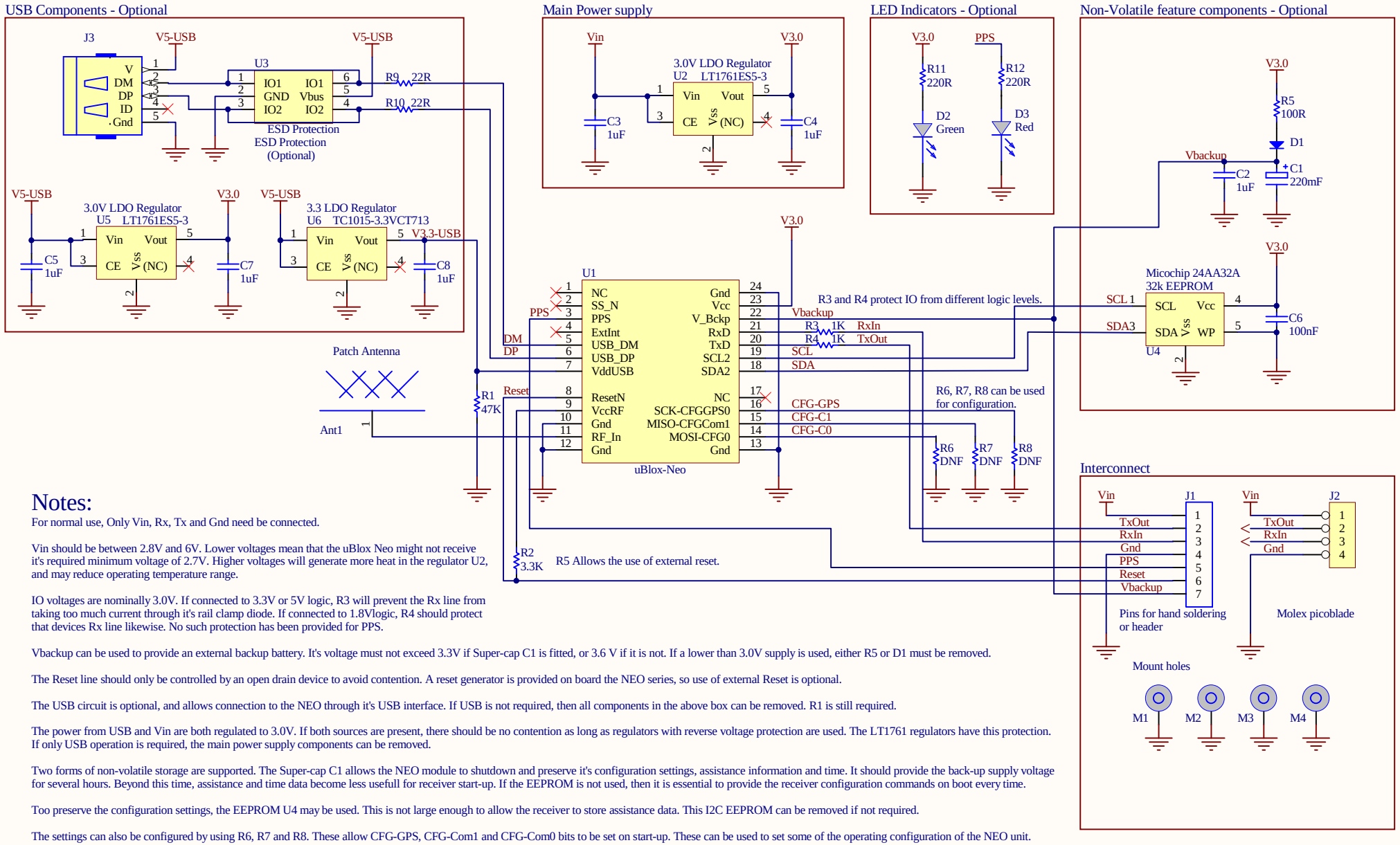

Notes:

For normal use, Only Vin, Rx, Tx and Gnd need be connected.

Vin should be between 2.8V and 6V. Lower voltages mean that the uBlox Neo might not receive it's required minimum voltage of 2.7V. Higher voltages will generate more heat in the regulator U2, and may reduce operating temperature range.

IO voltages are nominally 3.0V. If connected to 3.3V or 5V logic, R3 will prevent the Rx line from taking too much current through it's rail clamp diode. If connected to 1.8Vlogic, R4 should protect that devices Rx line likewise. No such protection has been provided for PPS.

Vbackup can be used to provide an external backup battery. It's voltage must not exceed 3.3V if Super-cap C1 is fitted, or 3.6 V if it is not. If a lower than 3.0V supply is used, either R5 or D1 must be removed.

The Reset line should only be controlled by an open drain device to avoid contention. A reset generator is provided on board the NEO series, so use of external Reset is optional.

The USB circuit is optional, and allows connection to the NEO through it's USB interface. If USB is not required, then all components in the above box can be removed. R1 is still required.

The power from USB and Vin are both regulated to 3.0V. If both sources are present, there should be no contention as long as regulators with reverse voltage protection are used. The LT1761 regulators have this protection. If only USB operation is required, the main power supply components can be removed.

Two forms of non-volatile storage are supported. The Super-cap C1 allows the NEO module to shutdown and preserve it's configuration settings, assistance information and time. It should provide the back-up supply voltage for several hours. Beyond this time, assistance and time data become less usefull for receiver start-up. If the EEPROM is not used, then it is essential to provide the receiver configuration commands on boot every time.

Too preserve the configuration settings, the EEPROM U4 may be used. This is not large enough to allow the receiver to store assistance data. This I2C EEPROM can be removed if not required.

The settings can also be configured by using R6, R7 and R8. These allow CFG-GPS, CFG-Com1 and CFG-Com0 bits to be set on start-up. These can be used to set some of the operating configuration of the NEO unit.

Two LED's can be used. These are not required. If fitted, D2 will show the presence of power from either Vin or USB. D3 is connected to PPS, and will show the unit is tracking, as long as the PPS is configured for a fairly long pulse, say 100ms. If the PPS is configured for a pulse of several us, then this will not be visible on the LED.

Title	***uBlox NEO Adapter***		*AeroFu* *PO Box 5166* *Kingston* *NSW* *Australia 2606*
Size: A4	Number:	Revision: 0.1	
Date: 03/02/2012		Sheet 1 of 1	
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