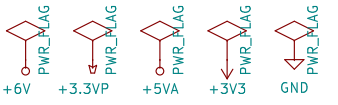
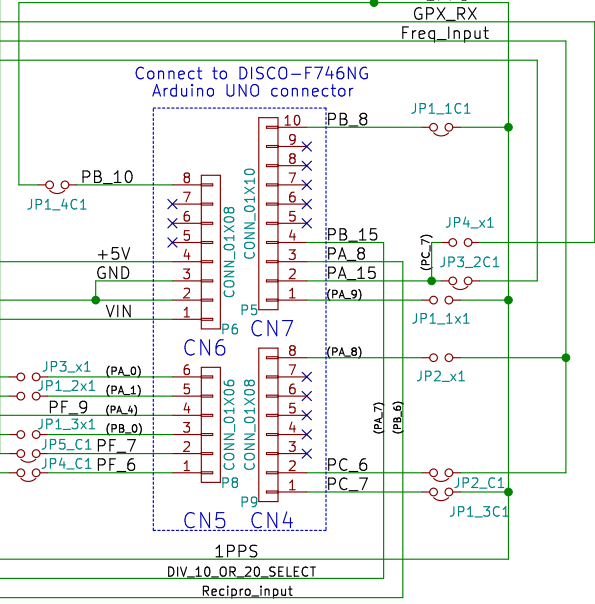
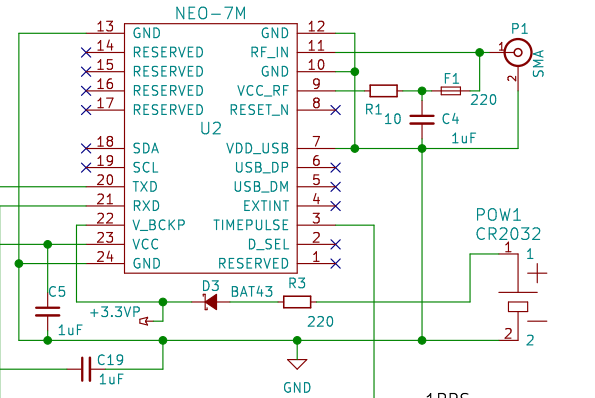
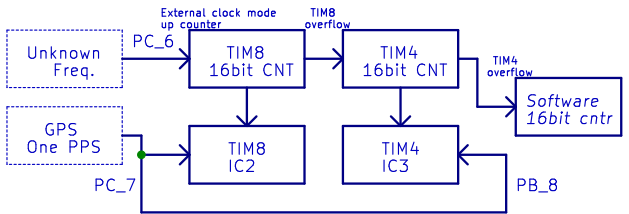


- 1) 48bit (16bit SW(MSB) + 16bit TIM4 + 16bit TIM8(LSB)) up counter counts "Unknown Frequency(measuring freq.) value".
- 2) TIM8 Input Capture (IC) latches TIM8 counter value with GPS One PPS (1 second accurate signal) rising edge.
- 3) At the same time, TIM4 Input Capture (IC) latches TIM4 counter value with "One PPS" rising edge.
- 4) The difference between previous 48bit data and current data is a "Unknown Frequency value"



CAUTION Need to modify following part on DISCO-F746NG board

- 1) Cut PB10(ULPI D3) line to U15 pin6
- 2) PB10 connects CN6 Pin1 (original N.C.)

Measurement frequency range: 10Hz to 100MHz
 Up to 1GHz (Div 10/20 prescaler) or down to 0.01Hz (reciprocal)
 Power Supply: +6V 2A
CPU: mbed DISCO-F746NG

Updated on November 14th, 2016
 By Kenji Arai
<http://www.page.sannet.ne.jp/kenjia/index.html>
JH1PJL
 Sheet: /
 File: frq_cntr_v4_F746NG.sch

Title: Frequency Counter using GPS 1PPS signal

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