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Engineer contact : akkoyun@me.com

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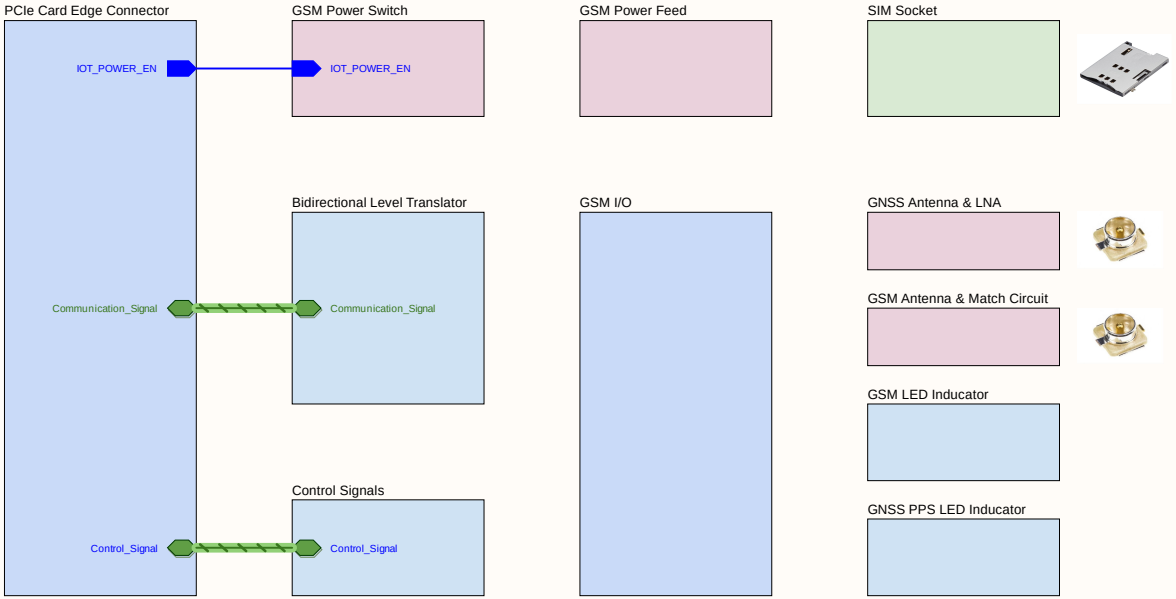

www.github.com/akkoyun/B152AA

GSM IoT Block Diagram			Engineer : Gunce Akkoyun	**STF Res-Dev**
			Customer : STF Irrigation	
Size : A4	Project : --		Product ID : --	Buyuk Kayacik Mah. 4. OSB
			Module ID : B101AA	103. Cad. No : 12
Date : 13.09.2022	Time : 10:46:46	Page : 1 / 15	Version : R1	Selcuklu / Konya Türkiye
File : GSM IoT Block Diagram.SchDoc			Revision : 00.00.01	

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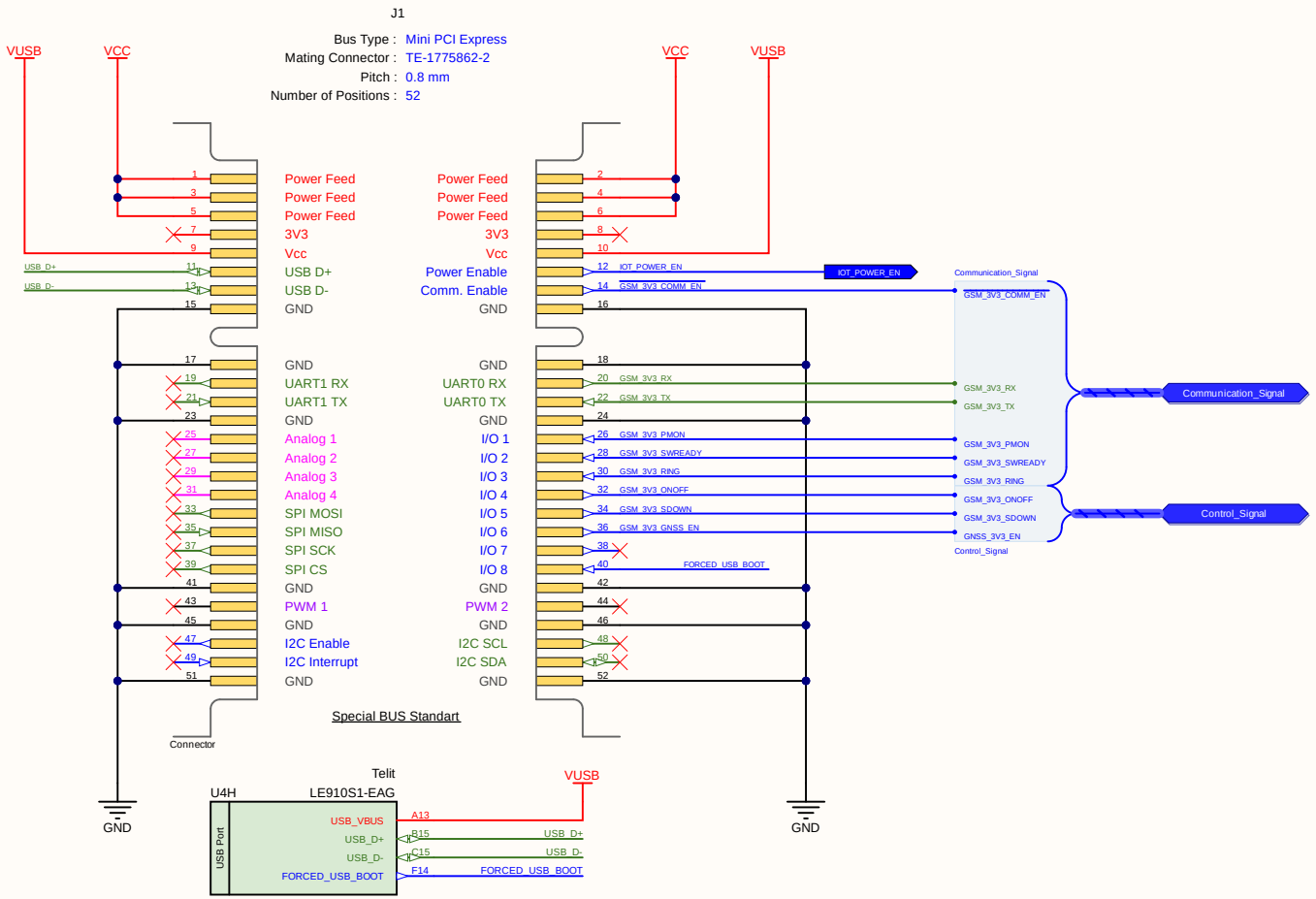

www.github.com/akkoyun/B152AA

Card Edge Connector			Engineer : Gunce Akkoyun	**STF Res-Dev**	
			Customer : STF Irrigation		
Size : A4	Project : --		Product ID : --	Buyuk Kayacik Mah. 4. OSB	
			Module ID : B101AA	103. Cad. No : 12	
Date : 13.09.2022	Time : 10:46:46	Page : 2 / 15	Version : R1	Selcuklu / Konya Türkiye	
File : Card Edge Connector.SchDoc			Revision : 00.00.01		

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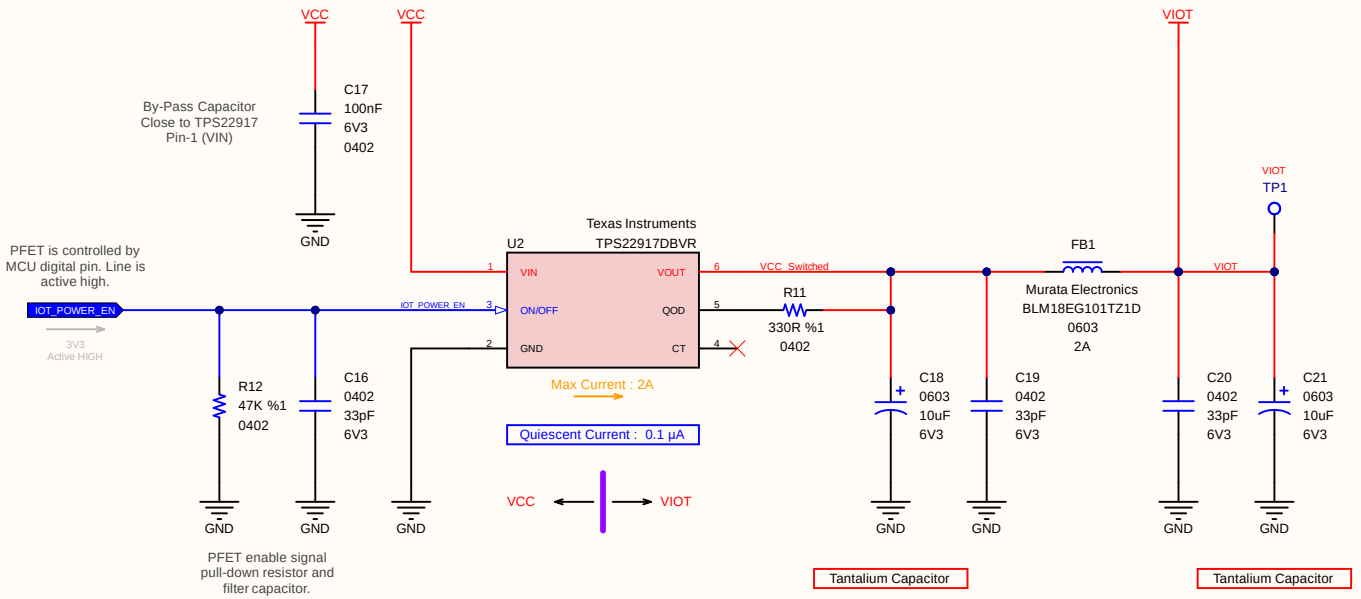

www.github.com/akkoyun/B152AA

GSM Modem Power Feed			Engineer :	Gunce Akkoyun	**STF Res-Dev**
			Customer :	STF Irrigation	Buyuk Kayacik Mah. 4. OSB
Size : A4	Project : --		Product ID :	--	103. Cad. No : 12
			Module ID :	B101AA	Selcuklu / Konya Türkiye
Date : 13.09.2022	Time : 10:46:47	Page : 3 / 15	Version :	R1	
File : GSM Power Switch.SchDoc			Revision :	00.00.01	

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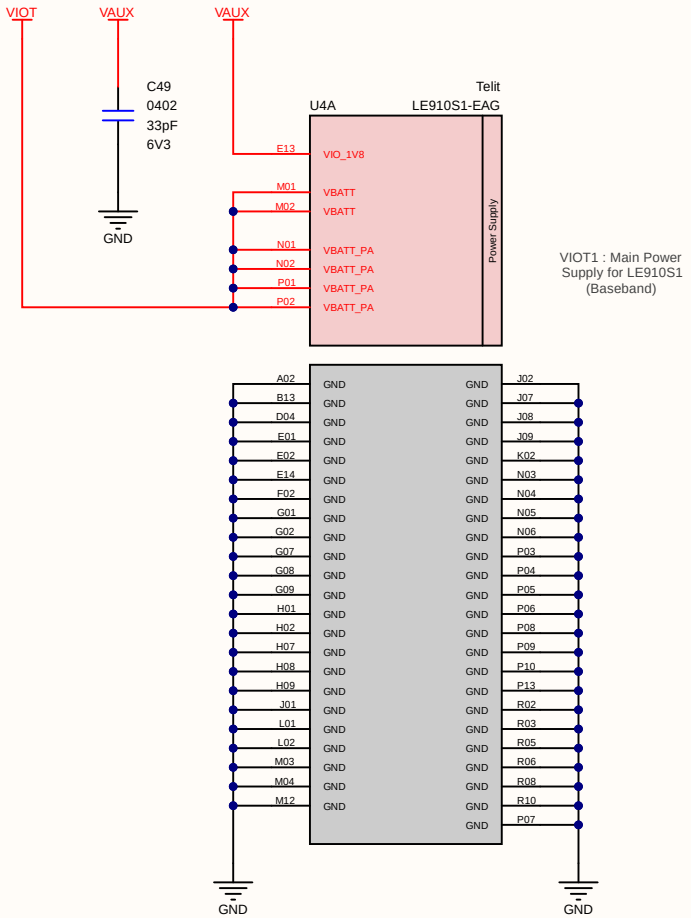

VIOT1 : Main Power Supply for LE910S1 (Baseband)

www.github.com/akkoyun/B152AA

GSM Modem Power Feed		Engineer : Gunce Akkoyun	**STF Res-Dev**
		Customer : STF Irrigation	
Size : A4	Project : --	Product ID : --	Buyuk Kayacik Mah. 4. OSB
		Module ID : B101AA	103. Cad. No : 12
Date : 13.09.2022	Time : 10:46:47 Page : 4 / 15	Version : R1	Selcuklu / Konya Türkiye
File : GSM Modem Power Feed.SchDoc		Revision : 00.00.01	

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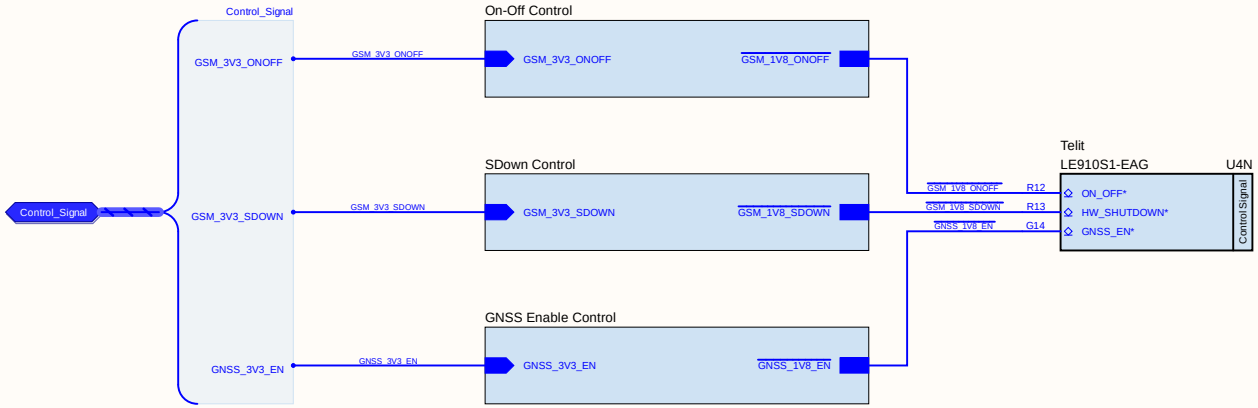

www.github.com/akkoyun/B152AA

Signal Control Block			Engineer : Gunce Akkoyun	**STF Res-Dev**
			Customer : STF Irrigation	
Size : A4	Project : --		Product ID : --	Buyuk Kayacik Mah. 4. OSB
			Module ID : B101AA	103. Cad. No : 12
Date : 13.09.2022	Time : 10:46:47	Page : 5 / 15	Version : R1	Selcuklu / Konya Türkiye
File : Signal Control Block.SchDoc			Revision : 00.00.01	

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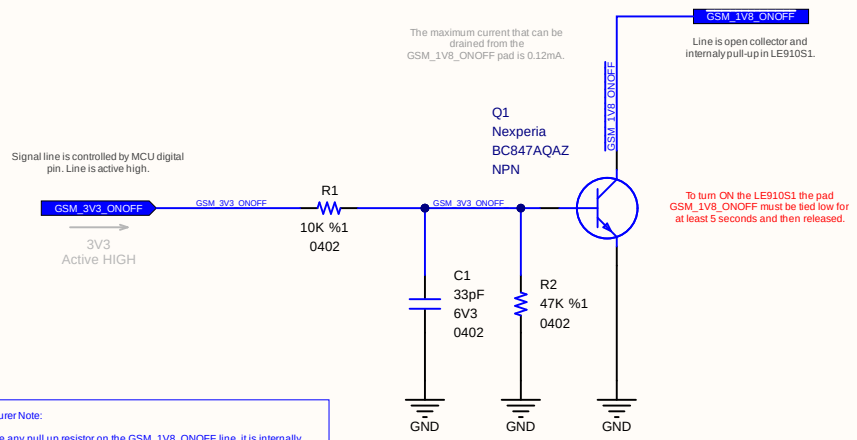

Manufacturer Note:

* Don't use any pull up resistor on the GSM_1V8_ONOFF line, it is internally pulled up. Using pull up resistor may bring to latch up problems on the LE910 power regulator and improper power on/off of the module. The line GSM_1V8_ONOFF must be connected only in open collector configuration.

* To check if the device has powered on, the hardware line PWRMON should be monitored. The device is powered on when PWRMON goes high.

* It is mandatory to avoid sending data to the serial ports during the first 200ms of the module start-up.

www.github.com/akkoyun/B152AA

On / Off Signal Control		Engineer :	Gunce Akkoyun
		Customer :	STF Irrigation
Size : A4	Project : --	Product ID :	--
		Module ID :	B101AA
Date : 13.09.2022	Time : 10:46:47 Page : 6 / 15	Version :	R1
File : On-Off Signal Control.SchDoc		Revision :	00.00.01

STF Res-Dev

Buyuk Kayacik Mah. 4. OSB
103. Cad. No : 12
Selcuklu / Konya Türkiye

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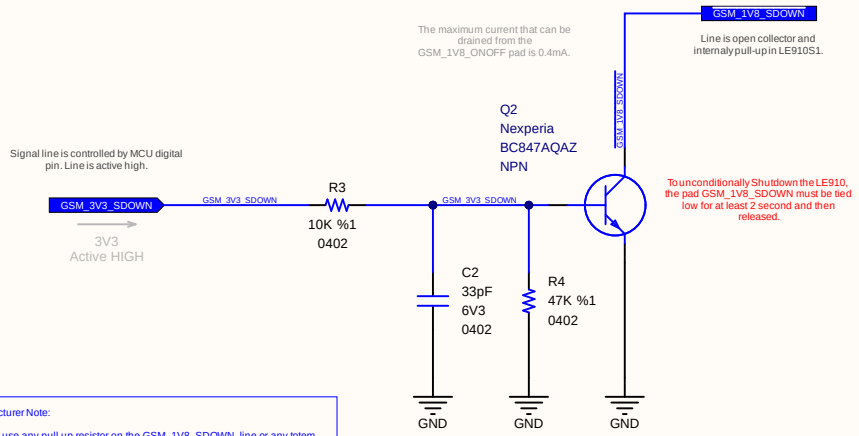

Manufacturer Note:

* Do not use any pull up resistor on the GSM_1V8_SDOWN line or any totem pole digital output. Using pull up resistor may bring to latch up problems on the LE910S1 power regulator and improper functioning of the module. The line GSM_1V8_SDOWN must be connected only in open collector configuration, since it is already internally pull-up to VBATT.

* The unconditional hardware shutdown must always be implemented on the boards and the software must use it as an emergency exit procedure.

* In order to avoid a back powering effect it is recommended to avoid having any HIGH logic level signal applied to the digital pins of the GE910 when the module is powered off or during an ON/OFF transition.

www.github.com/akkoyun/B152AA

Shut Down Signal Control			Engineer :	Gunce Akkoyun	**STF Res-Dev**
			Customer :	STF Irrigation	
Size : A4	Project : --		Product ID :	--	Buyuk Kayacik Mah. 4. OSB
			Module ID :	B101AA	103. Cad. No : 12
Date : 13.09.2022	Time : 10:46:47	Page : 7 / 15	Version :	R1	Selcuklu / Konya Türkiye
File : Shut Down Signal Control.SchDoc			Revision :	00.00.01	

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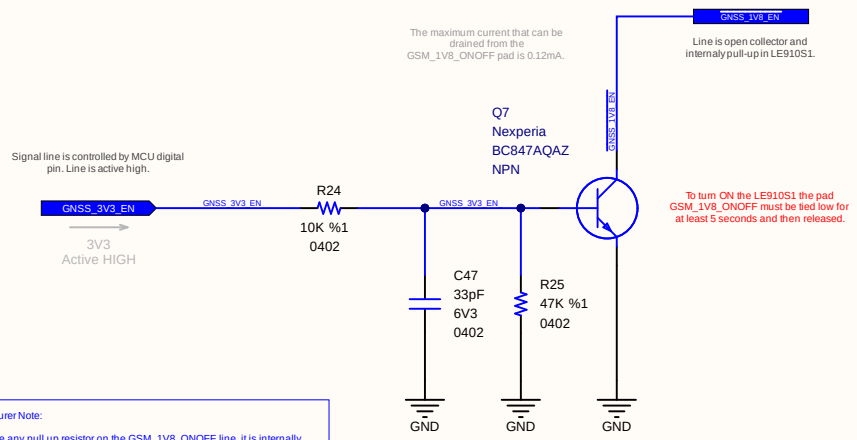

Manufacturer Note:

* Don't use any pull up resistor on the GSM_1V8_ONOFF line, it is internally pulled up. Using pull up resistor may bring to latch up problems on the LE910 power regulator and improper power on/off of the module. The line GSM_1V8_ONOFF must be connected only in open collector configuration.

* To check if the device has powered on, the hardware line PWRMON should be monitored. The device is powered on when PWRMON goes high.

* It is mandatory to avoid sending data to the serial ports during the first 200ms of the module start-up.

www.github.com/akkoyun/B152AA

On / Off Signal Control			Engineer : Gunce Akkoyun	**STF Res-Dev**
			Customer : STF Irrigation	
Size : A4	Project : --		Product ID : --	Buyuk Kayacik Mah. 4. OSB
			Module ID : B101AA	103. Cad. No : 12
Date : 13.09.2022	Time : 10:46:47	Page : 8 / 15	Version : R1	Selcuklu / Konya Türkiye
File : GNSS EN Signal Control.SchDoc			Revision : 00.00.01	

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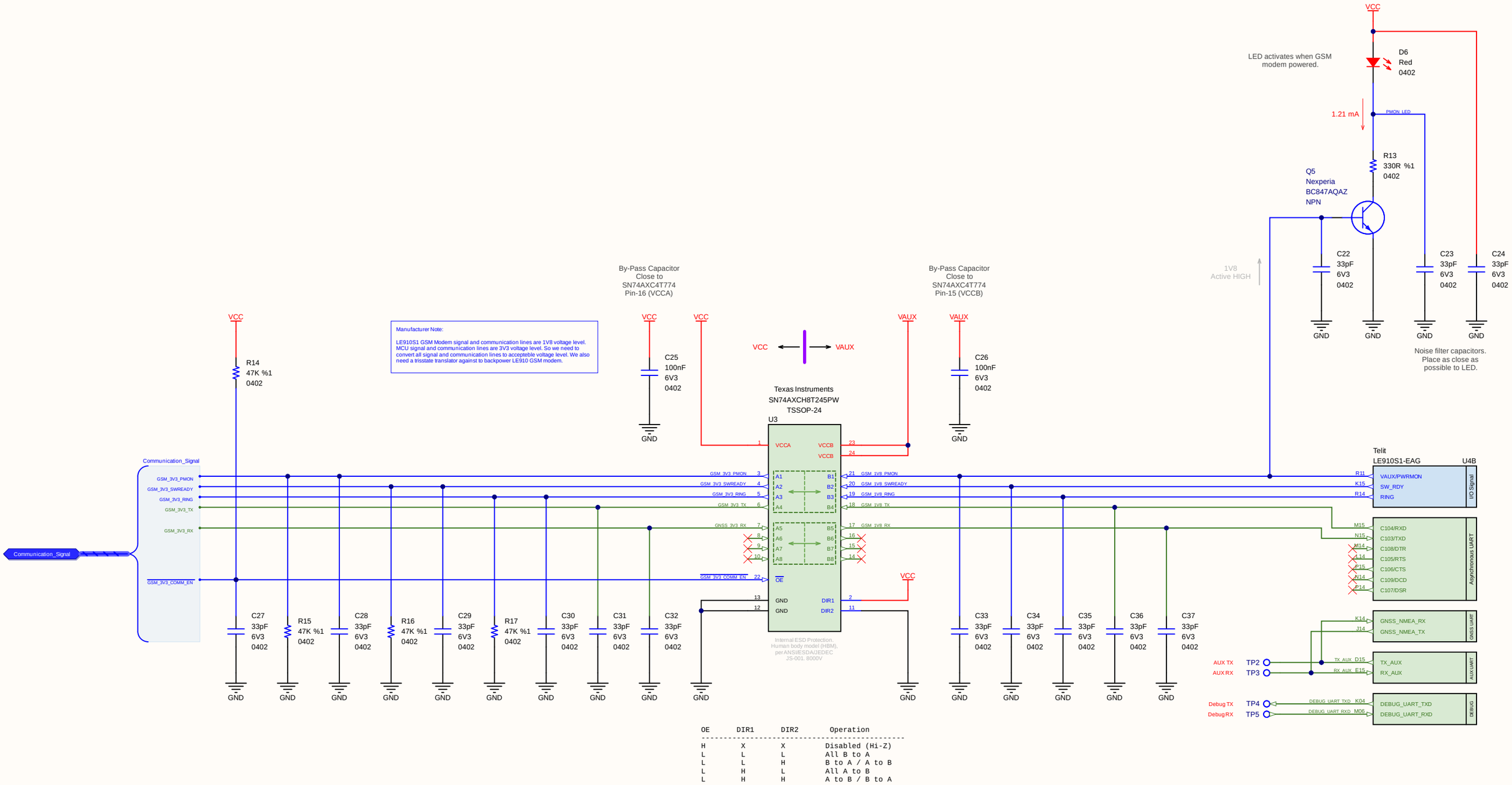

OE	DIR1	DIR2	Operation
H	X	X	Disabled (Hi-Z)
L	L	L	All B to A
L	L	H	B to A / A to B
L	H	L	All A to B
L	H	H	A to B / B to A

www.github.com/akkoyun/B152AA

Voltage Translator		Engineer : Gunce Akkoyun	STF Res-Dev
Size : A4	Project : --	Customer : STF Irrigation	Buyuk Kayacik Mah. 4. OSB
Date : 13.09.2022	Time : 10:46:47 Page : 9 / 15	Product ID : --	103. Cad. No : 12
File : Voltage Translator.SchDoc		Module ID : B101AA	Selcuklu / Konya Türkiye
		Version : R1	
		Revision : 00.00.01	

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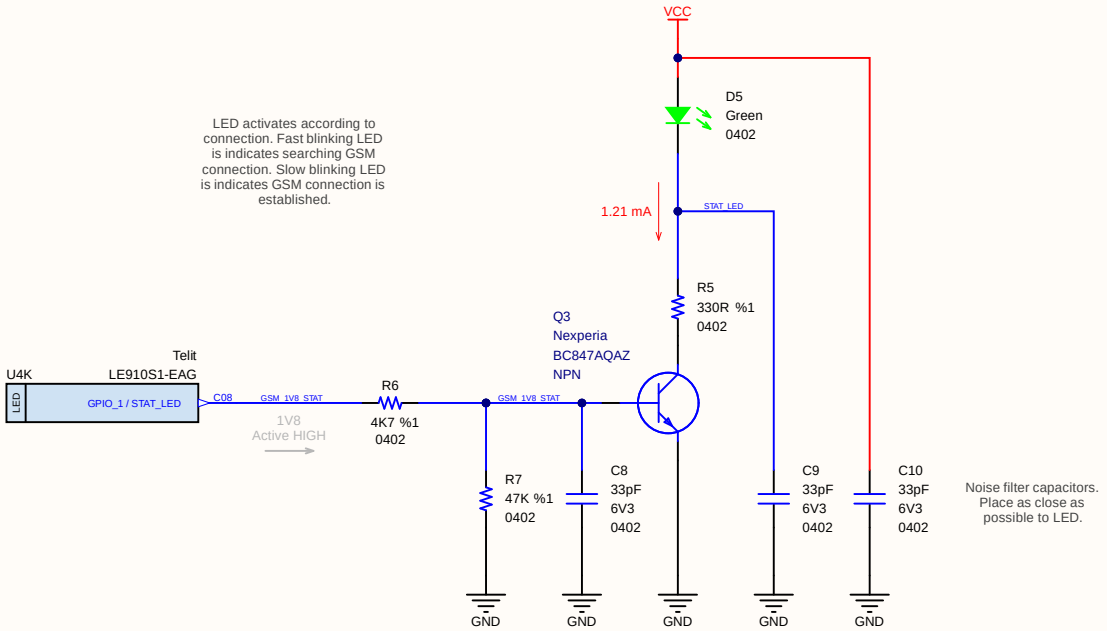

www.github.com/akkoyun/B152AA

Modem LED Driver			Engineer : Gunce Akkoyun	**STF Res-Dev**	
			Customer : STF Irrigation		
Size : A4	Project : --		Product ID : --	Buyuk Kayacik Mah. 4. OSB	
			Module ID : B101AA	103. Cad. No : 12	
Date : 13.09.2022	Time : 10:46:47	Page : 10 / 15	Version : R1	Selcuklu / Konya Türkiye	
File : GSM Stat LED Driver.SchDoc			Revision : 00.00.01		

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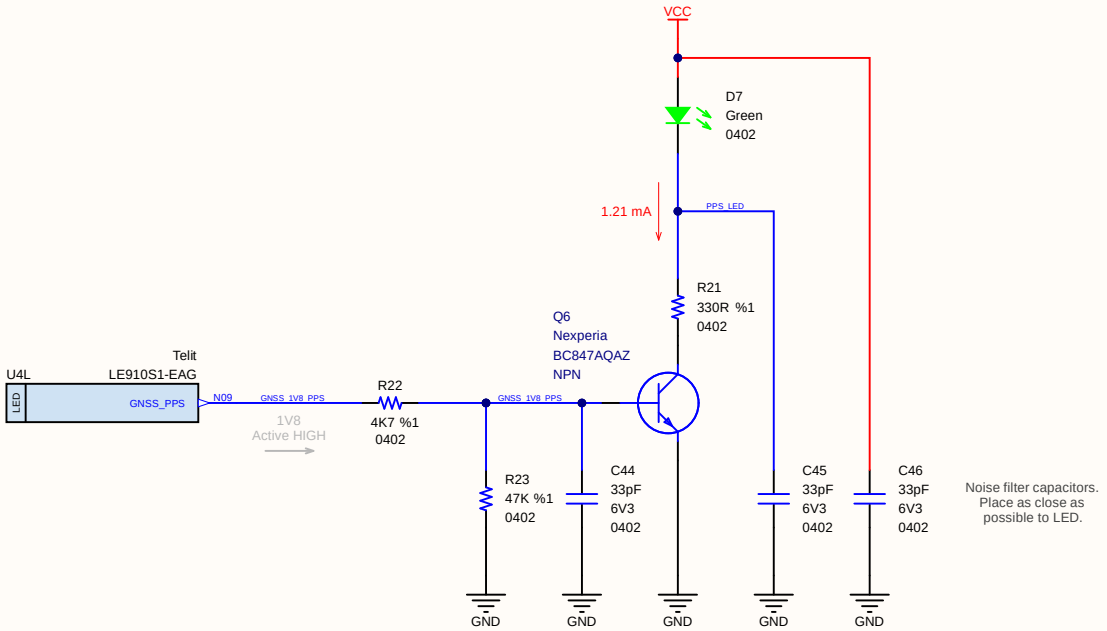

www.github.com/akkoyun/B152AA

GNSS PPS LED Driver			Engineer : Gunce Akkoyun	**STF Res-Dev**
			Customer : STF Irrigation	
Size : A4	Project : --		Product ID : --	Buyuk Kayacik Mah. 4. OSB
			Module ID : B101AA	103. Cad. No : 12
Date : 13.09.2022	Time : 10:46:47	Page : 11 / 15	Version : R1	Selcuklu / Konya Türkiye
File : GNSS PPS LED Driver.SchDoc			Revision : 00.00.01	

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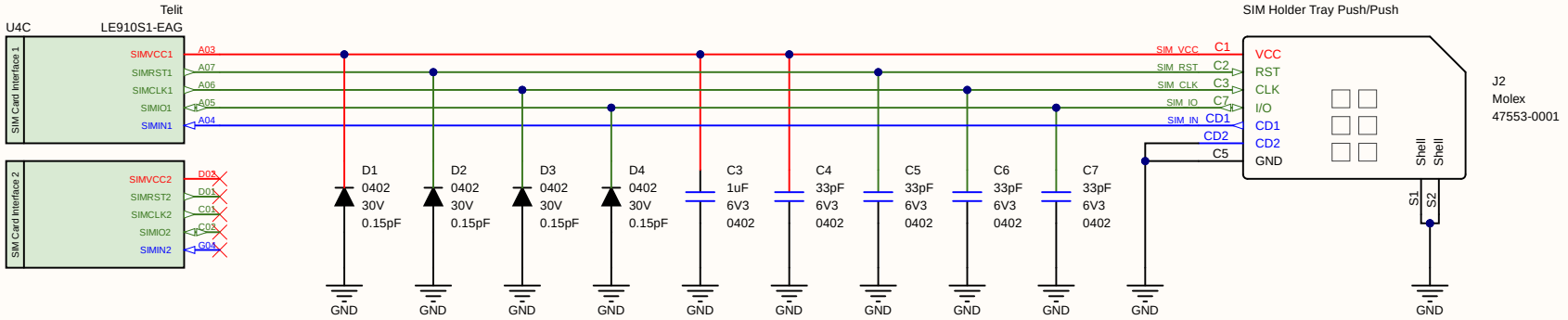

ESD Protection Diode for protecting against human touchs.

SIM_VCC capacitor is chosed according Telit SIM integration guide.

www.github.com/akkoyun/B152AA

SIM Tray			Engineer : Gunce Akkoyun	**STF Res-Dev**	
			Customer : STF Irrigation		
Size : A4	Project : --		Product ID : --	Buyuk Kayacik Mah. 4. OSB	
			Module ID : B101AA	103. Cad. No : 12	
Date : 13.09.2022	Time : 10:46:47	Page : 12 / 15	Version : R1	Selcuklu / Konya Türkiye	
File : SIM Socket.SchDoc			Revision : 00.00.01		

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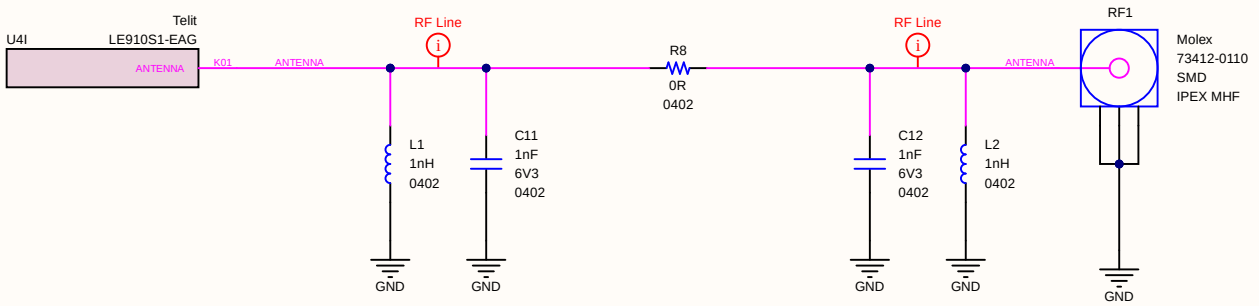
Width Constraint [Pref Width = 0.77mm Min Width = 0.77mm Max Width = 0.77mm]
Power Plane Clearance [Clearance = 5.906mil]
Impedance Constraint [Min = 49.00 Max = 50.00]



www.github.com/akkoyun/B152AA

GSM Antenna & Match Circuit		Engineer : Gunce Akkoyun	**STF Res-Dev**
		Customer : STF Irrigation	
Size : A4	Project : --	Product ID : --	Buyuk Kayacik Mah. 4. OSB
		Module ID : B101AA	103. Cad. No : 12
Date : 13.09.2022	Time : 10:46:47 Page : 13 / 15	Version : R1	Selcuklu / Konya Türkiye
File : GSM Antenna.SchDoc		Revision : 00.00.01	

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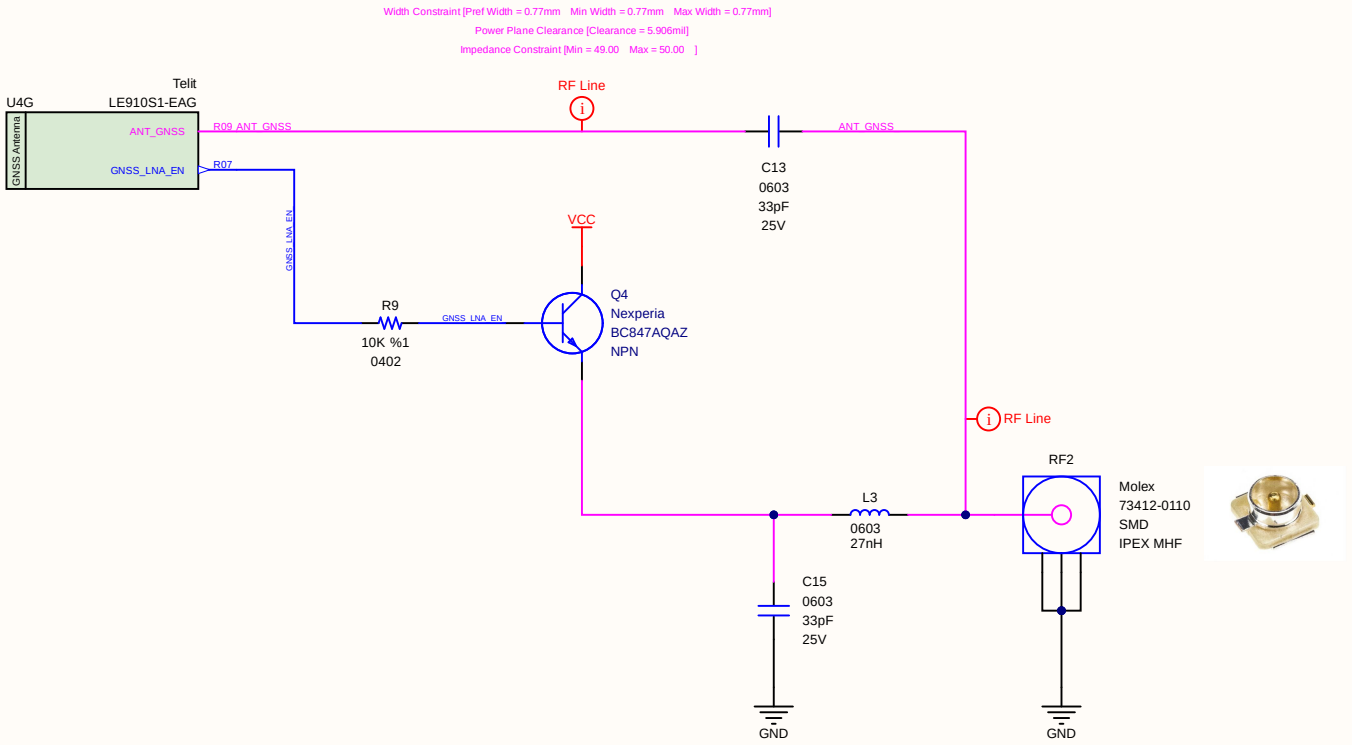

www.github.com/akkoyun/B152AA

GNSS Antenna & LNA			Engineer : Gunce Akkoyun	**STF Res-Dev**
			Customer : STF Irrigation	
Size : A4	Project : --		Product ID : --	Buyuk Kayacik Mah. 4. OSB
			Module ID : B101AA	103. Cad. No : 12
Date : 13.09.2022	Time : 10:46:47	Page : 14 / 15	Version : R1	Selcuklu / Konya Türkiye
File : GNSS Antenna.SchDoc			Revision : 00.00.01	

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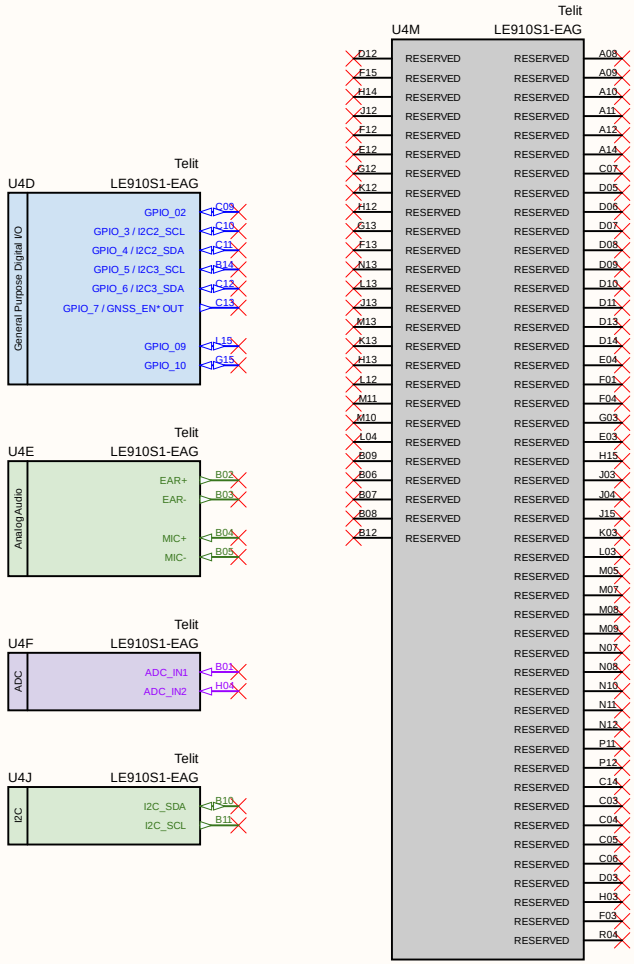
Unused and Reserved Modem Pins



www.github.com/akkoyun/B152AA

LE910 Un Used Pins			Engineer : Gunce Akkoyun	**STF Res-Dev**
			Customer : STF Irrigation	
Size : A4	Project : --		Product ID : --	Buyuk Kayacik Mah. 4. OSB
			Module ID : B101AA	103. Cad. No : 12
Date : 13.09.2022	Time : 10:46:47	Page : 15 / 15	Version : R1	Selcuklu / Konya Türkiye
File : GSM Un Used.SchDoc			Revision : 00.00.01	

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