Hopping Information

1. Channel Frequency:

Channel	Frequency (TX)	Channel	Frequency (TX)
CH07	2410.875MHz	CH37	2444.625MHz
CH10	2414.25MHz	CH40	2448MHZ
CH13	2417.625MHz	CH43	2451.375MHZ
CH16	2421MHz	CH46	2454.75MHZ
CH19	2424.375MHz	CH49	2458.125MHZ
CH22	2427.75 MHz	CH52	2461.5MHZ
CH25	2431.125MHz	CH55	2464.875MHZ
CH28	2434.5MHz	CH58	2468.25MHZ
CH31	2437.875 MHz	CH61	2471.625MHZ
CH34	2441.25MHZ		

2 HOP SEQUENCES

2.1 General description

Each system, comprising a monitor and its associated camera, is given the specific value of an identity value during manufacture, this value is specific to one system only. This value is used by the algorithm to generate hopping sequences that are used by this specific system. There is a 19 element sequence generated.

The 19 element sequence is used for all dummy bearers transmitted by the monitor and for setting up all traffic bearers.

The hopping sequences are generated in such a way that the elements are random in both distance from each other and in the direction from each other.

When a montior transmits it uses one entry from the sequence in each frame in a cyclic manner so that once the end of the sequence is reached, the first element is taken again and so on. This means that over time each entry in the sequence will be used equally.

Each slot in the same frame is separated from the previous slot by one entry in the sequence.

Because the monitor and the camera in a system have the same identity value they generate identical sequences, so that once a camera has made a reception from the monitor on any element in the sequence it can follow the same sequence and maintain synchronisation.

Because each system only knows the identity of its own hopping sequence identity and not any other system values it cannot predict other hopping sequences and so it does not have the ability to be coordinated with other FHSS systems.

2.2 Hop sequences

To generate the hop sequence a ‘Frequency Picking’ approach is used. Hop frequencies are picked one at a time from those available and appended to the partially formed sequence. The way in which hop frequencies are picked and appended is dependent on the given ID. The proprietary algorithm used guarantees that:

- All 19 frequencies are always used in 1 hop sequence
- A minimum hop distance is guaranteed
- A good random spread over all channels is guaranteed

Example of the hopping sequences:

19 element sequence: (34, 61, 07, 25, 55, 22, 37, 16, 19, 43，31, 52, 10, 46, 58, 40, 28,49,13)

It hops 714 times per seconds.