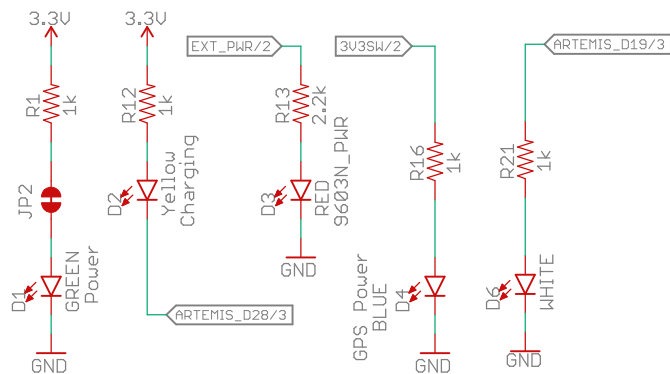
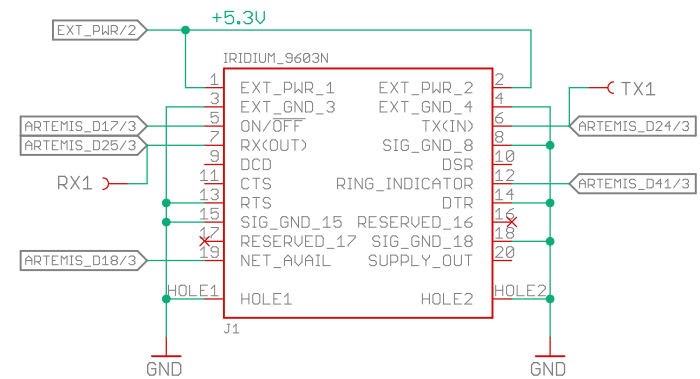


## LEDs



## Iridium 9603N



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TITLE: Artemis\_Iridium\_Tracker

Design by: Paul Clark  
Based on the SparkFun Artemis  
and Qwiic ZOE-M8Q

REV:  
V2

Date: 18/02/2020 16:24

Sheet: 1/4

3.3V

D11

U\_BCKP

1.8V Min

0.5A/40V/420mV

D12

0.5A/40V/420mV

L1

2.2uH

C11

4.7uF

GND

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

1\*18

GND

UCC

U\_BCKP

U\_CORE

U\_DCDC\_OUT

RF\_IN

GND

SDA/CS

SCL/CLK

RXD/MOSI

TXD/MISO

D\_SEL

RTC\_0

RTC\_1

PI013/EXTINT

P1014

P1015

TIMEPULSE

SAFEBOOT

LNA\_EN

RESET

SQI\_G

SQI\_O

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

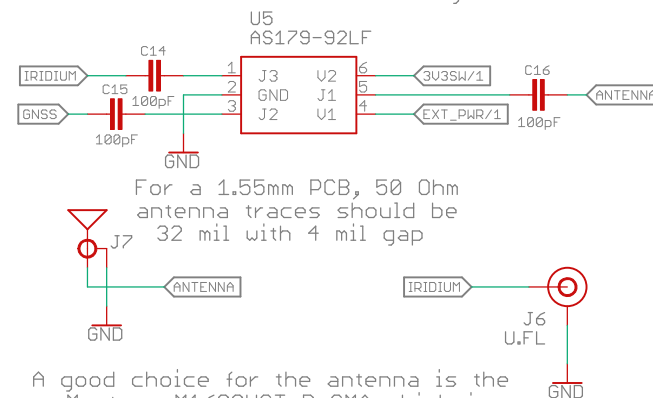
ARTEMIS\_D10/3

SAFEBOOT

ARTEMIS\_RESET/3

$V_{USB}$   
 Nexperia  
 PMEG4005EJ  
 $V_F @ 100\mu A \approx 100mV$   
 $0.5A/40V/420mV$   
 $R15 =$   
 $(5 - (3.1 + 0.1)) / 30E-6$   
 $= \sim 60K$   
 62KOHM-0603-1/10W-5%  
 $U_{BCKP}$   
 B1  
 SII ML414H  
 1.0mAh (3.1V-2.0V) 600Ω  
 Pb-free reflowable  
 Charger: Constant Current /  
 Constant Voltage 3.1V, max.30µA,  
 2hr, RT

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



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

1 VDD

3 GND

8 SCL

7 SDA

ARTEMIS\_D8\_SCL/3

ARTEMIS\_D9\_SDA/3

VDD Range: 1.5 - 3.6V

```

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

```

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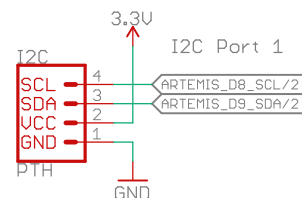
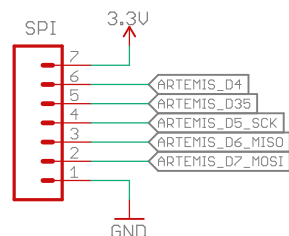
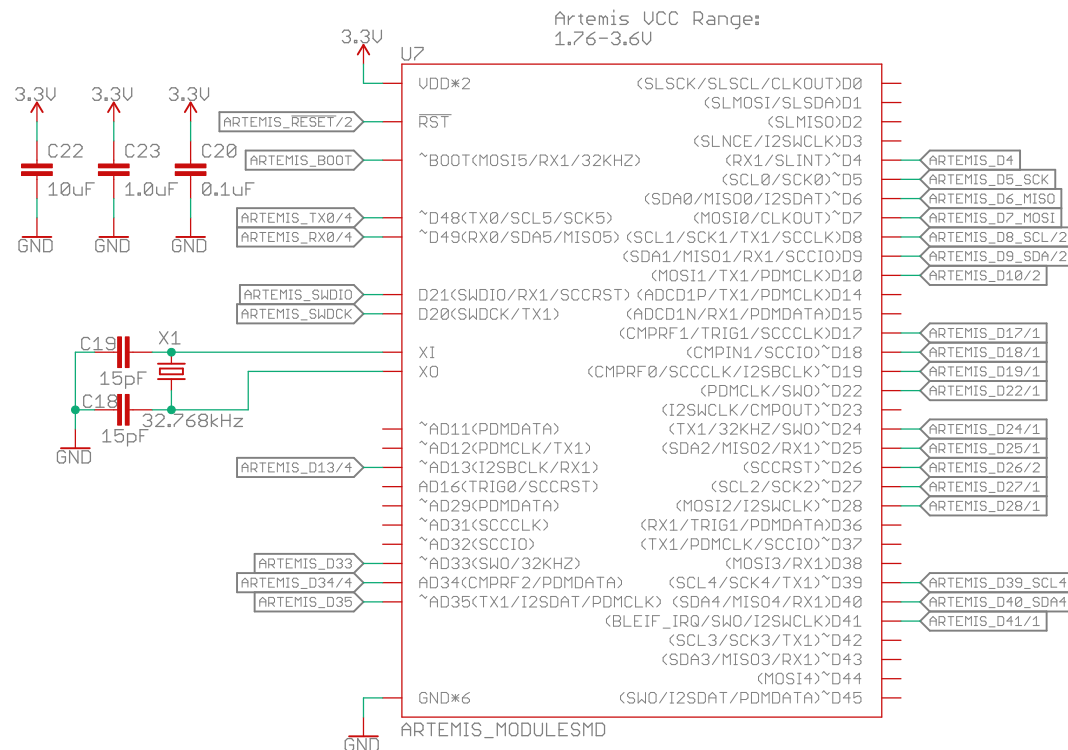
Design by:	Paul Clark Based on the SparkFun Artemis and Qwiic ZOE-M8Q
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REV:  
V2

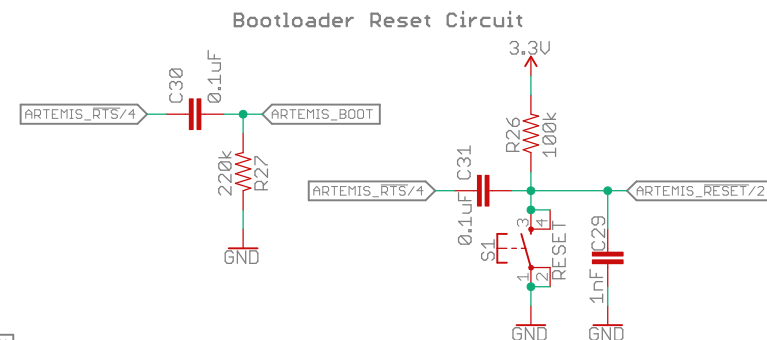
Date: 18/02/2020 16:24

Sheet: 2/4

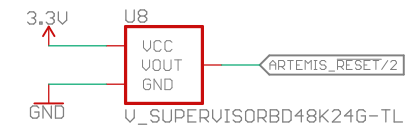
## Artemis (Apollo3)



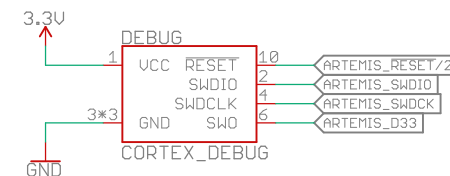
## Connections



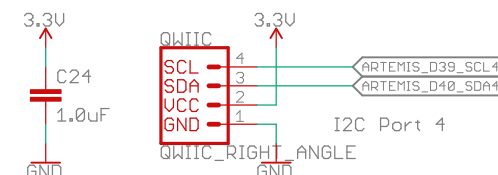
2.4V Reset Supervisor  
(Ensures a clean start on solar power)



## SWD Program/Debug Interface



## I2C/Qwiic



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TITLE: Artemis\_Iridium\_Tracker

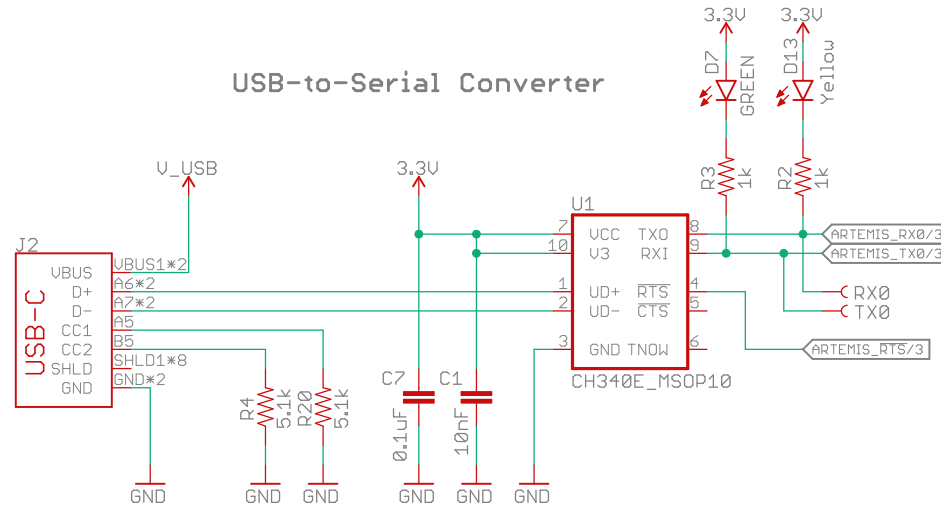
Design by:	Paul Clark Based on the SparkFun Artemis and Qwiic ZOE-M8Q
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REV:  
V2

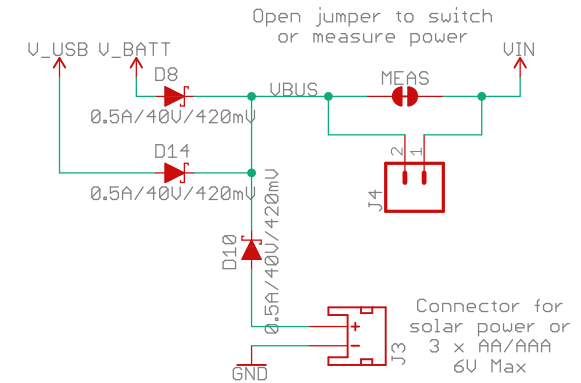
Date: 18/02/2020 16:24

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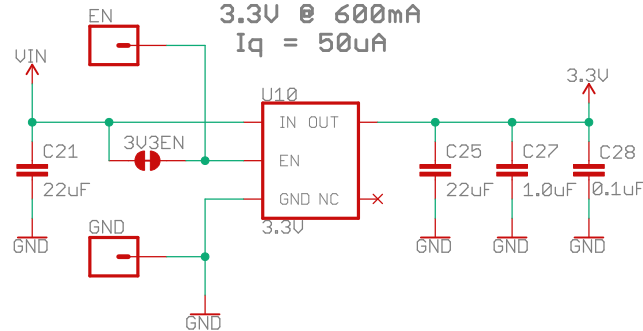
## USB-to-Serial Converter



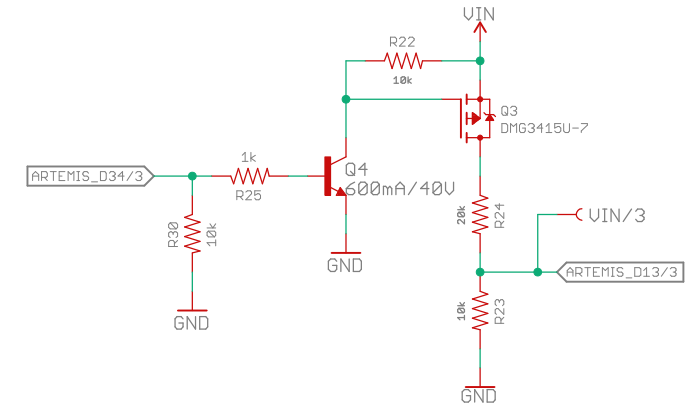
## Power Source Select



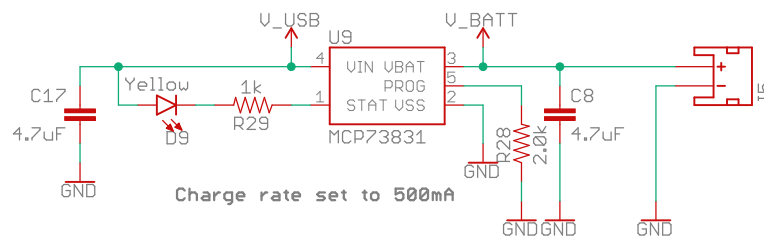
## 3.3V @ 600mA Iq = 50uA



## Bus Voltage Measurement



## USB/LiPo Charger



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Sheet: 4/4