



# Global China Technology Limited

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Date: June 10, 2014

Equipment Name: Wireless Baby Monitor

FCC ID: NLMSEW3040W

Model: SEW-3040W

### Hopping description:.

Divide the bandwidth from 2410.875Mhz to 2471.625MHz to 19 frequency points, each bandwidth with 3.5MHz. The max frequency hopping time for single channel is 1.4ms. There are 19 channels used for hopping as below:

| Channel   | Frequency TX | Frequency RX | Channel   | Frequency TX | Frequency RX |
|-----------|--------------|--------------|-----------|--------------|--------------|
| Dec (Hex) |              |              | Dec (Hex) |              |              |
| CH07 (07) | 2410.875MHz  | 2406.375MHz  | CH37 (25) | 2444.625MHz  | 2440.125MHz  |
| CH10 (0A) | 2414.250MHz  | 2409.750MHz  | CH40 (28) | 2448.000MHz  | 2443.500MHz  |
| CH13 (0D) | 2417.625MHz  | 2413.125MHz  | CH43 (2B) | 2451.375MHz  | 2446.875MHz  |
| CH16 (10) | 2421.000MHz  | 2416.500MHz  | CH46 (2E) | 2454.750MHz  | 2450.250MHz  |
| CH19 (13) | 2424.375MHz  | 2419.875MHz  | CH49 (31) | 2458.125MHz  | 2453.625MHz  |
| CH22 (16) | 2427.750MHz  | 2423.25MHz   | CH52 (34) | 2461.500MHz  | 2457.000MHz  |
| CH25 (19) | 2431.125MHz  | 2426.625MHz  | CH55 (37) | 2464.875MHz  | 2460.375MHz  |
| CH28 (1C) | 2434.500MHz  | 2430.000MHz  | CH58 (3A) | 2468.250MHz  | 2463.750MHz  |
| CH31 (1F) | 2437.875 MHz | 2433.375MHz  | CH61 (3D) | 2471.625MHz  | 2467.125MHz  |
| CH34 (22) | 2441.250 MHz | 2436.750MHz  |           |              |              |

They are divided into 16 groups and each group contains four channels. Therefore one channel may be used for several groups. It is an infinite loop system among 1-16 groups. It selected one channel to communicate in one group at one time in looping. System will give a score to every channel in each group. If the channel success communication, its score will plus 1. Otherwise its score will minus 1. The system will select one channel which it get the highest score among 4 channels in the group. When the system is not disturbed, basically every channel has same chance of being used. Below examples showed 16 groups with 4 channels per each group in hex.

```

0x07,0x13,0x22,0x31, //group 0
0x07,0x16,0x25,0x34, //group 1
0x0A,0x19,0x28,0x37, //group 2
0x0D,0x1C,0x2B,0x3A, //group 3
0x10,0x1F,0x2E,0x3D, //group 4
0x0A,0x13,0x22,0x31, //group 5
0x07,0x16,0x25,0x34, //group 6
0x0A,0x19,0x28,0x37, //group 7
0x0D,0x1C,0x2B,0x3A, //group 8
0x10,0x1F,0x2E,0x3D, //group 9
0x0D,0x13,0x22,0x31, //group a
0x07,0x16,0x25,0x34, //group b
0x0A,0x19,0x28,0x37, //group c
0x0D,0x1C,0x2B,0x3A, //group d
0x10,0x1F,0x2E,0x3D, //group e
0x10,0x13,0x22,0x3D, //group f

```

When the system power up, the groups looped in a sequence infinitely. For example for group sequence:

0x0C, 0x01, 0x02, 0x0A, 0x04, 0x0D, 0x0B, 0x03, 0x06, 0x0E, 0x08, 0x05, 0x0F, 0x07, 0x09, 0x00, 0x0C, 0x01, 0x02, • • • 0x09, 0x00 • • •

**Hopping sequence:**

If there is no interference, every group will be loop according to the sequence and every channel will be used according to its score. For example, for hop pattern of

GroupC\_channel0, Group1\_channel1, Group2\_channel2, GroupA\_channel3, Group4\_channel0,  
GroupD\_channel, GroupB\_channel2, Group3\_channel3  
Group6\_channel0, GroupE\_channel1, Group8\_channel2, Group5\_channel3, GroupF\_channel0,  
Group7\_channel1, Group9\_channel2, Group0\_channel3,  
GroupC\_channel1, Group1\_channel2, Group2\_channel3, GroupA\_channel0, Group4\_channel1,  
GroupD\_channel2, GroupB\_channel3, Group3\_channel0,  
Group6\_channel1, GroupE\_channel2, Group8\_channel3, Group5\_channel0, GroupF\_channel1,  
Group7\_channel2, Group9\_channel3, Group0\_channel0,  
GroupC\_channel2, Group1\_channel3, Group2\_channel0, GroupA\_channel1, Group4\_channel2,  
GroupD\_channel3, GroupB\_channel0, Group3\_channel1,  
Group6\_channel2, GroupE\_channel3, Group8\_channel0, Group5\_channel1, GroupF\_channel2,  
Group7\_channel3, Group9\_channel0, Group0\_channel1,  
GroupC\_channel3, Group1\_channel0, Group2\_channel1, GroupA\_channel2, Group4\_channel3,  
GroupD\_channel0, GroupB\_channel1, Group3\_channel2,  
Group6\_channel3, GroupE\_channel0, Group8\_channel1, Group5\_channel2, GroupF\_channel3,  
Group7\_channel0, Group9\_channel1, Group0\_channel2,

The sequential hop is no any order can follow, is completely random.

I understand that the manufacturer would take all the responsibilities for the above product(s).

For and on behalf of



Authorized person

Name: Lawrence Fu

Position: R&D Manager

Date of issue: 10 June 2014

**Hong Kong**

Location

\*I hereby declare that I am entitled to sign on behalf of the applicant and that the information supplied is correct and complete.