

Dear Tim,

The explanation s of the hopping is as following:

It will produce a random data (less than or equal to 50) when the RF system is powered on. **The channels will move left for one time within each transmission ( See note below)**(eliminating the used channel). Compared with the eliminated channel, if the new channel data (after left move) is more than 50 or equal to the used channel, then this data will be decreased 1 (If it meets the used channel then it will continue to minus 1 until the new channel data is not equal to the used one). After using up 50 channels, the channel indicator will be reset and continue to the above process.

Hopping frequency is changed to pseudo randomly hopping frequency. The method is as below:

**Note: Our understanding of the sentence that marked red is as below:**

**The 8 bit binary register which contains the channel number will shift left by one bit and then produce one channel number as the next channel number.**

Hopping frequency is changed to pseudo randomly hopping frequency. The method is as below:

Where:

A: the previous channel number      B: the next channel number

Firstly,

$A+A=B$

Secondly,

If  $B \leq 50$ , when B is not used, B is the next channel number; If  $B > 50$ ,  $B = B-1$  until  $B \leq 50$

Example

code(binary)	channel number (HEX)	channel	note
110001	31	49	NA
100010	22	34	NA
000100	4	4	NA
001000	8	8	NA
010000	10	16	NA
100000	20	32	NA
000000	0	0	NA

110000	30	48	000000→111111(0-1=111111)  111111channel number(HEX)=3F>31  so next code is 110000=30(HEX)
011111	1F	20	110000→100000(have used)  100000-000001=011111=1F(HEX)
.....			

hop list:  
ONE:  
31, 22, 04, 08, 10, 20, 00, 30, 1F, 2F, 1E, 2E, 1C, 2D, 1A, 2C, 18, 2B, 16, 2A, 14, 28, 0F, 1D, 29, 12, 24, 07, 0E, 1B, 27, 0D, 29, 26, 0C, 17, 25, 0A, 13, 23, 06, 0B, 15, 21, 02, 03, 05, 09, 11, 01, .....

Best wishes

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