

Frequency Hopping Sequences

- Predesigned computer generated pseudorandom list of 79 frequencies
 - Minimum hop distance of 6 channels
 - Additional hopping sequences derived by modulo 79 frequency offset
 - 78 hopping patterns organized in 3 sets of 26 patterns each.
 - Sequences from same set collide 3 times on average, 5 times worst case, over a hopping pattern cycle, including hits and adjacent channel hits.
 - Aggregate throughput continues to increase up to about 15 collocated networks, at high load conditions.
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Frequency Hopping Sequences- cont.

- Denote frequency as $5727+b[i]$, $b[i]$ is the base sequence in range 0.. 78.
 - k-th sequence is formed from the base sequence as $5727+(b[i]+k) \bmod 79$
 - Example:
 - Base seq: 5727,5781,5807, 5782, ...
 - 30-th seq: 5757, 5811,5837, 5812, ...
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