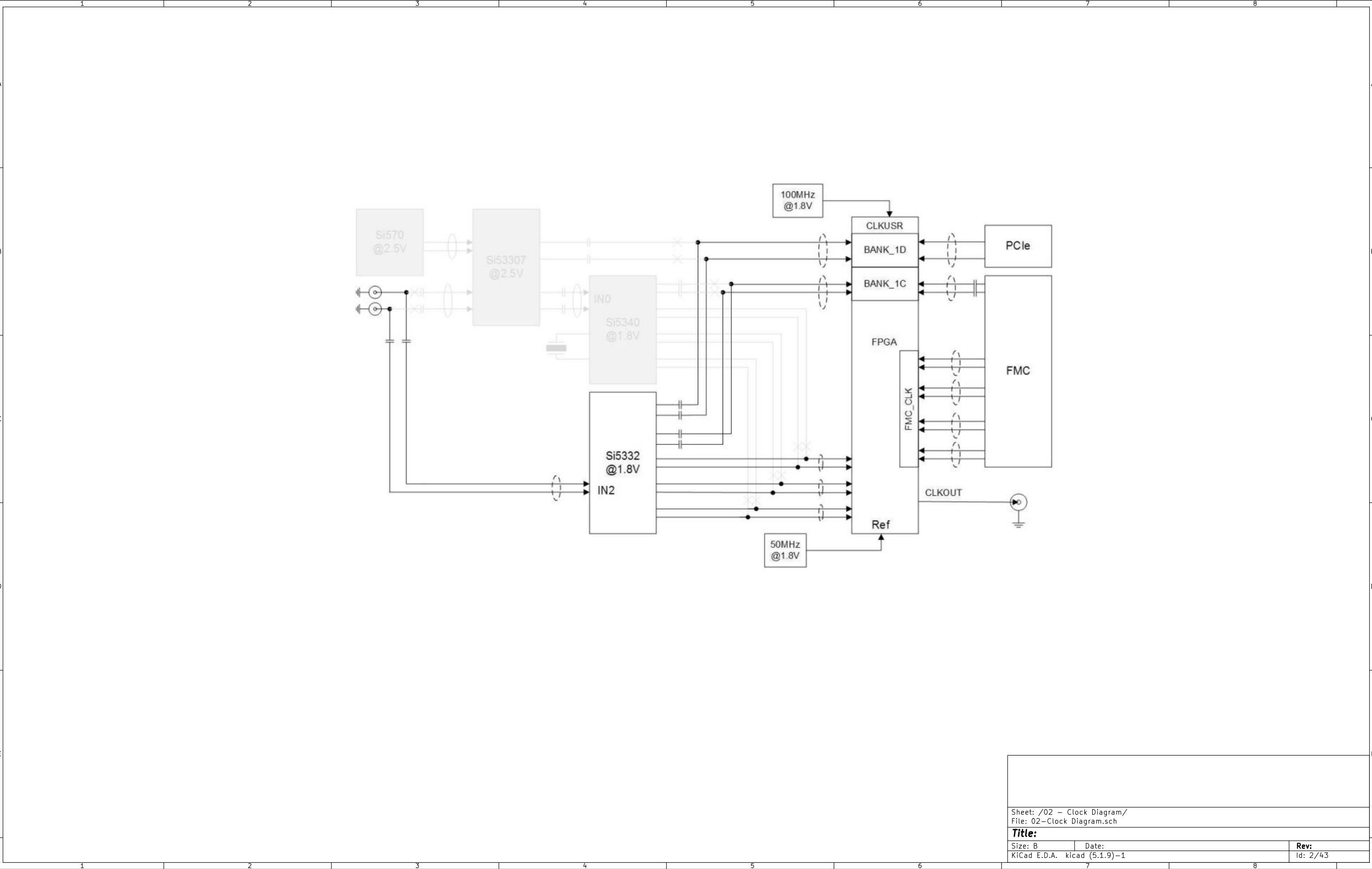
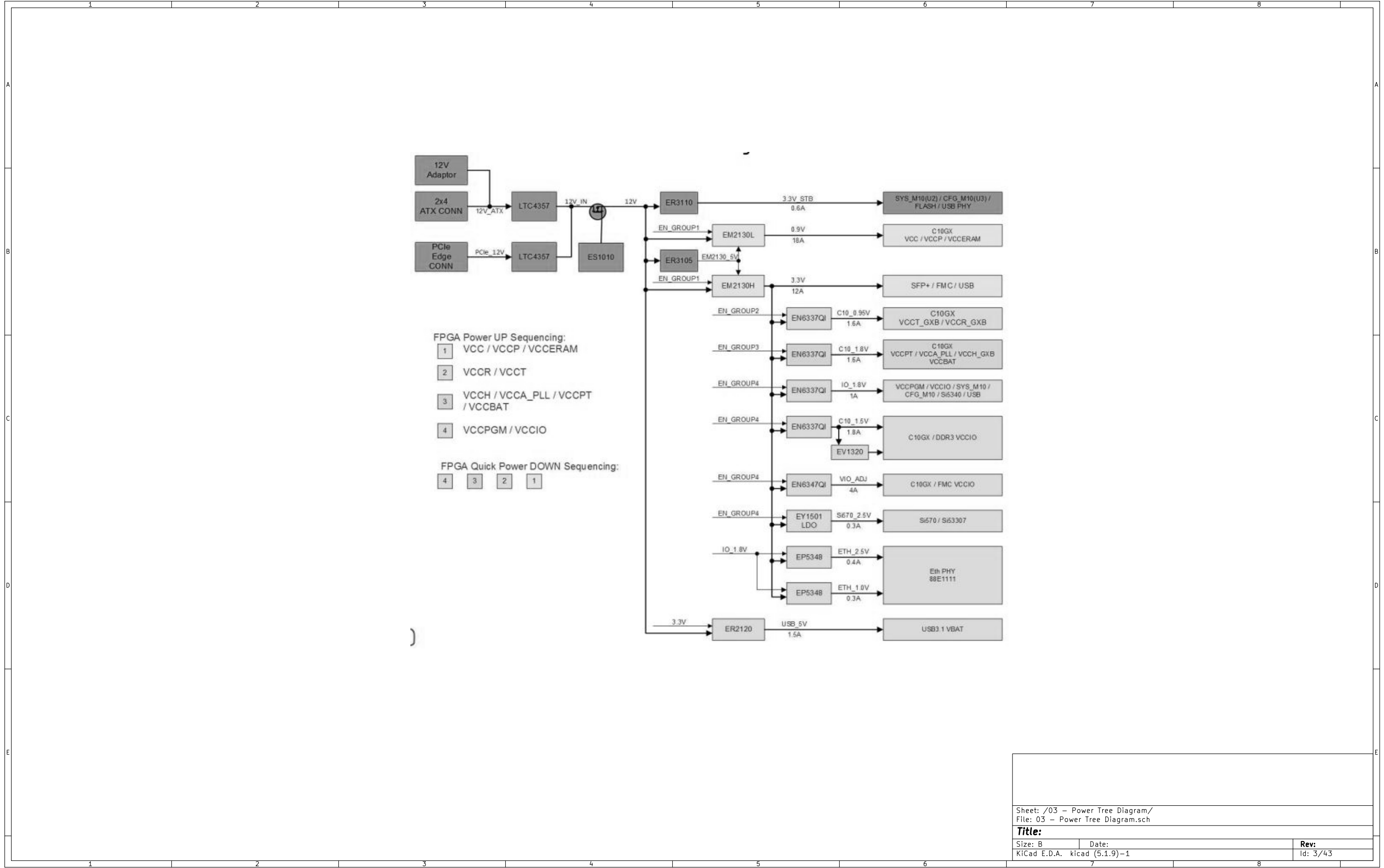
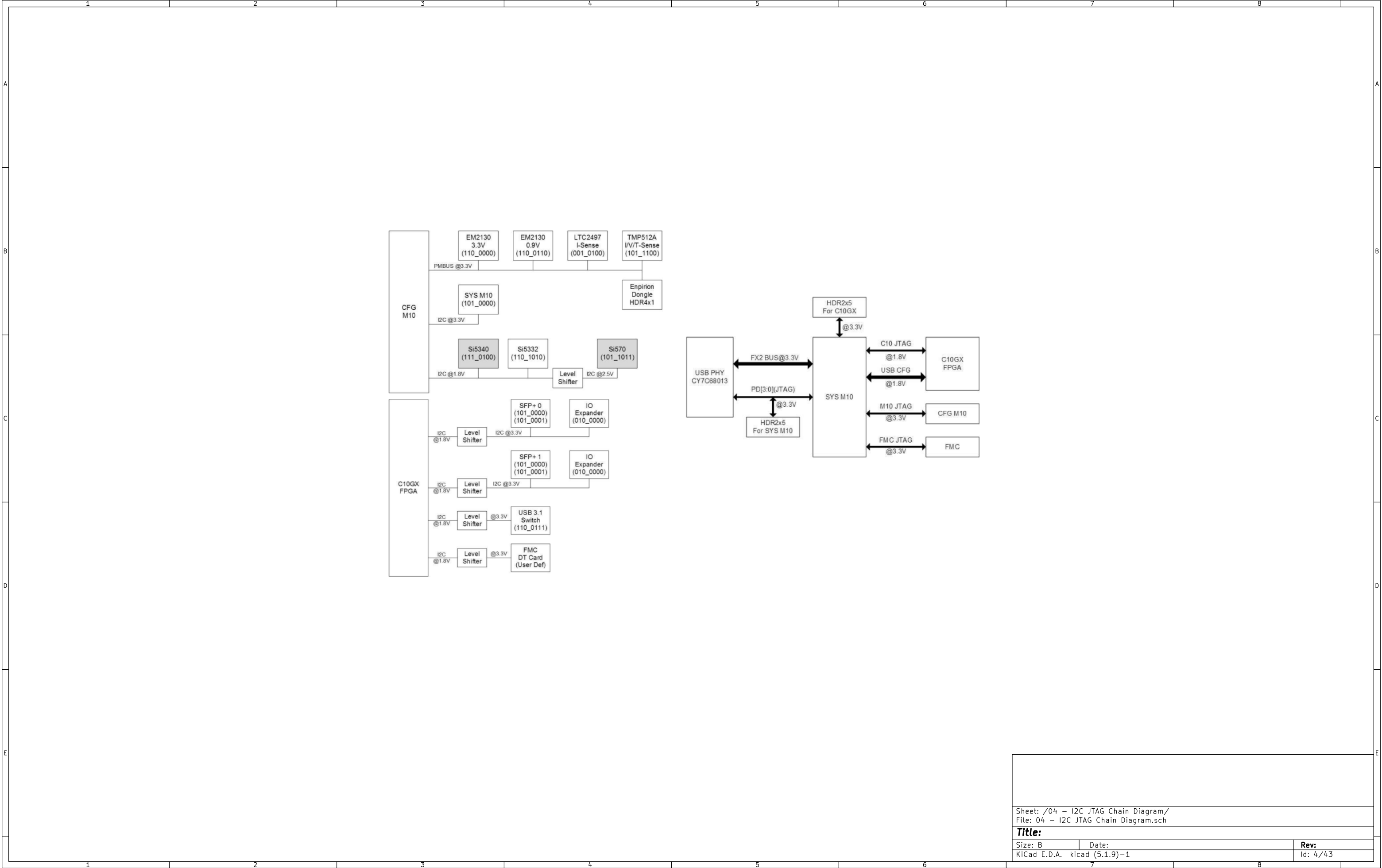


Sheet: 02 – Clock Diagram	Sheet: 24 – INTERFACE – USB3.1
File: 02 – Clock Diagram.sch	File: 24 – INTERFACE – USB3.sch
Sheet: 03 – Power Tree Diagram	Sheet: 25 – INTERFACE – USB2.0
File: 03 – Power Tree Diagram.sch	File: 25 – INTERFACE – USB2.sch
Sheet: 04 – I2C JTAG Chain Diagram	Sheet: 26 – INTERFACE – GIGE – 1
File: 04 – I2C JTAG Chain Diagram.sch	File: 26 – INTERFACE – GIGE – 1.sch
Sheet: 05 – C10GX BANK CSS – Config	Sheet: 27 – INTERFACE – GIGE – 2
File: 05 – C10GX BANK CSS – Config.sch	File: 27 – INTERFACE – GIGE – 2.sch
Sheet: 06 – C10GX BANK1C–1D – XCVR	Sheet: 28 – SYS MAX10 – CTRL
File: 06 – C10GX BANK1C–1D – XCVR.sch	File: 28 – SYS MAX10 – CTRL.sch
Sheet: 07 – C10GX BANK2K – EMIF	Sheet: 29 – SYS MAX10 – UBII
File: 07 – C10GX BANK2K – EMIF.sch	File: 29 – SYS MAX10 – UBII.sch
Sheet: 08 – C10GX BANK2J – EMIF	Sheet: 30 – CFG MAX10 – FPP
File: 08 – C10GX BANK2J – EMIF.sch	File: 30 – CFG MAX10 – FPP.sch
Sheet: 09 – C10GX BANK3A – FMC LVDS	Sheet: 31 – CFG MAX10 – PFL
File: 09 – C10GX BANK3A – FMC LVDS.sch	File: 31 – CFG MAX10 – PFL.sch
Sheet: 10 – C10GX BANK3B – FMC LVDS	Sheet: 32 – CFG PFL FLASH
File: 10 – C10GX BANK3B – FMC LVDS.sch	File: 32 – CFG PFL FLASH.sch
Sheet: 11 – C10GX BANK2A – FPP–GPIO	Sheet: 33 – LED & PB & SW
File: 11 – C10GX BANK2A – FPP–GPIO.sch	File: 33 – LED & PB & SW.sch
Sheet: 12 – C10GX BANK2L – GPIO	Sheet: 34 – POWER – INPUT
File: 12 – C10GX BANK2L – GPIO.sch	File: 34 – POWER – INPUT.sch
Sheet: 13 – C10GX POWER	Sheet: 35 – POWER – 12V to 0.9V
File: 13 – C10GX POWER.sch	File: 35 – POWER – 12V to 0.sch
Sheet: 14 – C10GX PWR Filter	Sheet: 36 – POWER – 12V to 3.3V
File: 14 – C10GX PWR Filter.sch	File: 36 – POWER – 12V to 3.sch
Sheet: 15 – C10GX GND	Sheet: 37 – POWER – 12V to 5V
File: 15 – C10GX GND.sch	File: 37 – POWER – 12V to 5V.sch
Sheet: 16 – CLOCK – SI570–SI5332	Sheet: 38 – POWER – 3.3V to 0.95V
File: 16 – CLOCK – SI570–SI5332.sch	File: 38 – POWER – 3.3V to 0.sch
Sheet: 17 – CLOCK – SI5340	Sheet: 39 – POWER – 3.3V to 1.5V
File: 17 – CLOCK – SI5340.sch	File: 39 – POWER – 3.3V to 1.sch
Sheet: 18 – EMIF–DDR3–1	Sheet: 40 – POWER – 3.3V to 1.8V
File: 18 – EMIF–DDR3–1.sch	File: 40 – POWER – 3.3V to 1.sch
Sheet: 19 – EMIF–DDR3–2	Sheet: 41 – POWER – 3.3V to VADJ
File: 19 – EMIF–DDR3–2.sch	File: 41 – POWER – 3.sch
Sheet: 20 – INTERFACE – PCIe	Sheet: 42 – POWER – CURRENT SENSE
File: 20 – INTERFACE – PCIe.sch	File: 42 – POWER – CURRENT SENSE.sch
Sheet: 21 – INTERFACE – SFP+	Sheet: 43 – POWER – Fast Discharge
File: 21 – INTERFACE – SFP+.sch	File: 43 – POWER – Fast Discharge.sch
Sheet: 22 – INTERFACE – FMC – 1	
File: 22 – INTERFACE – FMC – 1.sch	
Sheet: 23 – INTERFACE – FMC – 2	
File: 23 – INTERFACE – FMC – 2.sch	





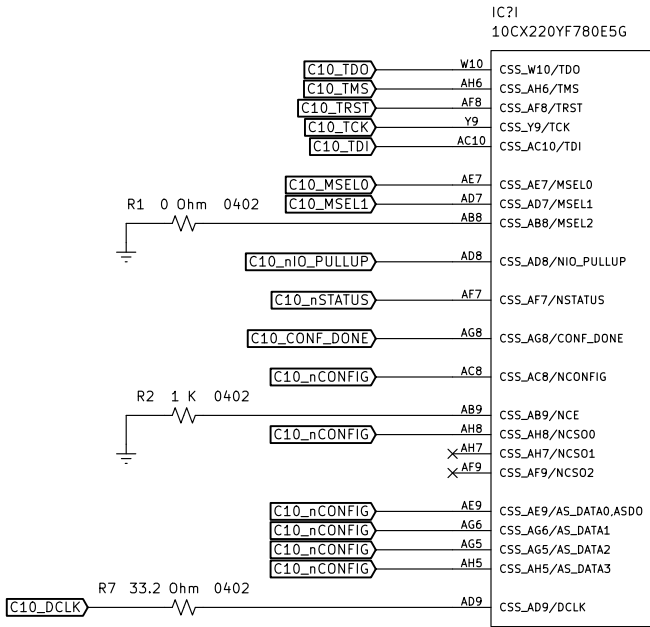
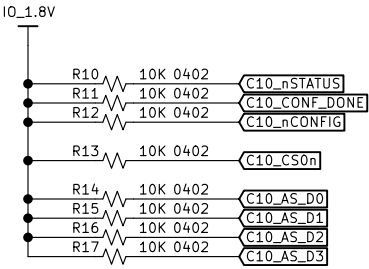
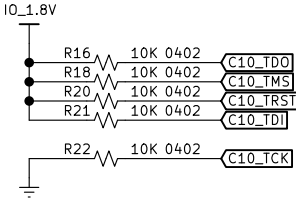
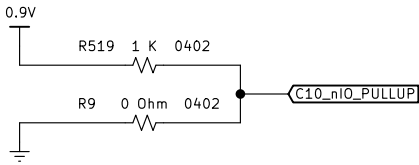
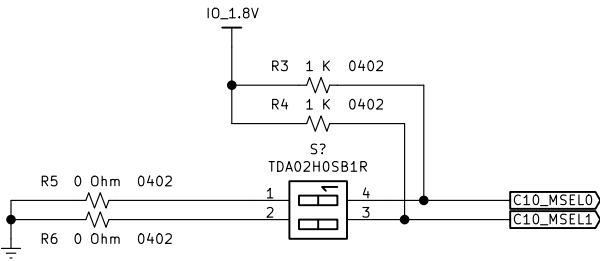
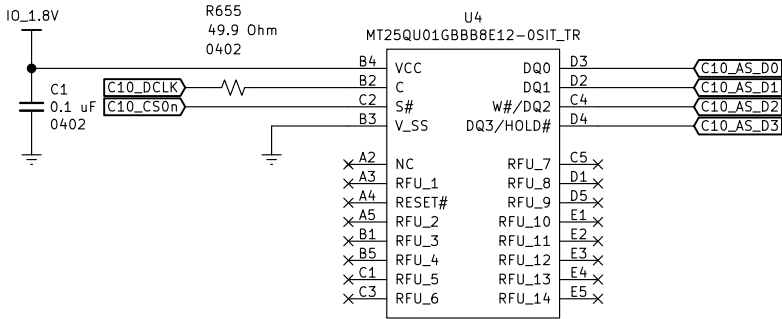


Sheet: /04 - I2C JTAG Chain Diagram/
File: 04 - I2C JTAG Chain Diagram.sch

Title:

Size: B	Date:	Rev:
KiCad E.D.A. kicad (5.1.9)-1		Id: 4/43

C10GX BANK CSS – Config



Configuration Scheme	V _{CCPGM} (V)	Power-On Reset (POR) Delay	Valid MSEL[2..0]
JTAG-based configuration	—	—	Use any valid MSEL pin settings below
AS (x1 and x4)	1.8	Fast	010
		Standard	011
PS and FPP (x8, x16, and x32)	1.2/1.5/1.8	Fast	000
		Standard	001

Note:
MSEL2 is fixed '0', MSEL1 and MSEL0 are '0' when corresponding switch is ON

C10GX BANK1C/1D – XCVR

N24	GX_1D_N24/REFCLK_GXBL1D_CHTP
N23	GX_1D_N23/REFCLK_GXBL1D_CHTN
E27	GX_1D_E27/GXBL1D_TX_CH5N
E28	GX_1D_E28/GXBL1D_TX_CH5P
D25	GX_1D_D25/GXBL1D_RX_CH5N,GXBL1D_REFCLK5N
D26	GX_1D_D26/GXBL1D_RX_CH5P,GXBL1D_REFCLK5P
G27	GX_1D_G27/GXBL1D_TX_CH4N
G28	GX_1D_G28/GXBL1D_TX_CH4P
F25	GX_1D_F25/GXBL1D_RX_CH4N,GXBL1D_REFCLK4N
F26	GX_1D_F26/GXBL1D_RX_CH4P,GXBL1D_REFCLK4P
J27	GX_1D_J27/GXBL1D_TX_CH3N
J28	GX_1D_J28/GXBL1D_TX_CH3P
H25	GX_1D_H25/GXBL1D_RX_CH3N,GXBL1D_REFCLK3N
H26	GX_1D_H26/GXBL1D_RX_CH3P,GXBL1D_REFCLK3P
L27	GX_1D_L27/GXBL1D_TX_CH2N
L28	GX_1D_L28/GXBL1D_TX_CH2P
K25	GX_1D_K25/GXBL1D_RX_CH2N,GXBL1D_REFCLK2N
K26	GX_1D_K26/GXBL1D_RX_CH2P,GXBL1D_REFCLK2P
N27	GX_1D_N27/GXBL1D_TX_CH1N
N28	GX_1D_N28/GXBL1D_TX_CH1P
M25	GX_1D_M25/GXBL1D_RX_CH1N,GXBL1D_REFCLK1N
M26	GX_1D_M26/GXBL1D_RX_CH1P,GXBL1D_REFCLK1P
R27	GX_1D_R27/GXBL1D_TX_CH0N
R28	GX_1D_R28/GXBL1D_TX_CH0P
P25	GX_1D_P25/GXBL1D_RX_CH0N,GXBL1D_REFCLK0N
P26	GX_1D_P26/GXBL1D_RX_CH0P,GXBL1D_REFCLK0P
R24	GX_1D_R24/REFCLK_GXBL1D_CHBP
R23	GX_1D_R23/REFCLK_GXBL1D_CHBN

U1A
10CX220YF780E5G

U24	GX_1C_U24/REFCLK_GXBL1C_CHTP
U23	GX_1C_U23/REFCLK_GXBL1C_CHTN
U27	GX_1C_U27/GXBL1C_TX_CH5N
U28	GX_1C_U28/GXBL1C_TX_CH5P
T25	GX_1C_T25/GXBL1C_RX_CH5N,GXBL1C_REFCLK5N
T26	GX_1C_T26/GXBL1C_RX_CH5P,GXBL1C_REFCLK5P
W27	GX_1C_W27/GXBL1C_TX_CH4N
W28	GX_1C_W28/GXBL1C_TX_CH4P
V25	GX_1C_V25/GXBL1C_RX_CH4N,GXBL1C_REFCLK4N
V26	GX_1C_V26/GXBL1C_RX_CH4P,GXBL1C_REFCLK4P
AA27	GX_1C_AA27/GXBL1C_TX_CH3N
AA28	GX_1C_AA28/GXBL1C_TX_CH3P
Y25	GX_1C_Y25/GXBL1C_RX_CH3N,GXBL1C_REFCLK3N
Y26	GX_1C_Y26/GXBL1C_RX_CH3P,GXBL1C_REFCLK3P
AC27	GX_1C_AC27/GXBL1C_TX_CH2N
AC28	GX_1C_AC28/GXBL1C_TX_CH2P
AB25	GX_1C_AB25/GXBL1C_RX_CH2N,GXBL1C_REFCLK2N
AB26	GX_1C_AB26/GXBL1C_RX_CH2P,GXBL1C_REFCLK2P
AE27	GX_1C_AE27/GXBL1C_TX_CH1N
AE28	GX_1C_AE28/GXBL1C_TX_CH1P
AD25	GX_1C_AD25/GXBL1C_RX_CH1N,GXBL1C_REFCLK1N
AD26	GX_1C_AD26/GXBL1C_RX_CH1P,GXBL1C_REFCLK1P
AG27	GX_1C_AG27/GXBL1C_TX_CH0N
AG28	GX_1C_AG28/GXBL1C_TX_CH0P
AF25	GX_1C_AF25/GXBL1C_RX_CH0N,GXBL1C_REFCLK0N
AF26	GX_1C_AF26/GXBL1C_RX_CH0P,GXBL1C_REFCLK0P
W24	GX_1C_W24/REFCLK_GXBL1C_CHBP
W23	GX_1C_W23/REFCLK_GXBL1C_CHBN

U1B
10CX220YF780E5G

Sheet: /06 – C10GX BANK1C–1D – XCVR/
File: 06 – C10GX BANK1C–1D – XCVR.sch

Title:

Size: B

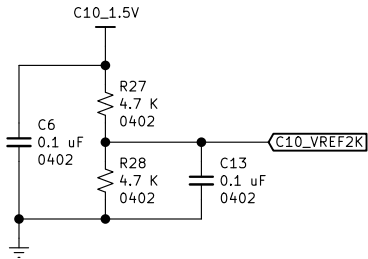
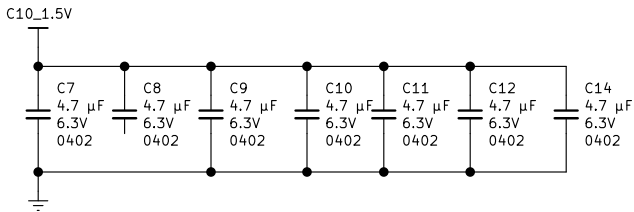
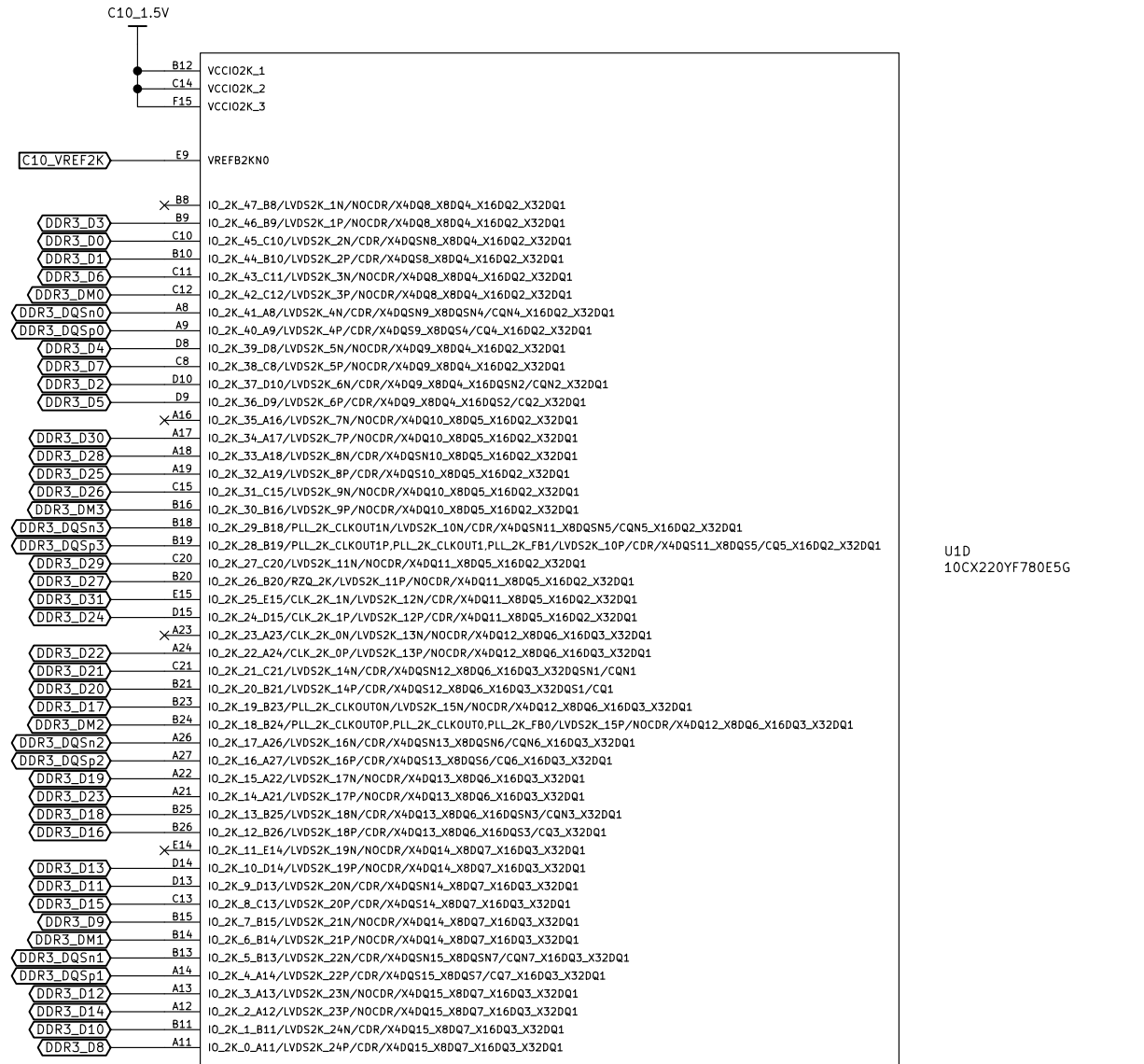
Date:

Rev:

KiCad E.D.A. kicad (5.1.9)–1

Id: 6/43

C10GX BANK2K – EMIF



Sheet: /07 – C10GX BANK2K – EMIF/
File: 07 – C10GX BANK2K – EMIF.sch

Title:

Size: B

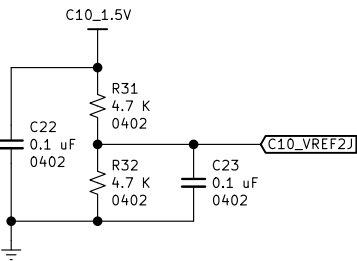
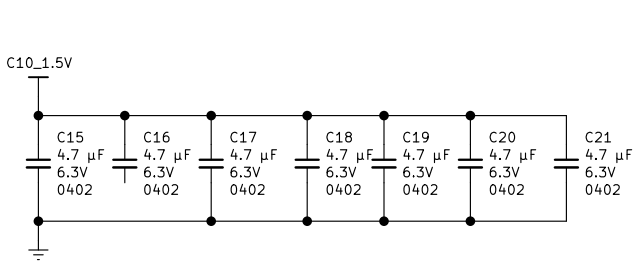
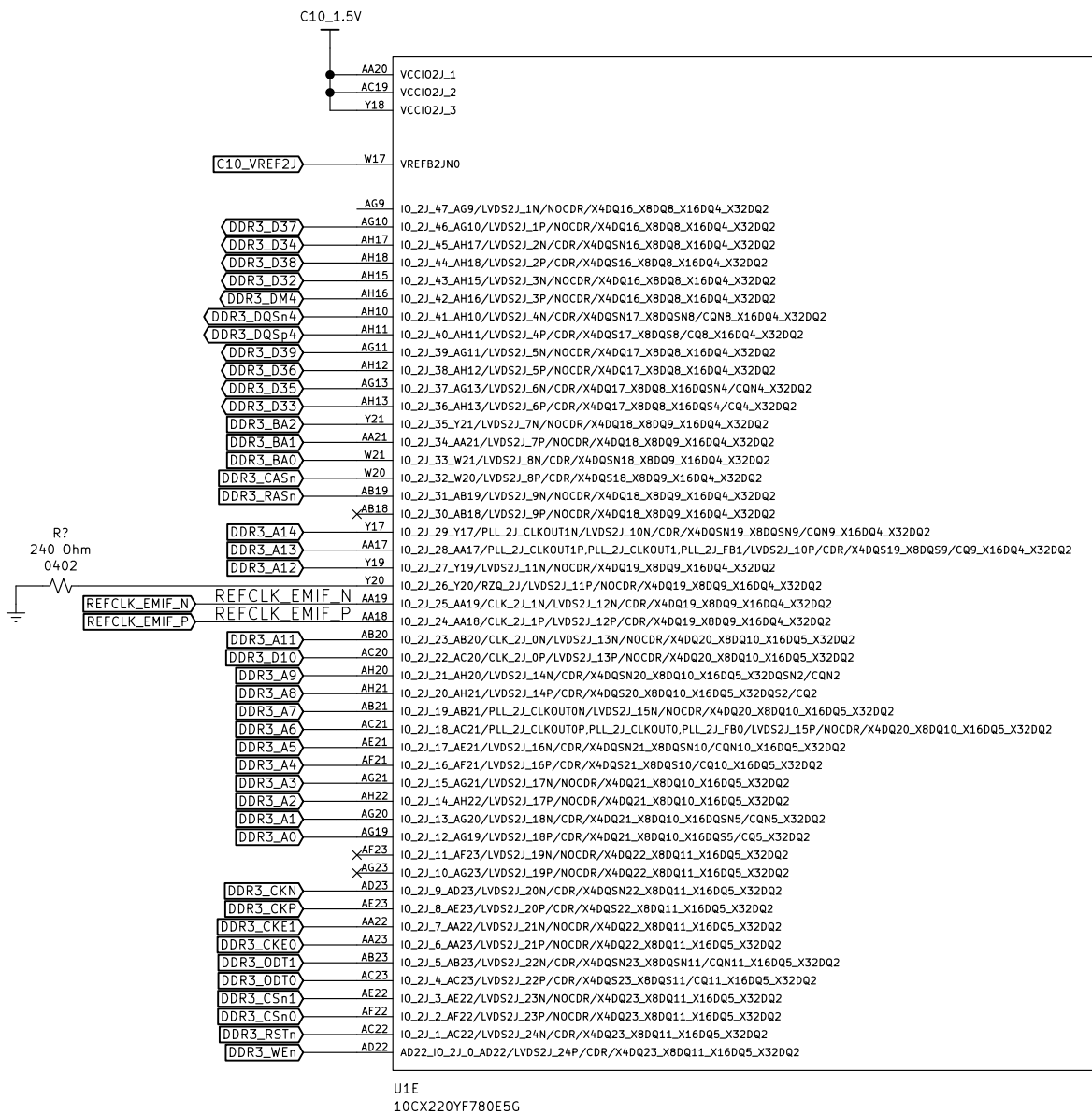
Date:

Rev:

KiCad E.D.A. kicad (5.1.9)–1

Id: 7/43

C10GX BANK2J – EMIF



Sheet: /08 – C10GX BANK2J – EMIF/
File: 08 – C10GX BANK2J – EMIF.sch

Title:

Size: B

Date:

Rev:

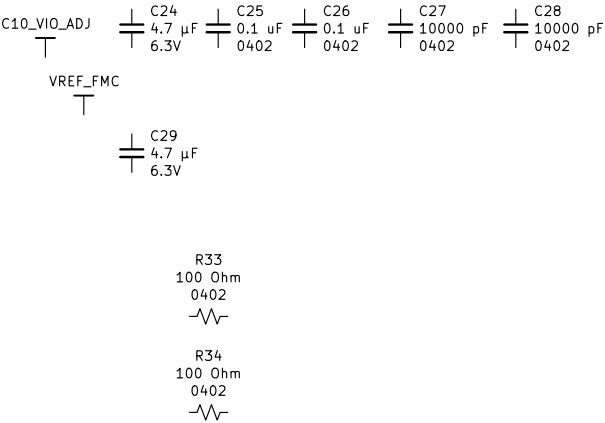
KiCad E.D.A. kicad (5.1.9)–1

Id: 8/43

C10GX BANK3A – FMC LVDS

AA5	VCCIO3A_1
W6	VCCIO3A_2
Y8	VCCIO3A_3
W9	VREFB3A0
Y4	I0_3A_47_Y4/LVDS3A_1N/NOCDR/X4DQ56_X8DQ28_X16DQ14_X32DQ7
W4	I0_3A_46_W4/LVDS3A_1P/NOCDR/X4DQ56_X8DQ28_X16DQ14_X32DQ7
W7	I0_3A_45_W7/LVDS3A_2N/CDR/X4DQ5N56_X8DQ28_X16DQ14_X32DQ7
W8	I0_3A_44_W8/LVDS3A_2P/CDR/X4DQ556_X8DQ28_X16DQ14_X32DQ7
Y6	I0_3A_43_Y6/LVDS3A_3N/NOCDR/X4DQ56_X8DQ28_X16DQ14_X32DQ7
Y7	I0_3A_42_Y7/LVDS3A_3P/NOCDR/X4DQ56_X8DQ28_X16DQ14_X32DQ7
Y5	I0_3A_41_Y5/LVDS3A_4N/CDR/X4DQ5N57_X8DQ5N28/CQN28_X16DQ14_X32DQ7
W5	I0_3A_40_W5/LVDS3A_4P/CDR/X4DQ557_X8DQ528/CQ28_X16DQ14_X32DQ7
Y2	I0_3A_39_Y2/LVDS3A_5N/NOCDR/X4DQ57_X8DQ28_X16DQ14_X32DQ7
Y1	I0_3A_38_Y1/LVDS3A_5P/NOCDR/X4DQ57_X8DQ28_X16DQ14_X32DQ7
AA8	I0_3A_37_AA8/LVDS3A_6N/CDR/X4DQ57_X8DQ28_X16DQ5N14/CQN14_X32DQ7
AA9	I0_3A_36_AA9/LVDS3A_6P/CDR/X4DQ57_X8DQ28_X16DQ514/CQ14_X32DQ7
AB4	I0_3A_35_AB4/LVDS3A_7N/NOCDR/X4DQ58_X8DQ29_X16DQ14_X32DQ7
AC5	I0_3A_34_AC5/LVDS3A_7P/NOCDR/X4DQ58_X8DQ29_X16DQ14_X32DQ7
AA1	I0_3A_33_AA1/LVDS3A_8N/CDR/X4DQ5N58_X8DQ29_X16DQ14_X32DQ7
AB1	I0_3A_32_AB1/LVDS3A_8P/CDR/X4DQ558_X8DQ29_X16DQ14_X32DQ7
AB5	I0_3A_31_AB5/LVDS3A_9N/NOCDR/X4DQ58_X8DQ29_X16DQ14_X32DQ7
AB6	I0_3A_30_AB6/LVDS3A_9P/NOCDR/X4DQ58_X8DQ29_X16DQ14_X32DQ7
AB3	I0_3A_29_AB3/PLL_3A_CLKOUT1N/LVDS3A_10N/CDR/X4DQ5N59_X8DQ5N29/CQN29_X16DQ14_X32DQ7
AA2	I0_3A_28_AA2/PLL_3A_CLKOUT1P,PLL_3A_CLKOUT1,PLL_3A_FB1/LVDS3A_10P/CDR/X4DQ559_X8DQ529/CQ29_X16DQ14_X32DQ7
AA4	I0_3A_27_AA4/LVDS3A_11N/NOCDR/X4DQ59_X8DQ29_X16DQ14_X32DQ7
AA3	I0_3A_26_AA3/RZQ_3A/LVDS3A_11P/NOCDR/X4DQ59_X8DQ29_X16DQ14_X32DQ7
AA7	I0_3A_25_AA7/CLK_3A_1N/LVDS3A_12N/CDR/X4DQ59_X8DQ29_X16DQ14_X32DQ7
AA6	I0_3A_24_AA6/CLK_3A_1P/LVDS3A_12P/CDR/X4DQ59_X8DQ29_X16DQ14_X32DQ7
AC3	I0_3A_23_AC3/CLK_3A_0N/LVDS3A_13N/NOCDR/X4DQ60_X8DQ30_X16DQ15_X32DQ7
AD3	I0_3A_22_AD3/CLK_3A_0P/LVDS3A_13P/NOCDR/X4DQ60_X8DQ30_X16DQ15_X32DQ7
AF2	I0_3A_21_AF2/LVDS3A_14N/CDR/X4DQ5N60_X8DQ30_X16DQ15_X32DQ5N7/CQN7
AE1	I0_3A_20_AE1/LVDS3A_14P/CDR/X4DQ560_X8DQ30_X16DQ15_X32DQ57/CQ7
AC2	I0_3A_19_AC2/PLL_3A_CLKOUT0N/LVDS3A_15N/NOCDR/X4DQ60_X8DQ30_X16DQ15_X32DQ7
AC1	I0_3A_18_AC1/PLL_3A_CLKOUT0P,PLL_3A_CLKOUT0,PLL_3A_FB0/LVDS3A_15P/NOCDR/X4DQ60_X8DQ30_X16DQ15_X32DQ7
AD2	I0_3A_17_AD2/LVDS3A_16N/CDR/X4DQ5N61_X8DQ5N30/CQN30_X16DQ15_X32DQ7
AE2	I0_3A_16_AE2/LVDS3A_16P/CDR/X4DQ561_X8DQ530/CQ30_X16DQ15_X32DQ7
AF1	I0_3A_15_AF1/LVDS3A_17N/NOCDR/X4DQ61_X8DQ30_X16DQ15_X32DQ7
AG1	I0_3A_14_AG1/LVDS3A_17P/NOCDR/X4DQ61_X8DQ30_X16DQ15_X32DQ7
AF3	I0_3A_13_AF3/LVDS3A_18N/CDR/X4DQ61_X8DQ30_X16DQ5N15/CQN15_X32DQ7
AG3	I0_3A_12_AG3/LVDS3A_18P/CDR/X4DQ61_X8DQ30_X16DQ515/CQ15_X32DQ7
AH3	I0_3A_11_AH3/LVDS3A_19N/NOCDR/X4DQ62_X8DQ31_X16DQ15_X32DQ7
AH2	I0_3A_10_AH2/LVDS3A_19P/NOCDR/X4DQ62_X8DQ31_X16DQ15_X32DQ7
AD4	I0_3A_9_AD4/LVDS3A_20N/CDR/X4DQ5N62_X8DQ31_X16DQ15_X32DQ7
AE4	I0_3A_8_AE4/LVDS3A_20P/CDR/X4DQ562_X8DQ31_X16DQ15_X32DQ7
AC7	I0_3A_7_AC7/LVDS3A_21N/NOCDR/X4DQ62_X8DQ31_X16DQ15_X32DQ7
AC6	I0_3A_6_AC6/LVDS3A_21P/NOCDR/X4DQ62_X8DQ31_X16DQ15_X32DQ7
AE6	I0_3A_5_AE6/LVDS3A_22N/CDR/X4DQ5N63_X8DQ5N31/CQN31_X16DQ15_X32DQ7
AF6	I0_3A_4_AF6/LVDS3A_22P/CDR/X4DQ563_X8DQ531/CQ31_X16DQ15_X32DQ7

IC?H
10CX220YF780E5G



Sheet: /09 – C10GX BANK3A – FMC LVDS/
File: 09 – C10GX BANK3A – FMC LVDS.sch

Title:

Size: B

Date:

Rev:

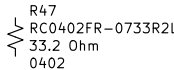
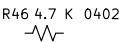
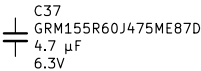
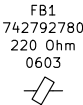
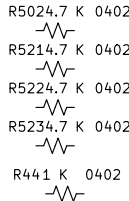
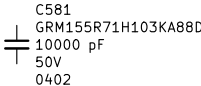
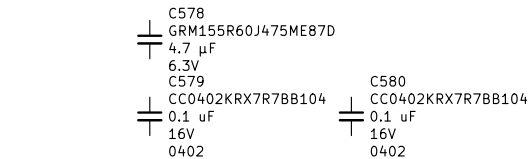
KiCad E.D.A. kicad (5.1.9)–1

Id: 9/43

[illegible]

Title:		
Size: B	Date:	Rev:
KiCad E.D.A. kicad (5.1.9)-1		Id: 10/43

C10GX BANK2A – FPP/GPIO



AA20	VCCI02J_1
AC19	VCCI02J_2
Y18	VCCI02J_3
W17	VREFB2JN0
AG9	IO_2J_47_AG9/LVDS2J_1N/NOCDR/X4DQ16_X8DQ8_X16DQ4_X32DQ2
AG10	IO_2J_46_AG10/LVDS2J_1P/NOCDR/X4DQ16_X8DQ8_X16DQ4_X32DQ2
AH17	IO_2J_45_AH17/LVDS2J_2N/CDR/X4DQSN16_X8DQ8_X16DQ4_X32DQ2
AH18	IO_2J_44_AH18/LVDS2J_2P/CDR/X4DQSN16_X8DQ8_X16DQ4_X32DQ2
AH15	IO_2J_43_AH15/LVDS2J_3N/NOCDR/X4DQ16_X8DQ8_X16DQ4_X32DQ2
AH16	IO_2J_42_AH16/LVDS2J_3P/NOCDR/X4DQ16_X8DQ8_X16DQ4_X32DQ2
AH10	IO_2J_41_AH10/LVDS2J_4N/CDR/X4DQSN17_X8DQSN8/CQN8_X16DQ4_X32DQ2
AH11	IO_2J_40_AH11/LVDS2J_4P/CDR/X4DQSN17_X8DQSN8/CQN8_X16DQ4_X32DQ2
AG11	IO_2J_39_AG11/LVDS2J_5N/NOCDR/X4DQ17_X8DQ8_X16DQ4_X32DQ2
AH12	IO_2J_38_AH12/LVDS2J_5P/NOCDR/X4DQ17_X8DQ8_X16DQ4_X32DQ2
AG13	IO_2J_37_AG13/LVDS2J_6N/CDR/X4DQ17_X8DQ8_X16DQSN4/CQN4_X32DQ2
AH13	IO_2J_36_AH13/LVDS2J_6P/CDR/X4DQ17_X8DQ8_X16DQSN4/CQN4_X32DQ2
Y21	IO_2J_35_Y21/LVDS2J_7N/NOCDR/X4DQ18_X8DQ9_X16DQ4_X32DQ2
AA21	IO_2J_34_AA21/LVDS2J_7P/NOCDR/X4DQ18_X8DQ9_X16DQ4_X32DQ2
W21	IO_2J_33_W21/LVDS2J_8N/CDR/X4DQSN18_X8DQ9_X16DQ4_X32DQ2
W20	IO_2J_32_W20/LVDS2J_8P/CDR/X4DQSN18_X8DQ9_X16DQ4_X32DQ2
AB19	IO_2J_31_AB19/LVDS2J_9N/NOCDR/X4DQ18_X8DQ9_X16DQ4_X32DQ2
AB18	IO_2J_30_AB18/LVDS2J_9P/NOCDR/X4DQ18_X8DQ9_X16DQ4_X32DQ2
Y17	IO_2J_29_Y17/PULL_2J_CLKOUT1N/LVDS2J_10N/CDR/X4DQSN19_X8DQSN9/CQN9_X16DQ4_X32DQ2
AA17	IO_2J_28_AA17/PULL_2J_CLKOUT1P/PULL_2J_CLKOUT1P/PULL_2J_FB1/LVDS2J_10P/CDR/X4DQSN19_X8DQSN9/CQN9_X16DQ4_X32DQ2
Y19	IO_2J_27_Y19/LVDS2J_11N/NOCDR/X4DQ19_X8DQ9_X16DQ4_X32DQ2
Y20	IO_2J_26_Y20/RZQ_2J/LVDS2J_11P/NOCDR/X4DQ19_X8DQ9_X16DQ4_X32DQ2
AA19	IO_2J_25_AA19/CLK_2J_1N/LVDS2J_12N/CDR/X4DQ19_X8DQ9_X16DQ4_X32DQ2
AA18	IO_2J_24_AA18/CLK_2J_1P/LVDS2J_12P/CDR/X4DQ19_X8DQ9_X16DQ4_X32DQ2
AB20	IO_2J_23_AB20/CLK_2J_0N/LVDS2J_13N/NOCDR/X4DQ20_X8DQ10_X16DQ5_X32DQ2
AC20	IO_2J_22_AC20/CLK_2J_0P/LVDS2J_13P/NOCDR/X4DQ20_X8DQ10_X16DQ5_X32DQ2
AH20	IO_2J_21_AH20/LVDS2J_14N/CDR/X4DQSN20_X8DQ10_X16DQ5_X32DQSN2/CQN2
AH21	IO_2J_20_AH21/LVDS2J_14P/CDR/X4DQSN20_X8DQ10_X16DQ5_X32DQSN2/CQN2
AB21	IO_2J_19_AB21/PULL_2J_CLKOUT0N/LVDS2J_15N/NOCDR/X4DQ20_X8DQ10_X16DQ5_X32DQ2
AC21	IO_2J_18_AC21/PULL_2J_CLKOUT0P/PULL_2J_CLKOUT0P/PULL_2J_FB0/LVDS2J_15P/NOCDR/X4DQ20_X8DQ10_X16DQ5_X32DQ2
AE21	IO_2J_17_AE21/LVDS2J_16N/CDR/X4DQSN21_X8DQSN10/CQN10_X16DQ5_X32DQ2
AF21	IO_2J_16_AF21/LVDS2J_16P/CDR/X4DQSN21_X8DQSN10/CQN10_X16DQ5_X32DQ2
AG21	IO_2J_15_AG21/LVDS2J_17N/NOCDR/X4DQ21_X8DQ10_X16DQ5_X32DQ2
AH22	IO_2J_14_AH22/LVDS2J_17P/NOCDR/X4DQ21_X8DQ10_X16DQ5_X32DQ2
AG20	IO_2J_13_AG20/LVDS2J_18N/CDR/X4DQ21_X8DQ10_X16DQSN5/CQN5_X32DQ2
AG19	IO_2J_12_AG19/LVDS2J_18P/CDR/X4DQ21_X8DQ10_X16DQSN5/CQN5_X32DQ2
AF23	IO_2J_11_AF23/LVDS2J_19N/NOCDR/X4DQ22_X8DQ11_X16DQ5_X32DQ2
AG23	IO_2J_10_AG23/LVDS2J_19P/NOCDR/X4DQ22_X8DQ11_X16DQ5_X32DQ2
AD23	IO_2J_9_AD23/LVDS2J_20N/CDR/X4DQSN22_X8DQ11_X16DQ5_X32DQ2
AE23	IO_2J_8_AE23/LVDS2J_20P/CDR/X4DQSN22_X8DQ11_X16DQ5_X32DQ2
AA22	IO_2J_7_AA22/LVDS2J_21N/NOCDR/X4DQ22_X8DQ11_X16DQ5_X32DQ2
AA23	IO_2J_6_AA23/LVDS2J_21P/NOCDR/X4DQ22_X8DQ11_X16DQ5_X32DQ2
AB23	IO_2J_5_AB23/LVDS2J_22N/CDR/X4DQSN23_X8DQSN11/CQN11_X16DQ5_X32DQ2
AC23	IO_2J_4_AC23/LVDS2J_22P/CDR/X4DQSN23_X8DQSN11/CQN11_X16DQ5_X32DQ2
AE22	IO_2J_3_AE22/LVDS2J_23N/NOCDR/X4DQ23_X8DQ11_X16DQ5_X32DQ2
AF22	IO_2J_2_AF22/LVDS2J_23P/NOCDR/X4DQ23_X8DQ11_X16DQ5_X32DQ2
AC22	IO_2J_1_AC22/LVDS2J_24N/CDR/X4DQ23_X8DQ11_X16DQ5_X32DQ2
AD22	AD22_IO_2J_0_AD22/LVDS2J_24P/CDR/X4DQ23_X8DQ11_X16DQ5_X32DQ2

U1E
10CX220YF780E5G

Sheet: /11 – C10GX BANK2A – FPP–GPIO/
File: 11 – C10GX BANK2A – FPP–GPIO.sch

Title:

Size: B

Date:

Rev:

KiCad E.D.A. kicad (5.1.9)–1

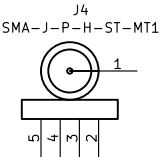
Id: 11/43

C10GX BANK2L – GPIO

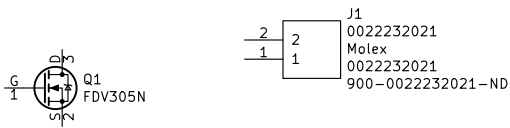
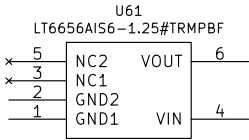
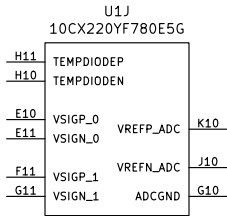
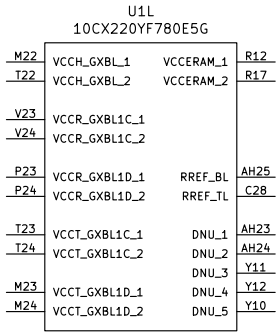
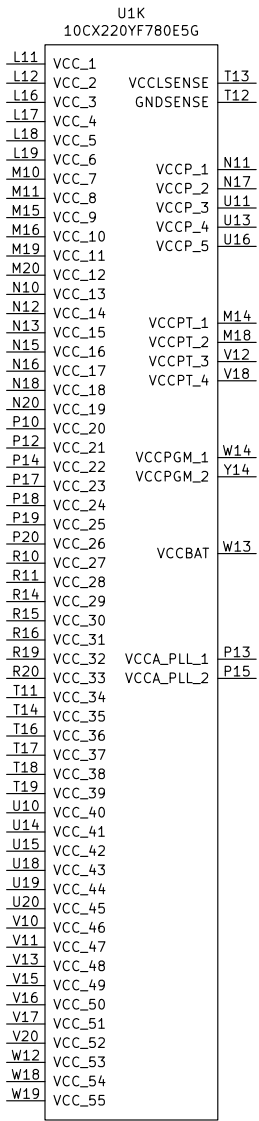
U58			
IS25WP256D–RHLE–TR			
D3	DQ0/SI	VCC	B4
D2	DQ1/S0	VSS	B3
C4	DQ2/W#		
D4	DQ3	NDU6	B5
		DNU7	C1
B2	C	DNU8	C3
		DNU9	C5
C2	S#	DNU10	D1
A4	RESET#/DNU3	DNU11	D5
		DNU12	E1
A2	DNU1	DNU13	E2
A3	DNU2	DNU14	E3
A5	DNU4	DNU15	E4
B1	DNU5	DNU16	E5

E18	VCCIO2L_1
H19	VCCIO2L_2
K18	VCCIO2L_3
K16	VREFB2LN0
H16	IO_2L_47_H16/DIFFIO2L_1N/NOCDR/X4DQ0_X8DQ0_X16DQ0_X32DQ0
H17	IO_2L_46_H17/DIFFIO2L_1P/NOCDR/X4DQ0_X8DQ0_X16DQ0_X32DQ0
J19	IO_2L_45_J19/DIFFIO2L_2N/NOCDR/X4DQSN0_X8DQ0_X16DQ0_X32DQ0
J18	IO_2L_44_J18/DIFFIO2L_2P/NOCDR/X4DQSN0_X8DQ0_X16DQ0_X32DQ0
K17	IO_2L_43_K17/DIFFIO2L_3N/NOCDR/X4DQ0_X8DQ0_X16DQ0_X32DQ0
J17	IO_2L_42_J17/DIFFIO2L_3P/NOCDR/X4DQ0_X8DQ0_X16DQ0_X32DQ0
F18	IO_2L_41_F18/DIFFIO2L_4N/NOCDR/X4DQSN1_X8DQSN0/CQN0_X16DQ0_X32DQ0
F17	IO_2L_40_F17/DIFFIO2L_4P/NOCDR/X4DQSN1_X8DQSN0/CQ0_X16DQ0_X32DQ0F17
H18	IO_2L_39_H18/DIFFIO2L_5N/NOCDR/X4DQ1_X8DQ0_X16DQ0_X32DQ0
G18	IO_2L_38_G18/DIFFIO2L_5P/NOCDR/X4DQ1_X8DQ0_X16DQ0_X32DQ0
G19	IO_2L_37_G19/DIFFIO2L_6N/NOCDR/X4DQ1_X8DQ0_X16DQSN0/CQN0_X32DQ0
G20	IO_2L_36_G20/DIFFIO2L_6P/NOCDR/X4DQ1_X8DQ0_X16DQSN0/CQ0_X32DQ0
E21	IO_2L_35_E21/DIFFIO2L_7N/NOCDR/X4DQ2_X8DQ1_X16DQ0_X32DQ0
D22	IO_2L_34_D22/DIFFIO2L_7P/NOCDR/X4DQ2_X8DQ1_X16DQ0_X32DQ0
E23	IO_2L_33_E23/DIFFIO2L_8N/NOCDR/X4DQSN2_X8DQ1_X16DQ0_X32DQ0
D23	IO_2L_32_D23/DIFFIO2L_8P/NOCDR/X4DQSN2_X8DQ1_X16DQ0_X32DQ0
F22	IO_2L_31_F22/DIFFIO2L_9N/NOCDR/X4DQ2_X8DQ1_X16DQ0_X32DQ0
E22	IO_2L_30_E22/DIFFIO2L_9P/NOCDR/X4DQ2_X8DQ1_X16DQ0_X32DQ0
C22	IO_2L_29_C22/PLL_2L_CLKOUT1N/DIFFIO2L_10N/NOCDR/X4DQSN3_X8DQSN1/CQN1_X16DQ0_X32DQ0
C23	IO_2L_28_C23/PLL_2L_CLKOUT1P.PLL_2L_CLKOUT1.PLL_2L_FB1/DIFFIO2L_10P/NOCDR/X4DQSN3_X8DQSN1/CQ1_X16DQ0_X32DQ0
G21	IO_2L_27_G21/DIFFIO2L_11N/NOCDR/X4DQ3_X8DQ1_X16DQ0_X32DQ0
F21	IO_2L_26_F21/RZQ_2L/DIFFIO2L_11P/NOCDR/X4DQ3_X8DQ1_X16DQ0_X32DQ0
G23	IO_2L_25_G23/CLK_2L_1N/DIFFIO2L_12N/NOCDR/X4DQ3_X8DQ1_X16DQ0_X32DQ0
F23	IO_2L_24_F23/CLK_2L_1P/DIFFIO2L_12P/NOCDR/X4DQ3_X8DQ1_X16DQ0_X32DQ0
H23	IO_2L_23_H23/CLK_2L_0N/DIFFIO2L_13N/NOCDR/X4DQ4_X8DQ2_X16DQ1_X32DQ0
J23	IO_2L_22_J23/CLK_2L_0P/DIFFIO2L_13P/NOCDR/X4DQ4_X8DQ2_X16DQ1_X32DQ0
K21	IO_2L_21_K21/DIFFIO2L_14N/NOCDR/X4DQSN4_X8DQ2_X16DQ1_X32DQSN0/CQN0
J20	IO_2L_20_J20/DIFFIO2L_14P/NOCDR/X4DQSN4_X8DQ2_X16DQ1_X32DQSN0/CQ0
H22	IO_2L_19_H22/PLL_2L_CLKOUT0N/DIFFIO2L_15N/NOCDR/X4DQ4_X8DQ2_X16DQ1_X32DQ0
J22	IO_2L_18_J22/PLL_2L_CLKOUT0P.PLL_2L_CLKOUT0.PLL_2L_FB0/DIFFIO2L_15P/NOCDR/X4DQ4_X8DQ2_X16DQ1_X32DQ0
H21	IO_2L_17_H21/DIFFIO2L_16N/NOCDR/X4DQSN5_X8DQSN2/CQN2_X16DQ1_X32DQ0
H20	IO_2L_16_H20/DIFFIO2L_16P/NOCDR/X4DQSN5_X8DQSN2/CQ2_X16DQ1_X32DQ0
K20	IO_2L_15_K20/DIFFIO2L_17N/NOCDR/X4DQ5_X8DQ2_X16DQ1_X32DQ0
K19	IO_2L_14_K19/DIFFIO2L_17P/NOCDR/X4DQ5_X8DQ2_X16DQ1_X32DQ0
K22	IO_2L_13_K22/DIFFIO2L_18N/NOCDR/X4DQ5_X8DQ2_X16DQSN1/CQN1_X32DQ0
K23	IO_2L_12_K23/DIFFIO2L_18P/NOCDR/X4DQ5_X8DQ2_X16DQSN1/CQ1_X32DQ0
D18	IO_2L_11_D18/DIFFIO2L_19N/NOCDR/X4DQ6_X8DQ3_X16DQ1_X32DQ0
D19	IO_2L_10_D19/DIFFIO2L_19P/NOCDR/X4DQ6_X8DQ3_X16DQ1_X32DQ0
E17	IO_2L_9_E17/DIFFIO2L_20N/NOCDR/X4DQSN6_X8DQ3_X16DQ1_X32DQ0
E16	IO_2L_8_E16/DIFFIO2L_20P/NOCDR/X4DQSN6_X8DQ3_X16DQ1_X32DQ0
F19	IO_2L_7_F19/DIFFIO2L_21N/NOCDR/X4DQ6_X8DQ3_X16DQ1_X32DQ0
E19	IO_2L_6_E19/DIFFIO2L_21P/NOCDR/X4DQ6_X8DQ3_X16DQ1_X32DQ0
F20	IO_2L_5_E20/DIFFIO2L_22N/NOCDR/X4DQSN7_X8DQSN3/CQN3_X16DQ1_X32DQ0
D20	IO_2L_4_D20/DIFFIO2L_22P/NOCDR/X4DQSN7_X8DQSN3/CQ3_X16DQ1_X32DQ0
C16	IO_2L_3_C16/DIFFIO2L_23N/NOCDR/X4DQ7_X8DQ3_X16DQ1_X32DQ0
C17	IO_2L_2_C17/DIFFIO2L_23P/NOCDR/X4DQ7_X8DQ3_X16DQ1_X32DQ0
D17	IO_2L_1_D17/DIFFIO2L_24N/NOCDR/X4DQ7_X8DQ3_X16DQ1_X32DQ0
C18	IO_2L_0_C18/DIFFIO2L_24P/NOCDR/X4DQ7_X8DQ3_X16DQ1_X32DQ0

U1C
10CX220YF780E5G



C10GX POWER



1 2 3 4 5 6 7 8

A

C10GX PWR Filter

B

C

D

E

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

Sheet: /14 - C10GX PWR Filter/
File: 14 - C10GX PWR Filter.sch

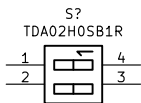
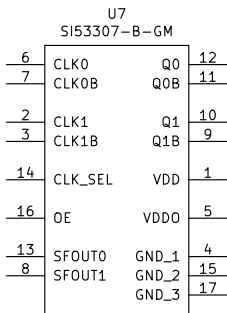
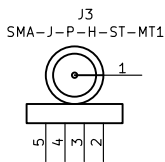
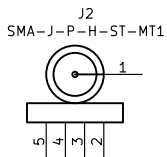
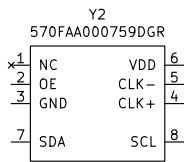
Title:		
Size: B	Date:	Rev:
KiCad E.D.A. kicad (5.1.9)–1		Id: 14/43

Title:		
Size: B	Date:	Rev:
KiCad E.D.A. kicad (5.1.9)-1		Id: 14/43

[illegible]

Title:		
Size: B	Date:	Rev:
KiCad E.D.A. kicad (5.1.9)–1		Id: 15/43

CLOCK – SI570/Si5332



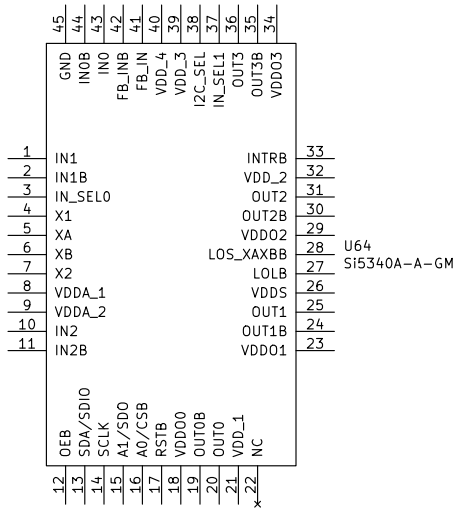
FB26
220 Ohm
0603



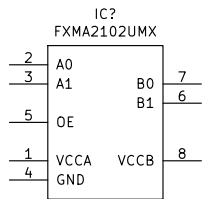
FB28
220 Ohm
0603



FB30
220 Ohm
0603



U64
SI5340A-A-GM



Sheet: /16 – CLOCK – SI570-SI5332/
File: 16 – CLOCK – SI570-SI5332.sch

Title:

Size: B

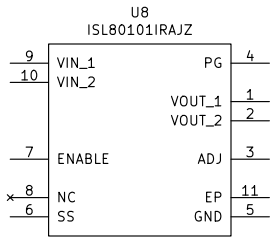
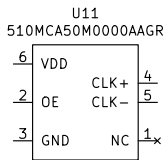
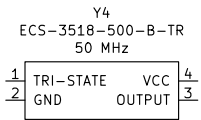
Date:

KiCad E.D.A. kicad (5.1.9)-1

Rev:

Id: 16/43

CLOCK – SI5340



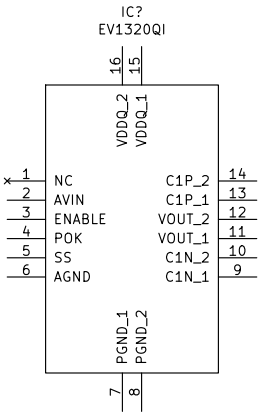
EMIF-DDR3-1

U12			
IS43TR16256B-107MBLI			
N3	A0	DQ0	E3
P7	A1	DQ1	F7
P3	A2	DQ2	F2
N2	A3	DQ3	F8
P8	A4	DQ4	H3
P2	A5	DQ5	H8
R8	A6	DQ6	G2
R2	A7	DQ7	H7
T8	A8	DQ8	D7
R3	A9	DQ9	C3
L7	A10_AP	DQ10	C8
R7	A11	DQ11	C2
N7	A12_BC_L	DQ12	A7
T3	A13	DQ13	A2
T7	A14	DQ14	B8
		DQ15	A3
M2	BA0		
N8	BA1	LDQS	F3
M3	BA2	LDQS_L	G3
K9	CKE0	UDQS	C7
J9	CKE1	UDQS_L	B7
J7	CK	LDM	E7
K7	CK_L	UDM	D3
L2	CS0_L	VDDQ1	A1
L1	CS1_L	VDDQ2	A8
		VDDQ3	C1
K3	CAS_L	VDDQ4	C9
L3	WE_L	VDDQ5	D2
J3	RAS_L	VDDQ6	E9
		VDDQ7	F1
T2	RESET_L	VDDQ8	H2
		VDDQ9	H9
K1	ODT0		
J1	ODT1		
L8	ZQ0		
L9	ZQ1		
B2	VDD1	VREFCA	M8
D9	VDD2	VDDEFDQ	H1
G7	VDD3		
K2	VDD4		
K8	VDD5		
N1	VDD6	VSS1	A9
N9	VDD7	VSS2	B3
R1	VDD8	VSS3	E1
R9	VDD9	VSS4	G8
		VSS5	J2
B1	VSSQ1	VSS6	J8
B9	VSSQ2	VSS7	M1
D1	VSSQ3	VSS8	M9
D8	VSSQ4	VSS9	P1
E2	VSSQ5	VSS10	P9
E8	VSSQ6	VSS11	T1
F9	VSSQ7	VSS12	T9
G1	VSSQ8		
G9	VSSQ9	RFU	M7

U13			
IS43TR16256B-107MBLI			
N3	A0	DQ0	E3
P7	A1	DQ1	F7
P3	A2	DQ2	F2
N2	A3	DQ3	F8
P8	A4	DQ4	H3
P2	A5	DQ5	H8
R8	A6	DQ6	G2
R2	A7	DQ7	H7
T8	A8	DQ8	D7
R3	A9	DQ9	C3
L7	A10_AP	DQ10	C8
R7	A11	DQ11	C2
N7	A12_BC_L	DQ12	A7
T3	A13	DQ13	A2
T7	A14	DQ14	B8
		DQ15	A3
M2	BA0		
N8	BA1	LDQS	F3
M3	BA2	LDQS_L	G3
K9	CKE0	UDQS	C7
J9	CKE1	UDQS_L	B7
J7	CK	LDM	E7
K7	CK_L	UDM	D3
L2	CS0_L	VDDQ1	A1
L1	CS1_L	VDDQ2	A8
		VDDQ3	C1
K3	CAS_L	VDDQ4	C9
L3	WE_L	VDDQ5	D2
J3	RAS_L	VDDQ6	E9
		VDDQ7	F1
T2	RESET_L	VDDQ8	H2
		VDDQ9	H9
K1	ODT0		
J1	ODT1		
L8	ZQ0		
L9	ZQ1		
B2	VDD1	VREFCA	M8
D9	VDD2	VDDEFDQ	H1
G7	VDD3		
K2	VDD4		
K8	VDD5		
N1	VDD6	VSS1	A9
N9	VDD7	VSS2	B3
R1	VDD8	VSS3	E1
R9	VDD9	VSS4	G8
		VSS5	J2
B1	VSSQ1	VSS6	J8
B9	VSSQ2	VSS7	M1
D1	VSSQ3	VSS8	M9
D8	VSSQ4	VSS9	P1
E2	VSSQ5	VSS10	P9
E8	VSSQ6	VSS11	T1
F9	VSSQ7	VSS12	T9
G1	VSSQ8		
G9	VSSQ9	RFU	M7

EMIF-DDR3-2

U14			
IS43TR16256B-107MBLI			
N3	A0	DQ0	E3
P7	A1	DQ1	F7
P3	A2	DQ2	F2
N2	A3	DQ3	F8
P8	A4	DQ4	H3
P2	A5	DQ5	H8
R8	A6	DQ6	G2
R2	A7	DQ7	H7
T8	A8	DQ8	D7
R3	A9	DQ9	C3
L7	A10_AP	DQ10	C8
R7	A11	DQ11	C2
N7	A12_BC_L	DQ12	A7
T3	A13	DQ13	A2
T7	A14	DQ14	B8
		DQ15	A3
M2	BA0		
N8	BA1	LDQS	F3
M3	BA2	LDQS_L	G3
K9	CKE0	UDQS	C7
J9	CKE1	UDQS_L	B7
J7	CK	LDM	E7
K7	CK_L	UDM	D3
L2	CS0_L	VDDQ1	A1
L1	CS1_L	VDDQ2	A8
		VDDQ3	C1
K3	CAS_L	VDDQ4	C9
L3	WE_L	VDDQ5	D2
J3	RAS_L	VDDQ6	E9
		VDDQ7	F1
T2	RESET_L	VDDQ8	H2
		VDDQ9	H9
K1	ODT0		
J1	ODT1		
L8	ZQ0		
L9	ZQ1		
B2	VDD1	VREFCA	M8
D9	VDD2	VDDEFDQ	H1
G7	VDD3		
K2	VDD4		
K8	VDD5		
N1	VDD6	VSS1	A9
N9	VDD7	VSS2	B3
R1	VDD8	VSS3	E1
R9	VDD9	VSS4	G8
		VSS5	J2
B1	VSSQ1	VSS6	J8
B9	VSSQ2	VSS7	M1
D1	VSSQ3	VSS8	M9
D8	VSSQ4	VSS9	P1
E2	VSSQ5	VSS10	P9
E8	VSSQ6	VSS11	T1
F9	VSSQ7	VSS12	T9
G1	VSSQ8		
G9	VSSQ9	RFU	M7



12345678

A

B

C

D

E

12345678

INTERFACE – PCIe

Sheet: /20 – INTERFACE – PCIe/
File: 20 – INTERFACE – PCIe.sch

Title:

Size: BDate:KiCad E.D.A. kicad (5.1.9)–1

Rev:Id: 20/43

12345678

A

B

C

D

E

INTERFACE – SFP+

Sheet: /21 – INTERFACE – SFP+/
File: 21 – INTERFACE – SFP+.sch

Title:

Size: BDate:KiCad E.D.A. kicad (5.1.9)–1

Rev:Id: 21/43

12345678

A

B

C

D

E

INTERFACE – FMC – 1

J7F
ASP-134486-01
Samtec Inc.
ASP-134486-01
SAM8728CT-ND

<u>E20</u>	E20		
<u>E23</u>	E23	E17	<u>E17</u>
<u>E26</u>	E26	E14	<u>E14</u>
<u>E29</u>	E29	E11	<u>E11</u>
<u>E38</u>	E38	E8	<u>E8</u>
<u>E32</u>	E32	E5	<u>E5</u>
<u>E35</u>	E35	E4	<u>E4</u>
<u>E40</u>	E40	E1	<u>E1</u>
<u>K2</u>	K2	F39	<u>F39</u>
<u>K3</u>	K3	F36	<u>F36</u>
<u>K6</u>	K6	F33	<u>F33</u>
<u>K9</u>	K9	F30	<u>F30</u>
<u>K12</u>	K12	F27	<u>F27</u>
<u>K15</u>	K15	F24	<u>F24</u>
<u>K18</u>	K18	F21	<u>F21</u>
<u>K21</u>	K21	F18	<u>F18</u>
<u>K24</u>	K24	F15	<u>F15</u>
<u>K27</u>	K27	F12	<u>F12</u>
<u>K30</u>	K30	F9	<u>F9</u>
<u>K33</u>	K33	F6	<u>F6</u>
<u>K36</u>	K36	F3	<u>F3</u>
<u>K39</u>	K39	F2	<u>F2</u>
<u>J1</u>	J1	G40	<u>G40</u>
<u>J4</u>	J4	G38	<u>G38</u>
<u>J5</u>	J5	G35	<u>G35</u>
<u>J8</u>	J8	G32	<u>G32</u>
<u>J11</u>	J11	G29	<u>G29</u>
<u>J14</u>	J14	G26	<u>G26</u>
<u>J17</u>	J17	G23	<u>G23</u>
<u>J20</u>	J20	G20	<u>G20</u>
<u>J23</u>	J23	G17	<u>G17</u>
<u>J26</u>	J26	G14	<u>G14</u>
<u>J29</u>	J29	G11	<u>G11</u>
<u>J32</u>	J32	G8	<u>G8</u>
<u>J35</u>	J35	G5	<u>G5</u>
<u>J38</u>	J38	G4	<u>G4</u>
<u>J40</u>	J40	G1	<u>G1</u>
<u>H3</u>	H3	A40	<u>A40</u>
<u>H6</u>	H6	A37	<u>A37</u>
<u>H9</u>	H9	A36	<u>A36</u>
<u>H12</u>	H12	A33	<u>A33</u>
<u>H15</u>	H15	A32	<u>A32</u>
<u>H18</u>	H18	A29	<u>A29</u>
<u>H21</u>	H21	A28	<u>A28</u>
<u>H24</u>	H24	A25	<u>A25</u>
<u>H27</u>	H27	A24	<u>A24</u>
<u>H30</u>	H30	A21	<u>A21</u>
<u>H33</u>	H33	A20	<u>A20</u>
<u>H36</u>	H36	A17	<u>A17</u>
<u>H39</u>	H39	A16	<u>A16</u>
<u>D2</u>	D2	A13	<u>A13</u>
<u>D3</u>	D3	A12	<u>A12</u>
<u>D6</u>	D6	A9	<u>A9</u>
<u>D7</u>	D7	A8	<u>A8</u>
<u>D10</u>	D10	A5	<u>A5</u>
<u>D13</u>	D13	A4	<u>A4</u>
<u>D16</u>	D16	A1	<u>A1</u>
<u>D19</u>	D19	B39	<u>B39</u>
<u>D22</u>	D22	B38	<u>B38</u>
<u>D25</u>	D25	B35	<u>B35</u>
<u>D28</u>	D28	B34	<u>B34</u>
<u>D37</u>	D37	B31	<u>B31</u>
<u>D39</u>	D39	B30	<u>B30</u>
<u>C1</u>	C1	B27	<u>B27</u>
<u>C4</u>	C4	B26	<u>B26</u>
<u>C5</u>	C5	B23	<u>B23</u>
<u>C8</u>	C8	B22	<u>B22</u>
<u>C9</u>	C9	B19	<u>B19</u>
<u>C12</u>	C12	B18	<u>B18</u>
<u>C13</u>	C13	B15	<u>B15</u>
<u>C16</u>	C16	B14	<u>B14</u>
<u>C17</u>	C17	B11	<u>B11</u>
<u>C20</u>	C20	B10	<u>B10</u>
<u>C21</u>	C21	B7	<u>B7</u>
<u>C24</u>	C24	B6	<u>B6</u>
<u>C25</u>	C25	B3	<u>B3</u>
<u>C28</u>	C28	B2	<u>B2</u>
<u>C29</u>	C29	C40	<u>C40</u>
<u>C32</u>	C32	C38	<u>C38</u>
<u>C33</u>	C33	C36	<u>C36</u>

FMC cards Supported:
12G SDI: Semtech RDK-12GSRD-ALTRA00 Evaluation Board
8G Displayport: Bitec FMC DisplayPort Daughter Card
6G HDMI 2.0: Bitec FMC HDMI Daughter Card

J7A
ASP-134486-01
Samtec Inc.
ASP-134486-01
SAM8728CT-ND

<u>G6</u>	G6	G18	<u>G18</u>
<u>G7</u>	G7	G19	<u>G19</u>
<u>D8</u>	D8	D20	<u>D20</u>
<u>D9</u>	D9	D21	<u>D21</u>
<u>H7</u>	H7	C22	<u>C22</u>
<u>H8</u>	H8	C23	<u>C23</u>
<u>G9</u>	G9	H22	<u>H22</u>
<u>G10</u>	G10	H23	<u>H23</u>
<u>H10</u>	H10	G21	<u>G21</u>
<u>H11</u>	H11	G22	<u>G22</u>
<u>D11</u>	D11	H25	<u>H25</u>
<u>D12</u>	D12	H26	<u>H26</u>
<u>C10</u>	C10	G24	<u>G24</u>
<u>C11</u>	C11	G25	<u>G25</u>
<u>H13</u>	H13	D23	<u>D23</u>
<u>H14</u>	H14	D24	<u>D24</u>
<u>G12</u>	G12	H28	<u>H28</u>
<u>G13</u>	G13	H29	<u>H29</u>
<u>D14</u>	D14	G27	<u>G27</u>
<u>D15</u>	D15	G28	<u>G28</u>
<u>C14</u>	C14	D26	<u>D26</u>
<u>C15</u>	C15	D27	<u>D27</u>
<u>H16</u>	H16	C26	<u>C26</u>
<u>H17</u>	H17	C27	<u>C27</u>
<u>G15</u>	G15	H31	<u>H31</u>
<u>G16</u>	G16	H32	<u>H32</u>
<u>D17</u>	D17	G30	<u>G30</u>
<u>D18</u>	D18	G31	<u>G31</u>
<u>C18</u>	C18	H34	<u>H34</u>
<u>C19</u>	C19	H35	<u>H35</u>
<u>H19</u>	H19	G33	<u>G33</u>
<u>H20</u>	H20	G34	<u>G34</u>
		H37	<u>H37</u>
		H38	<u>H38</u>
		G36	<u>G36</u>
		G37	<u>G37</u>

J7B
ASP-134486-01
Samtec Inc.
ASP-134486-01
SAM8728CT-ND

<u>F4</u>	F4	F13	<u>F13</u>
<u>F5</u>	F5	F14	<u>F14</u>
<u>E2</u>	E2	E12	<u>E12</u>
<u>E3</u>	E3	E13	<u>E13</u>
<u>K7</u>	K7	J15	<u>J15</u>
<u>K8</u>	K8	J16	<u>J16</u>
<u>J6</u>	J6	F16	<u>F16</u>
<u>J7</u>	J7	F17	<u>F17</u>
<u>F7</u>	F7	E15	<u>E15</u>
<u>F8</u>	F8	E16	<u>E16</u>
<u>E6</u>	E6	K16	<u>K16</u>
<u>E7</u>	E7	K17	<u>K17</u>
<u>K10</u>	K10	J18	<u>J18</u>
<u>K11</u>	K11	J19	<u>J19</u>
<u>J9</u>	J9	F19	<u>F19</u>
<u>J10</u>	J10	F20	<u>F20</u>
<u>F10</u>	F10	E18	<u>E18</u>
<u>F11</u>	F11	E19	<u>E19</u>
<u>E9</u>	E9	K19	<u>K19</u>
<u>E10</u>	E10	K20	<u>K20</u>
<u>K13</u>	K13	J21	<u>J21</u>
<u>K14</u>	K14	J22	<u>J22</u>
<u>J12</u>	J12	K22	<u>K22</u>
<u>J13</u>	J13	K23	<u>K23</u>

J7C
ASP-134486-01
Samtec Inc.
ASP-134486-01
SAM8728CT-ND

<u>K25</u>	K25	J30	<u>J30</u>
<u>K26</u>	K26	J31	<u>J31</u>
<u>J24</u>	J24	F31	<u>F31</u>
<u>J25</u>	J25	F32	<u>F32</u>
<u>F22</u>	F22	E30	<u>E30</u>
<u>F23</u>	F23	E31	<u>E31</u>
<u>E21</u>	E21	K34	<u>K34</u>
<u>E22</u>	E22	K35	<u>K35</u>
<u>F25</u>	F25	J33	<u>J33</u>
<u>F26</u>	F26	J34	<u>J34</u>
<u>E24</u>	E24	F34	<u>F34</u>
<u>E25</u>	E25	F35	<u>F35</u>
<u>K28</u>	K28	K37	<u>K37</u>
<u>K29</u>	K29	K38	<u>K38</u>
<u>J27</u>	J27	J36	<u>J36</u>
<u>J28</u>	J28	J37	<u>J37</u>
<u>F28</u>	F28	E33	<u>E33</u>
<u>F29</u>	F29	E34	<u>E34</u>
<u>E27</u>	E27	F37	<u>F37</u>
<u>E28</u>	E28	F38	<u>F38</u>
<u>K31</u>	K31	E36	<u>E36</u>
<u>K32</u>	K32	E37	<u>E37</u>

Sheet: /22 – INTERFACE – FMC – 1/
File: 22 – INTERFACE – FMC – 1.sch

Title:

Size: B

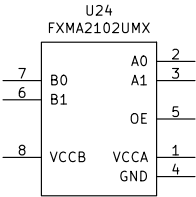
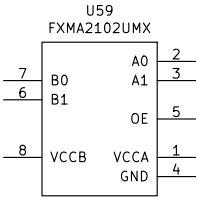
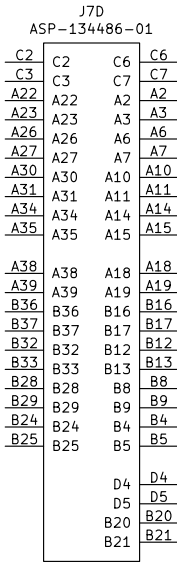
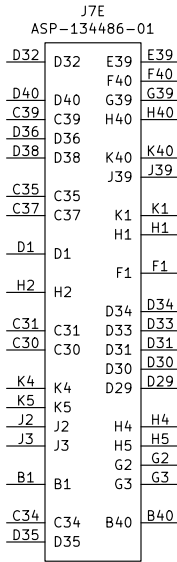
Date:

Rev:

KiCad E.D.A. kicad (5.1.9)–1

Id: 22/43

INTERFACE – FMC – 2



12345678

A

B

C

D

E

12345678

INTERFACE – USB3.1

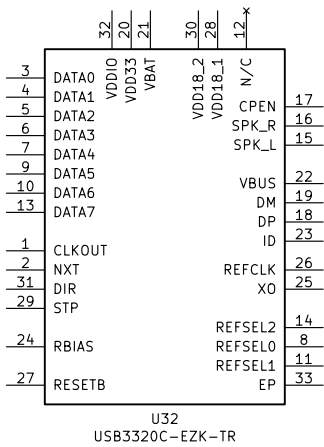
Sheet: /24 – INTERFACE – USB3.1/
File: 24 – INTERFACE – USB3.sch

Title:

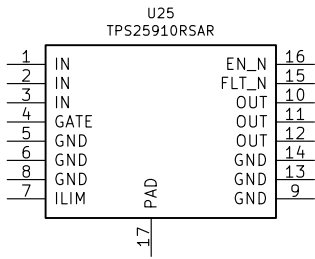
Size: BDate:KiCad E.D.A. kicad (5.1.9)–1

Rev:Id: 24/43

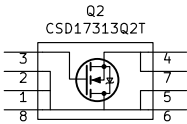
INTERFACE – USB2.0



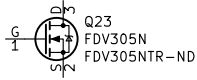
U32
USB3320C-EZK-TR



U25
TPS25910RSAR



Q2
CSD17313Q2T

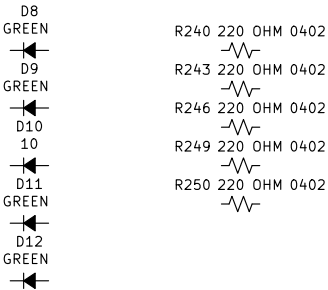
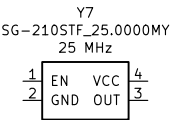
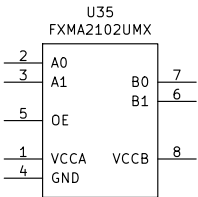
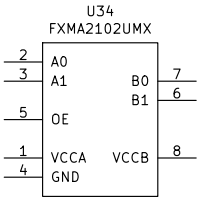
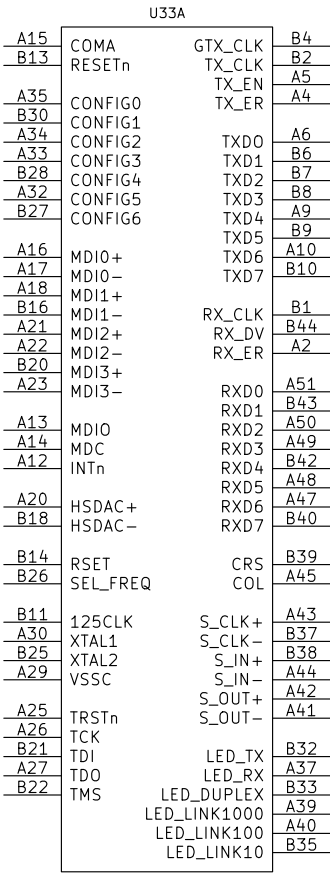
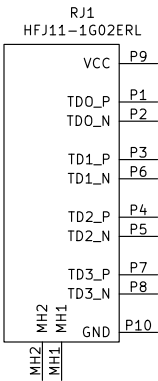


Q23
FDV305N
FDV305NTR-ND



Q24
FDV305N
FDV305NTR-ND

INTERFACE – GIGE – 1



12345678

A

B

C

D

E

INTERFACE – GIGE – 2

The schematic diagram illustrates the GIGE interface circuit. It features two identical op-amp buffers, U36 and U37, and a Marvell 88E1111-B2-NDC2C000 Ethernet PHY (U33B).

U33B: 88E1111-B2-NDC2C000
Marvell Semiconductor, Inc.
88E1111-B2-NDC2C000
30411-88E1111-B2-NDC2C000 Win Source Electronics

U36: EP5348UI
38-QFN (7x4)
Intel
EN6347QI
544-2863-2-ND

U37: EP5348UI
38-QFN (7x4)
Intel
EN6347QI
544-2863-2-ND

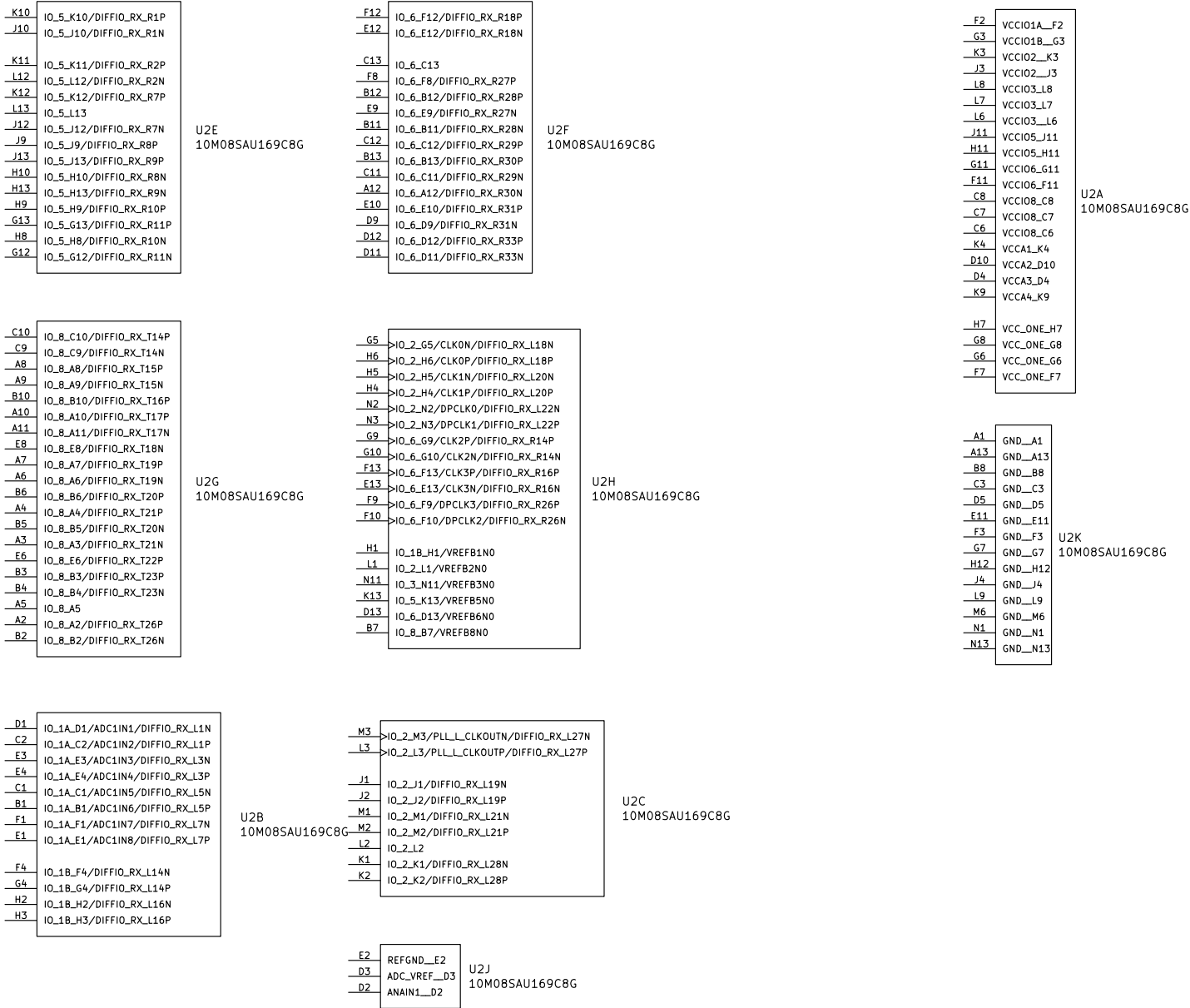
Pin Connections:

- U33B:** A24, B15, B17, B19, B36, A19, A7, A28, EPAD, B23, B12, B41, A3, A52, A11, B34, B31, B24, A8, A46, A1, A31, A36, A38, B3, B5, B29, AVDD, VDDOX, VDDO, VDDOH, VSS, NC, DVDD.
- U36:** 12, 11, 10, 3, 8, 9, 1, 14, 13, 7, 6, 4, 2, 5, PVIN, AVIN, ENABLE, NC-1, NC-2, NC-3, NC(SW)-1, NC(SW)-2, VOUT-2, VOUT-1, VFB, PGND, AGND.
- U37:** 12, 11, 10, 3, 8, 9, 1, 14, 13, 7, 6, 4, 2, 5, PVIN, AVIN, ENABLE, NC-1, NC-2, NC-3, NC(SW)-1, NC(SW)-2, VOUT-2, VOUT-1, VFB, PGND, AGND.

Title:	
Size: B	Date:
KICad E.D.A. kicad (5.1.9)-1	
Id: 27/43	

Title:		
Size: B	Date:	Rev:
KiCad E.D.A. kicad (5.1.9)–1		Id: 27/43

SYS MAX10 – CTRL



Sheet: /28 – SYS MAX10 – CTRL/
File: 28 – SYS MAX10 – CTRL.sch

Title:

Size: B

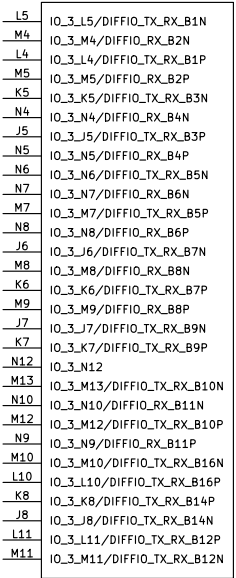
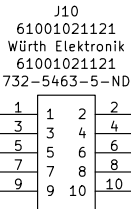
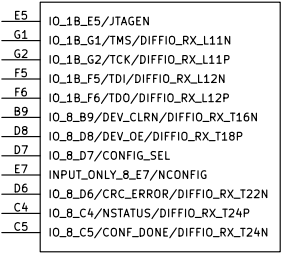
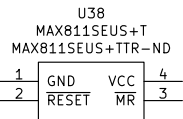
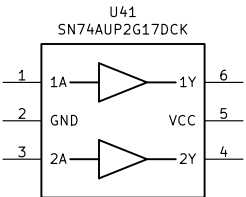
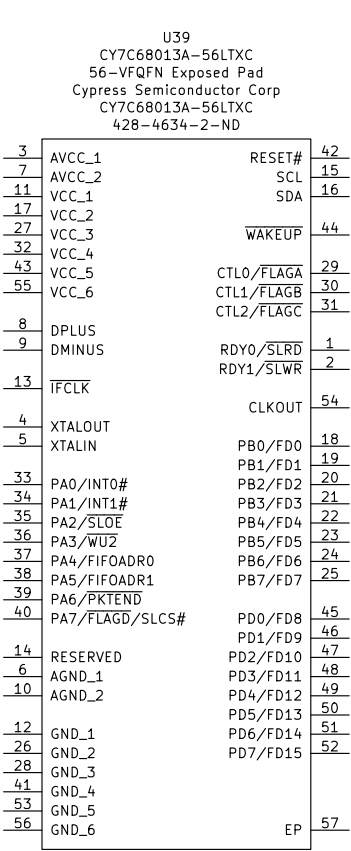
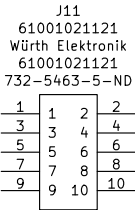
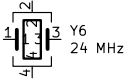
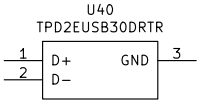
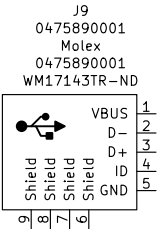
Date:

Rev:

KiCad E.D.A. kicad (5.1.9)–1

Id: 28/43

SYS MAX10 – UBII



CFG MAX10 – FPP

L5	IO_3_L5/DIFFIO_TX_RX_B1N
M4	IO_3_M4/DIFFIO_RX_B2N
L4	IO_3_L4/DIFFIO_TX_RX_B1P
M5	IO_3_M5/DIFFIO_RX_B2P
K5	IO_3_K5/DIFFIO_TX_RX_B3N
N4	IO_3_N4/DIFFIO_RX_B4N
J5	IO_3_J5/DIFFIO_TX_RX_B3P
N5	IO_3_N5/DIFFIO_RX_B4P
N6	IO_3_N6/DIFFIO_TX_RX_B5N
N7	IO_3_N7/DIFFIO_RX_B6N
M7	IO_3_M7/DIFFIO_TX_RX_B5P
N8	IO_3_N8/DIFFIO_RX_B6P
J6	IO_3_J6/DIFFIO_TX_RX_B7N
M8	IO_3_M8/DIFFIO_RX_B8N
K6	IO_3_K6/DIFFIO_TX_RX_B7P
M9	IO_3_M9/DIFFIO_RX_B8P
J7	IO_3_J7/DIFFIO_TX_RX_B9N
K7	IO_3_K7/DIFFIO_TX_RX_B9P
N12	IO_3_N12
M13	IO_3_M13/DIFFIO_TX_RX_B10N
N10	IO_3_N10/DIFFIO_RX_B11N
M12	IO_3_M12/DIFFIO_TX_RX_B10P
N9	IO_3_N9/DIFFIO_RX_B11P
M10	IO_3_M10/DIFFIO_TX_RX_B16N
L10	IO_3_L10/DIFFIO_TX_RX_B16P
K8	IO_3_K8/DIFFIO_TX_RX_B14P
J8	IO_3_J8/DIFFIO_TX_RX_B14N
L11	IO_3_L11/DIFFIO_TX_RX_B12P
M11	IO_3_M11/DIFFIO_TX_RX_B12N

U3D
10M08SAU169C8G

F2	VCCI01A_F2
G3	VCCI01B_G3
K3	VCCI02_K3
J3	VCCI02_J3
L8	VCCI03_L8
L7	VCCI03_L7
L6	VCCI03_L6
J11	VCCI05_J11
H11	VCCI05_H11
G11	VCCI06_G11
F11	VCCI06_F11
C8	VCCI08_C8
C7	VCCI08_C7
C6	VCCI08_C6
K4	VCCA1_K4
D10	VCCA2_D10
D4	VCCA3_D4
K9	VCCA4_K9
H7	VCC_ONE_H7
G8	VCC_ONE_G8
G6	VCC_ONE_G6
F7	VCC_ONE_F7

U3A
10M08SAU169C8G

A1	GND_A1
A13	GND_A13
B8	GND_B8
C3	GND_C3
D5	GND_D5
E11	GND_E11
F3	GND_F3
G7	GND_G7
H12	GND_H12
J4	GND_J4
L9	GND_L9
M6	GND_M6
N1	GND_N1
N13	GND_N13

U3K
10M08SAU169C8G

E2	REFGND_E2
D3	ADC_VREF_D3
D2	ANAIN1_D2

U3J
10M08SAU169C8G

E5	IO_1B_E5/JTAGEN
G1	IO_1B_G1/TMS/DIFFIO_RX_L11N
G2	IO_1B_G2/TCK/DIFFIO_RX_L11P
F5	IO_1B_F5/TDI/DIFFIO_RX_L12N
F6	IO_1B_F6/TDO/DIFFIO_RX_L12P
B9	IO_8_B9/DEV_CLRN/DIFFIO_RX_T16N
D8	IO_8_D8/DEV_OE/DIFFIO_RX_T18P
D7	IO_8_D7/CONFIG_SEL
E7	INPUT_ONLY_8_E7/NCONFIG
D6	IO_8_D6/CRC_ERROR/DIFFIO_RX_T22N
C4	IO_8_C4/NSTATUS/DIFFIO_RX_T24P
C5	IO_8_C5/CONF_DONE/DIFFIO_RX_T24N

U3I
10M08SAU169C8G

CFG MAX10 – PFL

D1	IO_1A_D1/ADC1IN1/DIFFIO_RX_L1N
C2	IO_1A_C2/ADC1IN2/DIFFIO_RX_L1P
E3	IO_1A_E3/ADC1IN3/DIFFIO_RX_L3N
E4	IO_1A_E4/ADC1IN4/DIFFIO_RX_L3P
C1	IO_1A_C1/ADC1IN5/DIFFIO_RX_L5N
B1	IO_1A_B1/ADC1IN6/DIFFIO_RX_L5P
F1	IO_1A_F1/ADC1IN7/DIFFIO_RX_L7N
E1	IO_1A_E1/ADC1IN8/DIFFIO_RX_L7P
F4	IO_1B_F4/DIFFIO_RX_L14N
G4	IO_1B_G4/DIFFIO_RX_L14P
H2	IO_1B_H2/DIFFIO_RX_L16N
H3	IO_1B_H3/DIFFIO_RX_L16P

U3B
10M08SAU169C8G

K10	IO_5_K10/DIFFIO_RX_R1P
J10	IO_5_J10/DIFFIO_RX_R1N
K11	IO_5_K11/DIFFIO_RX_R2P
L12	IO_5_L12/DIFFIO_RX_R2N
K12	IO_5_K12/DIFFIO_RX_R7P
L13	IO_5_L13
J12	IO_5_J12/DIFFIO_RX_R7N
J9	IO_5_J9/DIFFIO_RX_R8P
J13	IO_5_J13/DIFFIO_RX_R9P
H10	IO_5_H10/DIFFIO_RX_R8N
H13	IO_5_H13/DIFFIO_RX_R9N
H9	IO_5_H9/DIFFIO_RX_R10P
G13	IO_5_G13/DIFFIO_RX_R11P
H8	IO_5_H8/DIFFIO_RX_R10N
G12	IO_5_G12/DIFFIO_RX_R11N

U3E
10M08SAU169C8G

F12	IO_6_F12/DIFFIO_RX_R18P
E12	IO_6_E12/DIFFIO_RX_R18N
C13	IO_6_C13
F8	IO_6_F8/DIFFIO_RX_R27P
B12	IO_6_B12/DIFFIO_RX_R28P
E9	IO_6_E9/DIFFIO_RX_R27N
B11	IO_6_B11/DIFFIO_RX_R28N
C12	IO_6_C12/DIFFIO_RX_R29P
B13	IO_6_B13/DIFFIO_RX_R30P
C11	IO_6_C11/DIFFIO_RX_R29N
A12	IO_6_A12/DIFFIO_RX_R30N
E10	IO_6_E10/DIFFIO_RX_R31P
D9	IO_6_D9/DIFFIO_RX_R31N
D12	IO_6_D12/DIFFIO_RX_R33P
D11	IO_6_D11/DIFFIO_RX_R33N

U3F
10M08SAU169C8G

G5	IO_2_G5/CLK0N/DIFFIO_RX_L18N
H6	IO_2_H6/CLK0P/DIFFIO_RX_L18P
H5	IO_2_H5/CLK1N/DIFFIO_RX_L20N
H4	IO_2_H4/CLK1P/DIFFIO_RX_L20P
N2	IO_2_N2/DPCLK0/DIFFIO_RX_L22N
N3	IO_2_N3/DPCLK1/DIFFIO_RX_L22P
G9	IO_6_G9/CLK2P/DIFFIO_RX_R14P
G10	IO_6_G10/CLK2N/DIFFIO_RX_R14N
F13	IO_6_F13/CLK3P/DIFFIO_RX_R16P
E13	IO_6_E13/CLK3N/DIFFIO_RX_R16N
F9	IO_6_F9/DPCLK3/DIFFIO_RX_R26P
F10	IO_6_F10/DPCLK2/DIFFIO_RX_R26N
H1	IO_1B_H1/VREFB1N0
L1	IO_2_L1/VREFB2N0
N11	IO_3_N11/VREFB3N0
K13	IO_5_K13/VREFB5N0
D13	IO_6_D13/VREFB6N0
B7	IO_8_B7/VREFB8N0

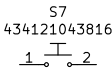
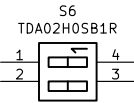
U3H
10M08SAU169C8G

M3	>IO_2_M3/PLL_L_CLKOUTN/DIFFIO_RX_L27N
L3	>IO_2_L3/PLL_L_CLKOUTP/DIFFIO_RX_L27P
J1	IO_2_J1/DIFFIO_RX_L19N
J2	IO_2_J2/DIFFIO_RX_L19P
M1	IO_2_M1/DIFFIO_RX_L21N
M2	IO_2_M2/DIFFIO_RX_L21P
L2	IO_2_L2
K1	IO_2_K1/DIFFIO_RX_L28N
K2	IO_2_K2/DIFFIO_RX_L28P

U3C
10M08SAU169C8G

C10	IO_8_C10/DIFFIO_RX_T14P
C9	IO_8_C9/DIFFIO_RX_T14N
A8	IO_8_A8/DIFFIO_RX_T15P
A9	IO_8_A9/DIFFIO_RX_T15N
B10	IO_8_B10/DIFFIO_RX_T16P
A10	IO_8_A10/DIFFIO_RX_T17P
A11	IO_8_A11/DIFFIO_RX_T17N
E8	IO_8_E8/DIFFIO_RX_T18N
A7	IO_8_A7/DIFFIO_RX_T19P
A6	IO_8_A6/DIFFIO_RX_T19N
B6	IO_8_B6/DIFFIO_RX_T20P
A4	IO_8_A4/DIFFIO_RX_T21P
B5	IO_8_B5/DIFFIO_RX_T20N
A3	IO_8_A3/DIFFIO_RX_T21N
E6	IO_8_E6/DIFFIO_RX_T22P
B3	IO_8_B3/DIFFIO_RX_T23P
B4	IO_8_B4/DIFFIO_RX_T23N
A5	IO_8_A5
A2	IO_8_A2/DIFFIO_RX_T26P
B2	IO_8_B2/DIFFIO_RX_T26N

U3G
10M08SAU169C8G

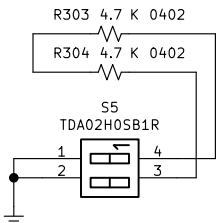
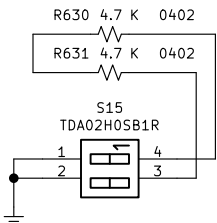
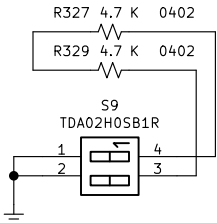
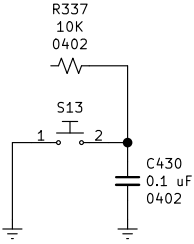
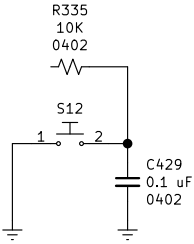
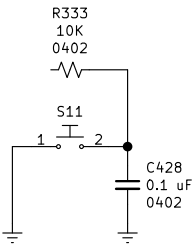
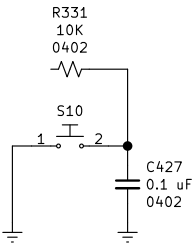
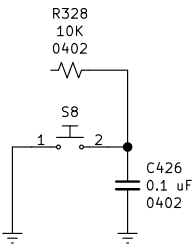
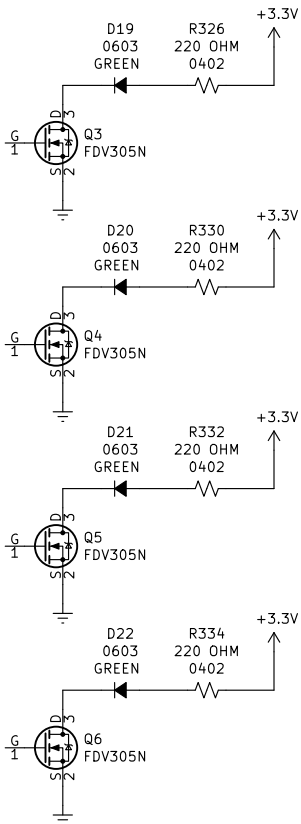


CFG PFL FLASH

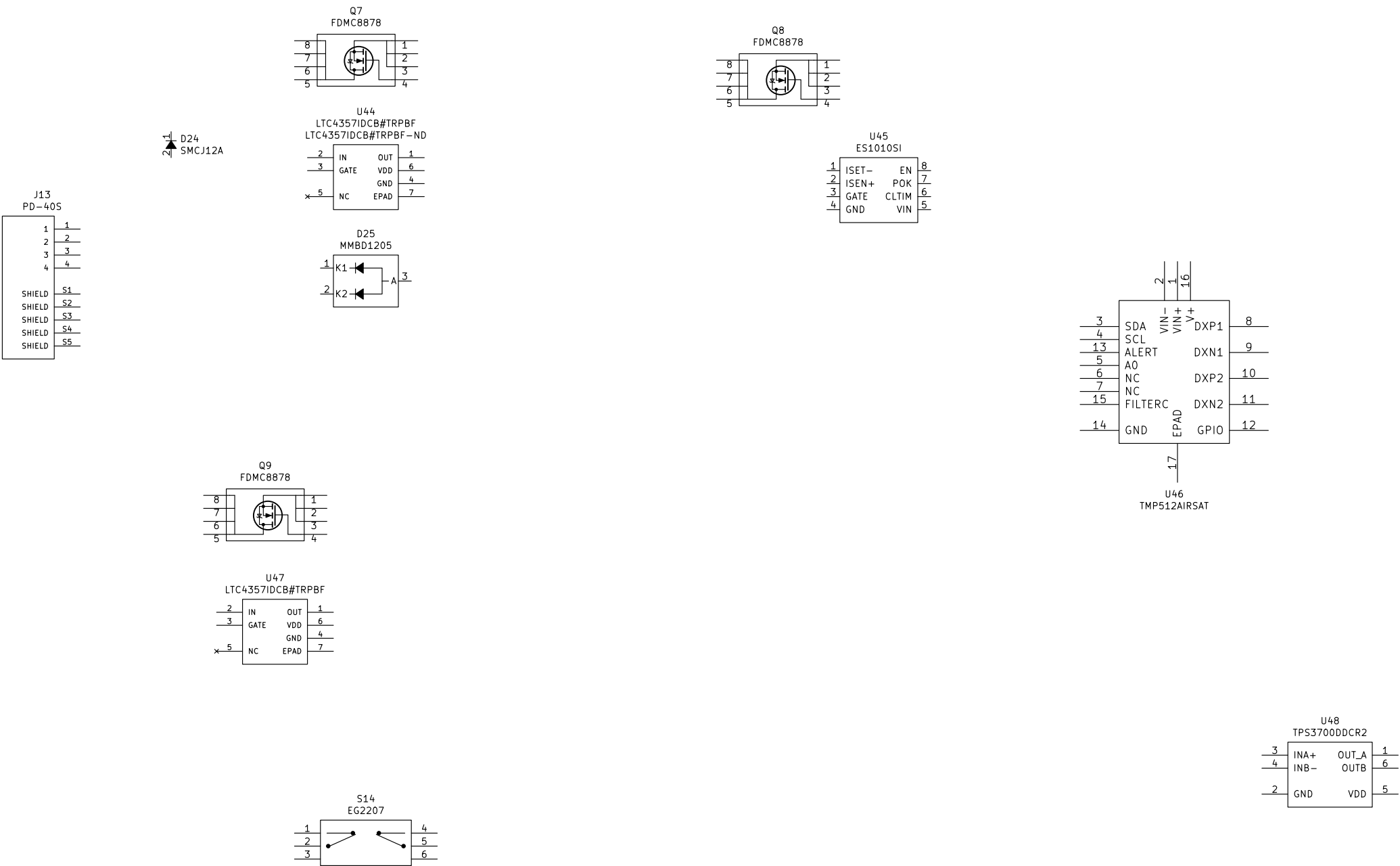
U42			
MT28EW01GABA1LPC-OSIT_TR			
E2	A0		F3
D2	A1	DQ0	H3
C2	A2	DQ1	E4
A2	A3	DQ2	H4
B2	A4	DQ3	H5
D3	A5	DQ4	E5
C3	A6	DQ5	H6
A3	A7	DQ6	E6
B6	A8	DQ7	F3
A6	A9		G3
C6	A10	DQ8	F4
D6	A11	DQ9	G4
B7	A12	DQ10	F5
A7	A13	DQ11	G5
C7	A14	DQ12	F6
D7	A15	DQ13	G6
E7	A16	DQ14	F7
B3	A17	DQ15/A-1	G7
C4	A18		A4
D5	A19	RY/BY	G5
D4	A20		D8
C5	A21	VCC	F1
B8	A22		F8
C8	A23	VCCQ	E8
F8	A24	VCCQ	H2
G8	A25(512M)		H7
B1	A26(1G)	VSS	A1
		VSS	A8
B5	RST	VSS	D1
F2	CE		H1
G2	OE	NC	H8
A5	WE	NC	C1
F7	BYTE	NC	E1
B4	VPP/WP	NC	G1
		NC	
		NC	
		NC	
		NC	
		NC	
		NC	

U43			
MT28EW01GABA1LPC-OSIT_TR			
E2	A0		F3
D2	A1	DQ0	H3
C2	A2	DQ1	E4
A2	A3	DQ2	H4
B2	A4	DQ3	H5
D3	A5	DQ4	E5
C3	A6	DQ5	H6
A3	A7	DQ6	E6
B6	A8	DQ7	F3
A6	A9		G3
C6	A10	DQ8	F4
D6	A11	DQ9	G4
B7	A12	DQ10	F5
A7	A13	DQ11	G5
C7	A14	DQ12	F6
D7	A15	DQ13	G6
E7	A16	DQ14	F7
B3	A17	DQ15/A-1	G7
C4	A18		A4
D5	A19	RY/BY	G5
D4	A20		D8
C5	A21	VCC	F1
B8	A22		F8
C8	A23	VCCQ	E8
F8	A24	VCCQ	H2
G8	A25(512M)		H7
B1	A26(1G)	VSS	A1
		VSS	A8
B5	RST	VSS	D1
F2	CE		H1
G2	OE	NC	H8
A5	WE	NC	C1
F7	BYTE	NC	E1
B4	VPP/WP	NC	G1
		NC	
		NC	
		NC	
		NC	
		NC	
		NC	

LED & PB & SW



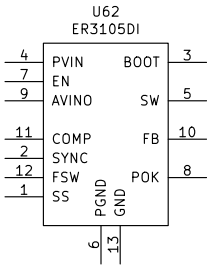
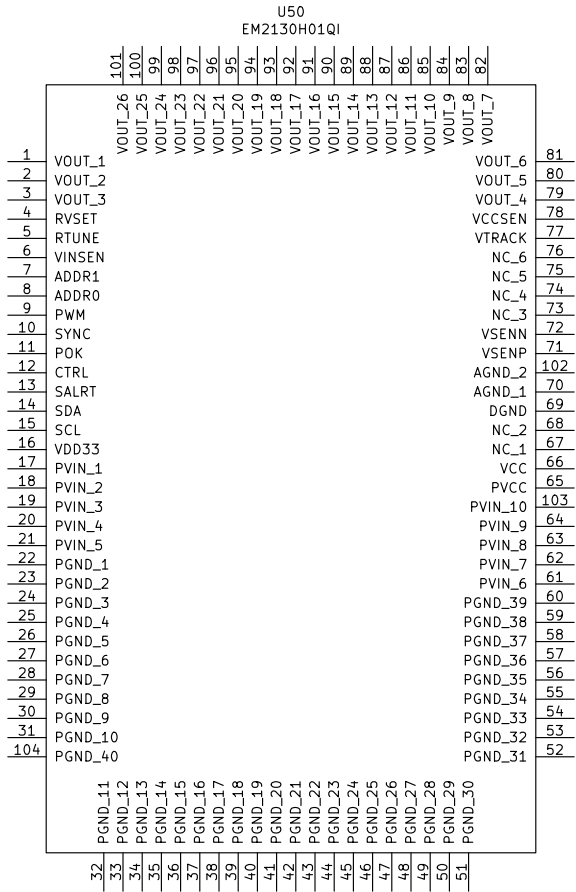
POWER – INPUT



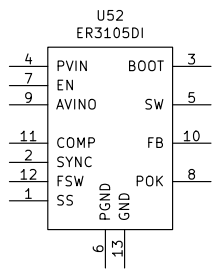
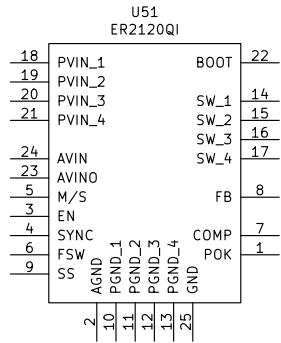
[illegible]

Title:		
Size: B	Date:	Rev:
KiCad E.D.A. kicad (5.1.9)-1		Id: 35/43

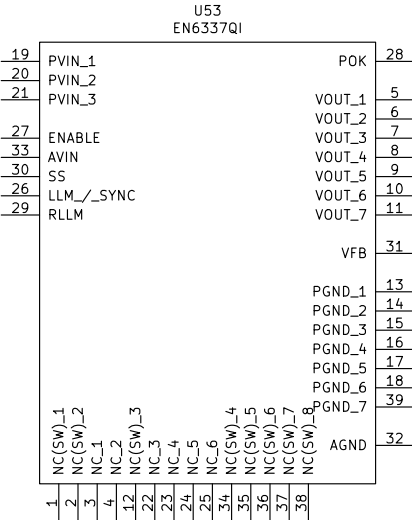
POWER – 12V to 3.3V



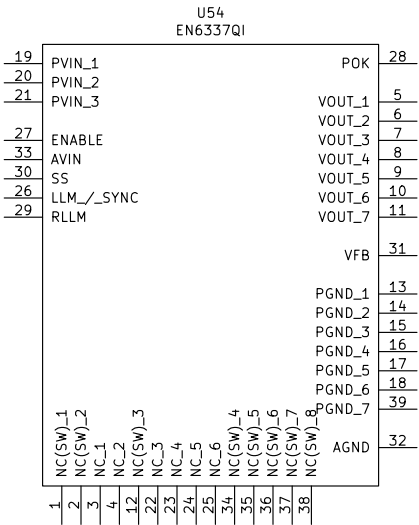
POWER – 12V to 5V



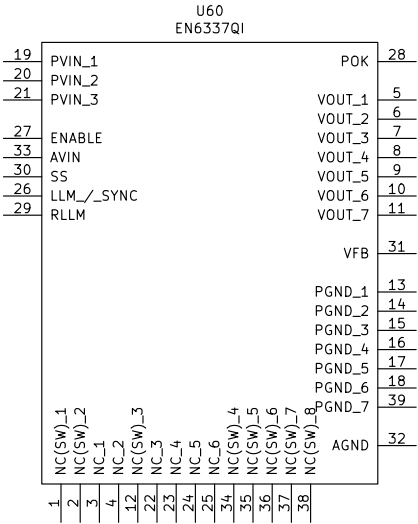
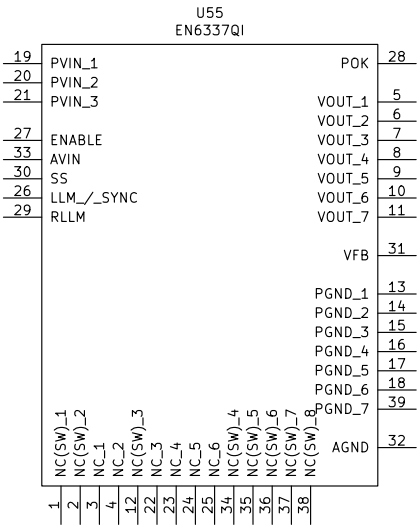
POWER – 3.3V to 0.95V



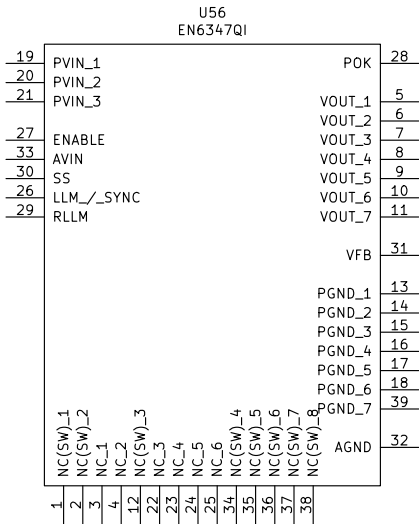
POWER – 3.3V to 1.5V



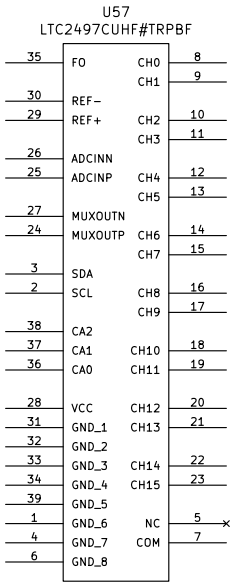
POWER – 3.3V to 1.8V



POWER – 3.3V to VADJ



POWER – CURRENT SENSE



POWER – Fast Discharge

