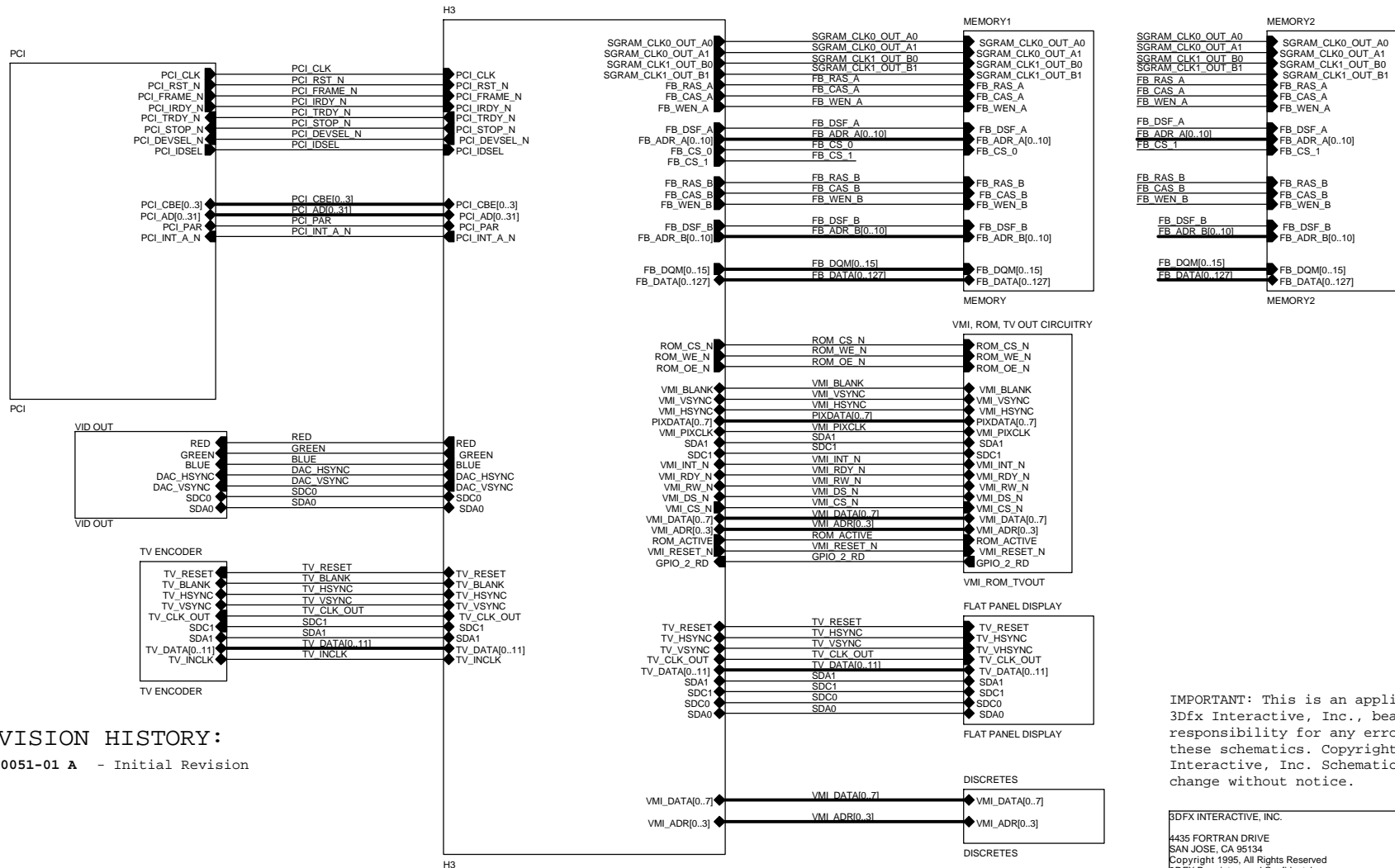


BANSHEE2 4 LAYER 16 MEG SGRAM PCI REFERENCE BOARD (0051)

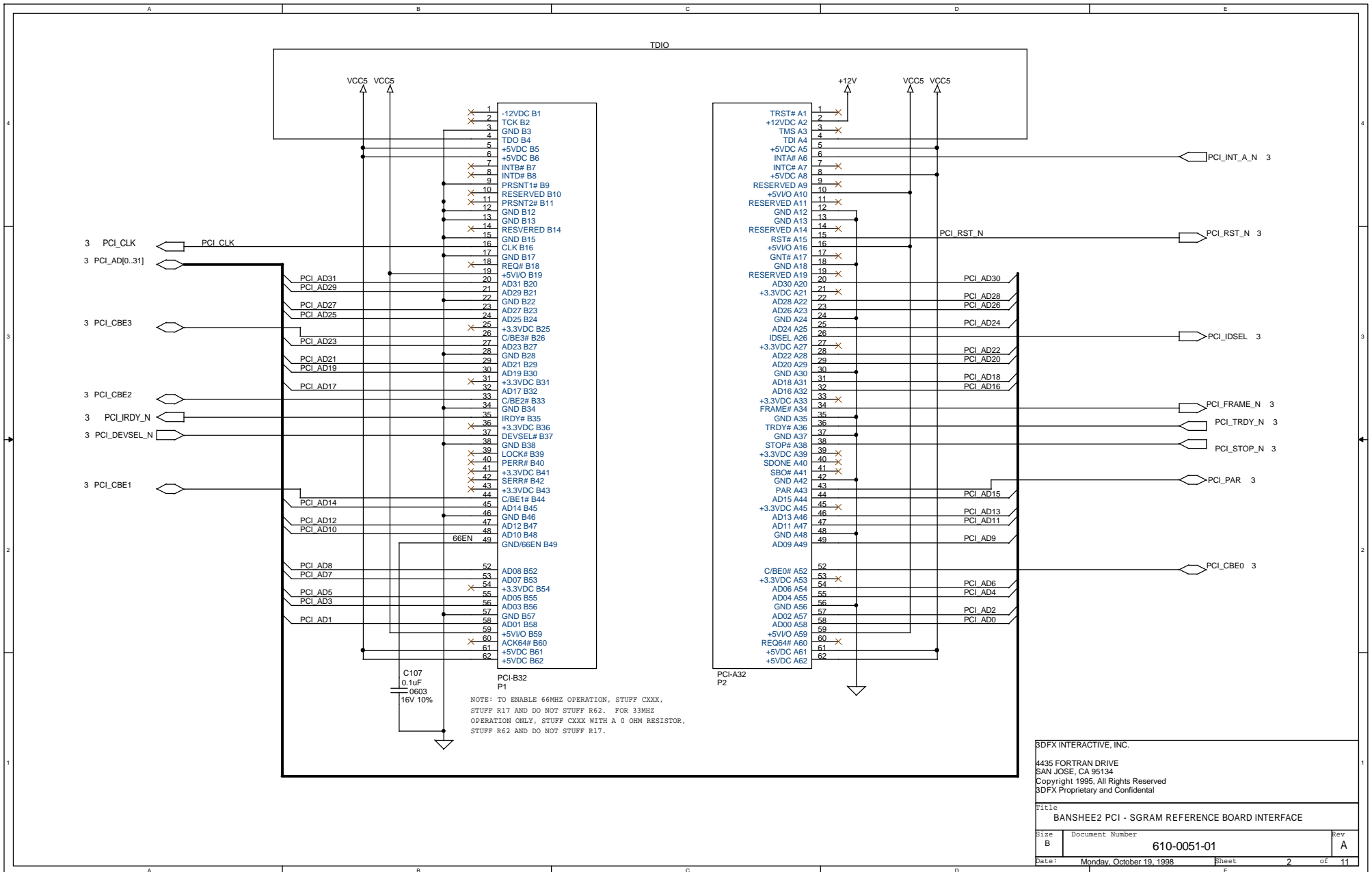


REVISION HISTORY:

610-0051-01 A - Initial Revision

IMPORTANT: This is an application example. 3Dfx Interactive, Inc., bears no responsibility for any errors in drawing these schematics. Copyright 1998 3Dfx Interactive, Inc. Schematics are subject to change without notice.

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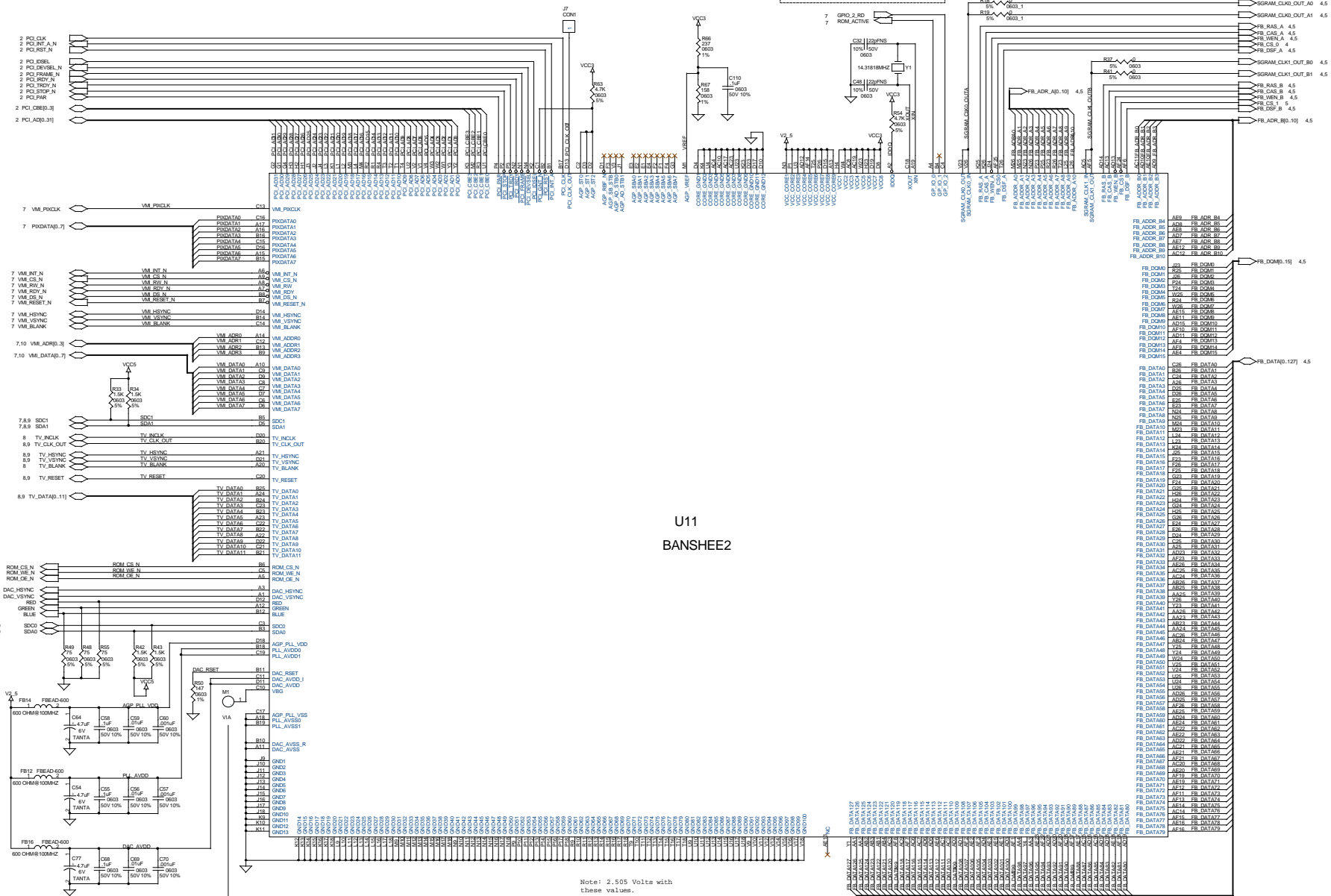
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Title
BANSHEE2 PCI - SGRAM REFERENCE BOARD INTERFACE

Size B Document Number 610-0051-01 Rev A

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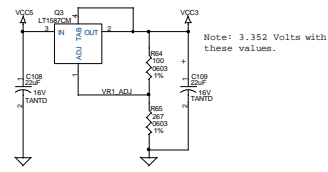
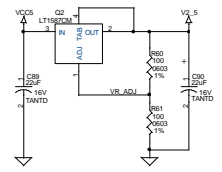
Note: NS = NOT STUFFED



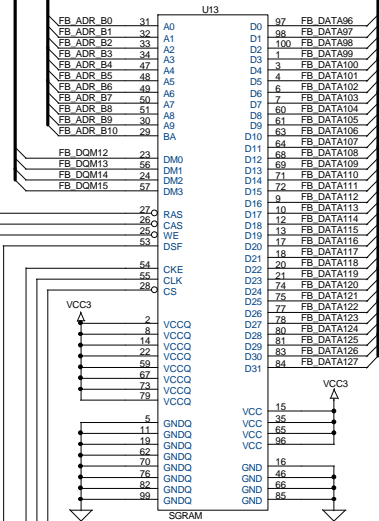
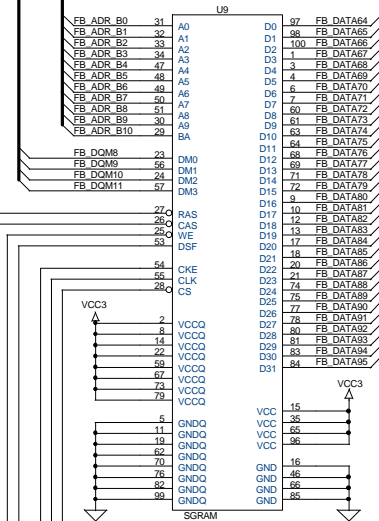
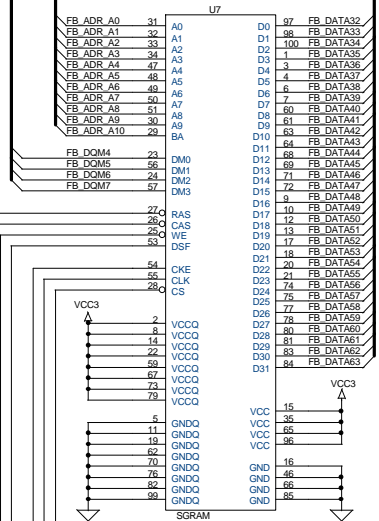
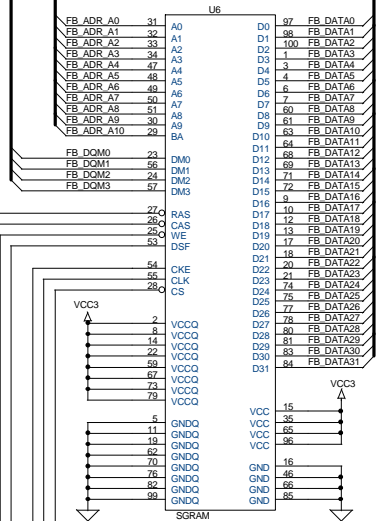
U11
BANSHEE2

Note: 2.505 Volts with these values.

Note: Place Via on U10-C10. Only for debug/bringup purposes. (NOT FOR PRODUCTION)

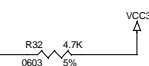


3.5 FB_DATA[0..127]
 3 FB_ADR_B[0..10]
 3 FB_ADR_A[0..10]
 3 FB_DOM[0..15]



3 FB_RAS_A
 3 FB_CAS_A
 3 FB_WEN_A
 3 FB_DSF_A
 3 FB_RAS_B
 3 FB_CAS_B
 3 FB_WEN_B
 3 FB_DSF_B
 3 SGRAM_CLK0_OUT_A0
 3 SGRAM_CLK0_OUT_A1
 3 SGRAM_CLK1_OUT_B0
 3 SGRAM_CLK1_OUT_B1
 3 FB_CS_0

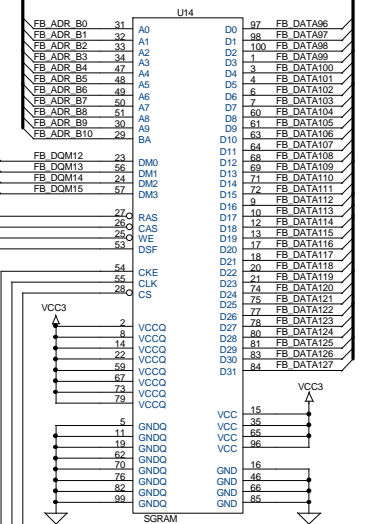
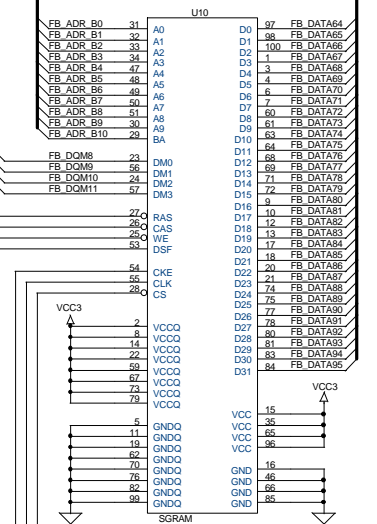
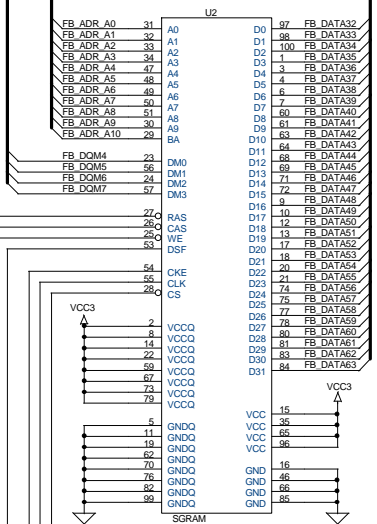
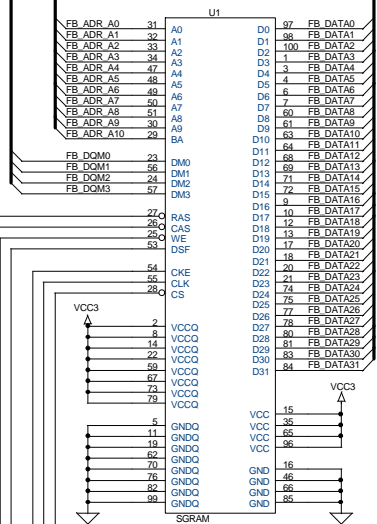
FW_CKE



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3,4 FB_DATA[0..127]
 3 FB_ADR_B[0..10]
 3 FB_ADR_A[0..10]
 3 FB_DOM[0..15]



3 FB_RAS_A
 3 FB_CAS_A
 3 FB_WEN_A
 3 FB_DSFA
 3 FB_RAS_B
 3 FB_CAS_B
 3 FB_WEN_B
 3 FB_DSFB
 3 SGRAM_CLK0_OUT_A0
 3 SGRAM_CLK0_OUT_A1
 3 SGRAM_CLK1_OUT_B0
 3 SGRAM_CLK1_OUT_B1
 3 FB_CS_1

RV_CKE

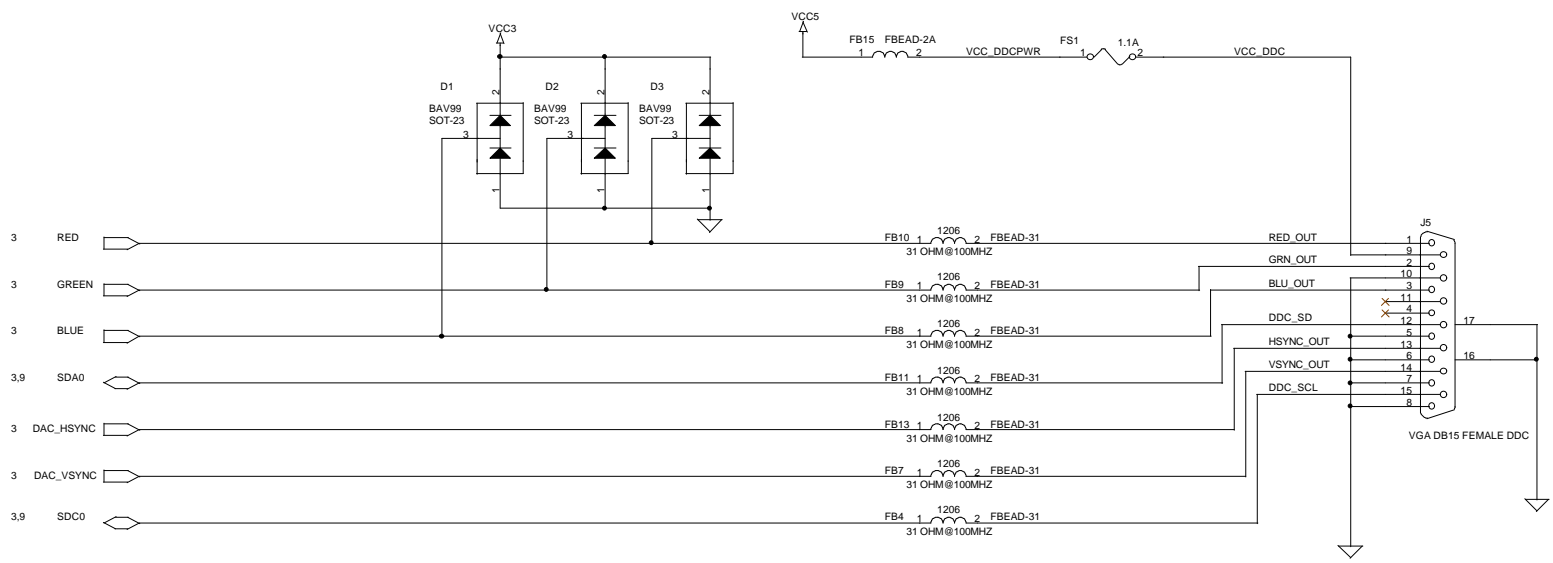
R56 4.7K
 0603 5%

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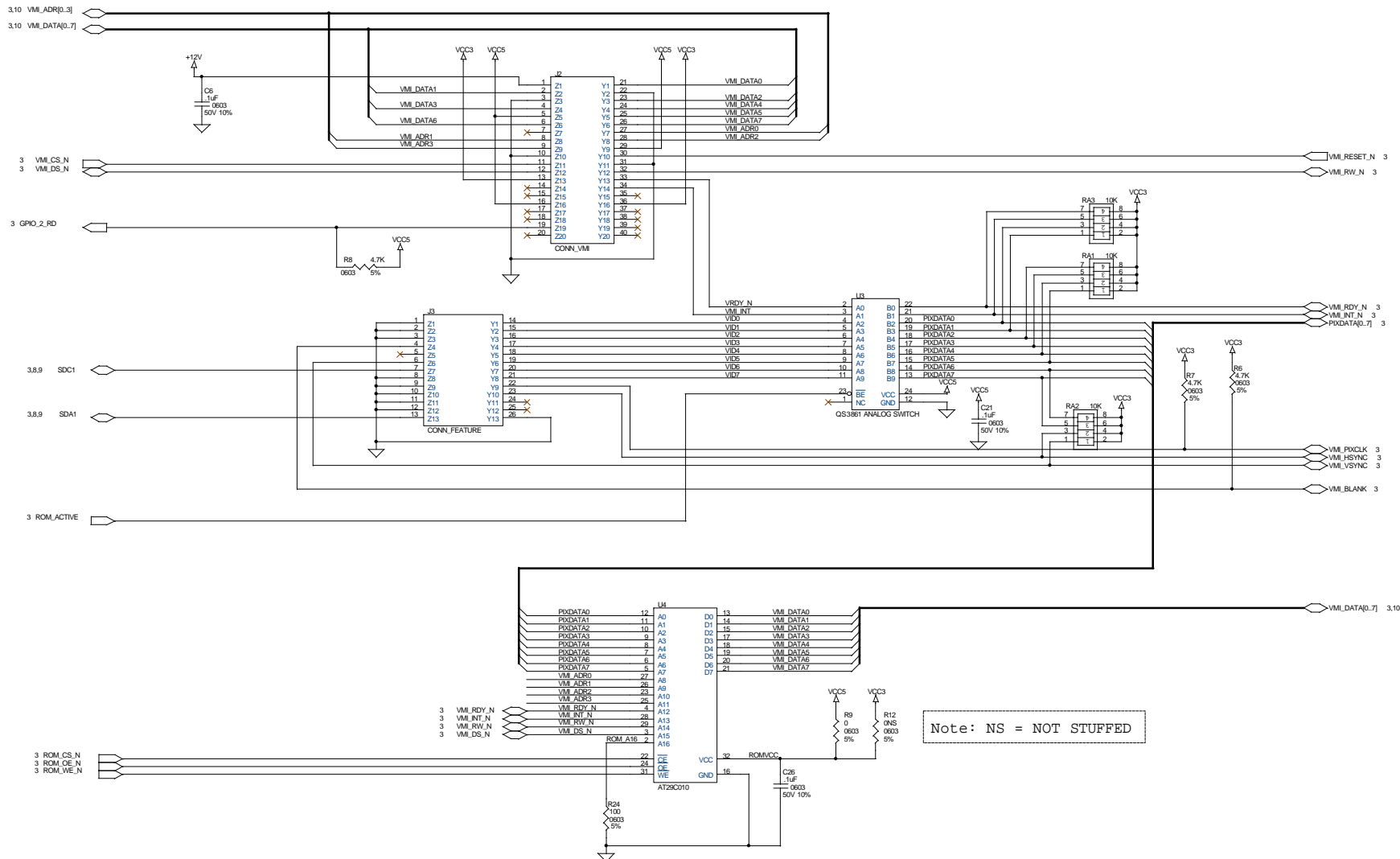
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BANSHEE2 PCI REFERENCE BOARD - MEMORY BANK1

Size Custom Document Number **610-0051-01** Rev A

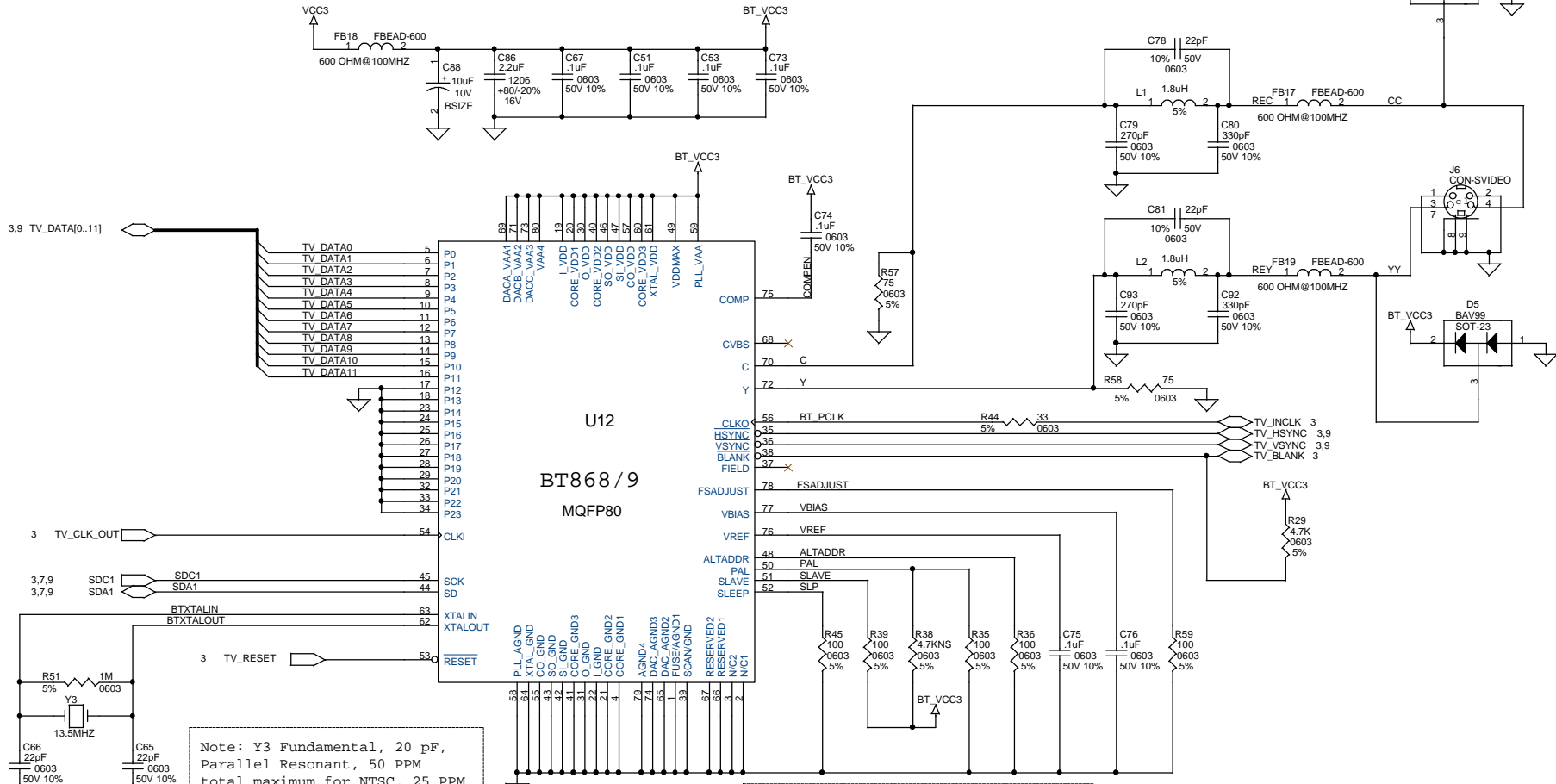
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BANSHEE2 PCI REFERENCE BOARD - PANEL & CONNECTOR			
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Note: NS = NOT STUFFED



Note: Y3 Fundamental, 20 pF, Parallel Resonant, 50 PPM total maximum for NTSC, 25 PPM for PAL. This includes both the Frequency Stability over Temperature (0-70deg. C).

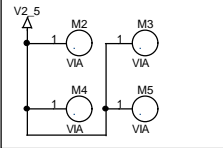
Note: NS (NOT STUFFED) 4.7KNS (4.7K OHM RESISTOR IS NOT STUFFED).

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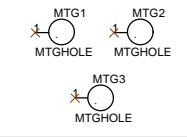
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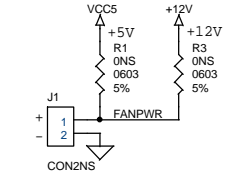
Note: Extra via's to connect 2.5V plane.



PCB MOUNTING HOLE

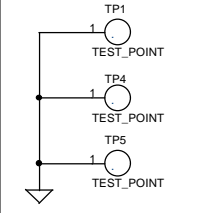


Note: J1, R1 & R3 ONLY USED DURING PCB EVALUATION, NOT INTENDED FOR PRODUCTION DESIGN.

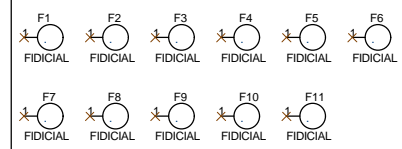


Note: "+" placed by pin 1 of J1. "-" placed by pin 2 of J1, in silkscreen.

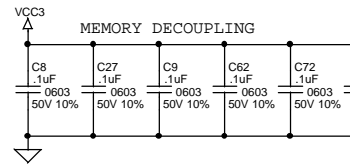
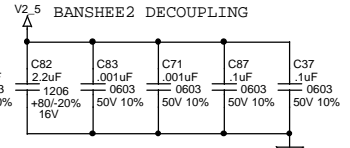
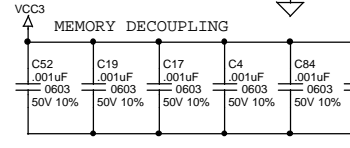
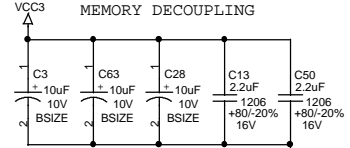
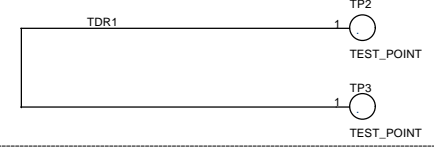
GND PROBES



ASIC FIDICIALS

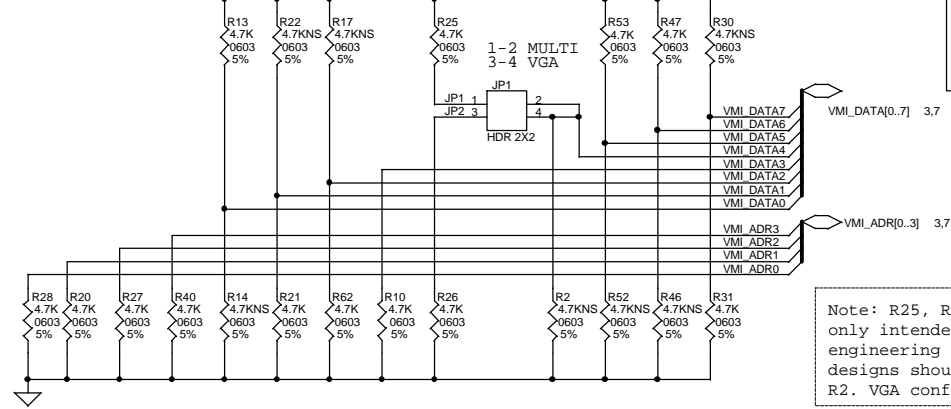


Note: Put 6 inch (total length, through one via) trace between TP4 and TP5. TDR trace, for measuring PCB impedance. ONLY USED DURING PCB EVALUATION, NOT INTENDED FOR PRODUCTION DESIGN.



Note: NS = NOT STUFFED

STRAPPING OPTIONS:



Note: R25, R26 & JP1 are only intended for 3DFX engineering use. Production designs should only stuff R2. VGA configuration.

STRAPPING DEFINITIONS:

- VMI_DATA7 - Disable PCI IRQ register
 - 1 = Disable
 - 0 = Enable (Default)
- VMI_DATA6 - MEMORY CONFIG
 - 1 = 16mbit SGRAM (DEFAULT)
 - 0 = 8Mb SGRAM
- VMI_DATAD5 - SGRAM NUMBER OF CHIPS
 - 1 = 2 MEMORY BANKS (DEFAULT)
 - 0 = 1 MEMORY BANK
- VMI_DATA4 - VGA OR MULTIMEDIA PCI DEVICE CLASS
 - 1 = PCI MULTIMEDIA DEVICE TYPE
 - 0 = PCI VGA DEVICE TYPE
- VMI_DATA3 - AGP ENABLE
 - 0 = PCI ENABLED
- VMI_DATA2 - PCI 66MHZ ENABLE (UPDATES PCI CFG STATUS REG.)
 - 1 = 66MHZ ENABLED
 - 0 = 33MHZ ONLY
- VMI_DATAD1 - BIOS SIZE
 - 1 = 64K
 - 0 = 32K (DEFAULT)
- VMI_DATA0 - PCI FAST DEVICE
 - 1 = DEVSEL TIMING FAST
 - 0 = DEVSEL TIMING MEDIUM
- VMI_ADR3 - NOT DEFINED
- VMI_ADR2 - MEMORY TYPE
 - 0 = SGRAM
- VMI_ADR1 - SHORT POWER ON SGRAM INIT FOR TESTING
 - 1 = TEST MODE
 - 0 = NORMAL OPERATION (DEFAULT)
- VMI_ADR0 - IDSEL SELECT
 - 1 = PCI_AD_16 IS IDSEL (AGP)
 - 0 = IDSEL IS IDSEL (PCI)

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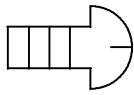
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MISCELLANEOUS BOM COMPONENTS

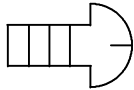


PCB

4L BANSHEE2 PCB



SCREW JACK .250L 4-40



SCREW JACK .250L 4-40



BRACKET

BANSHEE2

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Title
 BANSHEE2 PCI REF. BD. - MOUNTING HARDWARE

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