To: Steve Dayhoff
From: Dave Fry, null
Dave.Fry@Intermec.com
Regulatory Engineer

Re: FCC ID EHARFID915PCC-6
Applicant: Intermec Technologies Corporation
Correspondence Reference Number: 20557
731 Confirmation Number: EA101560

1. Please explain how the system complies with Section 15.247(g), when presented with a continuous data stream, or a short transmission burst.

Please review page 5 of the Theory of Operation under Hopping Sequence Generation. Also the system is designed to only remain on channel for a maximum of 50milliseconds.

2. Frequency Hopping spread spectrum systems "FHSS" must meet the definition in Section 2.1 and commonly operate in Section 15.247. The definition among other things requires that the carrier is modulated with coded information. For tag readers, information from the reader must be sent to the tag and "written" to the tag. We have turned down systems that just sends a CW signal or (no information) to the systems tag.
One system we have accepted in the past is one which the downlink transmitter is a single transmitter and the data signal and powering signal are duplexed by time division. The signals occur on the same frequency and occur within the 400 msec limit before the device hops to the next frequency in the pseudorandom sequence. The tab must be passive from an RF standpoint(powered only by the downlink signal) and is considered simply a part of the transmission path. The bandwidth of the uplink receiver must match the occupied bandwidth of the data modulated downlink signal, and the uplink recevier must be hopped in synchronization with the downlink transmitter. The system transmits information in both directions. Data can be written to the tag and can be read from the tag.

In light of the above, describe your system with regard to how it meets the definition of a FHSS system. Describe the data and power signals. Does the device send a CW signal?

A revised Theory of Operation has been sent to the FCC EAS system. Please review the second paragraph on page 2 under "Introduction".

3. With regard to RF safety, the warning statements must include that the device cannot be used with other co-located transmitters.

Please see the revised users information pages Appendix L and M. The added statement, "RF safety requirements mandate this device cannot be operated in close proximity to other transmitters.", should address this requirement.

4. Only the 6110 hand-held terminal can be approved. Future hand-held terminals will require a Class II Permissive Change application with new RF Safety evaluations, since the safe distances might change with each new mechanical design.

It is unfortunate the FCC has taken this stand. Burdens for approvals on essentially identical antennas for use in hand held terminals would cost thousands with only millimeters of changes in compliance distances. Retesting and measurement uncertainties related to SAR testing will introduce greater differences in SAR than implementing these same antennas in products operated in the hand. Considering the safety requirements for Canada and Europe are under Self-Declaration, the FCC needs to reconsider their policies.

For additional hand held terminals to use the antennas approved for the 6110 Intermec will repeat SAR testing and submit Class II Permissive changes as stated above.

The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information within 60 days of the original e-mail date may result in application dismissal pursuant to Section 2.917 (c) and forfeiture of the filing fee pursuant to section 1.1108.

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