To: Joe Dichoso
From: Dave Fry, null
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Regulatory Engineer

Re: FCC ID EHARFID2450PCC-5
Applicant: Intermec Technologies Corporation
Correspondence Reference Number: 20457
731 Confirmation Number: EA101090

Response is in Bold Italics

1) 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?

Please see the revised Operational Description (Theory of Operation) sent to the FCC EAS system. The clarification you require is added to page 2 in the 2nd paragraph of the Introduction

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

The Compliance Statement Inserts include the necessary information for co-located transmitters. See revisions for Appendix M and N.

3) Only the 6100 Hand held terminal can be approved. Future hand held terminals will require a Class II permissive change with new RF Safety evaluations.
The RF safety distances migth change with each new hand held terminal.
The warning statement for the 6100 should include warning for the 0.5 cm rf safety distance configuration.

The Compliance Statement Inserts include the necessary information for co-located transmitters. See revisions B for Appendix M and N.

4) How do you ensure compliance with the remote antennas at the higher output power (30 dBm)?

Intermec now will consider the remote antennas under MPE. Attached are the MPE calculations for the antennas. The MPE calculations show compliance when operated within 12.5-cm of the body. The Compliance Statement Insert for the 2450 card and remote antennas now addresses use with a separation of 20-cm (8 inches). See the revised Appendix M.

FYI... Review of the planar section justification is under review.
(hand held w/ 6100 0dBi antenna, laptop use with remote antennas at 10 cm, no co-location, modular approval)