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TITLE: Artemis_Iridium_Tracker		
Design by: Paul Clark Based on the SparkFun Artemis and Qwiic ZOE-M8Q		REV: U1
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3.3V

D11

V_BCKP

1.8V Min

3A/10V/280mV

D12

3A/10V/280mV

L1

2.2uH

C11

4.7uF

GNSS

C13

0.1uF

GND

UBLOX_ZOE_M8-0-10

U4

VCC Range: 2.7 - 3.6V

I2C Address: 0x42

3V3SW/1

24*2

16

27

26

4

RF_IN

GND

*18

SDA/CS

SCL/CLK

RXD/MOSI

TXD/MISO

D_SEL

RTC_0

RTC_1

PI013/EXTINT

P1014

P1015

TIMEPULSE

SAFEBOOT

LNA_EN

RESET

SQT_G

SQT_0

NC

2

32

22

21

48

18

19

43

50

36

33

34

35

20

29*4

30*2

6*2

ARTEMIS_D9_SDA/3

ARTEMIS_D8_SCL/3

GPS_RX

GPS_TX

X2

32.768kHz

ARTEMIS_D10/3

SAFEBOOT

ARTEMIS_RESET/3

V_{USB}
 Nexperia
 PMEG4005J
 $V_F @ 100\mu A \approx 100mV$
 $0.5A / 40V / 420mV$
 $R15 =$
 $(5 - (3.1 + 0.1)) / 30E-6$
 $\approx 60K$
 62KOHM-0603-1/10W-5%
 V_{BCKP}
 B1
 SII ML414H
 1.0mAh (3.1V-2.0V) 600Ω
 Pb-free rechargeable
 Charger: Constant Current /
 Constant Voltage 3.1V, max.30μA,
 72hr, RT
 GND

** !! Make sure 3V3SW and EXT_PWR are not enabled simultaneously !! **

For a 1.55mm PCB, 50 Ohm antenna traces should be 32 mil with 4 mil gap

A good choice for the antenna is the Maxtena M1600HCT-P-SMA which is tuned for Iridium, GPS and GLONASS

U6
MS8607-02BA01

3.3V

0.22µF

GND

VDD
NC_1
GND
NC_2

SCL
SDA
NC_4
NC_3

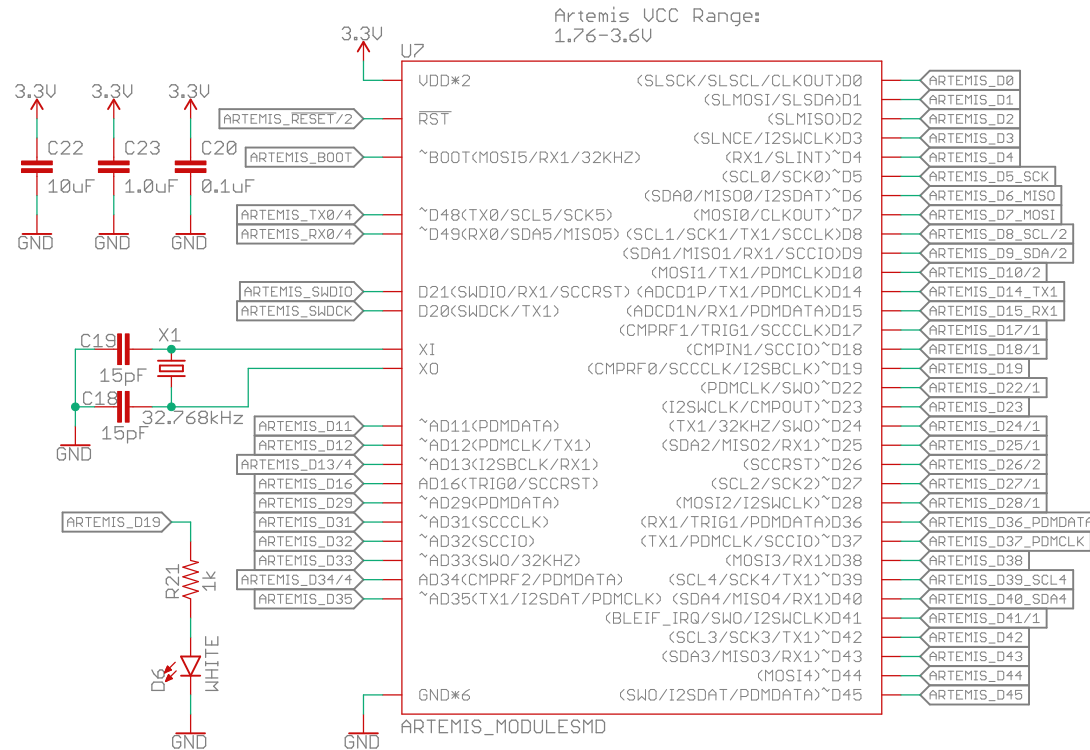
ARTEMIS_D8_SCL/3
ARTEMIS_D9_SDA/3

UDD Range: 1.5 - 3.6V

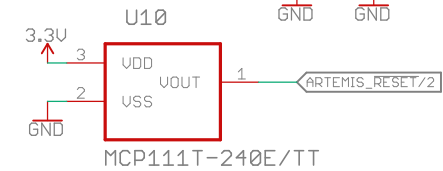
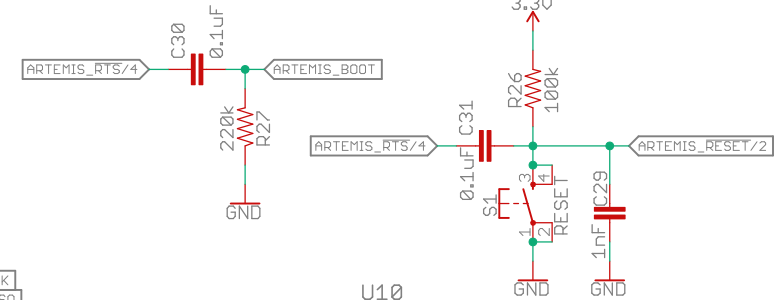
I2C Addresses:
Pressure & Temperature: 0x76
Relative Humidity: 0x40

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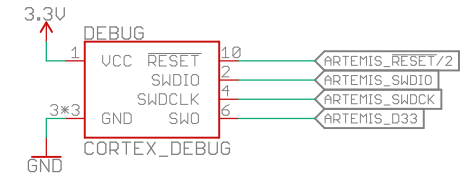
Artemis (Apollo3)



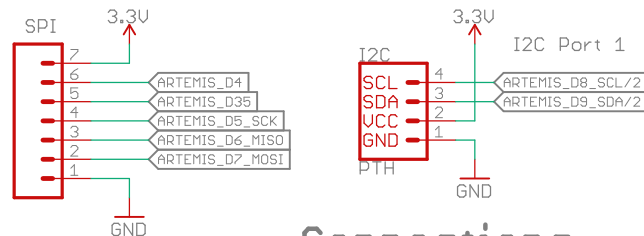
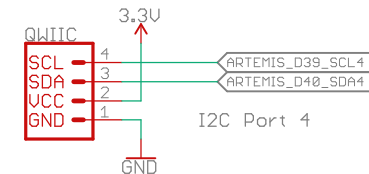
Bootloader Reset Circuit



SWD Program/Debug Interface



I2C/Qwiic



Connections

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