

To: Jack Kelly  
From: Jack Kelly  
Date: June 3, 2018  
Subject: DeBug Log for Explorer HAT Rev B to Rev B1

1. Q3 (Item 24) changed from Transistor NPN PN: MMBT2222ALT1G to MOSFET N-Chan PN: BSS138-7-F  
No change in layout both parts are SOT-23
2. Added R38 Resistor 1M ohm 0603 1%, layout changed to add resistor
3. Schematic updated
4. BOM updated for Q3 change and added R38

The two problems were fixed with the update to Rev B1.  
The “Charging” LED would not go off when the battery was charged.  
Also, the “Charging” signal to the Raspberry Pi (GPIO21) was always high.

The Explorer HAT Rev B fix is to remove part Q3.  
This will fix the “Charging” LED problem but will not fix the “Charging” signal to the Raspberry Pi (GPIO21).