VCC

C2 0.01uF
C3 0.1uF
GND GND

U2
MTK3339
FGPMMOPA6H
1 VCC NC 20
2 NRESET GND 19
3 GND NC 18
4 VBACKUP NC 17
5 3D-FIX NC 16
6 NC NC 15
7 NC RTCM 14
8 GND 1PPS 13
9 TX GND 12
10 RX EX_ANT 11

B1 CR927
R1 470R
GND
D1
GND
GPS_TX
GPS_RX
GND

ICSP
MISO
SCK
RESET
H1
DNP
VCC
MOSI
GND

U1
TMP75AIDGKR
1 SDA V+ 8
2 SCL A0 7
3 ALERT A1 6
4 GND A2 5
SDA
SCL
VCC VCC
C1 0.1uF
GND
GND GND

VCC
C4 2.2uF
GND
U4
FT230XS-R
10 3V3OUT TXD 1
VCC RXD 4
VCCIO RTS# 2
CTS# 6
9 USBDM CBUS0 15
8 USBDP CBUS1 14
11 RESET# CBUS2 13
CBUS3 16
GND
5 13
RX
TX
C6 0.1uF
RESET
GND GND

H2
VBUS
D-
D+
ID
GND
R7 27R
R8 27R
1981584-1
Micro USB
C7 0.1uF
GND

VCC
D2 1N4148
R2 10K
RESET
S1 PPushButton
GND

U3
ATMEGA328P-AU
29 PC6 (RESET) PC0 (ADC0) 23
18 AVCC PC1 (ADC1) 24
4 VCC PC2 (ADC2) 25
6 VCC PC3 (ADC3) 26
PC4 (ADC4/SDA) 27
PC5 (ADC5/SCL) 28
20 AREF ADC6 19
ADC7 22
C5 0.1uF
GND
PD0 (RXD) 30
PD1 (TXD) 31
X1 8Mhz RES
7 PB6 (XTAL1/TOSC1) PD2 (INT0) 32
8 PB7 (XTAL2/TOSC2) PD3 (INT1) 1
PD4 (XCK/T0) 2
PD5 (T1) 9
PD6 (AIN0) 10
PD7 (AIN1) 11
GND
PB0 (ICP) 12
PB1 (OC1A) 13
PB2 (SS/OC1B) 14
PB3 (MOSI/OC2) 15
PB4 (MISO) 16
PB5 (SCK) 17
5 AGND
3 GND
21 GND
GND

VCC
R3 4.7K R4 4.7K
SDA
SCL
R5 1K RX
R6 1K TX
D0 D1 D2 D3 D4 D5 D6 D7
D8 D9 D10 D11 D12 D13
R10 330R GPS_RX
R11 330R GPS_TX
MOSI
MISO
SCK
R12 470R
D3 Amber
GND

S2 Tactile_Switch
VCC
D4
R9 10K
GND

S3 Tactile_Switch
VCC
D5
R13 10K
GND

H3 TSW-102-07-L-S
9V Battery
D4 1N4148
S4 Power Switch
U5 LP2985-33DBVR
Vin Vout
ON/OFF BYPASS
GND
C9 4.7uF
C8 0.1uF
GND GND
R14 0R
VCC
3.3V
C10 4.7uF
GND

SDA
SCL
VCC
H4
Small OLED
3.3V Version
GND

Title
Arduino GPS Board
Size A2
Number
Revision 1
Date: 2/9/2015
Sheet 1 of 1
File: C:\utility\..\GPS_Schematic_Rev2.2.SchDoc
Drawn By: Mike R

C8
C10
H1
C9
U5
R14
D4
H3
C5
C7
R3
R4
U3
R11
R7
R8
U4
R10
B1
C4
R6
H2
R5
C6
S1
C1
U1
D2
R2
X1

Component list

Bill of Materials For Project [GPS_Board.PrjPCB] (No PCB Document Selected)

ALTIUM
Think it, Design it, Build it™

#	Designator	Quantity	Vendor	PartNumber	Description	Manufacturer	Comment
1	B1	1	DX.com	202984	Custom CR927 mount		CR927
2	C1, C3, C5, C6, C8	5			CAP CER 0.1uF, 0603		
3	C2	1			CAP CER 0.01uF, 0603		0.01uF
4	C4	1			2.2uF, 0602		2.2uF
5	C7	1			CAP CER 0.1uF, 0603		0.1uF
6	C9, C10	2			CAP CER 4.7uF, 1206		CAP_1206
7	D1	1			LED_0603		Green LED
8	D2, D4	2	Digikey	1N4148W-TP	DIODE SWITCH 100V 0.15A SOD123	Micro Commercial	1N4148
9	D3	1	Amber		LED_0603		LED_0603
10	H1	1	DNP		CONN HEADER 3X2POS .100" PADS		DNP
11	H2	1	Digi-Key	1981584-1	CONN RCPT MICRO USB TYPE AB	TE Connectivity	Micro USB
12	H3	1			CONN HEADER 2POS .100" SGL GOLD	Samtec	TSW-102-07-L-S
13	H4	1			CONN HEADER 4POS .100" SGL GOLD	Samtec	TSW-104-07-L-S
14	R1, R12	2			RES 0603		470R
15	R2, R9, R13	3			RES 0603		10K
16	R3, R4	2			RES 0603		4.7K
17	R5, R6	2			RES 0603		1K
18	R7, R8	2			RES 0603		27R
19	R10, R11	2			RES 0603		330R
20	R14	1			RES 0603		0R
21	S1	1	DX_SWITCH TACTILE	122514			PPushButton
22	S2, S3	2	Digikey	FSM6JSMA	SWITCH TACTILE SPST-NO 0.05A 12V	TE Connectivity	Tactile_Switch
23	S4	1	DX.com	122531	DX_SWITCH SLIDE SPDT R/A		
24	U1	1	Digikey	TMP75AIDGKR	IC DGTL TEMP SENSOR 2WIRE 8-MSOP	Maxim	TMP75AIDGKR
25	U2	1		FGPMMOPA6H	GPS Chip - FGPMMOPA6H	Global Top	MTK3339
26	U3	1	Digikey	ATMEGA328P-AU	MCU AVR 32K FLASH 32TQFP	Atmel	ATMEGA328P-AU
27	U4	1	Digikey	FT230XS-R	IC USB SERIAL BASIC UART 16SSOP	FTDI	FT230XS-R
28	U5	1	Digikey	LP2985-33DBVR	IC REG LDO 3.3V .15A SOT23-5	Texas Instruments	LP2985-33DBVR
29	X1	1	Digikey	CSTCE8M00G55-R0	CER RESONATOR 8.0MHZ SMD	Murata	

Approved

Notes