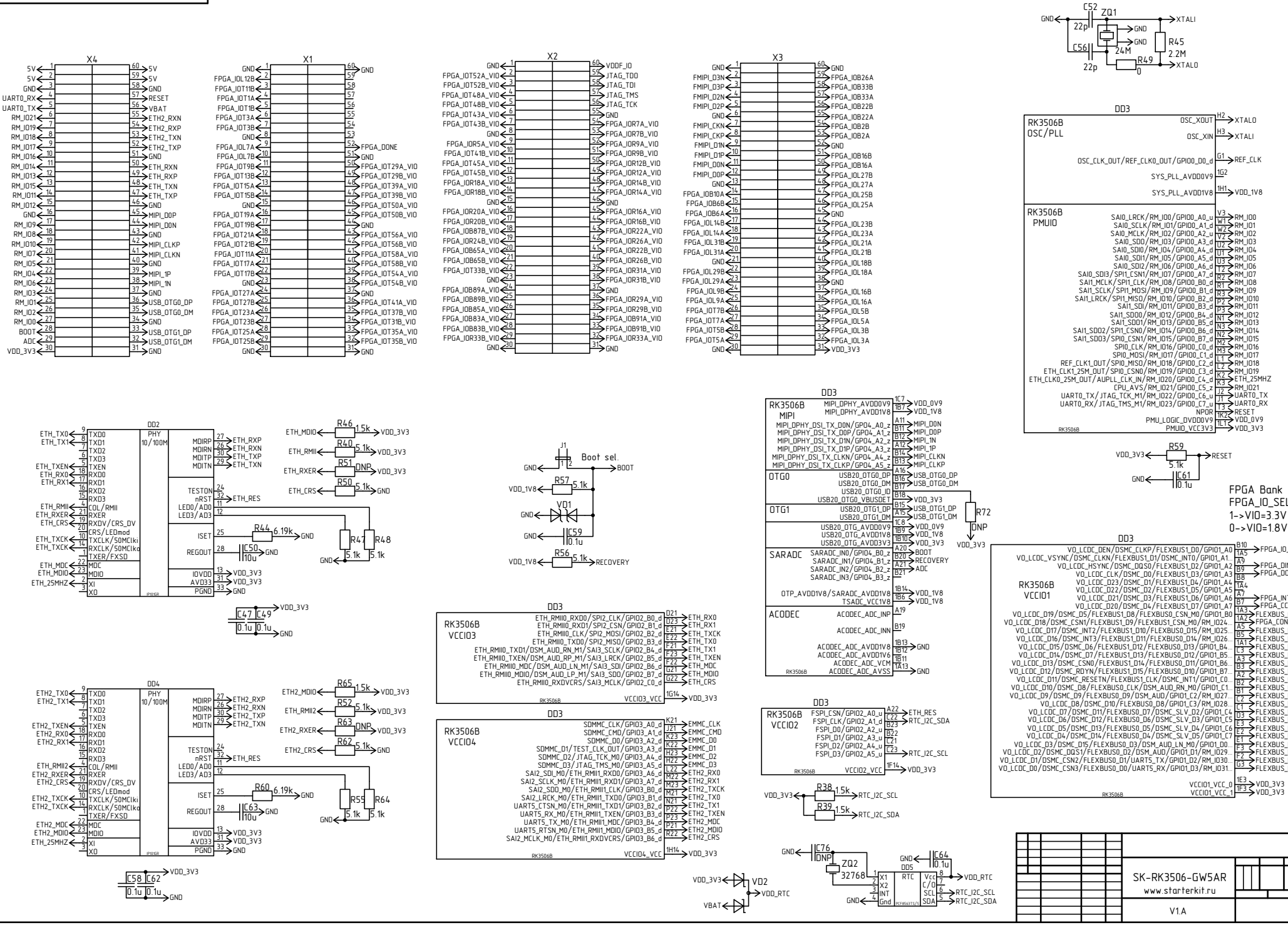
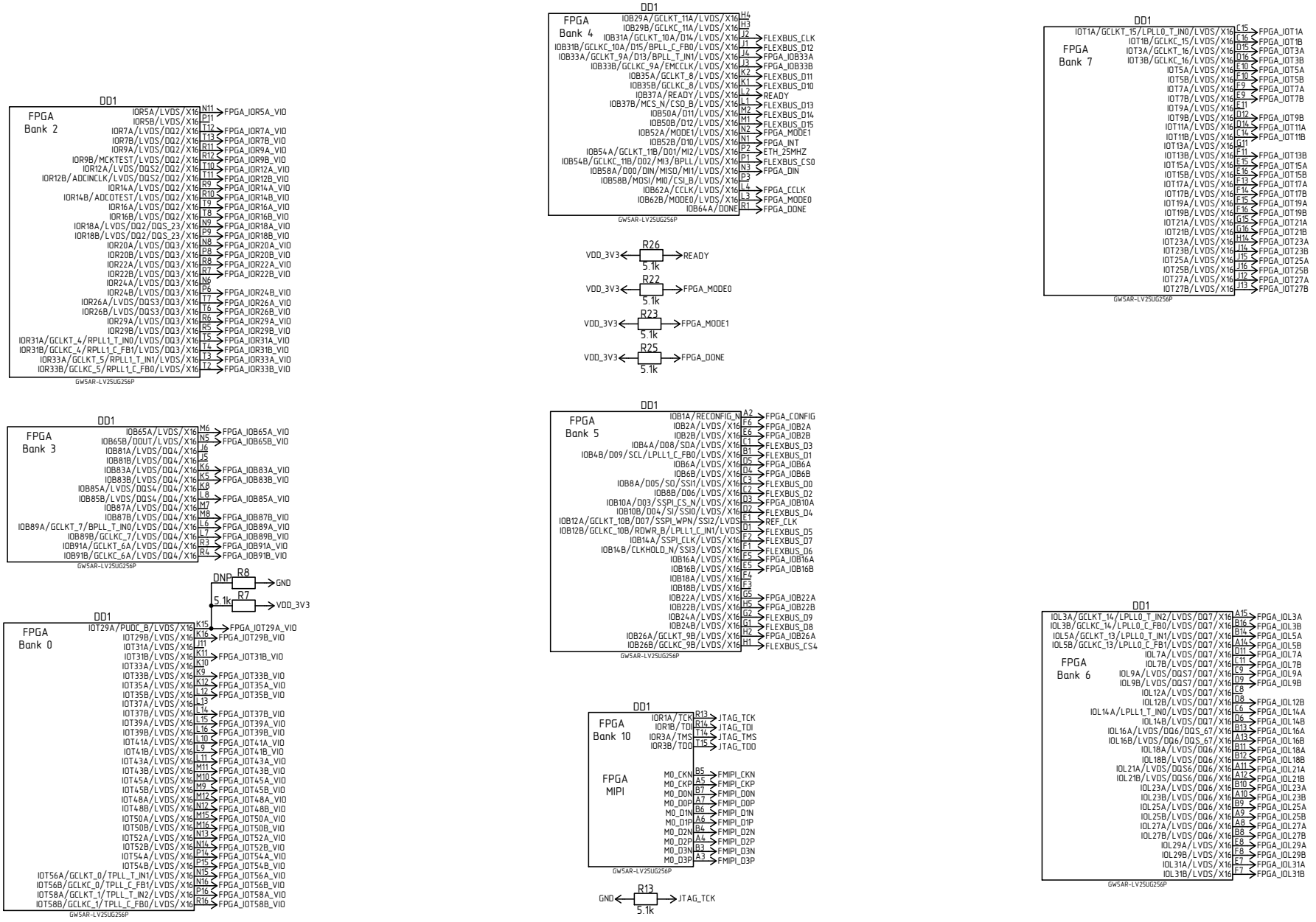
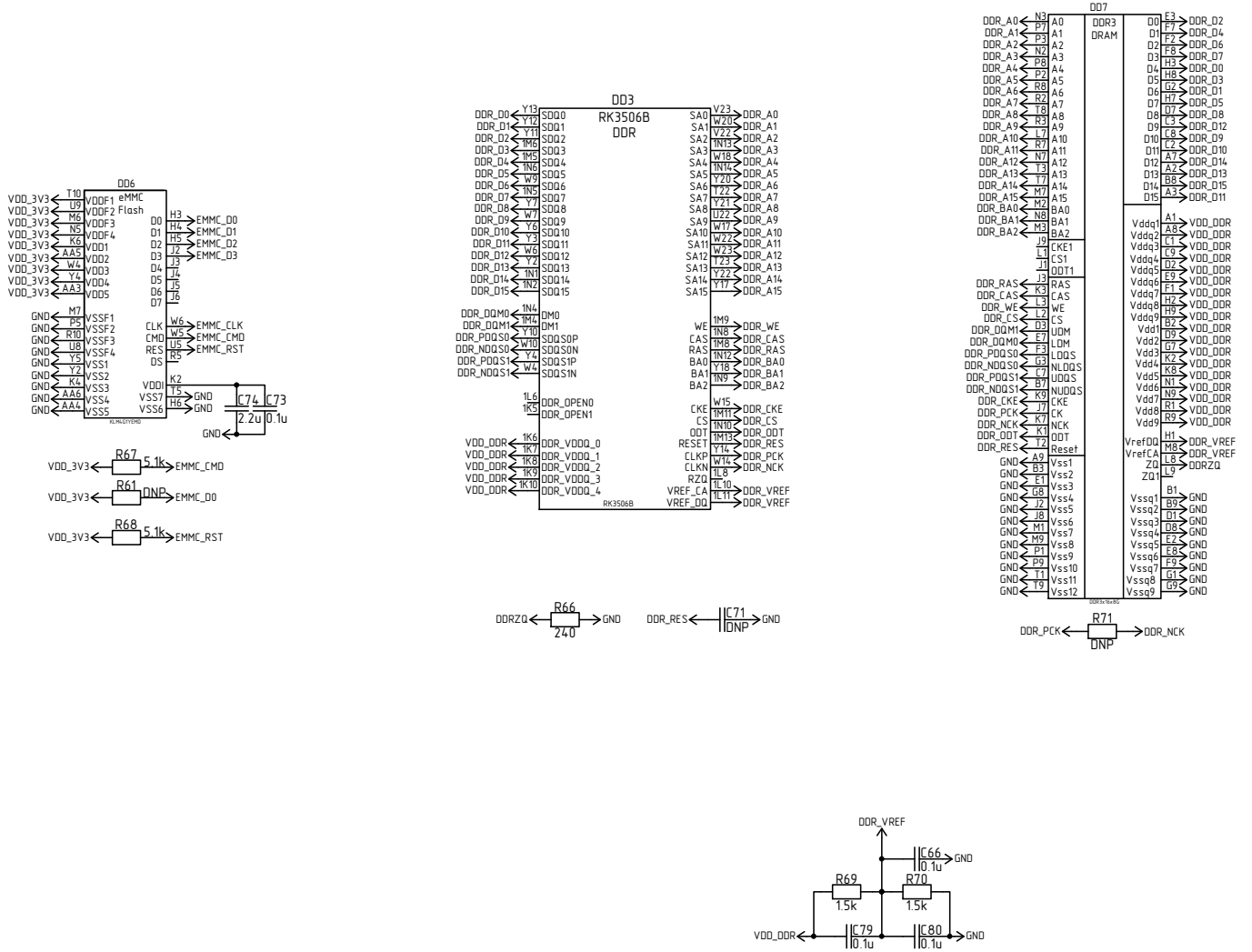

X4
X1
X2
X3
C52
ZQ1
22p
24M
C56
R45
2.2M
R49
0
XTALO
XTALI
DD3
RK3506B
OSC/PLL
RK3506B
PMUIO
REF_CLK
VDD_1V8
RESET
VDD_0V9
VDD_3V3
R59
5.1k
C61
0.1u
FPGA Bank 0,2,3
FPGA_IO_SEL
1->VIO=3.3V
0->VIO=1.8V
DD2
DD4
J1
Boot sel.
BOOT
RECOVERY
R57
R56
VD1
C59
R72
DNP
RK3506B
MIPI
RK3506B
OTG0
OTG1
SARADC
ACODEC
RK3506B
VCCIO3
RK3506B
VCCIO4
RK3506B
VCCIO2
RK3506B
VCCIO1
C47
C49
C50
C58
C62
C63
C64
C76
ZQ2
32768
VD2
VDD_RTC
VBAT
RTC_I2C_SCL
RTC_I2C_SDA
SK-RK3506-GW5AR
www.starterkit.ru
V1.A


DD1
FPGA Bank 2
IOR5A/LVDS/X16 N11 FPGA_IOR5A_VIO
IOR5B/LVDS/X16 P11
IOR7A/LVDS/DQ2/X16 T12 FPGA_IOR7A_VIO
IOR7B/LVDS/DQ2/X16 T13 FPGA_IOR7B_VIO
IOR9A/LVDS/DQ2/X16 R11 FPGA_IOR9A_VIO
IOR9B/MCKTEST/LVDS/DQ2/X16 R12 FPGA_IOR9B_VIO
IOR12A/LVDS/DQS2/DQ2/X16 T10 FPGA_IOR12A_VIO
IOR12B/ADCINCLK/LVDS/DQS2/DQ2/X16 T11 FPGA_IOR12B_VIO
IOR14A/LVDS/DQ2/X16 R9 FPGA_IOR14A_VIO
IOR14B/ADCOTEST/LVDS/DQ2/X16 R10 FPGA_IOR14B_VIO
IOR16A/LVDS/DQ2/X16 T9 FPGA_IOR16A_VIO
IOR16B/LVDS/DQ2/X16 T8 FPGA_IOR16B_VIO
IOR18A/LVDS/DQ2/DQS_23/X16 N9 FPGA_IOR18A_VIO
IOR18B/LVDS/DQ2/DQS_23/X16 P9 FPGA_IOR18B_VIO
IOR20A/LVDS/DQ3/X16 N8 FPGA_IOR20A_VIO
IOR20B/LVDS/DQ3/X16 P8 FPGA_IOR20B_VIO
IOR22A/LVDS/DQ3/X16 R8 FPGA_IOR22A_VIO
IOR22B/LVDS/DQ3/X16 R7 FPGA_IOR22B_VIO
IOR24A/LVDS/DQ3/X16 N6
IOR24B/LVDS/DQ3/X16 P6 FPGA_IOR24B_VIO
IOR26A/LVDS/DQS3/DQ3/X16 T7 FPGA_IOR26A_VIO
IOR26B/LVDS/DQS3/DQ3/X16 T6 FPGA_IOR26B_VIO
IOR29A/LVDS/DQ3/X16 R6 FPGA_IOR29A_VIO
IOR29B/LVDS/DQ3/X16 R5 FPGA_IOR29B_VIO
IOR31A/GCLKT_4/RPLL1_T_IN0/LVDS/DQ3/X16 T5 FPGA_IOR31A_VIO
IOR31B/GCLKC_4/RPLL1_C_FB1/LVDS/DQ3/X16 T4 FPGA_IOR31B_VIO
IOR33A/GCLKT_5/RPLL1_T_IN1/LVDS/X16 T3 FPGA_IOR33A_VIO
IOR33B/GCLKC_5/RPLL1_C_FB0/LVDS/X16 T2 FPGA_IOR33B_VIO
GW5AR-LV25UG256P
DD1
FPGA Bank 3
IOB65A/LVDS/X16 M6 FPGA_IOB65A_VIO
IOB65B/DOUT/LVDS/X16 N5 FPGA_IOB65B_VIO
IOB81A/LVDS/DQ4/X16 J6
IOB81B/LVDS/DQ4/X16 J5
IOB83A/LVDS/DQ4/X16 K6 FPGA_IOB83A_VIO
IOB83B/LVDS/DQ4/X16 K5 FPGA_IOB83B_VIO
IOB85A/LVDS/DQS4/DQ4/X16 K8
IOB85B/LVDS/DQS4/DQ4/X16 L8 FPGA_IOB85A_VIO
IOB87A/LVDS/DQ4/X16 M7
IOB87B/LVDS/DQ4/X16 M8 FPGA_IOB87B_VIO
IOB89A/GCLKT_7/BPLL_T_IN0/LVDS/DQ4/X16 L6 FPGA_IOB89A_VIO
IOB89B/GCLKC_7/LVDS/DQ4/X16 L7 FPGA_IOB89B_VIO
IOB91A/GCLKT_6A/LVDS/DQ4/X16 R3 FPGA_IOB91A_VIO
IOB91B/GCLKC_6A/LVDS/DQ4/X16 R4 FPGA_IOB91B_VIO
GW5AR-LV25UG256P
DNP R8 GND
5.1k R7 VDD_3V3
DD1
FPGA Bank 0
IOT29A/PUDC_B/LVDS/X16 K15 FPGA_IOT29A_VIO
IOT29B/LVDS/X16 K16 FPGA_IOT29B_VIO
IOT31A/LVDS/X16 J11
IOT31B/LVDS/X16 K11 FPGA_IOT31B_VIO
IOT33A/LVDS/X16 K10
IOT33B/LVDS/X16 K9 FPGA_IOT33B_VIO
IOT35A/LVDS/X16 K12 FPGA_IOT35A_VIO
IOT35B/LVDS/X16 L12 FPGA_IOT35B_VIO
IOT37A/LVDS/X16 L13
IOT37B/LVDS/X16 L14 FPGA_IOT37B_VIO
IOT39A/LVDS/X16 L15 FPGA_IOT39A_VIO
IOT39B/LVDS/X16 L16 FPGA_IOT39B_VIO
IOT41A/LVDS/X16 L10 FPGA_IOT41A_VIO
IOT41B/LVDS/X16 L9 FPGA_IOT41B_VIO
IOT43A/LVDS/X16 L11 FPGA_IOT43A_VIO
IOT43B/LVDS/X16 M11 FPGA_IOT43B_VIO
IOT45A/LVDS/X16 M10 FPGA_IOT45A_VIO
IOT45B/LVDS/X16 M9 FPGA_IOT45B_VIO
IOT48A/LVDS/X16 M12 FPGA_IOT48A_VIO
IOT48B/LVDS/X16 N12 FPGA_IOT48B_VIO
IOT50A/LVDS/X16 M15 FPGA_IOT50A_VIO
IOT50B/LVDS/X16 M16 FPGA_IOT50B_VIO
IOT52A/LVDS/X16 N13 FPGA_IOT52A_VIO
IOT52B/LVDS/X16 N14 FPGA_IOT52B_VIO
IOT54A/LVDS/X16 P14 FPGA_IOT54A_VIO
IOT54B/LVDS/X16 P15 FPGA_IOT54B_VIO
IOT56A/GCLKT_0/TPLL_T_IN1/LVDS/X16 N15 FPGA_IOT56A_VIO
IOT56B/GCLKC_0/TPLL_C_FB1/LVDS/X16 N16 FPGA_IOT56B_VIO
IOT58A/GCLKT_1/TPLL_T_IN2/LVDS/X16 P16 FPGA_IOT58A_VIO
IOT58B/GCLKC_1/TPLL_C_FB0/LVDS/X16 R16 FPGA_IOT58B_VIO
GW5AR-LV25UG256P
DD1
FPGA Bank 4
IOB29A/GCLKT_11A/LVDS/X16 H4
IOB29B/GCLKC_11A/LVDS/X16 H3
IOB31A/GCLKT_10A/D14/LVDS/X16 J2 FLEXBUS_CLK
IOB31B/GCLKC_10A/D15/BPLL_C_FB0/LVDS/X16 J1 FLEXBUS_D12
IOB33A/GCLKT_9A/D13/BPLL_T_IN1/LVDS/X16 J4 FPGA_IOB33A
IOB33B/GCLKC_9A/EMCCLK/LVDS/X16 J3 FPGA_IOB33B
IOB35A/GCLKT_8/LVDS/X16 K2 FLEXBUS_D11
IOB35B/GCLKC_8/LVDS/X16 K1 FLEXBUS_D10
IOB37A/READY/LVDS/X16 L2 READY
IOB37B/MCS_N/CSO_B/LVDS/X16 L1 FLEXBUS_D13
IOB50A/D11/LVDS/X16 M2 FLEXBUS_D14
IOB50B/D12/LVDS/X16 M1 FLEXBUS_D15
IOB52A/MODE1/LVDS/X16 N2 FPGA_MODE1
IOB52B/D10/LVDS/X16 N1 FPGA_INT
IOB54A/GCLKT_11B/D01/MI2/LVDS/X16 P2 ETH_25MHZ
IOB54B/GCLKC_11B/D02/MI3/BPLL/LVDS/X16 P1 FLEXBUS_CS0
IOB58A/D00/DIN/MISO/MI1/LVDS/X16 N3 FPGA_DIN
IOB58B/MOSI/MI0/CSI_B/LVDS/X16 P3
IOB62A/CCLK/LVDS/X16 L4 FPGA_CCLK
IOB62B/MODE0/LVDS/X16 L3 FPGA_MODE0
IOB64A/DONE R1 FPGA_DONE
GW5AR-LV25UG256P
VDD_3V3 R26 5.1k READY
VDD_3V3 R22 5.1k FPGA_MODE0
VDD_3V3 R23 5.1k FPGA_MODE1
VDD_3V3 R25 5.1k FPGA_DONE
DD1
FPGA Bank 5
IOB1A/RECONFIG_N A2 FPGA_CONFIG
IOB2A/LVDS/X16 F6 FPGA_IOB2A
IOB2B/LVDS/X16 E6 FPGA_IOB2B
IOB4A/D08/SDA/LVDS/X16 C1 FLEXBUS_D3
IOB4B/D09/SCL/LPLL1_C_FB0/LVDS/X16 B1 FLEXBUS_D1
IOB6A/LVDS/X16 D5 FPGA_IOB6A
IOB6B/LVDS/X16 D4 FPGA_IOB6B
IOB8A/D05/SO/SSI1/LVDS/X16 C3 FLEXBUS_D0
IOB8B/D06/LVDS/X16 C2 FLEXBUS_D2
IOB10A/D03/SSPI_CS_N/LVDS/X16 D3 FPGA_IOB10A
IOB10B/D04/SI/SSIO/LVDS/X16 D2 FLEXBUS_D4
IOB12A/GCLKT_10B/D07/SSPI_WPN/SSI2/LVDS/X16 E1 REF_CLK
IOB12B/GCLKC_10B/RDWR_B/LPLL1_C_IN1/LVDS/X16 D1 FLEXBUS_D5
IOB14A/SSPI_CLK/LVDS/X16 F2 FLEXBUS_D7
IOB14B/CLKHOLD_N/SSI3/LVDS/X16 F1 FLEXBUS_D6
IOB16A/LVDS/X16 F5 FPGA_IOB16A
IOB16B/LVDS/X16 E5 FPGA_IOB16B
IOB18A/LVDS/X16 F4
IOB18B/LVDS/X16 F3
IOB22A/LVDS/X16 G5 FPGA_IOB22A
IOB22B/LVDS/X16 H5 FPGA_IOB22B
IOB24A/LVDS/X16 G2 FLEXBUS_D9
IOB24B/LVDS/X16 G1 FLEXBUS_D8
IOB26A/GCLKT_9B/LVDS/X16 H2 FPGA_IOB26A
IOB26B/GCLKC_9B/LVDS/X16 H1 FLEXBUS_CS4
GW5AR-LV25UG256P
DD1
FPGA Bank 10
IOR1A/TCK R13 JTAG_TCK
IOR1B/TDI R14 JTAG_TDI
IOR3A/TMS T14 JTAG_TMS
IOR3B/TDO T15 JTAG_TDO
FPGA MIPI
M0_CKN B5 FMIPI_CKN
M0_CKP A5 FMIPI_CKP
M0_D0N B7 FMIPI_D0N
M0_D0P A7 FMIPI_D0P
M0_D1N B6 FMIPI_D1N
M0_D1P A6 FMIPI_D1P
M0_D2N B4 FMIPI_D2N
M0_D2P A4 FMIPI_D2P
M0_D3N B3 FMIPI_D3N
M0_D3P A3 FMIPI_D3P
GW5AR-LV25UG256P
GND R13 5.1k JTAG_TCK
DD1
FPGA Bank 7
IOT1A/GCLKT_15/LPLL0_T_IN0/LVDS/X16 C15 FPGA_IOT1A
IOT1B/GCLKC_15/LVDS/X16 C16 FPGA_IOT1B
IOT3A/GCLKT_16/LVDS/X16 D15 FPGA_IOT3A
IOT3B/GCLKC_16/LVDS/X16 D16 FPGA_IOT3B
IOT5A/LVDS/X16 E10 FPGA_IOT5A
IOT5B/LVDS/X16 E10 FPGA_IOT5B
IOT7A/LVDS/X16 E9 FPGA_IOT7A
IOT7B/LVDS/X16 E9 FPGA_IOT7B
IOT9A/LVDS/X16 E11
IOT9B/LVDS/X16 D12 FPGA_IOT9B
IOT11A/LVDS/X16 D14 FPGA_IOT11A
IOT11B/LVDS/X16 C14 FPGA_IOT11B
IOT13A/LVDS/X16 G11
IOT13B/LVDS/X16 F11 FPGA_IOT13B
IOT15A/LVDS/X16 E15 FPGA_IOT15A
IOT15B/LVDS/X16 E16 FPGA_IOT15B
IOT17A/LVDS/X16 F13 FPGA_IOT17A
IOT17B/LVDS/X16 F14 FPGA_IOT17B
IOT19A/LVDS/X16 F15 FPGA_IOT19A
IOT19B/LVDS/X16 F16 FPGA_IOT19B
IOT21A/LVDS/X16 G15 FPGA_IOT21A
IOT21B/LVDS/X16 G16 FPGA_IOT21B
IOT23A/LVDS/X16 H14 FPGA_IOT23A
IOT23B/LVDS/X16 H14 FPGA_IOT23B
IOT25A/LVDS/X16 J15 FPGA_IOT25A
IOT25B/LVDS/X16 J16 FPGA_IOT25B
IOT27A/LVDS/X16 J12 FPGA_IOT27A
IOT27B/LVDS/X16 J13 FPGA_IOT27B
GW5AR-LV25UG256P
DD1
FPGA Bank 6
IOL3A/GCLKT_14/LPLL0_T_IN2/LVDS/DQ7/X16 A15 FPGA_IOL3A
IOL3B/GCLKC_14/LPLL0_C_FB0/LVDS/DQ7/X16 B16 FPGA_IOL3B
IOL5A/GCLKT_13/LPLL0_T_IN1/LVDS/DQ7/X16 B14 FPGA_IOL5A
IOL5B/GCLKC_13/LPLL0_C_FB1/LVDS/DQ7/X16 A14 FPGA_IOL5B
IOL7A/LVDS/DQ7/X16 D11 FPGA_IOL7A
IOL7B/LVDS/DQ7/X16 C11 FPGA_IOL7B
IOL9A/LVDS/DQS7/DQ7/X16 C9 FPGA_IOL9A
IOL9B/LVDS/DQS7/DQ7/X16 D9 FPGA_IOL9B
IOL12A/LVDS/DQ7/X16 C8
IOL12B/LVDS/DQ7/X16 D8 FPGA_IOL12B
IOL14A/LPLL1_T_IN0/LVDS/DQ7/X16 C6 FPGA_IOL14A
IOL14B/LVDS/DQ7/X16 D6 FPGA_IOL14B
IOL16A/LVDS/DQ6/DQS_67/X16 B13 FPGA_IOL16A
IOL16B/LVDS/DQ6/DQS_67/X16 A13 FPGA_IOL16B
IOL18A/LVDS/DQ6/X16 B11 FPGA_IOL18A
IOL18B/LVDS/DQ6/X16 B12 FPGA_IOL18B
IOL21A/LVDS/DQS6/DQ6/X16 A11 FPGA_IOL21A
IOL21B/LVDS/DQS6/DQ6/X16 A12 FPGA_IOL21B
IOL23A/LVDS/DQ6/X16 B10 FPGA_IOL23A
IOL23B/LVDS/DQ6/X16 A10 FPGA_IOL23B
IOL25A/LVDS/DQ6/X16 B9 FPGA_IOL25A
IOL25B/LVDS/DQ6/X16 A9 FPGA_IOL25B
IOL27A/LVDS/DQ6/X16 A8 FPGA_IOL27A
IOL27B/LVDS/DQ6/X16 B8 FPGA_IOL27B
IOL29A/LVDS/X16 E8 FPGA_IOL29A
IOL29B/LVDS/X16 F8 FPGA_IOL29B
IOL31A/LVDS/X16 E7 FPGA_IOL31A
IOL31B/LVDS/X16 F7 FPGA_IOL31B
GW5AR-LV25UG256P


DD6
eMMC Flash
VDD_3V3
GND
EMMC_D0
EMMC_D1
EMMC_D2
EMMC_D3
EMMC_CLK
EMMC_CMD
EMMC_RST
C74 2.2u
C73 0.1u
R67 5.1k
EMMC_CMD
R61 DNP
EMMC_D0
R68 5.1k
EMMC_RST
DD3
RK3506B
DDR
DDR_D0
DDR_D1
DDR_D2
DDR_D3
DDR_D4
DDR_D5
DDR_D6
DDR_D7
DDR_D8
DDR_D9
DDR_D10
DDR_D11
DDR_D12
DDR_D13
DDR_D14
DDR_D15
DDR_DQM0
DDR_DQM1
DDR_PDQS0
DDR_NDQS0
DDR_PDQS1
DDR_NDQS1
DDR_OPEN0
DDR_OPEN1
VDD_DDR
DDR_VDDQ_0
DDR_VDDQ_1
DDR_VDDQ_2
DDR_VDDQ_3
DDR_VDDQ_4
DDR_A0
DDR_A1
DDR_A2
DDR_A3
DDR_A4
DDR_A5
DDR_A6
DDR_A7
DDR_A8
DDR_A9
DDR_A10
DDR_A11
DDR_A12
DDR_A13
DDR_A14
DDR_A15
DDR_WE
DDR_CAS
DDR_RAS
DDR_BA0
DDR_BA1
DDR_BA2
DDR_CKE
DDR_CS
DDR_ODT
DDR_RES
DDR_PCK
DDR_NCK
DDR_VREF
DDRZQ
R66 240
C71 DNP
DD7
DDR3 DRAM
R71 DNP
DDR_VREF
C66 0.1u
R69 1.5k
R70 1.5k
C79 0.1u
C80 0.1u