

IEEE 802.11 2.4 GHz High Rate Draft

FCC telecon

March 9, 99

Status

- The existing draft has an approval rate of 94% at the working group level
- We are expecting approval at 802.11 to submit the draft for sponsor ballot

Relevant Submissions

- Hardware has been approved by the FCC with the CCK waveform
- Included in the current draft standard is an optional modulation, PBCC.
 - This is the same modulation that was presented to the FCC in Nov, 98

CCK explanation

- CCK uses 64-ary (nearly) orthogonal keying using a complementary code set
- The dimensionality of the CCK codes requires 16 chips per symbol to describe.

CCK Benefits

- CCK allows the use of a fast walsh transform for the correlator in the demodulator greatly simplifying the hardware.
- CCK modulation code words possess an underlying structure which can be exploited by a symbol-decision-based equalizer. This allows the equalizer to operate at low SNR conditions.