System Block:

- WS2812_CTRL
  - WS2812*1
  - WS2812*12
  - Chose either WS2812 or LED Driver;

- I2C
  - LED Driver
  - RGB*12

- MIC*3
  - MIC*2 or 3
  - can choose either DMIC or AMIC (default);

- BT_ARRAY_ADC
  - Button*6
Interface Support:
1) I2C bus which configure LED Driver, max 12xRGBs;
2) max 3xAMICs;
3) max 3xPDM MICs;
4) max 6xButton Input;
5) max 12xWS2812 RGBs;

Notes:
1. Default, we use VCC (power coming from USB or Battery) to power LED Driver and LEDs, thus we can save one Power Regulator.
2. I2C of LED Driver is pull-up on the main-board by VDD3V3.
3. Pull-up resistor for Button_Array_ADC is populated on main-board.

WS2812 RGB:

Notes:
1. LED Driver or WS2812 RGBs can be picked one of these two at the same time;
2. Stacked Pad will be used to layout LEDs (For LED Driver) and WS2812 RGBs.
3. If VCC=5V (default): R59/D13/R58 ON, R60 NC;
4. If VCC=3.3V: R59/D13/R58 NC, R60 ON;

AD=0: I2C slave address:0'b 0111 100x;
DMIC Array: 
Notes:
1. Default: NSH641807 (NeoMems);
2. Alternative: NSH64333001AP (NEoSensing Microsystems);

2xAMIC Array: 55mm

3xAMIC Array: 65mm

KEY Array:

Location Holes: