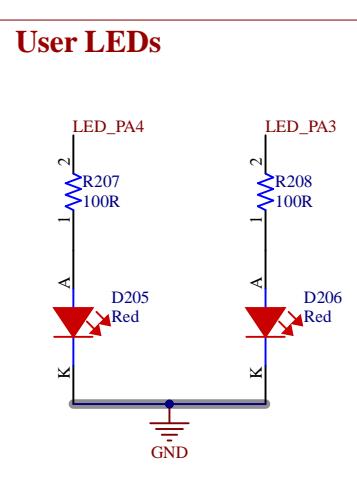
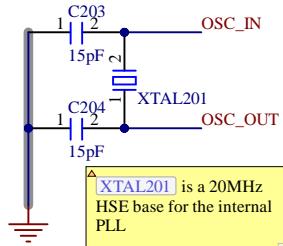


Company:	e-Tech Racing	e-techracing.es	
Project:	SHIELD	Variant: [No Variations]	
Size:	Page Contents: [1]Supply.SchDoc	Version: 1.0	
Department:	Hardware		
Author:	Bernat Costa Cesari	bernat.costa.cesari@estudiantat.upc.edu	Sheet 2 of 4
Checked by:	Andreu Senis		Date: 26/11/2023



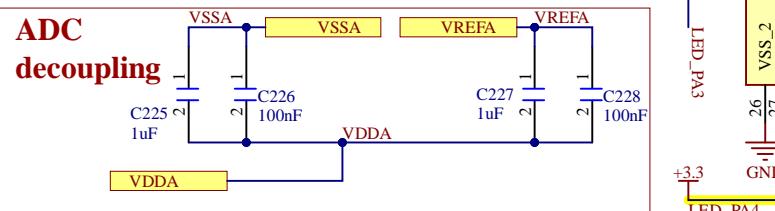
Typ current for  
**D205** and **D206**  
is 20 mA and  
forward voltage  
2 V.  
 $R=(3,3-2)/20m$

## **XTAL Oscillator**



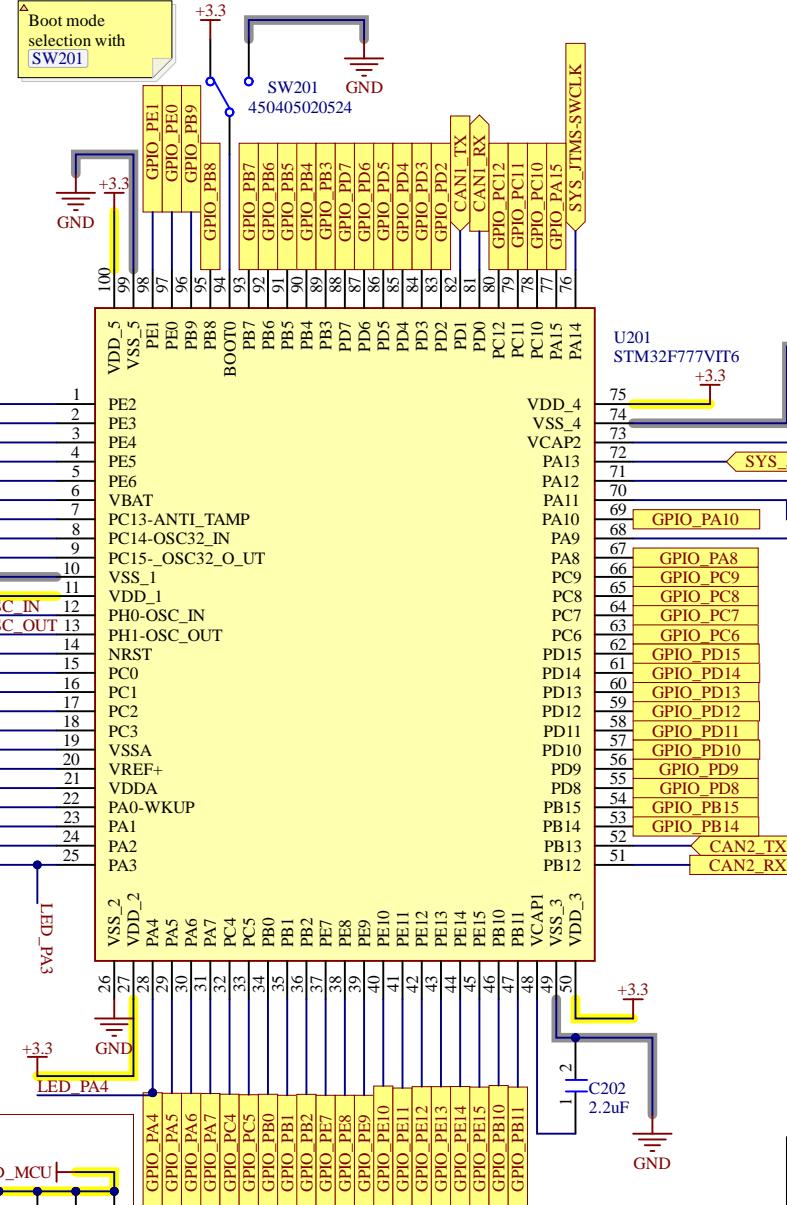
291

# ADC decoupling



MCU VDD

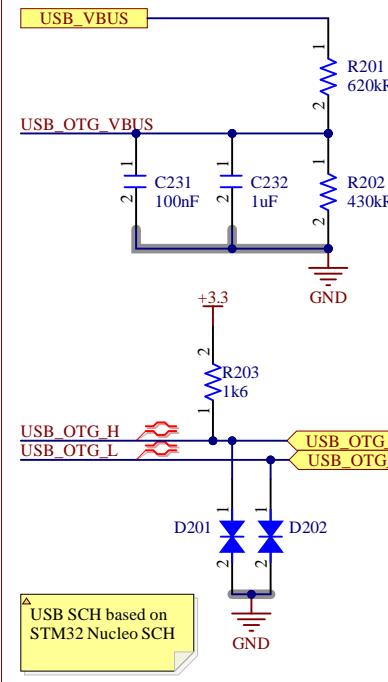
▲ Place VDD\_MCU decoupling capacitors near MCU



1

USB OTG

**USB\_OTG\_VBUS** acts as a digital input which can be used to detect USB presence



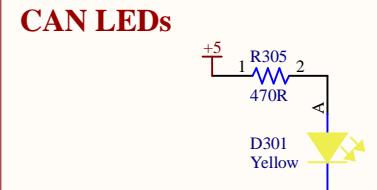
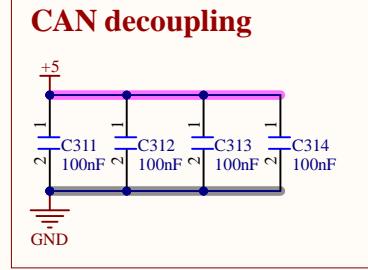
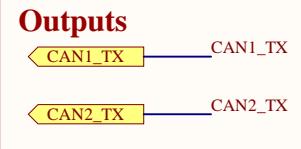
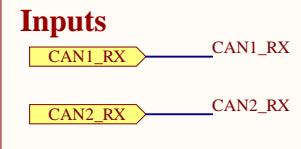
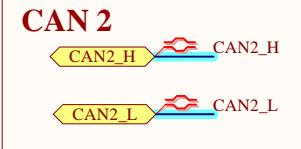
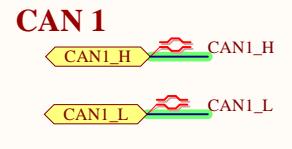
Company:		e-techracing.es		
Project:		SHIELD	Variant:	[No Variations]
Size: -	Page Contents: [2]MCU.SchDoc		Version:	1.0
			Department:	Hardware
Author:		Bernat Costa Cesari	bernat.costa.cesari@estudiantat.upc.edu	Sheet 3 of 4
Checked by:		Andreu Senis	Date:	26/11/2023

1

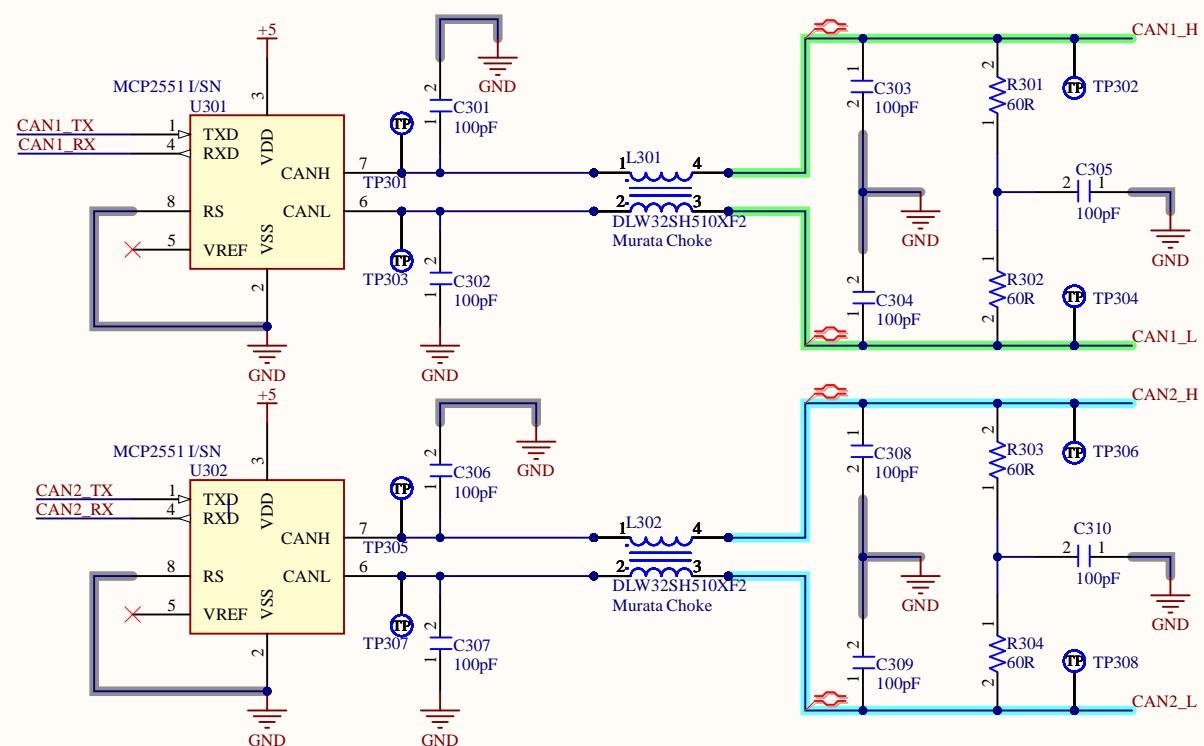
2

3

4



A



B

C

D

Company:	e-Tech Racing	e-techracing.es	
Project:	SHIELD	Variant: [No Variations]	
Size:	Page Contents: [3]CAN.SchDoc	Version: 1.0	
Department:	Hardware	Sheet 4 of 4	
Author:	Bernat Costa Cesari	bernat.costa.cesari@estudiantat.upc.edu	Date: 26/11/2023
Checked by:	Andreu Senis		

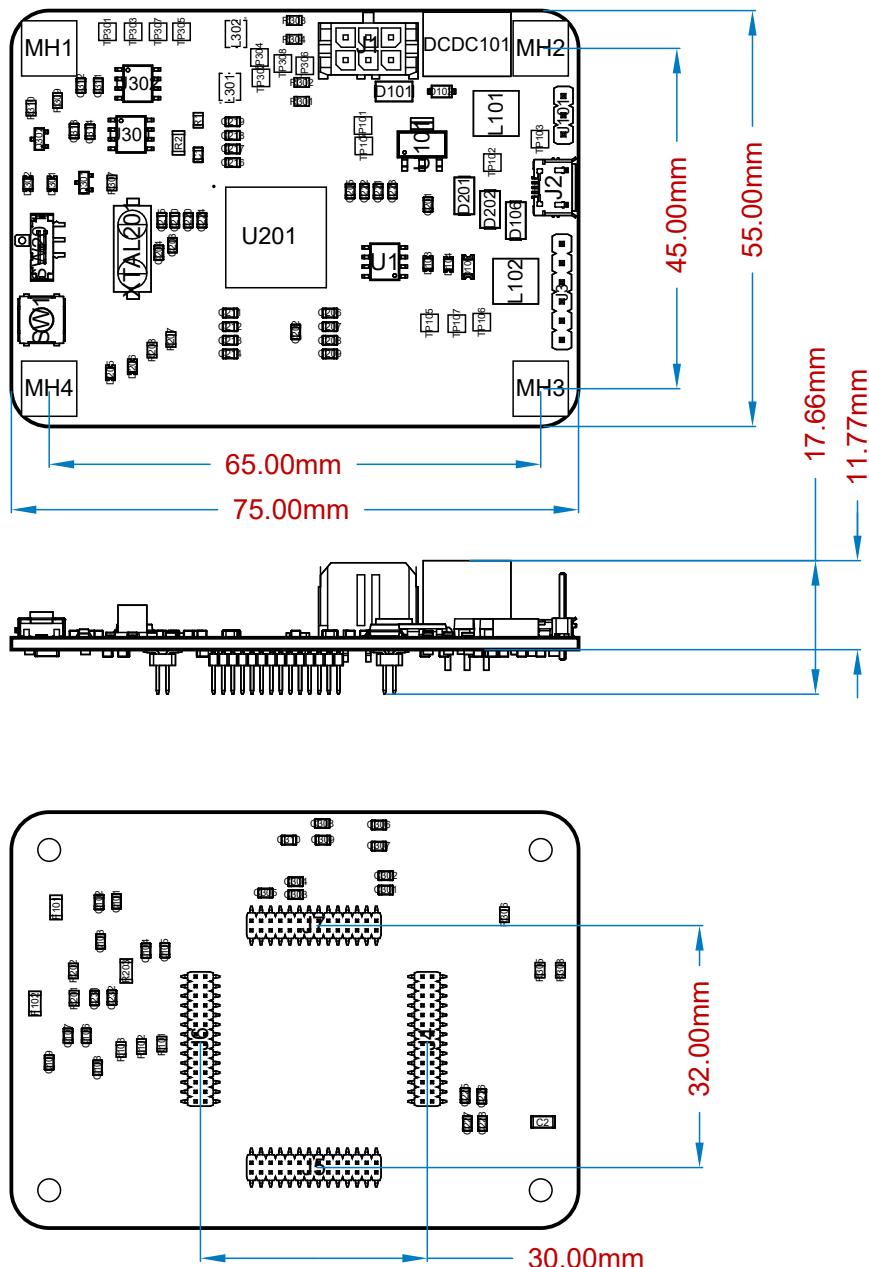
1

2

3

4

# ETR SHIELD



Line #	Designator	Name	Quantity
	C1, C106, C205, C206, C207, C208, C209, C210, C211, C212, C213, C214, C215, C216, C217, C218, C219, C220, C221, C222, C223, C224, C226, C228, C231, C311, C312, C313, C314	885012207098	29
	C2	885012208058	1
	C101, C102, C103, C108, C109	10uF	5
	C104, C105	885012107014	2
	C107, C225, C227, C232	885012207103	4
	C201, C202	2.2uF	2
	C203, C204	885012007052	2
	C301, C302, C303, C304, C305, C306, C307, C308, C309, C310	885012007057	10
	D101	824501261	1
	D102	MBR0530	1
	D103, D104	150080GS75000	2
	D105	150120BS75000	1
	D106	824501131	1
	D201, D202	824501600	2
	D205, D206	150080RS75000	2
	D301, D302	150080YS75000	2
	DCDC101	173010542	1
	F101, F102	0437001.WRA	2
	J1	Molex Micro Fit 2x3	1
	J2	629105136821	1
	J3	6 pin header	1
	J4, J5, J6, J7	62132821021	4
	J101	3 pin header	1
	L101, L102	47uH	2
	L301, L302	DLW32SH510XF2	2
	MH1, MH2, MH3, MH4	Mounting_Hole_M3	4
	Q301, Q302	BC817-25LT1G	2
	R1	549kR	1
	R2	CR1206AFX-6802EAS	1
	R101, R103, R305, R308	CR0805-FX-4700GLF	4
	R102, R207, R208	CR0805-FX-1000ELF	3
	R201	620kR	1
	R202	430kR	1
	R203	CRCW12061K60FKEA	1
	R301, R302, R303, R304	R60-0805FTN	4
	R306, R309	47k	2
	R307, R310	22kR	2
	SW1	430773034825	1
	SW201	450405020524	1
	U1	24AA024H-I/SN	1
	U101	LM1117IMP-3.3/NOPB	1
	U201	STM32F777VIT6	1
	U301, U302	MCP2551 I/SN	2
	XTAL201	830028710	1

