di ag_out Beginning NXF2PLD Register Content Test. Beginning PLA Program Test. Beginning PLA Register Content Test. Beğinning PLA Reset_Test. Beginning PLA Pins Test. Beğinning PLA Interconnect Test. Beginning XBAR Interconnect Test. Beginning TV LUT (MC2PLA9) Memory Test. Beginning AV LUT (MC2PLA10) Memory Test. Beginning AV LUI (MC2PLAID) Memory Test. Beginning XS LUT (MC2PLA7) Memory Test. Beginning YS LUT (MC2PLA8) Memory Test. Beginning XC LUT (MC2PLA12) Memory Test. Beginning VC LUT (MC2PLA11) Memory Test. Beginning DV LUT (MC2PLA6) Memory Test. Beginning DS LUT (MC2PLA5) Memory Test. Beginning uCode 1 LUT (MC2PLA1) Memory Test. Beginning uCode 2 LUT (MC2PLA2) Memory Test. Beginning uCode 3 LUT (MC2PLA3) Memory Test. Beginning uCode 4 LUT (MC2PLA4) Memory Test. Beginning uMemory Buffers Test. Beğinning Clock Distribution Test. Beginning PLA SRAM Inputs Test. Beginning Registered Interconnect Test. Beginning FLPALs Test. Beginning CCPALs Test. Beginning NXF2PLD Register Content Test. Beginning PLA Program Test. Beginning PLA Register Content Test. Beginning PLA Reset Test. Beginning PLA Pins Test. Beginning PLA Interconnect Test. Beginning XBAR Interconnect Test. Beginning TV LUT (MC2PLA9) Memory Test. Beginning AV LUT (MC2PLA10) Memory Test. Beginning XS LUT (MC2PLA7) Memory Test. Beginning YS LUT (MC2PLA8) Memory Test. Beginning YS LUI (MC2PLA8) Memory Test. Beginning XC LUT (MC2PLA12) Memory Test. Beginning YC LUT (MC2PLA11) Memory Test. Beginning DV LUT (MC2PLA6) Memory Test. Beginning DS LUT (MC2PLA5) Memory Test. Beginning uCode 1 LUT (MC2PLA1) Memory Test. Beginning uCode 2 LUT (MC2PLA2) Memory Test. Beginning uCode 3 LUT (MC2PLA3) Memory Test. Beginning uCode 4 LUT (MC2PLA4) Memory Test. Beginning uMemory Buffers Test. Beginning Clock Distribution Test. Beğinning PLA SRAM Inputs Test. Beginning FLPALs Test. Beginning CCPALs Test. Beginning NVPLD Register Content Test. Beginning PLA Program Test. Beginning PLA Dependent Register Content Test. Beginning Register Aliasing Test. Beginning PLA Pins Test. Beğinning PLA Interconnect Test. Beginning DAC Content Test. Beginning Bt612 Content Test. Beginning Refresh Timeset Test. Beginning Pattern Timeset Test. Beginning Stop Period Test. Beginning Case Bits Test. Beginning NVPLD Register Contents Test. Page 1

di ag_out NVPLD Register address = 26c38fa NVPLD Register Contents Test Complete Beginning PLA Program Test. Program PLAs Complete: PASS Beginning Register Contents Test. Register Contents Test done: PASS Beginning Register Aliasing Test. Register Aliasing test complete: PASS Beginning DAC Register Contents Test. DAC Register Contents test complete: PASS Beginning DAC Register Aliasing test. DAC Register Aliasing test complete: PASS Beginning NVPLD Register Contents Test. NVPLD Register address = 26c39fa NVPLD Register Contents Test Complete Beginning PLA Program Test. Program PLAs Complete: PASS Beginning Register Contents Test. Register Contents Test done: PASS Beginning Register Aliasing Test. Register Aliasing test complete: PASS Beginning DAC Register Contents Test. DAC Register Contents test complete: Beginning DAC Register Aliasing test. PASS DAČ Register Aliasing test complete: PASS Beginning NVPLD Register Contents Test. NVPLD Register address = 26c3afa NVPLD Register Contents Test Complete Beginning PLA Program Test. Program PLAs Complete: PASS Beginning Register Contents Test. Register Contents Test done: PASS Beginning Register Aliasing Test. Register Aliasing test complete: PASS Beginning DAC Register Contents Test. DAČ Register Contents test complete: PASS Beginning DAC Register Aliasing test. DAČ Register Aliasing test complete: PASS Beginning NVPLD Register Contents Test. NVPLD Register Contents Test Complete Beginning PLA Program Test Program PLAs Complete: PASS Beginning Register Contents Test. Register Contents Test done: PASS Beginning Register Aliasing Test. Register Aliasing test complete: PASS Beginning DAC Register Contents Test. DAC Register Contents test complete: PASS Beginning DAC Register Aliasing test. DAC Register Aliasing test complete: PASS Beginning NVPLD Register Contents Test. NVPLD Register address = 26c3cfa NVPLD Register Contents Test Complete Beginning PLA Program Test. Program PLAs Complete: PASS Beginning Register Contents Test. Register Contents Test done: PASS Beginning Register Aliasing Test. Register Aliasing test complete: PASS Beginning DAC Register Contents Test. DAČ Register Contents test complete: PASS Beginning DAC Register Aliasing test.

di ag_out DAC Register Aliasing test complete: PASS Beginning NVPLD Register Contents Test. NVPLD Register address = 26c3dfa NVPLD Register Contents Test Complete Beginning PLA Program Test. Program PLAs Complete: PASS Beginning Register Contents Test. Register Contents Test done: PASS Beginning Register Aliasing Test. Register Aliasing test complete: PASS Beginning DAC Register Contents Test. DAČ Register Contents test complete: PASS Beginning DAC Register Aliasing test. DAC Register Aliasing test complete: PASS Testing DDCF Bus Registers Write index 0, val 5555 Read index 0, val 5555 Write index 1, val 5555 Read index 1, val 5555 Write index 2, val 5555 Read index 2, val 5555 Write index 0, val aaaa Read index 0, val aaaa Write index 1, val aaaa Read index 1, val aaaa Write index 2, val aaaa Read index 2, val aaaa Bus Test Pass Testing DDCF Bus Registers Disturb Mode Write index 0, val 5555 Read index 0, val 5555 Write index 1, val 5555 Read index 1, val 5555 Write index 2, val 5555 Read index 2, val 5555 Write index O, val aaaa Read index 0, val aaaa Write index 1, val aaaa Read index 1, val aaaa Write index 2, val aaaa Read index 2, val aaaa Disturb Bus Test Pass Calibrating DDCF ADC ADC gain cals to 1.0005, limits are 1.+/- 0.0100 ADC offset cals to -0.0042, limits are 0.+/- 0.0400 ADC linearity measures -0.0000 limits are 0.+/- 0.0005 ADC INA Gain 1 gain cals to 1.0003, limits are 1.+/- 0.0100 ADC INA Gain 1 offset cals to 0.0002, limits are 0.+/- 0.0250 ADC Cal Load INA Gain 8 +5 V offset cals to 0.0003, limits are 0.+/- 0.0100 diag_out ADC Cal Load INA Gain 8 +2 V offset cals to 0.0000, limits are 0.+/- 0.0100 ADC Cal Load INA Gain 8 0 V offset cals to -0.0000, limits are 0.+/- 0.0100 ADC Cal Load INA Gain 8 -2 V offset cals to 0.0000, limits are 0.+/- 0.0100 ADC Cal Load INA Gain 8 -5 V offset cals to 0.0000, limits are 0.+/- 0.0100 The ADC Calibrated

Calibrating DPS1 voltage Functions

DPS1 gain cals to 0.9945, limits are 1.+/- 0.0100 DPS1 offset cals to -0.0067, limits are 0.+/- 0.0300 DPS1 linearity error measures -0.0001, limits are 0.+/- 0.0005 DPS1 measure V gain cals to 1.0002, limits are 1.+/- 0.0100 DPS1 measure V offset cals to -0.0015, limits are 0.+/- 0.0100 DPS1 measure V linearity error measures 0.0000, limits are 0.+/- 0.0005 The DPS1 source is voltage calibrated.

Calibrating DPS1 current functions

Calibrate current called with range 8 DPS1 range 0 measure I gain cals to 0.9950, limits are 1.+/- 0.0400 DPS1 range 0 measure I offset cals to 0.0819, limits are 0.+/- 1.5000 DPS1 I range 0 measure CMRR factor cals to 0.0020, limits are 0.+/- 0.0900 DPS1 range 0 measure I linearity error measures 0.0003, limits are 0.+/- 0.0050 DPS1 range 1 measure I gain cals to 0.9944, limits are 1.+/- 0.0400 DPS1 range 1 measure I offset cals to 0.0345, limits are 0.+/- 1.5000 DPS1 I range 1 measure CMRR factor cals to 0.0036, limits are 0.+/- 0.0900 DPS1 range 1 measure I linearity error measures 0.0001, limits are 0.+/- 0.0050 DPS1 range 2 measure I gain cals to 0.9941, limits are 1.+/- 0.0400 DPS1 range 2 measure I offset cals to 0.0295, limits are 0.+/- 1.5000 DPS1 I range 2 measure CMRR factor cals to 0.0037, limits are 0.+/- 0.0900 DPS1 range 2 measure I linearity error measures 0.0001, limits are 0.+/- 0.0050 DPS1 range 3 measure I gain cals to 0.9952, limits are 1.+/- 0.0400 DPS1 range 3 measure I offset cals to 0.0293, limits are 0.+/- 1.5000 DPS1 I range 3 measure CMRR factor cals to 0.0037, limits are 0.+/- 0.0900 DPS1 range 3 measure I linearity error measures 0.0001, limits are 0.+/- 0.0050 Page 4

DPS1 range 4 measure I gain cals to 0.9983, limits are 1.+/- 0.0400 DPS1 range 4 measure I offset cals to 0.0293, limits are 0.+/- 1.5000 DPS1 I range 4 measure CMRR factor cals to 0.0037, limits are 0.+/- 0.0900 DPS1 range 4 measure I linearity error measures 0.0001, limits are 0.+/- 0.0050 DPS1 range 5 measure I gain cals to 1.0007, limits are 1.+/- 0.0400 DPS1 range 5 measure I offset cals to 0.0295, limits are 0.+/- 1.5000 DPS1 I range 5 measure I offset cals to 0.0295, limits are 0.+/- 1.5000 DPS1 I range 5 measure I linearity error measures 0.0001, limits are 0.+/- 0.0900 DPS1 range 5 measure I linearity error measures 0.0001, limits are 0.+/- 0.0900 DPS1 range 5 measure I linearity error measures 0.0001, limits are 0.+/- 0.0900 DPS1 range 5 measure I linearity error measures 0.0001, limits are 0.+/- 0.0900 DPS1 range 5 measure I linearity error measures 0.0001, limits are 0.+/- 0.0900

Calibrating DPS2 voltage Functions

DPS2 gain cals to 0.9945, limits are 1.+/- 0.0100 DPS2 offset cals to -0.0010, limits are 0.+/- 0.0300 DPS2 linearity error measures -0.0000, limits are 0.+/- 0.0005 DPS2 measure V gain cals to 1.0003, limits are 1.+/- 0.0100 DPS2 measure V offset cals to -0.0027, limits are 0.+/- 0.0100 DPS2 measure V linearity error measures 0.0000, limits are 0.+/- 0.0005 The DPS2 source is voltage calibrated.

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Calibrating DPS2 current functions
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Calibrate current called with range 8 DPS2 range 0 measure I gain cals to 0.9944, limits are 1.+/- 0.0400 DPS2 range 0 measure I offset cals to 0.0635, limits are 0.+/- 1.5000 DPS2 I range 0 measure CMRR factor cals to -0.0013, limits are 0.+/- 0.0900 DPS2 range 0 measure I linearity error measures -0.0001, limits are 0.+/- 0.0050 DPS2 range 1 measure I gain cals to 0.9935, limits are 1.+/- 0.0400 DPS2 range 1 measure I offset cals to 0.0141, limits are 0.+/- 1.5000 DPS2 I range 1 measure I offset cals to -0.0011, limits are 0.+/- 0.0900 DPS2 range 1 measure I linearity error measures 0.0000, limits are 0.+/- 0.0900 DPS2 range 2 measure I gain cals to 0.9937, limits are 1.+/- 0.0400

di ag_out DPS2 I range 2 measure CMRR factor cals to -0.0010, limits are 0.+/- 0.0900 DPS2 range 2 measure I linearity error measures 0.0000, limits are 0.+/- 0.0050 DPS2 range 3 measure I gain cals to 0.9939, limits are 1.+/- 0.0400 DPS2 range 3 measure I offset cals to 0.0086, limits are 0.+/- 1.5000 DPS2 I range 3 measure CMRR factor cals to -0.0011, limits are 0.+/- 0.0900 DPS2 range 3 measure I linearity error measures -0.0000, limits are 0.+/- 0.0050 DPS2 range 4 measure I gain cals to 0.9921, limits are 1.+/- 0.0400 DPS2 range 4 measure I offset cals to 0.0085, limits are 0.+/- 1.5000 DPS2 I range 4 measure CMRR factor cals to -0.0010, limits are 0.+/- 0.0900 DPS2 range 4 measure I linearity error measures 0.0000, limits are 0.+/- 0.0050 DPS2 range 5 measure I gain cals to 1.0002, limits are 1.+/- 0.0400 DPS2 range 5 measure I offset cals to 0.0084, limits are 0.+/- 1.5000 DPS2 I range 5 measure CMRR factor cals to -0.0011, limits are 0.+/- 0.0900 DPS2 range 5 measure I linearity error measures 0.0000, limits are 0.+/- 0.0050 The DPS2 source is current calibrated. DPS2 Calibration Pass

Calibrating DPS3 voltage Functions

DPS3 gain cals to 0.9946, limits are 1.+/- 0.0100 DPS3 offset cals to -0.0051, limits are 0.+/- 0.0300 DPS3 linearity error measures -0.0000, limits are 0.+/- 0.0005 DPS3 measure V gain cals to 1.0003, limits are 1.+/- 0.0100 DPS3 measure V offset cals to 0.0005, limits are 0.+/- 0.0100 DPS3 measure V linearity error measures 0.0000, limits are 0.+/- 0.0005 The DPS3 source is voltage calibrated.

Calibrating DPS3 current functions Calibrate current called with range 8 DPS3 range 0 measure I gain cals to 0.9942, limits are 1.+/- 0.0400 DPS3 range 0 measure I offset cals to -0.0479, limits are 0.+/- 1.5000 DPS3 I range 0 measure CMRR factor cals to -0.0015, limits are 0.+/- 0.0900 DPS3 range 0 measure I linearity error measures -0.0002, limits are 0.+/- 0.0050 DPS3 range 1 measure I gain cals to 0.9939, limits are 1.+/- 0.0400

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DPS3 range 1 measure I offset cals to -0.0269, limits are 0.+/- 1.5000 DPS3 I range 1 measure CMRR factor cals to -0.0010, limits are 0.+/- 0.0900 DPS3 range 1 measure I linearity error measures -0.0001, limits are 0.+/- 0.0050 DPS3 range 2 measure I gain cals to 0.9938, limits are 1.+/- 0.0400 DPS3 range 2 measure I offset cals to -0.0250, limits are 0.+/- 1.5000 DPS3 I range 2 measure CMRR factor cals to -0.0011, limits are 0.+/- 0.0900 DPS3 range 2 measure | linearity error measures -0.0000, limits are 0.+/- 0.0050 DPS3 range 3 measure I gain cals to 0.9945, limits are 1.+/- 0.0400 DPS3 range 3 measure I offset cals to -0.0249, limits are 0.+/- 1.5000 DPS3 I range 3 measure CMRR factor cals to -0.0010, limits are 0.+/- 0.0900 DPS3 range 3 measure | linearity error measures -0.0000, limits are 0.+/- 0.0050 DPS3 range 4 measure I gain cals to 0.9977, limits are 1.+/- 0.0400 DPS3 range 4 measure I offset cals to -0.0250, limits are 0.+/- 1.5000 DPS3 I range 4 measure CMRR factor cals to -0.0011, limits are 0.+/- 0.0900 DPS3 range 4 measure I linearity error measures -0.0000, limits are 0.+/- 0.0050 DPS3 range 5 measure I gain cals to 1.0003, limits are 1.+/- 0.0400 DPS3 range 5 measure I offset cals to -0.0250, limits are 0.+/- 1.5000 DPS3 I range 5 measure CMRR factor cals to -0.0011, limits are 0.+/- 0.0900 DPS3 range 5 measure I linearity error measures -0.0000, limits are 0.+/- 0.0050 The DPS3 source is current calibrated. DPS3 Calibration Pass Calibrating DPS4 voltage Functions

DPS4 gain cals to 0.9951, limits are 1.+/- 0.0100 DPS4 offset cals to -0.0071, limits are 0.+/- 0.0300 DPS4 linearity error measures -0.0000, limits are 0.+/- 0.0005 DPS4 measure V gain cals to 1.0002, limits are 1.+/- 0.0100 DPS4 measure V offset cals to 0.0002, limits are 0.+/- 0.0100 DPS4 measure V linearity error measures 0.0000, limits are 0.+/- 0.0005 The DPS4 source is voltage calibrated.

Calibrating DPS4 current functions

Calibrate current called with range 8 DPS4 range 0 measure I gain cals to 0.9949, limits are 1.+/- 0.0400 DPS4 range 0 measure I offset cals to 0.0844, limits are 0.+/- 1.5000 DPS4 I range 0 measure CMRR factor cals to 0.0033, limits are 0.+/- 0.0900 DPS4 range 0 measure 1 linearity error measures -0.0001, limits are 0.+/- 0.0050 DPS4 range 1 measure I gain cals to 0.9945, limits are 1.+/- 0.0400 DPS4 range 1 measure I offset cals to 0.0428, limits are 0.+/- 1.5000 DPS4 I range 1 measure CMRR factor cals to 0.0039, limits are 0.+/- 0.0900 DPS4 range 1 measure I linearity error measures -0.0000, limits are 0.+/- 0.0050 DPS4 range 2 measure I gain cals to 0.9944, limits are 1.+/- 0.0400 DPS4 range 2 measure I offset cals to 0.0384, limits are 0.+/- 1.5000 DPS4 I range 2 measure CMRR factor cals to 0.0039, limits are 0.+/- 0.0900 DPS4 range 2 measure I linearity error measures -0.0000, limits are 0.+/- 0.0050 DPS4 range 3 measure I gain cals to 0.9952, limits are 1.+/- 0.0400 DPS4 range 3 measure I offset cals to 0.0379, limits are 0.+/- 1.5000 DPS4 I range 3 measure CMRR factor cals to 0.0039, limits are 0.+/- 0.0900 DPS4 range 3 measure I linearity error measures 0.0000, limits are 0.+/- 0.0050 DPS4 range 4 measure I gain cals to 0.9982, limits are 1.+/- 0.0400 DPS4 range 4 measure I offset cals to 0.0383, limits are 0.+/- 1.5000 DPS4 I range 4 measure CMRR factor cals to 0.0040, limits are 0.+/- 0.0900 DPS4 range 4 measure 1 linearity error measures -0.0000, limits are 0.+/- 0.0050 DPS4 range 5 measure I gain cals to 1.0011, limits are 1.+/- 0.0400 DPS4 range 5 measure I offset cals to 0.0383, limits are 0.+/- 1.5000 DPS4 I range 5 measure CMRR factor cals to 0.0040, limits are 0.+/- 0.0900 DPS4 range 5 measure I linearity error measures 0.0000, limits are 0.+/- 0.0050 The DPS4 source is current calibrated. DPS4 Calibration Pass

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Calibrating VPP1 voltage functions VPP1 gain cals to 0.9925, limits are 1.+/- 0.0100 VPP1 offset cals to 0.0109, limits are 0.+/- 0.0800 VPP1 linearity error measures 0.0001, limits are 0.+/- 0.0005

di ag_out The VPP1 source is voltage calibrated. Calibrating VPP1 current functions VPP1 I measure gain cals to 1.0010, limits are 1.+/- 0.0100 VPP1 I measure offset cals to -0.0025, limits are 0.+/- 0.0200 VPP1 I measure CMRR factor cals to -0.0017, limits are 0.+/- 0.0100 VPP1 I measure linearity error measures -0.0000, limits are 0.+/- 0.0005 The VPP1 source is current calibrated. VPP1 Calibration Pass Calibrating VPP2 voltage functions VPP2 gain cals to 0.9925, limits are 1.+/- 0.0100 VPP2 offset cals to 0.0186, limits are 0.+/- 0.0800 VPP2 linearity error measures 0.0000, limits are 0.+/- 0.0005 The VPP2 source is voltage calibrated. Calibrating VPP2 current functions VPP2 I measure gain cals to 1.0005, limits are 1.+/- 0.0100 VPP2 I measure offset cals to -0.0035, limits are 0.+/- 0.0200 VPP2 I measure CMRR factor cals to -0.0016, limits are 0.+/- 0.0100 VPP2 I measure linearity error measures -0.0000, limits are 0.+/- 0.0005 The VPP2 source is current calibrated. VPP2 Calibration Pass Calibrating DDCF VTT1 Voltage Functions VTT1 gain cals to 0.9948, limits are 1.+/- 0.0100 VTT1 offset cals to 0.0033 limits are 0.+/- 0.0200 VTT1 linearity error measures -0.0000, limits are 0.+/- 0.0005 VTT1 linearity error measures -0.0000, limits are 0.+/- 0.0005 The VTT1 source is voltage calibrated. Calibrating DDCF VTT1 current functions VTT1 I measure gain cals to 1.0006, limits are 1.+/- 0.0100

VTT1 I measure offset cals to -0.0216, limits are 0.+/- 0.0300

diag_out VTT1 I measure CMRR factor cals to -0.0012, limits are 0.+/- 0.0100 VTT1 I measure linearity error unloaded measures 0.0000, limits are 0.+/- 0.0005 VTT1 I measure linearity error loaded measures 0.0000, limits are 0.+/- 0.0005 VTT1 I measure linearity error loaded measures 0.0000, limits are 0.+/- 0.0005 VTT1 Load V loaded @2.000000V 2.0007, @Gnd 0.0013, @2.000000V -1.9985 VTT1 I meas open @2.000000V 0.0032, @Gnd 0.0036, @2.000000V 0.0035 VTT1 I meas loaded @2.000000V 4.0064, @Gnd 0.0068, @2.000000V -3.9931 The VTT1 source is current calibrated. VTT1 Calibration Pass

Calibrating DDCF VTT2 Voltage Functions VTT2 gain cals to 0.9951, limits are 1.+/- 0.0100 VTT2 offset cals to 0.0005 limits are 0.+/- 0.0200 VTT2 linearity error measures -0.0000, limits are 0.+/- 0.0005 VTT2 linearity error measures -0.0000, limits are 0.+/- 0.0005

The VTT2 source is voltage calibrated.

Calibrating DDCF VTT2 current functions

VTT2 I measure gain cals to 1.0003, limits are 1.+/- 0.0100 VTT2 I measure offset cals to -0.0279, limits are 0.+/- 0.0300 VTT2 I measure CMRR factor cals to -0.0006, limits are 0.+/- 0.0100 VTT2 I measure linearity error unloaded measures -0.0000, limits are 0.+/- 0.0005 VTT2 I measure linearity error loaded measures 0.0000, limits are 0.+/- 0.0005 VTT2 I measure linearity error loaded measures 0.0000, limits are 0.+/- 0.0005 VTT2 I measure linearity error loaded measures 0.0000, limits are 0.+/- 0.0005 VTT2 I measure linearity error loaded measures 0.0000, limits are 0.+/- 0.0005 VTT2 Load V loaded @2.000000V 2.0009, @Gnd 0.0014, @2.000000V -1.9986 VTT2 I meas open @2.000000V 0.0037, @Gnd 0.0035, @2.000000V 0.0032 VTT2 I meas loaded @2.000000V 4.0063, @Gnd 0.0071, @2.000000V -3.9927 The VTT2 source is current calibrated. VTT2 Calibration Pass

Calibrating VAUX1 voltage functions VAUX1 gain cals to 0.9949, limits are 1.+/- 0.0120 VAUX1 offset cals to -0.0010, limits are 0.+/- 0.0200

diag_out VAUX1 Linearity measures 0.0000, Limits are 0.+/- 0.0005 The VAUX1 source is voltage calibrated. VAUX1 Calibration Pass Calibrating VAUX2 voltage functions VAUX2 gain cals to 0.9966, Limits are 1.+/- 0.0120 VAUX2 offset cals to -0.0028, Limits are 0.+/- 0.0200 VAUX2 linearity measures 0.0000, Limits are 0.+/- 0.0005 The VAUX2 source is voltage calibrated. VAUX2 Calibration Pass Calibrating VAUX3 voltage functions VAUX3 gain cals to 0.9956, Limits are 1.+/- 0.0120 VAUX3 offset cals to -0.0036, Limits are 0.+/- 0.0200 VAUX3 linearity measures 0.0000, Limits are 0.+/- 0.0200

The VAUX3 source is voltage calibrated. VAUX3 Calibration Pass

Calibrating VAUX4 voltage functions VAUX4 gain cals to 0.9948, limits are 1.+/- 0.0120 VAUX4 offset cals to -0.0047, limits are 0.+/- 0.0200 VAUX4 linearity measures -0.0000, limits are 0.+/- 0.0005 The VAUX4 source is voltage calibrated. VAUX4 Calibration Pass

Calibrating PMU Voltage Functions PMU V Rng 0 gain cals to 0.9968, limits are 1.+/- 0.0300 PMU V Rng 0 offset cals to -0.0000, limits are 0.+/- 0.0200 PMU V Rng 0 drive linearity measures -0.0004, limits are 0.+/- 0.0005 PMU V Rng 0 measure V gain cals to 0.9984, limits are 1.+/- 0.0200 PMU V Rng 0 measure V offset cals to -0.0053, limits are 0.+/- 0.0300 PMU V Rng 0 measure V linearity error measures 0.0003, limits are 0.+/- 0.0005 PMU V Rng 1 gain cals to 0.9951, limits are 1.+/- 0.0300 PMU V Rng 1 offset cals to -0.0034, limits are 0.+/- 0.0200 PMU V Rng 1 offset cals to -0.0034, limits are 0.+/- 0.0200 PMU V Rng 1 offset cals to -0.0034, limits are 0.+/- 0.0200

PMU V Rng 1 drive linearity measures -0.0002, limits are 0.+/- 0.0005 PMU V Rng 1 measure V gain cals to 1.0001, limits are 1.+/- 0.0200 PMU V Rng 1 measure V offset cals to 0.0010, limits are 0.+/- 0.0300 PMU V Rng 1 measure V linearity error measures 0.0001, limits are 0.+/- 0.0005 PMU V Rng 2 gain cals to 0.9949, limits are 1.+/- 0.0300 PMU V Rng 2 offset cals to -0.0066, limits are 0.+/- 0.0200 PMU V Rng 2 drive linearity measures -0.0000, limits are 0.+/- 0.0005 PMU V Rng 2 measure V gain cals to 1.0003, limits are 1.+/- 0.0200 PMU V Rng 2 measure V offset cals to 0.0008, limits are 0.+/- 0.0300 PMU V Rng 2 measure V linearity error measures 0.0000, limits are 0.+/- 0.0005 PMU V Rng 3 gain cals to 0.9948, limits are 1.+/- 0.0300 PMU V Rng 3 offset cals to -0.0102, limits are 0.+/- 0.0200 PMU V Rng 3 drive linearity measures -0.0000, limits are 0.+/- 0.0005 PMU V Rng 3 measure V gain cals to 1.0003, limits are 1.+/- 0.0200 PMU V Rng 3 measure V offset cals to -0.0007, limits are 0.+/- 0.0300 PMU V Rng 3 measure V linearity error measures 0.0000, limits are 0.+/- 0.0005 The PMU is voltage calibrated.

Calibrating PMU Current Measure CMRR Rejection

PMU I Rng 5 CMRR correction iteration 1 cals to 65, limits are 50 +/- 0
PMU I Rng 5 current measures top 0.2230, gnd 0.0040, bottom -0.2195
PMU I Rng 5 CMRR correction iteration 2 cals to 67, limits are 50 +/- 0
PMU I Rng 5 current measures top 0.0301, gnd 0.0034, bottom -0.0288
PMU I Rng 5 CMRR correction iteration 3 cals to 67, limits are 50 +/- 0
PMU I Rng 5 current measures top 0.0041, gnd 0.0034, bottom -0.0200
Range 5 calibrated
PMU I Rng 5 CMRR correction iteration 4 cals to 67, limits are 50 +/- 0
PMU I Rng 5 CMRR correction iteration 4 cals to 67, limits are 50 +/- 0
PMU I Rng 5 CMRR correction iteration 1 cals to 67, limits are 50 +/- 0
PMU I Rng 5 CMRR correction iteration 1 cals to 65, limits are 50 +/- 0
PMU I Rng 4 CMRR correction iteration 1 cals to 67, limits are 50 +/- 0
PMU I Rng 4 current measures top 0.2234, gnd 0.0046, bottom -0.2199
PMU I Rng 4 CMRR correction iteration 2 cals to 67, limits are 50 +/- 0
PMU I Rng 4 current measures top 0.2234, gnd 0.0032, bottom -0.2199
PMU I Rng 4 current measures top 0.0286, gnd 0.0032, bottom -0.0288
PMU I Rng 4 current measures top 0.0286, gnd 0.0032, bottom -0.0288

PMU I Rng 4 CMRR correction iteration 3 cals to 67, limits are 50 +/- 0 PMU I Rng 4 current measures top 0.0048, gnd 0.0033, bottom -0.0029 Range 4 calibrated PMU I Rng 4 CMRR correction iteration 4 cals to 67, limits are 50 +/- 0 PMU I Rng 4 current measures top 0.0042, gnd 0.0031, bottom -0.0032 PMU I Rng 3 CMRR correction iteration 1 cals to 65, limits are 50 +/- 0 PMU I Rng 3 current measures top 0.2229, gnd 0.0043, bottom -0.2194 PMU I Rng 3 CMRR correction iteration 2 cals to 67, limits are 50 +/- 0 PMU I Rng 3 current measures top 0.0297, gnd 0.0030, bottom -0.0275 PMU I Rng 3 CMRR correction iteration 3 cals to 67, limits are 50 +/- 0 PMU I Rng 3 current measures top 0.0037, gnd 0.0029, bottom -0.0032 Range 3 calibrated PMU I Rng 3 CMRR correction iteration 4 cals to 67, limits are 50 +/- 0 PMU I Rng 3 current measures top 0.0041, gnd 0.0030, bottom -0.0018 PMU I Rng 2 CMRR correction iteration 1 cals to 65, limits are 50 +/- 0 PMU I Rng 2 current measures top 0.2240, gnd 0.0030, bottom -0.2193 PMU I Rng 2 CMRR correction iteration 2 cals to 67, limits are 50 +/- 0 PMU I Rng 2 current measures top 0.0291, gnd 0.0034, bottom -0.0284 PMU I Rng 2 CMRR correction iteration 3 cals to 67, limits are 50 +/- 0 PMU I Rng 2 current measures top 0.0031, gnd 0.0025, bottom -0.0036 Range 2 calibrated PMU I Rng 2 CMRR correction iteration 4 cals to 67, limits are 50 +/- 0 PMU I Rng 2 current measures top 0.0045, gnd 0.0025, bottom -0.0024 PMU I Rng 1 CMRR correction iteration 1 cals to 66, limits are 50 +/- 0 PMU I Rng 1 current measures top 0.2251, gnd 0.0046, bottom -0.2230 PMU I Rng 1 CMRR correction iteration 2 cals to 67, limits are 50 +/- 0 PMU I Rng 1 current measures top 0.0182, gnd 0.0017, bottom -0.0182 PMU I Rng 1 CMRR correction iteration 3 cals to 67, limits are 50 +/- 0 PMU I Rng 1 current measures top 0.0058, gnd 0.0020, bottom -0.0054 Range 1 calibrated PMU I Rng 1 CMRR correction iteration 4 cals to 67, limits are 50 +/- 0 diag_out PMU I Rng 1 current measures top 0.0037, gnd 0.0018, bottom 0.0001 PMU I Rng 0 CMRR correction iteration 1 cals to 66, limits are 50 +/- 0 PMU I Rng 0 current measures top 0.2448, gnd 0.0072, bottom -0.2230 PMU I Rng 0 CMRR correction iteration 2 cals to 67, limits are 50 +/- 0 PMU I Rng 0 current measures top 0.0299, gnd 0.0056, bottom -0.0207 PMU I Rng 0 CMRR correction iteration 3 cals to 67, limits are 50 +/- 0 PMU I Rng 0 current measures top 0.0163, gnd 0.0056, bottom -0.0083 Range 0 calibrated PMU I Rng 0 CMRR correction iteration 4 cals to 67, limits are 50 +/- 0

PMU I Rng O current measures top 0.0162, gnd 0.0071, bottom -0.0091 The PMU measure I is CMRR calibrated.

Calibrating PMU Current Functions

PMU I Rng 5 drive I gain cals to 1.0083, limits are 1.+/- 0.0800 PMU I Rng 5 drive I offset cals to -0.0834, limits are 0.+/- 0.1500 PMU I Rng 5 measure I gain cals to 0.9873, limits are 1.+/- 0.0300 PMU I Rng 5 measure I offset cals to 0.0856, limits are 0.+/- 0.1500 PMU I Rng 5 measure I linearity error measures 0.0001, limits are 0.+/- 0.0010 PMU I Rng 4 drive I gain cals to 1.0026, limits are 1.+/- 0.0800 PMU I Rng 4 drive I offset cals to -0.0831, limits are 0.+/- 0.1500 PMU I Rng 4 measure I gain cals to 0.9931, limits are 1.+/- 0.0300 PMU I Rng 4 measure I offset cals to 0.0865, limits are 0.+/- 0.1500 PMU I Rng 4 measure I linearity error measures 0.0001, limits are 0.+/- 0.0010 PMU I Rng 3 drive I gain cals to 1.0021, limits are 1.+/- 0.0800 PMU I Rng 3 drive I offset cals to -0.0828, limits are 0.+/- 0.1500 PMU I Rng 3 measure I gain cals to 0.9936, limits are 1.+/- 0.0300 PMU I Rng 3 measure I offset cals to 0.0863, limits are 0.+/- 0.1500 PMU I Rng 3 measure I linearity error measures 0.0001, limits are 0.+/- 0.0010 PMU I Rng 2 drive I gain cals to 1.0017, limits are 1.+/- 0.0800 PMU I Rng 2 drive I offset cals to -0.0829, limits are 0.+/- 0.1500 PMU I Rng 2 measure I gain cals to 0.9938, limits are 1.+/- 0.0300 PMU I Rng 2 measure I offset cals to 0.0858, limits are 0.+/- 0.1500

di ag_out PMU I Rng 2 measure I linearity error measures 0.0001, limits are 0.+/- 0.0010 PMU I Rng 1 drive I gain cals to 1.0021, limits are 1.+/- 0.0800 PMU I Rng 1 drive I offset cals to -0.0832, limits are 0.+/- 0.1500 PMU I Rng 1 measure I gain cals to 0.9934, limits are 1.+/- 0.0300 PMU I Rng 1 measure I offset cals to 0.0857, limits are 0.+/- 0.1500 PMU I Rng 1 measure I linearity error measures 0.0004, limits are 0.+/- 0.0010 PMU I Rng 0 drive I gain cals to 1.0022, limits are 1.+/- 0.0800 PMU I Rng O drive I offset cals to -0.0838, limits are 0.+/- 0.1500 PMU I Rng O measure I gain cals to 0.9941, limits are 1.+/- 0.0300 PMU I Rng O measure I offset cals to 0.0908, limits are 0.+/- 0.1500 PMU I Rng 0 measure I linearity error measures 0.0003, limits are 0.+/- 0.0010 The PMU is current calibrated. PMU Calibration Pass DPS1 Current Limit Test 20uA Current Range DPS1 positive limit passes at 130.6 percent of load. DPS1 negative limit passes at 128.3 percent of load. 200uA Current Range DPS1 positive limit passes at 130.8 percent of load. DPS1 negative limit passes at 128.7 percent of load. 2mA Current Range DPS1 positive limit passes at 130.4 percent of load. DPS1 negative limit passes at 128.7 percent of load. 20mA Current Range DPS1 positive limit passes at 130.5 percent of load. DPS1 negative limit passes at 128.9 percent of load. 200mA Current Range DPS1 positive limit passes at 130.3 percent of load. DPS1 negative limit passes at 128.4 percent of load. DPS1 Current Limit Pass DPS2 Current Limit Test 20uA Current Range DPS2 positive limit passes at 127.6 percent of load. DPS2 negative limit passes at 128.7 percent of load. 200uA Current Range DPS2 positive limit passes at 127.3 percent of load. DPS2 negative limit passes at 129.0 percent of load. 2mA Current Range DPS2 positive limit passes at 128.0 percent of load. DPS2 negative limit passes at 129.0 percent of load. 20mA Current Range DPS2 positive limit passes at 128.0 percent of load. DPS2 negative limit passes at 129.2 percent of load. 200mA Current Range DPS2 positive limit passes at 127.1 percent of load. DPS2 negative limit passes at 128.1 percent of load. DPS2 Current Limit Pass Page 15

DPS3 Current Limit Test 20uA Current Range DPS3 positive limit passes at 128.2 percent of load. DPS3 negative limit passes at 128.3 percent of load. 200uA Current Range DPS3 positive limit passes at 128.7 percent of load. DPS3 negative limit passes at 128.0 percent of load. 2mA Current Range DPS3 positive limit passes at 128.8 percent of load. DPS3 negative limit passes at 128.0 percent of load. 20mA Current Range DPS3 positive limit passes at 129.0 percent of load. DPS3 negative limit passes at 128.2 percent of load. 200mA Current Range DPS3 positive limit passes at 128.6 percent of load. DPS3 negative limit passes at 127.7 percent of load. DPS3 Current Limit Pass DPS4 Current Limit Test 20uA Current Range DPS4 positive limit passes at 131.2 percent of load. DPS4 negative limit passes at 127.1 percent of load. 200uA Current Range DPS4 positive limit passes at 131.7 percent of load. DPS4 negative limit passes at 127.4 percent of load. 2mA Current Range DPS4 positive limit passes at 130.9 percent of load. DPS4 negative limit passes at 127.4 percent of load. 20mA Current Range DPS4 positive limit passes at 131.0 percent of load. DPS4 negative limit passes at 127.6 percent of load. 200mA Current Range DPS4 positive limit passes at 130.8 percent of load. DPS4 negative limit passes at 127.2 percent of load. DPS4 Current Limit Pass DPS Load Sharing Test Group O, DPS 1 with DPS 2. Voltage measures 9.9987, limits are 10+/- 0.0200 Current measures 10.0047, limits are 10+/- 0.1000 Group 1, DPS 1 with DPS 2. Voltage measures 10.0013, limits are 10+/- 0.0200 Current measures 10.0050, limits are 10+/- 0.1000 Group 0, DPS 1 with DPS 3. Voltage measures 9.9996, limits are 10+/- 0.0200 Current measures 10.0007, limits are 10+/- 0.1000 Group 1, DPS 1 with DPS 3. Voltage measures 10.0009, limits are 10+/- 0.0200 Current measures 10.0052, limits are 10+/- 0.1000 Group O, DPS 1 with DPS 4. Voltage measures 9.9986, limits are 10+/- 0.0200 Current measures 10.0045, limits are 10+/- 0.1000 Group 1, DPS 1 with DPS 4. Voltage measures 10.0012, limits are 10+/-0.0200Current measures 10.0049, limits are 10+/-0.1000Group O, DPS 2 with DPS 3. Voltage measures 9.9985, limits are 10+/- 0.0200 Current measures 10.0044, limits are 10+/- 0.1000 Group 1, DPS 2 with DPS 3.

di ag_out Voltage measures 10.0014, limits are 10+7- 0.0200 Current measures 10.0060, limits are 10+/- 0.1000 Group O, DPS 2 with DPS 4. Voltage measures 9.9999, limits are 10+/- 0.0200 Current measures 10.0092, limits are 10+/- 0.1000 Group 1, DPS 2 with DPS 4. Voltage measures 10.0013, limits are 10+/- 0.0200 Current measures 10.0067, limits are 10+/- 0.1000 Group O, DPS 3 with DPS 4. Voltage measures 9.9986, limits are 10+/- 0.0200 Current measures 9.9987, limits are 10+/- 0.1000 Group 1, DPS 3 with DPS 4. Voltage measures 10.0009, limits are 10+/- 0.0200 Current measures 10.0070, limits are 10+/- 0.1000 DPS Sharing Pass VPP1 Current Limit Test VPP 1 positive limit passes at 137.3 percent of load. VPP1 Current Limit Pass VPP2 Current Limit Test VPP 2 negative limit passes at 124.1 percent of load. VPP2 Current Limit Pass VTT1 Current Limit Test VTT1 positive limit passes at 120.0172777004f load. VTT1 negative limit passes at 120.0 percent of load. VTT1 Current Limit Pass VTT2 Current Limit Test VTT2 positive limit passes at 120.0172777004f load. VTT2 negative limit passes at 120.0 percent of load. VTT2 Current Limit Pass VTT Load Sharing Test Voltage measures 5.0005, limits are 5+/- 0.0300 VTT current measure 2.0054. Limits are 2 +/- 0.1000 VTT Current Share Pass Beginning Diagnostic Register Test Beğinning Readback Registers Test Beginning Input Signal Test Beginning Shadow RAM Test Beginning NVPLD Register Contents Test. Beginning PLA Program Test. Program PLAs Complete: PASS Beginning Register Contents Test. Register Contents Test Complete: PASS Beginning Register Aliasing Test. Register Aliasing Test Complete: PASS Beginning DAC Register Contents Test. DAČ Regišter Contents test complete: PASS Beginning DAC Register Aliasing Test. DAC Register Aliasing test complete: PASS Beginning NVPLD Register Contents Test. Beginning PLA Program Test. Program PLAs Complete: PASS Beginning Register Contents Test. PASS Register Contents Test Complete: Page 17

Beginning Register Aliasing Test. Register Aliasing Test Complete: PASS Beginning DAC Register Contents Test. DAC Register Contents test complete: PASS Beginning DAC Register Aliasing Test. DAC Register Aliasing test complete: PASS Beginning Write/Read Register Test. Beğinning Address/Data Transmission Test. Beginning Address Compare Test. Beginning MSR Address Buffer Test. NVPLD Register Content Test. Begi nni ng Beginning 72 Meg Memory Test. Beginning PLA Loading Status Test. Beginning PLA ROW BUS Test Beginning 72 Meg Memory Test. Beginning Memory Address Test for Address Bits: 0 -14. Beğinning Memory Address Test for Address Bits: 15-21. Begi nni ng 72 Meg Memory Test. Beginning Error Logic Memory Data Test. Beginning NSROM Register Content Test. Beginning FPGA Program Test. Beğinning FPGA Register Content Test. Beginning FPGA Pins Test. Beğinning FPGA Interconnect Test. Beginning Clock logic Test. Beginning Scripts RAM vs ROM Compare Test. Beginning CLMP_CONTROL_STATUS_Reg Test. Beginning Memory Array (Slide Data) Test. Beginning Memory Array (Incrementing Address) Test. Beginning Memory Array (Random Data) Test. Beginning NXF2PLD Register Content Test. Beginning PLA Program Test. Beginning PLA Register Content Test. Beginning PLA Reset Test. Beginning PLA Pins Test. Beginning PLA Interconnect Test. Beginning XBAR Interconnect Test. Beginning XBAR Three connect Test. Beginning TV LUT (MC2PLA9) Memory Test. Beginning AV LUT (MC2PLA10) Memory Test. Beginning XS LUT (MC2PLA7) Memory Test. Beginning XC LUT (MC2PLA12) Memory Test. Beginning XC LUT (MC2PLA12) Memory Test. Beğinning YC LUT (MC2PLA11) Memory Test. Beginning DV LUT (MC2PLA6) Memory Test. Beginning DS LUT (MC2PLA5) Memory Test. Beginning uCode 1 LUT (MC2PLA1) Memory Test. Beginning uCode 2 LUT (MC2PLA2) Memory Test. Beginning uCode 3 LUT (MC2PLA3) Memory Test. Beginning uCode 4 LUT (MC2PLA4) Memory Test. Beginning uMemory Buffers Test. Beginning Clock Distribution Test. Beğinning PLA SRAM Inputs Test. Beginning Registered Interconnect Test. Beginning FLPALs Test. Beginning CCPALs Test. Beginning NXF2PLD Register Content Test. Beginning PLA Program Test. Beginning PLA Register Content Test. Beginning PLA Reset Test. Beginning PLA Pins Test. Beginning PLA Interconnect Test. Beginning XBAR Interconnect Test. Beginning TV LUT (MC2PLA9) Memory Test.

di ag_o Begi nni ng AV LUT (MC2PLA10) Memory Test. Begi nni ng XS LUT (MC2PLA7) Memory Test. Begi nni ng YS LUT (MC2PLA8) Memory Test. Begi nni ng XC LUT (MC2PLA12) Memory Test. Begi nni ng VC LUT (MC2PLA11) Memory Test. Begi nni ng DV LUT (MC2PLA6) Memory Test. Begi nni ng DS LUT (MC2PLA5) Memory Test. Begi nni ng uCode 1 LUT (MC2PLA1) Memory Test. Begi nni ng uCode 2 LUT (MC2PLA2) Memory Test. Begi nni ng uCode 3 LUT (MC2PLA3) Memory Test. Begi nni ng uCode 4 LUT (MC2PLA4) Memory Test. Begi nni ng uCode 4 LUT (MC2PLA4) Memory Test. Begi nni ng uMemory Buffers Test. Beginning Udemory Buffers Test. Beginning Clock Distribution Test. Beginning PLA SRAM Inputs Test. Beginning Registered Interconnect Test. Beğinning FLPALs Test. Beğinning CCPALs Test.