

September 17, 2001

Federal Communication Commission  
Authorization & Evaluation Laboratories  
7435 Oakland Mills Rd.  
Columbia MD 21046

Attn: Mr. Joe Dichoso

Re: Our permissive change request for HN2UAPRFID-24

Dear Mr. Dichoso,

Intermec is applying for permissive change pursuant FCC Rule 2.1043 to add a new antenna and a new unique connector system to our currently certified product (FCC ID: HN2UAPRFID-24).

The product is a 2.4 GHz FHSS RFID tag reader. It was approved originally in March 21, 2000 with 427 mW (26.3 dBm) output power and a 6 dB gain antenna. The product as approved used a check tag based unique connector system, where the transmitter would not be enabled unless it read the correct RFID tag on the antenna connected through the RF cabling.

With this application we would like to make two changes as I explained to you in my email of July 27, 2001 and our subsequent phone conversation on July 30, 2001.

The first change is the addition of a 14.5 dB gain directional antenna. This antenna will be used only in fixed point-to-point applications as I described during our phone conversation. Furthermore, the proposed antenna is a directional one as you can see in the attached specification. Under Rule 15.247(b)(3)(i) we can reduce the output power by 1 dB for each 3 dB of antenna gain over 6 dB. This means our output power would need to be  $30 - (14.5 - 6) / 3 = 27$  dBm. Since our product is only putting out 26.3 dBm in its current configuration, we do not believe further modification of the product is needed.

A drawing of the antenna showing its gain and other characteristics is attached.

The second change is in the connector. We are abandoning the check tag system and switching to a custom modified TNC type connector with its dimensions altered, such that it will not mate with a regular off-the-shelf TNC connector. The connector's drawing is attached. We have been using this type of connector in our other 2.4 GHz and 900 MHz transmitter products (some examples are: HN221XX-24, HN221XX-900 etc.).

I hope the attachments satisfy all your needs to review this application. Please feel free to contact me, if you have any questions.

Best regards,

Carl K. Turk, MSEE  
Sr. EMC Engineer