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## **Proposal for Transmitter Splatter Specification for the 2.4 GHz Frequency Hop Phy**

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Submission

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### **Need for Specification**

- **Out of channel radiation from a transmitter in the 2.4 GHz band has the potential to interfere with the reception of another signal by a receiver operating on a different frequency in the band**
- **DECT specification provides a reference for this type of consideration**

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## Need for Specification, cont'd

- The asynchronous aspect of data communications provides more opportunities for near-far scenarios that have the potential for interference.
- Thus, it is proposed that the 2.4 GHz Phy Splatter specification be more aggressive than the DECT specification. What is proposed is illustrated on the next slide

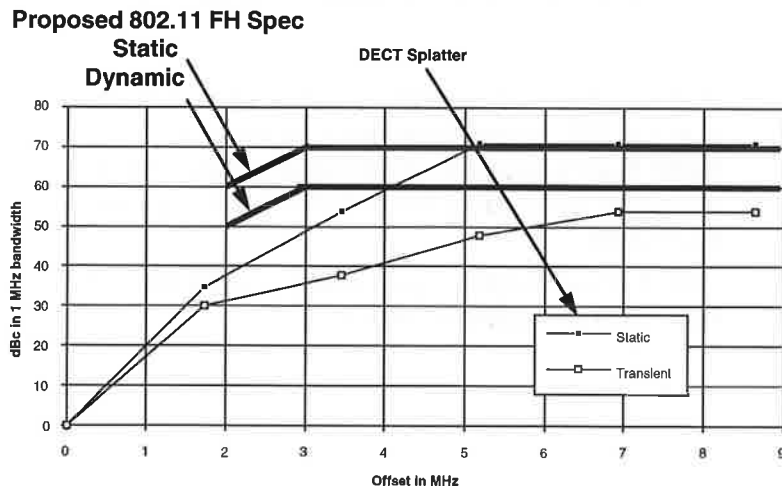
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## Transient Splatter

- Transient splatter is the out of channel emissions that exist during the ramp up or ramp down periods.
- Transient splatter puts only a few bits at risk in terms of potential interference, whereas, static splatter exist for the entire length of a packet transmission, which may be thousands of bits.

## Transient Splatter, cont'd

- From the standpoint of probability of packet error rate, one could tolerate a BER of several orders of magnitude higher during the ramp transient period than during the static periods.
- It is proposed, therefore, that the dynamic splatter specification be 10 dB less than the static splatter specification.

## Test specification

- Measured in a 1 MHz bandwidth
- Measured while on a fixed channel
- Measured in static mode with random data modulation
- Measured during ramp periods with ramp modulation. This is a peak reading measurement