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Equipment Name: Wireless Baby Monitor FCC ID: NLMSEW3040W Model: SEW-3040W

## Hopping description:

Divide the bandwidth from 2410.875Mz 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

Awrence

Hong Kong

Authorized person

Name: Lawrence Fu

Position: **R&D Manager** 

Date of issue: 10 June 2014

Location

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