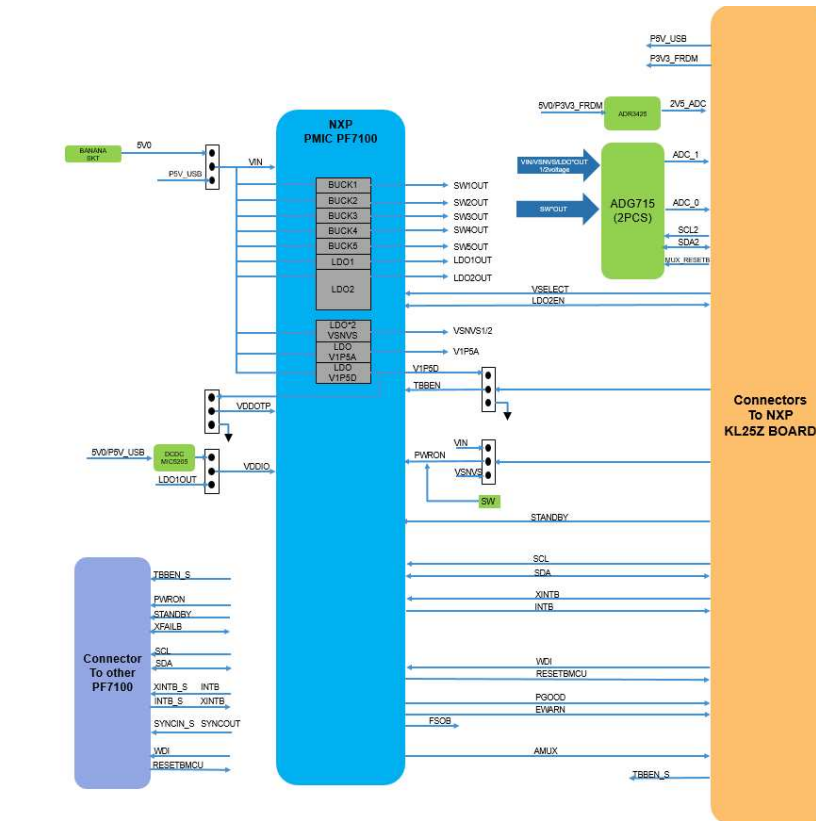
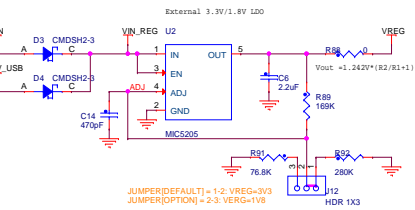
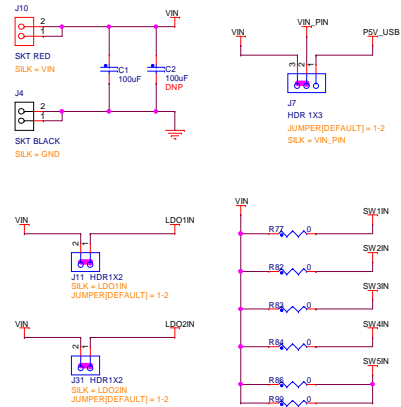


5					4		3		2		1	
Table of Contents												
1 TITLE, TOC & REV												
2 BLOCK DIAGRAM												
3 PMIC												
4 KL25, CONNECTOR, AMUX												
5 APPENDIX JUMPER/DNP/SWITCH												
Revisions												
Rev		Description								Date		
X1		Initial schematic								17-JAN-2019		
A		Release A085								4-MAR-2019		
B		1. Solved the J1 mirror problem. 2. Changed J27-3, J26-3, R103, 1, R78-1, R85, 1 pin nets from VIN_PIN to VIN. 3. Changed FSOB and PWRON pull up resistors from 470K to 100K.								31-MAY-2019		
B1		Update the board name.								15-Aug-2019		
B2		Update U1 part number to PPF7100AVBA0ES.								25-Sep-2019		
KITPF7100FRDMEVM												
Analog Sensor Product Group 6501 William Cannon Drive West Austin, TX 78735-8598 This document contains information proprietary to NXP and shall not be used for engineering design, procurement or manufacture in whole or in part without the express written permission of NXP Semiconductors. ICAP Classification: CP: EUC: PUB: X Designer: Melissa Chen Drawing Title: KITPF7100FRDMEVM Drawn by: Kate Felt Page Title: TITLE Approved: Melissa Chen Size C Document Number SCH-45772 PDF: SPF-45772 Rev B2 Date: Wednesday, September 26, 2019 Sheet 1 of 5												
5					4		3		2		1	

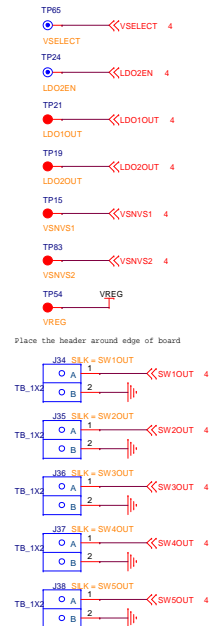
BLOCK DIAGRAM



POWER SUPPLY

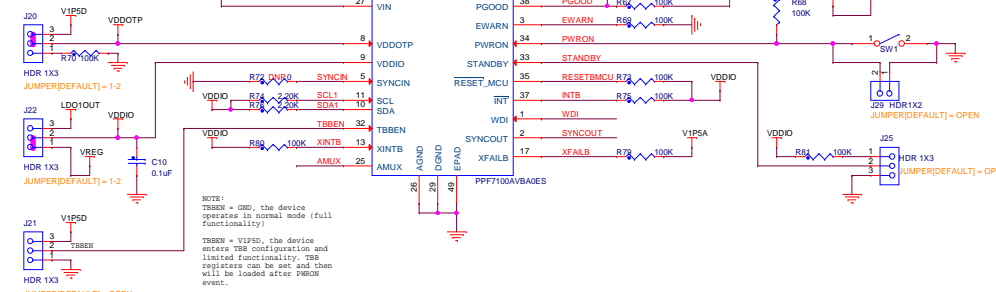


TEST POINT

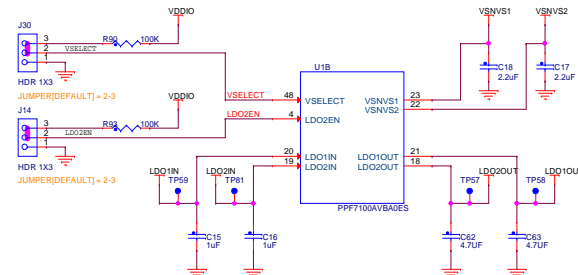


PMIC I/O

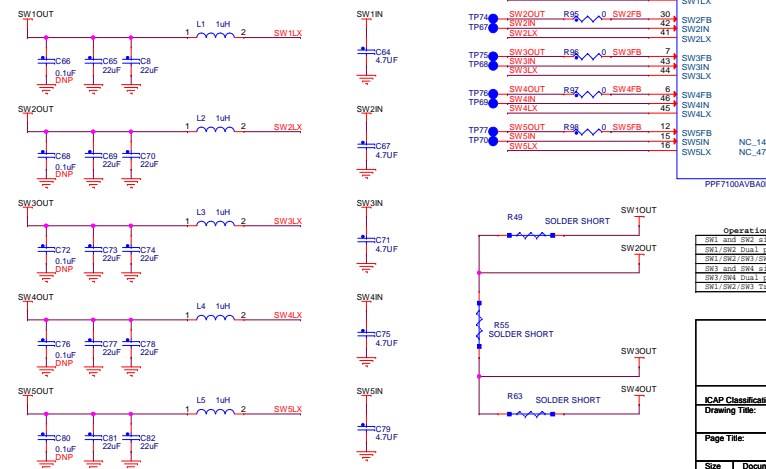
NOTE:
VDDOTP = GND, the device loads the configuration from the OTP Fuses
VDDOTP = VIPS0, the device loads the configuration from the default hardware configuration.



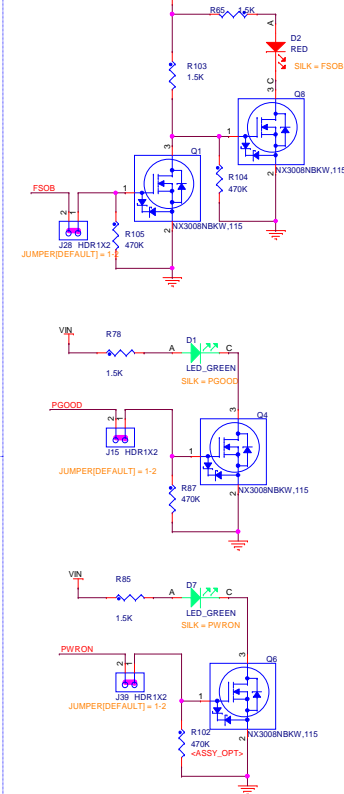
PMIC LDO's



PMIC SWITCHER's



LED

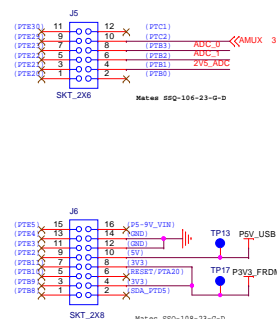
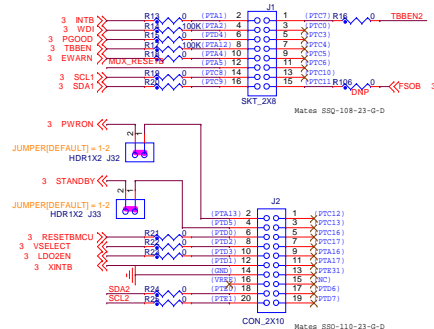


Operation mode
SW1 and SW2: Simple phase mode
SW1 and SW2: Dual phase mode
SW1 and SW2: SW1 phase mode
SW1 and SW2: SW2 phase mode
SW1 and SW2: SW1 phase mode
SW1 and SW2: SW2 phase mode

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KL25Z

2	1 - PITC7	PTE30 - 11
4	3 - PTC0	PTE29 - 9
6	5 - PTC3	PTE23 - 7
8	7 - PTC4	PTE22 - 6
10	9 - PTC5	PTE21 - 5
12	11 - PTC6	PTE20 - 1
14	13 - PTC10	
16	15 - PTC11	PTE5 - 15
2	1 - PTC12	PTE4 - 13
4	3 - PTC13	PTE3 - 11
6	5 - PTC16	PTE2 - 9
8	7 - PTC17	PTE11 - 7
10	9 - PTC10	PTE10 - 5
12	11 - PTA17	PTB9 - 3
14	13 - PTE31	PTB8 - 1
16	15 - NC	
18	17 - PTD6	
20	19 - PTD7	

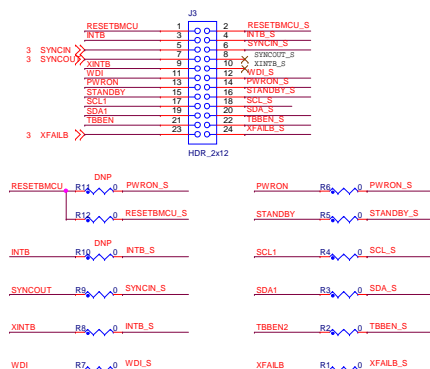


Populate the following connectors on the Freedom board (female with long pins, low insertion force):

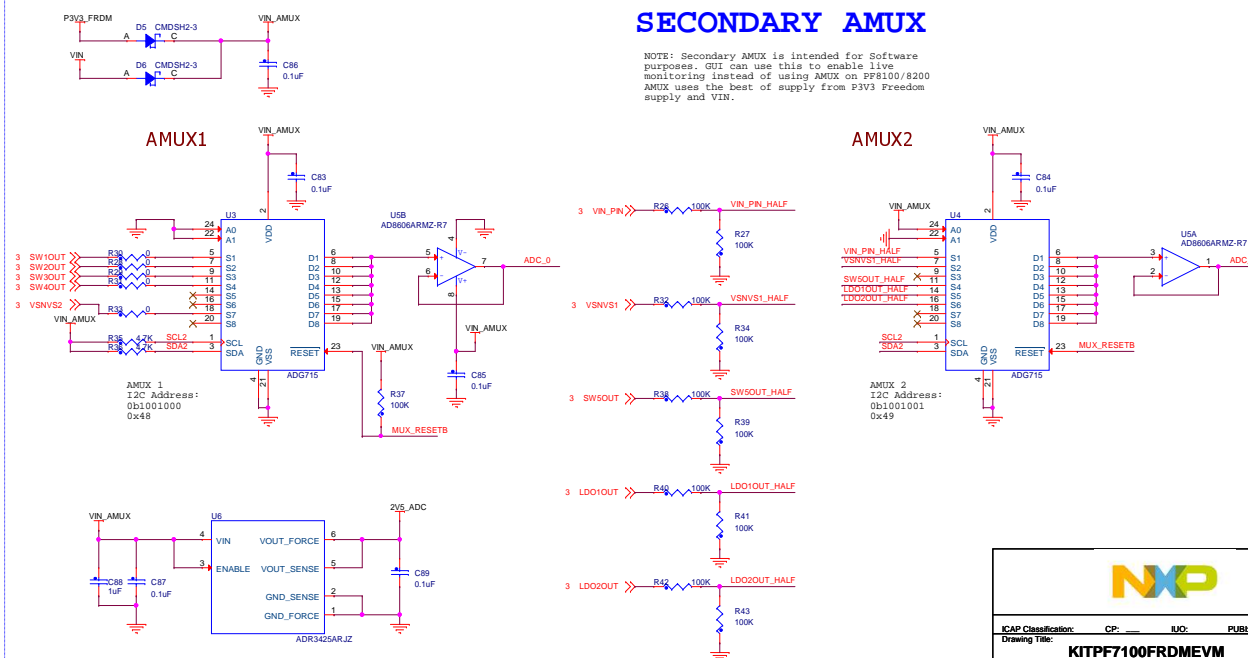
- SSQ-106-23-G-D / 210-80515
- SSQ-110-23-G-D / 210-80513
- SSQ-108-23-G-D (x2) / 210-80247

RAIL	VOLTAGE RANGE	AMUX/CHANNEL
SW1	0.4V to 1.8V, 2500mA	AMUX 1/CH 1
SW2	0.4V to 1.8V, 2500mA	AMUX 1/CH 2
SW3	0.4V to 1.8V, 2500mA	AMUX 1/CH 3
SW4	0.4V to 1.8V, 2500mA	AMUX 1/CH 4
RESERVED		AMUX 1/CH 5
RESERVED		AMUX 1/CH 6
VSNVS2	0.8V, 0.9V, 1.8V, 10mA	AMUX 1/CH 7
RESERVED		AMUX 1/CH 8
VIN	2.7V to 5.5V	AMUX 2/CH 1
VSNVS1	1.8V, 3.0V, 3.3V, 10mA	AMUX 2/CH 2
RESERVED		AMUX 2/CH 3
SW5	1.0V to 4.1V, 2500mA	AMUX 2/CH 4
LDO1	1.5V to 5V, 400mA	AMUX 2/CH 5
LDO2	1.5V to 5V, 400mA	AMUX 2/CH 6
RESERVED		AMUX 2/CH 7
RESERVED		AMUX 2/CH 8

NOTE: Use single 12 Row connector to connect Slave side from primary EVB to Master side of 2nd EVB. Resistors can be configured on primary board for specific configurations.



NOTE: Secondary AMUX is intended for Software purposes. GUI can use this to enable live monitoring instead of using AMUX on PF8100/8200. AMUX uses the best of supply from P3V3 Freedom supply and VIN.



ICAP Classification:		CP: _____	I/O: _____	PUB: X
Drawing Title:				
KITPF7100FRDMEVM				
Page Title:				
KL25Z I/O, Connector, AMUX				
Size C	Document Number			
	SCH-45772 PDF: SPF-45772			
Date:	Wednesday, September 25, 2019		Sheet	4

REF DES	JUMPER[DEFAULT]	JUMPER[OPTION]	PAGE NAME
J28,J7,J11,J31,J20,J39,J15,J22	1-2		03-PMIC
J27,J30,J14,J26	2-3		03-PMIC
J29,J25,J21	OPEN		03-PMIC
J12	1-2: VREG=3V3	2-3: VERG=1V8	03-PMIC
J33,J32	1-2		04-KL25Z I/O, CONNECTOR, AMUX

REF DES	ASSY. OPT	PAGE NAME
C72,C91,C80,C66,C2,C68,C90,R102,R72,C76	DNP	03-PMIC
R11,R106,R10	DNP	04-KL25Z I/O, CONNECTOR, AMUX



ICAP Classification:		CP: _____	I/O: _____	PUBL X
Drawing Title:		KITPF7100FRDMEVM		
Page Title:		APPENDIX JUMPER/DNPSWITCH		
Size C	Document Number	SCH-45772 PDF: SPF-45772		Rev B2
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