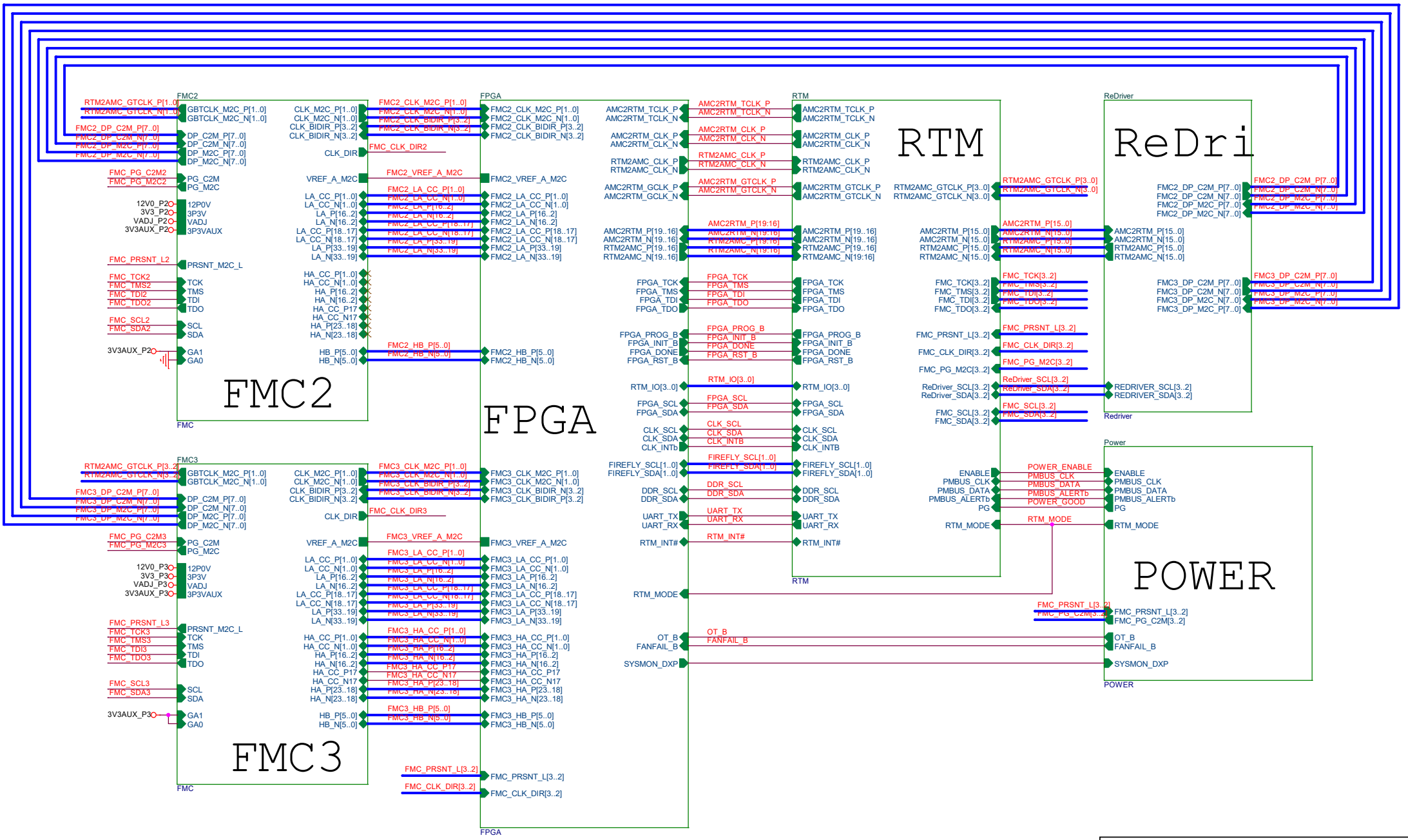
FMC2
FMC2
FMC
FPGA
FPGA
RTM
RTM
ReDriver
ReDri
Redriver
Power
POWER
FMC3
FMC3
FMC
TOP
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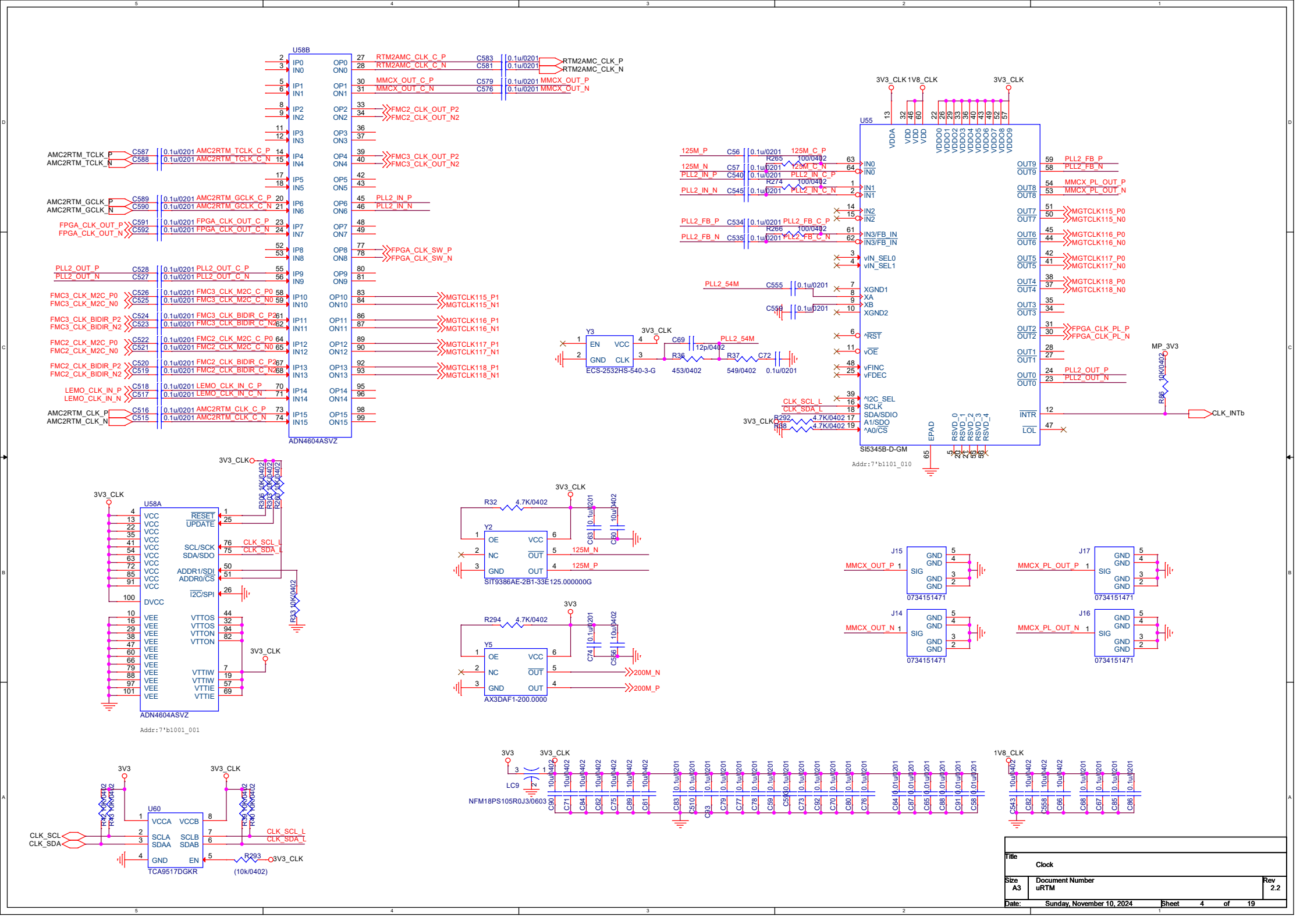
U58B
ADN4604ASVZ
RTM2AMC_CLK_C_P
RTM2AMC_CLK_C_N
RTM2AMC_CLK_P
RTM2AMC_CLK_N
MMCX_OUT_C_P
MMCX_OUT_C_N
MMCX_OUT_P
MMCX_OUT_N
FMC2_CLK_OUT_P2
FMC2_CLK_OUT_N2
FMC3_CLK_OUT_P2
FMC3_CLK_OUT_N2
FPGA_CLK_SW_P
FPGA_CLK_SW_N
PLL2_IN_P
PLL2_IN_N
MGTCLK115_P1
MGTCLK115_N1
MGTCLK116_P1
MGTCLK116_N1
MGTCLK117_P1
MGTCLK117_N1
MGTCLK118_P1
MGTCLK118_N1
AMC2RTM_TCLK_P
AMC2RTM_TCLK_N
AMC2RTM_GCLK_P
AMC2RTM_GCLK_N
FPGA_CLK_OUT_P
FPGA_CLK_OUT_N
PLL2_OUT_P
PLL2_OUT_N
FMC3_CLK_M2C_P0
FMC3_CLK_M2C_N0
FMC3_CLK_BIDIR_P2
FMC3_CLK_BIDIR_N2
FMC2_CLK_M2C_P0
FMC2_CLK_M2C_N0
FMC2_CLK_BIDIR_P2
FMC2_CLK_BIDIR_N2
LEMO_CLK_IN_P
LEMO_CLK_IN_N
AMC2RTM_CLK_P
AMC2RTM_CLK_N
3V3_CLK
1V8_CLK
U55
SI5345B-D-GM
Addr:7'b1101_010
125M_P
125M_N
PLL2_IN_P
PLL2_IN_N
PLL2_FB_P
PLL2_FB_N
PLL2_54M
CLK_SCL_L
CLK_SDA_L
PLL2_FB_P
PLL2_FB_N
MMCX_PL_OUT_P
MMCX_PL_OUT_N
MGTCLK115_P0
MGTCLK115_N0
MGTCLK116_P0
MGTCLK116_N0
MGTCLK117_P0
MGTCLK117_N0
MGTCLK118_P0
MGTCLK118_N0
FPGA_CLK_PL_P
FPGA_CLK_PL_N
CLK_INTb
MP_3V3
Y3
ECS-2532HS-540-3-G
U58A
ADN4604ASVZ
Addr:7'b1001_001
Y2
SIT9386AE-2B1-33E125.000000G
Y5
AX3DAF1-200.0000
200M_N
200M_P
J15
J14
J17
J16
0734151471
U60
TCA9517DGKR
CLK_SCL
CLK_SDA
CLK_SCL_L
CLK_SDA_L
LC9
NFM18PS105R0J3/0603
Title
Clock
Size
A3
Document Number
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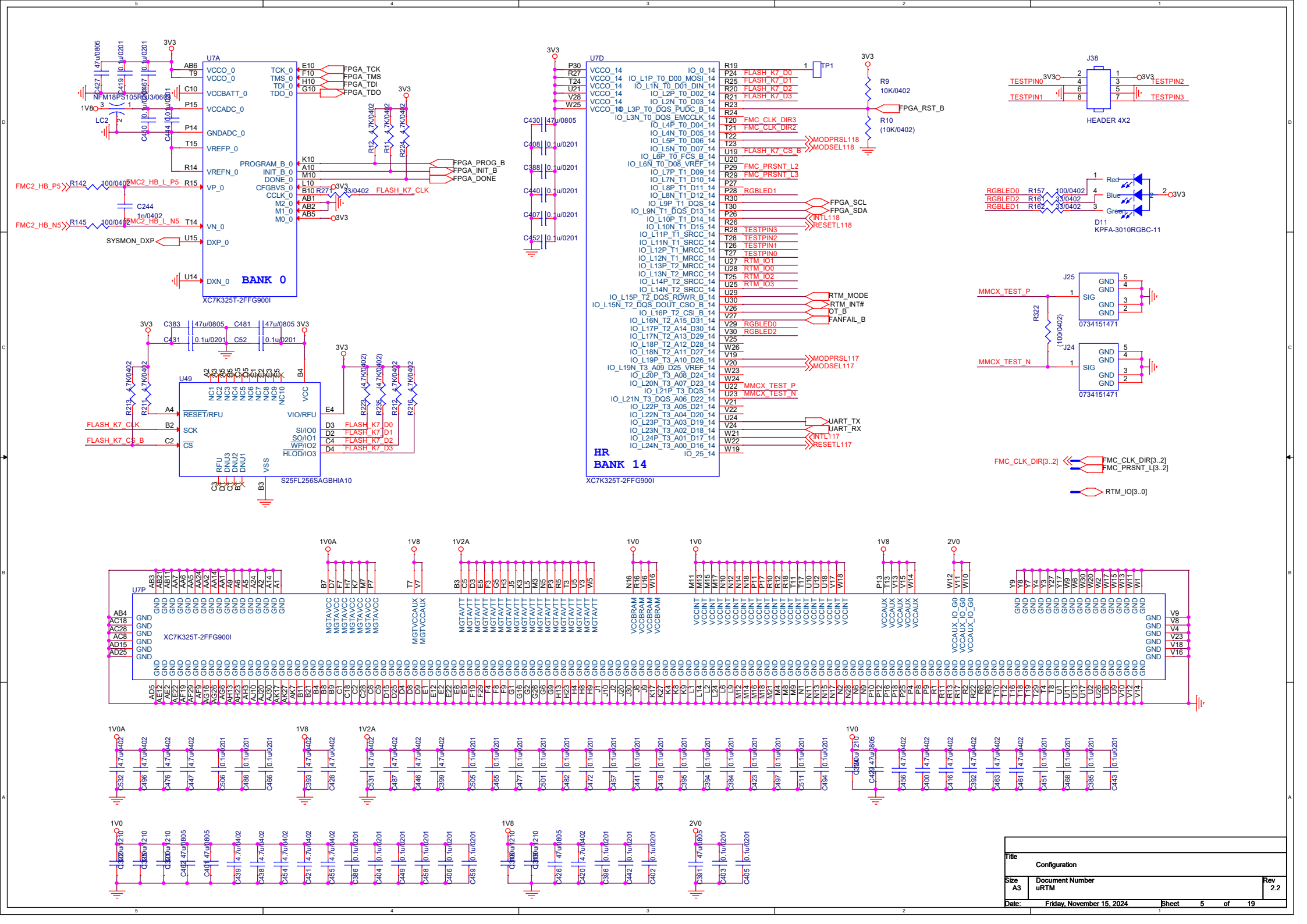
U7A
XC7K325T-2FFG900I
BANK 0
U49
S25FL256SAGBHIA10
U7D
XC7K325T-2FFG900I
HR
BANK 14
J38
HEADER 4X2
D11
KPFA-3010RGBC-11
J25
J24
0734151471
U7P
XC7K325T-2FFG900I
Title
Configuration
Size
A3
Document Number
uRTM
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2.2
Date:
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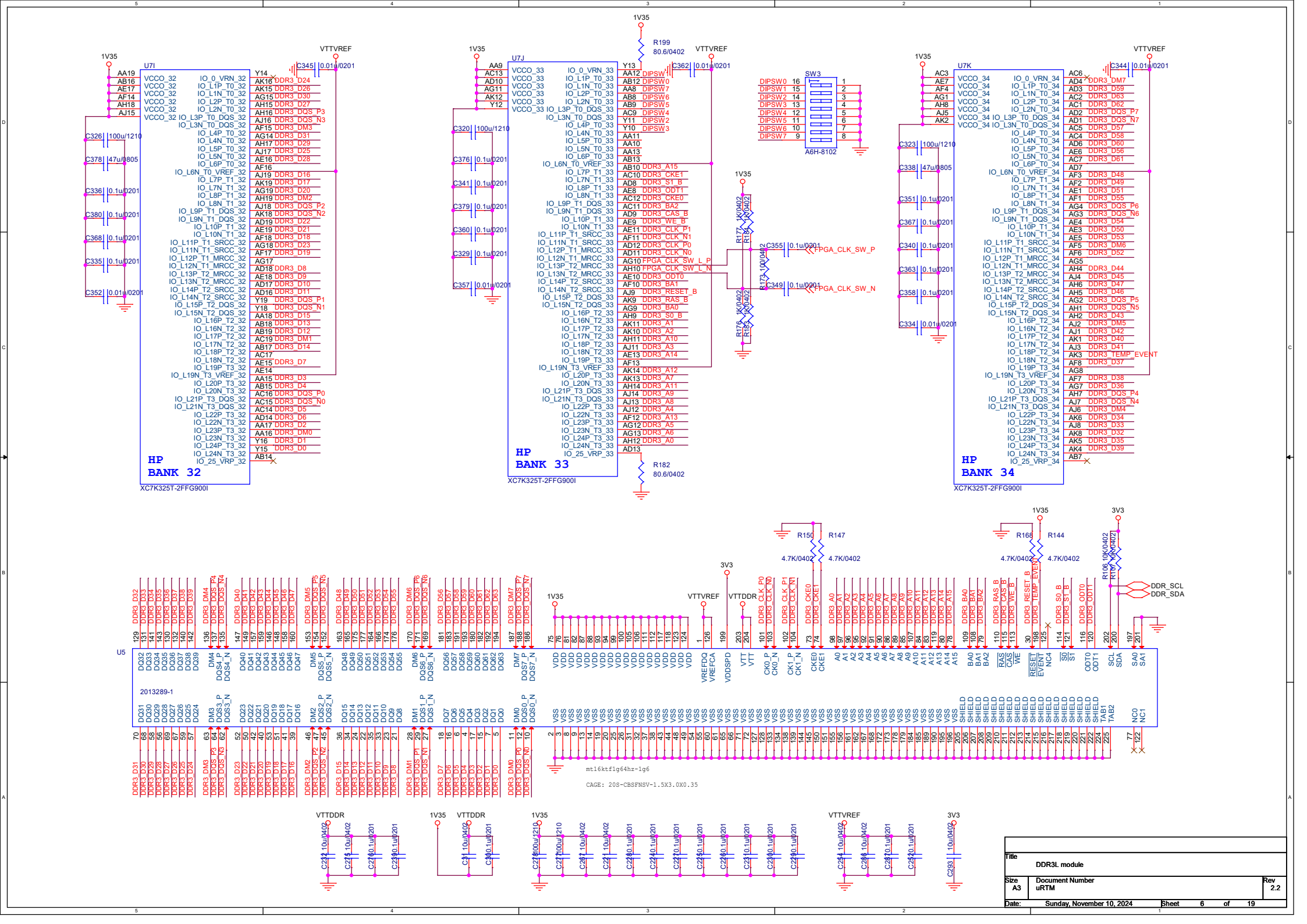
U7I
HP BANK 32
XC7K325T-2FFG900I
U7J
HP BANK 33
XC7K325T-2FFG900I
U7K
HP BANK 34
XC7K325T-2FFG900I
SW3
A6H-8102
U5
2013289-1
mt16ktf1g64hz-1g6
CAGE: 20S-CBSFNSV-1.5X3.0X0.35
FPGA_CLK_SW_P
FPGA_CLK_SW_N
DDR_SCL
DDR_SDA
Title
DDR3L module
Size A3
Document Number uRTM
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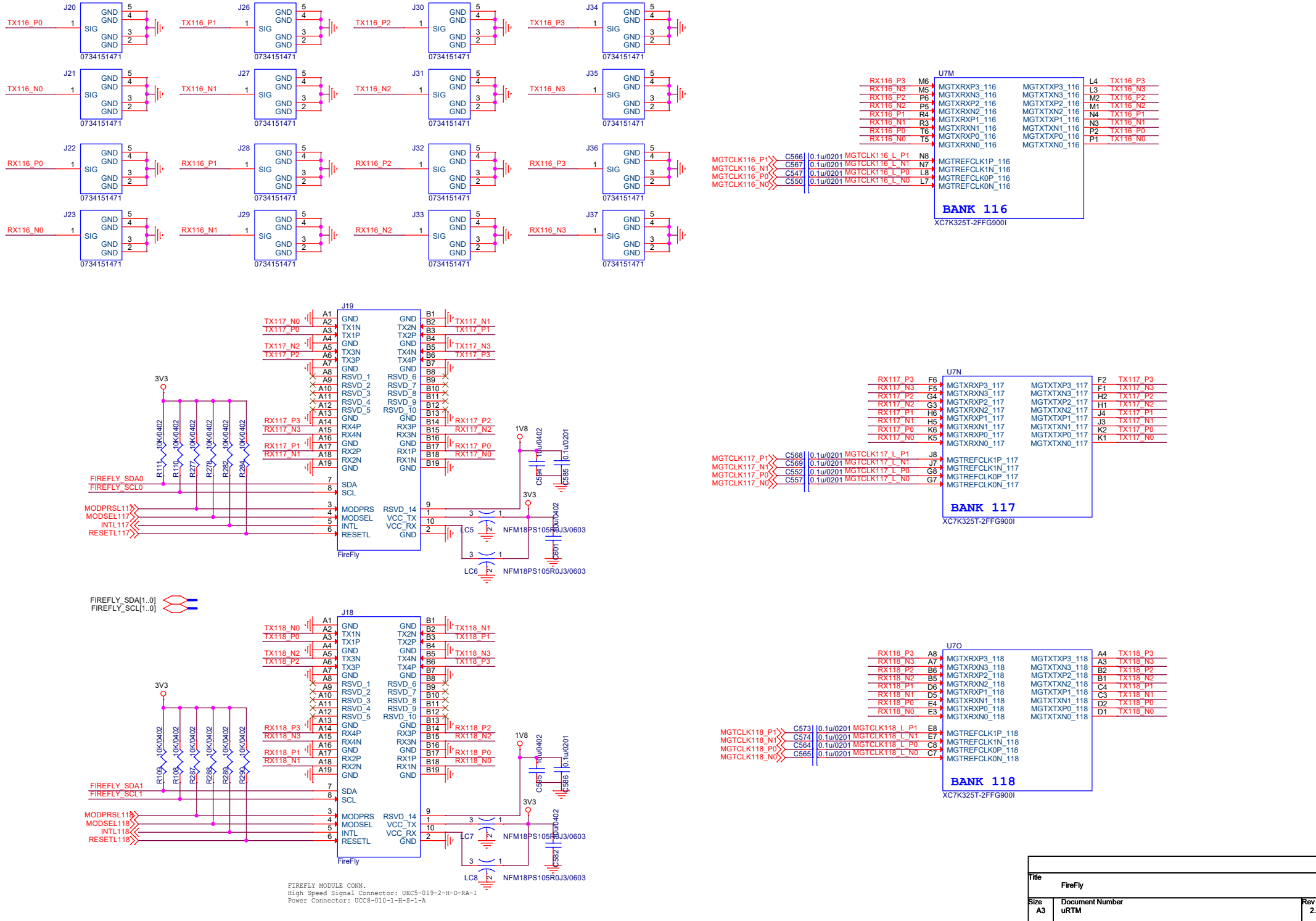
J20
J21
J22
J23
J26
J27
J28
J29
J30
J31
J32
J33
J34
J35
J36
J37
GND
SIG
0734151471
TX116_P0
TX116_N0
RX116_P0
RX116_N0
TX116_P1
TX116_N1
RX116_P1
RX116_N1
TX116_P2
TX116_N2
RX116_P2
RX116_N2
TX116_P3
TX116_N3
RX116_P3
RX116_N3
U7M
MGTXRXP3_116
MGTXRXN3_116
MGTXRXP2_116
MGTXRXN2_116
MGTXRXP1_116
MGTXRXN1_116
MGTXRXP0_116
MGTXRXN0_116
MGTXTXP3_116
MGTXTXN3_116
MGTXTXP2_116
MGTXTXN2_116
MGTXTXP1_116
MGTXTXN1_116
MGTXTXP0_116
MGTXTXN0_116
MGTREFCLK1P_116
MGTREFCLK1N_116
MGTREFCLK0P_116
MGTREFCLK0N_116
MGTCLK116_P1
MGTCLK116_N1
MGTCLK116_P0
MGTCLK116_N0
MGTCLK116_L_P1
MGTCLK116_L_N1
MGTCLK116_L_P0
MGTCLK116_L_N0
C566
C567
C547
C550
0.1u/0201
BANK 116
XC7K325T-2FFG900I
J19
FireFly
TX117_N0
TX117_P0
TX117_N1
TX117_P1
TX117_N2
TX117_P2
TX117_N3
TX117_P3
RX117_P3
RX117_N3
RX117_P2
RX117_N2
RX117_P1
RX117_N1
RX117_P0
RX117_N0
3V3
1V8
10K/0402
R111
R110
R277
R278
R282
R284
FIREFLY_SDA0
FIREFLY_SCL0
MODPRSL117
MODSEL117
INTL117
RESETL117
C584
C585
LC5
LC6
NFM18PS105R0J3/0603
C601
U7N
MGTXRXP3_117
MGTXRXN3_117
MGTXRXP2_117
MGTXRXN2_117
MGTXRXP1_117
MGTXRXN1_117
MGTXRXP0_117
MGTXRXN0_117
MGTXTXP3_117
MGTXTXN3_117
MGTXTXP2_117
MGTXTXN2_117
MGTXTXP1_117
MGTXTXN1_117
MGTXTXP0_117
MGTXTXN0_117
MGTREFCLK1P_117
MGTREFCLK1N_117
MGTREFCLK0P_117
MGTREFCLK0N_117
MGTCLK117_P1
MGTCLK117_N1
MGTCLK117_P0
MGTCLK117_N0
MGTCLK117_L_P1
MGTCLK117_L_N1
MGTCLK117_L_P0
MGTCLK117_L_N0
C568
C569
C552
C557
BANK 117
XC7K325T-2FFG900I
FIREFLY_SDA[1..0]
FIREFLY_SCL[1..0]
J18
TX118_N0
TX118_P0
TX118_N1
TX118_P1
TX118_N2
TX118_P2
TX118_N3
TX118_P3
RX118_P3
RX118_N3
RX118_P2
RX118_N2
RX118_P1
RX118_N1
RX118_P0
RX118_N0
R109
R108
R287
R288
R289
R290
FIREFLY_SDA1
FIREFLY_SCL1
MODPRSL118
MODSEL118
INTL118
RESETL118
C595
C586
LC7
LC8
C382
U7O
MGTXRXP3_118
MGTXRXN3_118
MGTXRXP2_118
MGTXRXN2_118
MGTXRXP1_118
MGTXRXN1_118
MGTXRXP0_118
MGTXRXN0_118
MGTXTXP3_118
MGTXTXN3_118
MGTXTXP2_118
MGTXTXN2_118
MGTXTXP1_118
MGTXTXN1_118
MGTXTXP0_118
MGTXTXN0_118
MGTREFCLK1P_118
MGTREFCLK1N_118
MGTREFCLK0P_118
MGTREFCLK0N_118
MGTCLK118_P1
MGTCLK118_N1
MGTCLK118_P0
MGTCLK118_N0
MGTCLK118_L_P1
MGTCLK118_L_N1
MGTCLK118_L_P0
MGTCLK118_L_N0
C573
C574
C564
C565
BANK 118
XC7K325T-2FFG900I
FIREFLY MODULE CONN.
High Speed Signal Connector: UEC5-019-2-H-D-RA-1
Power Connector: UCC8-010-1-H-S-1-A
Title
FireFly
Size
A3
Document Number
uRTM
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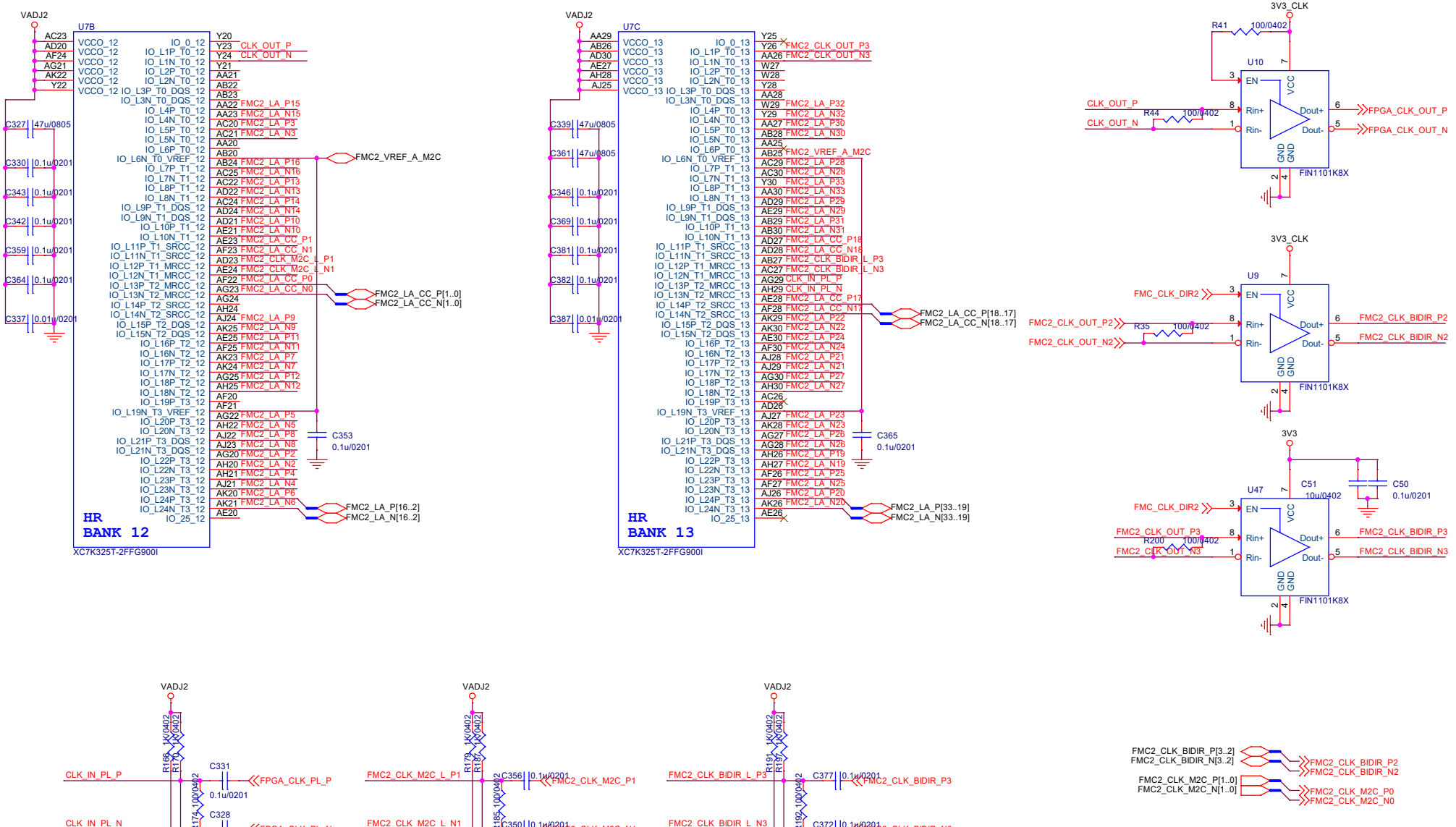

Title: FMC2		
Size: A3	Document Number: uRTM	Rev: 2.2
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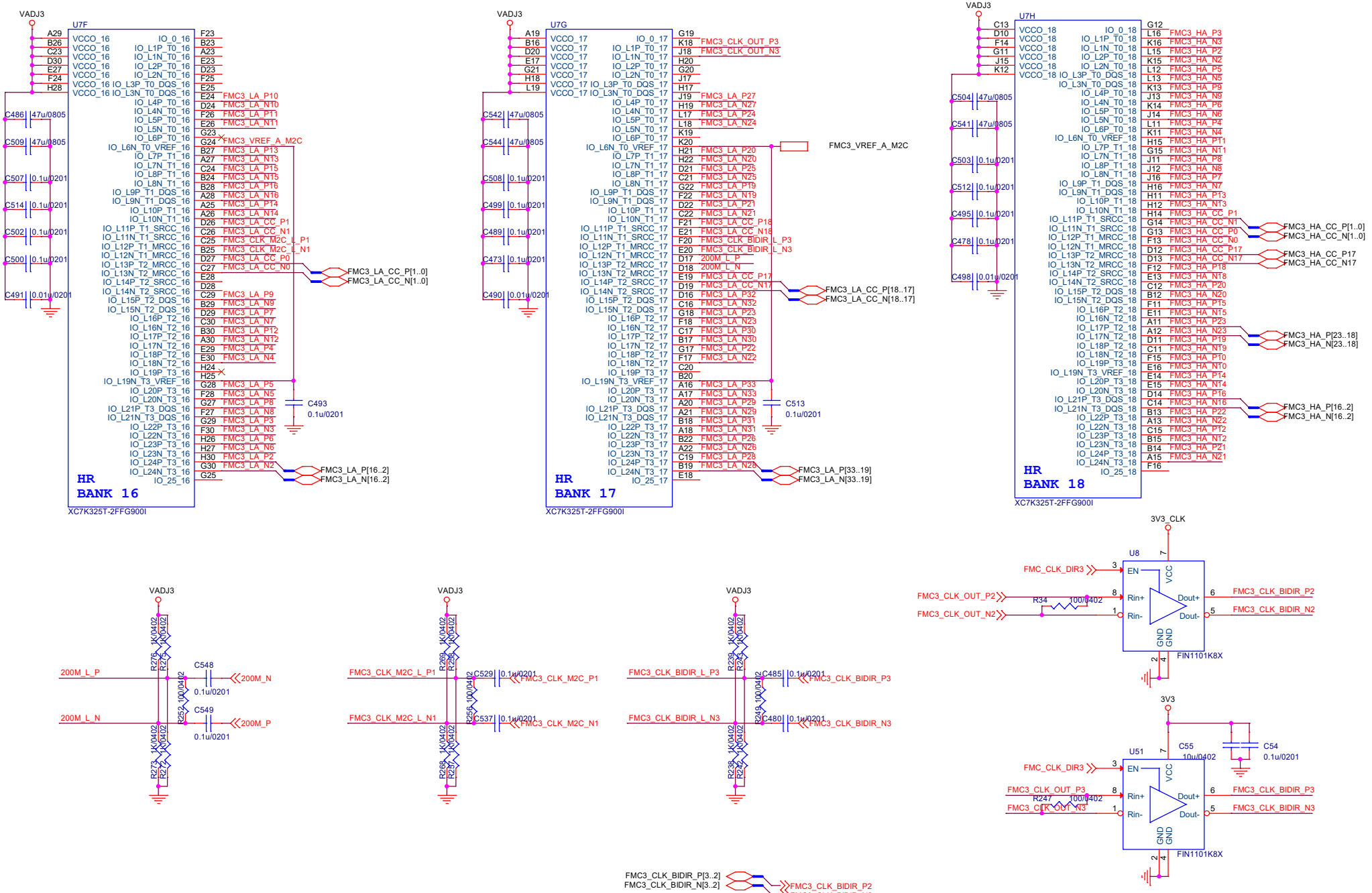
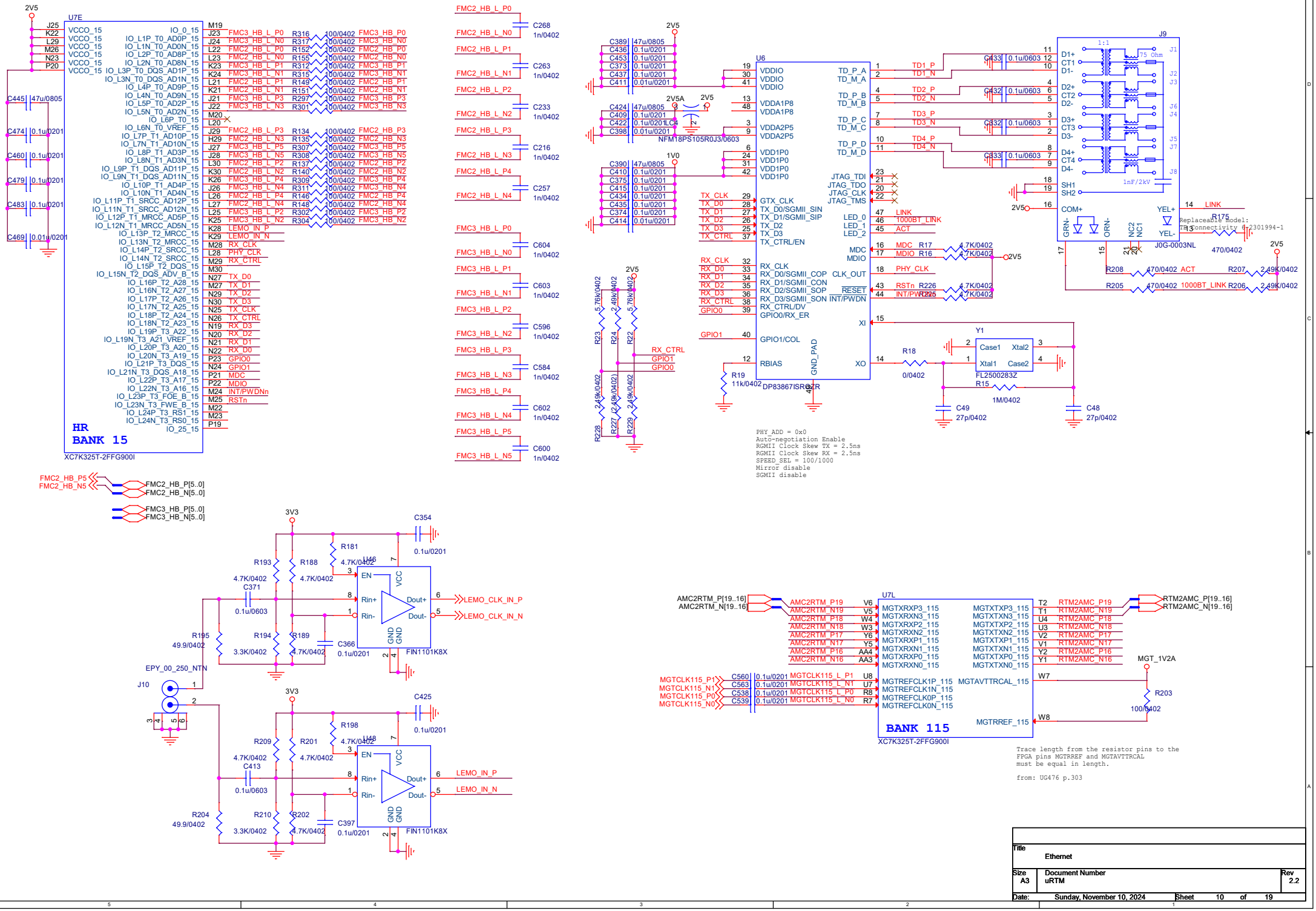


Title	FMC3	
Size A3	Document Number uRTM	Rev 2.2
Date: Sunday, November 10, 2024	Sheet 9 of 19	


U7E
HR
BANK 15
XC7K325T-2FFG900I
FMC2_HB_P[5..0]
FMC2_HB_N[5..0]
FMC3_HB_P[5..0]
FMC3_HB_N[5..0]
U6
DP83867ISRGZR
J9
J0G-0003NL
Y1
FL2500283Z
U7L
BANK 115
XC7K325T-2FFG900I
U4
U8
FIN1101K8X
J10
EPY_00_250_NTN
LEMO_CLK_IN_P
LEMO_CLK_IN_N
LEMO_IN_P
LEMO_IN_N
PHY_ADD = 0x0
Auto-negotiation Enable
RGMII Clock Skew TX = 2.5ns
RGMII Clock Skew RX = 2.5ns
SPEED_SEL = 100/1000
Mirror disable
SGMII disable
Trace length from the resistor pins to the FPGA pins MGTRREF and MGTAVTTRCAL must be equal in length.
from: UG476 p.303
Title
Ethernet
Size A3
Document Number uRTM
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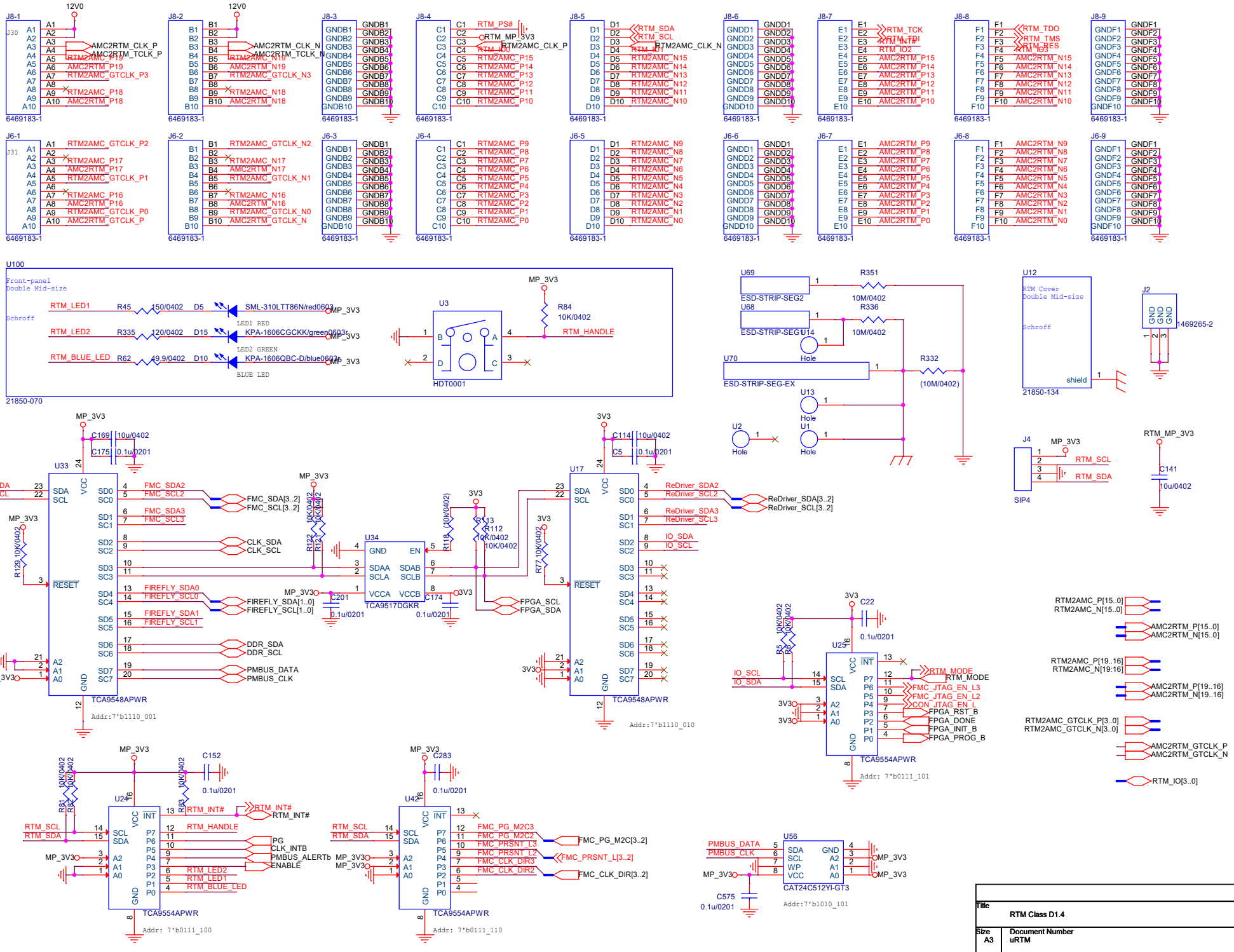
J8-1
J8-2
J8-3
J8-4
J8-5
J8-6
J8-7
J8-8
J8-9
12V0
6469183-1
AMC2RTM_CLK_P
AMC2RTM_CLK_N
AMC2RTM_TCLK_P
AMC2RTM_TCLK_N
RTM2AMC_GTCLK_P3
RTM2AMC_GTCLK_N3
RTM_PS#
RTM_MP_3V3
RTM2AMC_CLK_P
RTM2AMC_CLK_N
RTM_SDA
RTM_SCL
RTM_TCK
RTM_TDI
RTM_TDO
RTM_TMS
RTM_TRES
RTM_IO2
RTM_IO3
J6-1
J6-2
J6-3
J6-4
J6-5
J6-6
J6-7
J6-8
J6-9
RTM2AMC_GTCLK_P2
RTM2AMC_GTCLK_N2
RTM2AMC_GTCLK_P1
RTM2AMC_GTCLK_N1
RTM2AMC_GTCLK_P0
RTM2AMC_GTCLK_N0
AMC2RTM_P9
AMC2RTM_N9
AMC2RTM_P8
AMC2RTM_N8
AMC2RTM_P7
AMC2RTM_N7
AMC2RTM_P6
AMC2RTM_N6
AMC2RTM_P5
AMC2RTM_N5
AMC2RTM_P4
AMC2RTM_N4
AMC2RTM_P3
AMC2RTM_N3
AMC2RTM_P2
AMC2RTM_N2
AMC2RTM_P1
AMC2RTM_N1
AMC2RTM_P0
AMC2RTM_N0
U100
Front-panel
Double Mid-size
Schroff
21850-070
RTM_LED1
RTM_LED2
RTM_BLUE_LED
SML-310LTT86N/red0603
KPA-1606CGCKK/green0603
KPA-1606QBC-D/blue0603
LED1 RED
LED2 GREEN
BLUE LED
MP_3V3
U3
HDT0001
R84
10K/0402
RTM_HANDLE
U69
U68
U70
U13
U2
U1
U14
ESD-STRIP-SEG2
ESD-STRIP-SEG
ESD-STRIP-SEG-EX
Hole
R351
R336
R332
10M/0402
(10M/0402)
U12
RTM Cover
Double Mid-size
21850-134
shield
J2
1469265-2
J4
SIP4
RTM_MP_3V3
C141
U33
U17
U34
U24
U42
U25
U56
TCA9548APWR
TCA9517DGKR
TCA9554APWR
CAT24C512YI-GT3
Addr:7'b1110_001
Addr:7'b1110_010
Addr:7'b0111_100
Addr:7'b0111_110
Addr:7'b0111_101
Addr:7'b1010_101
FMC_SDA[3..2]
FMC_SCL[3..2]
CLK_SDA
CLK_SCL
FIREFLY_SDA0
FIREFLY_SCL0
FIREFLY_SDA[1..0]
FIREFLY_SCL[1..0]
DDR_SDA
DDR_SCL
PMBUS_DATA
PMBUS_CLK
ReDriver_SDA[3..2]
ReDriver_SCL[3..2]
IO_SDA
IO_SCL
FPGA_SCL
FPGA_SDA
RTM_MODE
FMC_JTAG_EN_L3
FMC_JTAG_EN_L2
CON_JTAG_EN_L
FPGA_RST_B
FPGA_DONE
FPGA_INIT_B
FPGA_PROG_B
RTM_INT#
PG
CLK_INTB
PMBUS_ALERTb
ENABLE
RTM_LED2
RTM_LED1
RTM_BLUE_LED
FMC_PG_M2C[3..2]
FMC_PRSNT_L[3..2]
FMC_CLK_DIR[3..2]
RTM2AMC_P[15..0]
RTM2AMC_N[15..0]
AMC2RTM_P[15..0]
AMC2RTM_N[15..0]
RTM2AMC_P[19..16]
RTM2AMC_N[19:16]
AMC2RTM_P[19..16]
AMC2RTM_N[19..16]
RTM2AMC_GTCLK_P[3..0]
RTM2AMC_GTCLK_N[3..0]
AMC2RTM_GTCLK_P
AMC2RTM_GTCLK_N
RTM_IO[3..0]
Title
RTM Class D1.4
Size
A3
Document Number
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2.2
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