

MS-7750 Ver: 1.0 ATX 305*220mm

CPU:

INTEL - Sandy Bridge LGA 1155

System Chipset:

INTEL - Cougar Point PCH(H67/Z68)

OnBoard Chipset:

HD Audio Codec:ALC887 co-lay 892

LAN:RTL 8111E 10/100/1000 , Co-lay 8105E 10/100

SIO:FIN71869AD

Flash ROM:64Mb SPI (PCH)

Main Memory:

DDRIII (1066/1333MHz) * 4 (Dual Channel)

Expansion Slots:

PCI Express (X16) Slot * 1

PCI Express (X4) Slot * 1

PCI Express (X1) Slot * 2

PCI Slot * 3

PWM:

Controller:VRD12 UP1625 3Phase

CPU+GPU: UP6282 MOSFET Driver

CPU VTT: IP6103

CPU SA : OP+MOS

DDR: UP6103

PCH: UP6103

ACPI:

UPI

Other:

SATA3.0 x2 (PCH)+ SATA2.0 x4 (PCH)

USB2.0 RearX4 Front x8

USB3.0 RearX2

D-SUB *1

TPM Header *1

COM Header *1

LPT Header *1

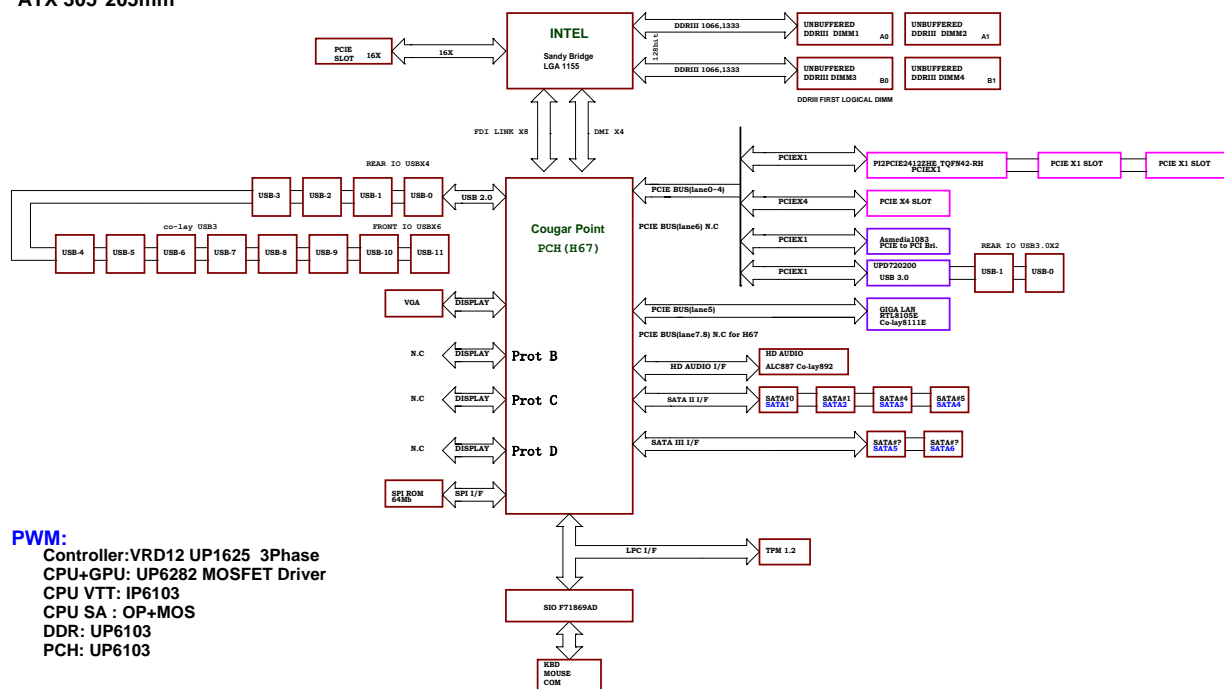
on BOARD BUZZER

BOM:

- 1.H67 Full Spec (11)
- 2.H61 Full Spec (11)
- 3.H61 common Spec (11)

MICRO-STAR INT'L CO.,LTD		
MS-7750		
Size	Document Description	Rev
Custom	Cover Sheet	1.0
Date: Thursday, May 26, 2011		Sheet 1 of 54

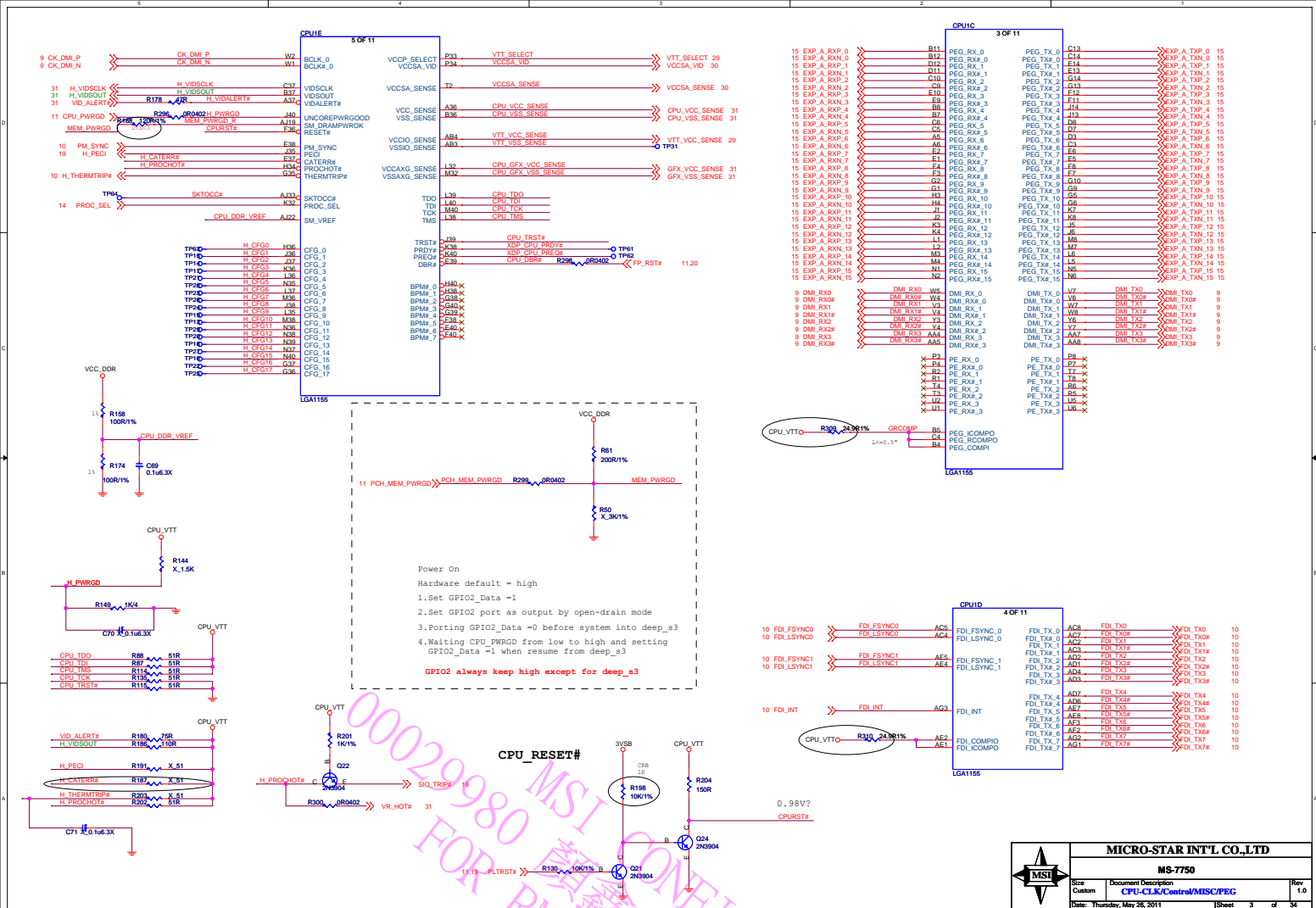
Power Saving circuit	40
DDR Power - uP6103 1-Phase	41
PCH Power - uP6103 1-Phase	42
CPU VTT - IP6103	42
Manual & Optio	42
CPU SA - uP6113 1-Phase	42
Manual & Optio	42
VRD12 - UP16234 6+2-Phase	42
UP6234 6-Phase CPU(Dr.Mos)	42

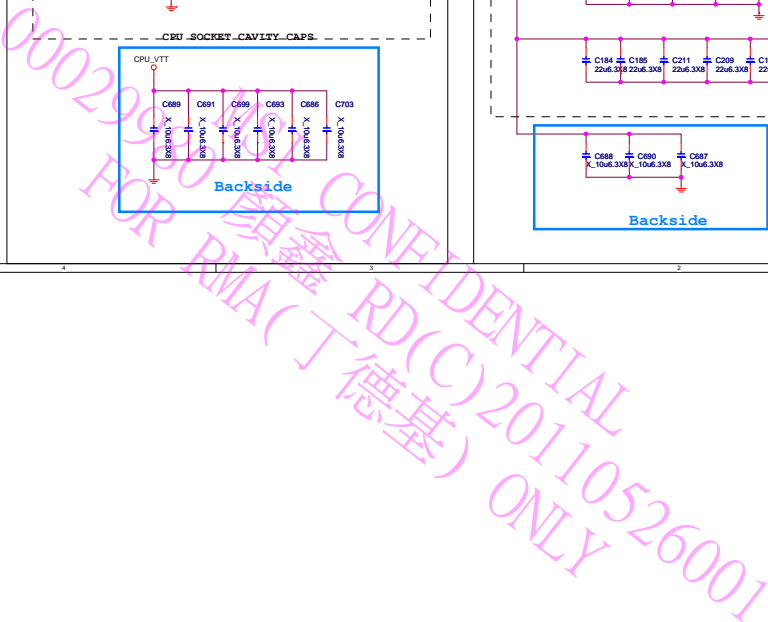
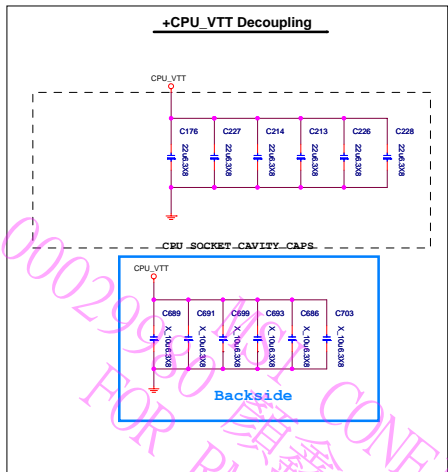


PWM:
Controller:VRD12 UP1625 3Phase
CPU+GPU: UP6282 MOSFET Driver
CPU VTT: IP6103
CPU SA : OP+MOS
DDR: UP6103
PCH: UP6103

MICRO-STAR INT'L CO., LTD.			
MS-7750			
Rev:	Original/Revision	Rev:	1.0
Drawn:	Shih-De Huang	Checked:	
Date:	2010.08.20	Drawn:	1.0

00029980 MSI CONFIDENTIAL
FOR RMA(顏鑫 RD(C)20110526001
丁德基) ONLY





CPU11			
9 OF 11			
A17	VSS_001	VSS_091	AM27
A20	VSS_002	VSS_092	AM3
A26	VSS_003	VSS_093	AM3A
A32	VSS_004	VSS_094	AM3B
A33	VSS_005	VSS_095	AM3C
AA34	VSS_006	VSS_096	AM3D
AA35	VSS_007	VSS_097	AM3E
AA36	VSS_008	VSS_098	AM3F
AA37	VSS_009	VSS_099	AM3G
AA38	VSS_010	VSS_100	AM3H
AA39	VSS_011	VSS_101	AM3I
AA40	VSS_012	VSS_102	AM3J
AA41	VSS_013	VSS_103	AM3K
AA42	VSS_014	VSS_104	AM3L
AA43	VSS_015	VSS_105	AM3M
AA44	VSS_016	VSS_106	AM3N
AA45	VSS_017	VSS_107	AM3O
AA46	VSS_018	VSS_108	AM3P
AA47	VSS_019	VSS_109	AM3Q
AA48	VSS_020	VSS_110	AM3R
AA49	VSS_021	VSS_111	AM3S
AA50	VSS_022	VSS_112	AM3T
AA51	VSS_023	VSS_113	AM3U
AA52	VSS_024	VSS_114	AM3V
AA53	VSS_025	VSS_115	AM3W
AA54	VSS_026	VSS_116	AM3X
AA55	VSS_027	VSS_117	AM3Y
AA56	VSS_028	VSS_118	AM3Z
AA57	VSS_029	VSS_119	AM3A
AA58	VSS_030	VSS_120	AM3B
AA59	VSS_031	VSS_121	AM3C
AA60	VSS_032	VSS_122	AM3D
AA61	VSS_033	VSS_123	AM3E
AA62	VSS_034	VSS_124	AM3F
AA63	VSS_035	VSS_125	AM3G
AA64	VSS_036	VSS_126	AM3H
AA65	VSS_037	VSS_127	AM3I
AA66	VSS_038	VSS_128	AM3J
AA67	VSS_039	VSS_129	AM3K
AA68	VSS_040	VSS_130	AM3L
AA69	VSS_041	VSS_131	AM3M
AA70	VSS_042	VSS_132	AM3N
AA71	VSS_043	VSS_133	AM3O
AA72	VSS_044	VSS_134	AM3P
AA73	VSS_045	VSS_135	AM3Q
AA74	VSS_046	VSS_136	AM3R
AA75	VSS_047	VSS_137	AM3S
AA76	VSS_048	VSS_138	AM3T
AA77	VSS_049	VSS_139	AM3U
AA78	VSS_050	VSS_140	AM3V
AA79	VSS_051	VSS_141	AM3W
AA80	VSS_052	VSS_142	AM3X
AA81	VSS_053	VSS_143	AM3Y
AA82	VSS_054	VSS_144	AM3Z
AA83	VSS_055	VSS_145	AM3A
AA84	VSS_056	VSS_146	AM3B
AA85	VSS_057	VSS_147	AM3C
AA86	VSS_058	VSS_148	AM3D
AA87	VSS_059	VSS_149	AM3E
AA88	VSS_060	VSS_150	AM3F
AA89	VSS_061	VSS_151	AM3G
AA90	VSS_062	VSS_152	AM3H
AA91	VSS_063	VSS_153	AM3I
AA92	VSS_064	VSS_154	AM3J
AA93	VSS_065	VSS_155	AM3K
AA94	VSS_066	VSS_156	AM3L
AA95	VSS_067	VSS_157	AM3M
AA96	VSS_068	VSS_158	AM3N
AA97	VSS_069	VSS_159	AM3O
AA98	VSS_070	VSS_160	AM3P
AA99	VSS_071	VSS_161	AM3Q
AA100	VSS_072	VSS_162	AM3R
AA101	VSS_073	VSS_163	AM3S
AA102	VSS_074	VSS_164	AM3T
AA103	VSS_075	VSS_165	AM3U
AA104	VSS_076	VSS_166	AM3V
AA105	VSS_077	VSS_167	AM3W
AA106	VSS_078	VSS_168	AM3X
AA107	VSS_079	VSS_169	AM3Y
AA108	VSS_080	VSS_170	AM3Z
AA109	VSS_081	VSS_171	AM3A
AA110	VSS_082	VSS_172	AM3B
AA111	VSS_083	VSS_173	AM3C
AA112	VSS_084	VSS_174	AM3D
AA113	VSS_085	VSS_175	AM3E
AA114	VSS_086	VSS_176	AM3F
AA115	VSS_087	VSS_177	AM3G
AA116	VSS_088	VSS_178	AM3H
AA117	VSS_089	VSS_179	AM3I
AA118	VSS_090	VSS_180	AM3J

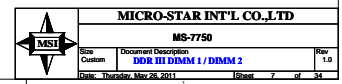
00029980-11 CONFIDENTIAL
FOR RMA(丁德基) ONLY

CPU11			
10 OF 11			
AV11	VSS_181	VSS_261	H37
AV12	VSS_182	VSS_262	H38
AV13	VSS_183	VSS_263	H39
AV14	VSS_184	VSS_264	H40
AV15	VSS_185	VSS_265	H41
AV16	VSS_186	VSS_266	H42
AV17	VSS_187	VSS_267	H43
AV18	VSS_188	VSS_268	H44
AV19	VSS_189	VSS_269	H45
AV20	VSS_190	VSS_270	H46
AV21	VSS_191	VSS_271	H47
AV22	VSS_192	VSS_272	H48
AV23	VSS_193	VSS_273	H49
AV24	VSS_194	VSS_274	H50
AV25	VSS_195	VSS_275	H51
AV26	VSS_196	VSS_276	H52
AV27	VSS_197	VSS_277	H53
AV28	VSS_198	VSS_278	H54
AV29	VSS_199	VSS_279	H55
AV30	VSS_200	VSS_280	H56
AV31	VSS_201	VSS_281	H57
AV32	VSS_202	VSS_282	H58
AV33	VSS_203	VSS_283	H59
AV34	VSS_204	VSS_284	H60
AV35	VSS_205	VSS_285	H61
AV36	VSS_206	VSS_286	H62
AV37	VSS_207	VSS_287	H63
AV38	VSS_208	VSS_288	H64
AV39	VSS_209	VSS_289	H65
AV40	VSS_210	VSS_290	H66
AV41	VSS_211	VSS_291	H67
AV42	VSS_212	VSS_292	H68
AV43	VSS_213	VSS_293	H69
AV44	VSS_214	VSS_294	H70
AV45	VSS_215	VSS_295	H71
AV46	VSS_216	VSS_296	H72
AV47	VSS_217	VSS_297	H73
AV48	VSS_218	VSS_298	H74
AV49	VSS_219	VSS_299	H75
AV50	VSS_220	VSS_300	H76
AV51	VSS_221	VSS_301	H77
AV52	VSS_222	VSS_302	H78
AV53	VSS_223	VSS_303	H79
AV54	VSS_224	VSS_304	H80
AV55	VSS_225	VSS_305	H81
AV56	VSS_226	VSS_306	H82
AV57	VSS_227	VSS_307	H83
AV58	VSS_228	VSS_308	H84
AV59	VSS_229	VSS_309	H85
AV60	VSS_230	VSS_310	H86
AV61	VSS_231	VSS_311	H87
AV62	VSS_232	VSS_312	H88
AV63	VSS_233	VSS_313	H89
AV64	VSS_234	VSS_314	H90
AV65	VSS_235	VSS_315	H91
AV66	VSS_236	VSS_316	H92
AV67	VSS_237	VSS_317	H93
AV68	VSS_238	VSS_318	H94
AV69	VSS_239	VSS_319	H95
AV70	VSS_240	VSS_320	H96
AV71	VSS_241	VSS_321	H97
AV72	VSS_242	VSS_322	H98
AV73	VSS_243	VSS_323	H99
AV74	VSS_244	VSS_324	H100
AV75	VSS_245	VSS_325	H101
AV76	VSS_246	VSS_326	H102
AV77	VSS_247	VSS_327	H103
AV78	VSS_248	VSS_328	H104
AV79	VSS_249	VSS_329	H105
AV80	VSS_250	VSS_330	H106
AV81	VSS_251	VSS_331	H107
AV82	VSS_252	VSS_332	H108
AV83	VSS_253	VSS_333	H109
AV84	VSS_254	VSS_334	H110
AV85	VSS_255	VSS_335	H111
AV86	VSS_256	VSS_336	H112
AV87	VSS_257	VSS_337	H113
AV88	VSS_258	VSS_338	H114
AV89	VSS_259	VSS_339	H115
AV90	VSS_260	VSS_340	H116
AV91	VSS_261	VSS_341	H117
AV92	VSS_262	VSS_342	H118
AV93	VSS_263	VSS_343	H119
AV94	VSS_264	VSS_344	H120
AV95	VSS_265	VSS_345	H121
AV96	VSS_266	VSS_346	H122
AV97	VSS_267	VSS_347	H123
AV98	VSS_268	VSS_348	H124
AV99	VSS_269	VSS_349	H125
AV100	VSS_270	VSS_350	H126
AV101	VSS_271	VSS_351	H127
AV102	VSS_272	VSS_352	H128
AV103	VSS_273	VSS_353	H129
AV104	VSS_274	VSS_354	H130
AV105	VSS_275	VSS_355	H131
AV106	VSS_276	VSS_356	H132
AV107	VSS_277	VSS_357	H133
AV108	VSS_278	VSS_358	H134
AV109	VSS_279	VSS_359	H135
AV110	VSS_280	VSS_360	H136

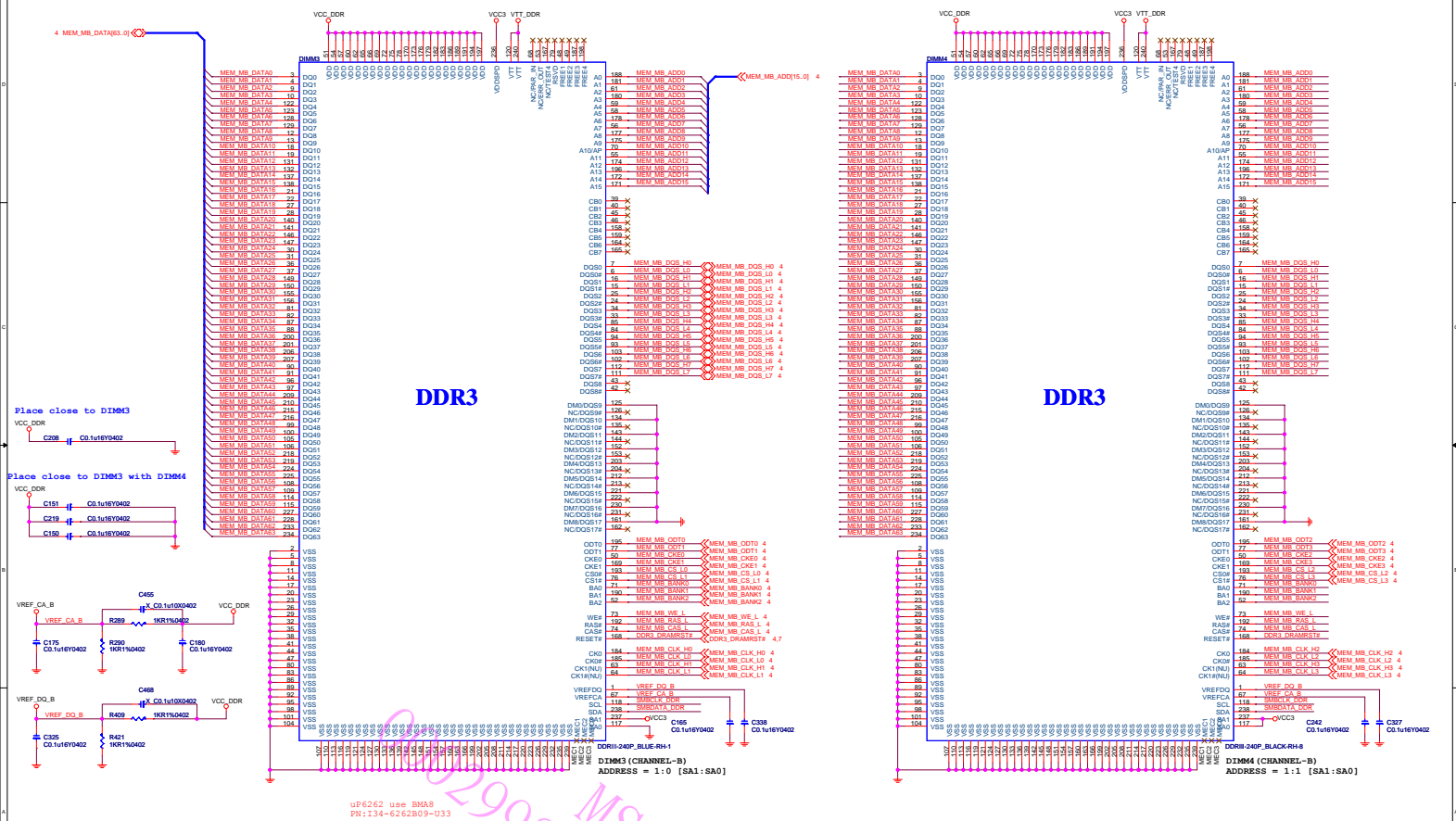
CPU11K			
11 OF 11			
AV11	VSS_181	VSS_261	H37
AV12	VSS_182	VSS_262	H38
AV13	VSS_183	VSS_263	H39
AV14	VSS_184	VSS_264	H40
AV15	VSS_185	VSS_265	H41
AV16	VSS_186	VSS_266	H42
AV17	VSS_187	VSS_267	H43
AV18	VSS_188	VSS_268	H44
AV19	VSS_189	VSS_269	H45
AV20	VSS_190	VSS_270	H46
AV21	VSS_191	VSS_271	H47
AV22	VSS_192	VSS_272	H48
AV23	VSS_193	VSS_273	H49
AV24	VSS_194	VSS_274	H50
AV25	VSS_195	VSS_275	H51
AV26	VSS_196	VSS_276	H52
AV27	VSS_197	VSS_277	H53
AV28	VSS_198	VSS_278	H54
AV29	VSS_199	VSS_279	H55
AV30	VSS_200	VSS_280	H56
AV31	VSS_201	VSS_281	H57
AV32	VSS_202	VSS_282	H58
AV33	VSS_203	VSS_283	H59
AV34	VSS_204	VSS_284	H60
AV35	VSS_205	VSS_285	H61
AV36	VSS_206	VSS_286	H62
AV37	VSS_207	VSS_287	H63
AV38	VSS_208	VSS_288	H64
AV39	VSS_209	VSS_289	H65
AV40	VSS_210	VSS_290	H66
AV41	VSS_211	VSS_291	H67
AV42	VSS_212	VSS_292	H68
AV43	VSS_213	VSS_293	H69
AV44	VSS_214	VSS_294	H70
AV45	VSS_215	VSS_295	H71
AV46	VSS_216	VSS_296	H72
AV47	VSS_217	VSS_297	H73
AV48	VSS_218	VSS_298	H74
AV49	VSS_219	VSS_299	H75
AV50	VSS_220	VSS_300	H76
AV51	VSS_221	VSS_301	H77
AV52	VSS_222	VSS_302	H78
AV53	VSS_223	VSS_303	H79
AV54	VSS_224	VSS_304	H80
AV55	VSS_225	VSS_305	H81
AV56	VSS_226	VSS_306	H82
AV57	VSS_227	VSS_307	H83
AV58	VSS_228	VSS_308	H84
AV59	VSS_229	VSS_309	H85
AV60	VSS_230	VSS_310	H86
AV61	VSS_231	VSS_311	H87
AV62	VSS_232	VSS_312	H88
AV63	VSS_233	VSS_313	H89
AV64	VSS_234	VSS_314	H90
AV65	VSS_235	VSS_315	H91
AV66	VSS_236	VSS_316	H92
AV67	VSS_237	VSS_317	H93
AV68	VSS_238	VSS_318	H94
AV69	VSS_239	VSS_319	H95
AV70	VSS_240	VSS_320	H96
AV71	VSS_241	VSS_321	H97
AV72	VSS_242	VSS_322	H98
AV73	VSS_243	VSS_323	H99
AV74	VSS_244	VSS_324	H100
AV75	VSS_245	VSS_325	H101
AV76	VSS_246	VSS_326	H102
AV77	VSS_247	VSS_327	H103
AV78	VSS_248	VSS_328	H104
AV79	VSS_249	VSS_329	H105
AV80	VSS_250	VSS_330	H106
AV81	VSS_251	VSS_331	H107
AV82	VSS_252	VSS_332	H108
AV83	VSS_253	VSS_333	H109
AV84	VSS_254	VSS_334	H110
AV85	VSS_255	VSS_335	H111
AV86	VSS_256	VSS_336	H112
AV87	VSS_257	VSS_337	H113
AV88	VSS_258	VSS_338	H114
AV89	VSS_259	VSS_339	H115
AV90	VSS_260	VSS_340	H116
AV91	VSS_261	VSS_341	H117
AV92	VSS_262	VSS_342	H118
AV93	VSS_263	VSS_343	H119
AV94	VSS_264	VSS_344	H120
AV95	VSS_265	VSS_345	H121
AV96	VSS_266	VSS_346	H122
AV97	VSS_267	VSS_347	H123
AV98	VSS_268	VSS_348	H124
AV99	VSS_269	VSS_349	H125
AV100	VSS_270	VSS_350	H126
AV101	VSS_271	VSS_351	H127
AV102	VSS_272	VSS_352	H128
AV103	VSS_273	VSS_353	H129
AV104	VSS_274	VSS_354	H130
AV105	VSS_275	VSS_355	H131
AV106	VSS_276	VSS_356	H132
AV107	VSS_277	VSS_357	H133
AV108	VSS_278	VSS_358	H134
AV109	VSS_279	VSS_359	H135
AV110	VSS_280	VSS_360	H136

MSI			
MICRO-STAR INT'L CO.,LTD			

DDRIII DIMM_A1



DDRIII DIMM_B1



uP6262 use BMA8
PN: I34-6262B09-U33

SMBCLK_DOR << SMBCLK_DOR 7
SMBDATA_DOR << SMBDATA_DOR :

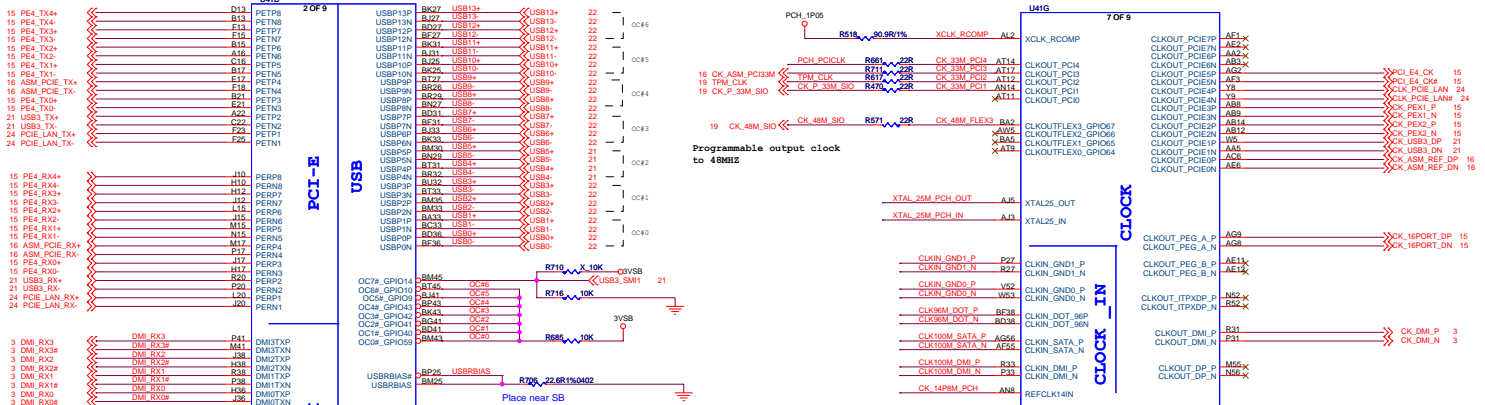


33

9980 MSI CONFIDENTIAL
FOR RMA(顏鑫 RD(C)20110526001
丁德基) ONLY

SMCLK_DDR << SMCLK_DDR 7
SMBDATA_DDR << SMBDATA_DDR 7

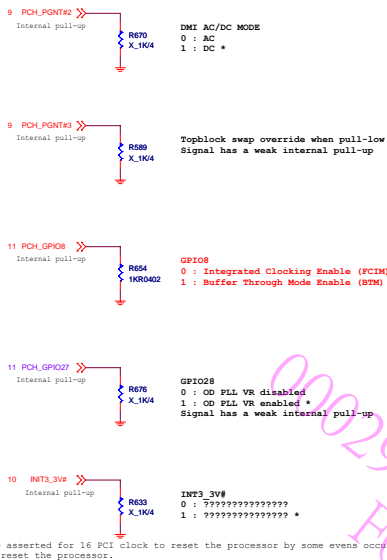
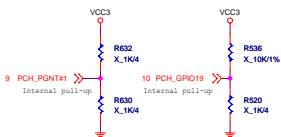
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000



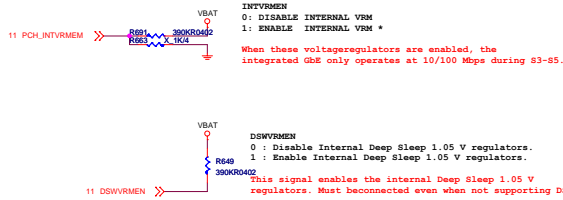


PCH Straps

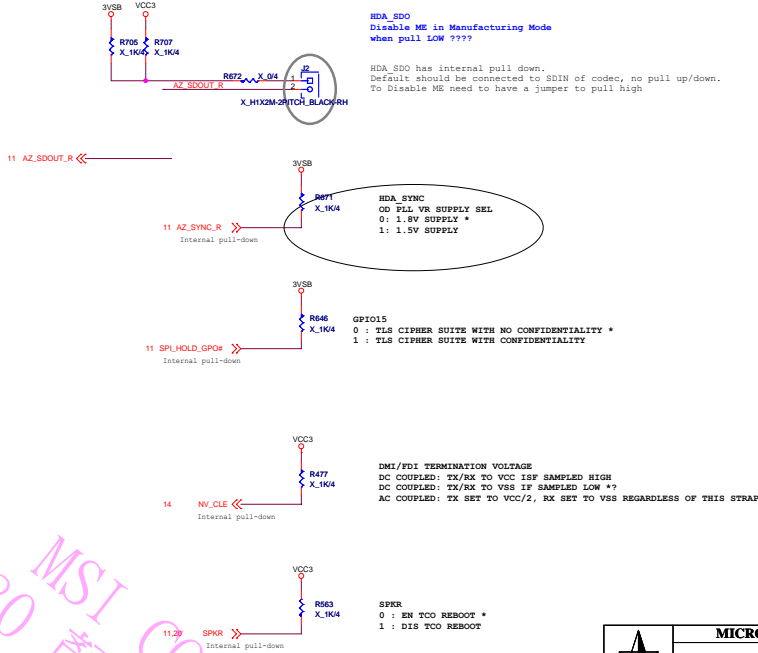
BOOT DEVICE	GNT1	SATA/GP/GPIO19
LPC	0	0
PCI	1	0
SPI	1	1



1: INT3_3V to asserted for 16 PCI clock to reset the processor by some events occur.
0: Can not to reset the processor.

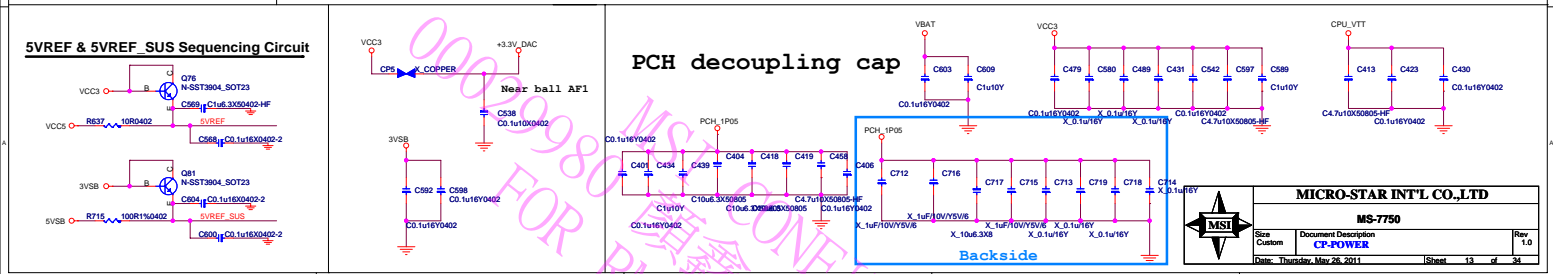
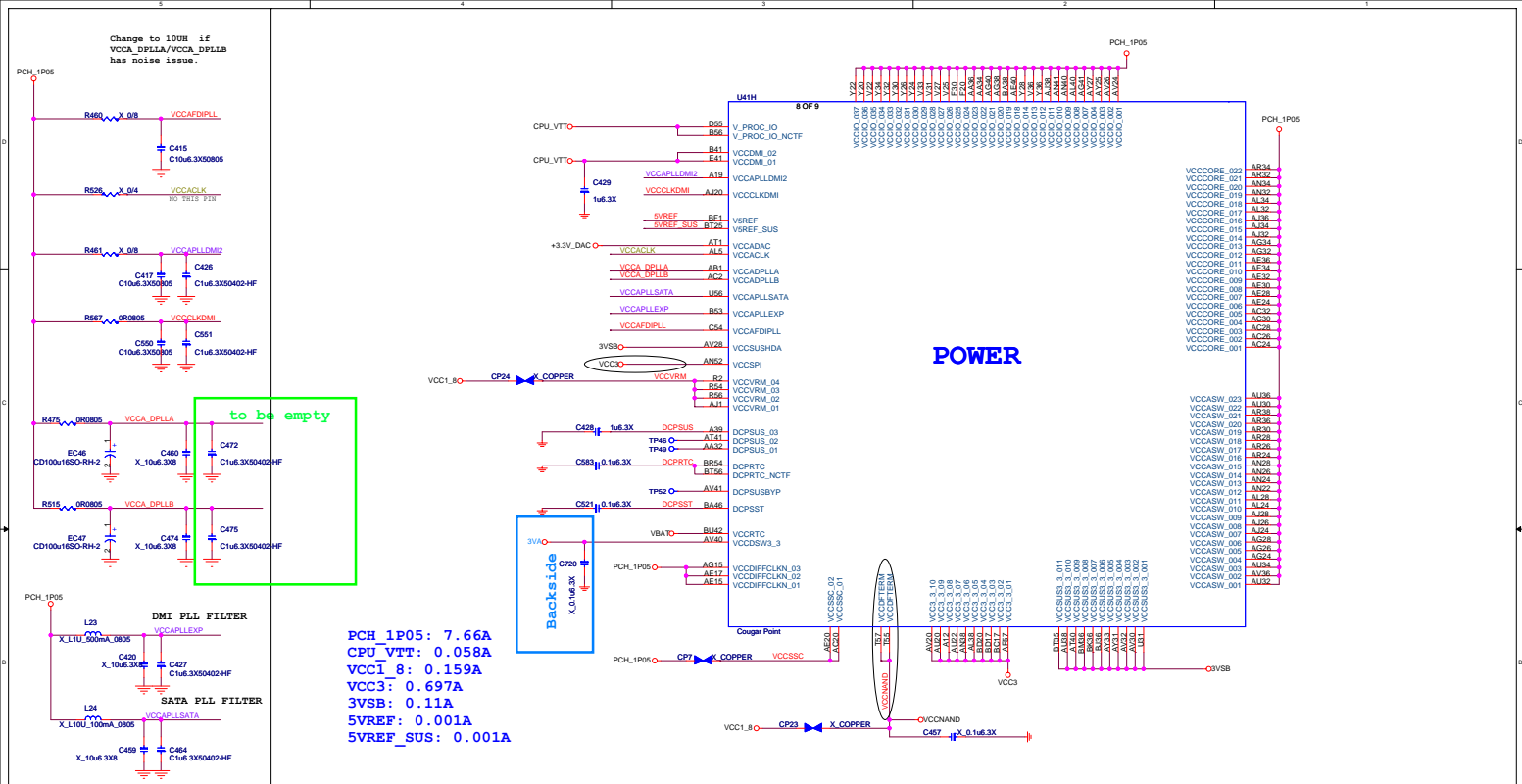


INTVSMEM
0: DISABLE INTERNAL VSM
1: ENABLE INTERNAL VSM *
When these voltage regulators are enabled, the integrated GbE only operates at 10/100 Mbps during S3-S5.
DSWRMEN
0: Disable Internal Deep Sleep 1.05 V regulators.
1: Enable Internal Deep Sleep 1.05 V regulators.
This signal enables the internal Deep Sleep 1.05 V regulators. Must be connected even when not supporting DSW.



HDA_SDO
Disable ME in Manufacturing Mode when pull LOW ???
HDA_SDO has internal pull down.
Default should be connected to SDIN of codec, no pull up/down.
To Disable ME need to have a jumper to pull high
HDA_SYNC
OD PLL VR SUPPLY SEL
0: 1.5V SUPPLY *
1: 1.5V SUPPLY
GPIO15
0: TLS CIPHER SUITE WITH NO CONFIDENTIALITY *
1: TLS CIPHER SUITE WITH CONFIDENTIALITY
DMI/FDI TERMINATION VOLTAGE
DC COUPLED: TX/RX TO VCC IF SAMPLED HIGH
DC COUPLED: TX/RX TO VSS IF SAMPLED LOW *
AC COUPLED: TX SET TO VCC/2, RX SET TO VSS REGARDLESS OF THIS STRAP
SPKR
0: EN TCO REBOOT *
1: DIS TCO REBOOT

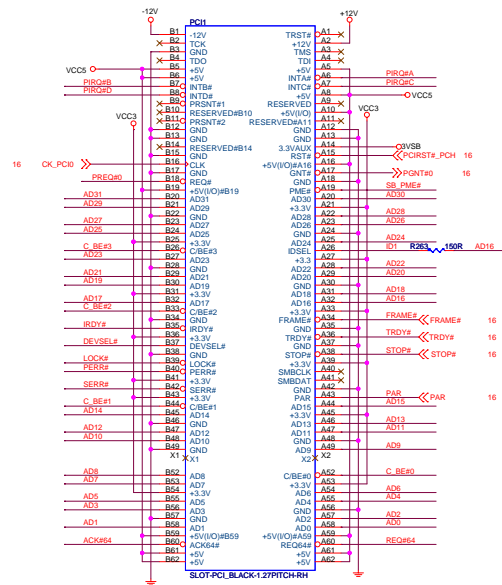
MICRO-STAR INT'L CO.,LTD		
MS-7750		
Size	Document Description	Rev
Custom	CP-Strap	1.0
Date: Thursday, Mar 28, 2011		Sheet 12 of 34



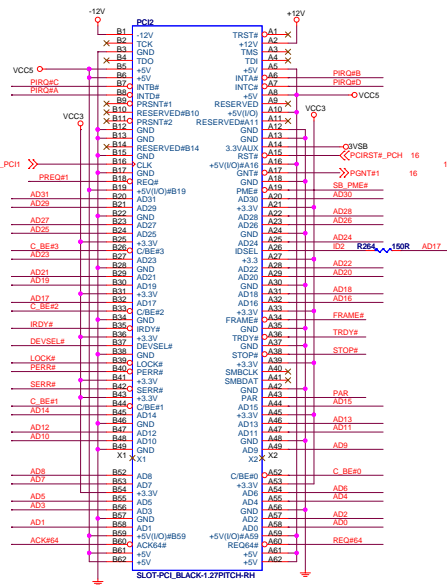
PCI EXPRESS x1-PORT



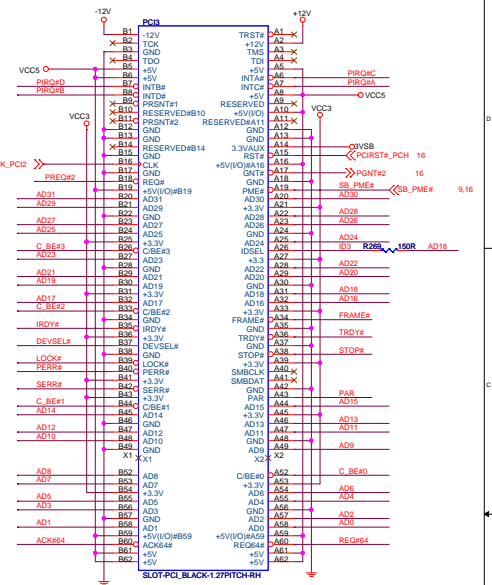
00029980 MSI CONFIDENTIAL
FOR RMA(顏鑫 RD(C)20110526001
丁德基) ONLY



IDSEL = AD16
MASTER = PREQ#0
PIQ#A

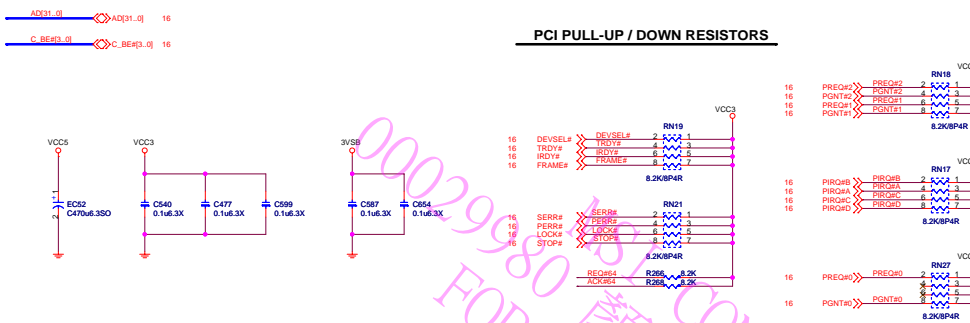


IDSEL = AD17
MASTER = PREQ#1
PIQ#B



IDSEL = AD18
MASTER = PREQ#2
PIQ#C

PCI PULL-UP / DOWN RESISTORS



PCI slot (X3)	
+3.3Vaux (wake)	- 1125mA
+3.3Vaux (no wake)	- 60mA
+3.3V	- 7.6A
+5V	- 15A
+12V	- 1.5A

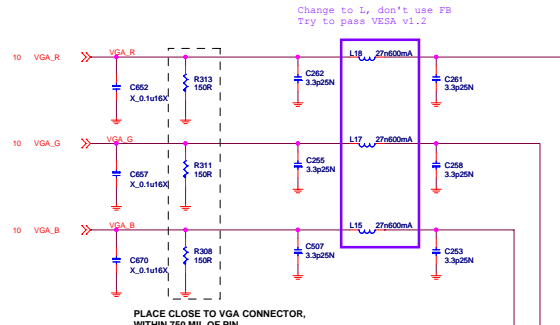
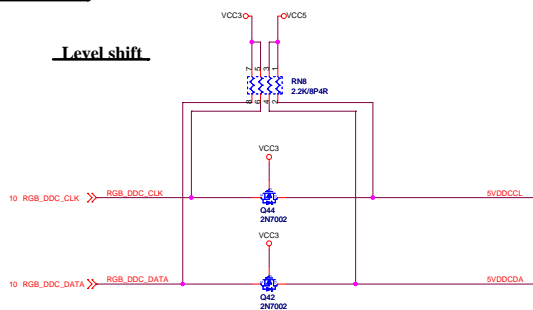


MICRO-STAR INT'L CO., LTD	
MS-7750	
Size	Document Description
Custom	PC1x1 Slots
Date: Thursday, May 28, 2011	Sheet 17 of 54

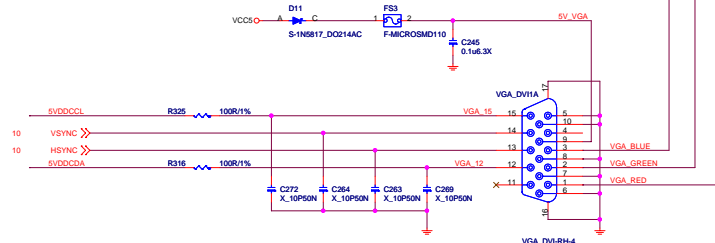
D-Sub

VGA: resolution of 2048x1536 pixels with 32-bit color at 75 Hz (4:3 QXGA)

Level shift

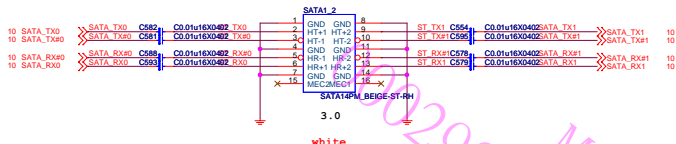


PLACE CLOSE TO VGA CONNECTOR,
WITHIN 750 MIL OF PIN



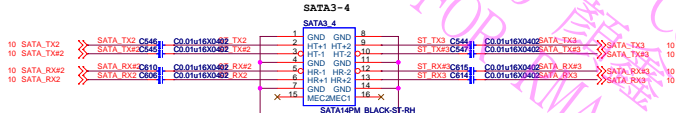
SATA6G 1,2

SATA1-2

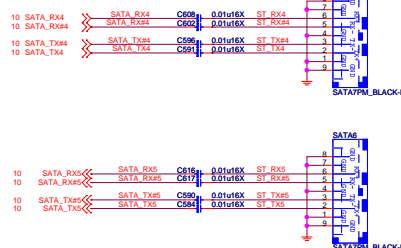


SATA 3G PORT3,4

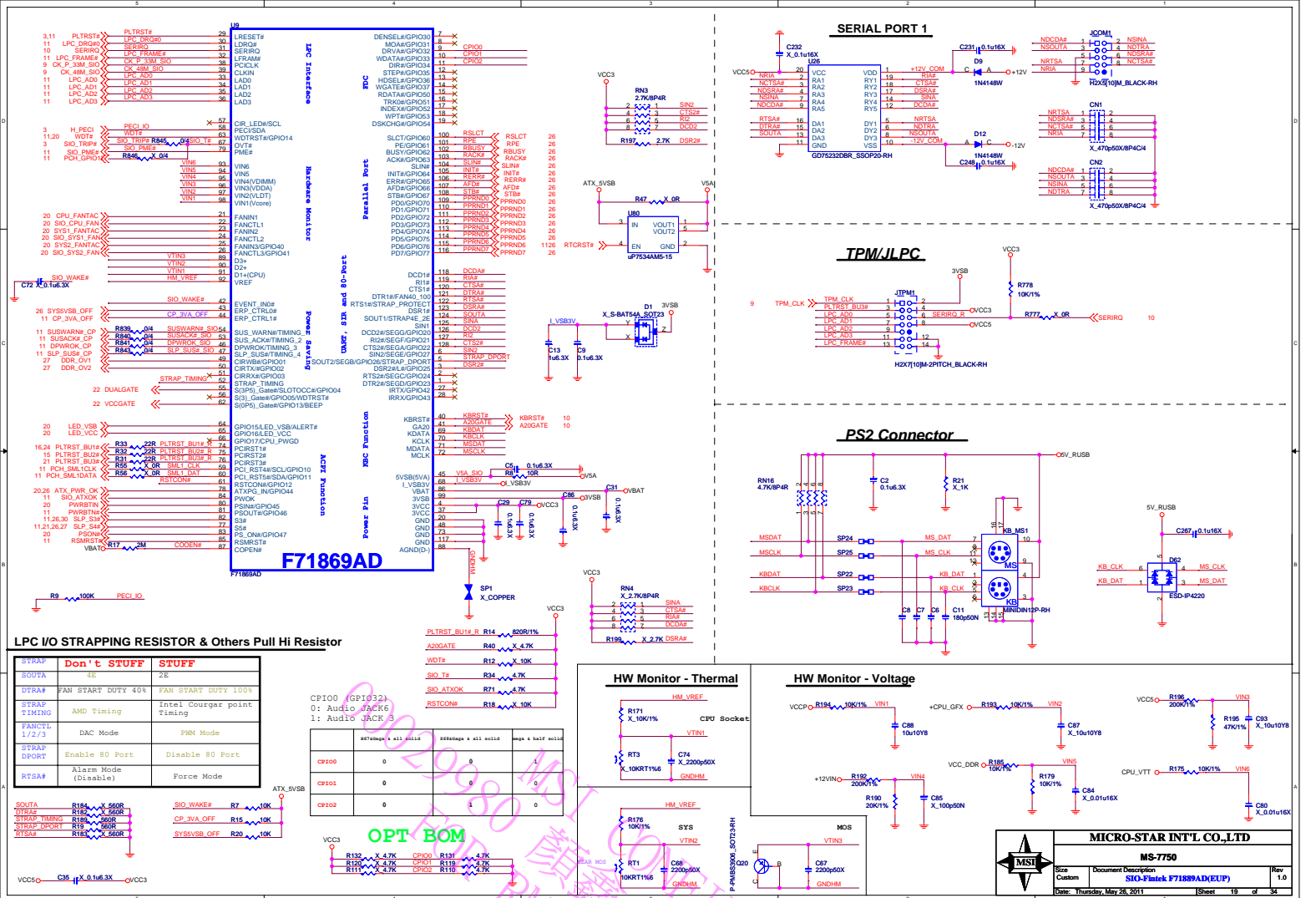
SATA3-4



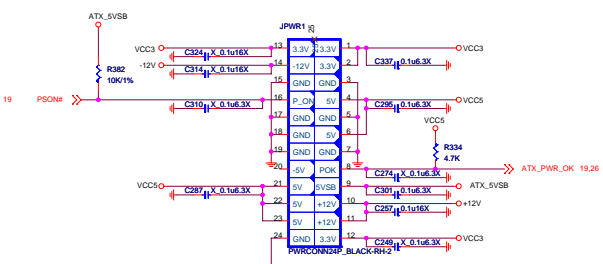
SATA 3G PORT 5,6



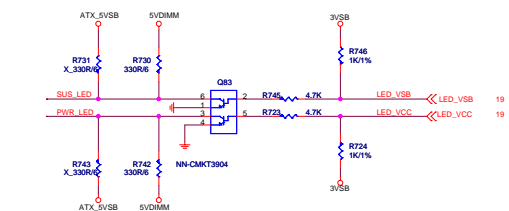
MICRO-STAR INT'L CO.,LTD			
MS-7750			
Size	Document Description	Rev	
Custom	VGA/SATA6G/SATA3G	1.0	
Date: Thursday, Mar 26, 2011		Sheet 18 of 34	



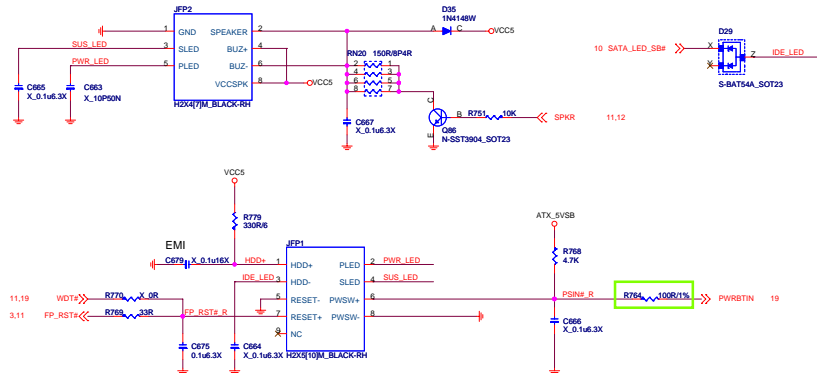
ATX POWER CONNECTOR



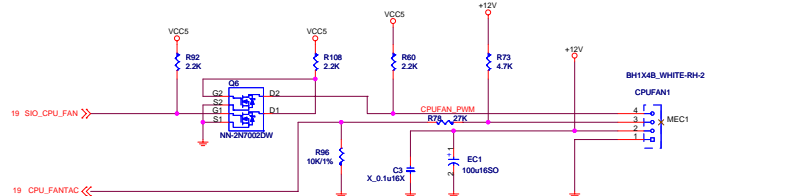
LED (for Fintek 71869)



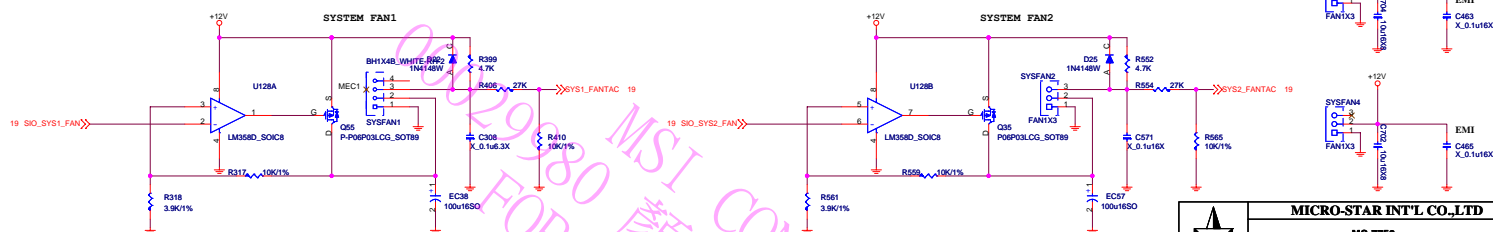
FRONT PANNEL



CPU FAN-COUNTROL CIRCUIT



SYSTEM FAN-COUNTROL CIRCUIT



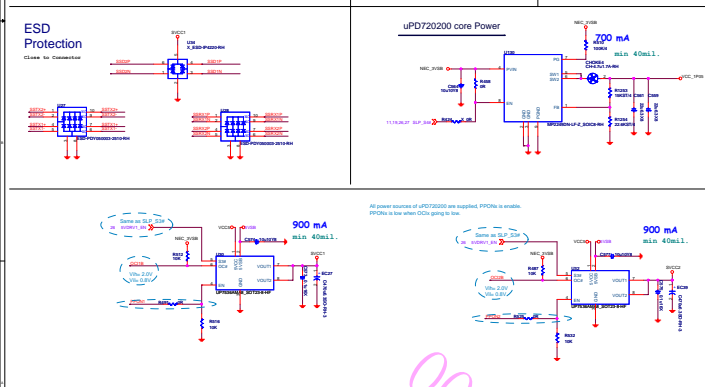
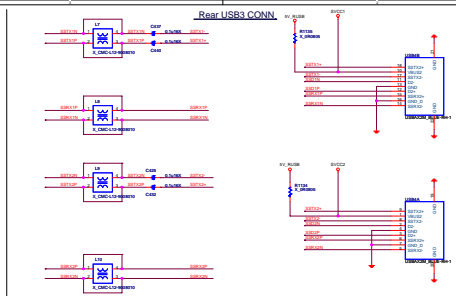
MICRO-STAR INT'L CO.,LTD

NS-7750

Size	Document Description
100	100

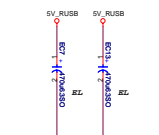
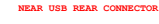
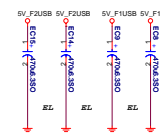
Custom	ATX PWR-Connector & Front Panel & EM		
Date:	Thursday, May 26, 2011	Sheet	20 of 20

[illegible]



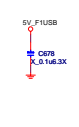
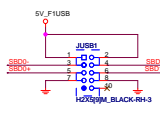
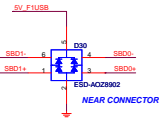
00029980 MSI CONFIDENTIAL
顏鑫 RD(C)20110526001
FOR RMA(丁德基) ONLY

5V_RUSB Switch

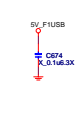
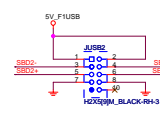
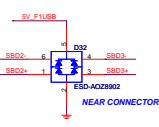


Front USB Connector

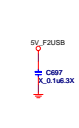
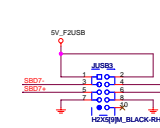
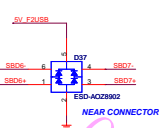
FRONT USB PORT 0,1



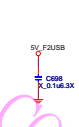
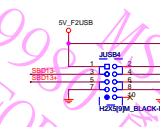
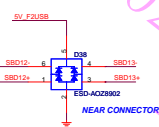
FRONT USB PORT 2,3



FRONT USB PORT 4,5

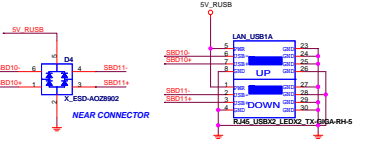
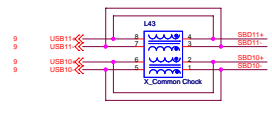


FRONT USB PORT6,7

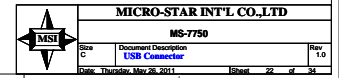
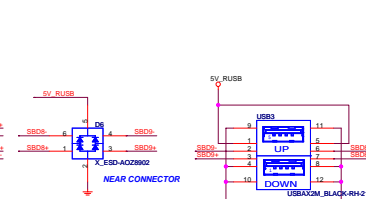
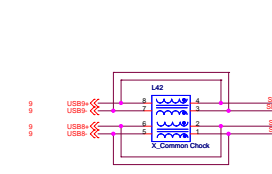


Rear USB Connector

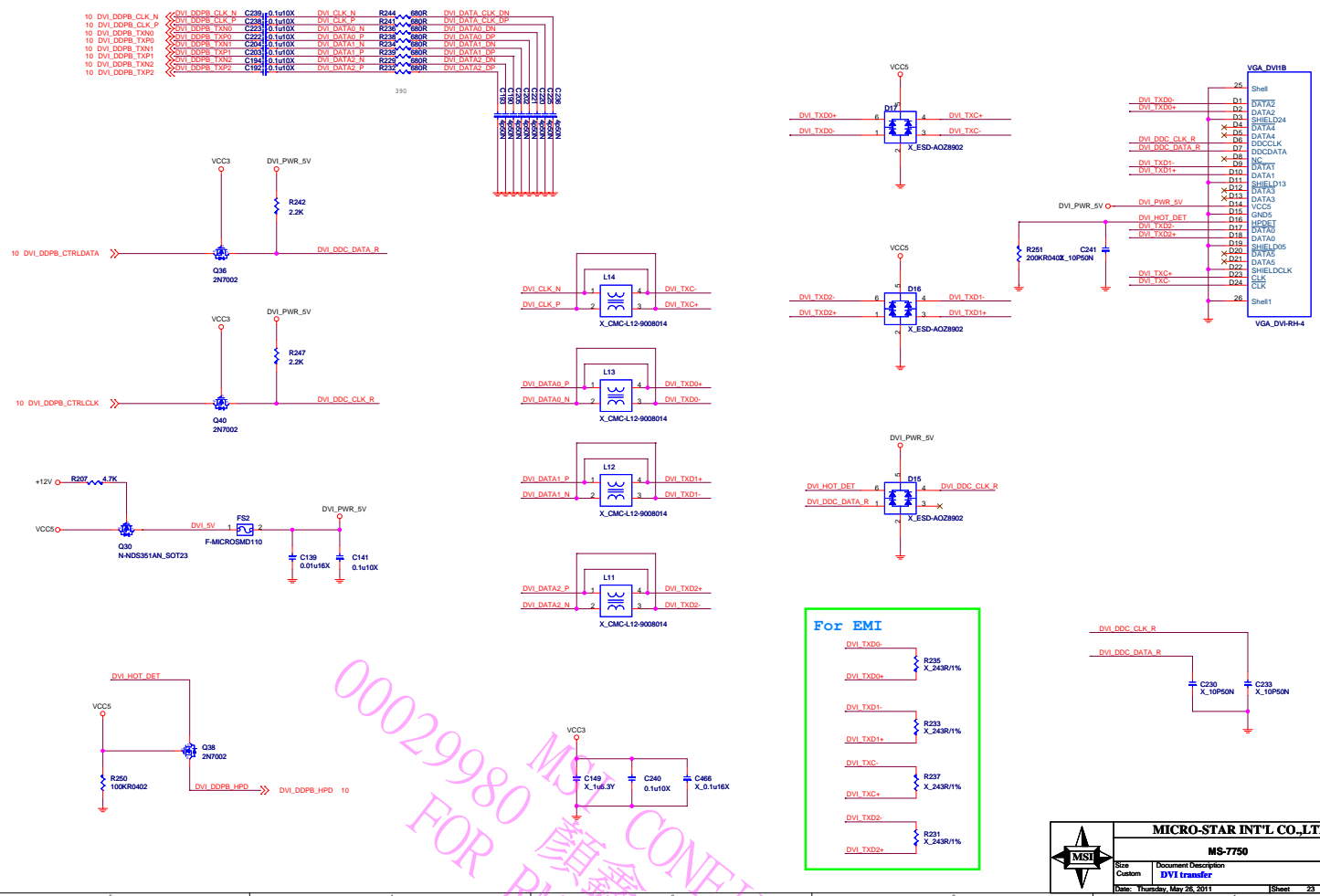
REAR USB PORT 10,11 (With LAN)




REAR USB PORT 8,9 (With PS2)



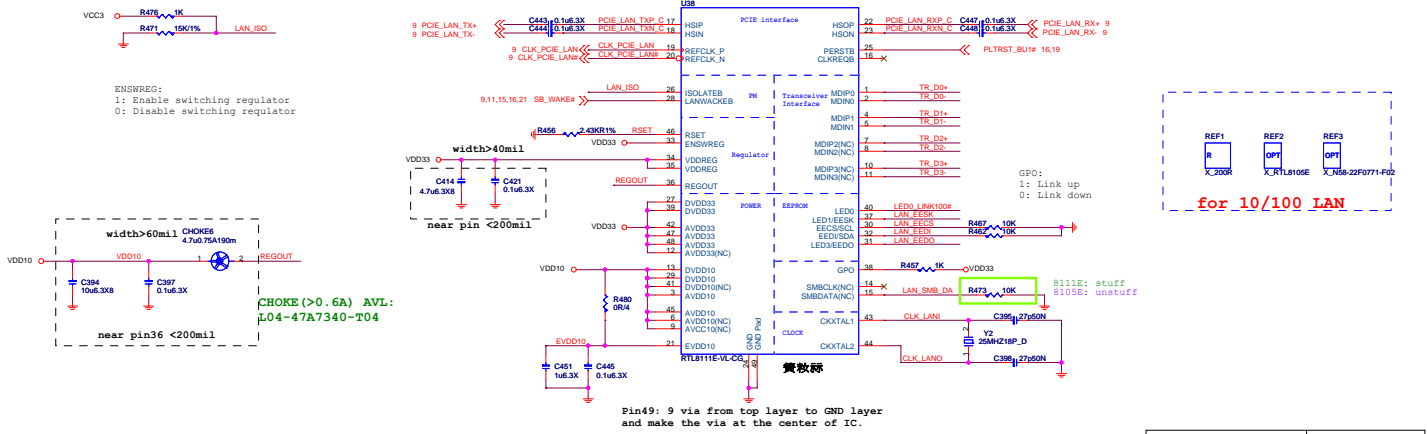
VGA: resolution of 2048x1536 pixels with 32-bit color at 75 Hz (4:3 QXGA)

[illegible]

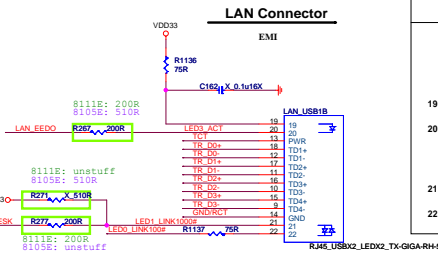
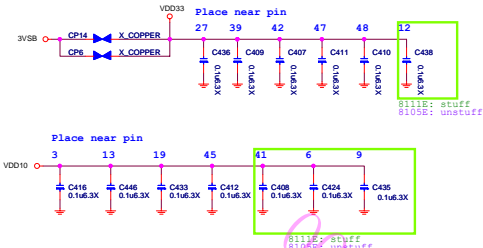
	MICRO-STAR INT'L CO.,LTD		
	MS-7750		
	Size Custom	Document Description DVI transfer	Rev 1.0
	Date: Thursday, May 26, 2011	Sheet 24 of 34	

RTL8111E Giga LAN

RTL8105E 10/100 LAN



3.3V Power on rise time : 1-100ms. MAX: 163mA

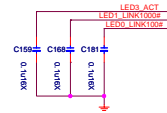


Giga-Lan	10/100-Lan
N58-22F0731	N58-22F0771
Link Yellow	Link Yellow
Active Blinking	Active Blinking
1000 Orange	1000 Orange
100 Green	100 Green
10 None	10 None
19	19
20	20
21	21
22	22

8105E POWER Consumption	3.3V	mW
10 M Idle/TxRx	14/75	46/248
100 M Idle/TxRx	43/66	142/218
80 ALDPS	3.2	11

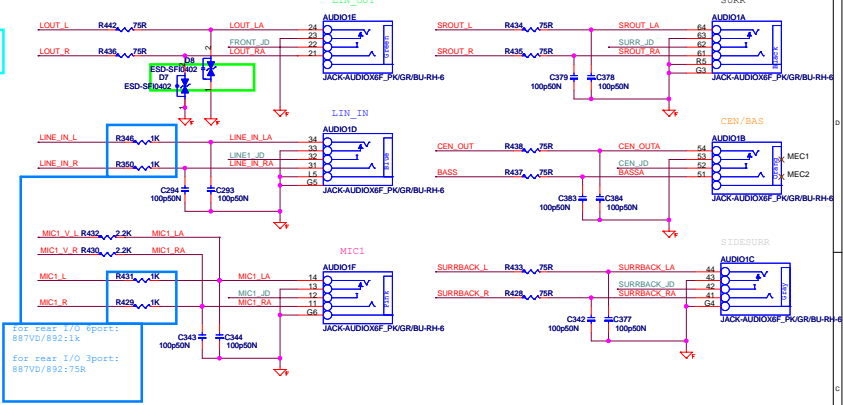
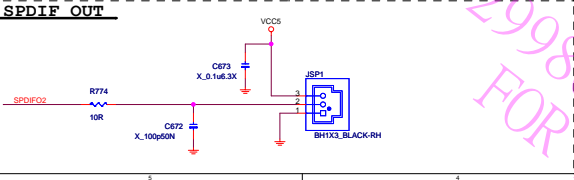
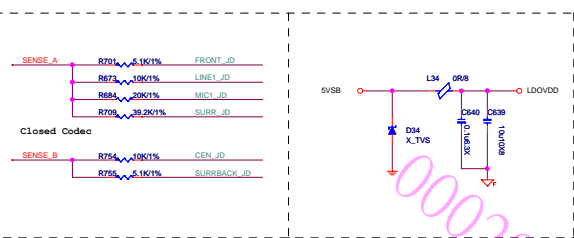
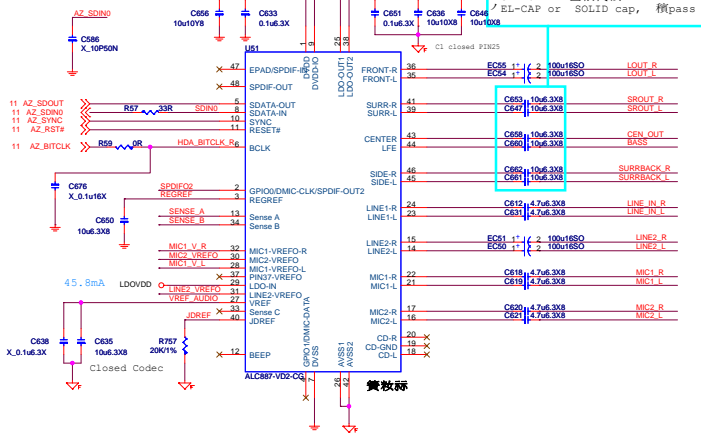
8111E POWER Consumption	3.3V	mW
10 M Idle/TxRx	12/66	40/218
100 M Idle/TxRx	31/44	102/145
Giga Idle/TxRx	135/163	452/538
ALDPS	4	13

only support LED0+LED1/LED1+LED3 dual color LED combinations when using EEPROM

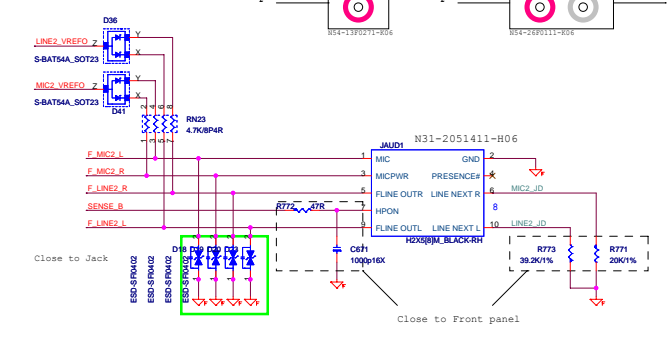
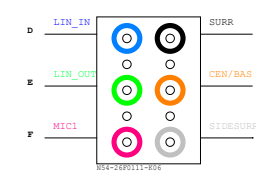
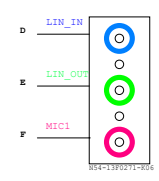



MICRO-STAR INT'L CO.,LTD		
MSI	MS-7750	Rev 1.0
Doc	Document Description	LAN - RTL8111E/8105E
Date	Thursday, May 25, 2011	Sheet 24 of 34

ALC887-VD
ALC892

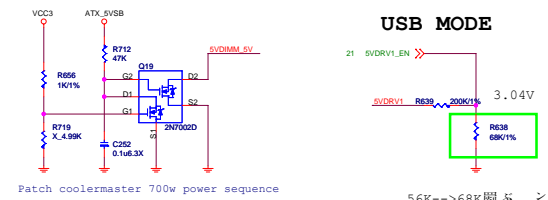
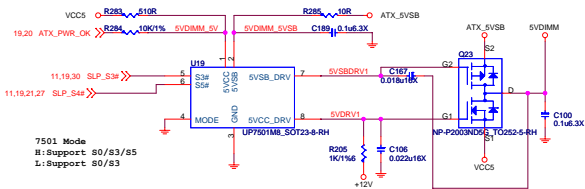


训一领策符T伐十，惠癸策

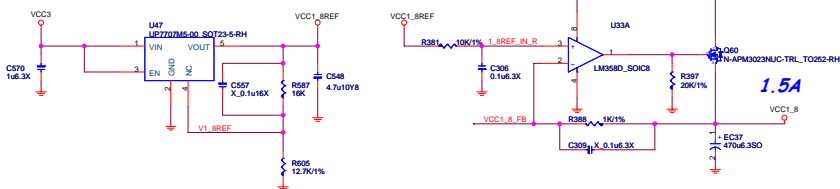


	MICRO-STAR INT'L CO.,LTD		
	MS-7750		
	Size Custom	Document Description ALC892_COLAY_ALC887VD	Rev 1.0
	Date: Thursday, May 26, 2011		Sheet 25 of 34

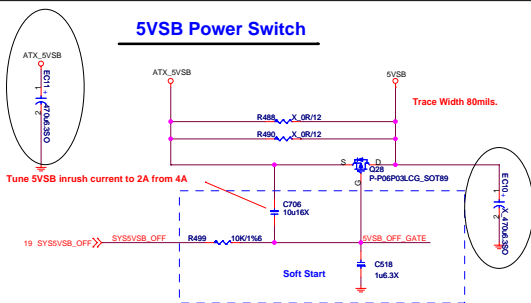
5VDIMM FOR DDR



VCC1_8REF

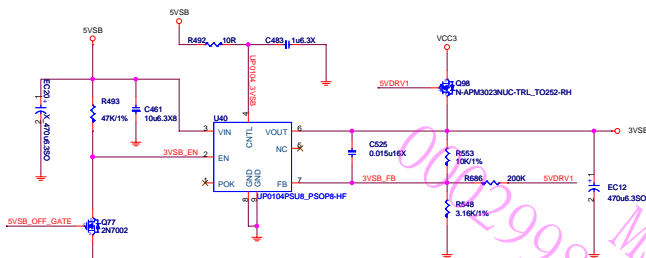


5VSB Power Switch

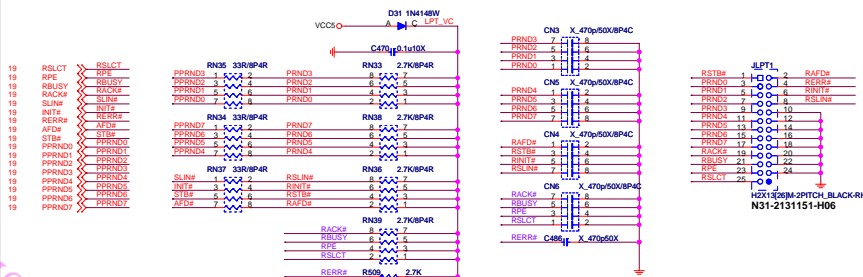


3VSB

3VSB supply to PCH and other device.
Turn off when Deep S3/S5 by 5VSB off.



PARALLAL PORT



MICRO-STAR INT'L CO.,LTD

MS-7750

Size Custom	Document Description ACPI Controller UPI/Parallel	R
Date: Thursday, May 26, 2011	Sheet: 26 of 34	

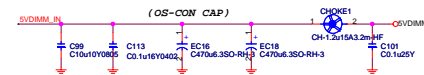
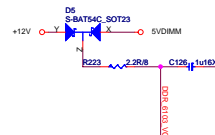
Date: Thursday, May 26, 2011	Sheet 26 of 34
------------------------------	----------------

DDR3_1.5V 4.5A+11A+1A=16.5A

4.5A FOR CPU

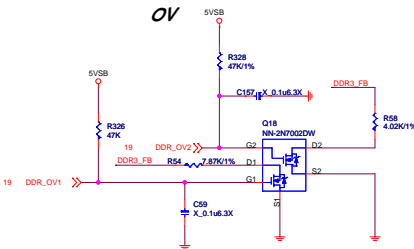
11A FOR 4DIMM

1A FOR DDR VTT

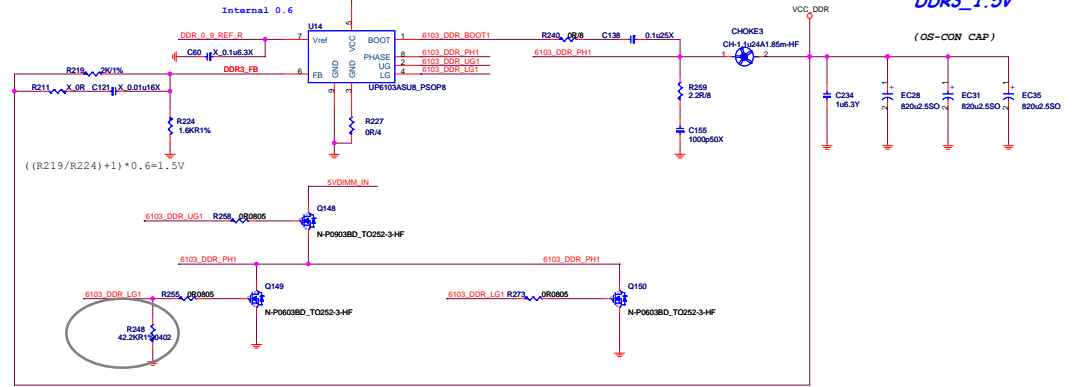


DDR3_1.5V

OV



MODE	材 頂	Default	材 頂	材 頂
DDR_OV1	LOW	HIGH	LOW	HIGH
DDR_OV2	LOW	LOW	HIGH	HIGH
VALUE	1.35V	1.5V	1.65V	1.8V

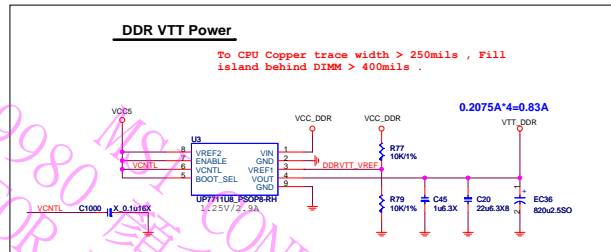
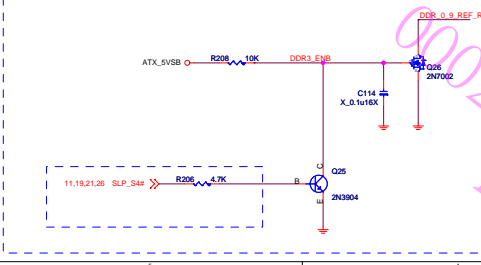


UPI VOLTAGE CONSOLE

0x20: RH=10K, RL=OPEN

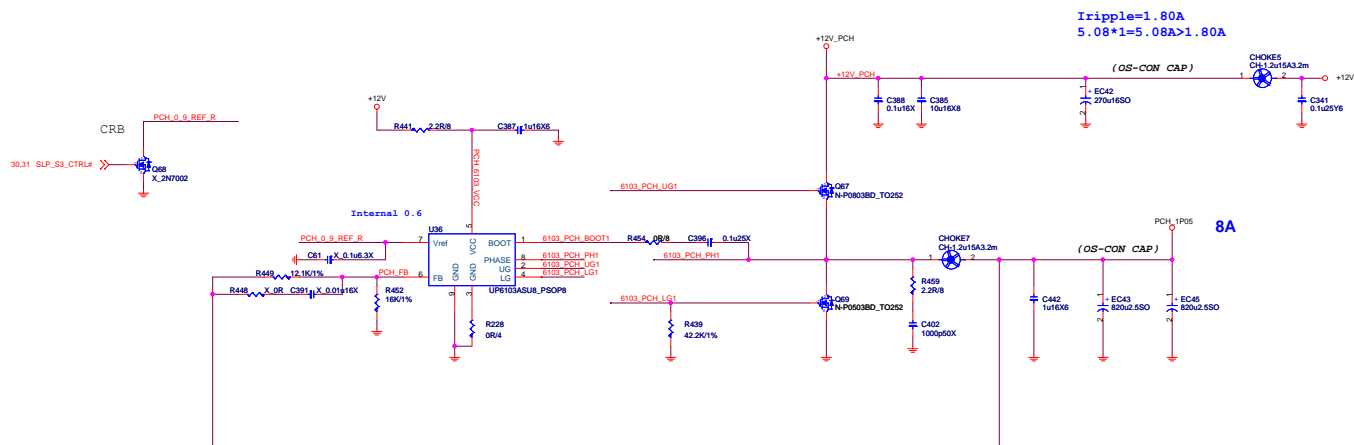
ADDRESS	0x2A	0x28	0x26	0x24	0x22	0x20
RH (Kohm)	OPEN	3.9	3	2.2	1.3	10
RL (Kohm)	10	1.3	2.3	3	3.9	OPEN
BUS_SEL	0%	25%	40%	60%	75%	100%

P.S. Only for meet Intel power down sequence.



MICRO-STAR INT'L CO.,LTD		
MS-7750		
Doc	Document Description	Rev
Custom	DDR Power - nP6103 1-Phase	1.0
Date: Thursday, May 26, 2011		Sheet 27 of 54

PCH Power:1.05V
PCH Core 6.2A+1.8A=8A
6.2A FOR PCH
1.8A FOR ME CORE



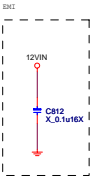
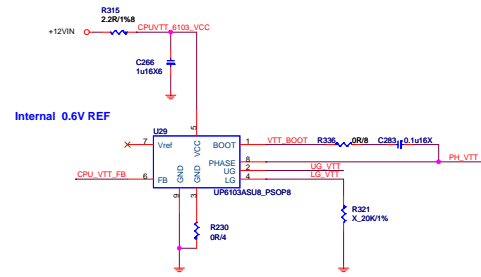
00029980 MSI CONFIDENTIAL
FOR RMA(顏鑫 RD(C)20110526001
(丁德基) ONLY



MICRO-STAR INT'L CO.,LTD			
MS-7750			
Size Custom	Document Description PCH Power - uP6103 I-Phase		Rev 1.0
Part No.	Rev.	Doc. No.	Rev.

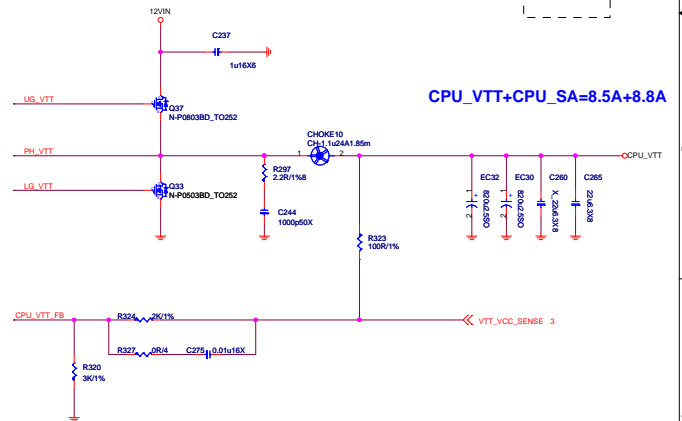
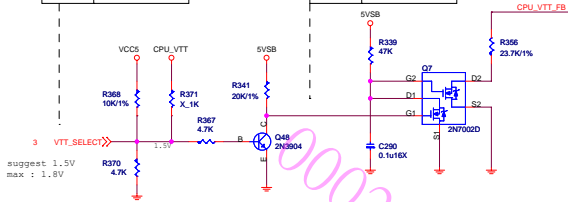
CPU VTT 8.5A + SA Core =17.3A

$$I_{ripple} = 1.92 (v_{tt}) + 1.88 (s_a)$$
$$5.08 * 2 = 10.16A > 3.8A$$



VTT_SELECT	
Low	1.0V
High	1.05V

Low	1.05V
High	1.0V

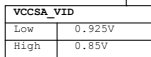
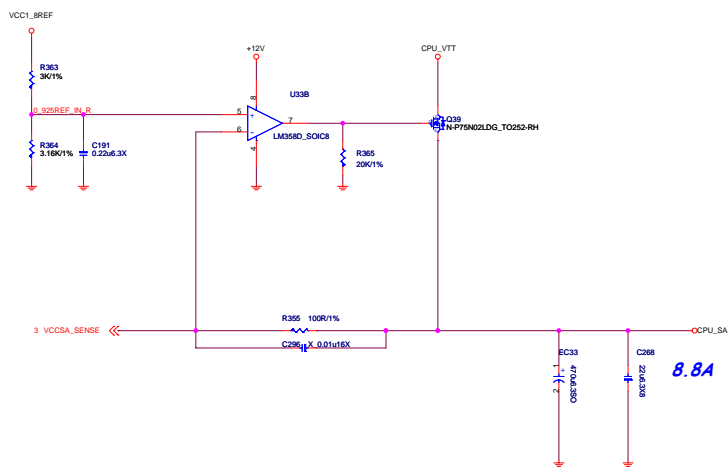
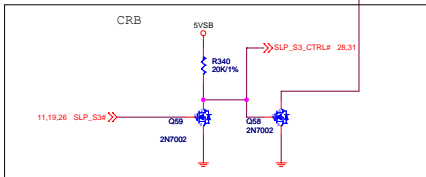


29980 MSI CONFIDENTIAL
FOR RMA(顏鑫 RD(C)20110526001
ONLY

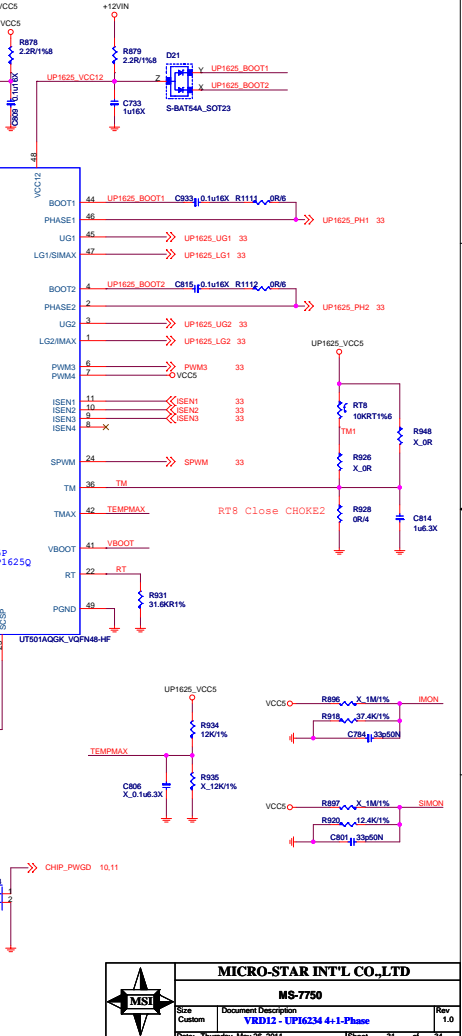
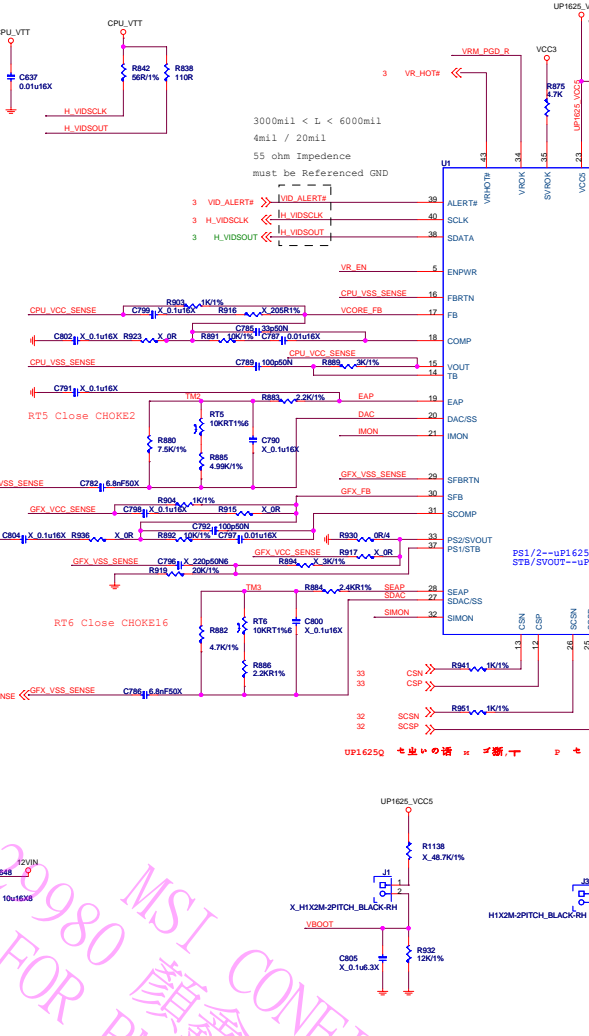
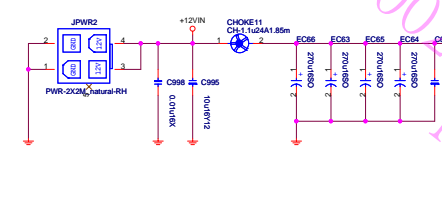
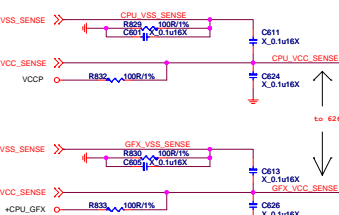
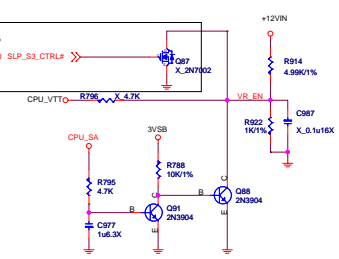


MICRO-STAR INT'L CO.,LTD		
MS-7750		
Size Custom	Document Description CPU_VTT - uP6103- 1-Phase	Rev 1.0
Date: Thursday, May 26, 2011		Sheet 29 of 34

SA Core = 8.8A



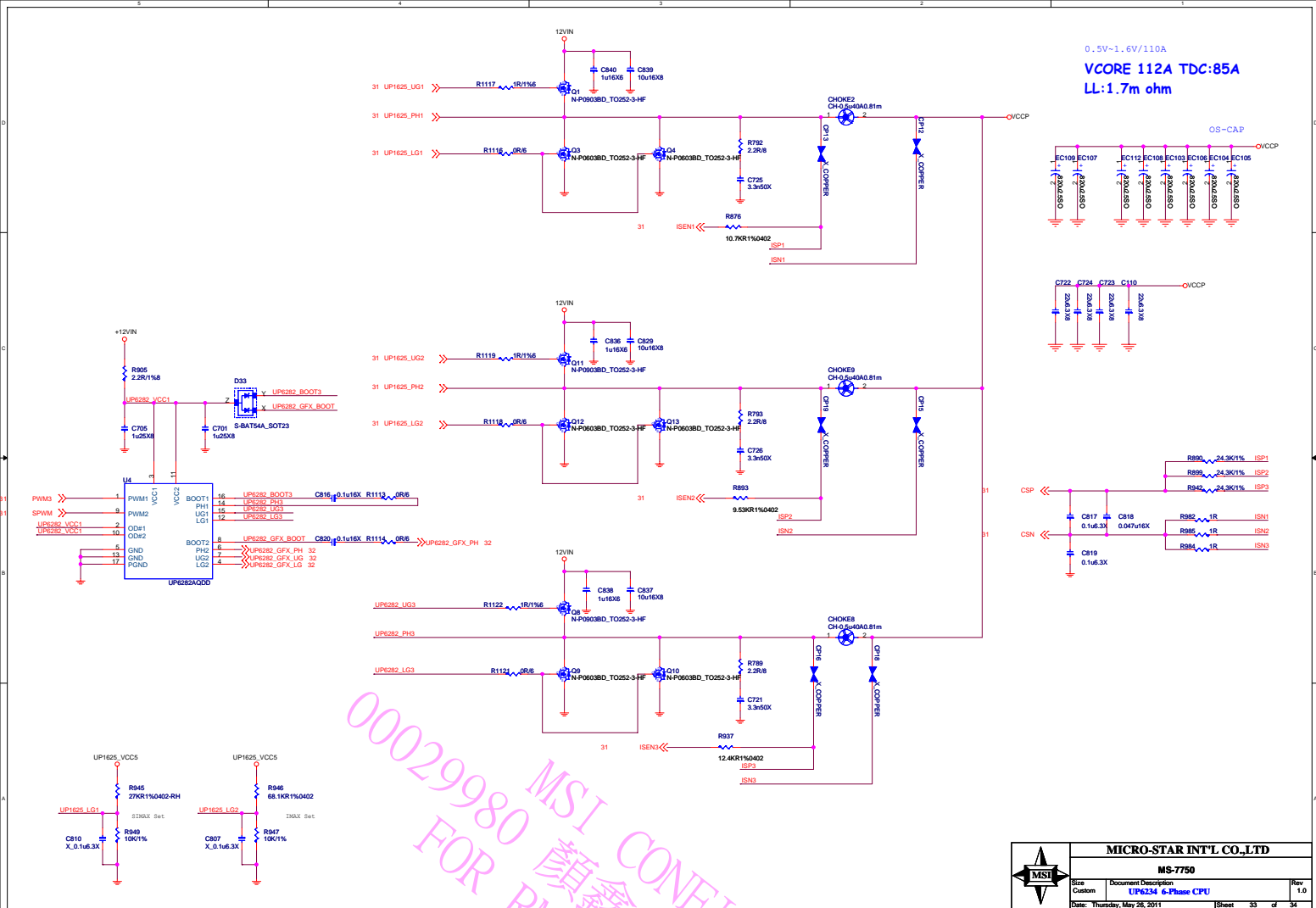
Low	0.85V
High	0.925V



	MICRO-STAR INT'L CO.,LTD			
	MS-7750			
	Size Custom	Document Description VRD12 - UPI6234 4+1-Phase		Rev 1.0
Part No. MS-7750 Rev. 2004.4		ESPEC. 8-4		8-4



MICRO-STAR INT'L CO.,LTD		
MS-7750		
Size Custom	Document Description UP6234 1-Phase GPU	Rev 1.0
Date: Thursday, May 26, 2011		Sheet 32 of 34

[illegible]

