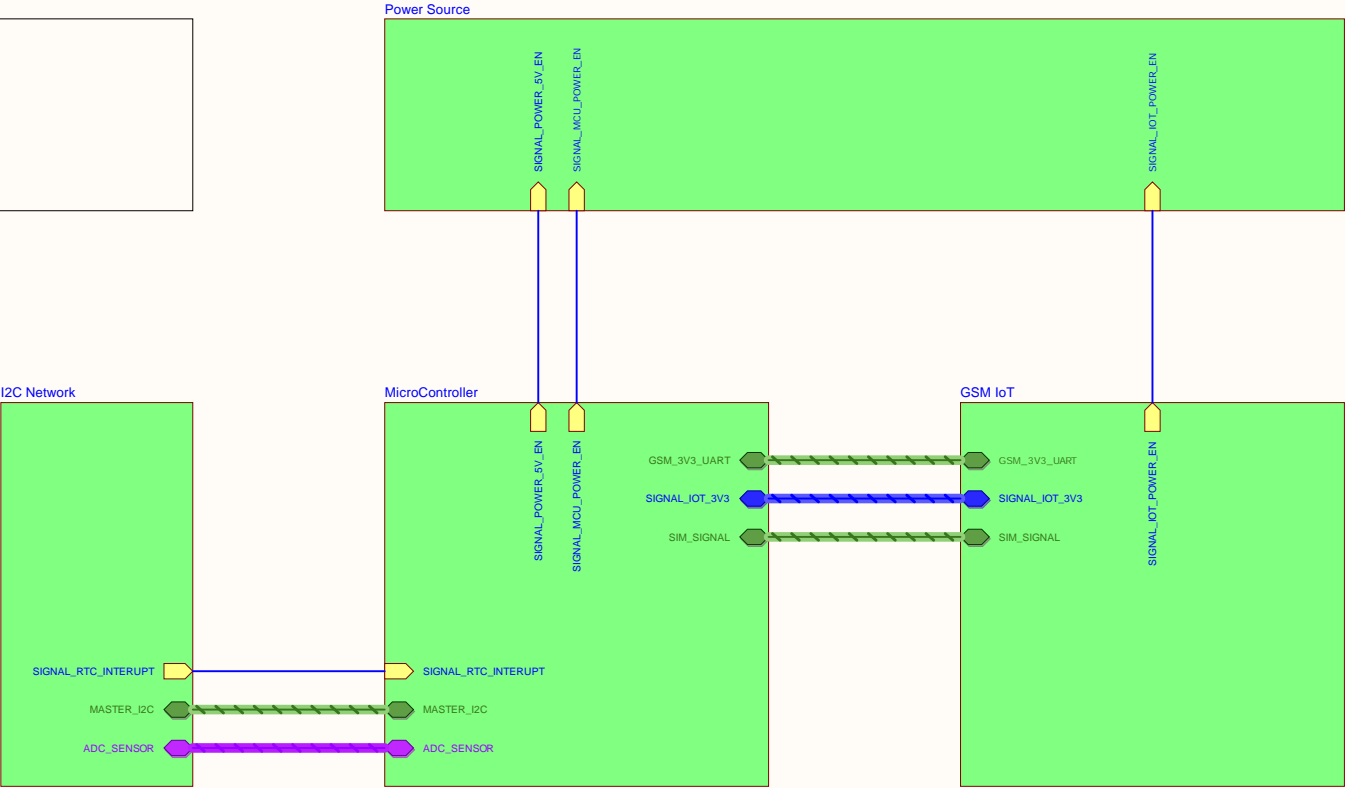


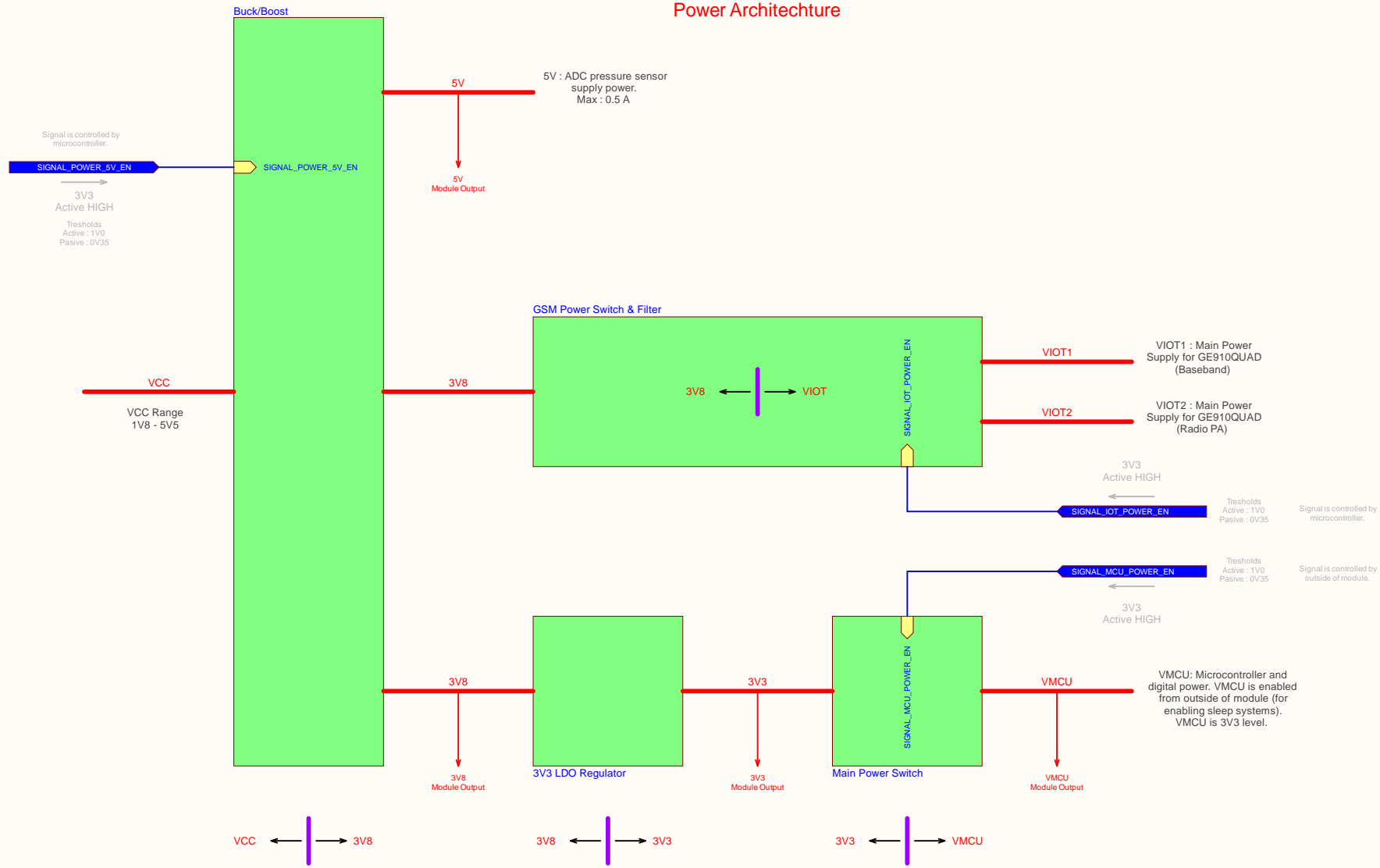
B100 - Master IoT MicroController

Revision History

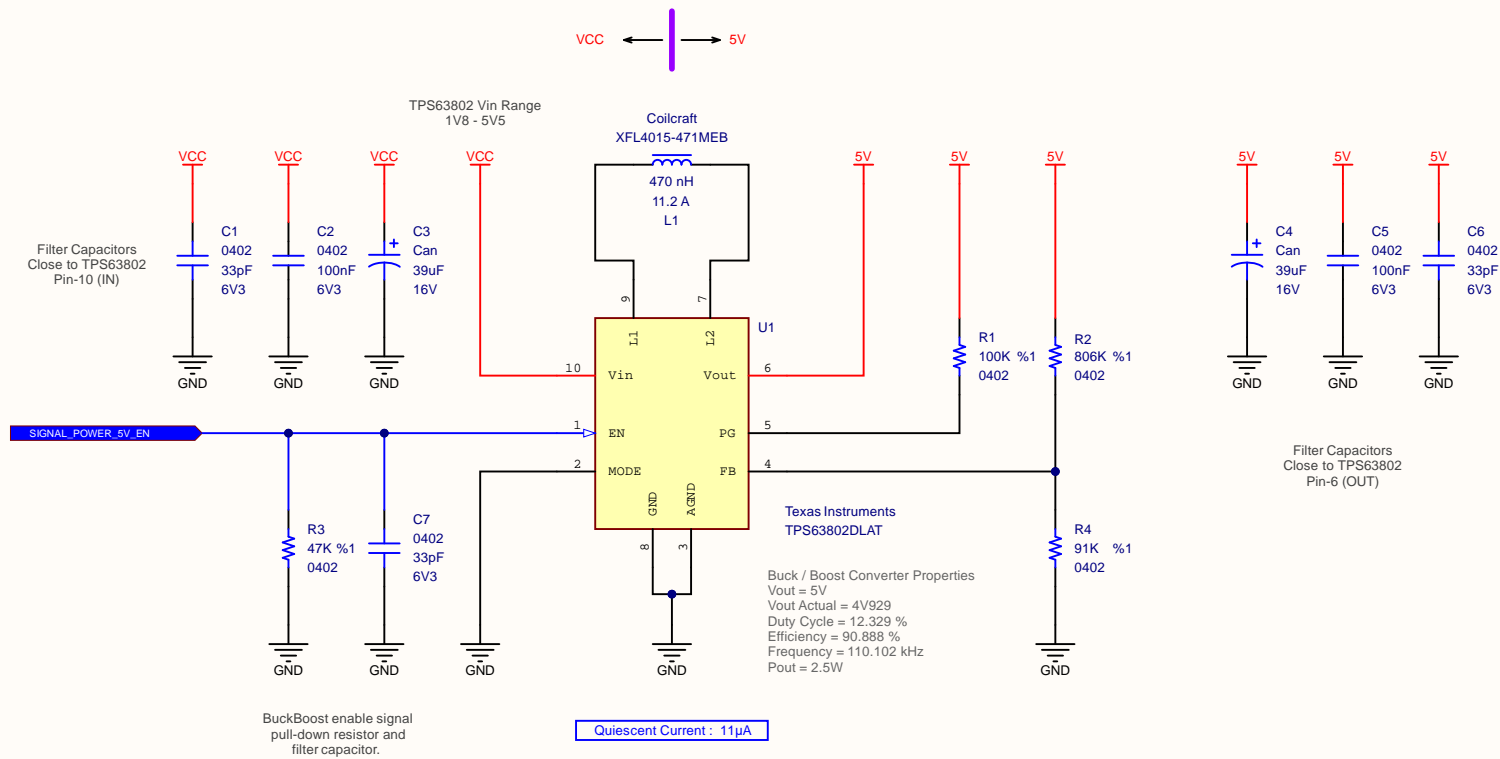
AA001 (05.01.2021)
*Schematic creation.



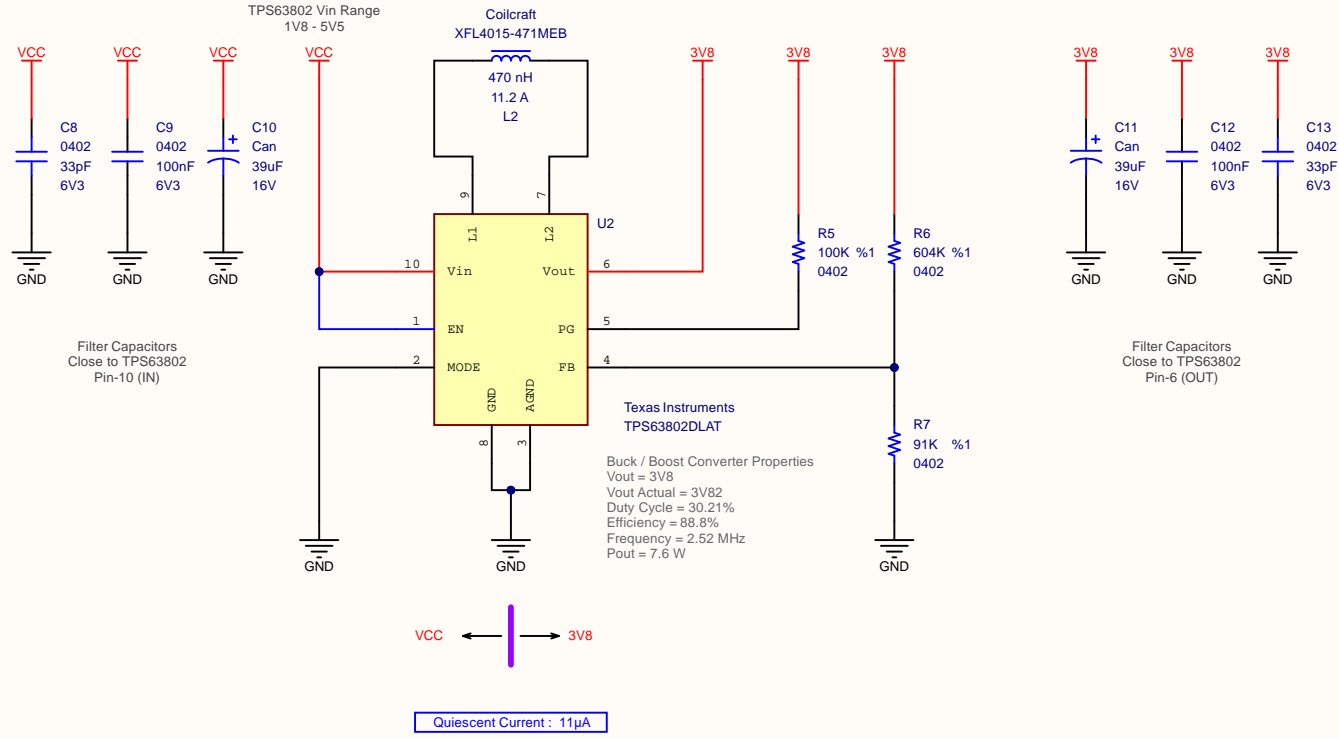
Power Architechture

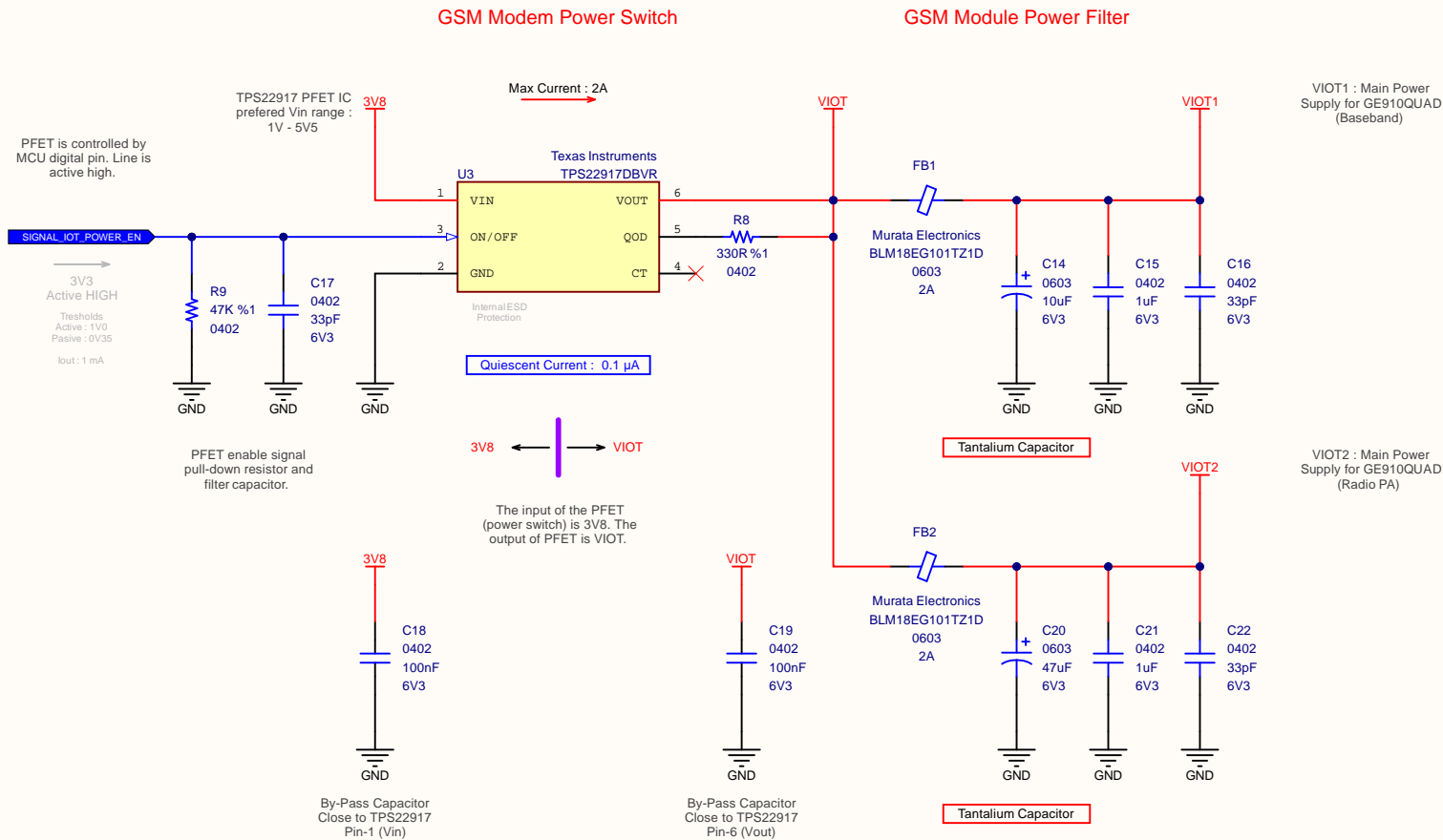


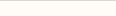
5V Buck Boost Converter



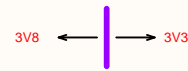
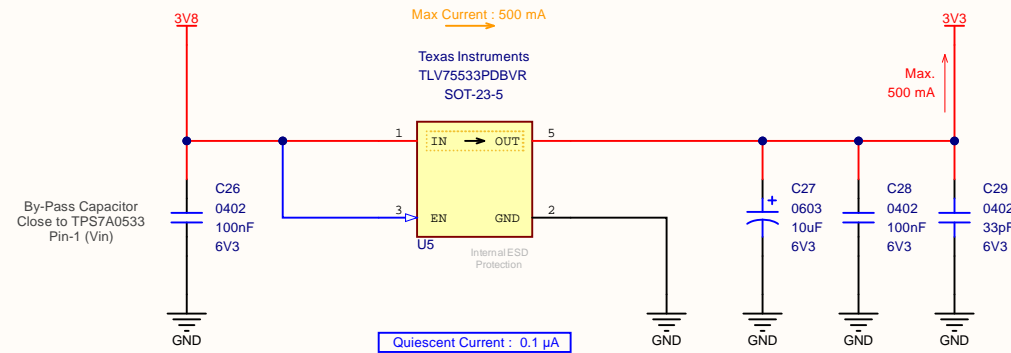
3V8 Buck Boost Converter






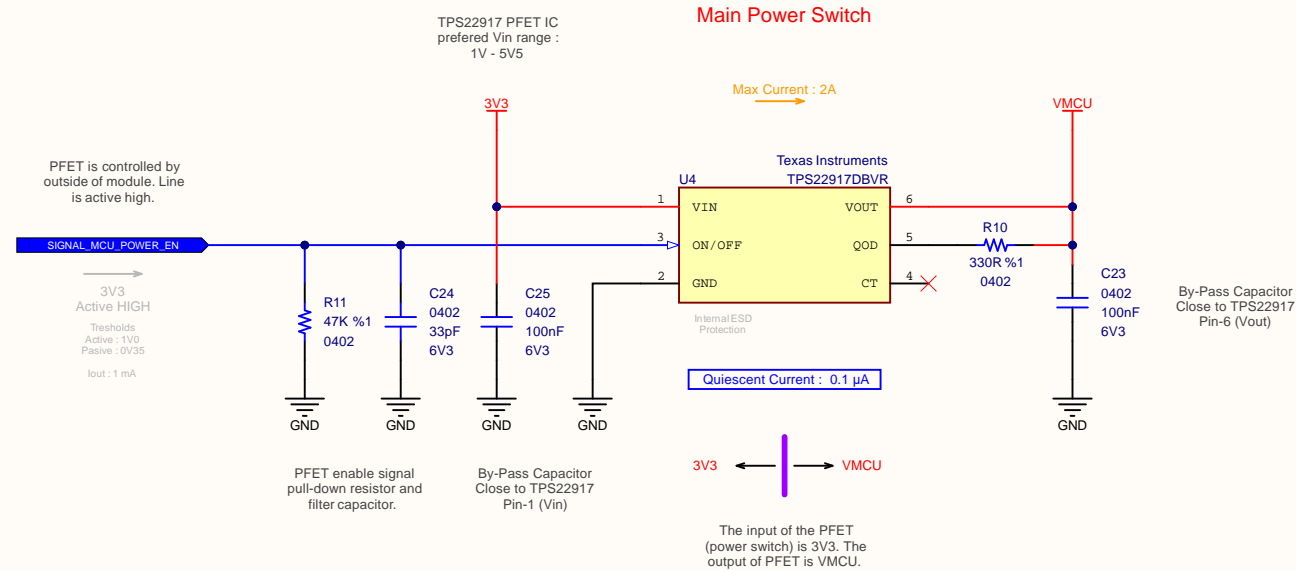
Title GSM Power Switch and Filter			Ovoo Electronics Necip Fazıl Mah. Ortarmak Sok. Bırgölü Apt. No: 19/6 Meram / Konya Türkiye	
Size: A4	Number:	Revision: B100AA		
Date: 5.01.2021	Time: 16:02:38	Sheet 4 of 39		
File: C:\Altium Projects\B100\AA\Design Files\B100AA\Schematics\GSM Power.SchDoc				


3V3 LDO Regulator



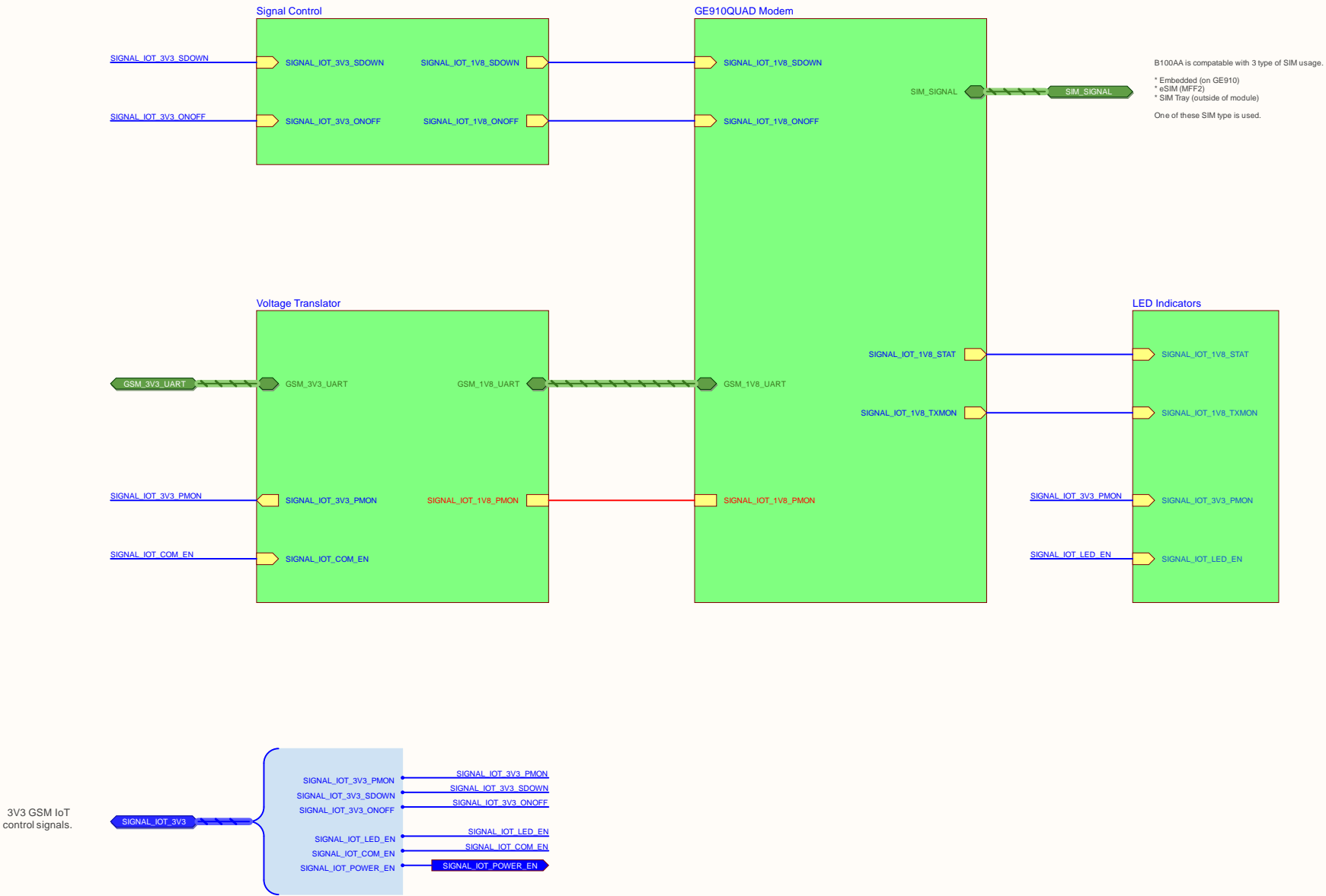
TLV75533 LDO is a 3V3 regulator. LDO is always enable.

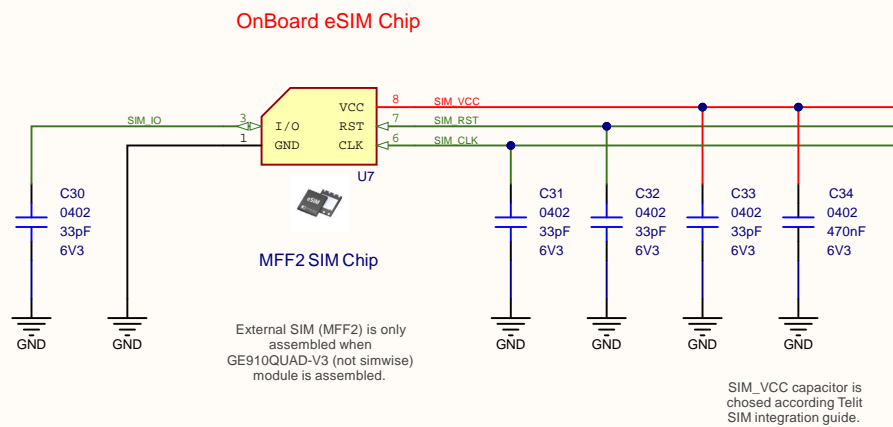
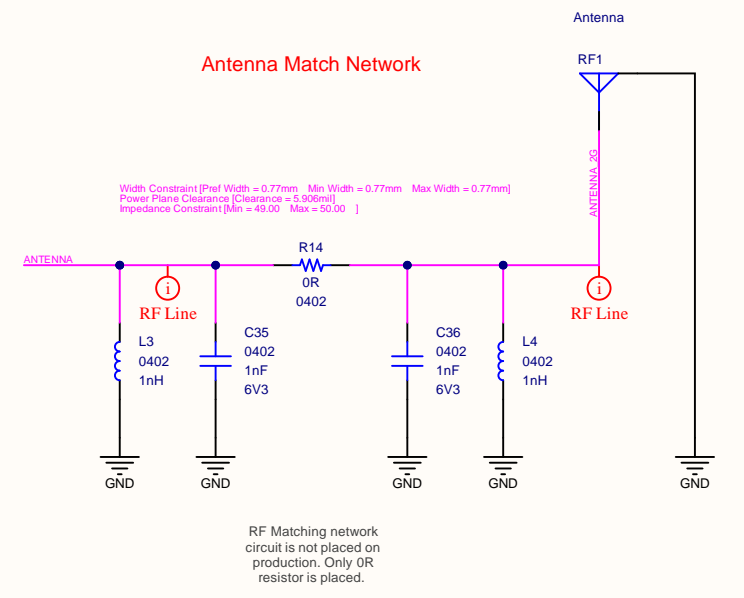
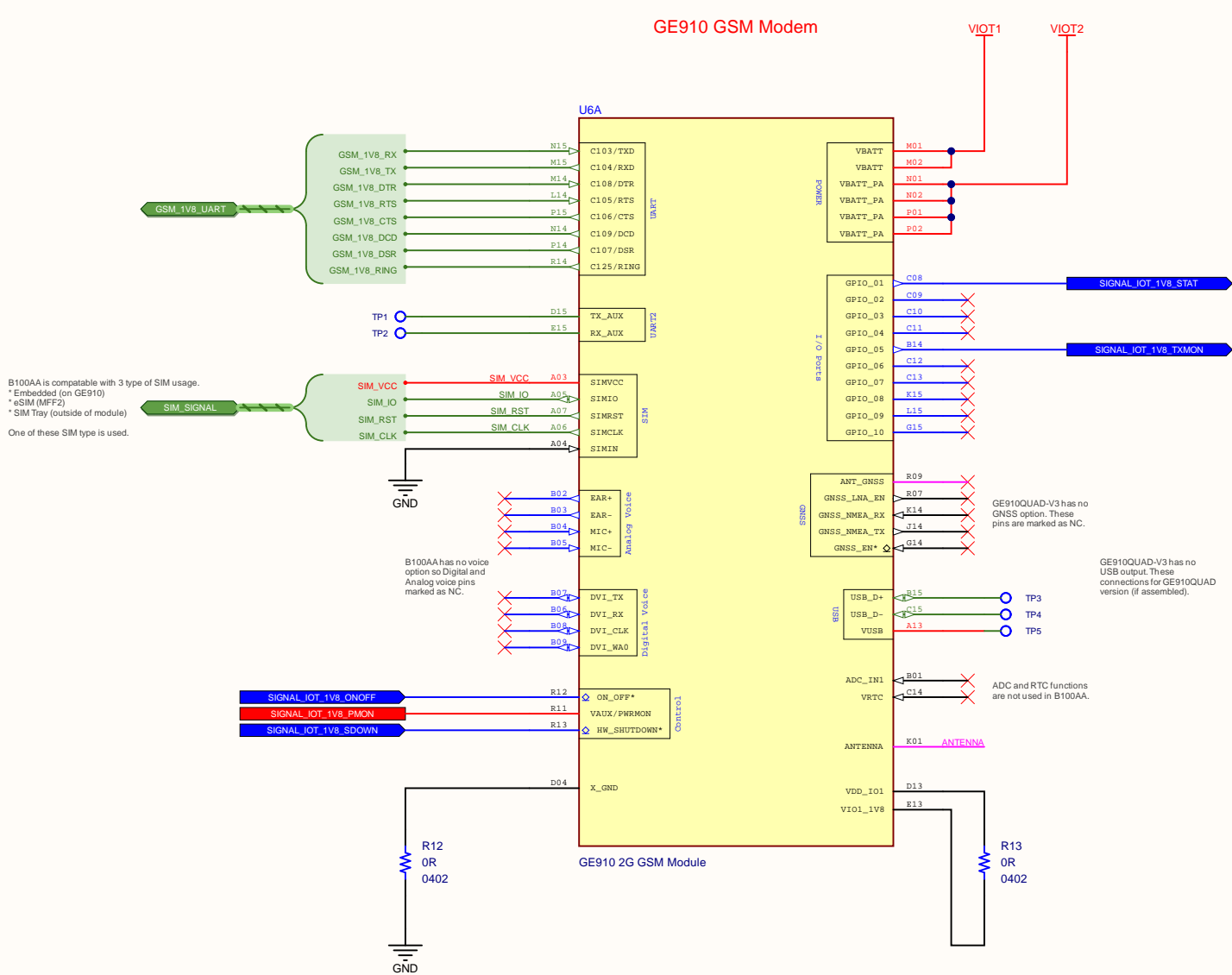
Title 3V3 LDO Regulator			Ovoo Electronics	
Size: A4	Number:	Revision: B100AA	Necip Fazıl Mah. Ortarmak Sok. Bırgölü Apt. No: 19/6 Meram / Konya Türkiye	
Date: 5.01.2021	Time: 16:02:38	Sheet 5 of 39		
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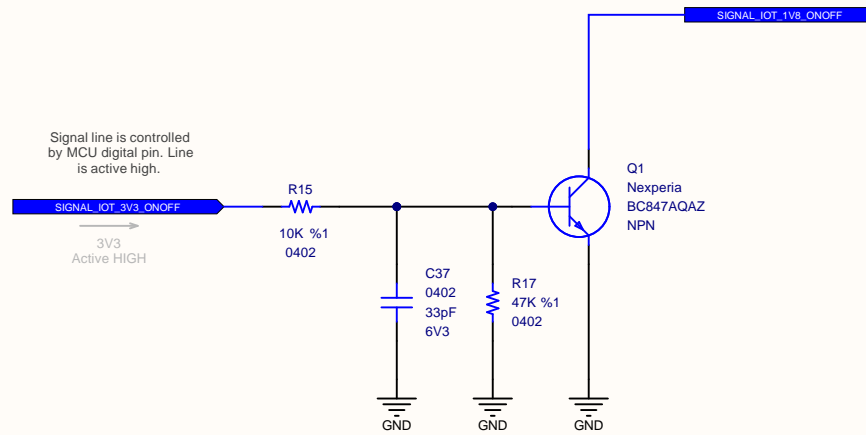
Title Main Power Switch			Ovoo Electronics Necip Fazıl Mah. Ortarmak Sok. Bırgölü Apt. No: 19/6 Meram / Konya Türkiye	
Size: A4	Number:	Revision: B100AA		
Date: 5.01.2021	Time: 16:02:39	Sheet 6 of 39		
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GSM IoT Communication Layer

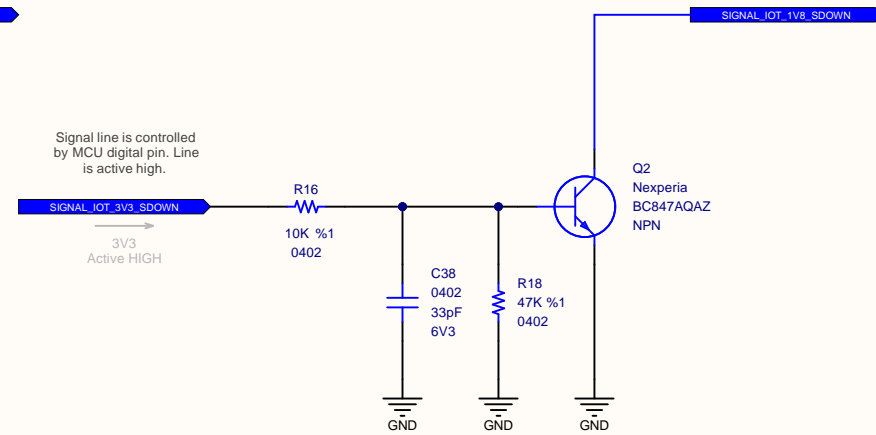




GSM Module On/Off Signal



GSM Module Shut Down Signal



Title GSM Control Signal Management

Ovoo Electronics

Size: A4

Number:

Revision: B100AA

Necip Fazıl Mah. Ortarmak Sok.
Bırgölü Apt. No: 19/6
Meram / Konya
Türkiye

Date: 5.01.2021

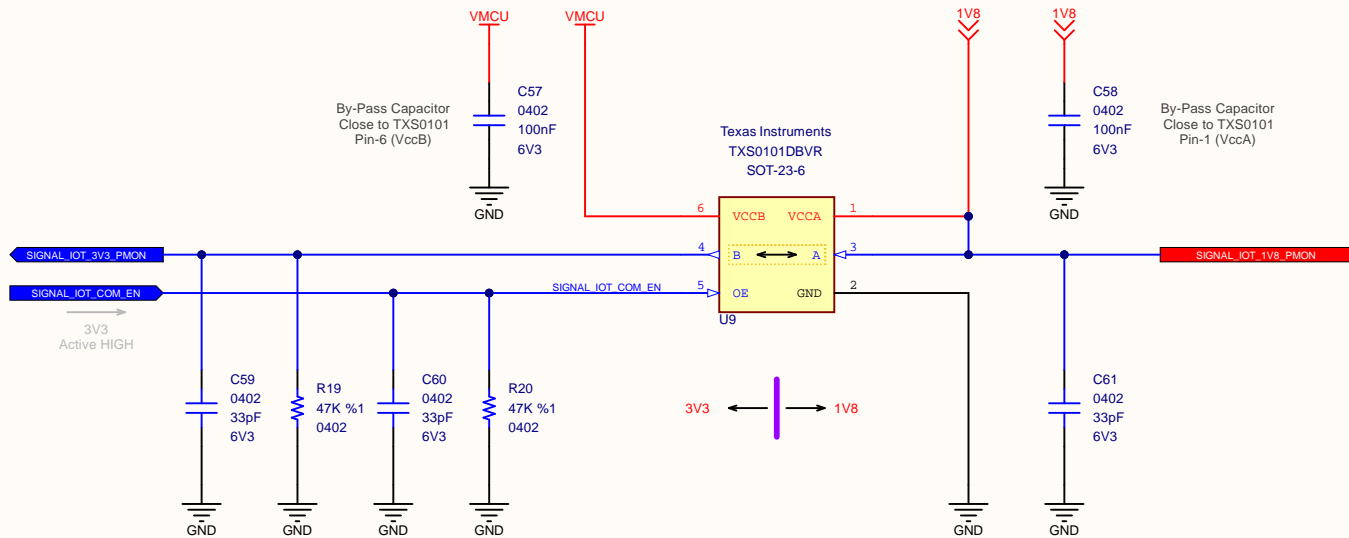
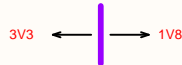
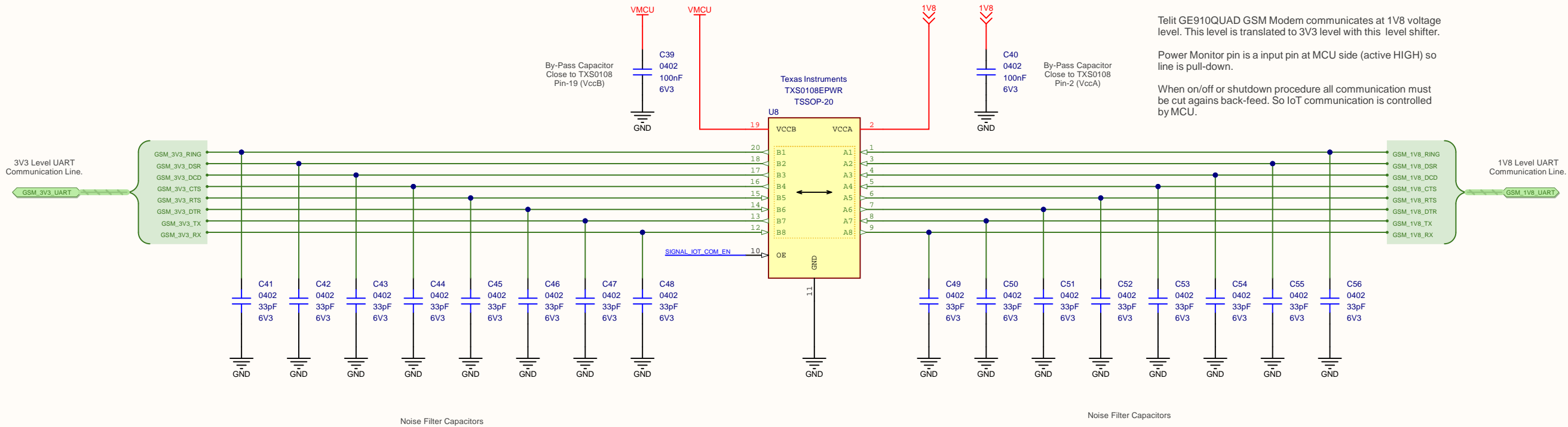
Time: 16:02:39

Sheet 9 of 39

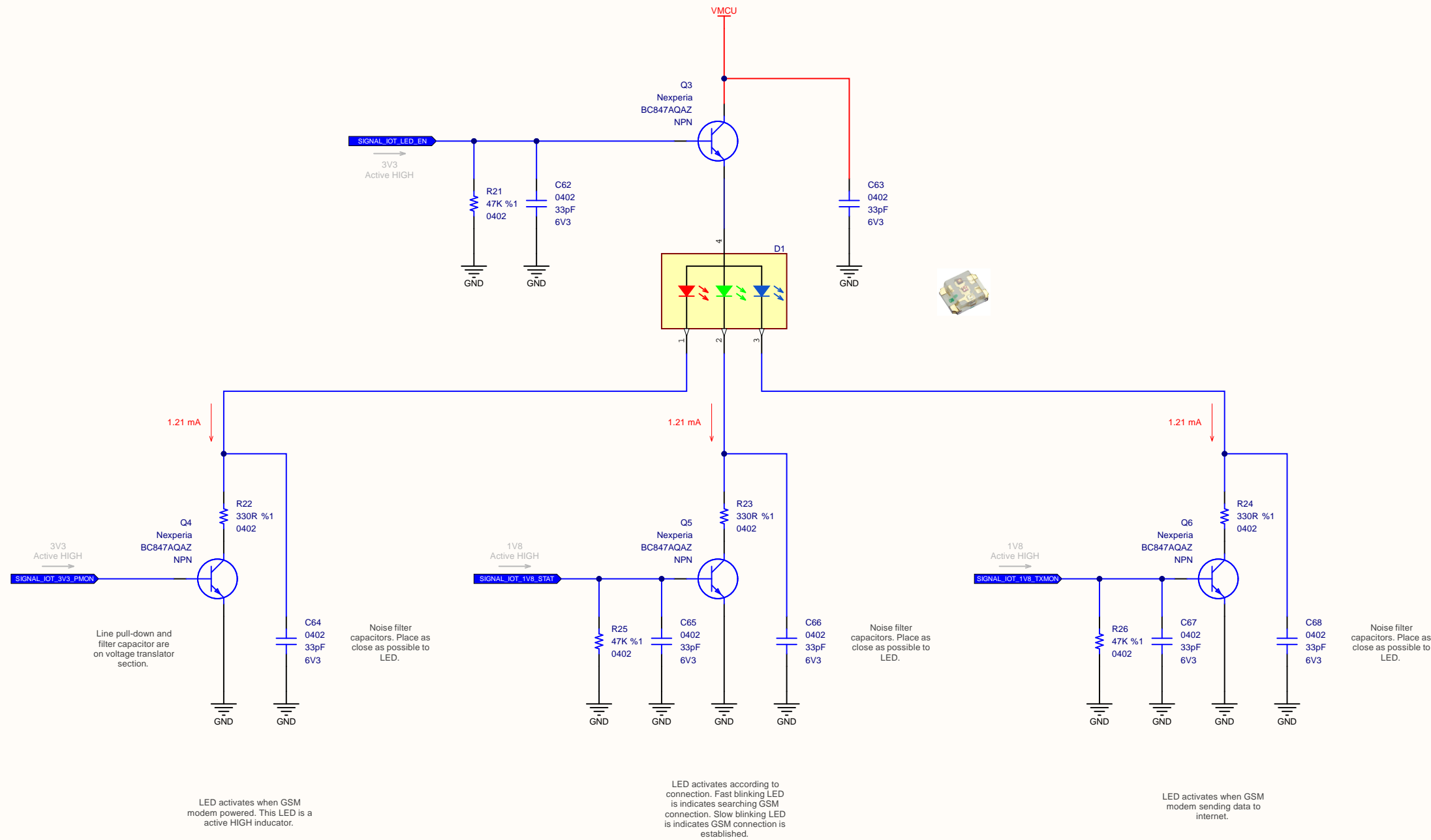
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OVOO

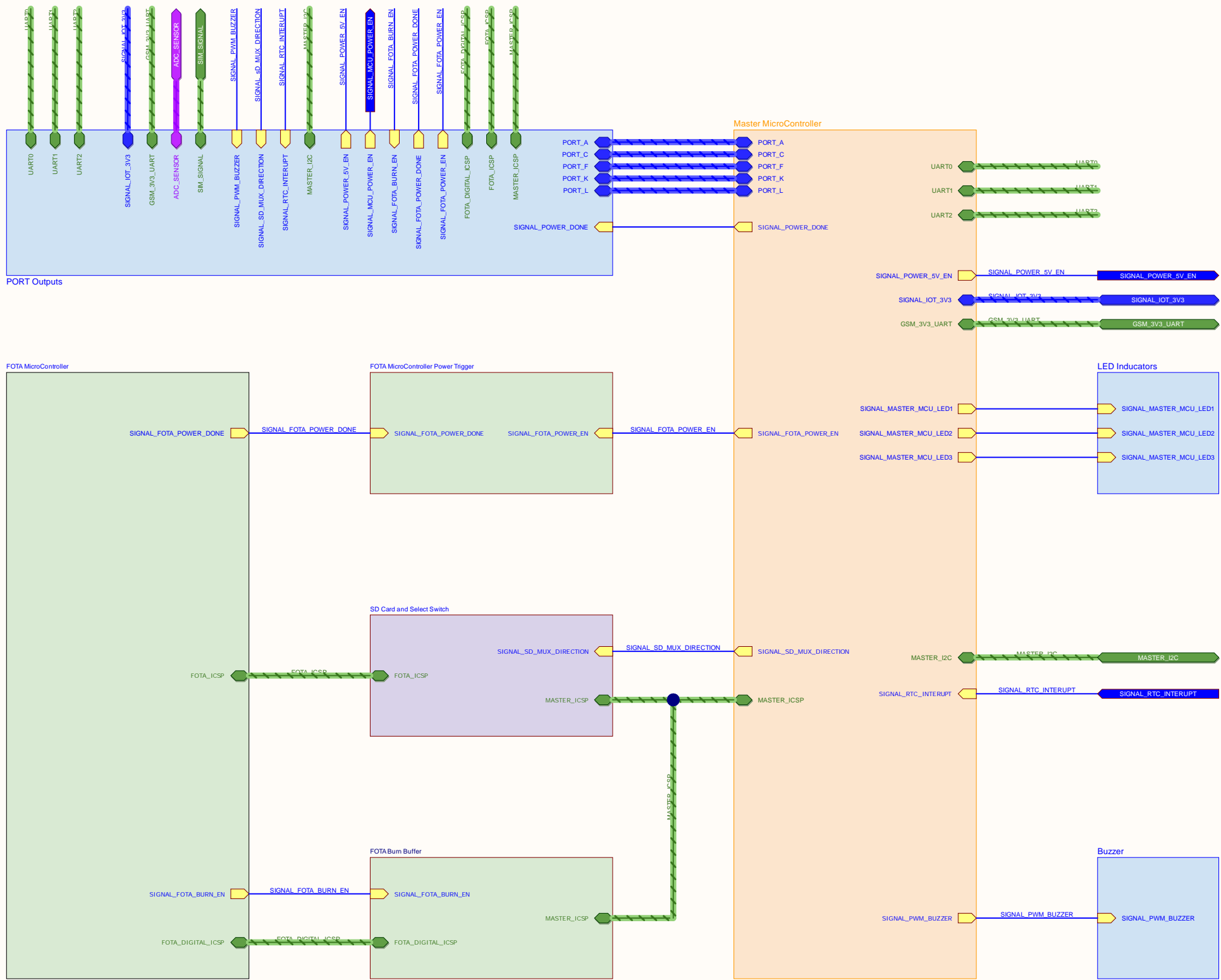
BiDirectional Level Shifter



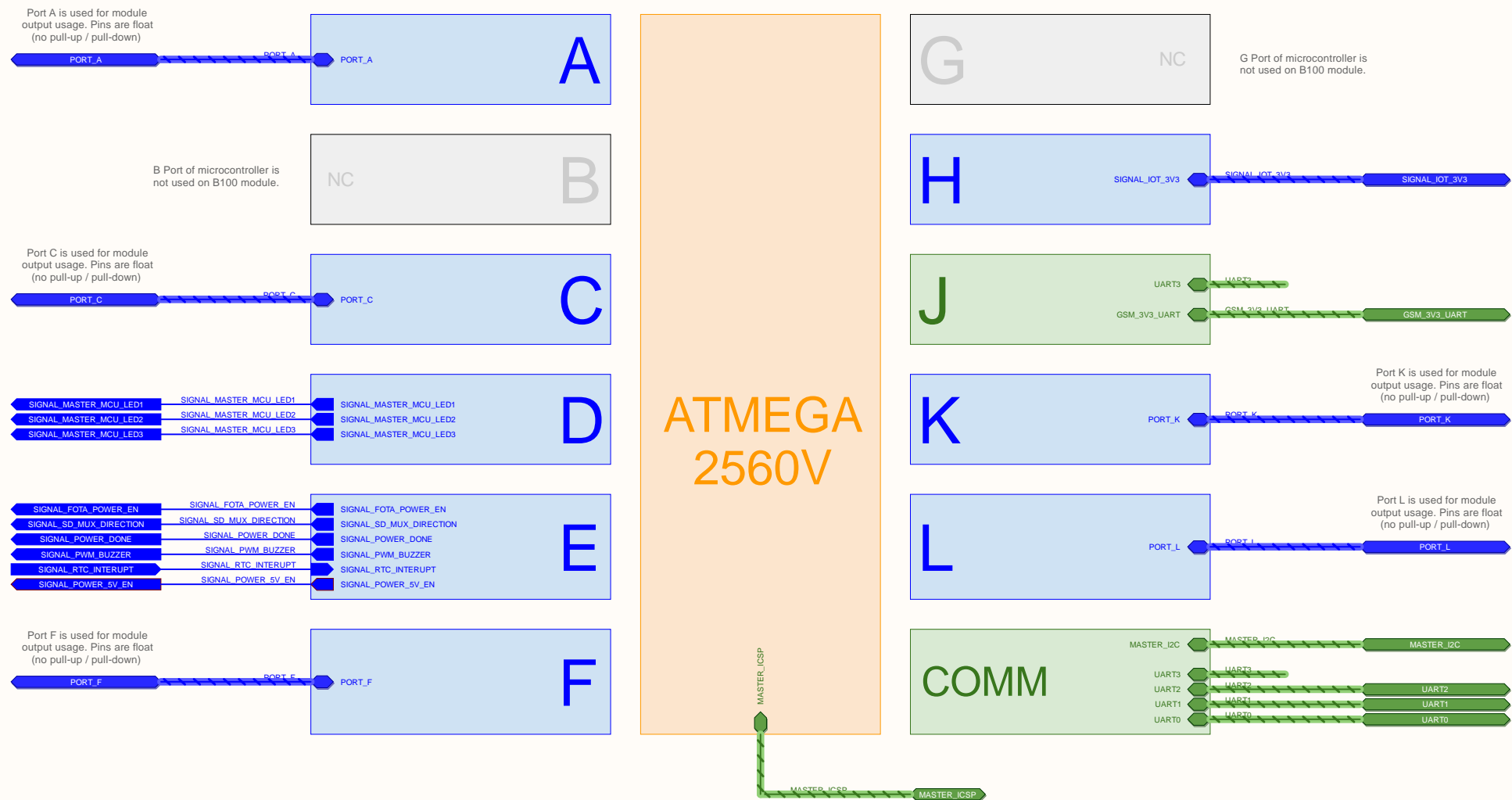
GSM IoT LED Indicators



B100 MicroController

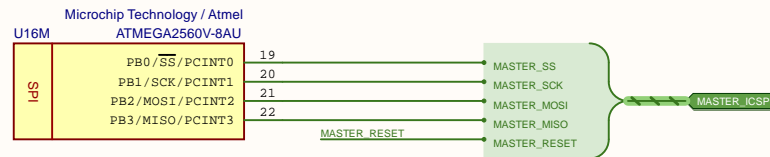
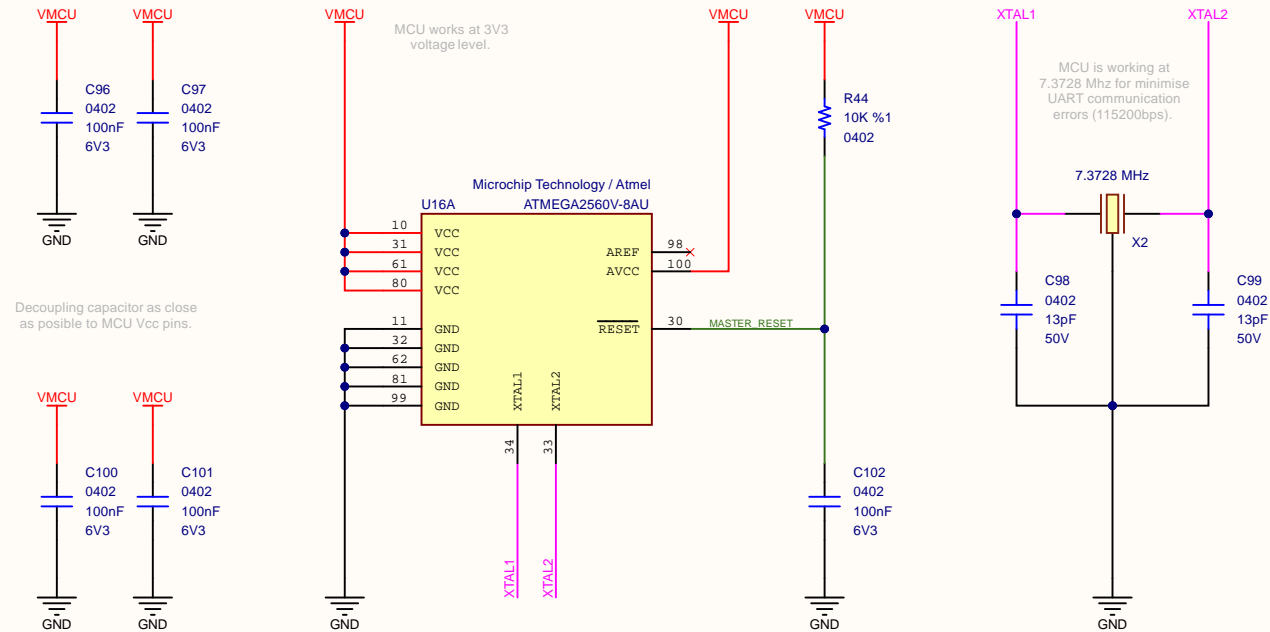


Master MicroController




MicroController

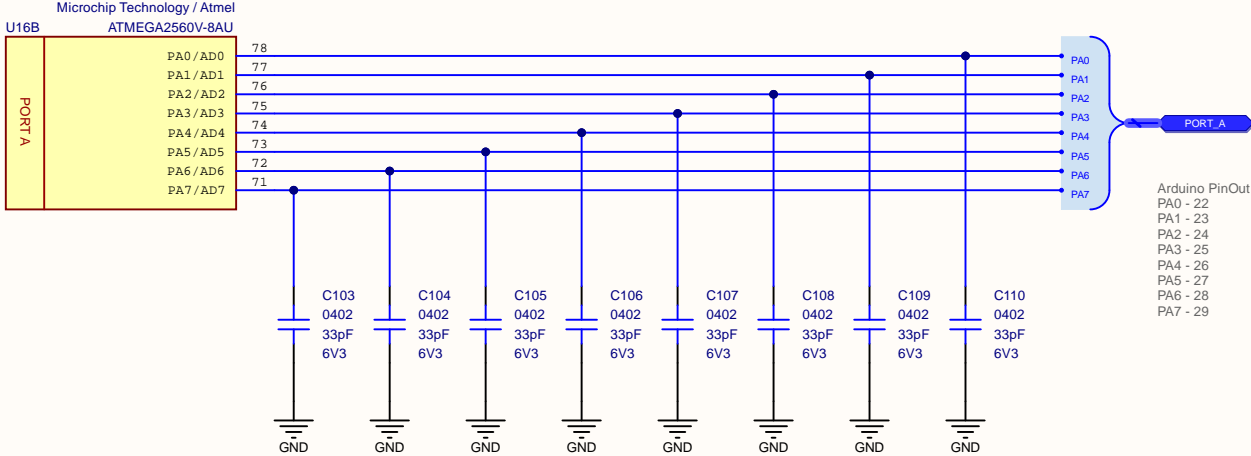
Crystal Oscillator




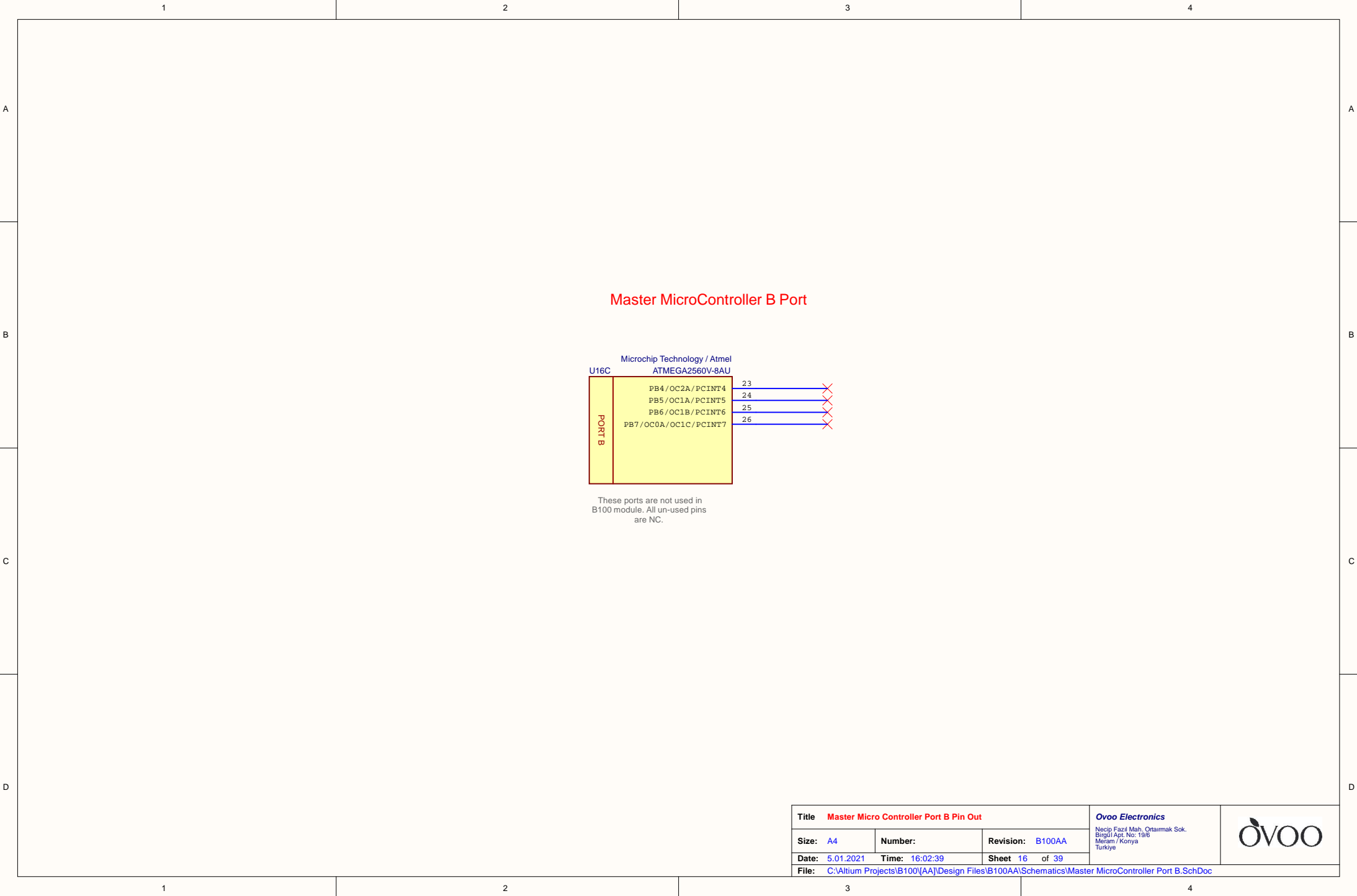
Master MicroController ICSP

Title Master MicroController Core			Ovoo Electronics Necip Fazıl Mah. Ortarmak Sok. Birgül Apt. No: 19/6 Meram / Konya Türkiye	
Size: A4	Number:	Revision: B100AA		
Date: 5.01.2021	Time: 16:02:39	Sheet 14 of 39		
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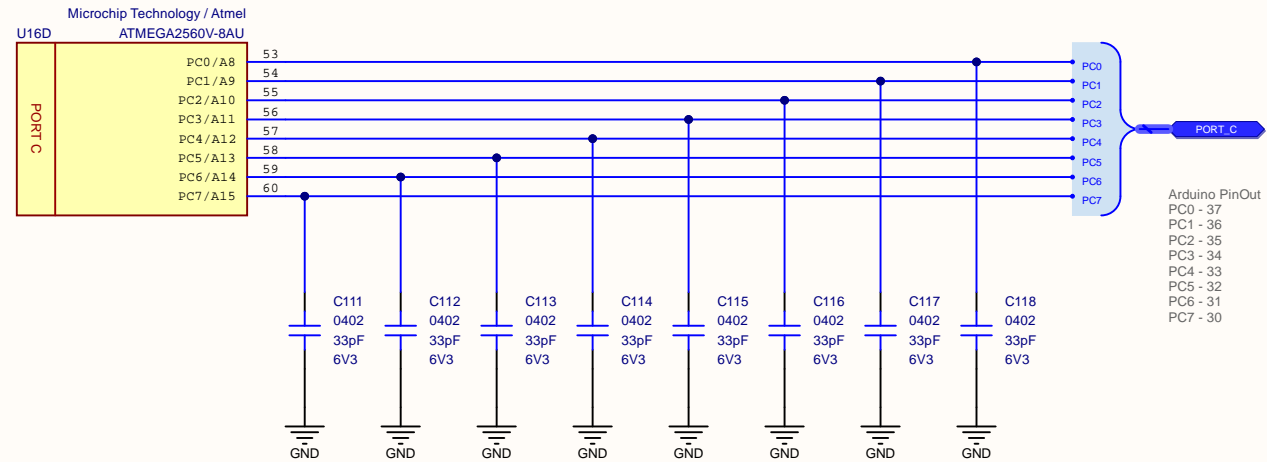
Master MicroController A Port




Title Master Micro Controller Port A Pin Out			Ovoo Electronics Necip Fazıl Mah. Ortairmak Sok. Bırgöl Apt. No: 19/6 Meram / Konya Türkiye	
Size: A4	Number:	Revision: B100AA		
Date: 5.01.2021	Time: 16:02:39	Sheet 15 of 39		
File: C:\Altium Projects\B100\AA\Design Files\B100AA\Schematics\Master MicroController Port A.SchDoc				

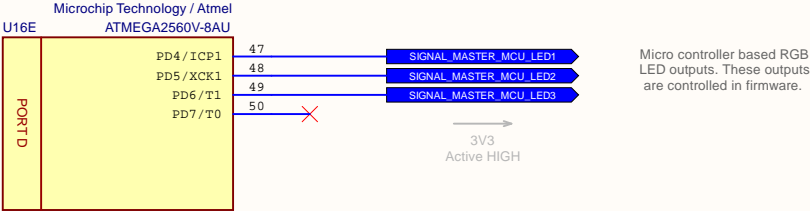



Master MicroController C Port



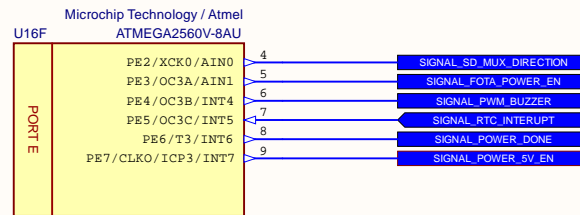
Title Master Micro Controller Port C Pin Out			Ovoo Electronics Necip Fazıl Mah. Ortarmak Sok. Bırgölü Apt. No: 19/6 Meram / Konya Türkiye	
Size: A4	Number:	Revision: B100AA		
Date: 5.01.2021	Time: 16:02:39	Sheet 17 of 39		
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Master MicroController D Port



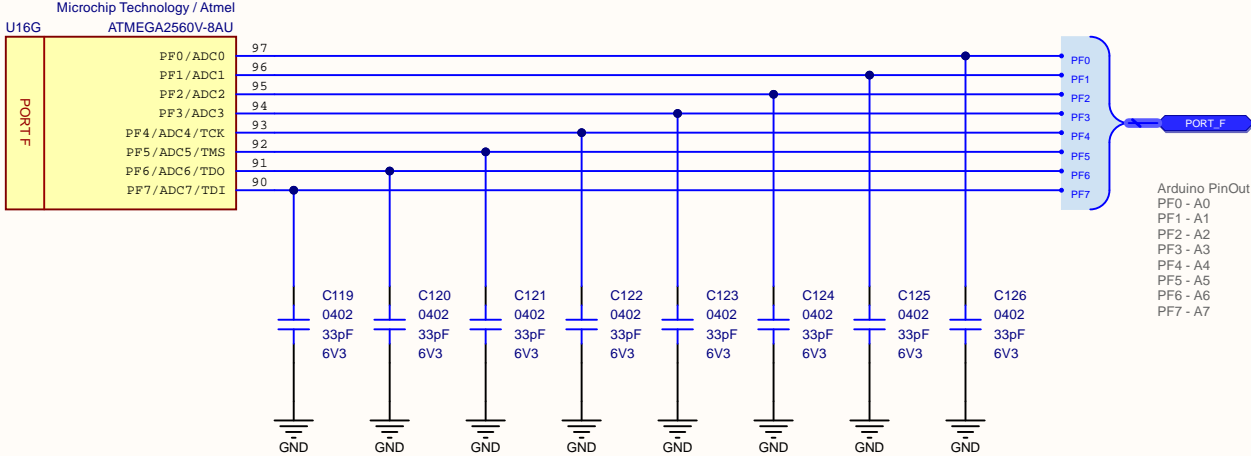
Title Master Micro Controller Port D Pin Out			Ovoo Electronics Necip Fazıl Mah. Ortairmak Sok. Bırgöl Apt. No: 19/6 Meram / Konya Türkiye	
Size: A4	Number:	Revision: B100AA		
Date: 5.01.2021	Time: 16:02:40	Sheet 18 of 39		
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Master MicroController E Port

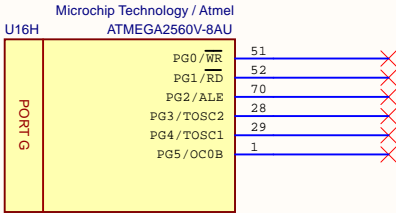


Title Master Micro Controller Port E Pin Out			Ovoo Electronics Necip Fazıl Mah, Ortarmak Sok. Bırgölü Apt. No: 19/6 Meram / Konya Türkiye	
Size: A4	Number:	Revision: B100AA		
Date: 5.01.2021	Time: 16:02:40	Sheet 19 of 39		
File: C:\Altium Projects\B100\AA\Design Files\B100AA\Schematics\Master MicroController Port E.SchDoc				


Master MicroController F Port



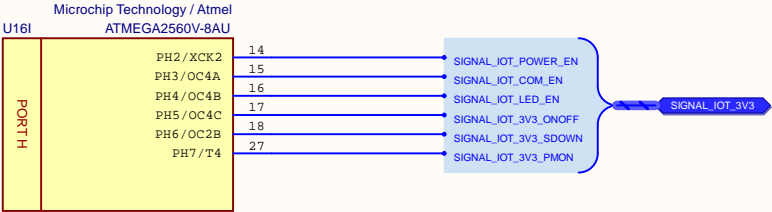
Master MicroController G Port




These ports are not used in B100 module. All un-used pins are NC.

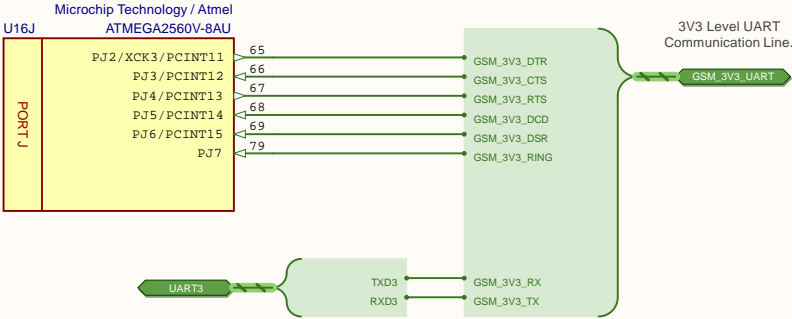
Title Master Micro Controller Port G Pin Out			Ovoo Electronics Necip Fazıl Mah. Ortarmak Sok. Bırgölü Apt. No: 19/6 Meram / Konya Türkiye	
Size: A4	Number:	Revision: B100AA		
Date: 5.01.2021	Time: 16:02:40	Sheet 21 of 39		
File: C:\Altium Projects\B100\AA\Design Files\B100AA\Schematics\Master MicroController Port G.SchDoc				


Master MicroController H Port



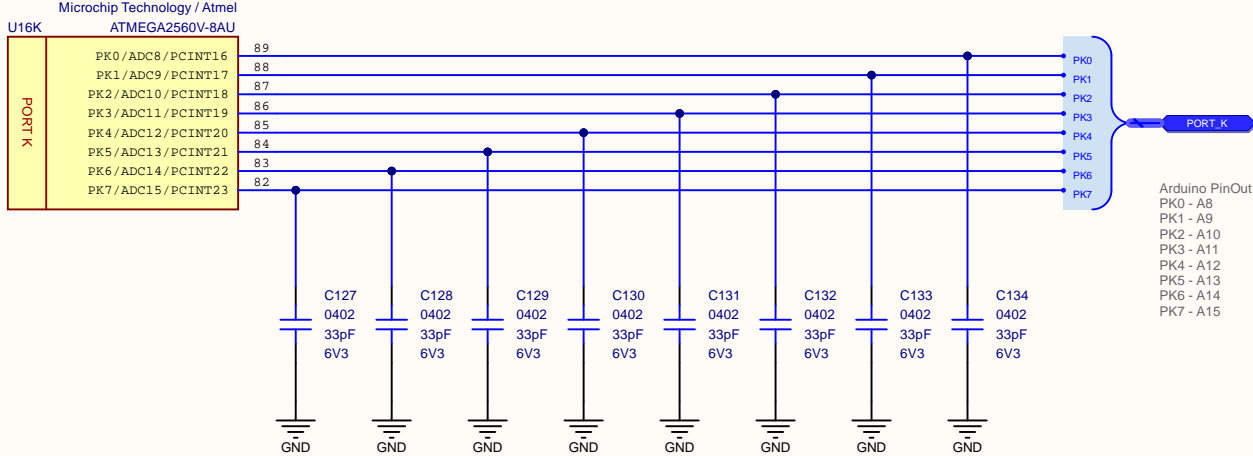
Title Master Micro Controller Port H Pin Out			Ovoo Electronics Necip Fazıl Mah. Ortairmak Sok. Bırgöl Apt. No: 19/6 Meram / Konya Türkiye	
Size: A4	Number:	Revision: B100AA		
Date: 5.01.2021	Time: 16:02:40	Sheet 22 of 39		
File: C:\Altium Projects\B100\AA\Design Files\B100AA\Schematics\Master MicroController Port H.SchDoc				

GSM IoT Communication Pins

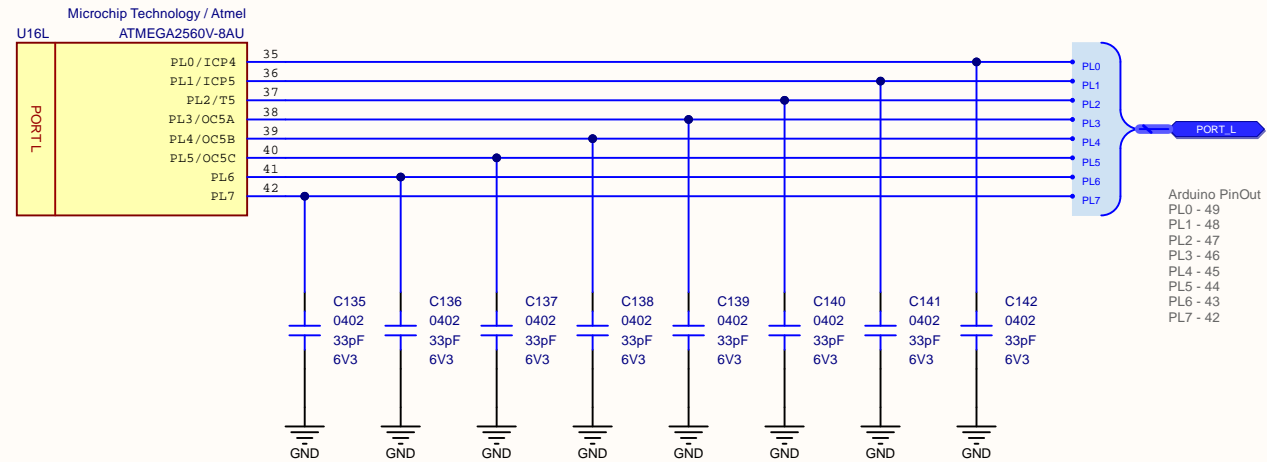



Title Master Micro Controller Port J Pin Out			Ovoo Electronics Necip Fazıl Mah. Ortarmak Sok. Bırgölü Apt. No: 19/6 Meram / Konya Türkiye	
Size: A4	Number:	Revision: B100AA		
Date: 5.01.2021	Time: 16:02:40	Sheet 23 of 39		
File: C:\Altium Projects\B100\AA\Design Files\B100AA\Schematics\Master MicroController Port J.SchDoc				

Master MicroController K Port

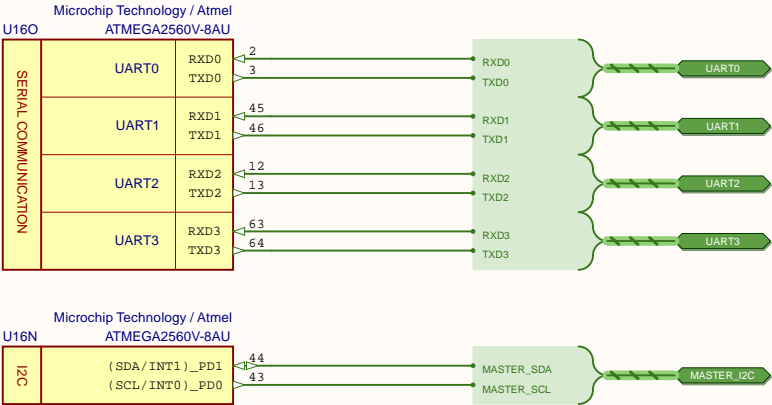


Master MicroController L Port

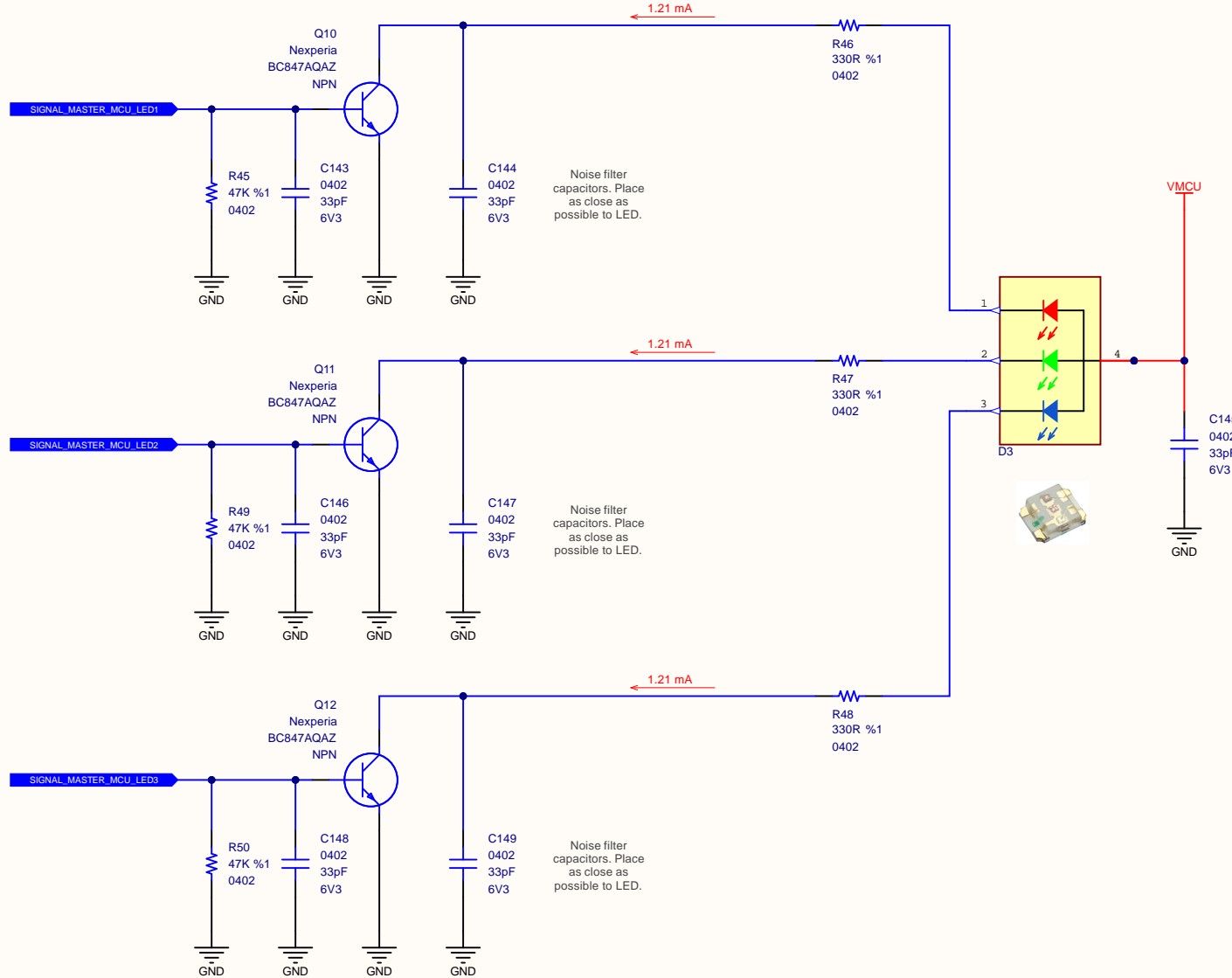



Title Master Micro Controller Port L Pin Out			<div>Ovoo Electronics</div> <div>Necip Fazıl Mah. Ortarmak Sok. Bırgölü Apt. No: 19/6 Meram / Konya Türkiye</div> <div></div>
Size: A4	Number:	Revision: B100AA	
Date: 5.01.2021	Time: 16:02:40	Sheet 25 of 39	
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Communication Ports



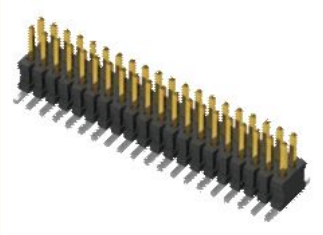
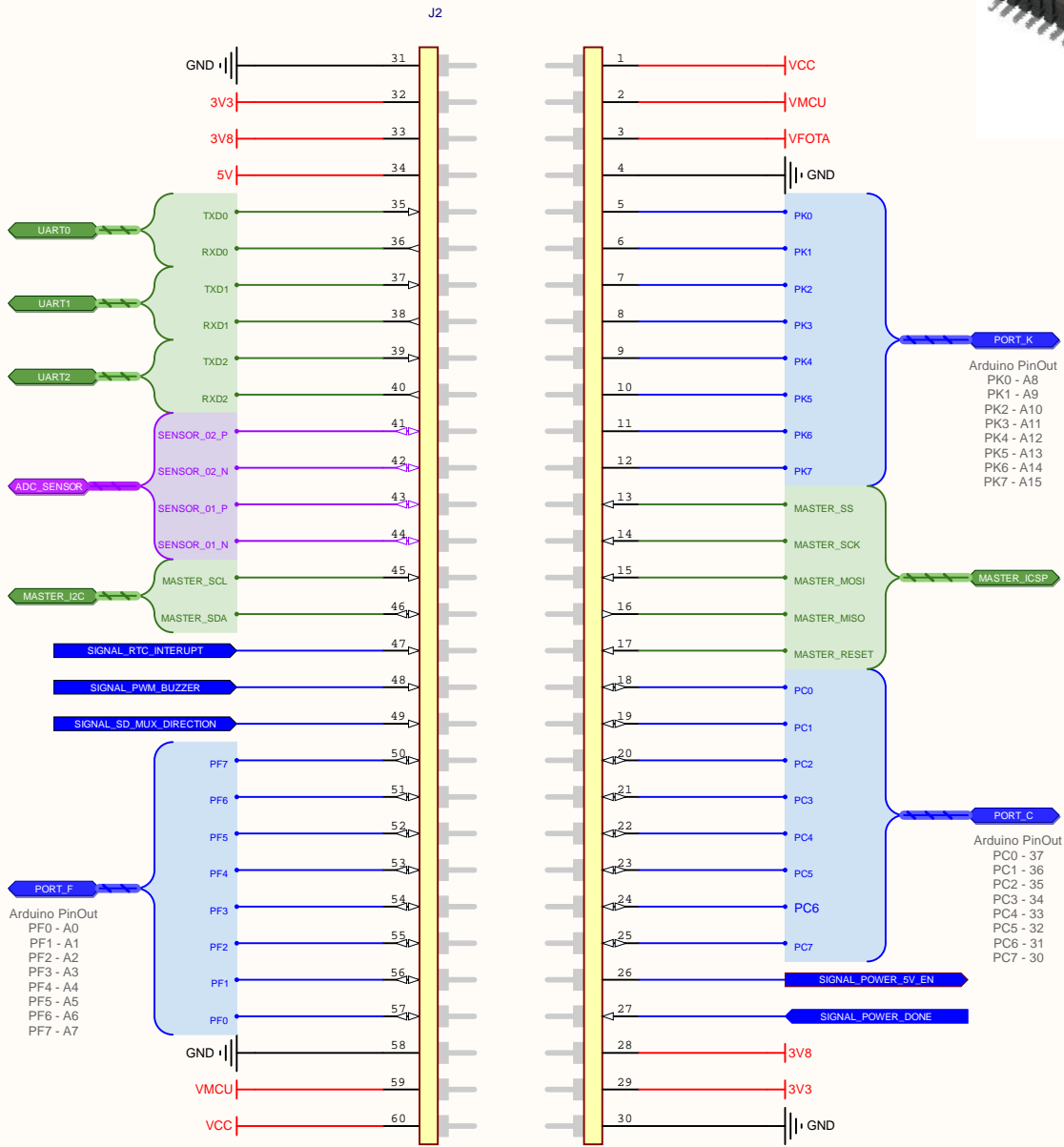
Main Microcontroller Status LED Indicators



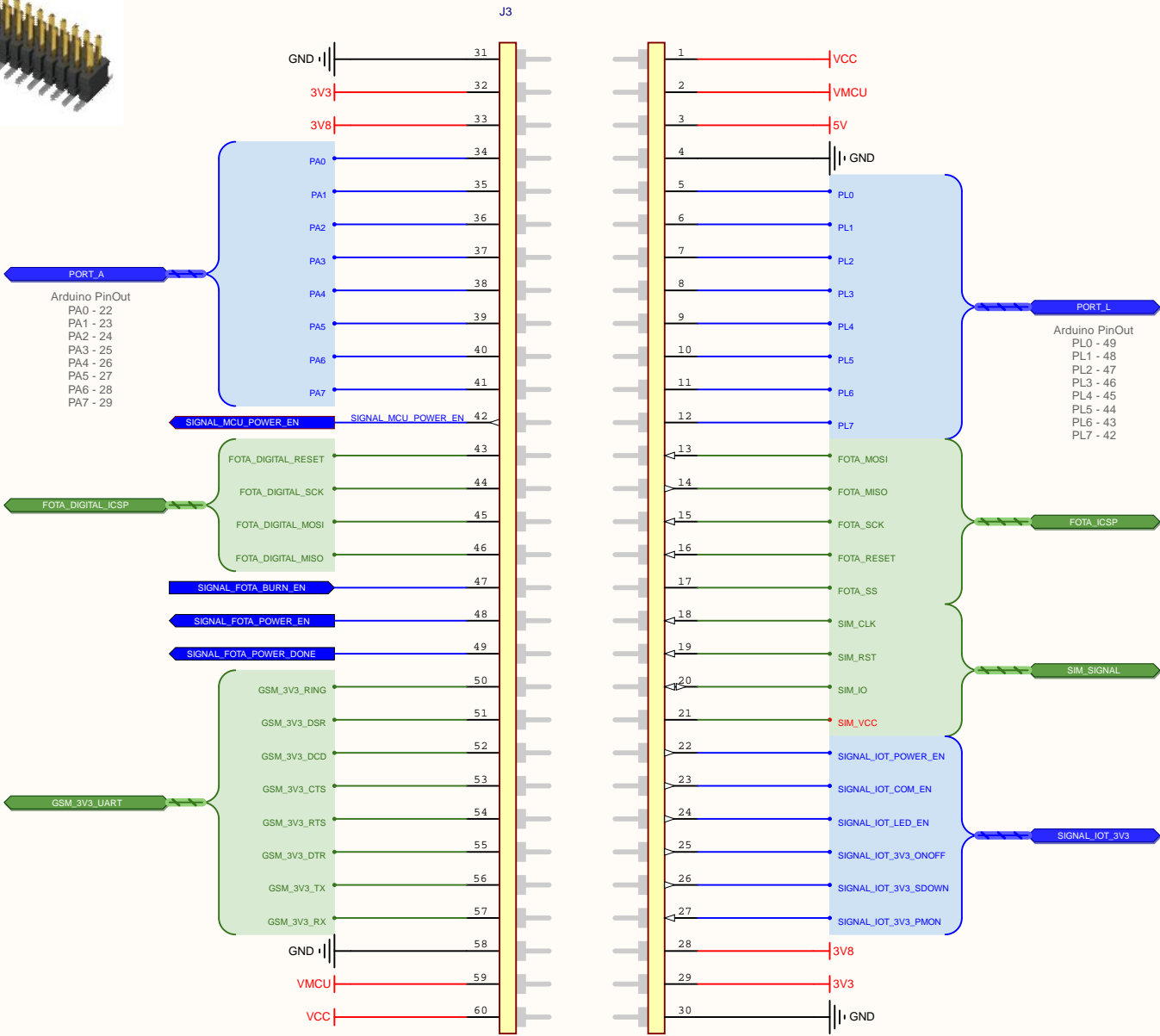
Title Master MicroController LED			Ovoo Electronics		
Size: A4	Number:	Revision: B100AA	Necip Fazıl Mah. Ortarmak Sok. Bırgölü Apt. No: 19/6 Meram / Konya Türkiye		
Date: 5.01.2021	Time: 16:02:40	Sheet 28 of 39			
File: C:\Altium Projects\B100\AA\Design Files\B100AA\Schematics\Master MicroController LED.SchDoc					



Module Output Sockets

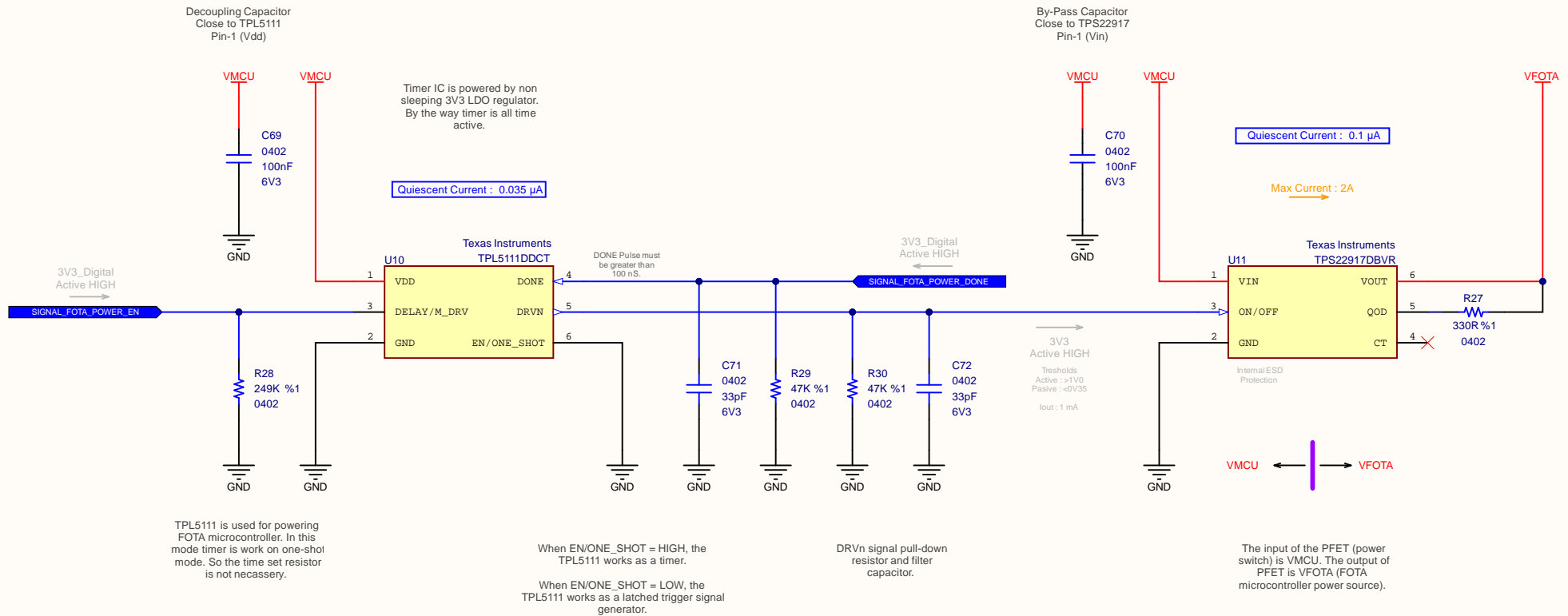


Module Output Sockets



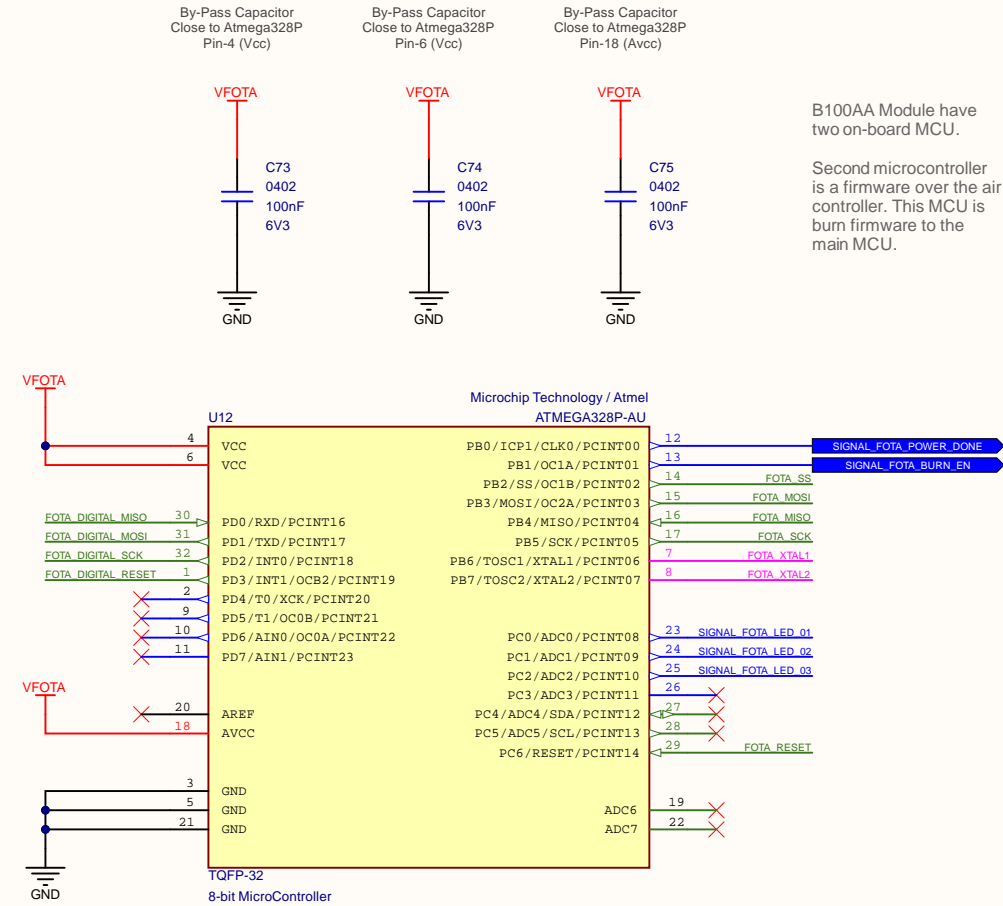
Power Trigger

Power Switch

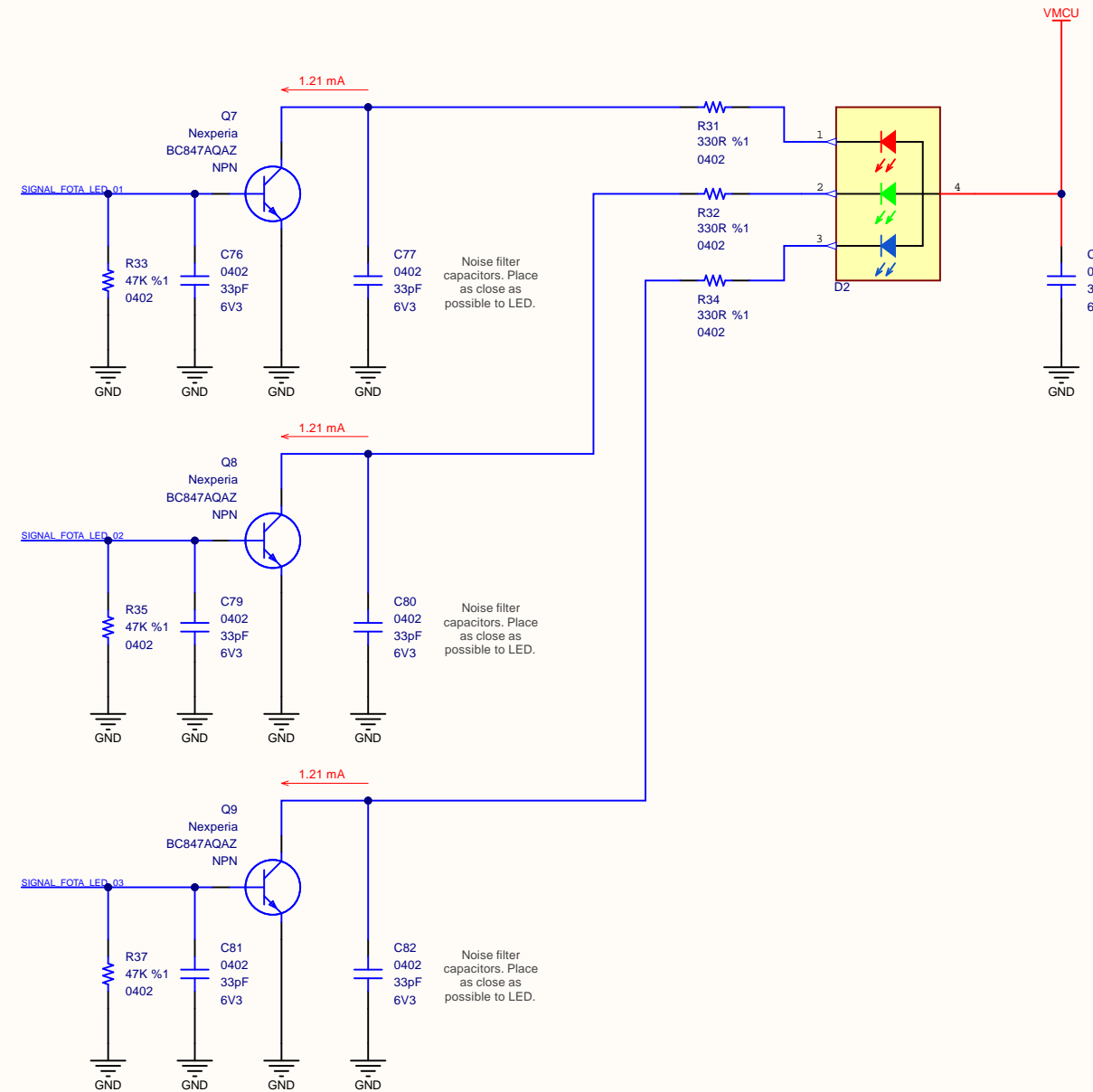


Title FOTA MicroController Latched Power Trigger			Ovoo Electronics Necip Fazıl Mah. Ortamak Sok. Bırgölü Apt. No: 19/6 Meram / Konya Türkiye
Size: A4	Number:	Revision: B100AA	
Date: 5.01.2021	Time: 16:02:40	Sheet 30 of 39	
File: C:\Altium Projects\B100\AA\Design Files\B100AA\Schematics\FOTA MicroController Power Switch.SchDoc			

FOTA Micro Controller



FOTA Status LED Indicators



FOTA Micro Controller ICSP




FOTA Digital ICSP (Main MCU Burn)



FOTA MCU is working at
7.3728 Mhz.

FOTA MCU Reset Line.
Pull-up.

Title FOTA MicroController			Ovoo Electronics Necip Fazıl Mah. Ortamak Sok. Birgül Apt. No: 19/6 Meram / Konya Turkey		
Size: A3	Number:	Revision: B100AA			
Date: 5.01.2021	Time: 16:02:40	Sheet 31 of 39			
File: C:\Altium Projects\B100\AA\Design Files\B100AA\Schematics\FOTA MicroController.SchDoc					

A

B

C

D

A

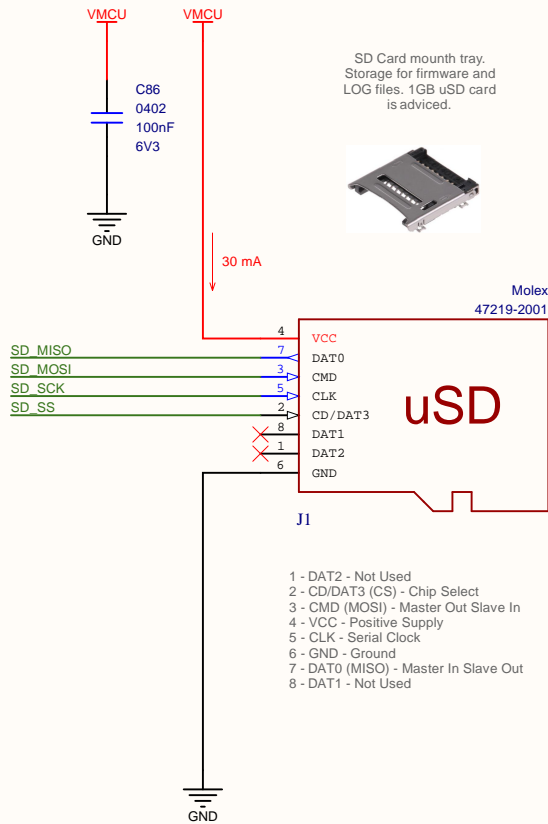
B

C

D

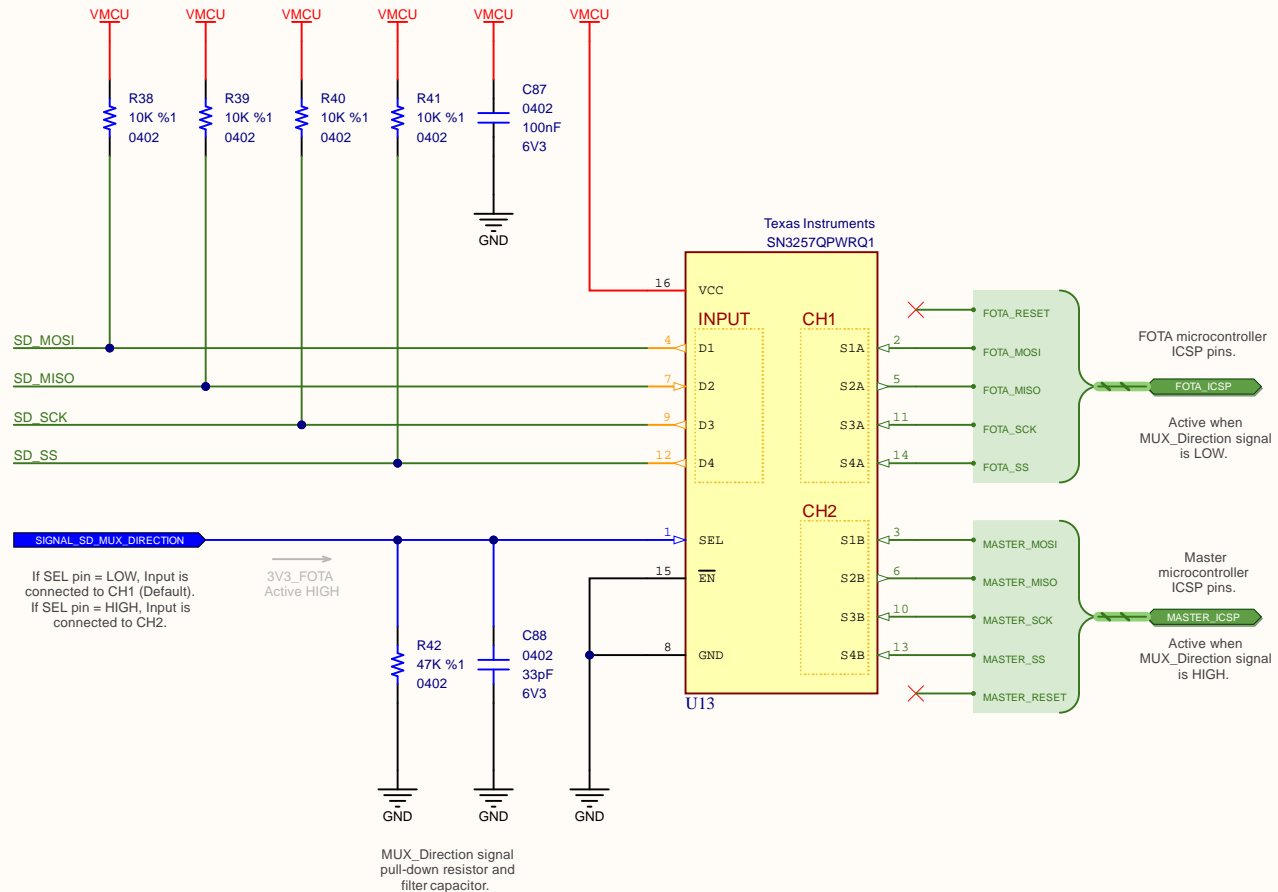
Decoupling Capacitor.
As close as possible to
uSD tray.


SD Card



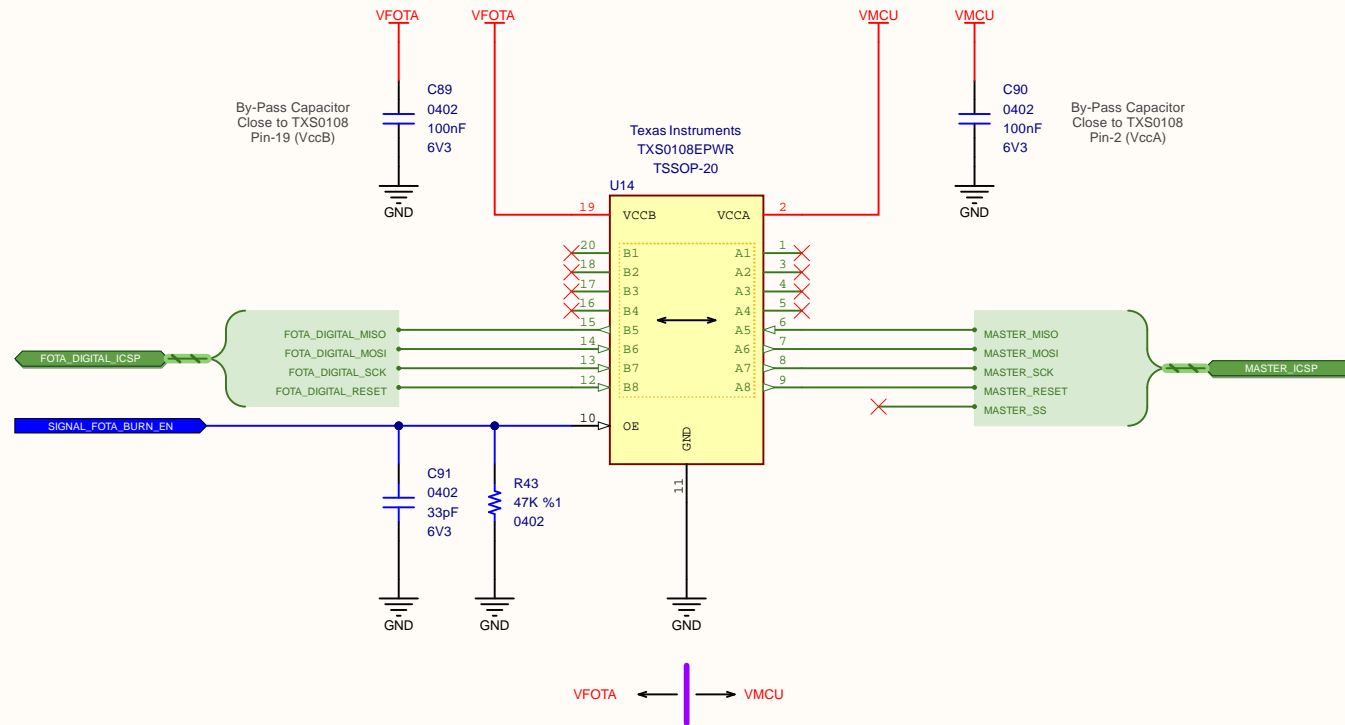
By-Pass Capacitor
Close to SN3257QPWRQ1
Pin-16 (Vcc)

SPI Selection Switch

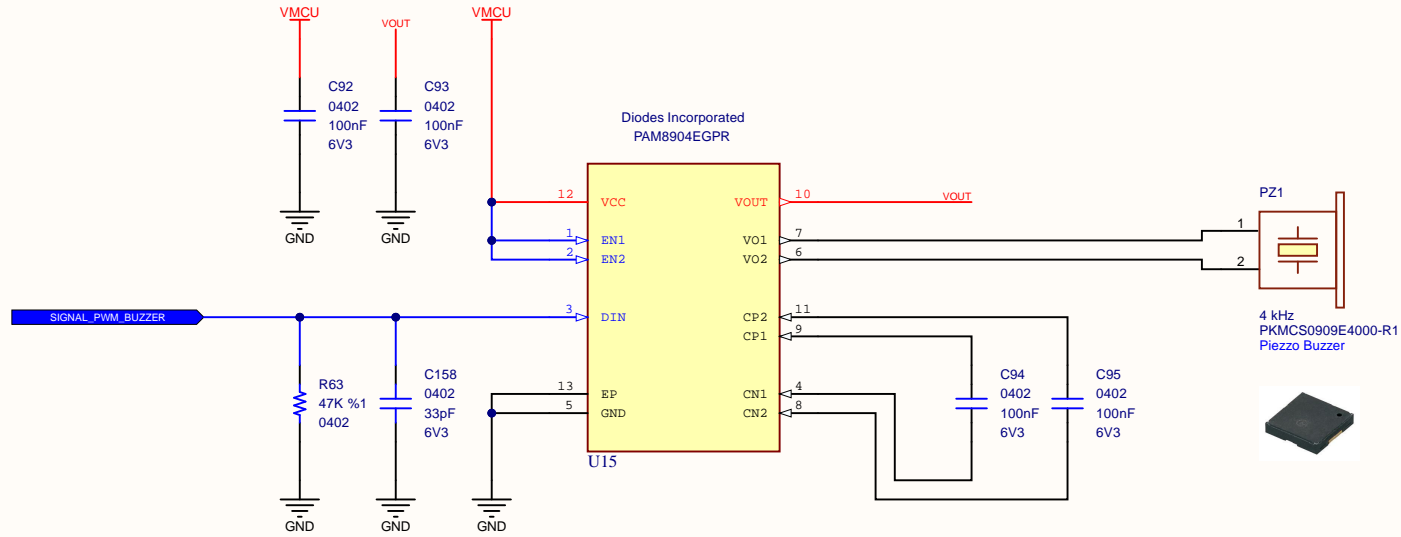



Title SD Card & Select Switch			Ovoo Electronics Necip Fazıl Mah, Ortairmak Sok. Bırgölü Apt. No: 19/6 Meram / Konya Türkiye		
Size: A4	Number:	Revision: B100AA			
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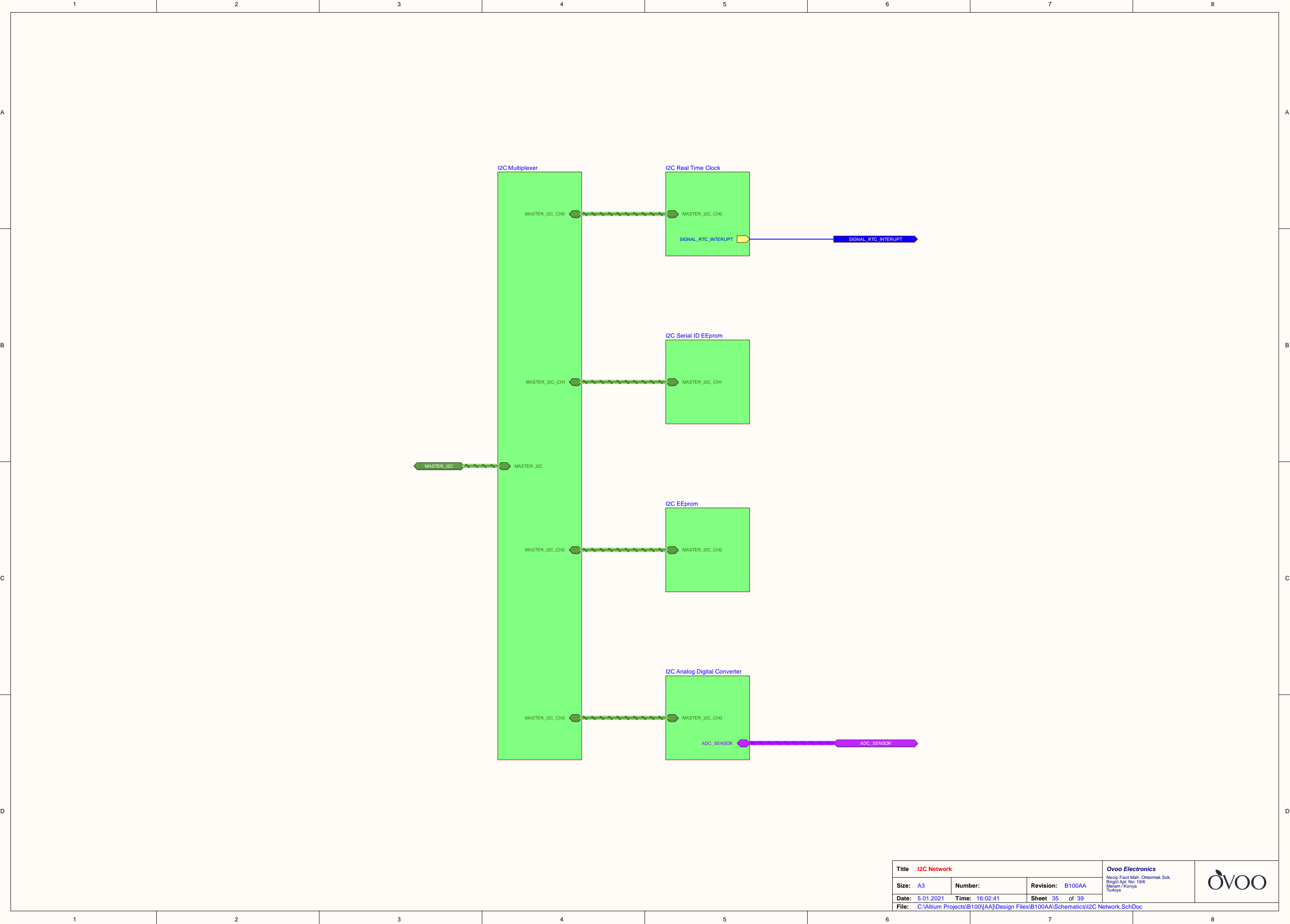
ICSP Burn Buffer

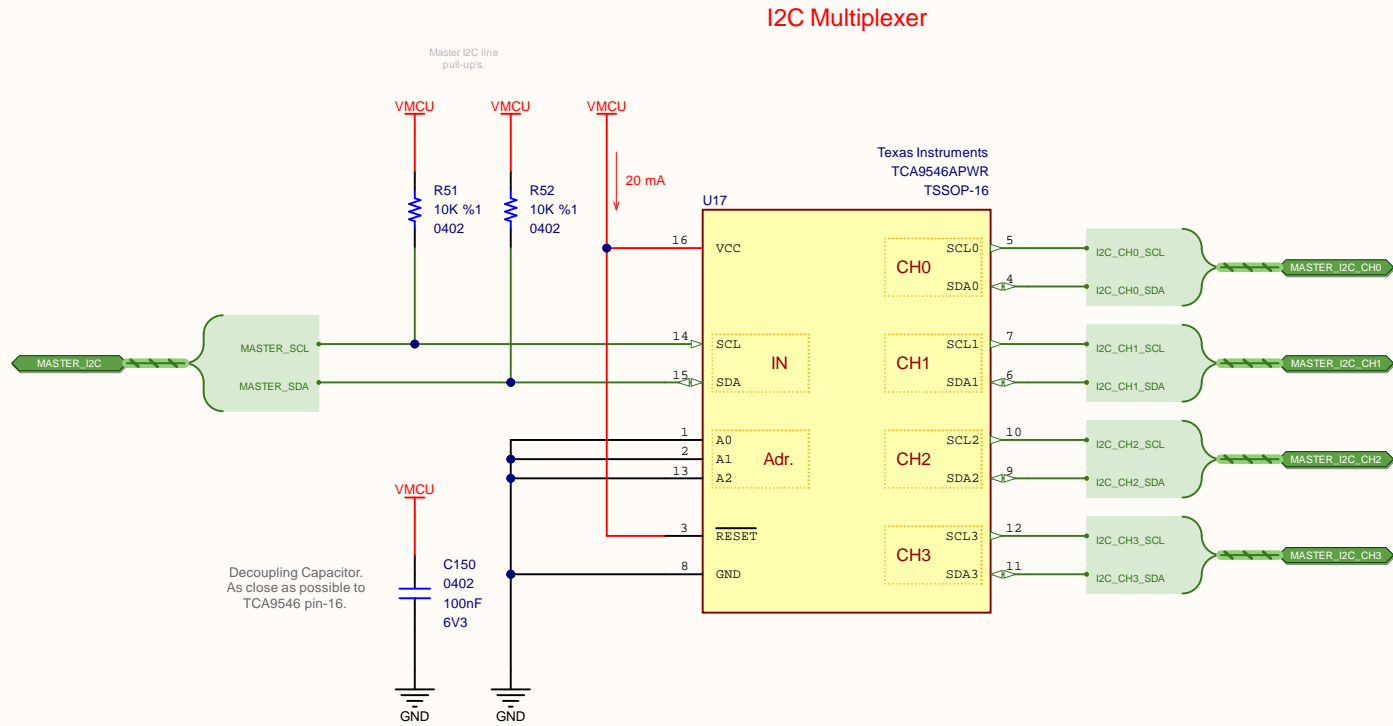



Piezzo Buzzer



Title Buzzer			Ovoo Electronics Necip Fazıl Mah. Ortarmak Sok. Bırgölü Apt. No: 19/6 Meram / Konya Türkiye	
Size: A4	Number:	Revision: B100AA		
Date: 5.01.2021	Time: 16:02:41	Sheet 34 of 39		
File: C:\Altium Projects\B100\AA\Design Files\B100AA\Schematics\Buzzer.SchDoc				

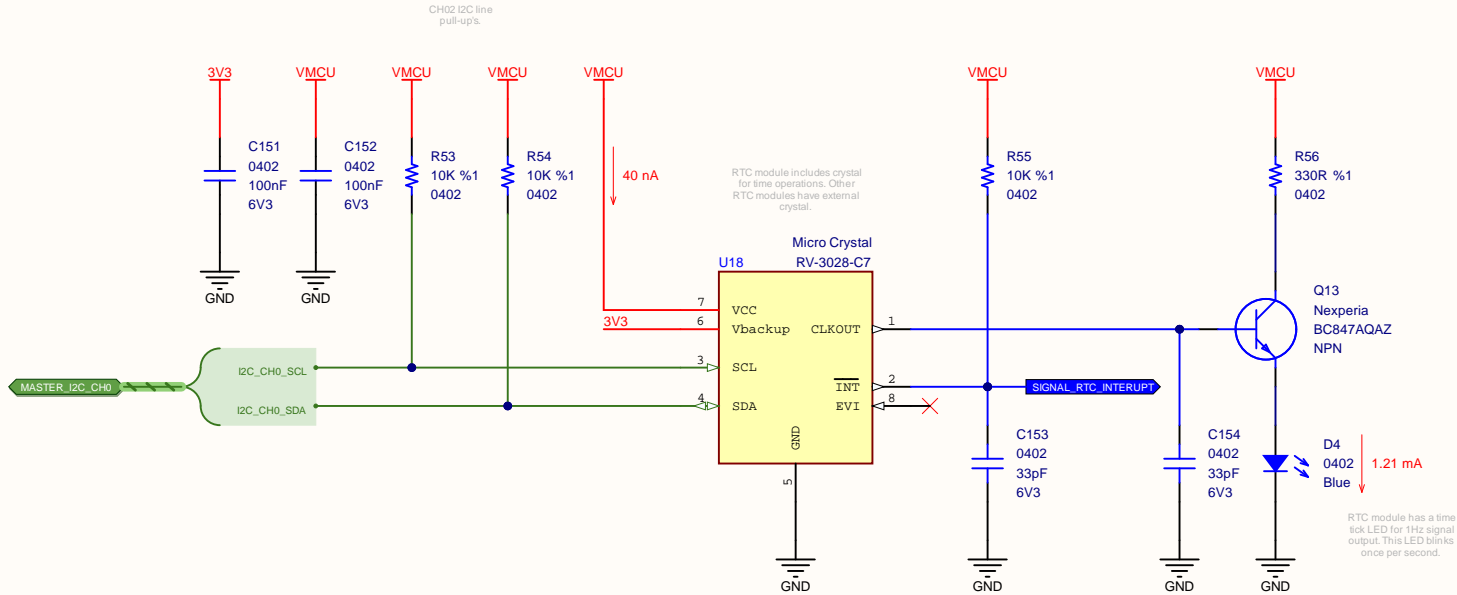




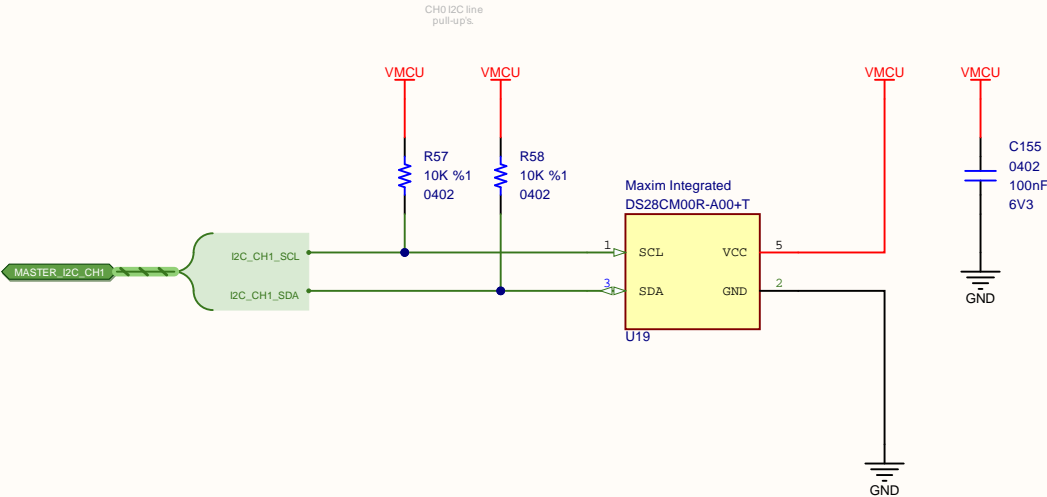
Title I2C Multiplexer			Ovoo Electronics		
Size: A4	Number:	Revision: B100AA	Necip Fazil Mah. Ortamak Sok. Bırgöl Apt. No: 19/6 Meram / Konya Türkiye		
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Real Time Clock



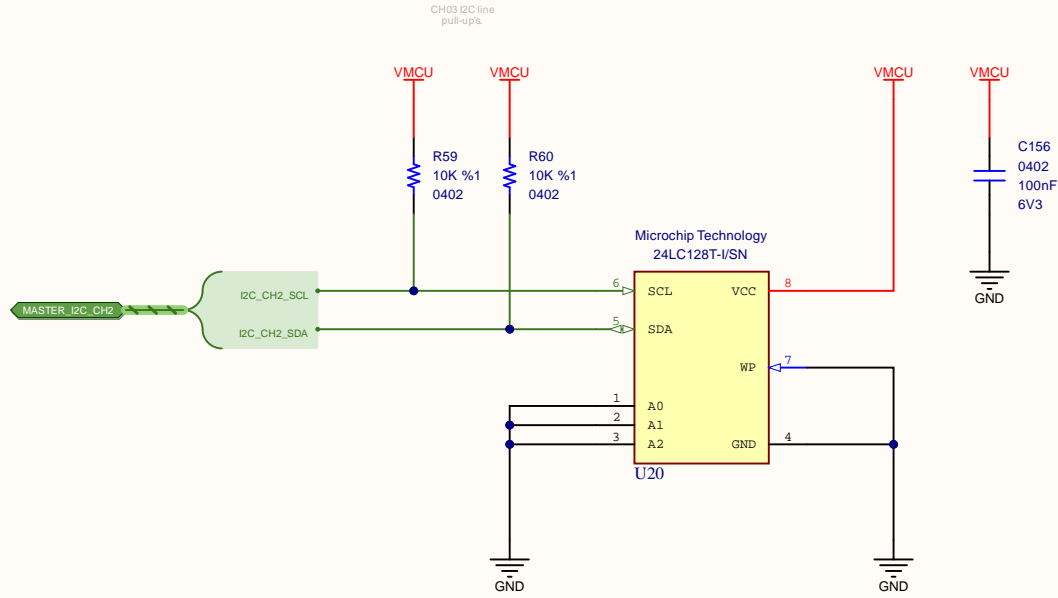
I2C Serial ID EEPROM



Title I2C Serial ID EEprom			Ovoo Electronics		
Size: A4	Number:	Revision: B100AA	Necip Fazıl Mah. Ortarmak Sok. Bırgölü Apt. No: 19/6 Meram / Konya Türkiye		
Date: 5.01.2021	Time: 16:02:41	Sheet 37 of 39			
File: C:\Altium Projects\B100\AA\Design Files\B100AA\Schematics\Serial ID EEPROM.SchDoc					



EEPROM



Title I2C EEprom

Size: A4

Number:

Revision: B100AA

Date: 5.01.2021

Time: 16:02:41

Sheet 38 of 39

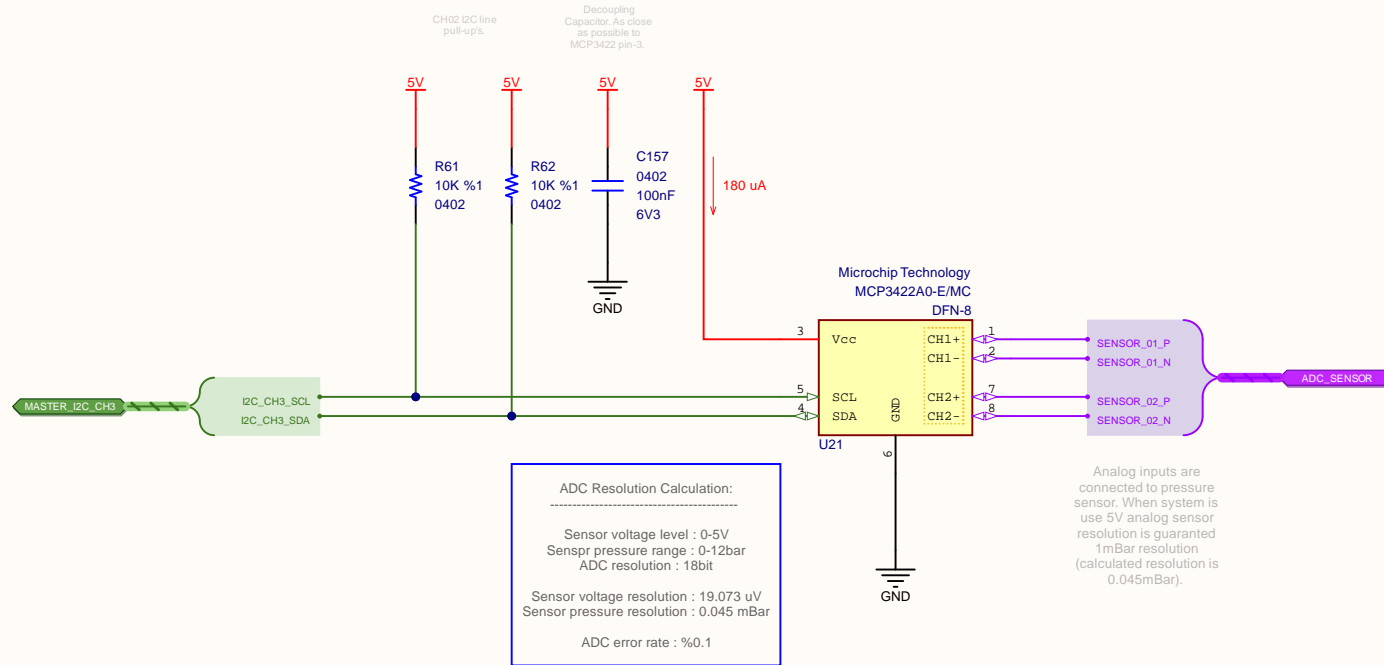
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Ovoo Electronics

Necip Fazıl Mah. Ortarmak Sok.
Bırgölü Apt. No: 19/6
Meram / Konya
Türkiye



Analog Digital Converter



Title Analog Digital Converter			Ovoo Electronics Necip Fazıl Mah. Ortarmak Sok. Bırgöl Apt. No: 19/6 Meram / Konya Türkiye	
Size: A4	Number:	Revision: B100AA		
Date: 5.01.2021	Time: 16:02:41	Sheet 39 of 39		
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