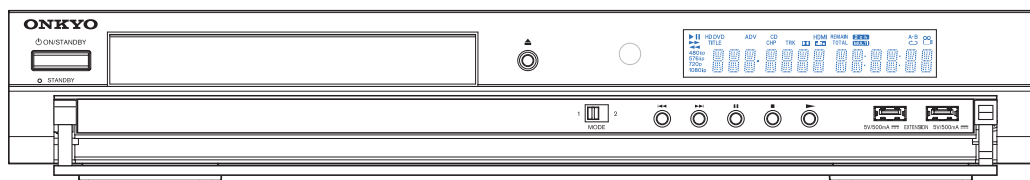


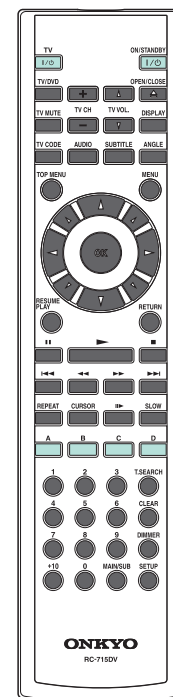
ONKYO SERVICE MANUAL

HD DVD PLAYER MODEL DX-HD805




Black models

| | |
|------|----------------------|
| BCDD | 120V AC, 60Hz |
| BCMP | 220-240V AC, 50/60Hz |



RC-715DV

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

BLOCK DIAGRAM

1

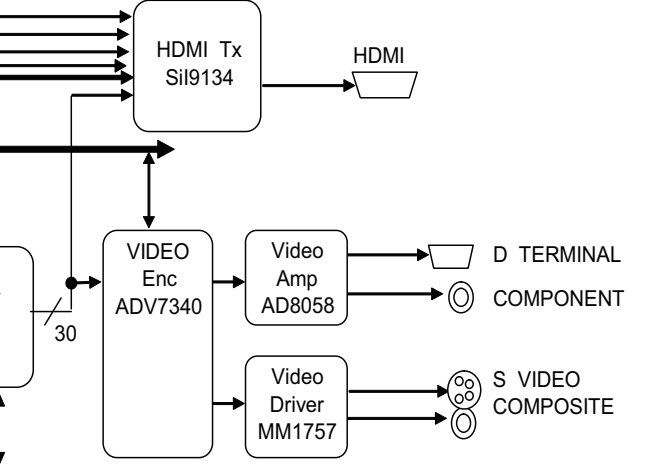
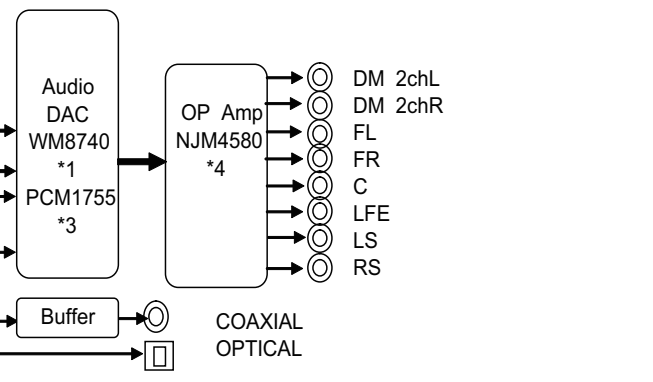
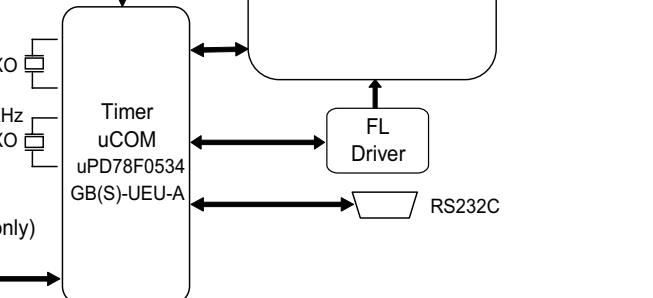
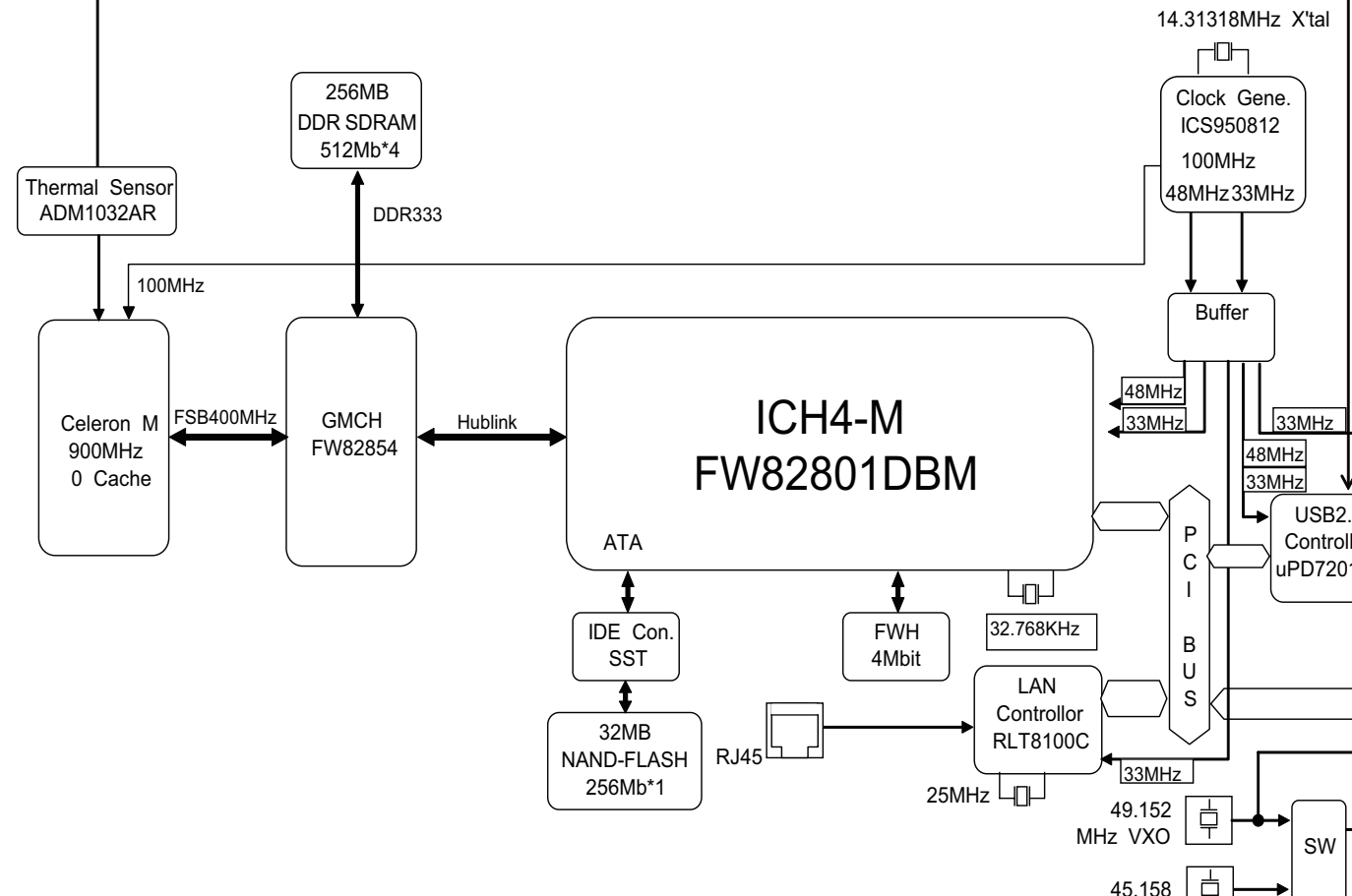
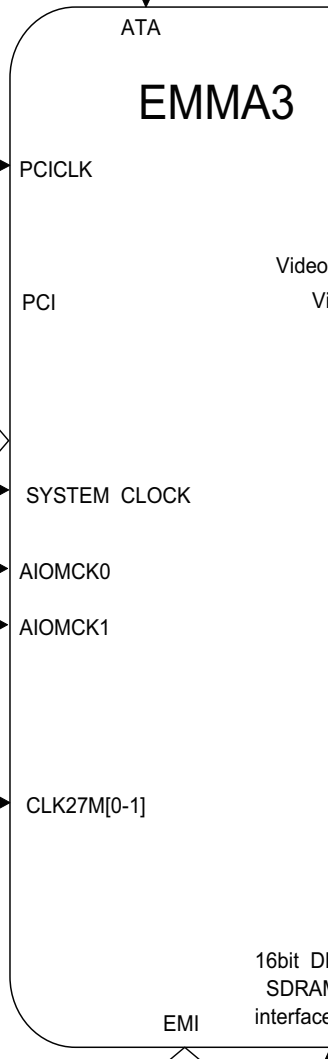
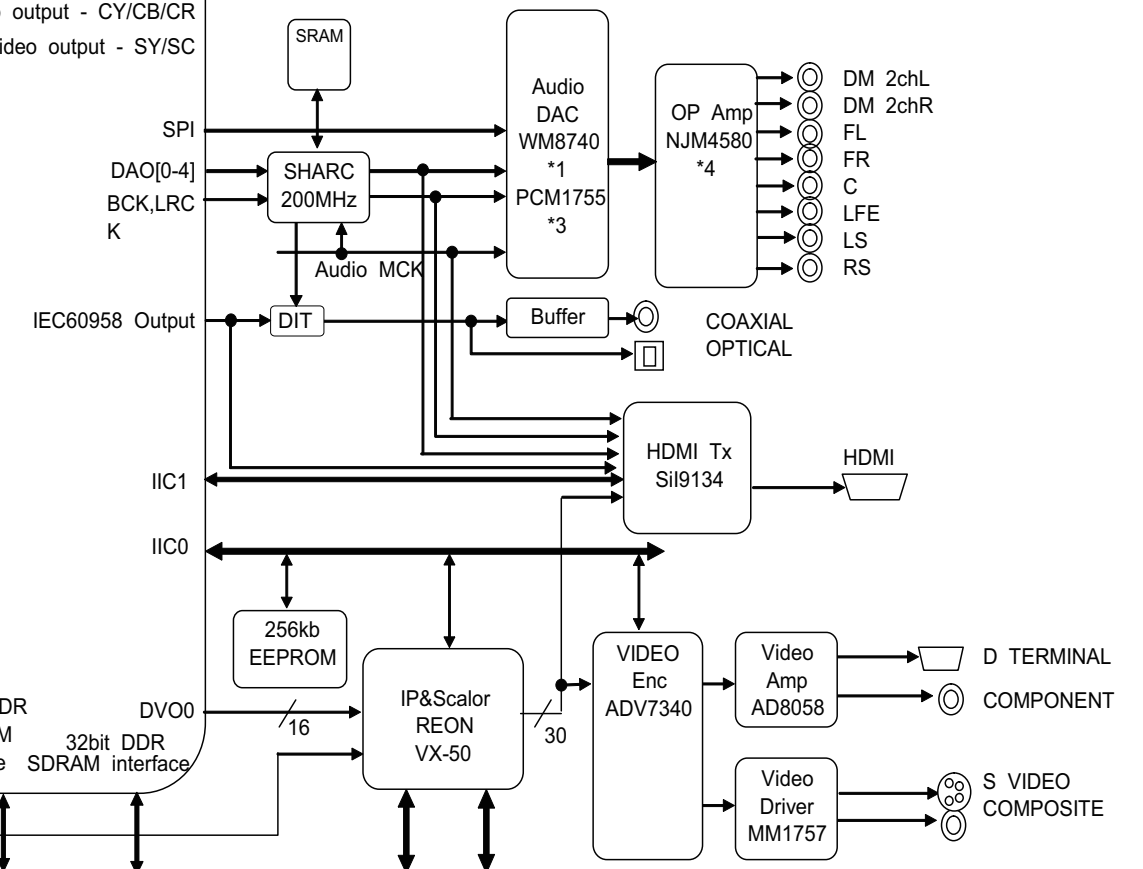
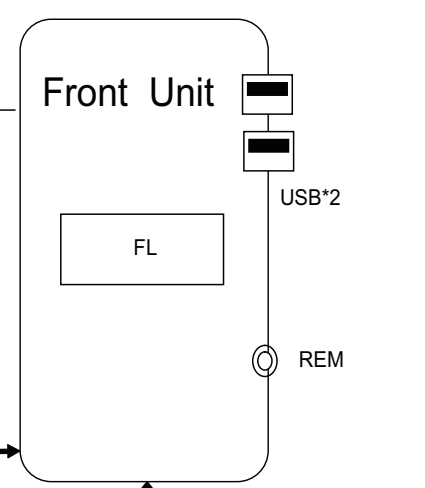
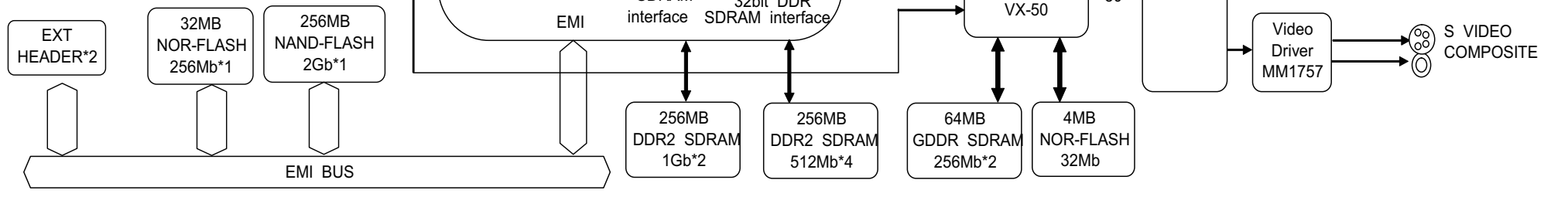
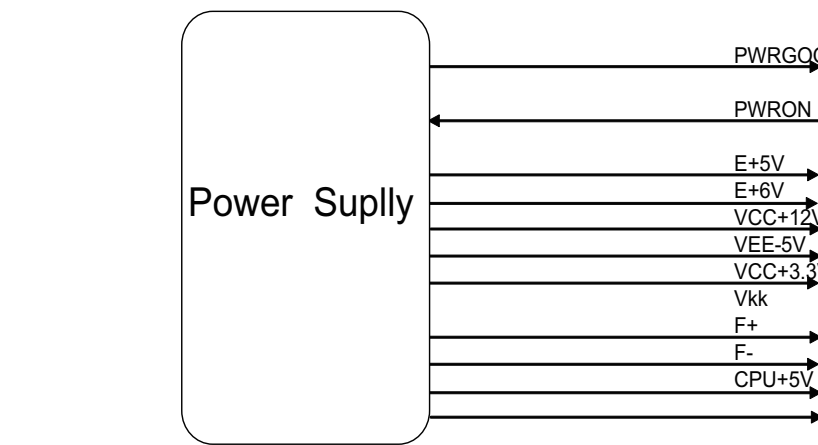
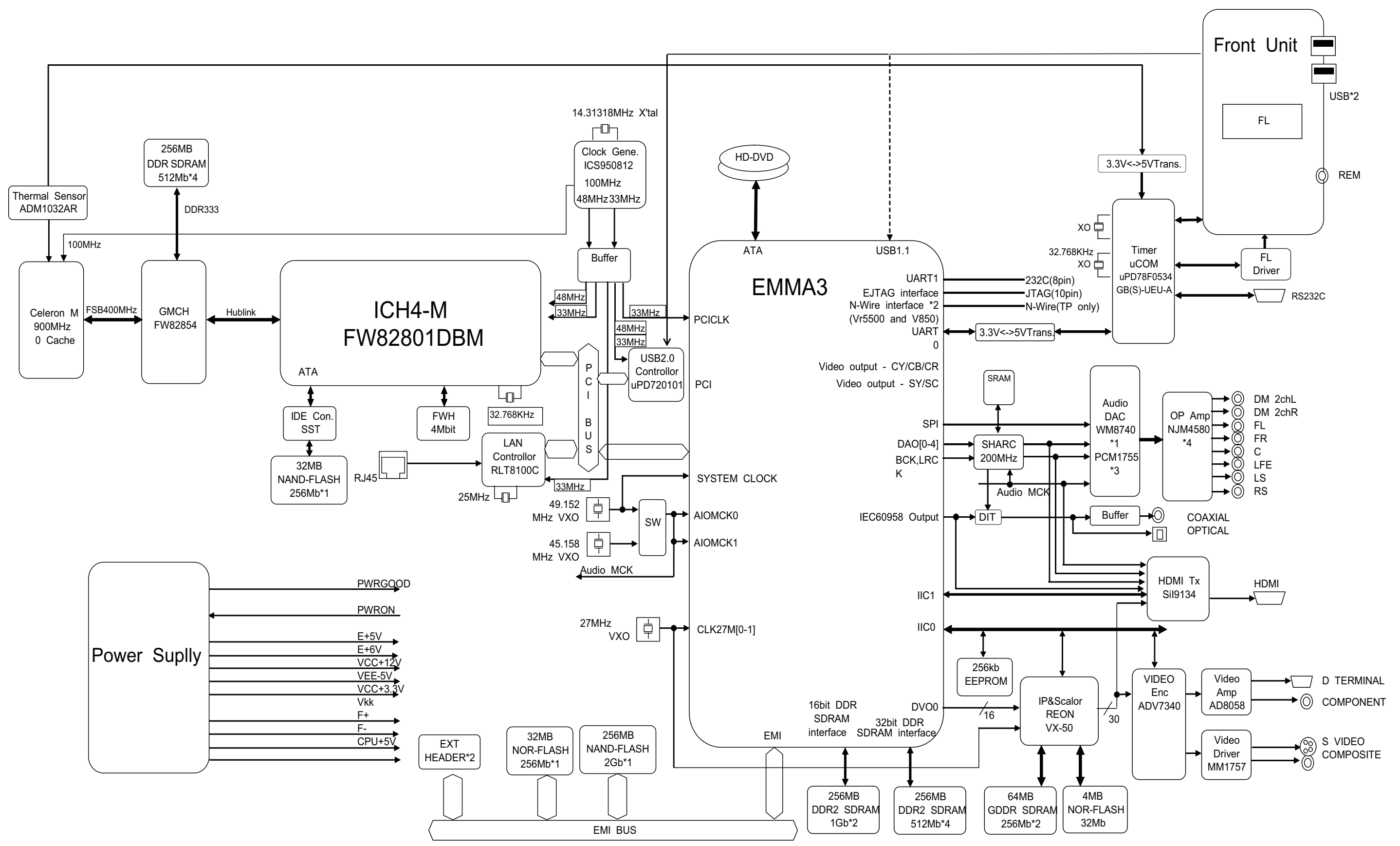
2

3

4

5

A B C D E F G H



WIRERING CONNECTION DIAGRAM

1
2
3
4
5

A

B

C

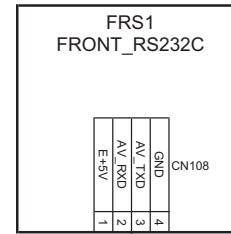
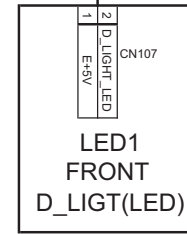
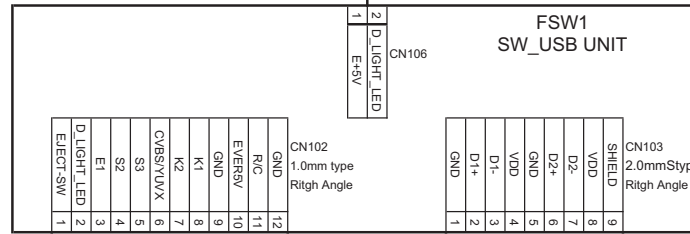
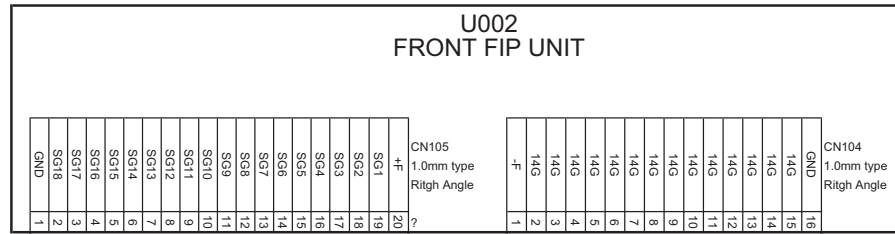
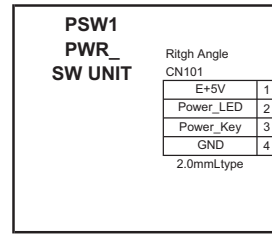
D

E

F

G

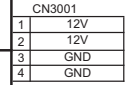
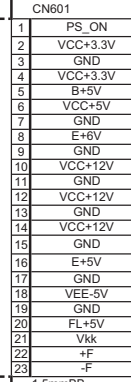
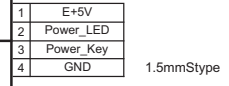
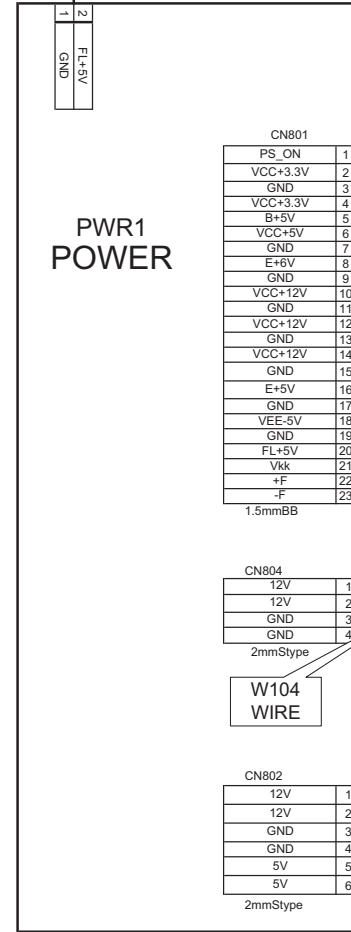
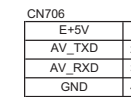
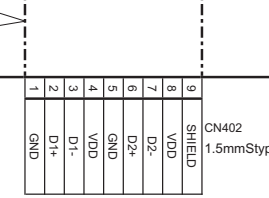
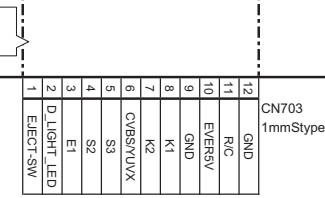
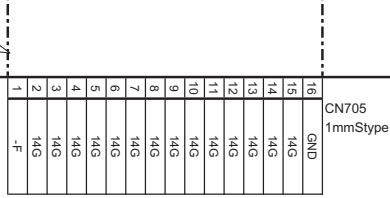
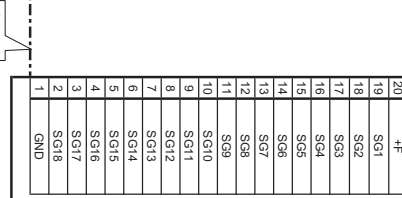
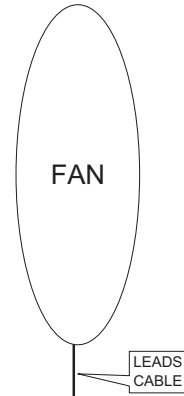
H



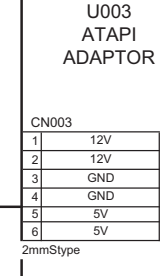
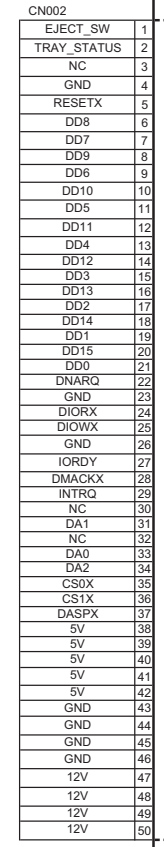
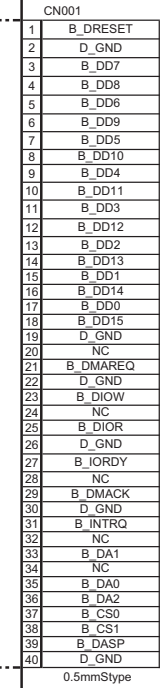
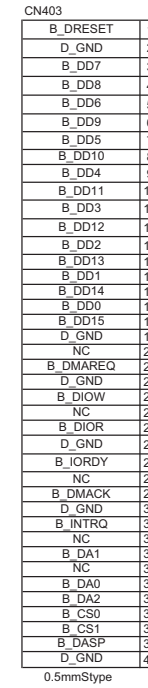
memo

| | | |
|----------|----|------|
| W001 FFC | 12 | L110 |
| W002 FFC | 20 | L110 |
| W003 FFC | 16 | L110 |
| W004 FFC | 40 | L250 |
| W005 FFC | 40 | L70 |

| | | |
|-----------|----|------------|
| W101 WIRE | 09 | L300 AWG28 |
| W102 WIRE | 06 | L100 AWG26 |
| W103 WIRE | 04 | L380 AWG28 |
| W104 WIRE | 04 | L260 AWG26 |
| W105 WIRE | 04 | L190 AWG26 |
| W106 WIRE | 02 | L50 AWG26 |



**U001
MAIN**



SCHEMATIC DIAGRAM-1 POWER SUPPLY SECTION

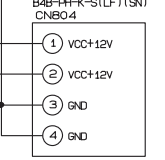
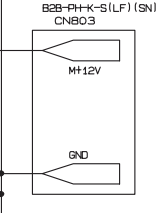
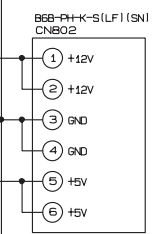
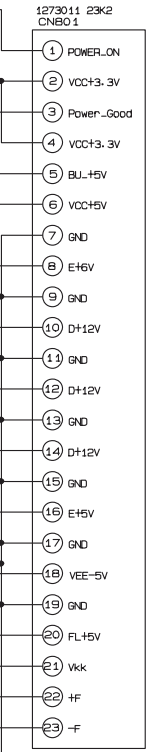
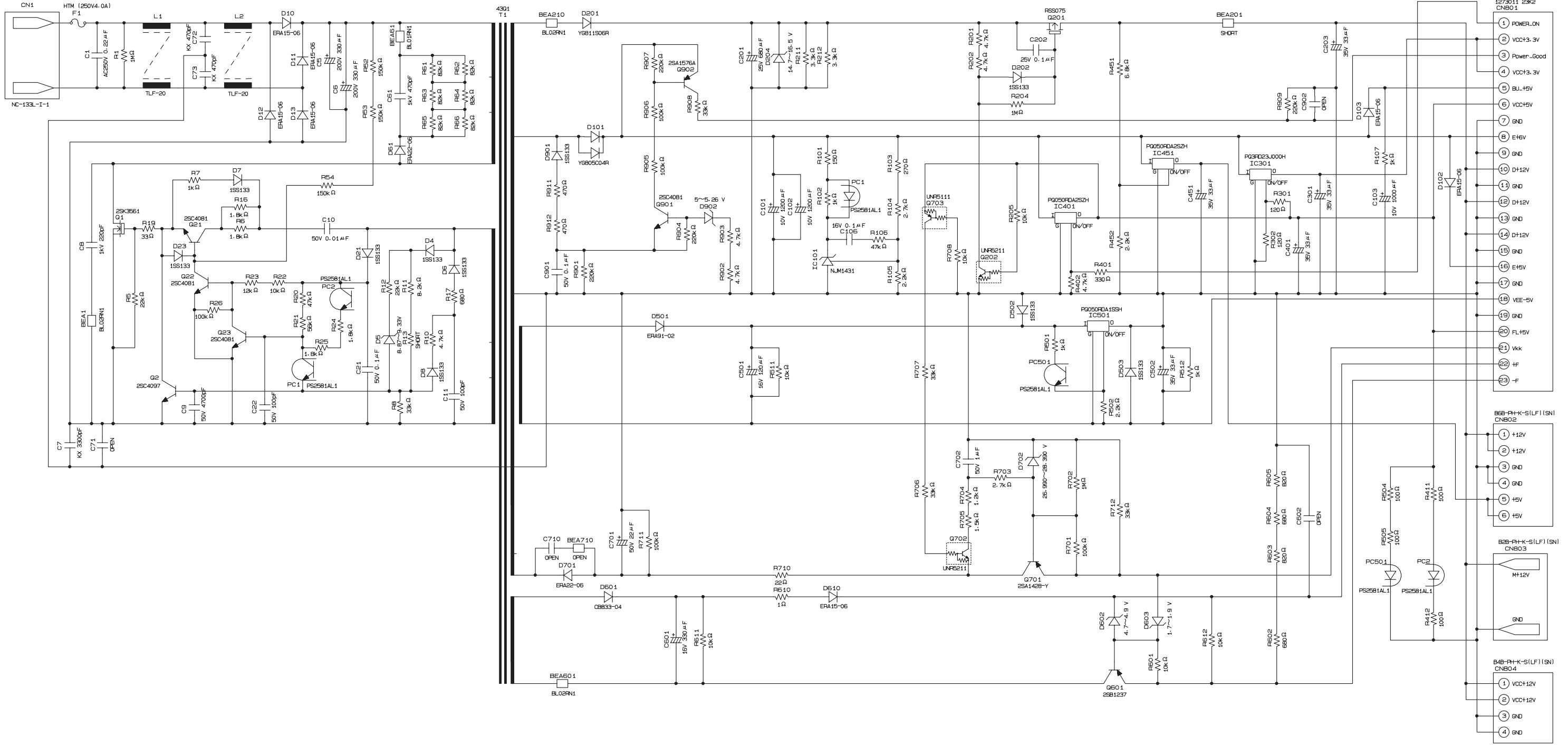
1

2

3

4

5



A

B

C

D

SCHEMATIC DIAGRAM-2 DISPLAY CIRCUIT SECTION

1

2

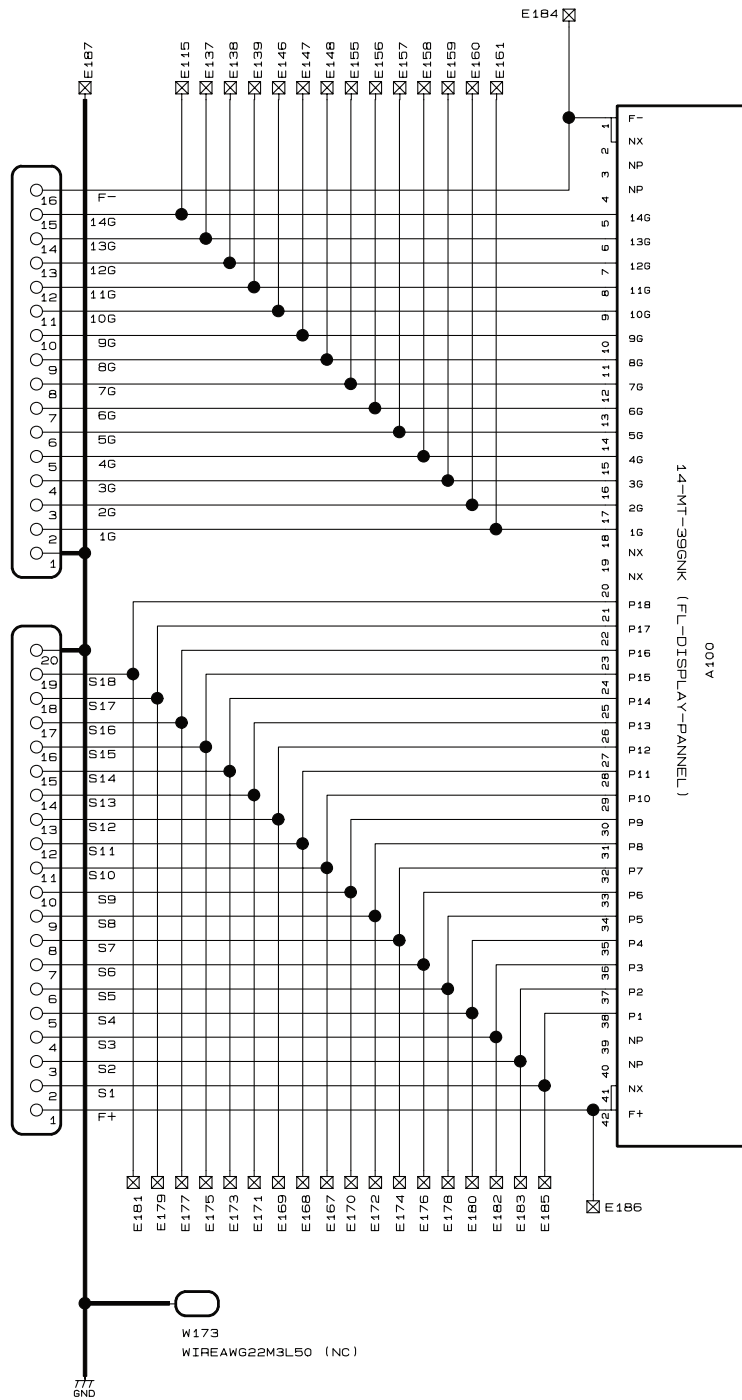
3

4

5

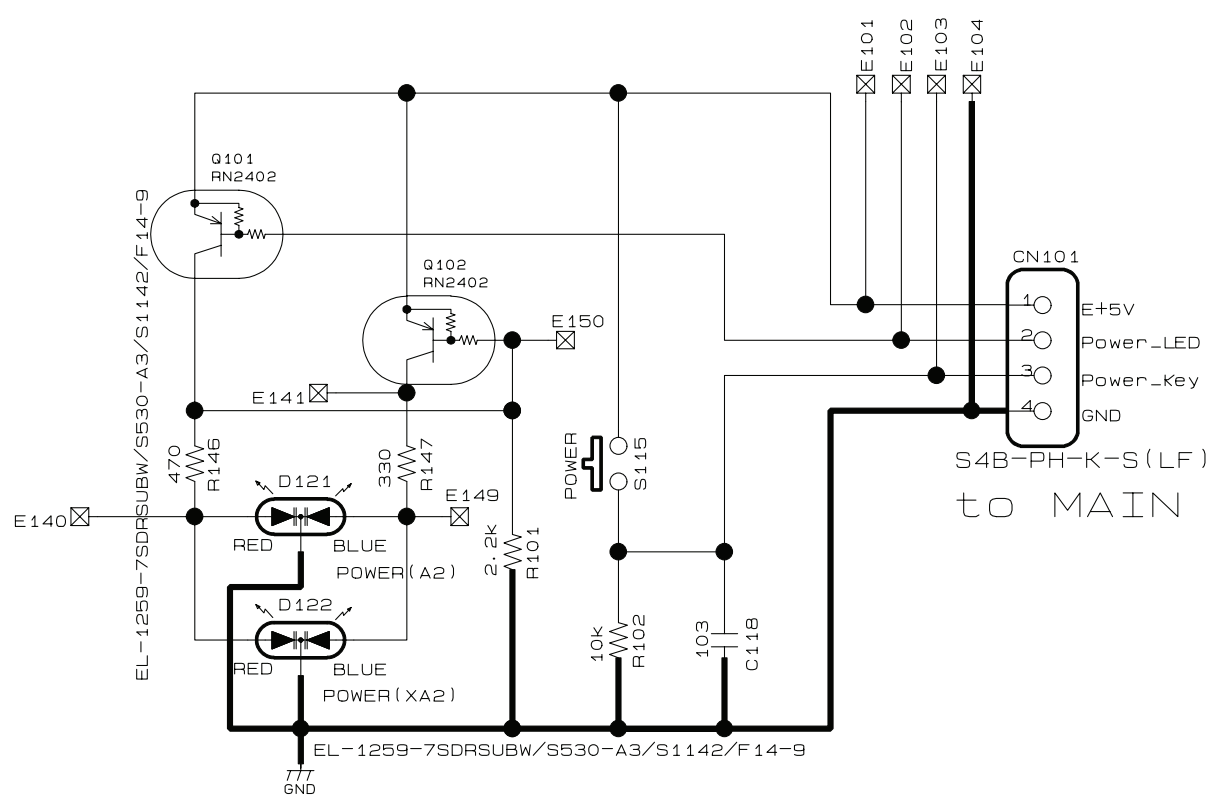
52807-1610
CN104
to MAIN

52807-2010
CN105
to MAIN



SCHEMATIC DIAGRAM-3 POWER SWITCH SECTION

1
2
3
4
5



| | |
|------|---|
| D121 | × |
| D122 | ○ |

SCHEMATIC DIAGRAM-4 FRONT SWITCH/ USB SECTION

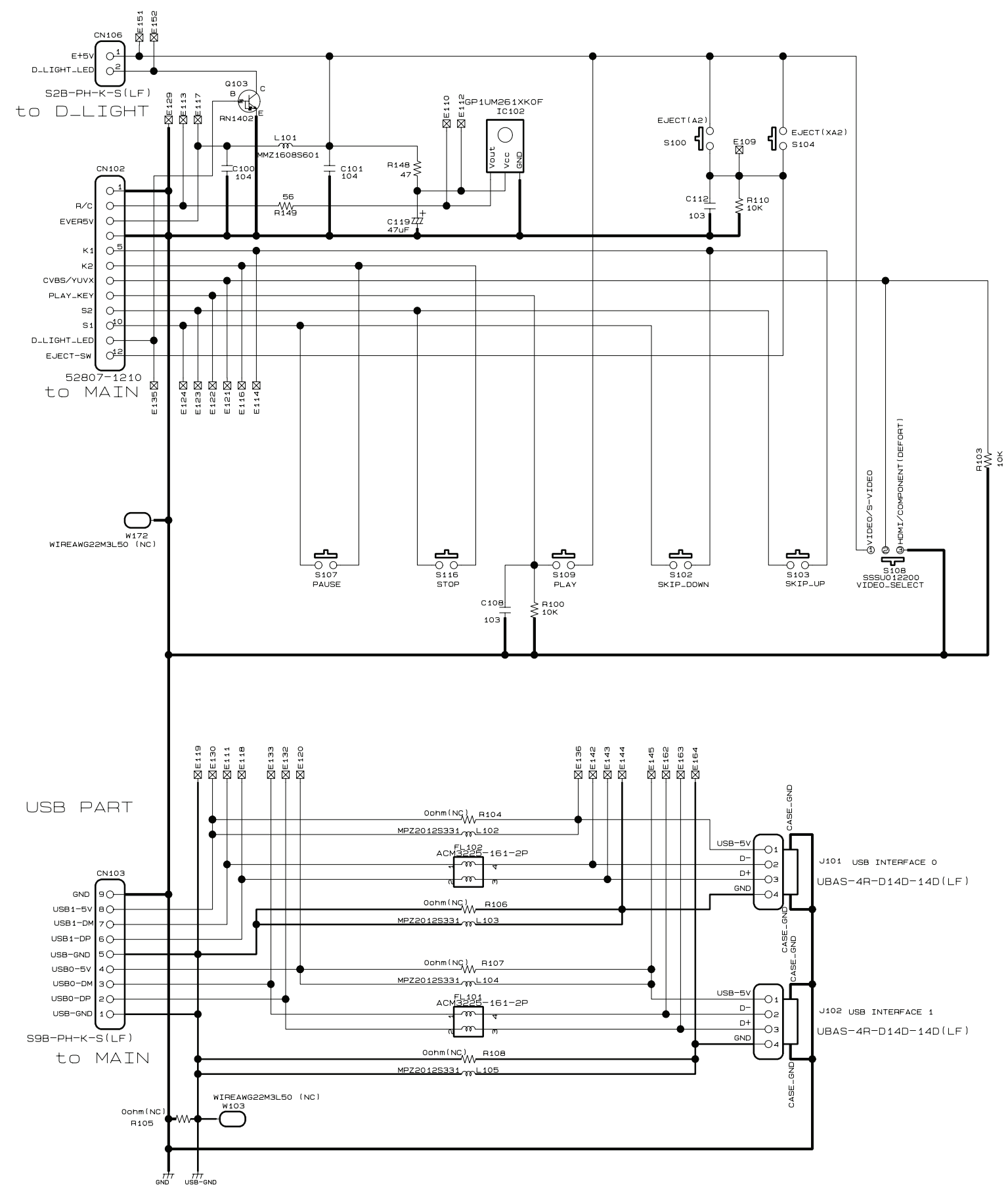
1

2

3

4

5



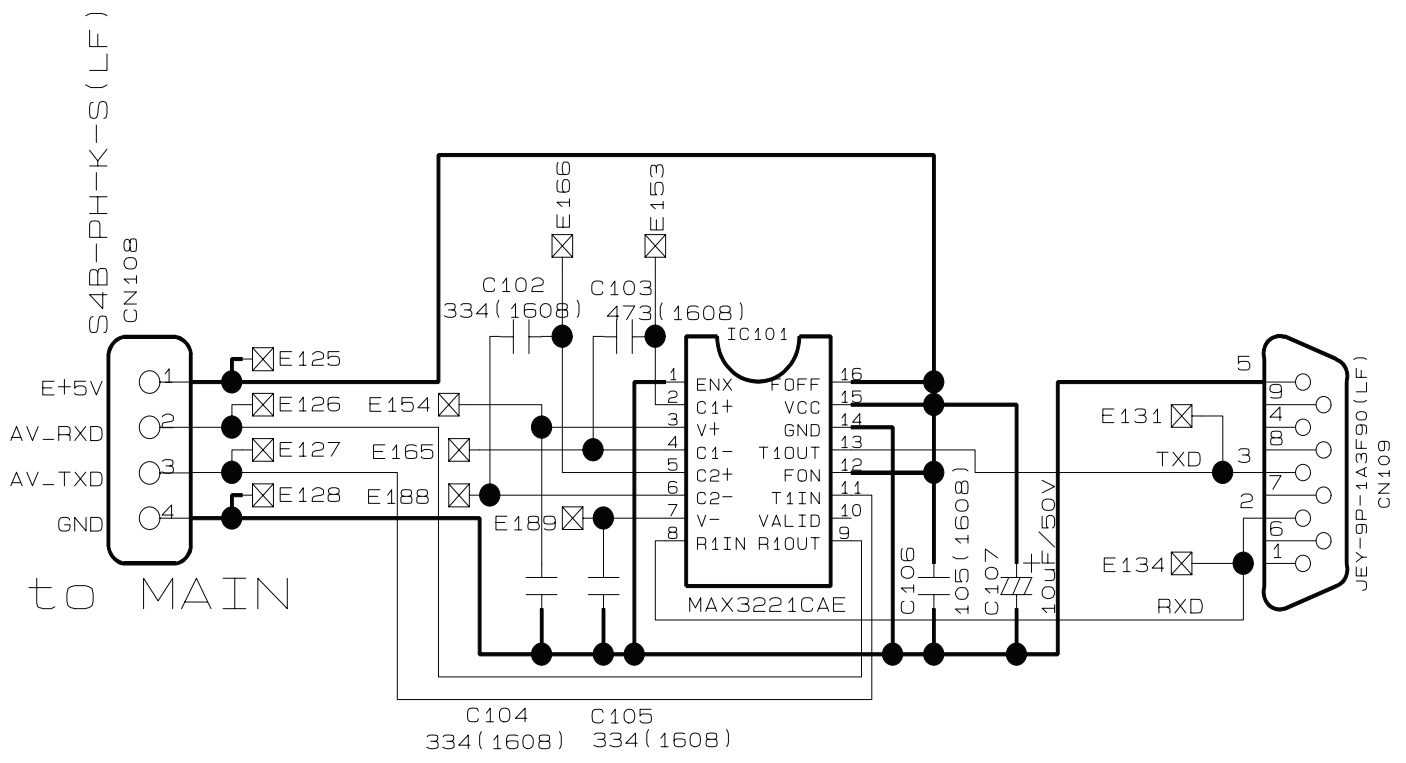
| | |
|-------|---|
| S100 | × |
| S104 | ○ |
| S108 | ○ |
| CN106 | ○ |
| R100 | ○ |
| C108 | ○ |

A B C D

SCHEMATIC DIAGRAM-5

RS-232C SECTION

1
2
3
4
5



A

B

C

D

SCHEMATIC DIAGRAM-6

ATAPI SECTION

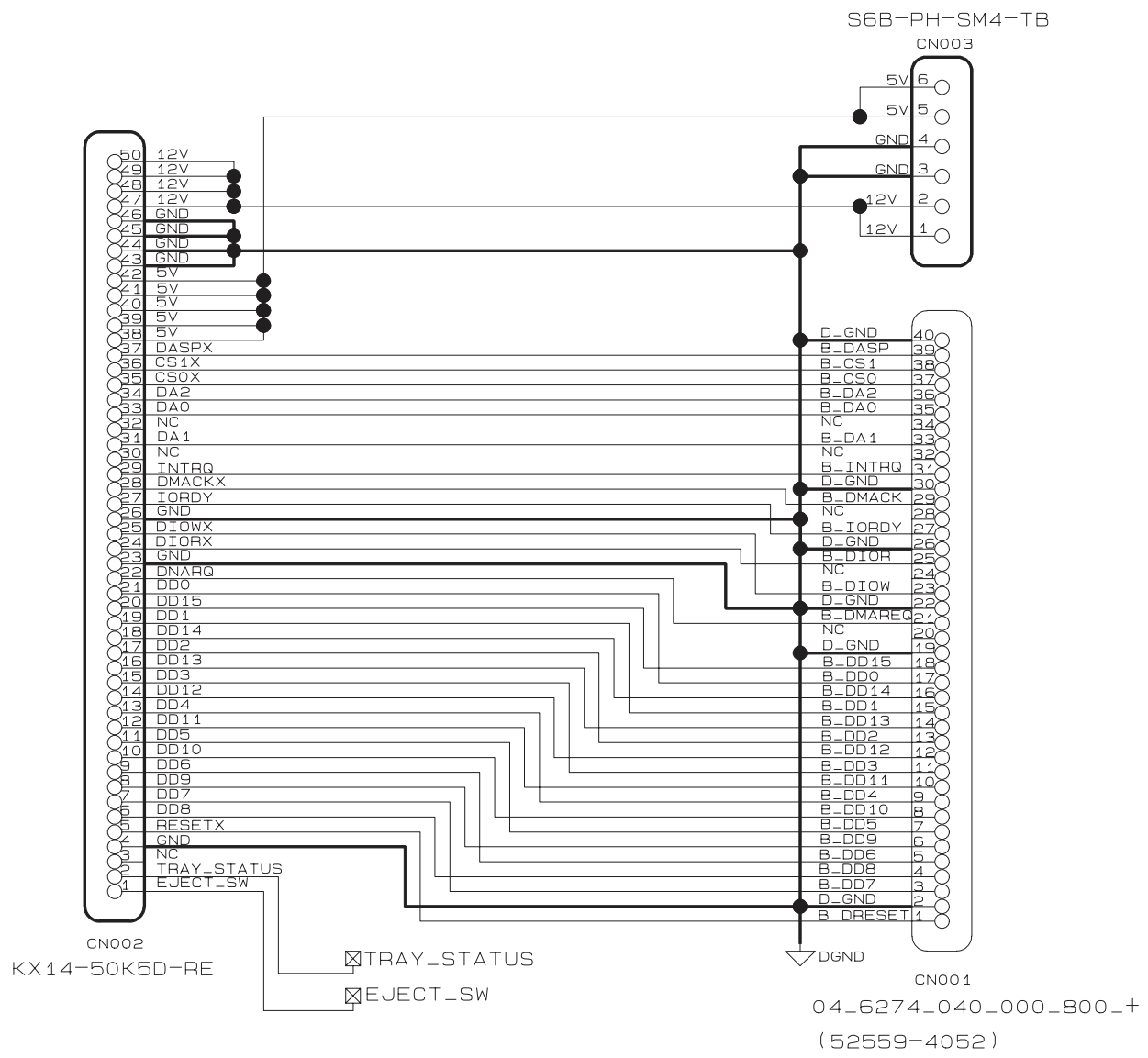
1

2

3

4

5



SCHEMATIC DIAGRAM-7
PC MAIN-1

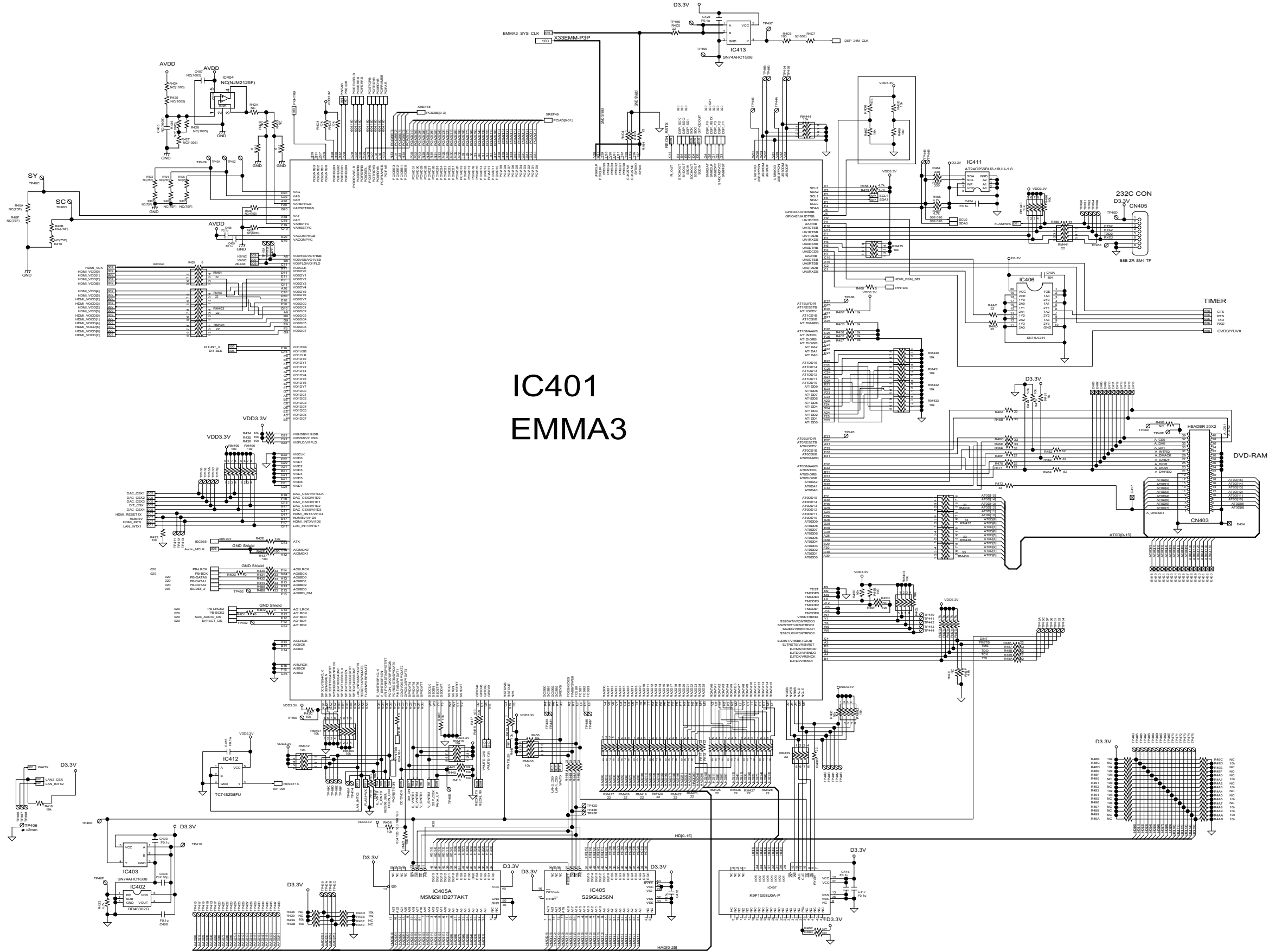
1

2

3

4

5



IC401
EMMA3

| | | | | |
|------|-------|-------|-------|-------|
| TYPE | 03043 | 03044 | 03045 | 03046 |
| A1 | 03 | 04 | 05 | 06 |
| A2 | 07 | 08 | 09 | 10 |
| A3 | 11 | 12 | 13 | 14 |
| A4 | 15 | 16 | 17 | 18 |
| A5 | 19 | 20 | 21 | 22 |
| A6 | 23 | 24 | 25 | 26 |
| A7 | 27 | 28 | 29 | 30 |
| A8 | 31 | 32 | 33 | 34 |
| A9 | 35 | 36 | 37 | 38 |
| A10 | 39 | 40 | 41 | 42 |
| A11 | 43 | 44 | 45 | 46 |
| A12 | 47 | 48 | 49 | 50 |
| A13 | 51 | 52 | 53 | 54 |
| A14 | 55 | 56 | 57 | 58 |
| A15 | 59 | 60 | 61 | 62 |
| A16 | 63 | 64 | 65 | 66 |
| A17 | 67 | 68 | 69 | 70 |
| A18 | 71 | 72 | 73 | 74 |
| A19 | 75 | 76 | 77 | 78 |
| A20 | 79 | 80 | 81 | 82 |
| A21 | 83 | 84 | 85 | 86 |
| A22 | 87 | 88 | 89 | 90 |
| A23 | 91 | 92 | 93 | 94 |
| A24 | 95 | 96 | 97 | 98 |
| A25 | 99 | 100 | 101 | 102 |
| A26 | 103 | 104 | 105 | 106 |
| A27 | 107 | 108 | 109 | 110 |
| A28 | 111 | 112 | 113 | 114 |
| A29 | 115 | 116 | 117 | 118 |
| A30 | 119 | 120 | 121 | 122 |
| A31 | 123 | 124 | 125 | 126 |
| A32 | 127 | 128 | 129 | 130 |
| A33 | 131 | 132 | 133 | 134 |
| A34 | 135 | 136 | 137 | 138 |
| A35 | 139 | 140 | 141 | 142 |
| A36 | 143 | 144 | 145 | 146 |
| A37 | 147 | 148 | 149 | 150 |
| A38 | 151 | 152 | 153 | 154 |
| A39 | 155 | 156 | 157 | 158 |
| A40 | 159 | 160 | 161 | 162 |
| A41 | 163 | 164 | 165 | 166 |
| A42 | 167 | 168 | 169 | 170 |
| A43 | 171 | 172 | 173 | 174 |
| A44 | 175 | 176 | 177 | 178 |
| A45 | 179 | 180 | 181 | 182 |
| A46 | 183 | 184 | 185 | 186 |
| A47 | 187 | 188 | 189 | 190 |
| A48 | 191 | 192 | 193 | 194 |
| A49 | 195 | 196 | 197 | 198 |
| A50 | 199 | 200 | 201 | 202 |
| A51 | 203 | 204 | 205 | 206 |
| A52 | 207 | 208 | 209 | 210 |
| A53 | 211 | 212 | 213 | 214 |
| A54 | 215 | 216 | 217 | 218 |
| A55 | 219 | 220 | 221 | 222 |
| A56 | 223 | 224 | 225 | 226 |
| A57 | 227 | 228 | 229 | 230 |
| A58 | 231 | 232 | 233 | 234 |
| A59 | 235 | 236 | 237 | 238 |
| A60 | 239 | 240 | 241 | 242 |
| A61 | 243 | 244 | 245 | 246 |
| A62 | 247 | 248 | 249 | 250 |
| A63 | 251 | 252 | 253 | 254 |
| A64 | 255 | 256 | 257 | 258 |
| A65 | 259 | 260 | 261 | 262 |
| A66 | 263 | 264 | 265 | 266 |
| A67 | 267 | 268 | 269 | 270 |
| A68 | 271 | 272 | 273 | 274 |
| A69 | 275 | 276 | 277 | 278 |
| A70 | 279 | 280 | 281 | 282 |
| A71 | 283 | 284 | 285 | 286 |
| A72 | 287 | 288 | 289 | 290 |
| A73 | 291 | 292 | 293 | 294 |
| A74 | 295 | 296 | 297 | 298 |
| A75 | 299 | 300 | 301 | 302 |
| A76 | 303 | 304 | 305 | 306 |
| A77 | 307 | 308 | 309 | 310 |
| A78 | 311 | 312 | 313 | 314 |
| A79 | 315 | 316 | 317 | 318 |
| A80 | 319 | 320 | 321 | 322 |
| A81 | 323 | 324 | 325 | 326 |
| A82 | 327 | 328 | 329 | 330 |
| A83 | 331 | 332 | 333 | 334 |
| A84 | 335 | 336 | 337 | 338 |
| A85 | 339 | 340 | 341 | 342 |
| A86 | 343 | 344 | 345 | 346 |
| A87 | 347 | 348 | 349 | 350 |
| A88 | 351 | 352 | 353 | 354 |
| A89 | 355 | 356 | 357 | 358 |
| A90 | 359 | 360 | 361 | 362 |
| A91 | 363 | 364 | 365 | 366 |
| A92 | 367 | 368 | 369 | 370 |
| A93 | 371 | 372 | 373 | 374 |
| A94 | 375 | 376 | 377 | 378 |
| A95 | 379 | 380 | 381 | 382 |
| A96 | 383 | 384 | 385 | 386 |
| A97 | 387 | 388 | 389 | 390 |
| A98 | 391 | 392 | 393 | 394 |
| A99 | 395 | 396 | 397 | 398 |
| A100 | 399 | 400 | 401 | 402 |

SCHEMATIC DIAGRAM-8 PC MAIN-2

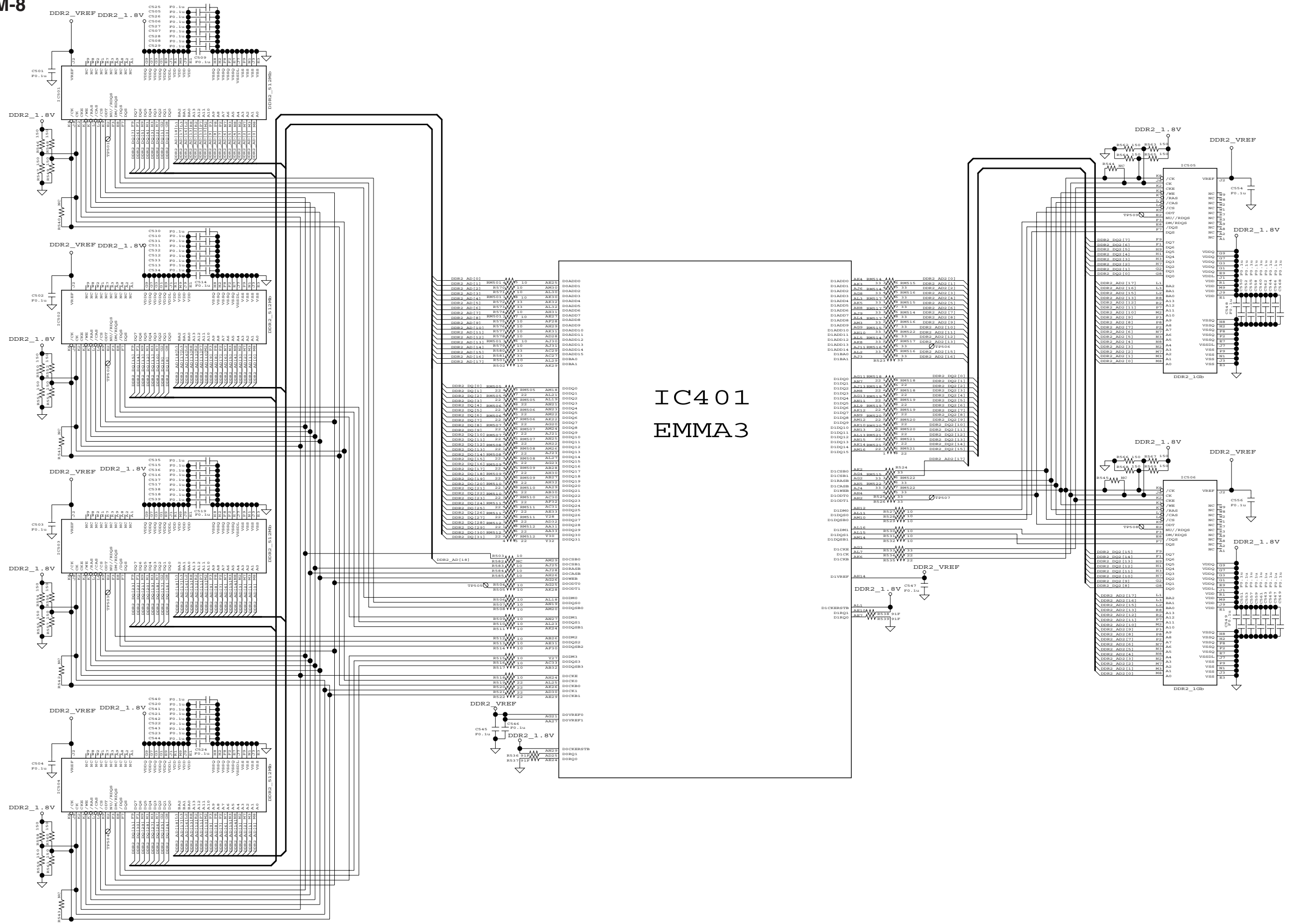
1

2

3

4

5



SCHEMATIC DIAGRAM-9 PC MAIN-3

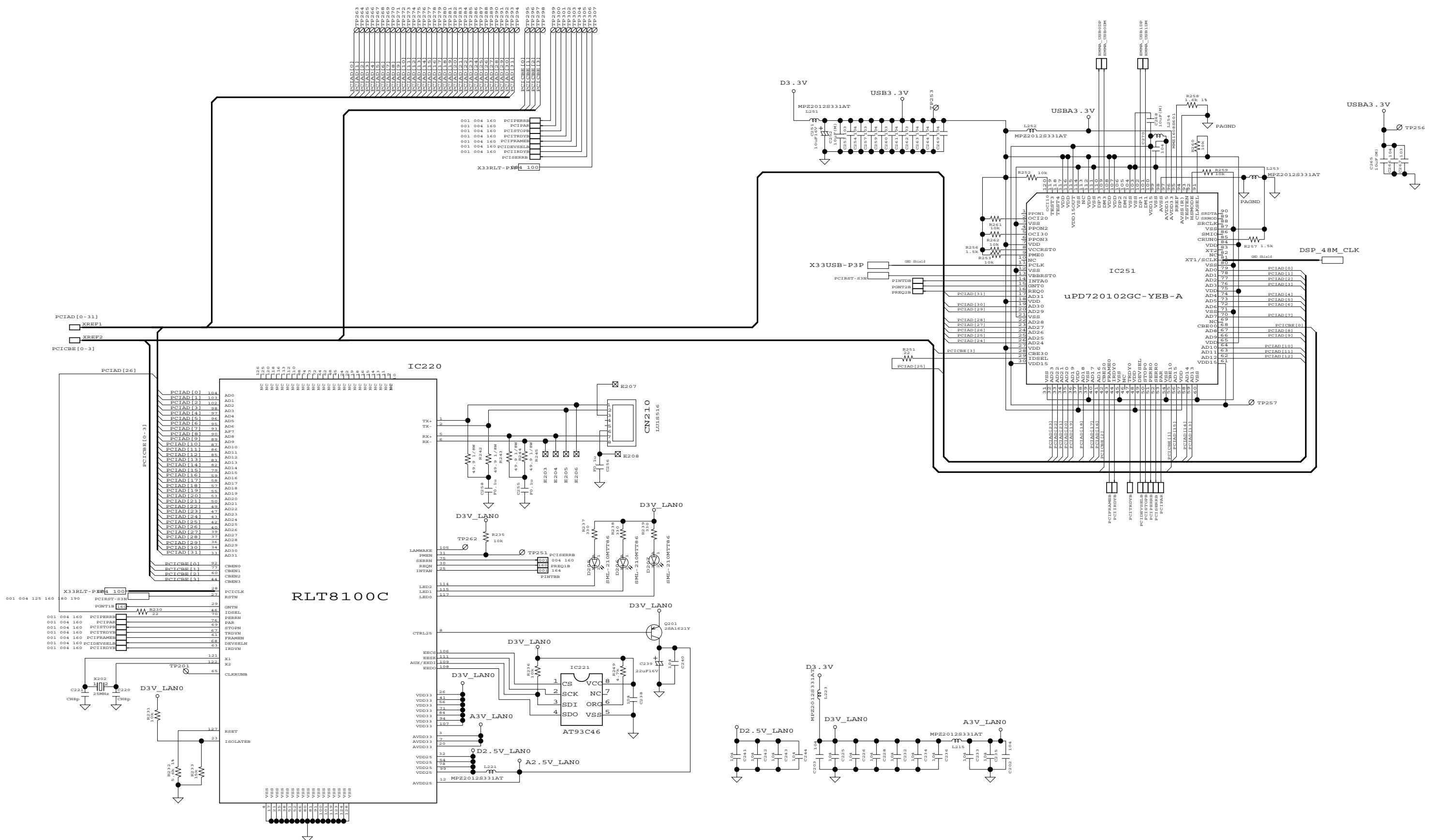
1

2

3

4

5



SCHEMATIC DIAGRAM-10 PC MAIN-4

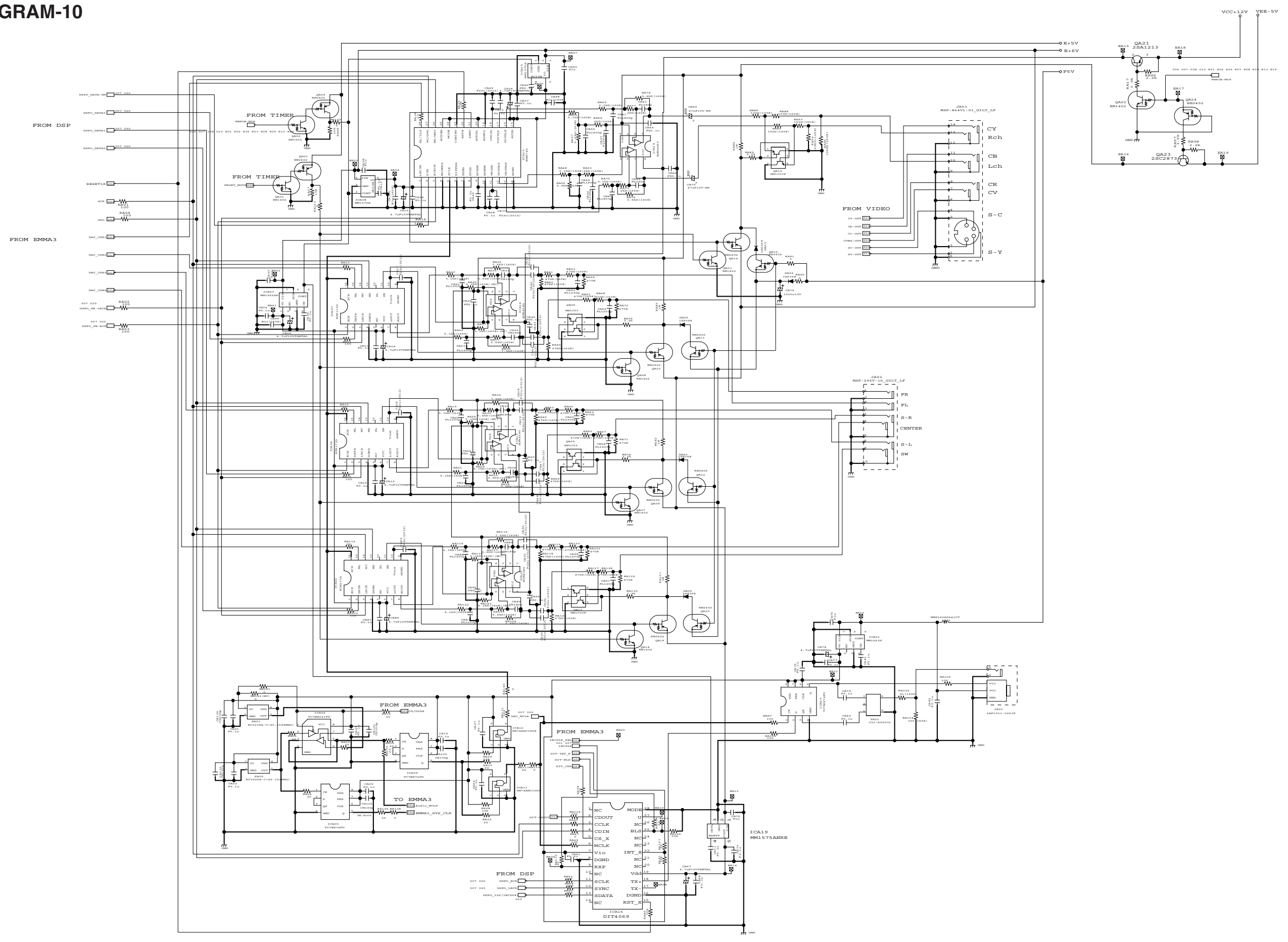
1

2

3

4

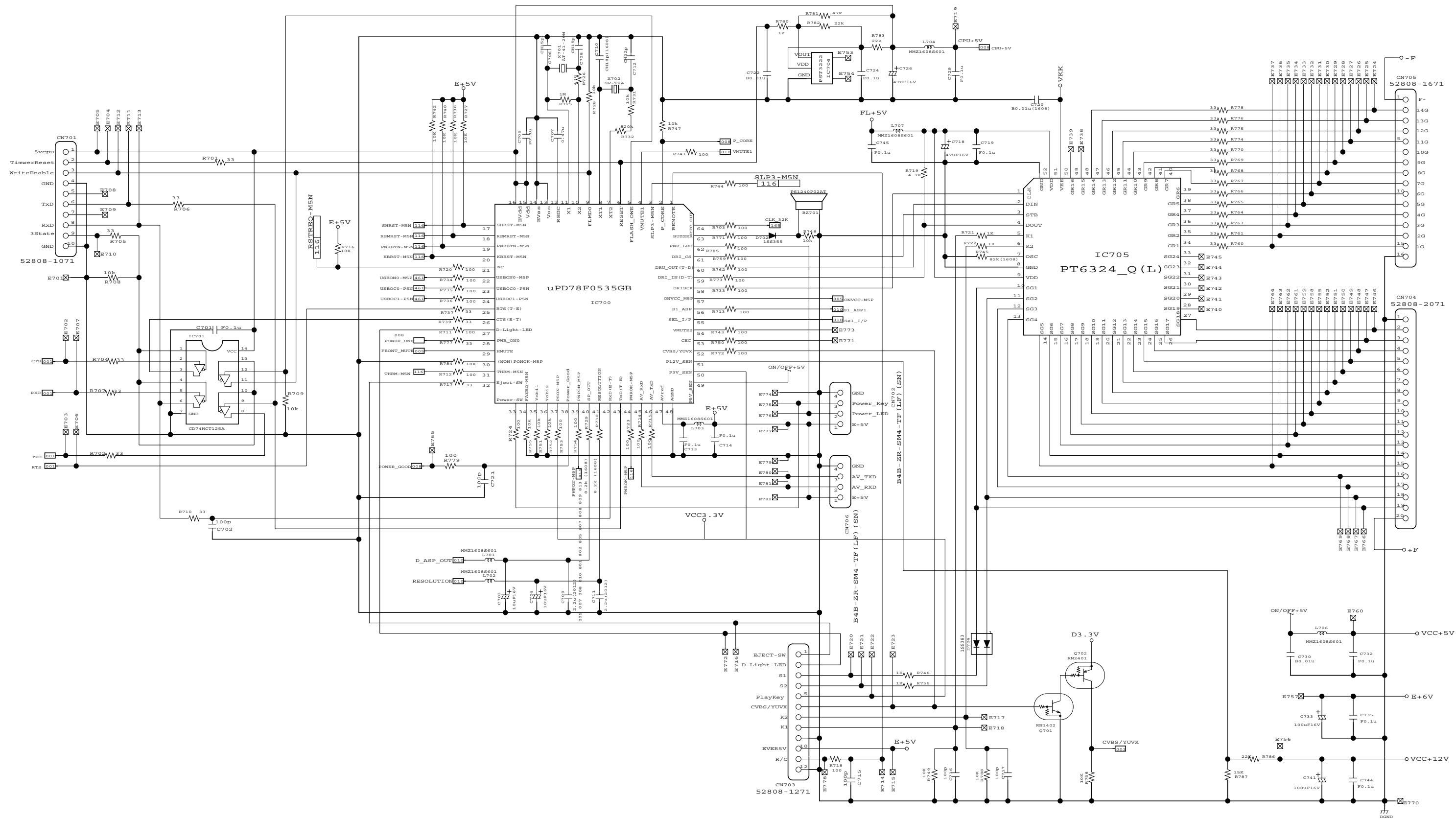
5



SCHEMATIC DIAGRAM-11

PC MAIN-5

1
2
3
4
5



SCHEMATIC DIAGRAM-12

PC MAIN-6

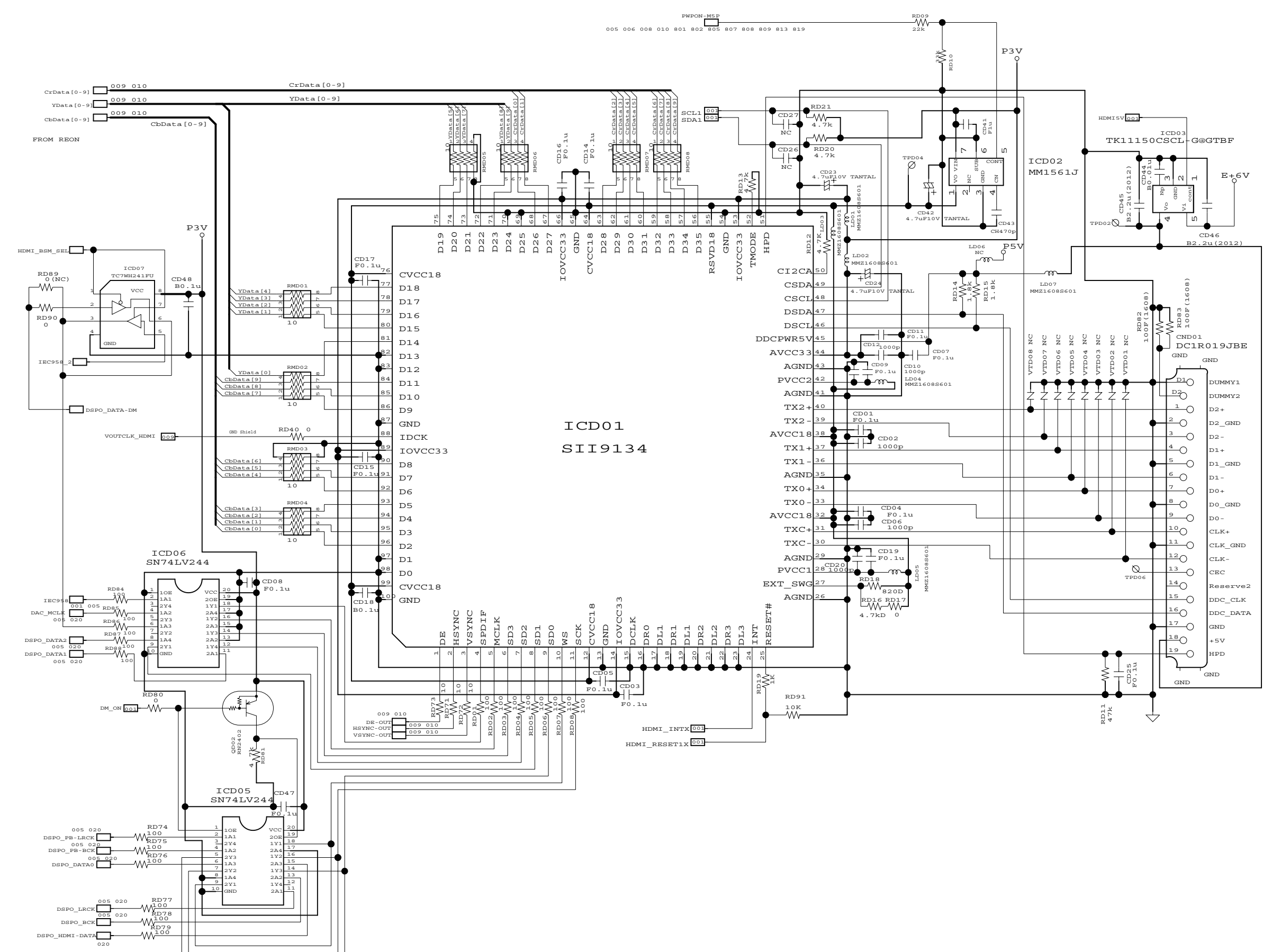
1

2

3

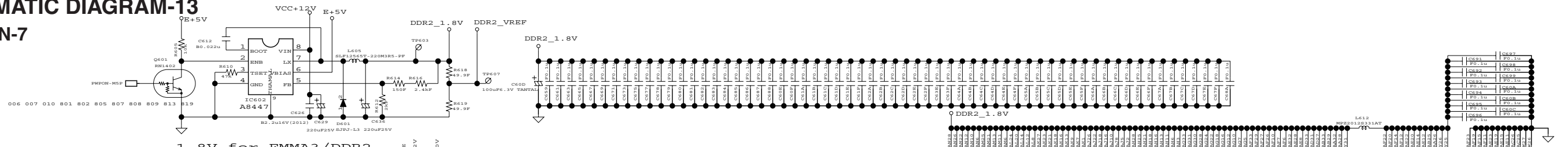
4

5

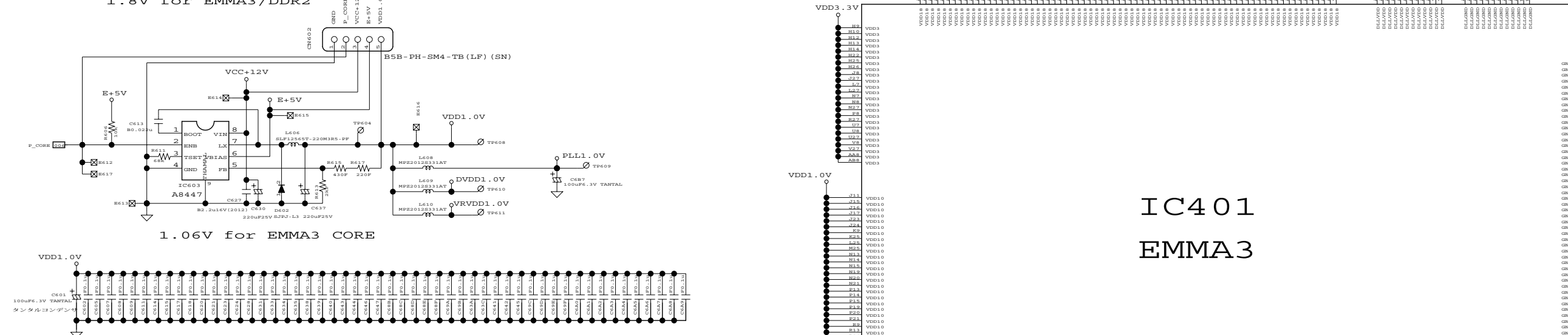


SCHEMATIC DIAGRAM-13 PC MAIN-7

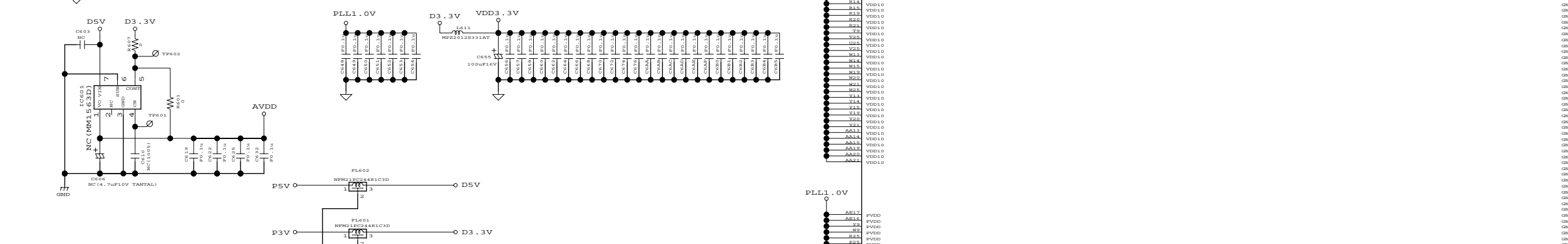
1



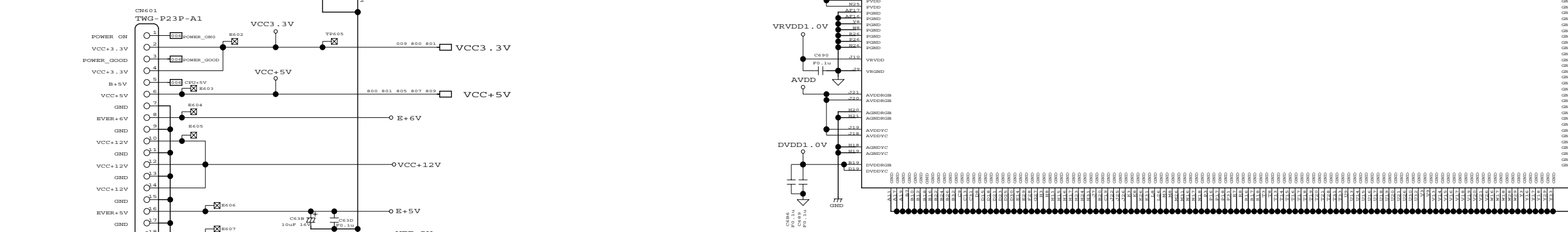
2



3



4



5



SCHEMATIC DIAGRAM-14 PC MAIN-8

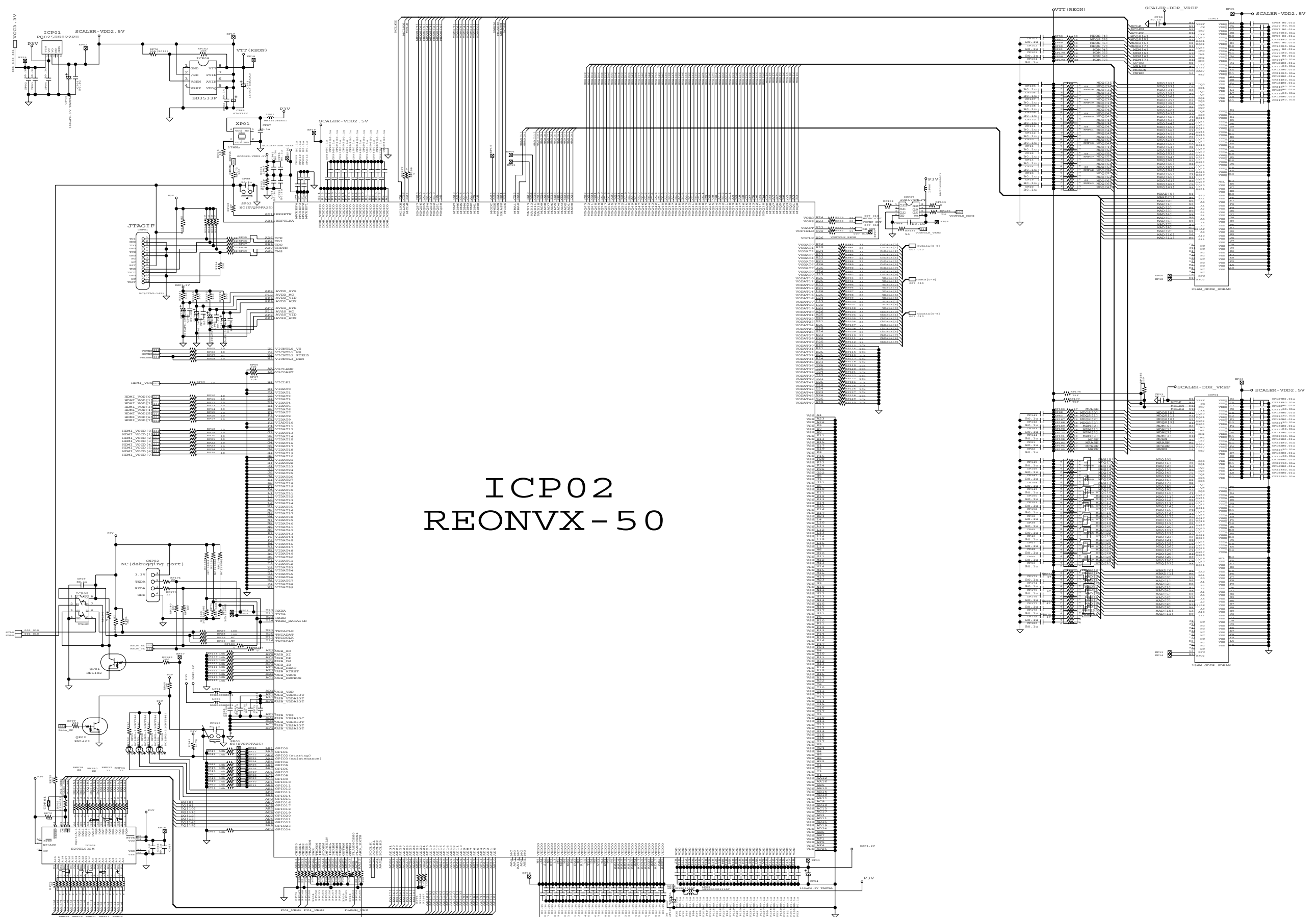
1

2

3

4

5



ICP02 REONVX-50

SCHEMATIC DIAGRAM-15 PC MAIN-9

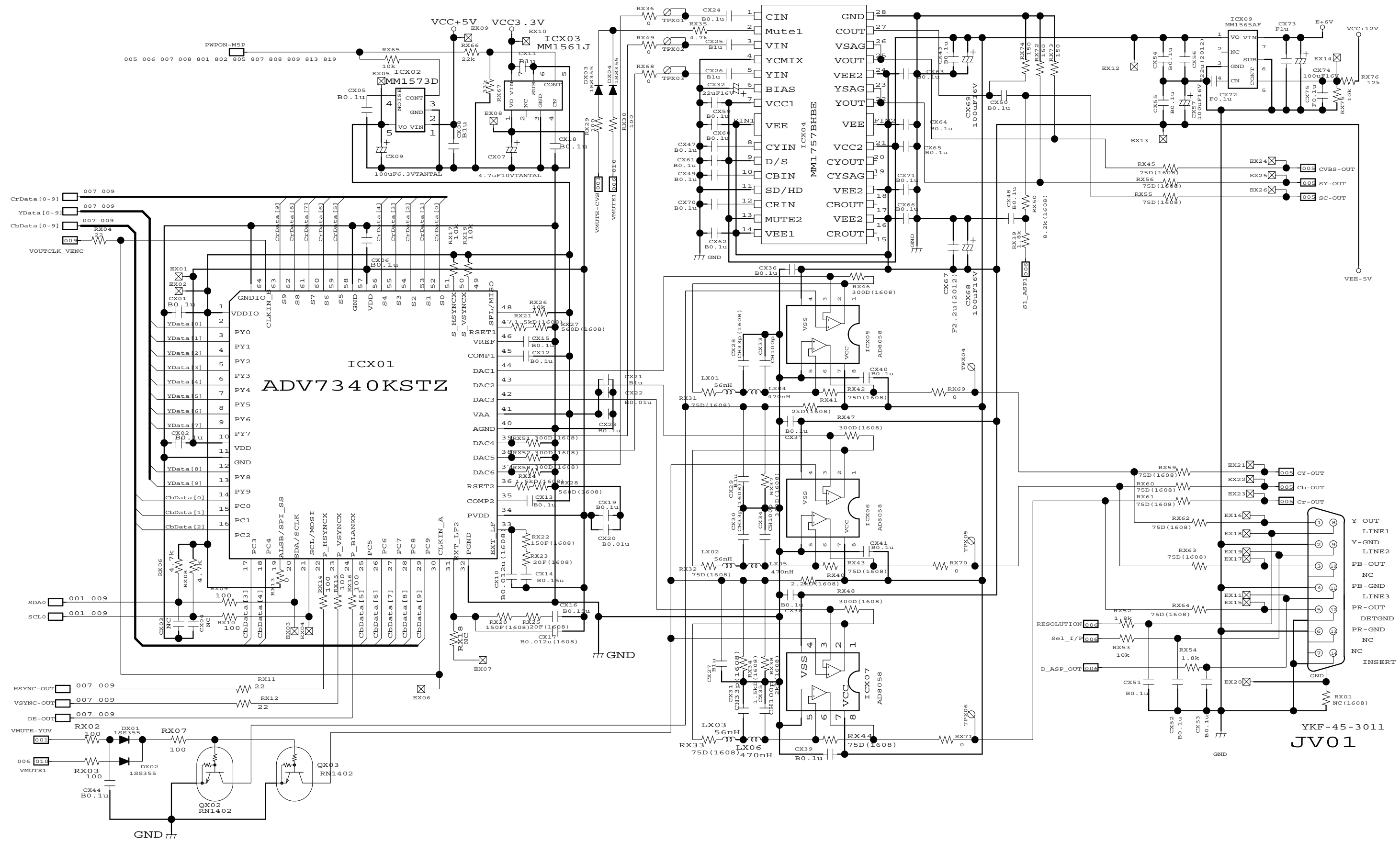
1

2

3

4

5



YKF-45-3011
JVO1

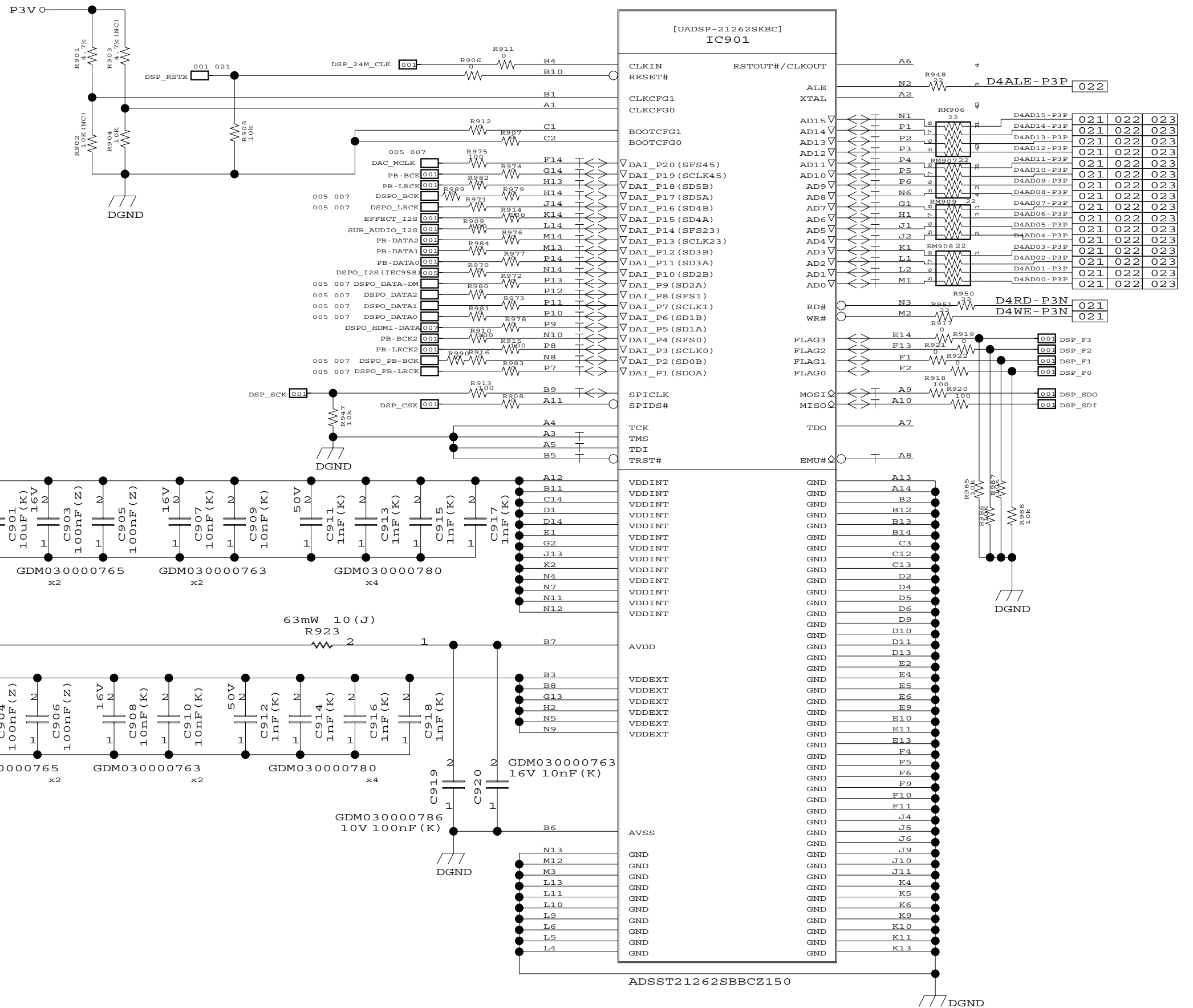
SCHEMATIC DIAGRAM-16
DSP SECTION (ADSP-21262)

magnification of CLOCK

| CKCFG1 | CKCFG0 | CK Ratio |
|--------|--------|----------|
| L | L | 3:1 |
| L | H | 16:1 |
| H | L | 8:1 |
| H | H | Reserved |

Boot Mode (Controlled from HOTEL)

| BTCFG1 | BTCFG0 | BOOT MODE |
|--------|--------|---------------|
| L | L | SPI Slave |
| L | H | SPI Master |
| H | L | Parallel port |
| H | H | Internal ROM |



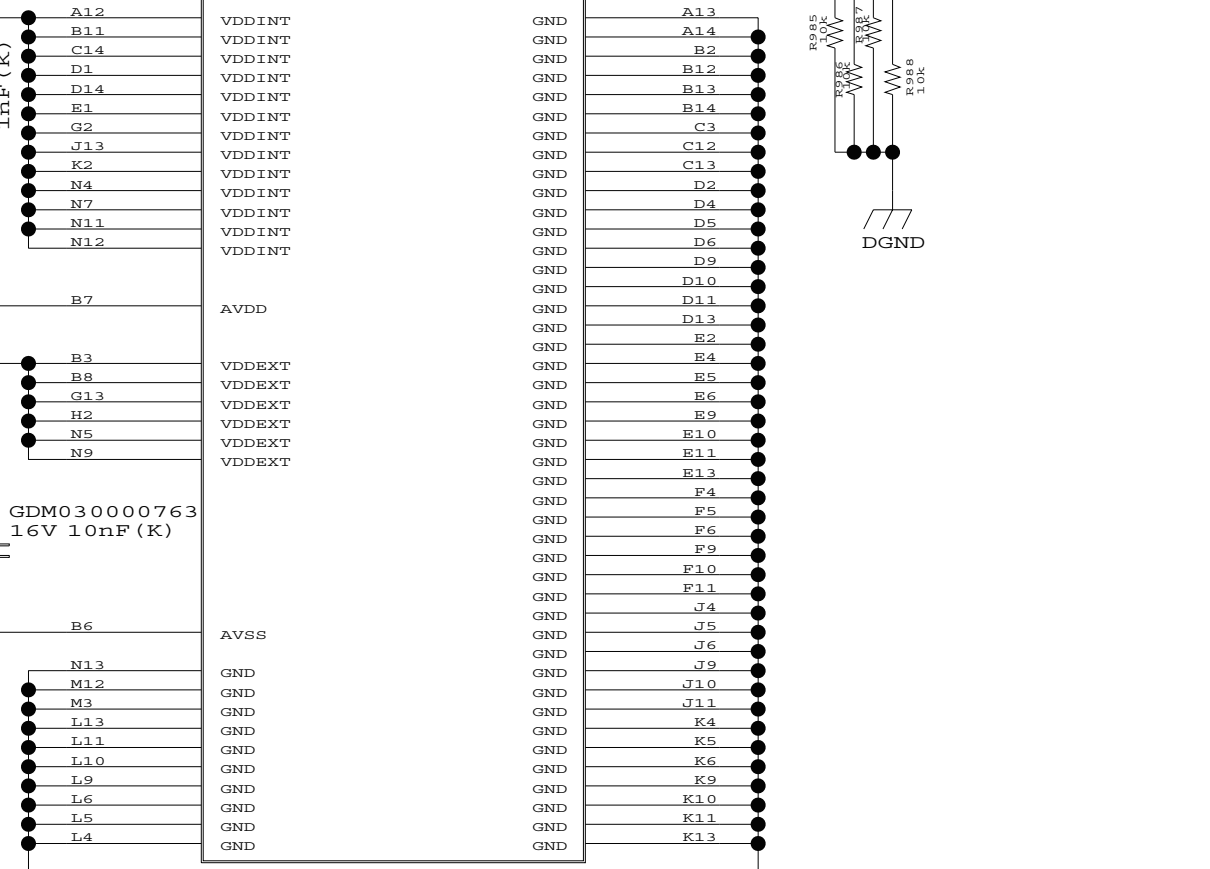
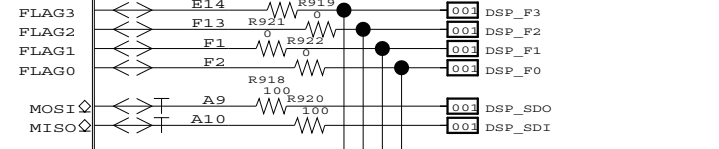
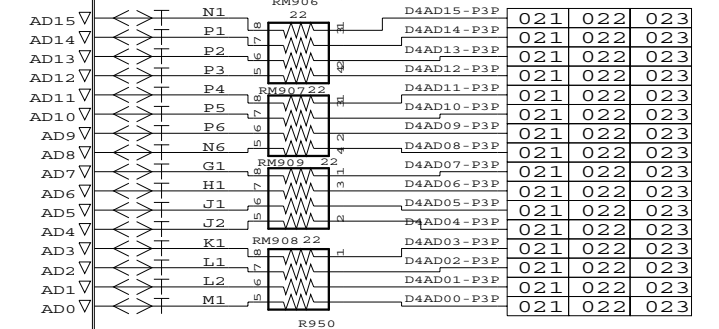
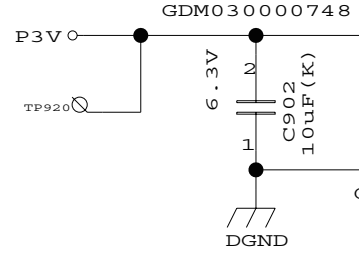
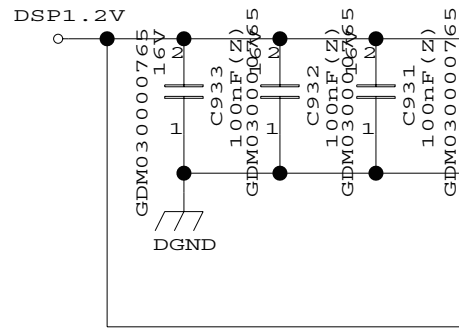
1

2

3

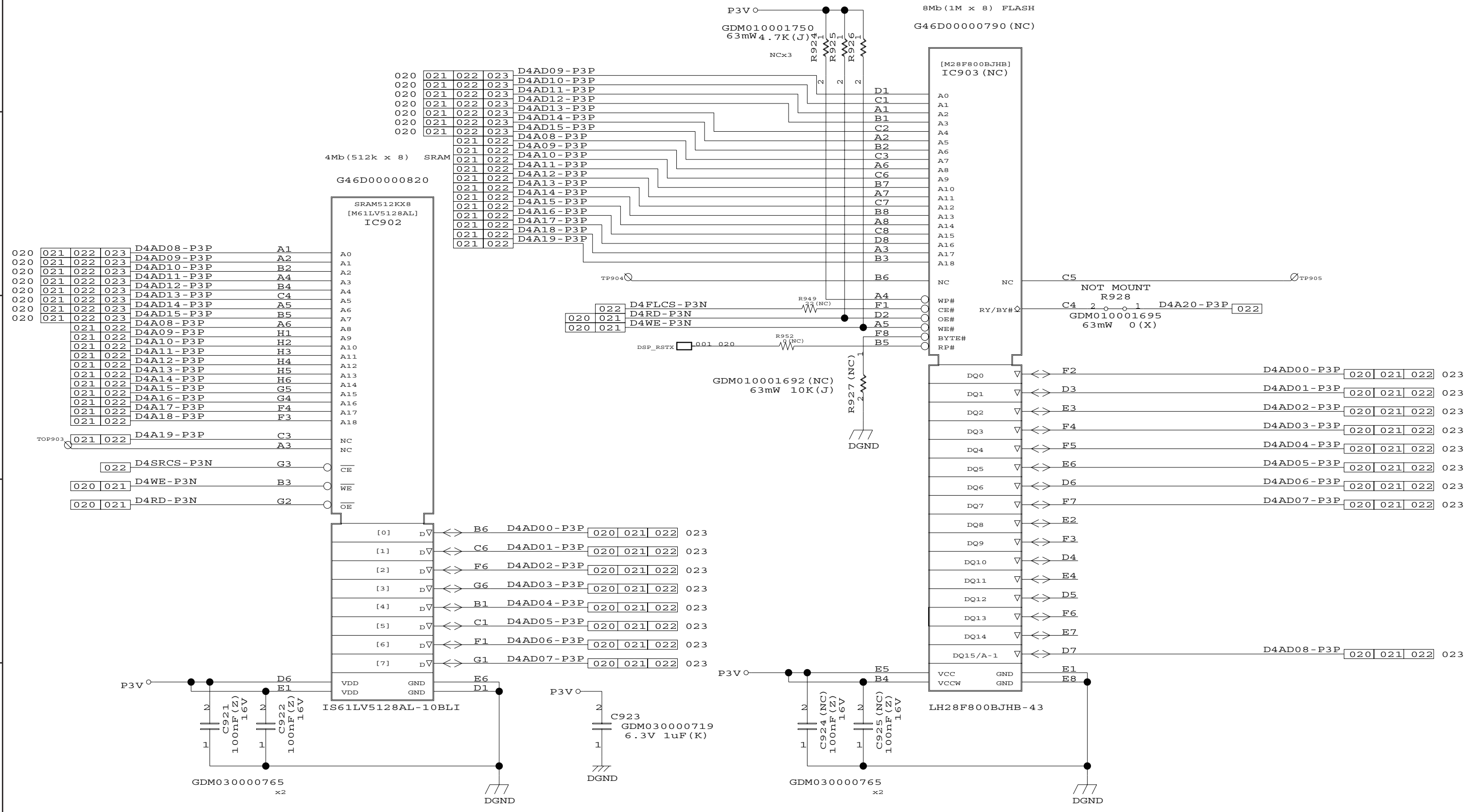
4

5



SCHEMATIC DIAGRAM-17 DSP SECTION (RAM & FROM)

1
2
3
4
5



A B C D E F G H

SCHEMATIC DIAGRAM-18
DSP SECTION (ADDRESS LATCH)

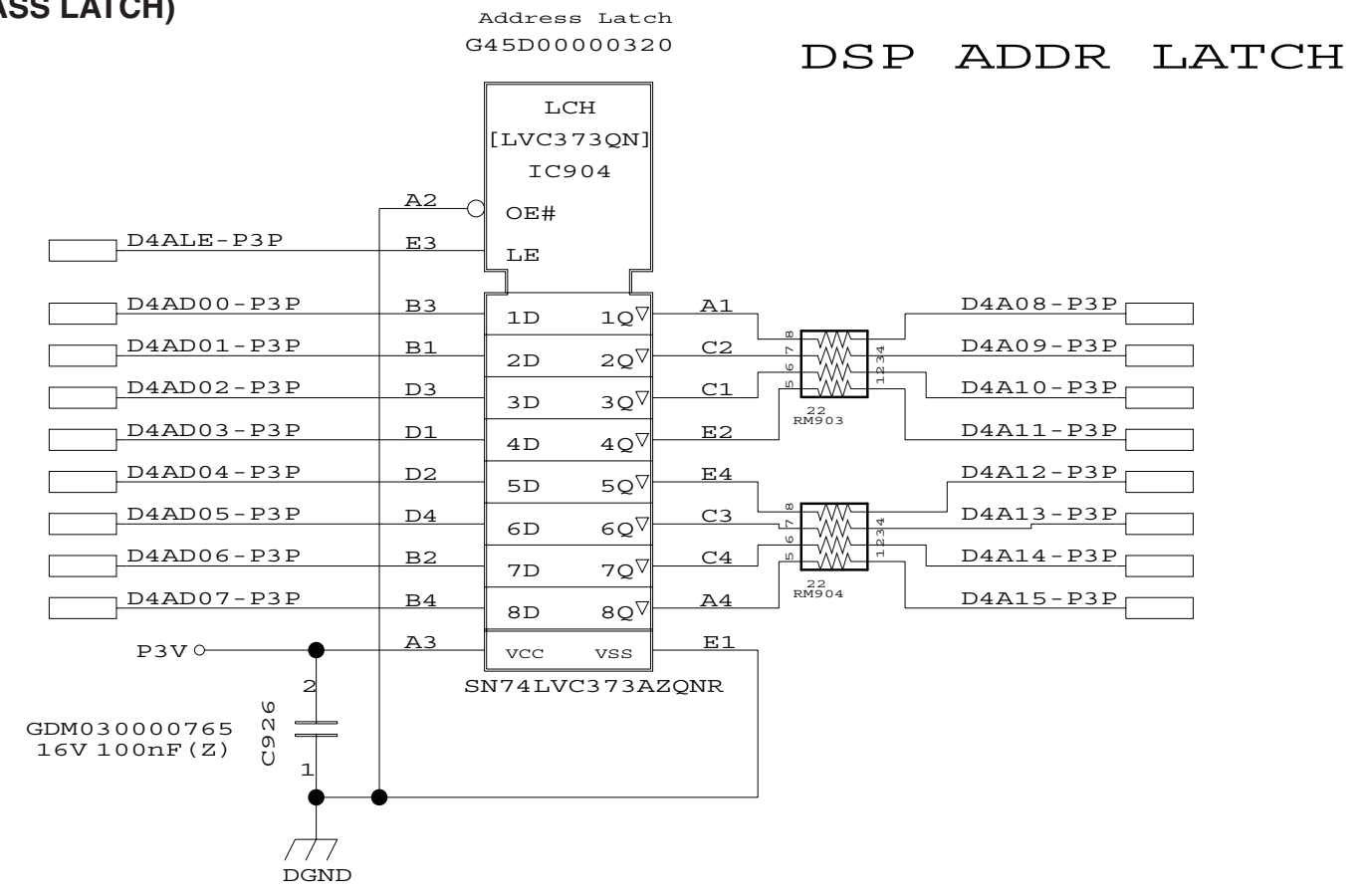
1

2

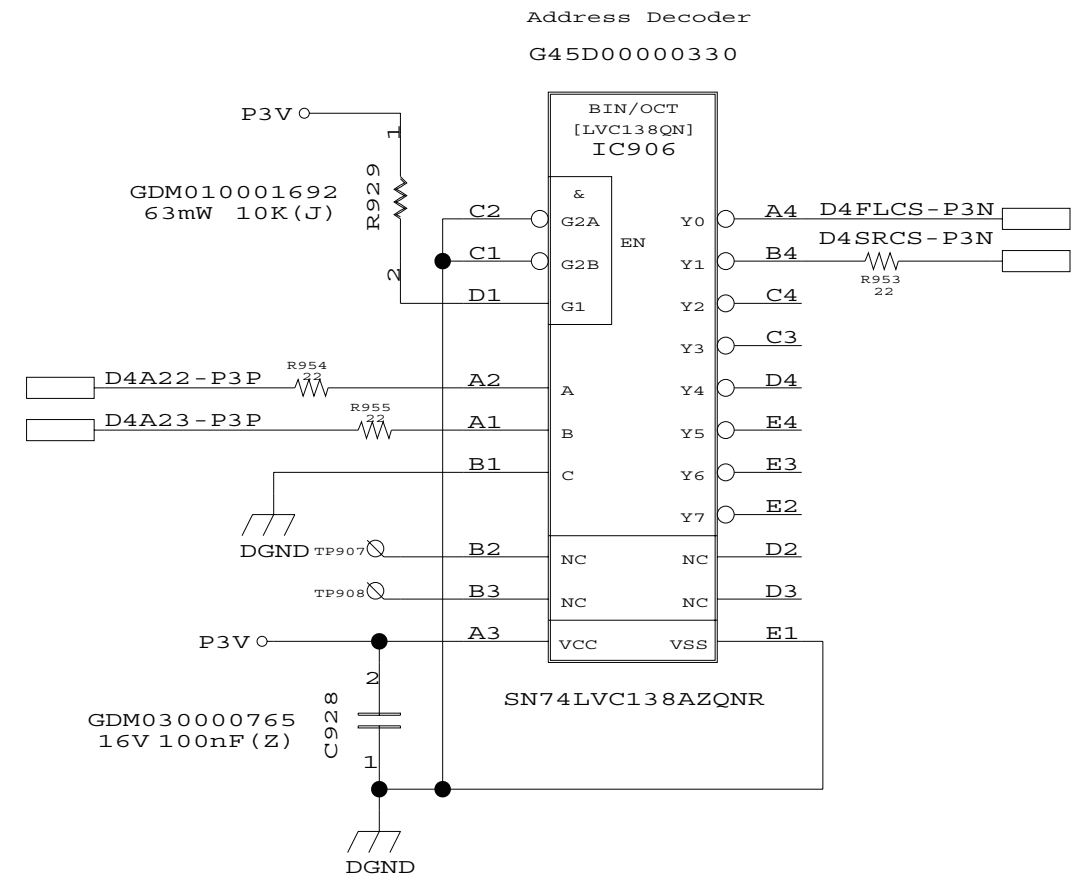
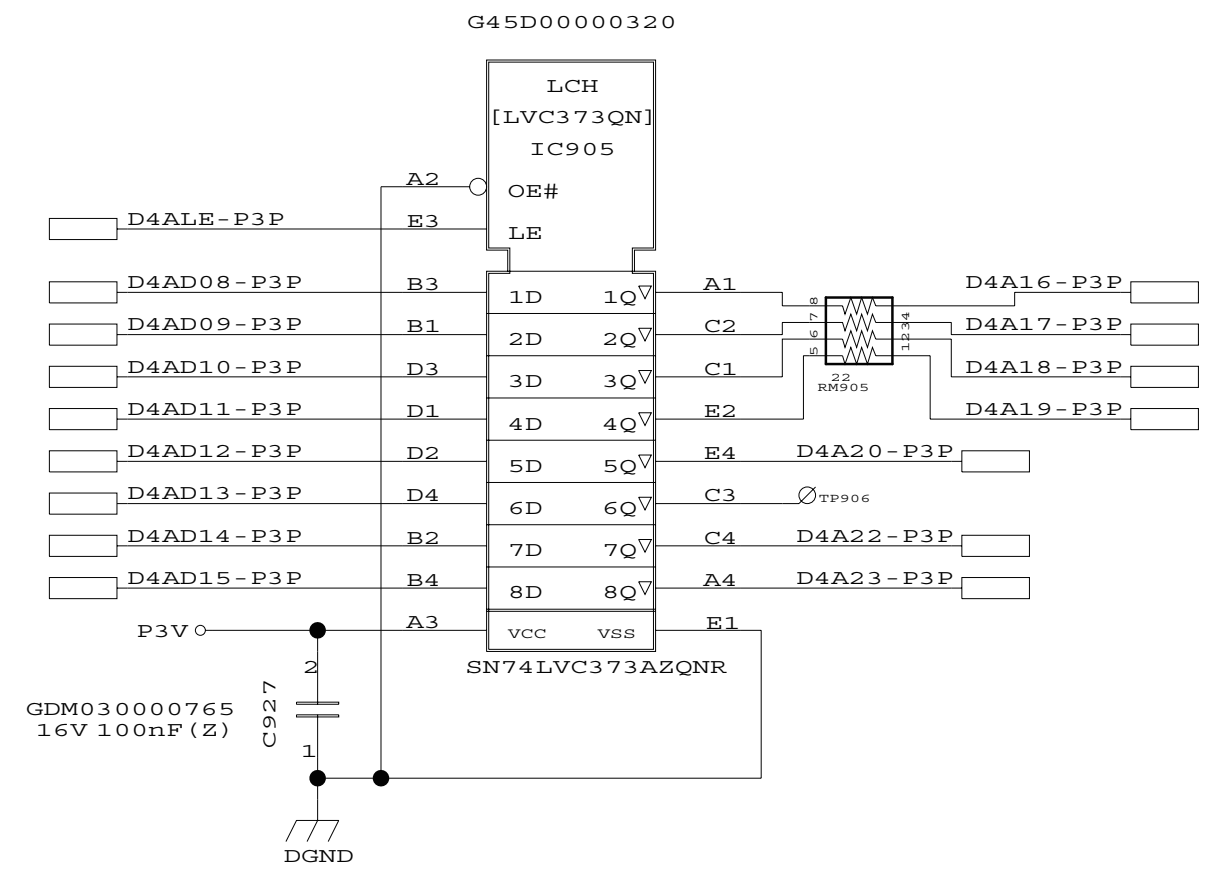
3

4

5



| Valid DSP Address | | BANK END Address | A23 | A22 | BANK | Device |
|-------------------|---------|------------------|-----|-----|------|--------|
| Start | End | | | | | |
| 80 0000 | X | FF FFFF | - | - | - | None |
| 40 0000 | 47 FFFF | 7F FFFF | 0 | 0 | Y1 | SRAM |
| 00 0000 | 0F FFFF | 3F FFFF | 0 | 0 | Y0 | FLASH |



A

B

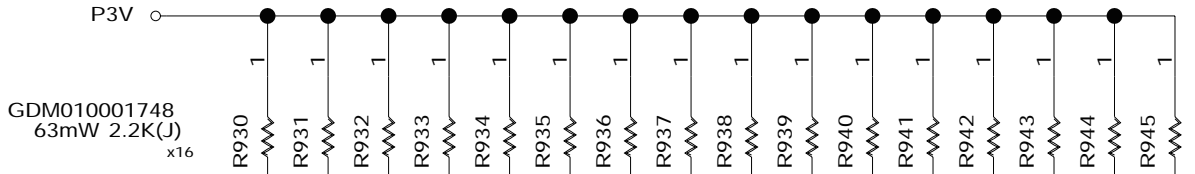
C

D

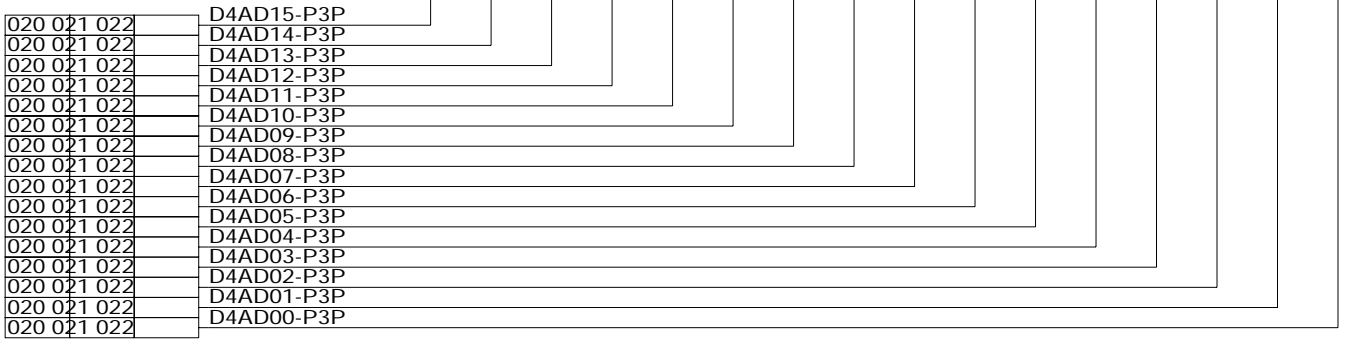
SCHEMATIC DIAGRAM-19

DSP SECTION (PULL UP)

1

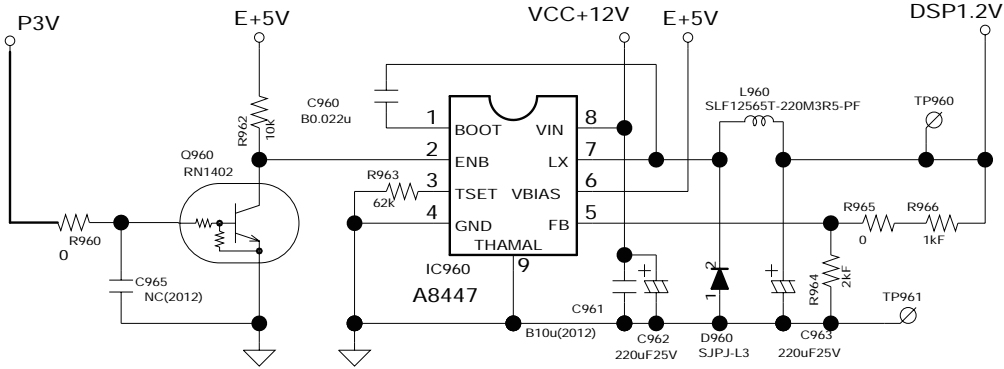


2



3

4



5

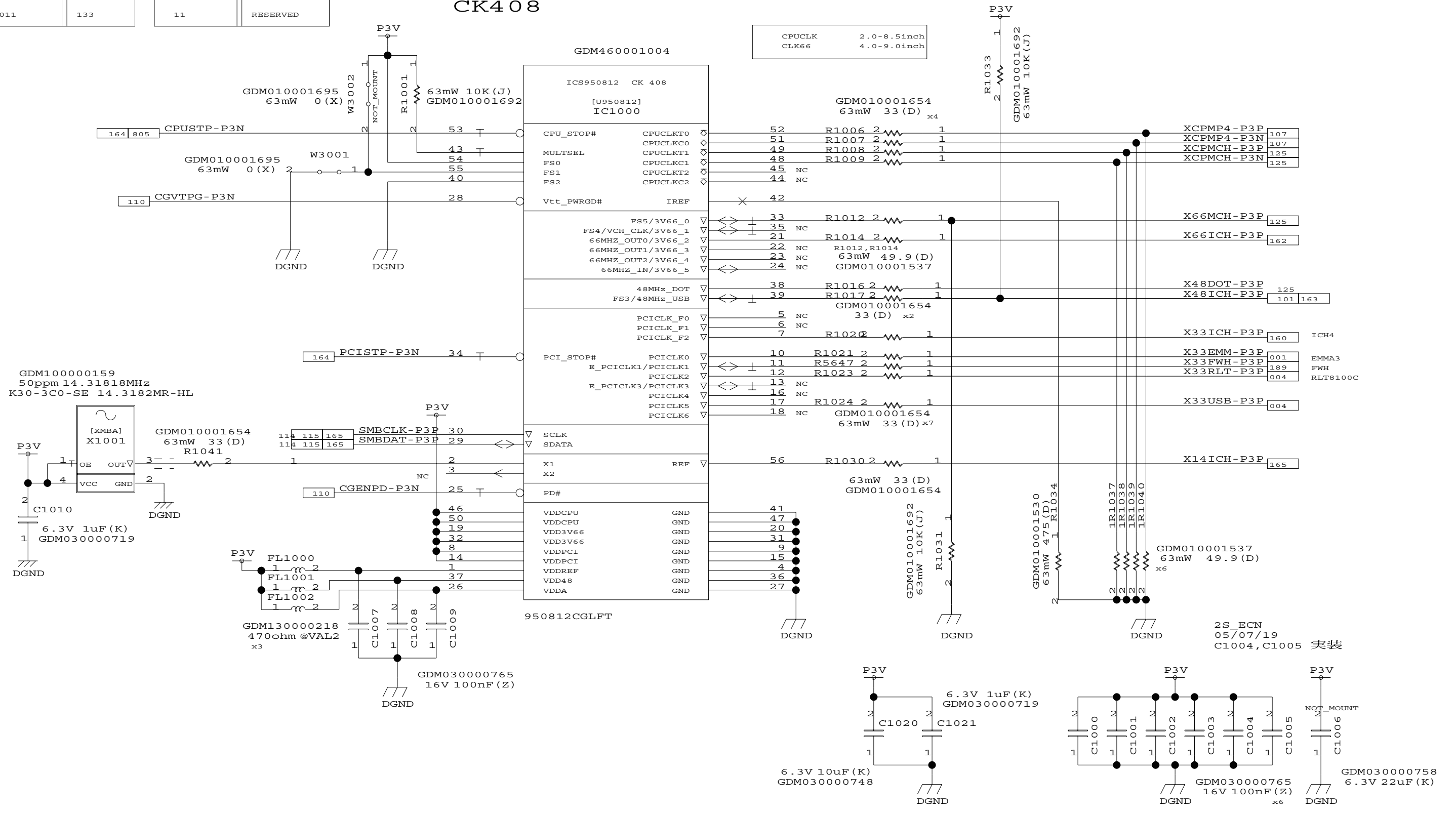
SCHEMATIC DIAGRAM-20 DSP SECTION (CK408)

| FS [210] | CPUCLK | BSEL [10] | CPUCLK |
|----------|--------|-----------|----------|
| 000 | 66 | 00 | (100MHz) |
| 001 | 100 | 01 | 133MHz |
| 010 | 200 | 10 | (200MHz) |
| 011 | 133 | 11 | RESERVED |

CK408

CPUCLK 2.0-8.5inch
 CLK66 4.0-9.0inch

1
2
3
4
5



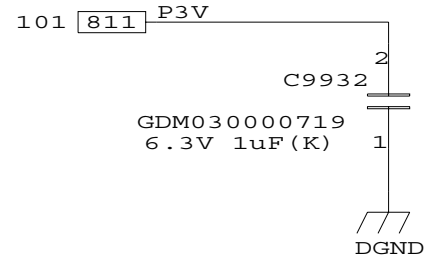
2S_ECN
05/07/19
C1004, C1005 実装

GDM030000758
6.3V 22uF (K)

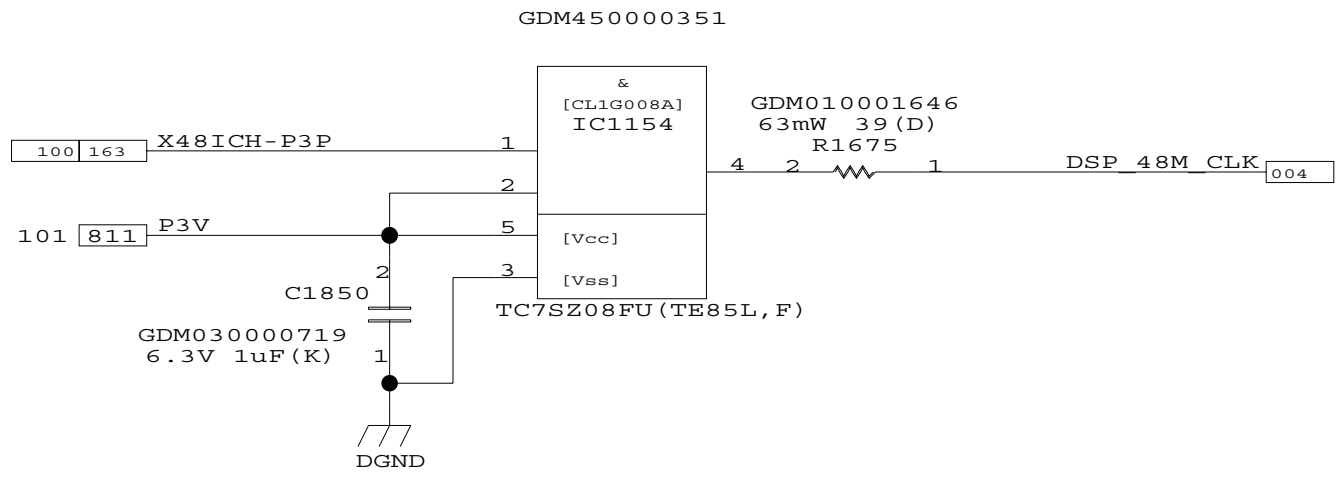
A B C D E F G H

SCHEMATIC DIAGRAM-21
X48 BRANCH SECTION

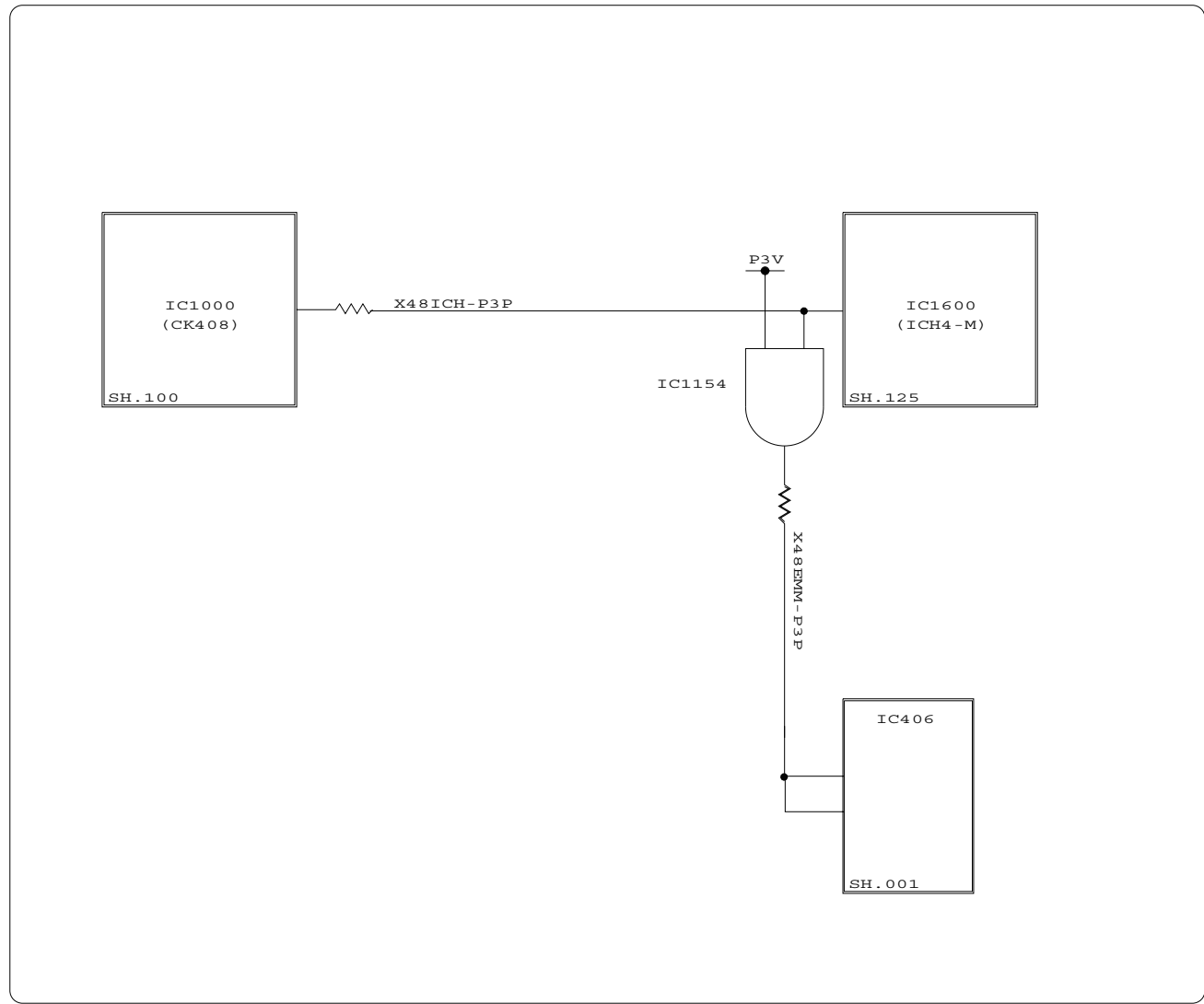
1



2



3



4

5

A

B

C

D

E

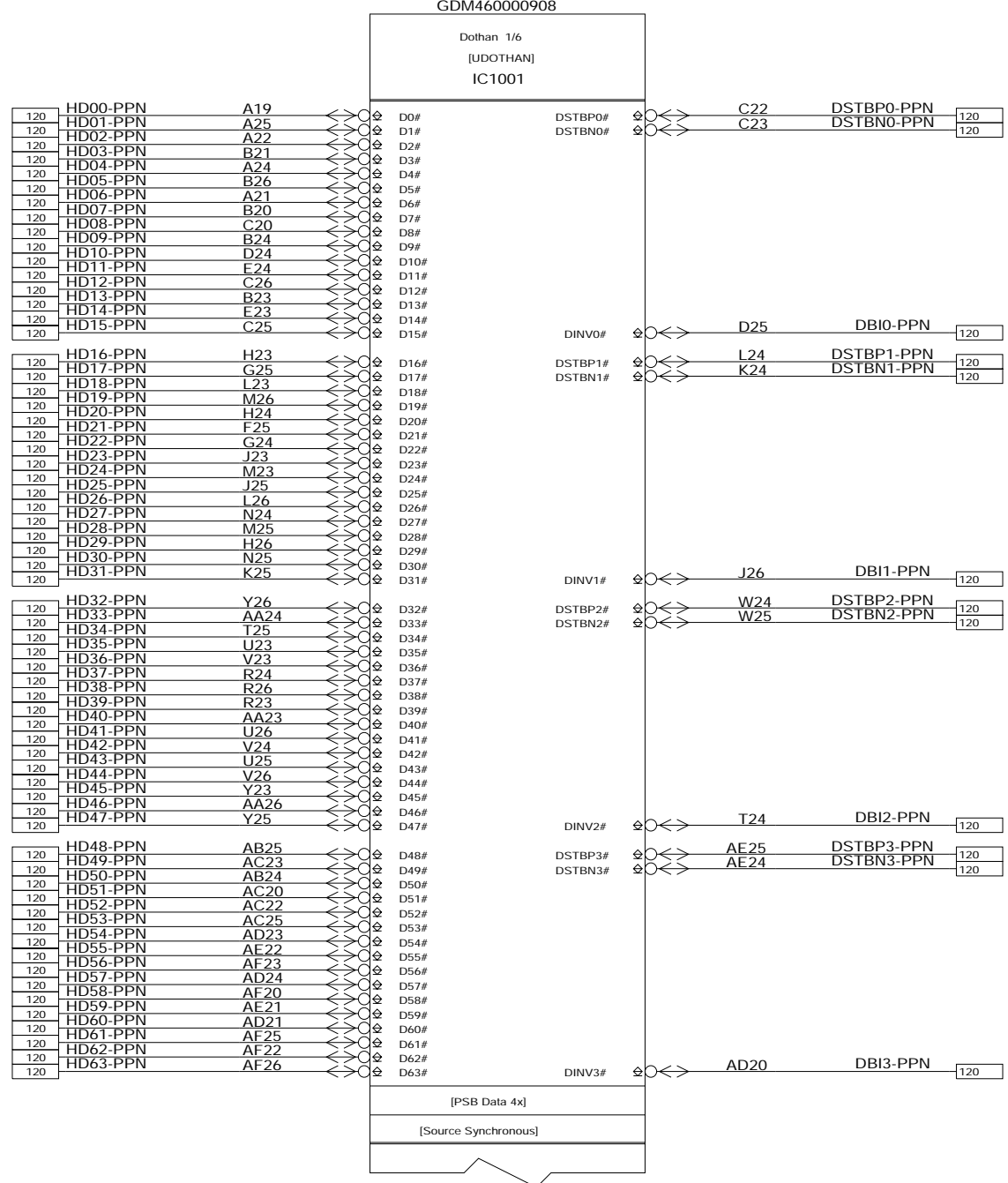
SCHEMATIC DIAGRAM-22
ULV CELELON-M1

1

2

3

4



SCHEMATIC DIAGRAM-23
ULV CELERON-M2

1

2

3

4

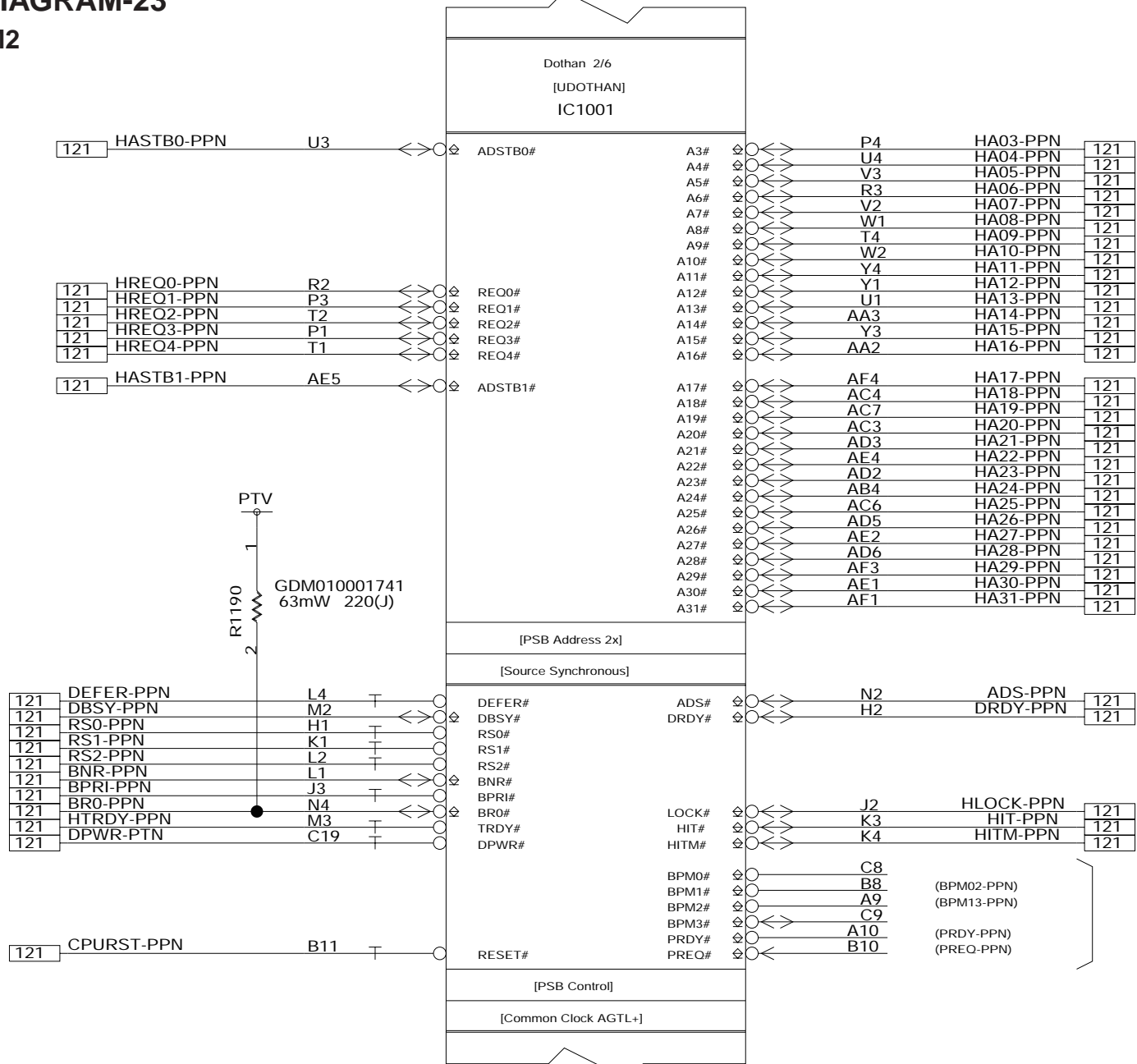
A

B

C

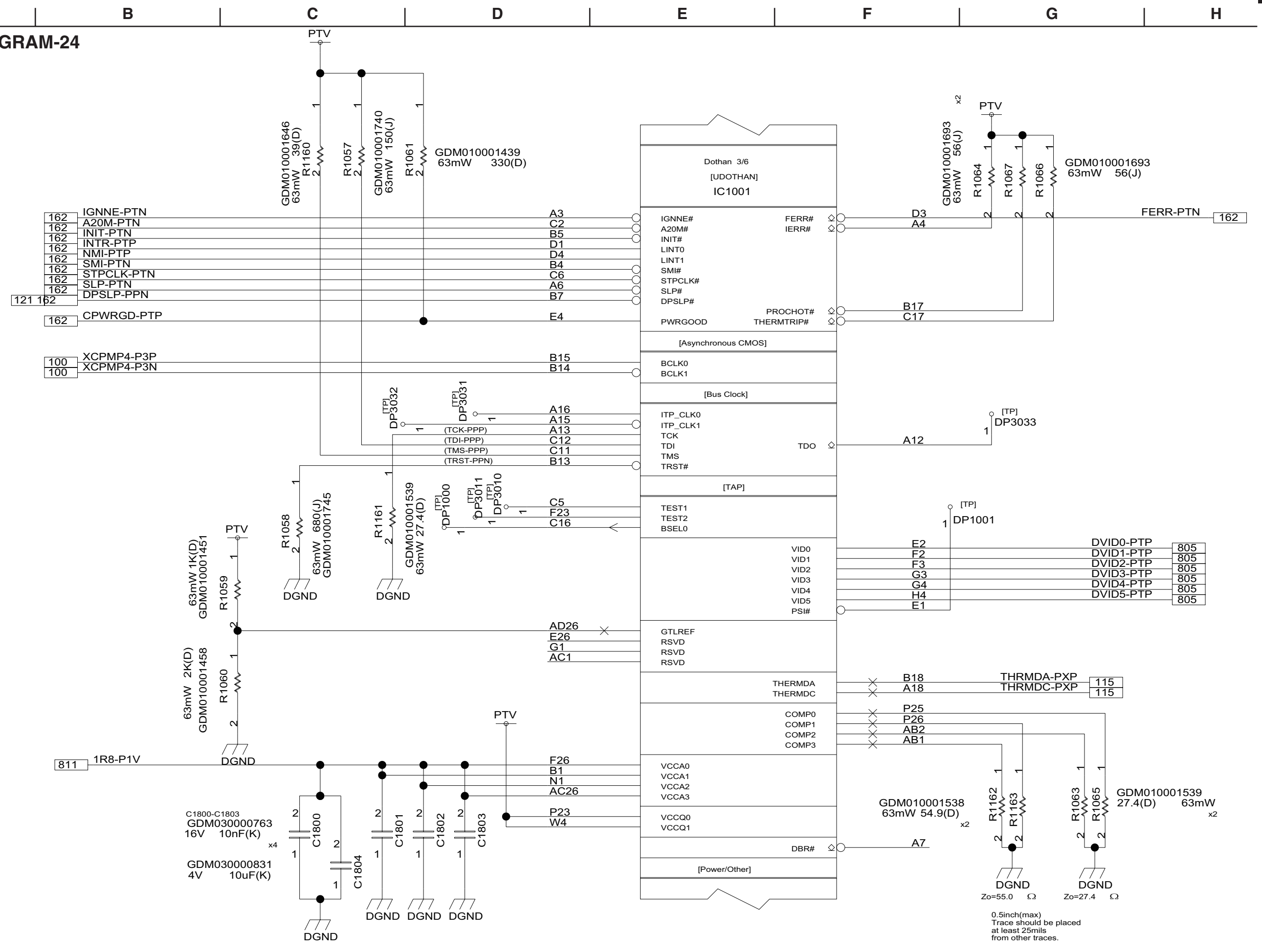
D

E



SCHEMATIC DIAGRAM-24 ULV CELERON-M3

1
2
3
4
5



0.5inch(max)
Trace should be placed
at least 25mils
from other traces.

SCHEMATIC DIAGRAM-25 ULV SELERON-M4

1

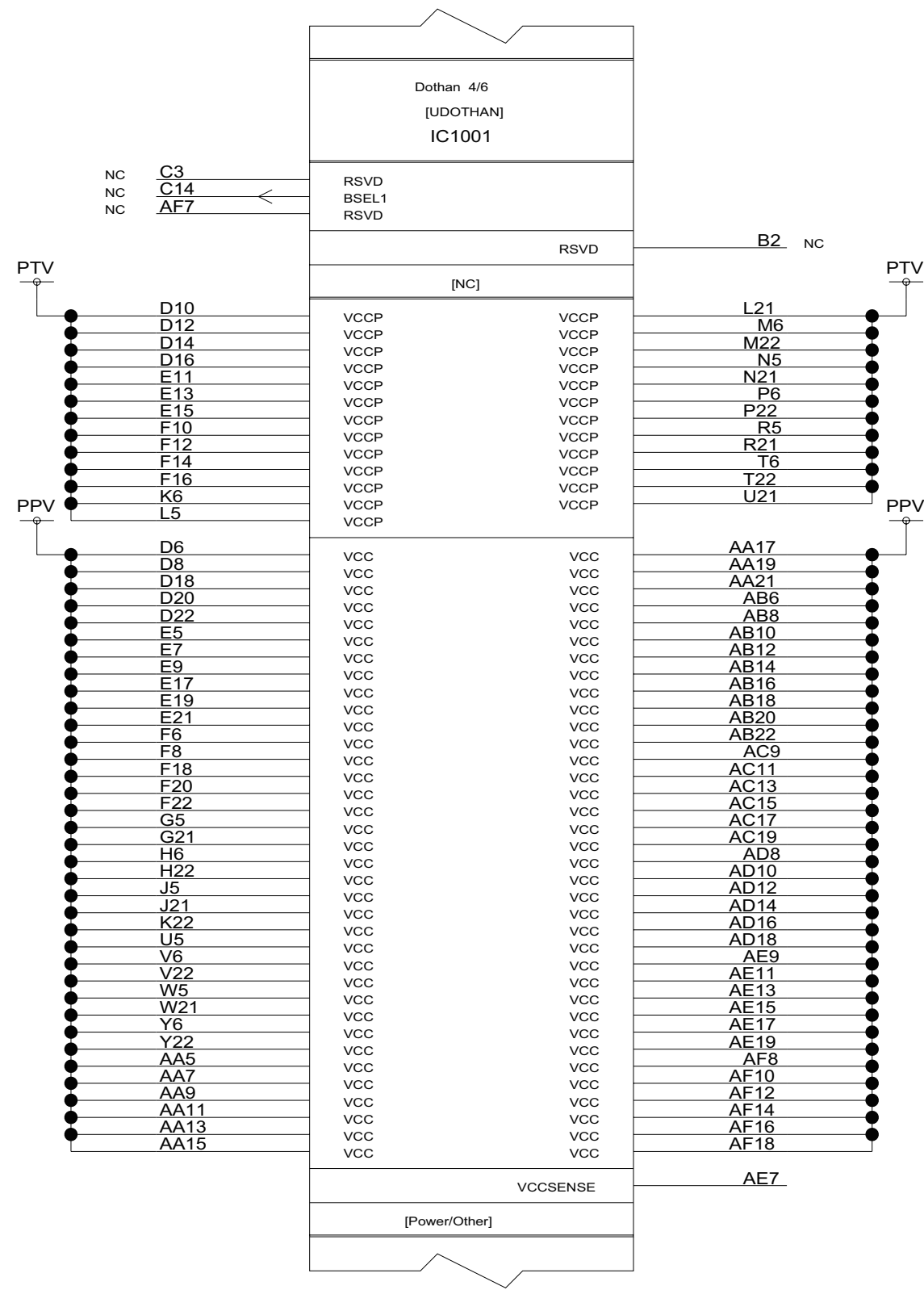
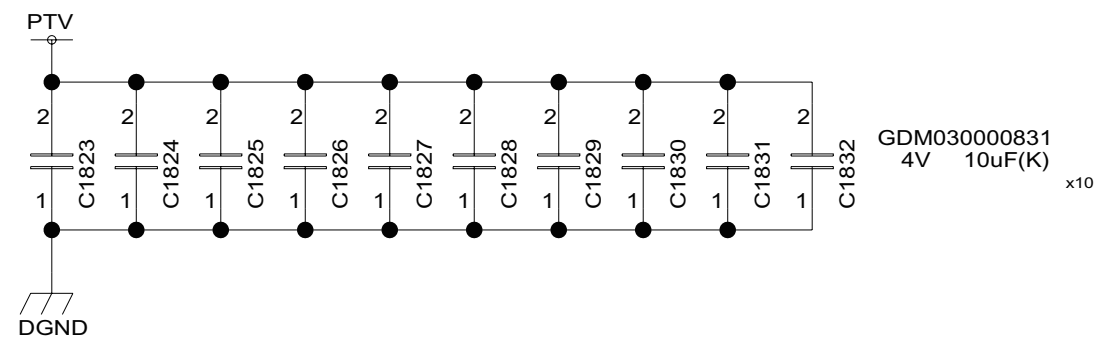
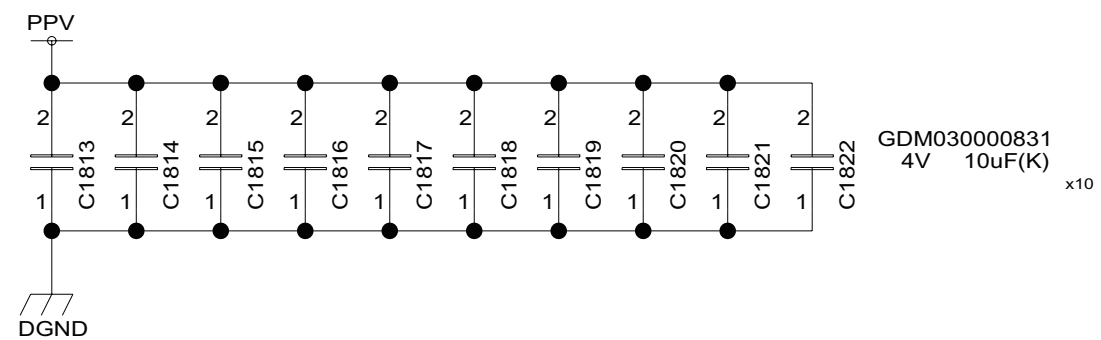
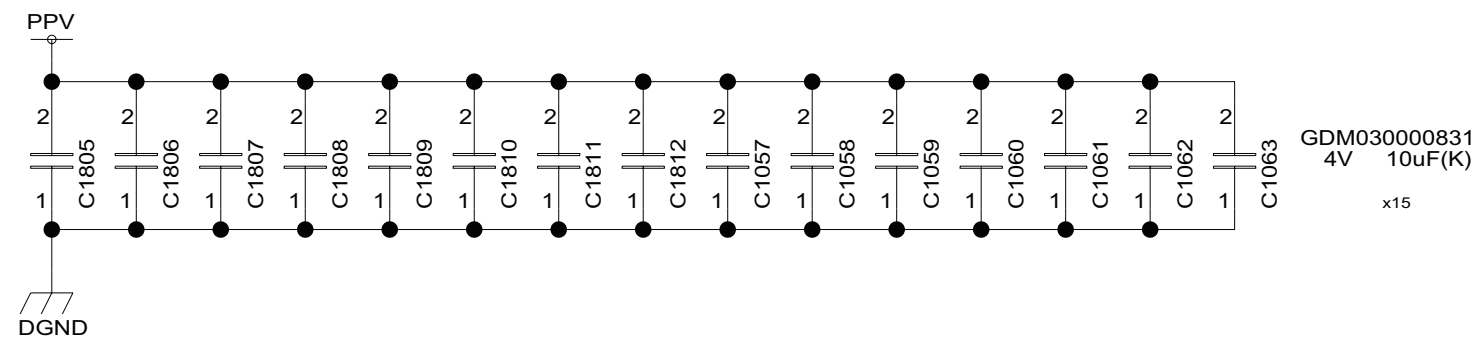
2

3

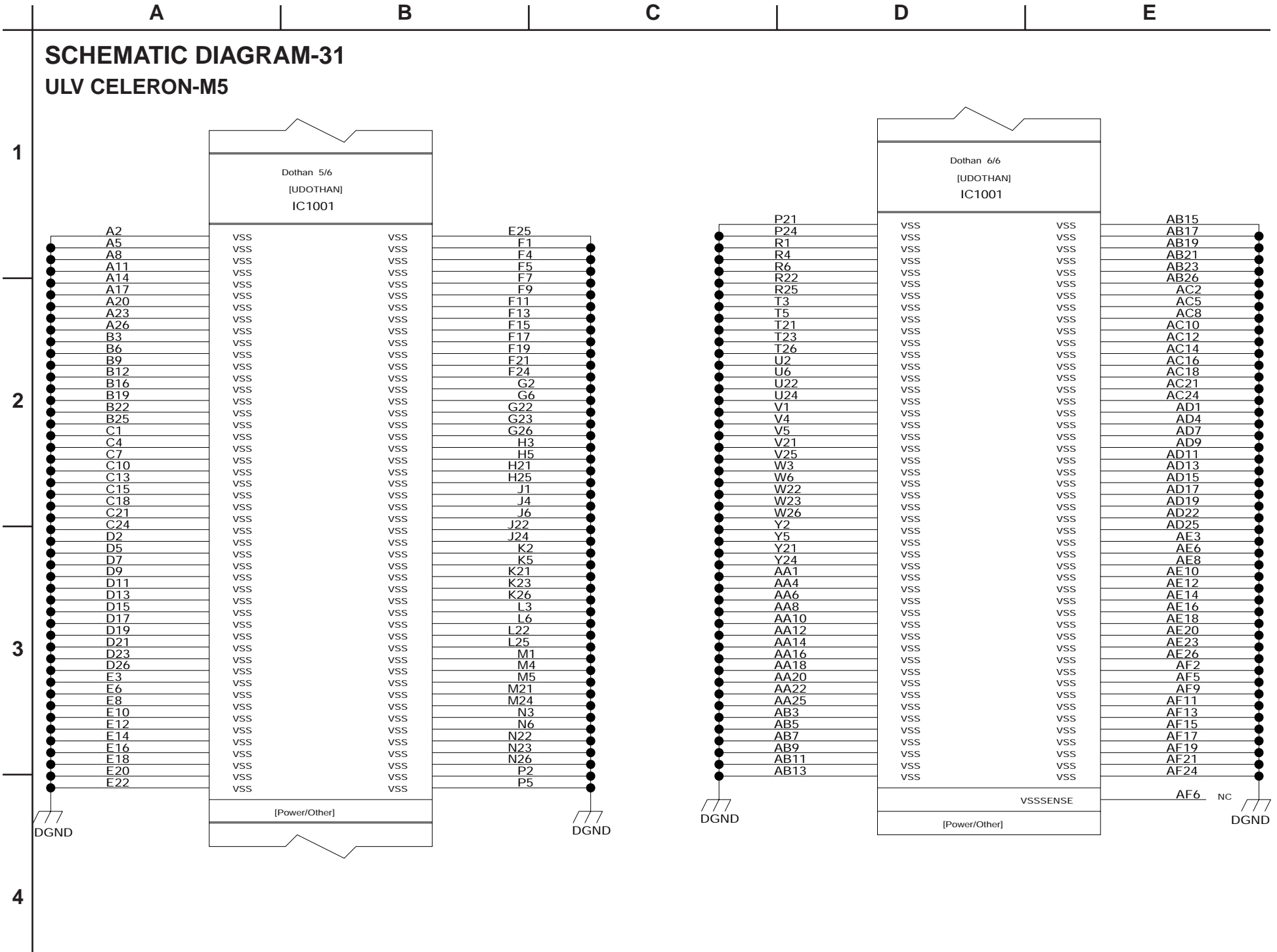
4

5

A | B | C | D | E | F | G | H



SCHEMATIC DIAGRAM-31
ULV CELERON-M5



A

B

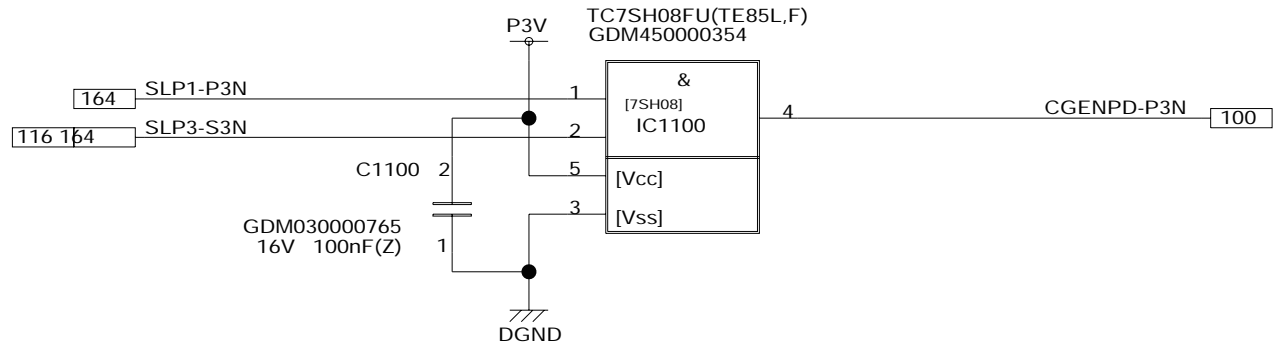
C

D

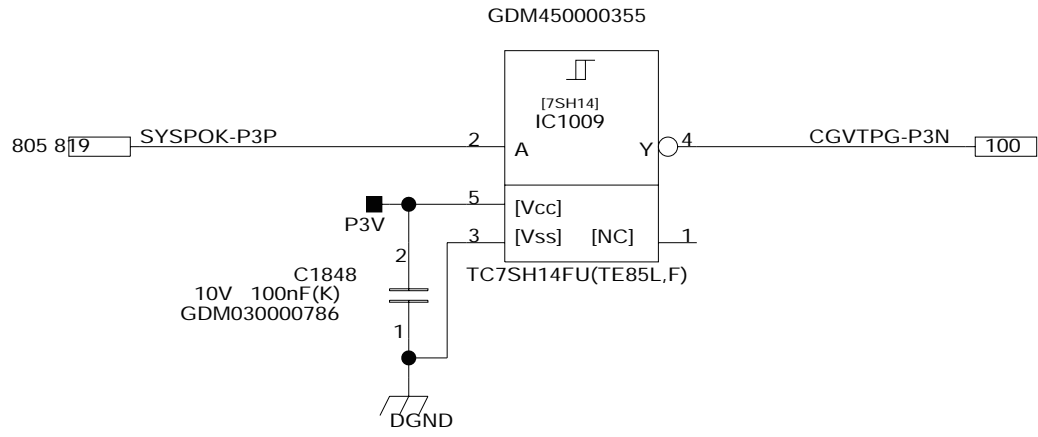
E

SCHEMATIC DIAGRAM-27 TIMING CONTROL

1



2



3

4

A B C D E F G H
SCHEMATIC DIAGRAM-28
ADDITIONAL CAPACITOR-3

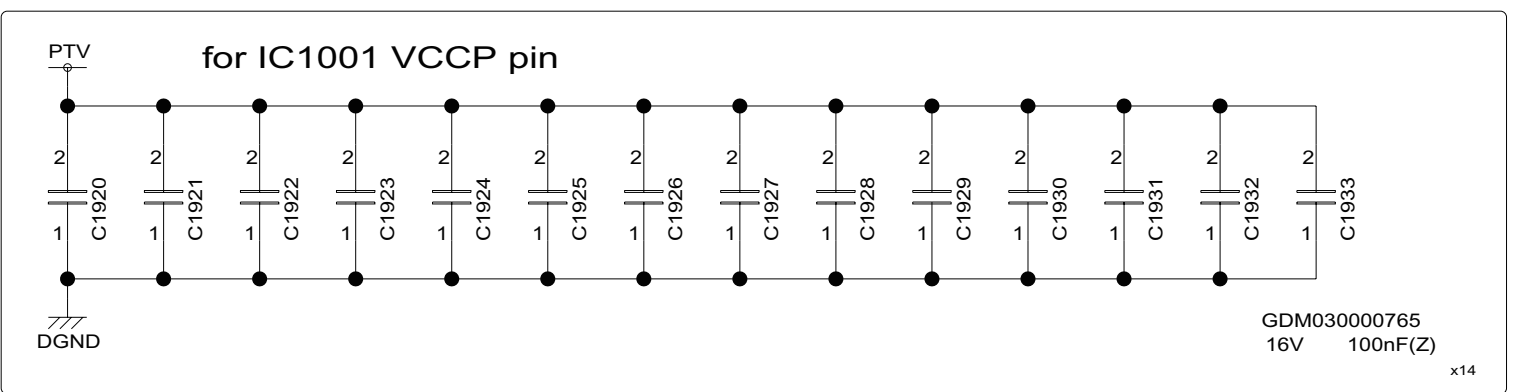
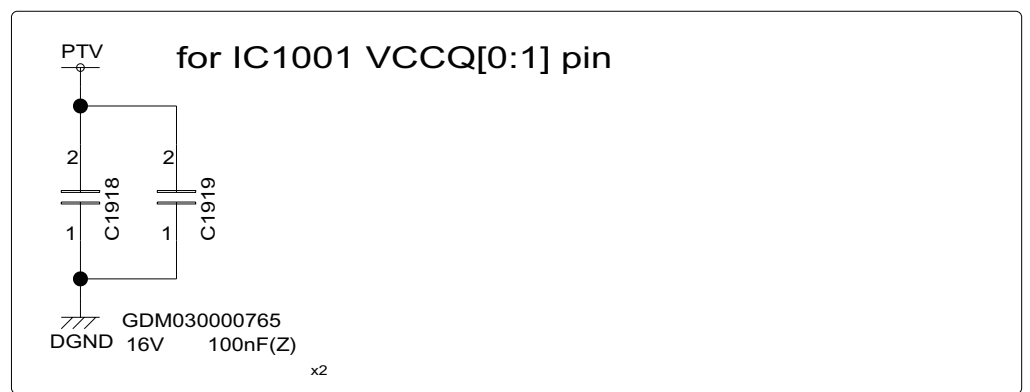
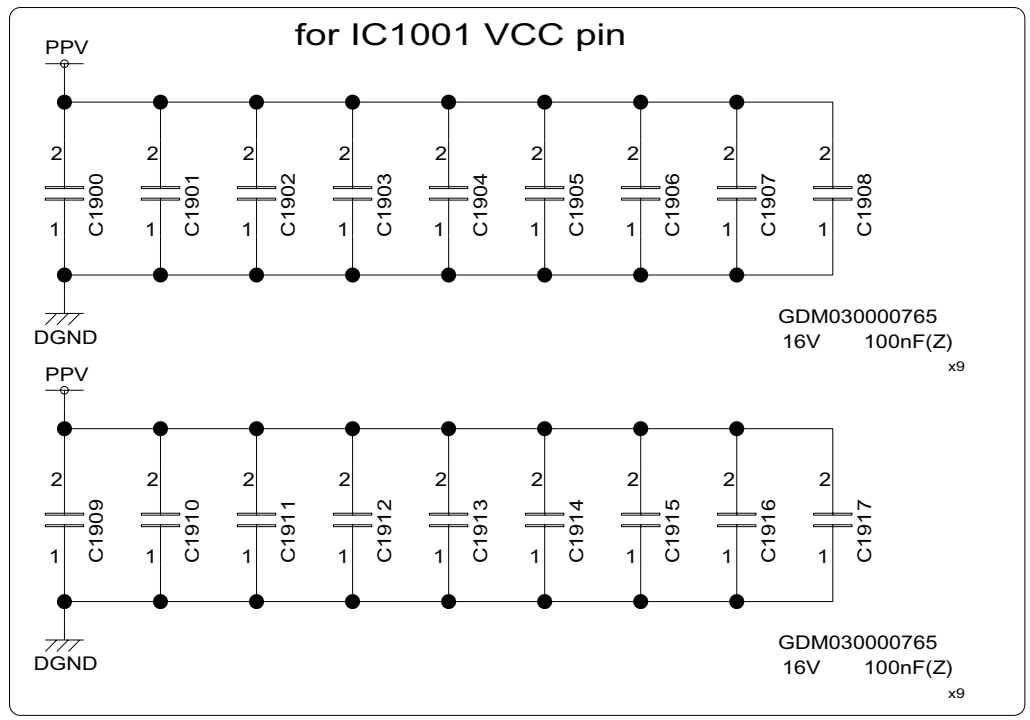
1

2

3

4

5

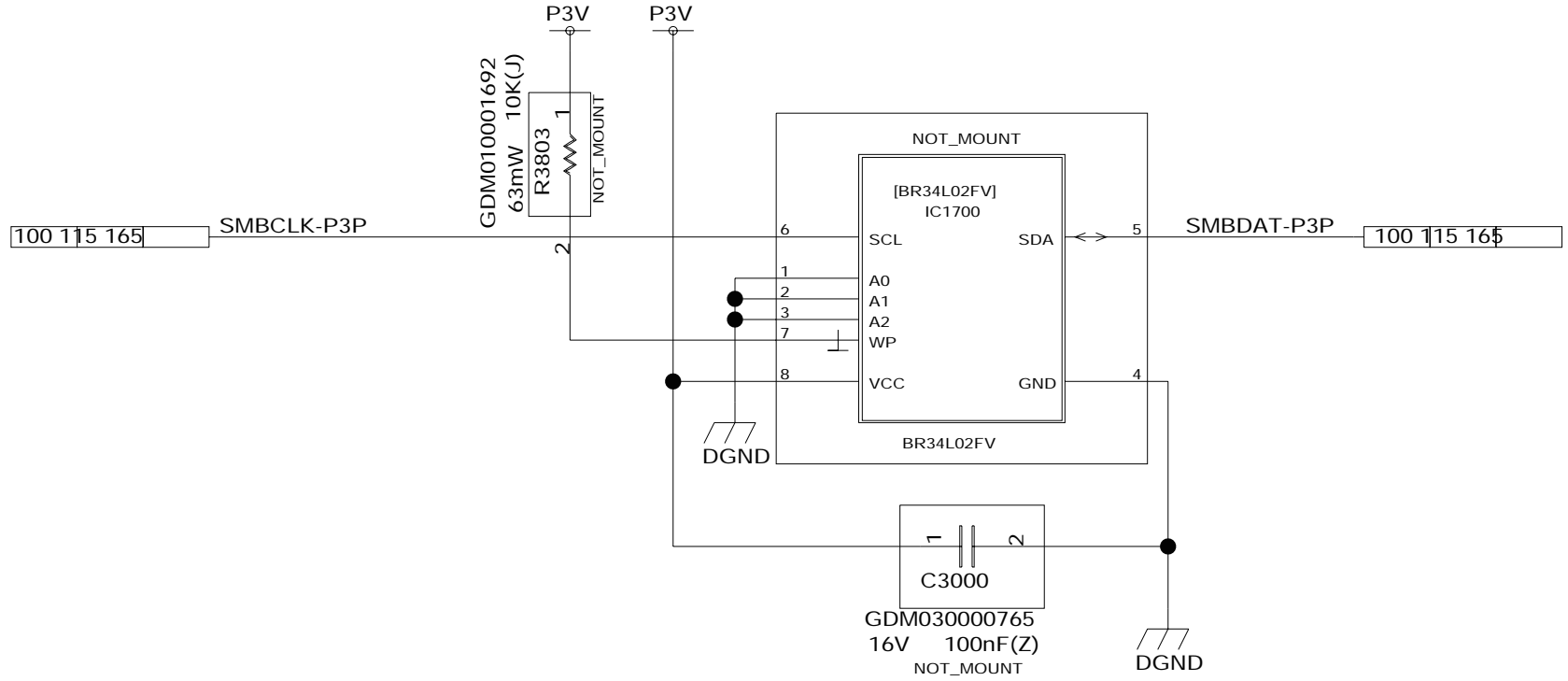


A B C D E

SCHEMATIC DIAGRAM-29

SPD SECTION

1
2
3
4



SCHEMATIC DIAGRAM-30

THERMAL SENSOR SECTION

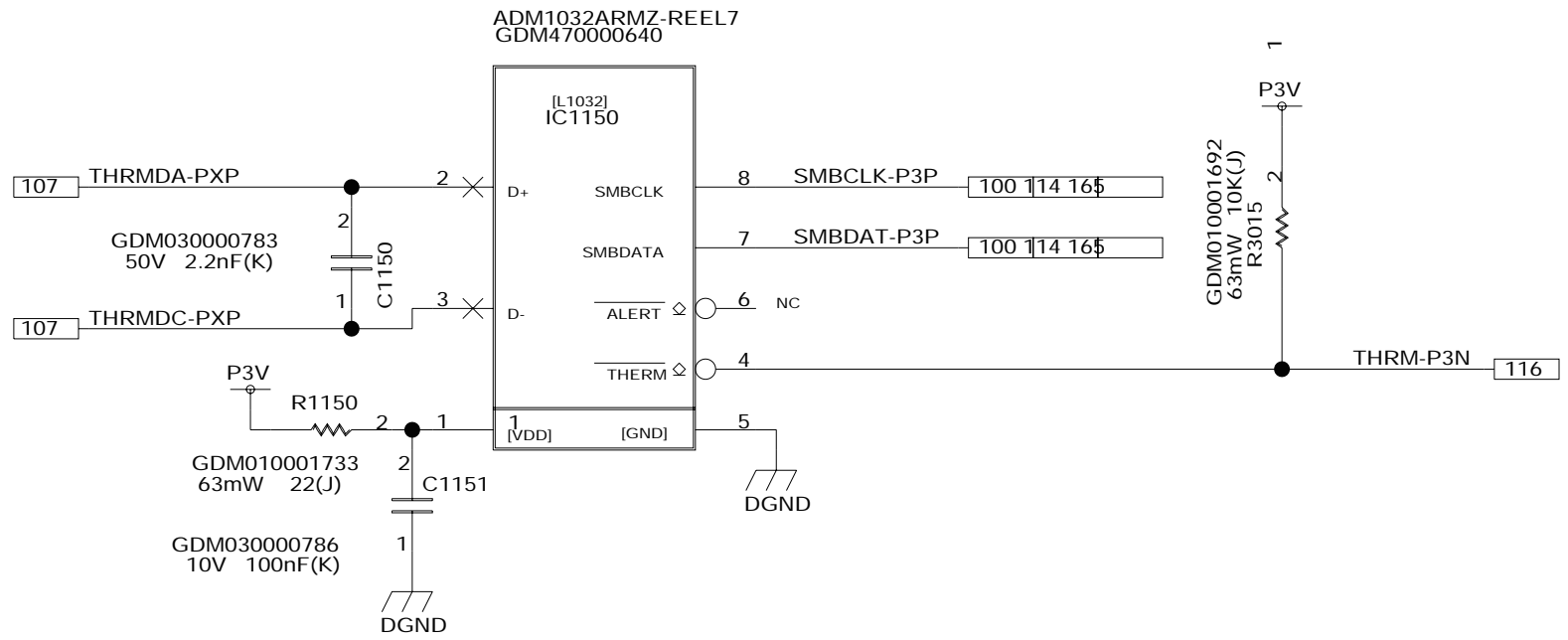
1

2

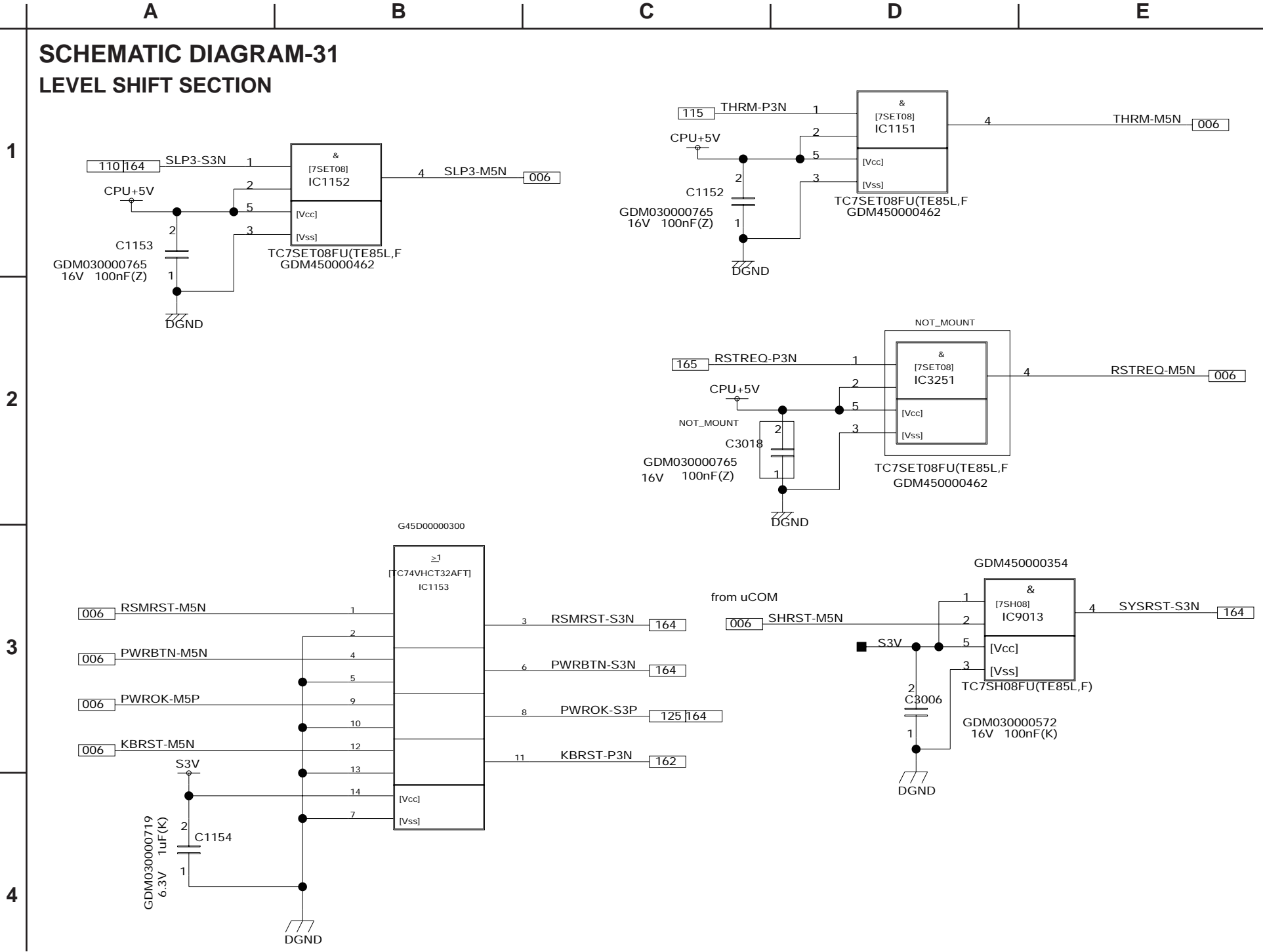
3

4

A B C D E



SCHEMATIC DIAGRAM-31
LEVEL SHIFT SECTION



A

B

C

D

E

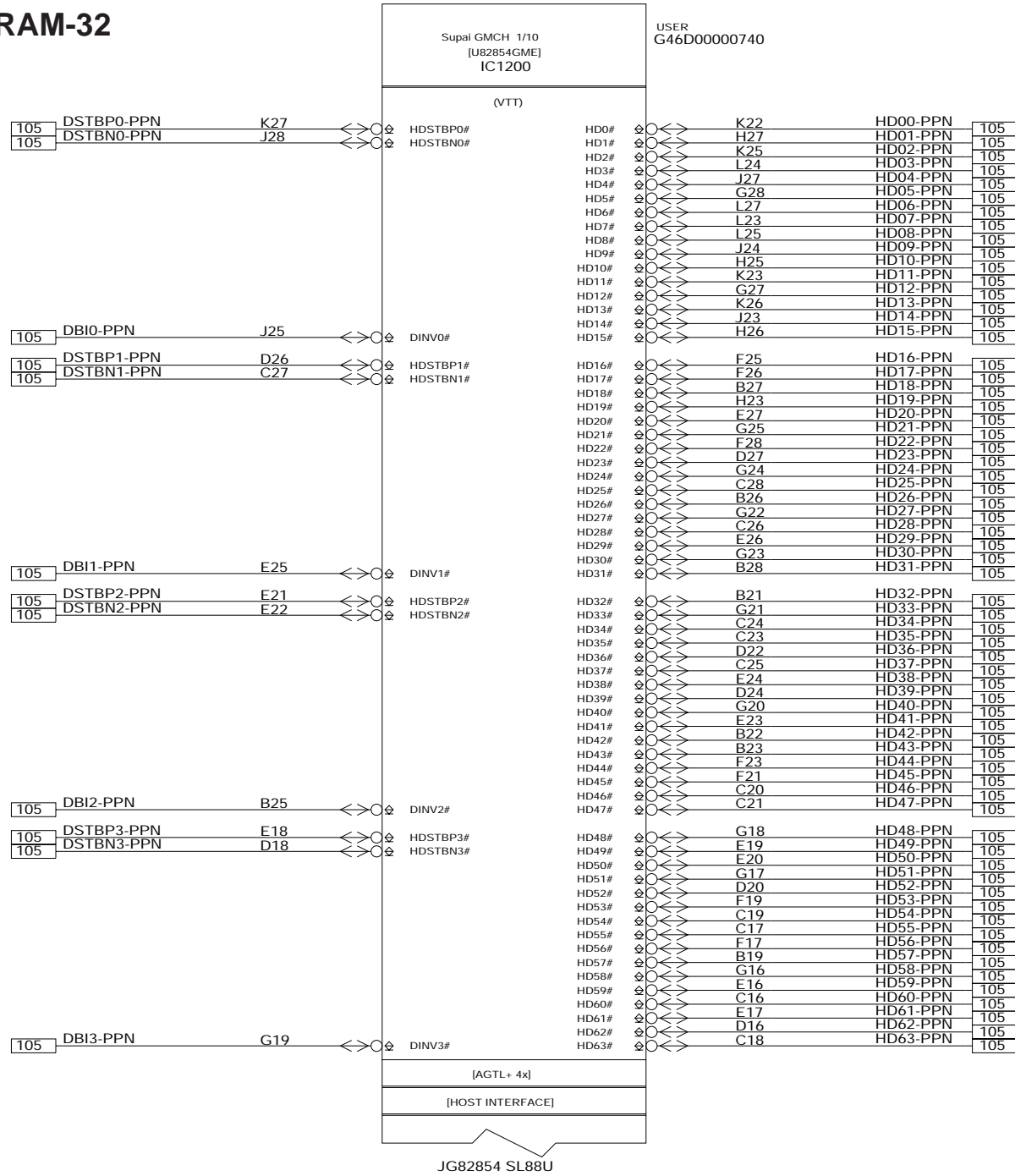
SCHEMATIC DIAGRAM-32
SUPAI_1 SECTION

1

2

3

4



A

B

C

D

E

SCHEMATIC DIAGRAM-33
SUPAI SECTION-2

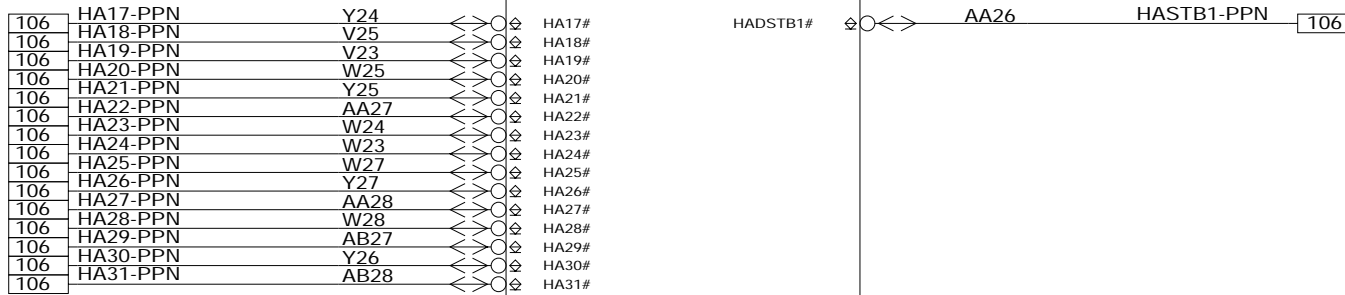
G46D00000740

Supai GMCH 2/10
[U82854GM]
IC1200

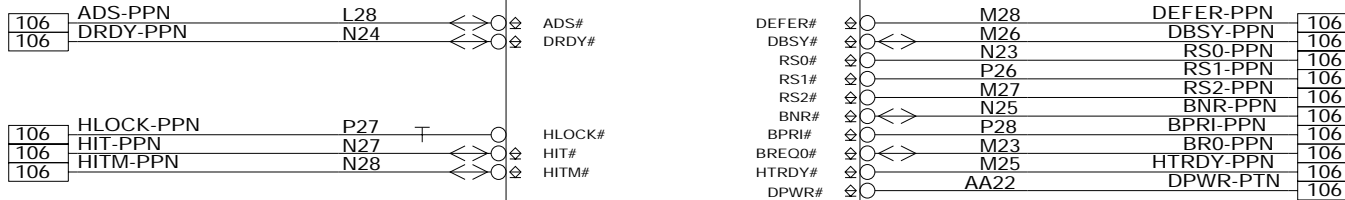
(VTT)



2



3



4

107 162 DPSP-PPN

Y23

DPSLP#

[HOST INTERFACE]

[AGTL+]

(VTT)

CPURST#

F15

CPURST-PPN

106

(to CPU)

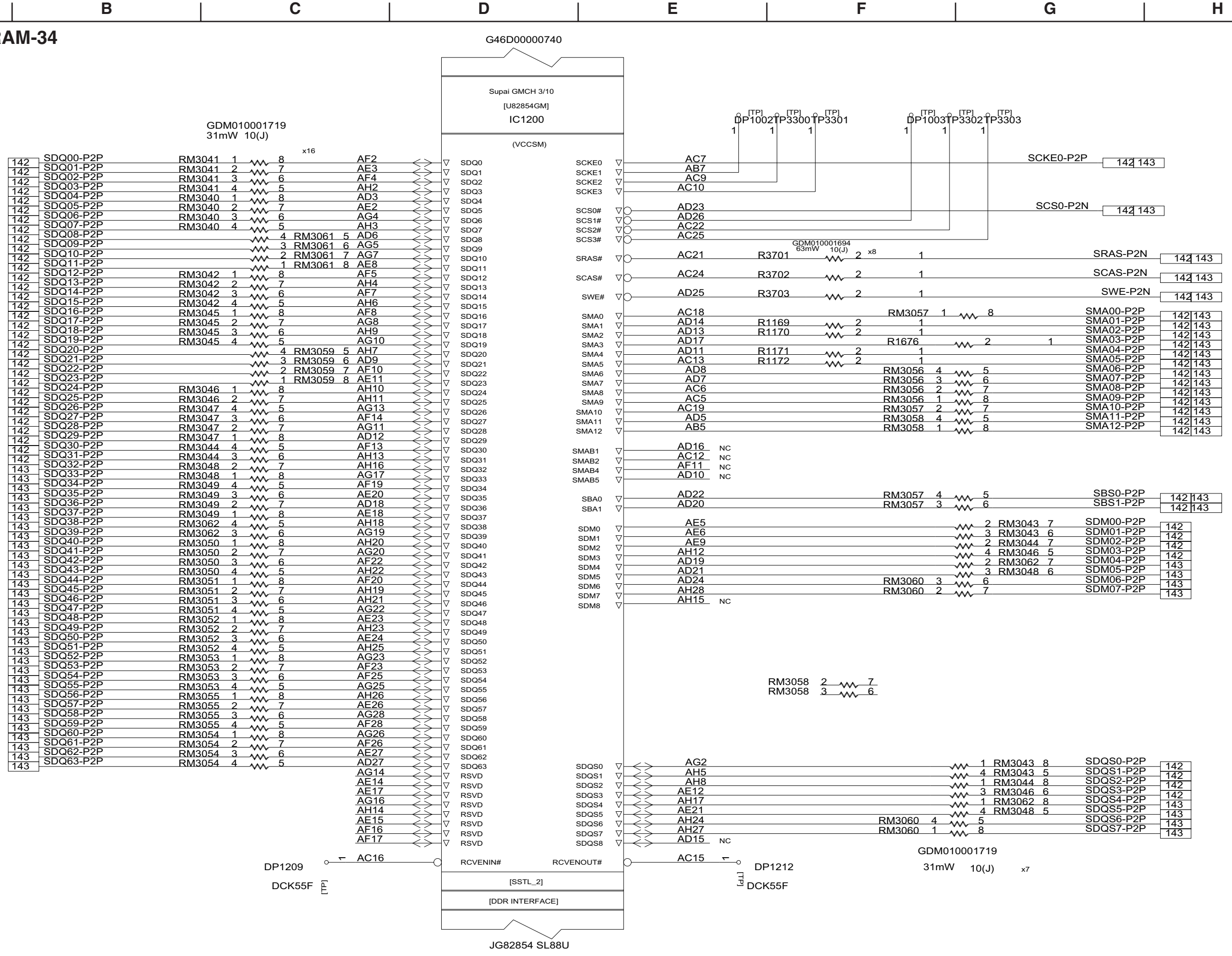
DP1201
[TP]

1 (for ITPRST-PPN)

JG82854 SL88U

SCHEMATIC DIAGRAM-34 SUPAI SECTION-3

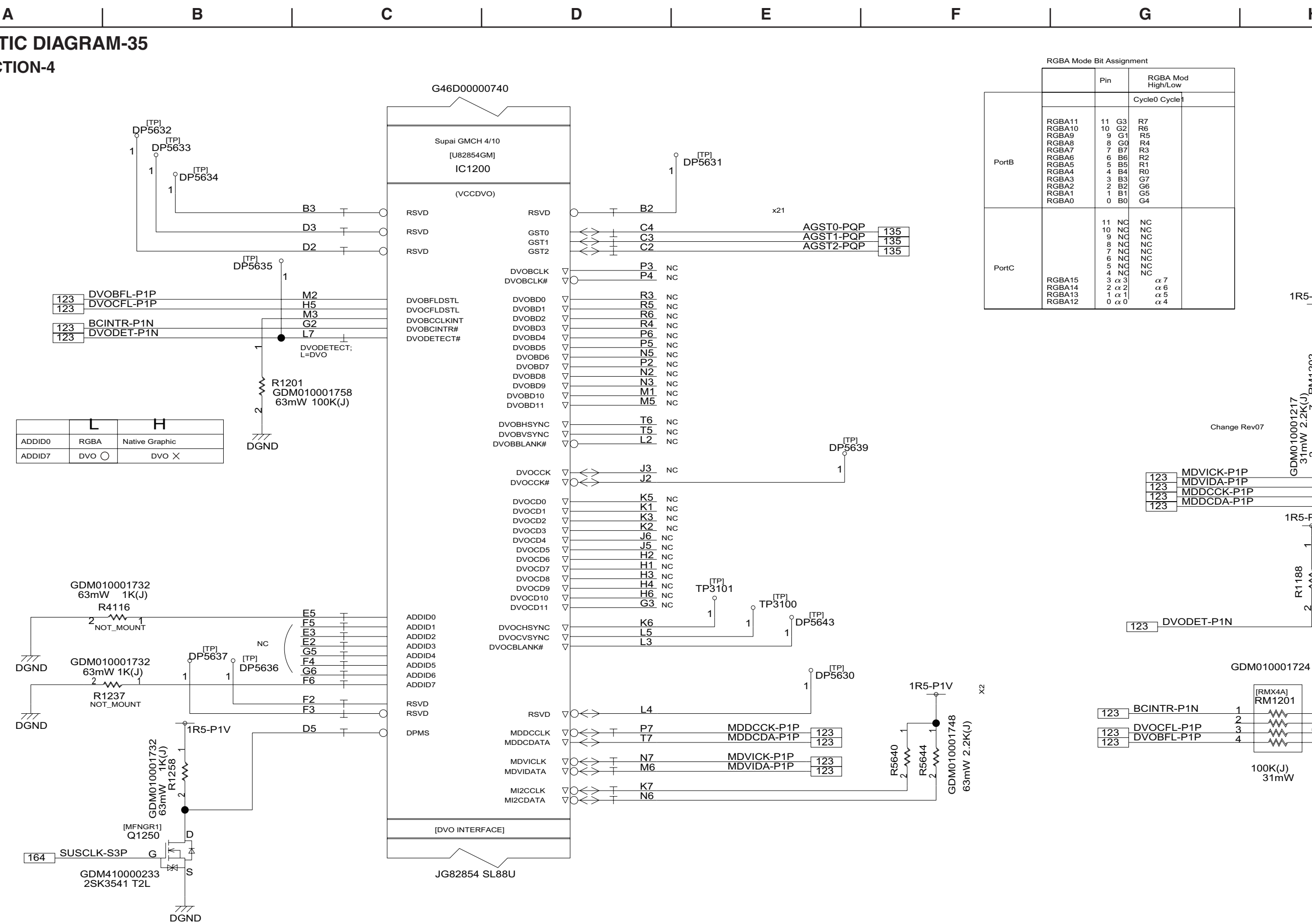
1
2
3
4
5



JG82854 SL88U

SCHEMATIC DIAGRAM-35
SUPAI SECTION-4

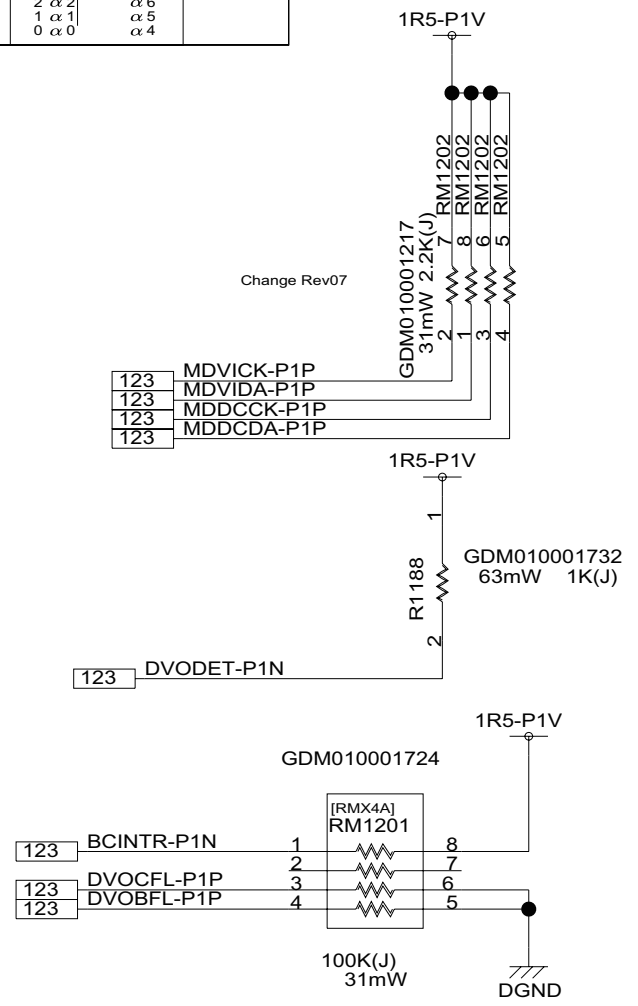
1
2
3
4
5



| | L | H |
|--------|-------|----------------|
| ADDID0 | RGBA | Native Graphic |
| ADDID7 | DVO ○ | DVO X |

RGBA Mode Bit Assignment

| Port | Pin | RGBA Mod High/Low | |
|--------|--------|-------------------|--------|
| | | Cycle0 | Cycle1 |
| PortB | RGBA11 | 11 G3 | R7 |
| | RGBA10 | 10 G2 | R6 |
| | RGBA9 | 9 G1 | R5 |
| | RGBA8 | 8 G0 | R4 |
| | RGBA7 | 7 B7 | R3 |
| | RGBA6 | 6 B6 | R2 |
| | RGBA5 | 5 B5 | R1 |
| | RGBA4 | 4 B4 | R0 |
| | RGBA3 | 3 B3 | G7 |
| | RGBA2 | 2 B2 | G6 |
| | RGBA1 | 1 B1 | G5 |
| RGBA0 | 0 B0 | G4 | |
| PortC | 11 | NC | NC |
| | 10 | NC | NC |
| | 9 | NC | NC |
| | 8 | NC | NC |
| | 7 | NC | NC |
| | 6 | NC | NC |
| | 5 | NC | NC |
| | 4 | NC | NC |
| | 3 | α3 | α7 |
| | 2 | α2 | α6 |
| | 1 | α1 | α5 |
| | 0 | α0 | α4 |
| | RGBA15 | | |
| | RGBA14 | | |
| | RGBA13 | | |
| RGBA12 | | | |



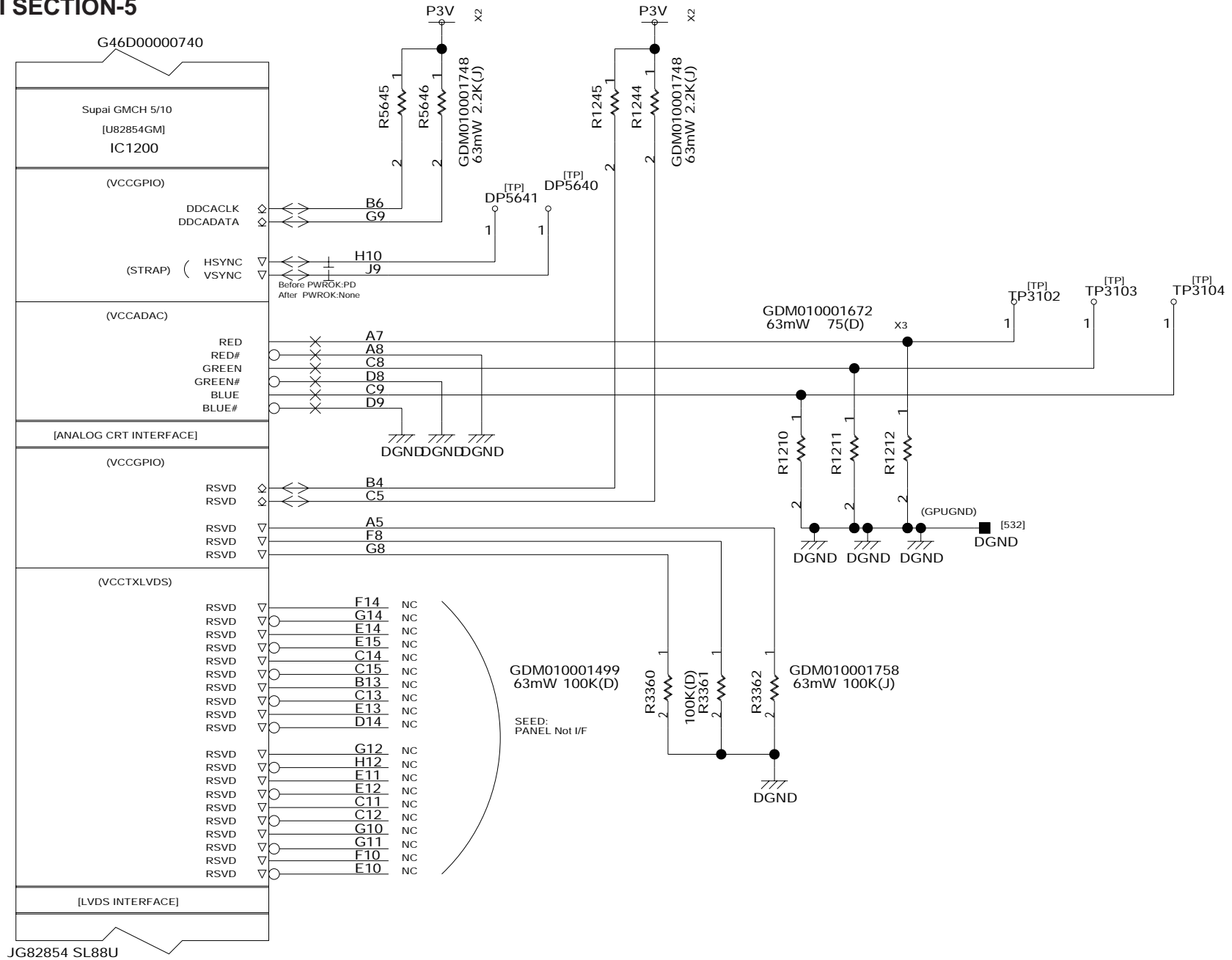
SCHEMATIC DIAGRAM-36
SUPAI SECTION-5

1

2

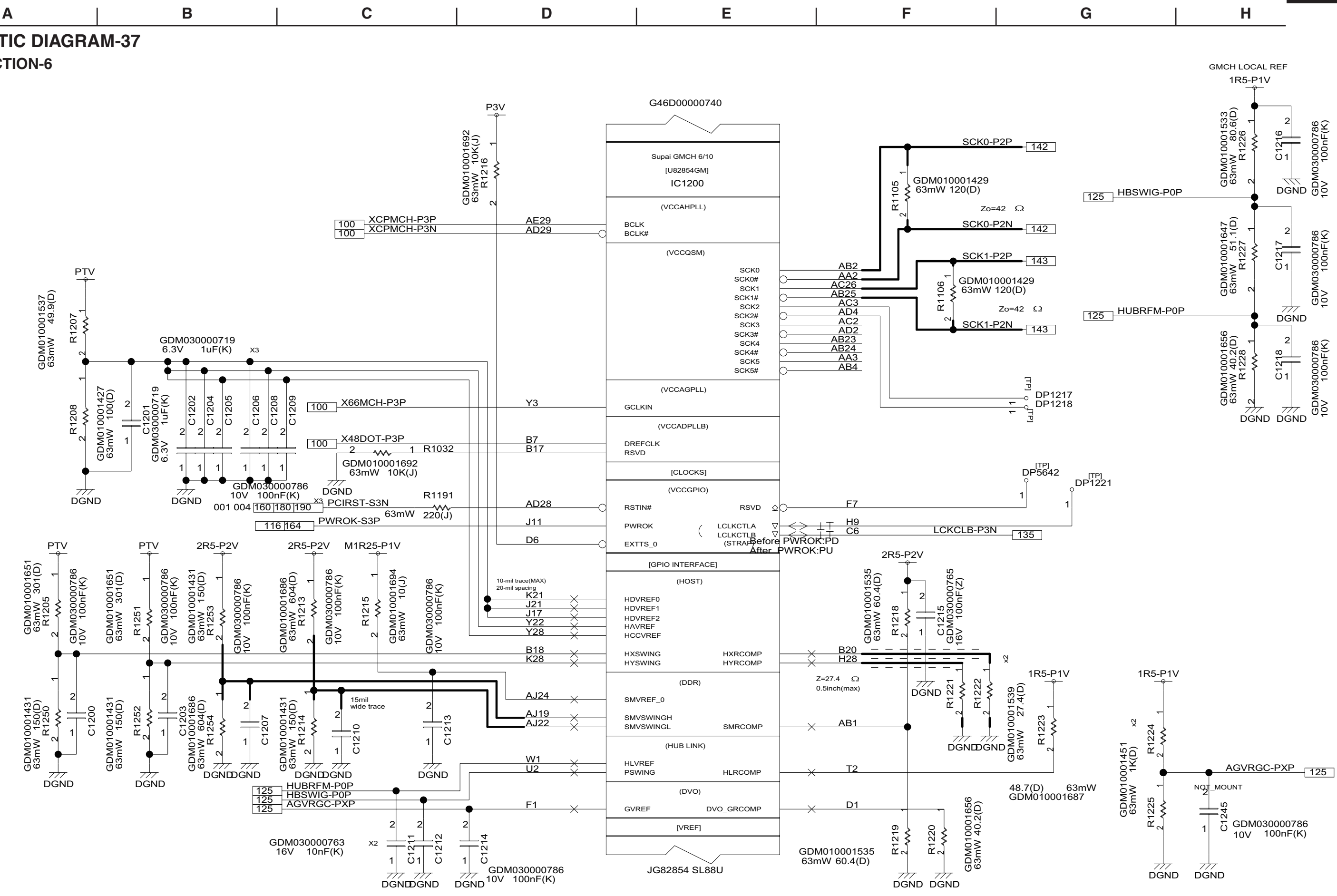
3

4



SCHEMATIC DIAGRAM-37
SUPAI SECTION-6

1
 2
 3
 4
 5



SCHEMATIC DUAGRAM-38
SUPAI SECTION-7

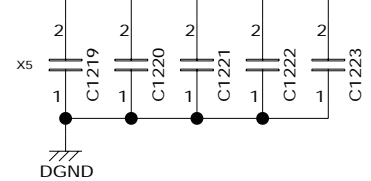
1

2

3

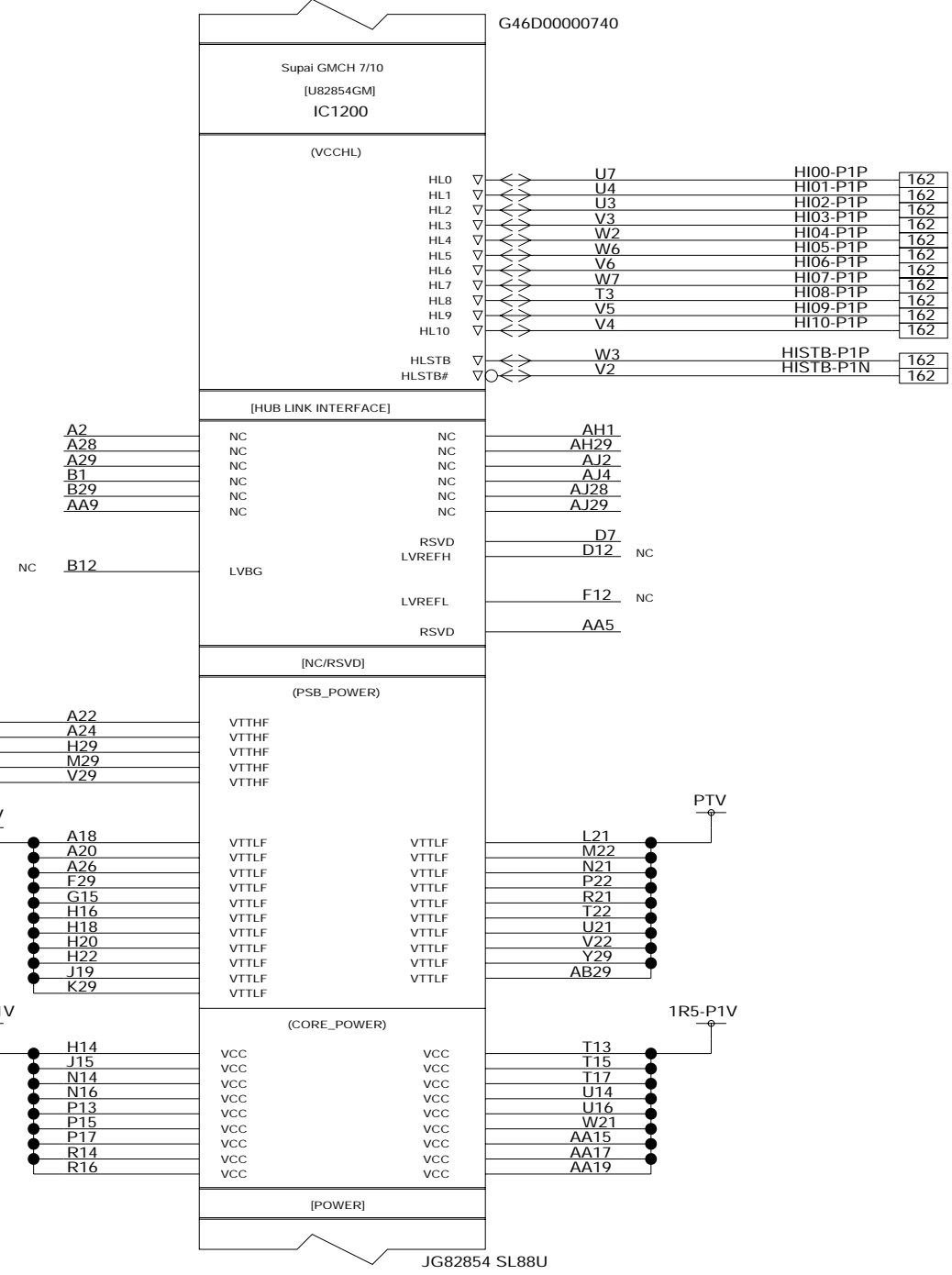
4

GDM030000765
16V 100nF(Z)



1R5-P1V

1R5-P1V



G46D00000740

JG82854 SL88U

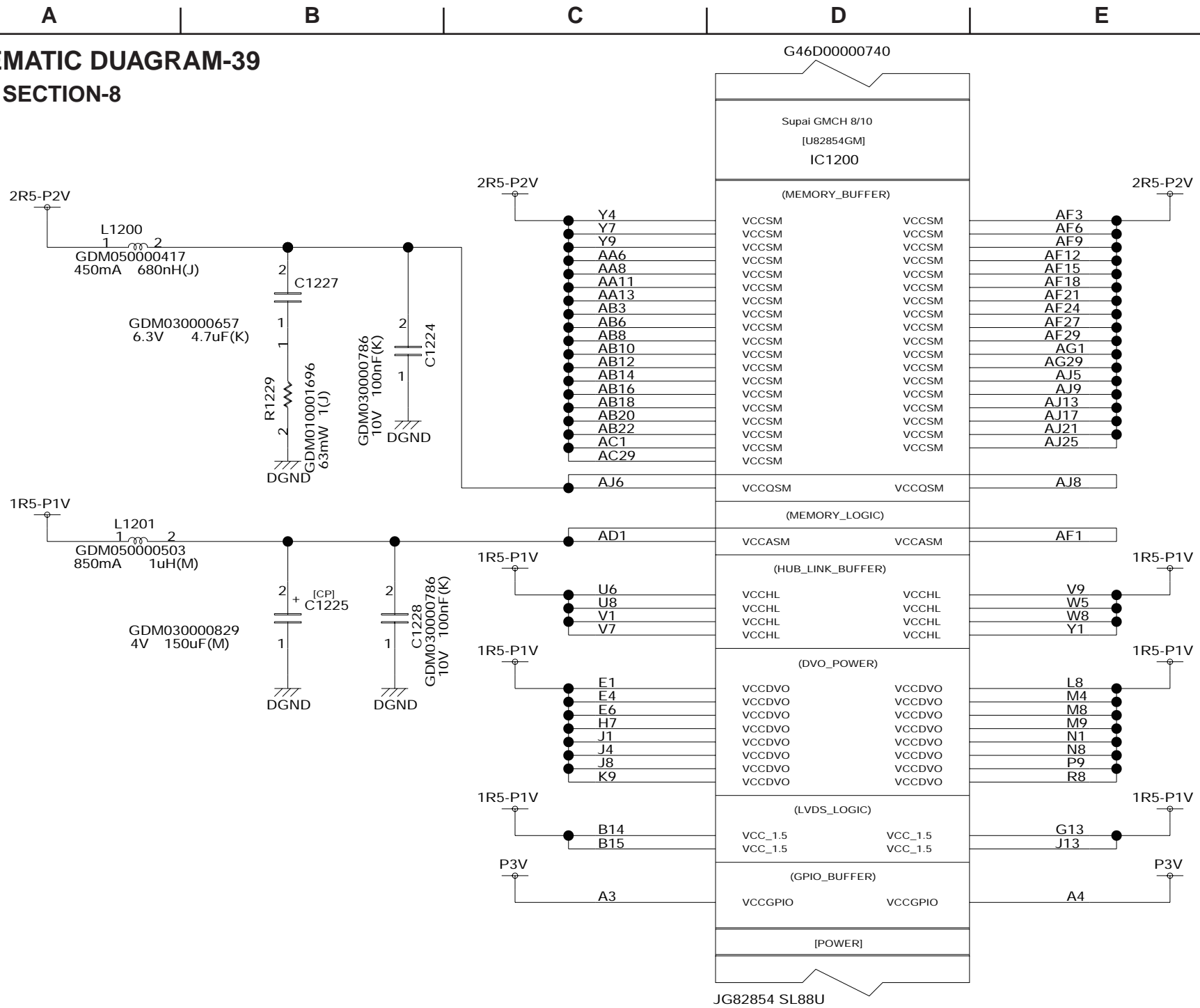
SCHEMATIC DUAGRAM-39 SUPAI SECTION-8

1

2

3

4



SCHEMATIC DIAGRAM-40 SUPAI SECTION-9

Note1:Route VSSADAC and VSSALVDS trace to the cap.
(No via BTW GMCH and cap)

Note2: These capacitors should be placed as close to the GMCH as possible

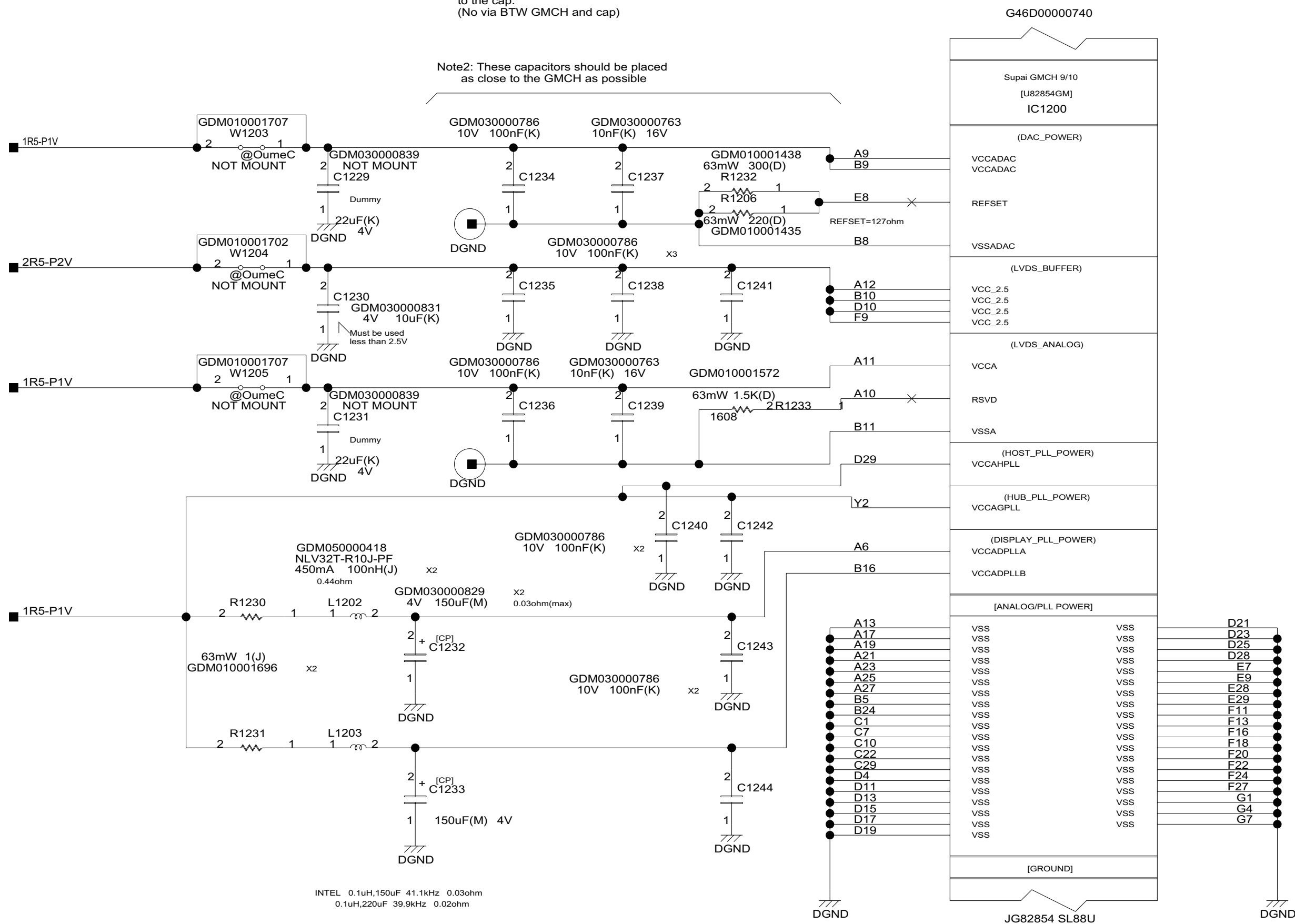
1

2

3

4

5



INTEL 0.1uH,150uF 41.1kHz 0.03ohm
0.1uH,220uF 39.9kHz 0.02ohm

A

B

C

D

SCHEMATIC DIAGRAM-41
SUPAI SECTION-10

1

G46D00000740

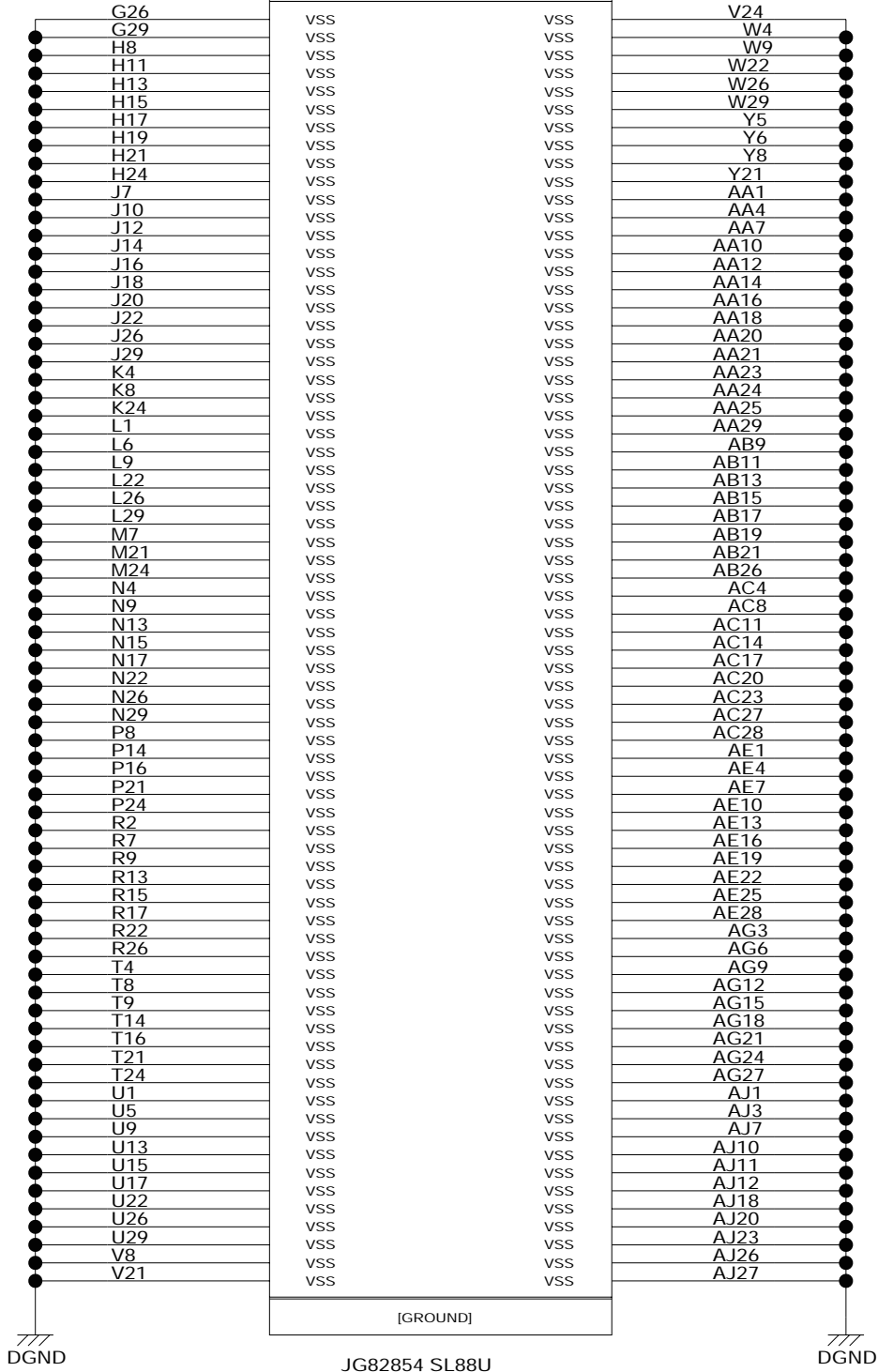
Supai GMCH 10/10
[U82854GM]
IC1200

2

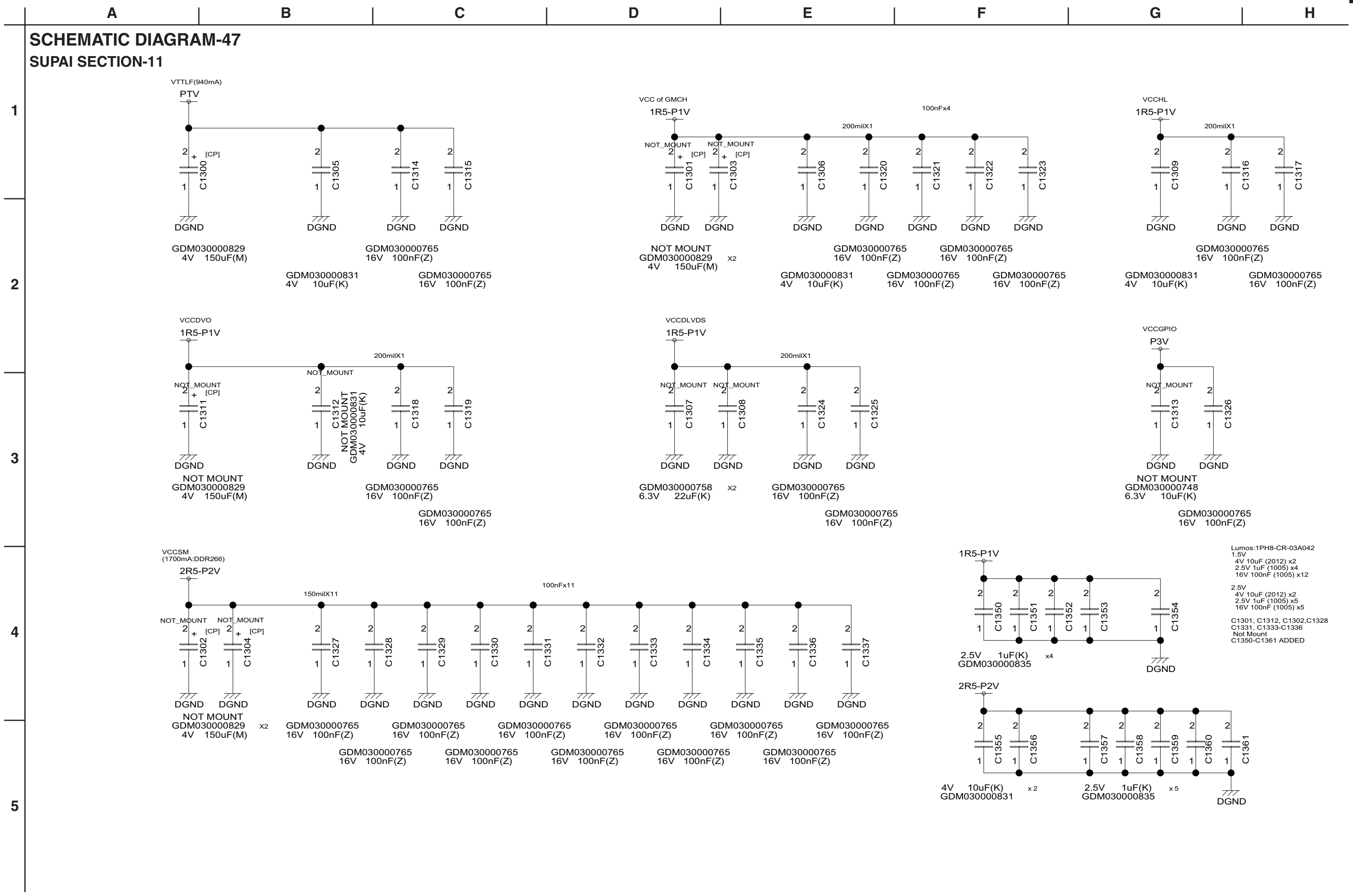
3

4

5



SCHEMATIC DIAGRAM-47 SUPAI SECTION-11



A

B

C

D

E

SCHEMATIC DIAGRAM-43

SUPAI SECTION (STRAP)

1

| | L | H |
|----------------------|--|--|
| LCLKCTRLB (def=L) | P-M Processor (1.2V Core) | P4 Processor/Mobile P4-M Processor (1.5V Core) |
| HSYNC (def=L) | Normal_Op. | XOR_test |
| VSYNC (def=L) | Normal_Op. | AIIZ_test |
| DVODETECT (def=L) | DVO | AGP |
| ADDID[0] | RGBA mode | Native Graphic mode |
| ADDID[7] | DVO device ○ | DVO device × |
| GSTJ[2:0] | during CPURST# internal pulled-down after CPURST# and C3/D1/D3 Hi-Z | |

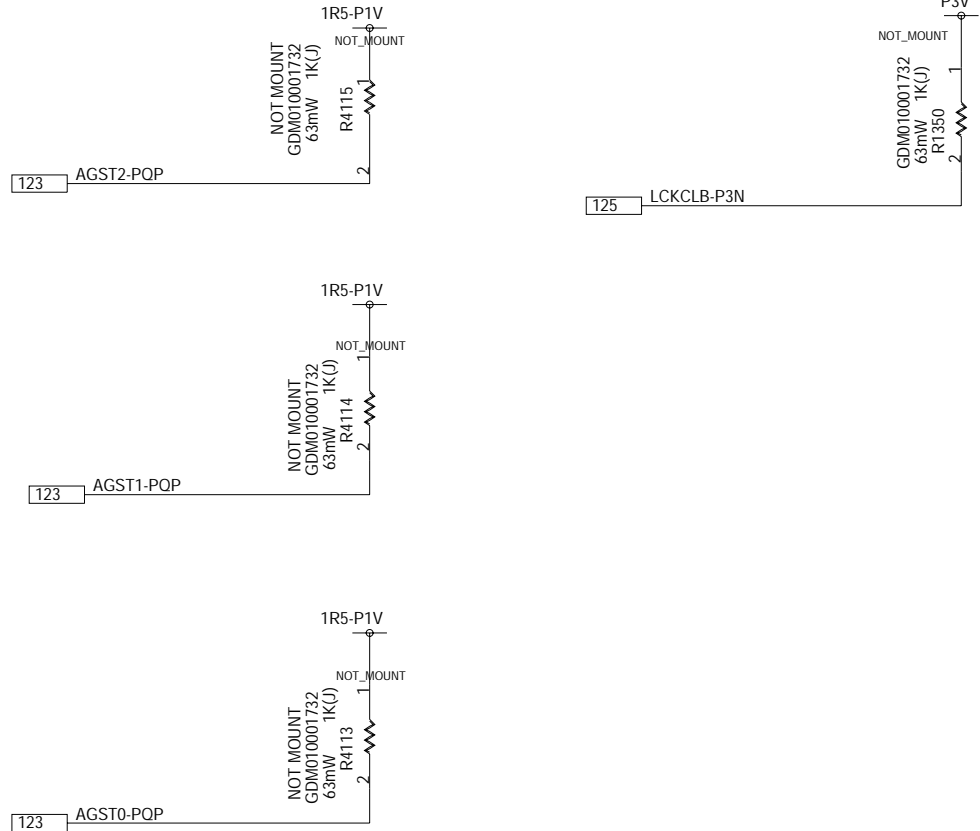
2

| GSTJ[210] | PSB | MEM | GFX |
|-----------|-----|-----|-----|
| 000 | 400 | 266 | 200 |
| 001 | 400 | 200 | 200 |
| 100 | 533 | 266 | 200 |
| 101 | 533 | 266 | 266 |
| 110 | 533 | 333 | 266 |
| 111 | 400 | 333 | 250 |

3

| FS[210] | CPUCLK |
|---------|--------|
| 000 | 66 |
| 001 | 100 |
| 010 | 200 |
| 011 | 133 |

4

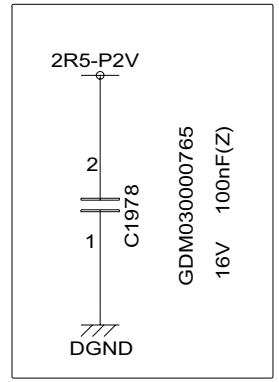
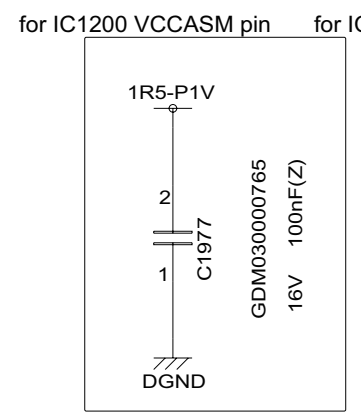
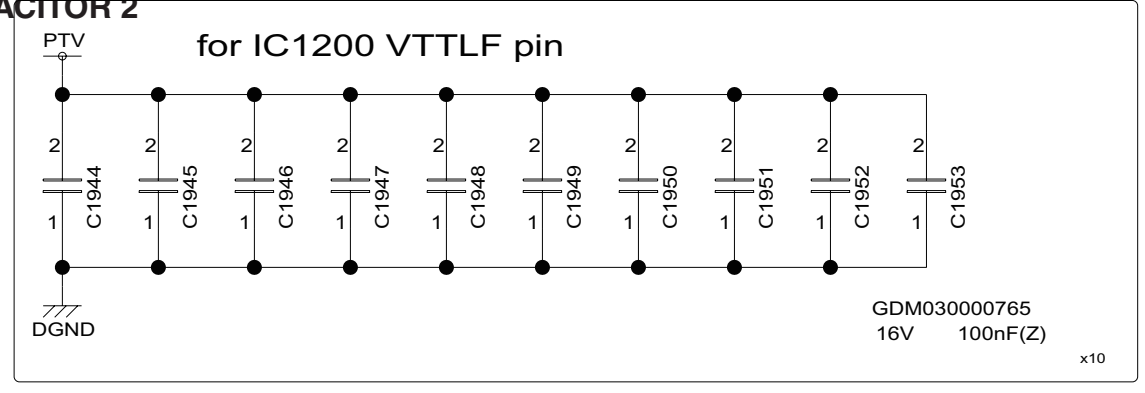


A B C D E F G H

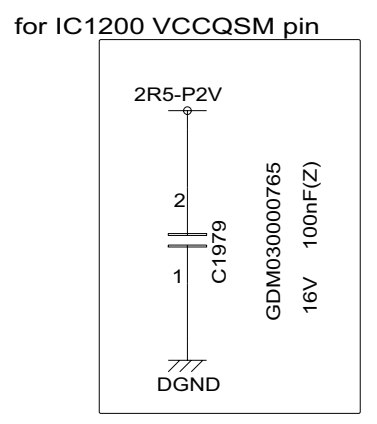
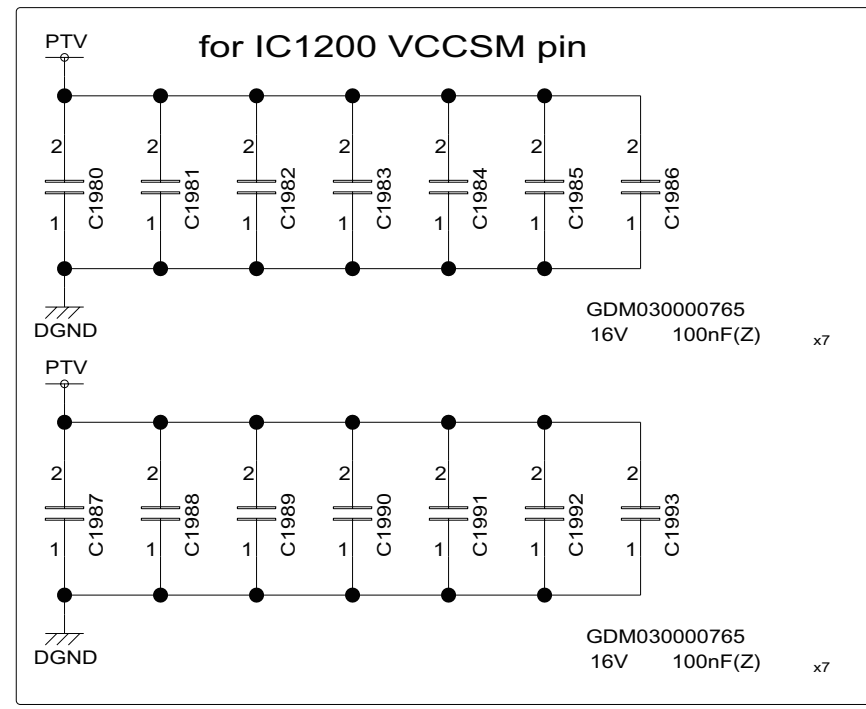
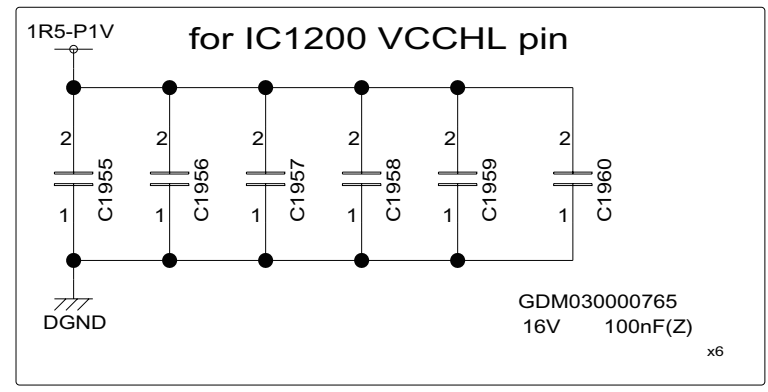
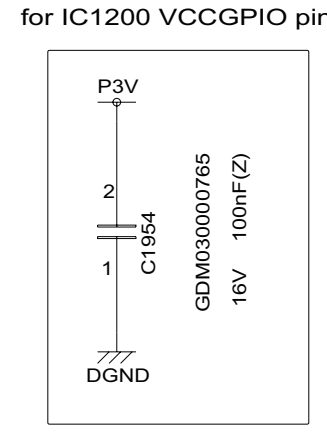
SCHEMATIC DIAGRAM-44

ADDITIONAL CAPACITOR 2

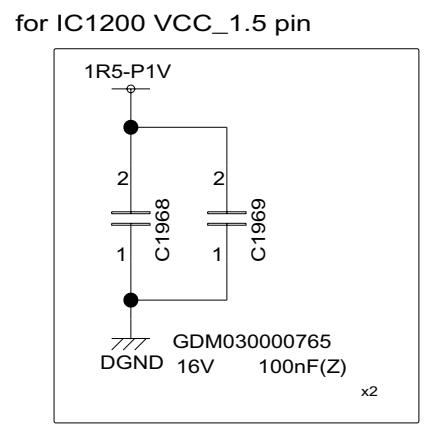
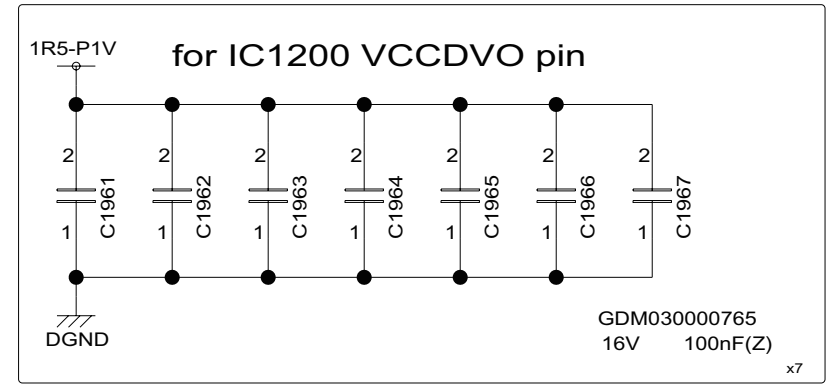
1



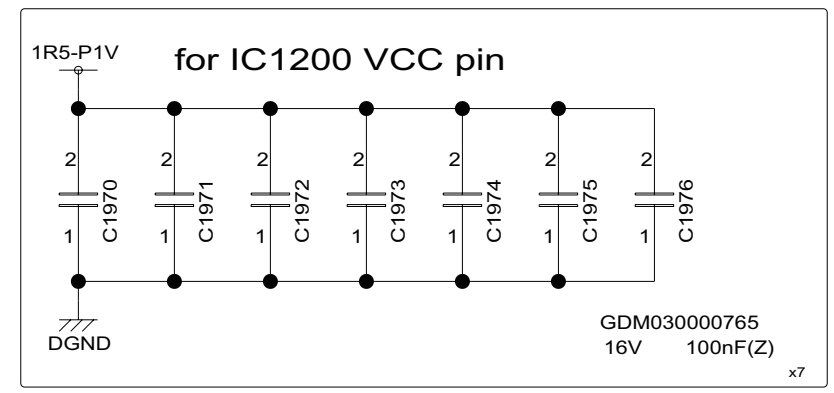
2



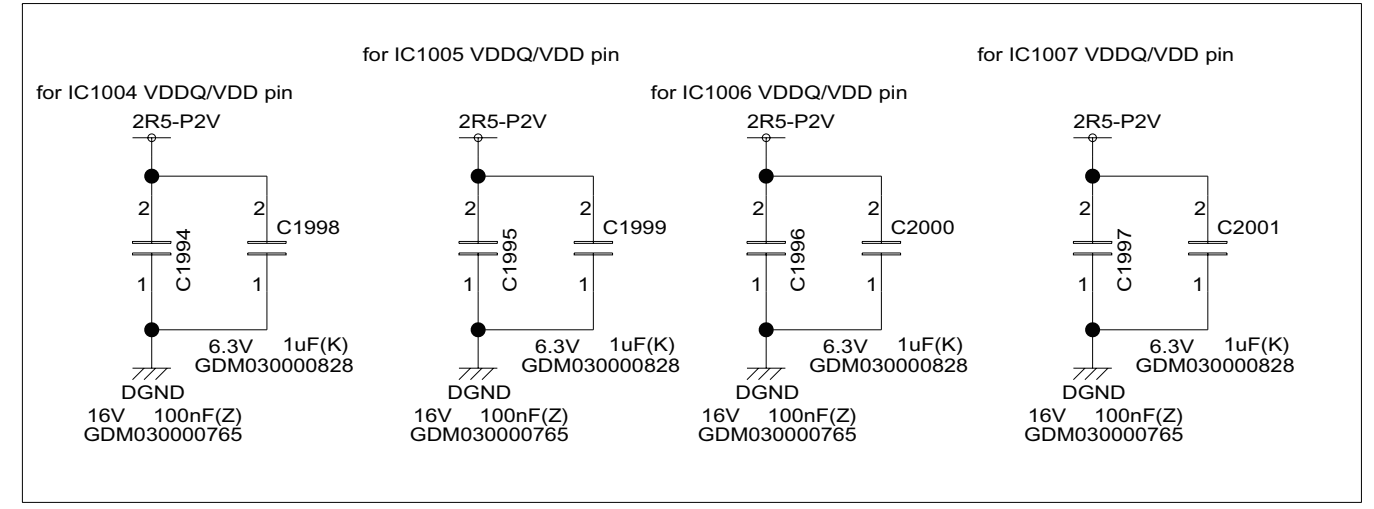
3



4



<DDR Memory(sh142,143)>



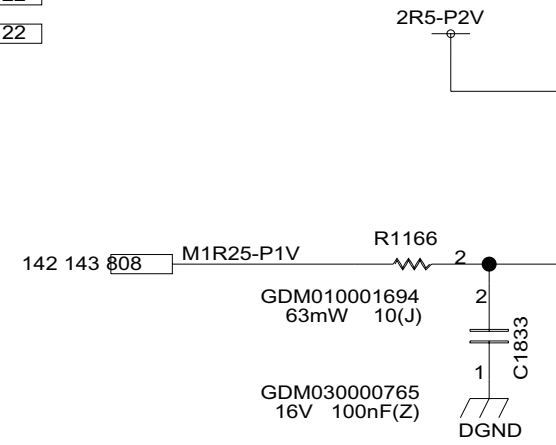
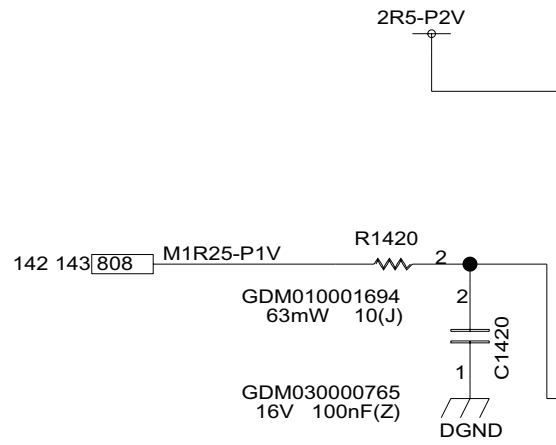
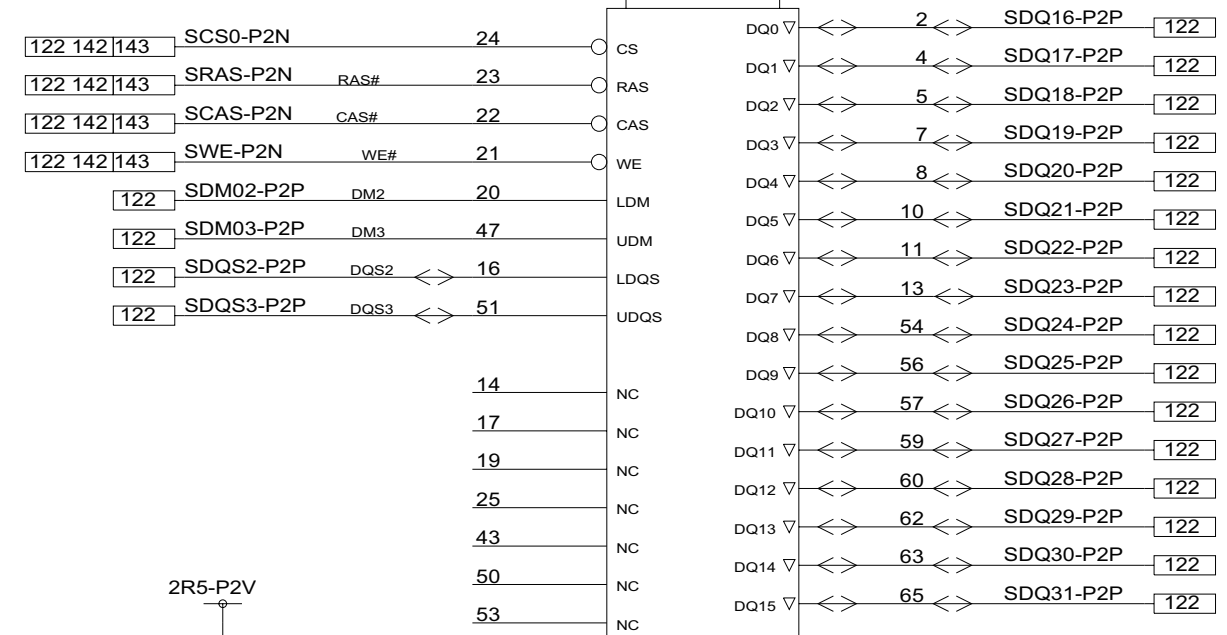
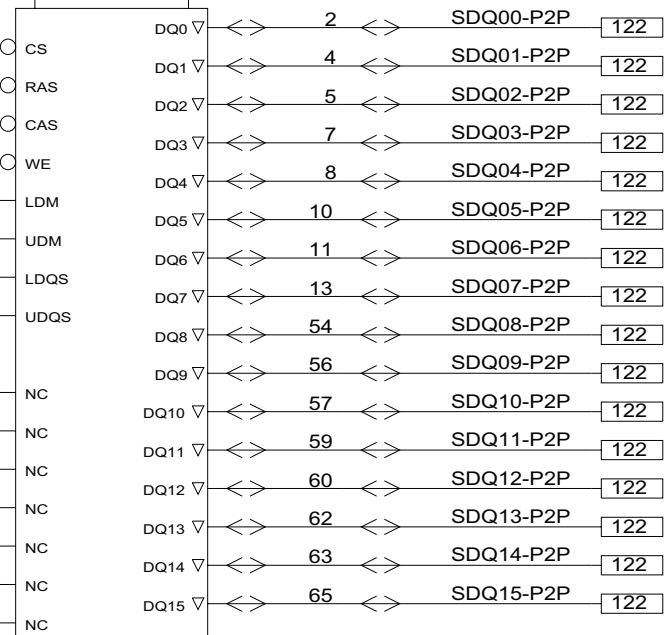
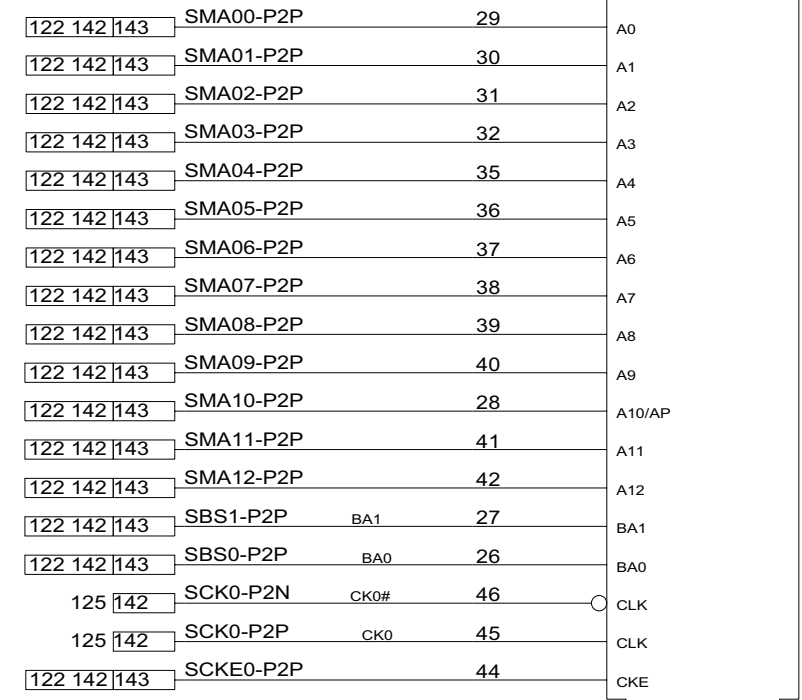
5

A B C D E F G H

SCHEMATIC DIAGRAM-45
DDR-1

GDM460001239

TSOP II
[MDS32M16]
IC1004



1

2

3

4

5

SCHEMATIC DIAGRAM-46

DDR-2

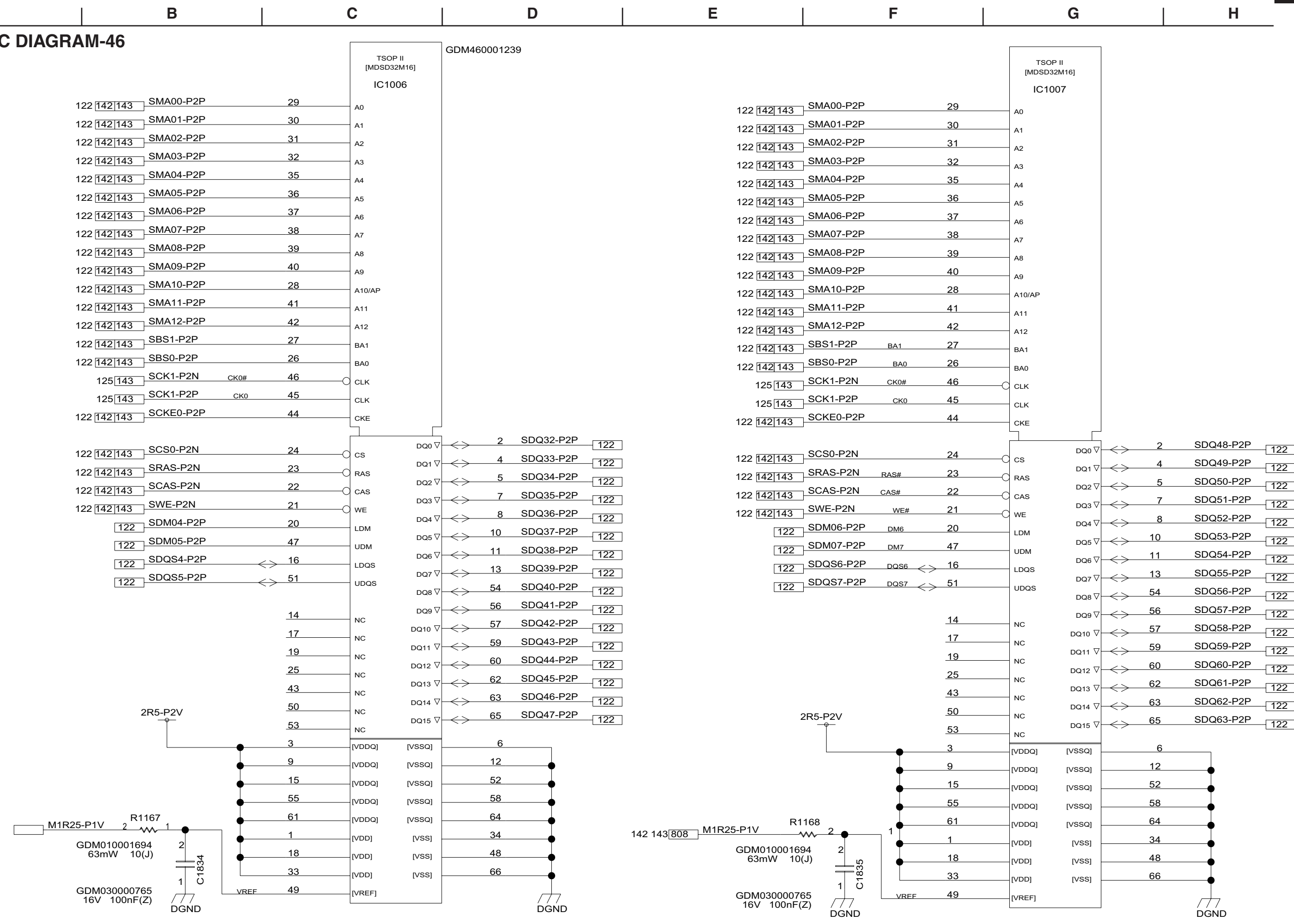
1

2

3

4

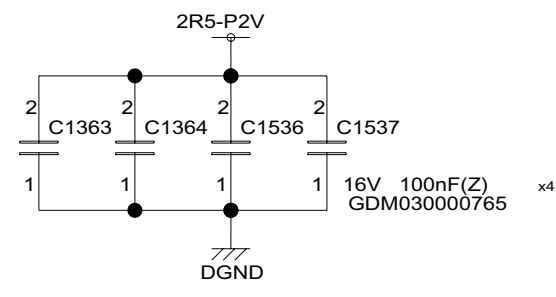
5



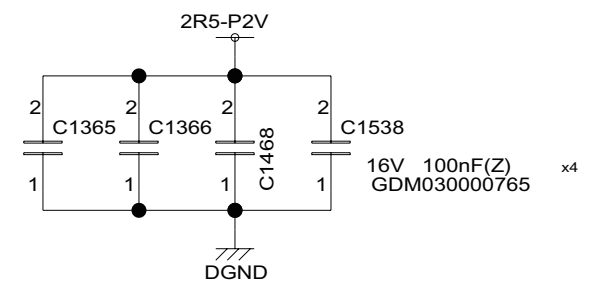
SCHEMATIC DIAGRAM-47
DDR DECOUPLING

DDR Decoupling

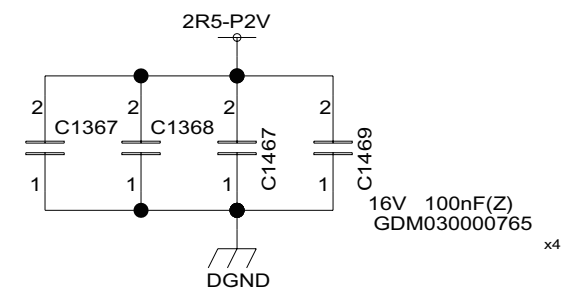
for IC1004



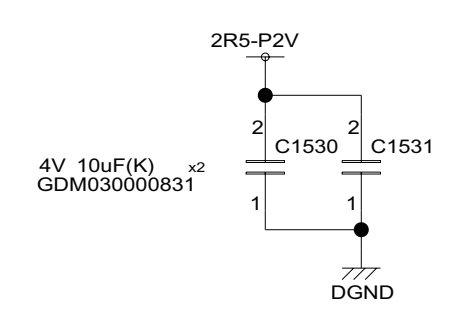
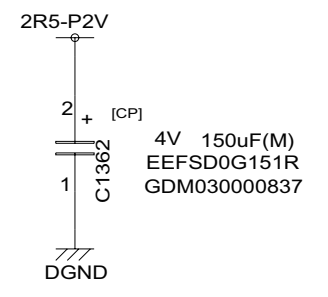
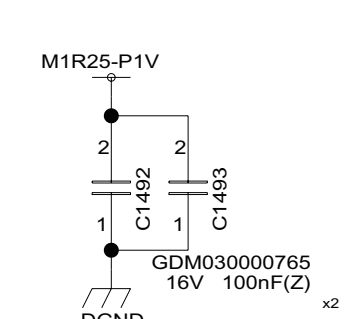
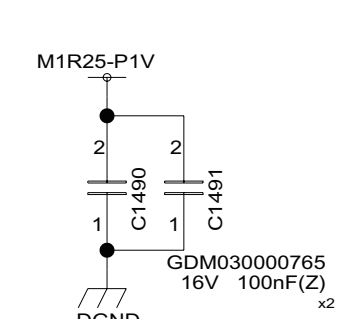
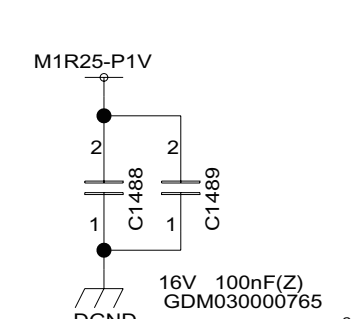
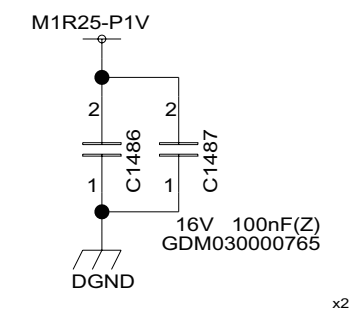
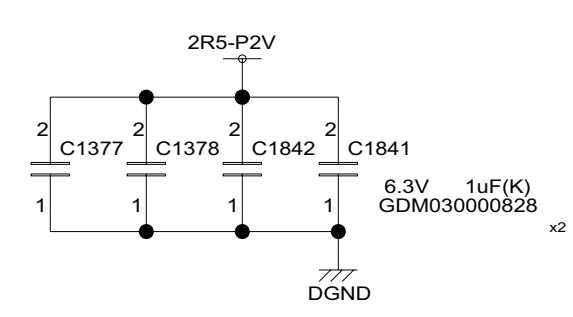
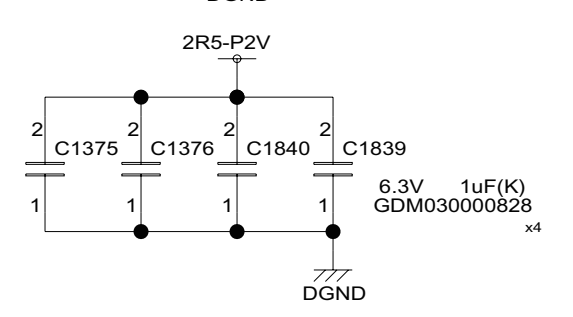
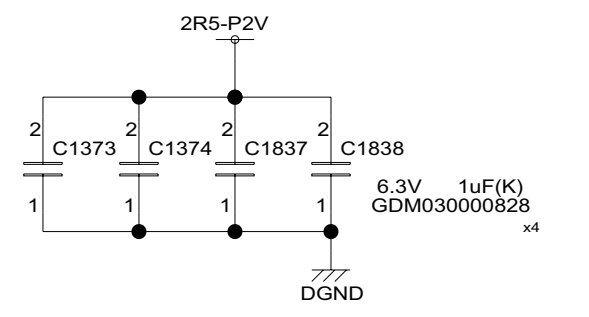
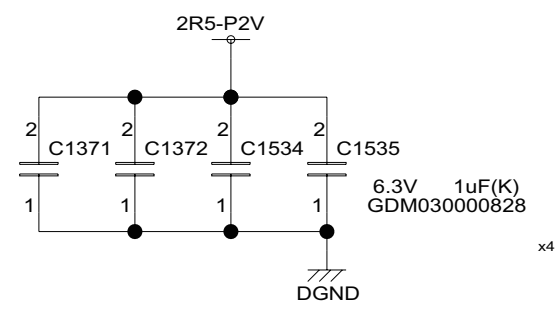
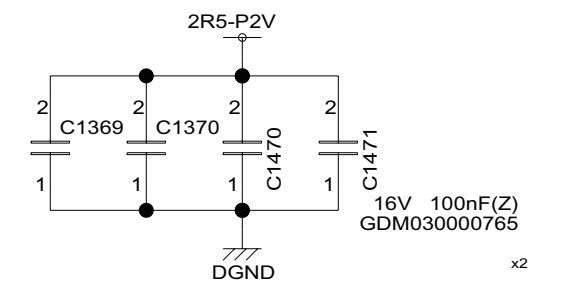
for IC1005



for IC1006



for IC1007

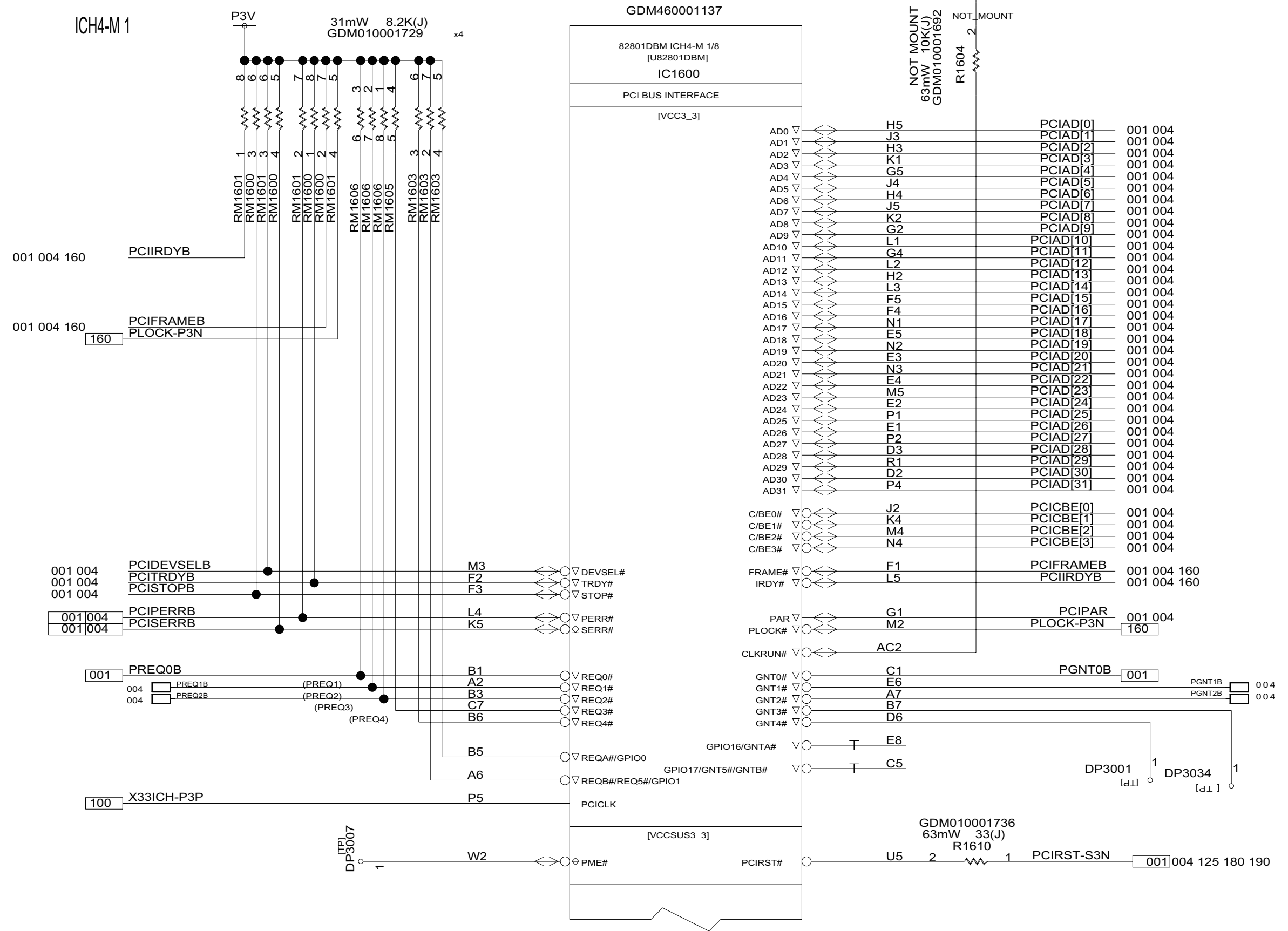


1
2
3
4
5

SCHEMATIC DIAGRAM-48 ICH4 SECTION-M1

1
2
3
4
5

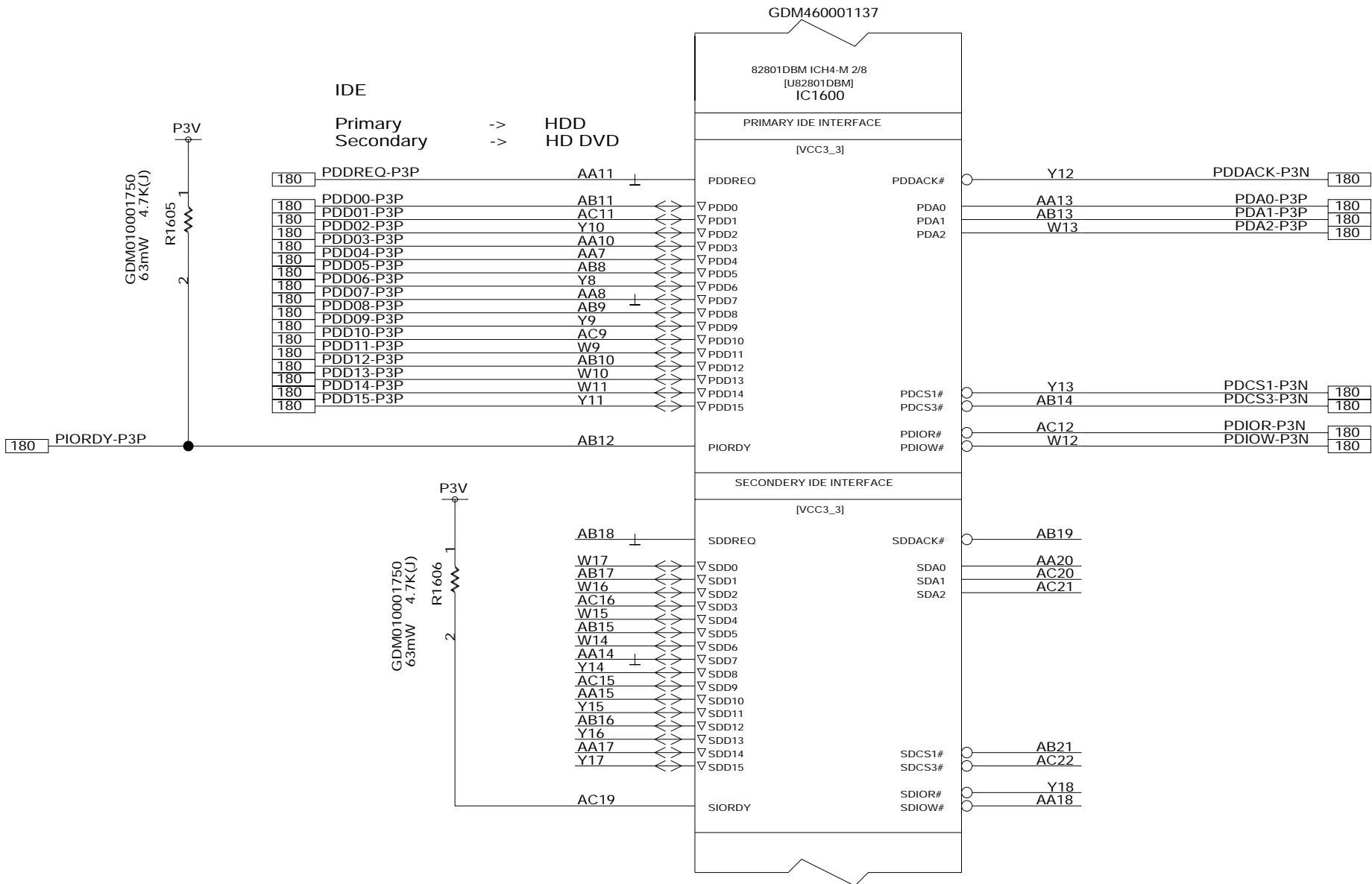
A B C D E F G H



SCHEMATIC DIAGRAM-49
ICH4 SECTION-M2

1
2
3
4

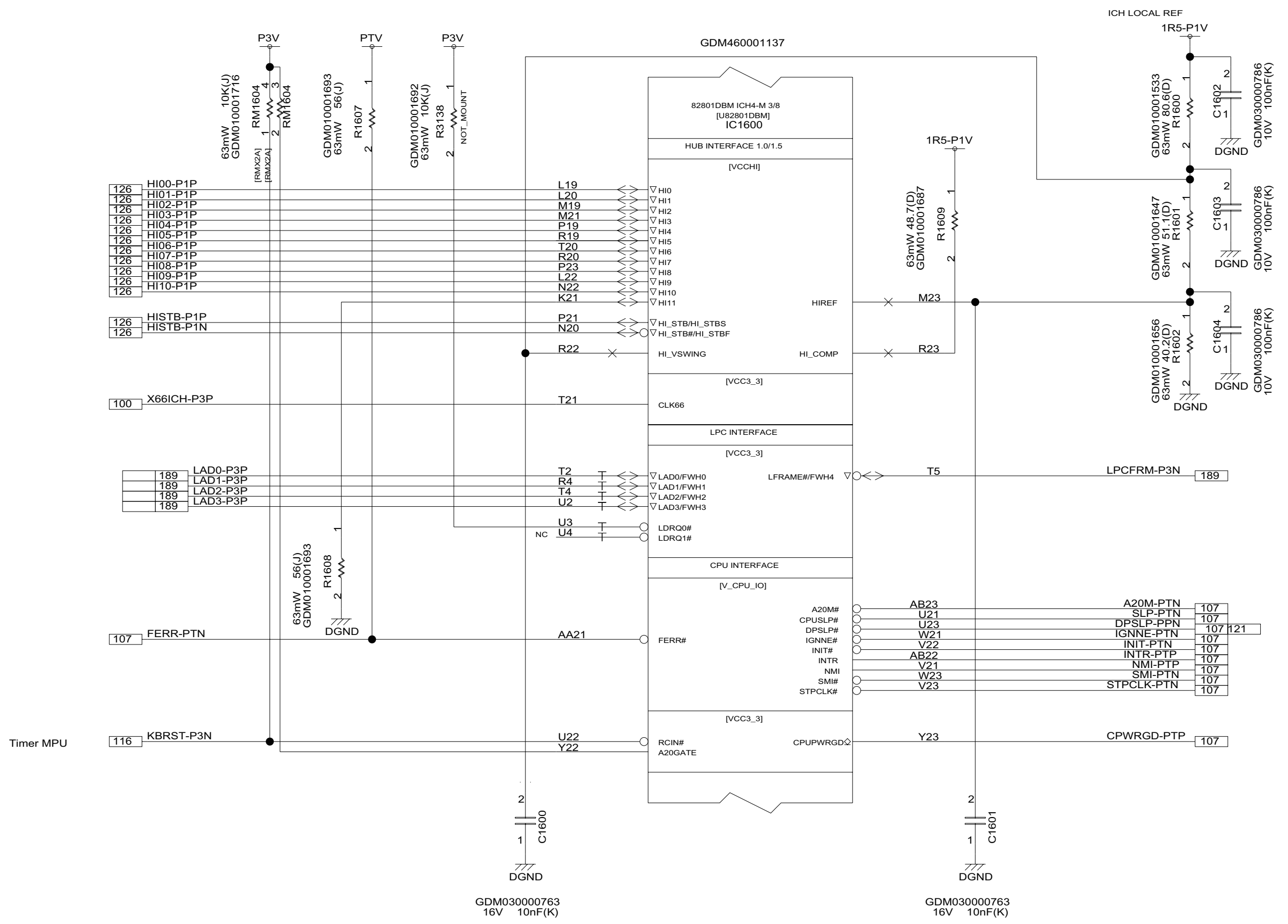
A B C D E



SCHEMATIC DIAGRAM-50

ICH4 SECTION-M3

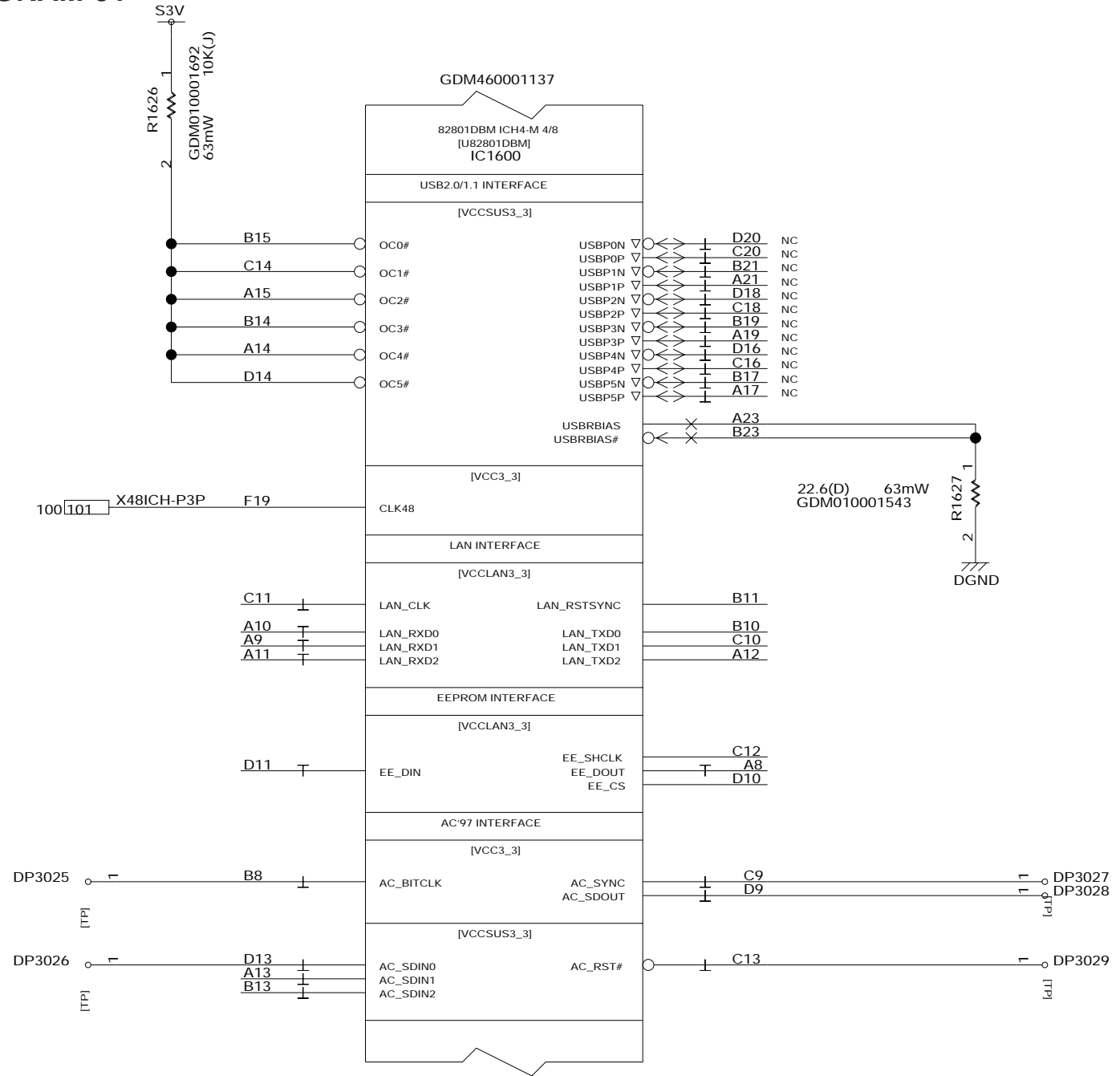
1
2
3
4
5



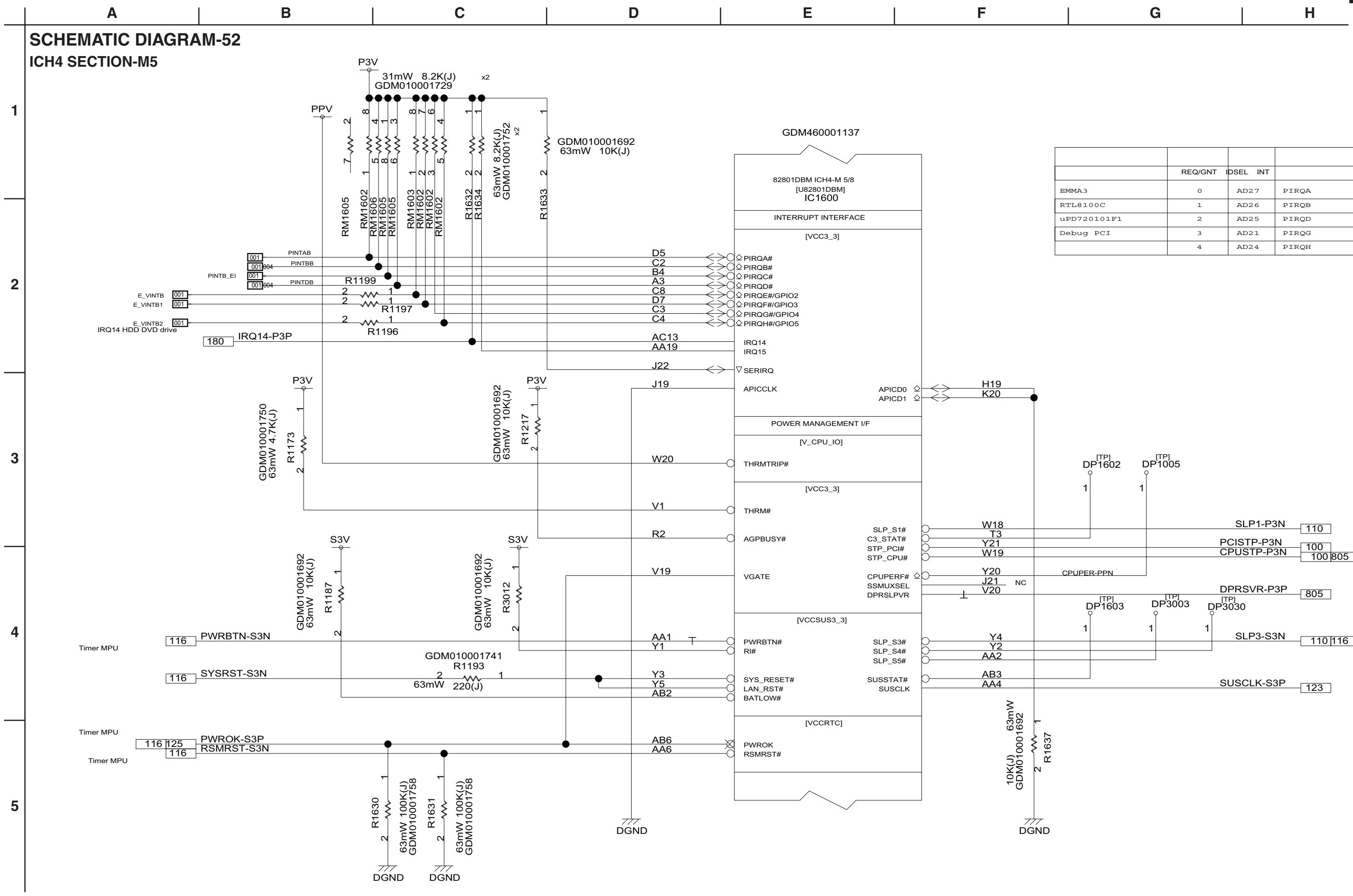
A B C D E

SCHEMATIC DIAGRAM-51
ICH4 SECTION-M4

1
2
3
4



SCHEMATIC DIAGRAM-52
ICH4 SECTION-M5



| | REQ/GNT | DSEL | INT |
|-------------|---------|------|-------|
| EMMA3 | 0 | AD27 | PIRQA |
| RTL8100C | 1 | AD26 | PIRQB |
| uPD720101F1 | 2 | AD25 | PIRQD |
| Debug PCI | 3 | AD21 | PIRQG |
| | 4 | AD24 | PIRQH |

1
2
3
4
5

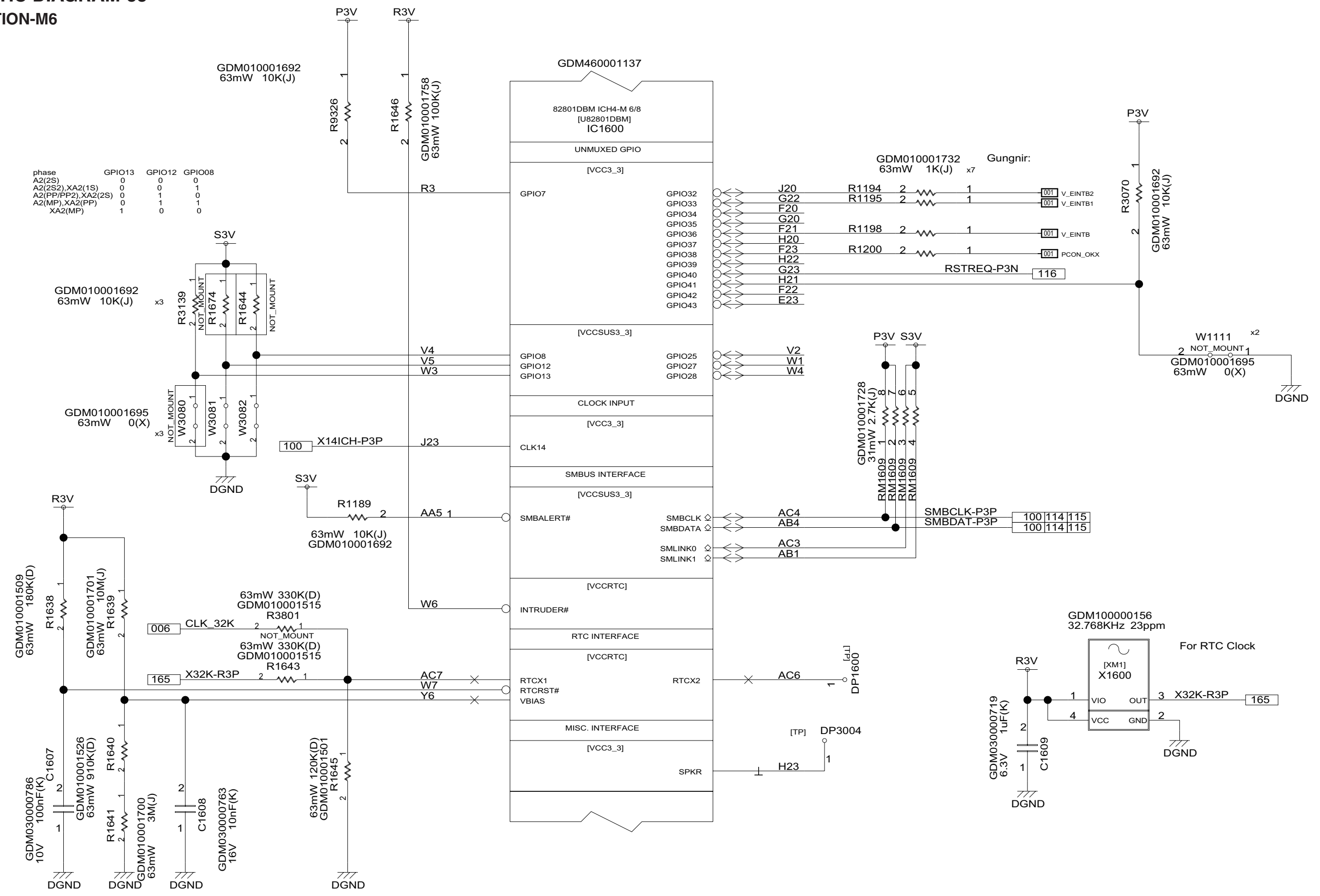
A B C D E F G H

SCHEMATIC DIAGRAM-53

ICH4 SECTION-M6

| phase | GPIO13 | GPIO12 | GPIO08 |
|--------------------|--------|--------|--------|
| A2(2S) | 0 | 0 | 0 |
| A2(2S2),XA2(1S) | 0 | 0 | 1 |
| A2(PP/PP2),XA2(2S) | 0 | 1 | 0 |
| A2(MP),XA2(PP) | 0 | 1 | 1 |
| XA2(MP) | 1 | 0 | 0 |

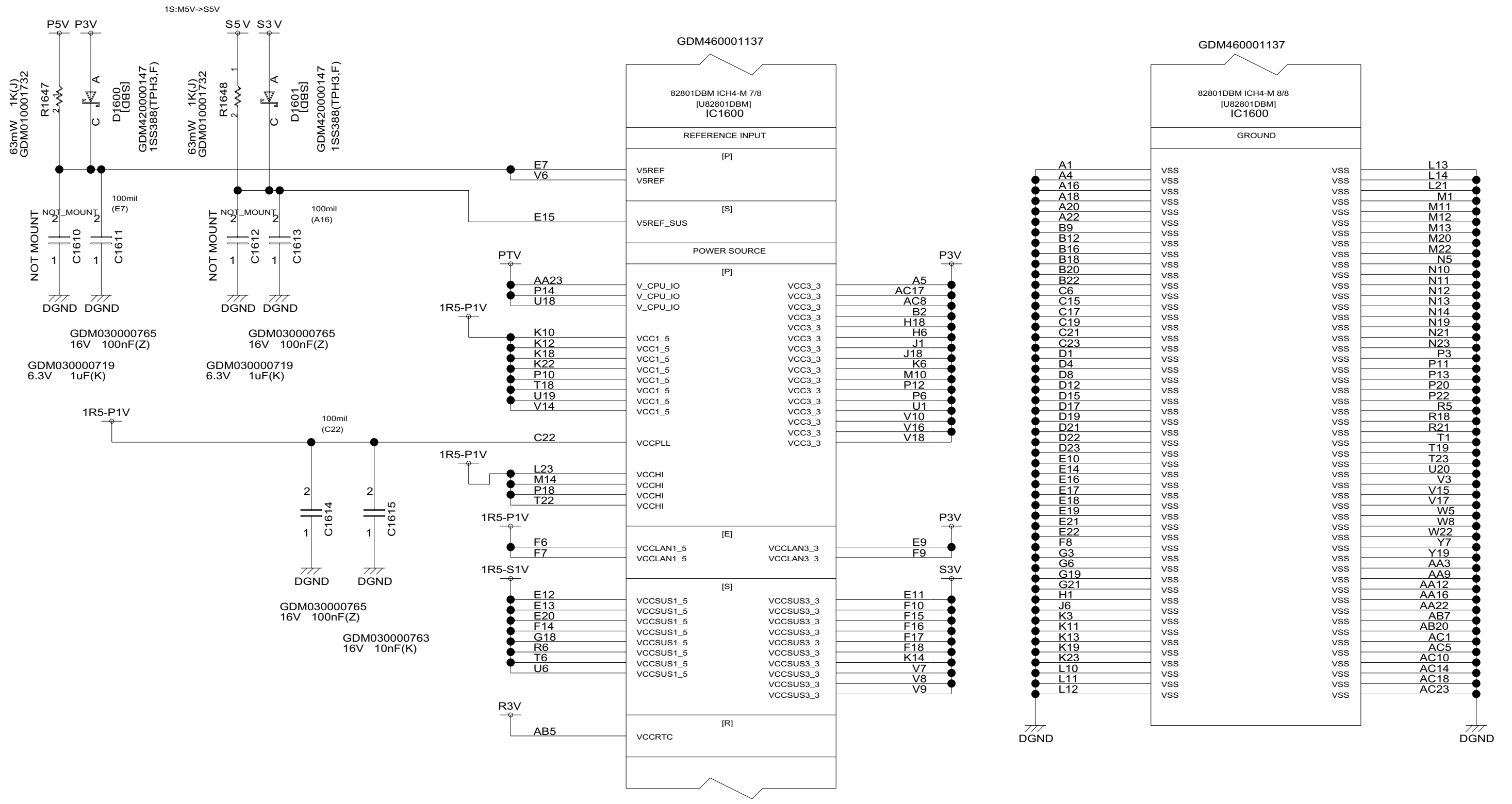
1
2
3
4
5



SCHEMATIC DIAGRAM-54
ICH4 SECTION-M7

A B C D E F G H

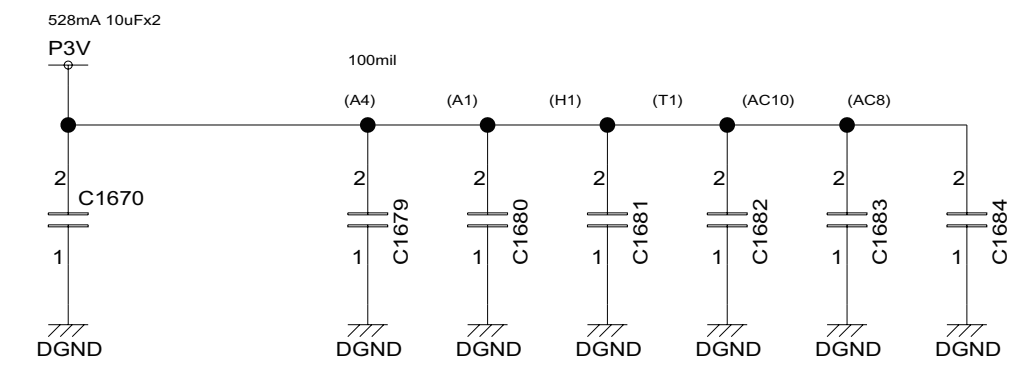
1
2
3
4
5



A B C D E F G H

SCHEMATIC DIAGRAM-55
ICH4 SECTION-M8

1



GDM030000758
6.3V 22uF(K)

GDM030000765
16V 100nF(Z)

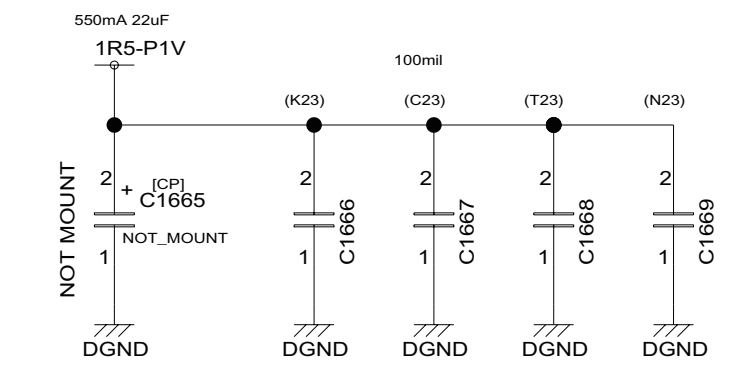
GDM030000765
16V 100nF(Z)

GDM030000765
16V 100nF(Z)

GDM030000765
16V 100nF(Z)

GDM030000765
16V 100nF(Z)

GDM030000765
16V 100nF(Z)



GDM030000829
4V 150uF(M)

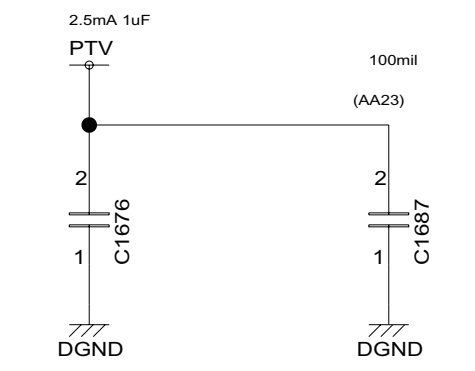
GDM030000765
16V 100nF(Z)

GDM030000765
16V 100nF(Z)

GDM030000765
16V 100nF(Z)

GDM030000765
16V 100nF(Z)

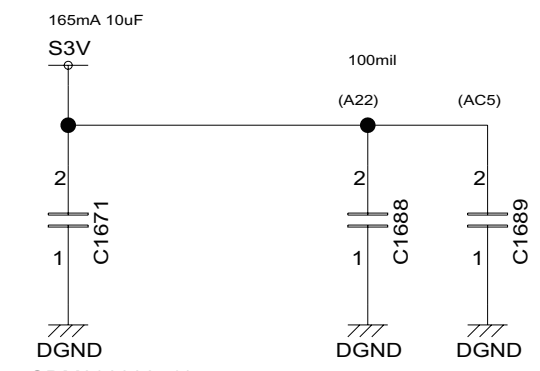
GDM030000765
16V 100nF(Z)



GDM030000719
6.3V 1uF(K)

GDM030000765
16V 100nF(Z)

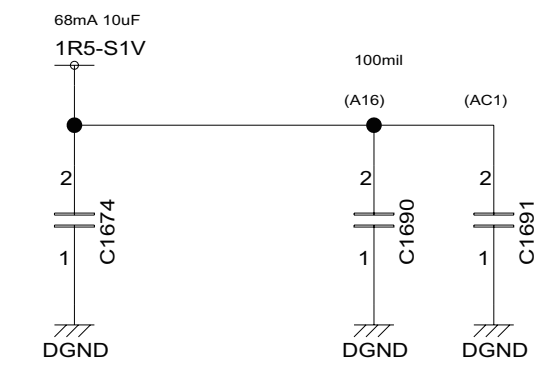
2



GDM030000748
6.3V 10uF(K)

GDM030000765
16V 100nF(Z)

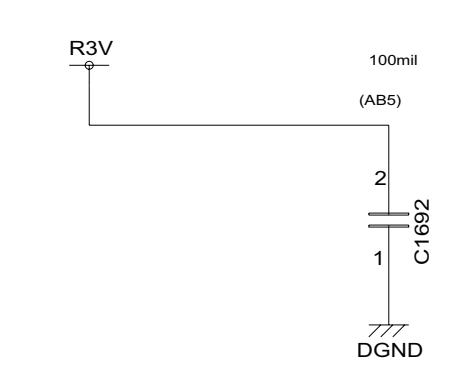
GDM030000765
16V 100nF(Z)



GDM030000657
6.3V 4.7uF(K)

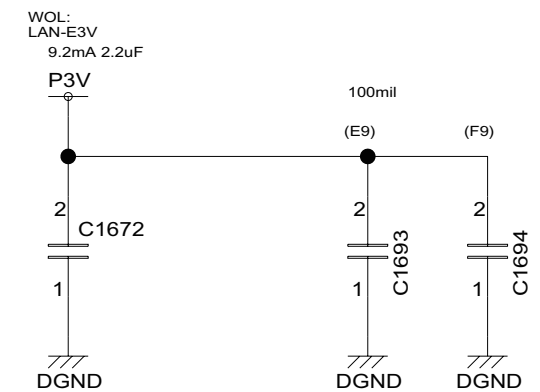
GDM030000765
16V 100nF(Z)

GDM030000765
16V 100nF(Z)



GDM030000765
16V 100nF(Z)

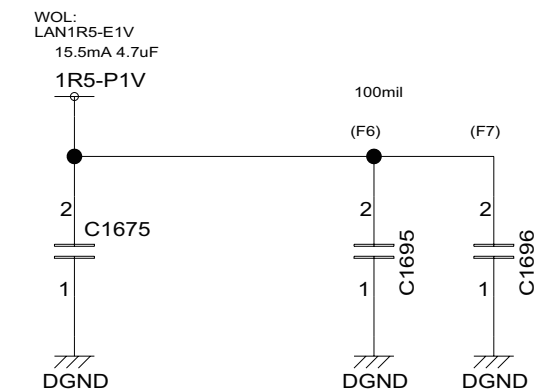
3



GDM030000657
6.3V 4.7uF(K)

GDM030000765
16V 100nF(Z)

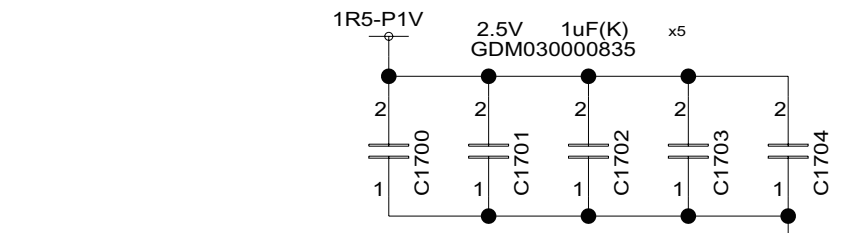
GDM030000765
16V 100nF(Z)



GDM030000657
6.3V 4.7uF(K)

GDM030000765
16V 100nF(Z)

GDM030000765
16V 100nF(Z)



GDM030000835
2.5V 1uF(K) x5

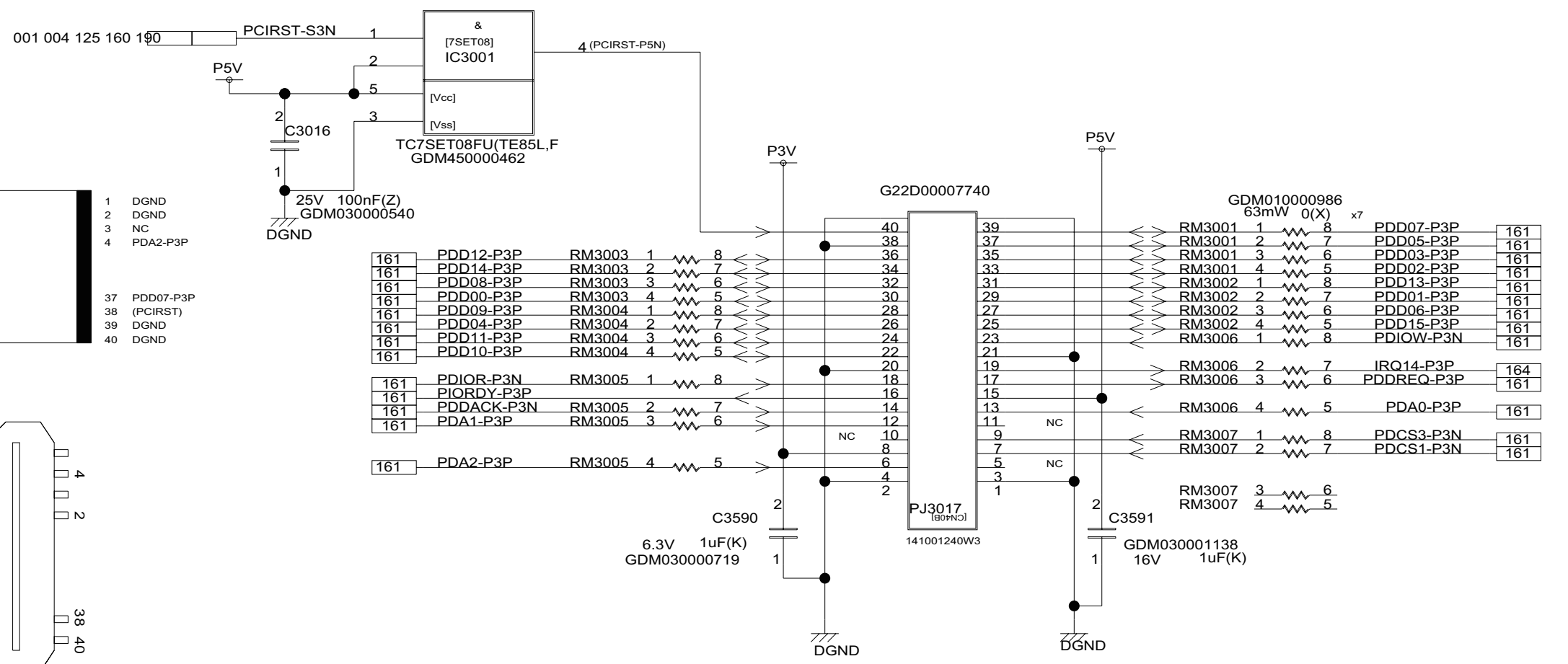
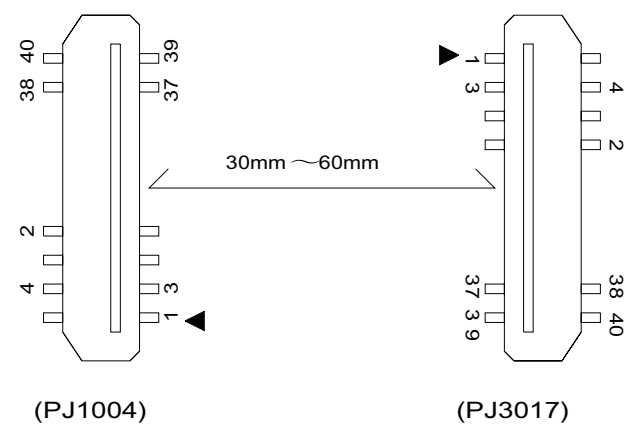
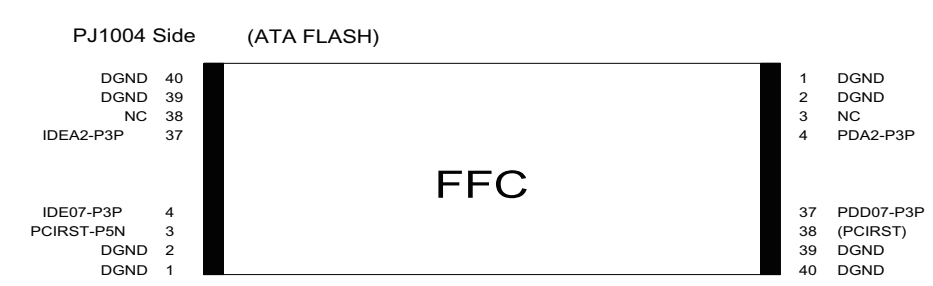
GDM030000765
16V 100nF(Z)

4

5

SCHEMATIC DIAGRAM-56
IDE I/F SECTION

1
2
3
4
5



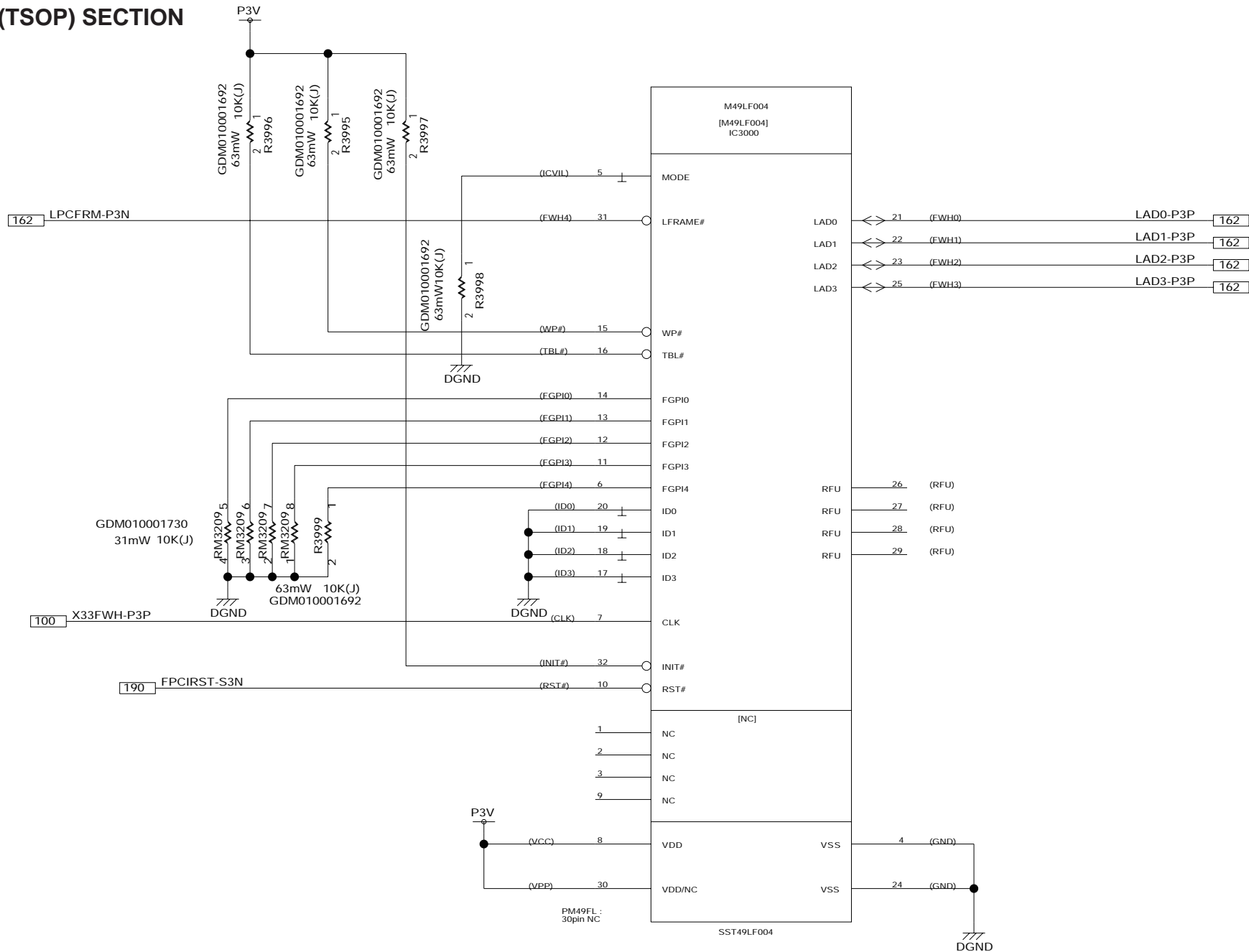
SCHEMATIC DIAGRAM-57
FWH (TSOP) SECTION

1

2

3

4



A

B

C

D

E

SCHEMATIC DIAGRAM-58

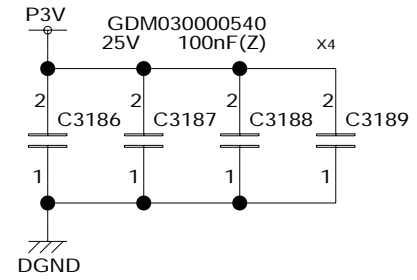
FWH SECTION

1

2

3

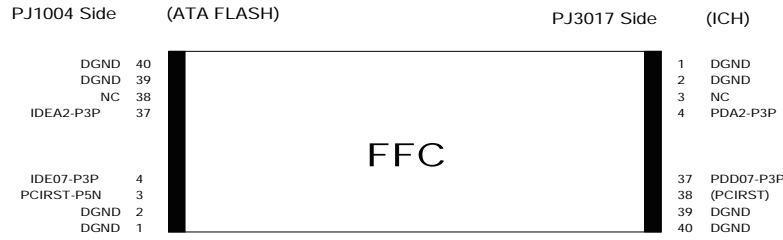
4



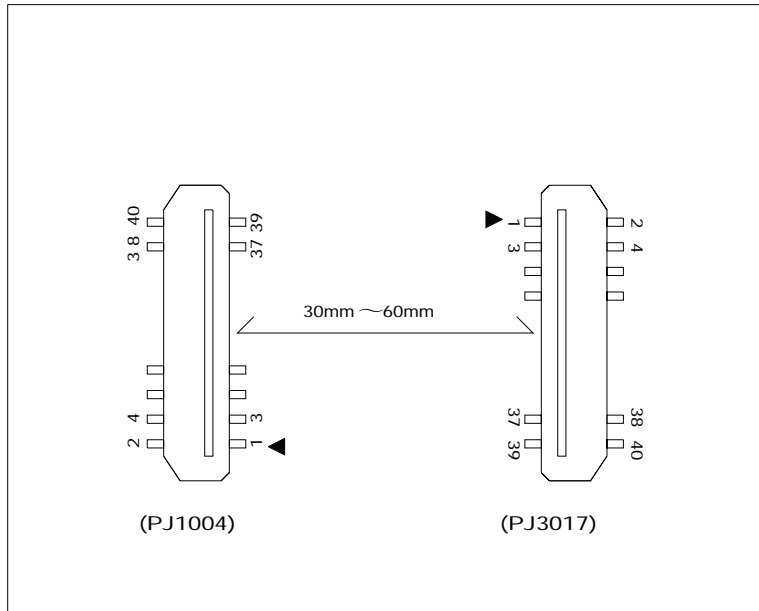
SCHEMATIC DIAGRAM-59

ATA FLASH I/F

1



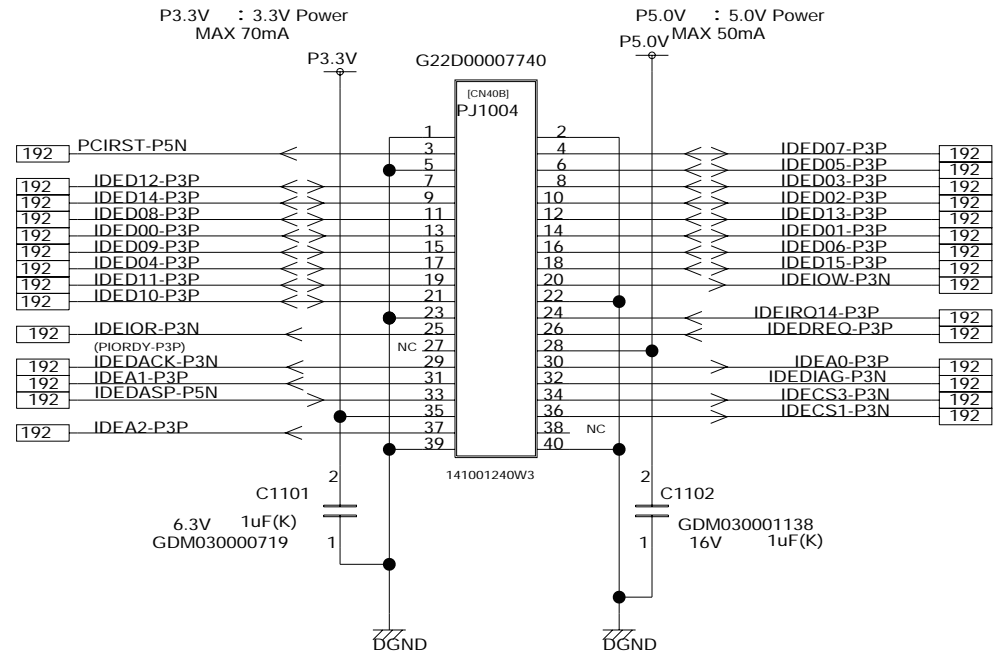
2



3

4

ATA FLASH



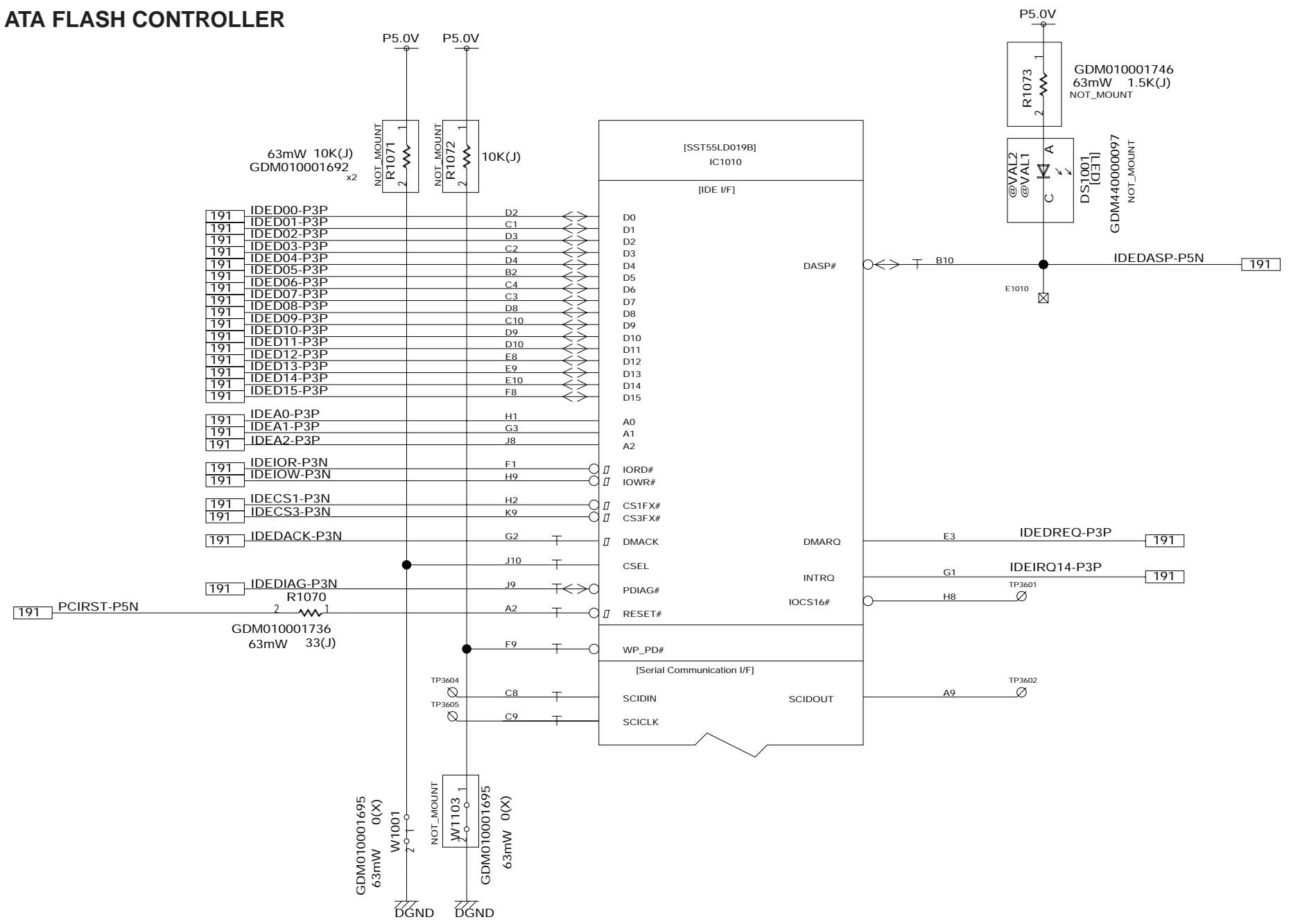
SCHEMATIC DIAGRAM-60
ATA FLASH CONTROLLER

1

2

3

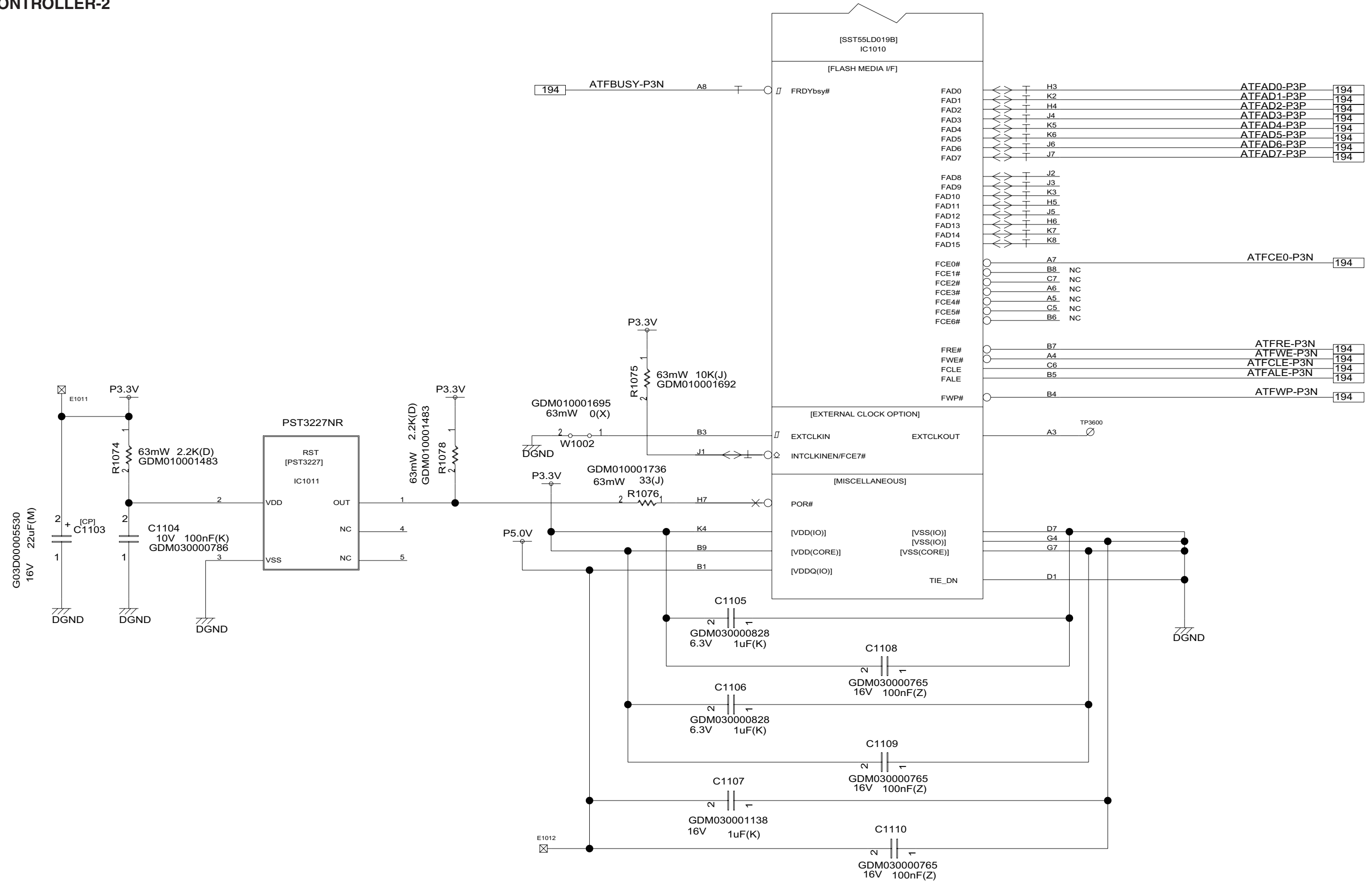
4



SCHEMATIC DIAGRAM-61 ATA FLASH CONTROLLER-2

1
2
3
4
5

A B C D E F G H



| | | | |
|------|----|------------|-----|
| FAD0 | H3 | ATFAD0-P3P | 194 |
| FAD1 | K2 | ATFAD1-P3P | 194 |
| FAD2 | H4 | ATFAD2-P3P | 194 |
| FAD3 | J4 | ATFAD3-P3P | 194 |
| FAD4 | K5 | ATFAD4-P3P | 194 |
| FAD5 | K6 | ATFAD5-P3P | 194 |
| FAD6 | J6 | ATFAD6-P3P | 194 |
| FAD7 | J7 | ATFAD7-P3P | 194 |

| | |
|------------|-----|
| ATFCE0-P3N | 194 |
|------------|-----|

| | |
|------------|-----|
| ATFRE-P3N | 194 |
| ATFWE-P3N | 194 |
| ATFCLE-P3N | 194 |
| ATFALE-P3N | 194 |

| | |
|-----------|-----|
| ATFWP-P3N | 194 |
|-----------|-----|

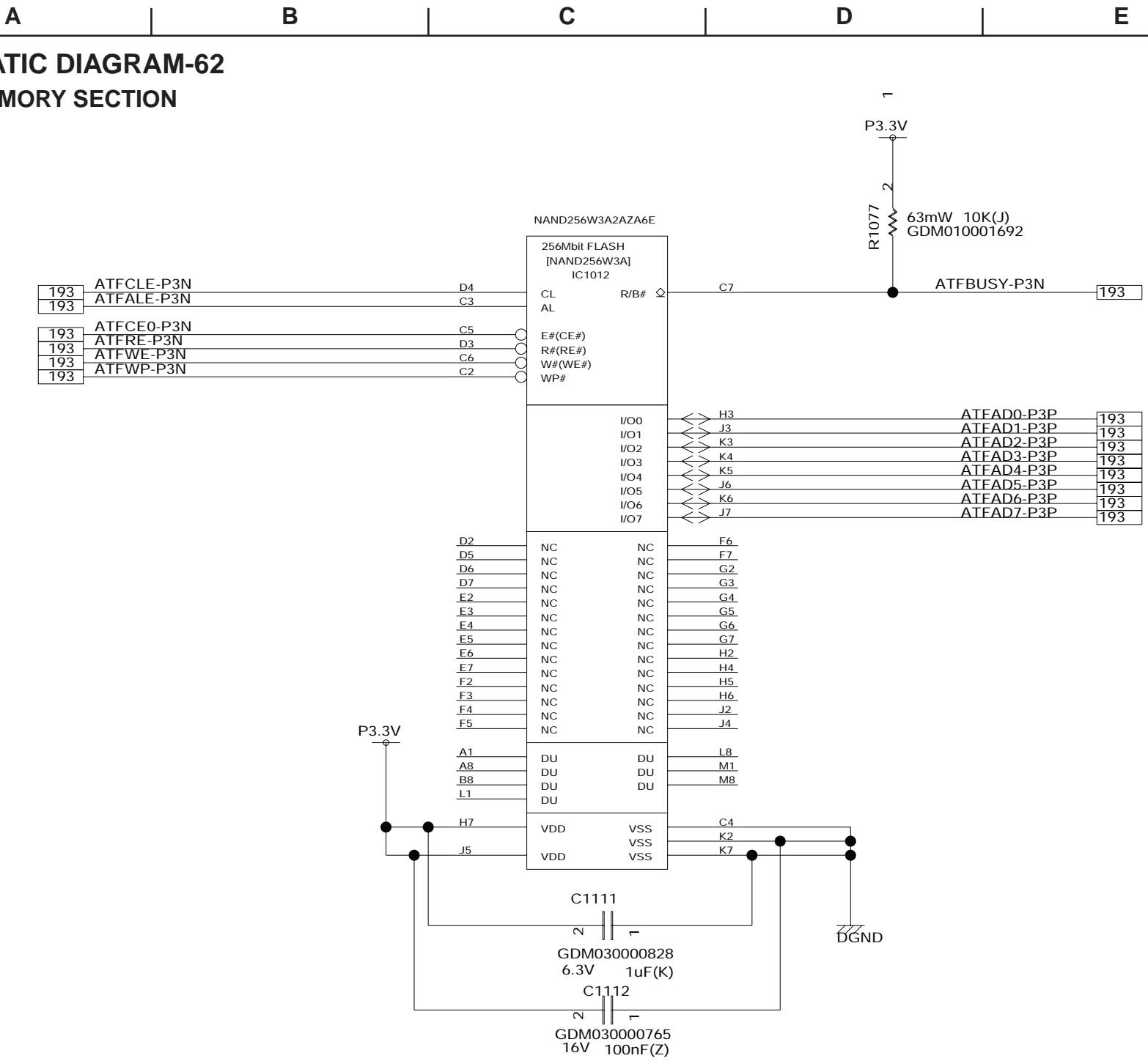
SCHEMATIC DIAGRAM-62
NAND MEMORY SECTION

1

2

3

4



A

B

C

D

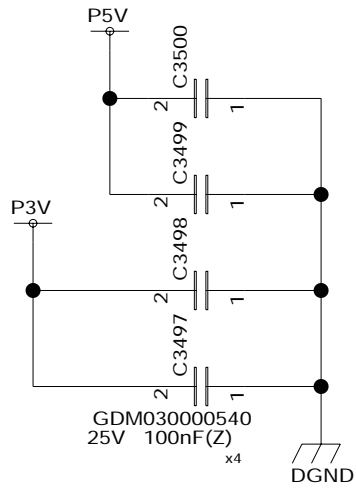
E

SCHEMATIC DIAGRAM-63

DEBUG PCI AND KINNERETH

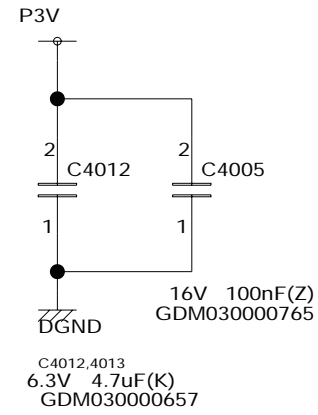
1

Debug PCI



2

KINNERETH



3

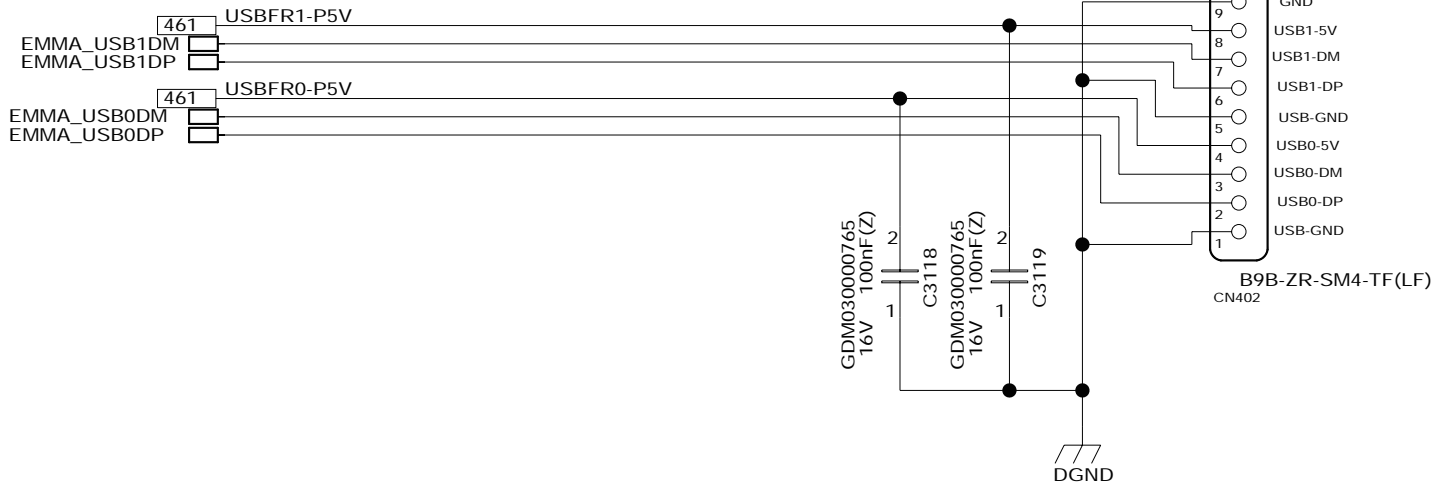
4

SCHEMATIC DIAGRAM-64

USB I/F

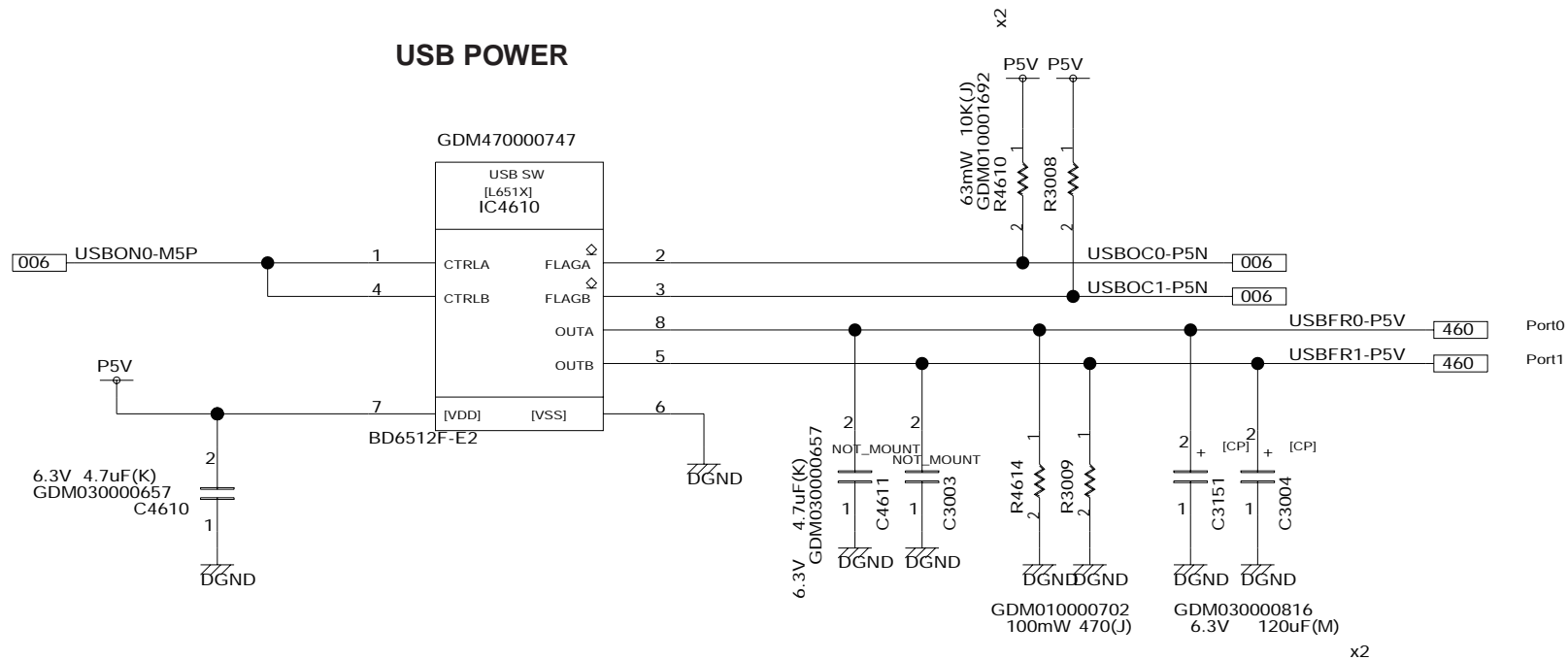
**USB I/F AND
USB POWER**

1



2

USB POWER



3

4

A

B

C

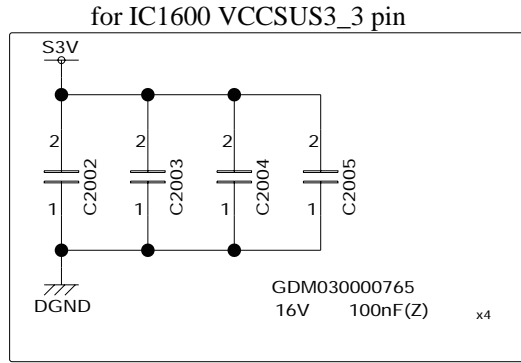
D

E

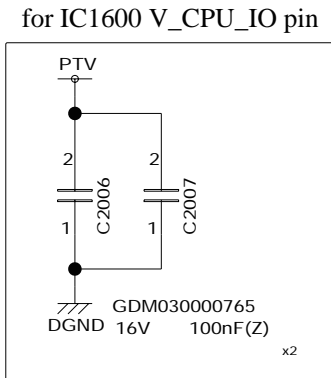
SCHEMATIC DUAGRAM-65

ADDITIONAL CAPACITOR-3

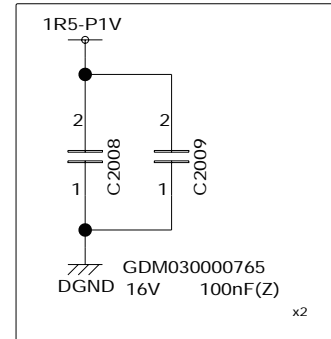
1



2

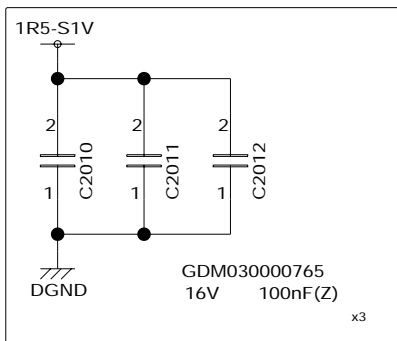


for IC1600 VCC1_5 pin

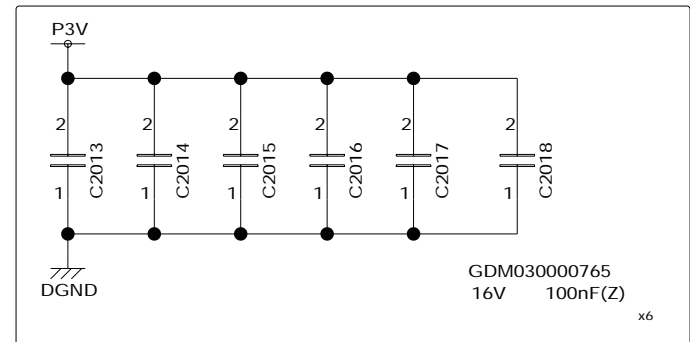


3

for IC1600 VCCSUS1_5 pin



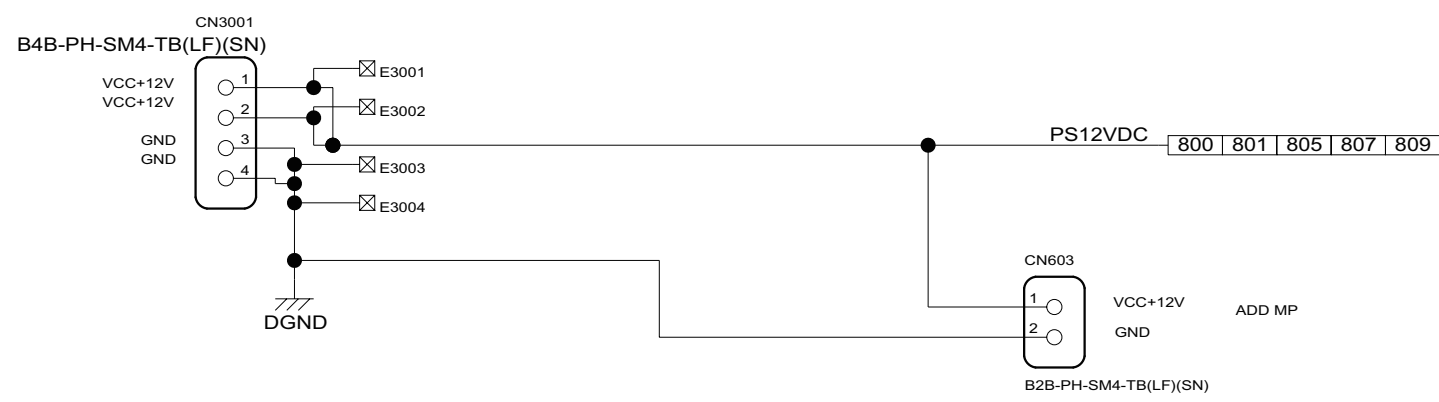
for IC1600 VCC3_3 pin



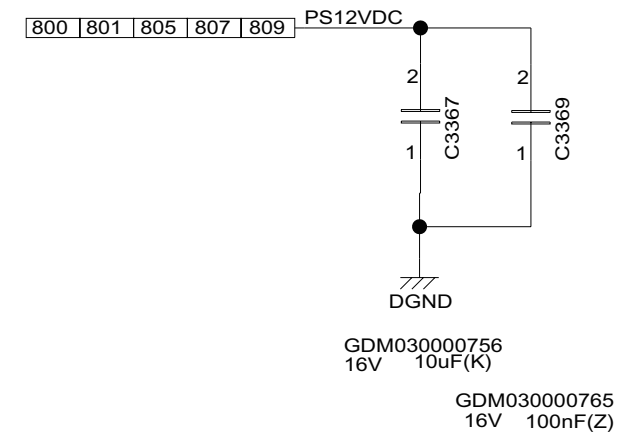
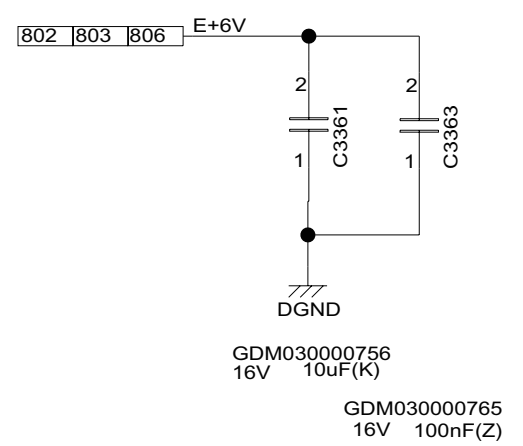
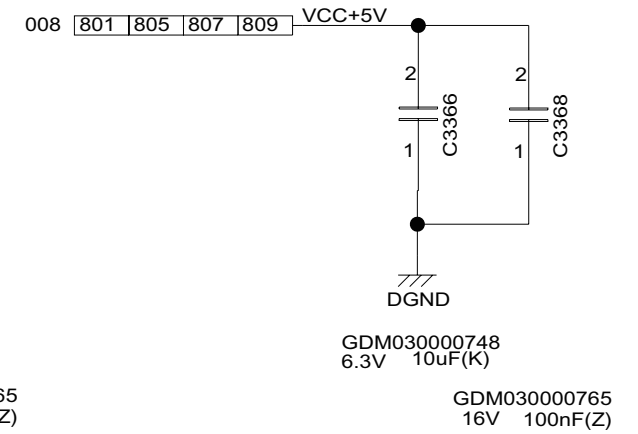
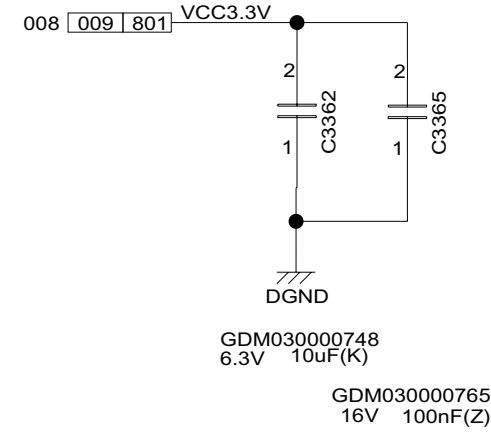
4

SCHEMATIC DIAGRAM-66 PS CONNECTOR

1
2
3
4
5

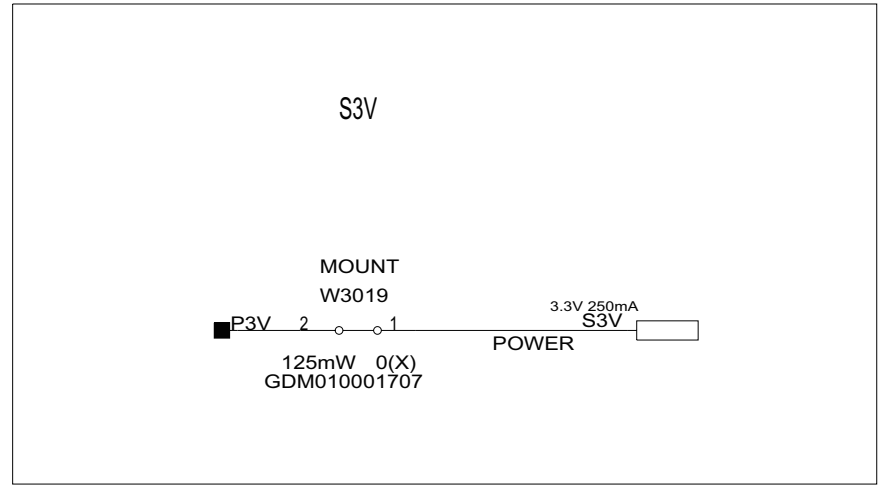
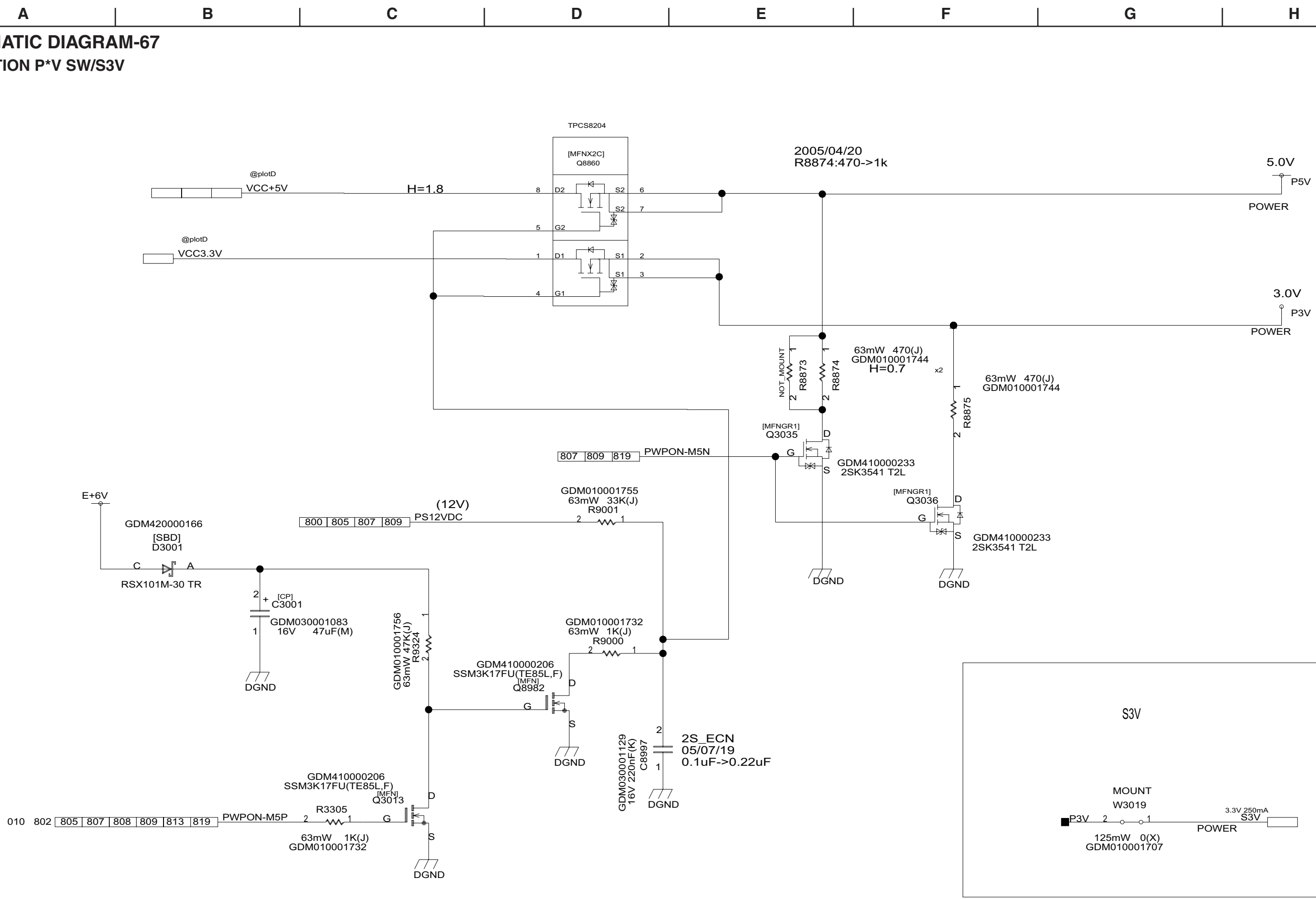


- VCC+5V PS5VDC
- VCC3.3V PS3VDC
- E+6V PS5VSB



SCHEMATIC DIAGRAM-67 PS SECTION P*V SW/S3V

1
2
3
4
5



A

B

C

D

E

SCHEMATIC DIAGRAM-68

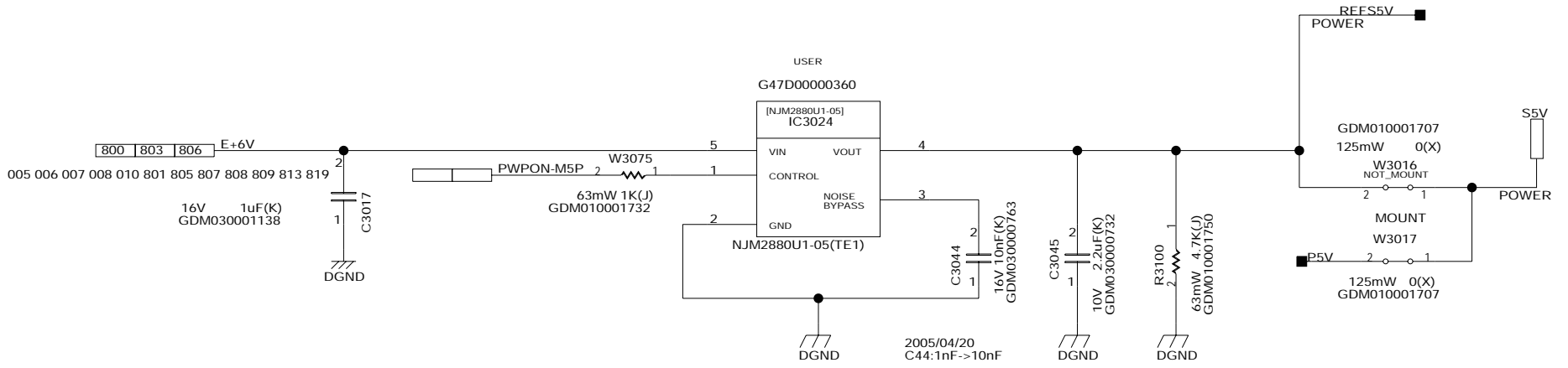
PS SECTION S5V

1

2

3

4



A

B

C

D

E

SCHEMATIC DIAGRAM-69

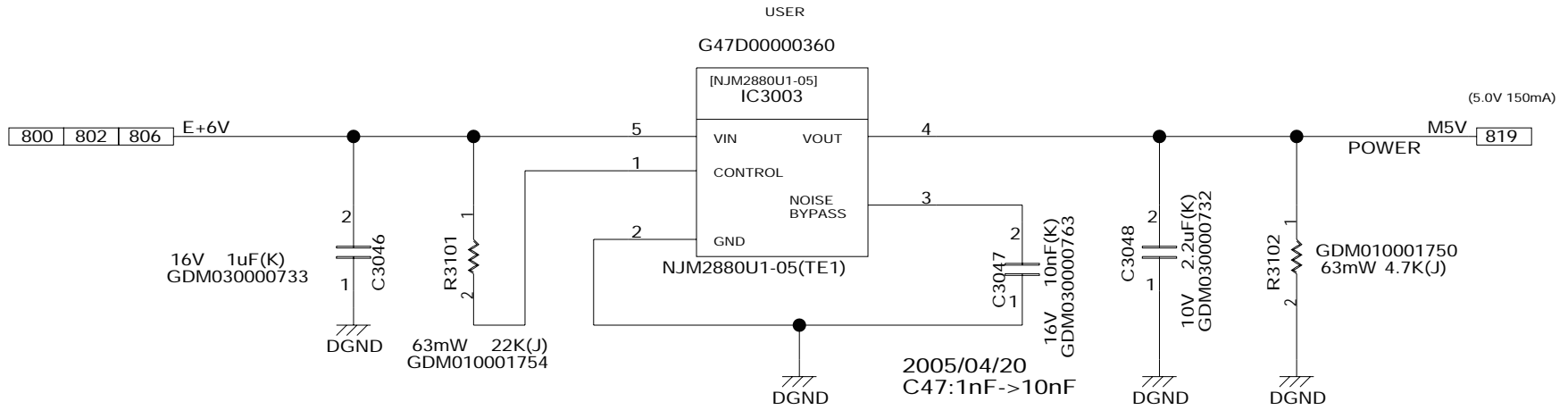
PS SECTION M5V

1

2

3

4



SCHEMATIC DIAGRAM-70

PS SECTION PPV

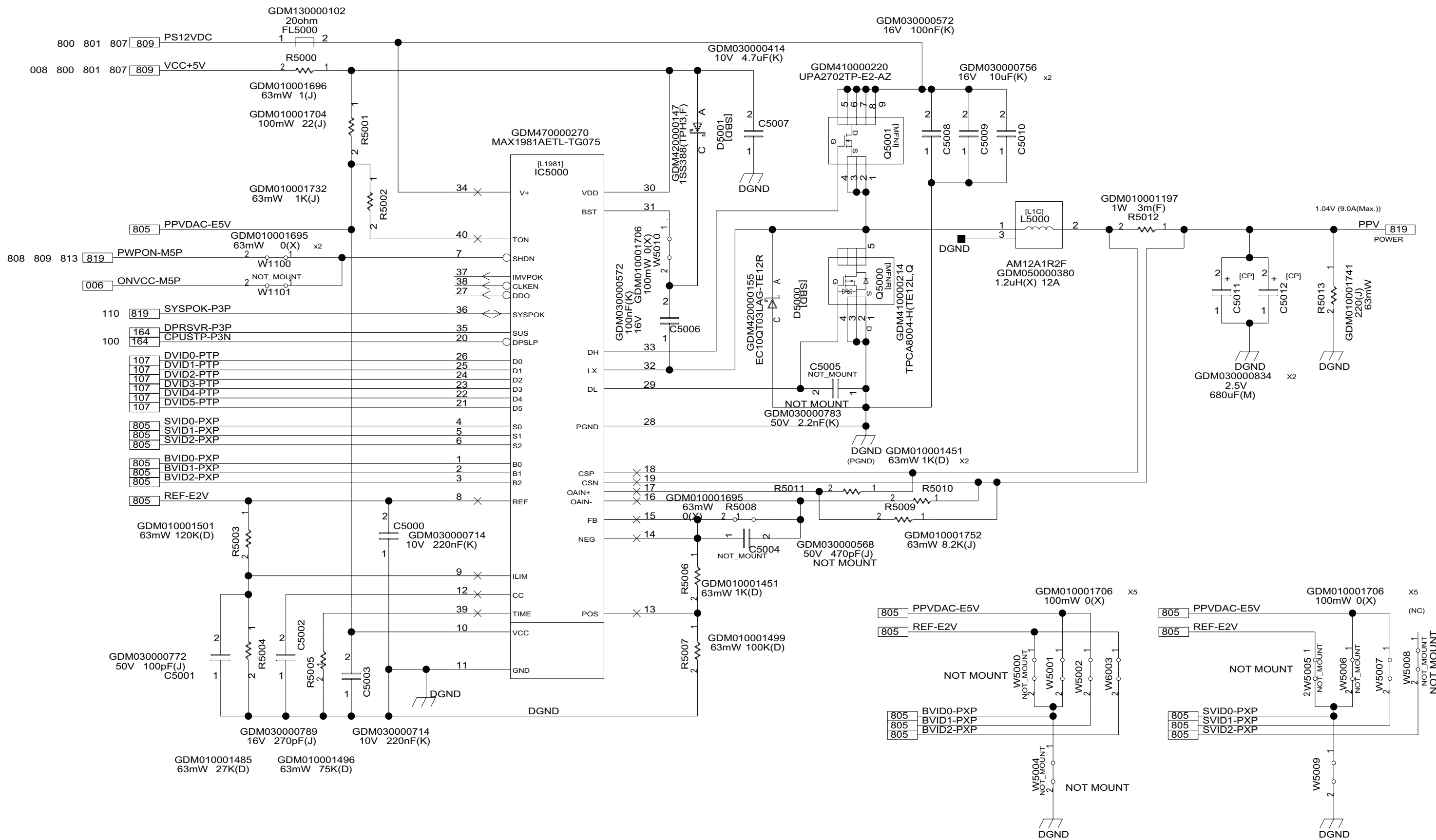
1

2

3

4

5



A

B

C

D

E

SCHEMATIC DIAGRAM-71

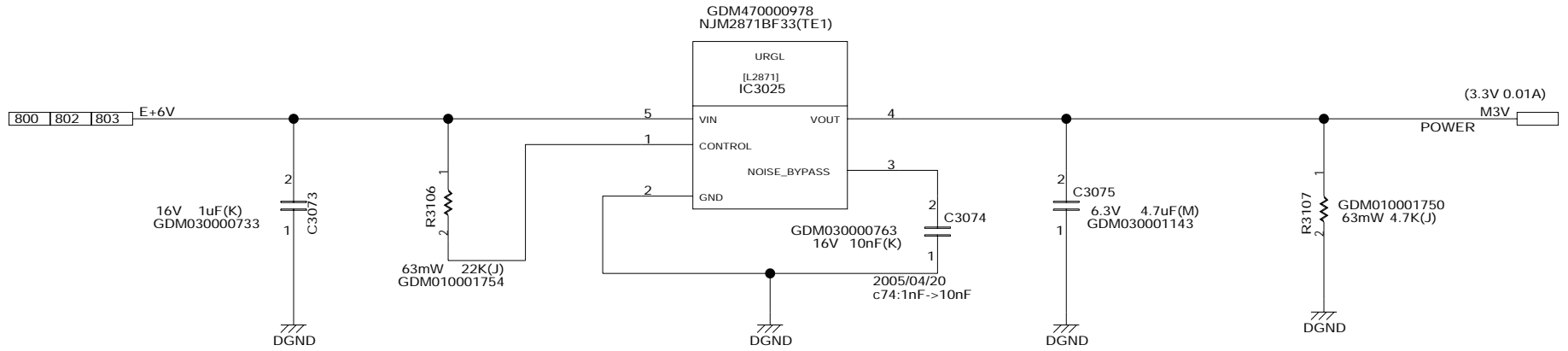
PS SECTION M3V

1

2

3

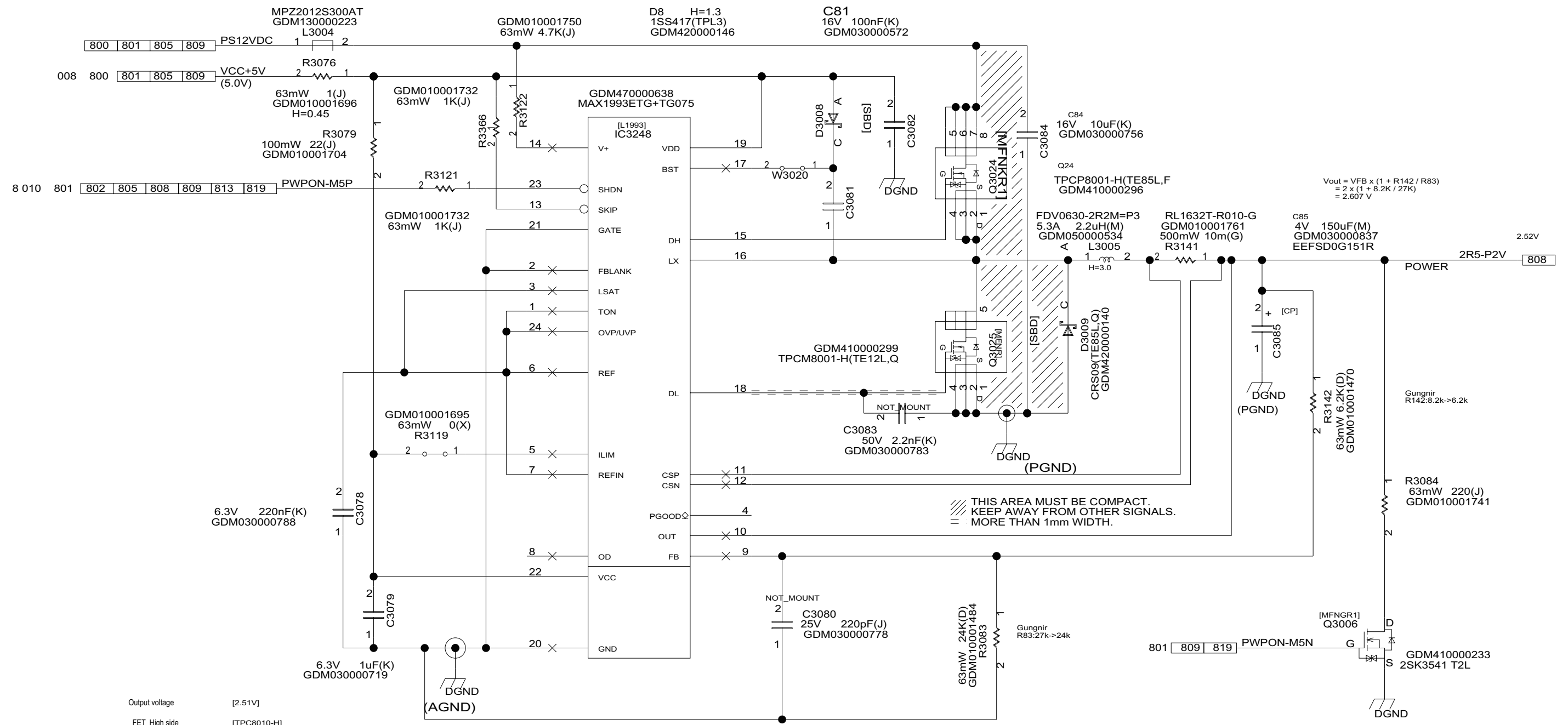
4



SCHEMATIC DIAGRAM-72
PS SECTION 2R5-P2V

Operating FREQ. : TON = REF [450KHz]
 Low Noise Mode : SKIP = PVON [Enable]
 Current Limit : ILIMIT [6.7A (Min)]
 [7.7A (Typ)]
 [8.7A (Max)]
 FeedBack Voltage; 1.0 V(Typ.)
 OV Protection : Disable
 UV Protection : Enable
 Latch : Disable

W? 100mW 0(X) GDM010001706
 C82 H=1.15 6.3V 1uF(K) GDM030000719
 D8 H=1.3 1SS417(TPL3) GDM420000146
 C81 16V 100nF(K) GDM030000572



$$V_{out} = V_{FB} \times (1 + R_{142} / R_{83})$$

$$= 2 \times (1 + 8.2K / 27K)$$

$$= 2.607 V$$

Output voltage [2.51V]
 FET High side [TPC8010-H]
 Low side [TPC8010-H]
 Capacitor [4.0V 150UF 7m]
 Coil [C10-H3.5R2R2]
 Diode [1.0A]
 Power control signal [BVON-S5P]
 Skip mode [PVON-S5P]
 Pull circuit [220ohm]
 Overcurrent limiter [7.7A]

1
2
3
4
5

800 | 801 | 805 | 809

008 | 800 | 801 | 805 | 809

8 | 010 | 801 | 802 | 805 | 808 | 809 | 813 | 819

2.52V
808

Gungnir
R142:8.2k->6.2k

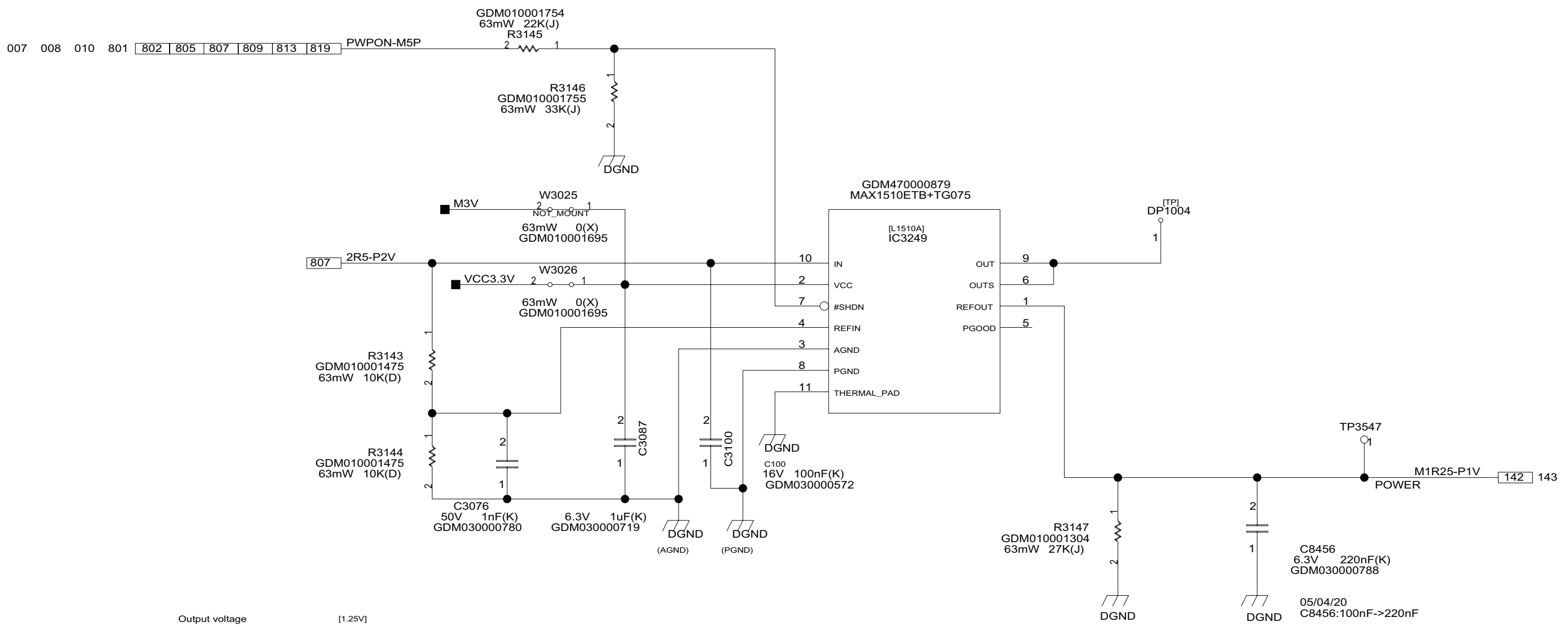
R3084
63mW 220(J)
GDM010001741

801 | 809 | 819

GDM410000233
2SK3541 T2L

SCHEMATIC DIAGRAM-73
PS SECTION 1R25-P1V

1
2
3
4
5

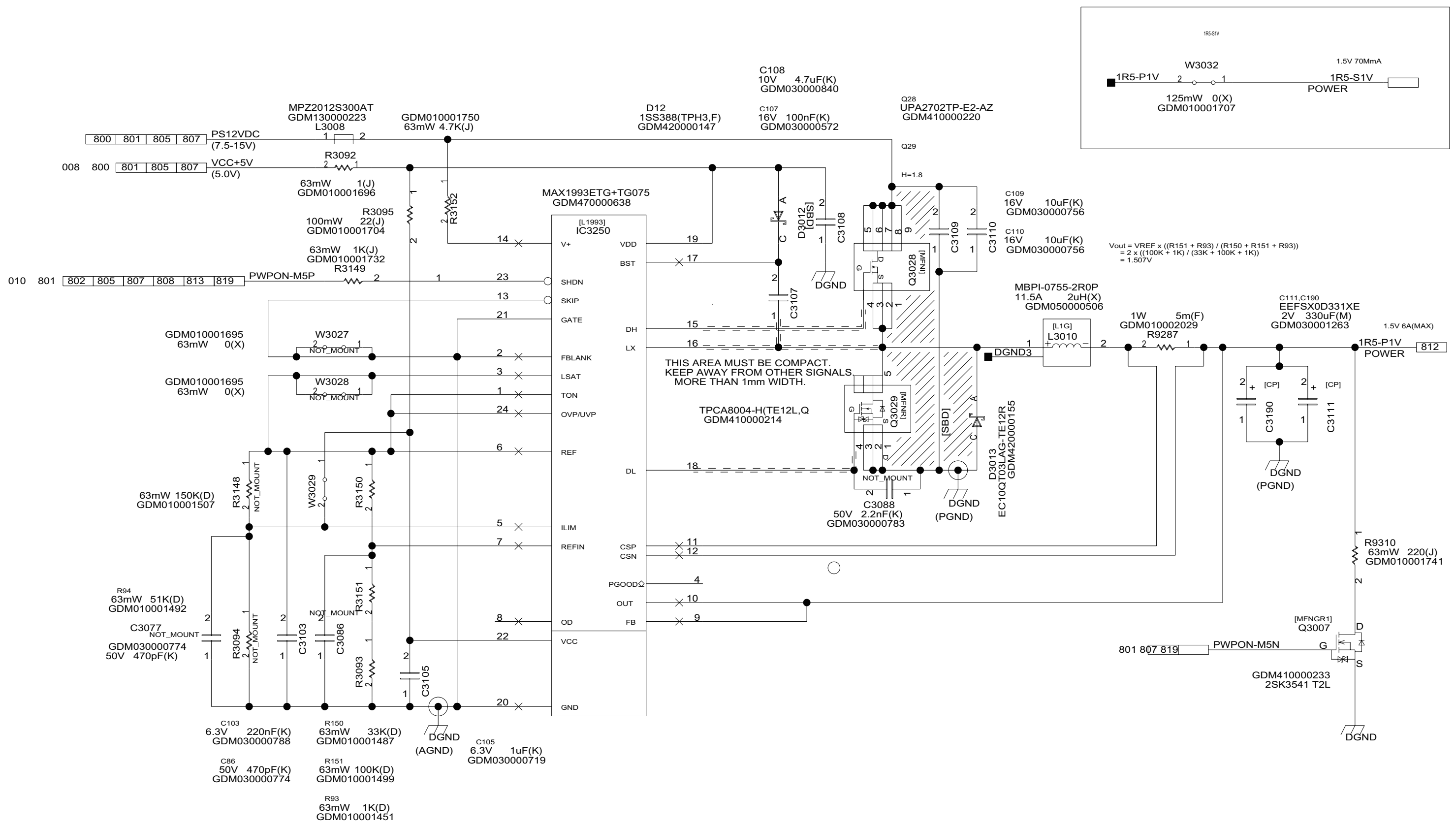


| | |
|----------------------|------------------|
| Output voltage | [1.25V] |
| FET | [UPA2752GR] |
| Input capacitor | [4.0V 150UF 30m] |
| Output capacitor | [4.0V 150UF 30m] |
| Coil | [A916BY-1R2M=P3] |
| Diode | [0.5A] |
| Output power control | [PVON-S5P] |
| Skip mode | [N/A] |
| Pull circuit | [220ohm] |
| Over current limiter | [3.5A] |

05/04/20
 C8456:100nF->220nF

SCHEMATIC DIAGRAM-74
PS SECTION 1R5-P1V/1R5-S1V

1
2
3
4
5



SCHEMATIC DIAGRAM-75

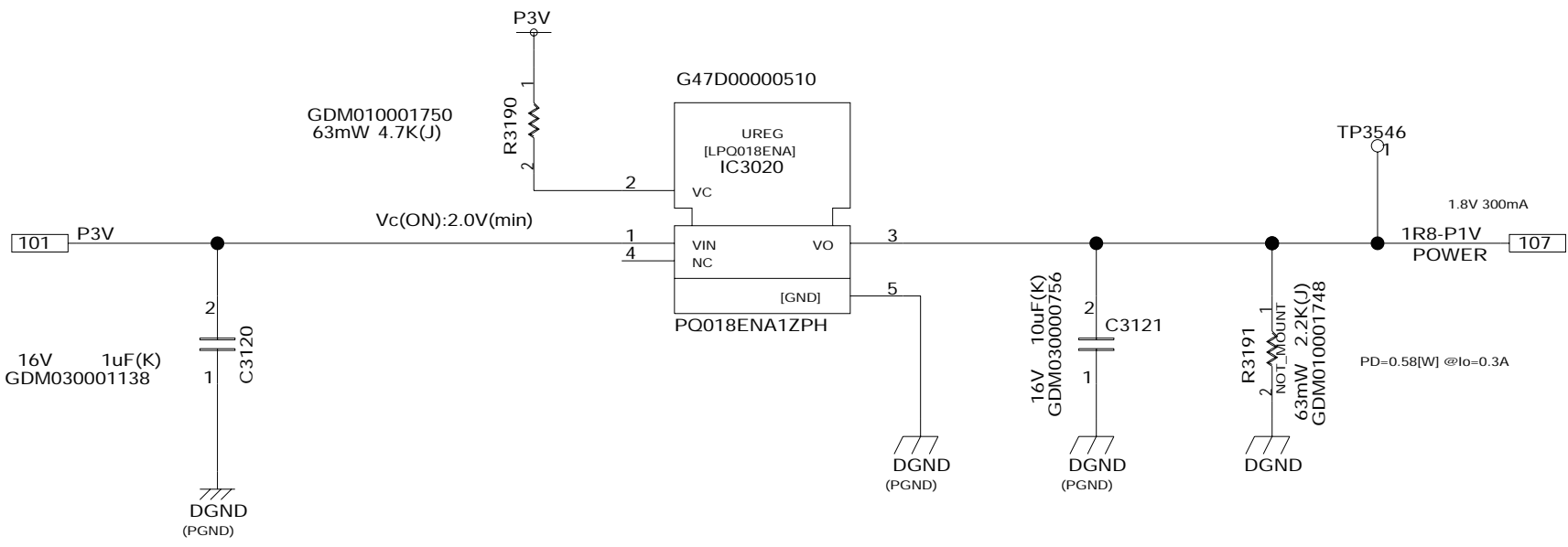
PS SECTION 1R8-P1V

1

2

3

4



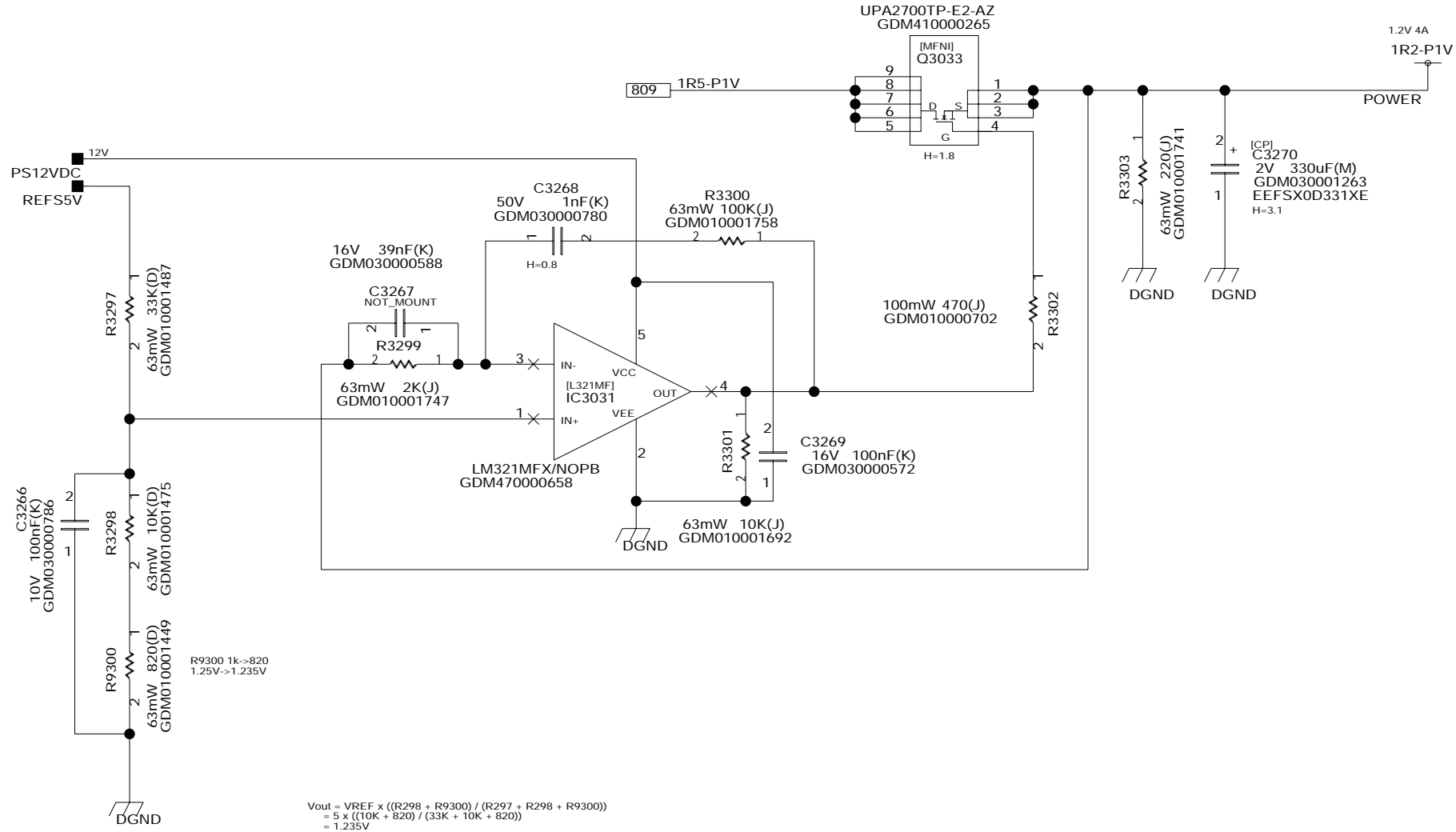
SCHEMATIC DIAGRAM-76
PS SECTION 1R2-P1V

1

2

3

4

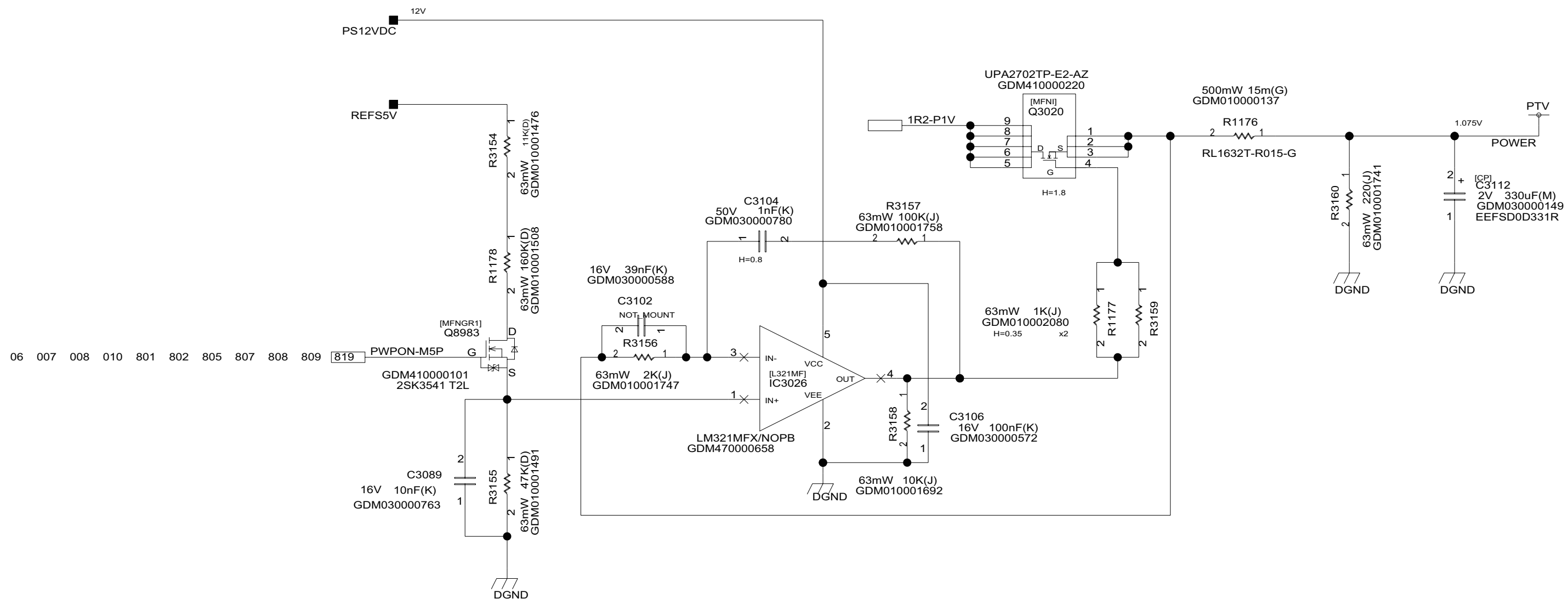


$$\begin{aligned}
 V_{out} &= V_{REF} \times ((R_{298} + R_{9300}) / (R_{297} + R_{298} + R_{9300})) \\
 &= 5 \times ((10K + 820) / (33K + 10K + 820)) \\
 &= 1.235V
 \end{aligned}$$

Output voltage [1.36V]
 FET [UPA2702TP]
 Capacitor [2.0V 330UF 7m]
 Power output control signal [PVON-SSP]
 Pull out circuit [220ohm]

A B C D E F G H
SCHEMATIC DIAGRAM-77
PS SECTION PTV

1
2
3
4
5



A

B

C

D

E

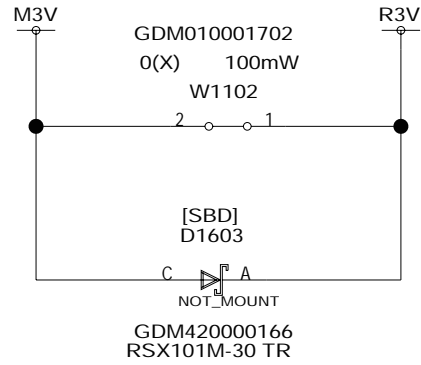
SCHEMATIC DIAGRAM-78
PS SECTION RTC VCC

1

2

3

4

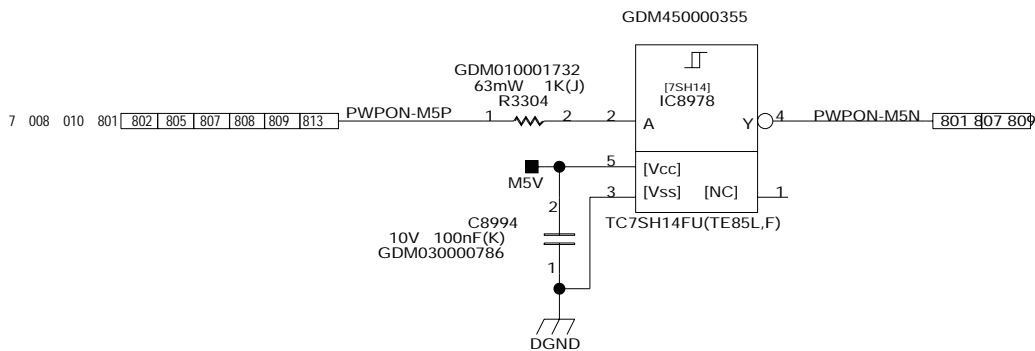


A B C D E

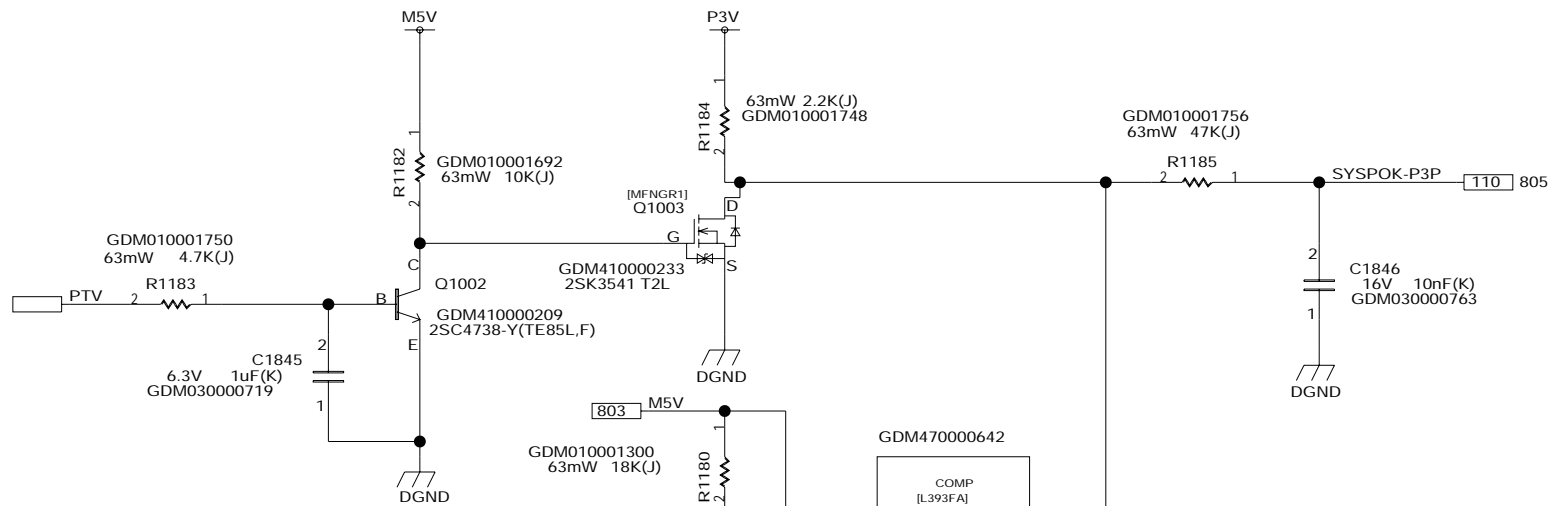
SCHEMATIC DIAGRAM-79

PS SECTION MISC

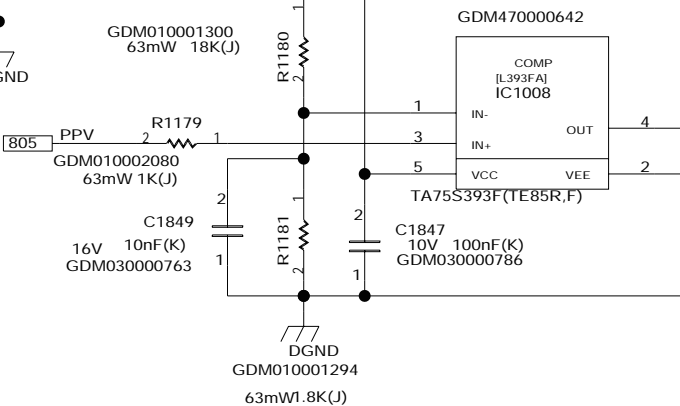
1



2



3



4

A

B

C

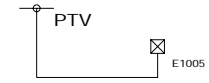
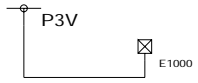
D

E

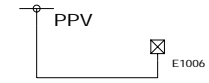
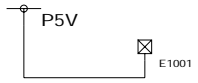
SCHEMATIC DIAGRAM-80

TEST PAD

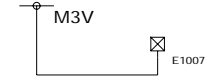
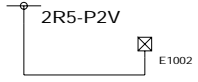
1



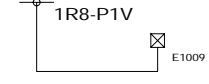
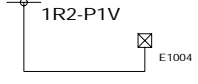
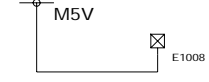
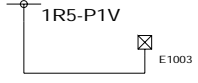
2



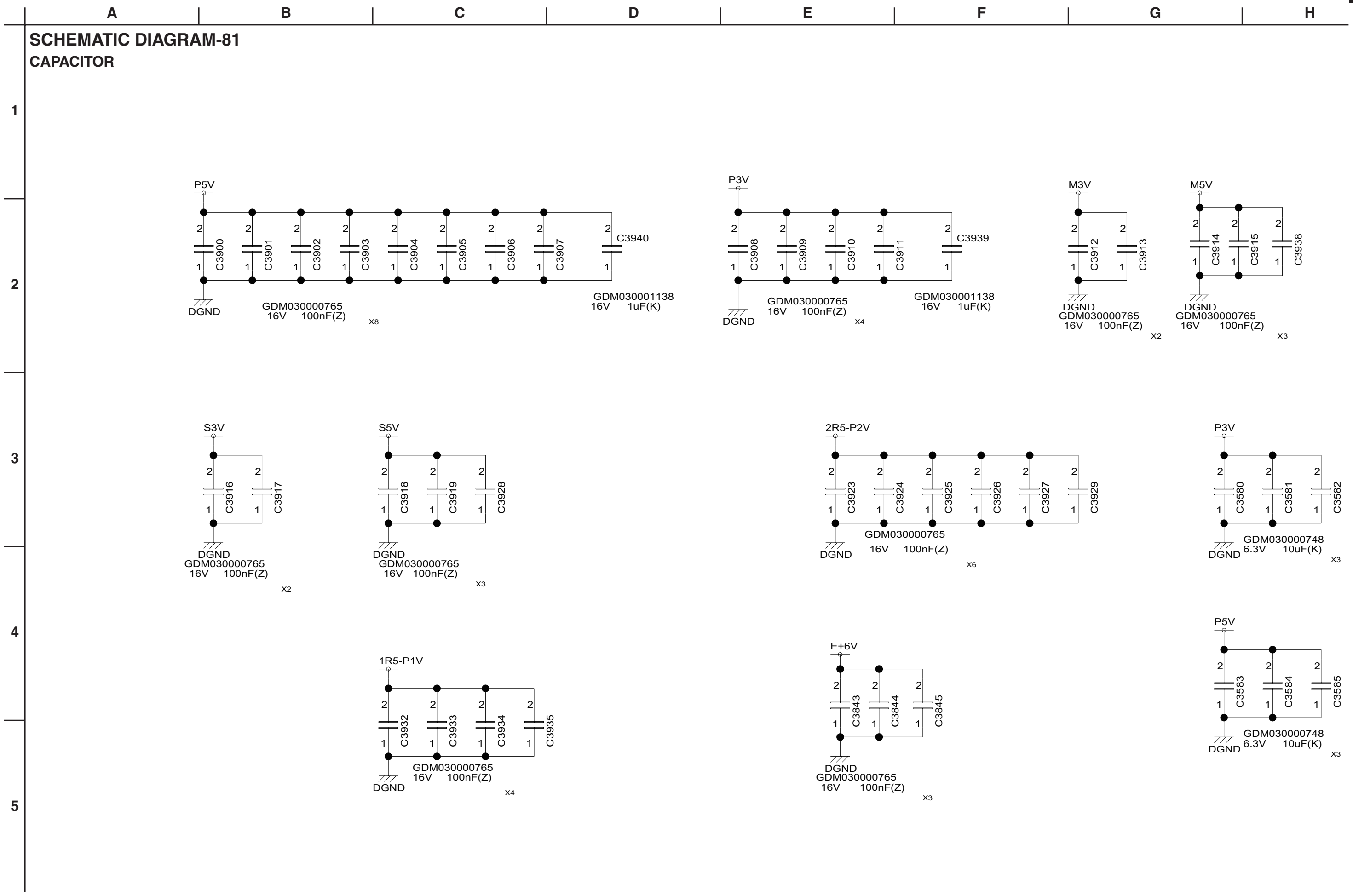
3



4



SCHEMATIC DIAGRAM-81
CAPACITOR



ONKYO CORPORATION

Sales & Product Planning Div. : 2-1, Nisshin-cho, Neyagawa-shi, OSAKA 572-8540, JAPAN
Tel: 072-831-8023 Fax: 072-831-8124

ONKYO U.S.A. CORPORATION

18 Park Way, Upper Saddle River, N.J. 07458, U.S.A.
Tel: 201-785-2600 Fax: 201-785-2650 <http://www.us.onkyo.com/>

ONKYO EUROPE ELECTRONICS GmbH

Liegnitzerstrasse 6, 82194 Groebenzell, GERMANY
Tel: +49-8142-4401-0 Fax: +49-8142-4401-555 <http://www.eu.onkyo.com/>

ONKYO EUROPE UK Office

Suite 1, Gregories Court, Gregories Road, Beaconsfield, Buckinghamshire, HP9 1HQ
UNITED KINGDOM Tel: +44-(0)1494-681515 Fax: +44(0)-1494-680452

ONKYO CHINA LIMITED

Units 2102-2107, Metroplaza Tower I, 223 Hing Fong Road, Kwai Chung,
N.T., HONG KONG Tel: 852-2429-3118 Fax: 852-2428-9039
<http://www.ch.onkyo.com/>

