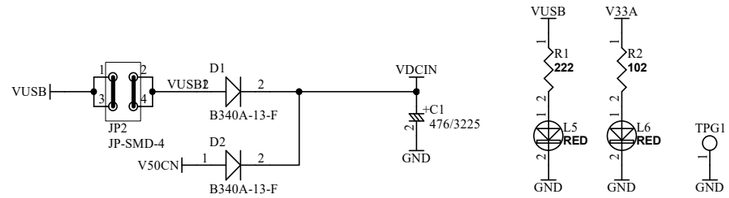
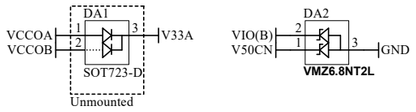
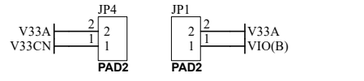
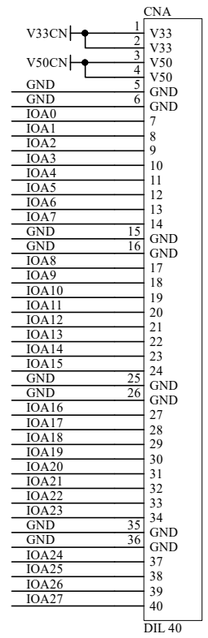
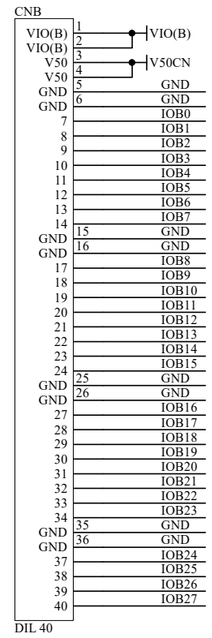
[POWER]

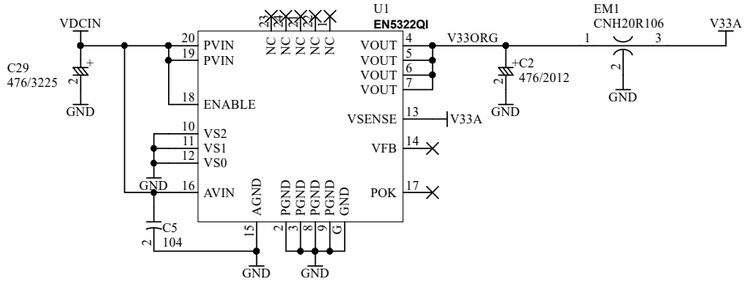


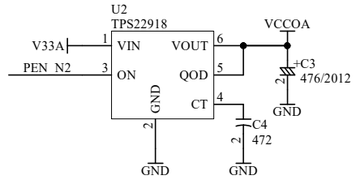


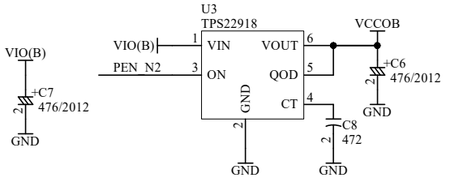


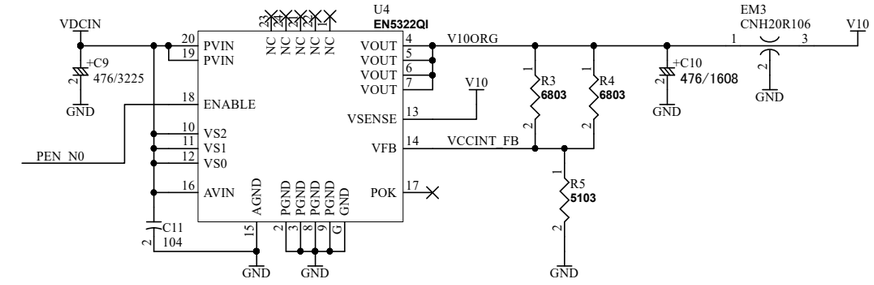


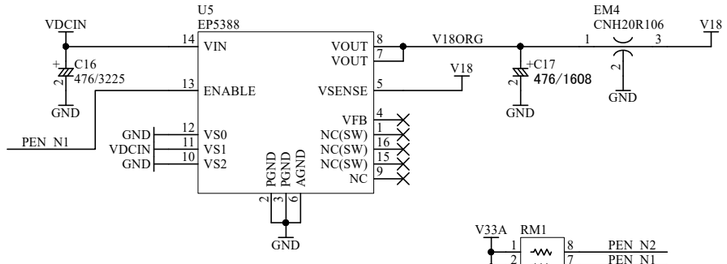


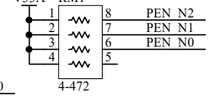


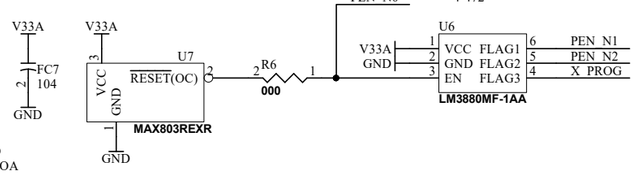


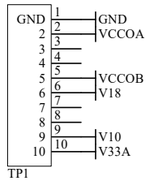


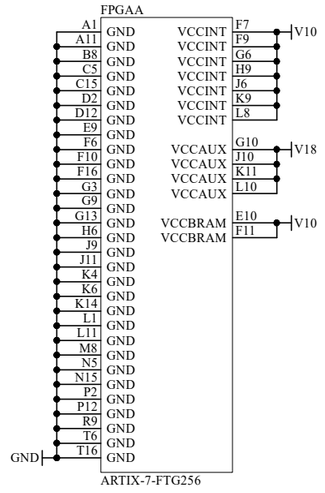


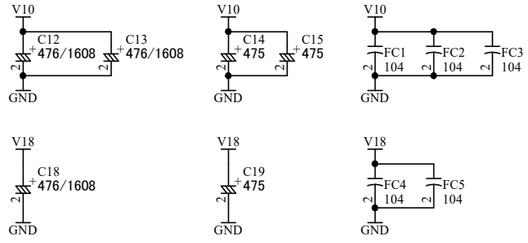


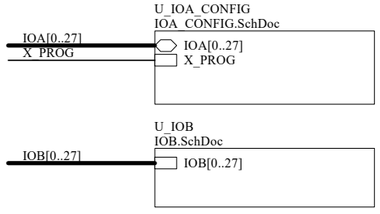












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DSN:	
TITLE:	ARTIX-7 FTG256 USB FPGA Board
DOC. No:	EDX-302 B
FILE: EDX302B.sch	DATE: 2018/03/28 15:39:55 Sheet: 1 / 4

V5_20150107

IOA[0..27]

X_PROG

VCCOA
R12 472
R13 472
SW1
SW DIP-2S
GND
X_MODE
ASW
OFF:Slave Serial
ON:Master SPI

L8
7SEG
SE SD VCCOA SC SDP
SG SF VCCOA SA SB

RM3
8-152
SG SF SA SB SE SD SC SDP
SG_O SF_O SA_O SB_O SE_O SD_O SC_O SDP_O

VCCOA
R16 472
FC9 104
GND
U8 MT25Q
S_CLOCK
S_SELCTn
HOLD#/DQ3
W#/Vpp/DQ2
DQ1
DQ0
S_D3
S_D2
S_D1_DIN
S_D0
RM4 4-472

VCCOA
R8 102
R9 331
L7 BLUE
Q1
DTC143EE
GND
X_DONE

S_CLOCK
R7 47R
S_CLOCK2
VCCOA
R10 47R
R11 472
X_PROG

FPGAB
X_TDI N7 TDI_0
X_TDO N8 TDO_0
X_TCK L7 TCK_0
X_TMS M7 TMS_0
E8 CCLK_0
VCCOA M9 M0_0
M10 M1_0
X_MODE M11 M2_0
VCCOA K10 INIT_B_0
L9 PROGRAM_B_0
H10 DONE_0
RM2 4-000
K8 DXP_0
K7 DXN_0
H8 VP_0
J7 VN_0
V18 F1 BLM18AG102SN VCCADC G8 VCCADC_0
C20 104
GND F2 BLM18AG102SN GNDADC G7 GNDADC_0
J8 VREFP_0
H7 VREFN_0
R15 000 F8 VCCBATT_0
E7 CFGBVS_0
VCCOA L6 VCCO_0
ARTIX-7-FTG256

VCCOA
C21 476/2012
FC8 104
GND

RJ2 102
(Disable)
(Enable)
X_PUDC
S_CLOCK2
S_SELCTn
GND

FPGAC
S_D0 J13 IO_L1P_T0_D00_MOSI_14
S_D1_DIN J14 IO_L1N_T0_D01_DIN_14
S_D2 K15 IO_L2P_T0_D02_14
S_D3 K16 IO_L2N_T0_D03_14
L15 IO_L3P_T0_DQS_PUDC_B_14
SC_O M15 IO_L3N_T0_DQS_EMCCLK_14
L14 IO_L4P_T0_D04_14
M14 IO_L4N_T0_D05_14
K13 IO_L5P_T0_D06_14
L13 IO_L5N_T0_D07_14
L12 IO_L6P_T0_FCS_B_14
M12 IO_L6N_T0_D08_VREF_14
SDP_O M16 IO_L7P_T1_D09_14
SD_O N16 IO_L7N_T1_D10_14
SB_O P15 IO_L8P_T1_D11_14
SE_O P16 IO_L8N_T1_D12_14
SF_O R15 IO_L9P_T1_DQS_14
SA_O R16 IO_L9N_T1_DQS_D13_14
T14 IO_L10P_T1_D14_14
SG_O T15 IO_L10N_T1_D15_14
IOA24 N13 IO_L11P_T1_SRCC_14
IOA25 P13 IO_L11N_T1_SRCC_14
IOA27 N14 IO_L12P_T1_MRCC_14
IOA26 P14 IO_L12N_T1_MRCC_14
GCLK50_R N11 IO_L13P_T2_MRCC_14
N12 IO_L13N_T2_MRCC_14
P10 IO_L14P_T2_SRCC_14
P11 IO_L14N_T2_SRCC_14
IOA21 R12 IO_L15P_T2_DQS_RDWR_B_14
IOA20 T12 IO_L15N_T2_DQS_DOUT_CSO_B_14
IOA23 R13 IO_L16P_T2_CSI_B_14
IOA22 T13 IO_L16N_T2_A15_D31_14
IOA18 R10 IO_L17P_T2_A14_D30_14
IOA19 R11 IO_L17N_T2_A13_D29_14
N9 IO_L18P_T2_A12_D28_14
P9 IO_L18N_T2_A11_D27_14
IOA8 M6 IO_L19P_T3_A10_D26_14
IOA9 N6 IO_L19N_T3_A09_D25_VREF_14
IOA11 P8 IO_L20P_T3_A08_D24_14
IOA10 R8 IO_L20N_T3_A07_D23_14
IOA14 T7 IO_L21P_T3_DQS_14
IOA15 T8 IO_L21N_T3_DQS_A06_D22_14
IOA17 T9 IO_L22P_T3_A05_D21_14
IOA16 T10 IO_L22N_T3_A04_D20_14
IOA6 R5 IO_L23P_T3_A03_D19_14
IOA7 T5 IO_L23N_T3_A02_D18_14
IOA12 R6 IO_L24P_T3_A01_D17_14
IOA13 R7 IO_L24N_T3_A00_D16_14
K12 IO_0_14
P6 IO_25_14
L16 VCCO_14
M13 VCCO_14
N10 VCCO_14
P7 VCCO_14
R14 VCCO_14
VCCOA T11 VCCO_14
ARTIX-7-FTG256

VCCOA
C22 476/2012
FC10 104
GND

FPGAE
L4 IO_L1P_T0_34
M4 IO_L1N_T0_34
M2 IO_L2P_T0_34
M1 IO_L2N_T0_34
N3 IO_L3P_T0_DQS_34
N2 IO_L3N_T0_DQS_34
N1 IO_L4P_T0_34
P1 IO_L4N_T0_34
ASW P4 IO_L5P_T0_34
P3 IO_L5N_T0_34
M5 IO_L6P_T0_34
N4 IO_L6N_T0_VREF_34
IOA0 R2 IO_L7P_T1_34
IOA1 R1 IO_L7N_T1_34
IOA2 R3 IO_L8P_T1_34
IOA3 T2 IO_L8N_T1_34
IOA4 T4 IO_L9P_T1_DQS_34
IOA5 T3 IO_L9N_T1_DQS_34
P5 IO_L10P_T1_34
L5 IO_0_34
M3 VCCO_34
R4 VCCO_34
VCCOA T1 VCCO_34
ARTIX-7-FTG256

VCCOA
C23 476/2012
FC13 104
GND

V33A
RM6 4-472
J_TDI J_TMS J_TDO J_TCK

JTAG
CN1
GND TCK TDO TMS VCC TDI GND
JTAG 7PIN
R20 47R J_TCK
R21 000 J_TDO
R22 47R J_TMS
R23 47R J_TDI

VCCOA
FC12 104
GND
RM7 4-472
X_TDO X_TCK X_TMS X_TDI

U10
X_TDO J_TCK GND
1A 2A GND VCC 1Y 2Y
J_TDO VCCOA X_TCK
SN74LVC2G17

U11
J_TDI J_TMS GND
1A 2A GND VCC 1Y 2Y
X_TDI VCCOA X_TMS
SN74LVC2G17

VCCOA
FC11 104
GND

U9
GND INH Vdd OUTPUT
OSC 50MHz
CLK50_ORG
R17
Unmounted
R18 47R GCLK50_R
R19 47R GCLK50_L

U_USBIF
USBIF.SchDoc
X_DONE
GCLK50_L
X_PROG
S_CLOCK
S_D1_DIN

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DSN:	
TITLE:	ARTIX-7 FTG256 USB FPGA Board
DOC. No:	EDX-302 B
FILE: IOA_CONFIG.SchDoc	DATE: 2018/03/28 15:39:56 Sheet: 2 / 4

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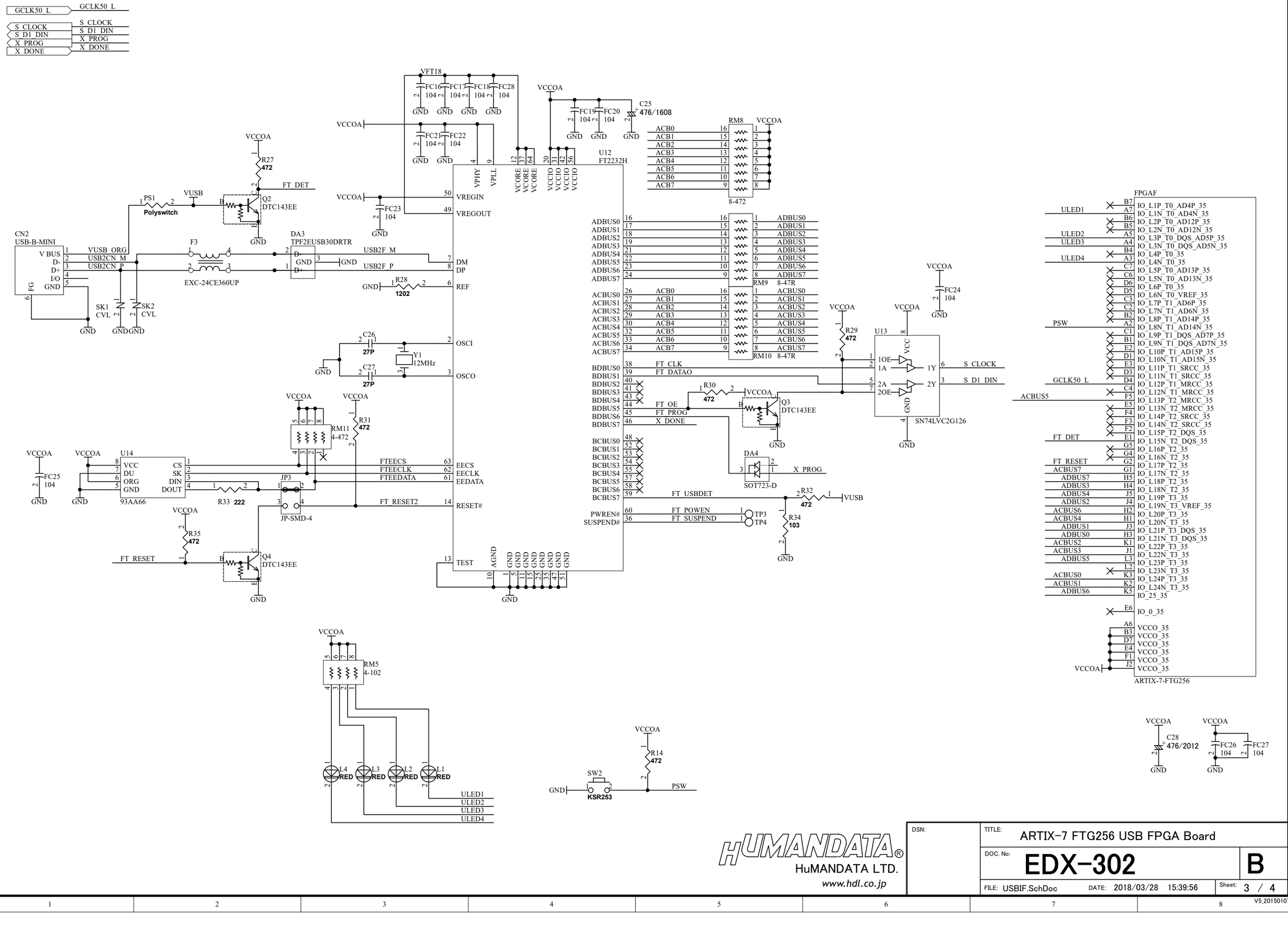
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S_D1_DIN
X_PROG
X_DONE
VCCOA
VFT18
FC16 104
FC17 104
FC18 104
FC28 104
FC19 104
FC20 104
C25 476/1608
FC21 104
FC22 104
FC23 104
GND
U12 FT2232H
VPHY
VPLL
VCORE
VCCIO
VREGIN
VREGOUT
R27 472
FT_DET
PS1 Polyswitch
VUSB
Q2 DTC143EE
CN2 USB-B-MINI
V BUS
D-
D+
I/O
GND
FG
VUSB_ORG
USB2CN_M
USB2CN_P
F3
EXC-24CE360UP
DA3 TPF2EUSB30DRTR
USB2F_M
USB2F_P
DM
DP
R28 1202
REF
SK1 CVL
SK2 CVL
C26 27P
C27 27P
Y1 12MHz
OSCI
OSCO
RM11 4-472
R31 472
U14
93AA66
VCC
DU
ORG
SK
DIN
DOUT
FTEECS
FTEECLK
FTEEDATA
EECS
EECLK
EEDATA
JP3
JP-SMD-4
R33 222
FT_RESET2
RESET#
R35 472
Q4 DTC143EE
FT_RESET
TEST
AGND
RM8 8-472
ACB0
ACB1
ACB2
ACB3
ACB4
ACB5
ACB6
ACB7
ADBUS0
ADBUS1
ADBUS2
ADBUS3
ADBUS4
ADBUS5
ADBUS6
ADBUS7
RM9 8-47R
RM10 8-47R
ACBUS0
ACBUS1
ACBUS2
ACBUS3
ACBUS4
ACBUS5
ACBUS6
ACBUS7
BDBUS0
BDBUS1
BDBUS2
BDBUS3
BDBUS4
BDBUS5
BDBUS6
BDBUS7
FT_CLK
FT_DATAO
FT_OE
FT_PROG
X_DONE
R30 472
Q3 DTC143EE
DA4
SOT723-D
X_PROG
BCBUS0
BCBUS1
BCBUS2
BCBUS3
BCBUS4
BCBUS5
BCBUS6
BCBUS7
FT_USBDET
R32 472
R34 103
PWREN#
SUSPEND#
FT_POWEN
FT_SUSPEND
TP3
TP4
FC24 104
U13
SN74LVC2G126
1OE
1A
2A
2OE
1Y
2Y
R29 472
S_CLOCK
S_D1_DIN
FPGAF
ARTIX-7-FTG256
ULED1
ULED2
ULED3
ULED4
PSW
GCLK50_L
ACBUS5
FT_DET
FT_RESET
IO_L1P_T0_AD4P_35
IO_L1N_T0_AD4N_35
IO_L2P_T0_AD12P_35
IO_L2N_T0_AD12N_35
IO_L3P_T0_DQS_AD5P_35
IO_L3N_T0_DQS_AD5N_35
IO_L4P_T0_35
IO_L4N_T0_35
IO_L5P_T0_AD13P_35
IO_L5N_T0_AD13N_35
IO_L6P_T0_35
IO_L6N_T0_VREF_35
IO_L7P_T1_AD6P_35
IO_L7N_T1_AD6N_35
IO_L8P_T1_AD14P_35
IO_L8N_T1_AD14N_35
IO_L9P_T1_DQS_AD7P_35
IO_L9N_T1_DQS_AD7N_35
IO_L10P_T1_AD15P_35
IO_L10N_T1_AD15N_35
IO_L11P_T1_SRCC_35
IO_L11N_T1_SRCC_35
IO_L12P_T1_MRCC_35
IO_L12N_T1_MRCC_35
IO_L13P_T2_MRCC_35
IO_L13N_T2_MRCC_35
IO_L14P_T2_SRCC_35
IO_L14N_T2_SRCC_35
IO_L15P_T2_DQS_35
IO_L15N_T2_DQS_35
IO_L16P_T2_35
IO_L16N_T2_35
IO_L17P_T2_35
IO_L17N_T2_35
IO_L18P_T2_35
IO_L18N_T2_35
IO_L19P_T3_35
IO_L19N_T3_VREF_35
IO_L20P_T3_35
IO_L20N_T3_35
IO_L21P_T3_DQS_35
IO_L21N_T3_DQS_35
IO_L22P_T3_35
IO_L22N_T3_35
IO_L23P_T3_35
IO_L23N_T3_35
IO_L24P_T3_35
IO_L24N_T3_35
IO_25_35
IO_0_35
VCCO_35
RM5 4-102
L4 RED
L3 RED
L2 RED
L1 RED
SW2 KSR253
R14 472
PSW
C28 476/2012
FC26 104
FC27 104
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DSN:
TITLE: ARTIX-7 FTG256 USB FPGA Board
DOC. No: EDX-302
B
FILE: USBIF.SchDoc
DATE: 2018/03/28 15:39:56
Sheet: 3 / 4
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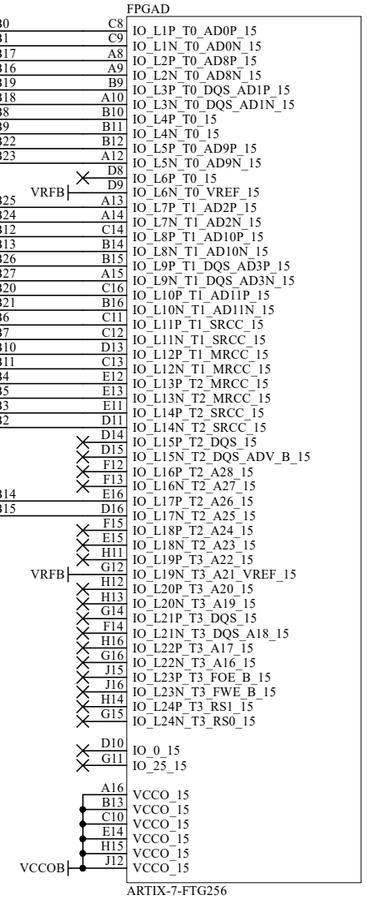
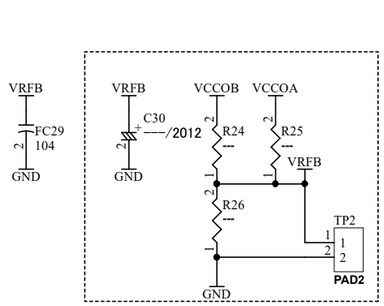
IOB[0..27]

IOB[0..27]





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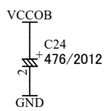

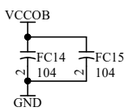

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TITLE: ARTIX-7 FTG256 USB FPGA Board

DOC. No: EDX-302 B

FILE: IOB.SchDoc DATE: 2018/03/28 15:39:56 Sheet: 4 / 4

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