

April 24, 2001

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

To: Andy Leimer aleimer@fcc.gov
From: Jay Sarkar j.sarkar@aprel.com

Subject: Technical Review

RE: FCC ID ESD-SA806866R8
Applicant: Melard Technologies Inc.
Correspondence Reference Number: 18839
731 Confirmation No.EA100001
Date of Original e-mail: April 11, 2001 2.10PM

Dear Mr. Leimer:

Pursuant to your e-mail to me, dated April 11, 2000, 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:

1) *The Test Report states that the ERP was measured using the substitution method which is a requirement. However, it appears that substitution method was not used for the Field Strength data. In addition one of the data points was 0.3 dB from the limit. Retake the data using the substitution method.*

Response: The DUI was re-tested for spurious emissions by using the substitution method and reference dipoles. Signal radiated from the DUI on the fundamental frequency as well as 2nd and 3rd harmonic were evaluated by comparing to the signals transmitted from the reference dipoles. For that purpose, a set of three dipoles was used: $l = 18.5\text{ cm}$, $l = 9.2\text{ cm}$ and $l = 6.0\text{ cm}$. For testing the 4th and 5th harmonic a horn antenna was used as a reference source of radiation.

The data after the retest is presented in the following two tables:

Vertical polarization

f	Measured Level	E _v @ 3m	Limit	Margin
MHz	dBm	dB μ V/m	dB μ V/m	dB
1630.00	-33.1	64.3	84.6	20.3
2445.00	-16.2	81.2	84.6	3.4
3260.00	-38.3	59.1	84.6	25.5
4075.00	-17.7	79.7	84.6	4.9
4890.00	-39.2	58.2	84.6	26.4
5705.00	-30.7	66.7	84.6	17.9
6520.00	-27.7	69.7	84.6	14.9

Horizontal polarization

f	Measured Level	E _h @ 3m	Limit	Margin
MHz	dBm	dB μ V/m	dB μ V/m	dB
1630.00	-36.3	61.1	84.6	23.5
2445.00	-19.3	78.1	84.6	6.6
3260.00	-40.6	56.8	84.6	27.8
4075.00	-39.8	57.6	84.6	27.0
4890.00	-38.9	58.5	84.6	26.1
5705.00	-33.9	63.5	84.6	21.1
6520.00	-27.5	69.9	84.6	14.7

2) The SAR Report conclusions (Section 9) stated that there would be warning information in the User's Manual. None could be found. Submit the page(s) of the appended User's Manual that will contain this information.

Response: The User's Manual submitted with the original filing contains the warning information in page 16. However, the relevant page is attached with this response for your convenience. 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".

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

Wireless communications (optional)

Using wireless modems

The Sidearm supports fully integrated wireless modems for multiple data networks. It is not necessary to manually turn the wireless modem on or off; the appropriate application software will automatically activate the wireless modem when required.

Positioning the wireless antenna

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.

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 bystanders, parts of the user other than the extremities, and the antenna in its intended upright vertical operating position.

Landline communications (optional)

The optional 56K v.90 landline modem is accessible via the standard sealed RJ-11 connector located on the top of the unit.

A combination RJ-11 / RJ-45 connector is available. Ethernet connectivity (10BaseT/10Base2) is optional and supported via this connector.

Resetting the Sidearm

Certain conditions require that you reset the Sidearm:

- After restoring data from a host PC.
- After installing new software.