Discussion of RF Power Control Specification• for the 2.4 GHz Frequency Hop Phy

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Background

- At the July 1994 meeting the issue of RF Power levels and control was discussed.
- Some members consider 100 mW sufficient for intended applications.
- Other members are looking at warehouse •or point•of sale type applications• and desire the flexibility to use the maximum •power permitted •by the FCC, 1 Watt.

RF Power Levels

- The status of the draft standard now provides for two bits of control for RF Power. Thus, 4 power levels can be identified.
- This author proposes that one of those RF power levels be 100 mW, +/- 3 dB, not including antenna gain.

RF Power Control

- Functionally, the Mac is the source of the control for RF power
- For that reason one might consider the issue of how to control power, a Mac issue to be addressed by the Mac group.
- This author suggest, however, that the Frequency Hop subgroup provide the Mac group with suggestions as to how to control power.

Alternatives for power• control

- One method to control RF power is to develop a history of recent usage and make an intelligent• decision as to the most appropriate power level for each transmission • based on that background. This author suggest that this is too complex to be considered.
- Another proposal is that the RF power be control on an ESS or BSS basis.
  - This could be on the basis that all units in the BSS or ESS must operate at a certain power level, or
  - On the basis that units in the ESS or BSS operate at the specified power level or less. The author recommends this alternative.

Alternatives for power• control, cont'd

- Another alternative suggested is that the RF power level be set at the factory. This would• not seem to be consistent• with the previous requirement of the committee •that higher power transmitters• be equipped with power control.
- Other?