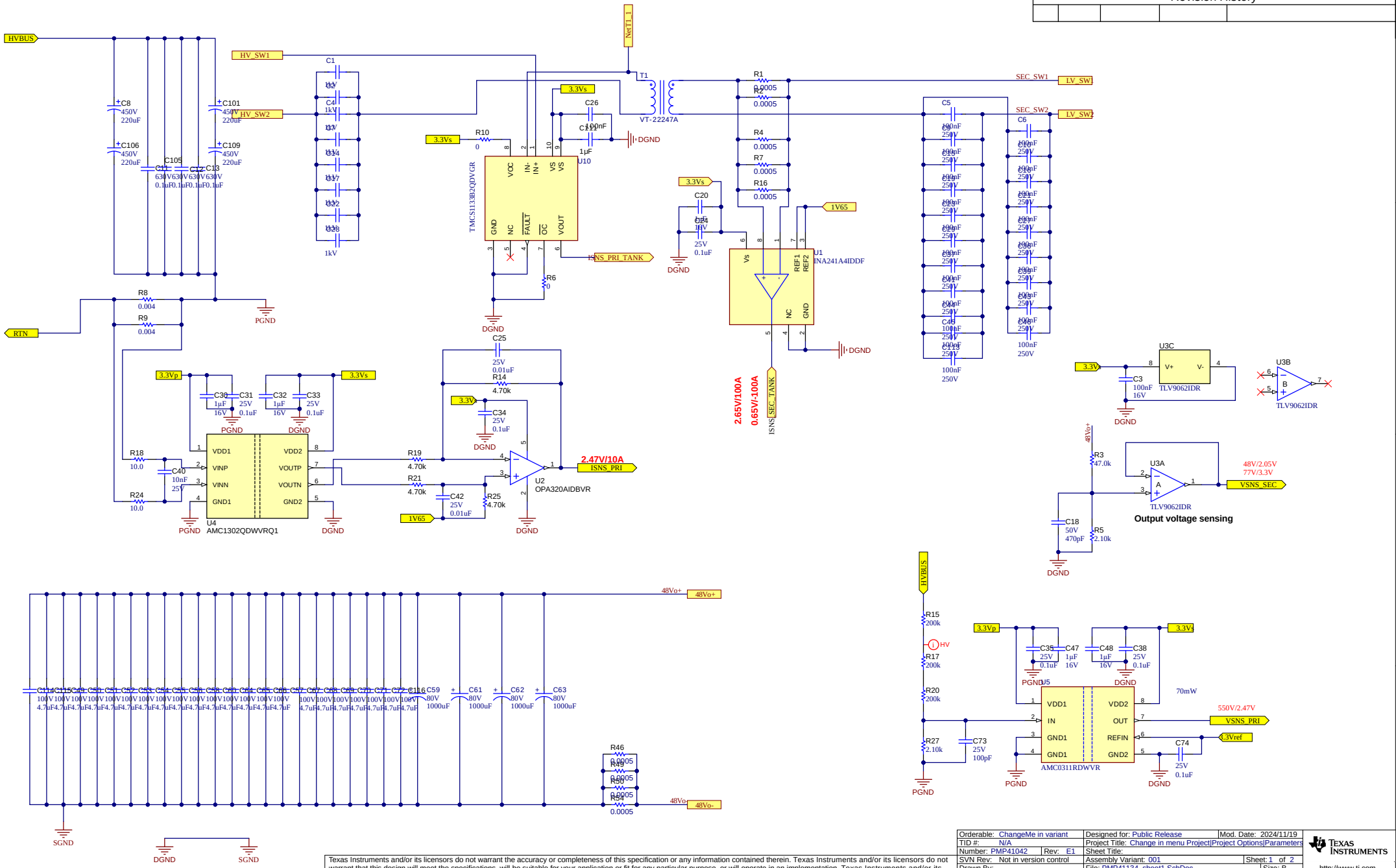
Revision History
HVBUS
HV_SW1
HV_SW2
RTN
PGND
DGND
SGND
3.3Vs
3.3Vp
1V65
T1
VT-22247A
U10
TMCS1133B2QDVGR
U1
INA241A4IDDF
U2
OPA320AIDBVR
U3
AMC1302QDWVRQ1
U3A
U3B
U3C
TLV9062IDR
U4
AMC1302QDWVRQ1
U5
AMC0311RDWVR
ISNS_PRI_TANK
ISNS_SEC_TANK
2.65V/100A
0.65V/-100A
2.47V/10A
ISNS_PRI
SEC_SW1
SEC_SW2
LV_SW
LV_SW2
48Vo+
48Vo-
48V/2.05V
77V/3.3V
VSNS_SEC
VSNS_PRI
550V/2.47V
4.3Vref
70mW
Output voltage sensing
Orderable: ChangeMe in variant
TID #: N/A
Number: PMP41042 Rev: E1
SVN Rev: Not in version control
Drawn By:
Engineer: Guangzhi Cui
Designed for: Public Release
Mod. Date: 2024/11/19
Project Title: Change in menu Project|Project Options|Parameters
Sheet Title:
Assembly Variant: 001
Sheet: 1 of 2
File: PMP41134_sheet1.SchDoc
Size: B
Contact: http://www.ti.com/support
http://www.ti.com
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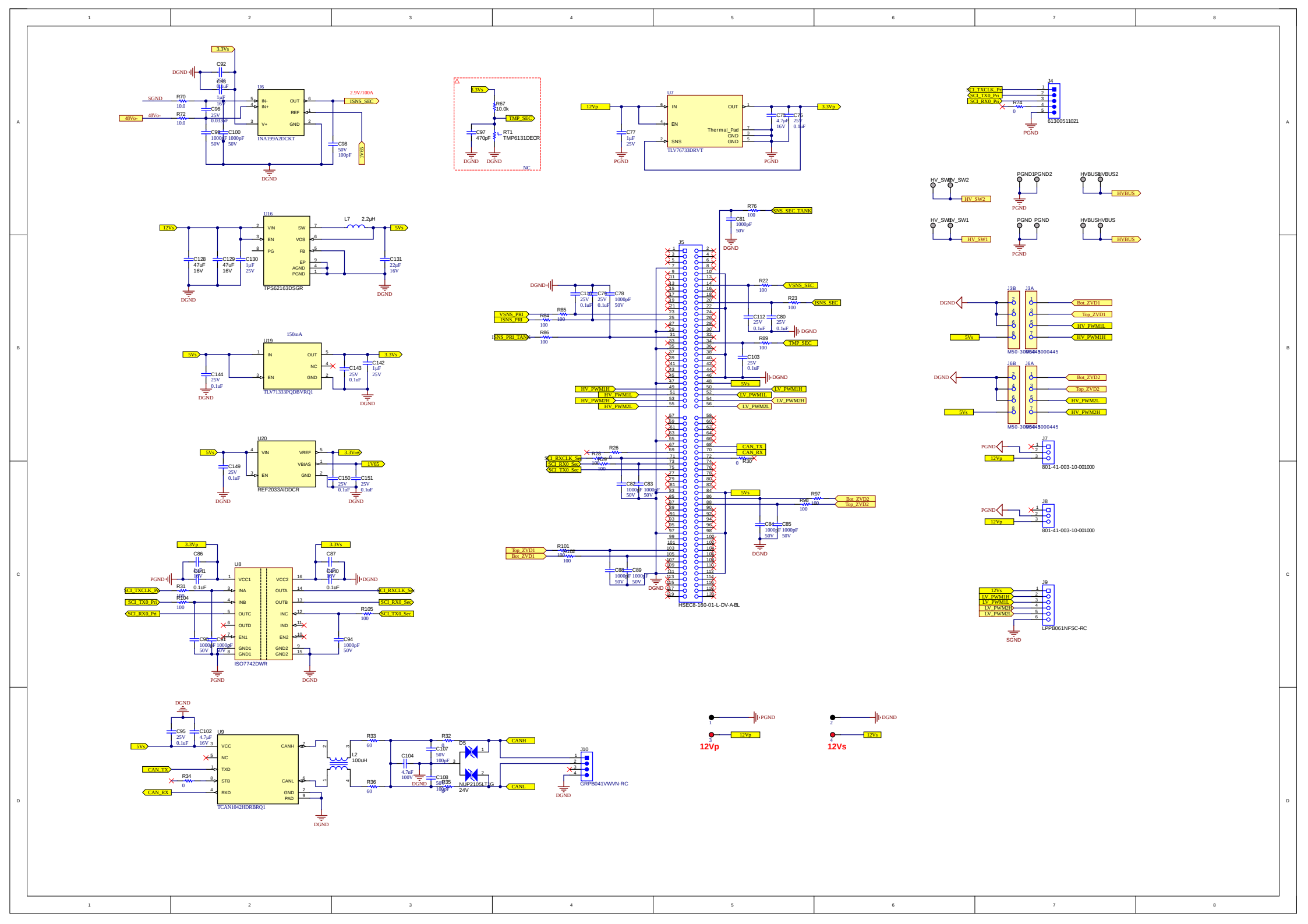
3.3Vs
DGND
C92
C88
0.1uF
SGND
48Vo-
R70
10.0
R72
10.0
C96
25V
0.033uF
C99
1000pF
50V
C100
1000pF
50V
U6
IN-
IN+
V+
OUT
REF
GND
INA199A2DCKT
2.9V/100A
ISNS_SEC
C98
50V
100pF
1V65
NC
R67
10.0k
TMP_SEC
C97
470pF
RT1
TMP6131DECR
12Vp
U7
IN
EN
SNS
OUT
Thermal_Pad
GND
TLV76733DRVT
C77
1uF
25V
C74
4.7uF
25V
16V
C75
0.1uF
SCI_TXCLK_Pri
SCI_TX0_Pri
SCI_RX0_Pri
R74
0
J4
61300511021
HV_SW2
HV_SW1
PGND1
PGND2
HVBUS1
HVBUS2
HVBUS
U16
12Vs
5Vs
VIN
EN
PG
SW
VOS
FB
EP
AGND
PGND
TPS62163DSGR
L7
2.2µH
C128
47uF
16V
C129
47uF
16V
C130
1µF
25V
C131
22µF
16V
U19
150mA
TLV71333PQDBVRQ1
C144
25V
0.1uF
C143
25V
0.1uF
C142
1µF
25V
3.3Vs
U20
VIN
EN
VREF
VBIAS
GND
REF2033AIDDCR
3.3Vref
1V65
C149
25V
0.1uF
C150
25V
0.1uF
C151
25V
0.1uF
R76
100
C81
1000pF
50V
J5
HSEC8-160-01-L-DV-A-BL
VSNS_SEC_TANK
VSNS_PRI
ISNS_PRI
ISNS_PRI_TANK
R85
100
R84
100
R86
100
C110
25V
0.1uF
C79
25V
0.1uF
C78
1000pF
50V
R22
100
VSNS_SEC
R23
100
ISNS_SEC
C112
25V
0.1uF
C80
25V
0.1uF
R89
100
TMP_SEC
C103
25V
0.1uF
HV_PWM1H
HV_PWM1L
HV_PWM2H
HV_PWM2L
LV_PWM1H
LV_PWM1L
LV_PWM2H
LV_PWM2L
CAN_TX
CAN_RX
R30
0
SCI_RXCLK_Sec
SCI_RX0_Sec
SCI_TX0_Sec
R28
0
R29
100
R26
0
C82
1000pF
50V
C83
1000pF
50V
R97
100
R98
100
Bot_ZVD2
Top_ZVD2
C84
1000pF
50V
C85
1000pF
50V
R101
100
R102
100
Top_ZVD1
Bot_ZVD1
C88
1000pF
50V
C89
1000pF
50V
J3B
J3A
M50-3060545
M50-3000445
Bot_ZVD1
Top_ZVD1
HV_PWM1L
HV_PWM1H
J6B
J6A
Bot_ZVD2
Top_ZVD2
HV_PWM2L
HV_PWM2H
J7
801-41-003-10-001000
J8
J9
12Vs
LV_PWM1H
LV_PWM1L
LV_PWM2H
LV_PWM2L
LPPB061NFSC-RC
SGND
U8
VCC1
VCC2
INA
INB
OUTC
OUTD
EN1
GND1
GND2
OUTA
OUTB
INC
IND
EN2
ISO7742DWR
C86
C87
C91
C90
C94
R31
R32
R104
R105
SCI_RXCLK_Sec
SCI_TX0_Pri
SCI_RX0_Pri
SCI_RX0_Sec
SCI_TX0_Sec
U9
VCC
NC
TXD
STB
RXD
CANH
CANL
GND
PAD
TCAN1042HDRBRQ1
C95
C102
4.7µF
16V
R34
0
R33
60
R36
60
L2
100uH
C107
50V
100pF
C108
50V
100pF
C104
4.7nF
100V
R32
0
R35
0
D5
NUP2105LT1G
24V
CANH
CANL
J10
GRPB041VWVN-RC
12Vp
12Vs