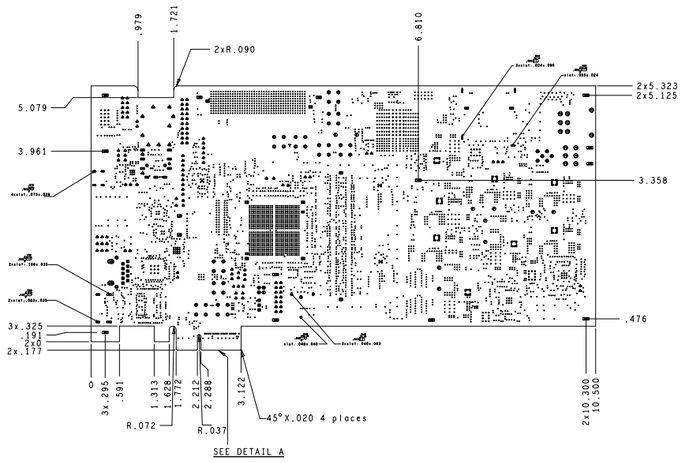
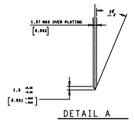
NOTES: (UNLESS OTHERWISE SPECIFIED)
THIS FAB SHOULD BE "RoHS COMPLIANT".

1. FABRICATE TO IPC-A-600, CURRENT REVISION
2. BOARD SHALL MEET THE INSPECTION CRITERIA OF
   a- ACCEPTABILITY AS PER IPC-A-600 (LATEST REVISION) CLASS II
   b- QUALIFICATION AND PERFORMANCE AS PER IPC-6012 (LATEST REVISION) CLASS II.
3. MATERIAL: ISOLA 370HR (RoHS COMPLIANT MATERIAL) OR EQUIVALENT. GLASS TRANSITION TEMPERATURE MUST MEET OR EXCEED THE TEMPERATURE EXHIBITED WITH HIGH TEMPERATURE PROCESSES ASSOCIATED WITH LEAD FREE ASSEMBLY.
4. APPLY SOLDER MASK OVER BARE COPPER (SMOBC) IAW IPC-SM-840, BOTH SIDES, USING LPI, COLOR GREEN.
5. LPI SOLDER MASK TAIYO PSR4000 (RoHS COMPLIANT MATERIAL) OR EQUIVALENT WILL BE USED ON BOTH SIDES.
6. SOLDER MASK REQUIREMENTS FOR VIAS:
   a) VIA DRILLS TENTED (COVERED) FROM TOP SIDE AND ENCROACHED WITH SOLDER MASK RELIEF OF DRILL PLUS 4MIL FROM BOTTOM.
   b) ALL TEST POINT VIAS SHOWN IN DATA AS ONE TO ONE SOLDER MASK RELIEF ON TEST SIDE, SHALL BE FULLY EXPOSED AND ACCESSIBLE ON FINISHED BOARD.
   c) PLUG TENTED VIA DRILLS FROM TOP SIDE ONLY AND FOLLOW GERBER FOR REST.
7. SOLDER MASK REGISTRATION TO BE WITHIN DIAMETRICAL TRUE POSITION OF + / - 0.002"WITH APPLICABLE HOLE / PAD.
8. FINISH: GOLD IMMERSION.
9. SILKSCREEN USING WHITE - HAVEN PC421 ( NON-CONDUCTIVE OR EQUIVALENT. RoHS COMPLIANT MATERIAL) BOTH SIDES.DISTORTION OF SILKSCREEN IS ACCEPTABLE OVER TRACES. EPOXY INK ON SOLDER LANDS IS NOT ACCEPTABLE.
10. VENDOR LOGO AND DATE CODE TO BE MARKED SOLDER SIDE IN SILKSCREEN. MAXIMUM HEIGHT 0.12 INCHES.
11. 100% ELECTRICAL TEST REQUIRED FOR CONTINUITY. BOARD SHALL HAVE A UL-RATING OF 94V-0, UL SYMBOL AND RATING SHALL BE MARKED SOLDER SIDE IN SILKSCREEN.
12. REMOVE ALL UNUSED PADS FROM INTERNAL LAYERS.
13. 274X_GERBER/ODB++ USED FOR FAB MUST BE VERIFIED AGAINST THE PROVIDED IPC356 NETLIST. COPPER SLIVERS THAT ARE LESS THAN 0.003" IN WIDTH BETWEEN ANTI-PAD TO PLANE EDGE, ANTI-PAD TO SPLIT PLANE AND ANTI-PAD TO ANTI-PAD MUST BE REMOVED FROM THE MANUFACTURING ARTWORK. A NETLIST COMPARISON MUST BE PASSED WITH NO VIOLATION AFTER THE REMOVAL OF SLIVERS. ANY REQUIREMENT FOR SLIVER REMOVAL ABOVE OR EQUAL TO THE 0.003" COPPER WIDTH MUST BE ADDRESSED AND APPROVED IN WRITING BY SUPPLIER.
14. VIAS ARE SUPPOSED TO BE DIRECTLY CONNECTED TO RESPECTIVE PLANE.
15. FOR IMPEDANCE CONTROL DETAILS REFER TO THE FILE "5962_AC701_STACK-UP.PDF" PROVIDED WITH GERBER DATA.
16. INTENTIONAL SHORT:
    PLEASE REPORT ANY SHORT OTHER THAN THESE:
    MGTAVTT SHORTED TO MGTAVTT_SENSE_P
    VCCBRAM SHORTED TO VCCBRAM_SENSE_P
    MGTAVCC SHORTED TO MGTAVCC_SENSE_P
    FPGA_1V5 SHORTED TO FPGA_1V5_SENSE_P
    VTTDDR SHORTED TO DDR3_SODIMM_0V75_SENSE
    DDR3_VTERM_R_0V75 SHORTED TO DDR3_VTERM_R_0V75_SENSE
    VCCAUX SHORTED TO VCCAUX_SENSE_P
    VCCINT SHORTED TO VCCINT_SENSE_P
    FPGA_3V3 SHORTED TO FPGA_3V3_SENSE_P
    FPGA_1V8 SHORTED TO FPGA_1V8_SENSE_P
    VCCINT_R_SENSE_P SHORTED TO VCCINT_XADC_SENSE_P
    VCCINT_R_SENSE_N SHORTED TO VCCINT_XADC_SENSE_N
    VCCO_VADJ_R_SENSE_N SHORTED TO VCCO_VADJ_XADC_SENSE_N
    VCCO_VADJ_R_SENSE_P SHORTED TO VCCO_VADJ_XADC_SENSE_P
    VCCO_VADJ SHORTED TO VCCO_VADJ_SENSE_P
    VCCBRAM_R_SENSE_N SHORTED TO VCCBRAM_XADC_SENSE_N
    VCCBRAM_R_SENSE_P SHORTED TO VCCBRAM_XADC_SENSE_P
    VCCAUX_R_SENSE_N SHORTED TO VCCAUX_XADC_SENSE_N
    VCCAUX_R_SENSE_P SHORTED TO VCCAUX_XADC_SENSE_P
    FPGA_1V8_R_SENSE_N SHORTED TO FPGA_1V8_XADC_SENSE_N
    FPGA_1V8_R_SENSE_P SHORTED TO FPGA_1V8_XADC_SENSE_P
    MGTAVTT_R_SENSE_N SHORTED TO MGTAVTT_XADC_SENSE_N
    MGTAVTT_R_SENSE_P SHORTED TO MGTAVTT_XADC_SENSE_P
    MGTAVCC_R_SENSE_N SHORTED TO MGTAVCC_XADC_SENSE_N
    MGTAVCC_R_SENSE_P SHORTED TO MGTAVCC_XADC_SENSE_P
    FPGA_1V5_R_SENSE_N SHORTED TO FPGA_1V5_XADC_SENSE_N
    FPGA_1V5_R_SENSE_P SHORTED TO FPGA_1V5_XADC_SENSE_P
    FPGA_3V3_R_SENSE_N SHORTED TO FPGA_3V3_XADC_SENSE_N
    FPGA_3V3_R_SENSE_P SHORTED TO FPGA_3V3_XADC_SENSE_P
    GND SHORTED TO MGTAVTT_SENSE_N,MGTAVCC_SENSE_N,AGND, FPGA_3V3_SENSE_N,FPGA_1V8_SENSE_N,FPGA_1V5_SENSE_N VCCO_VADJ_SENSE_N.
17. HARD GOLD ON FINGERS, 30-50 MICRO INCHES OF GOLD OVER 150-200 MICRO INCHES OF NICKLE MINIMUM.

| REVISIONS | | | | |
|---|---|---|---|---|
| ZONE | REV | DESCRIPTION | DATE | APPROVED |
| | 1.0 | INITIAL RELEASE | 10/12/12 | DN |



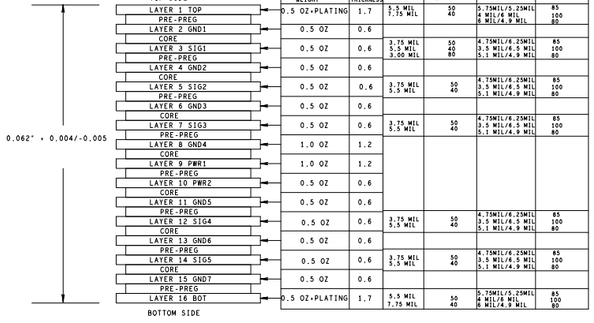

SEE DETAIL A




DETAIL A

| DRILL CHART: TOP to BOTTOM ALL UNITS ARE IN MILS | | | | | |
|---|---|---|---|---|---|
| FIGURE | FHS | TOLERANCE | PLATED | QTY | ADDITIONAL |
| - | 10.0 | +0.0/-10.0 | PLATED | 4407 | |
| - | 12.0 | +0.0/-12.0 | PLATED | 258 | |
| - | 20.0 | +3.0/-3.0 | PLATED | 30 | |
| + | 33.0 | +3.0/-3.0 | PLATED | 1 | |
| ■ | 35.0 | +3.0/-3.0 | PLATED | 13 | |
| ▲ | 40.0 | +3.0/-3.0 | PLATED | 115 | |
| ▲ | 41.0 | +3.0/-3.0 | PLATED | 11 | PRESS FIT |
| ● | 46.0 | +3.0/-3.0 | PLATED | 4 | |
| ● | 48.0 | +3.0/-3.0 | PLATED | 6 | |
| ● | 50.0 | +3.0/-3.0 | PLATED | 10 | |
| ● | 63.0 | +3.0/-3.0 | PLATED | 42 | |
| ⊕ | 71.0 | +3.0/-3.0 | PLATED | 6 | |
| ⊕ | 73.0 | +3.0/-3.0 | PLATED | 8 | |
| ▬ | 106.0 | +3.0/-3.0 | PLATED | 2 | |
| ▬ | 110.0 | +3.0/-3.0 | PLATED | 3 | |
| ▬ | 125.0 | +3.0/-3.0 | PLATED | 8 | |
| ▪ | 33.0 | +2.0/-2.0 | NON-PLATED | 2 | |
| ▪ | 37.0 | +2.0/-2.0 | NON-PLATED | 9 | |
| ▪ | 40.0 | +2.0/-2.0 | NON-PLATED | 2 | |
| ▪ | 43.0 | +3.0/-3.0 | NON-PLATED | 1 | |
| ● | 44.0 | +1.0/-0.0 | NON-PLATED | 1 | |
| ▪ | 50.0 | +2.0/-2.0 | NON-PLATED | 2 | |
| ▬ | 54.0 | +2.0/-2.0 | NON-PLATED | 2 | |
| ● | 61.0 | +3.0/-3.0 | NON-PLATED | 2 | |
| ▪ | 63.0 | +2.0/-2.0 | NON-PLATED | 5 | |
| ⊕ | 128.0 | +2.0/-2.0 | NON-PLATED | 2 | |
| ▪ | 48.0x40.0 | +3.0/-3.0 | PLATED | 1 | |
| ▪ | 63.0x40.0 | +3.0/-3.0 | PLATED | 2 | |
| ▬ | 75.0x28.0 | +2.0/-2.0 | PLATED | 4 | |
| ▬ | 83.0x35.0 | +2.0/-2.0 | PLATED | 2 | |
| ▬ | 95.0x24.0 | +3.0/-3.0 | PLATED | 4 | |
| ▬ | 106.0x35.0 | +2.0/-2.0 | PLATED | 2 | |

TOTAL HOLES: 4967




| | COPPER WEIGHT | COPPER THICKNESS | SINGLE ENDED TRACE WIDTH | SINGLE ENDED TARGET IMPEDANCE Z OHMS | EDGE-COUPLED DIFFERENTIAL TRACE/WIDTH/AIRGAP | EDGE-COUPLED DIFFERENTIAL TARGET IMPEDANCE Z OHMS |
|---|---|---|---|---|---|---|
| LAYER 1 TOP | 0.5 OZ+PLATING | 1.7 | 5.5 MIL 7.75 MIL | 50 40 | 5.75MIL/5.25MIL 4 MIL/6 MIL 6 MIL/4.9 MIL | 85 100 80 |
| PRE-PREG | | | | | | |
| LAYER 2 GND1 | 0.5 OZ | 0.6 | | | | |
| CORE | | | | | | |
| LAYER 3 SIG1 | 0.5 OZ | 0.6 | 3.75 MIL 5.5 MIL 3.00 MIL | 50 40 80 | 4.75MIL/4.25MIL 3.5 MIL/6.5 MIL 5.1 MIL/4.9 MIL | 85 100 80 |
| PRE-PREG | | | | | | |
| LAYER 4 GND2 | 0.5 OZ | 0.6 | | | | |
| CORE | | | | | | |
| LAYER 5 SIG2 | 0.5 OZ | 0.6 | 3.75 MIL 5.5 MIL | 50 40 | 4.75MIL/6.25MIL 3.5 MIL/6.5 MIL 5.1 MIL/4.9 MIL | 85 100 80 |
| PRE-PREG | | | | | | |
| LAYER 6 GND3 | 0.5 OZ | 0.6 | | | | |
| CORE | | | | | | |
| LAYER 7 SIG3 | 0.5 OZ | 0.6 | 3.75 MIL 5.5 MIL | 50 40 | 4.75MIL/6.25MIL 3.5 MIL/6.5 MIL 5.1 MIL/4.9 MIL | 85 100 80 |
| PRE-PREG | | | | | | |
| LAYER 8 GND4 | 1.0 OZ | 1.2 | | | | |
| CORE | | | | | | |
| LAYER 9 PWR1 | 1.0 OZ | 1.2 | | | | |
| PRE-PREG | | | | | | |
| LAYER 10 PWR2 | 0.5 OZ | 0.6 | | | | |
| CORE | | | | | | |
| LAYER 11 GND5 | 0.5 OZ | 0.6 | | | | |
| PRE-PREG | | | | | | |
| LAYER 12 SIG4 | 0.5 OZ | 0.6 | 3.75 MIL 5.5 MIL | 50 40 | 4.75MIL/6.25MIL 3.5 MIL/6.5 MIL 5.1 MIL/4.9 MIL | 85 100 80 |
| CORE | | | | | | |
| LAYER 13 GND6 | 0.5 OZ | 0.6 | | | | |
| PRE-PREG | | | | | | |
| LAYER 14 SIG5 | 0.5 OZ | 0.6 | 3.75 MIL 5.5 MIL | 50 40 | 4.75MIL/6.25MIL 3.5 MIL/6.5 MIL 5.1 MIL/4.9 MIL | 85 100 80 |
| CORE | | | | | | |
| LAYER 15 GND7 | 0.5 OZ | 0.6 | | | | |
| PRE-PREG | | | | | | |
| LAYER 16 BOT | 0.5 OZ+PLATING | 1.7 | 5.5 MIL 7.75 MIL | 50 40 | 5.75MIL/5.25MIL 4 MIL/6 MIL 6 MIL/4.9 MIL | 85 100 80 |

CROSS SECTION DETAIL

UNLESS OTHERWISE SPECIFIED:
ALL DIMENSIONS ARE IN INCHES
TOLERANCES ON:
LINEAR DIMENSIONS: .XXX ± .010, .XX ± .030, .X ± .100
ANGLES: XX.XX ± 0.30°, XX.X ± 1.0°, XX ± 5.0°
DRAWING SYMBOLS & TOLERANCE PER ANSIY14.5M-1994

DO NOT SCALE DRAWING

WHIZZ SYSTEMS INC.
3240 SCOTT BLVD
SANTA CLARA, CA 95054
TEL: 408-980-0400

| | APPROVAL | DATE |
|---|---|---|
| DRAWN: Fawad Munawar | | 10.12-12 |
| CHECKED: Rashid Mehmood | | 10-12-12 |
| ENGR: David Naylor | | 10-12-12 |
| APPROVAL: David Naylor | | 10-12-12 |
| WHIZZ JOB NO. 5962 | | |

CUSTOMER: XILINX, INC
PROJECT NAME: HW-A7-AC701
SIZE: D | FAB DWG. NO. 1280669 | REV. 1.0
SCALE: 1:1 | SHEET 1 OF 1

NOTES: (UNLESS OTHERWISE SPECIFIED)
THIS FAB SHOULD BE "RoHS COMPLIANT".

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2. BOARD SHALL MEET THE INSPECTION CRITERIA OF
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   b- QUALIFICATION AND PERFORMANCE AS PER IPC-6012 (LATEST REVISION) CLASS II.
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4. APPLY SOLDER MASK OVER BARE COPPER (SMOBC) IAW IPC-SM-840, BOTH SIDES, USING LPI, COLOR GREEN.
5. LPI SOLDER MASK TAIYO PSR4000 (RoHS COMPLIANT MATERIAL) OR EQUIVALENT WILL BE USED ON BOTH SIDES.
6. SOLDER MASK REQUIREMENTS FOR VIAS:
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8. FINISH: GOLD IMMERSION.
9. SILKSCREEN USING WHITE - HAVEN PC421 ( NON-CONDUCTIVE OR EQUIVALENT. RoHS COMPLIANT MATERIAL) BOTH SIDES.DISTORTION OF SILKSCREEN IS ACCEPTABLE OVER TRACES. EPOXY INK ON SOLDER LANDS IS NOT ACCEPTABLE.
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11. 100% ELECTRICAL TEST REQUIRED FOR CONTINUITY. BOARD SHALL HAVE A UL-RATING OF 94V-0, UL SYMBOL AND RATING SHALL BE MARKED SOLDER SIDE IN SILKSCREEN.
12. REMOVE ALL UNUSED PADS FROM INTERNAL LAYERS.
13. 274X GERBER/ODB++ USED FOR FAB MUST BE VERIFIED AGAINST THE PROVIDED IPC356 NETLIST. COPPER SLIVERS THAT ARE LESS THAN 0.003" IN WIDTH BETWEEN ANTI-PAD TO PLANE EDGE, ANTI-PAD TO SPLIT PLANE AND ANTI-PAD TO ANTI-PAD MUST BE REMOVED FROM THE MANUFACTURING ARTWORK. A NETLIST COMPARISON MUST BE PASSED WITH NO VIOLATION AFTER THE REMOVAL OF SLIVERS. ANY REQUIREMENT FOR SLIVER REMOVAL ABOVE OR EQUAL TO THE 0.003" COPPER WIDTH MUST BE ADDRESSED AND APPROVED IN WRITING BY SUPPLIER.
14. VIAS ARE SUPPOSED TO BE DIRECTLY CONNECTED TO RESPECTIVE PLANE.
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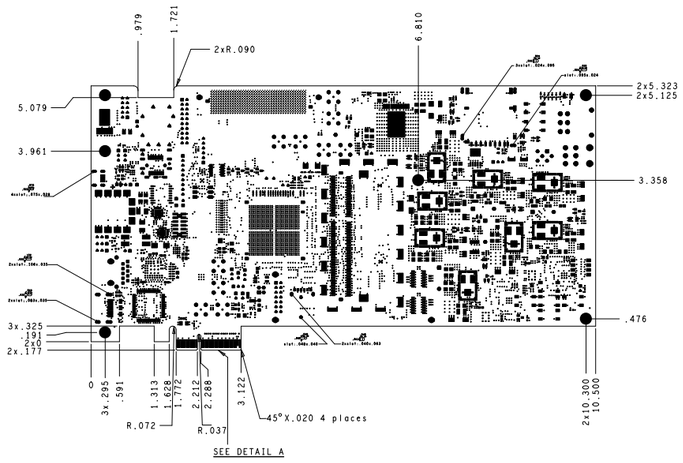
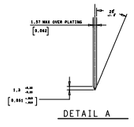
16. INTENTIONAL SHORT:
    PLEASE REPORT ANY SHORT OTHER THAN THESE:
    MGTAVTT SHORTED TO MGTAVTT_SENSE_P
    VCCBRAM SHORTED TO VCCBRAM_SENSE_P
    MGTAVCC SHORTED TO MGTAVCC_SENSE_P
    FPGA_1V5 SHORTED TO FPGA_1V5_SENSE_P
    VTTDDR SHORTED TO DDR3_SODIMM_0V75_SENSE
    DDR3_VTERM_R_0V75 SHORTED TO DDR3_VTERM_R_0V75_SENSE
    VCCAUX SHORTED TO VCCAUX_SENSE_P
    VCCINT SHORTED TO VCCINT_SENSE_P
    FPGA_3V3 SHORTED TO FPGA_3V3_SENSE_P
    FPGA_1V8 SHORTED TO FPGA_1V8_SENSE_P
    VCCINT_R_SENSE_P SHORTED TO VCCINT_XADC_SENSE_P
    VCCINT_R_SENSE_N SHORTED TO VCCINT_XADC_SENSE_N
    VCCO_VADJ_R_SENSE_N SHORTED TO VCCO_VADJ_XADC_SENSE_N
    VCCO_VADJ_R_SENSE_P SHORTED TO VCCO_VADJ_XADC_SENSE_P
    VCCO_VADJ SHORTED TO VCCO_VADJ_SENSE_P
    VCCBRAM_R_SENSE_N SHORTED TO VCCBRAM_XADC_SENSE_N
    VCCBRAM_R_SENSE_P SHORTED TO VCCBRAM_XADC_SENSE_P
    VCCAUX_R_SENSE_N SHORTED TO VCCAUX_XADC_SENSE_N
    VCCAUX_R_SENSE_P SHORTED TO VCCAUX_XADC_SENSE_P
    FPGA_1V8_R_SENSE_N SHORTED TO FPGA_1V8_XADC_SENSE_N
    FPGA_1V8_R_SENSE_P SHORTED TO FPGA_1V8_XADC_SENSE_P
    MGTAVTT_R_SENSE_N SHORTED TO MGTAVTT_XADC_SENSE_N
    MGTAVTT_R_SENSE_P SHORTED TO MGTAVTT_XADC_SENSE_P
    MGTAVCC_R_SENSE_N SHORTED TO MGTAVCC_XADC_SENSE_N
    MGTAVCC_R_SENSE_P SHORTED TO MGTAVCC_XADC_SENSE_P
    FPGA_1V5_R_SENSE_N SHORTED TO FPGA_1V5_XADC_SENSE_N
    FPGA_1V5_R_SENSE_P SHORTED TO FPGA_1V5_XADC_SENSE_P
    FPGA_3V3_R_SENSE_N SHORTED TO FPGA_3V3_XADC_SENSE_N
    FPGA_3V3_R_SENSE_P SHORTED TO FPGA_3V3_XADC_SENSE_P
    GND SHORTED TO MGTAVTT_SENSE_N,MGTAVCC_SENSE_N,AGND, FPGA_3V3_SENSE_N,FPGA_1V8_SENSE_N,FPGA_1V5_SENSE_N VCCO_VADJ_SENSE_N.
17. HARD GOLD ON FINGERS, 30-50 MICRO INCHES OF GOLD OVER 150-200 MICRO INCHES OF NICKLE MINIMUM.

| REVISIONS | | | | |
|---|---|---|---|---|
| ZONE | REV | DESCRIPTION | DATE | APPROVED |
| | 1.0 | INITIAL RELEASE | 10/12/12 | DN |



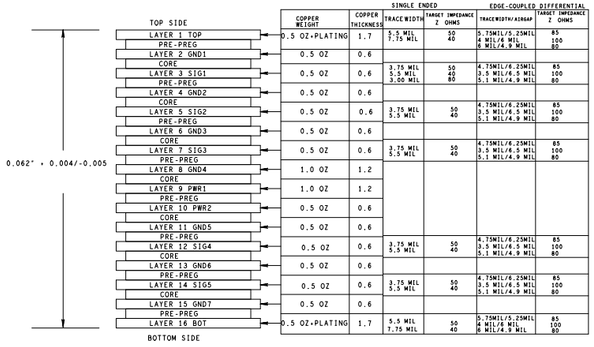

SEE DETAIL A




DETAIL A

| DRILL CHART: TOP to BOTTOM<br>ALL UNITS ARE IN MILS | | | | | |
|---|---|---|---|---|---|
| FIGURE | FHS | TOLERANCE | PLATED | QTY | ADDITIONAL |
| - | 10.0 | +0.0/-10.0 | PLATED | 4407 | |
| - | 12.0 | +0.0/-12.0 | PLATED | 258 | |
| - | 20.0 | +3.0/-3.0 | PLATED | 30 | |
| + | 33.0 | +3.0/-3.0 | PLATED | 1 | |
| ■ | 35.0 | +3.0/-3.0 | PLATED | 13 | |
| ▲ | 40.0 | +3.0/-3.0 | PLATED | 115 | |
| ▲ | 41.0 | +3.0/-3.0 | PLATED | 11 | PRESS FIT |
| ● | 46.0 | +3.0/-3.0 | PLATED | 4 | |
| ● | 48.0 | +3.0/-3.0 | PLATED | 6 | |
| ● | 50.0 | +3.0/-3.0 | PLATED | 10 | |
| ● | 63.0 | +3.0/-3.0 | PLATED | 42 | |
| ⊕ | 71.0 | +3.0/-3.0 | PLATED | 6 | |
| ⊕ | 73.0 | +3.0/-3.0 | PLATED | 8 | |
| ▬ | 106.0 | +3.0/-3.0 | PLATED | 2 | |
| ▬ | 110.0 | +3.0/-3.0 | PLATED | 3 | |
| ▬ | 125.0 | +3.0/-3.0 | PLATED | 8 | |
| ▪ | 33.0 | +2.0/-2.0 | NON-PLATED | 2 | |
| ▪ | 37.0 | +2.0/-2.0 | NON-PLATED | 9 | |
| ■ | 40.0 | +2.0/-2.0 | NON-PLATED | 2 | |
| ■ | 43.0 | +3.0/-3.0 | NON-PLATED | 1 | |
| ● | 44.0 | +1.0/-0.0 | NON-PLATED | 1 | |
| ■ | 50.0 | +2.0/-2.0 | NON-PLATED | 2 | |
| ▬ | 54.0 | +2.0/-2.0 | NON-PLATED | 2 | |
| ● | 61.0 | +3.0/-3.0 | NON-PLATED | 2 | |
| ■ | 63.0 | +2.0/-2.0 | NON-PLATED | 5 | |
| ⊕ | 128.0 | +2.0/-2.0 | NON-PLATED | 2 | |
| ▪ | 48.0x40.0 | +3.0/-3.0 | PLATED | 1 | |
| ▪ | 63.0x40.0 | +3.0/-3.0 | PLATED | 2 | |
| ▬ | 75.0x28.0 | +2.0/-2.0 | PLATED | 4 | |
| ▬ | 83.0x35.0 | +2.0/-2.0 | PLATED | 2 | |
| ▬ | 95.0x24.0 | +3.0/-3.0 | PLATED | 4 | |
| ▬ | 106.0x35.0 | +2.0/-2.0 | PLATED | 2 | |

TOTAL HOLES: 4967




| | COPPER WEIGHT | COPPER THICKNESS | SINGLE ENDED TRACE WIDTH | SINGLE ENDED TARGET IMPEDANCE Z OHMS | EDGE-COUPLED DIFFERENTIAL TRACE/WIDTH/AIRGAP | EDGE-COUPLED DIFFERENTIAL TARGET IMPEDANCE Z OHMS |
|---|---|---|---|---|---|---|
| LAYER 1 TOP | 0.5 OZ+PLATING | 1.7 | 5.5 MIL<br>7.75 MIL | 50<br>40 | 5.75MIL/5.25MIL<br>4 MIL/6 MIL<br>6 MIL/4.9 MIL | 85<br>100<br>80 |
| PRE-PREG | | | | | | |
| LAYER 2 GND1 | 0.5 OZ | 0.6 | | | | |
| CORE | | | | | | |
| LAYER 3 SIG1 | 0.5 OZ | 0.6 | 3.75 MIL<br>5.5 MIL<br>8.00 MIL | 50<br>40<br>80 | 4.75MIL/4.25MIL<br>3.5 MIL/6.5 MIL<br>5.1 MIL/4.9 MIL | 85<br>100<br>80 |
| PRE-PREG | | | | | | |
| LAYER 4 GND2 | 0.5 OZ | 0.6 | | | | |
| CORE | | | | | | |
| LAYER 5 SIG2 | 0.5 OZ | 0.6 | 3.75 MIL<br>5.5 MIL | 50<br>40 | 4.75MIL/6.25MIL<br>3.5 MIL/6.5 MIL<br>5.1 MIL/4.9 MIL | 85<br>100<br>80 |
| PRE-PREG | | | | | | |
| LAYER 6 GND3 | 0.5 OZ | 0.6 | | | | |
| CORE | | | | | | |
| LAYER 7 SIG3 | 0.5 OZ | 0.6 | 3.75 MIL<br>5.5 MIL | 50<br>40 | 4.75MIL/6.25MIL<br>3.5 MIL/6.5 MIL<br>5.1 MIL/4.9 MIL | 85<br>100<br>80 |
| PRE-PREG | | | | | | |
| LAYER 8 GND4 | 1.0 OZ | 1.2 | | | | |
| CORE | | | | | | |
| LAYER 9 PWR1 | 1.0 OZ | 1.2 | | | | |
| PRE-PREG | | | | | | |
| LAYER 10 PWR2 | 0.5 OZ | 0.6 | | | | |
| CORE | | | | | | |
| LAYER 11 GND5 | 0.5 OZ | 0.6 | | | | |
| PRE-PREG | | | | | | |
| LAYER 12 SIG4 | 0.5 OZ | 0.6 | 3.75 MIL<br>5.5 MIL | 50<br>40 | 4.75MIL/6.25MIL<br>3.5 MIL/6.5 MIL<br>5.1 MIL/4.9 MIL | 85<br>100<br>80 |
| CORE | | | | | | |
| LAYER 13 GND6 | 0.5 OZ | 0.6 | | | | |
| PRE-PREG | | | | | | |
| LAYER 14 SIG5 | 0.5 OZ | 0.6 | 3.75 MIL<br>5.5 MIL | 50<br>40 | 4.75MIL/6.25MIL<br>3.5 MIL/6.5 MIL<br>5.1 MIL/4.9 MIL | 85<br>100<br>80 |
| CORE | | | | | | |
| LAYER 15 GND7 | 0.5 OZ | 0.6 | | | | |
| PRE-PREG | | | | | | |
| LAYER 16 BOT | 0.5 OZ+PLATING | 1.7 | 5.5 MIL<br>7.75 MIL | 50<br>40 | 5.75MIL/5.25MIL<br>4 MIL/6 MIL<br>6 MIL/4.9 MIL | 85<br>100<br>80 |

CROSS SECTION DETAIL

UNLESS OTHERWISE SPECIFIED:
ALL DIMENSIONS ARE IN INCHES
TOLERANCES ON:
LINEAR DIMENSIONS: .XXX ± .010, .XX ± .030, .X ± .100
ANGLES: XX.XX ± 0.30°, XX.X ± 1.0°, XX ± 5.0°
DRAWING SYMBOLS & TOLERANCE PER ANSIY14.5M-1994

DO NOT SCALE DRAWING

| | APPROVAL | DATE |
|---|---|---|
| DRAWN: Fawad Munawar | | 10.12-12 |
| CHECKED: Rashid Mehmood | | 10-12-12 |
| ENGR: David Naylor | | 10-12-12 |
| APPROVAL: David Naylor | | 10-12-12 |
| WHIZZ JOB NO. 5962 | | |

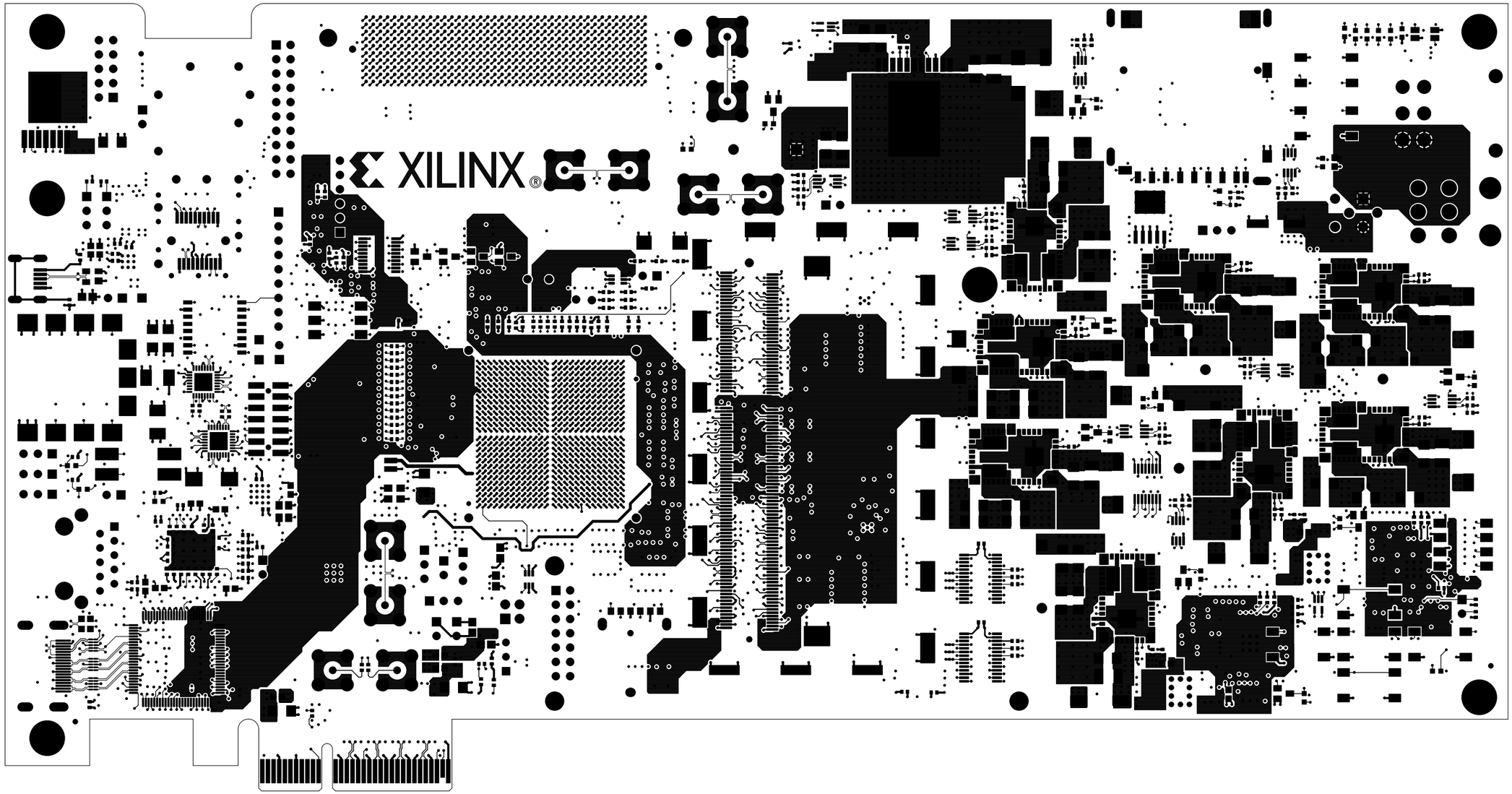
WHIZZ SYSTEMS INC.
3240 SCOTT BLVD
SANTA CLARA, CA 95054
TEL: 408-980-0400

CUSTOMER: XILINX, INC

PROJECT NAME: HW-A7-AC701

SIZE: D | FAB DWG. NO. 1280669 | REV. 1.0

SCALE: 1:1 | SHEET 1 OF 1






| | | | |
|---|---|---|---|
| Layer: TOP | | Sheet: 01 of: 24 | |
| Layout Engineer: FAWAD MUNAWAR | | Company Name: XILINX, INC. | |
| Design Engineer: DAVID NAYLOR | | Project Name: HW-A7-AC701 | |
| Whizz Job Number: 5962 | Date: 10.12.2012 | Project Number: 1280669 | REV. 1.0 |
| LATEST NETLIST REV OR DATE: 09.22.2012 | | LATEST MECHANICAL REV OR DATE: respin of 5771 | |

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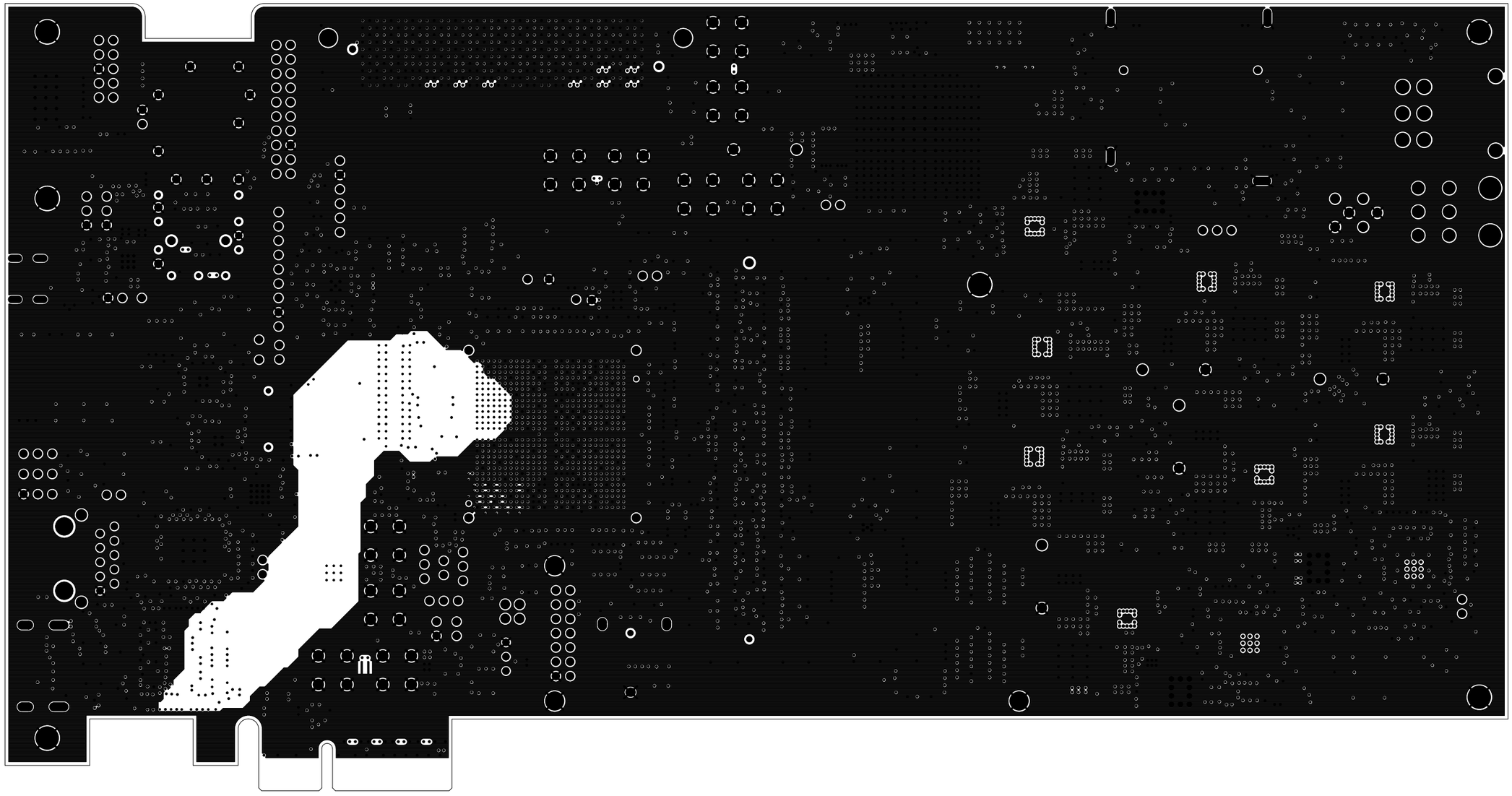



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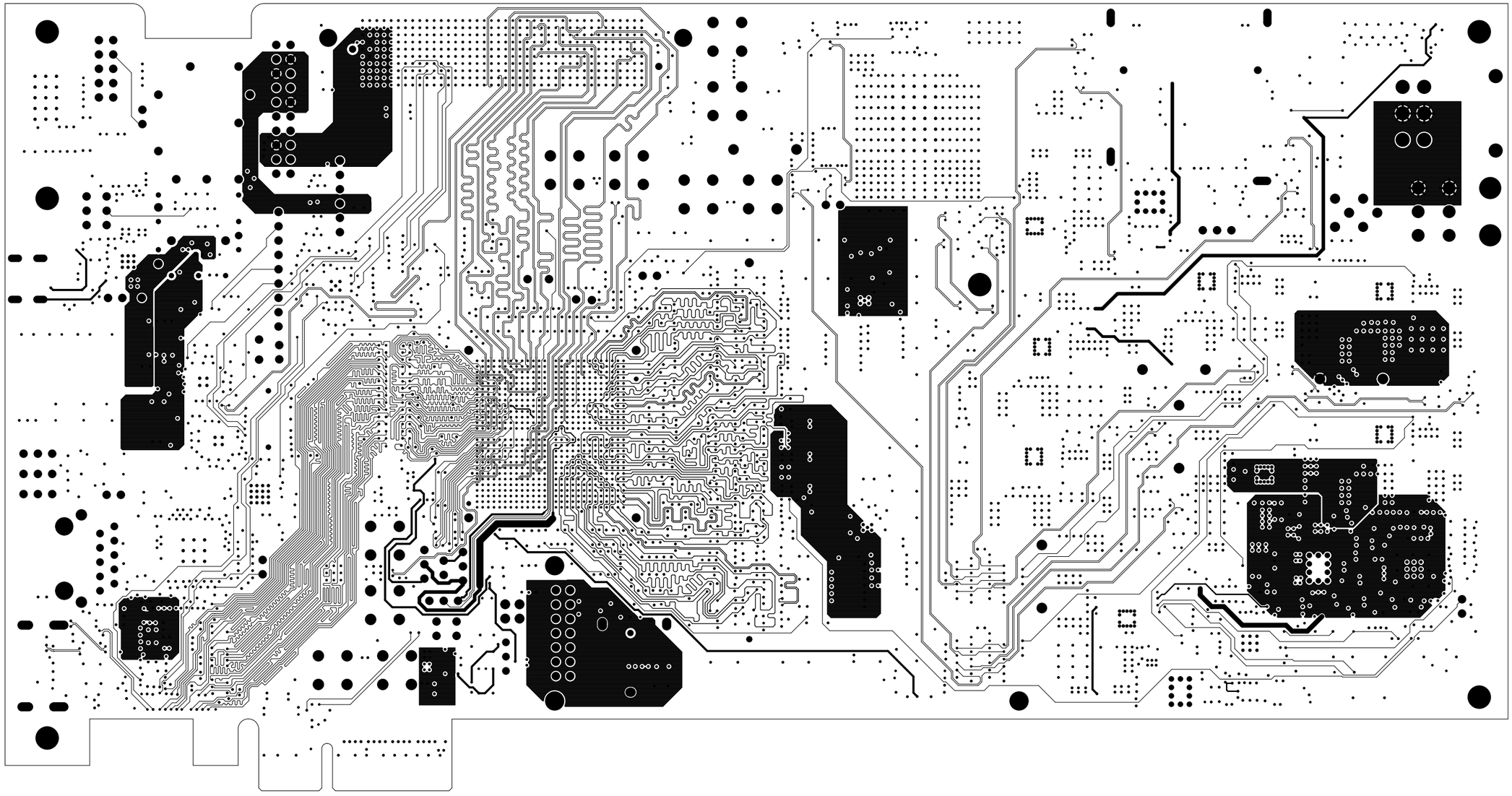
| | | | |
|---|---|---|---|
| Layer: GND1 | | Sheet: 02 of: 24 | |
| Layout Engineer: FAWAD MUNAWAR | | Company Name: XILINX, INC. | |
| Design Engineer: DAVID NAYLOR | | Project Name: HW-A7-AC701 | |
| Whizz Job Number: 5962 | Date: 10.12.2012 | Project Number: 1280669 | REV. 1.0 |
| LATEST NETLIST REV OR DATE: 09.22.2012 | | LATEST MECHANICAL REV OR DATE: respin of 5771 | |





| | | | |
|---|---|---|---|
| Layer: SIG1 | | Sheet: 03 of: 24 | |
| Layout Engineer: FAWAD MUNAWAR | | Company Name: XILINX, INC. | |
| Design Engineer: DAVID NAYLOR | | Project Name: HW-A7-AC701 | |
| Whizz Job Number: 5962 | Date: 10.12.2012 | Project Number: 1280669 | REV. 1.0 |
| LATEST NETLIST REV OR DATE: 09.22.2012 | | LATEST MECHANICAL REV OR DATE: respin of 5771 | |

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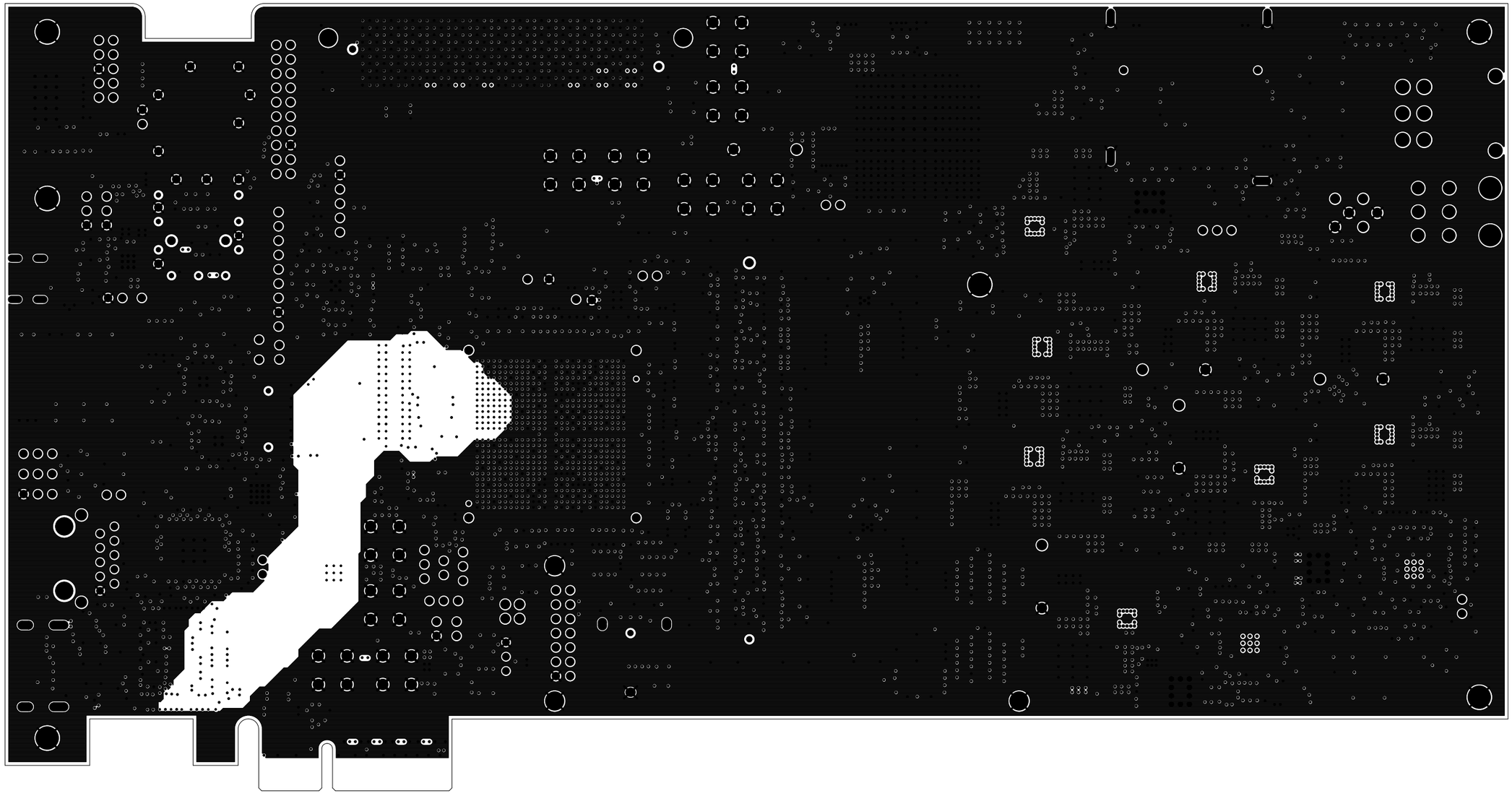



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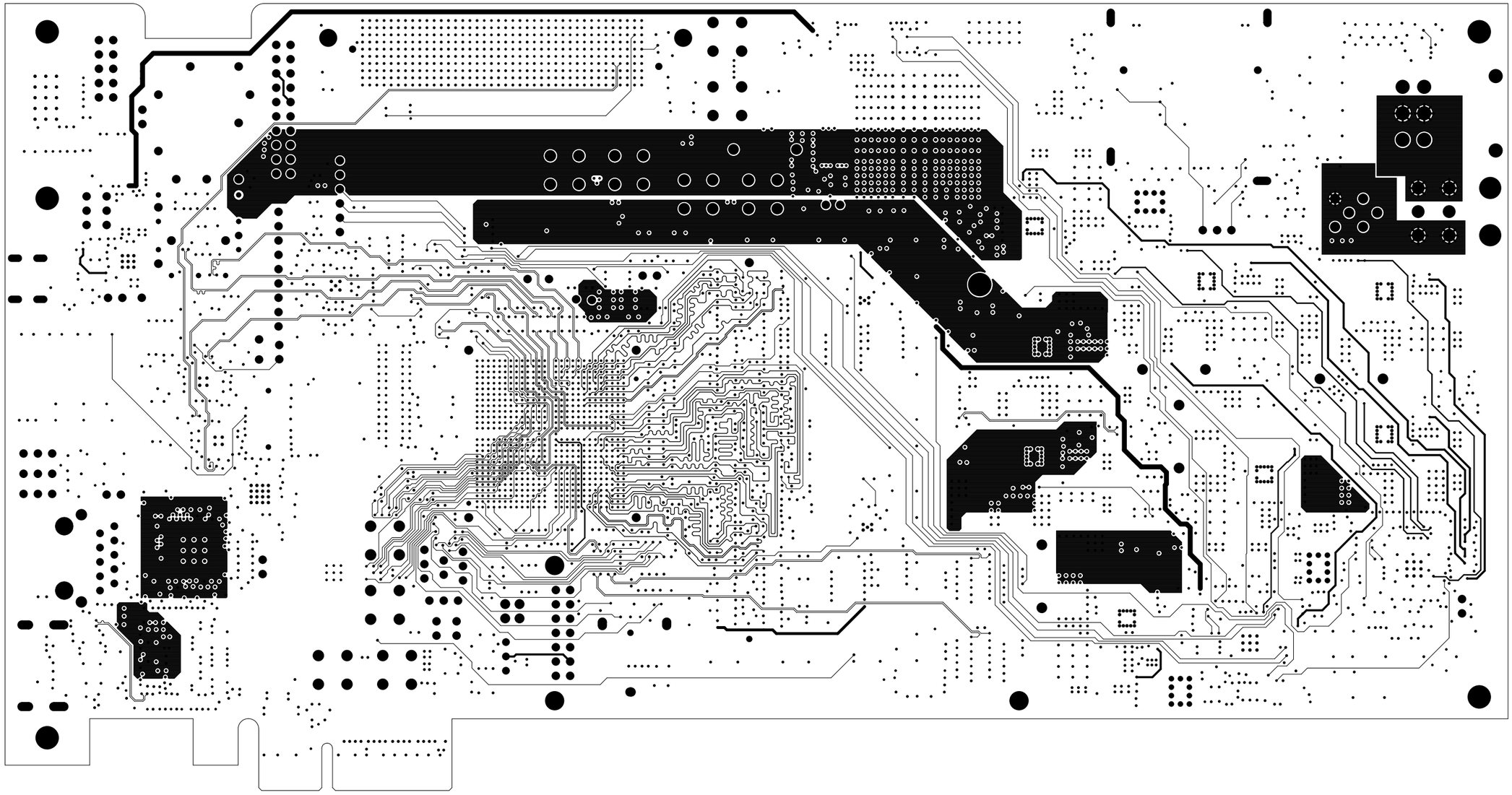
| | | | |
|---|---|---|---|
| Layer: GND2 | | Sheet: 04 of: 24 | |
| Layout Engineer: FAWAD MUNAWAR | | Company Name: XILINX, INC. | |
| Design Engineer: DAVID NAYLOR | | Project Name: HW-A7-AC701 | |
| Whizz Job Number: 5962 | Date: 10.12.2012 | Project Number: 1280669 | REV. 1.0 |
| LATEST NETLIST REV OR DATE: 09.22.2012 | | LATEST MECHANICAL REV OR DATE: respin of 5771 | |





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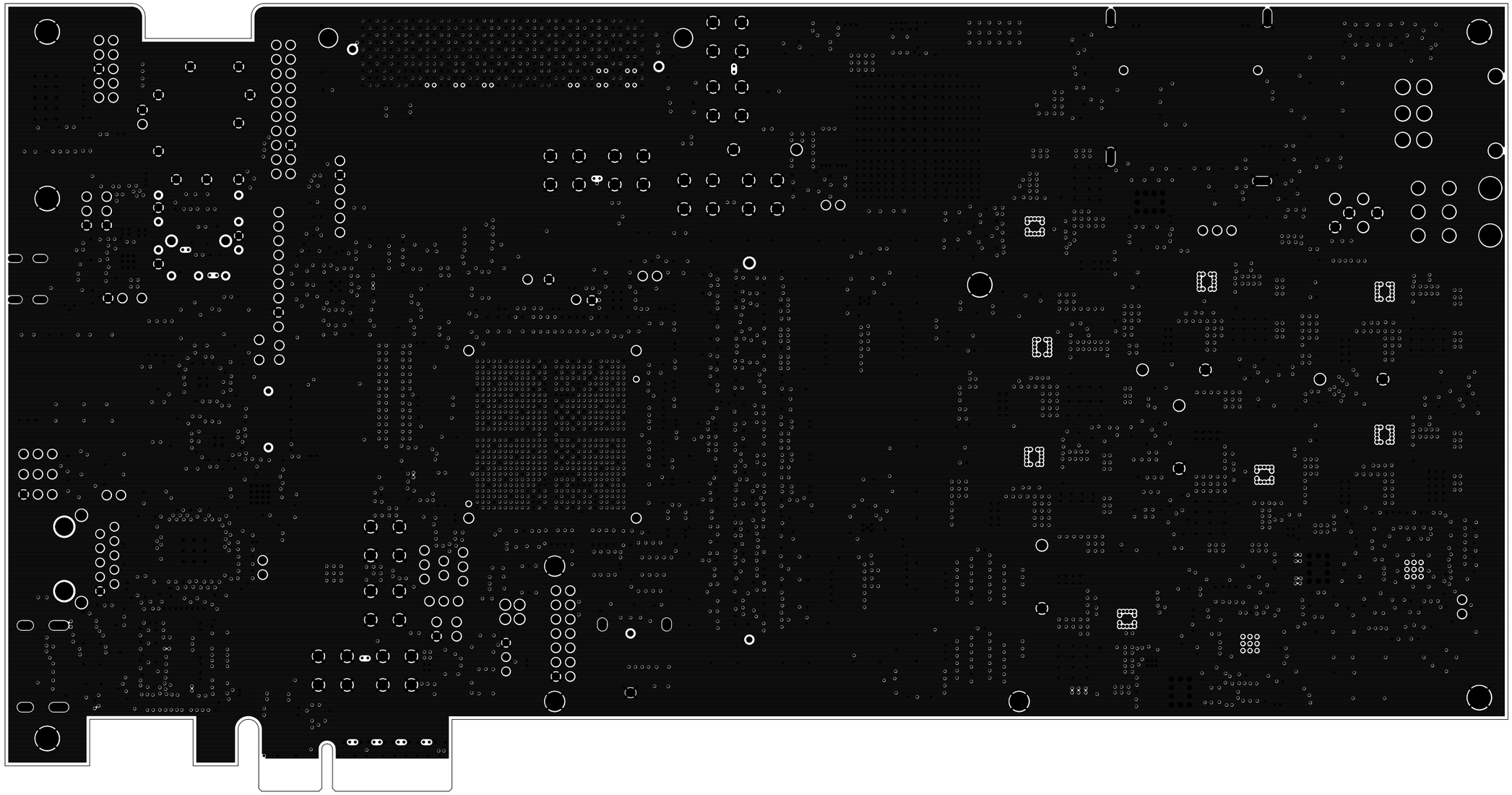
| | | | |
|---|---|---|---|
| Layer: SIG2 | | Sheet: 05 of: 24 | |
| Layout Engineer: FAWAD MUNAWAR | | Company Name: XILINX, INC. | |
| Design Engineer: DAVID NAYLOR | | Project Name: HW-A7-AC701 | |
| Whizz Job Number: 5962 | Date: 10.12.2012 | Project Number: 1280669 | REV. 1.0 |
| LATEST NETLIST REV OR DATE: 09.22.2012 | | LATEST MECHANICAL REV OR DATE: respin of 5771 | |





| | | | |
|---|---|---|---|
| Layer: GND3 | | Sheet: 06 of: 24 | |
| Layout Engineer: FAWAD MUNAWAR | | Company Name: XILINX, INC. | |
| Design Engineer: DAVID NAYLOR | | Project Name: HW-A7-AC701 | |
| Whizz Job Number: 5962 | Date: 10.12.2012 | Project Number: 1280669 | REV. 1.0 |
| LATEST NETLIST REV OR DATE: 09.22.2012 | | LATEST MECHANICAL REV OR DATE: respin of 5771 | |

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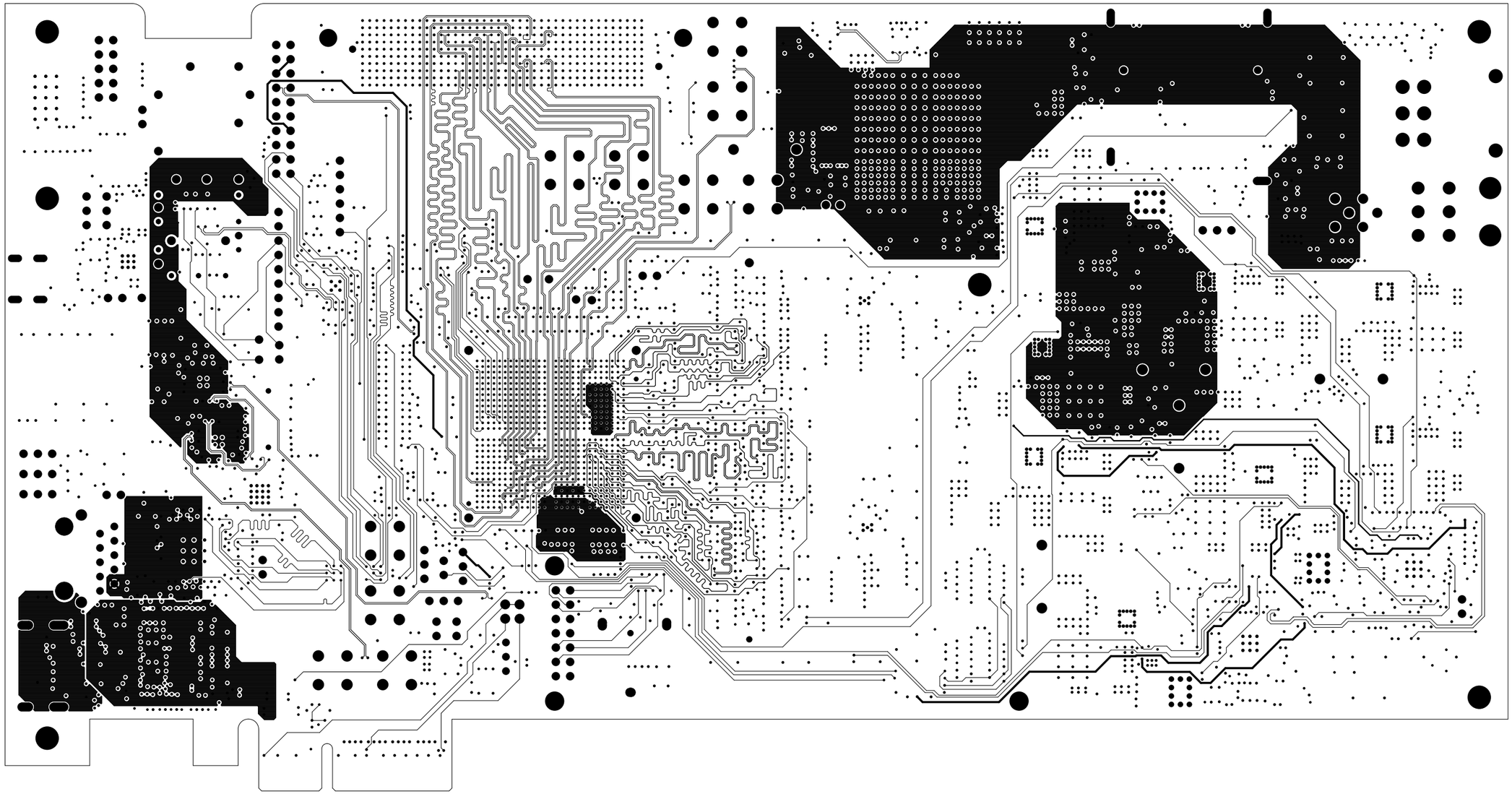


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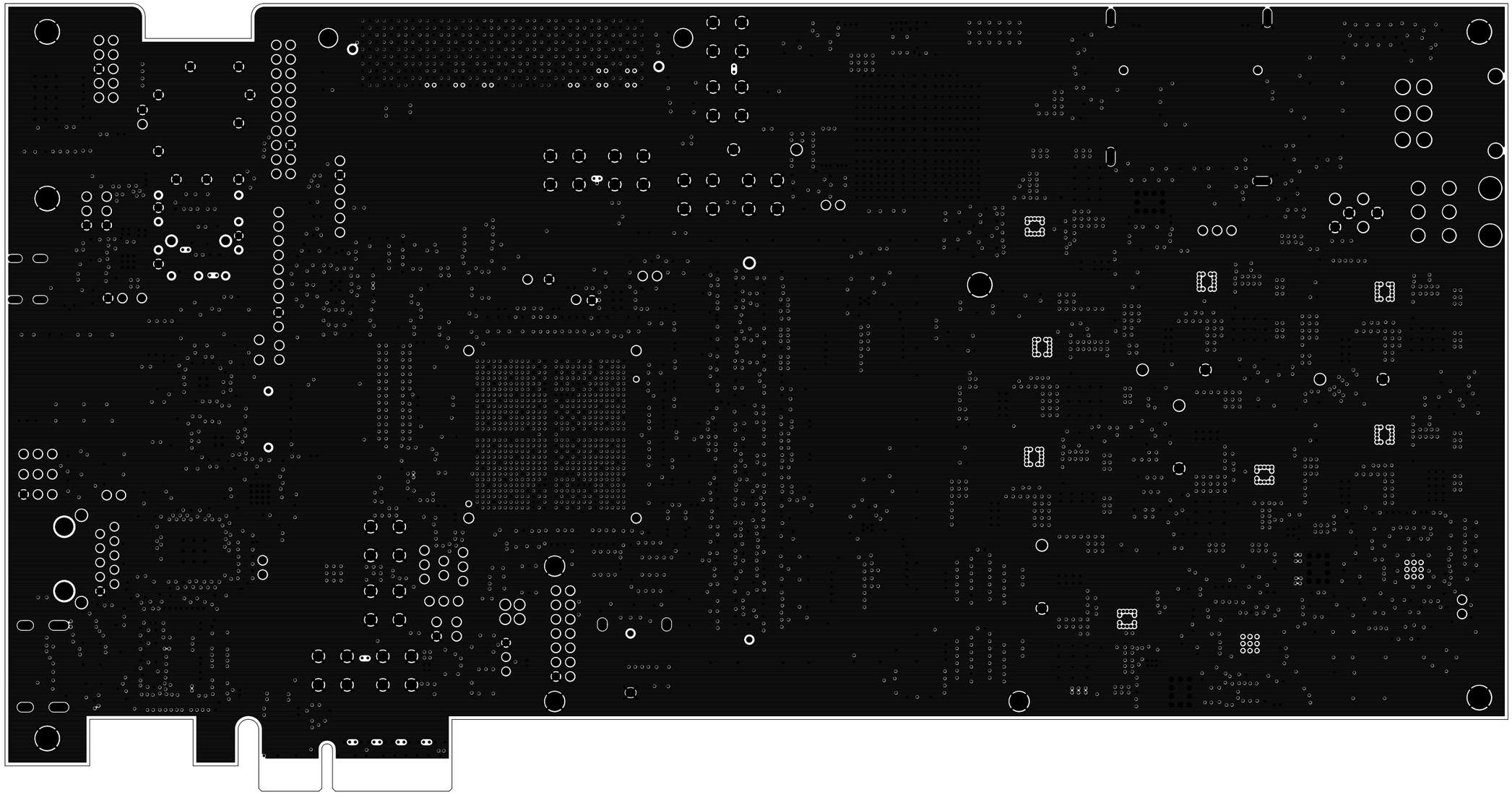
| | | | |
|---|---|---|---|
| Layer: SIG3 | | Sheet: 07 of: 24 | |
| Layout Engineer: FAWAD MUNAWAR | | Company Name: XILINX, INC. | |
| Design Engineer: DAVID NAYLOR | | Project Name: HW-A7-AC701 | |
| Whizz Job Number: 5962 | Date: 10.12.2012 | Project Number: 1280669 | REV. 1.0 |
| LATEST NETLIST REV OR DATE: 09.22.2012 | | LATEST MECHANICAL REV OR DATE: respin of 5771 | |





| | | | |
|---|---|---|---|
| Layer: GND4 | | Sheet: 08 of: 24 | |
| Layout Engineer: FAWAD MUNAWAR | | Company Name: XILINX, INC. | |
| Design Engineer: DAVID NAYLOR | | Project Name: HW-A7-AC701 | |
| Whizz Job Number: 5962 | Date: 10.12.2012 | Project Number: 1280669 | REV. 1.0 |
| LATEST NETLIST REV OR DATE: 09.22.2012 | | LATEST MECHANICAL REV OR DATE: respin of 5771 | |

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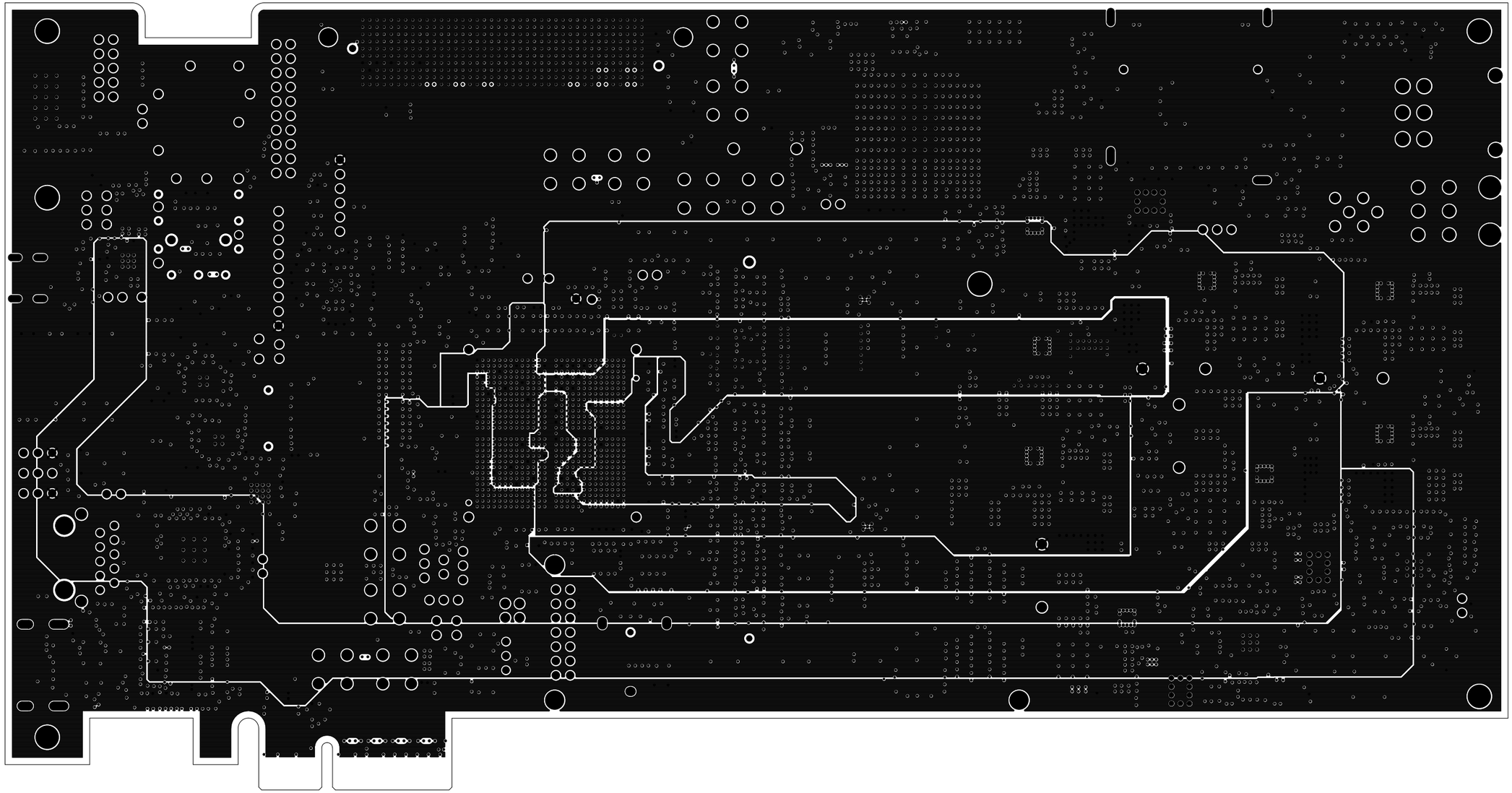



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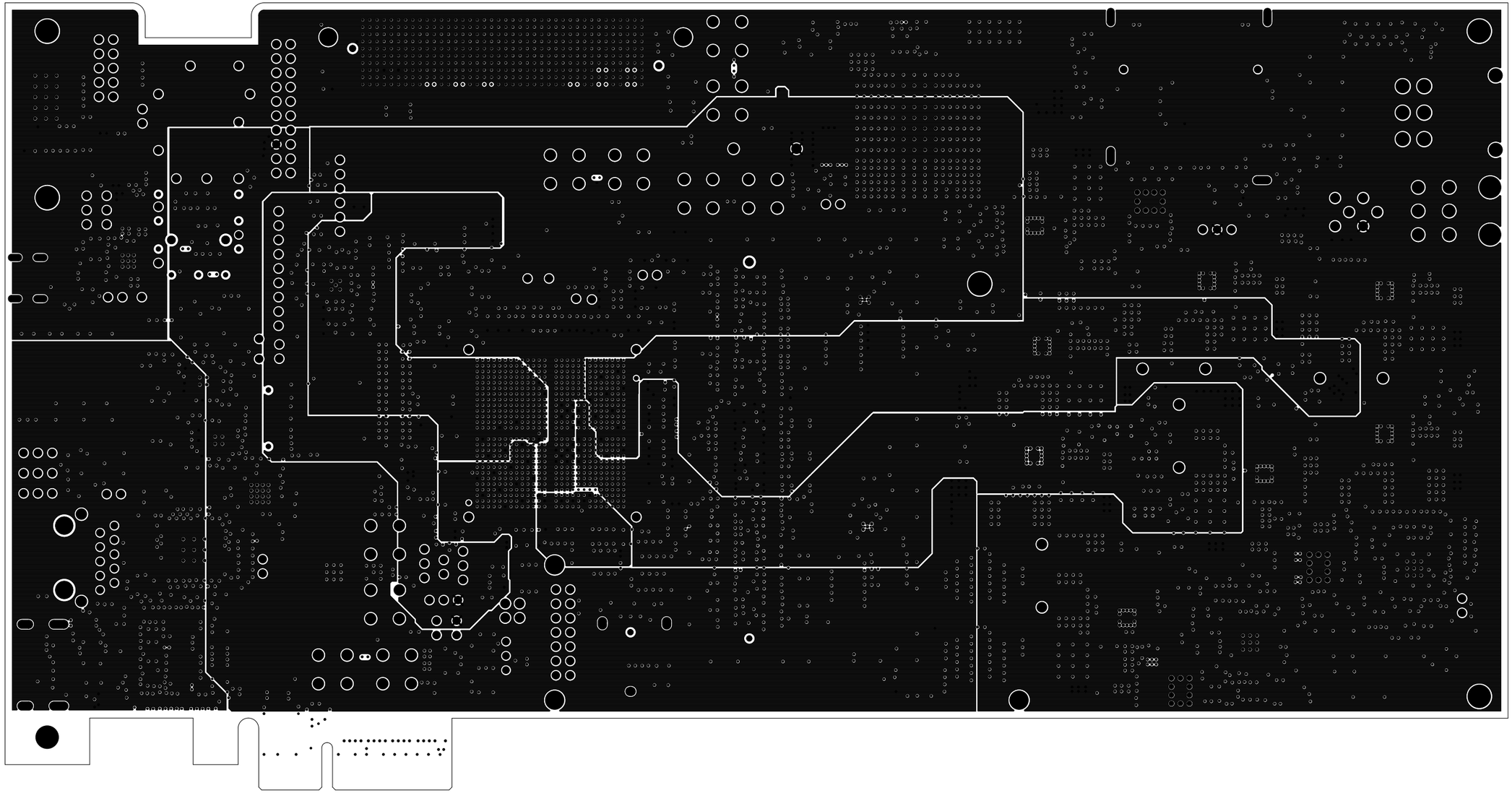
| | | | |
|---|---|---|---|
| Layer: PWR1 | | Sheet: 09 of: 24 | |
| Layout Engineer: FAWAD MUNAWAR | | Company Name: XILINX, INC. | |
| Design Engineer: DAVID NAYLOR | | Project Name: HW-A7-AC701 | |
| Whizz Job Number: 5962 | Date: 10.12.2012 | Project Number: 1280669 | REV. 1.0 |
| LATEST NETLIST REV OR DATE: 09.22.2012 | | LATEST MECHANICAL REV OR DATE: respin of 5771 | |





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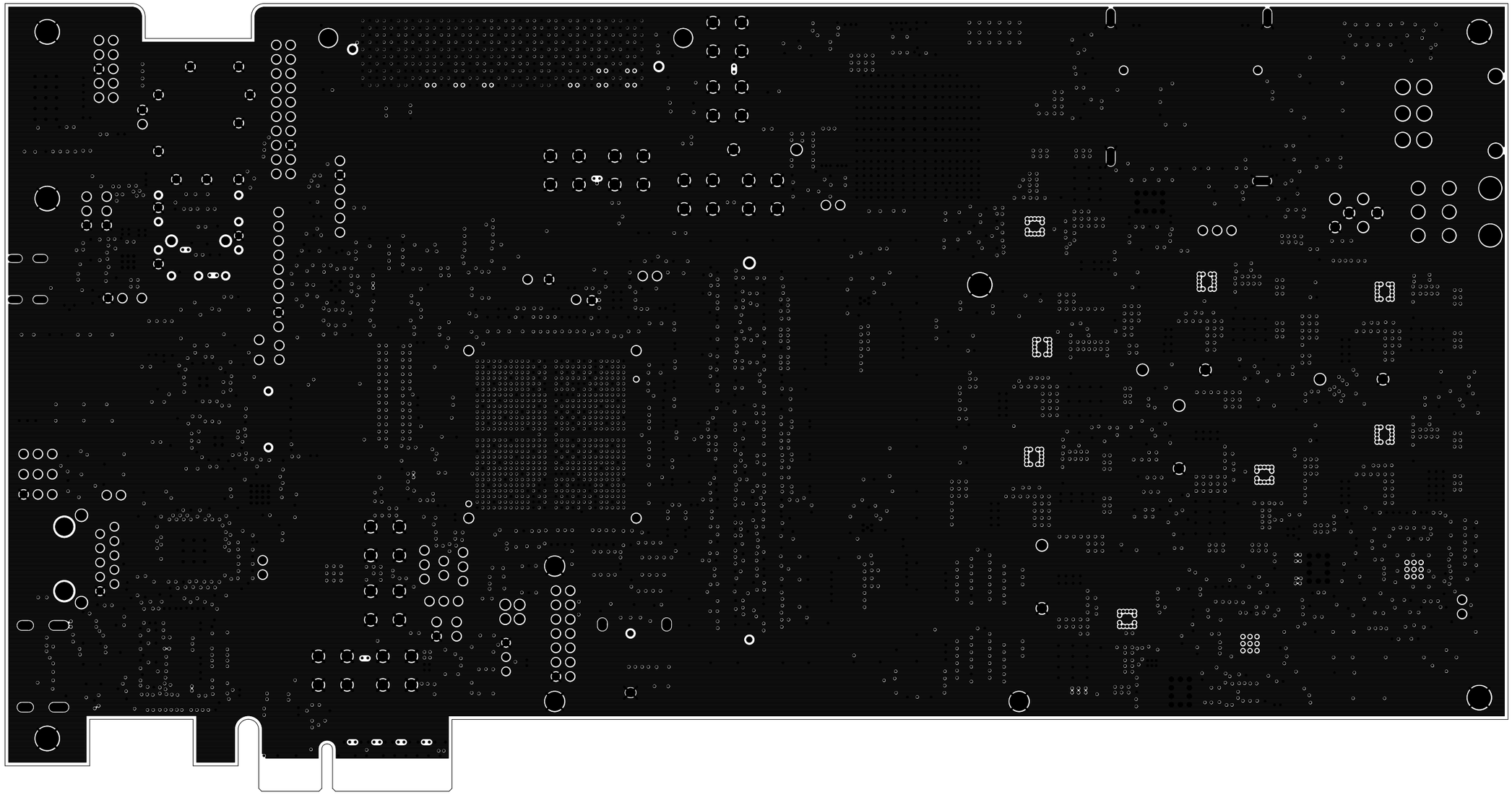
| | | | |
|---|---|---|---|
| Layer: PWR2 | | Sheet: 10 of: 24 | |
| Layout Engineer: FAWAD MUNAWAR | | Company Name: XILINX, INC. | |
| Design Engineer: DAVID NAYLOR | | Project Name: HW-A7-AC701 | |
| Whizz Job Number: 5962 | Date: 10.12.2012 | Project Number: 1280669 | REV. 1.0 |
| LATEST NETLIST REV OR DATE: 09.22.2012 | | LATEST MECHANICAL REV OR DATE: respin of 5771 | |





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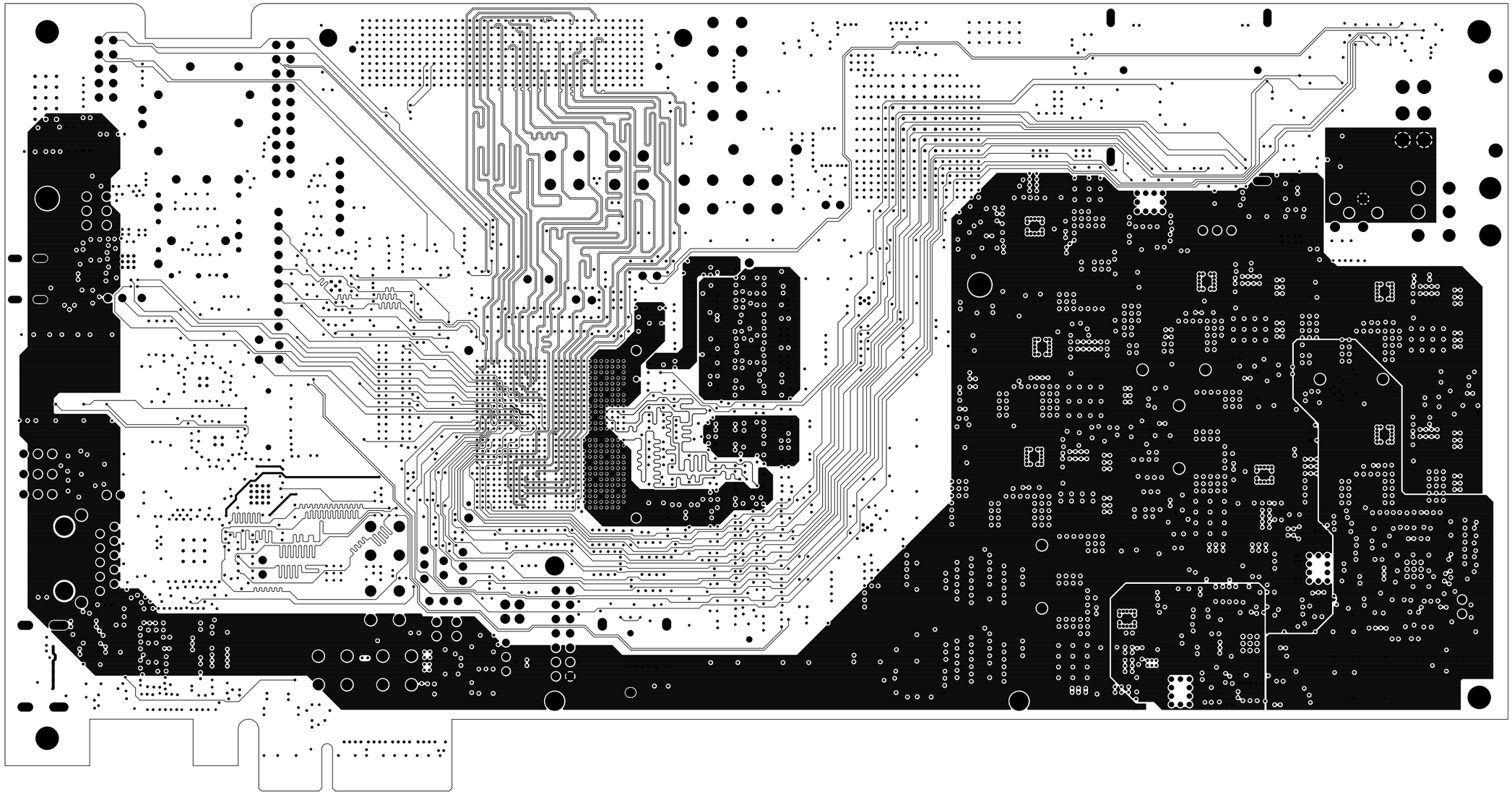
| | | | |
|---|---|---|---|
| Layer: GND5 | | Sheet: 11 of: 24 | |
| Layout Engineer: FAWAD MUNAWAR | | Company Name: XILINX, INC. | |
| Design Engineer: DAVID NAYLOR | | Project Name: HW-A7-AC701 | |
| Whizz Job Number: 5962 | Date: 10.12.2012 | Project Number: 1280669 | REV. 1.0 |
| LATEST NETLIST REV OR DATE: 09.22.2012 | | LATEST MECHANICAL REV OR DATE: respin of 5771 | |





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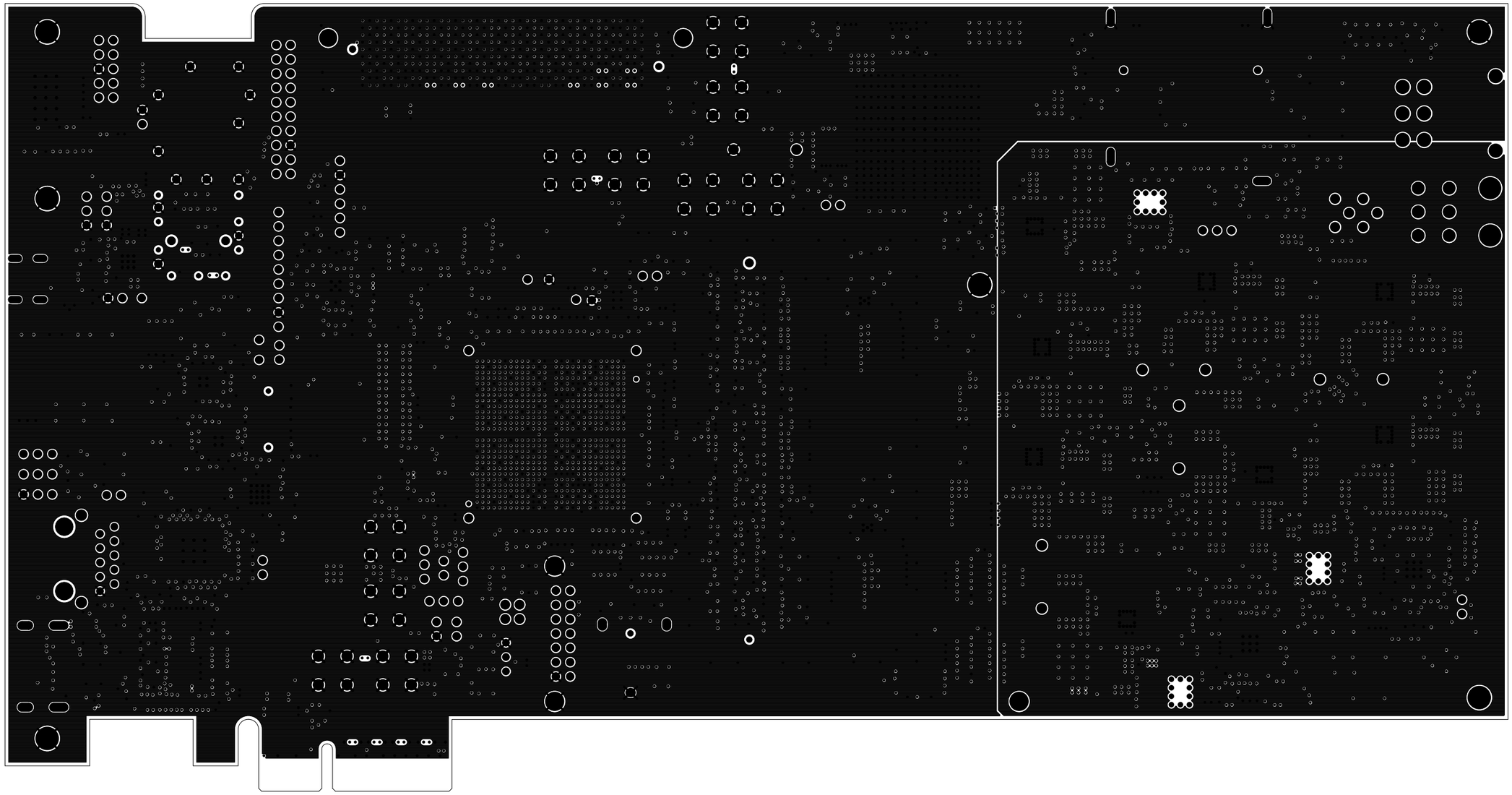
| | | | |
|---|---|---|---|
| Layer: SIG4 | | Sheet: 12 of: 24 | |
| Layout Engineer: FAWAD MUNAWAR | | Company Name: XILINX, INC. | |
| Design Engineer: DAVID NAYLOR | | Project Name: HW-A7-AC701 | |
| Whizz Job Number: 5962 | Date: 10.12.2012 | Project Number: 1280669 | REV. 1.0 |
| LATEST NETLIST REV OR DATE: 09.22.2012 | | LATEST MECHANICAL REV OR DATE: respin of 5771 | |





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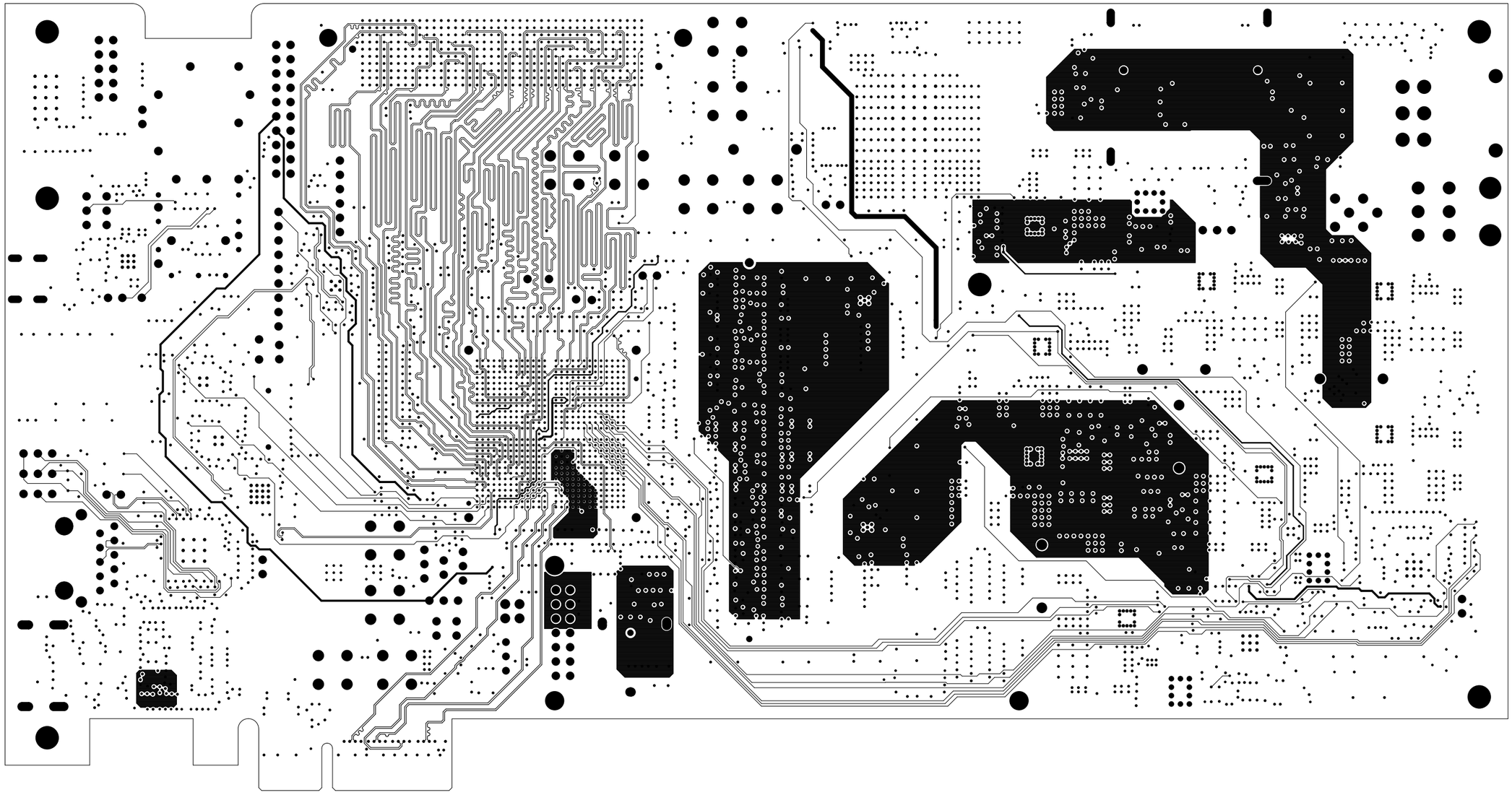
| | | | |
|---|---|---|---|
| Layer: GND6 | | Sheet: 13 of: 24 | |
| Layout Engineer: FAWAD MUNAWAR | | Company Name: XILINX, INC. | |
| Design Engineer: DAVID NAYLOR | | Project Name: HW-A7-AC701 | |
| Whizz Job Number: 5962 | Date: 10.12.2012 | Project Number: 1280669 | REV. 1.0 |
| LATEST NETLIST REV OR DATE: 09.22.2012 | | LATEST MECHANICAL REV OR DATE: respin of 5771 | |





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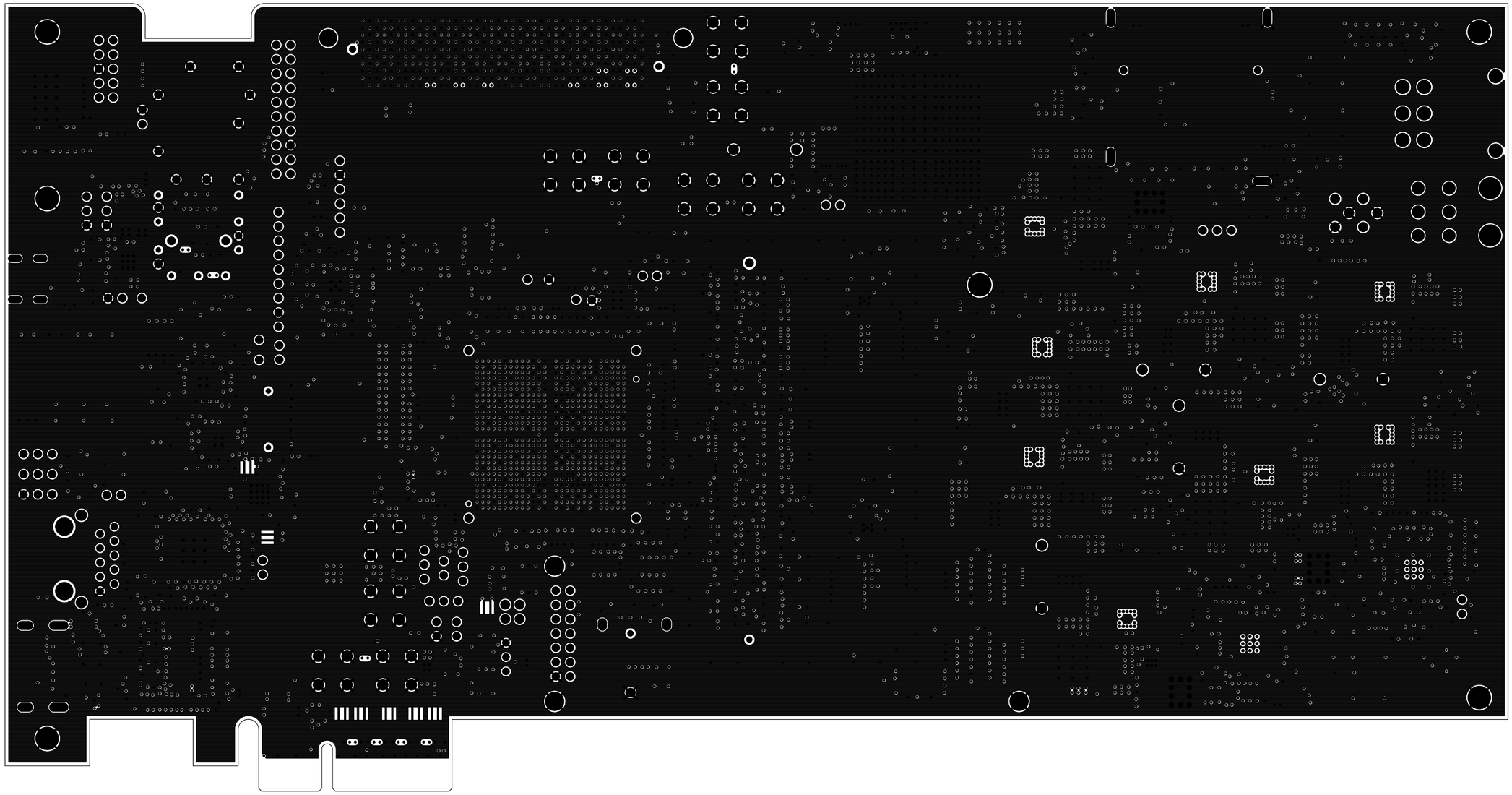
| | | | |
|---|---|---|---|
| Layer: SIG5 | | Sheet: 14 of: 24 | |
| Layout Engineer: FAWAD MUNAWAR | | Company Name: XILINX, INC. | |
| Design Engineer: DAVID NAYLOR | | Project Name: HW-A7-AC701 | |
| Whizz Job Number: 5962 | Date: 10.12.2012 | Project Number: 1280669 | REV. 1.0 |
| LATEST NETLIST REV OR DATE: 09.22.2012 | | LATEST MECHANICAL REV OR DATE: respin of 5771 | |





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|---|---|---|---|
| Layer: GND7 | | Sheet: 15 of: 24 | |
| Layout Engineer: FAWAD MUNAWAR | | Company Name: XILINX, INC. | |
| Design Engineer: DAVID NAYLOR | | Project Name: HW-A7-AC701 | |
| Whizz Job Number: 5962 | Date: 10.12.2012 | Project Number: 1280669 | REV. 1.0 |
| LATEST NETLIST REV OR DATE: 09.22.2012 | | LATEST MECHANICAL REV OR DATE: respin of 5771 | |

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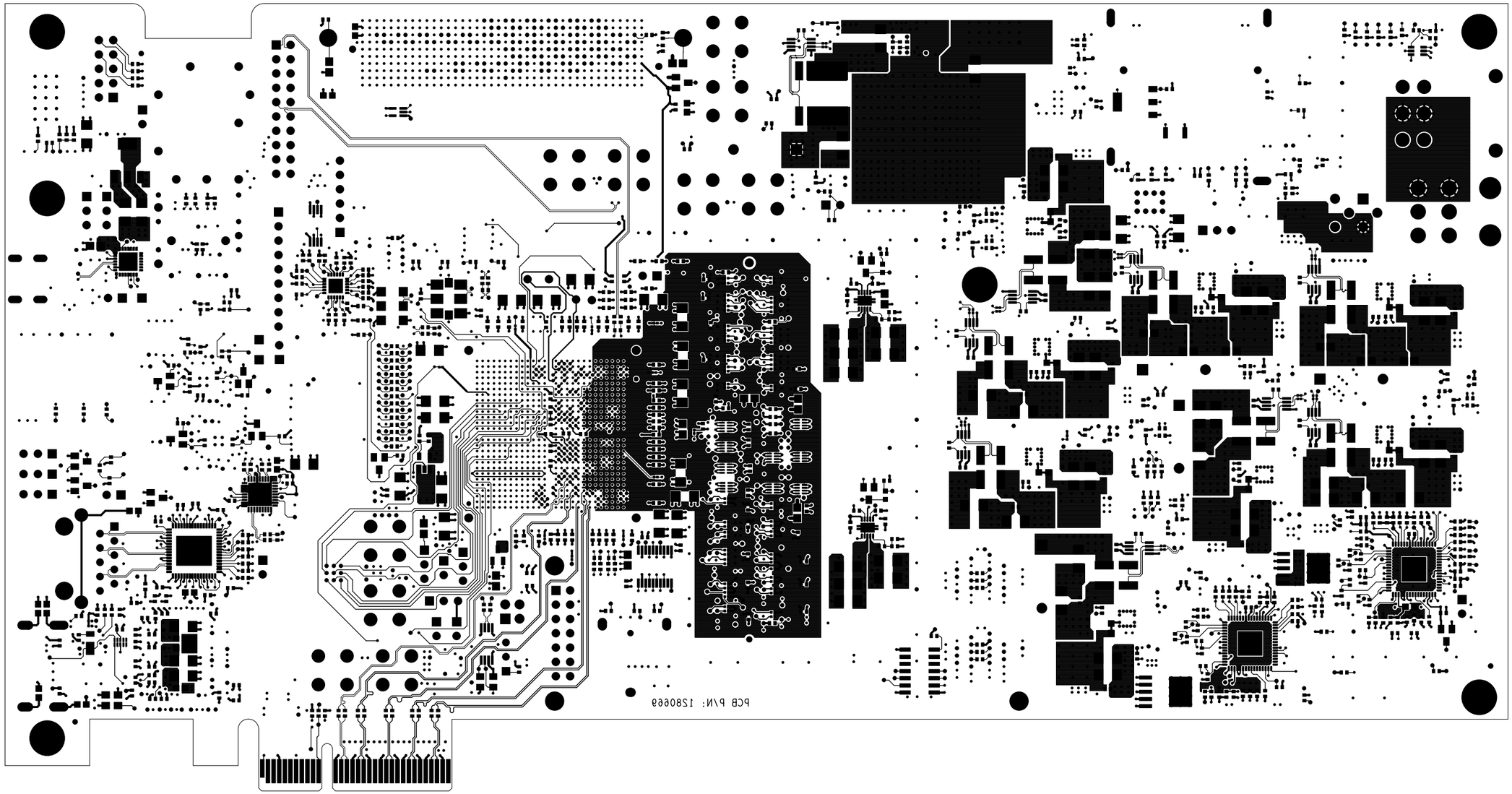




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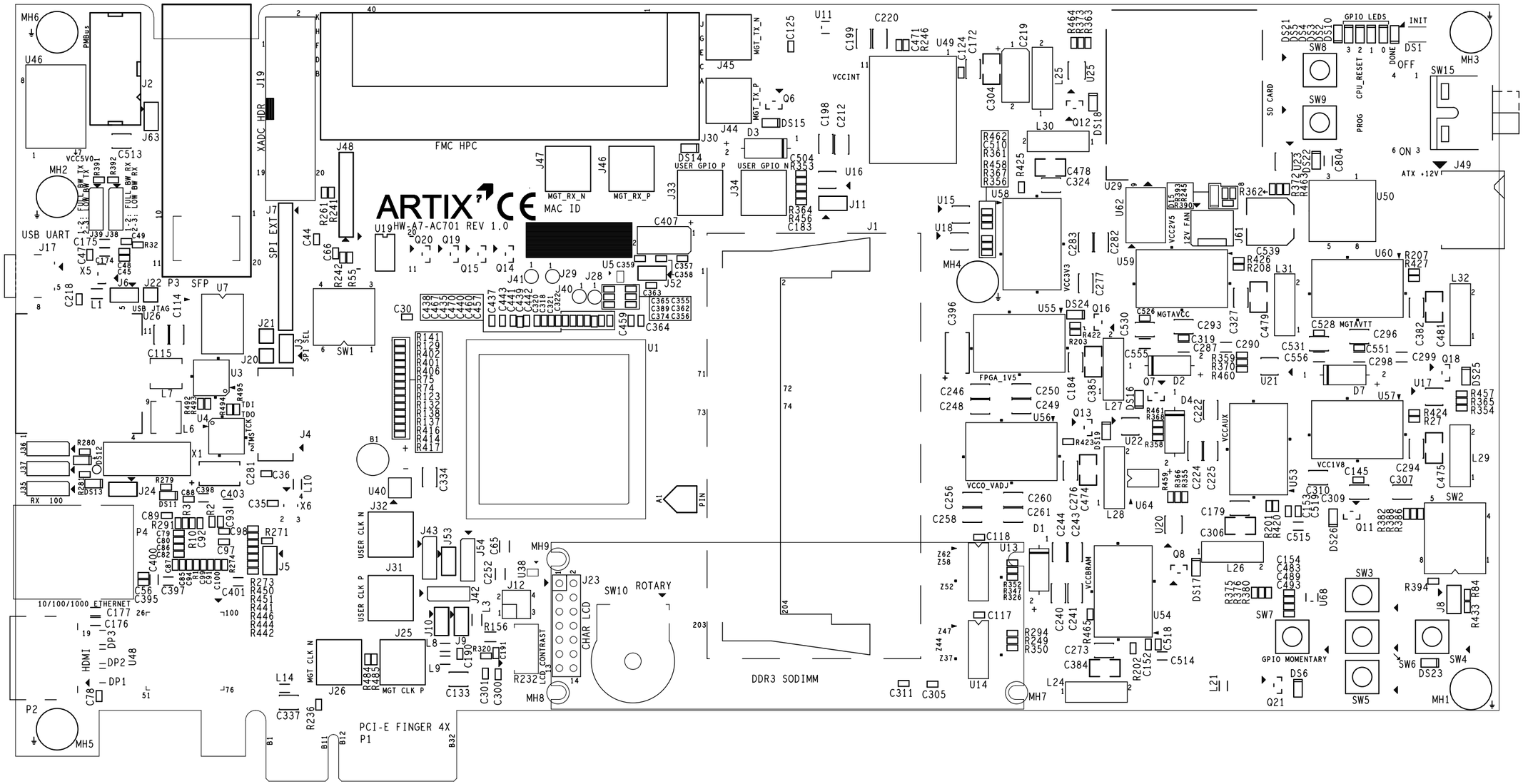
| | | | |
|---|---|---|---|
| Layer: BOTTOM | | Sheet: 16 of: 24 | |
| Layout Engineer: FAWAD MUNAWAR | | Company Name: XILINX, INC. | |
| Design Engineer: DAVID NAYLOR | | Project Name: HW-A7-AC701 | |
| Whizz Job Number: 5962 | Date: 10.12.2012 | Project Number: 1280669 | REV. 1.0 |
| LATEST NETLIST REV OR DATE: 09.22.2012 | | LATEST MECHANICAL REV OR DATE: respin of 5771 | |



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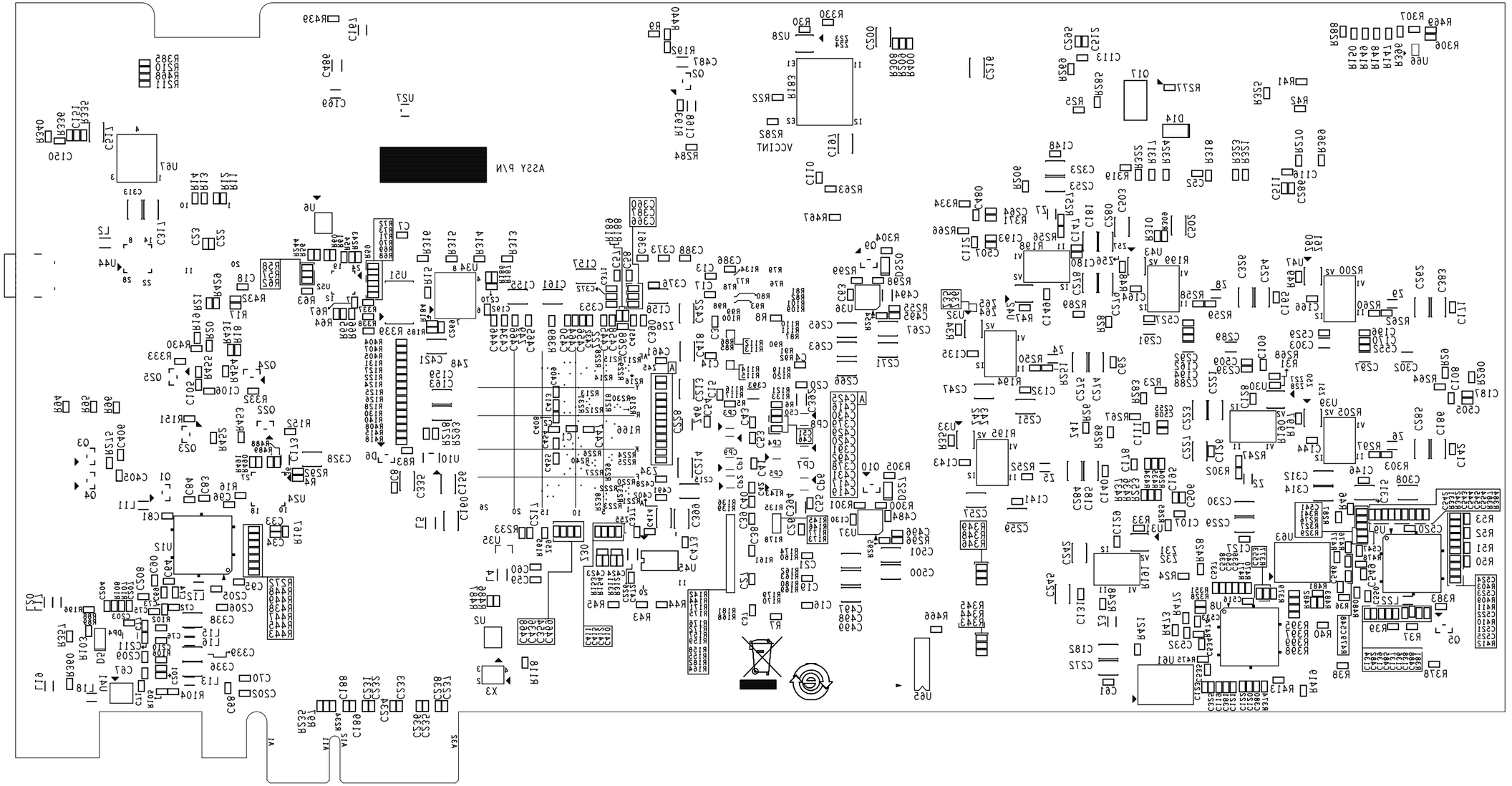
| | | | |
|---|---|---|---|
| Layer: 17_SILK_TOP | | Sheet: 17 of: 24 | |
| Layout Engineer: FAWAD MUNAWAR | | Company Name: XILINX, INC. | |
| Design Engineer: DAVID NAYLOR | | Project Name: HW-A7-AC701 | |
| Whizz Job Number: 5962 | Date: 10.12.2012 | Project Number: 1280669 | REV. 1.0 |
| LATEST NETLIST REV OR DATE: 09.22.2012 | | LATEST MECHANICAL REV OR DATE: respin of 5771 | |



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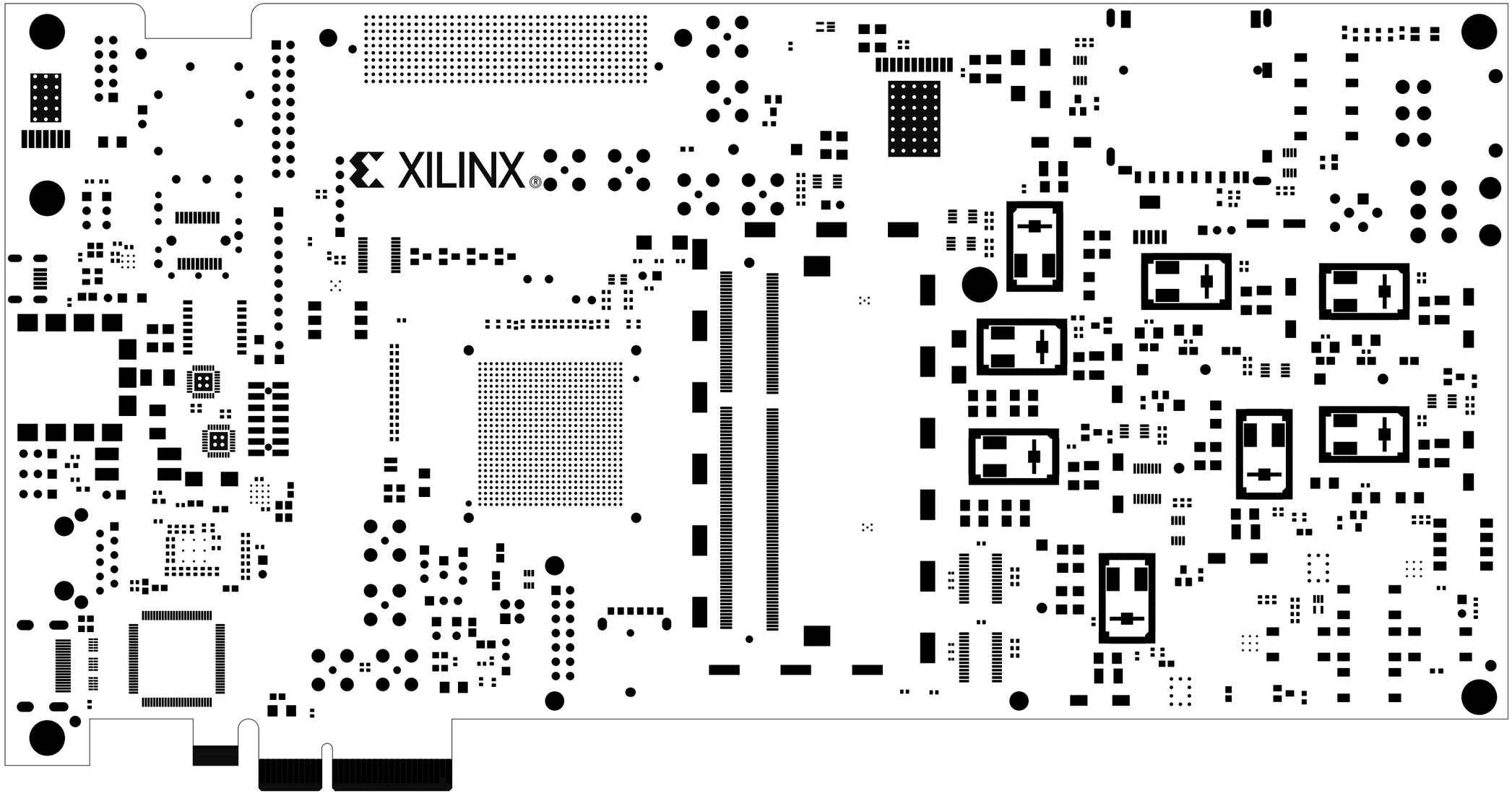
|---|---|---|---|
| Layer: 18_SILK_BOT | | Sheet: 18 of: 24 | |
| Layout Engineer: FAWAD MUNAWAR | | Company Name: XILINX, INC. | |
| Design Engineer: DAVID NAYLOR | | Project Name: HW-A7-AC701 | |
| Whizz Job Number: 5962 | Date: 10.12.2012 | Project Number: 1280669 | REV. 1.0 |
| LATEST NETLIST REV OR DATE: 09.22.2012 | | LATEST MECHANICAL REV OR DATE: respin of 5771 | |



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|---|---|---|---|
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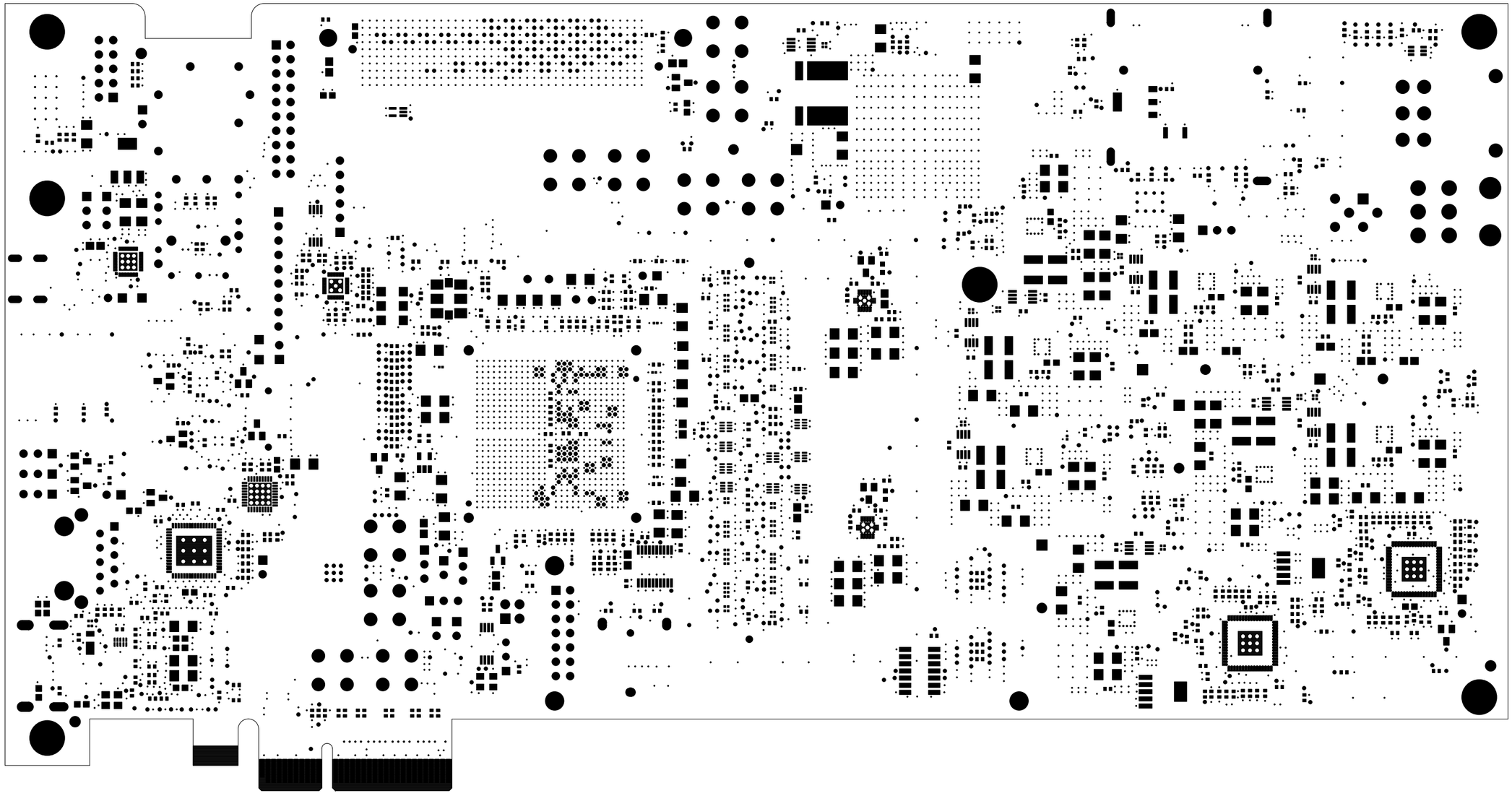
| | Layout Engineer: FAWAD MUNAWAR | Company Name: XILINX, INC. | |
| | Design Engineer: DAVID NAYLOR | Project Name: HW-A7-AC701 | |
| | Whizz Job Number: 5962 / Date: 10.12.2012 | Project Number: 1280669 | REV. 1.0 |
| | LATEST NETLIST REV OR DATE: 09.22.2012 | LATEST MECHANICAL REV OR DATE: respin of 5771 | |





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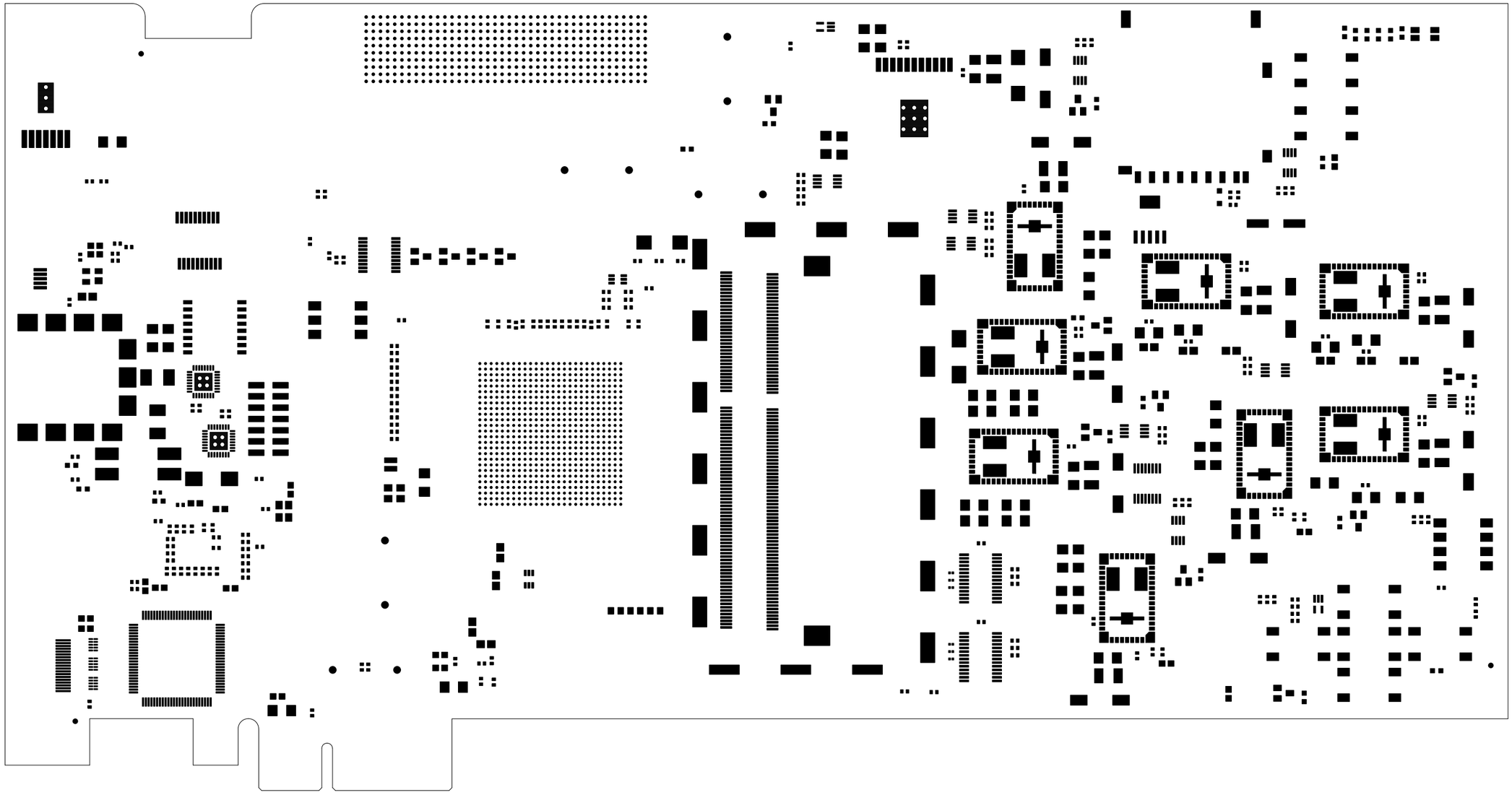
| | | | |
|---|---|---|---|
| Layer: 20_SMASK_BOT | | Sheet: 20 of: 24 | |
| Layout Engineer: FAWAD MUNAWAR | | Company Name: XILINX, INC. | |
| Design Engineer: DAVID NAYLOR | | Project Name: HW-A7-AC701 | |
| Whizz Job Number: 5962 | Date: 10.12.2012 | Project Number: 1280669 | REV. 1.0 |
| LATEST NETLIST REV OR DATE: 09.22.2012 | | LATEST MECHANICAL REV OR DATE: respin of 5771 | |





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| Layer: 21_PMASK_TOP | | Sheet: 21 of: 24 | |
| Layout Engineer: FAWAD MUNAWAR | | Company Name: XILINX, INC. | |
| Design Engineer: DAVID NAYLOR | | Project Name: HW-A7-AC701 | |
| Whizz Job Number: 5962 | Date: 10.12.2012 | Project Number: 1280669 | REV. 1.0 |
| LATEST NETLIST REV OR DATE: 09.22.2012 | | LATEST MECHANICAL REV OR DATE: respin of 5771 | |

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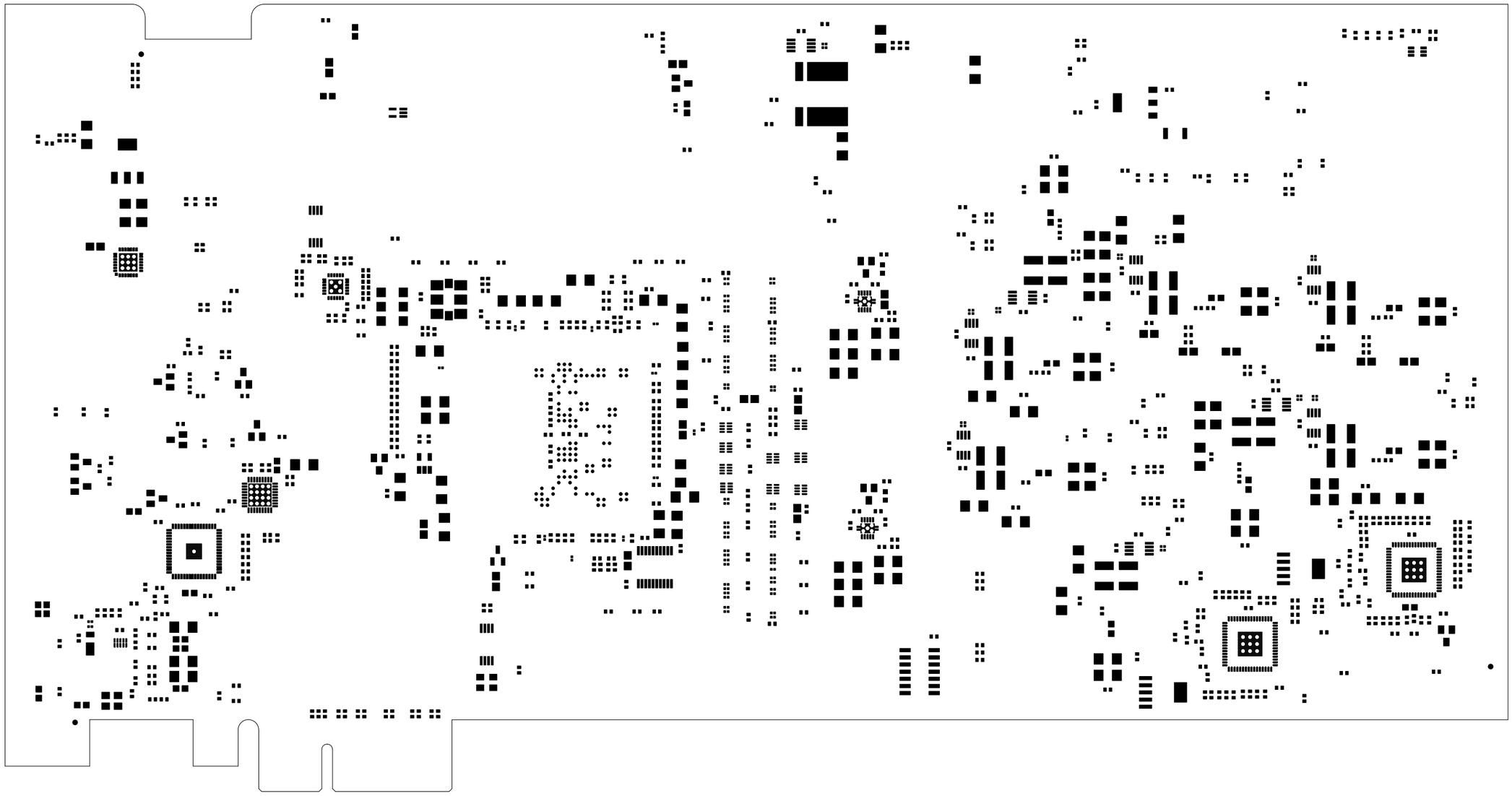



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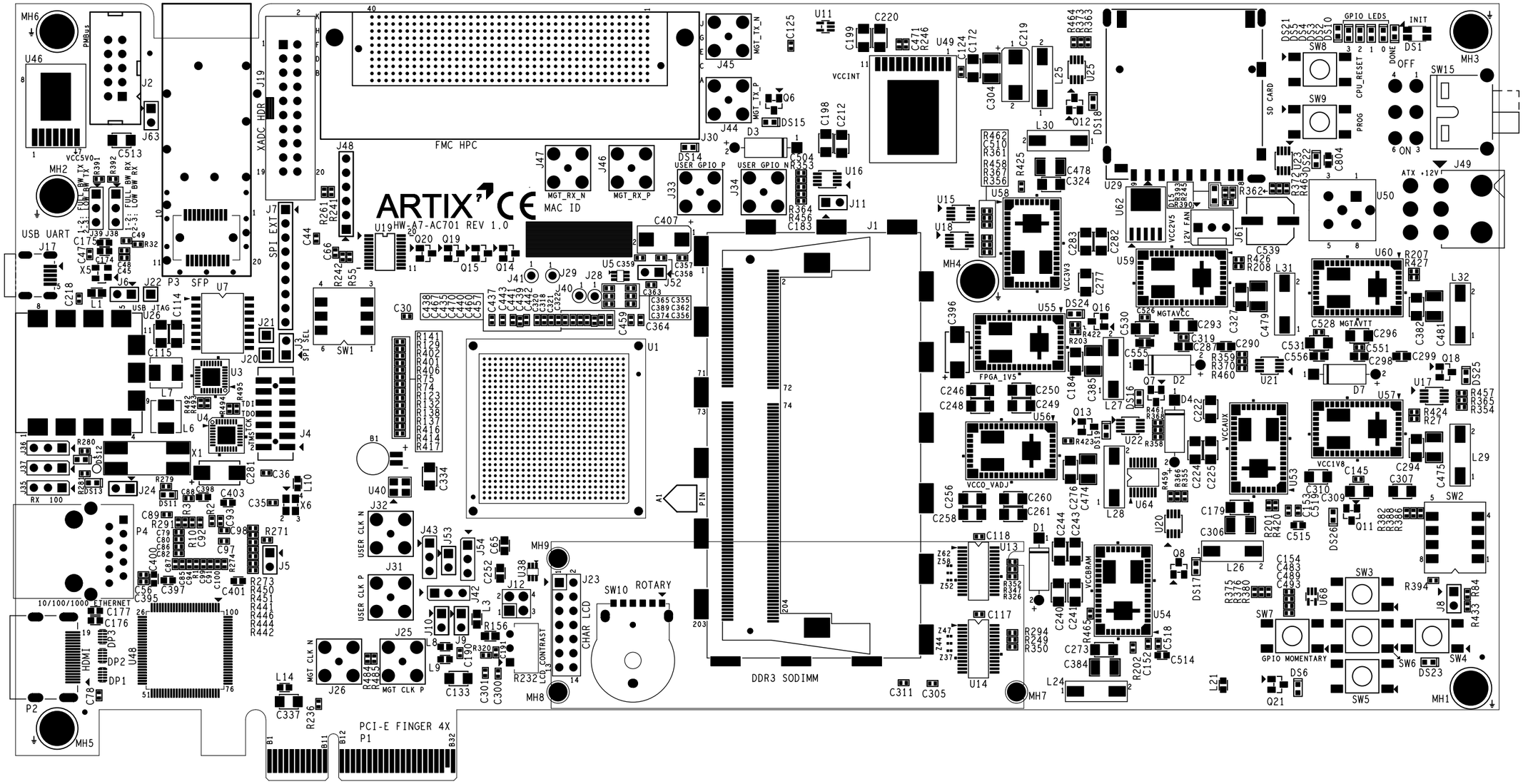
| | | | |
|---|---|---|---|
| Layer: 22_PMASK_BOT | | Sheet: 22 of: 24 | |
| Layout Engineer: FAWAD MUNAWAR | | Company Name: XILINX, INC. | |
| Design Engineer: DAVID NAYLOR | | Project Name: HW-A7-AC701 | |
| Whizz Job Number: 5962 | Date: 10.12.2012 | Project Number: 1280669 | REV. 1.0 |
| LATEST NETLIST REV OR DATE: 09.22.2012 | | LATEST MECHANICAL REV OR DATE: respin of 5771 | |



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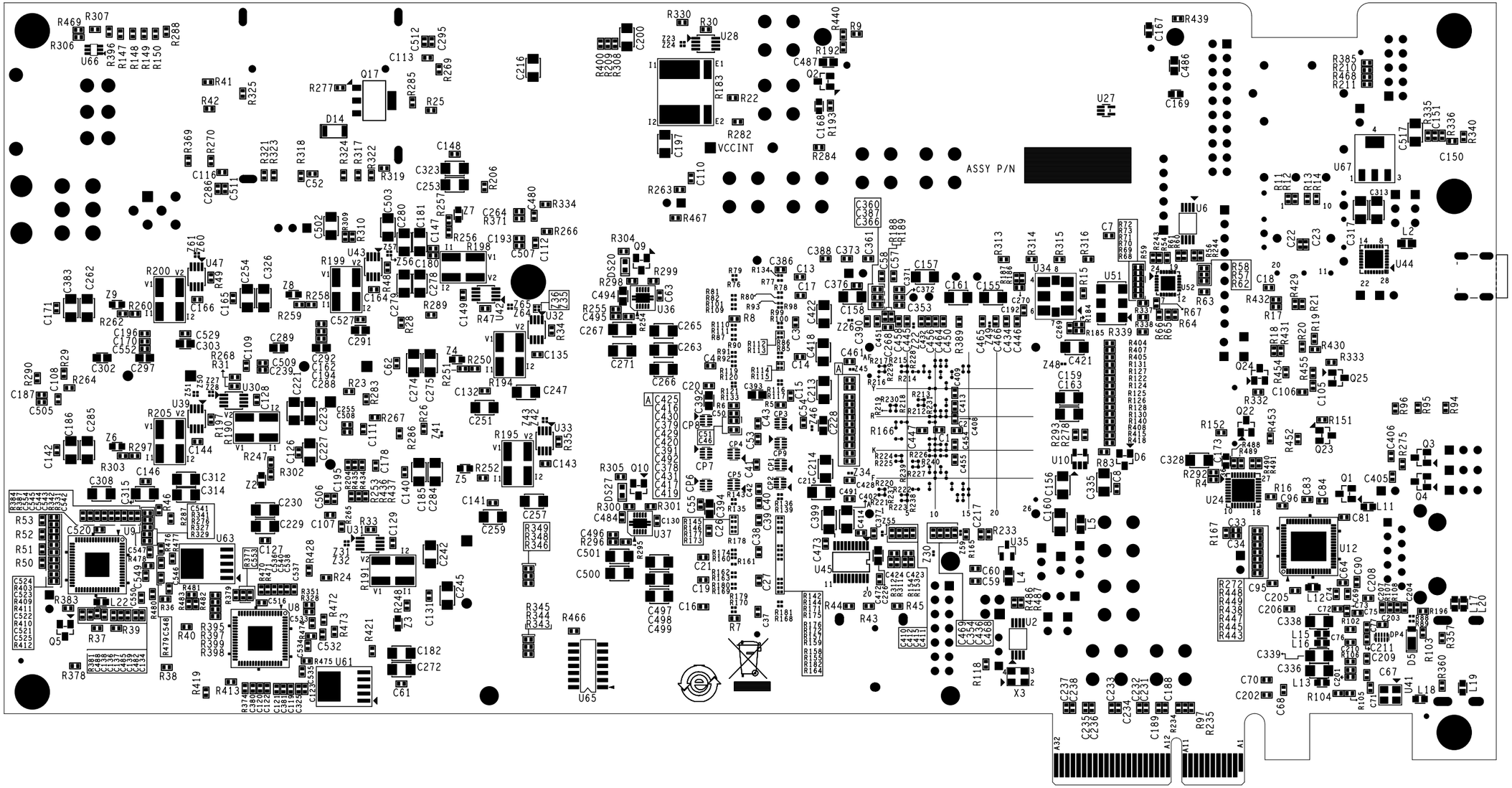
| | | | |
|---|---|---|---|
| Layer: 23_ASSY_TOP | | Sheet: 23 of: 24 | |
| Layout Engineer: FAWAD MUNAWAR | | Company Name: XILINX, INC. | |
| Design Engineer: DAVID NAYLOR | | Project Name: HW-A7-AC701 | |
| Whizz Job Number: 5962 | Date: 10.12.2012 | Project Number: 0431747 | REV. 1.0 |
| LATEST NETLIST REV OR DATE: 09.22.2012 | | LATEST MECHANICAL REV OR DATE: respin of 5771 | |

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| | Layout Engineer: FAWAD MUNAWAR | Company Name: XILINX, INC. | |
| | Design Engineer: DAVID NAYLOR | Project Name: HW-A7-AC701 | |
| | Whizz Job Number: 5962 / Date: 10.12.2012 | Project Number: 0431747 | REV. 1.0 |
| LATEST NETLIST REV OR DATE: 09.22.2012 | | LATEST MECHANICAL REV OR DATE: respin of 5771 | |

| REVISIONS | | | | |
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| ZONE | REV | DESCRIPTION | DATE | APPROVED |
| | 1.0 | INITIAL RELEASE | 10/12/12 | DN |

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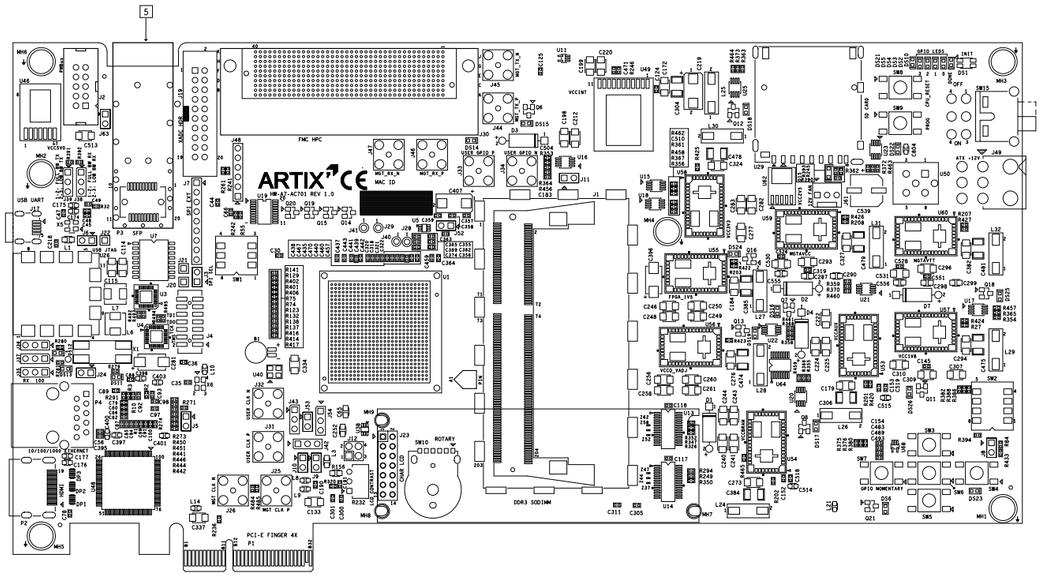
2. BAG AND TAG (OR MARK CONTAINER) WITH PART NUMBER.
3. REFERENCE SCHEMATIC (OR AVL) FOR BILL OF MATERIALS.
4. ASSEMBLY SHOULD BE "ROHS" AND "LEAD FREE" COMPLIANT.
5. P3 IS PRESS FIT CONNECTOR.

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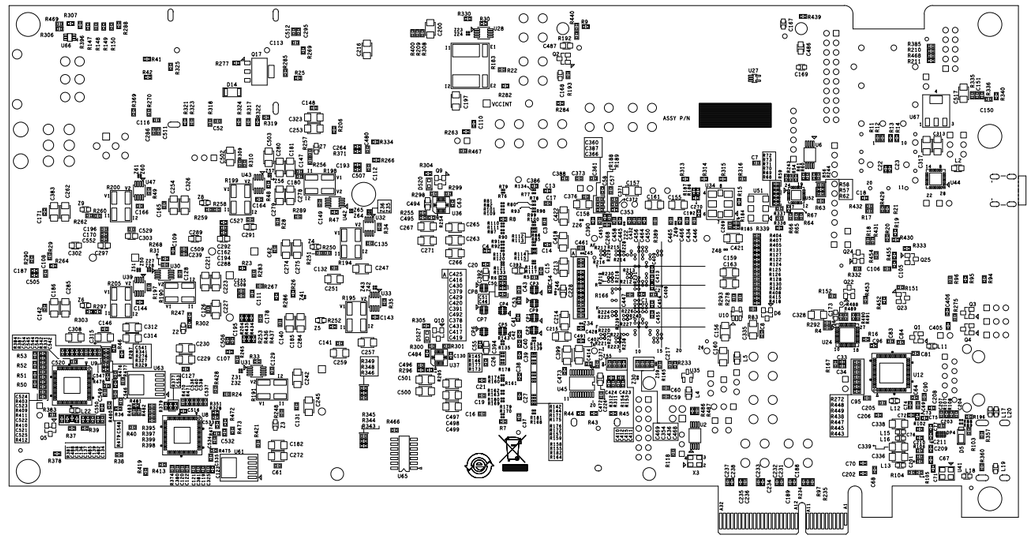


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| UNLESS OTHERWISE SPECIFIED: ALL DIMENSIONS ARE IN INCHES TOLERANCES ON: | APPROVAL | DATE | CUSTOMER: |
|---|---|---|---|
| LINEAR DIMENSIONS: .XXX ± .010, .XX ± .030, .X ± .100; ANGLES: XX.XX ± 0.30°, XX.X ± 1.0°, XX ± 5.0° | DRAWN: Fawad Munawar | 10.12-12 | XILINX, INC |
| DRAWING SYMBOLS & TOLERANCE PER ANSIY14.5M-1994 | CHECKED: Rashid Mehmood | 10-12-12 | PROJECT NAME: HW-A7-AC701 |
| WHIZZ SYSTEMS INC. 3240 SCOTT BLVD SANTA CLARA, CA 95054 TEL: 408-980-0400 | ENGR: David Naylor | 10-12-12 | |
| | APPROVAL: David Naylor | 10-12-12 | SIZE: D; ASSY DWG. NO. 0431747; REV. 1.0 |
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