AMD GEODE(TM) THIN CLIENT RDK BGU396 OPTION SCHEMATIC

NOTES:
1) THIS SCHEMATIC IS TARGETED AT A GEODE(TM) GX PROCESSOR SILICON REVISION 2.1 (OR LATER) IN THE BGU396 PACKAGE AND GEODE(TM) CS5535 COMPANION DEVICE SILICON REVISION A3 (OR LATER) DESIGN. CHANGES WILL BE REQUIRED IF THESE CONDITIONS ARE NOT MET.

2) THIS SCHEMATIC IS DESIGNED AS AN UPDATE TO THE AMD GEODE(TM) GX THIN CLIENT RDK DEMONSTRATING THE BGU396 PACKAGE. DESIGN NOTES MUST BE CAREFULLY FOLLOWED IN THE UPDATE PROCEDURE.

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REVISION HISTORY:

REV	DATE	NOTES
A	10-05-2004	INITIAL RELEASE FOR UPDATE TO THE AMD GEODE (TM) GX THIN CLIENT RDK.
B	11-03-2004	CORRECTED LACK OF PIN NUMBERS OF U1B.
C	03-31-2005	PAGE 3 - REMOVED THE GROUND CONNECTION FROM PIN R25 (SD_FB_CLK) OF GEODE GX AND LEFT THE PIN UNCONNECTED.
D	04-05-2005	PAGE 4 - CRT CONNECTIONS, "R" AND "B", ON GEODE GX WERE SWAPPED. CONNECTIONS CORRECTED.

REV	DATE	NOTES

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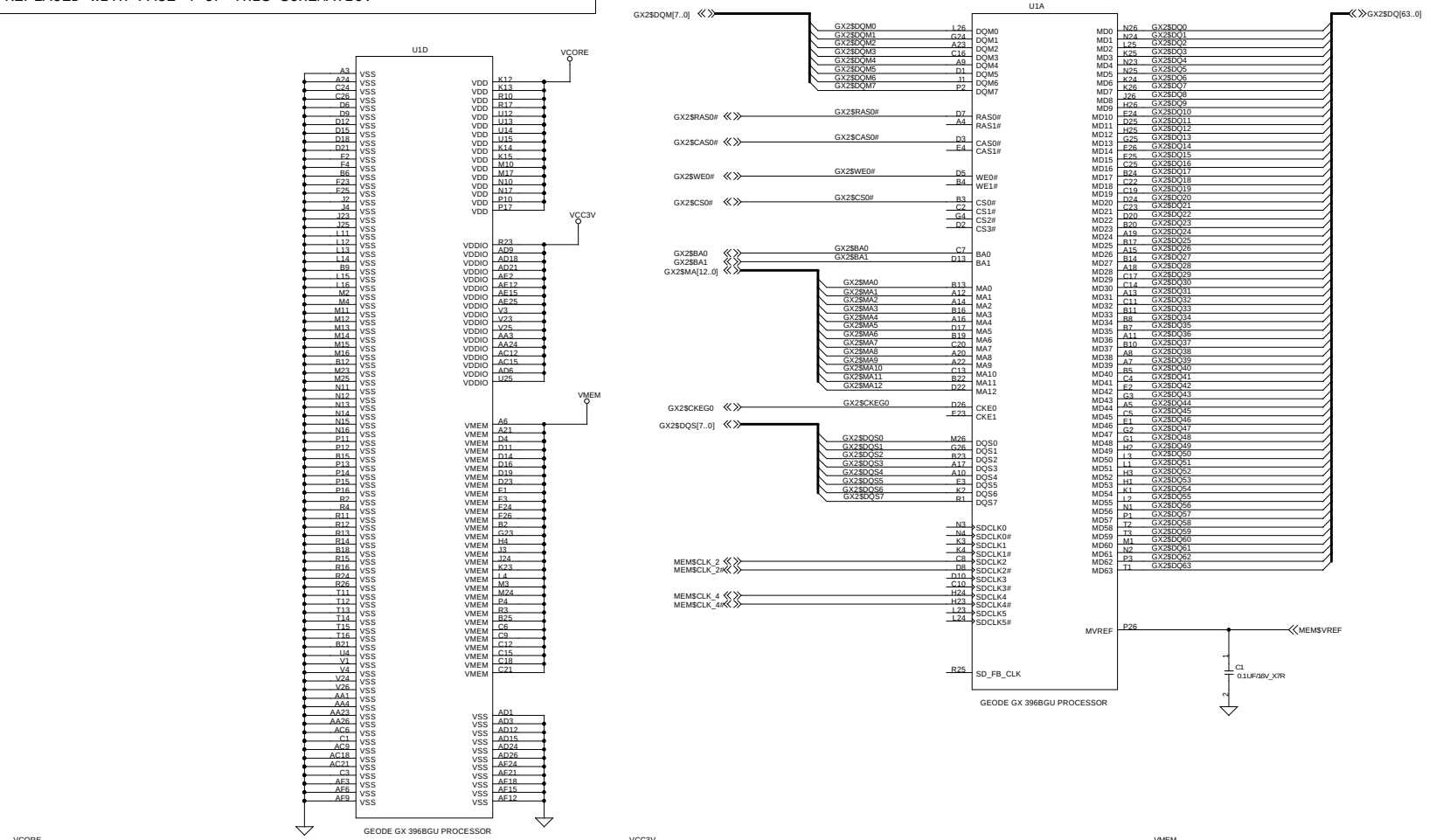
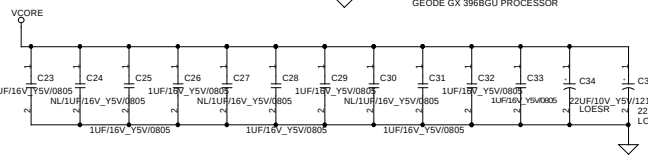
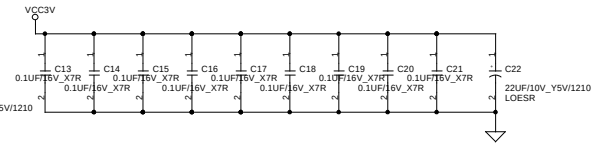
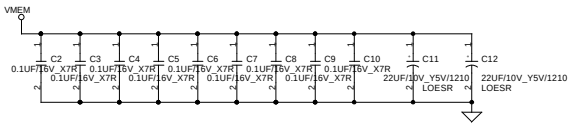
DESIGN NOTE

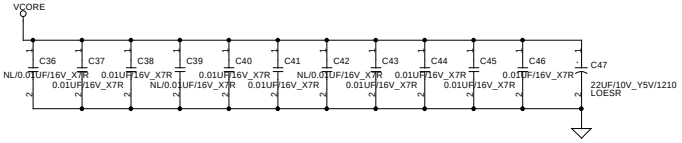
THIS PAGE IS REPLACES PAGE 4 OF THE AMD GEODE GX THIN CLIENT RDK. ADDITIONALLY, THE SUBSTITUTION OF THIS SCHEMATIC PAGE REQUIRES THAT PAGE 5 OF THE AMD GEODE GX THIN CLIENT RDK BE REPLACED WITH PAGE 4 OF THIS SCHEMATIC.











DESIGN NOTE

BULK CAPACITOR SIZE AND ESR REQUIREMENTS WILL VARY BASED ON PCB LAYOUT. RIPPLE REQUIREMENTS MUST BE MET. PLACE CAPACITORS AS NEAR AS POSSIBLE TO APPROPRIATE POWER PINS TO MINIMIZE CAPACITOR REQUIREMENTS. PAIR THE 0.01UF AND 1UF CAPACITORS ON THE VCORE USING COMMON VIA PER PAIR FOR BEST EFFECT.

GEODE GX PROCESSOR POWER/MEMORY

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DESIGN NOTE

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DESIGN NOTE

JTAG SIGNALS TCLK, TDI, TDO, TDBGI AND TDBGO ARE NOT 3.3V TOLERANT. PULL UP TO 2.5V RAIL.

DEV NOTE

CHECK RPACK ROUTING OPTIMIZTION

DESIGN NOTE

SIGNAL GX2$IRQ13 MUST BE PULLED HIGH TO SUPPORT DEBUG STALL WITH FS2.

DESIGN NOTE

ADDITIONAL FILTERING MAY BE REQUIRED FOR EMI PURPOSES. VALUES CHOSEN IN THIS 3RD ORDER LOW-PASS EXAMPLE RESULT IN MINIMAL ATTENUATION AND A HIGH FREQUENCY BAND PASS. PLACE THESE COMPONENTS NEAR THE VGA CONNECTOR.

DESIGN NOTE

FB2 ACTS AS A FUSE FOR THE CRT. TRACES MUST BE SIZED TO HANDLE >200mA.

SINGLE POINT GND CONNECTION

SINGLE POINT GND CONNECTION

SINGLE POINT CONNECTION

CRT FILTER CIRCUIT 3RD ORDER FILTER

GEODE GX PROCESSOR PCI/CRT

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