Swell Alert
Controls, Indicators and Interconnects

Eric Goodman, Ryan Summers, Adam Sundberg, and Outhone Bounkhoun
1 - 5V power supply input  
This is the input which is stepped down from in order to power all of the board except the LCD backlight.

2 - 19V power supply input  
Power for the LCD backlight.

3 - Master Reset  
All modules except processor, SRAM, and GPS. Press this button in order to reset all other external modules.

4 - Boot Select  
This toggle button is used in order to choose which mode to put the board into, either Load to board or Run.

5 - SD Reader  
Via 4 bit used as memory for the MP3 Decoder (could use this or SD Reader Via SPI has not been determined which one will be used yet).

6 - Secondary SD Reader  
Via SPI used as memory for the MP3 Decoder.

7 - RS-232  
Connector between the programming PC and the Swell Alert board.

8 - Molex Connector for GPS  
External GPS connects here. Wiring from left to right: Ground, GPS RX, GPS TX, 3.3V Power

9 - Connector for WIFI module  
External WIFI module. Roving Networks’ product RN171XV

10 - LCD Connector  
Both the CPT and LCD connector that connects to external display. Connections are for a 3.5 inch touchscreen with part number NHD-3.5-320240MF-ATXL#-CTP

11 - Audio Out  
Standard 3.5mm jack for music output to speakers.

12 - Audio In  
For use with Aux cable.
13 - Reset Out LED
Orange indicator LED. Turns on when processor is reset from master reset signal or not enough power being supplied (brownout condition).

14 - TCP connection LED
Orange indicator LED. Turns on when a TCP connection has been established with destination server. You must first be connected with a Wifi network for the Swell Alert™ device to establish a connection with the server.

15 - Wifi boot LED
Orange indicator LED. Turns on when the wifi module is first booting. You must wait for this light to turn on before selecting a Wifi network to connect to.

16 - Invalid Data LED
Orange indicator LED. Turns on when the UART cable is disconnected from the programming computer or when invalid/corrupt data is received from the programming computer.