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Revision History

Rev	
0.1	Draft revision
0.5	Formal release revA board for DDR4 version
B	
B1	
B2	

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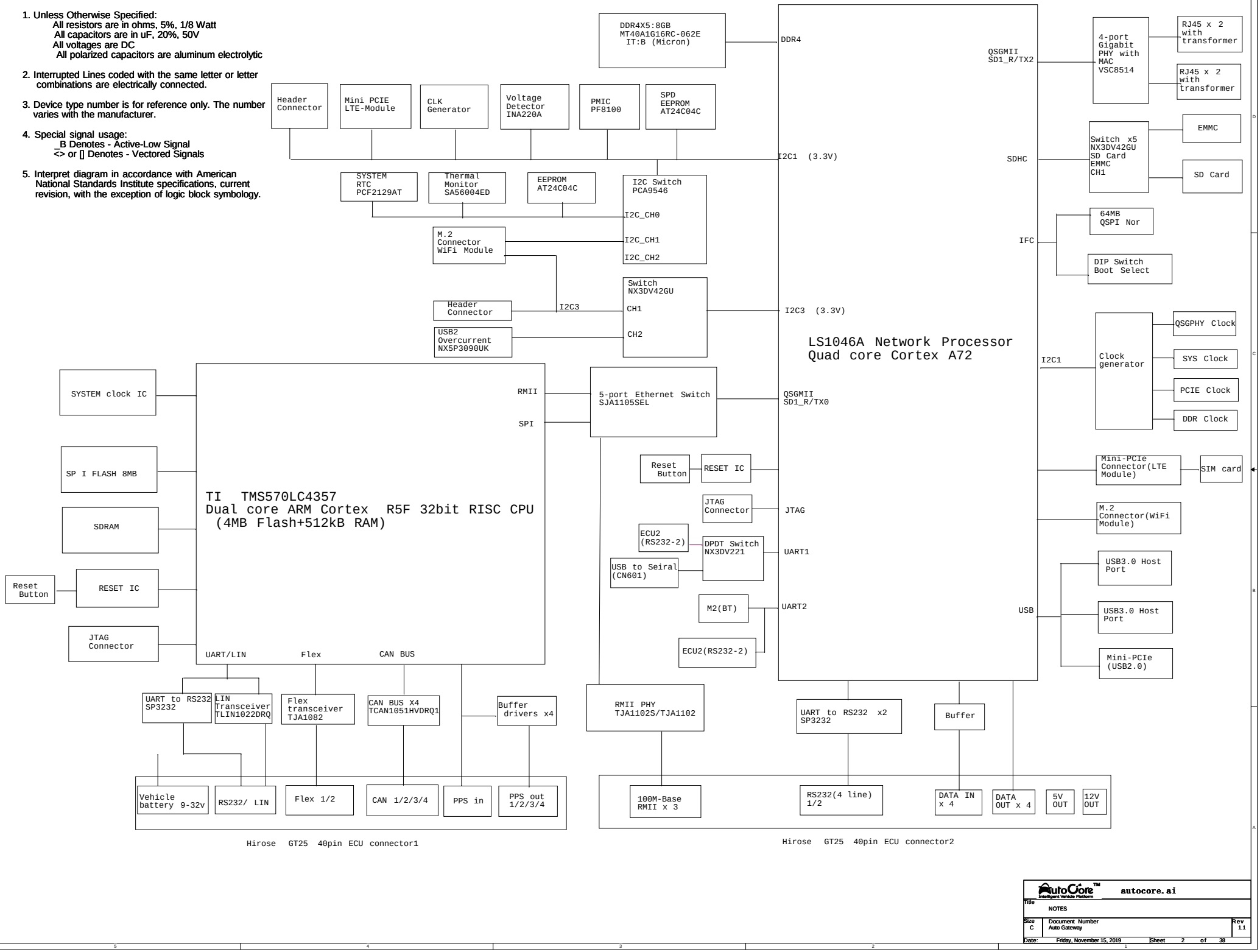
1. Unless Otherwise Specified:
   All resistors are in ohms, 5%, 1/8 Watt
   All capacitors are in uF, 20%, 50V
   All voltages are DC
   All polarized capacitors are aluminum electrolytic

2. Interrupted Lines coded with the same letter or letter combinations are electrically connected.

3. Device type number is for reference only. The number varies with the manufacturer.

4. Special signal usage:
   _B Denotes - Active-Low Signal
   <> or [] Denotes - Vectored Signals

5. Interpret diagram in accordance with American National Standards Institute specifications, current revision, with the exception of logic block symbology.



Hirose GT25 40pin ECU connector1

Hirose GT25 40pin ECU connector2

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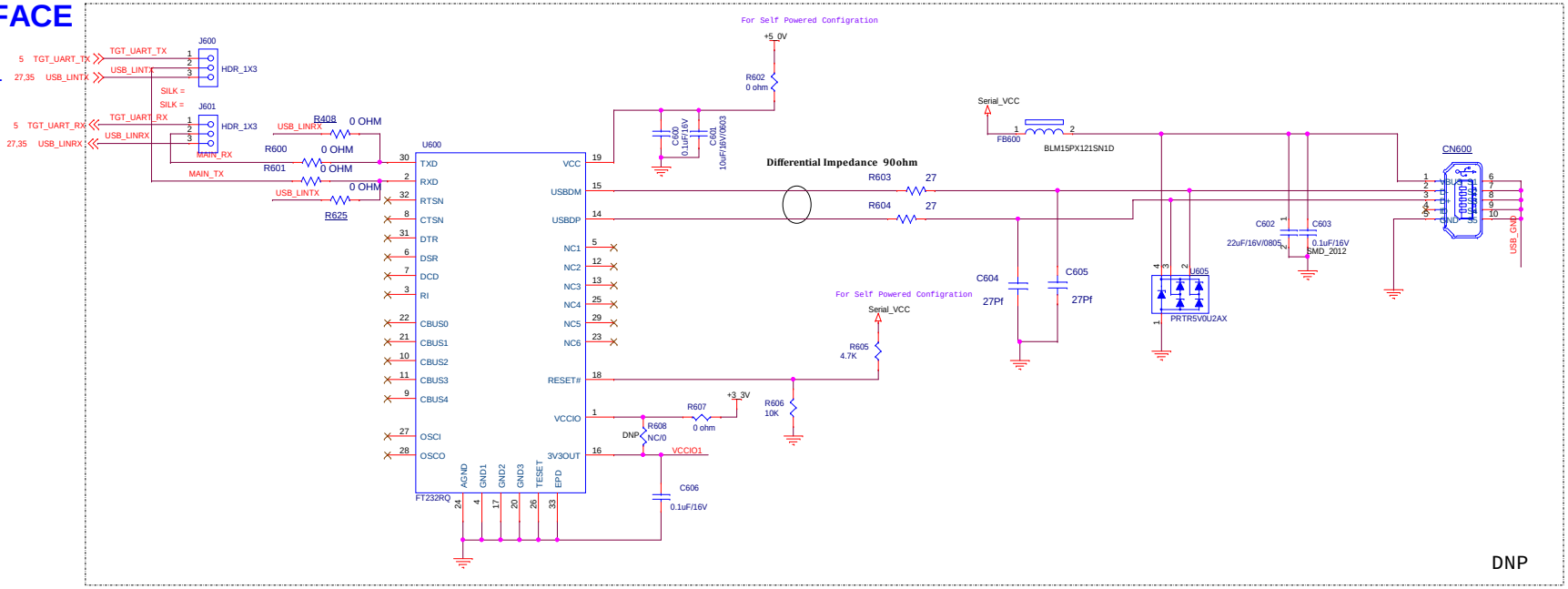
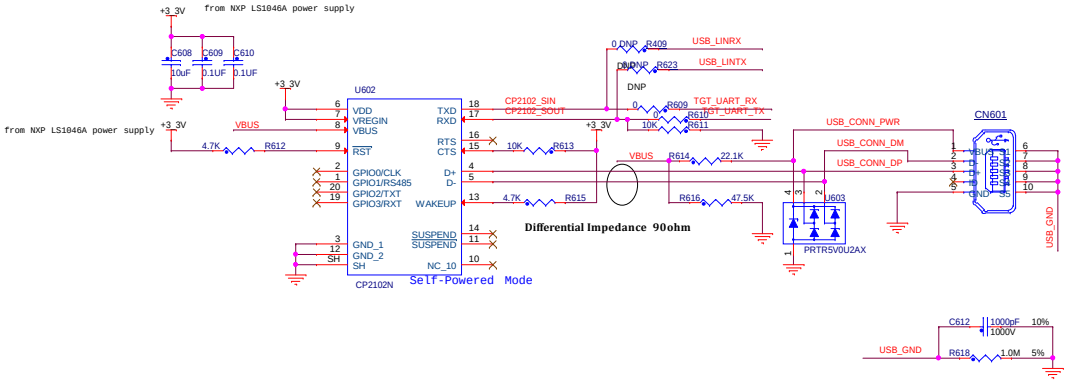
USB-UART INTERFACE

WITHOUT FLOW CONTROL





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Title: CMSIS-DAP			
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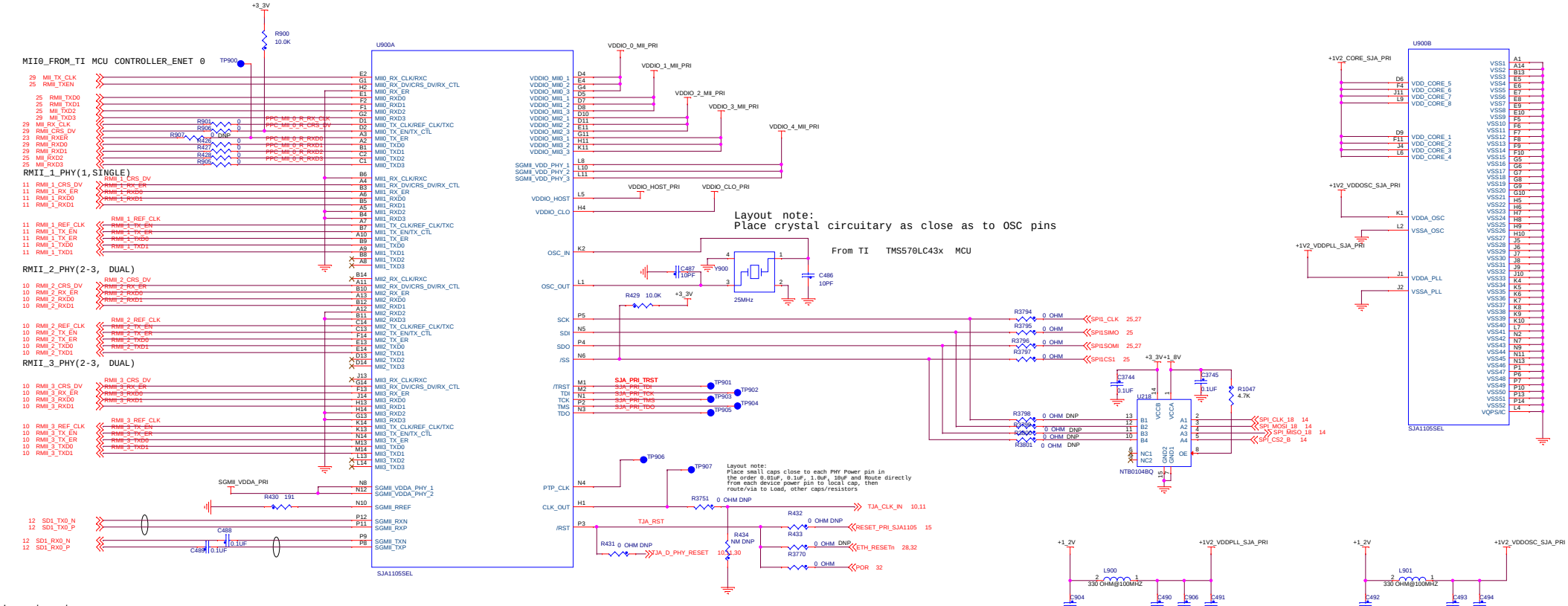
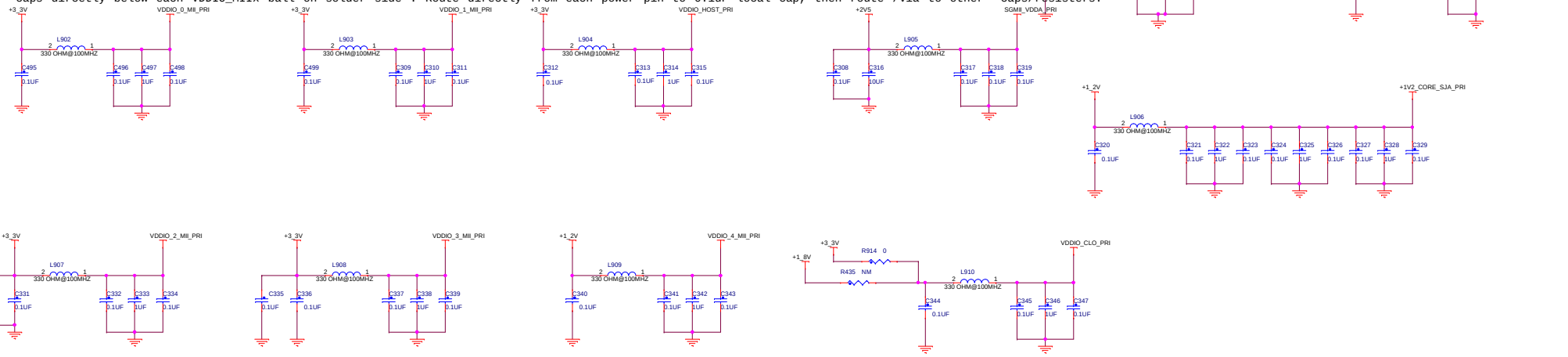


Layout note:
Place 0.1uF caps dircetly below each VDDIO_MIIx ball on solder side . Route directly from each power pin to 0.1uF local cap, then route /via to other caps/resisters.



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Title: Ethernet Switch			
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RMII_2 INTERFACE

Layout Note:
500hm controlled impedance length to be matched.

PHY ADDR=0X6

Layout Note:
100ohm differential pair.

RMII_3 INTERFACE

Layout Note:
500hm controlled impedance length to be matched.

PHY ADDR=0X7

Layout Note:
100ohm differential pair.

Layout Note::
VDDA_3V3_TJA2 (120mA with internal LDO)+55mA+33mA+33mA=241mA(Max)
VCC_12V0_TJA2:6.5mA (Max)
VCC_1V8_TJA2:115mA(Max)

Power-On Strapping Pins

Title	TJA1102-RMII_2_3_Switch		
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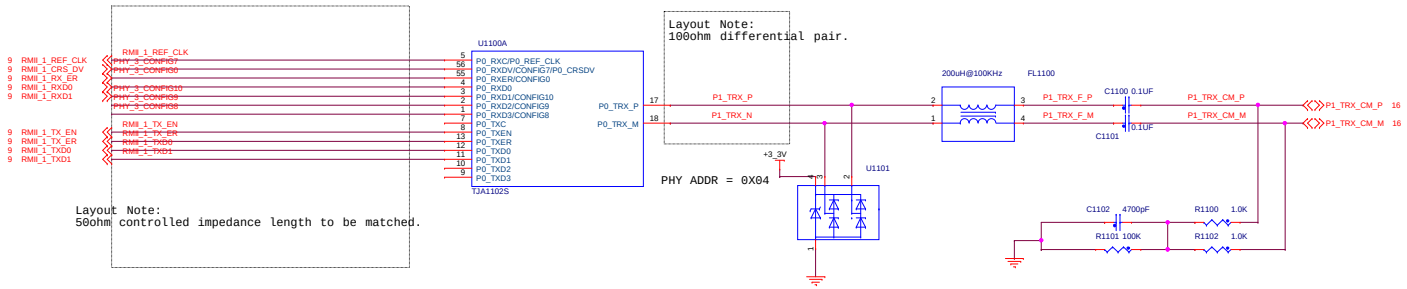
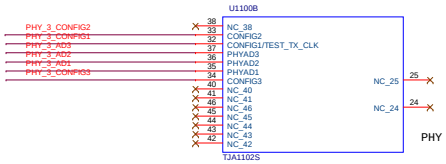
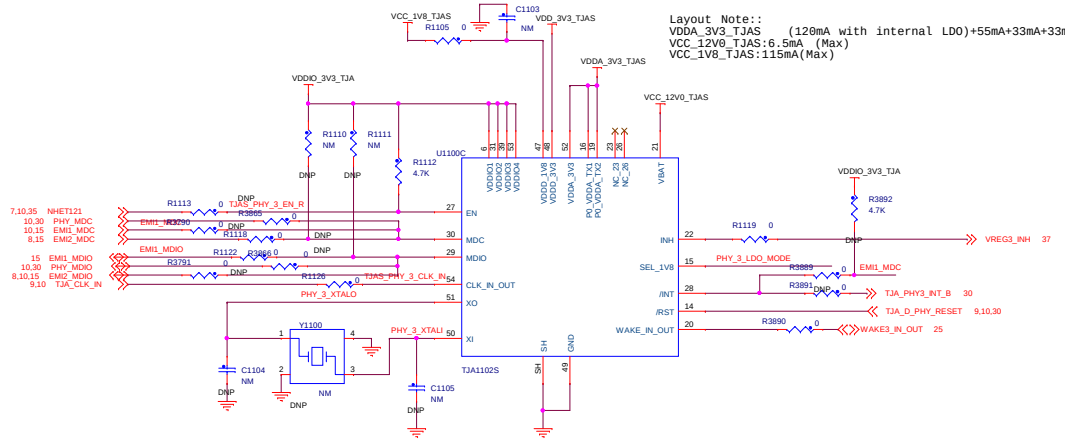
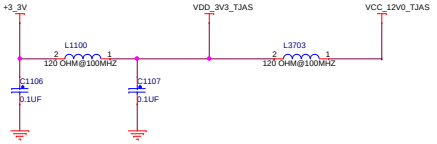
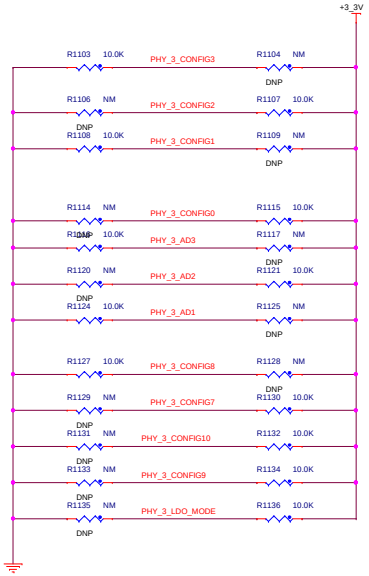
RMII_1_PHY(1,SINGLE)

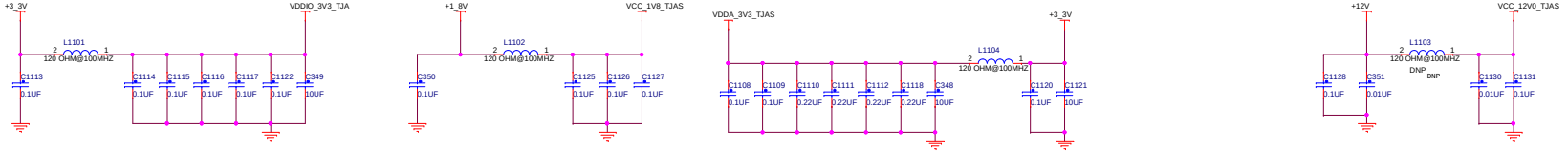












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Title	TJA1102S-RMII_1_Switch		
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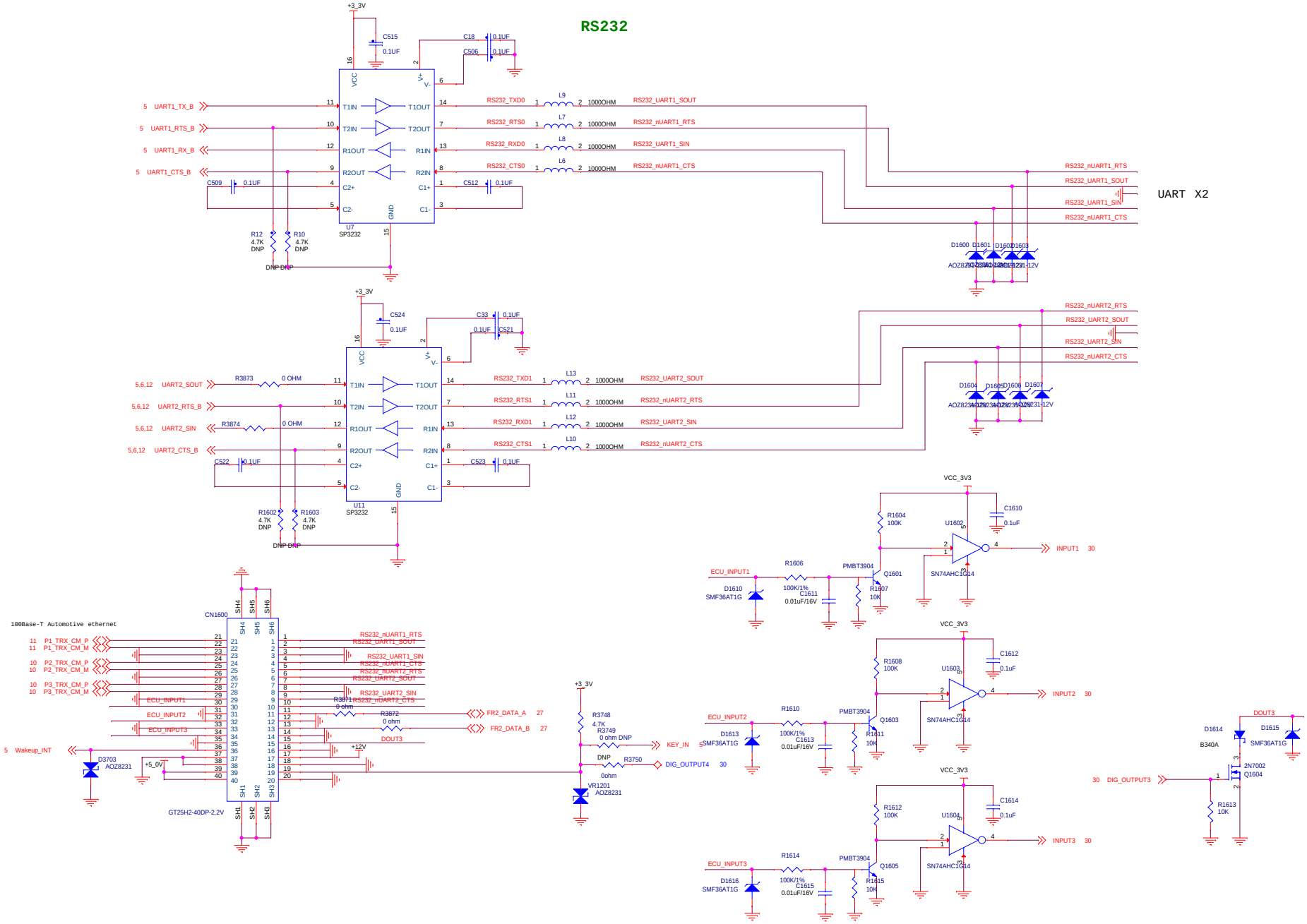
RS232



AutoCore™ Intelligent Vehicle Platform	autocore.ai	
Title: UART& ECU2 connector		
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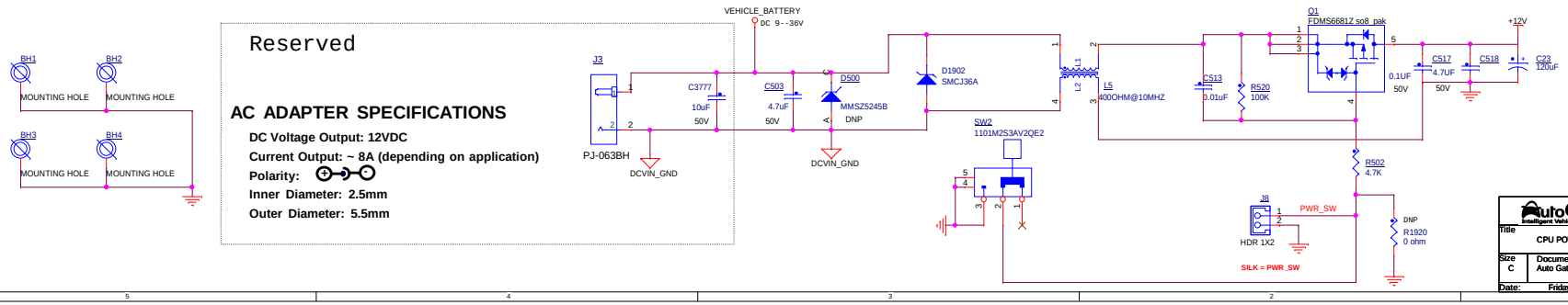
BH1
BH2
BH3
BH4
MOUNTING HOLE
MOUNTING HOLE
MOUNTING HOLE
MOUNTING HOLE
Reserved
AC ADAPTER SPECIFICATIONS
DC Voltage Output: 12VDC
Current Output: ~ 8A (depending on application)
Polarity:
Inner Diameter: 2.5mm
Outer Diameter: 5.5mm
J3
PJ-063BH
DCVIN_GND
C3777
10uF
50V
C503
4.7uF
50V
VEHICLE_BATTERY
DC 9--36V
D500
MMSZ5245B
DNP
DCVIN_GND
D1902
SMCJ36A
SW2
1101M2S3AV2QE2
L1
L5
600OHM@10MHZ
C513
0.01uF
R520
100K
Q1
FDMS6681Z so8_pak
0.1UF
50V
C517
4.7UF
50V
C518
+12V
C23
120uF
R502
4.7K
J8
HDR 1X2
PWR_SW
DNP
R1920
0 ohm
SILK = PWR_SW
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CPU POWER (VDD&GND&NC)
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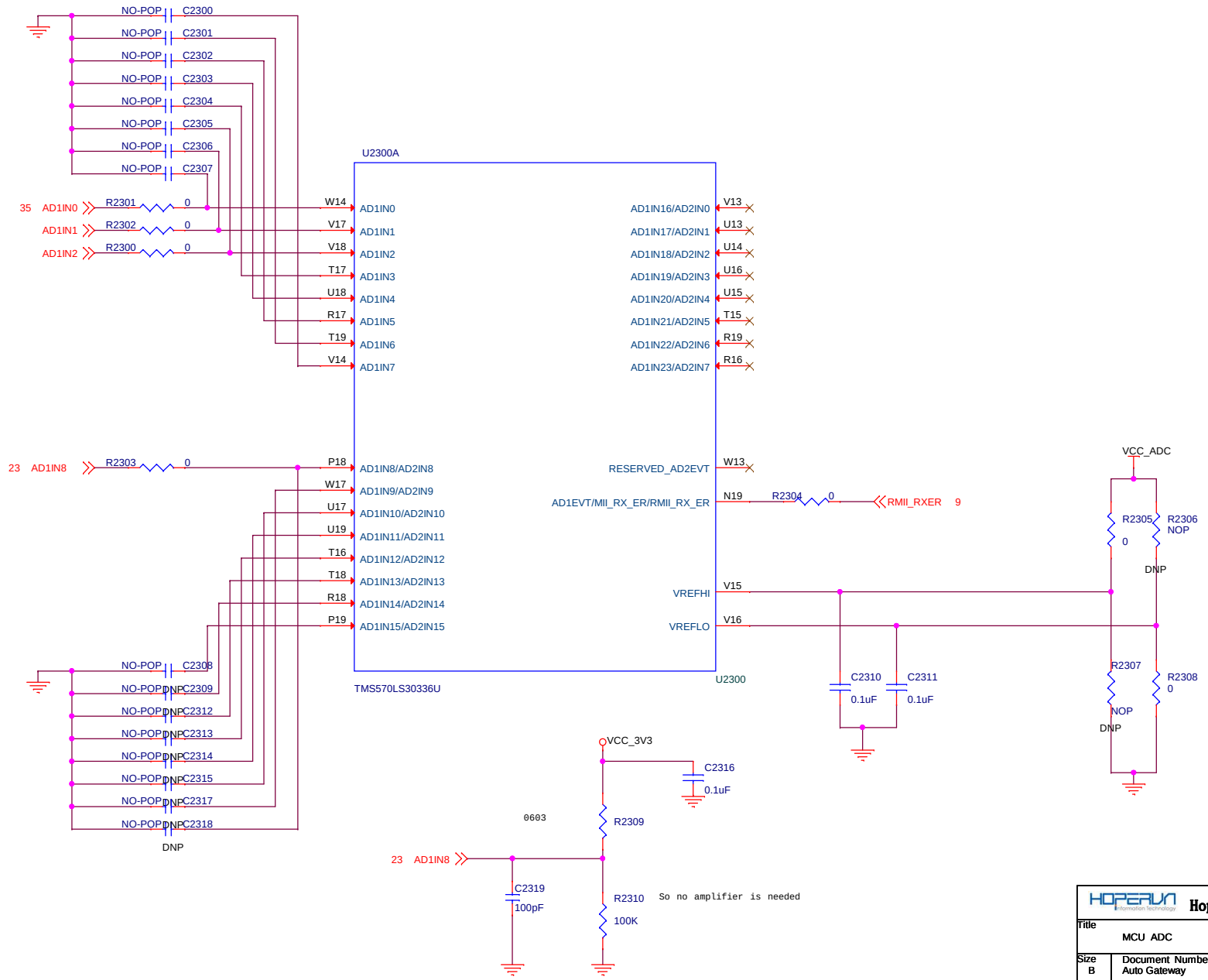

Hoperun Technology Corporation		
Title: MCU ADC		
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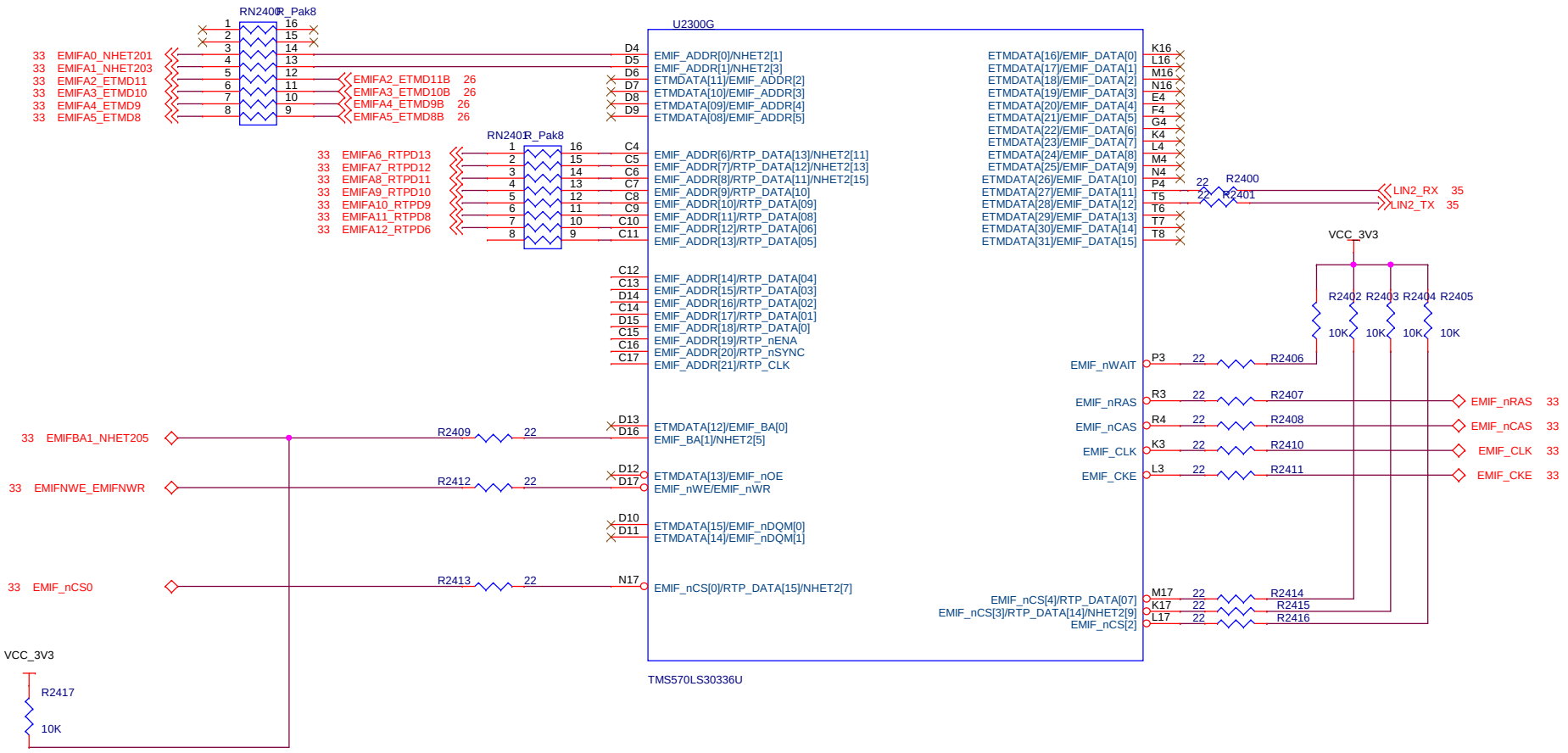

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Title: MCU EMIF		
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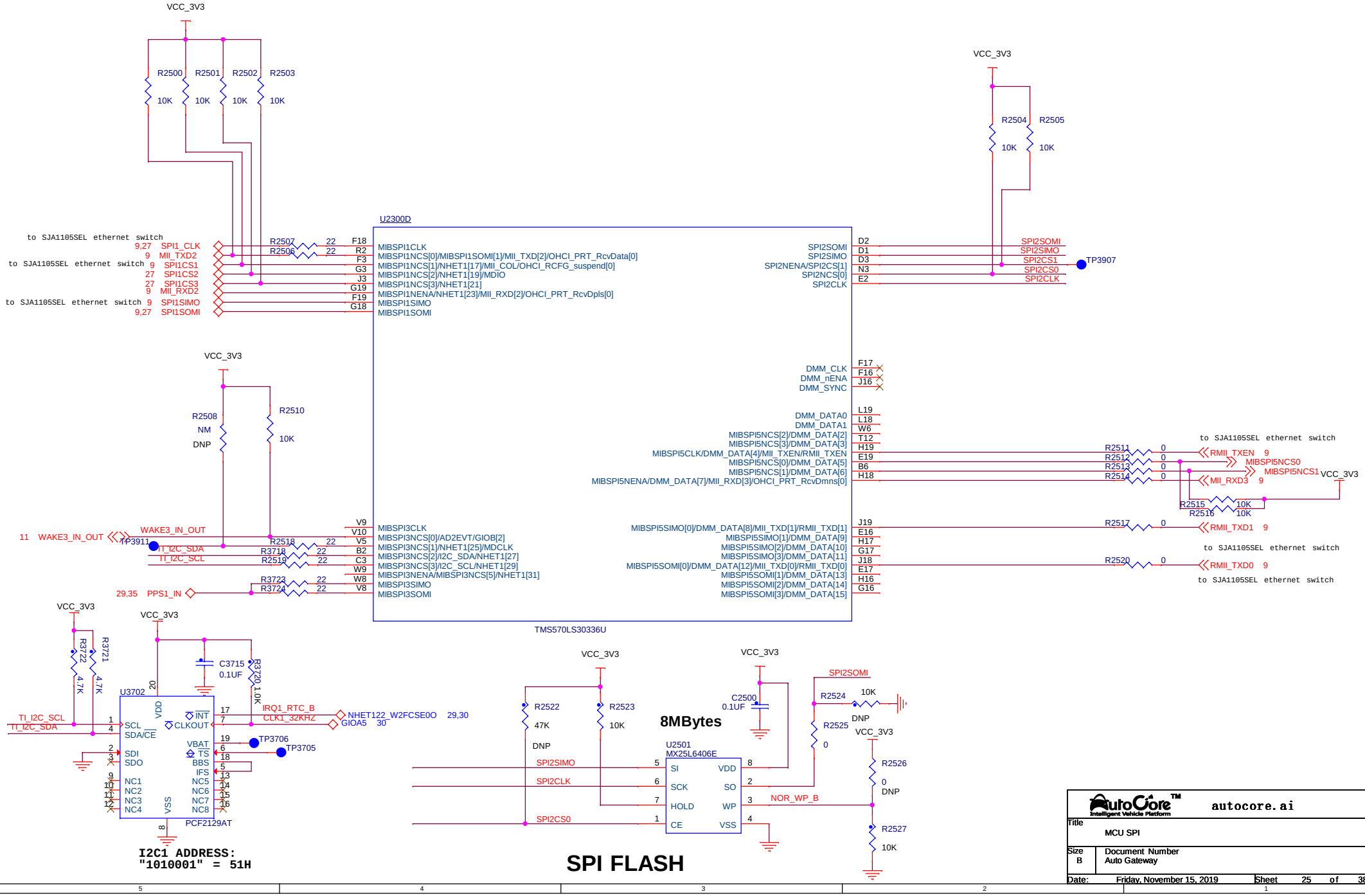
VCC_3V3
R2500 10K
R2501 10K
R2502 10K
R2503 10K
R2504 10K
R2505 10K
U2300D
to SJA1105SEL ethernet switch
9,27 SPI1_CLK
9 MII_TXD2
to SJA1105SEL ethernet switch 9 SPI1CS1
27 SPI1CS2
27 SPI1CS3
9 MII_RXD2
to SJA1105SEL ethernet switch 9 SPI1SIMO
9,27 SPI1SOMI
R2507 22
R2506 22
F18 MIBSPI1CLK
R2 MIBSPI1NCS[0]/MIBSPI1SOMI[1]/MII_TXD[2]/OHCI_PRT_RcvData[0]
F3 MIBSPI1NCS[1]/NHET1[17]/MII_COL/OHCI_RCFG_suspend[0]
G3 MIBSPI1NCS[2]/NHET1[19]/MDIO
J3 MIBSPI1NCS[3]/NHET1[21]
G19 MIBSPI1NENA/NHET1[23]/MII_RXD[2]/OHCI_PRT_RcvDpls[0]
F19 MIBSPI1SIMO
G18 MIBSPI1SOMI
SPI2SOMI D2
SPI2SIMO D1
SPI2NENA/SPI2CS[1] D3
SPI2NCS[0] N3
SPI2CLK E2
SPI2SOMI
SPI2SIMO
SPI2CS1
SPI2CS0
SPI2CLK
TP3907
F17 DMM_CLK
F16 DMM_nENA
J16 DMM_SYNC
L19 DMM_DATA0
L18 DMM_DATA1
W6 MIBSPI5NCS[2]/DMM_DATA[2]
T12 MIBSPI5NCS[3]/DMM_DATA[3]
H19 MIBSPI5CLK/DMM_DATA[4]/MII_TXEN/RMII_TXEN
E19 MIBSPI5NCS[0]/DMM_DATA[5]
B6 MIBSPI5NCS[1]/DMM_DATA[6]
H18 MIBSPI5NENA/DMM_DATA[7]/MII_RXD[3]/OHCI_PRT_RcvDmns[0]
R2511 0
R2512 0
R2513 0
R2514 0
to SJA1105SEL ethernet switch
RMII_TXEN 9
MIBSPI5NCS0
MIBSPI5NCS1
MII_RXD3 9
R2515 10K
R2516 10K
VCC_3V3
R2508 NM DNP
R2510 10K
V9 MIBSPI3CLK
V10 MIBSPI3NCS[0]/AD2EVT/GIOB[2]
V5 MIBSPI3NCS[1]/NHET1[25]/MDCLK
B2 MIBSPI3NCS[2]/I2C_SDA/NHET1[27]
C3 MIBSPI3NCS[3]/I2C_SCL/NHET1[29]
W9 MIBSPI3NENA/MIBSPI3NCS[5]/NHET1[31]
W8 MIBSPI3SIMO
V8 MIBSPI3SOMI
11 WAKE3_IN_OUT
WAKE3_IN_OUT
TP3911
TI_I2C_SDA
TI_I2C_SCL
R2518 22
R3718 22
R2519 22
R3723 22
R3724 22
29,35 PPS1_IN
J19 MIBSPI5SIMO[0]/DMM_DATA[8]/MII_TXD[1]/RMII_TXD[1]
E16 MIBSPI5SIMO[1]/DMM_DATA[9]
H17 MIBSPI5SIMO[2]/DMM_DATA[10]
G17 MIBSPI5SIMO[3]/DMM_DATA[11]
J18 MIBSPI5SOMI[0]/DMM_DATA[12]/MII_TXD[0]/RMII_TXD[0]
E17 MIBSPI5SOMI[1]/DMM_DATA[13]
H16 MIBSPI5SOMI[2]/DMM_DATA[14]
G16 MIBSPI5SOMI[3]/DMM_DATA[15]
R2517 0
RMII_TXD1 9
to SJA1105SEL ethernet switch
R2520 0
RMII_TXD0 9
to SJA1105SEL ethernet switch
TMS570LS30336U
VCC_3V3
R3722 4.7K
R3721 4.7K
U3702
C3715 0.1UF
R3720 1.0K
TI_I2C_SCL
TI_I2C_SDA
SCL
SDA/CE
SDI
SDO
NC1
NC2
NC3
NC4
VDD
VSS
INT
CLKOUT
VBAT
TS
BBS
IFS
NC5
NC6
NC7
NC8
IRQ1_RTC_B
CLK1_32KHZ
NHET122_W2FCSE0O 29,30
GIOA5 30
TP3706
TP3705
PCF2129AT
I2C1 ADDRESS:
"1010001" = 51H
R2522 47K
R2523 10K
DNP
SPI2SIMO
SPI2CLK
SPI2CS0
C2500 0.1UF
8MBytes
U2501
MX25L6406E
SI
SCK
HOLD
CE
VDD
SO
WP
VSS
NOR_WP_B
R2524 10K
DNP
R2525 0
R2526 0
DNP
R2527 10K
SPI FLASH
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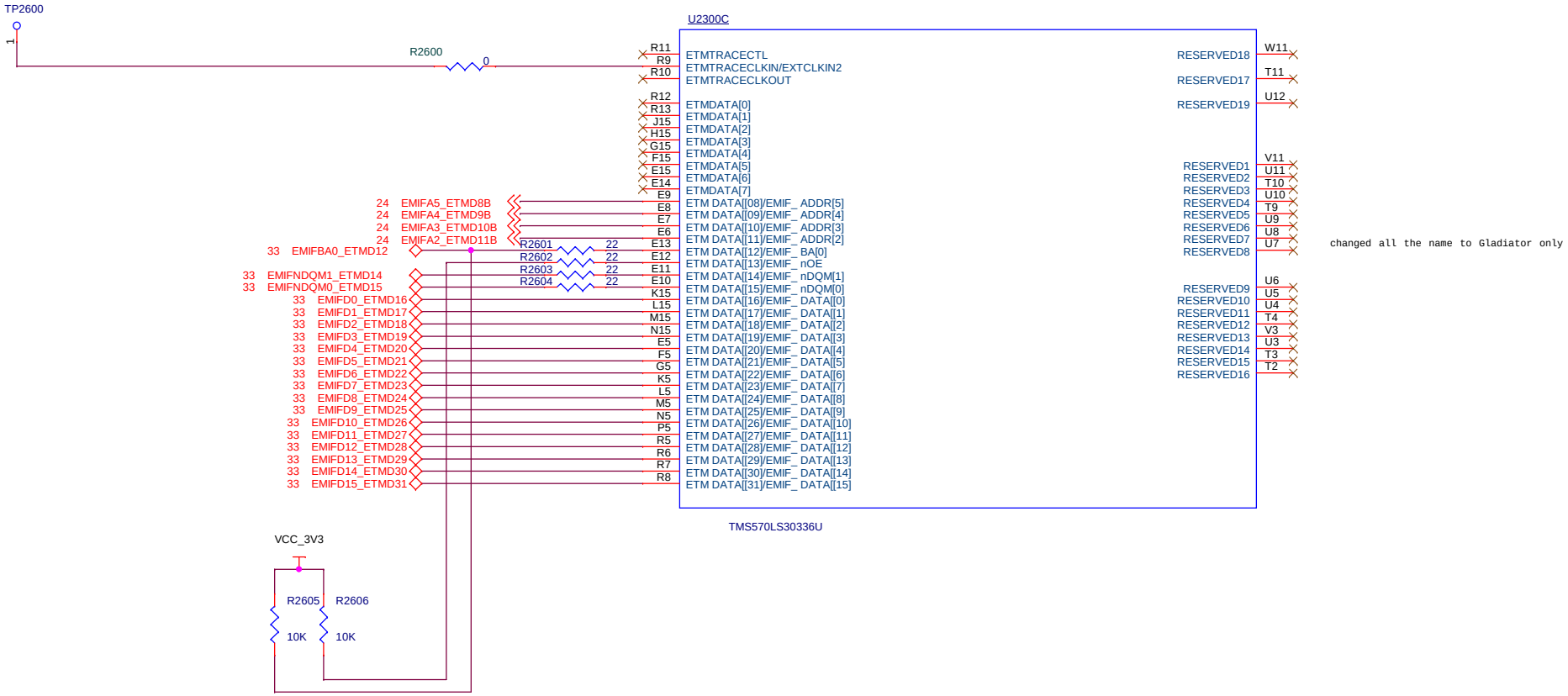

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Title: MCU ETM & RSVED_RTP		
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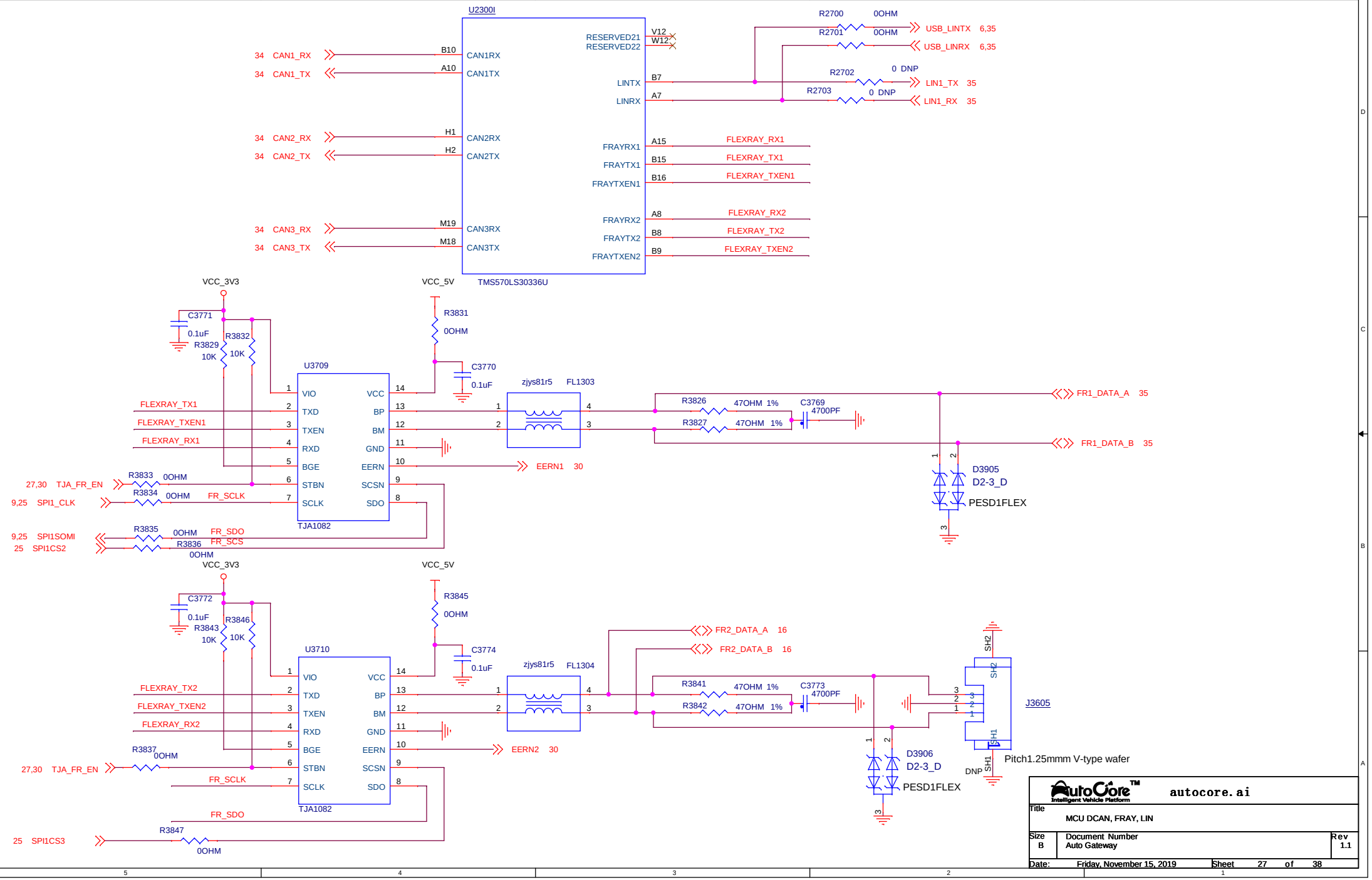
U2300I
TMS570LS30336U
34 CAN1_RX
34 CAN1_TX
34 CAN2_RX
34 CAN2_TX
34 CAN3_RX
34 CAN3_TX
B10 CAN1RX
A10 CAN1TX
H1 CAN2RX
H2 CAN2TX
M19 CAN3RX
M18 CAN3TX
RESERVED21 V12
RESERVED22 W12
LINTX B7
LINRX A7
FRAYRX1 A15 FLEXRAY_RX1
FRAYTX1 B15 FLEXRAY_TX1
FRAYTXEN1 B16 FLEXRAY_TXEN1
FRAYRX2 A8 FLEXRAY_RX2
FRAYTX2 B8 FLEXRAY_TX2
FRAYTXEN2 B9 FLEXRAY_TXEN2
R2700 0OHM USB_LINTX 6,35
R2701 0OHM USB_LINRX 6,35
R2702 0 DNP LIN1_TX 35
R2703 0 DNP LIN1_RX 35
VCC_3V3
VCC_5V
C3771 0.1uF
R3829 10K
R3832 10K
R3831 0OHM
C3770 0.1uF
U3709
VIO VCC
TXD BP
TXEN BM
RXD GND
BGE EERN
STBN SCSN
SCLK SDO
TJA1082
FLEXRAY_TX1
FLEXRAY_TXEN1
FLEXRAY_RX1
27,30 TJA_FR_EN
9,25 SPI1_CLK
9,25 SPI1SOMI
25 SPI1CS2
R3833 0OHM
R3834 0OHM FR_SCLK
R3835 0OHM FR_SDO
R3836 0OHM FR_SCS
zjys81r5 FL1303
R3826 47OHM 1%
R3827 47OHM 1%
C3769 4700PF
EERN1 30
FR1_DATA_A 35
FR1_DATA_B 35
D3905
D2-3_D
PESD1FLEX
C3772 0.1uF
R3843 10K
R3846 10K
R3845 0OHM
C3774 0.1uF
U3710
TJA1082
FLEXRAY_TX2
FLEXRAY_TXEN2
FLEXRAY_RX2
27,30 TJA_FR_EN
FR_SCLK
FR_SDO
25 SPI1CS3
R3837 0OHM
R3847 0OHM
zjys81r5 FL1304
R3841 47OHM 1%
R3842 47OHM 1%
C3773 4700PF
EERN2 30
FR2_DATA_A 16
FR2_DATA_B 16
D3906
D2-3_D
PESD1FLEX
J3605
SH1
SH2
DNP
Pitch1.25mmm V-type wafer
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MCU DCAN, FRAY, LIN
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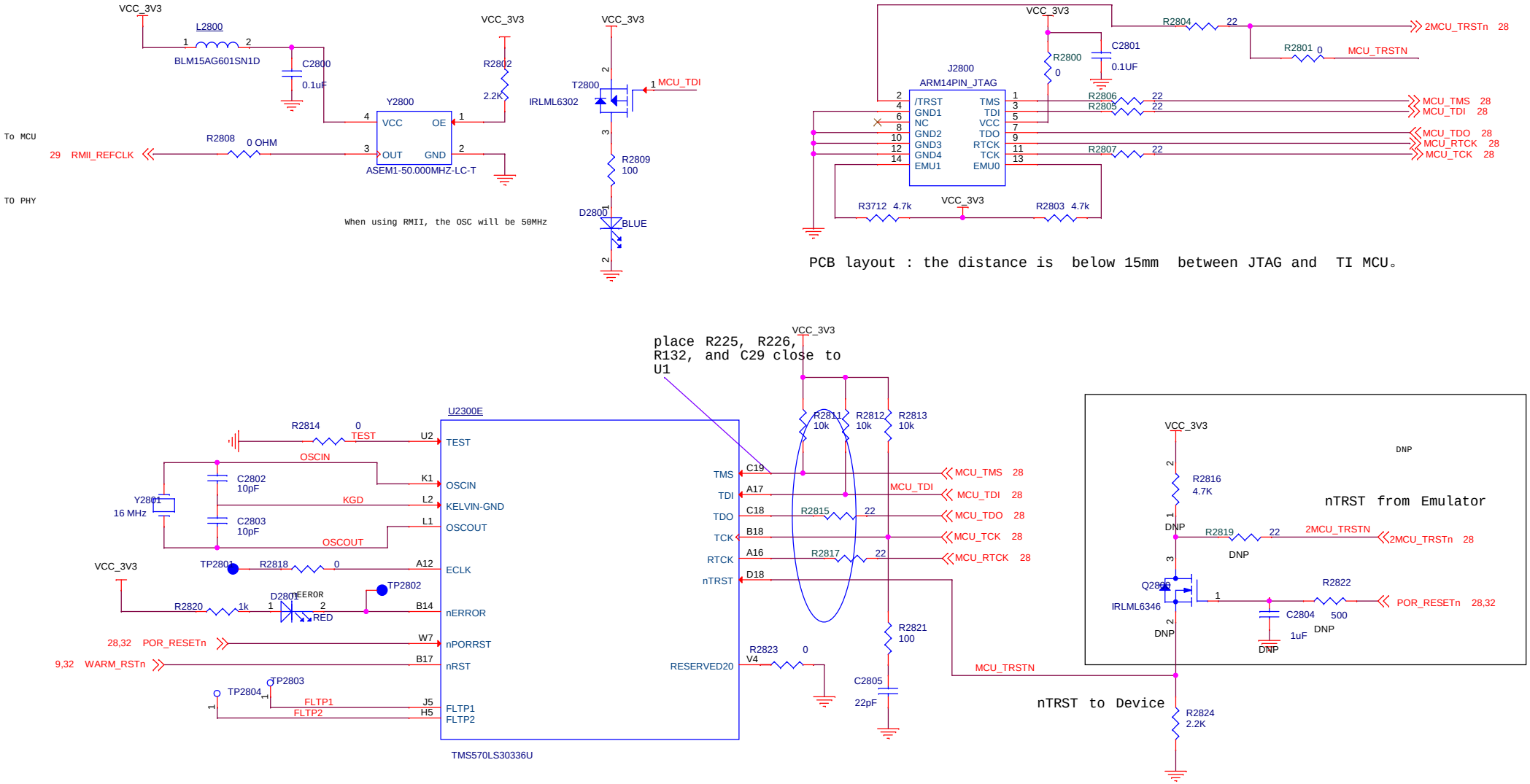

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Title: MCU JTAG & OSC		
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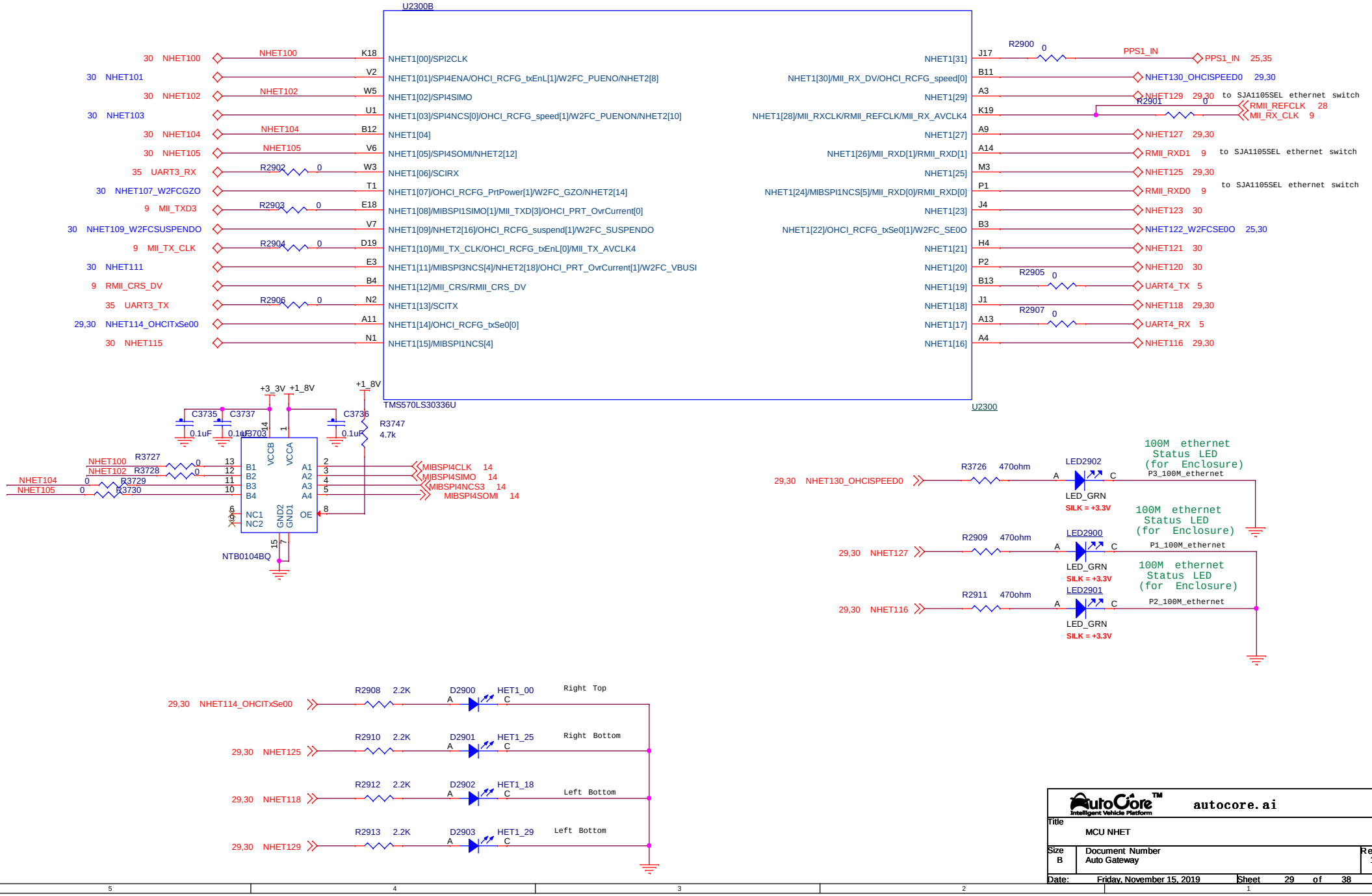
U2300B
30 NHET100
30 NHET101
30 NHET102
30 NHET103
30 NHET104
30 NHET105
35 UART3_RX
30 NHET107_W2FCGZO
9 MII_TXD3
30 NHET109_W2FCSUSPENDO
9 MII_TX_CLK
30 NHET111
9 RMII_CRS_DV
35 UART3_TX
29,30 NHET114_OHCITxSe00
30 NHET115
NHET100
NHET102
NHET104
NHET105
R2902 0
R2903 0
R2904 0
R2906 0
K18 NHET1[00]/SPI2CLK
V2 NHET1[01]/SPI4ENA/OHCI_RCFG_txEnL[1]/W2FC_PUENO/NHET2[8]
W5 NHET1[02]/SPI4SIMO
U1 NHET1[03]/SPI4NCS[0]/OHCI_RCFG_speed[1]/W2FC_PUENON/NHET2[10]
B12 NHET1[04]
V6 NHET1[05]/SPI4SOMI/NHET2[12]
W3 NHET1[06]/SCIRX
T1 NHET1[07]/OHCI_RCFG_PrtPower[1]/W2FC_GZO/NHET2[14]
E18 NHET1[08]/MIBSPI1SIMO[1]/MII_TXD[3]/OHCI_PRT_OvrCurrent[0]
V7 NHET1[09]/NHET2[16]/OHCI_RCFG_suspend[1]/W2FC_SUSPENDO
D19 NHET1[10]/MII_TX_CLK/OHCI_RCFG_txEnL[0]/MII_TX_AVCLK4
E3 NHET1[11]/MIBSPI3NCS[4]/NHET2[18]/OHCI_PRT_OvrCurrent[1]/W2FC_VBUSI
B4 NHET1[12]/MII_CRS/RMII_CRS_DV
N2 NHET1[13]/SCITX
A11 NHET1[14]/OHCI_RCFG_txSe0[0]
N1 NHET1[15]/MIBSPI1NCS[4]
TMS570LS30336U
U2300
R2900 0
R2901 0
R2905 0
R2907 0
J17 NHET1[31]
B11 NHET1[30]/MII_RX_DV/OHCI_RCFG_speed[0]
A3 NHET1[29]
K19 NHET1[28]/MII_RXCLK/RMII_REFCLK/MII_RX_AVCLK4
A9 NHET1[27]
A14 NHET1[26]/MII_RXD[1]/RMII_RXD[1]
M3 NHET1[25]
P1 NHET1[24]/MIBSPI1NCS[5]/MII_RXD[0]/RMII_RXD[0]
J4 NHET1[23]
B3 NHET1[22]/OHCI_RCFG_txSe0[1]/W2FC_SE0O
H4 NHET1[21]
P2 NHET1[20]
B13 NHET1[19]
J1 NHET1[18]
A13 NHET1[17]
A4 NHET1[16]
PPS1_IN
PPS1_IN 25,35
NHET130_OHCISPEED0 29,30
NHET129 29,30 to SJA1105SEL ethernet switch
RMII_REFCLK 28
MII_RX_CLK 9
NHET127 29,30
RMII_RXD1 9 to SJA1105SEL ethernet switch
NHET125 29,30
RMII_RXD0 9 to SJA1105SEL ethernet switch
NHET123 30
NHET122_W2FCSE0O 25,30
NHET121 30
NHET120 30
UART4_TX 5
NHET118 29,30
UART4_RX 5
NHET116 29,30
+3_3V
+1_8V
C3735 0.1uF
C3737 0.1uF
C3736 0.1uF
R3747 4.7k
U3703
VCCB
VCCA
B1
B2
B3
B4
A1
A2
A3
A4
NC1
NC2
GND2
GND1
OE
NTB0104BQ
R3727 0
R3728 0
R3729 0
R3730 0
MIBSPI4CLK 14
MIBSPI4SIMO 14
MIBSPI4NCS3 14
MIBSPI4SOMI 14
29,30 NHET130_OHCISPEED0
R3726 470ohm
LED2902
LED_GRN
SILK = +3.3V
P3_100M_ethernet
100M ethernet Status LED (for Enclosure)
29,30 NHET127
R2909 470ohm
LED2900
P1_100M_ethernet
29,30 NHET116
R2911 470ohm
LED2901
P2_100M_ethernet
29,30 NHET114_OHCITxSe00
R2908 2.2K
D2900
HET1_00
Right Top
29,30 NHET125
R2910 2.2K
D2901
HET1_25
Right Bottom
29,30 NHET118
R2912 2.2K
D2902
HET1_18
Left Bottom
29,30 NHET129
R2913 2.2K
D2903
HET1_29
Left Bottom
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autocore.ai
Title
MCU NHET
Size B
Document Number
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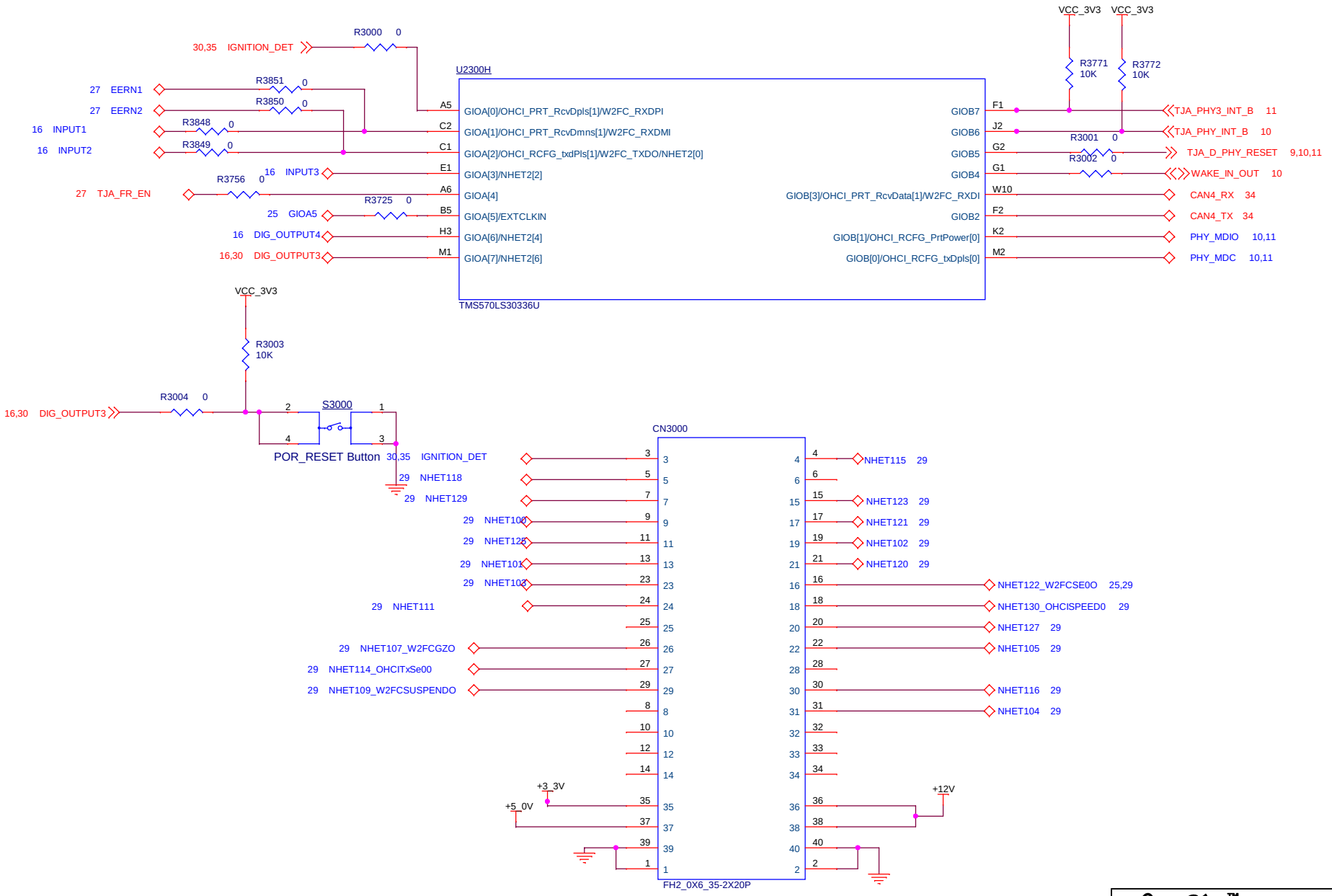
U2300H
TMS570LS30336U
30,35 IGNITION_DET
R3000 0
27 EERN1
27 EERN2
16 INPUT1
16 INPUT2
R3851 0
R3850 0
R3848 0
R3849 0
16 INPUT3
R3756 0
27 TJA_FR_EN
R3725 0
25 GIOA5
16 DIG_OUTPUT4
16,30 DIG_OUTPUT3
A5 GIOA[0]/OHCI_PRT_RcvDpls[1]/W2FC_RXDPI
C2 GIOA[1]/OHCI_PRT_RcvDmns[1]/W2FC_RXDMI
C1 GIOA[2]/OHCI_RCFG_txdPls[1]/W2FC_TXDO/NHET2[0]
E1 GIOA[3]/NHET2[2]
A6 GIOA[4]
B5 GIOA[5]/EXTCLKIN
H3 GIOA[6]/NHET2[4]
M1 GIOA[7]/NHET2[6]
VCC_3V3
VCC_3V3
R3771 10K
R3772 10K
R3001 0
R3002 0
F1 GIOB7
J2 GIOB6
G2 GIOB5
G1 GIOB4
W10 GIOB[3]/OHCI_PRT_RcvData[1]/W2FC_RXDI
F2 GIOB2
K2 GIOB[1]/OHCI_RCFG_PrtPower[0]
M2 GIOB[0]/OHCI_RCFG_txDpls[0]
TJA_PHY3_INT_B 11
TJA_PHY_INT_B 10
TJA_D_PHY_RESET 9,10,11
WAKE_IN_OUT 10
CAN4_RX 34
CAN4_TX 34
PHY_MDIO 10,11
PHY_MDC 10,11
VCC_3V3
R3003 10K
R3004 0
16,30 DIG_OUTPUT3
S3000
POR_RESET Button
30,35 IGNITION_DET
29 NHET118
29 NHET129
CN3000
FH2_0X6_35-2X20P
29 NHET100
29 NHET125
29 NHET101
29 NHET103
29 NHET111
29 NHET107_W2FCGZO
29 NHET114_OHCITxSe00
29 NHET109_W2FCSUSPENDO
NHET115 29
NHET123 29
NHET121 29
NHET102 29
NHET120 29
NHET122_W2FCSE0O 25,29
NHET130_OHCISPEED0 29
NHET127 29
NHET105 29
NHET116 29
NHET104 29
+3_3V
+5_0V
+12V
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Title
MCU GPIOs &EXT.
Size B
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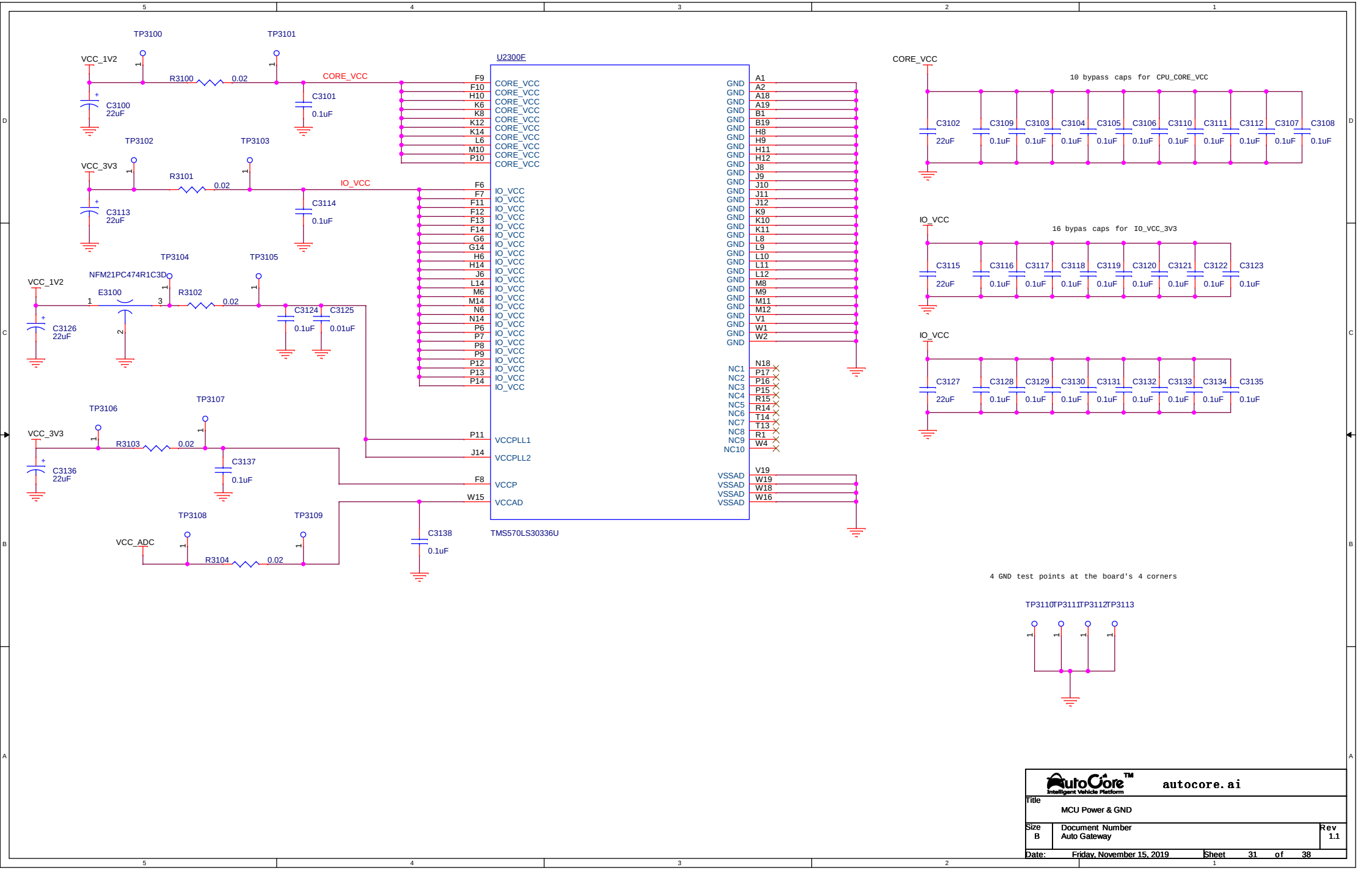

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Title	MCU Power & GND	
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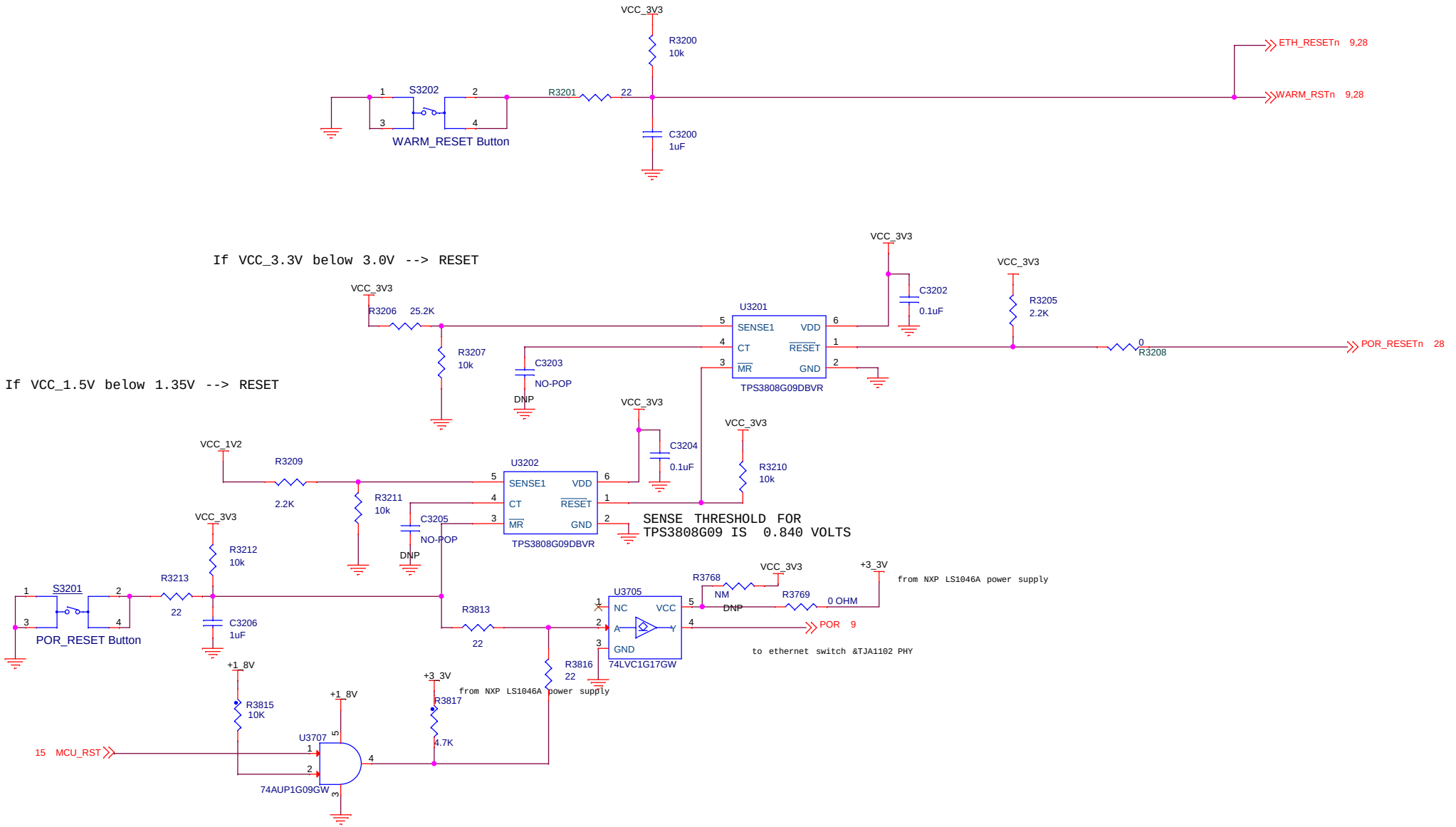

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Title: RESET		
Size: B	Document Number: Auto Gateway	Rev: 1.1
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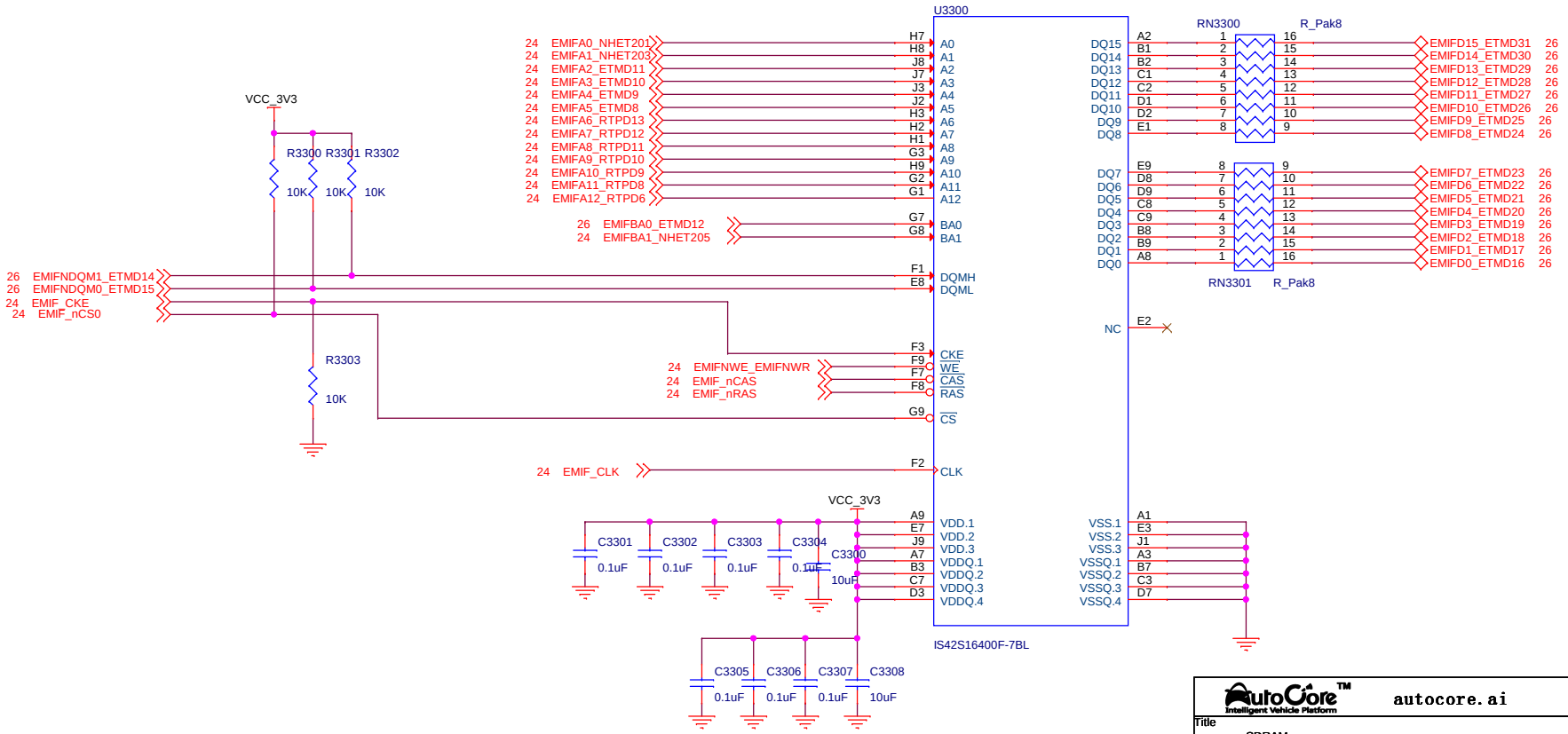

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Title	SDRAM	
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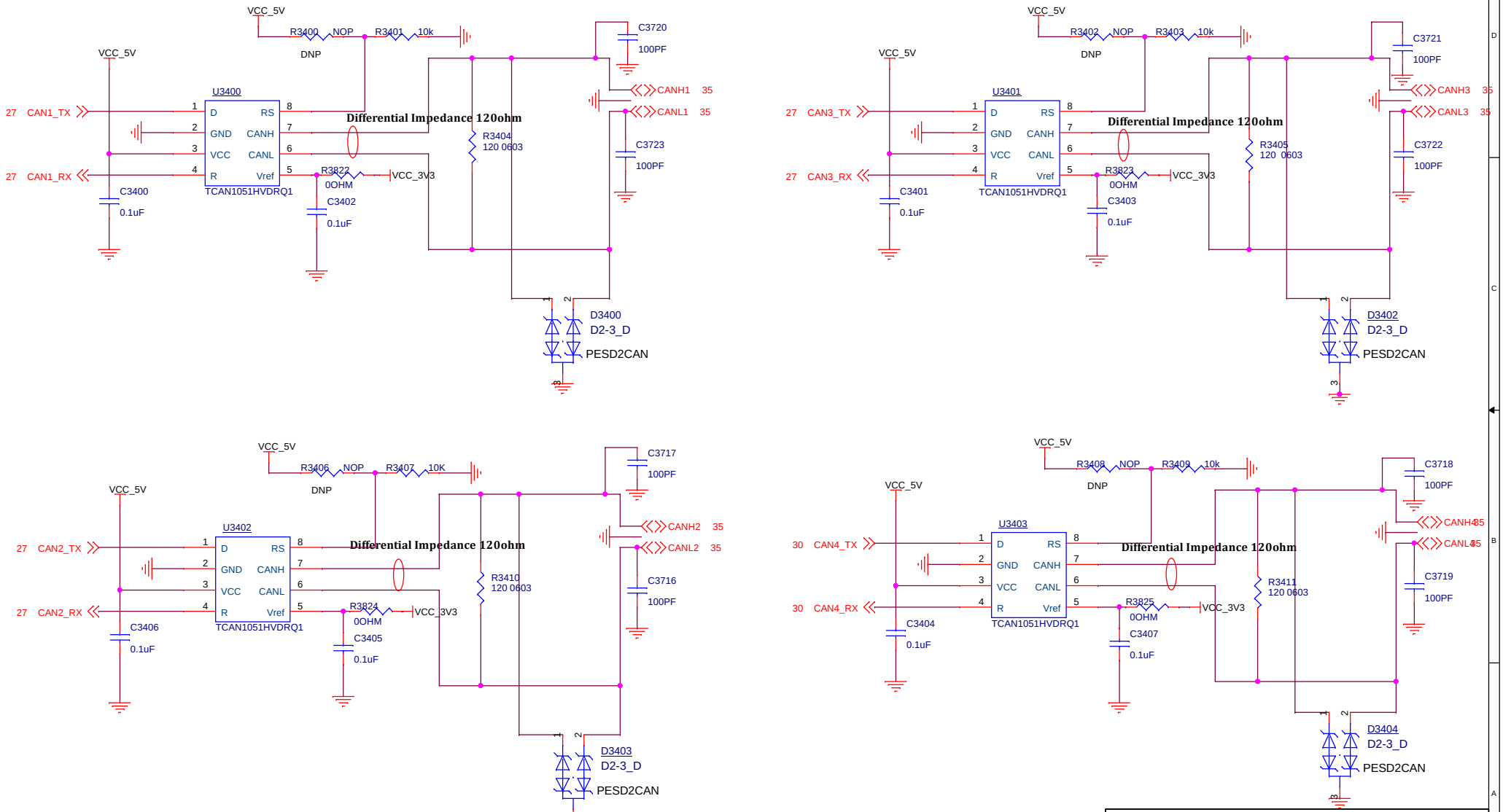

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Title	CAN Transceivers	
Size B	Document Number Auto Gateway	Rev 1.1
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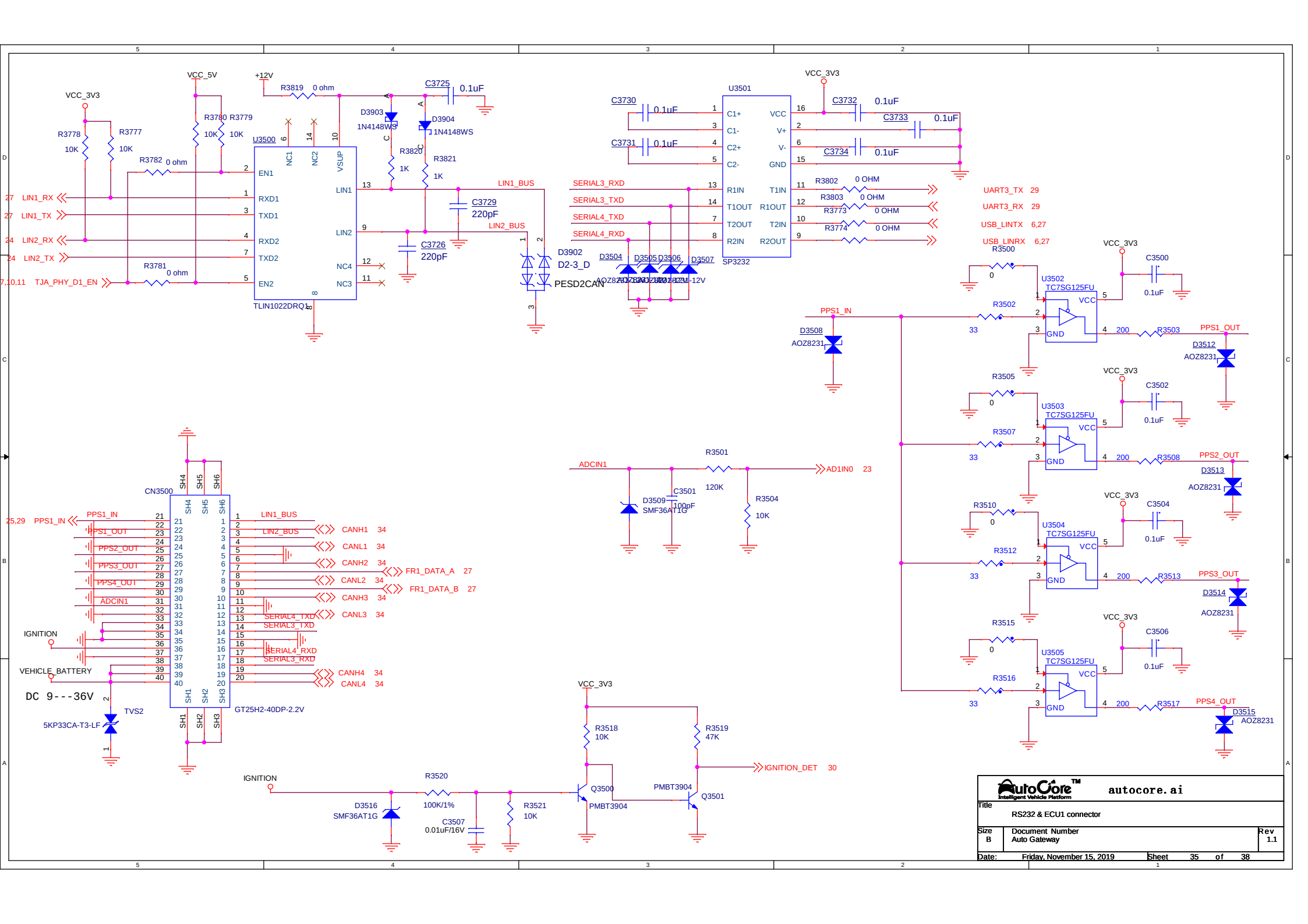
VCC_3V3
VCC_5V
+12V
R3819 0 ohm
C3725 0.1uF
R3778 10K
R3777 10K
R3780 10K
R3779 10K
R3782 0 ohm
R3781 0 ohm
U3500
TLIN1022DRQ1
EN1
RXD1
TXD1
RXD2
TXD2
EN2
LIN1
LIN2
NC1
NC2
VSUP
NC4
NC3
D3903 1N4148WS
D3904 1N4148WS
R3820 1K
R3821 1K
C3729 220pF
C3726 220pF
LIN1_BUS
LIN2_BUS
D3902 D2-3_D PESD2CAN
27 LIN1_RX
27 LIN1_TX
24 LIN2_RX
24 LIN2_TX
7,10,11 TJA_PHY_D1_EN
U3501
SP3232
C1+
C1-
C2+
C2-
VCC
V+
V-
GND
R1IN
R1OUT
T1IN
T1OUT
T2IN
T2OUT
R2IN
R2OUT
C3730 0.1uF
C3731 0.1uF
C3732 0.1uF
C3733 0.1uF
C3734 0.1uF
SERIAL3_RXD
SERIAL3_TXD
SERIAL4_TXD
SERIAL4_RXD
R3802 0 OHM
R3803 0 OHM
R3773 0 OHM
R3774 0 OHM
UART3_TX 29
UART3_RX 29
USB_LINTX 6,27
USB_LINRX 6,27
D3504
D3505
D3506
D3507
AOZ8231-12V
PPS1_IN
D3508 AOZ8231
R3500
R3502
R3503
R3505
R3507
R3508
R3510
R3512
R3513
R3515
R3516
R3517
U3502 TC7SG125FU
U3503 TC7SG125FU
U3504 TC7SG125FU
U3505 TC7SG125FU
C3500 0.1uF
C3502 0.1uF
C3504 0.1uF
C3506 0.1uF
PPS1_OUT
PPS2_OUT
PPS3_OUT
PPS4_OUT
D3512 AOZ8231
D3513 AOZ8231
D3514 AOZ8231
D3515 AOZ8231
CN3500
GT25H2-40DP-2.2V
SH1
SH2
SH3
SH4
SH5
SH6
25,29 PPS1_IN
PPS1_OUT
PPS2_OUT
PPS3_OUT
PPS4_OUT
ADCIN1
IGNITION
VEHICLE_BATTERY
DC 9---36V
TVS2
5KP33CA-T3-LF
CANH1 34
CANL1 34
CANH2 34
CANL2 34
CANH3 34
CANL3 34
CANH4 34
CANL4 34
FR1_DATA_A 27
FR1_DATA_B 27
R3501 120K
R3504 10K
D3509 SMF36AT1G
C3501 100pF
AD1IN0 23
R3518 10K
R3519 47K
Q3500 PMBT3904
Q3501 PMBT3904
IGNITION_DET 30
R3520 100K/1%
R3521 10K
D3516 SMF36AT1G
C3507 0.01uF/16V
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Title
RS232 & ECU1 connector
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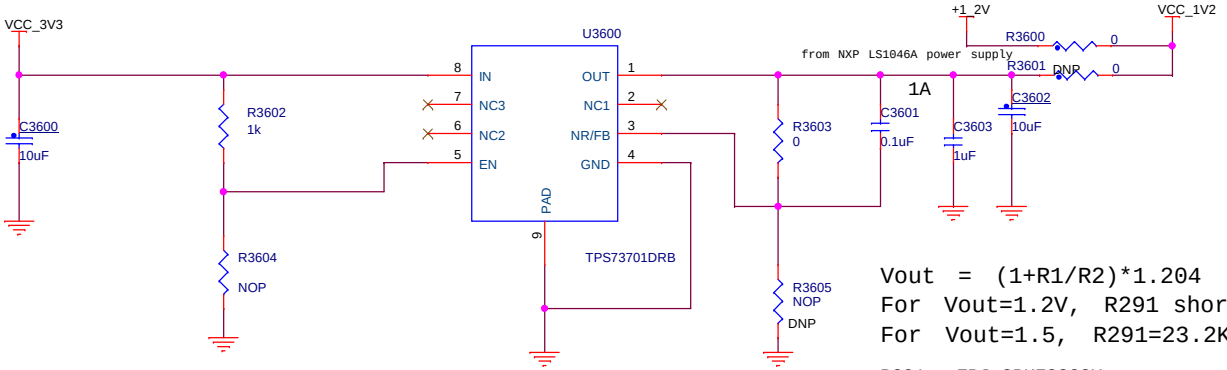
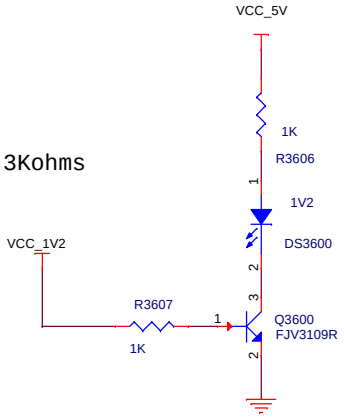
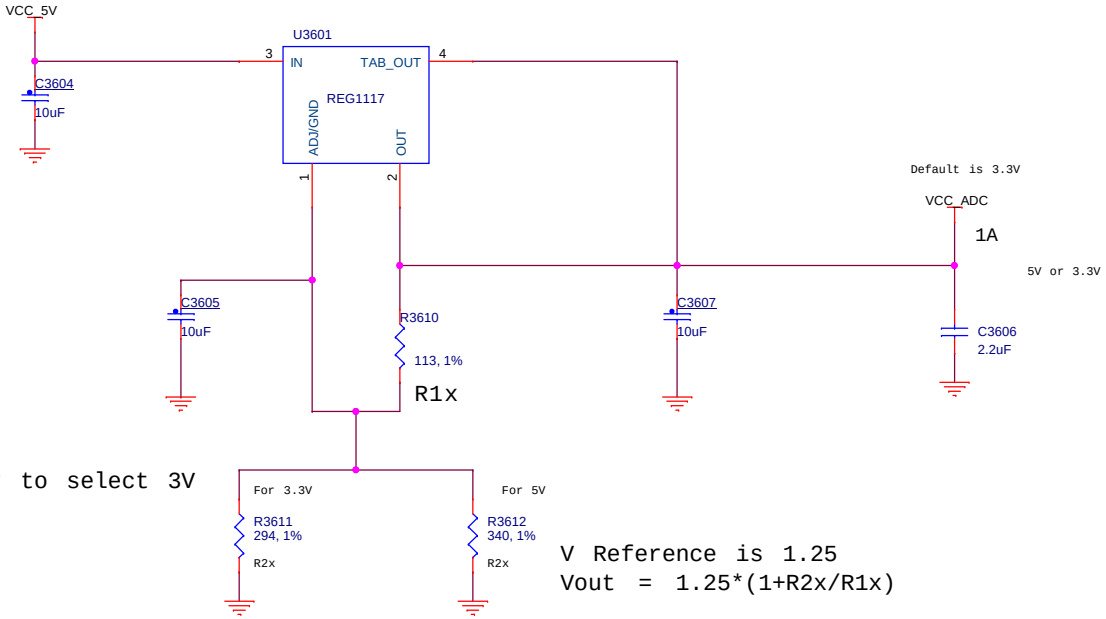


Vout = (1+R1/R2)*1.204
For Vout=1.2V, R291 shorted, and R293 Open
For Vout=1.5, R291=23.2Kohms, and R293=95.3Kohms

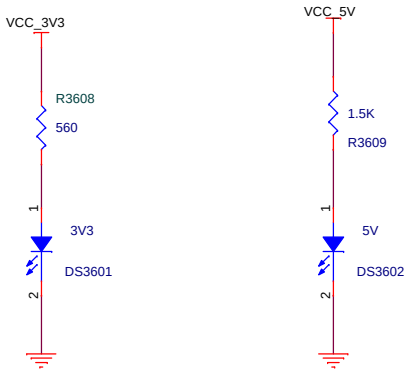
R281: ERJ-2RKF2322X





use jumper to select 3V

V Reference is 1.25
Vout = 1.25*(1+R2x/R1x)



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Title: Power Supply		
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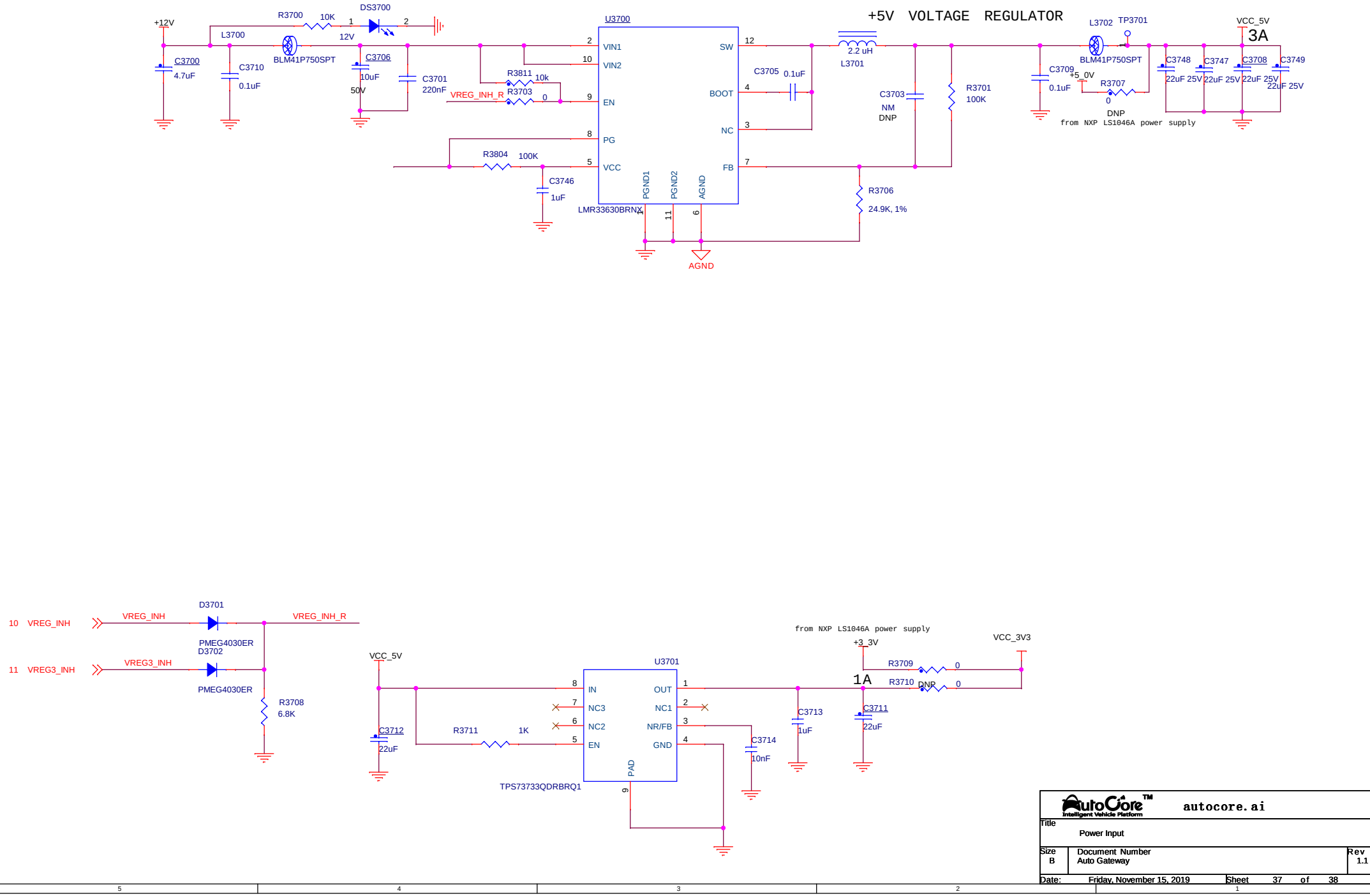
+5V VOLTAGE REGULATOR
+12V
L3700
R3700 10K
DS3700
12V
C3700 4.7uF
C3710 0.1uF
BLM41P750SPT
C3706 10uF 50V
C3701 220nF
U3700
VIN1
VIN2
EN
PG
VCC
SW
BOOT
NC
FB
PGND1
PGND2
AGND
LMR33630BRNX
R3811 10k
VREG_INH_R
R3703 0
R3804 100K
C3746 1uF
C3705 0.1uF
2.2 uH
L3701
C3703 NM DNP
R3701 100K
R3706 24.9K, 1%
AGND
L3702
TP3701
BLM41P750SPT
C3709 0.1uF
+5_0V
R3707 0
DNP
from NXP LS1046A power supply
C3748 22uF 25V
C3747 22uF 25V
C3708 22uF 25V
C3749 22uF 25V
VCC_5V
3A
10 VREG_INH
11 VREG3_INH
D3701
D3702
PMEG4030ER
PMEG4030ER
VREG_INH
VREG3_INH
VREG_INH_R
R3708 6.8K
VCC_5V
U3701
IN
NC3
NC2
EN
OUT
NC1
NR/FB
GND
PAD
TPS73733QDRBRQ1
C3712 22uF
R3711 1K
C3714 10nF
C3713 1uF
C3711 22uF
from NXP LS1046A power supply
+3_3V
1A
R3709 0
R3710 DNP 0
VCC_3V3
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Power Input
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Version 0.5 - 03/10/ 2019
1. change cover page schematic sheet list.
2. Deleted DDR DIMM schematic,used 5PCS DDR4 (x16 bit)--MT40A1G16RC-068IT to design DDR memory circuits.
3. Modified QSPI flash circuits,keep a 64MB QSPI Flash only.
4. Deleted SATA circuits , added USIM card circuits to modify miniPCI e slot for Huawei's LTE/C-V2TX module.
5. Added TVS diode on UART lines for ECU2 connector.
6. Due to vehicle battery power supply ,changed DC jack as reserved.
7. Deleted extra ADC input nets of TI 's MCU, connect 3 ADC in to ECU1 connector.
8. Deleted extra unused EMIF ports of TI MCU.
9. Deleted extra unused SPI ports of TI MCU, added a SPI NOR flash.
10. Deleted extra unused ETM ports of TI MCU.
11. Deleted unused FRAY ports of TI MCU.
12. Moved JTAG circuits to MCU JTAG&OSC,   deleted original circuits.
13. Changed NHET net ports .
14. Added extension connector for TI 's GPIOs.
15. Modified SDRAM circuits, deleted some unused nets.
16. Added TVS diodes for CAN bus ESD protection.
17. Keeped original XDS100V2 circuits for debugging.
18. Changed TI MCU power supply circuits for vehicle battery power supply.
19. Modified SJA1105SEL circuits connection with TI 's MCU by SPI .
20. Changed power supply nets for ethernet switch & TJA1102 PHY .
21. Added TVs diode protection ciruits on ECU1 connector.
22. Added PPS input & output circuits.

Version 0.6 - 03/12/ 2019
1. Deleted some unused circuits in SERDES &PCIE sheet.
2. Deleted unused DC to DC circuits in CPU POWER(VDD&GND&NC)sheet
3. Changed CAN BUS terminal resistor to 120 ohm, deleted extra capacitors in CAN Transceivers sheet.
4. Added eMMC data bus line eMMC_ DAT4..DAT7.

Version 0.7 - 03/17/ 2019
1. Deleted Page 15-CPLD&DIP SW sheet.
2. Changed Page 20-PS (DDR&PMIC) with NXP's PF8100 PMIC .

Version 0.8 - 03/24/ 2019
1. Modified power supply circuits for all sheets and power sequence..
2. Used a QSGMII PHY F104 chip to replace four ethernet PHY circuits, deleted related two RGMII PHY and two SGMII PHY circuits.
3. Used USB to UART converter circuits to replace CMSIS-DAP circuits..
4. Added CPU RESET &GPIOs circcuits,
5..Modifed JTAG circuits of LS1046A,
6. Deleted EVDD power supply circuits, 3.3v is used for micro SD card power supply.
7. Modified USB1&USB2 power supply circuits with NX5P3090UK& 74LVC1G04GW for USB HOST.
8. Added I2C expander PCA9546APW circuits.
9. Modified CPU Boot source and POR config.

Version 0.9 - 03/29/ 2019
1. Deleted XDS100V2 FTDI2232 and XDS100V2 CPLD circuits, changed to connect USB to UART FTD232RQ circuits for TI MCU UART debugging..
2. Added 4 input circuits and 4 digital output circuits.
3. Added ignition detection circuits for vehicle.
4. Deleted some single node nets, and added offpage at net ports.
5. Modifed nets connection of RMII interface between TI MCU and SJA1105S ethernet switch.
6. Modified net name at TJA1102 PHY .
7. Modified SerDes circuits connection from LS1046A.
8. Modified Clock circuits for PCI &. SerDes .
9. Modified power supply circuits of mini PCIe slot.
10. Added some control circuits from LS1046A
11. Changed DC jack.
12. Changed JTAG connector from 20pins to 14pins.
13. Changed GPIOs of expansion connector.

Version 1.0 - 04/02/ 2019
1. Modifed 14pin JTAG circuits, deleted ARM_JTAG_RESETn net.
2. Modified console USB circuits.
3. Added 4 pair LED circuits for 4 Ports ethernet ,changed power &status LED indicators.
4. Added RTC circuits for TI MCU.
5. Modified PPS_input connection.

Version 1.1 - 04/11/ 2019
1. Modifed RESET key circuits.
2. Added SPI communication circuits between LS1046A and TI MCU.
3. Added wakeup input at 40pin ECU connector.
4. Added RTC circuits for TI MCU.
5. Modified PPS_input connection.
6. Deleted 2x PCIx1 espress socket and changed M2.NGFF socket.

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Title: Change list		
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