

February 6, 2001

Federal Communications Commission
Equipment Authorization Division
Applications Processing Branch
7435 Oakland Mills Road
Columbia, Maryland 21046

To: Errol Chang echang@fcc.gov
From: Jay Sarkar j.sarkar@aprel.com

Subject: Information requested

RE: FCC ID ESD-SA824894NE
Applicant: Melard Technologies Inc.
Correspondence 17919
731 Confirmation No.EA99829
Date of Original e-mail: January 31, 2001 11:46 AM

Dear Mr. Chang:

Pursuant to your e-mail to me, dated January 31, 2001 , I am forwarding to you our response. The relevant portion of the e-mail from FCC follows with our response inserted in the appropriate place:

The following information is based on a review of the RF exposure aspects alone. there may be the need for further clarifications when this application is reviewed again at a later date.

1. The second file uploaded to the Cover Letter Exhibit indicates this device has 427 mW ERP. The test data in Exhibit 6 is indicating 372 mW ERP; please clarify.

Response: The correct ERP is 372 mW as indicated in the ERP test data.

2. Section 9 of the SAR report, Conclusions, indicates a warning will be used to alert users to provide at least 4 cm between the antenna and the body of persons. This info is not found in the manual submitted; please clarify and upload the relevant page(s) of the manual.

Response: Relevant page is uploaded with this response. It reads: "In order to comply with the FCC RF Exposure requirements, this device must be operated with a minimum separation distance of 4 cm between the bystander, parts of the user other than the extremities, and the antenna in its intended upright vertical operating position".

3. Please identify the peak SAR location measured for the device. The SAR distribution for Figure 2 is missing and a device outline has been shown on top of the measurement uncertainty table.

Response: Data have been scrambled in transmission. We are re-transmitting entire SAR report with this response.

4. Table 2 indicates bystander exposure on the low channel is 4.13 W/kg, peak value. This does not appear to be consistent with the 4.13 W/kg 1-g surface SAR indicated in Section 8 (3);

please clarify and revise all relevant info and numbers related to or derived from these numbers.

Response: - The peak SAR values in table 2 are measured using area scans which take a measurement every 10 mm. The 1-g surface SAR is extrapolated by using zoom scans which take a measurement every 5 mm. At times, because of the higher resolution of the zoom scans, higher SAR values are used to measure the 1-g surface SAR than what was measured with the area scan. This would explain the similar numbers. The 4.13 W/kg 1-g surface SAR is an accurate measurement.

5. Please clarify the possible antenna operating positions and if the existing SAR results are sufficient for supporting all these possible antenna-operating positions. For example, when the antenna is not in its up-right position, whether SAR may change due to device performance or other operating issues.

Response: The antenna is attached to the upper right edge of the display screen and should always be on the right side of the device and in upright position. The manual has a statement (page 16, revised uploaded with this response) describing the antenna position under the heading: **“Positioning the wireless antenna”**. It reads: “For the wireless systems, Sidearm uses a half-wave dipole antenna that is secured to the top right edge of the display screen. The antenna is strategically placed to optimize wireless coverage. For best coverage while using Sidearm, position the antenna in the upright position. Unauthorized antenna modifications could damage the Sidearm and may violate FCC regulations”.

However, the SAR was measured in three antenna positions with the keyboard facing up as reference, the positions are:

- 1- The antenna pointing up directly away from the keyboard.
- 2- The antenna pointing up directly away from the top edge.
- 3- The antenna folded against the top edge.

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The above antenna configuration has no effect on SAR results for this device.

I trust that the above will answer your questions. If you have any questions, please feel free to contact the undersigned. Thanking you in advance for your kind cooperation.

Best regards,

Jayanta (Jay) K. Sarkar
Technical Director, Standards and Certification