

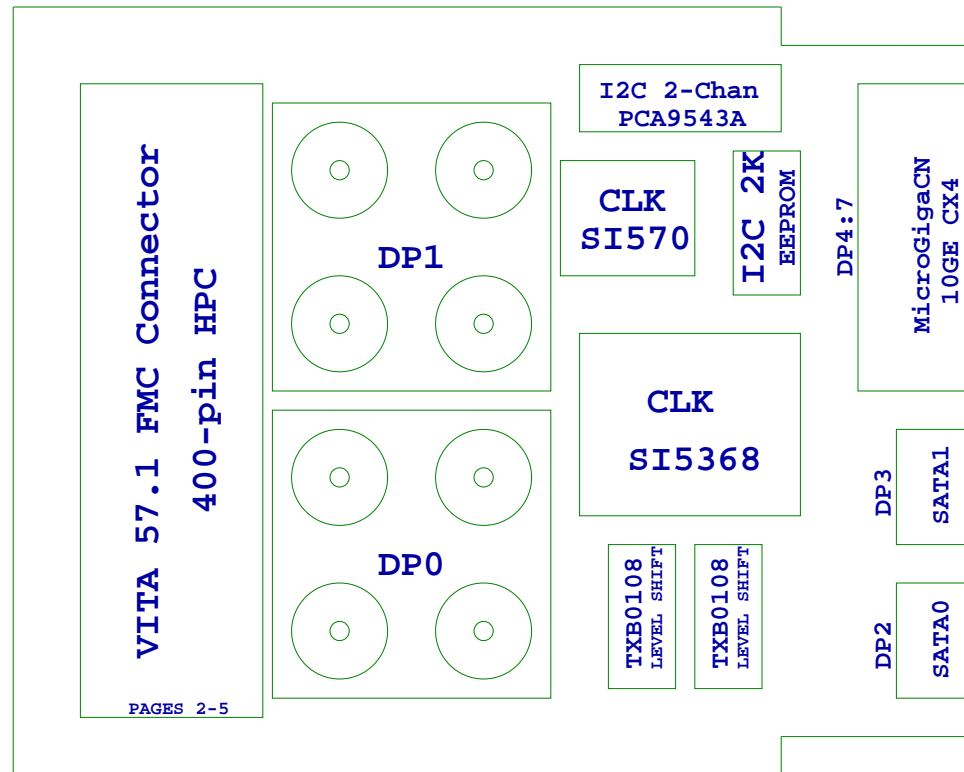
Part Number: HW-FMC-XM104-G
 Product Name: FMC XM104 Debug Card


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		SCH P/N 0381347	
		ASSY P/N 0431579	
		FAB P/N 1280515	
Title: SCHEM, ROHS COMPLIANT, HW-FMC-XM104-G			
Date: 12-5-2013_9:22		Ver: B	
Sheet Size: B		Rev: 01	
Sheet 1 of 9		Drawn By EM	

ASP-134488-01

DP1_M2C_P A2 DP1_M2C_P 6
 DP1_M2C_N A3 DP1_M2C_N 6
 DP2_M2C_P A6 DP2_M2C_P 6
 DP2_M2C_N A7 DP2_M2C_N 6
 DP3_M2C_P A10 DP3_M2C_P 6
 DP3_M2C_N A11 DP3_M2C_N 6
 DP4_M2C_P A14 DP4_M2C_P 6
 DP4_M2C_N A15 DP4_M2C_N 6
 DP5_M2C_P A18 DP5_M2C_P 6
 DP5_M2C_N A19 DP5_M2C_N 6
 DP1_C2M_P A22 DP1_C2M_P 6
 DP1_C2M_N A23 DP1_C2M_N 6
 DP2_C2M_P A26 DP2_C2M_P 6
 DP2_C2M_N A27 DP2_C2M_N 6
 DP3_C2M_P A30 DP3_C2M_P 6
 DP3_C2M_N A31 DP3_C2M_N 6
 DP4_C2M_P A34 DP4_C2M_P 6
 DP4_C2M_N A35 DP4_C2M_N 6
 DP5_C2M_P A38 DP5_C2M_P 6
 DP5_C2M_N A39 DP5_C2M_N 6

J1

ASP-134488-01

CLK_DIR B1 NC
 DP9_M2C_P B4 DP9_M2C_P 6
 DP9_M2C_N B5 DP9_M2C_N 6
 DP8_M2C_P B8 DP8_M2C_P 6
 DP8_M2C_N B9 DP8_M2C_N 6
 DP7_M2C_P B12 DP7_M2C_P 6
 DP7_M2C_N B13 DP7_M2C_N 6
 DP6_M2C_P B16 DP6_M2C_P 6
 DP6_M2C_N B17 DP6_M2C_N 6
 GBTCLK1_M2C_P B20 GBTCLK1_M2C_P 7
 GBTCLK1_M2C_N B21 GBTCLK1_M2C_N 7
 DP9_C2M_P B24 DP9_C2M_P 6
 DP9_C2M_N B25 DP9_C2M_N 6
 DP8_C2M_P B28 DP8_C2M_P 6
 DP8_C2M_N B29 DP8_C2M_N 6
 DP7_C2M_P B32 DP7_C2M_P 6
 DP7_C2M_N B33 DP7_C2M_N 6
 DP6_C2M_P B36 DP6_C2M_P 6
 DP6_C2M_N B37 DP6_C2M_N 6
 RES0 B40 NC

J1

ASP-134488-01

DP0_C2M_P C2 DP0_C2M_P 6
 DP0_C2M_N C3 DP0_C2M_N 6
 DP0_M2C_P C6 DP0_M2C_P 6
 DP0_M2C_N C7 DP0_M2C_N 6
 LA06_P C10 LA06_P 7
 LA06_N C11 LA06_N 7
 LA10_P C14 NC
 LA10_N C15 NC
 LA14_P C18 NC
 LA14_N C19 NC
 LA18_P_CC C22 NC
 LA18_N_CC C23 NC
 LA27_P C26 NC
 LA27_N C27 NC
 SCL C30 SCL 7
 SDA C31 SDA 7
 GA0 C34 GA0 7
 12P0V_1 C35 NC
 12P0V_2 C37 NC
 3P3V_1 C39

J1

VCC3V3

ASP-134488-01

PG_C2M D1 NC
 GBTCLK0_M2C_P D4 GBTCLK0_M2C_P 8
 GBTCLK0_M2C_N D5 GBTCLK0_M2C_N 8
 LA01_P_CC D8 LA01_CC_P 8
 LA01_N_CC D9 LA01_CC_N 8
 LA05_P D11 LA05_P 7
 LA05_N D12 NC
 LA09_P D14 NC
 LA09_N D15 NC
 LA13_P D17 NC
 LA13_N D18 NC
 LA17_P_CC D20 LA17_CC_P 8
 LA17_N_CC D21 LA17_CC_N 8
 LA23_P D23 NC
 LA23_N D24 NC
 LA26_P D26 NC
 LA26_N D27 NC
 TCK D29 NC
 TDI D30
 TDO D31 TDI_TDO
 3P3VAUX D32
 TMS D33 NC
 TRST_L D34 NC
 GA1 D35 GA1 7
 3P3V_2 D36
 3P3V_3 D38
 3P3V_4 D40

J1

VCC3V3AUX

VCC3V3



SCH P/N 0381347
 ASSY P/N 0431579
 FAB P/N 1280515

Title: SCHEM, ROHS COMPLIANT, HW-FMC-XM104-G

FMC (ROWS A, B, C, D)

Date: 12-5-2013_9:25

Ver: B

Sheet Size: B

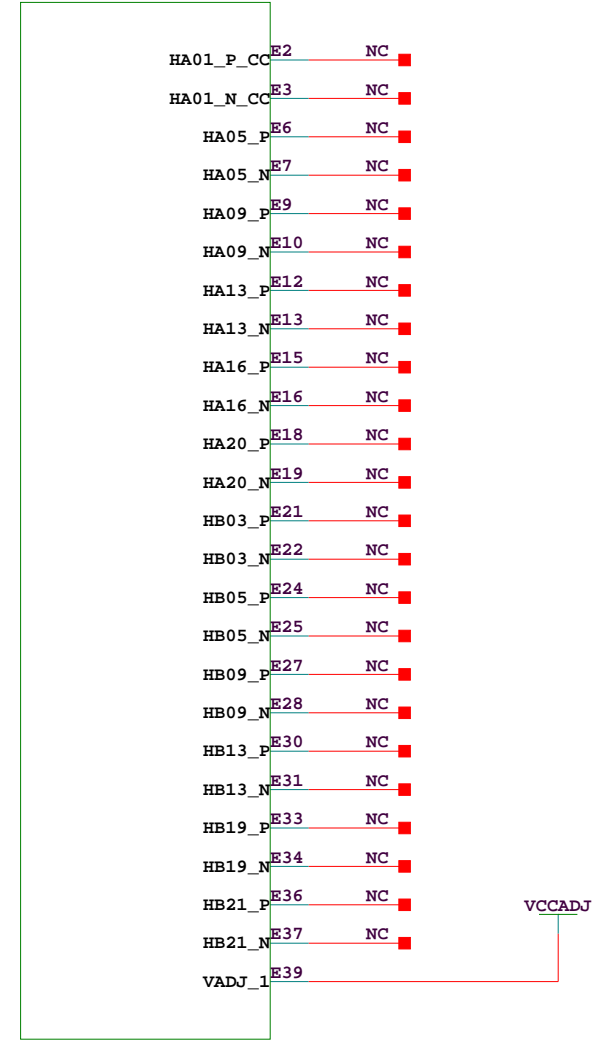
Rev: 01

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Drawn By EM

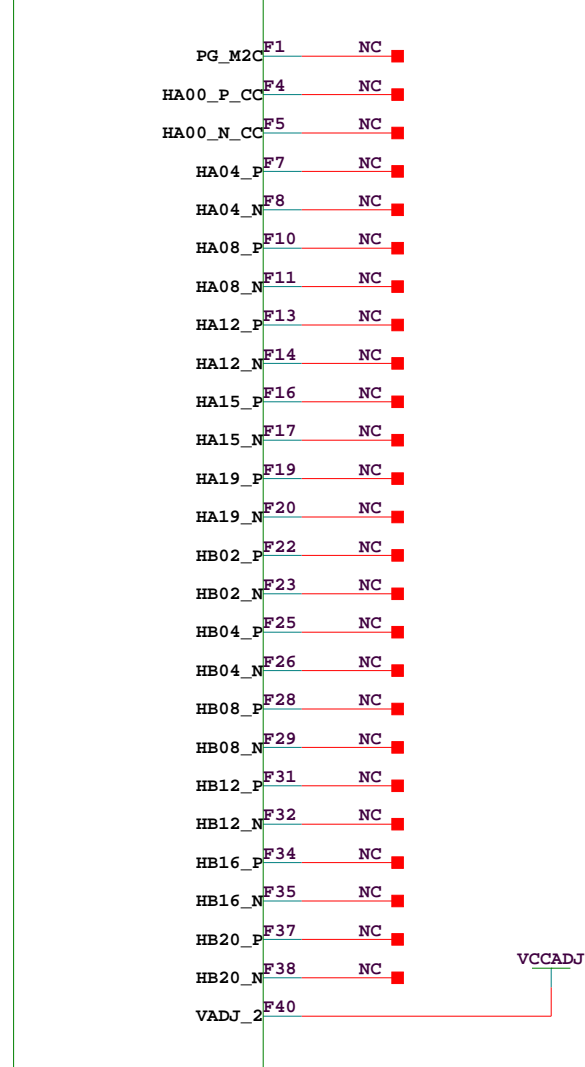
PG_M2C Is pulled up to 3.3V on the Carrier Card

ASP-134488-01



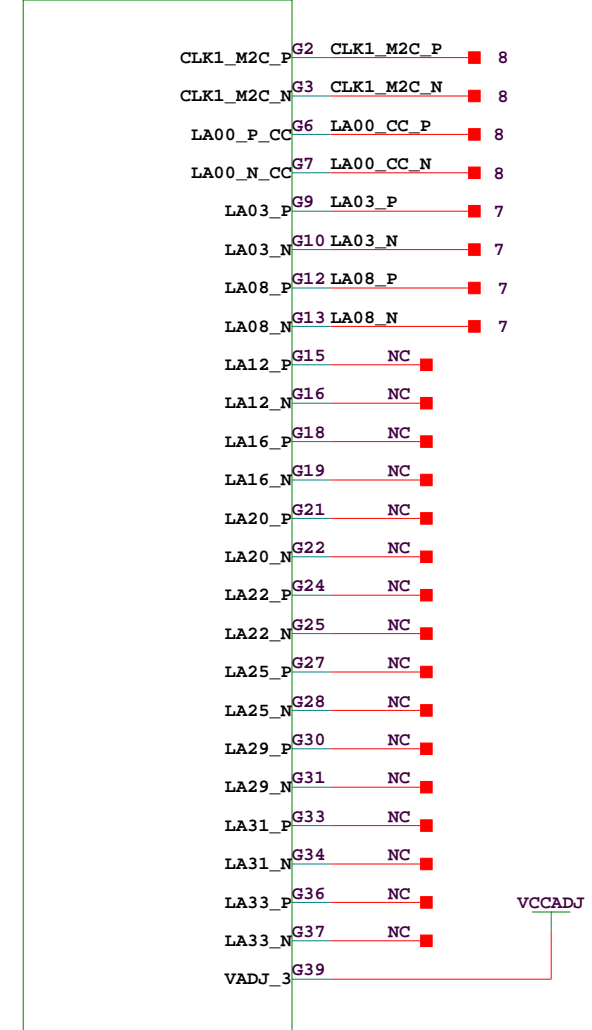
J1

ASP-134488-01



J1

ASP-134488-01



J1



SCH P/N 0381347
ASSY P/N 0431579
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Title: SCHEM, ROHS COMPLIANT, HW-FMC-XM104-G

FMC (ROWS E, F, G)

Date: 12-5-2013_9:22

Ver: B

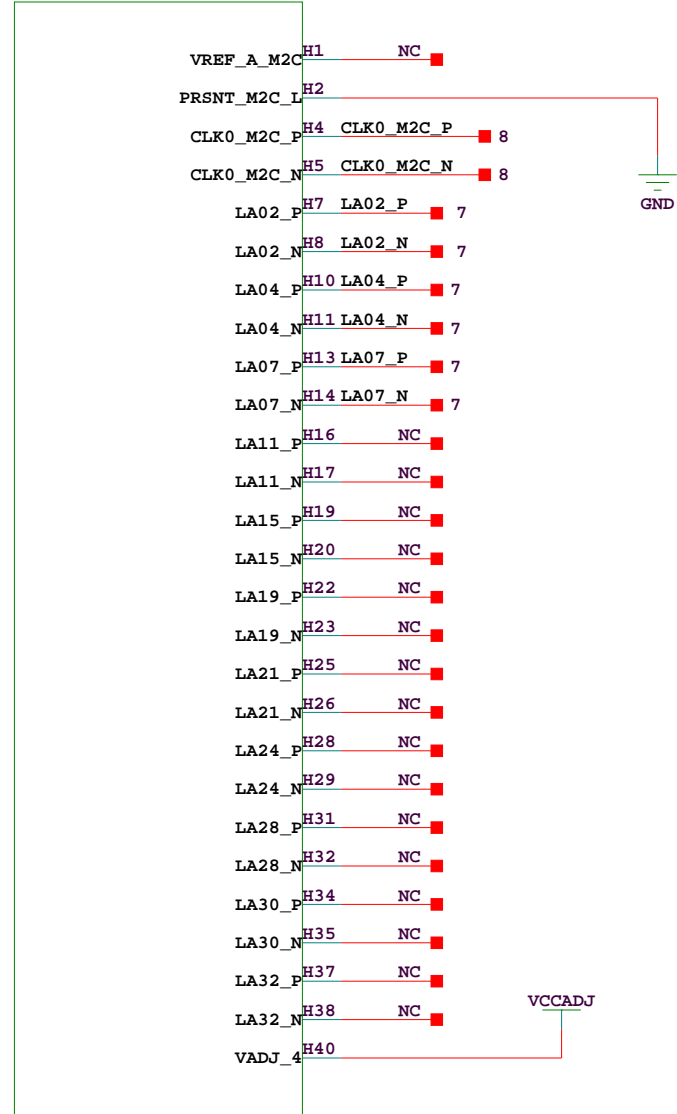
Sheet Size: B

Rev: 01

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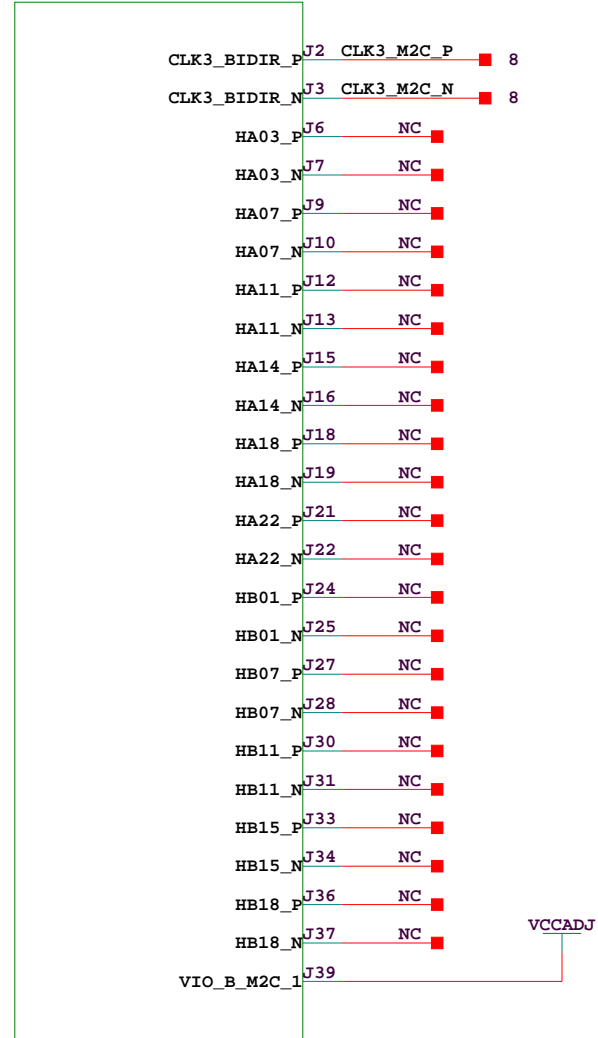
Drawn By EM

ASP-134488-01



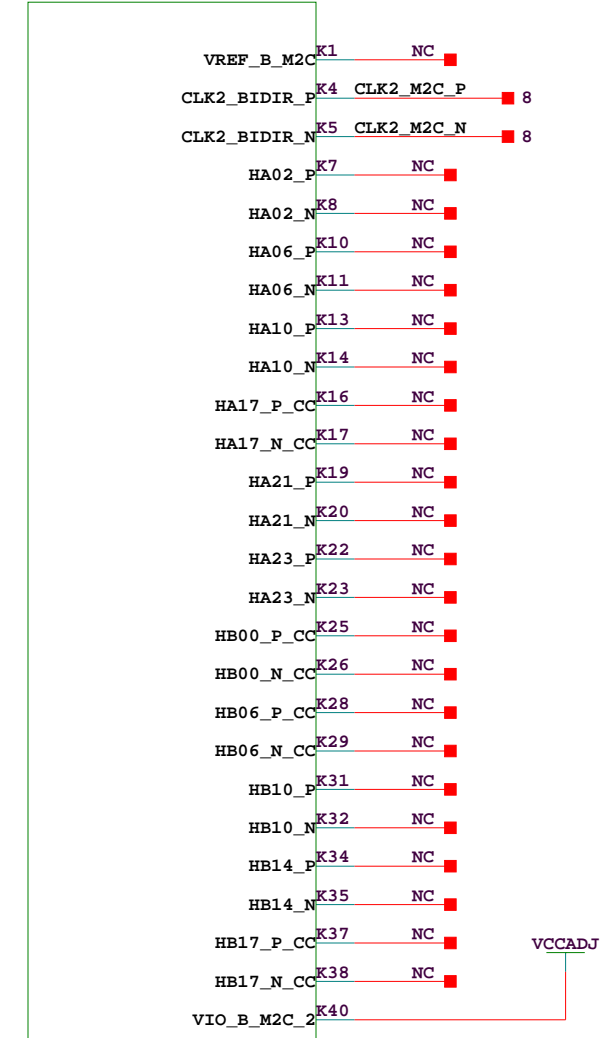
J1

ASP-134488-01



J1

ASP-134488-01



J1

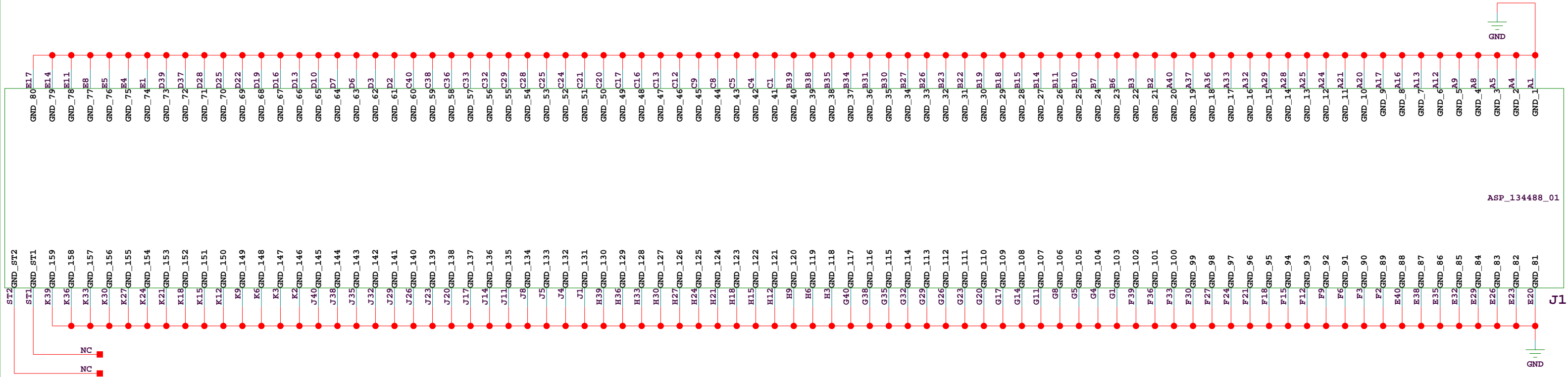



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Title: SCHEM, ROHS COMPLIANT, HW-FMC-XM104-G

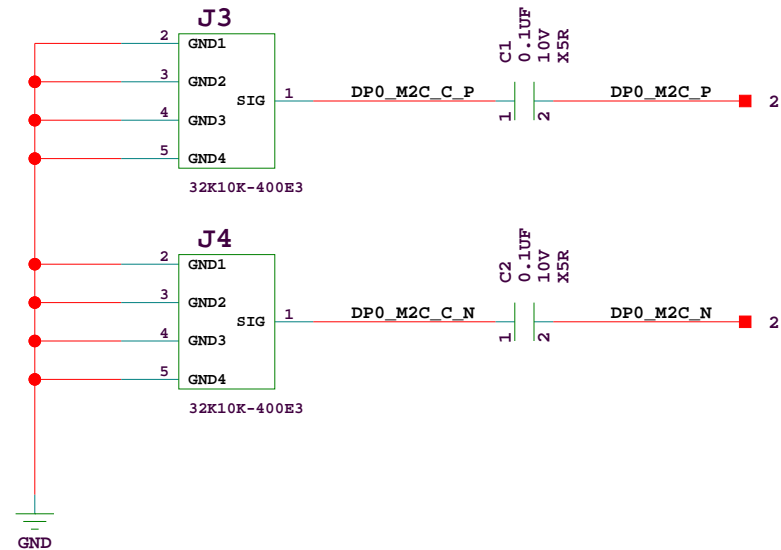
FMC (ROWS H, J, K)

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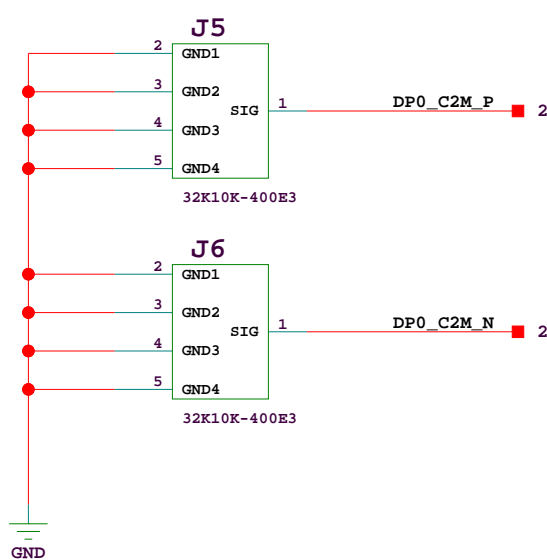


		SCH P/N 0381347	
		ASSY P/N 0431579	
		FAB P/N 128X0515	
Title: SCHEM, ROHS COMPLIANT, HW-FMC-XM104-G			
FMC (GND)			
Date: 12-5-2013_9:22		Ver: B	
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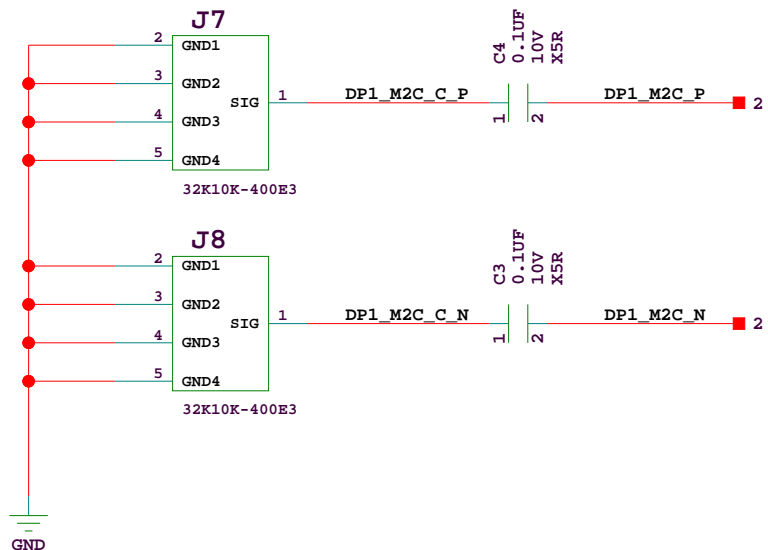
DP0 - Receiver SMAs



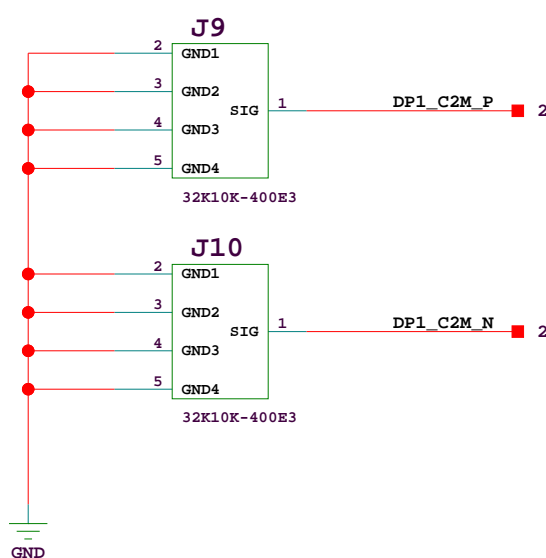
DP0 - Transmitter SMAs



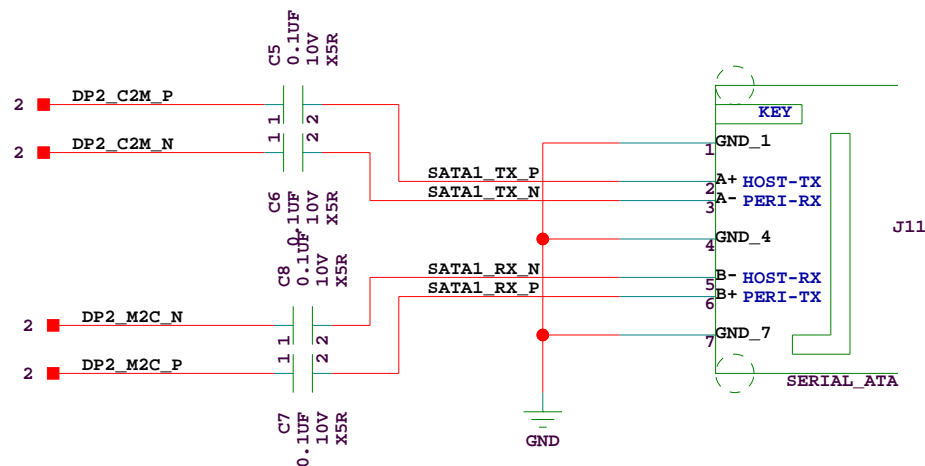
DP1 - Receiver SMAs



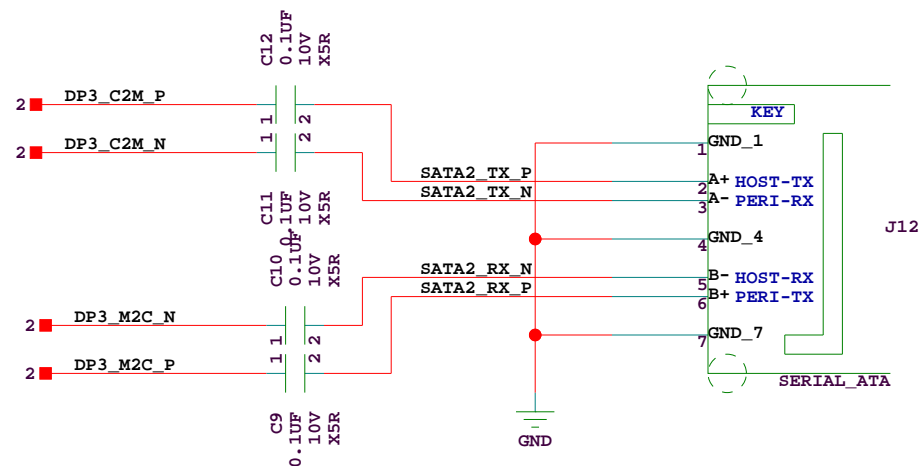
DP1 - Transmitter SMAs



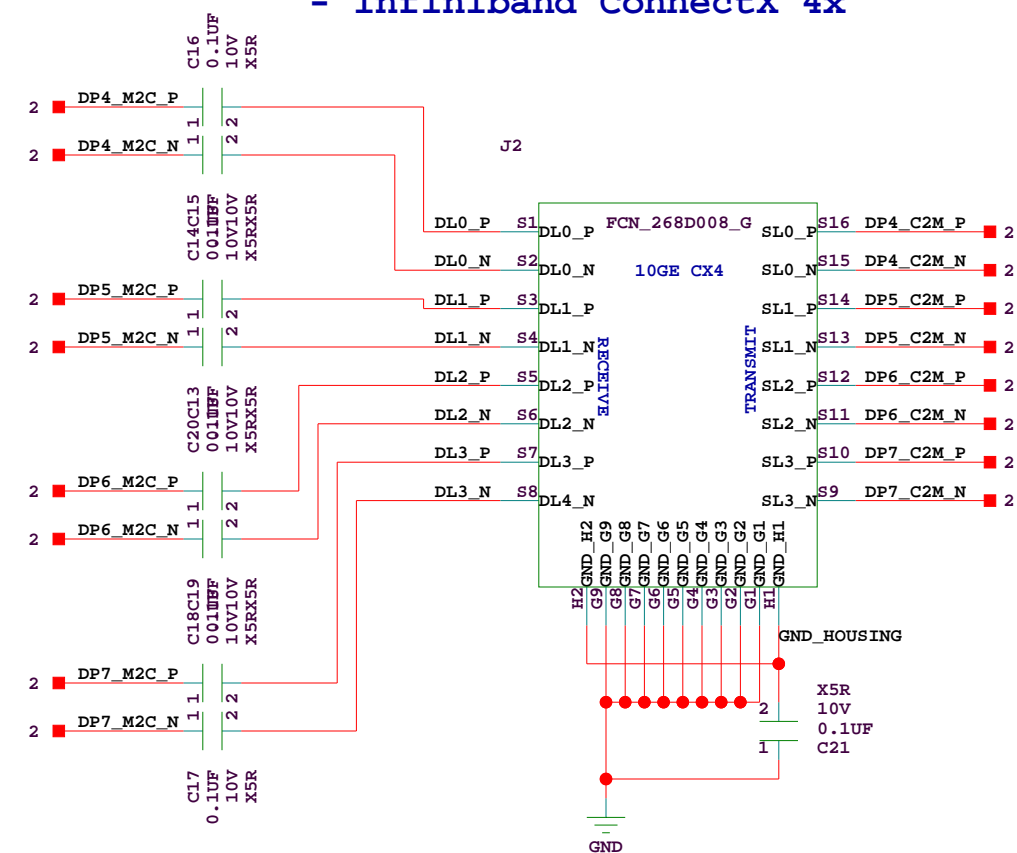
DP2 - SATA1 Host Interface



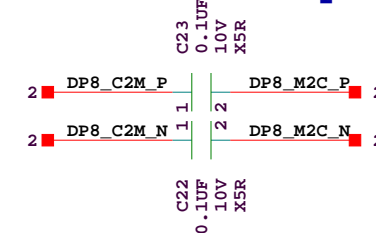
DP3 - SATA2 Host Interface



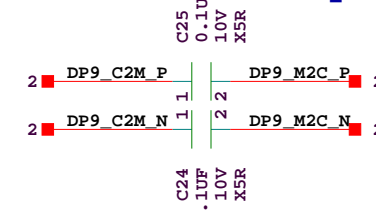
D4:7 - CX4 Cable Receptacle
- 802.3ak - 10GBASE-CX4
- Infiniband ConnectX 4x



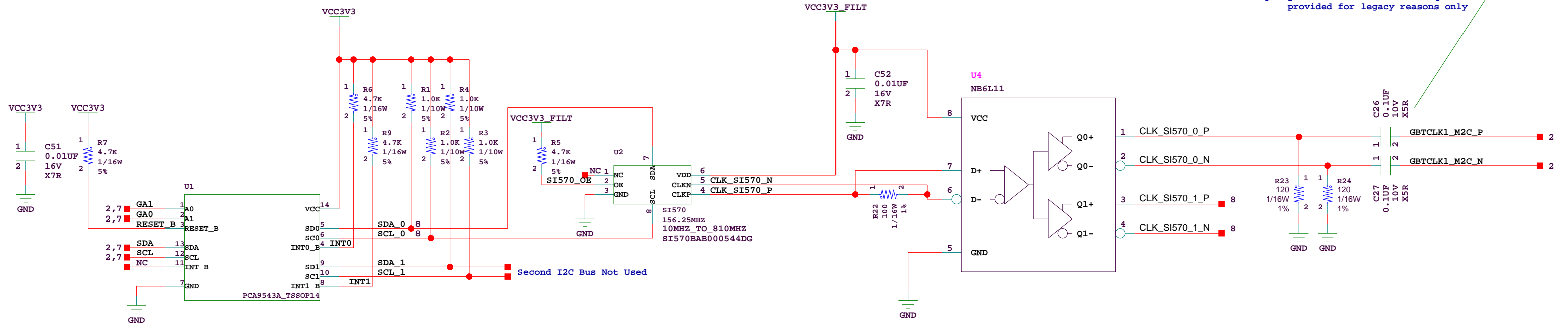
DP8 - PCB Loopback



DP9 - PCB Loopback

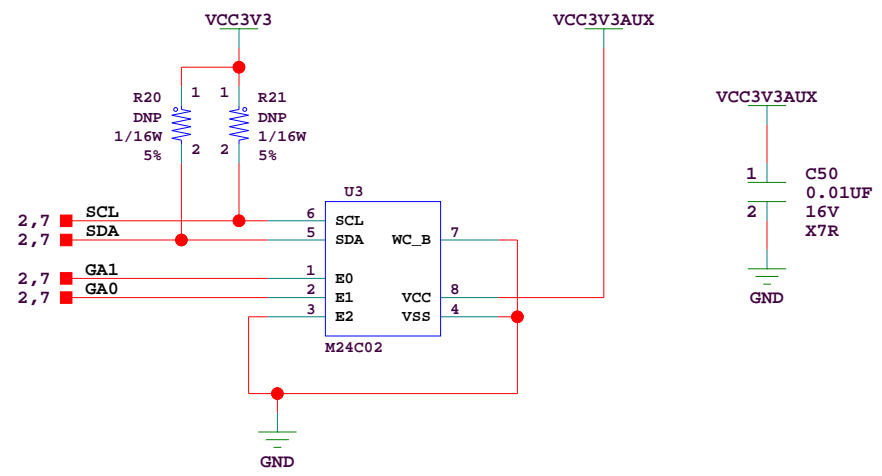


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		ASSY P/N 0431579	
		FAB P/N 1280515	
Title: SCHEM, ROHS COMPLIANT, HW-FMC-XM104-G			
SMA, SATA & CX4 CONNECTORS			
Date: 12-5-2013_9:22		Ver: B	
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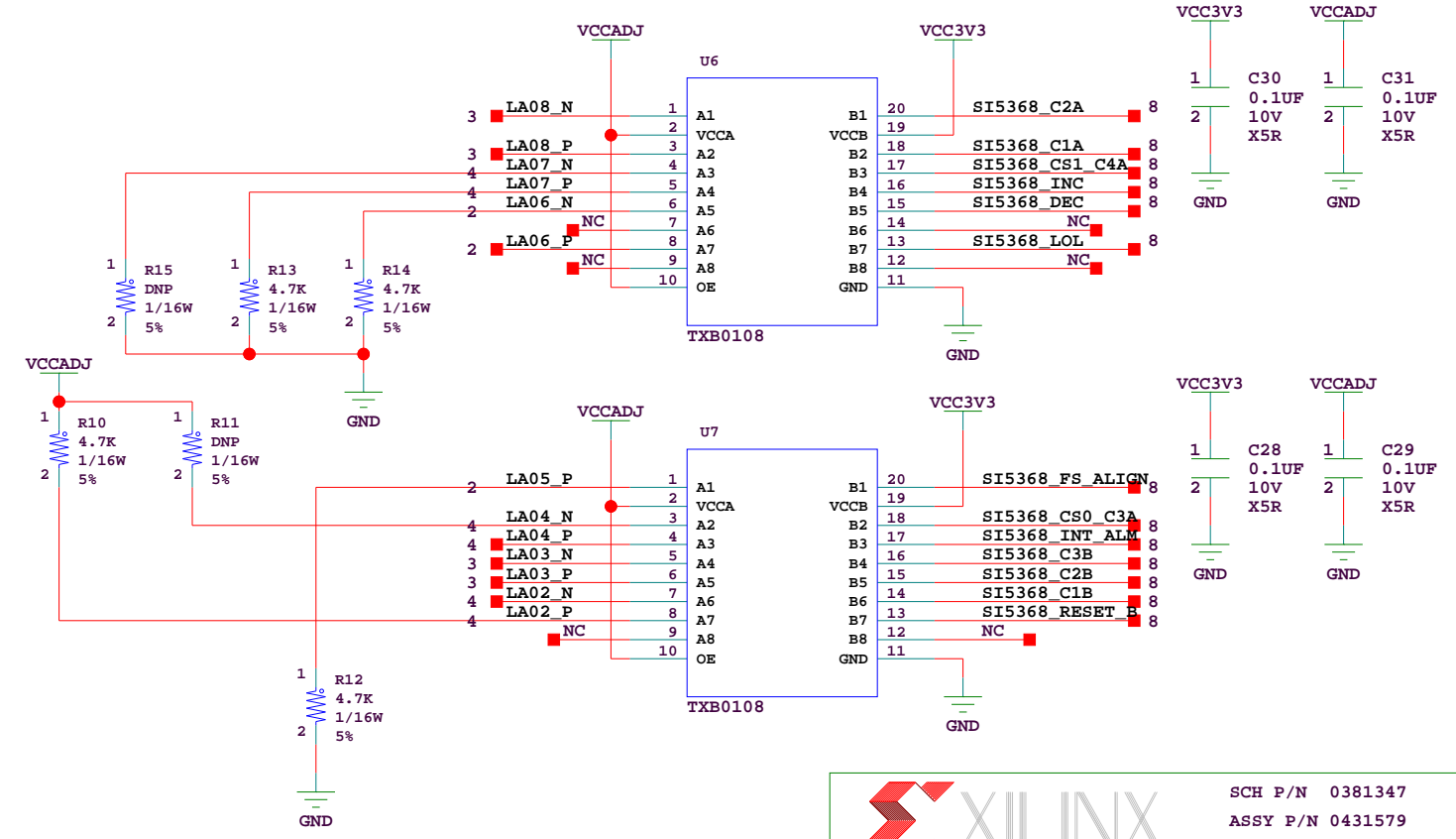
AC Coupling for FMC GBTCLK is not required provided for legacy reasons only

Second I2C Bus Not Used



I2C Address Table

M24C02	= 101_00_GA0_GA1	= 0x5?
PCA9543A	= 111_00_GA0_GA1	= 0x7?
- SI570	= 101_1101	= 0x5D
- SI5368	= 110_10_0_0_0	= 0x68

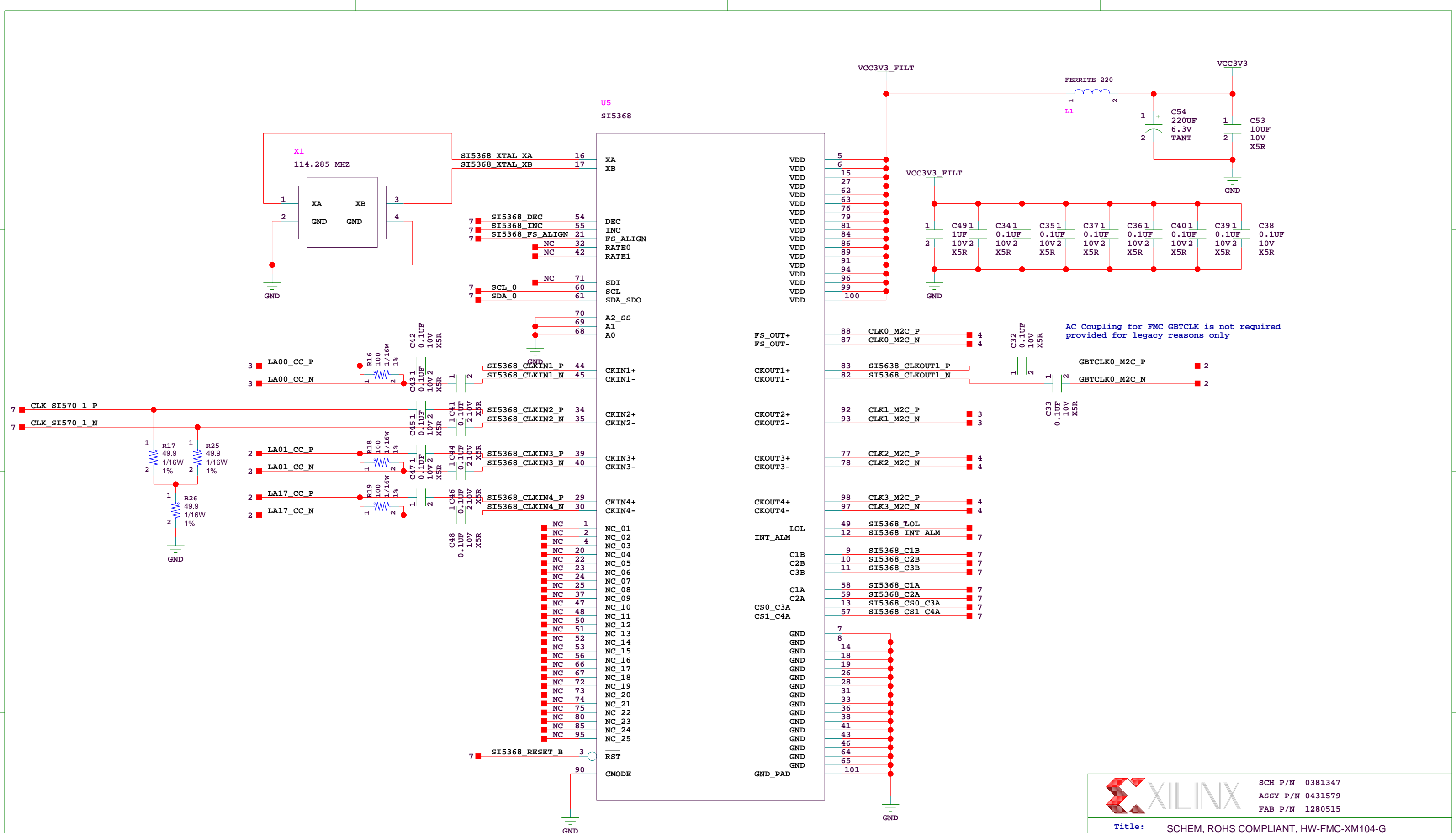



SCH P/N 0381347
 ASSY P/N 0431579
 FAB P/N 1280515

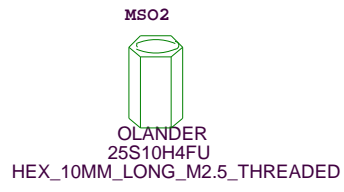
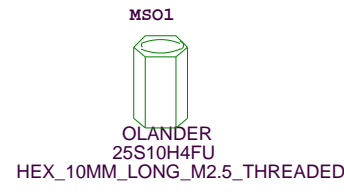
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FMC I2C, CLOCKING, LEVEL TRANSLATION


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		SCH P/N 0381347
		ASSY P/N 0431579
		FAB P/N 1280515
Title: SCHEM, ROHS COMPLIANT, HW-FMC-XM104-G SI5368 CLOCK SYNTHESIZER		
Date: 12-5-2013_9:22	Ver: B	
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FIDUCIALS

		SCH P/N 0381347
		ASSY P/N 0431579
		FAB P/N 1280515
Title: SCHEM, ROHS COMPLIANT, HW-FMC-XM104-G MECHANICALS		
Date: 12-5-2013_9:22		Ver: B
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