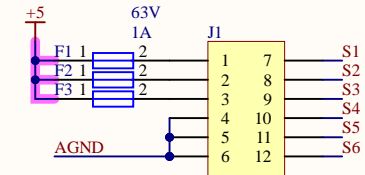
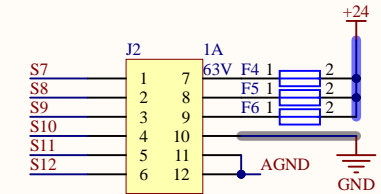


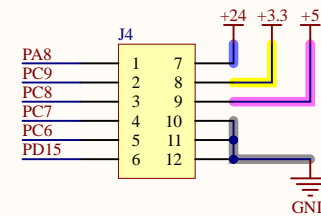
Sensors 1 Connector



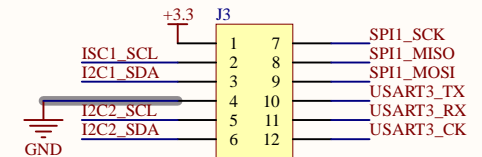
Sensors 2 connector



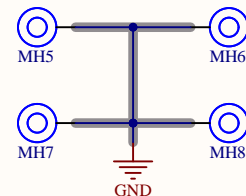
Expansion Connector



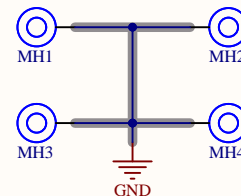
COMs Connector




PCB mounting holes

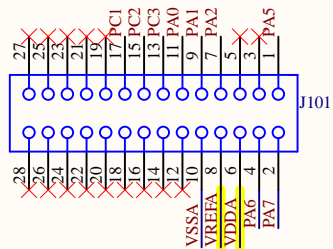


Shield mounting holes

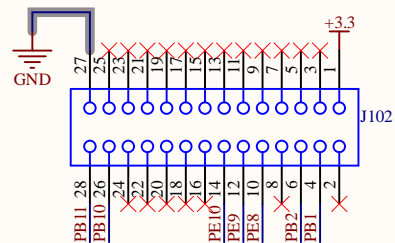


Company: e-Tech Racing		e-techracing.es	
Project: Front ECU		Variant: [No Variations]	
Size: -	Page Contents: ETRX_FECU.SchDoc		Version: 1.0
			Department: Hardware
Author: Bernat Costa Cesari bernat.costa.cesari@estudiantat.upc.edu			Sheet 1 of 5
Checked by: Andreu Senis			Date: 18/12/2023

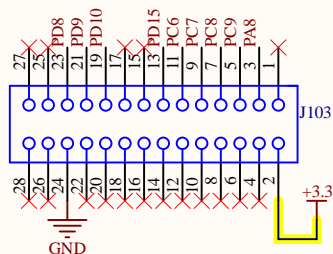
Pin header 1



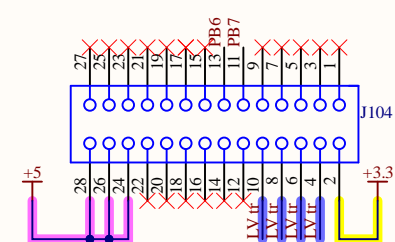
Pin header 2



Pin header 3

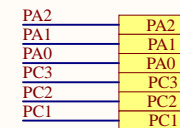


Pin header 4

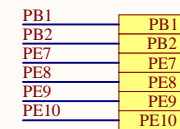


GPIOs

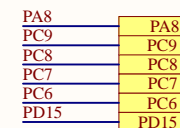
GPIO CON 1



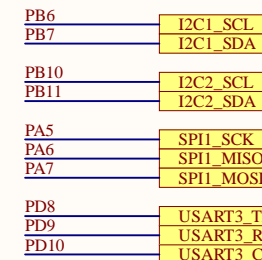
GPIO CON 2



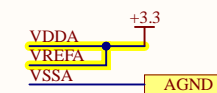
Expansion CON



COMs




Analog



Supply



Company: e-Tech Racing		e-techracing.es	
Project: Front ECU		Variant: [No Variations]	
Size: -	Page Contents: [1] Shield.SchDoc		Version: 1.0
			Department: Hardware
Author: Bernat Costa Cesari		bernat.costa.cesari@estudiantat.upc.edu	Sheet 2 of 5
Checked by: Andreu Senis			Date: 18/12/2023

A

B

C

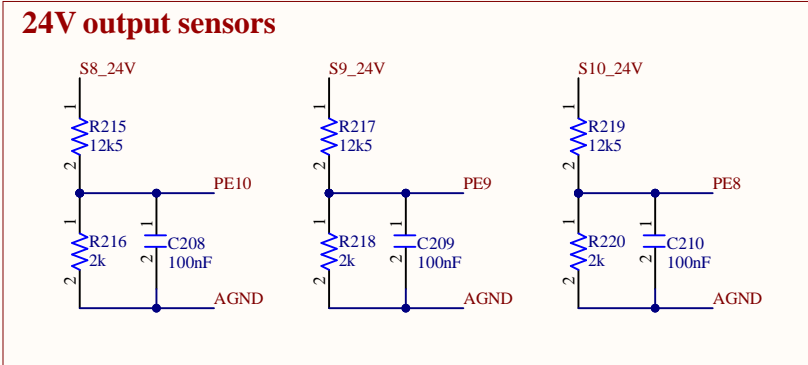
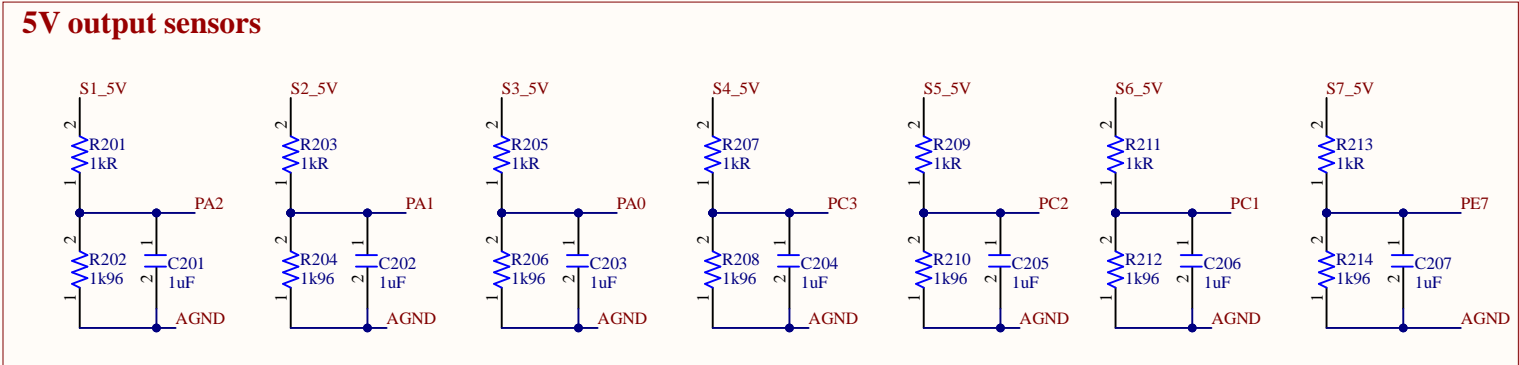
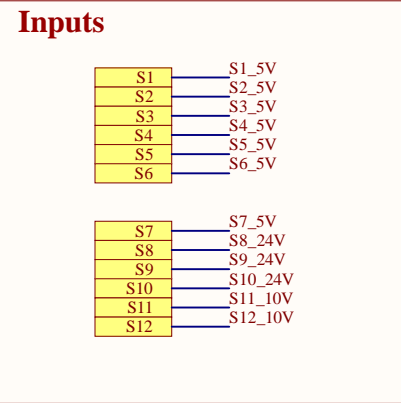
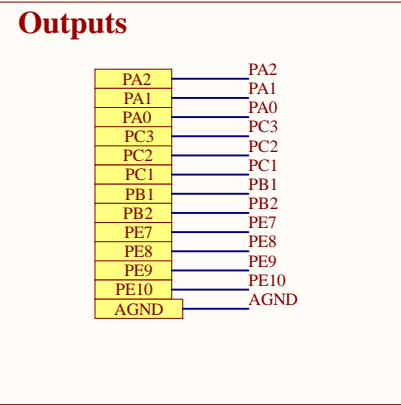
D

A

B

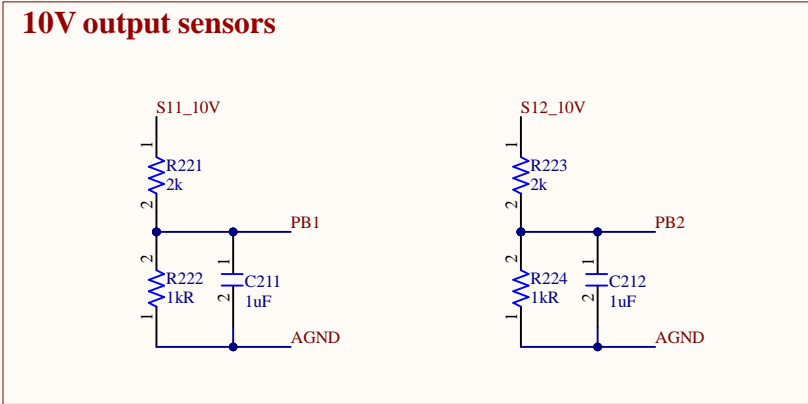
C


D



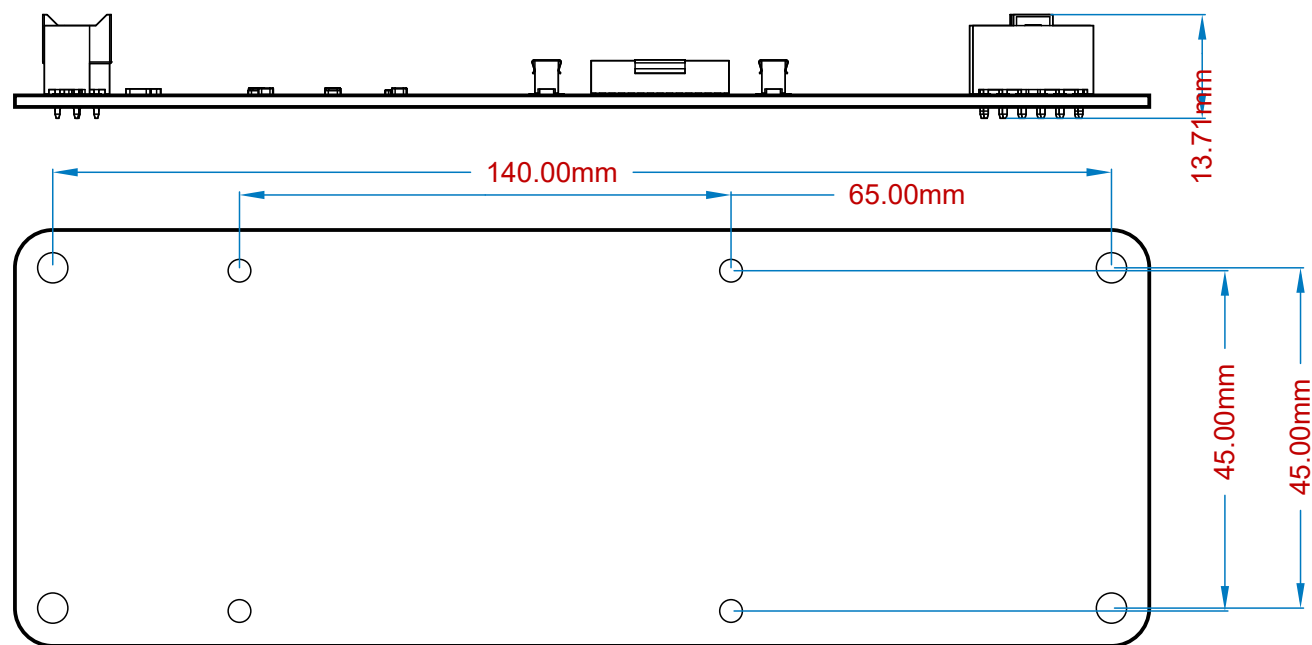
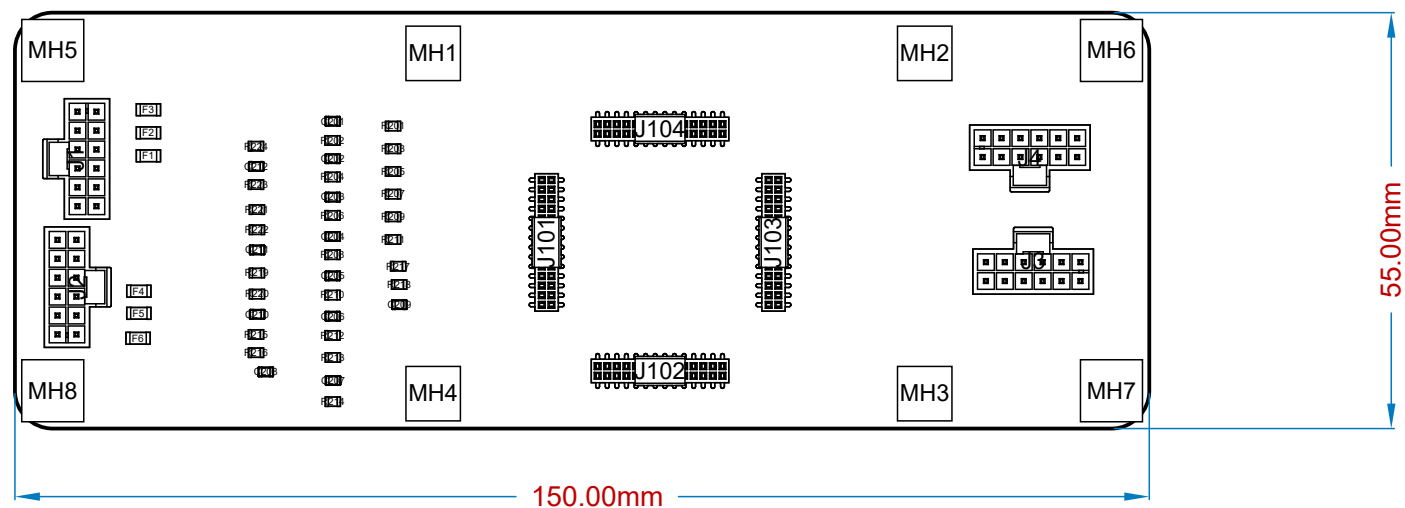
Can be used for digital inputs of 24V SDC

Most of sensors are ratiometric outputs (0.5V to 4.5V). No offset applied for sensor alive detection



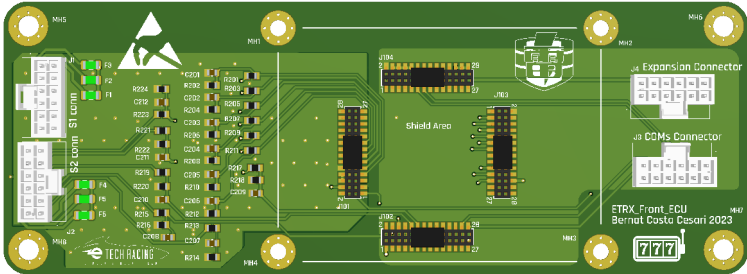
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Project: Front ECU		Variant: [No Variations]		
Size: -	Page Contents: [2] Sensors.SchDoc		Version: 1.0	
			Department: Hardware	
Author: Bernat Costa Cesari		bernat.costa.cesari@estudiantat.upc.edu		Sheet 3 of 5
Checked by: Andreu Senis		Date: 18/12/2023		

ETRX Front ECU 2023 v1.0



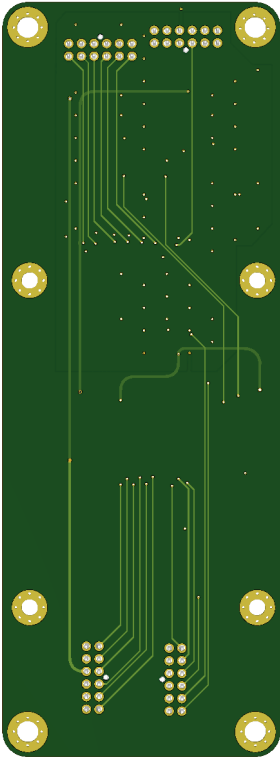
Bernat Costa Cesari

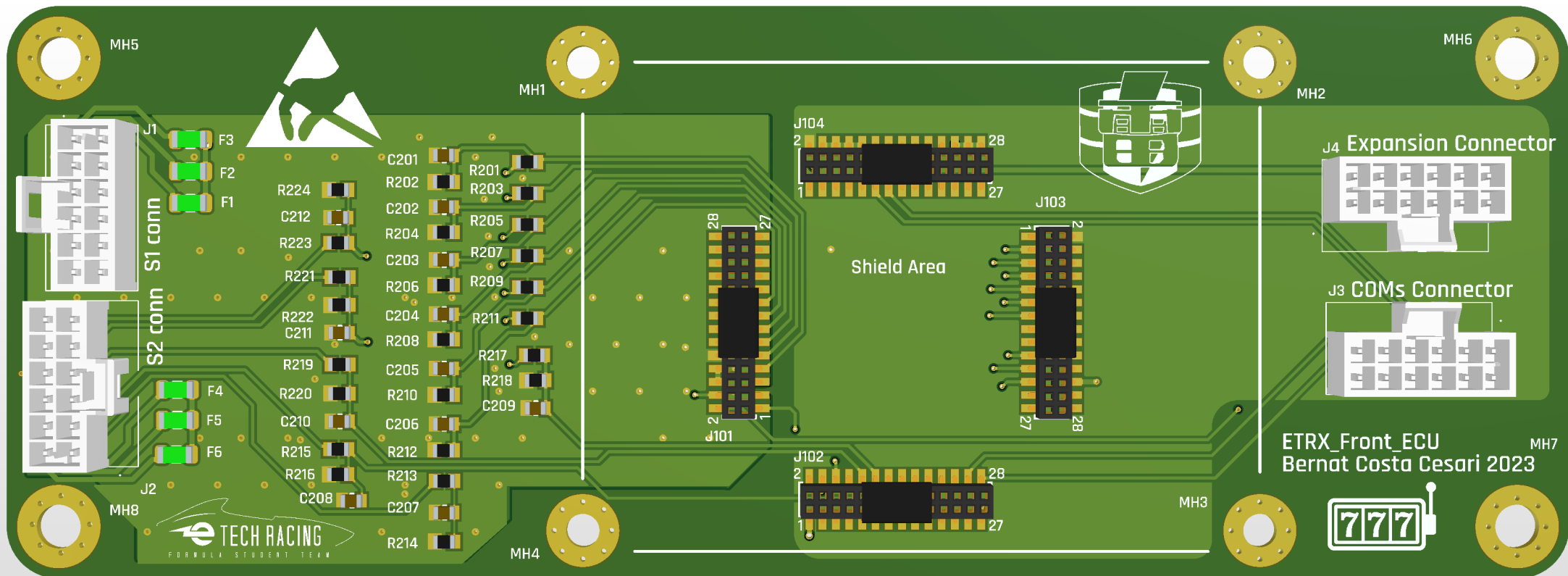
Line #	Designator	Comment	Quantity
1	C201, C202, C203, C204, C205, C206, C207, C211, C212	885012207103	9
2	C208, C209, C210	885012207098	3
3	F1, F2, F3, F4, F5, F6	0437001.WRA	6
4	J1, J2, J3, J4	1053101112	4
5	J101, J102, J103, J104	62332821021	4
6	MH1, MH2, MH3, MH4	Mounting_Hole_M3	4
7	MH5, MH6, MH7, MH8	Mounting_Hole_M4	4
8	R201, R203, R205, R207, R209, R211, R213, R222, R224	CR0805-JW-102ELF	9
9	R202, R204, R206, R208, R210, R212, R214	1k96	7
10	R215, R217, R219	12k5	3
11	R216, R218, R220, R221, R223	2k	5

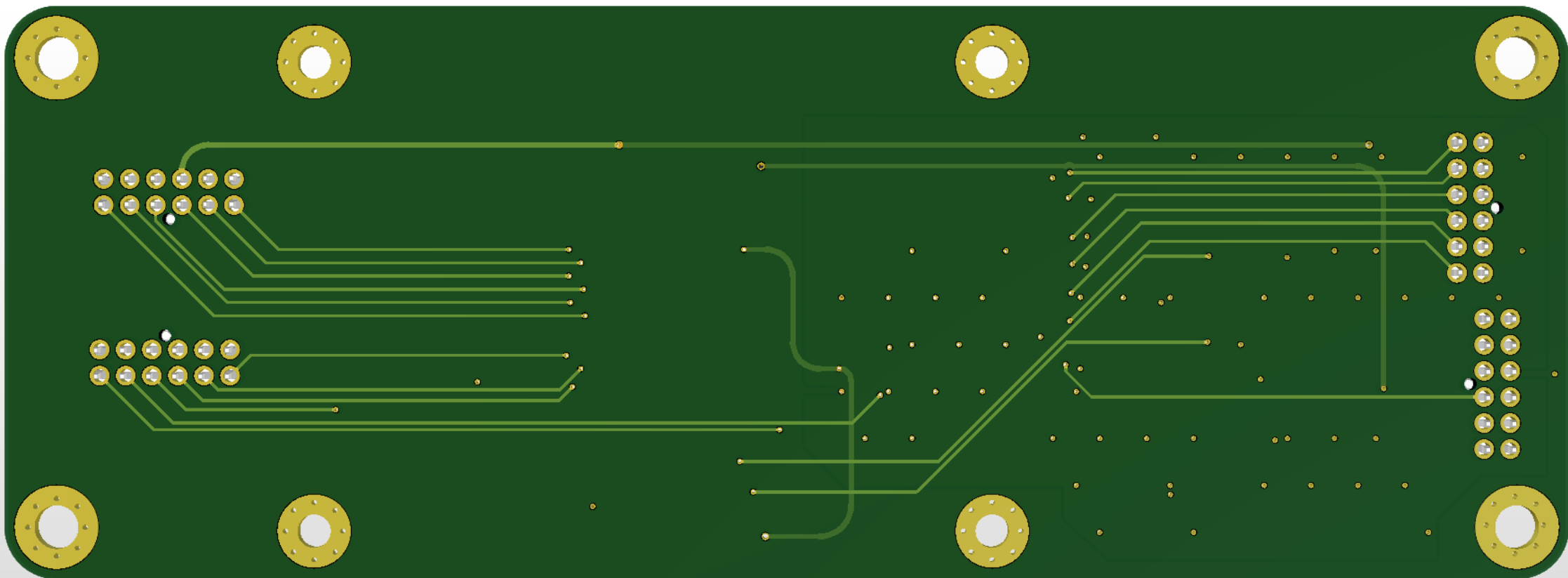


Material	Layer	Thickness	Dielectric Material	Type	Gerber
	Top Overlay			Legend	GTO
Surface Material	Top Solder	0.01mm	Solder Resist	Solder Mask	GTS
Copper	Top Layer	0.04mm		Signal	GTL
Prepreg		0.10mm	PP-006	Dielectric	
CF-004	GND	0.02mm		Signal	G1
Prepreg		0.10mm	PP-006	Dielectric	
		1.00mm	FR-4	Dielectric	
Prepreg		0.10mm	PP-006	Dielectric	
CF-004	PWR	0.02mm		Signal	G2
Prepreg		0.10mm	PP-006	Dielectric	
Copper	Bottom Layer	0.04mm		Signal	GBL
Surface Material	Bottom Solder	0.01mm	Solder Resist	Solder Mask	GBS
	Bottom Overlay			Legend	GBO

Total thickness: 1.53mm





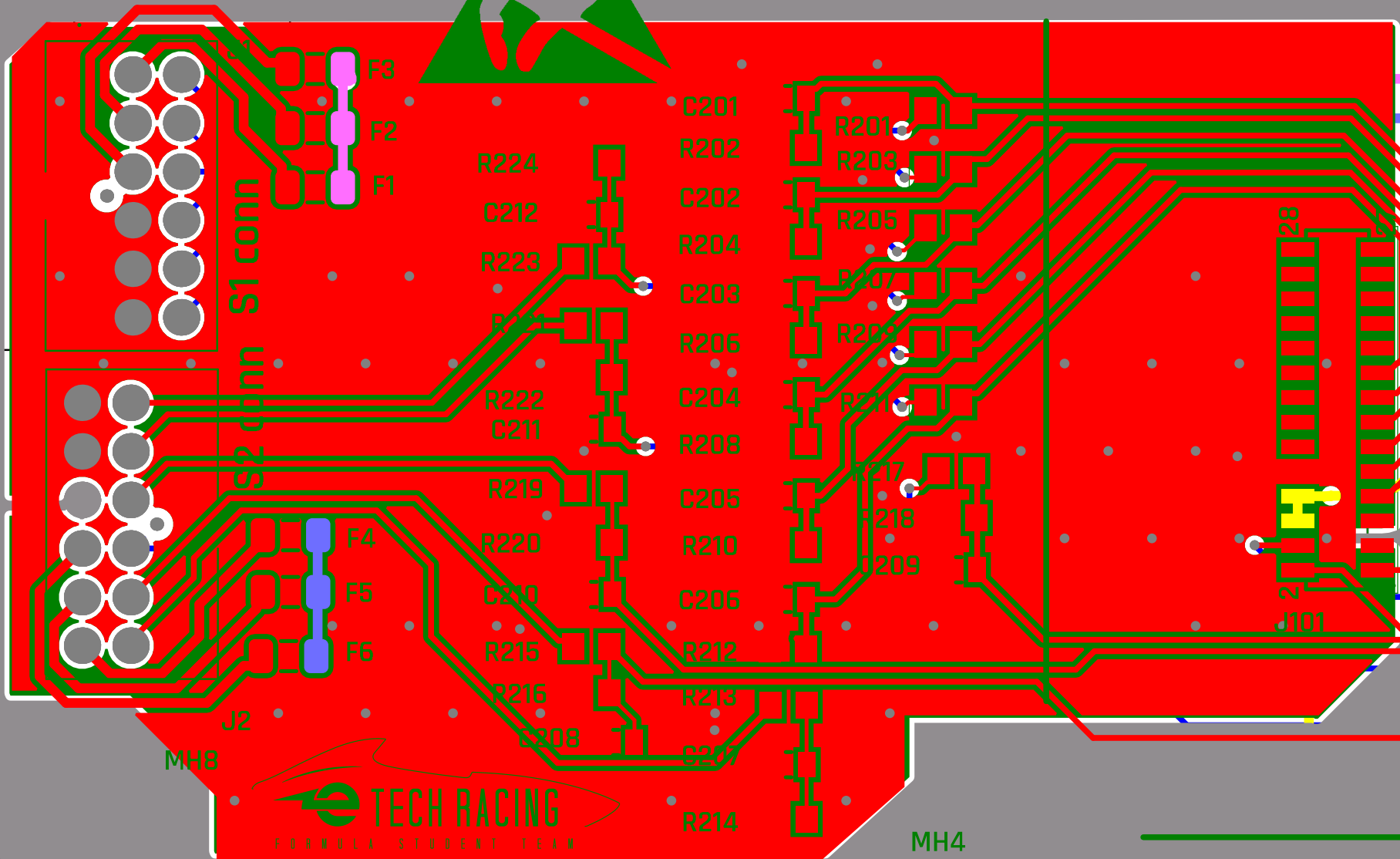


MH5

MH6

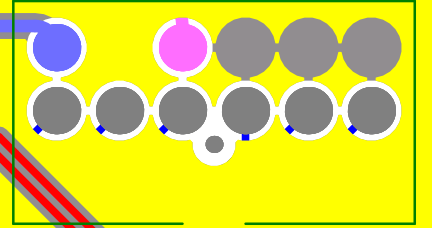
MH1

MH2

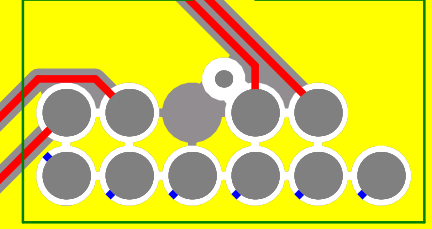


Shield Area

J4 Expansion Connector



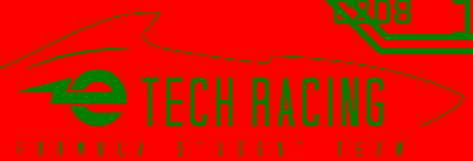
J3 COMs Connector



ETRX_Front_ECU
Bernat Costa Cesari 2023



MH7



MH8

MH4

MH3

