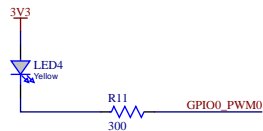
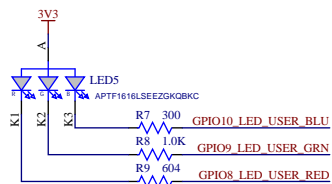


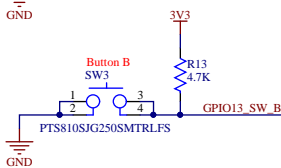
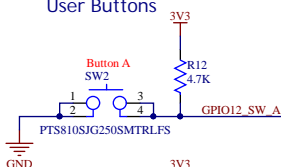
Rev. 1	2019-02-22	Preliminary release
Rev. 1	2019-05-09	Updated component attributes
Rev. 1	2019-11-29	<ul style="list-style-type: none"> - Used new Sphere Module with GPIO / I2C change - Changed MP6432 to MP6437 - Replaced MP4632 with MP4632C - Added TVS to Vbat - Added second 22uF cap to 5V as input to MP4632 <p>CLICK 1</p> <ul style="list-style-type: none"> - Changed pinning to Click 1 headers to be compatible to the ENET Click - Used SMD and GPIO5 (Required by Sphere OS for ENET) - Changed control line used for LED4 to GPIO35 - Replaced GPIO16 with GPIO19 (due to planned module pinning change) <p>CLICK 2</p> <ul style="list-style-type: none"> - Used SCL1 in Click 2 - Replaced GPIO17 with GPIO19 (due to planned module pinning change) <p>PMOD J13</p> <ul style="list-style-type: none"> - Used ENET1 - Replaced GPIO17 with GPIO19 (due to planned module pinning change) - Added Jumpers to configure PMOD pinout between Type2A and Type 3A
Rev. 2	2020-01-14	<ul style="list-style-type: none"> - Removed Ideal Diode components and 5V socket <p>CLICK 1</p> <ul style="list-style-type: none"> - Changed control line used for LED4 to GPIO35 - Replaced GPIO36 with GPIO2 <p>CLICK 2</p> <ul style="list-style-type: none"> - Replaced GPIO39 with GPIO35 <p>PMOD J13</p> <ul style="list-style-type: none"> - Removed jumpers and added 0-ohm resistors to configure PMOD pinout between Type2A and Type 3A <p>GPIO35</p> <ul style="list-style-type: none"> - Added config resistors to choose between I2C and UART (Only if Rev 2 is used)

NAME OF THIS PROJECT AES-MS-MT3620-SK-G-2		TITLE OF THIS SHEET Cover	
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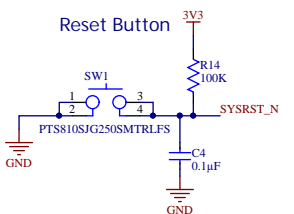
User LEDs



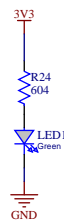
User Buttons



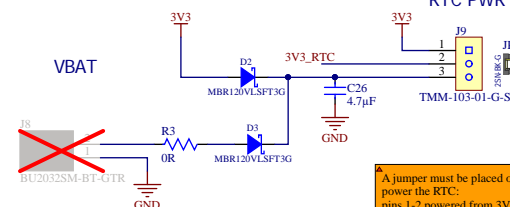
Reset Button



3V3 Power Supply LED

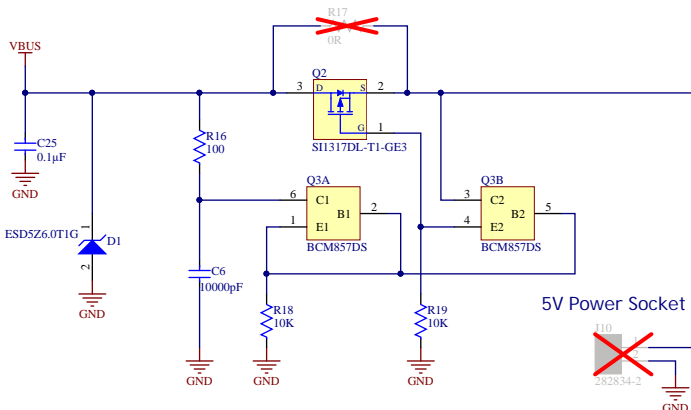


RTC PWR

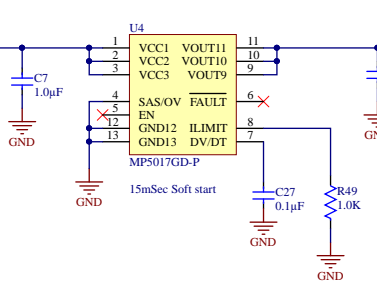


A jumper must be placed on J9 to power the RTC. pins 1-2 powered from 3V3 supply pins 2-3 powered from battery

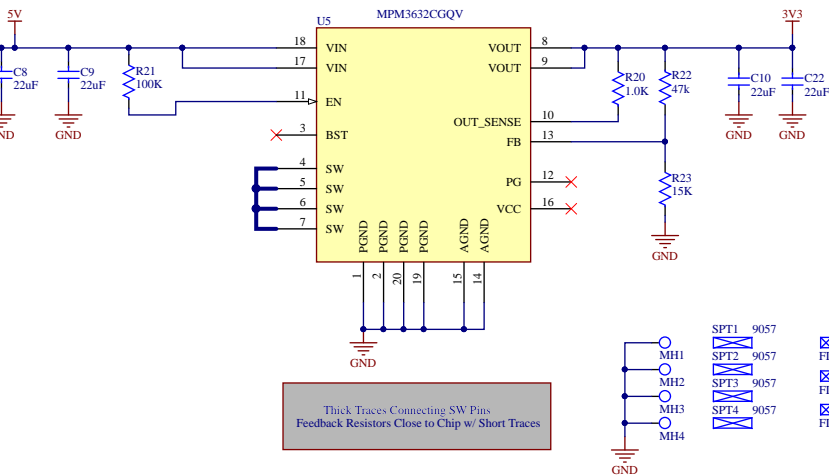
Ideal Diode



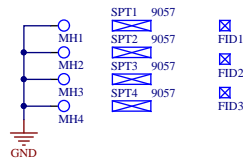
Over / Under Voltage Protection



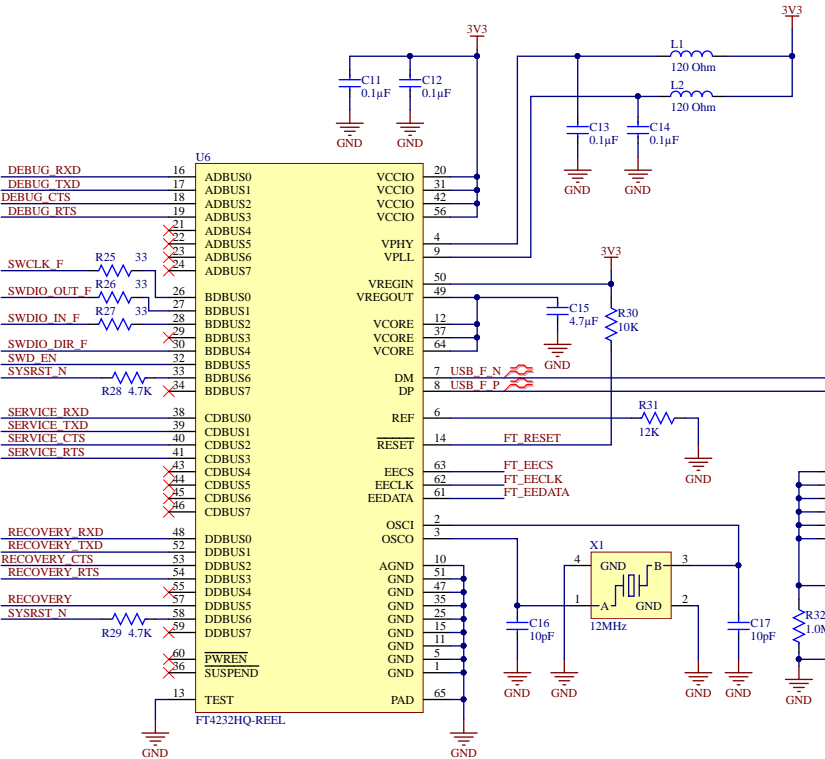
3V3 Buck Converter



Thick Traces Connecting SW Pins
Feedback Resistors Close to Chip w/ Short Traces



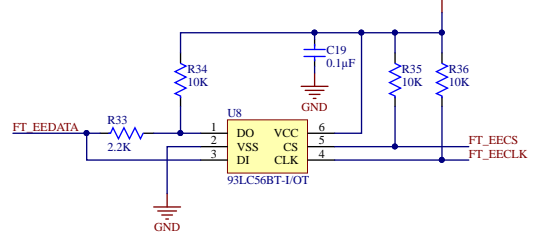
FTDI USB Interface



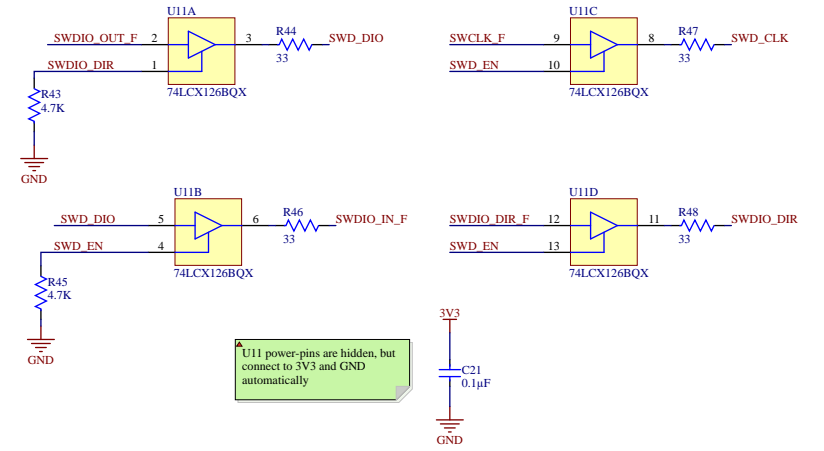
FTDI pin functions (Port C)

38	CDBUS0	TXD
39	CDBUS1	RXD
40	CDBUS2	RTS#
41	CDBUS3	CTS#
43	CDBUS4	DTR#
44	CDBUS5	DSR#
45	CDBUS6	DCD#
46	CDBUS7	RI# / TXDEN*

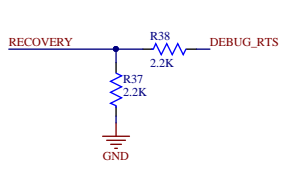
EEPROM for FTDI Chip



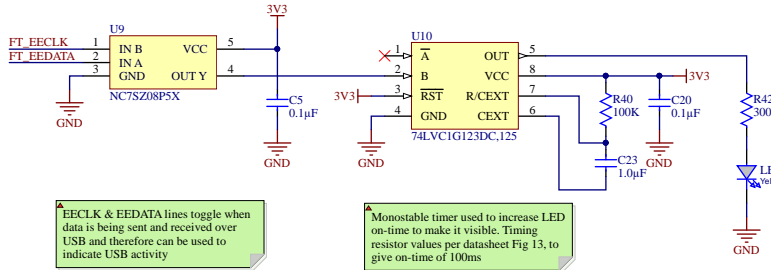
SWD_DIO Tri-state Buffer



FTDI Recovery



FTDI Activity LED



ECLK & EEDATA lines toggle when data is being sent and received over USB and therefore can be used to indicate USB activity

Monostable timer used to increase LED on-time to make it visible. Timing resistor values per datasheet Fig 13, to give on-time of 100ms

U11 power-pins are hidden, but connect to 3V3 and GND automatically

A

B

C

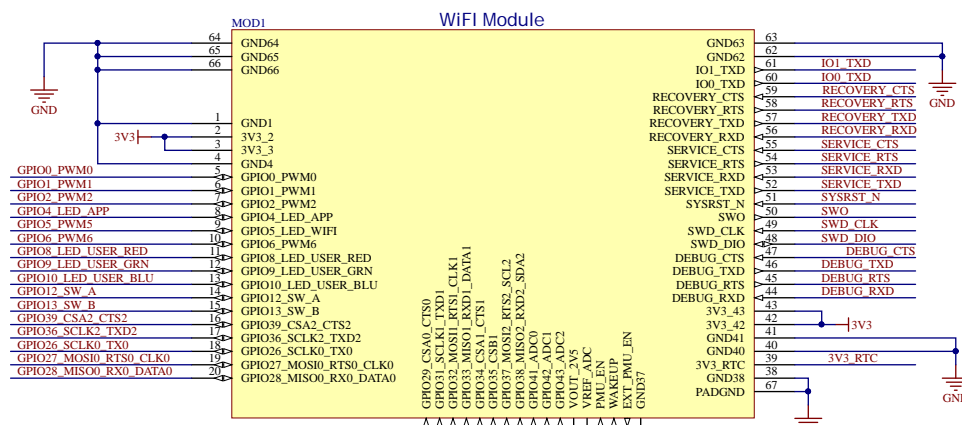
D

A

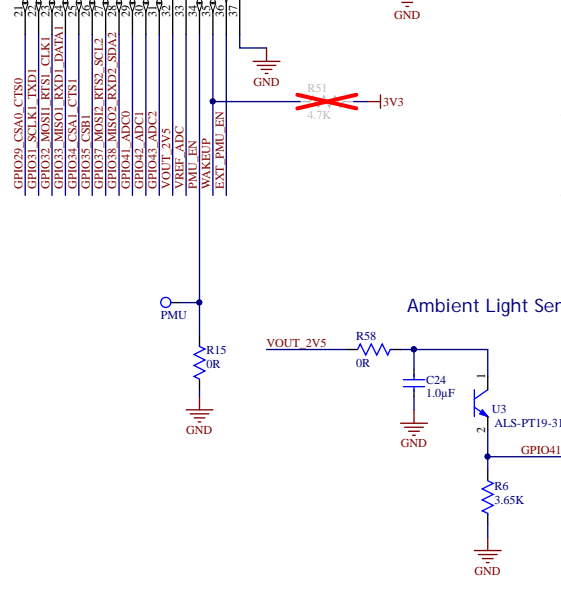
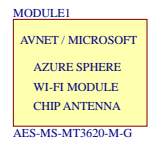
B

C

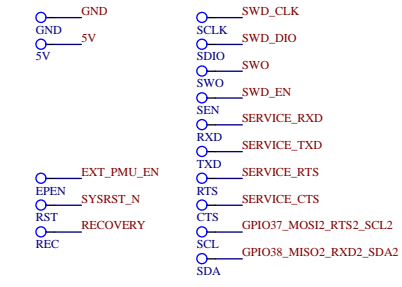
D



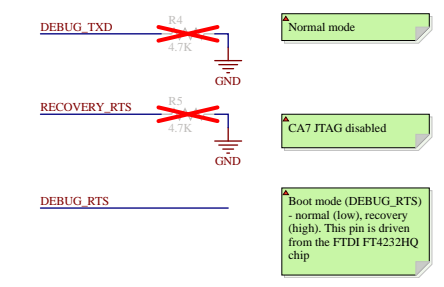
AES-MS-MT3620-M-G/AES-MS-MT3620-UFL-M-G Rev. 2



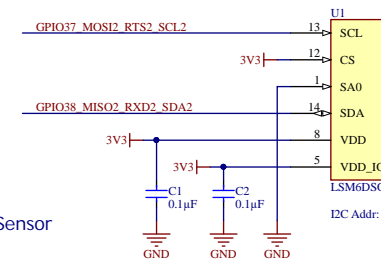
Test Points



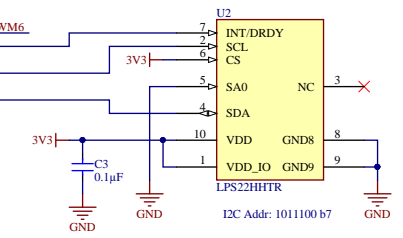
Strapping

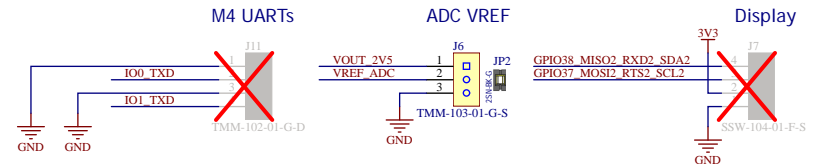
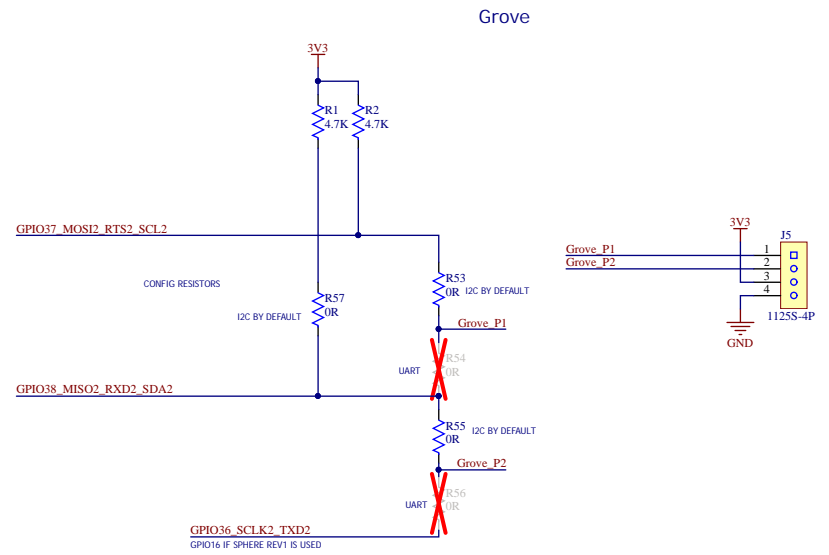
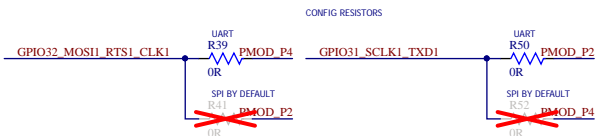
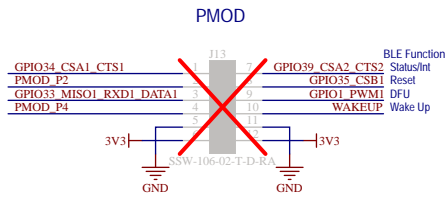
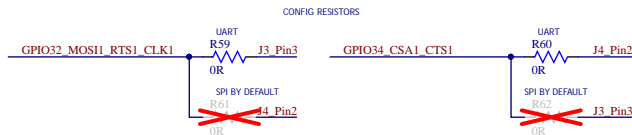
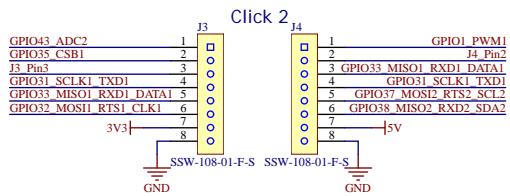
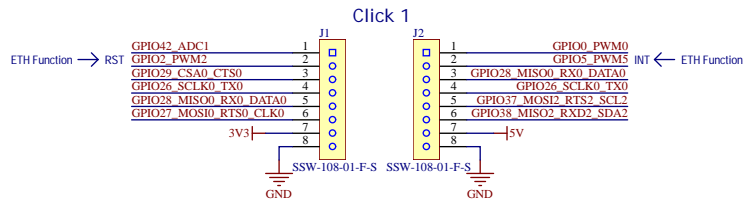


3D Accel & 3D Gyro (+/- 16g, +/-2000 dps)



MEMs Pressure Sensor (260 - 1260hPa Absolute)





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AES-MS-MT3620-SK-G-2

TITLE OF THIS SHEET
MT3620 CONNS

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