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| B                                     |  |                         |            |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |      |            |     |  |  |  |  |  |  |    |      |       |      |        |  |  |  |  |        |  |  |  |  |       |  |  |  |  |             |  |  |  |  |          |  |       |  |  |                            |  |  |  |  |     |              |  |  |  |   |  |  |                                       |  |  |  |            |            |                         |            |         |  |       |  |
| C                                     | <div>ST145a - UMA<br/>AMD PLATFORM<br/>DB Build<br/>2009/07/23</div>   |                         |            |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |      |            |     |  |  |  |  |  |  |    |      |       |      |        |  |  |  |  |        |  |  |  |  |       |  |  |  |  |             |  |  |  |  |          |  |       |  |  |                            |  |  |  |  |     |              |  |  |  |   |  |  |                                       |  |  |  |            |            |                         |            |         |  |       |  |
| D                                     |  |                         |            |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |      |            |     |  |  |  |  |  |  |    |      |       |      |        |  |  |  |  |        |  |  |  |  |       |  |  |  |  |             |  |  |  |  |          |  |       |  |  |                            |  |  |  |  |     |              |  |  |  |   |  |  |                                       |  |  |  |            |            |                         |            |         |  |       |  |
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| F                                     | <table><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td>DATE</td><td>CHANGE NO.</td><td>REV</td></tr></table> |                         |            |      |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  | DATE | CHANGE NO. | REV | <table><tr><td></td><td>EE</td><td>DATE</td><td>POWER</td><td>DATE</td></tr><tr><td>DRAWER</td><td></td><td></td><td></td><td></td></tr><tr><td>DESIGN</td><td></td><td></td><td></td><td></td></tr><tr><td>CHECK</td><td></td><td></td><td></td><td></td></tr><tr><td>RESPONSIBLE</td><td></td><td></td><td></td><td></td></tr><tr><td colspan="2">SIZE = 3</td><td colspan="3">VER :</td></tr><tr><td colspan="5">FILE NAME : XXXX-XXXXXX-XX</td></tr><tr><td>P/N</td><td colspan="4">XXXXXXXXXXXX</td></tr></table> |  |  |  |  |  | EE | DATE | POWER | DATE | DRAWER |  |  |  |  | DESIGN |  |  |  |  | CHECK |  |  |  |  | RESPONSIBLE |  |  |  |  | SIZE = 3 |  | VER : |  |  | FILE NAME : XXXX-XXXXXX-XX |  |  |  |  | P/N | XXXXXXXXXXXX |  |  |  | <table><tr><td colspan="4">TITLE<br/>ST145a - DIS<br/>Project Name</td></tr><tr><td>SIZE<br/>A3</td><td>CODE<br/>CS</td><td>DOC. NUMBER<br/>Model No</td><td>REV<br/>X01</td></tr><tr><td colspan="2">SHEET 1</td><td colspan="2">OF 53</td></tr></table> |  |  | TITLE<br>ST145a - DIS<br>Project Name |  |  |  | SIZE<br>A3 | CODE<br>CS | DOC. NUMBER<br>Model No | REV<br>X01 | SHEET 1 |  | OF 53 |  |
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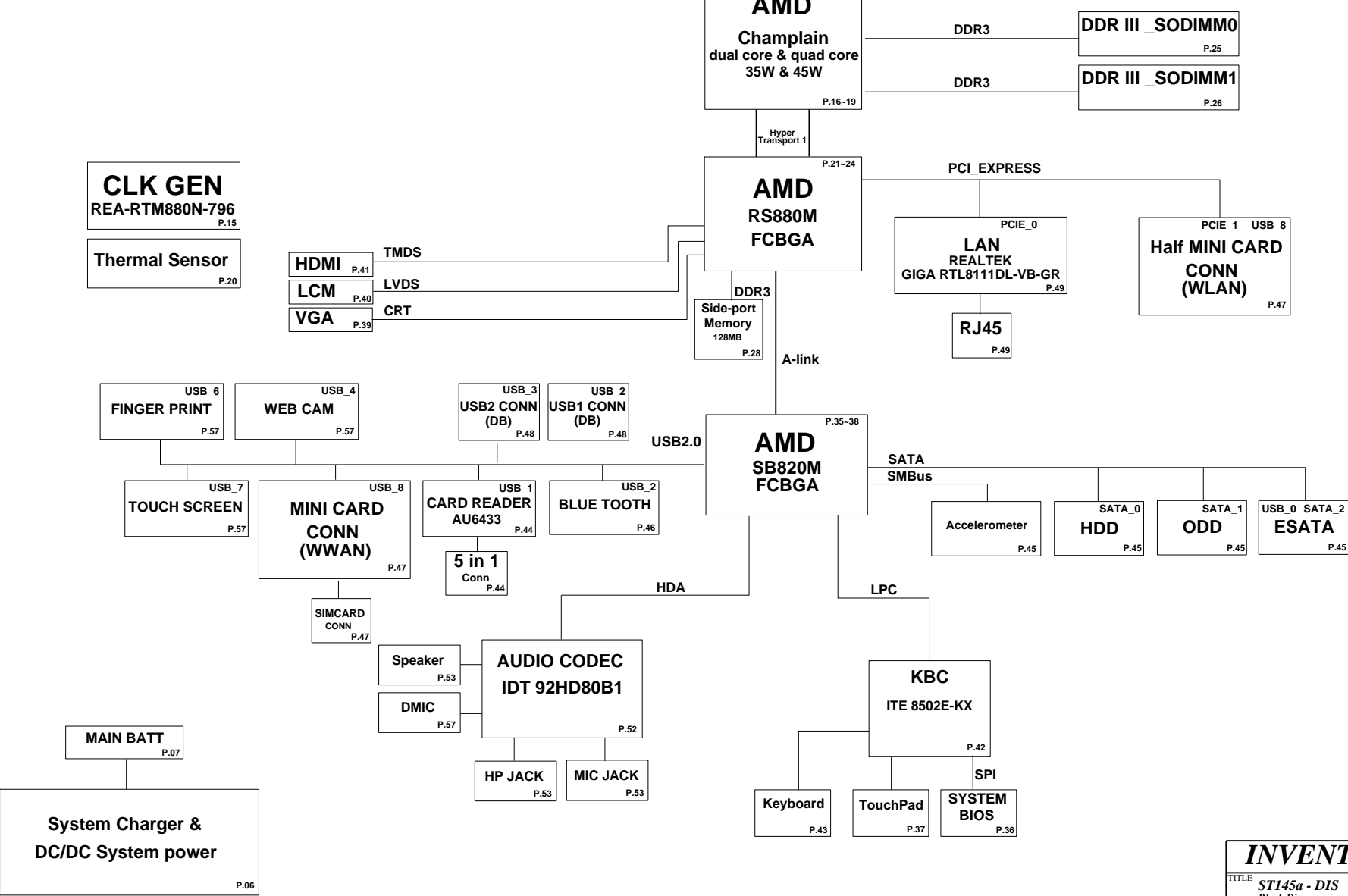
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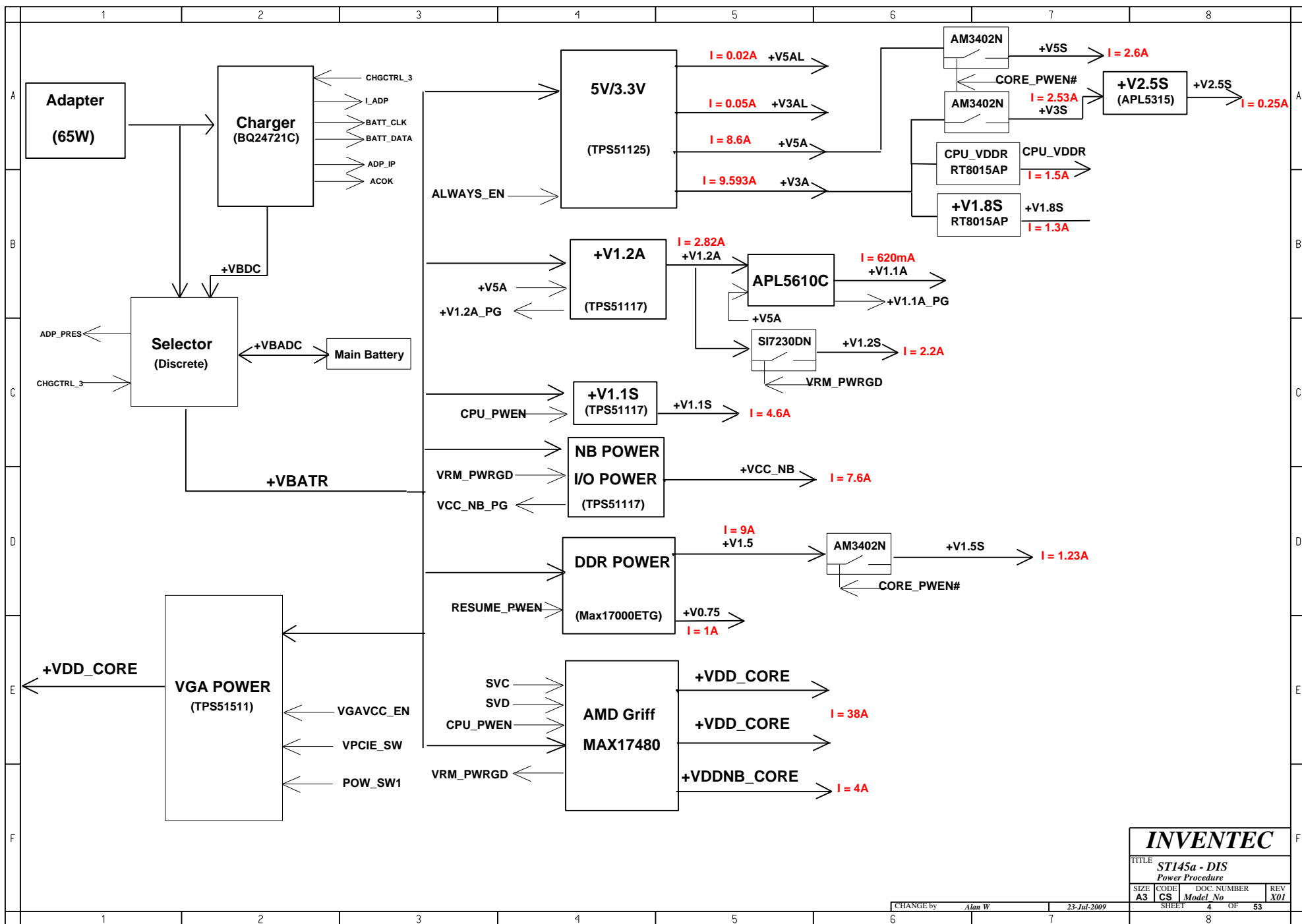


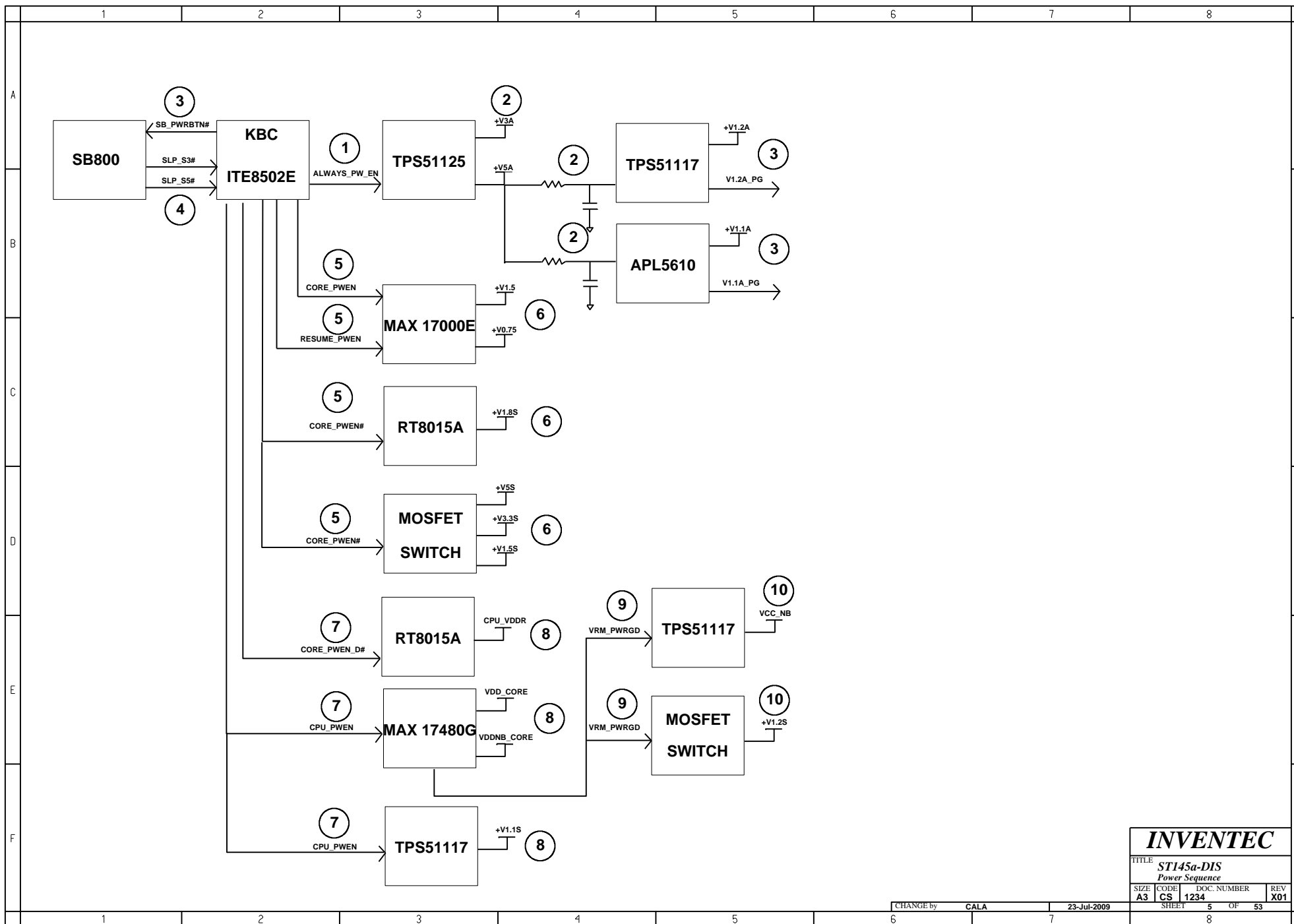
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**Power Sequence**

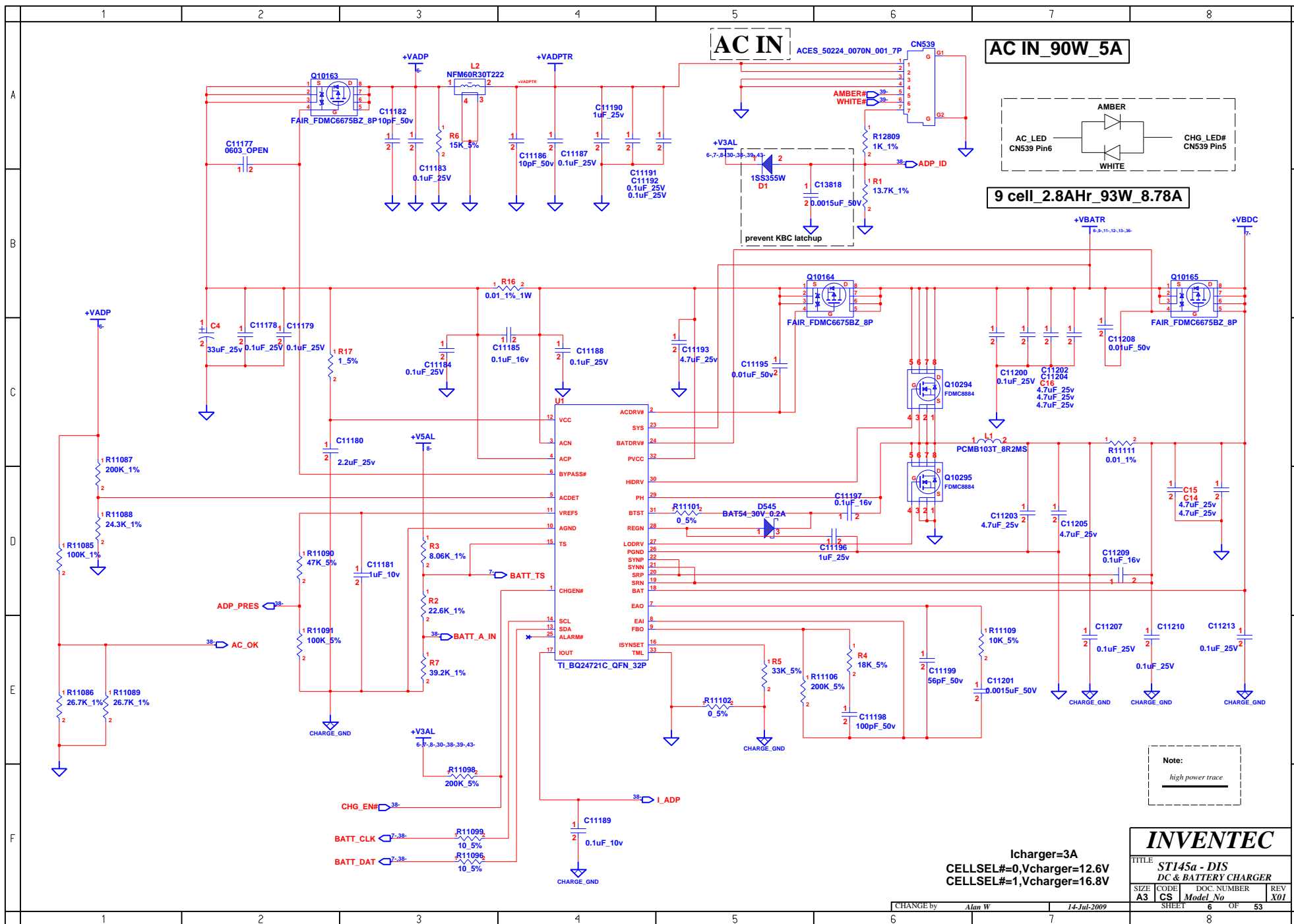
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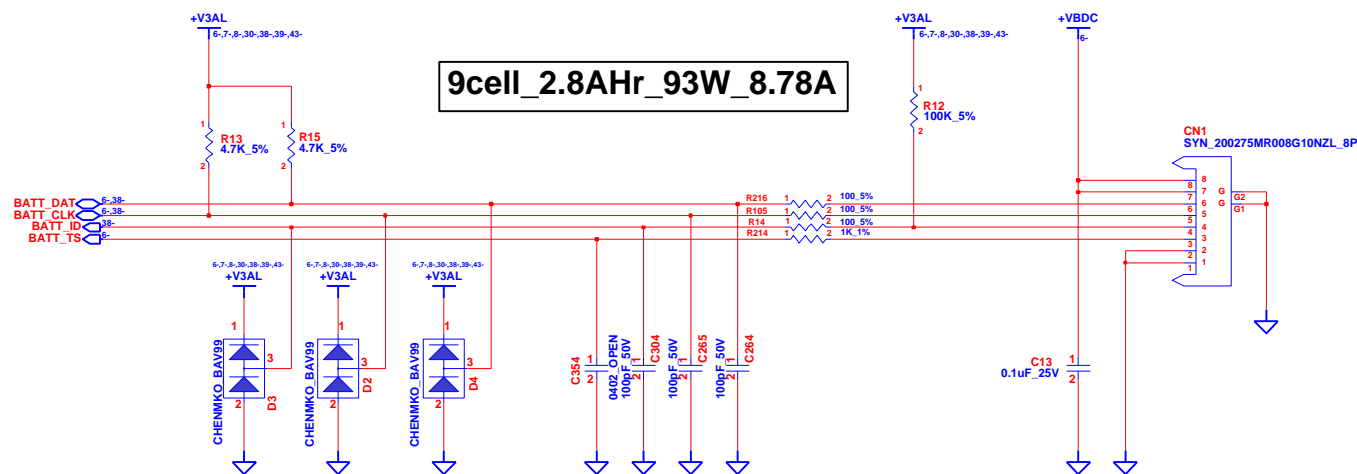
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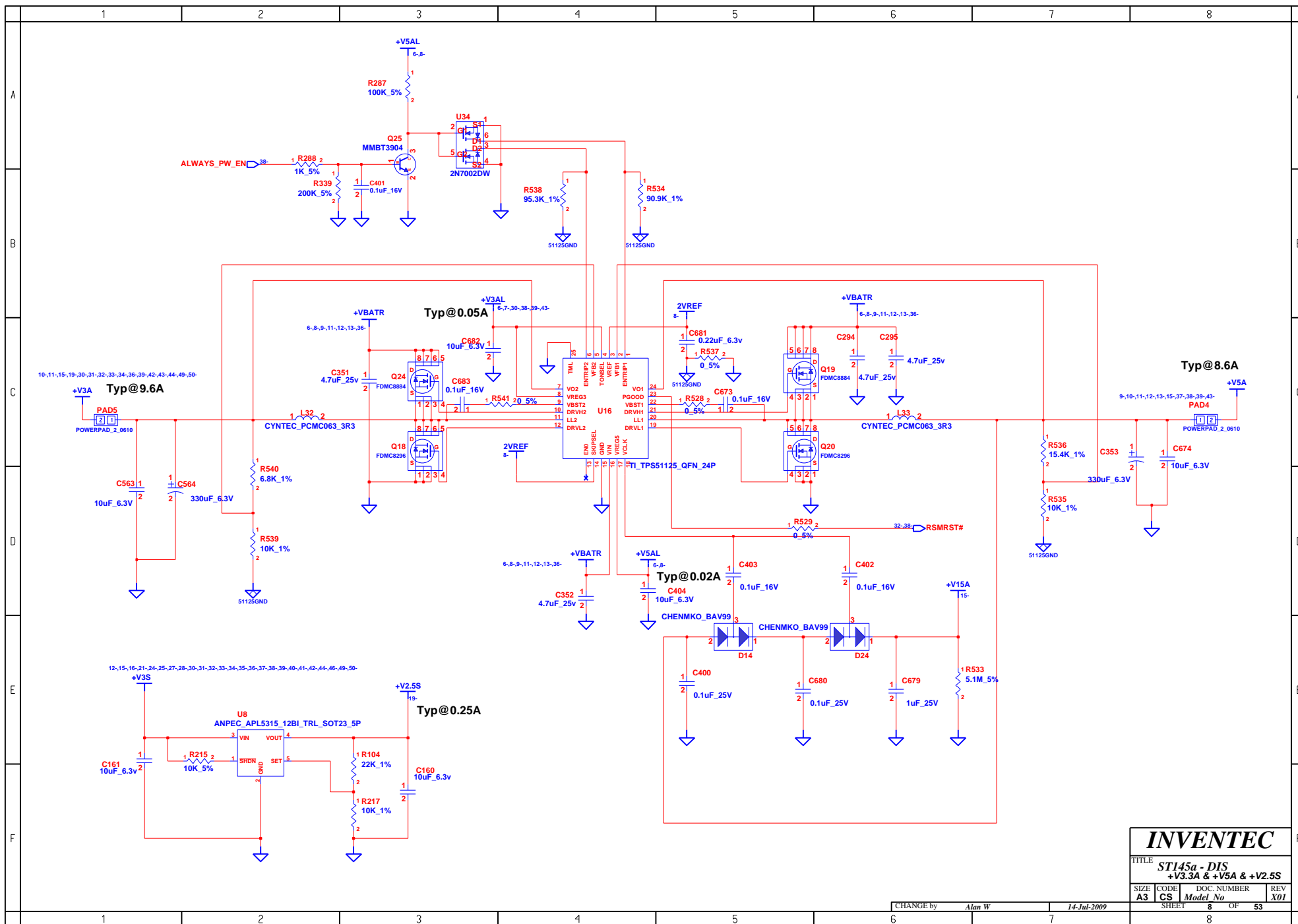


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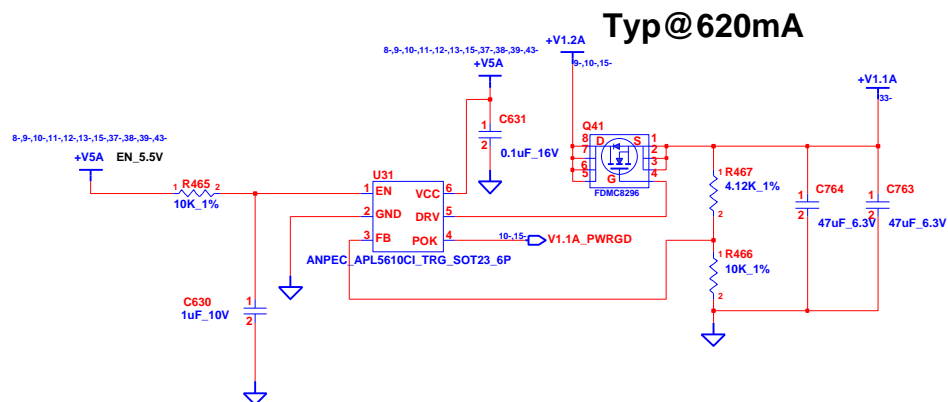
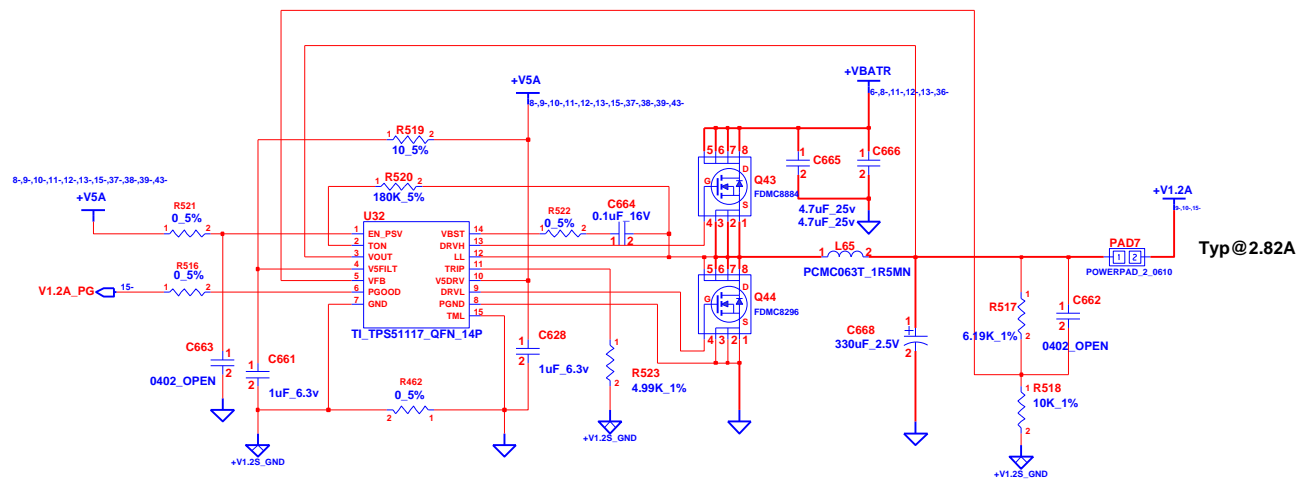
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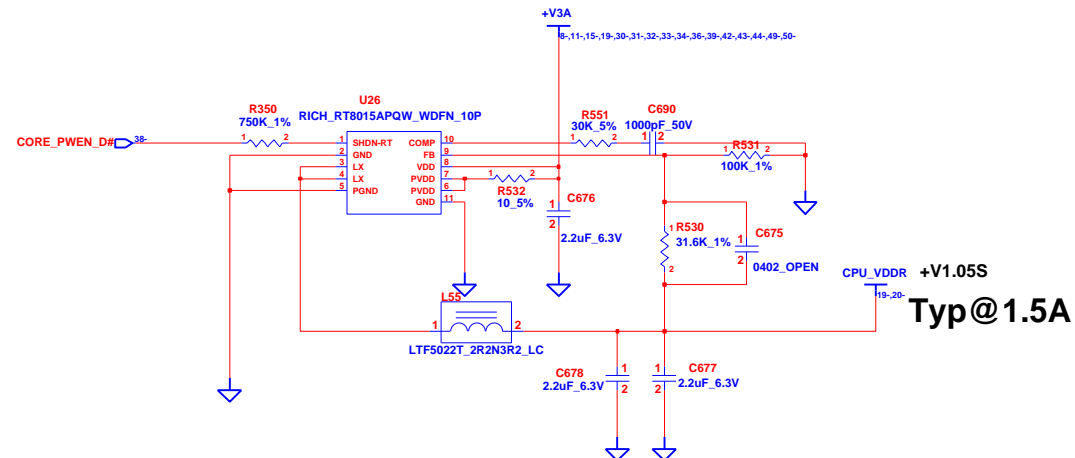
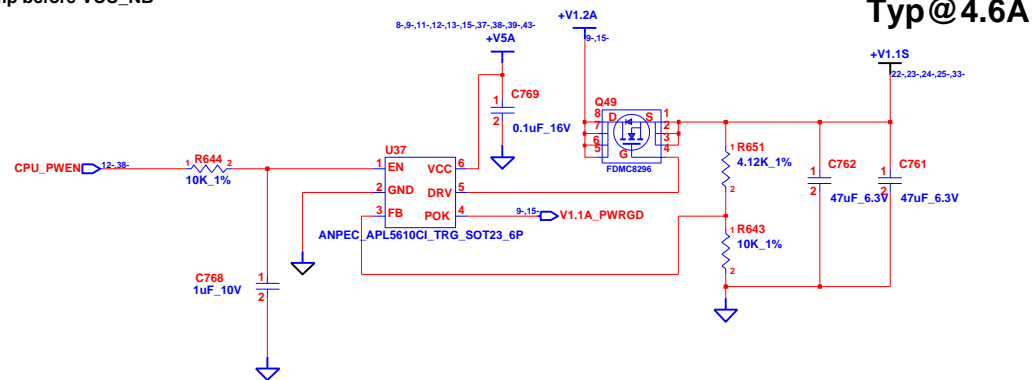


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| +V1.2A & VCC_NB |      |             |       |
| SIZE            | CODE | DOC. NUMBER | REV   |
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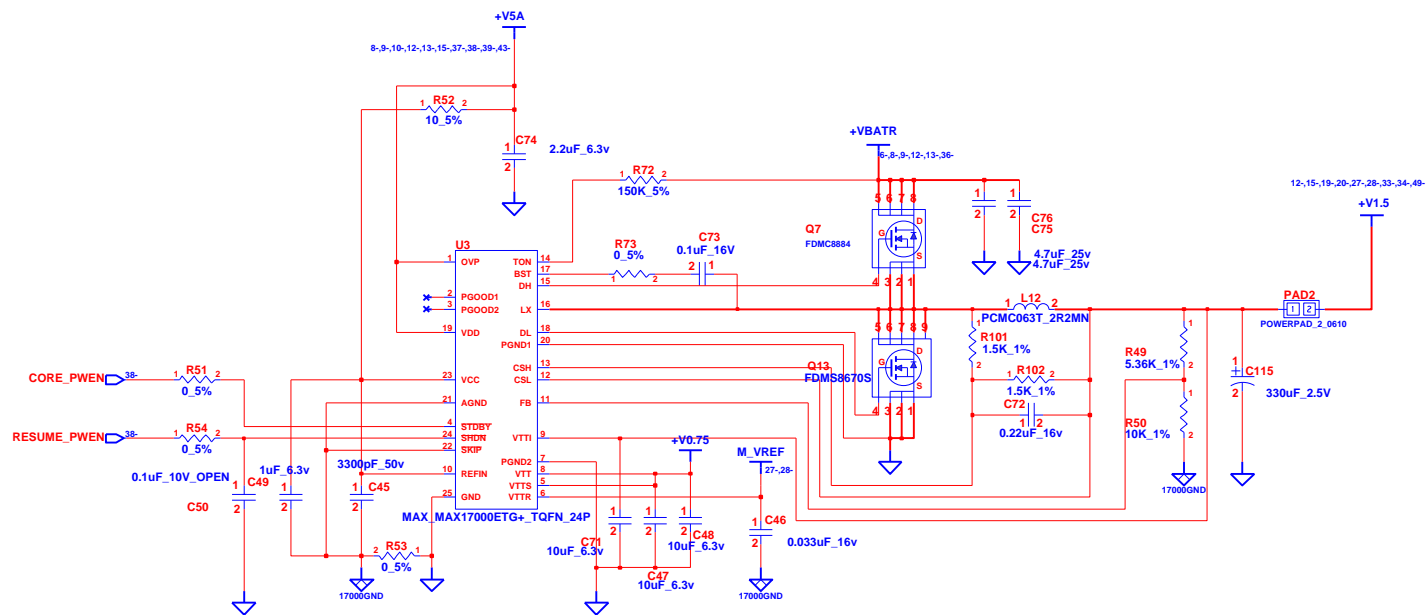
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2. +V3.3S ramp before +V1.1S
3. +V1.1S ramp before VCC\_NB



**INVENTEC**

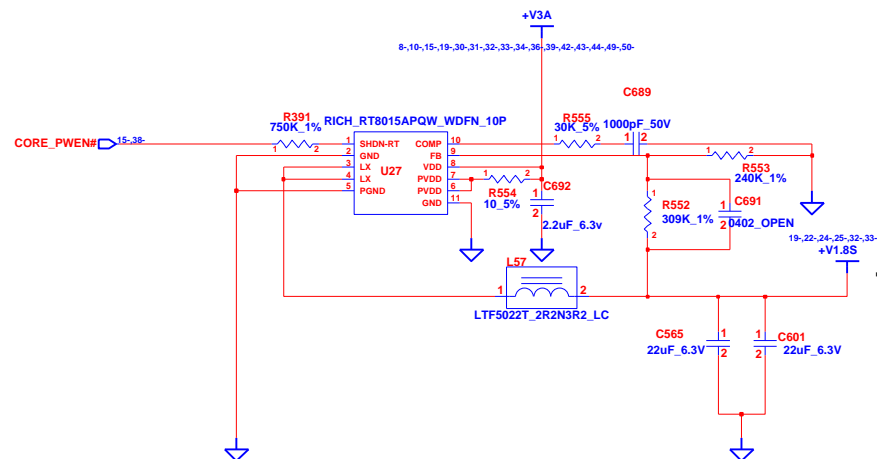
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|----------------------------|------|-------------|-----|
| ST145a - DIS               |      |             |     |
| CPU_VDDR & +V1.1A & +V1.1S |      |             |     |
| SIZE                       | CODE | DOC. NUMBER | REV |
| A3                         | CS   | Model No    | X01 |
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Typ@9A

# NOTE: DDR3 REGULATOR



Typ@1.3A

**INVENTEC**

TITLE  
ST145a - DIS  
DDR3 POWER

| SIZE | CODE | DOC. NUMBER | REV |
|------|------|-------------|-----|
| A3   | CS   | Model No    | X01 |

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A

C

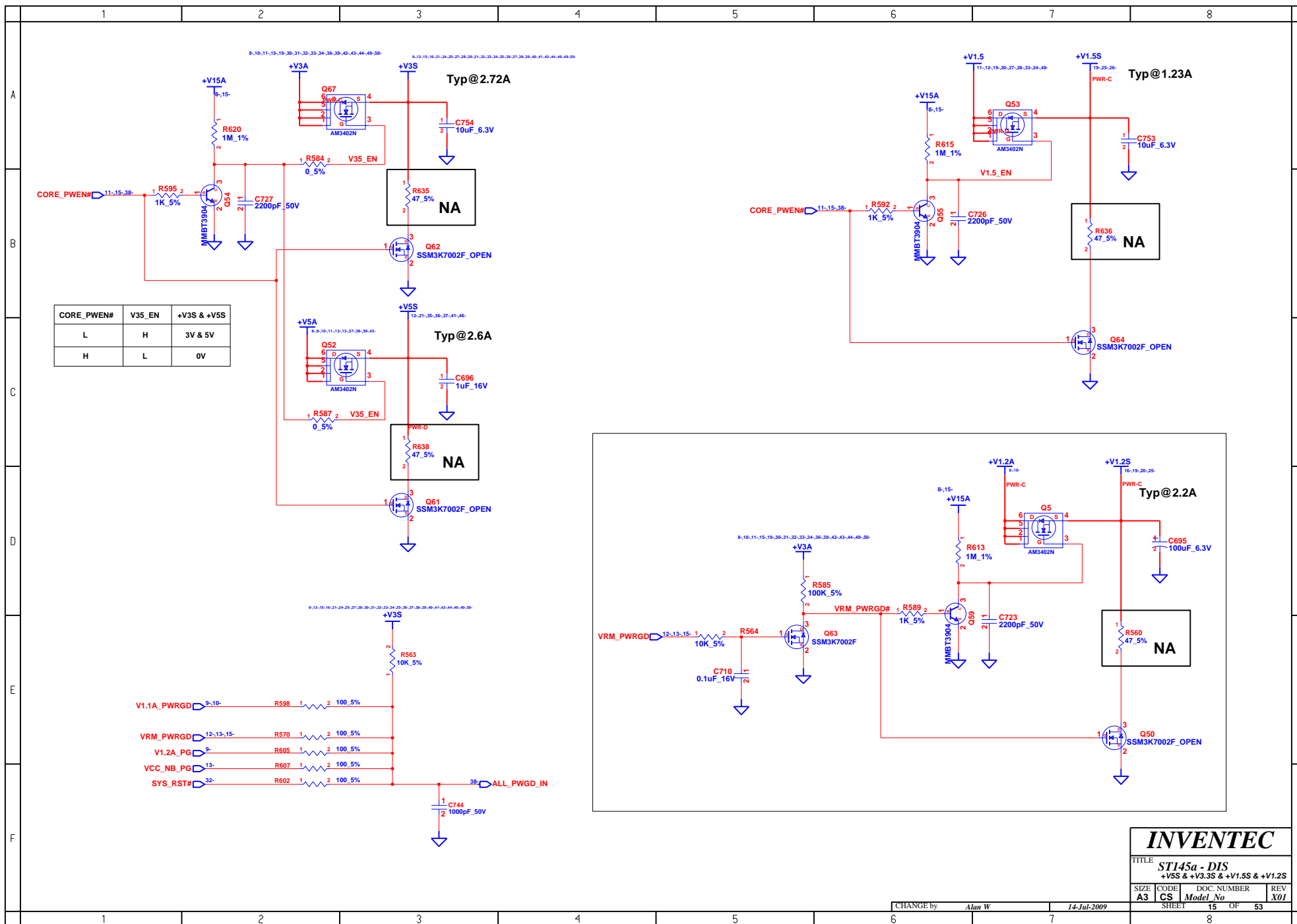
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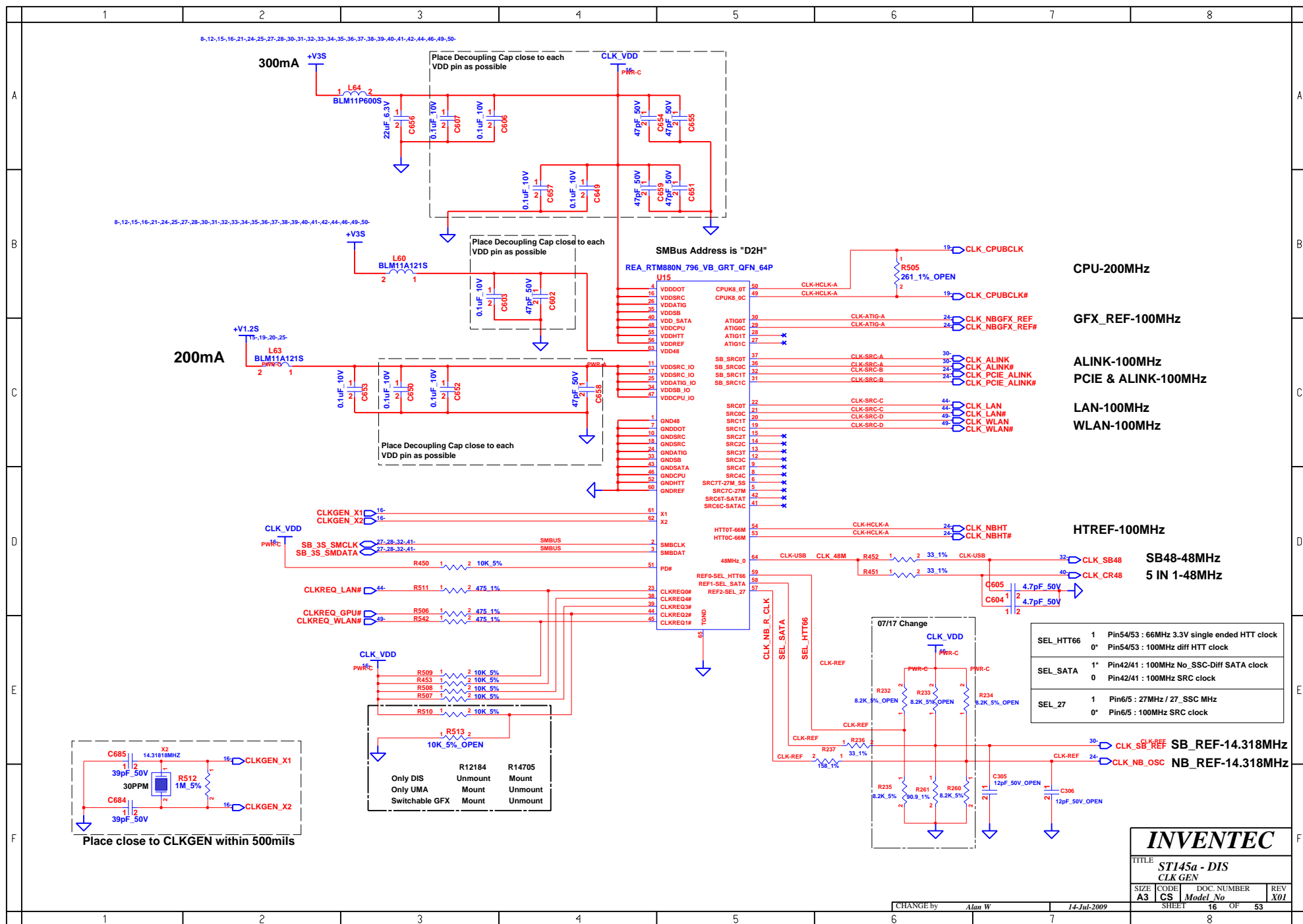
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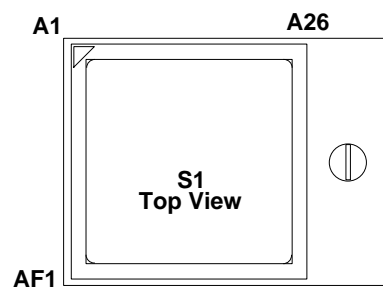
|   |   |   |   |   |   |                         |   |             |   |
|---|---|---|---|---|---|-------------------------|---|-------------|---|
|   | 1 | 2 | 3 | 4 | 5 | 6                       | 7 | 8           |   |
| A |   |   |   |   |   |                         |   |             | A |
| B |   |   |   |   |   |                         |   |             | B |
| C |   |   |   |   |   |                         |   |             | C |
| D |   |   |   |   |   |                         |   |             | D |
| E |   |   |   |   |   |                         |   |             | E |
| F |   |   |   |   |   |                         |   |             | F |
|   |   |   |   |   |   | CHANGE by <i>Alan W</i> |   | 23-Jul-2009 |   |
|   | 1 | 2 | 3 | 4 | 5 | 6                       | 7 | 8           |   |

|                               |           |                 |            |
|-------------------------------|-----------|-----------------|------------|
| <b>INVENTEC</b>               |           |                 |            |
| TITLE <i>ST145a - DIS</i>     |           |                 |            |
| <i>+VDD CORE &amp; +VPCIE</i> |           |                 |            |
| SIZE                          | CODE      | DOC. NUMBER     | REV        |
| <b>A3</b>                     | <b>CS</b> | <i>Model No</i> | <b>X01</b> |
| SHEET                         |           | 14              | OF 53      |



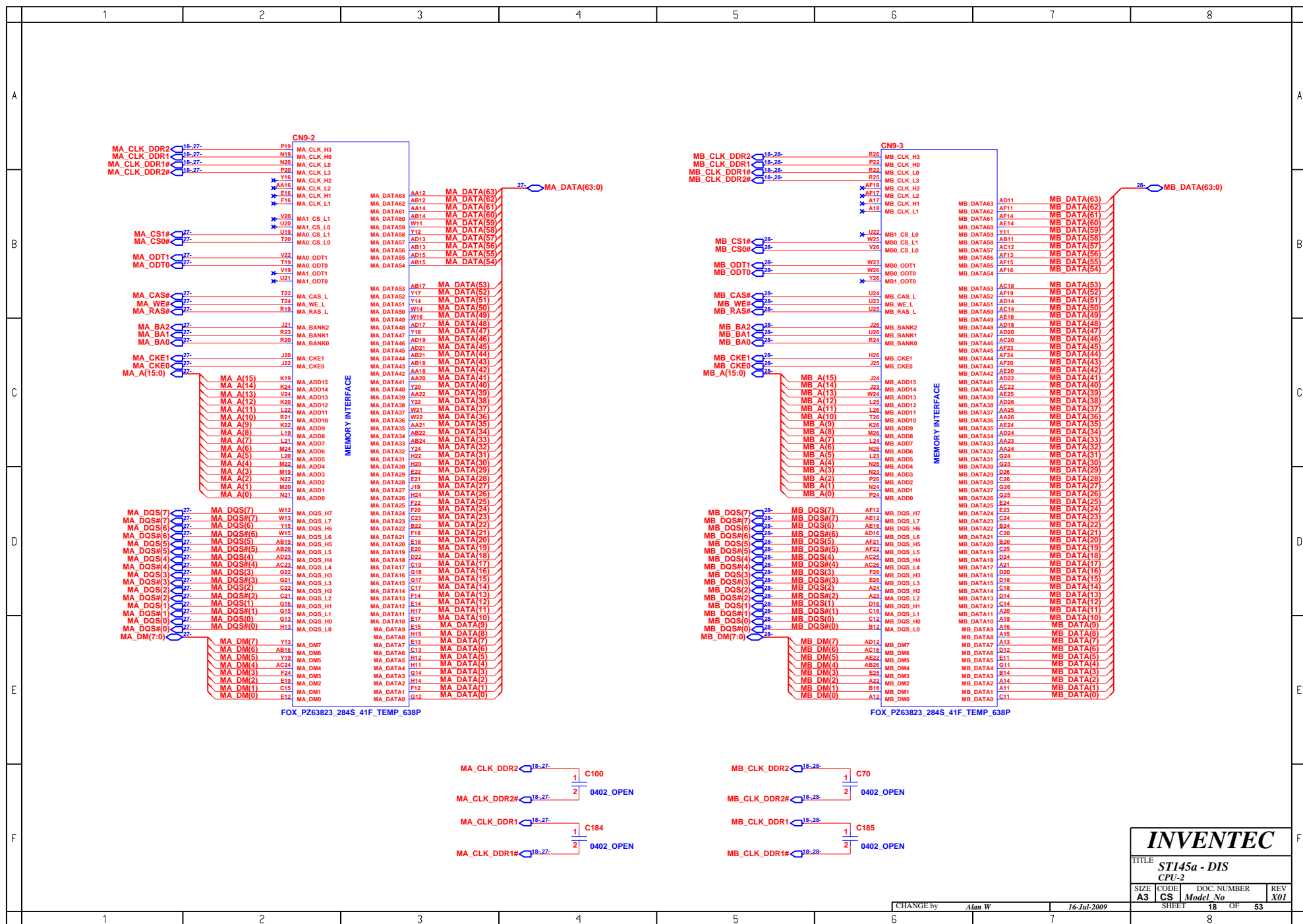


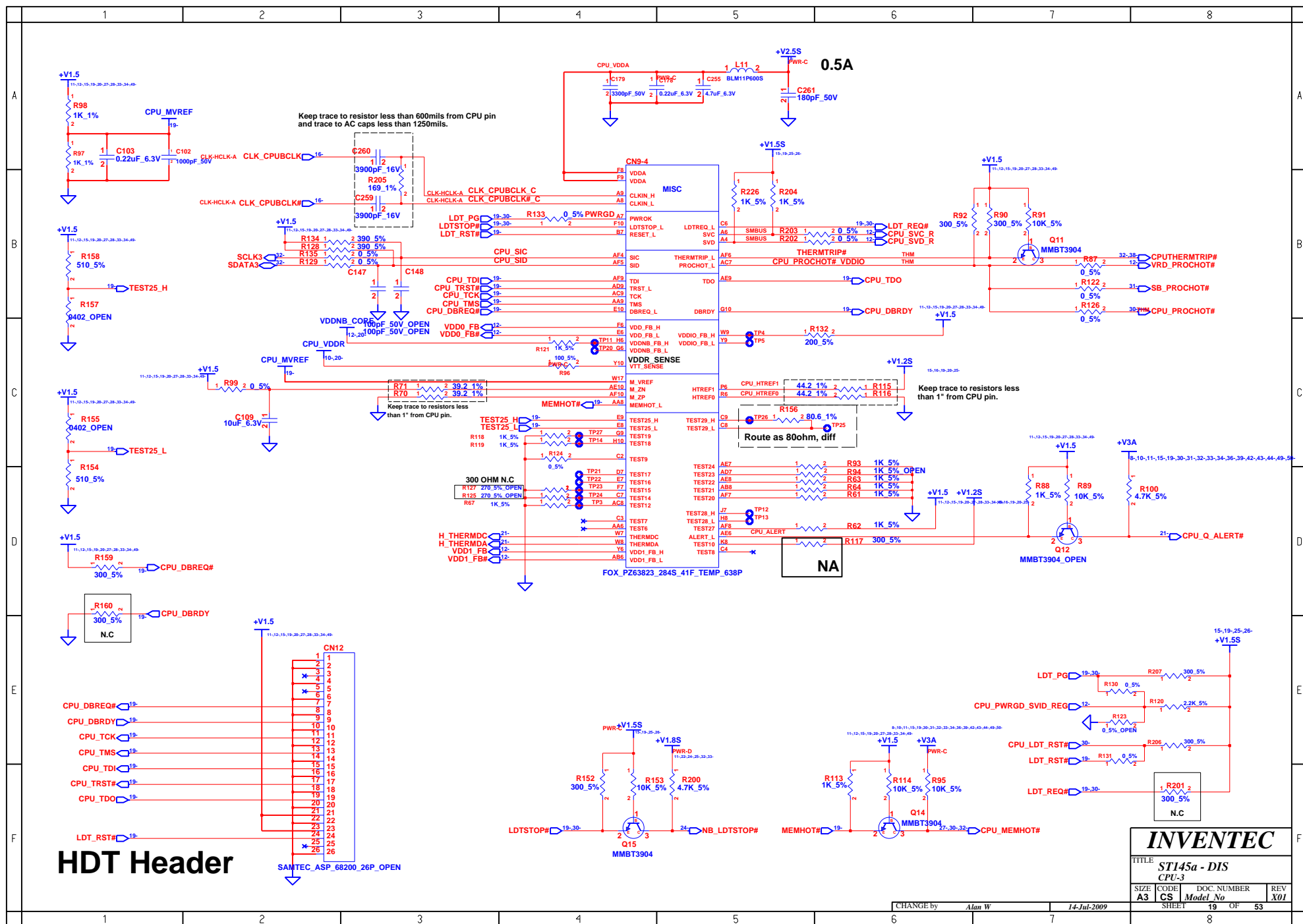


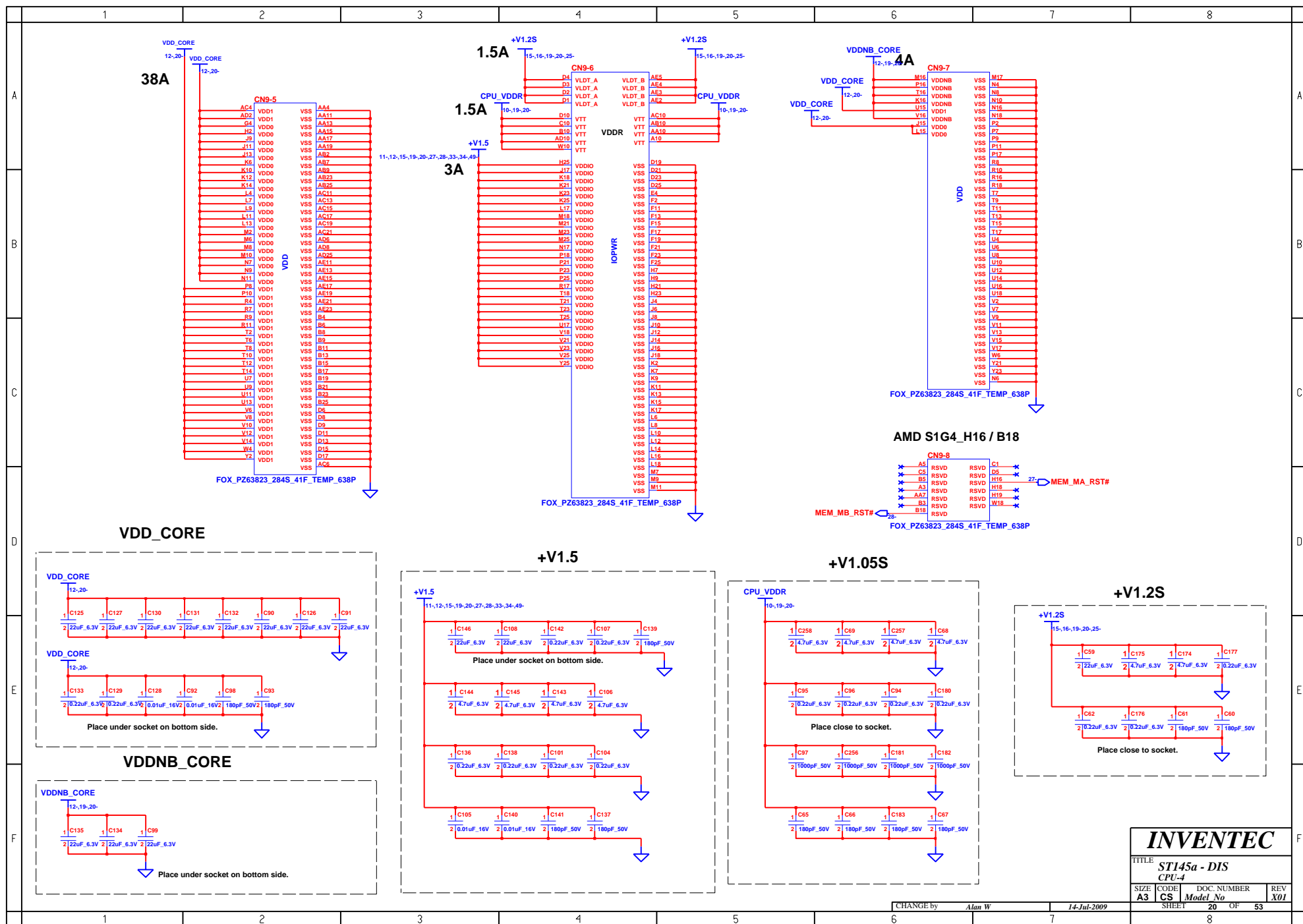


**Layout: Add stitching caps if crossing plane split.**

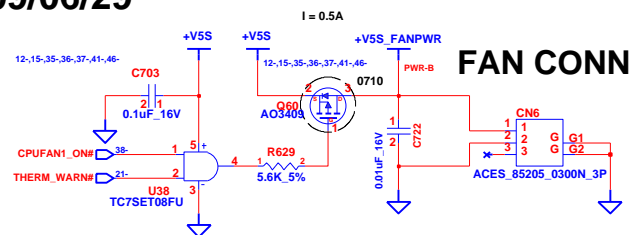
|                                  |                   |                                |                   |
|----------------------------------|-------------------|--------------------------------|-------------------|
| <b><i>INVENTEC</i></b>           |                   |                                |                   |
| TITLE <b><i>ST145a - DIS</i></b> |                   |                                |                   |
| CPU-1                            |                   |                                |                   |
| SIZE<br><b>A3</b>                | CODE<br><b>CS</b> | DOC. NUMBER<br><i>Model No</i> | REV<br><i>X01</i> |
| SHEET                            |                   | 17                             | OF 53             |
| 8                                |                   |                                |                   |



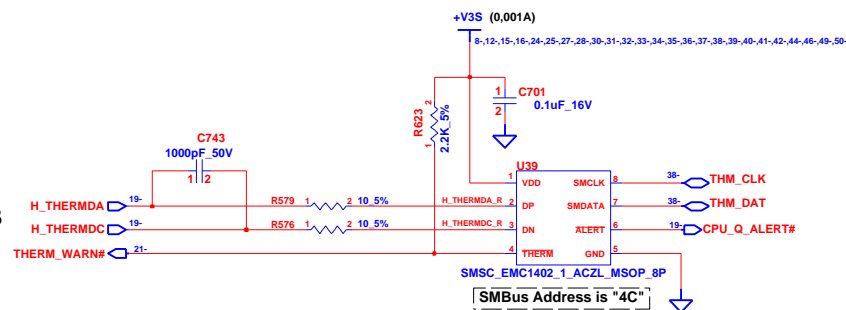




# Circuit : Fixed 2009/06/29



From NB

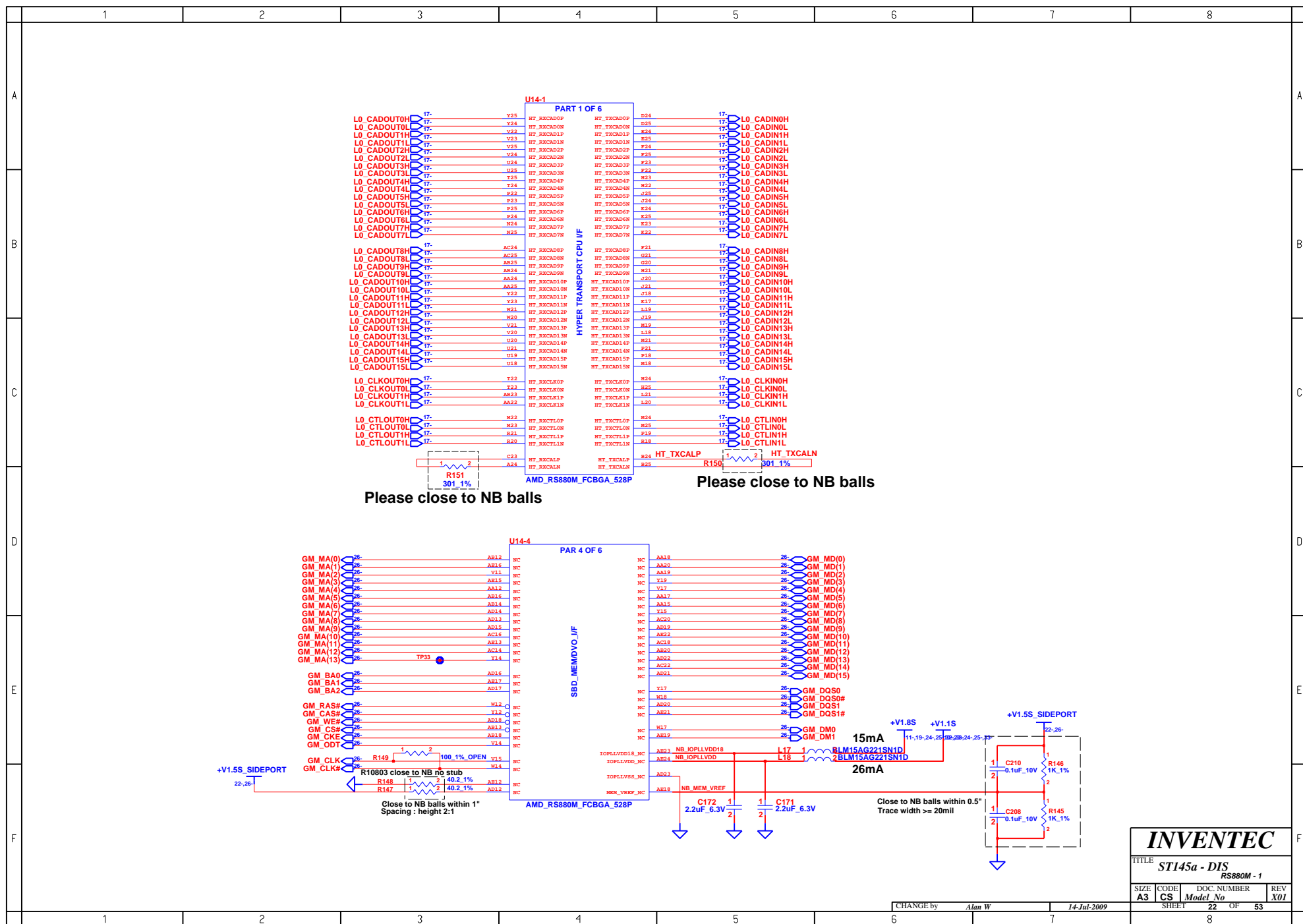


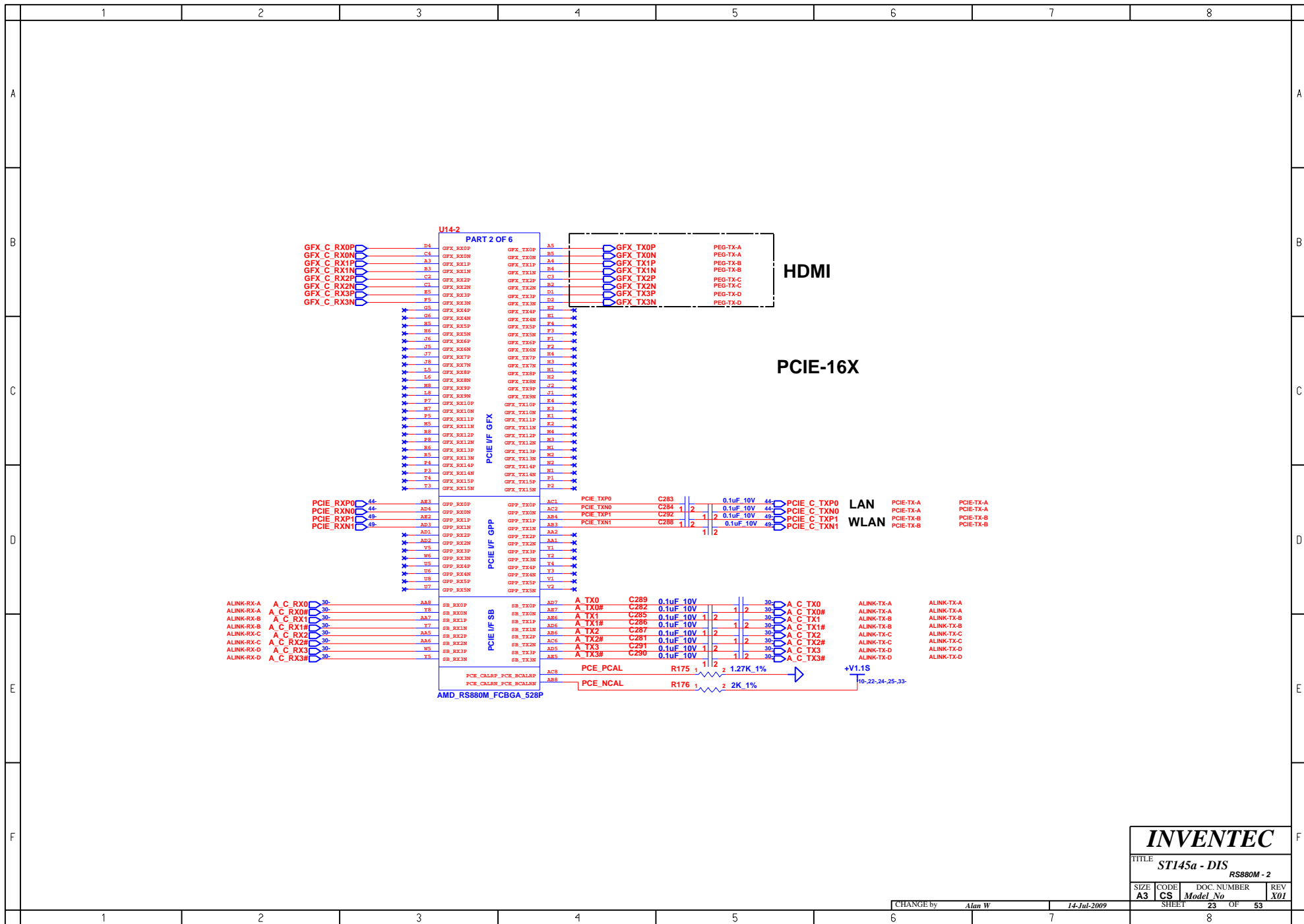
**INVENTEC**

|               |      |             |       |
|---------------|------|-------------|-------|
| TITLE         |      |             |       |
| ST145a - DIS  |      |             |       |
| FAN & THERMAL |      |             |       |
| SIZE          | CODE | DOC. NUMBER | REV   |
| A3            | CS   | Model No    | X01   |
| SHEET         |      | 21          | OF 53 |

CHANGE by Alan W 14-Jul-2009

8





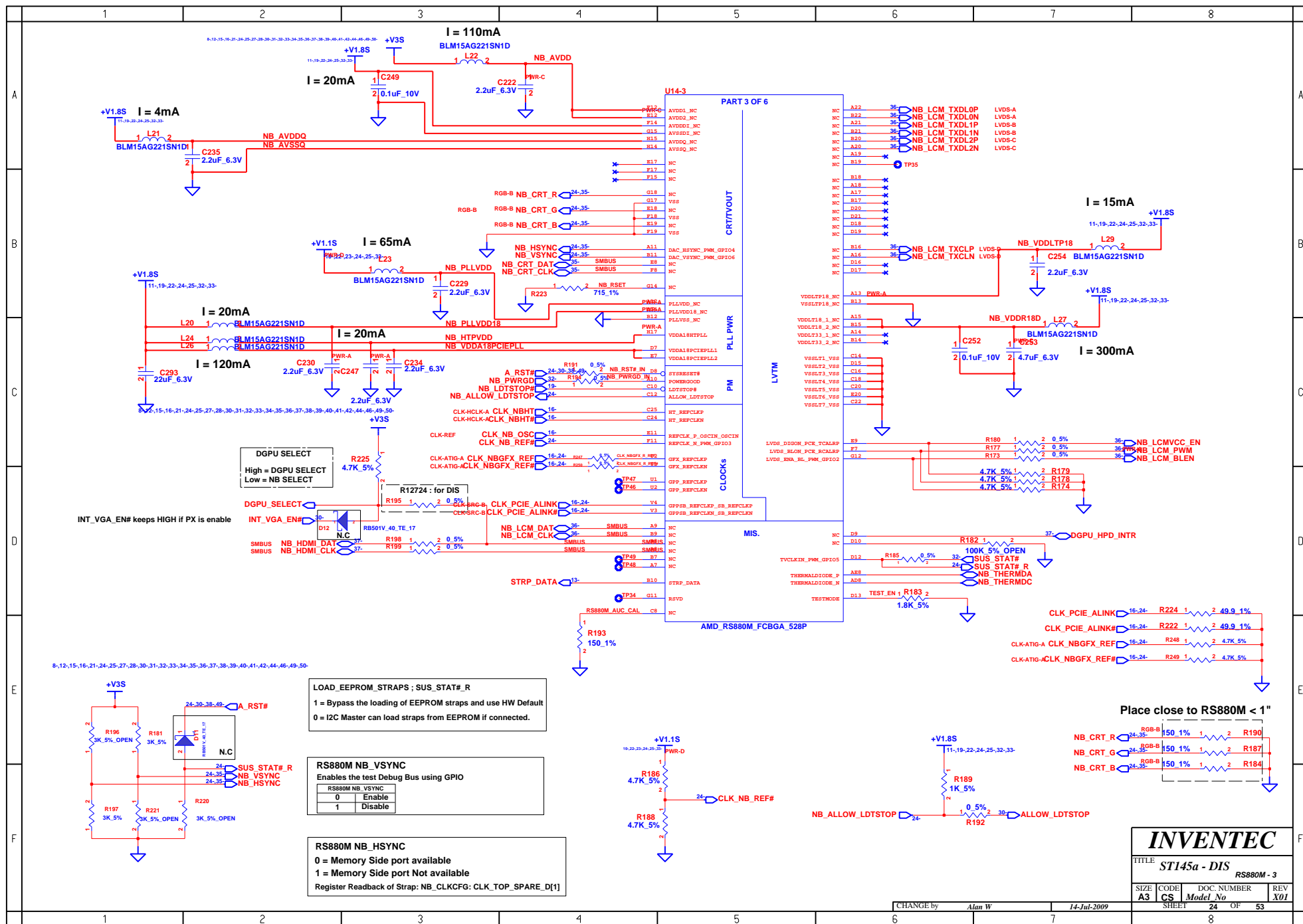
INVENTEC

TITLE  
ST145a - DIS  
RS880M - 2

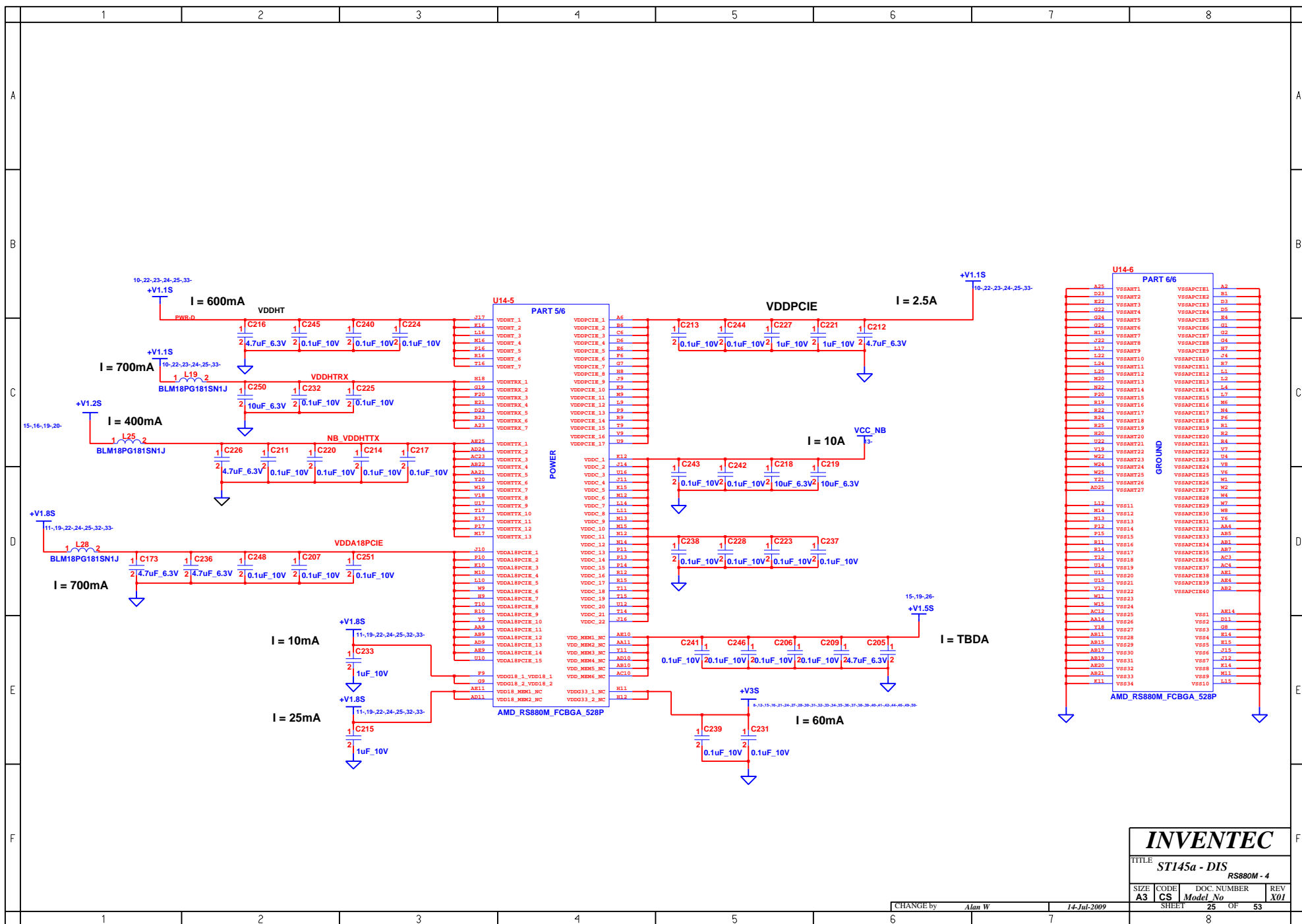
| SIZE | CODE | DOC. NUMBER | REV |
|------|------|-------------|-----|
| A3   | CS   | Model No    | X01 |

CHANGE by Alan W 14-Jul-2009

SHEET 23 OF 53







## A

F

**SO-DIMM0**

**4A**

**Layout NOTE:** Place these Caps near SO-DIMM0 power pin

**220uF\_2V\_15mR\_Panasonic**

**MA\_A(15:0)** 18-  
MA\_A(0) 88  
MA\_A(1) 89  
MA\_A(2) 90  
MA\_A(3) 91  
MA\_A(4) 92  
MA\_A(5) 93  
MA\_A(6) 94  
MA\_A(7) 95  
MA\_A(8) 96  
MA\_A(9) 97  
MA\_A(10) 98  
MA\_A(11) 99  
MA\_A(12) 100  
MA\_A(13) 101  
MA\_A(14) 102  
MA\_A(15) 103

**MA\_BA0** 18-  
MA\_BA1 18-  
MA\_BA2 18-  
MA\_CS0# 18-  
MA\_CS1# 18-  
MA\_CLK\_DDR1# 18-  
MA\_CLK\_DDR2# 18-  
MA\_CKE0 18-  
MA\_CKE1 18-  
MA\_CAS# 18-  
MA\_RAS# 18-  
MA\_WE# 18-  
SA0\_DIM0 27-  
SA1\_DIM0 27-  
SB\_3S\_SMCLK 16-28,32,41-  
SB\_3S\_SMDATA 16-28,32,41-  
MA\_ODT0 18-  
MA\_ODT1 18-  
MA\_DM(7:0) 18-  
MA\_DQS(7:0) 18-  
MA\_DQS#(7:0) 18-  
MA\_DQS#(0) 18-  
MA\_DQS#(1) 27-  
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MA\_DQS#(226) 27-  
MA\_DQS#(

**Note:**Place C4100  
on common path  
for both DIMM's

Place these caps  
close to VTT1 and  
VTT2

|  |                   |                                |                   |
|--|-------------------|--------------------------------|-------------------|
| <b>INVENTEC</b>                                |                   |                                |                   |
| TITLE <b>ST145a - DIS</b><br><b>DDR3 DIMM0</b> |                   |                                |                   |
| SIZE<br><b>A3</b>                              | CODE<br><b>CS</b> | DOC. NUMBER<br><b>Model No</b> | REV<br><b>X01</b> |
| SHEET  |                   | 27                             | OF 53             |

**SO-DIMM1**

**Layout Note:** Place these Caps near SO-DIMM1 power pin

**Place these caps close to VTT1 and VTT2**

**INVENTEC**

**ST145a - DIS**

**DDR3 DIMM1**

**SIZE A3 CODE CS**

**DOC. NUMBER**

**REV X01**

**CHANGE by Alan W 14-Jul-2009**

**SHEET 28 OF 53**

**Layout Note:** Place these Caps near SO-DIMM1 power pin

Place these caps  
close to VTT1 and  
VTT2

Place these caps  
close to VTT1 and  
VTT2

**NOTE:**

SO-DIMMB SPD ADDRESS IS 0xA4  
SO-DIMMB TS ADDRESS IS 0x34

**INVENTEC**

|       |                     |
|-------|---------------------|
| TITLE | <i>ST145a - DIS</i> |
|-------|---------------------|

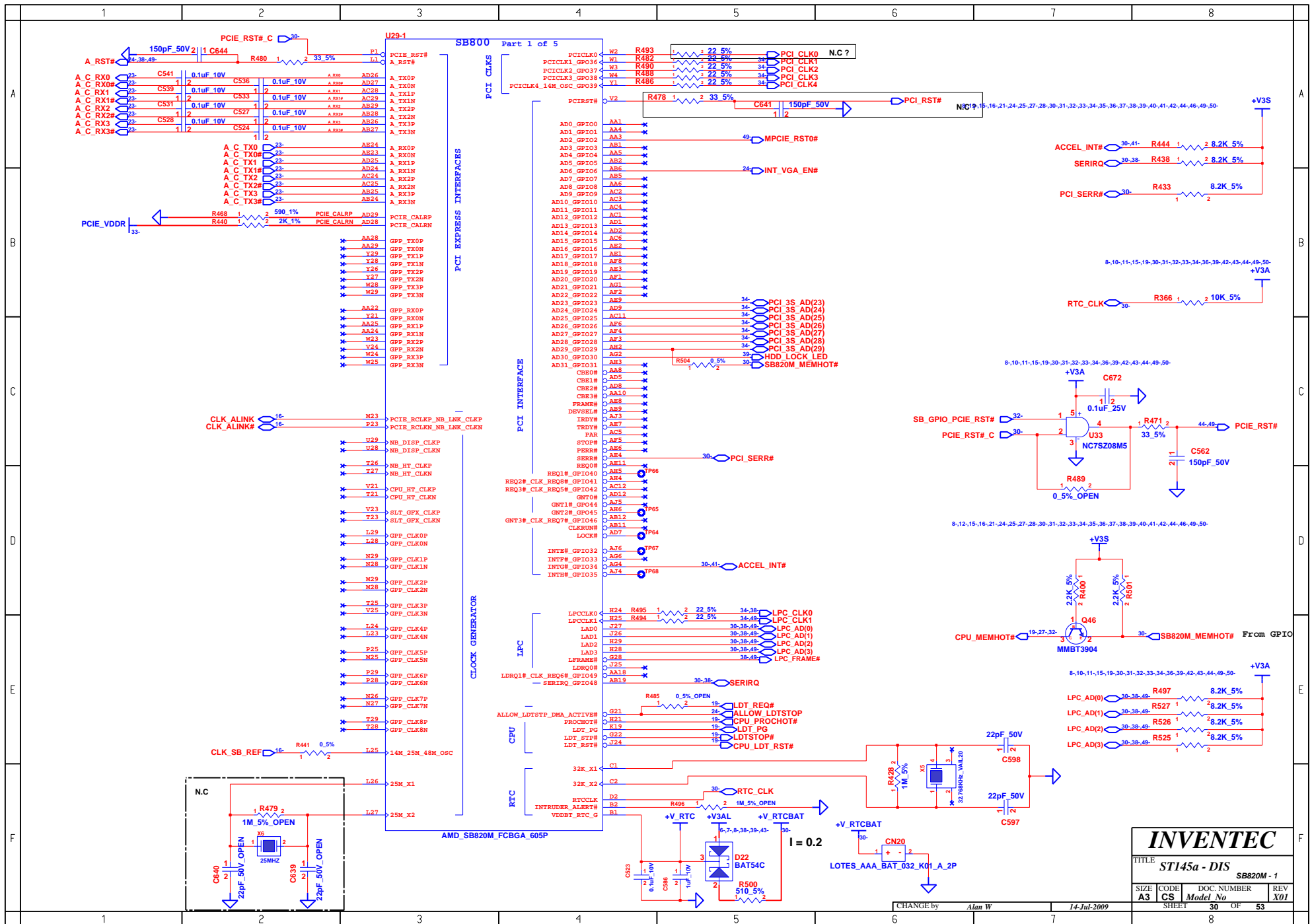
|                   |                   |                                |                   |
|-------------------|-------------------|--------------------------------|-------------------|
| SIZE<br><b>A3</b> | CODE<br><b>CS</b> | DOC. NUMBER<br><i>Model No</i> | REV<br><i>X01</i> |
| SHEET 28 OF 53    |                   |                                |                   |

|           |        |             |
|-----------|--------|-------------|
| CHANGE by | Alan W | 14-Jul-2009 |
|-----------|--------|-------------|

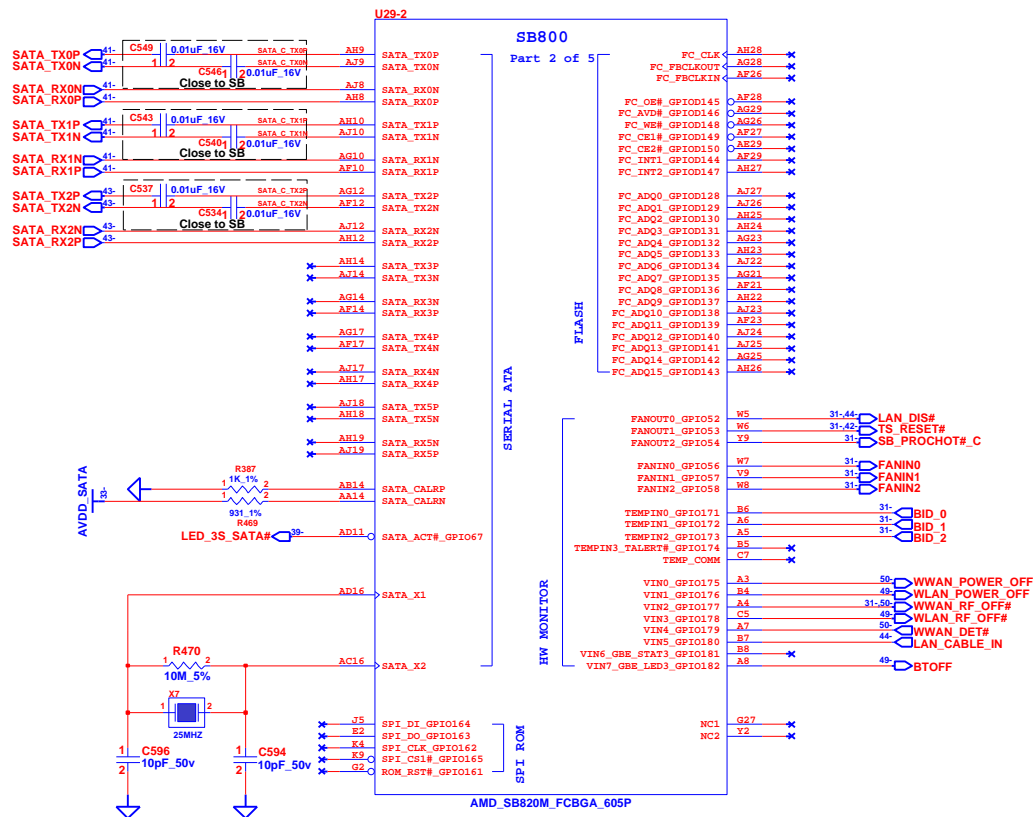
2

|   |   |   |   |   |   |                         |   |                    |   |
|---|---|---|---|---|---|-------------------------|---|--------------------|---|
|   | 1 | 2 | 3 | 4 | 5 | 6                       | 7 | 8                  |   |
| A |   |   |   |   |   |                         |   |                    | A |
| B |   |   |   |   |   |                         |   |                    | B |
| C |   |   |   |   |   |                         |   |                    | C |
| D |   |   |   |   |   |                         |   |                    | D |
| E |   |   |   |   |   |                         |   |                    | E |
| F |   |   |   |   |   |                         |   |                    | F |
|   |   |   |   |   |   | CHANGE by <i>Alan W</i> |   | <i>14-Jul-2009</i> |   |
| 1 | 2 | 3 | 4 | 5 | 6 | 7                       | 8 |                    |   |

|  |                   |                                |                   |
|--|-------------------|--------------------------------|-------------------|
| <b>INVENTEC</b>                                  |                   |                                |                   |
| TITLE <i>ST145a - DIS</i><br><i>DDR3 DAMPING</i> |                   |                                |                   |
| SIZE<br><b>A3</b>                                | CODE<br><b>CS</b> | DOC. NUMBER<br><i>Model No</i> | REV<br><i>X01</i> |
| SHEET <b>29</b>                                  |                   | OF <b>53</b>                   |                   |



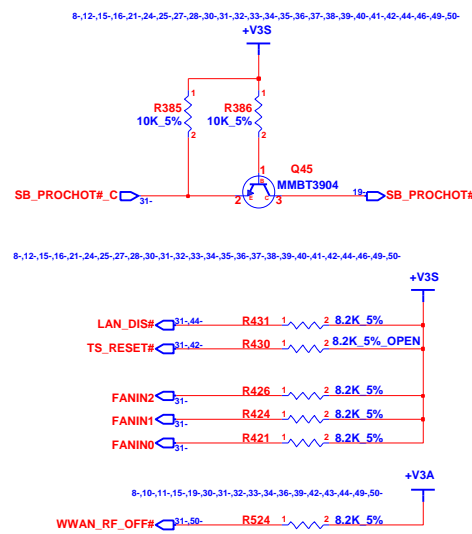
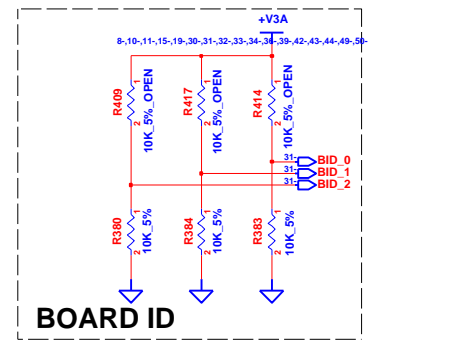
SATA\_0 --- HDD  
SATA\_1 --- ODD  
SATA\_2 --- ESATA



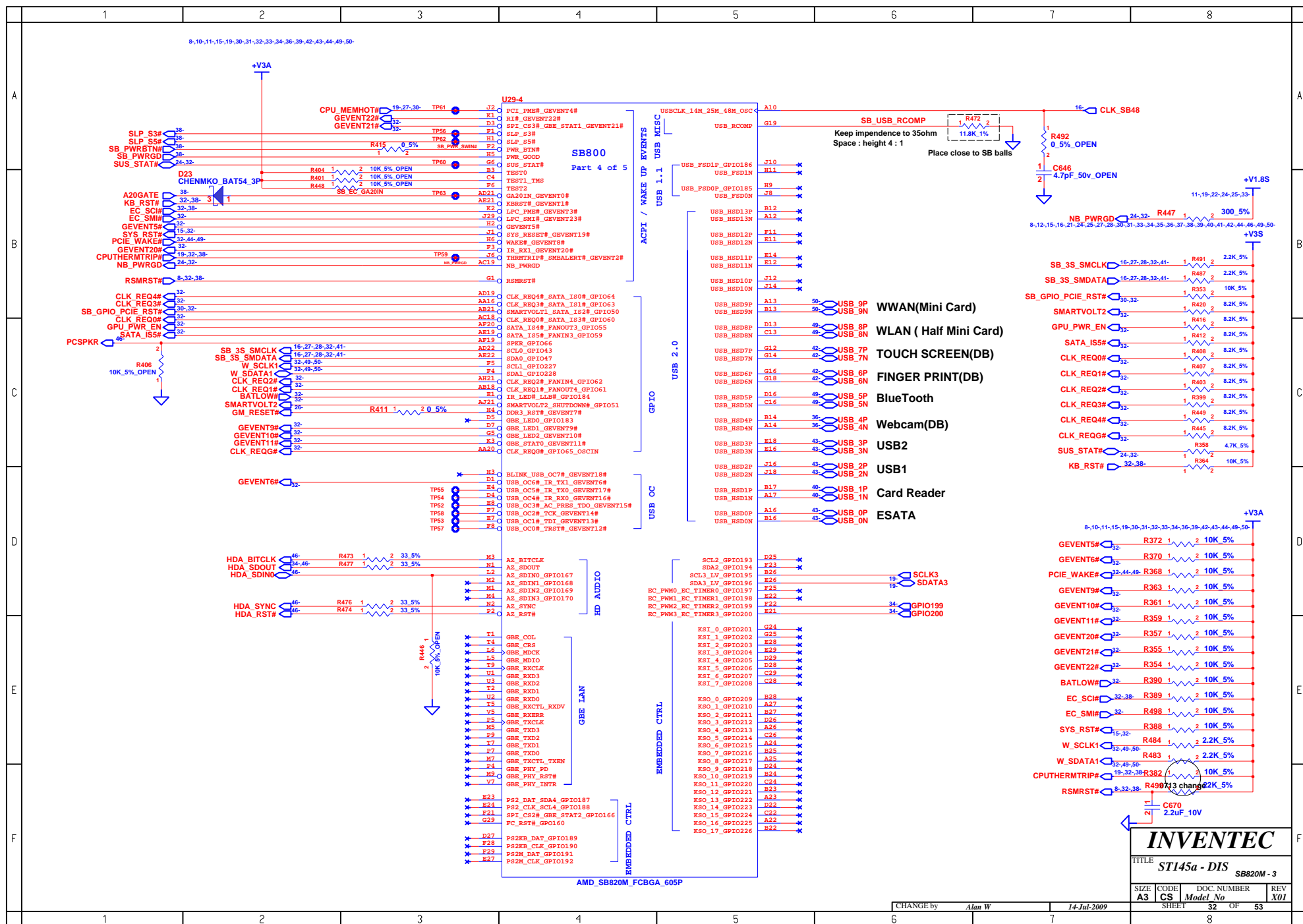
|         | BID_1 | BID_0 |
|---------|-------|-------|
| HYNIX   | 0     | 0     |
| SAMSUNG | 0     | 1     |
| QIMONDA | 1     | 0     |

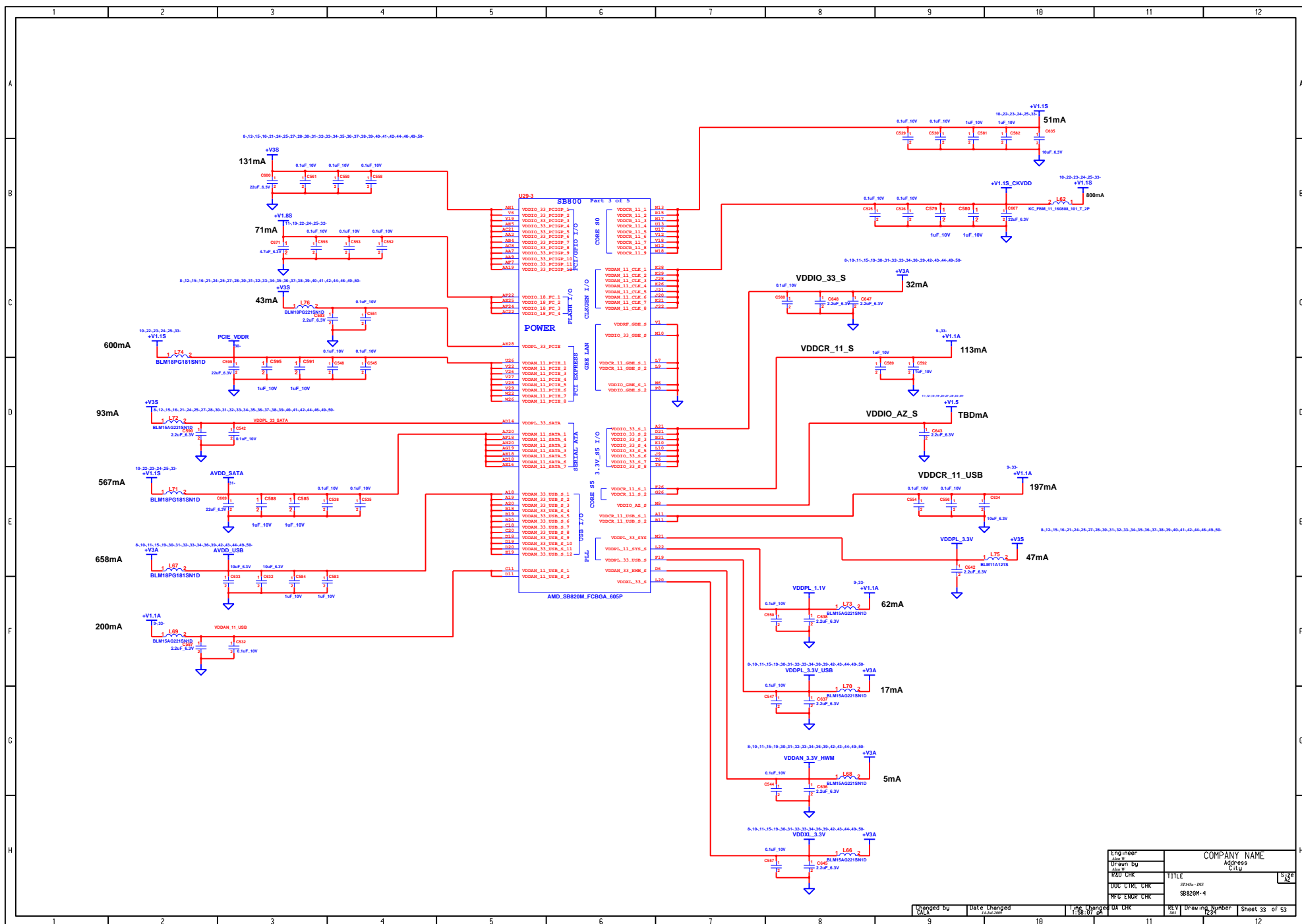
|   | BID_2 |
|---|-------|
| 0 | UMA   |
| 1 | DIS   |

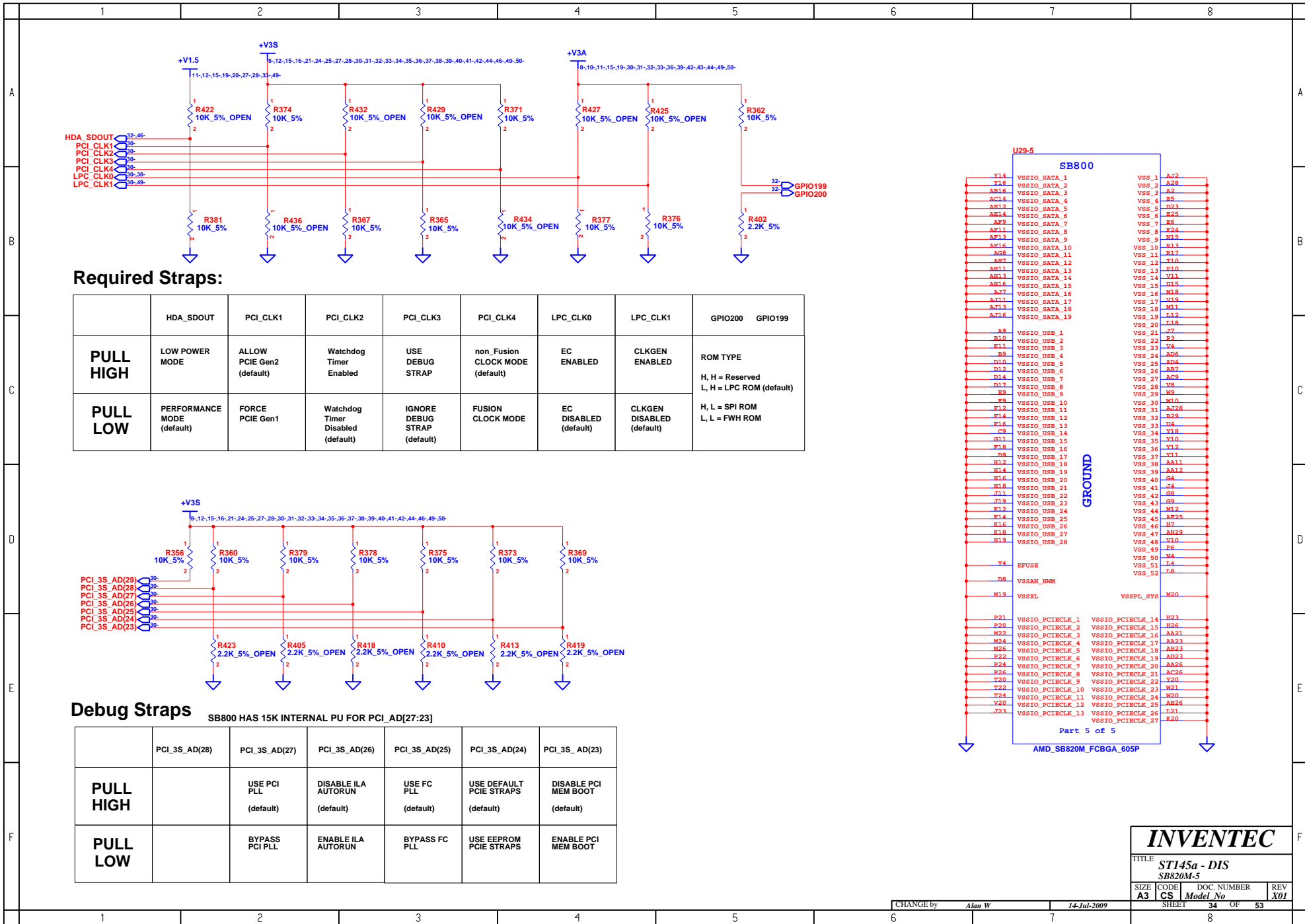


| INVENTEC                          |            |                         |            |  |
|-----------------------------------|------------|-------------------------|------------|--|
| TITLE<br>ST145a - DIS<br>SB820M-2 |            |                         |            |  |
| SIZE<br>A3                        | CODE<br>CS | DOC. NUMBER<br>Model No | REV<br>X01 |  |
| CHANGE by Alan W                  |            | 14-Jul-2009             |            |  |
| SHEET 31                          |            | OF 53                   |            |  |









**Circuit : Fixed**  
**2009/06/30**

| PE_GPIO2 | S1  | S2  |
|----------|-----|-----|
| L        | ON  | OFF |
| H        | OFF | ON  |

**Close to CONN**

**CRT CONN**

**INVENTEC**  
TITLE ST145a - DIS  
CRT  
SIZE A3 CODE CS DOC NUMBER Model No REV X01  
CHANGE by Alan W 14-Jul-2009 SHEET 35 OF 53

**PE\_GPIO2 Settings Table:**

| PE_GPIO2 | S1  | S2  |
|----------|-----|-----|
| L        | ON  | OFF |
| H        | OFF | ON  |

**Circuit : Fixed**  
**2009/06/30**

**Close to CONN**

**CRT CONN**

**INVENTEC**  
**ST145a - DIS**  
**CRT**

CHANGE by: Alan W 14-Jul-2009

SHEET 35 OF 53

**Circuit : Fixed**  
2009/06/30

**Close to CONN**

**CRT CONN**

**INVENTEC**  
TITLE: ST145a - DIS  
CRT  
SIZE: A3 CODE: CS DOC. NUMBER: Model No. REV: X01  
SHEET: 35 OF 53

CHANGE by: Alan W 14-Jul-2009

8: 10, 15, 16, 21, 24, 25, 27, 28, 29, 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, 81

**Table:**

| PE_GPIO2 | S1  | S2  |
|----------|-----|-----|
| L        | ON  | OFF |
| H        | OFF | ON  |

**Circuit : Fixed**  
**2009/06/30**

**Close to CONN**

**CRT CONN**

**INVENTEC**  
TITLE: ST145a - DIS  
CRT  
SIZE: A3 CODE: CS DOC. NUMBER: REV: X01  
SHEET: 35 OF 53

**CHANGE by:** Alan W 14-Jul-2009

**Circuit : Fixed**  
**2009/06/30**

**Close to CONN**

**CRT CONN**

**INVENTEC**  
TITLE: ST145a - DIS  
CRT  
SIZE: A3 CODE: CS DOC. NUMBER: REV: X01  
SHEET: 35 OF 53

CHANGE by: Alan W 14-Jul-2009

| PE_GPIO2 | S1  | S2  |
|----------|-----|-----|
| L        | ON  | OFF |
| H        | OFF | ON  |

**Circuit : Fixed**  
**2009/06/30**

**Close to CONN**

**CRT CONN**

**INVENTEC**  
TITLE: ST145a - DIS  
CRT  
SIZE: A3 CODE: CS DOC. NUMBER: REV: X01  
SHEET: 35 OF 53

CHANGE by: Alan W 14-Jul-2009

| PE_GPIO2 | S1  | S2  |
|----------|-----|-----|
| L        | ON  | OFF |
| H        | OFF | ON  |

**Table:**

| PE_GPIO2 | S1  | S2  |
|----------|-----|-----|
| L        | ON  | OFF |
| H        | OFF | ON  |

**Circuit : Fixed**  
**2009/06/30**

**Close to CONN**

**CRT CONN**

**INVENTEC**  
TITLE: ST145a - DIS  
CRT  
SIZE: A3 CODE: CS DOC. NUMBER: REV: X01  
SHEET: 35 OF 53

**CHANGE by:** Alan W 14-Jul-2009

**Circuit : Fixed**  
**2009/06/30**

**Close to CONN**

**CRT CONN**

**INVENTEC**  
TITLE: ST145a - DIS  
CRT  
SIZE: A3 CODE: CS DOC. NUMBER: REV: X01  
SHEET: 35 OF 53

CHANGE by: Alan W 14-Jul-2009

| PE_GPIO2 | S1  | S2  |
|----------|-----|-----|
| L        | ON  | OFF |
| H        | OFF | ON  |

**Circuit : Fixed**  
**2009/06/30**

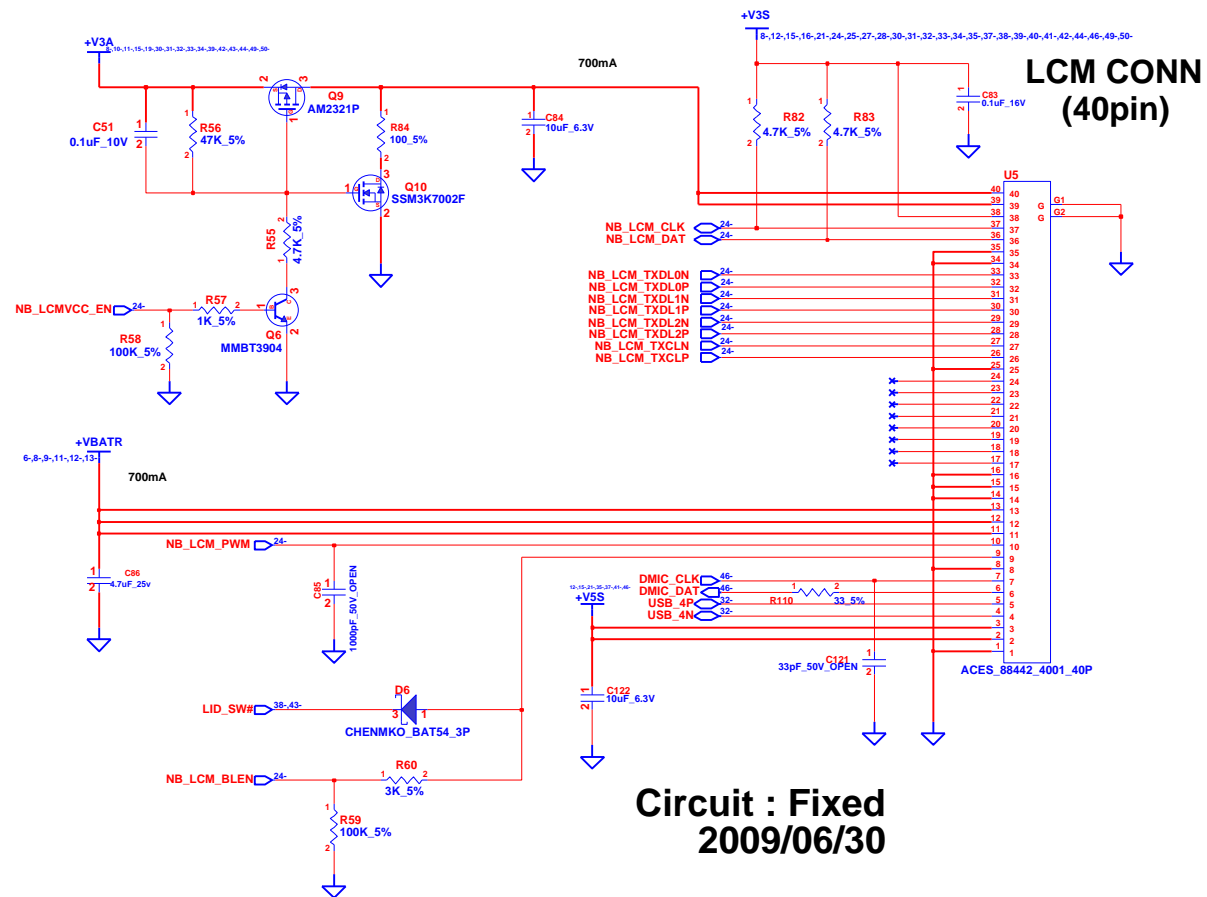
**Close to CONN**

**CRT CONN**

**INVENTEC**  
TITLE: ST145a - DIS  
CRT  
SIZE: A3 CODE: CS DOC. NUMBER: REV: X01  
SHEET: 35 OF 53

CHANGE by: Alan W 14-Jul-2009

| PE_GPIO2 | S1  | S2  |
|----------|-----|-----|
| L        | ON  | OFF |
| H        | OFF | ON  |



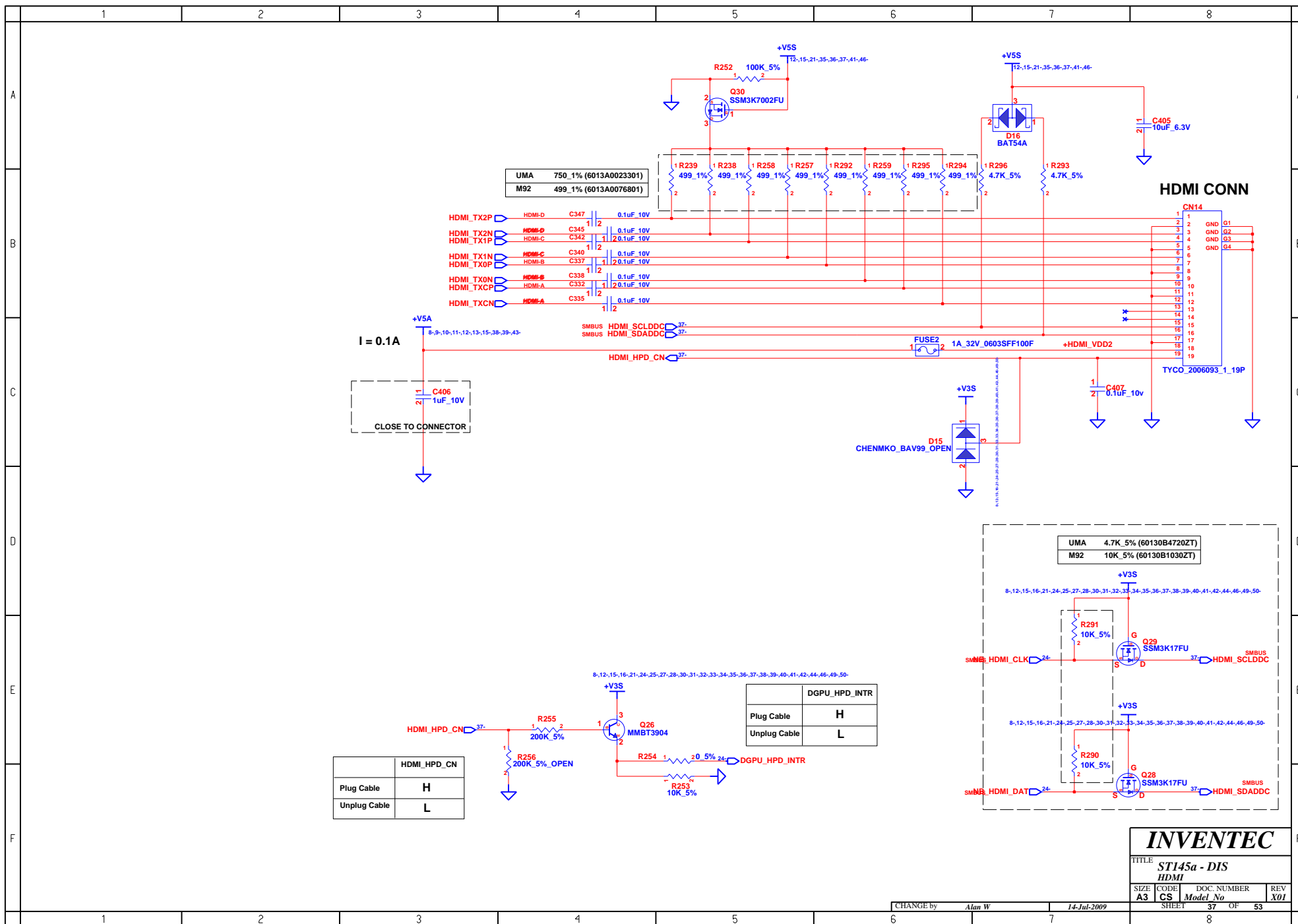
**Circuit : Fixed**  
**2009/06/30**

**INVENTEC**

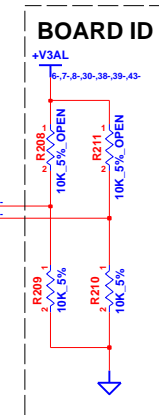
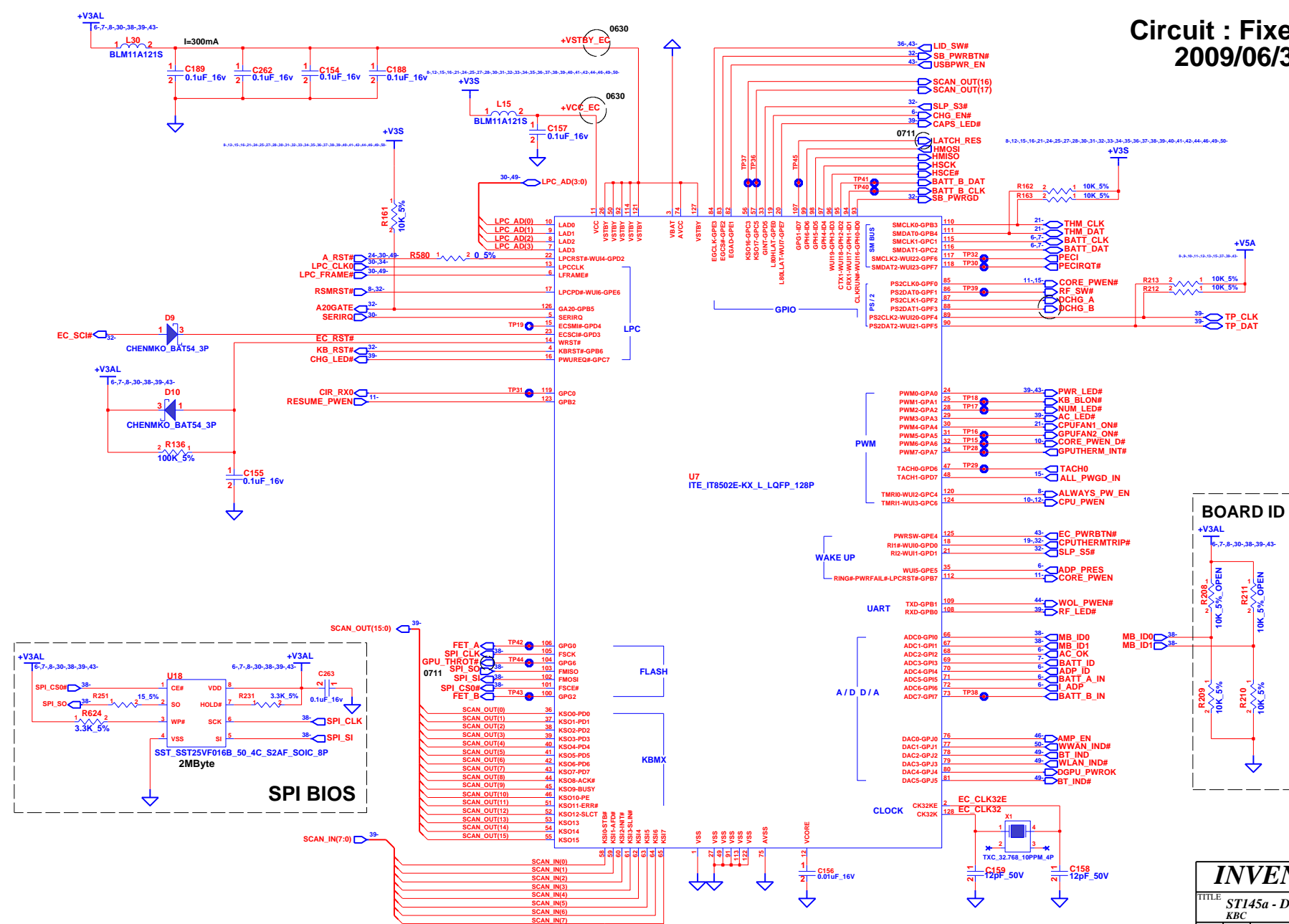
|              |      |             |       |
|--------------|------|-------------|-------|
| TITLE        |      |             |       |
| ST145a - DIS |      |             |       |
| LCM CONN     |      |             |       |
| SIZE         | CODE | DOC. NUMBER | REV   |
| A3           | CS   | Model No    | X01   |
| SHEET        |      | 36          | OF 53 |

CHANGE by Alan W 14-Jul-2009

8



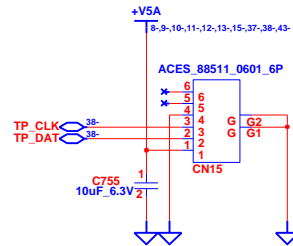
# Circuit : Fixed 2009/06/30



| INVENTEC                     |            |                         |            |
|------------------------------|------------|-------------------------|------------|
| TITLE<br>ST145a - DIS<br>KBC |            |                         |            |
| SIZE<br>A3                   | CODE<br>CS | DOC. NUMBER<br>Model No | REV<br>X01 |
| SHEET<br>38                  |            | OF<br>53                |            |

CHANGE by Alan W 14-Jul-2009

# TouchPad Module CONN



# KeyBoard CONN (30 pin)

KeyBoard CONN (30 pin)

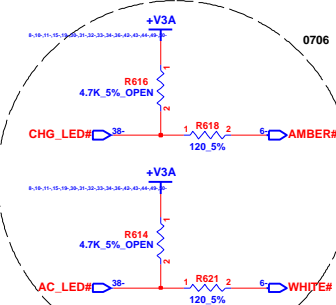
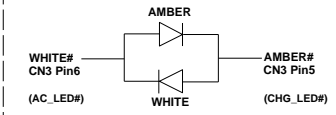
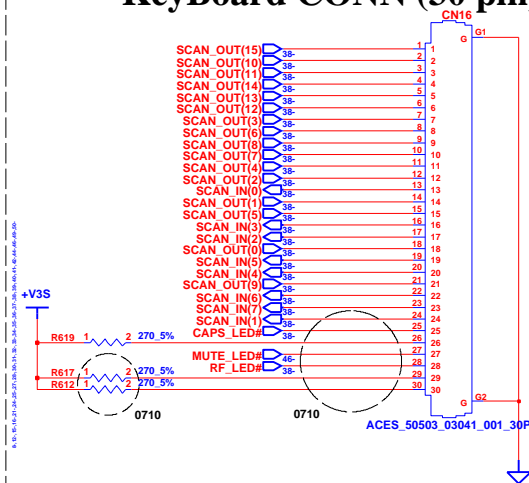
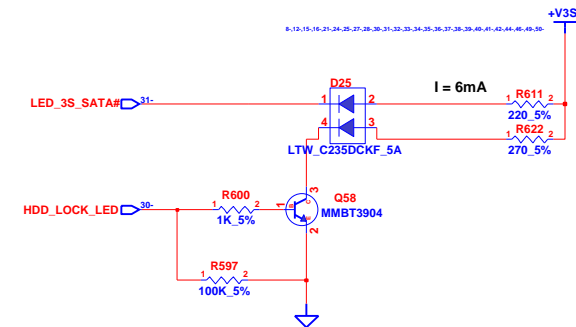
Diagram showing the wiring for a 30-pin keyboard connector. The connector is labeled **CN16** and has pins numbered 1 through 30. The wiring is as follows:

- Pins 1-30 are connected to the keyboard connector.
- Pin 1: SCAN OUT(15)
- Pin 2: SCAN OUT(10)
- Pin 3: SCAN OUT(11)
- Pin 4: SCAN OUT(14)
- Pin 5: SCAN OUT(13)
- Pin 6: SCAN OUT(12)
- Pin 7: SCAN OUT(3)
- Pin 8: SCAN OUT(6)
- Pin 9: SCAN OUT(8)
- Pin 10: SCAN OUT(7)
- Pin 11: SCAN OUT(4)
- Pin 12: SCAN OUT(2)
- Pin 13: SCAN IN(0)
- Pin 14: SCAN OUT(1)
- Pin 15: SCAN IN(3)
- Pin 16: SCAN IN(2)
- Pin 17: SCAN IN(1)
- Pin 18: SCAN OUT(0)
- Pin 19: SCAN IN(5)
- Pin 20: SCAN IN(4)
- Pin 21: SCAN OUT(9)
- Pin 22: SCAN IN(6)
- Pin 23: SCAN IN(7)
- Pin 24: CAPS LED+
- Pin 25: MUTE LED+
- Pin 26: RF LED+
- Pin 27: RF LED-
- Pin 28: RF LED-
- Pin 29: RF LED-
- Pin 30: RF LED-

The diagram also shows a **+V3S** power source connected to pins 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.

0710

ACES\_50503\_03041\_001\_30P

[illegible]

|   |                   |                                |                   |
|---|-------------------|--------------------------------|-------------------|
| <b>INVENTEC</b>                             |                   |                                |                   |
| TITLE <i>ST145a - DIS<br/>KEYBOARD CONN</i> |                   |                                |                   |
| SIZE<br><b>A3</b>                           | CODE<br><b>CS</b> | DOC. NUMBER<br><i>Model No</i> | REV<br><b>X01</b> |
| SHEET <b>39</b>                             |                   | OF <b>53</b>                   |                   |
| 8   |                   |                                |                   |

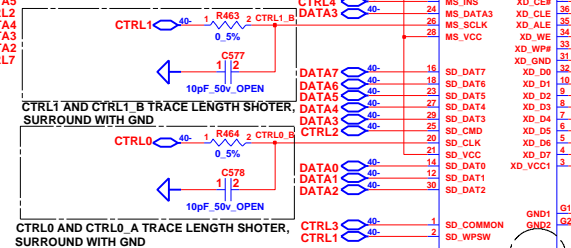
|                               |      |             |       |
|-------------------------------|------|-------------|-------|
| TITLE                         |      |             |       |
| ST145a - DIS<br>KEYBOARD CONN |      |             |       |
| SIZE                          | CODE | DOC. NUMBER | REV   |
| A3                            | CS   | Model No    | X01   |
| SHEET                         |      | 39          | OF 53 |

|           |        |             |
|-----------|--------|-------------|
| CHANGE by | Alan W | 14-Jul-2009 |
|-----------|--------|-------------|

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8

## Card Reader CONN



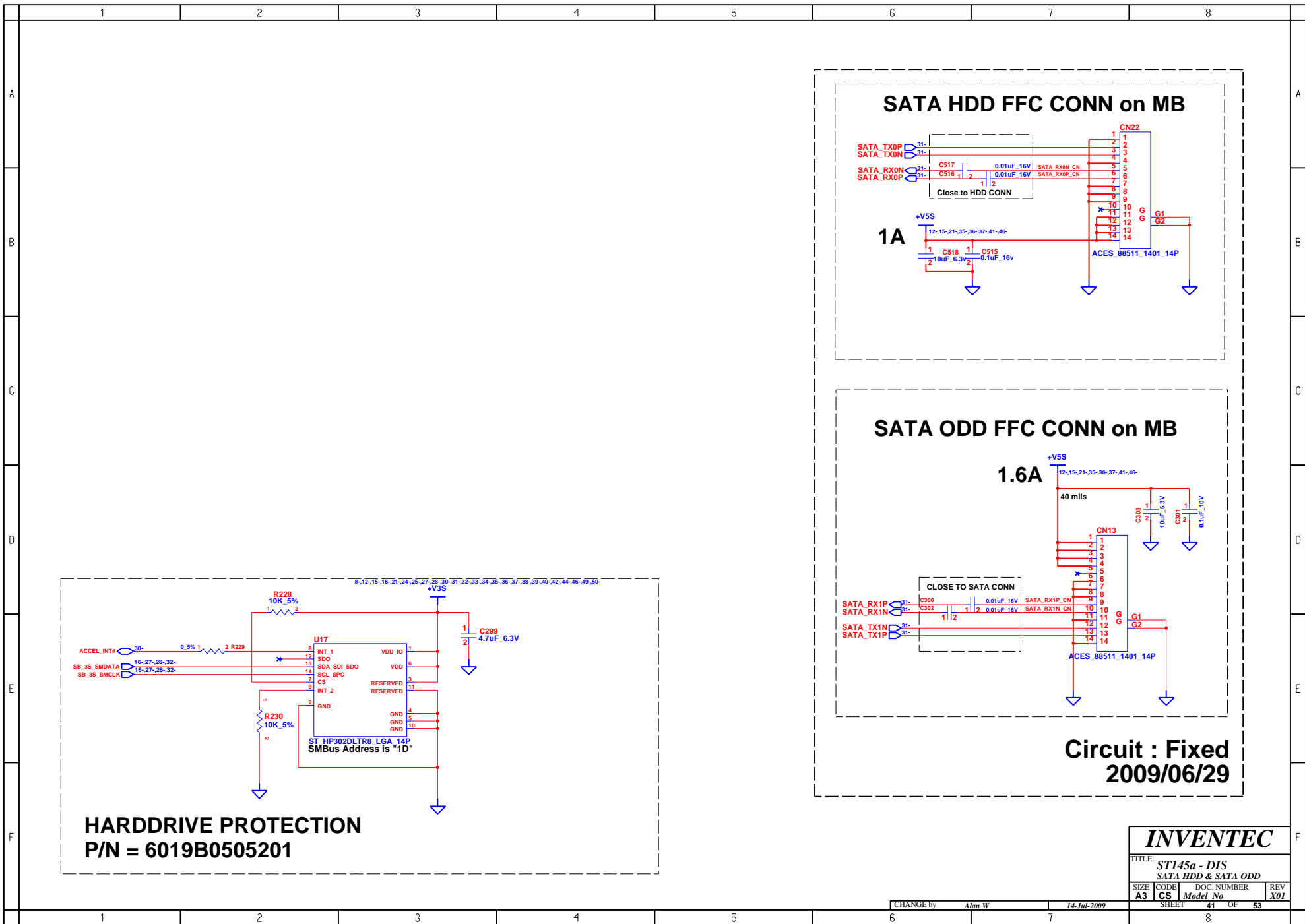
|       |  |
|-------|--|
| TITLE | <b>ST145a - DIS</b><br><b>AU6433 &amp; CARDREADER CONN</b> |
|-------|--|

|                   |                   |                                |                   |
|-------------------|-------------------|--------------------------------|-------------------|
| SIZE<br><b>A3</b> | CODE<br><b>CS</b> | DOC. NUMBER<br><i>Model No</i> | REV<br><b>X01</b> |
|-------------------|-------------------|--------------------------------|-------------------|

|           |        |             |
|-----------|--------|-------------|
| CHANGE by | Alan W | 14-Jul-2009 |
|-----------|--------|-------------|

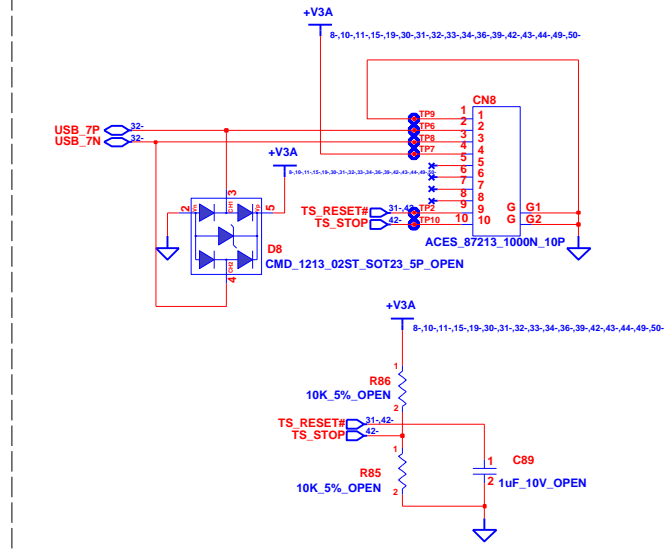
|    |    |
|----|----|
| 40 | 55 |
| 8  |    |



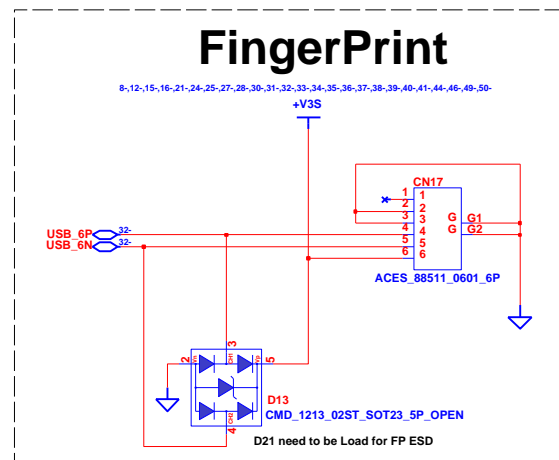


# OPTION PART

## TOUCH SCREEN



## FingerPrint



**INVENTEC**

TITLE  
**ST145a - DIS**  
**TOUGH SCREEN & FINGERPRINT**

| SIZE | CODE | DOC. NUMBER | REV |
|------|------|-------------|-----|
| A3   | CS   | Model No    | X01 |

CHANGE by Alan W 14-Jul-2009

SHEET 42 OF 53

## A



## D



## 1

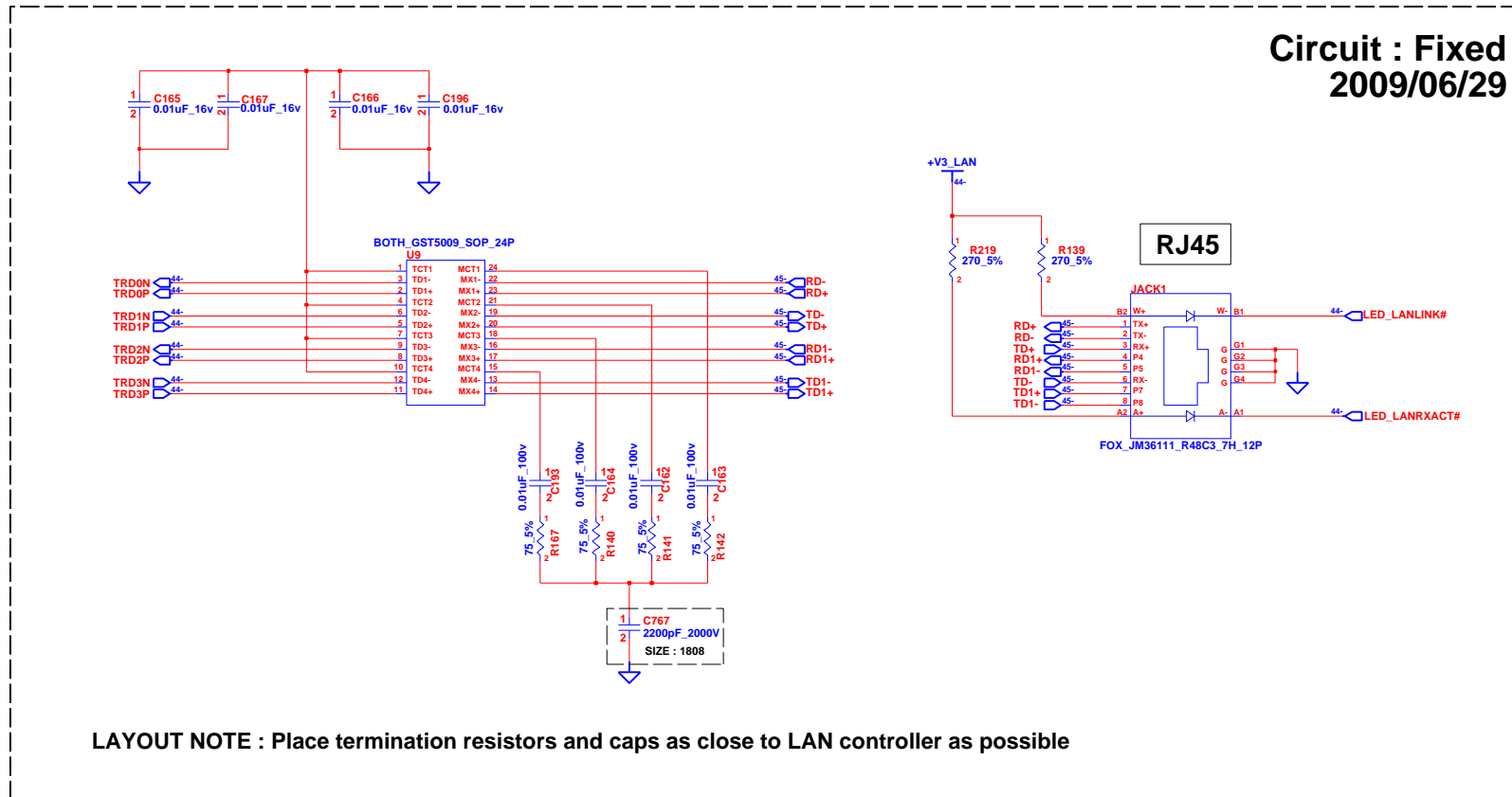


F

1

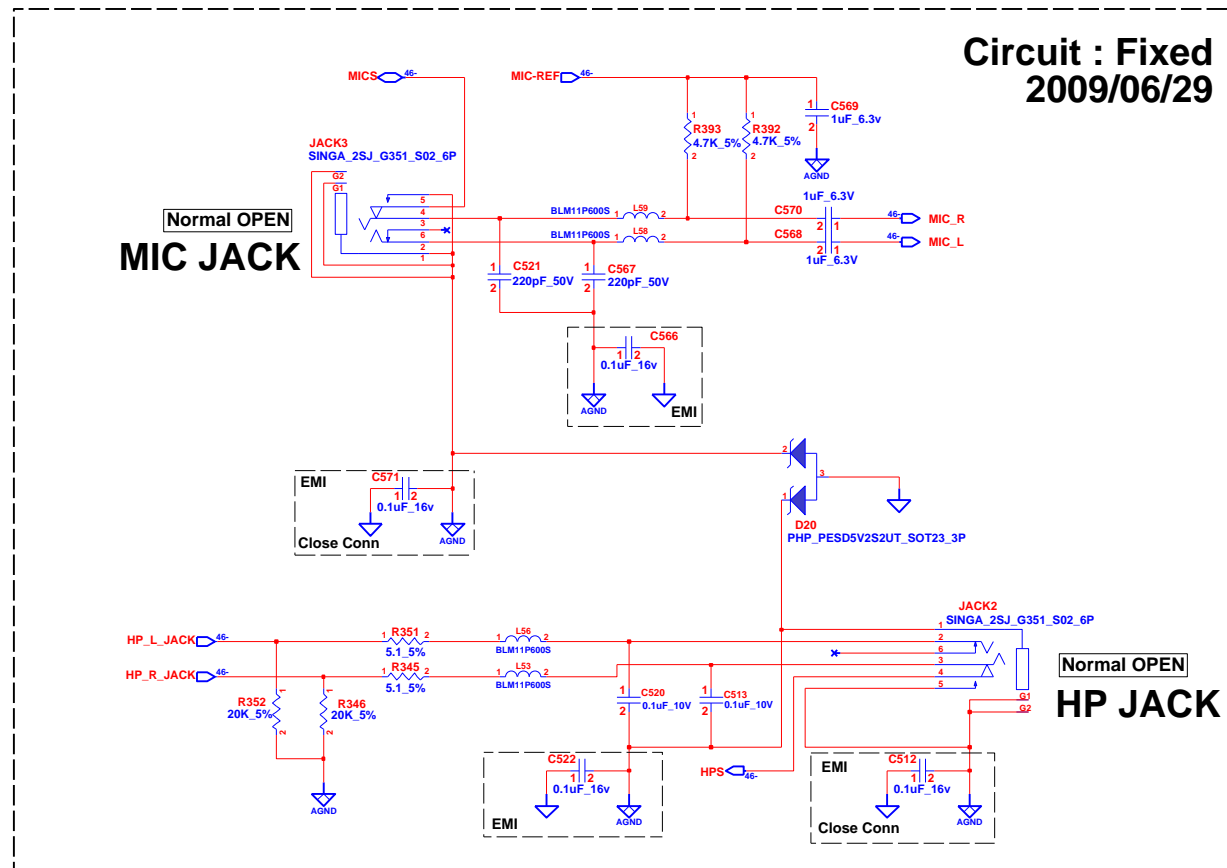
|           |        |             |
|-----------|--------|-------------|
| CHANGE by | Alan W | 14-Jul-2009 |
|-----------|--------|-------------|





| INVENTEC        |      |             |       |
|-----------------|------|-------------|-------|
| TITLE           |      |             |       |
| ST145a - DIS    |      |             |       |
| LAN & RJ45 CONN |      |             |       |
| SIZE            | CODE | DOC. NUMBER | REV   |
| A3              | CS   | Model No    | X01   |
| CHANGE by       |      | 14-Jul-2009 |       |
| SHEET           |      | 45          | OF 53 |
|                 |      | 8           |       |

8



| INVENTEC     |      |             |       |
|--------------|------|-------------|-------|
| TITLE        |      |             |       |
| ST145a - DIS |      |             |       |
| AUDIO JACK   |      |             |       |
| SIZE         | CODE | DOC. NUMBER | REV   |
| A3           | CS   | Model No    | X01   |
| SHEET        |      | 47          | OF 53 |
|              |      | 8           |       |

CHANGE by Alan W 14-Jul-2009

|   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|
|   | 1   | 2 | 3   | 4 | 5   | 6 | 7 | 8 |   |
| A | <div>for MINICARD</div> <div><div>S11</div><div>SCREW2.8_5_6_1P</div><div></div></div> <div><div>S17</div><div>SCREW2.8_5_6_1P</div><div></div></div>   |   | <div>for HDD</div> <div><div>S19</div><div>SCREW2.8_6_1P</div><div></div></div>   |   | <div>CPU's screws</div> <div><div>S7</div><div>SCREW3.2_5.6_1P</div><div></div></div> <div><div>S12</div><div>SCREW3.2_5.6_1P</div><div></div></div> <div><div>S3</div><div>SCREW3.2_5.6_1P</div><div></div></div> <div><div>S15</div><div>SCREW3.2_5.6_1P</div><div></div></div> |   |   |   |   |
| B | <div>for LAN</div> <div><div>S25</div><div>SCREW2.8_7_1P</div><div></div></div> <div><div>S24</div><div>SCREW2.8_7_1P</div><div></div></div>  |   | <div>for VGA</div> <div><div>S13</div><div>SCREW3.2_5.6_1P</div><div></div></div> <div><div>S6</div><div>SCREW3.2_5.6_1P</div><div></div></div> |   |   |   |   |   |   |
| C | <div><div>S4</div><div>SCREW2.8_8_1P</div><div></div></div> <div><div>S16</div><div>SCREW2.8_8_1P</div><div></div></div> <div><div>S2</div><div>SCREW2.8_8_1P</div><div></div></div> <div><div>S21</div><div>SCREW2.8_8_1P</div><div></div></div> <div><div>S18</div><div>SCREW2.8_8_1P</div><div></div></div> <div><div>S5</div><div>SCREW2.8_8_1P</div><div></div></div> <div><div>S23</div><div>SCREW2.8_8_1P</div><div></div></div> <div><div>S22</div><div>SCREW2.8_8_1P</div><div></div></div>                                  |   |   |   |   |   |   |   |   |
| D | <div><div>S8</div><div>SCREW2.8_8_1P</div><div></div></div> <div><div>S1</div><div>SCREW2.8_8_1P</div><div></div></div> <div><div>S9</div><div>SCREW2.8_8_1P</div><div></div></div> <div><div>S20</div><div>SCREW2.8_8_1P</div><div></div></div> <div><div>S10</div><div>SCREW2.8_8_1P</div><div></div></div>   |   |   |   |   |   |   |   |   |
| E |   |   |   |   |   |   |   |   |   |
| F | <div><div>S14</div><div>SCREW PAD_6_1P</div><div></div></div> <div><div>FIX2</div><div>FIX_MASK</div><div></div></div> <div><div>FIX5</div><div>FIX_MASK</div><div></div></div> <div><div>FIX8</div><div>FIX_MASK</div><div></div></div> <div><div>FIX1</div><div>FIX_MASK</div><div></div></div> <div><div>FIX3</div><div>FIX_MASK</div><div></div></div> <div><div>FIX6</div><div>FIX_MASK</div><div></div></div> <div><div>FIX7</div><div>FIX_MASK</div><div></div></div> <div><div>FIX4</div><div>FIX_MASK</div><div></div></div> |   |   |   |   |   |   |   | <div><div>INVENTEC</div><div>TITLE</div><div>ST145a - DIS</div><div>SCREW</div><div><div>SIZE</div><div>A3</div><div>CODE</div><div>CS</div><div>DOC. NUMBER</div><div>Model No</div><div>REV</div><div>X01</div></div><div><div>SHEET</div><div>48</div><div>OF</div><div>53</div></div></div> |
|   | 1   | 2 | 3   | 4 | 5   | 6 | 7 | 8 |   |

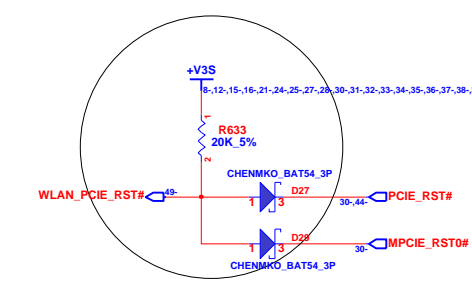
**INVENTEC**

|              |      |             |     |
|--------------|------|-------------|-----|
| TITLE        |      |             |     |
| ST145a - DIS |      |             |     |
| SCREW        |      |             |     |
| SIZE         | CODE | DOC. NUMBER | REV |
| A3           | CS   | Model No    | X01 |
| SHEET        |      | OF          | 53  |
|              |      | 8           |     |

CHANGE by Alan W 14-Jul-2009



The schematic diagram illustrates the power supply circuit for a BT module. The circuit is powered by a +V3A input and connected to a BTVCC output. It includes a 70mA current source, a 567 ohm resistor (R567), a 10k ohm resistor (R627), a 220k ohm resistor (R627), a 0.1uF capacitor (C709), a 10uF capacitor (C784), and a Q65 AM2321P MOSFET. The MOSFET is connected to a BTVCC output and a 10uF capacitor (C784). The circuit is labeled with component values and pin numbers.



The schematic diagram illustrates the internal circuitry of the FOX AS0B221\_S40N 7F 52P module. The module is powered by +V3A and +V3S rails. Key components include a 1A current source, resistors R569 (10K 5%), R630 (220K 5%), R590 (0.5%), R626 (0.5% OPEN), and R637 (0.5% OPEN), and capacitors C735 (0402 OPEN) and C736 (100N 50V). The module is connected to a FOX AS0B221\_S40N 7F 52P connector. The diagram shows the internal circuitry connecting the module pins to various components. Key components include a 1A current source, resistors R569 (10K 5%), R630 (220K 5%), R590 (0.5%), R626 (0.5% OPEN), R637 (0.5% OPEN), and capacitors C735 (0402 OPEN) and C736 (100N 50V). The module is powered by +V3A and +V3S rails. It includes a WLAN\_POWER\_OFF signal, a WLAN\_PRIORITY signal, and a WLAN\_WL signal. The module also features a USB D+ and D- interface, a USB D- signal, and a USB D+ signal. The module is connected to a FOX AS0B221\_S40N 7F 52P connector.

1.3V

C713  
0.1uF\_16v

0.5A

0.5% OPEN

R475

0.5%

2.2uF\_0.3V

C747

NA

OFF#  
IE\_RST#

VSS

R566  
10K\_5%

R568  
1K\_5%

WLAN\_IND#

BT\_IND#

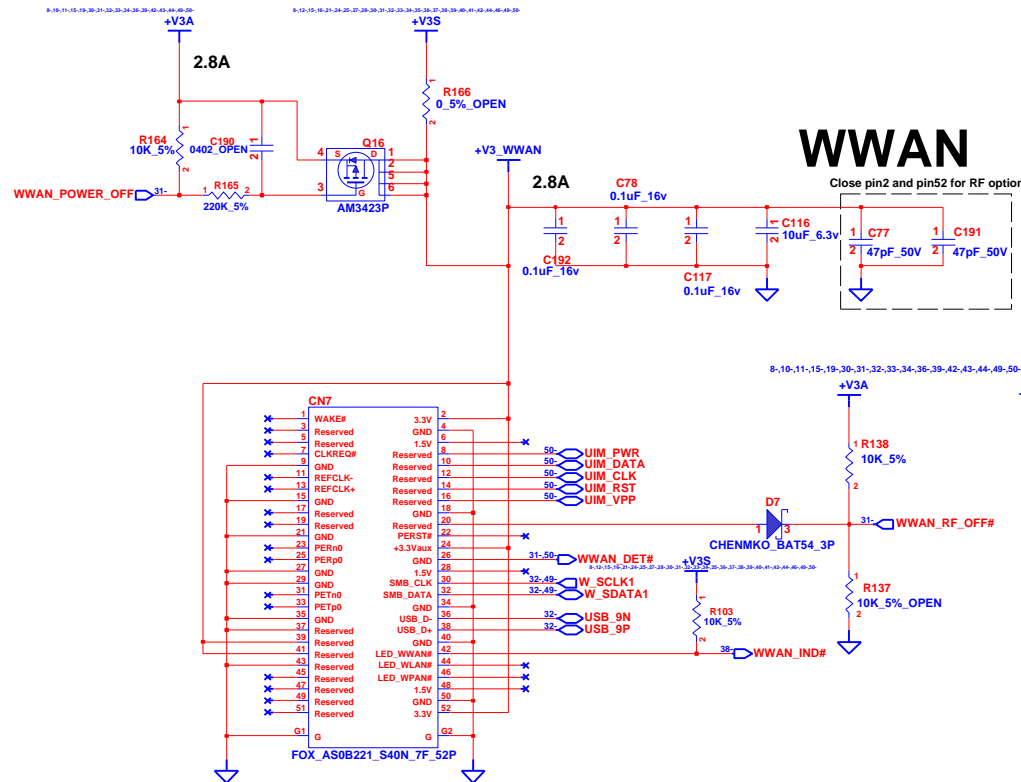
|                |        |           |
|----------------|--------|-----------|
|                | PCH    | SB800\820 |
| WLAN_RF_OFF#   | GPIO57 | GPIO12    |
| WLAN_POWER_OFF | GPIO35 | GPIO176   |

|  |           |                        |                   |
|--|-----------|------------------------|-------------------|
| TITLE  |           |                        |                   |
| <b><i>ST145a - DIS</i></b><br><b><i>WLAN &amp; BT CONN</i></b> |           |                        |                   |
| SIZE   | CODE      | DOC. NUMBER            | REV               |
| <b>A3</b>  | <b>CS</b> | <b><i>Model No</i></b> | <b><i>X01</i></b> |
| SHEET  |           | 49                     | OF 53             |

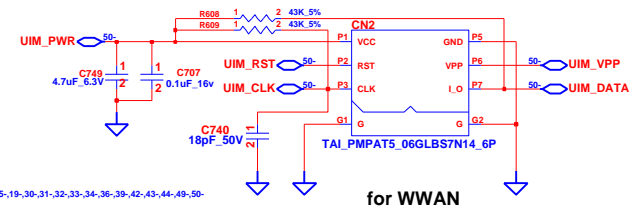
|           |        |             |
|-----------|--------|-------------|
| CHANGE by | Alan W | 14-Jul-2009 |
|-----------|--------|-------------|

# OPTION PART

Circuit : Fixed  
2009/06/29



## SIM CARD CONN



|                | PCH    | SB800/820 |
|----------------|--------|-----------|
| WWAN_RF_OFF#   | GPIO27 | GPIO11    |
| WWAN_POWER_OFF | GPIO24 | GPIO175   |
| WWAN_DET#      | GPIO22 | GPIO13    |

**INVENTEC**

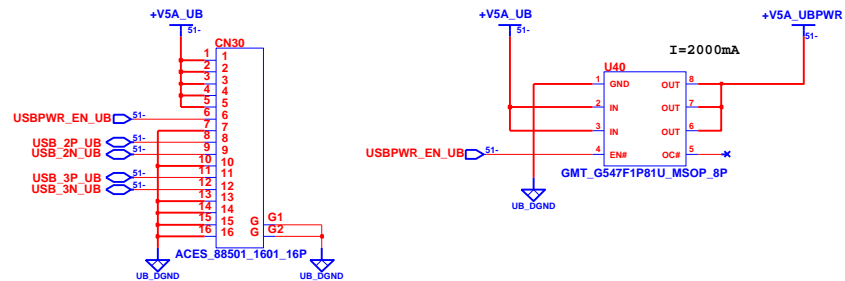
TITLE  
**ST145a - DIS**  
WWAN & SIM CARD CONN

SIZE CODE CS DOC. NUMBER Model No REV X01

CHANGE by Alan W 14-Jul-2009

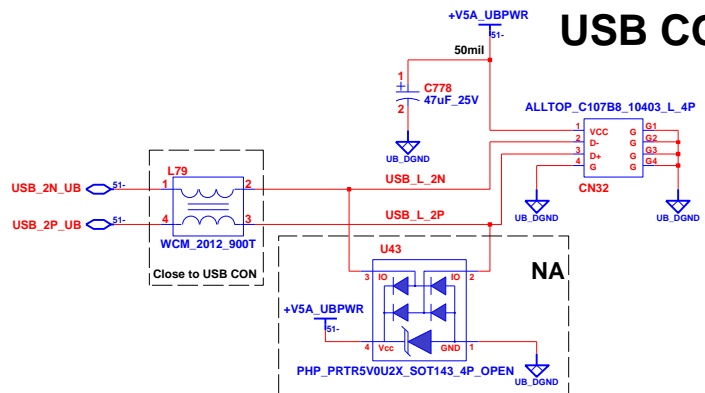
SHEET 50 OF 53

## USB BOARD Cable ON UB

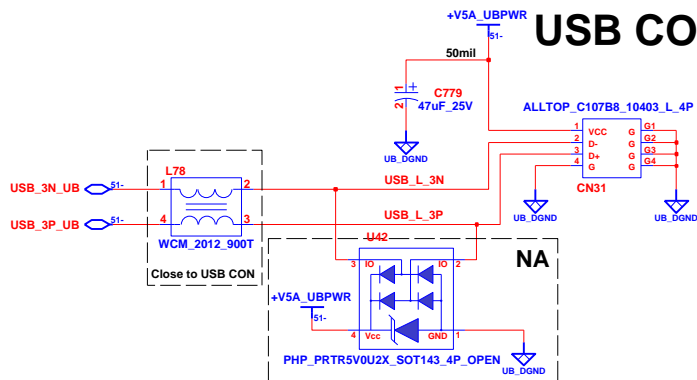


Circuit : Fixed  
2009/06/29

## USB CONN01



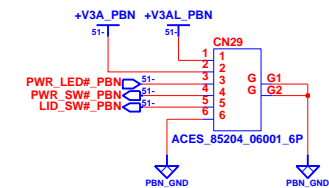
## USB CONN02



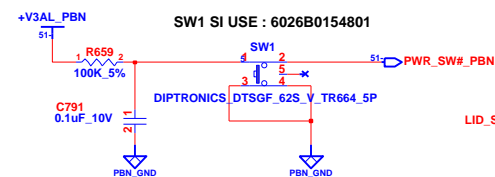
## POWER LED



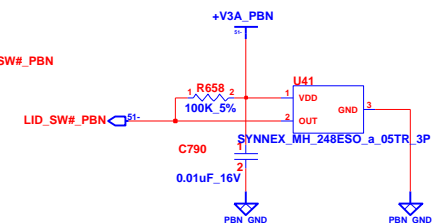
## PBN Cable CN on PBN



## POWER BUTTON



## LID SWITCH



Circuit : Fixed  
2009/06/29

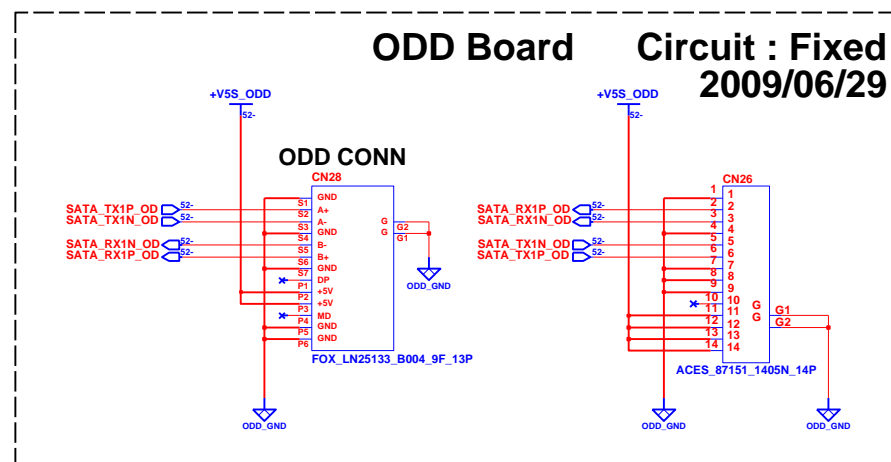
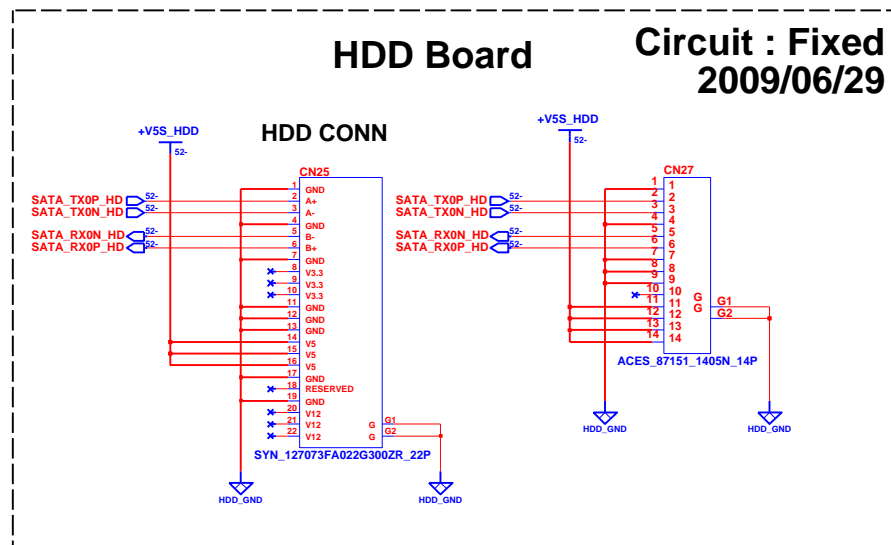
**INVENTEC**

TITLE  
ST145a - DIS

SIZE CODE DOC. NUMBER REV  
A3 CS Model No 51 OF 53 X01

CHANGE by Alan W 14-Jul-2009

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**INVENTEC**

TITLE  
**ST145a - DIS**  
Subwoofer AMP & CONN

SIZE CODE DOC. NUMBER REV  
**A3 CS Model No** 52 OF 53

CHANGE by Alan W 14-Jul-2009

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