1 **3.5 Audio jack line output (P1)**

2 **Pull-Throw switch (S2)**
   This switch toggles between line in and MP3 decoder to audio jack output P1.
   (NOTE: Switch must be held at position desired, if not it will move back to original position)

3 **3.5 Audio jack line input (P2)**

4 **Light sensor connector (J58)**
   Must be visible to collect ambient light readings.

5 **5V barrel jack connector (J110)**
   This is the 5V barrel jack connector which provides the main source of power for most modules on the board.

6 **USB input port**
7 **19V barrel jack connector (J56)**
   This barrel jack connector will supply the 19V requirement to light up the LCD display.

8 **Push button (S1)**
   Push button used as a reset for different modules on the board, including the CPU, music decoder, the LCD and the motion detector.

9 **On-On switch**
   Switch that toggles between External Interrupt 0 (Capacitive Touch Panel) and boot loader pin.

10 **On-Off switch**
   Switch that toggles between high/low voltage for boot loading.

11 **RS232 Connector (J46)**
   Connector used to program the CPU.

12 **LED (D2)**
   LED indicator used to indicate when the CPU is in Reset state. This is a 3.3 V pin. LOW on this pin indicates LPC2478 being in Reset state.

13 **LED (D3)**
   LED indicator used to indicate when RTC alarm is generated. This is a 1.8 V pin. It goes HIGH when a RTC alarm is generated.

14 **LED (D1)**
   USB port 1 GoodLink LED indicator. It is LOW when device is configured (non-control endpoints enabled), or when host is enabled and has detected a device on the bus. It is HIGH when the device is not configured or when host is enabled and has not detected a device on the bus, or during global suspend. It transitions between LOW and HIGH (flashes) when host is enabled and detects activity on the bus.

15 **Header pin (J99)**
   Header connected to the music decoder’s right channel output.

16 **Header pin (J98)**
   Header connected to the music decoder’s left channel output.

17 **Header pin (J97)**
   Header connected to the music decoder’s byte synchronization signal.

18 **Header pin (J92)**
   Header connected to the music decoder’s chip select input, which is active LOW.

19 **Header pin (J93)**
   Header connected to the music decoder’s clock for serial bus.

20 **Header pin (J94)**
   Header connected to the music decoder’s serial input.

21 **Header pin (J97)**
   Header connected to the music decoder’s serial output, which is active when XCS=0, regardless of XRESET.
22 **Header pin (J95)**
   Header connected to the capacitive touch panel’s serial I2C data pin.

23 **Header pin (J102)**
   Header connected to the motion detector’s RXD receive data.

24 **Header pin (J103)**
   Header connected to the motion detector’s TXD transmit data.

25 **Header pin (J107)**
   Header connected to the SD connector’s command pin.

26 **Header pin (J108)**
   Header connected to the SD connector’s data input/output.

27 **Header pin (J105)**
   Header connected to the SD connector’s data input/output.

28 **Header pin (J106)**
   Header connected to the SD connector’s data input/output.

29 **Header pin (J54)**
   Header connected to MAX Level shifter T2-out.

30 **Header pin (J55)**
   Header connected to MAX Level shifter R2-in.

31 **Header pin (J42)**
   Header connected to MAX Level shifter R2-out.

32 **Header pin (J53)**
   Header connected to MAX Level shifter T2-in.

33 **LED (D4)**
   Indicator LED, turns on when data is detected from RS232 connector.

34 **PIR connector**
   Connector used to mount motion detector module onto the board.

35 **Header pin (J109)**
   Header connected to USB port’s data receive (RXD) line.

36 **Header pin (J104)**
   Header connected to USB port’s data transmit (TXD) line.

37 **Header pin (J101)**
   Header connected to the Wifi’s UART-TX (8-mA drive, 3.3-V tolerant).

38 **Header pin (J100)**
   Header connected to the Wifi’s UART-RX (3.3-V tolerant).