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3	Power Supply, Battery, uSD

Revisions & Change Log

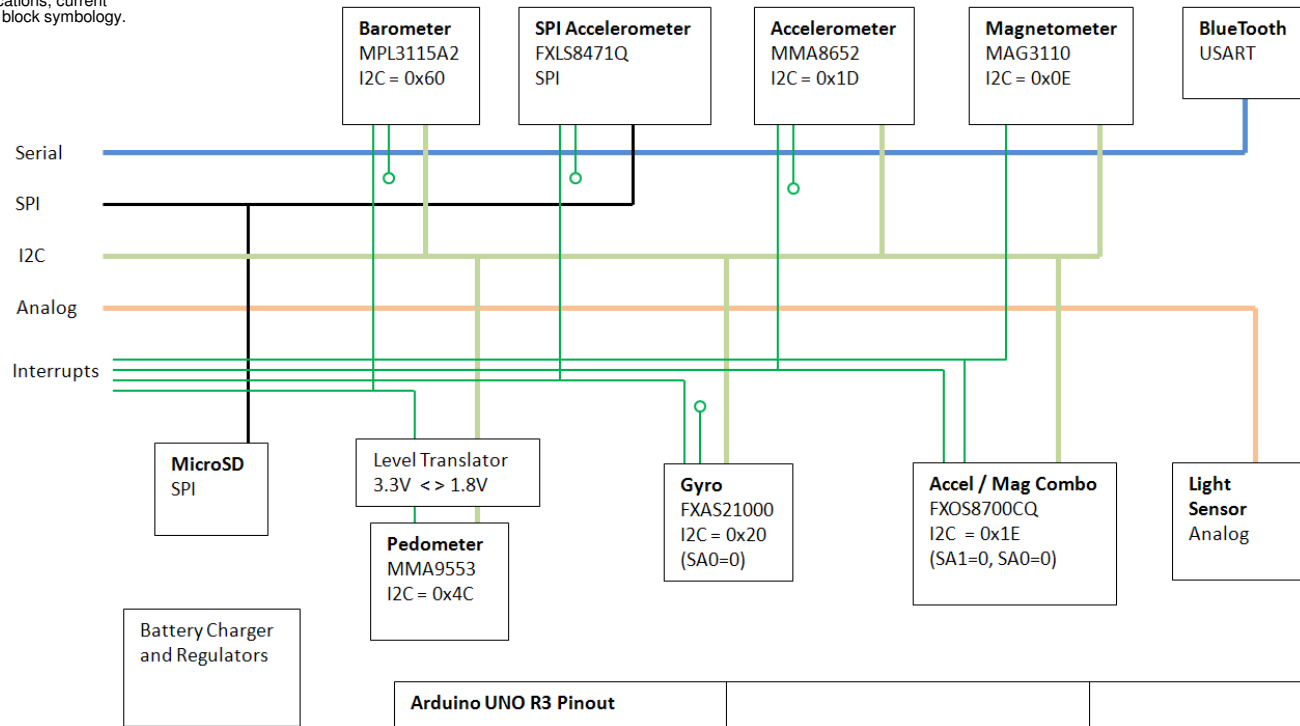
Rev	Description	Date	Approved
X1	27909 base Initial Draft	03/07/13	J. SCOTT
A	27909 Prototype Release	03/26/13	J. SCOTT
AX1	27982 (BT Version) Under Development	07/16/13	J. SCOTT
AX1	27982 (BT Version) PPL & A070 RELEASE	07/22/13	J. SCOTT
AX2	27982 (BT Version) Block Diagram Update	08/07/13	J. SCOTT
B	27982 (BT Version) Release candidate	08/23/13	J. SCOTT
BX1	27982 (UNDER DEVELOPMENT) I2C swap fix	09/25/13	J. SCOTT
C	27982 Release to prod. Block diagram update	09/27/13	J. SCOTT
C1	Fixing Name Ver.	12/12/13	J. SCOTT

FRDM-FXS-MULTI-B

		Automotive, Industrial & Multi-Market Solutions Group 6501 William Cannon Drive West Austin, TX 78735-6598	
ICAP Classification: FCP: FLUQ: PUB: X			
Designer: RAFAEL DEL REY	Drawing Title: FRDM-FXS-MULTI_B		
Drawn by: RAFAEL DEL REY	Page Title: TITLE PAGE		
Approved: JAMES SCOTT	Size C	Document Number SCH-27982 PDF: SPF-27982	Rev C1
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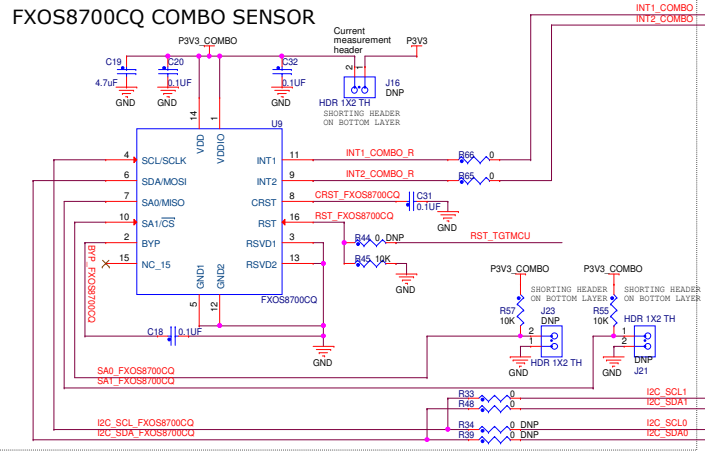
- Unless Otherwise Specified:
 All resistors are in ohms, 5%, 1/8 Watt
 All capacitors are in uF, 20%, 50V
 All voltages are DC
 All polarized capacitors are aluminum electrolytic
- Interrupted lines coded with the same letter or letter combinations are electrically connected.
- Device type number is for reference only. The number varies with the manufacturer.
- Special signal usage:
 _B Denotes - Active-Low Signal
 <> or [] Denotes - Vectored Signals
- Interpret diagram in accordance with American National Standards Institute specifications, current revision, with the exception of logic block symbology.

FRDM-FXS-MULTI Block Diagram

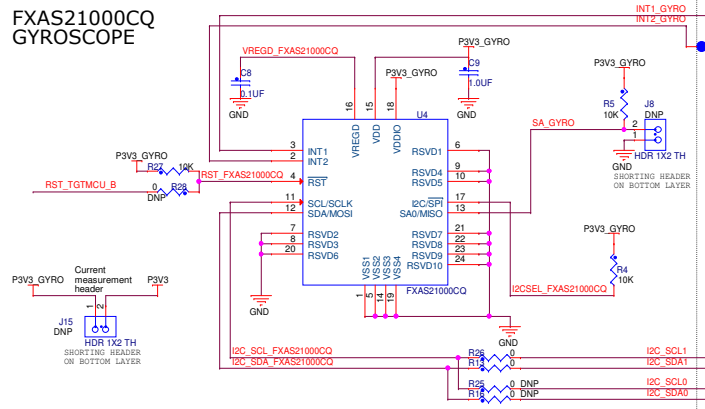


Arduino UNO R3 Pinout		
D0 = BlueTooth RX	D8 = Interrupt Pedometer or Pressure 1	A0 = BT_Wakeup
D1 = BlueTooth TX	D9 = test point	A1 = BT_Monitor
D2 = Interrupt Combo 1 or Mag	D10 = SPI_SS_SPI_ACCEL	A2 = SPI_SS_SD
D3 = test point	D11 = SPI_MOSI	A3 = Light Sensor Analog Signal
D4 = Interrupt Combo 2 or Accel 1	D12 = SPI_MISO	A4 = Main I2C Data
D5 = Interrupt Gyro or SPI Accel 1	D13 = SPI_CLK	A5 = Main I2C Clock
D6 = test point	D14 = Optional I2C Data	
D7 = test point	D15 = Optional I2C Clock	

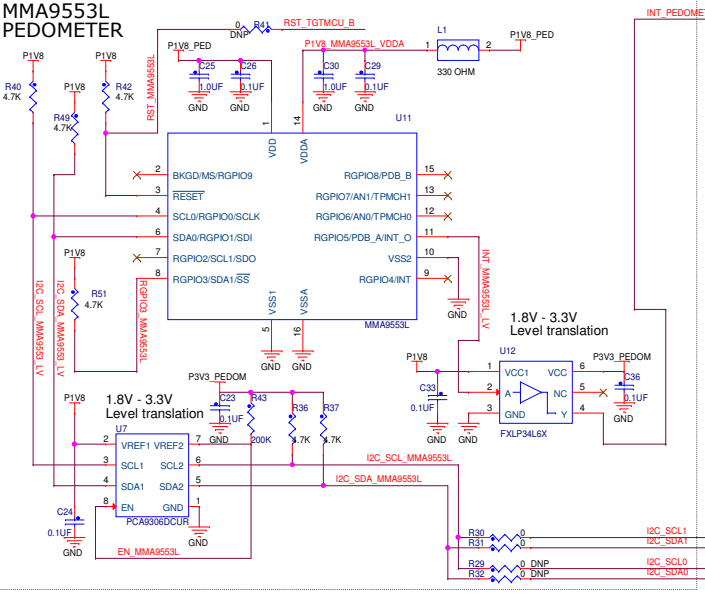
FXOS8700CQ COMBO SENSOR



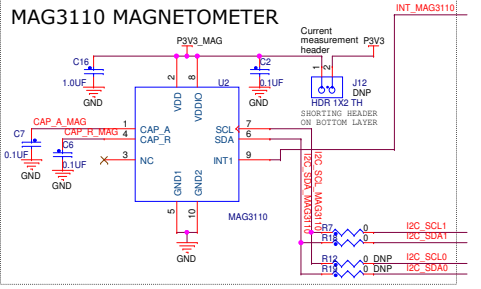
FXAS21000CQ GYROSCOPE



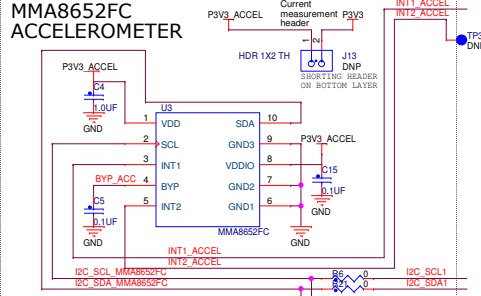
MMA9553L PEDOMETER



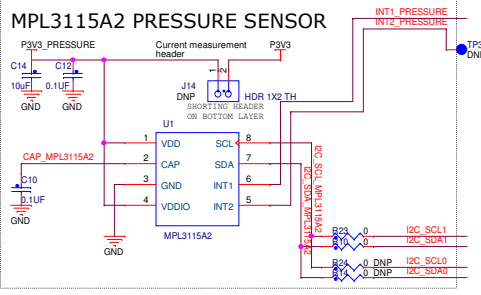
MAG3110 MAGNETOMETER



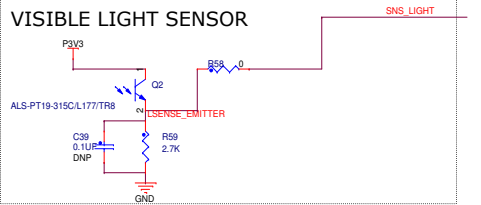
MMA8652FC ACCELEROMETER



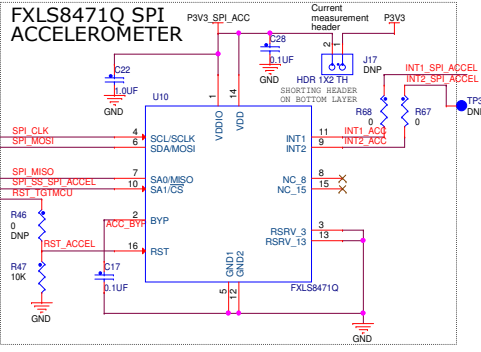
MPL3115A2 PRESSURE SENSOR



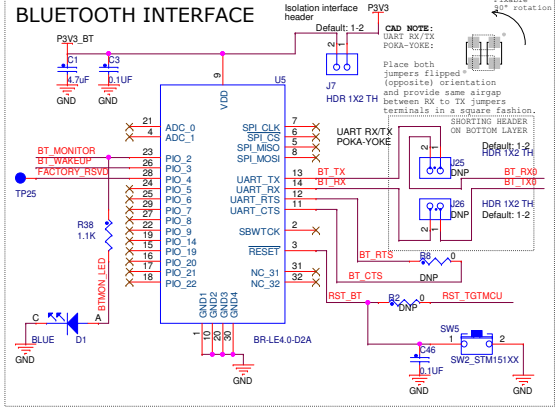
VISIBLE LIGHT SENSOR



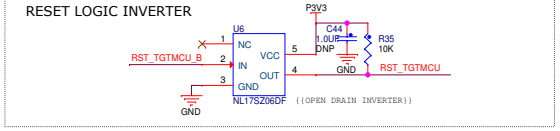
FXLS8471Q SPI ACCELEROMETER



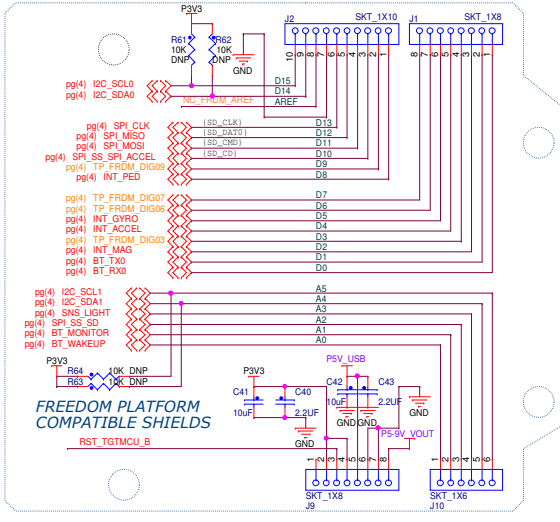
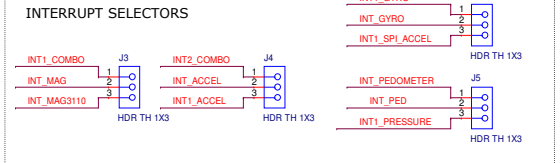
BLUETOOTH INTERFACE



RESET LOGIC INVERTER



INTERRUPT SELECTORS



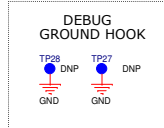
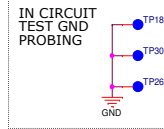
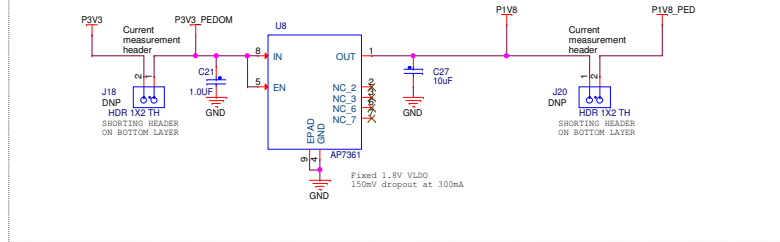
freescale

ICAP Classification: FCP. FUC: X. PUB: .
 Drawing Title: **FRDM-FXS-MULTI_B**

Page Title: **SENSORS**

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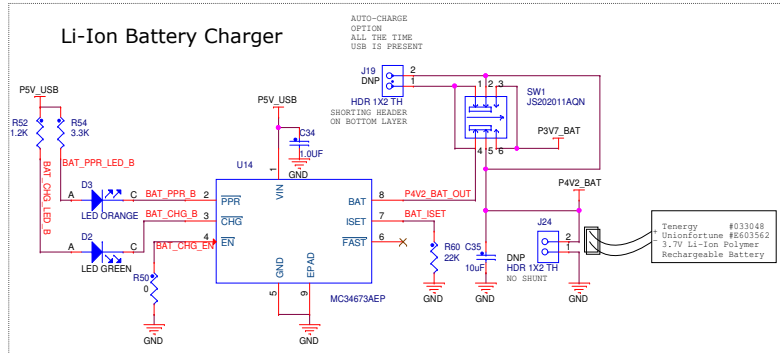
VOLTAGE REGULATION



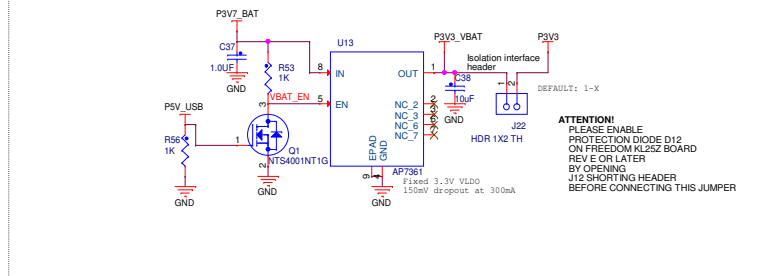
Prototyping Area Heading Signals

pg(3) I2C_SCL0	I2C_SCL0	D15	TP9
pg(3) I2C_SDA0	I2C_SDA0	D14	TP10
pg(3,4) SPL_CLK	SPL_CLK	D13	DNP
pg(3,4) SPI_MISO	SPI_MISO	D12	TP13
pg(3,4) SPI_MOSI	SPI_MOSI	D11	TP14
pg(3) SPI_SS_SPI_ACCEL	SPI_SS_SPI_ACCEL	D10	TP15
pg(3) TP_FRDM_DIG09	TP_FRDM_DIG09	D9	DNP
pg(3) INT_PED	INT_PED	D8	TP17
pg(3) TP_FRDM_DIG07	TP_FRDM_DIG07	D7	DNP
pg(3) TP_FRDM_DIG06	TP_FRDM_DIG06	D6	DNP
pg(3) INT_GYRO	INT_GYRO	D5	TP3
pg(3) INT_ACCEL	INT_ACCEL	D4	TP4
pg(3) TP_FRDM_DIG03	TP_FRDM_DIG03	D3	DNP
pg(3) INT_MAG	INT_MAG	D2	TP6
pg(3) BT_TX0	BT_TX0	D1	TP7
pg(3) BT_RX0	BT_RX0	D0	TP8
pg(3) I2C_SCL1	I2C_SCL1	A5	DNP
pg(3) I2C_SDA1	I2C_SDA1	A4	TP19
pg(3) SNS_LIGHT	SNS_LIGHT	A3	TP29
pg(3,4) SPI_SS_SD	SPI_SS_SD	A2	DNP
pg(3) BT_MONITOR	BT_MONITOR	A1	TP36
pg(3) BT_WAKEUP	BT_WAKEUP	A0	TP37
			TP11
			DNP

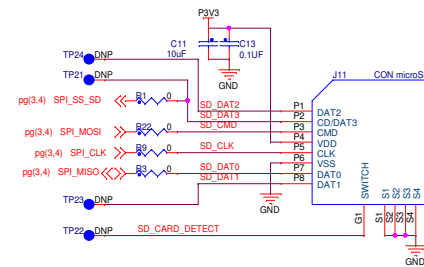
Li-Ion Battery Charger



Battery Regulation



microSD Card Connector, SPI Mode



ICAP Classification: FCP: FIUC: X PUB:

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