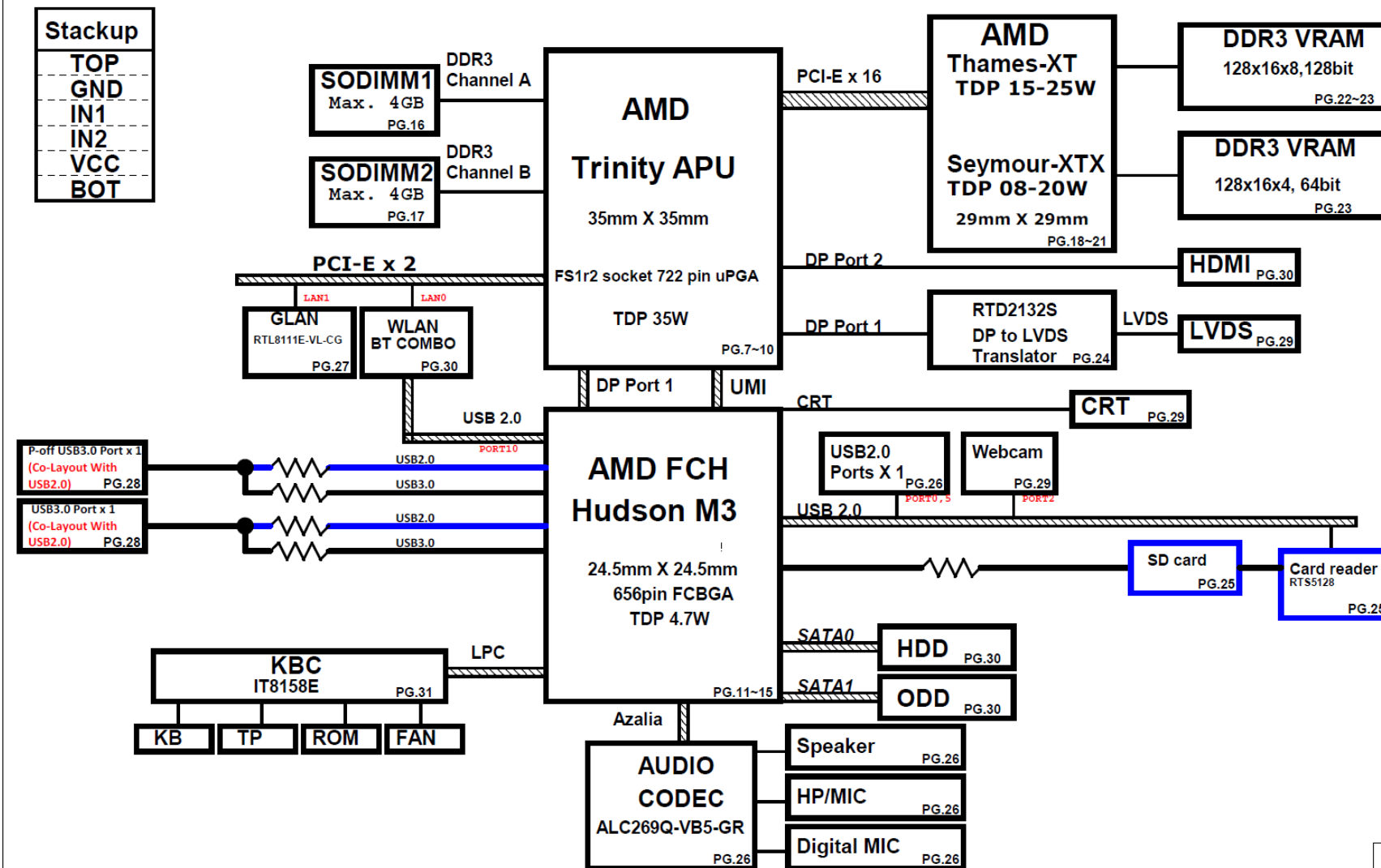


K45DR Repair Guide

01

XY1 AMD Comal UMA/Muxless SYSTEM DIAGRAM

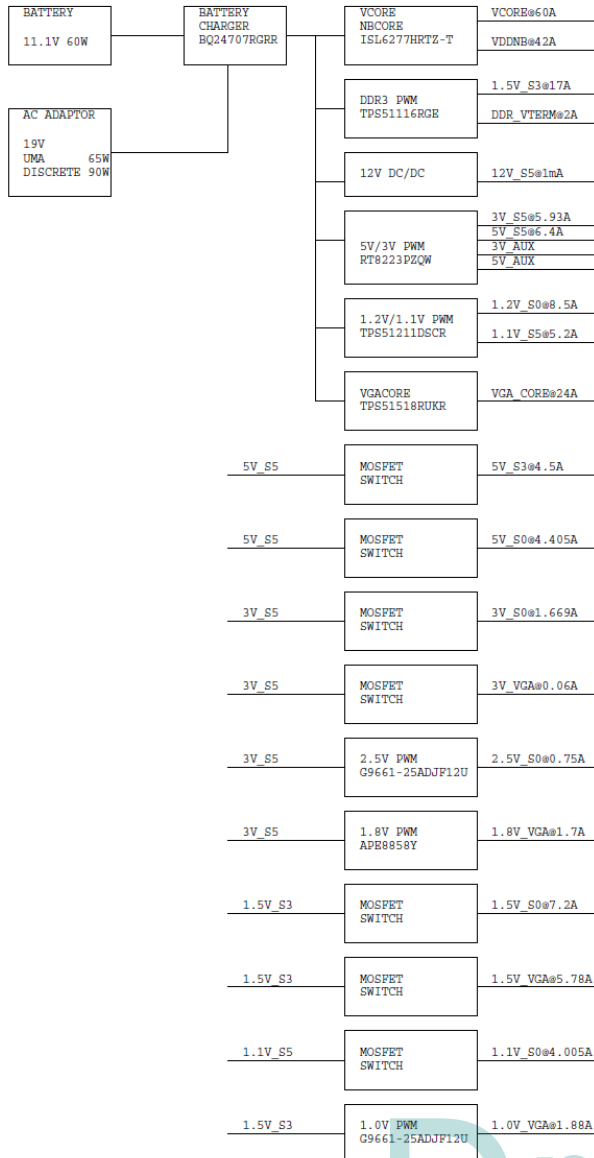


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POWER FLOW

POWER DISTRIBUTION

03



AMD FS1R2

2.5V_S0	2.5V_S0 2.5V 0.75A
VCORE	VCORE Vmax=1.475V 60A SVI:0.3625-1.55V
VDDNB	VDDNB Vmax=1.475V 44A SVI:0.3625-1.55V
1.5V_S3	1.5V_CPU 1.5V 3.2A
1.2V_S0	1.2V_VDDP 1.2V 3.5A
1.2V_S0	1.2V_VDDP 1.2V 3A

AMD Hudson-M3

3V_S0	VDDIO_33_PCIGP 3.3V 0.102A
3V_S0	VDDPL_33_PCIE 3.3V 0.011A
1.1V_S0	VDDAN_11_PCIE 1.1V 1.088A
3V_S0	VDDPL_33_SATA 3.3V 0.012A
1.1V_S0	VDDAN_11_SATA 1.1V 1.337A
3V_S5	VDDAN_33_USB_S 3.3V 0.47A
1.1V_S5	VDDAN_11_USB_S 1.1V 0.14A
1.1V_S0	VDDCR_11 1.1V 1.007A
1.1V_S0	VDDAN_11_CLK 1.1V 0.34A
3V_S0	VDDPL_33_DAC 3.3V 0.07A
1.1V_S0	VDDPL_11_DAC 1.1V 0.233A
3V_S5	VDDIO_33_S 3.3V 0.059A
1.1V_S5	VDDCR_11_S 1.1V 0.187mA
3V_S5	VDDPL_33_SSUSB_S 3.3V 0.011A
1.1V_S5	VDDCR_11_SSUSB_S 1.1V 0.424A
1.1V_S5	VDDAN_11_SSUSB_S 1.1V 0.282A
3V_S0	VDDIO_AZ_S 3.3V 0.026A
1.1V_S5	VDDCR_11_USB_S 1.1V 0.042A
3V_S0	VDDPL_33_SYS_S 3.3V 0.047A
1.1V_S5	VDDPL_11_SYS_S 1.1V 0.07A
3V_S5	VDDPL_33_USB_S 3.3V 0.014A
3V_S5	VDDAN_33_HWM_S 3.3V 0.012A
3V_S5	VDEXL_33_S 3.3V 0.005A

AMD Thames-XT

3V_VGA	3.3V 23.4A
1.8V_VGA	1.8V 0.06A
1.5V_VGA	1.5V_VGA 1.7A
1.0V_S3	1.0V_VGA 1.877A

VRAMX8

1.5V_VGA	VDD 1.5V 4.08A
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DDRIII SODIMMX2

1.5V_S3	VDD 1.5V 4A
DDR_VTERM	VTT_MEM 0.75V 2A

MINI PCIE SLOT

3V_S0	3.3V 0.56A
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SCALAR RTD2132S

3V_S0	3.3V 0.062A
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CARD READER RTS128

3V_S0	3.3V 0.035A
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CARD READER SLOT

3V_S0	3.3V 0.25A
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TOUCH PAD

5V_S0	5V 0.0045A
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AUDIO ALC269

5V_S0	5V 0.04A
3V_S0	3.3V 0.0228A

SPEAKER 2WX2

5V_S0	5V 0.8A
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LAN RTL8111E-VL

3V_S5	3.3V 0.07A
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SATA HDD

5V_S0	5V 1A
-------	-------

SATA ODD

5V_S0	5V 2A
-------	-------

FAN

5V_S0	5V 0.56A
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EC ITE8518

3V_AUX	3.3V 0.03A
3V_S0	3.3V 0.005A

CAMERA

3V_S0	3.3V 0.155A
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PANEL

VIN	19V 0.189A
3V_S0	3.3V 0.345A

USB 3.0 CONNECTORX2

5V_S3	5V 4A
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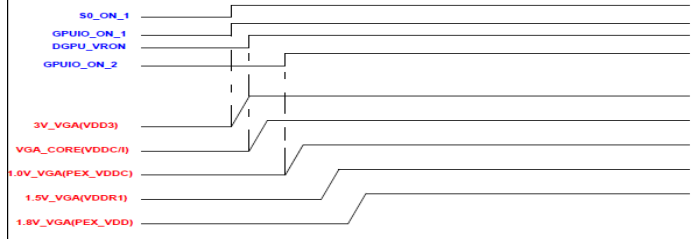
USB 2.0 CONNECTORX1

5V_S3	5V 1.5A
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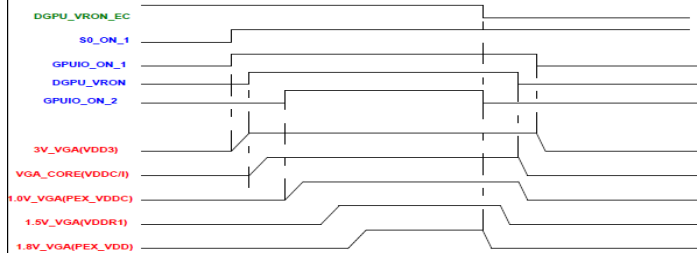
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POWER ON SEQUENCE

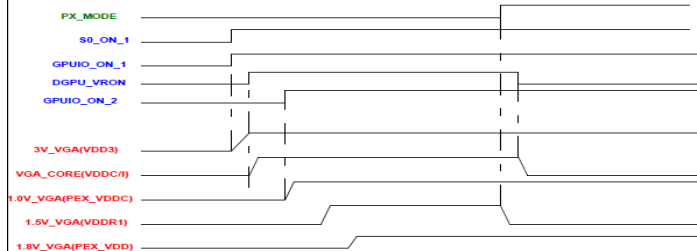
AMD GPU POWER UP SEQUENCE(NON-SG)



AMD GPU POWER UP SEQUENCE(SG-PX5.0-NON BACO)



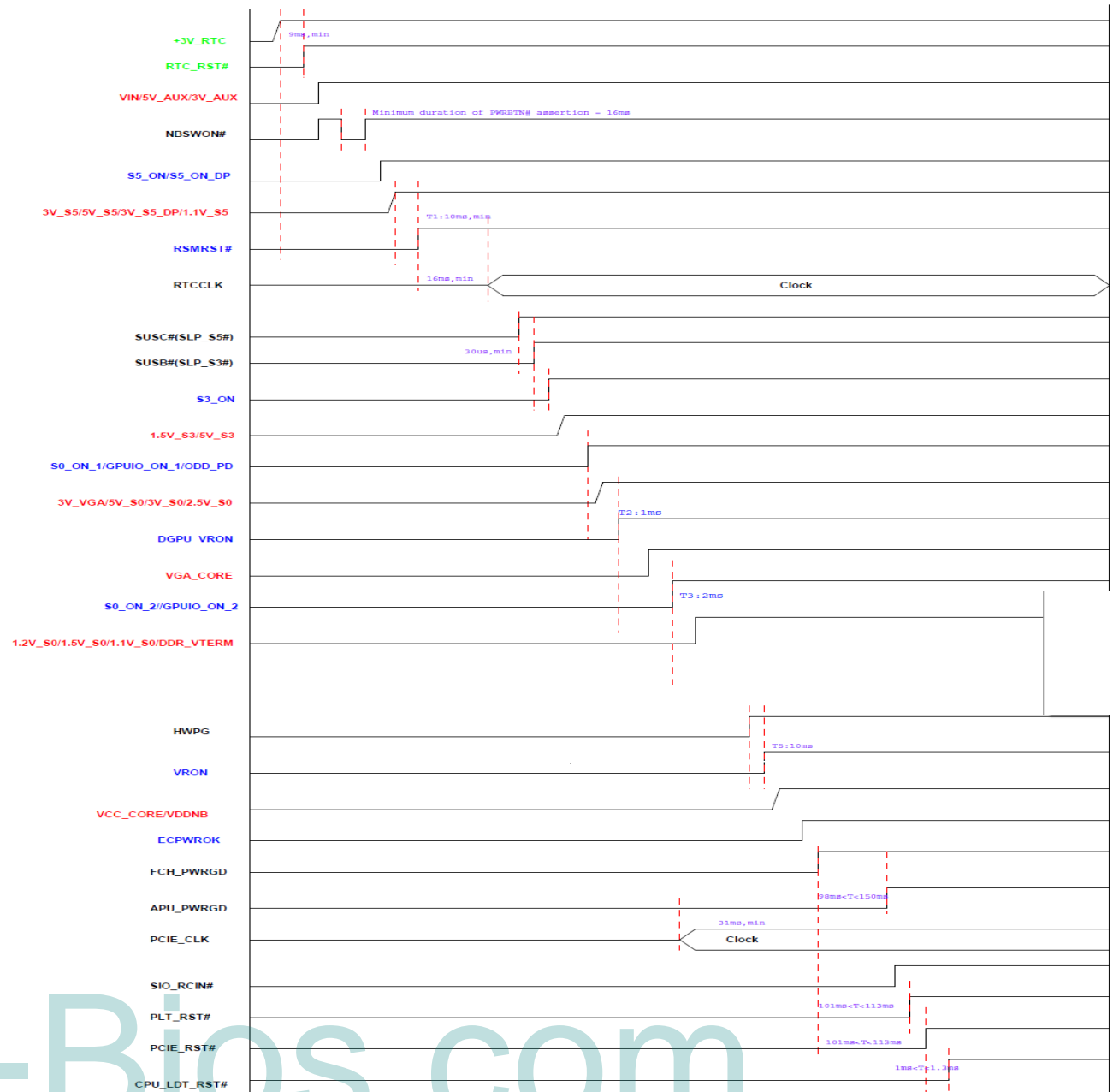
AMD GPU POWER UP SEQUENCE(SG-PX4.0-BACO)



Voltage Rails

Power	Voltage	S0	S3	S3(Deep)	S4	S5	G3	Ctl Signal
+3V_RTC	3V	ON	ON	ON	ON	ON	ON	
VIN	19.5V	ON	ON	ON	ON	ON	OFF	Adaptor in
5V_AUX	5V	ON	ON	ON	ON	ON	OFF	Adaptor in
3V_AUX	3.3V	ON	ON	ON	ON	ON	OFF	Adaptor in
5V_S5	5V	ON	ON	ON	OFF	OFF	OFF	S5_ON
3V_S5	3V	ON	ON	ON	OFF	OFF	OFF	S5_ON
12V_S5	12V	ON	ON	ON	OFF	OFF	OFF	S5_ON
3V_S5_DP	3V	ON	ON	OFF	OFF	OFF	OFF	S5_ON_DP
1.1V_S5	1.1V	ON	ON	OFF	OFF	OFF	OFF	S5_ON_DP
5V_S3	5V	ON	ON	ON	OFF	OFF	OFF	S3_ON
1.5V_S3	1.5V	ON	ON	ON	OFF	OFF	OFF	S3_ON
5V_S0	5V	ON	OFF	OFF	OFF	OFF	OFF	S0_ON_1
3V_S0	3V	ON	OFF	OFF	OFF	OFF	OFF	S0_ON_1
2.5V_S0	2.5V	ON	OFF	OFF	OFF	OFF	OFF	S0_ON_1
3V_VGA	3V	ON	OFF	OFF	OFF	OFF	OFF	GPUIO_ON_1
VGA_CORE	By VID	ON	OFF	OFF	OFF	OFF	OFF	DGPU_VRON
1.0V_VGA	1V	ON	OFF	OFF	OFF	OFF	OFF	GPUIO_ON_2
1.5V_VGA	1.5V	ON	OFF	OFF	OFF	OFF	OFF	GPUIO_ON_2
1.8V_VGA	1.8V	ON	OFF	OFF	OFF	OFF	OFF	GPUIO_ON_2
1.5V_S0	1.5V	ON	OFF	OFF	OFF	OFF	OFF	S0_ON_2
1.2V_S0	1.2V	ON	OFF	OFF	OFF	OFF	OFF	S0_ON_2
1.1V_S0	1.1V	ON	OFF	OFF	OFF	OFF	OFF	S0_ON_2
DDR_VTERM	0.75V	ON	OFF	OFF	OFF	OFF	OFF	S0_ON_2
VDDNB	By VID	ON	OFF	OFF	OFF	OFF	OFF	VRON
VCC_CORE	By VID	ON	OFF	OFF	OFF	OFF	OFF	VRON

XY1 Power On/Off Sequencing Timing Diagram



Voltage & Signal Measure Point TOP



Voltage & Signal Measure Point Bottom

