

R2 UMA(11.6")

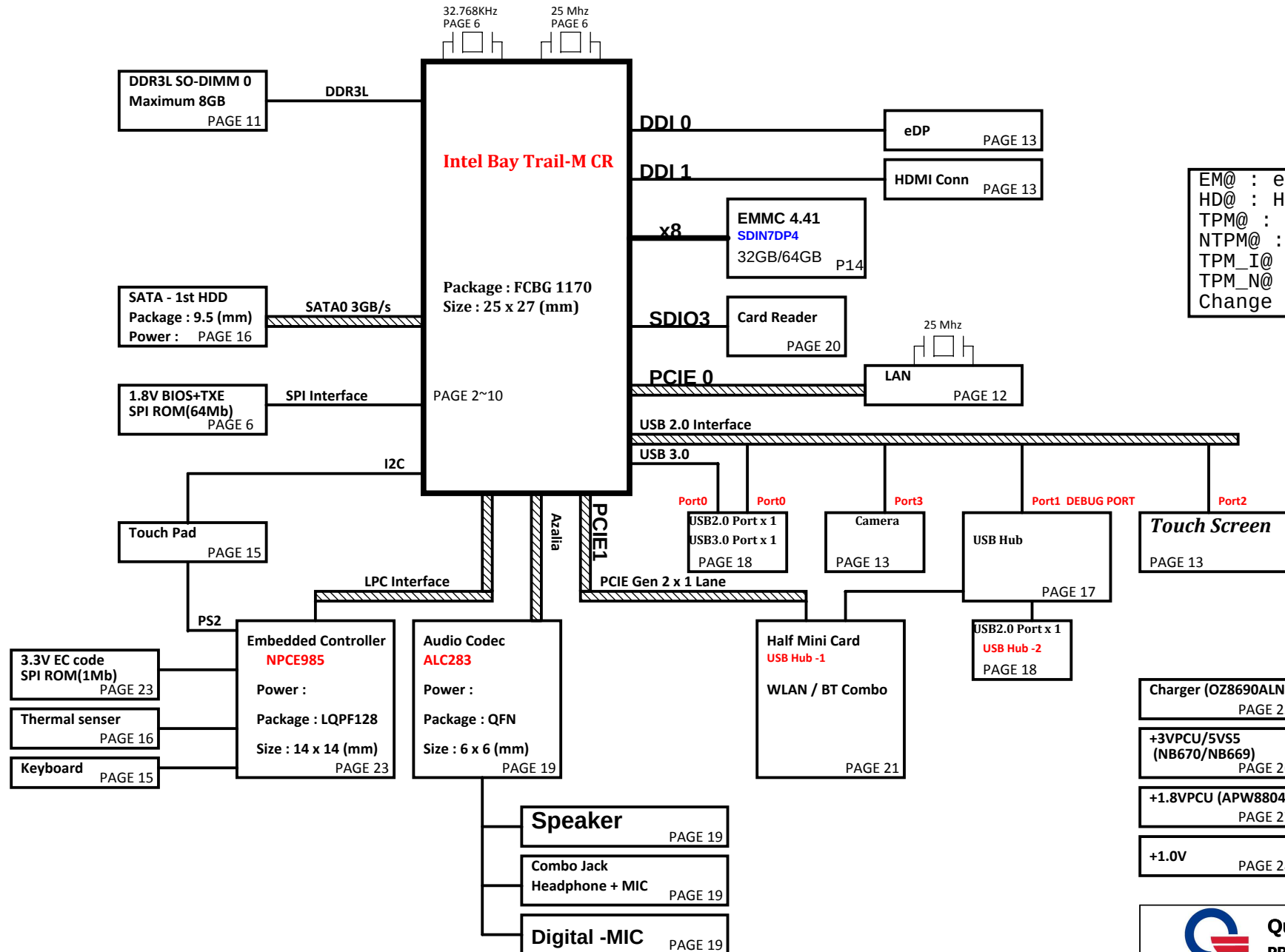
Intel Bay Trail-M Platform Block Diagram

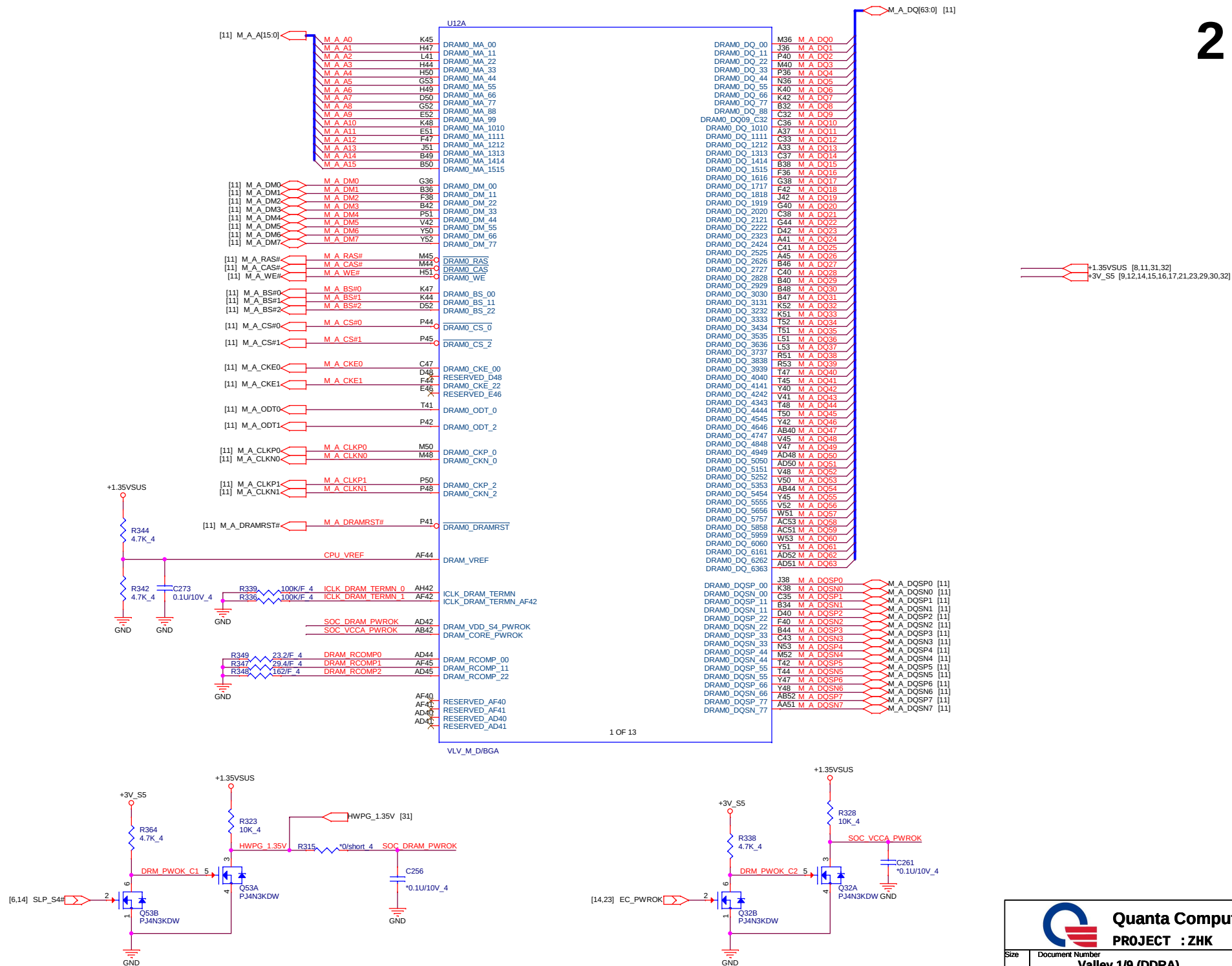
01

PCB 6L STACK UP

LAYER 1 : TOP
LAYER 2 : SGND
LAYER 3 : IN1(High)
LAYER 4 : IN2
LAYER 5 : SVCC
LAYER 6 : BOT

EM@ : eMMC
HD@ : HDD
TPM@ : TPM
NTPM@ : Non-TPM
TPM_I@ : 新唐
TPM_N@ : 英飛凌
Change CPU & Emmc P/N



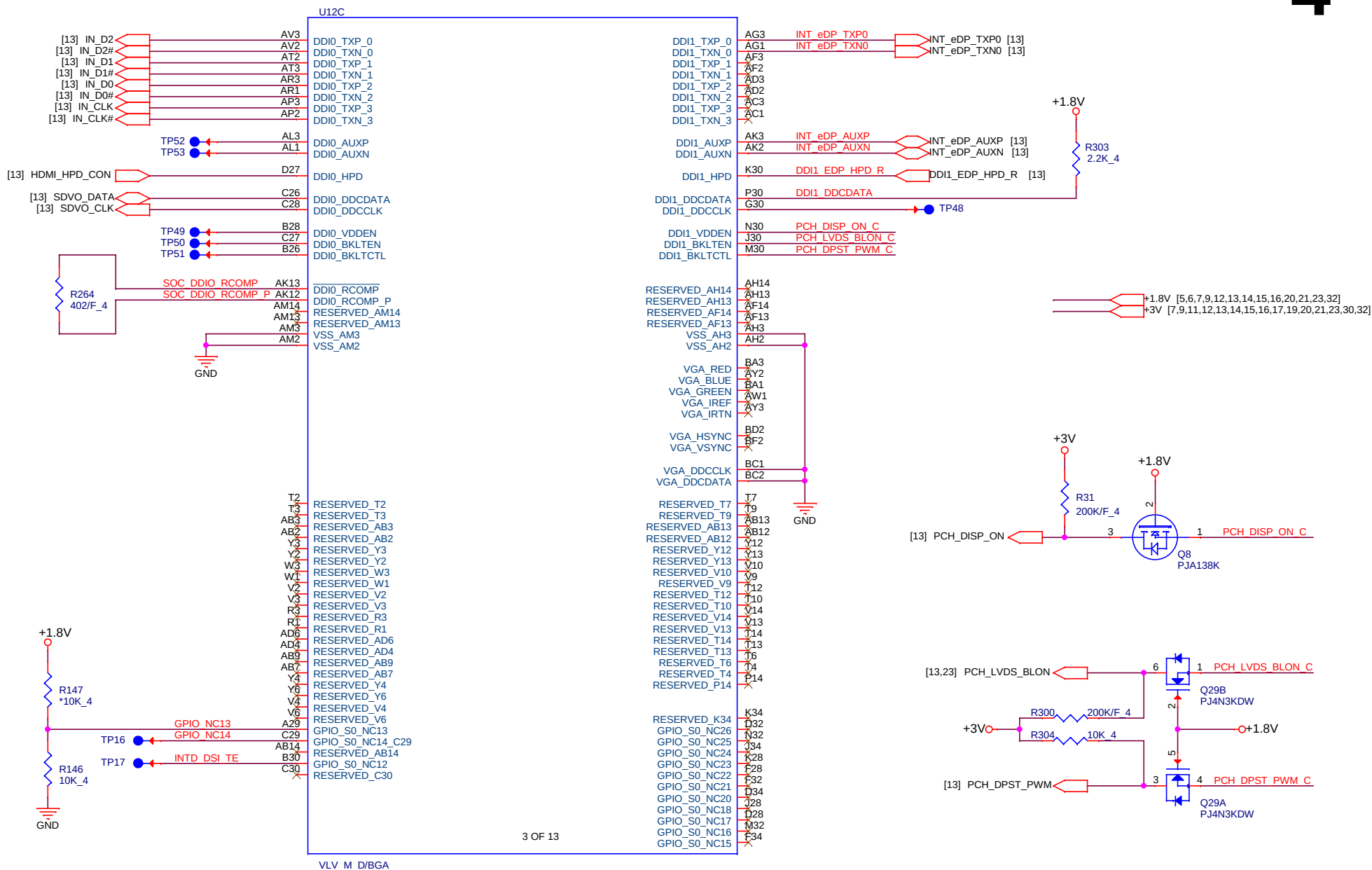


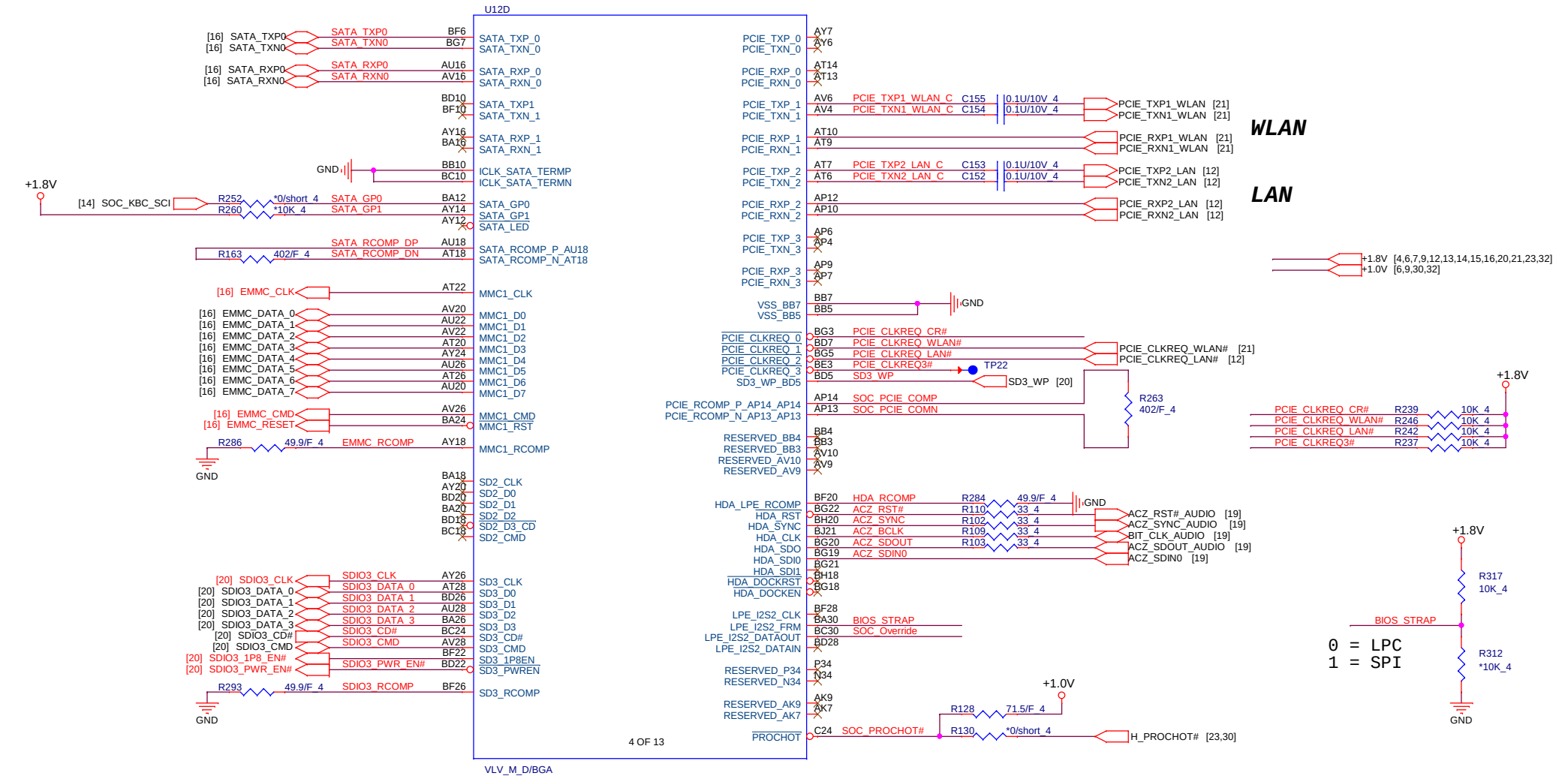
U12B

AY45	DRAM1_MA_00	DRAM1_DQ_00	BG38
BB47	DRAM1_MA_11	DRAM1_DQ_11	BC40
AW41	DRAM1_MA_22	DRAM1_DQ_11	BA42
BB44	DRAM1_MA_33	DRAM1_DQ_22	BD42
BB50	DRAM1_MA_44	DRAM1_DQ_33	BC38
BC53	DRAM1_MA_55	DRAM1_DQ_44	BD36
BB49	DRAM1_MA_66	DRAM1_DQ_55	BF42
BF50	DRAM1_MA_77	DRAM1_DQ_66	BC44
BC52	DRAM1_MA_88	DRAM1_DQ_77	BH32
BE52	DRAM1_MA_99	DRAM1_DQ_88	BG32
AY48	DRAM1_MA_1010	DRAM1_DQ_99	BG36
BE51	DRAM1_MA_1111	DRAM1_DQ_1010	BJ37
BD47	DRAM1_MA_1212	DRAM1_DQ_1111	BG33
BA51	DRAM1_MA_1313	DRAM1_DQ_1212	BJ33
BH49	DRAM1_MA_1414	DRAM1_DQ_1313	BG37
BH50	DRAM1_MA_1515	DRAM1_DQ_1414	BH38
		DRAM1_DQ_1515	AU36
BD38	DRAM1_DM_00	DRAM1_DQ_1616	AT36
BH36	DRAM1_DM_11	DRAM1_DQ_1717	AV40
BC36	DRAM1_DM_22	DRAM1_DQ_1818	AT40
BH42	DRAM1_DM_33	DRAM1_DQ_1919	BA36
AT51	DRAM1_DM_44	DRAM1_DQ_2020	AV36
AM42	DRAM1_DM_55	DRAM1_DQ_2121	AY42
AK50	DRAM1_DM_66	DRAM1_DQ_2222	AY40
AK52	DRAM1_DM_77	DRAM1_DQ_2323	BJ41
		DRAM1_DQ_2424	BG41
AV45	DRAM1_RAS	DRAM1_DQ_2525	BJ45
AV48	DRAM1_CAS	DRAM1_DQ_2626	BH46
BB50	DRAM1_WE	DRAM1_DQ_2727	BG40
		DRAM1_DQ_2828	BH40
AY47	DRAM1_BS_00	DRAM1_DQ_2929	BH48
AY44	DRAM1_BS_11	DRAM1_DQ_3030	BH47
BF52	DRAM1_BS_22	DRAM1_DQ_3131	AY52
		DRAM1_DQ_3232	AY51
AT44	DRAM1_CS_0	DRAM1_DQ_3333	AP52
		DRAM1_DQ_3434	AP51
AT45	DRAM1_CS_2	DRAM1_DQ_3535	AW51
		DRAM1_DQ_3636	AW53
		DRAM1_DQ_3737	AR51
BG47	DRAM1_CKE_00	DRAM1_DQ_3838	AR53
BE46	RESERVED_BE46	DRAM1_DQ_3939	AP47
BD44	DRAM1_CKE_22	DRAM1_DQ_4040	AP45
BF48	RESERVED_BF48	DRAM1_DQ_4141	AK40
		DRAM1_DQ_4242	AM41
AP41	DRAM1_ODT_0	DRAM1_DQ_4343	AP48
		DRAM1_DQ_4444	AP50
AT42	DRAM1_ODT_2	DRAM1_DQ_4545	AK42
		DRAM1_DQ_4646	AH40
		DRAM1_DQ_4747	AM45
AV50	DRAM1_CKP_0	DRAM1_DQ_4848	AM47
AV48	DRAM1_CKN_0	DRAM1_DQ_4949	AF48
		DRAM1_DQ_5050	AF50
		DRAM1_DQ_5151	AM48
		DRAM1_DQ_5252	AM50
AT50	DRAM1_CKP_2	DRAM1_DQ_5353	AH44
AT48	DRAM1_CKN_2	DRAM1_DQ_5454	AK45
		DRAM1_DQ_5555	AM52
		DRAM1_DQ_5656	AL51
		DRAM1_DQ_5757	AG53
AT41	DRAM1_DRAMRST	DRAM1_DQ_5858	AG51
		DRAM1_DQ_5959	AL53
		DRAM1_DQ_6060	AK51
		DRAM1_DQ_6161	AF52
		DRAM1_DQ_6262	AF51
		DRAM1_DQ_6363	
		DRAM1_DQSP_00	BF40
		DRAM1_DQSN_00	BD40
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		DRAM1_DQSN_11	BH34
		DRAM1_DQSP_22	BA38
		DRAM1_DQSN_22	AY38
		DRAM1_DQSP_33	BH44
		DRAM1_DQSN_33	BG43
		DRAM1_DQSP_44	AU53
		DRAM1_DQSN_44	AV52
		DRAM1_DQSP_55	AP42
		DRAM1_DQSN_55	AP44
		DRAM1_DQSP_66	AK47
		DRAM1_DQSN_66	AK48
		DRAM1_DQSP_77	AH52
		DRAM1_DQSN_77	AJ51

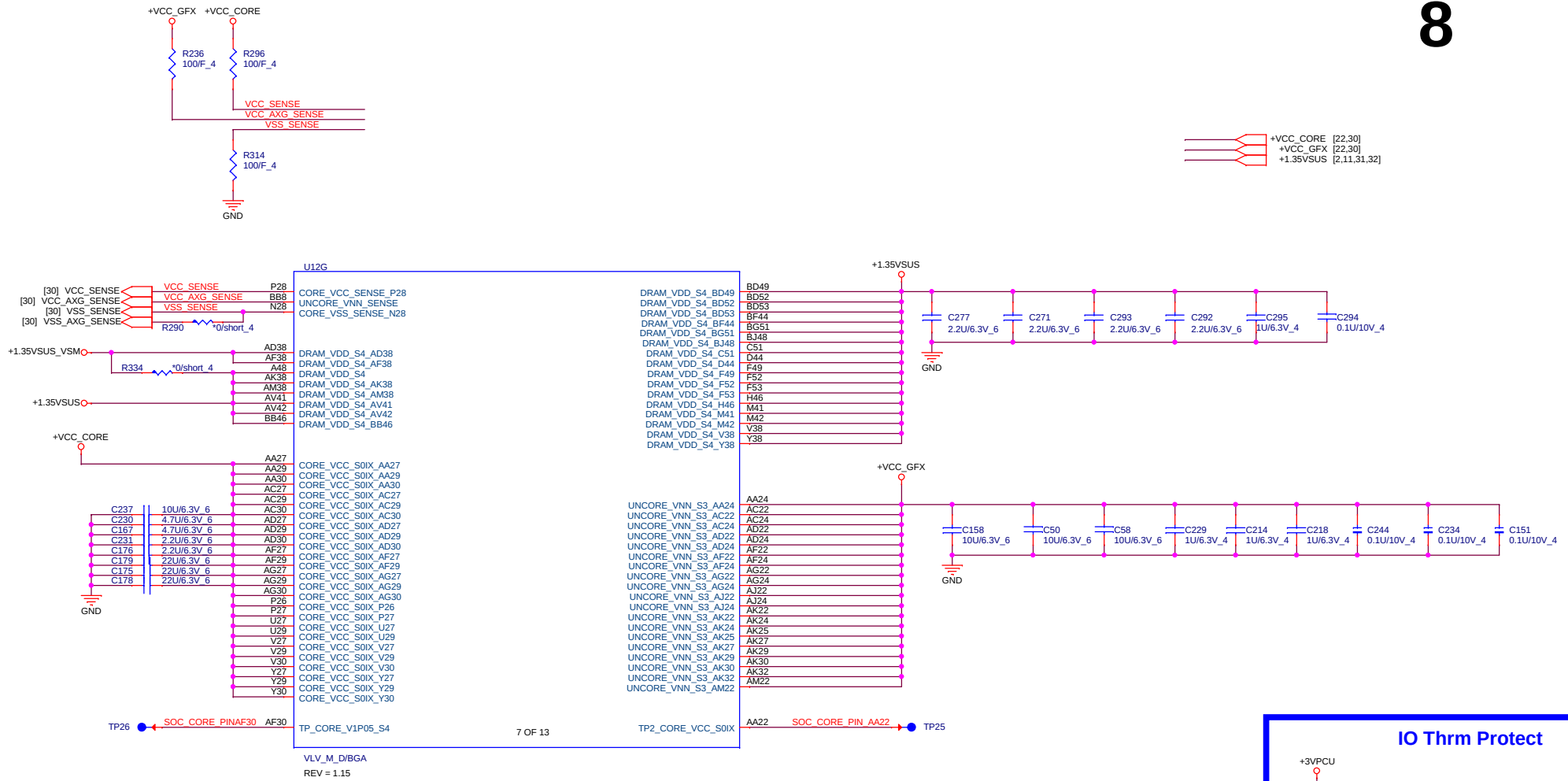
VLV_M_D/BGA

		Quanta Computer Inc.	
		PROJECT : ZHK	
Size	Document Number		Rev
	Valley 2/9 (DDR8)		1A
Date:	Monday, June 30, 2014	Sheet	3 of 33

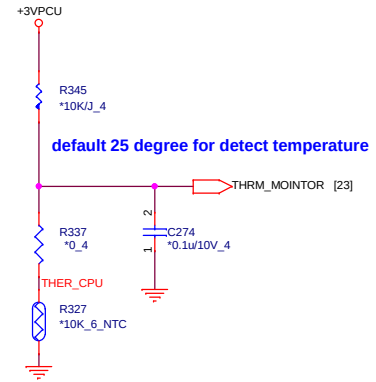




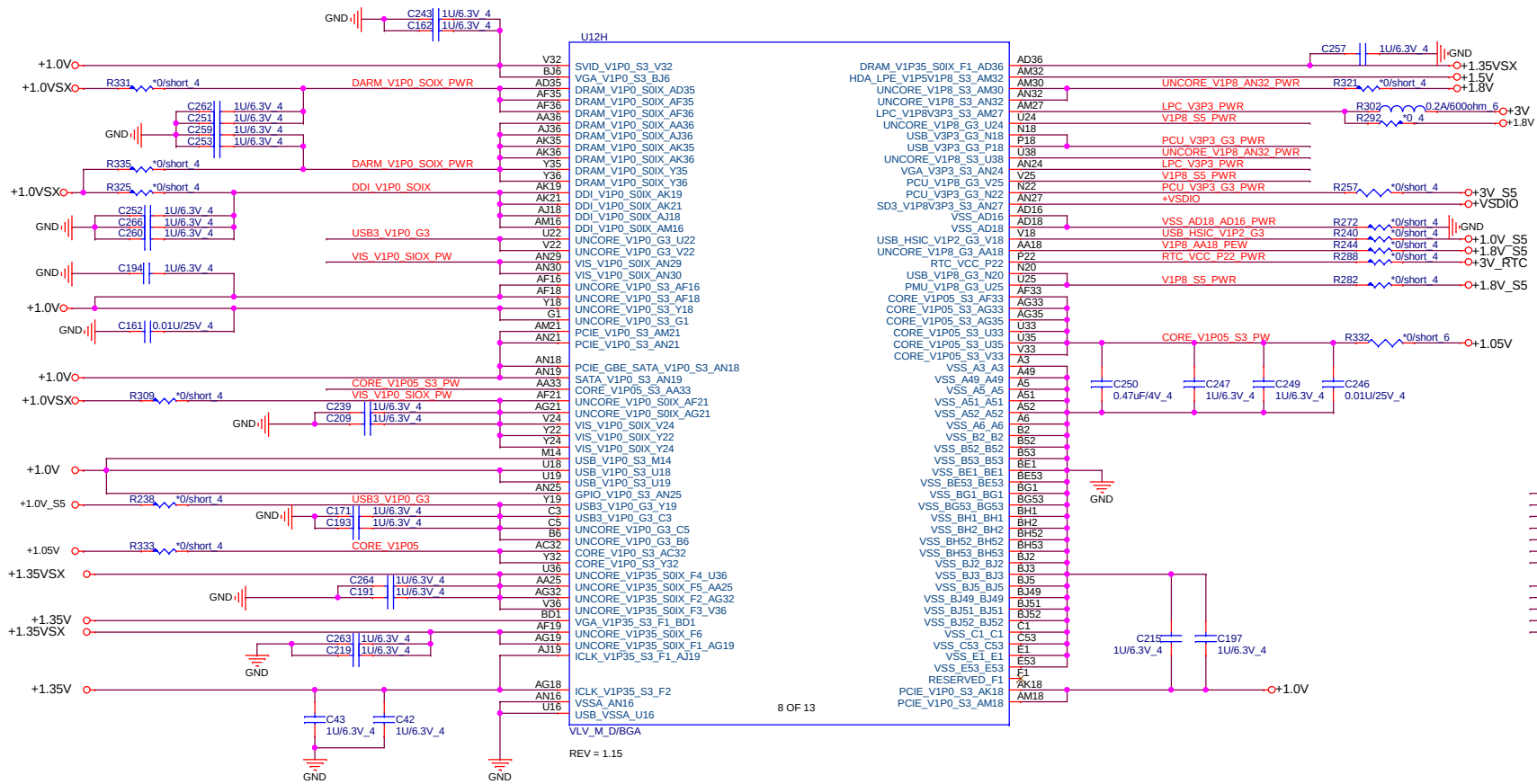
Size	Document Number	Rev
	Valley 6/9 (USB/LPC/I2C)	1A
Date:	Monday, June 30, 2014	Sheet 7 of 33



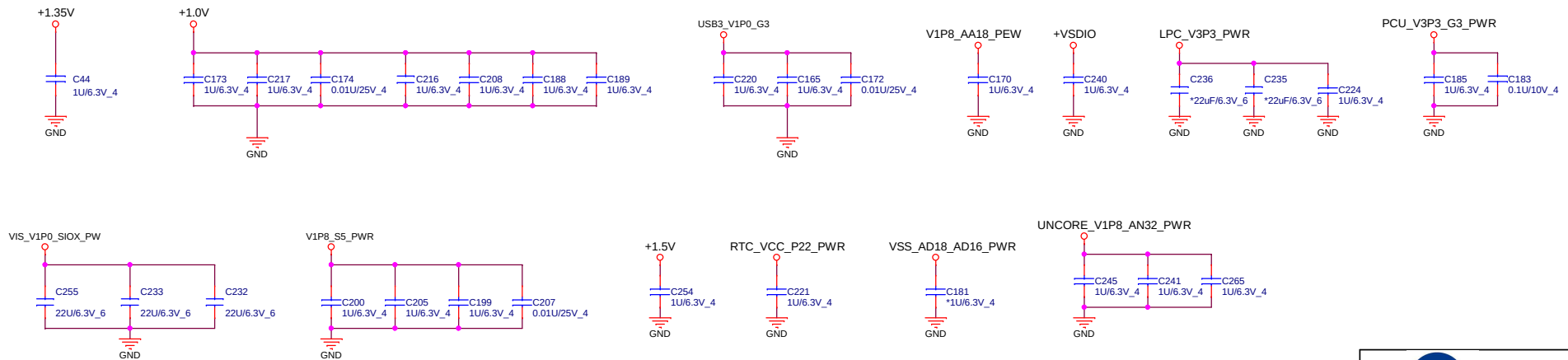
IO Thrm Protect

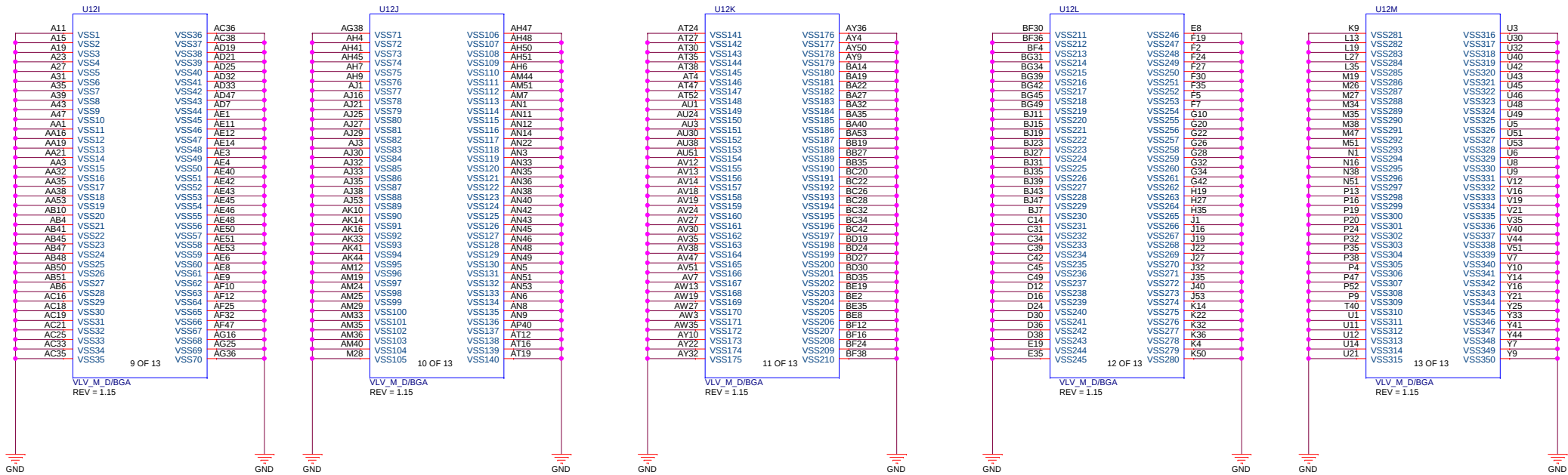


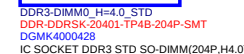
Quanta Computer Inc.
PROJECT : ZHJ



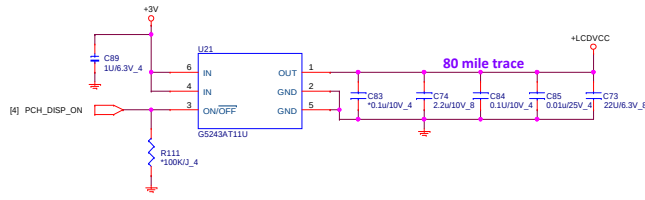
- +VCC_GFX [8,22,30]
- +1.35VSX [32]
- +1.8V_S5 [6,7,14,32]
- +3V_S5 [2,12,14,15,16,17,21,23,29,30,32]
- +3V [4,7,11,12,13,14,15,16,17,19,20,21,23,30,32]
- +1.5V [19,29]
- +1.8V [4,5,6,7,12,13,14,15,16,20,21,23,32]
- +1.35V [32]
- +1.05V [29]
- +1.0V_S5 [28,32]
- +1.0VSX [32]
- +1.0V [5,6,30,32]





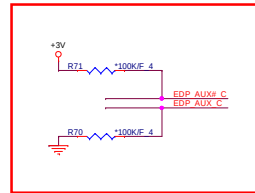
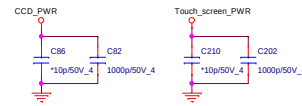
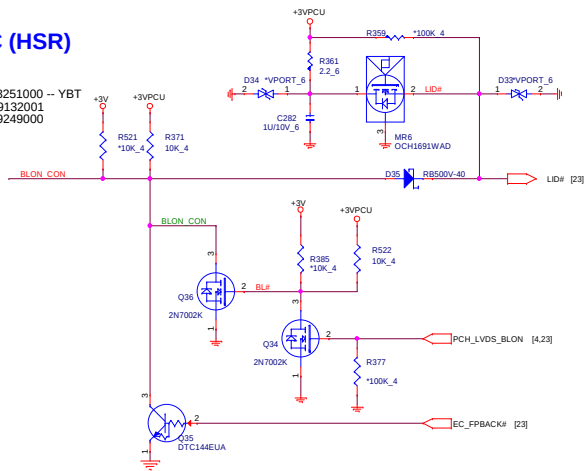


LVDS Conn.



HALL IC (HSR)

```
1st source : EOD
2nd source : AL008251000 --
3rd source : AL009132001
4th source : AL009249000
```

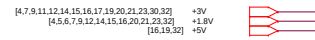
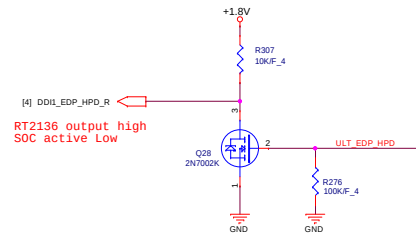
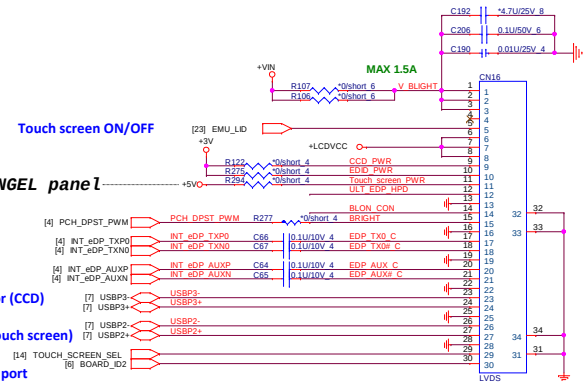
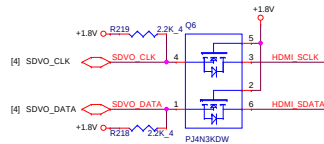


For ANGEL panel

USB to Connector (CCD)

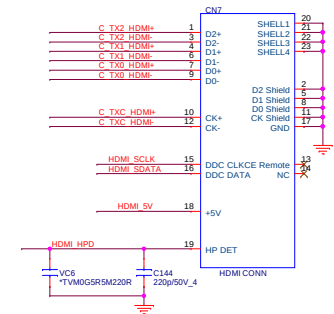
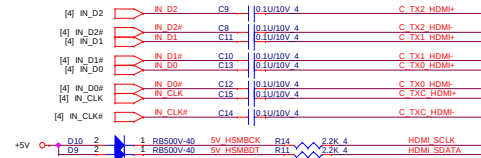
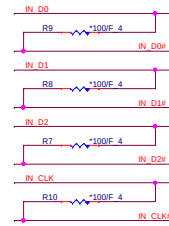
USB to Connector (Touch screen)

Touch screen SEL. [1.4]
Auto enable/disable touch panel USB port

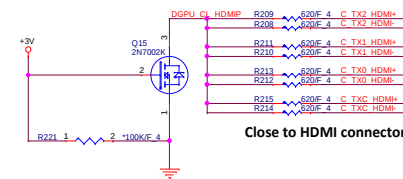
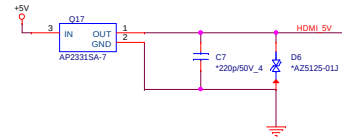
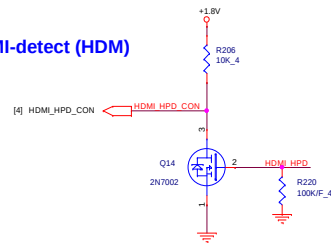
**HDMI Conn.**

HDMI SMBus Isolation

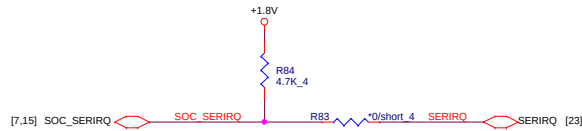
EMI (EMC)



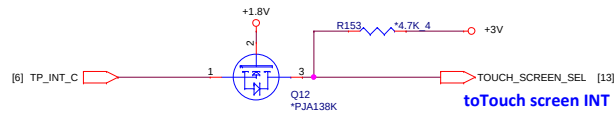
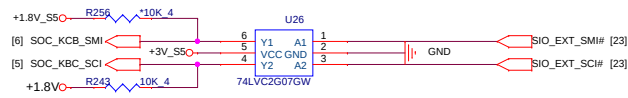
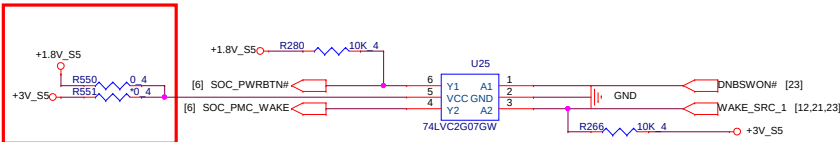
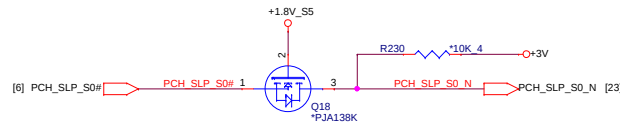
HDMI-detect (HDM)



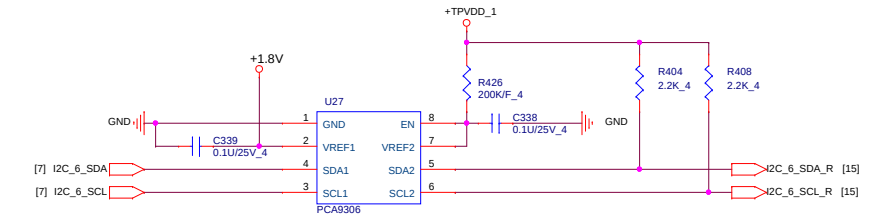
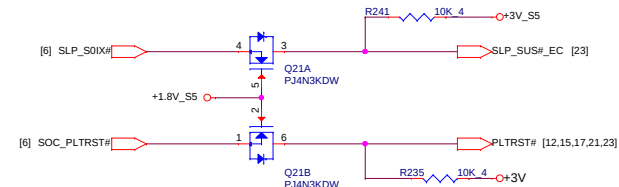
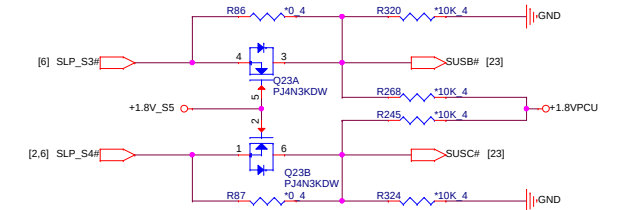
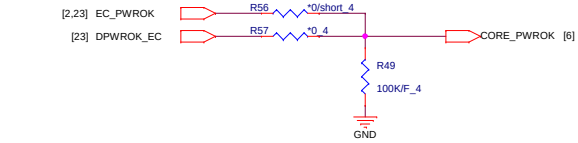
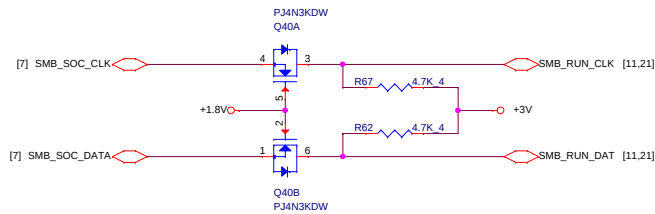
[6,7,9,32] +1.8V_S5
 [2,9,12,15,16,17,21,23,29,30,32] +3V_S5
 [4,5,6,7,9,12,13,15,16,20,21,23,32] +1.8V
 [4,7,9,11,12,13,15,16,17,19,20,21,23,30,32] +3V



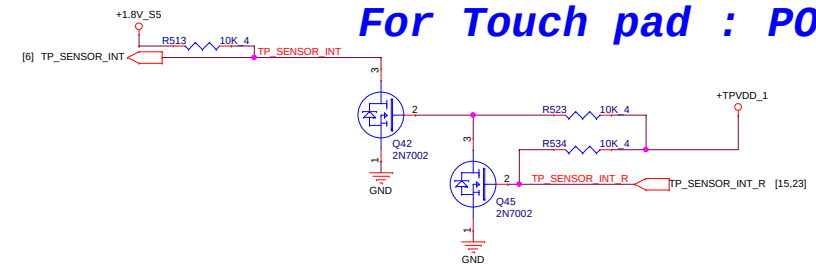
Reserve for +1.8V new EC



toTouch screen INT



For Touch pad : POWER-A



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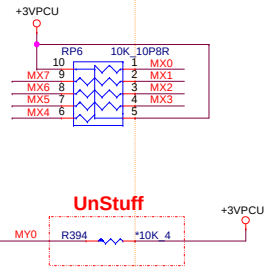
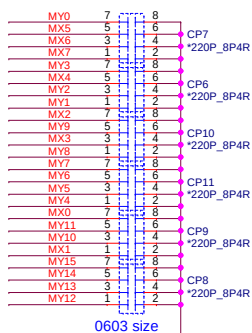
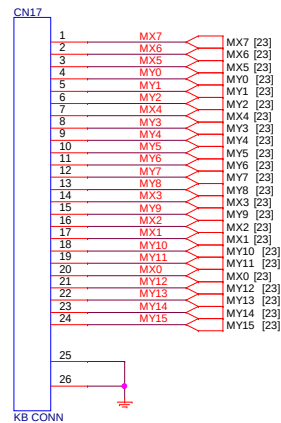
Size	Document Number	Rev
	Level Shifter	1A
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KEYBOARD (KBC)

<20110214(E1A)>
Change CP1-CP6 footprint from
8p4r-0402-smt to 8P4R, for SMT open issue.

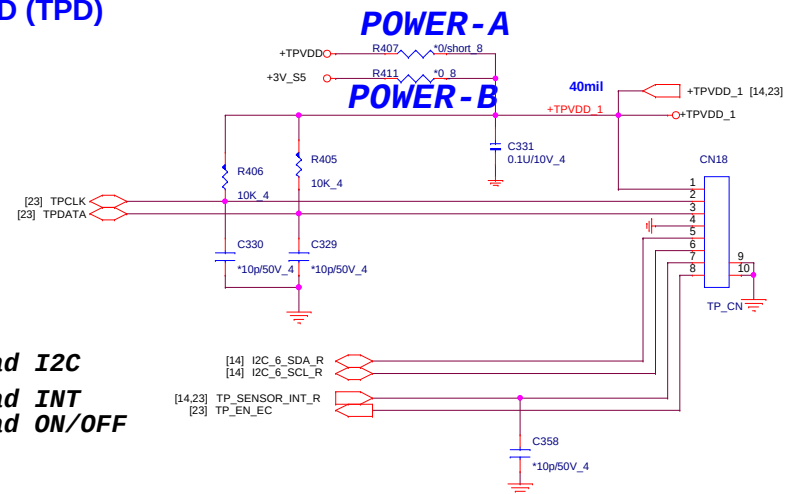
<EMI>

INTERNAL KEYBOARD STRIP SET (KBC)



Rev: B (C-test) CN17 change ACS P/N from DFFC24FR000 to DFFC24FR110

TOUCH PAD (TPD)

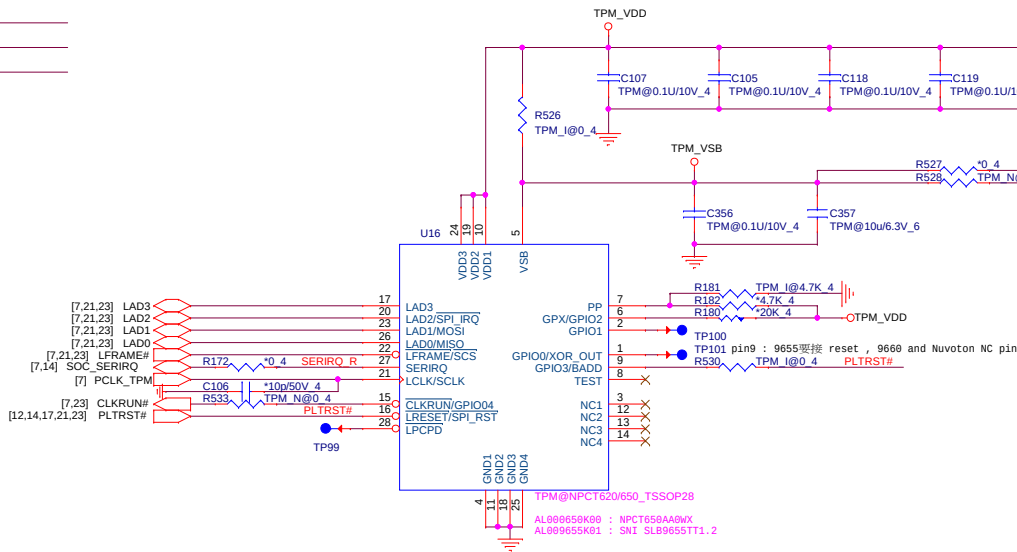


Touch pad I2C
Touch pad INT
Touch pad ON/OFF

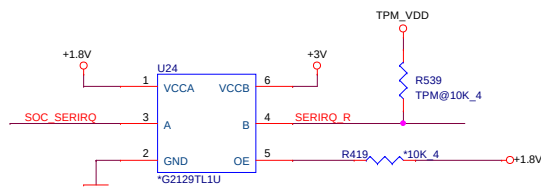
15

ACER DEFINE
VDD
PS2-CLK
PS2-DATA
GND
I2C-CLK
ATTN (INT)
SER-OFF.

TPM (TPM)



TPM_N for 新唐
TPM_I for 英飛凌--- default



note: serie need to add level shift

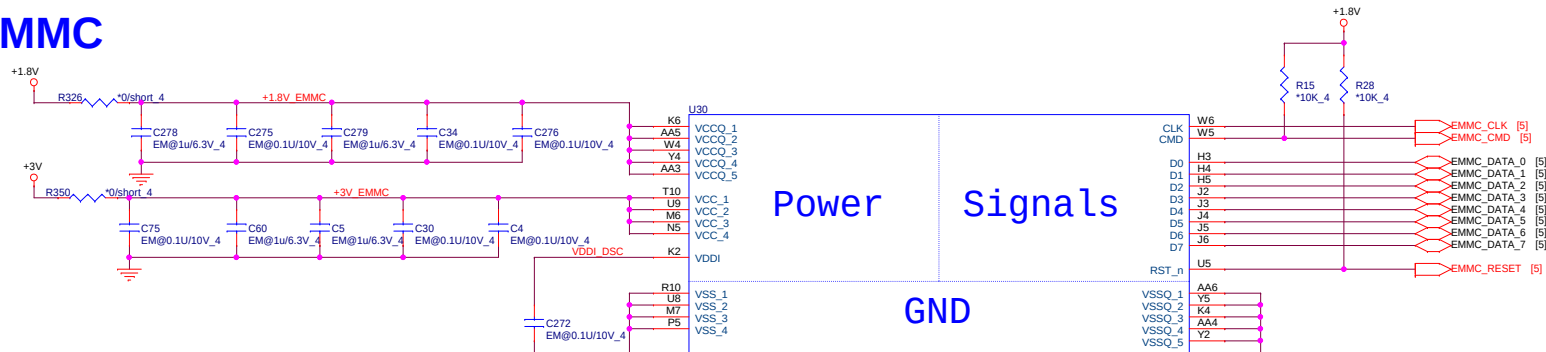


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	KB/TP	1A

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eMMC

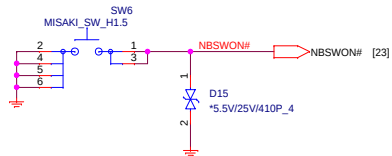


Power Signals

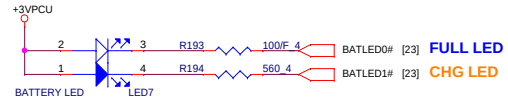
GND

NC

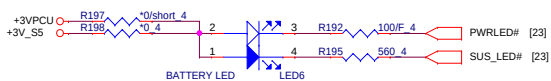
PWR button



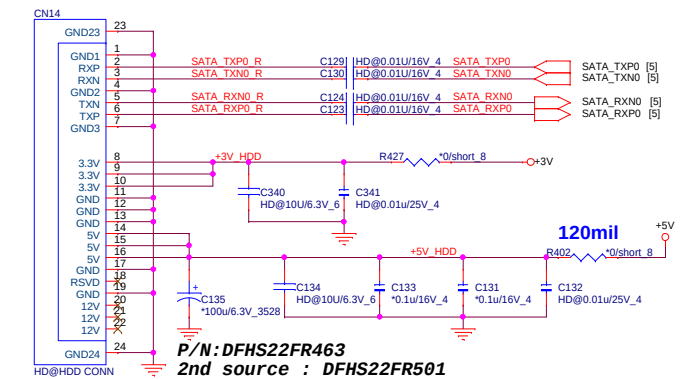
Battery indicator



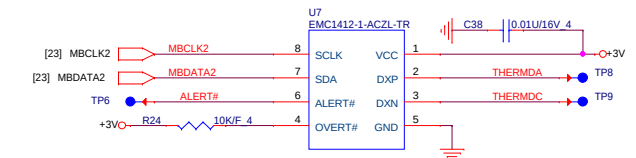
PWR indicator



SATA HDD



CPU Thermal sensor(THS) / MB Local TEMP

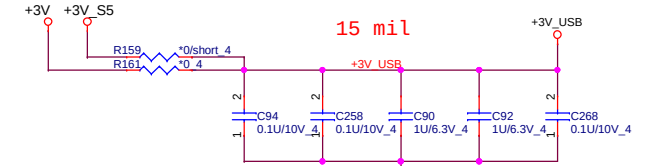
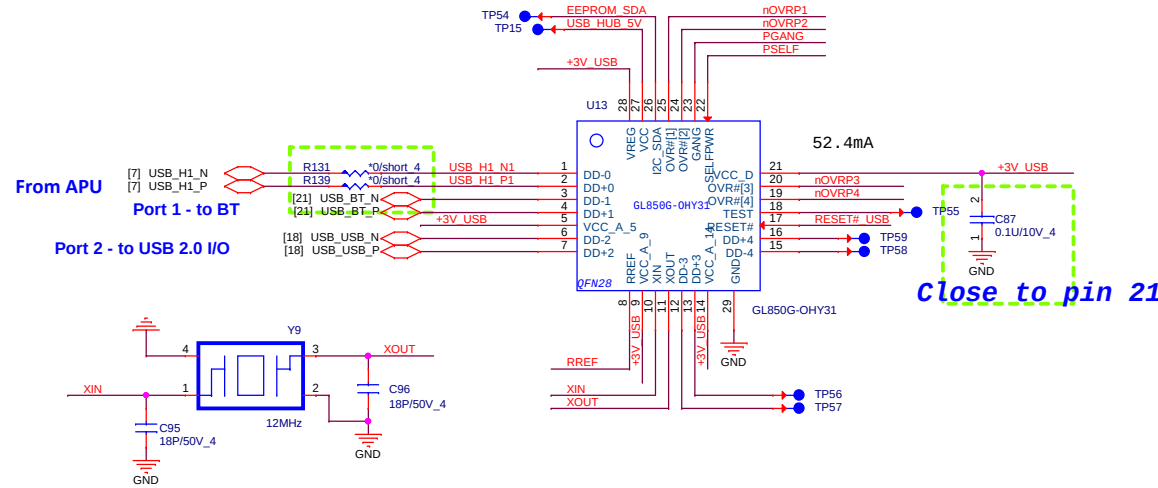


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 2nd:AL000431014

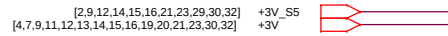
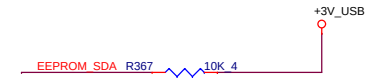
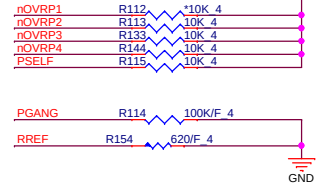
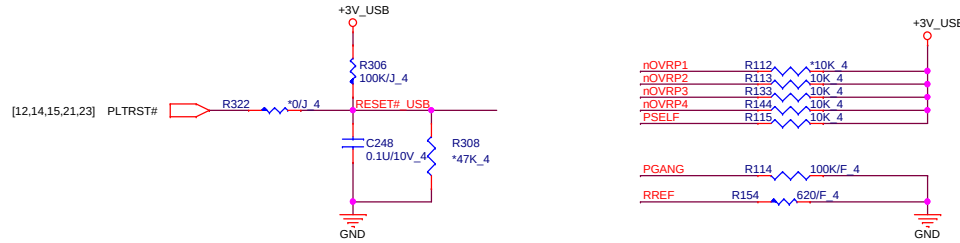
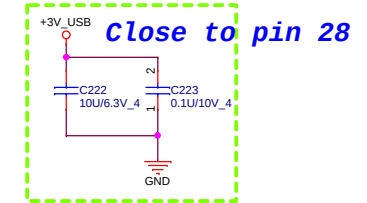
EMC1412-1-ACZL-TR(98h)
 TMP431ADGKR(98h)

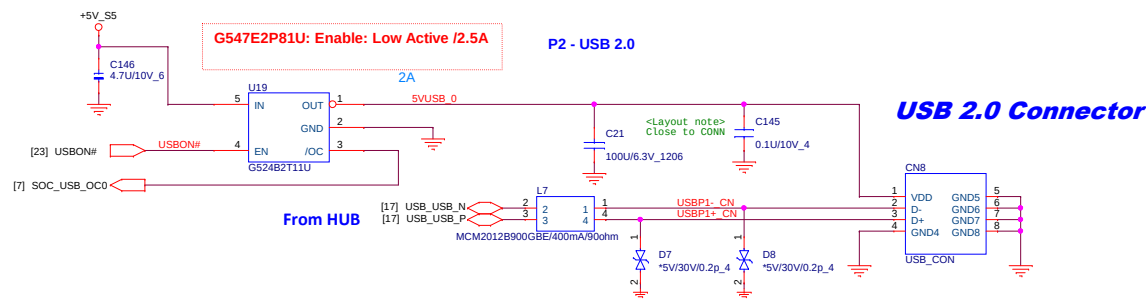
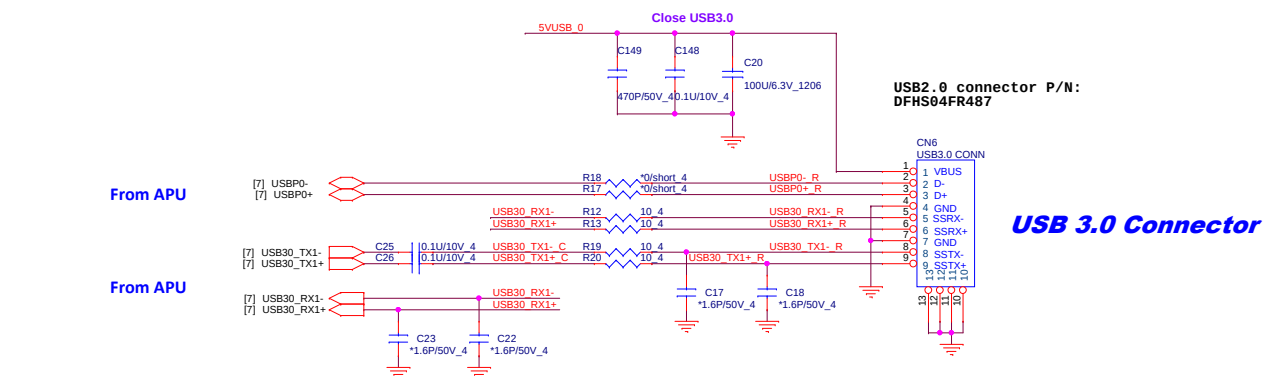


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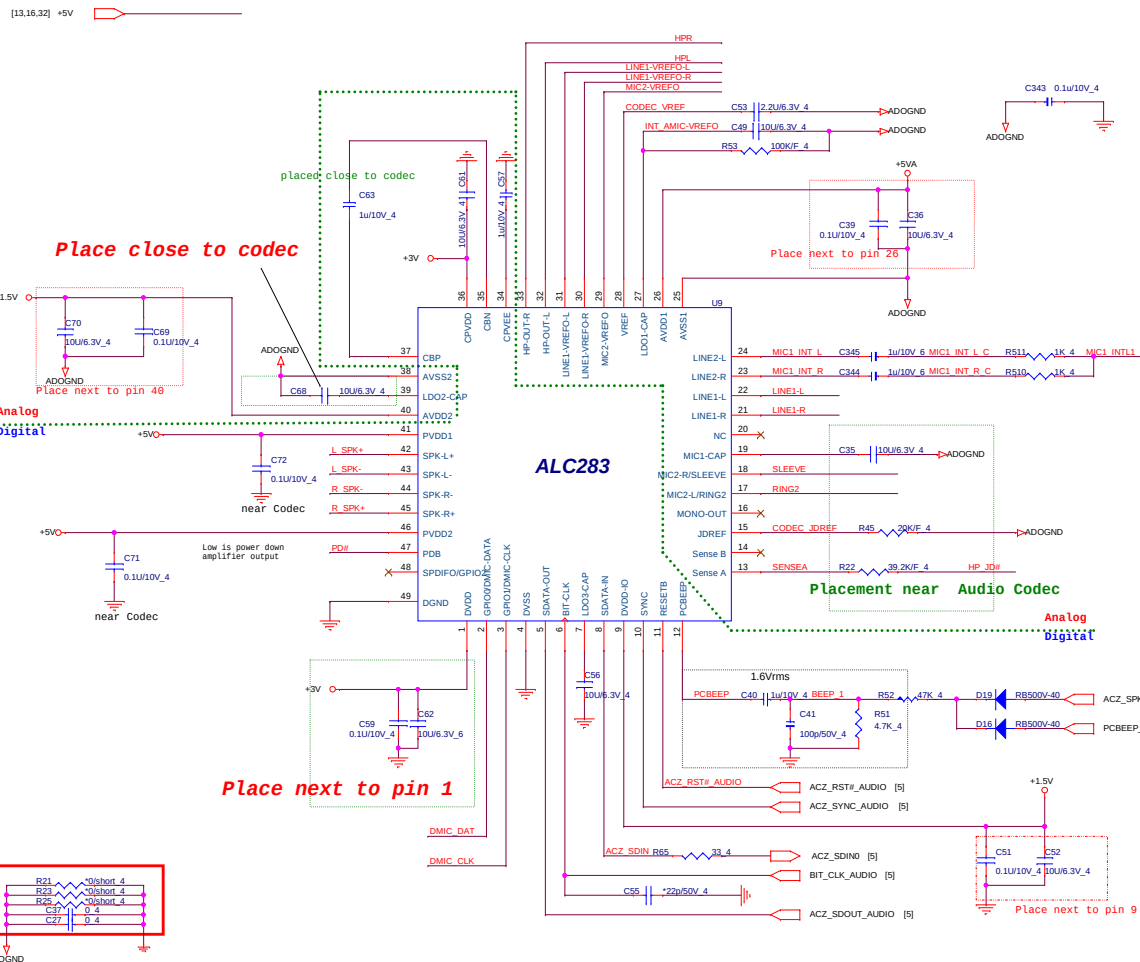


Close to GL850G-31 IC

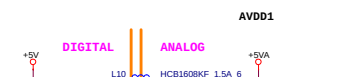




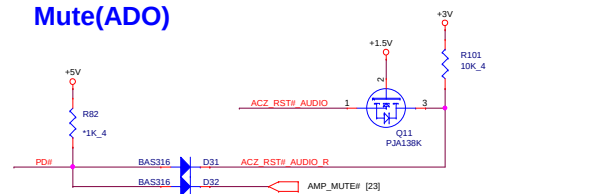
Codec(ADO)



Codec PWR 5V(ADO)

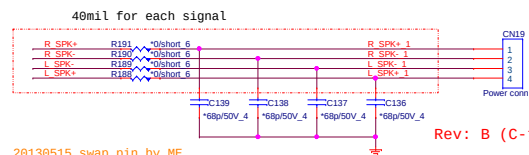


Mute(ADO)



Internal Speaker

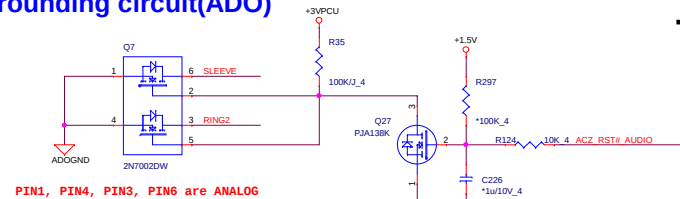
footprint 88266-040xx-xxx-4p-1



20130515 swap pin by ME.

Rev: B (C-test) CN19 change ACS P/N from DFHD04MRA75 to DFHD04MR211

Grounding circuit(ADO)



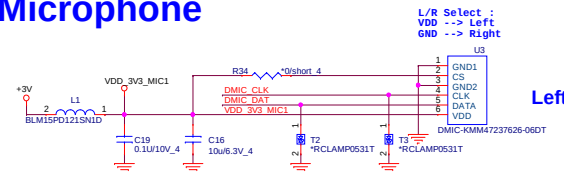
PIN1, PIN4, PIN3, PIN6 are ANALOG

INT MIC array



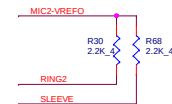
cap place close to MIC-connector

Microphone



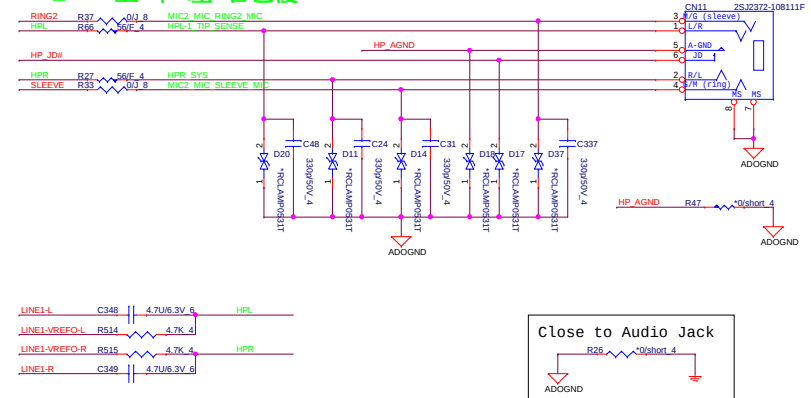
L/R Select :
VDD --> Left
GND --> Right

Left

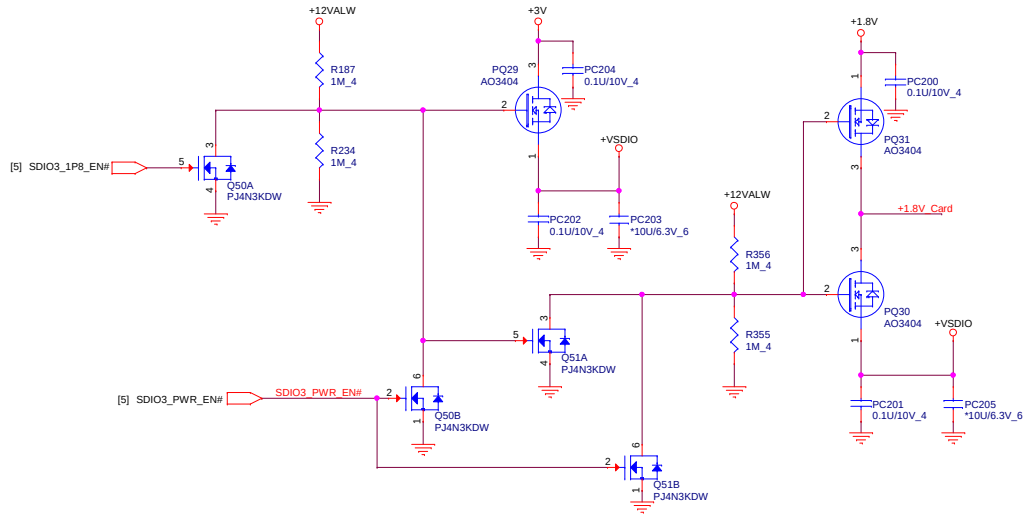


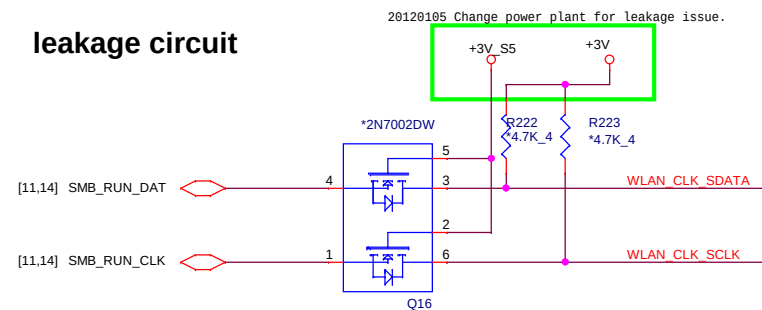
note : change next P/N: DFTJ06FR653
CONN DIP PHONE JACK 6P FR(H4.5)
foot print: phjk-2sj3072-108111f-6p

HP_MIC 上/下/左/右包覆AGND



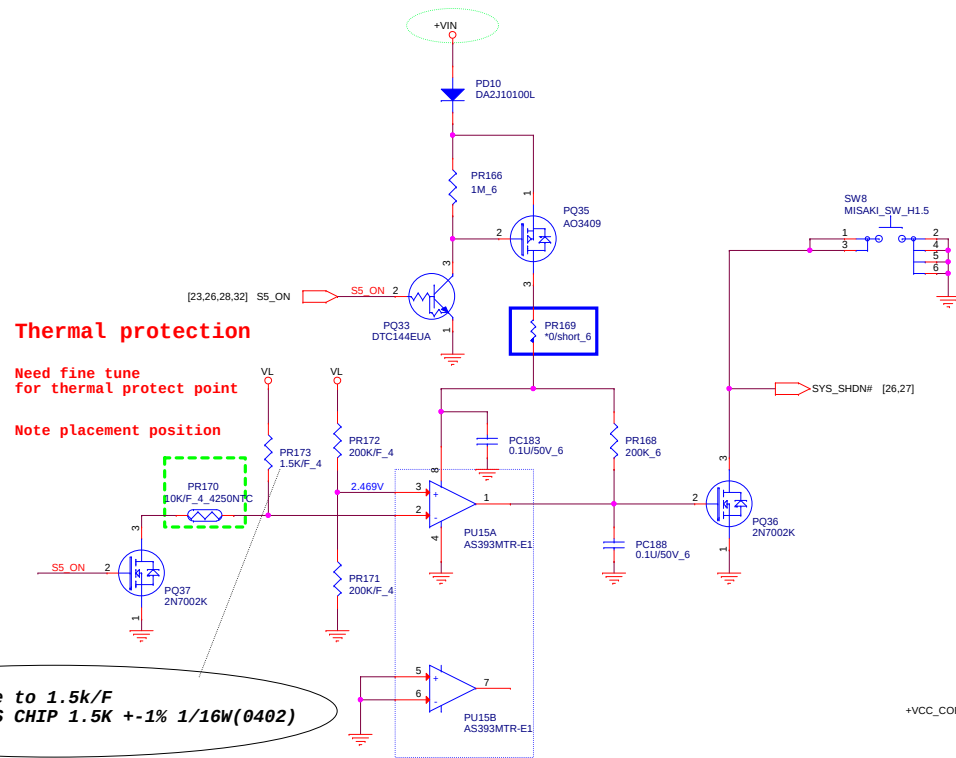
Close to Audio Jack



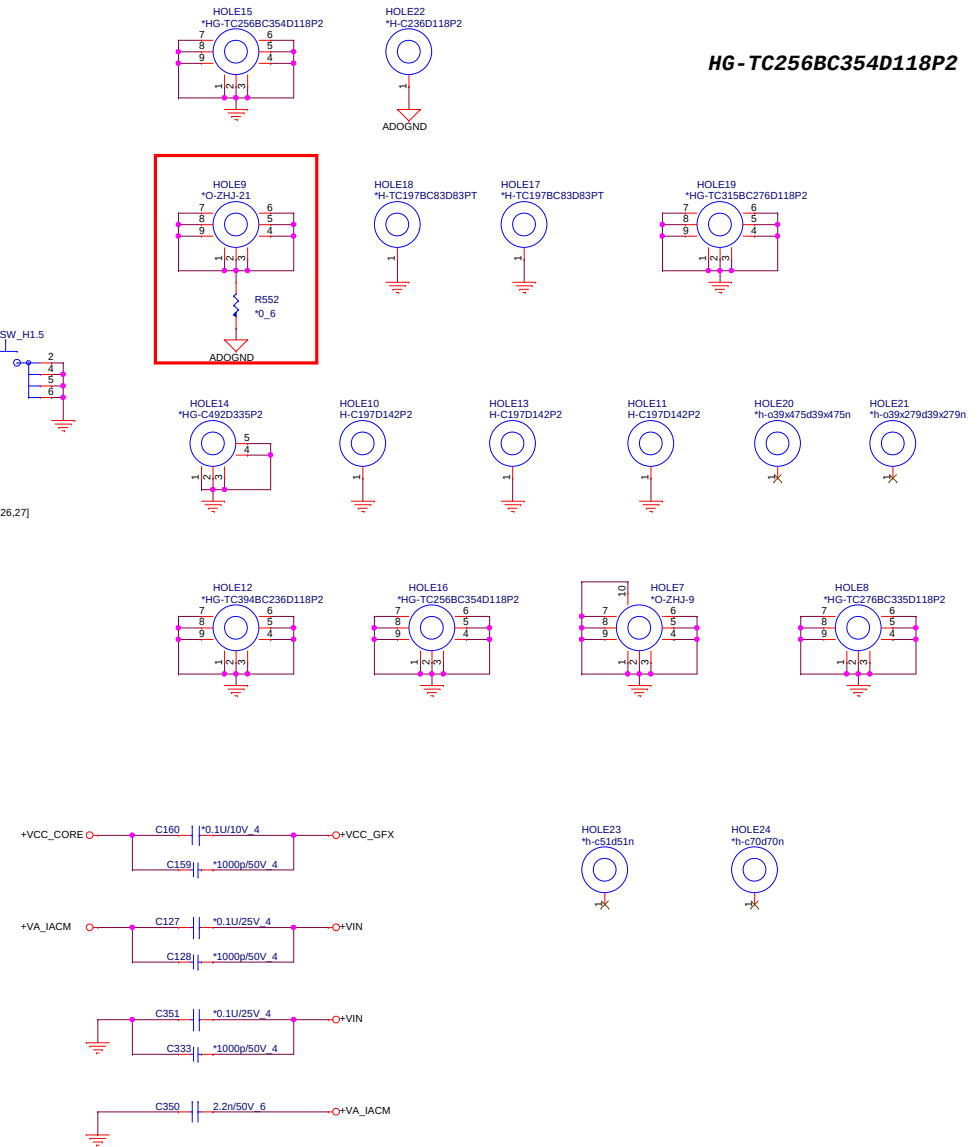


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	WiFi & BT	1A
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HG-TC256BC354D118P2



For EC control thermal protection (output 3.3V)

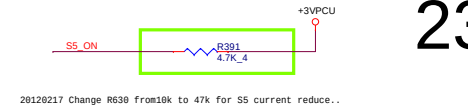


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	Thermal / Hole	2A

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```
note:
GPIO75 EMU_LIDTouch panel enable/disable#Follow ZEA -->ZHJ None
GPIO70 TP_EN_ECTouch pad enable/disable# -->ok
GPIO27 TP_INT_EC#Touch pad interrupt
```



30mil

0.03A (30mils)

985L-A0 connects to +3Vpcu / 985L-B1 connects to +1.8v_s /

220121130 change to 39p capacitor for ESD

+1.8VPCU R357 1 0.6 VPCSPI

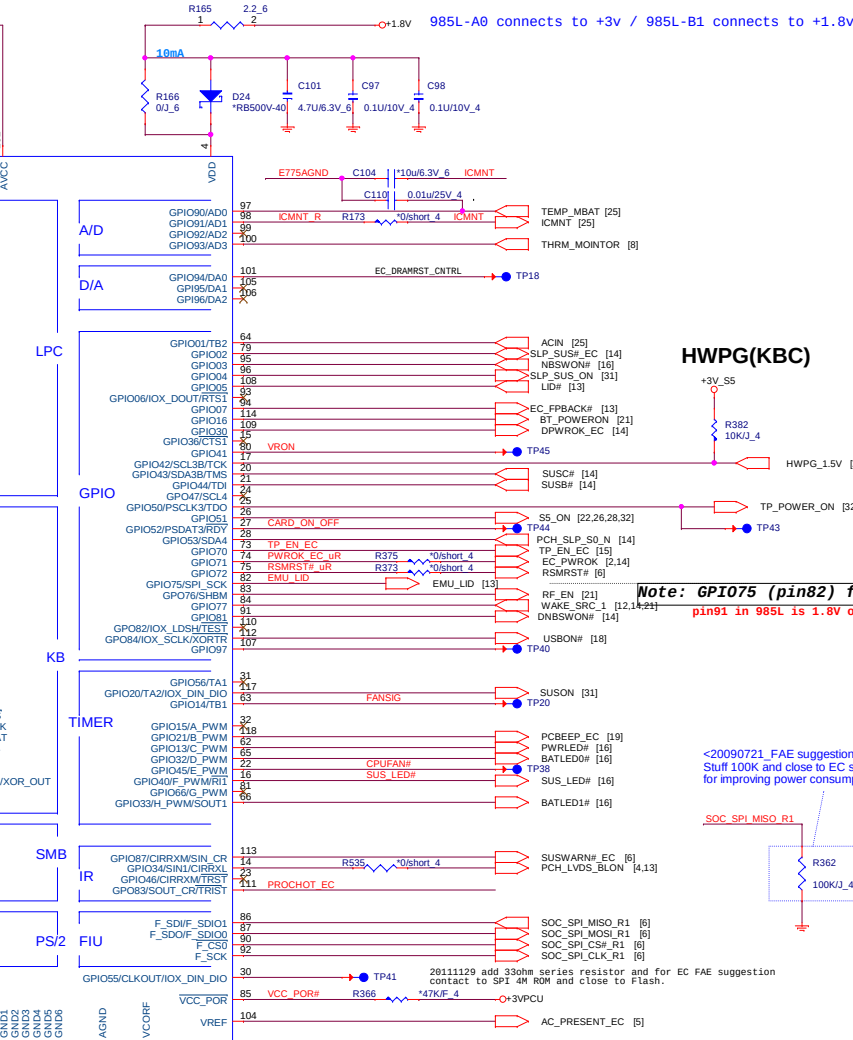
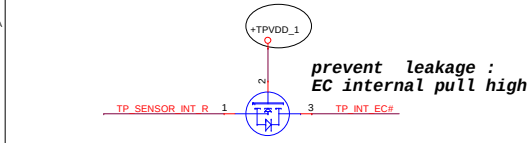
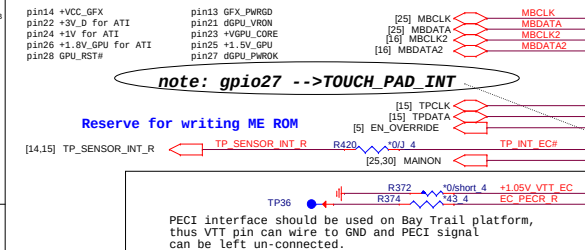
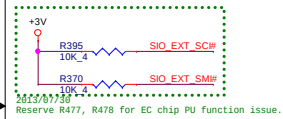
+3VPCU EC C290 4.7uV6.3V_6 C102 0.1u10V_4 C288 *1u10V_4 C125 0.1u10V_4 C296 39p50V_4 C108 0.1u10V_4

C284 10uV6.3V_6

C959 *0.1u10V_4

PLTRST#

U18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939



SM BUS PU (KBC)

MBCLK
MBDATA

TP_EN_EC

MBCLK2
MBDATA2

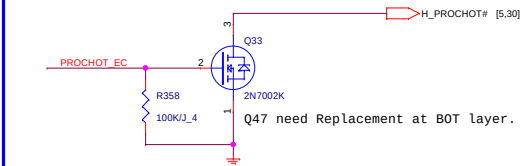
R378 4.7K Ω
R384 4.7K Ω

R536 10KJ Ω

R386 10KJ Ω
R383 10KJ Ω

3VPCU

SMBus Tr Fail (s)
1000 ns max, res
1046 ns
Change PU
resistor (R424, R4
from 10K to 4.7K



HWPG(KBC)

+3V_S5

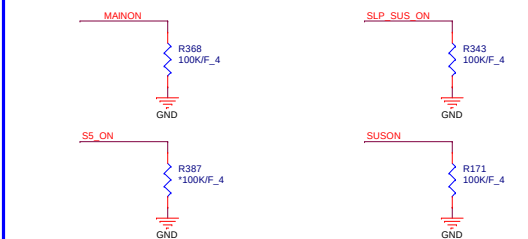
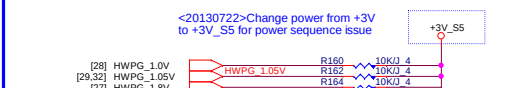
R382
10K/J_4

HWPG_1.5V [29,32]

TP_POWER_ON [32]

TP43

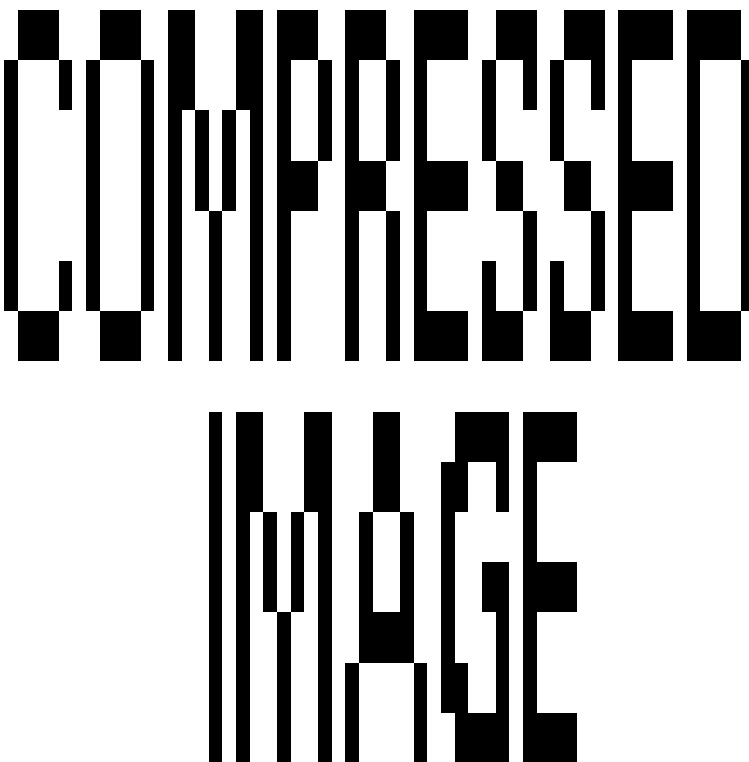
Note: GPIO75 (pin82) for TOUCHPANEL_ON
pin91 in 985L is 1.8V only



SM Bus 1	Battery
SM Bus 2	PCH
SM Bus 3	GPU

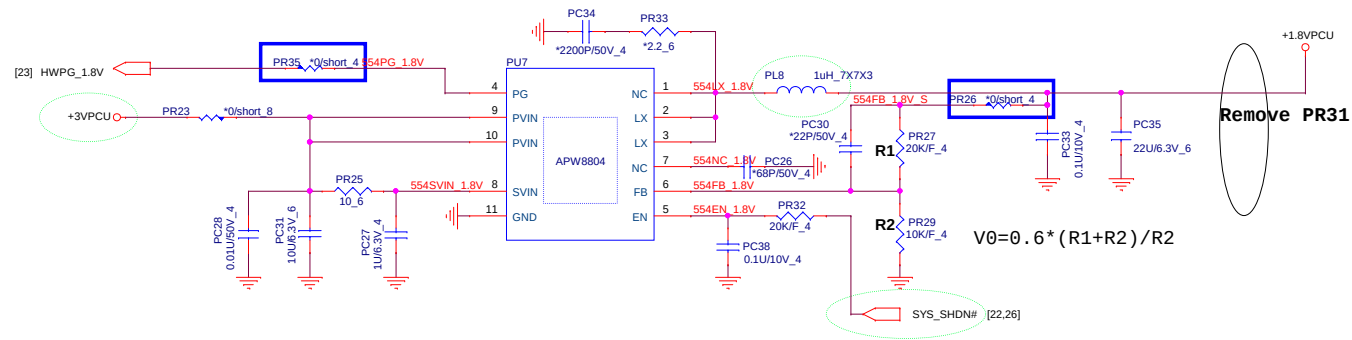
Bay Trail-M S4/S5 to S0 (Power Up) Sequence

24



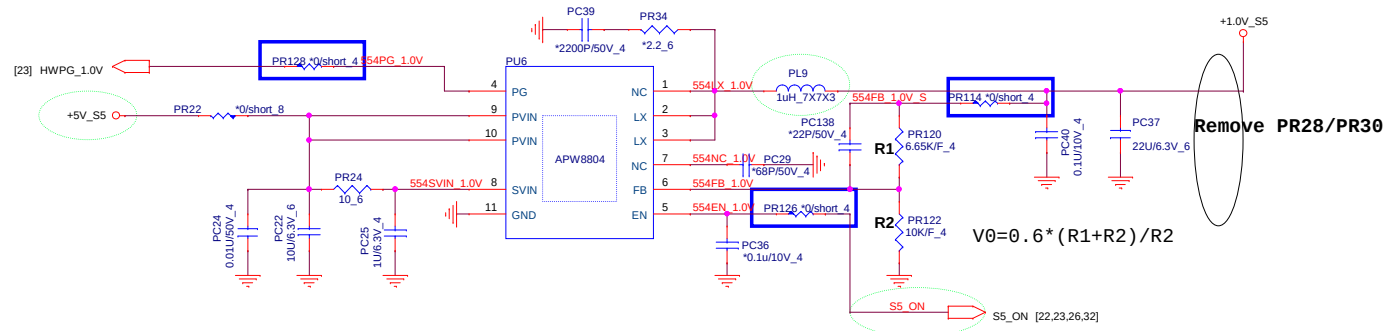
[14,23,32] +1.8VPCU
[6,8,13,15,16,19,23,25,26,32] +3VPCU

+1.8V Volt +/- 5%
Countinue current:0.08A
Peak current:0.11A
OCP minimum:A



+1.0V Volt +/- 5%
 Countinue current:2.4A
 Peak current:3.2A
 OCP minimum:A

[9,32] +1.0V_S5
 [6,18,26,29,30,31,32] +5V_S5

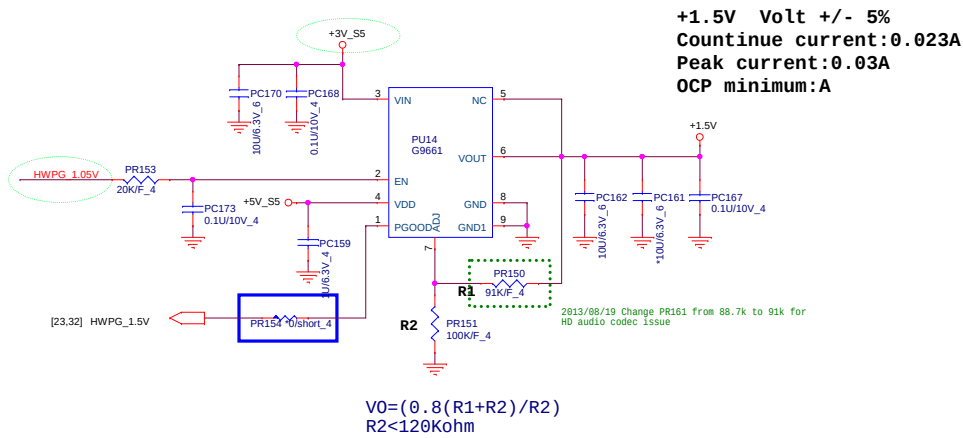
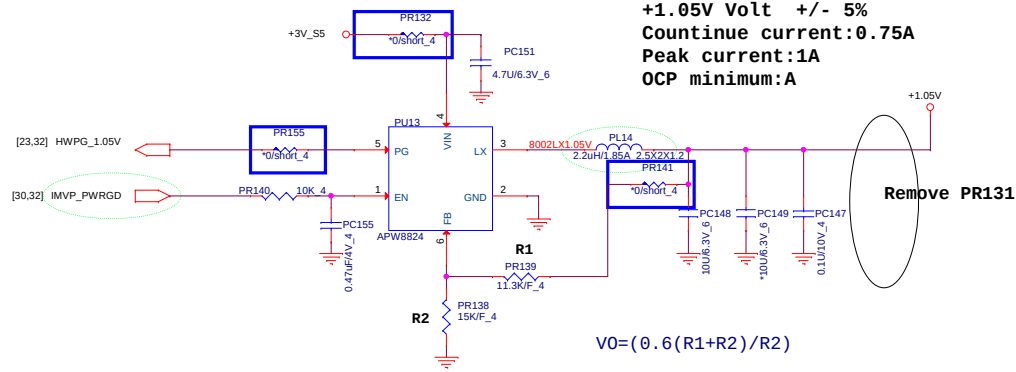


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	+1.0V	1A

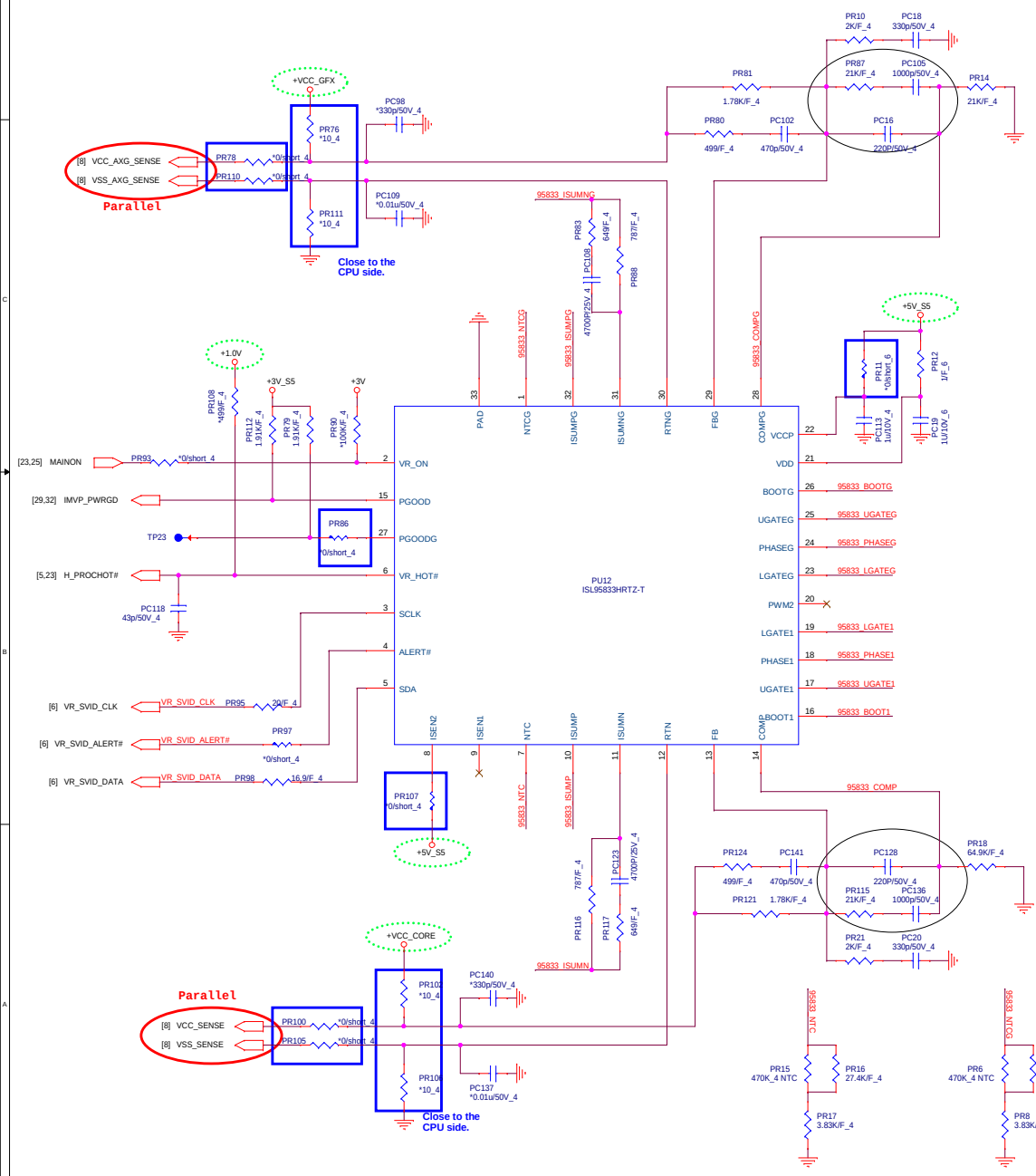
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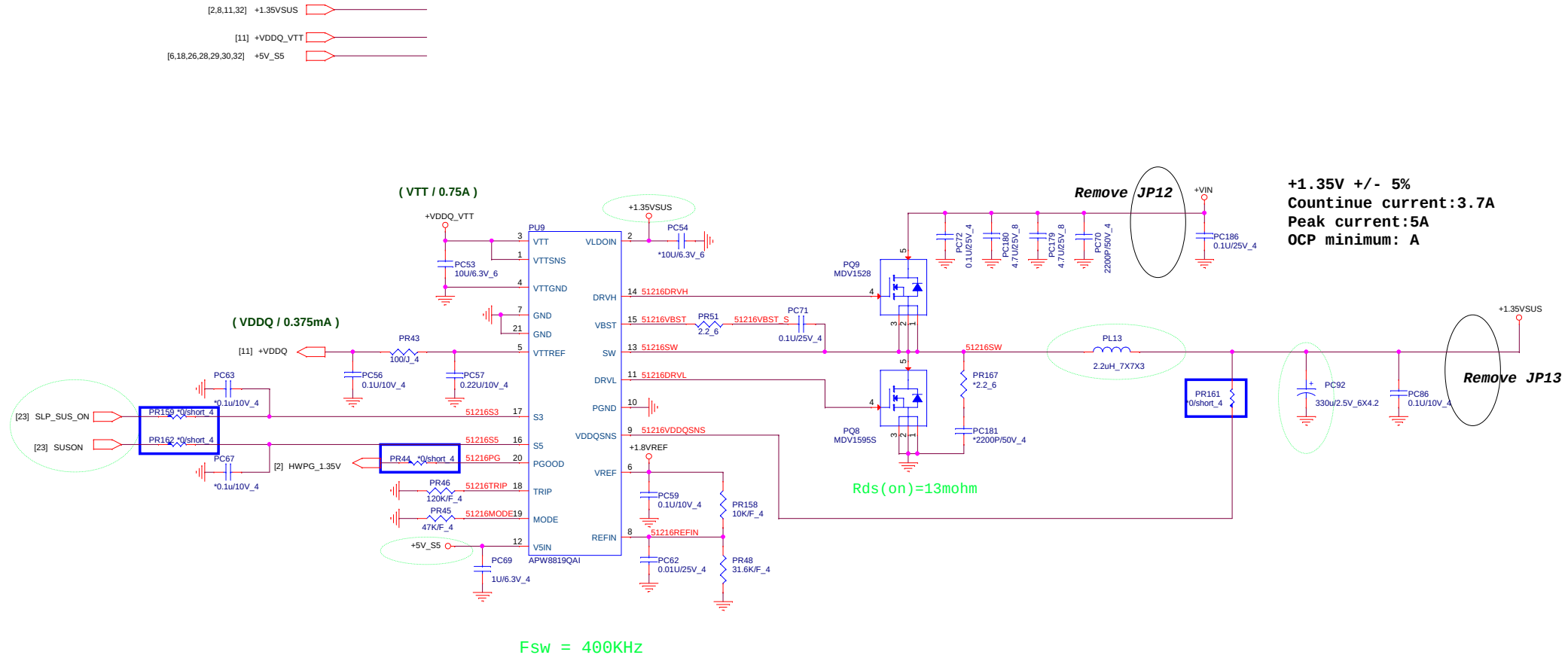
[2,9,12,14,15,16,17,21,23,30,32] +3V_S5
 [9] +1.05V
 [9,19] +1.5V



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	+1.05V/1.5V	1A
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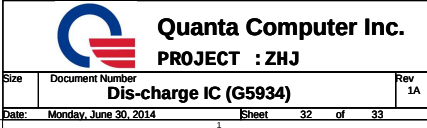




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Size Document Number
DDR3 (APW8819)

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Model	Version	CHANGE LIST
ZHK	3A	1. Stuff C27 & C37 for ESD. (page19) 2. Reverse C39 for EMI. (page21) 3. R58: Change R ERM to 2.2 ohm for ESD(page13) 4. Reverse R545, R546, R547, R548 & R549 for Cardread function(page28) 5. Reverse R552 for ESD. (page22) 6. Reverse R70 & R71 for rDP AUX. (page13) 7. Add PQ33 for cardread function.

DOC NO.	PROJECT MODEL :	ZHK	APPROVED BY:		DATE:	
	PART NUMBER:		DRAWING BY:		REVISION:	


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 Change list-1