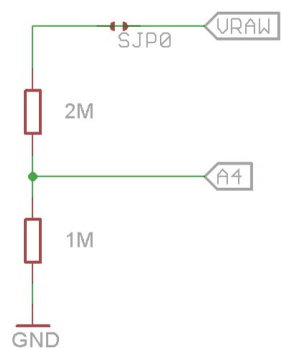
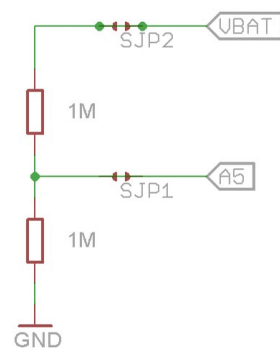


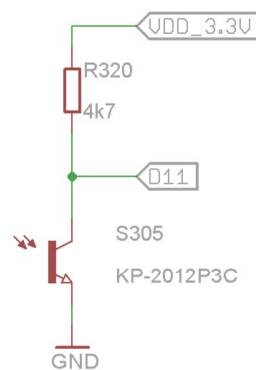
POWER MON



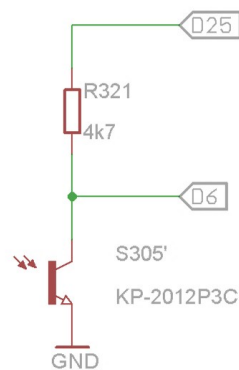
BATTERY MON



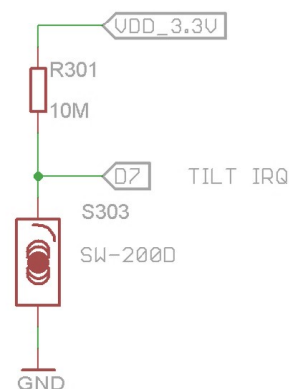
IR pri



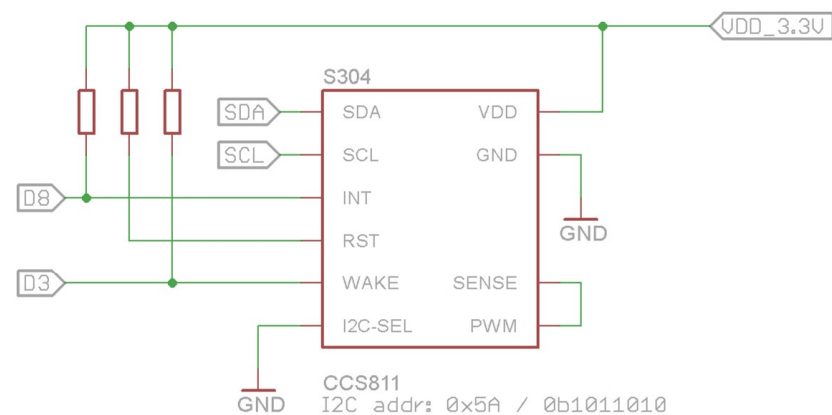
IR sec



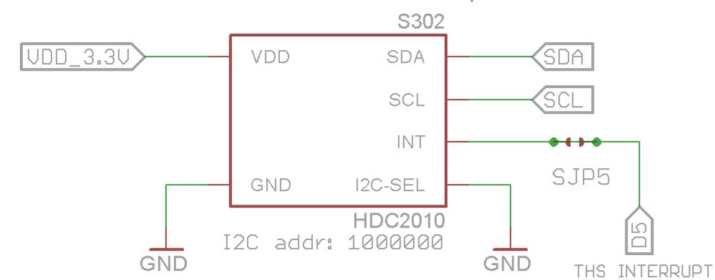
TILT [REED]*



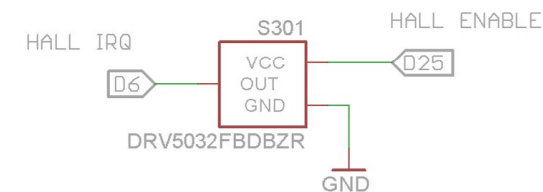
CO2 + VOC



Temp + Hum



HALL



PN sensors coding:

THS present - PN suffix like 1xxxxxx
 HALL present - PN suffix like x1xxxxx
 tVOC present - PN suffix like xxxx1xx
 TILT present - PN suffix like xx1xxxx
 REED present - PN suffix like xxx1xxx
 IR pri present - PN suffix like xxxxx1x
 IR sec present - PN suffix like xxxxxx1

Notes:

IR sec and HALL share the same resources and can not be available simultaneously

Same for TILT and REED*

SJP5 - default closed, open to free D5, but no IRQ will be available for THS

SJP0 - default closed, open to free A4

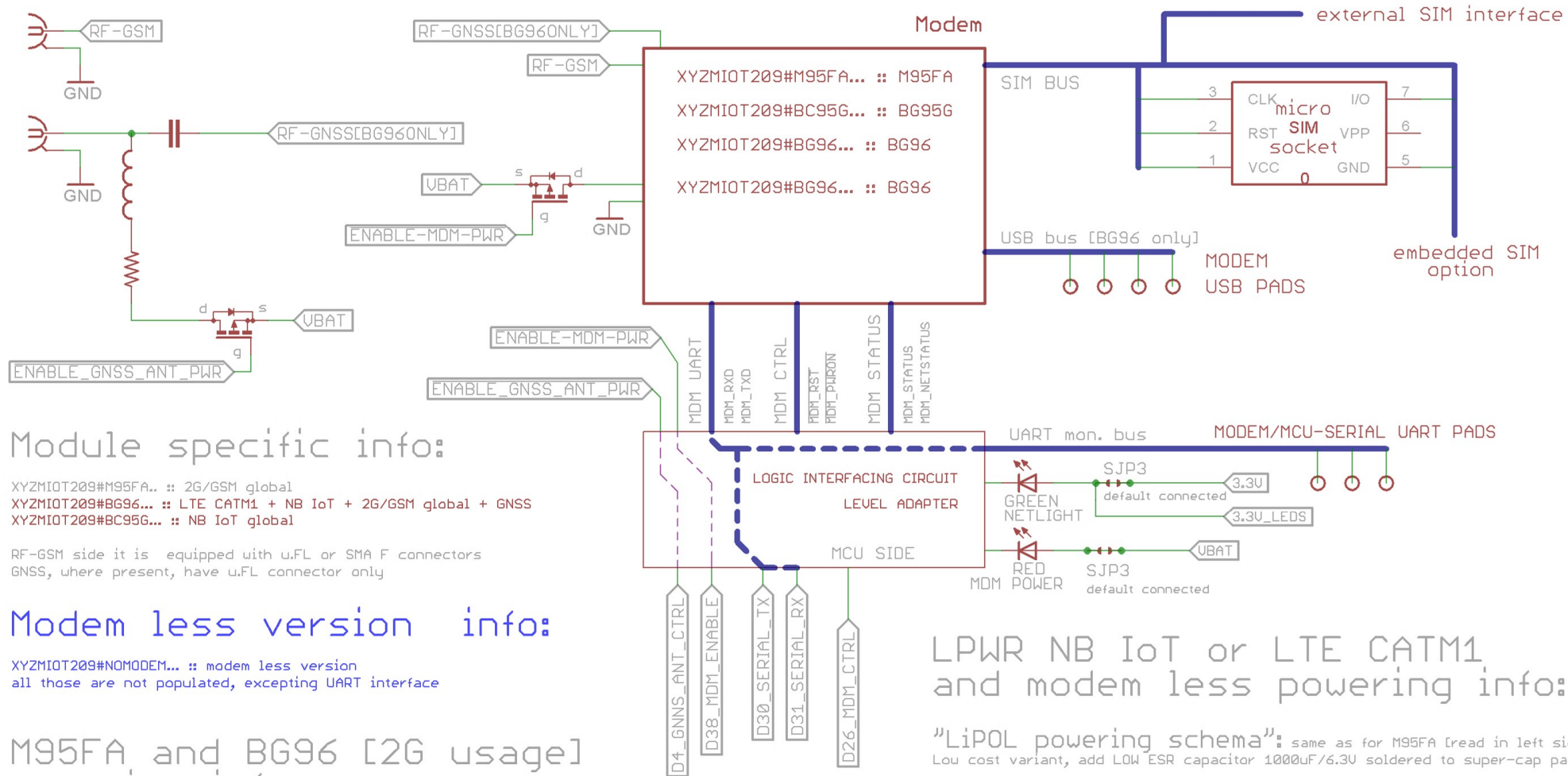
SJP1, SJP2 - default closed, open to free A5

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Title: xyz-mIoT_block_schema Drawn by: Dragos Iosub

Size: LETTER Ref.: xyz-mIoT shield [sensors] Rev.: 1.0

Date: 9/18/2018 8:56:54 PM Sheet: 2 of 3



Module specific info:

XYZMIOT209#M95FA... :: 2G/GSM global
 XYZMIOT209#BG96... :: LTE CATM1 + NB IoT + 2G/GSM global + GNSS
 XYZMIOT209#BC95G... :: NB IoT global

RF-GSM side it is equipped with u.FL or SMA F connectors
 GNSS, where present, have u.FL connector only

Modem less version info:

XYZMIOT209#NOMODEM... :: modem less version
 all those are not populated, excepting UART interface

M95FA and BG96 [2G usage] powering info:

"LiPOL powering schema": required Lithium Polymer battery or super-capacitor [1F/5V/ESR<0.100mOhm] connected to "LiPo / super-cap pads". Power via Ubat pin using 5V power source.

"w/o LiPOL powering schema": DO NOT CONNECT Lithium Polymer battery!!!
 Power via LIPOL+ pin. Power source requirements:
 - voltage 3.7-4.1V [max. voltage drop during the burst transmission 0.200V]
 - current requirements: 650-1000mA sustained, 2 A pulse capable.

"direct 5V powering schema": no LiPo required!!
 Power via LIPOL+ pin. INTERRUPT SJP8!!! Power source requirements:
 - voltage 5.0V [max. voltage drop during the burst transmission 0.200V]
 - current requirements: 650-1000mA sustained, 2 A pulse capable.
 Solder one LOW ESR capacitor 1500-2200uF/6.3V soldered to super-cap pads.

LPWR NB IoT or LTE CATM1 and modem less powering info:

"LiPOL powering schema": same as for M95FA [read in left side]. Low cost variant, add LOW ESR capacitor 1000uF/6.3V soldered to super-cap pads.

"w/o LiPOL powering schema": no LiPo required!!
 Power via LIPOL+ pin. Power source requirements:
 - voltage 3.7-4.1V [max. voltage drop during the burst transmission 0.200V]
 - current requirements: 100mA sustained, 350mA pulse capable.

"direct 5V powering schema": same as in left side, but;
 - current requirements: only 100mA sustained, 350mA pulse capable.

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Title: xyz-mIoT_block_schema		Drawn by: Dragos Iosub	
Size: LETTER	Ref.: xyz-mIoT shield [modem]		Rev.: 1.0
Date: 9/18/2018 9:21:02 PM		Sheet: 3 of 3	