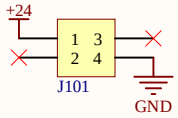
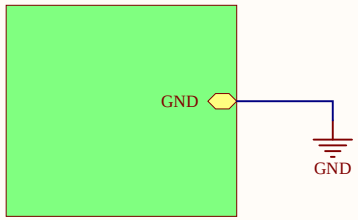
LV Supply

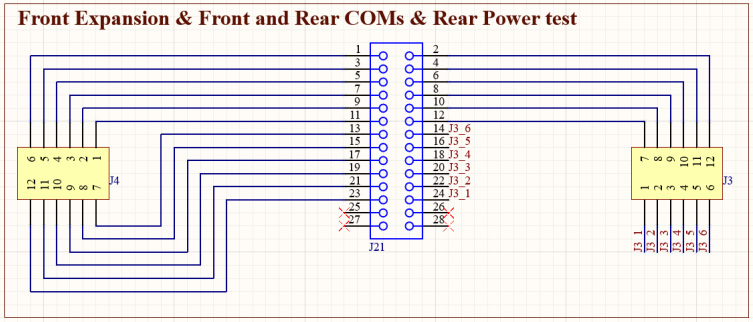


The F&R J1 can be tested by conecting them to JFS1 and JRS1, J2 can be tested by JFRS2 only one ECU at the same time. The expansion, power connector and communications can be tested by conecting external periferals to the J21 and the ECUS to J3 and J4

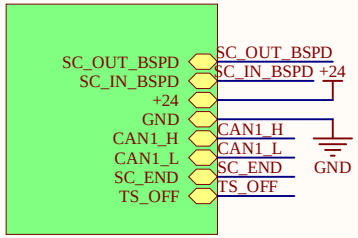
ECUs



Front Expansion & Front and Rear COMs & Rear Power test

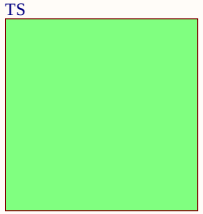


Master

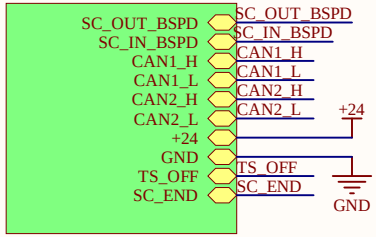


TS

TS



Extras



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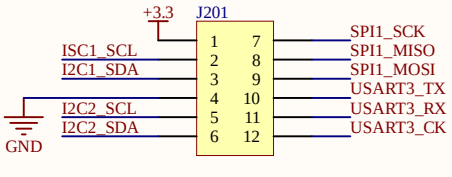
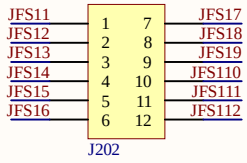
FECU

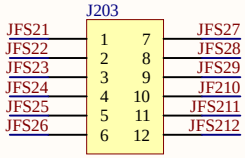
COMs Connector



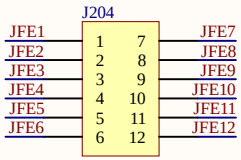
Sensors 1 Connector



Sensors 2 connector

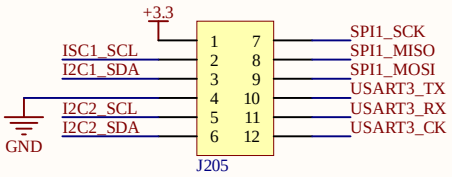


Expansion Connector

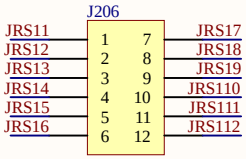


RECU

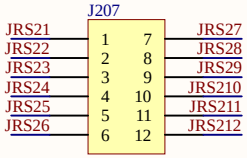
COMs Connector



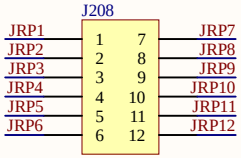
Sensors 1 Connector



Sensors 2 connector

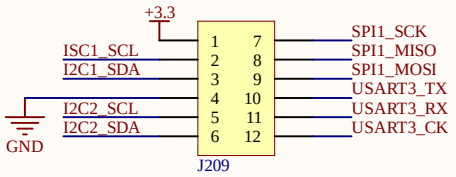


Power Connector

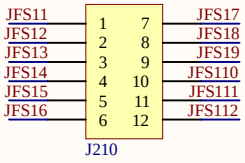


DUMMY

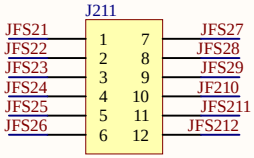
COMs Connector



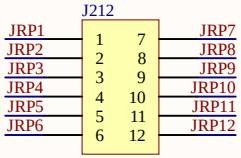
Sensors 1 Connector



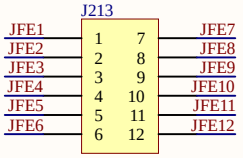
Sensors 2 connector



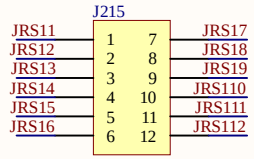
Power Connector



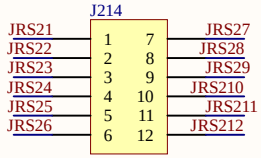
Expansion Connector

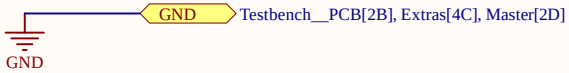


Sensors 1 Connector



Sensors 2 connector





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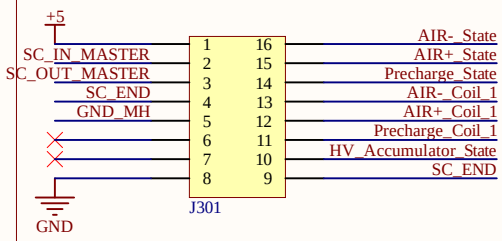
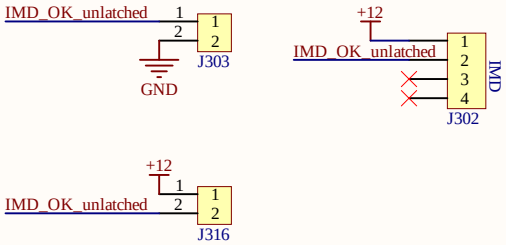
File: C:\Escritorio\..\ECUs.SchDoc		Drawn By:

External Connector MASTER



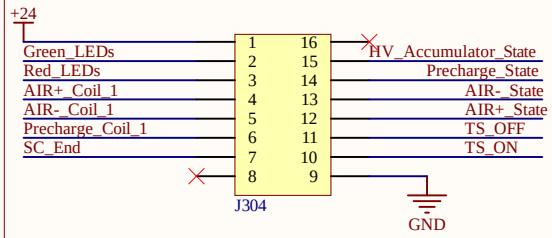
There isn't the option to connect the relays inputs of the master to the testbench because these signals can be simulated by the TSAL dummy.

IMD Connector (IMD dummy)



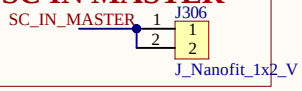
Charger

External Connector TSAL CONTROL

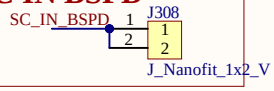


SHUTDOWN CIRCUIT

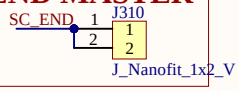
SC IN MASTER



SC IN BSPD

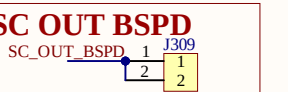


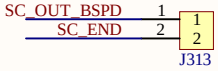
SC END MASTER

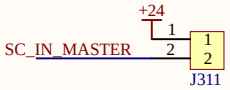


SC OUT MASTER

SC OUT BSPD

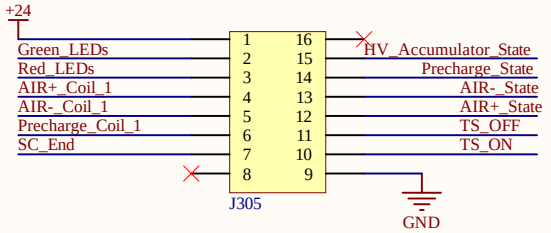


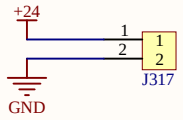




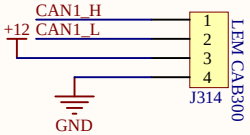
This configuration allows the user to add or remove nodes of the SDC for testing, The most basic SDC available is IMD AMS and BSPD. The jumpers can act as connection from OUT-IN connectors.

TSAL DUMMY

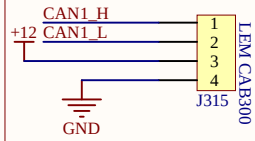




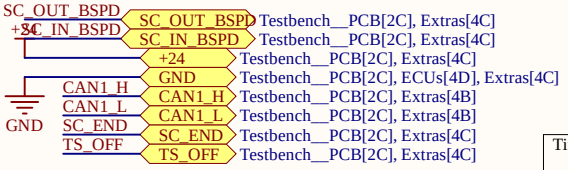
Hall sensor



Hall sensor



Input from the massterboard and ouput to the Hall effect current sensor



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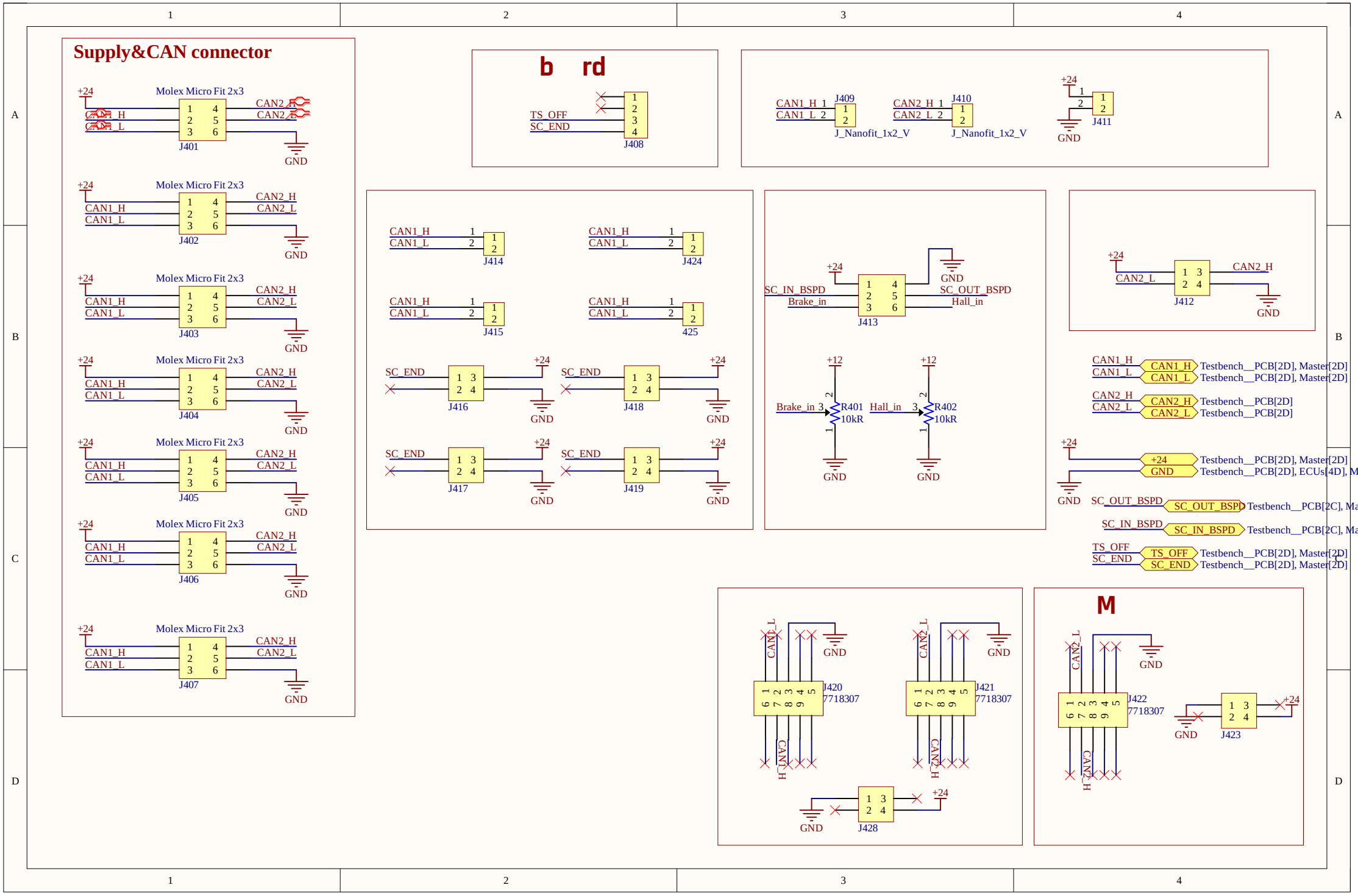
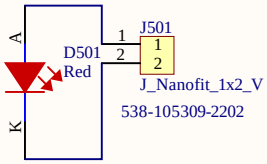
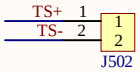

Supply&CAN connector
+24
Molex Micro Fit 2x3
CAN1_H
CAN1_L
CAN2_H
CAN2_L
J401
J402
J403
J404
J405
J406
J407
GND
b rd
TS_OFF
SC_END
J408
CAN1_H 1
CAN1_L 2
J409
J_Nanofit_1x2_V
CAN2_H 1
CAN2_L 2
J410
J411
J414
J415
J416
J417
J418
J419
J424
425
SC_IN_BSPD
Brake_in
SC_OUT_BSPD
Hall_in
J413
+12
Brake_in 3
R401
10kR
Hall_in 3
R402
J412
CAN1_H Testbench__PCB[2D], Master[2D]
CAN1_L Testbench__PCB[2D], Master[2D]
CAN2_H Testbench__PCB[2D]
CAN2_L Testbench__PCB[2D]
+24 Testbench__PCB[2D], Master[2D]
GND Testbench__PCB[2D], ECUs[4D], Ma
SC_OUT_BSPD Testbench__PCB[2C], Mas
SC_IN_BSPD Testbench__PCB[2C], Mas
TS_OFF Testbench__PCB[2D], Master[2D]
SC_END Testbench__PCB[2D], Master[2D]
J420
7718307
J421
J428
M
J422
J423

Voltage indicator

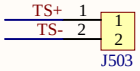


Two wires that come from AMS MASTER

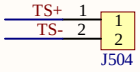
TS in



HV TSAL



HV MASTER



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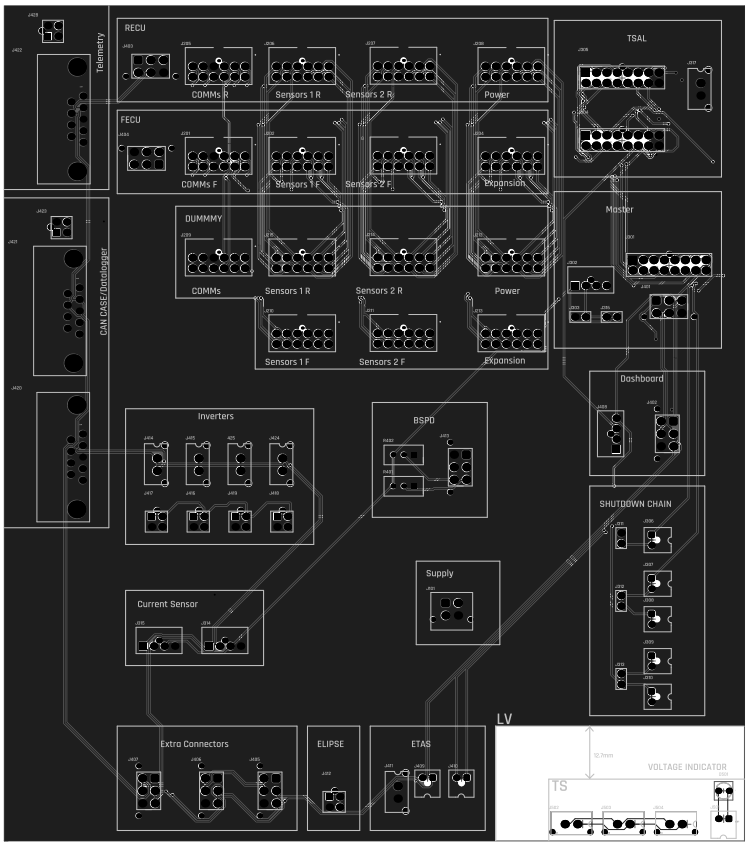
Telemetry
RECU
COMMs R
Sensors 1 R
Sensors 2 R
Power
FECU
COMMs F
Sensors 1 F
Sensors 2 F
Expansion
TSAL
CAN OASE/Datalogger
DUMMMY
COMMs
Sensors 1 R
Sensors 2 R
Power
Sensors 1 F
Sensors 2 F
Expansion
Master
Dashboard
Inverters
BSPD
SHUTDOWN CHAIN
Supply
Current Sensor
Extra Connectors
ELIPSE
ETAS
LV
12.7mm
VOLTAGE INDICATOR
TS

Line #	Name	Description	Designator	Quantity	Manufacturer 1	Manufacturer Part Number 1	Manufacturer Lifecycle 1	Supplier 1	Supplier Part Number 1	Supplier Unit Price 1	Supplier Subtotal 1
	3296W-1-103LF	Trimmer, Cermet, Rest 10 Kilohms, PCB, 25 Turns, Pwr-Rtg 0.5W, 3296 Series	R401, R402	2	Bourns	3296W-1-103LF	Volume Production	Rs	1673377	1,66	83,2
	43045-0612	Micro fit Header, 2 Row, Vertical, Polarizing Peg, 6 Pin, Tin Plate, SMT/Glow Wire, Kinked Leads	J413	1	Molex	430450612+	Volume Production	Rs	2332898	1,04	5,19
	150080RS75000	0805(H=0.8mm) 红色 高亮 λD=625nm VF=2V IF=30mA PD=72mW	D501	1	Wurth Electronics	150080RS75000		RSComponents	8154225P		
	430450412	Header 2 Row Vertical Polarizing Peg 4 Pin Tin Plate SMT/Glow Wire Kinked Leads	J101	1	Molex	0430450412	Volume Production	Arrow Electronics	43045-0412	0,4724	0,4724
	436500215	Header 1 Row Vertical Polarizing Peg 2 Pin SMT/Glow Wire Compatible Tin Plate	425, J317, J411, J414, J415, J424, J502, J503, J504	9	Molex	43650-0215	Volume Production	Arrow Electronics	43650-0215	0,505	4,55
	1053091204	Nano-Fit Vertical Header Through Hole 2.50mm Pitch Single Row 4 Circuits with Kinked Pins 0.38	J302, J314, J315, J408	4	Molex	1053091204	Volume Production	Arrow Electronics	105309-1204	1,07	4,27
	1053101112	Nano-Fit Vertical Header, Through Hole, 2.50mm Pitch, Dual Row, 12 Circuits, with Kinked Pins, Tin (Sn) Plating, Black, Glow-Wire Capable, Tray	J201, J202, J203, J204, J205, J206, J207, J208, J209, J210, J211, J212, J213, J214, J215	15							
	1053101116	Nano-Fit Vertical Header Through Hole 2.50mm Pitch Dual Row 16 Circuits with Kinked Pins Tin (Sn) Plating Black	J301, J304, J305	3	Molex	105310-1116	Volume Production	Digikey	WM16885-ND	3,7	11,1
	61300211121	CONN HEADER 2 POS 2.54	J303, J311, J312, J313, J316	5				RSComponents	8281581		
	618009231221	9 Way Right Angle Through Hole PCB D-sub Connector Plug; 2.77mm; 2.84mm Pitch	J420, J421, J422	3	Wurth Electronics	618009231221	Volume Production	Rs	7718307	2,85	8,54
	J_Nanofit_1x2_V	Nano-Fit Vertical Header, Through Hole, 2.50mm Pitch, Single Row, 2 Circuits, with Kinked Pins, Tin (Sn) Plating,...	J306, J307, J308, J309, J310, J409, J410, J501	8	Molex	105309-2102	Volume Production	Mouser	538-105309-2202	0,823	8,23
	J_NanoFit_2x2	Conn Nano-Fit Power HDR 4 POS 2.5mm Solder ST Through Hole 4 Terminal Single Port Tray	J412, J416, J417, J418, J419, J423, J428	7	Molex	105310-1104	Volume Production	Farnell	2820681	1,47	10,32
	Molex Micro Fit 2x3	Micro fit Header, 2 Row, Vertical, Polarizing Peg, 6 Pin, Tin Plate, SMT/Glow Wire, Kinked Leads	J401, J402, J403, J404, J405, J406, J407	7	Molex	430450612+	Volume Production	Rs	2332898	1,04	7,27