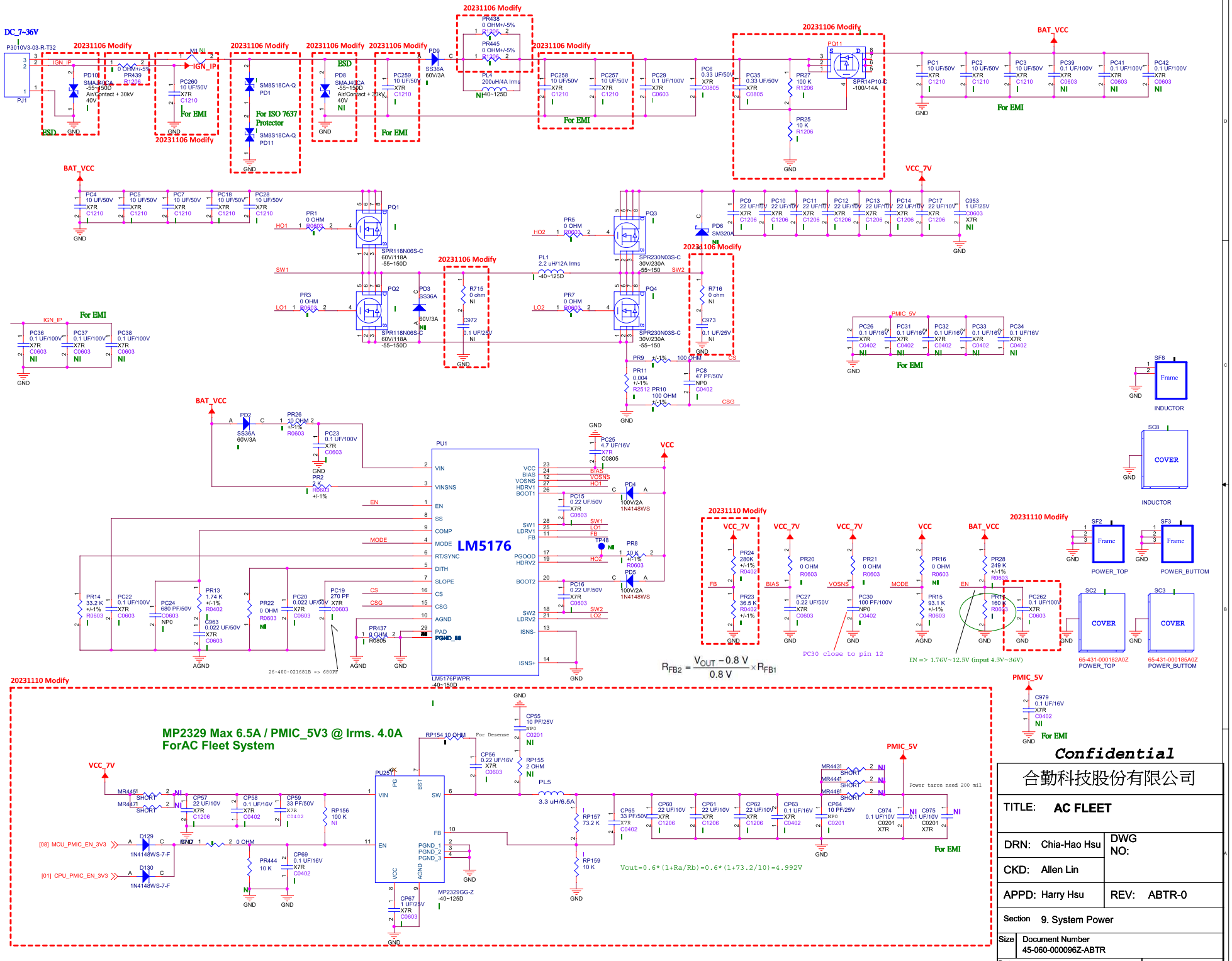
DC_7~36V
P3010V3-03-R-T32
PJ1
20231106 Modify
IGN_IP
PD10
SMAJ40CA
-55~150D
Air/Contact + 30kV
40V
ESD
PR439
0 OHM+/-5%
R1206
M1 NI
PC260
10 UF/50V
X7R
C1210
For EMI
SM8S18CA-Q
PD1
For ISO 7637
Protector
SM8S18CA-Q
PD11
PD8
SMAJ40CA
-55~150D
Air/Contact + 30kV
40V
NI
PC259
10 UF/50V
X7R
C1210
PD9
SS36A
60V/3A
PR438
0 OHM+/-5%
R1206
PR445
0 OHM+/-5%
R1206
PL4
200uH/4A Irms
NI
-40~125D
PC258
10 UF/50V
X7R
C1210
PC257
10 UF/50V
X7R
C1210
PC29
0.1 UF/100V
X7R
C0603
PC6
0.33 UF/50V
X7R
C0805
PC35
0.33 UF/50V
X7R
C0805
PR27
100 K
R1206
PQ11
SPR14P10-C
-100/-14A
PR25
10 K
R1206
BAT_VCC
PC1
10 UF/50V
X7R
C1210
PC2
10 UF/50V
X7R
C1210
PC3
10 UF/50V
X7R
C1210
PC39
0.1 UF/100V
X7R
C0603
PC41
0.1 UF/100V
X7R
C0603
PC42
0.1 UF/100V
X7R
C0603
GND
VCC_7V
PC4
10 UF/50V
X7R
C1210
PC5
10 UF/50V
X7R
C1210
PC7
10 UF/50V
X7R
C1210
PC18
10 UF/50V
X7R
C1210
PC28
10 UF/50V
X7R
C1210
PR1
0 OHM
R0603
HO1
PQ1
SPR118N06S-C
60V/118A
-55~150D
SW1
PR3
0 OHM
R0603
LO1
PQ2
PD3
SS36A
60V/3A
NI
R715
0 ohm
NI
C972
0.1 UF/25V
NI
PL1
2.2 uH/12A Irms
-40~125D
PR5
0 OHM
R0603
HO2
PQ3
SPR230N03S-C
30V/230A
-55~150
SW2
PR7
0 OHM
R0603
LO2
PQ4
SPR230N03S-C
30V/230A
-55~150
PD6
SM320A
NI
R716
0 ohm
NI
C973
0.1 UF/25V
NI
PC9
22 UF/10V
X7R
C1206
PC10
22 UF/10V
X7R
C1206
PC11
22 UF/10V
X7R
C1206
PC12
22 UF/10V
X7R
C1206
PC13
22 UF/10V
X7R
C1206
PC14
22 UF/10V
X7R
C1206
PC17
22 UF/10V
X7R
C1206
C953
1 UF/25V
C0603
X7R
NI
PC36
0.1 UF/100V
X7R
C0603
NI
PC37
0.1 UF/100V
X7R
C0603
NI
PC38
0.1 UF/100V
X7R
C0603
NI
PMIC_5V
PC26
0.1 UF/16V
X7R
C0402
NI
PC31
0.1 UF/16V
X7R
C0402
NI
PC32
0.1 UF/16V
X7R
C0402
NI
PC33
0.1 UF/16V
X7R
C0402
NI
PC34
0.1 UF/16V
X7R
C0402
NI
PR9
+/-1%
100 OHM
CS
PR11
0.004
+/-1%
R2512
PR10
100 OHM
+/-1%
PC8
47 PF/50V
NP0
C0402
CSG
SF8
Frame
INDUCTOR
SC8
COVER
INDUCTOR
PD2
SS36A
60V/3A
PR26
10 OHM
+/-1%
R0603
PC23
0.1 UF/100V
X7R
C0603
PR2
2 K
R0603
+/-1%
PU1
LM5176
LM5176PWPR
-40~150D
VIN
VINSNS
EN
SS
COMP
MODE
RT/SYNC
DITH
SLOPE
CS
CSG
AGND
PAD
PGND_EB
VCC
BIAS
VOSNS
HDRV1
BOOT1
SW1
LDRV1
FB
PGOOD
HDRV2
BOOT2
SW2
LDRV2
ISNS-
ISNS+
PC25
4.7 UF/16V
X7R
C0805
PD4
1N4148WS
100V/2A
PC15
0.22 UF/50V
X7R
C0603
TP48
NI
PR8
10 K
+/-1%
R0603
PD5
1N4148WS
100V/2A
PC16
0.22 UF/50V
X7R
C0603
PR14
33.2 K
+/-1%
R0603
PC22
0.1 UF/100V
X7R
C0603
PC24
680 PF/50V
C0603
NP0
PR13
1.74 K
+/-1%
R0402
C963
0.022 UF/50V
X7R
C0603
PR22
0 OHM
R0603
NI
PC20
0.022 UF/50V
X7R
C0603
PC19
270 PF
X7R
C0603
26-400-021681B => 680PF
PR437
0 OHM
R0603
20231110 Modify
VCC_7V
PR24
280K
+/-1%
R0402
PR23
36.5 K
R0402
+/-1%
FB
PR20
0 OHM
R0603
BIAS
PC27
0.22 UF/50V
X7R
C0603
PR21
0 OHM
R0603
VOSNS
PC30
100 PF/100V
NP0
C0402
PC30 close to pin 12
VCC
PR16
0 OHM
R0603
NI
PR15
93.1 K
R0603
MODE
BAT_VCC
PR28
249 K
+/-1%
R0603
EN
PR19
160 K
R0603
PC262
0.1 UF/100V
X7R
C0603
EN => 1.76V~12.5V (input 4.5V~36V)
SF2
Frame
POWER_TOP
SF3
Frame
POWER_BUTTOM
SC2
COVER
65-431-000182A0Z
POWER_TOP
SC3
COVER
65-431-0001185A0Z
POWER_BUTTOM
$R_{FB2} = \frac{V_{OUT} - 0.8\ V}{0.8\ V} \times R_{FB1}$
20231110 Modify
MP2329 Max 6.5A / PMIC_5V3 @ Irms. 4.0A
ForAC Fleet System
VCC_7V
MR4451
SHORT
MR4471
SHORT
CP57
22 UF/10V
X7R
C1206
CP58
0.1 UF/16V
X7R
C0402
CP59
33 PF/50V
X7R
C0402
RP156
100 K
NI
[08] MCU_PMIC_EN_3V3
[01] CPU_PMIC_EN_3V3
D129
1N4148WS-7-F
D130
1N4148WS-7-F
0 OHM
RP444
10 K
CP69
0.1 UF/16V
X7R
C0402
PU29
MP2329GG-Z
-40~125D
VIN
PG
BST
SW
FB
EN
VCC
AGND
PGND_1
PGND_2
PGND_3
CP67
1 UF/25V
X7R
C0603
RP154 10 OHM
For Desense
CP55
10 PF/25V
NP0
C0201
NI
CP56
0.22 UF/16V
X7R
C0603
RP155
2 OHM
NI
PL5
3.3 uH/6.5A
RP157
73.2 K
RP159
10 K
CP65
33 PF/50V
X7R
C0402
CP60
22 UF/10V
X7R
C1206
CP61
22 UF/10V
X7R
C1206
CP62
22 UF/10V
X7R
C1206
CP63
0.1 UF/16V
X7R
C0402
CP64
10 PF/25V
NP0
C0201
MR4431
SHORT
MR4441
SHORT
MR4461
SHORT
Power tarce need 200 mil
PMIC_5V
C974
0.1 UF/10V
C0201
X7R
C975
0.1 UF/10V
C0201
X7R
Vout=0.6*(1+Ra/Rb)=0.6*(1+73.2/10)=4.992V
C979
0.1 UF/16V
X7R
C0402
NI
For EMI
Confidential
合勤科技股份有限公司
TITLE: AC FLEET
DRN: Chia-Hao Hsu
DWG NO:
CKD: Allen Lin
APPD: Harry Hsu
REV: ABTR-0
Section 9. System Power
Size
Document Number
45-060-000096Z-ABTR
Date: Tuesday, November 14, 2023
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