codec or Group R.
Populate Group R to bypass the Audio Codec

Title *Audio Codec*			Ronetix GmbH, Hirschstettner Str. 19/Z110, 1220 Vienna, Austria
Size: A4	Number: 14	Revision: 2.0	RONETIX DEVELOPMENT TOOLS
Date: 13/10/2020	Time: 14:47:45	Sheet 14 of 14	
File: 14_AUDIO.SchDoc			