

12<sup>th</sup> December 2003

Mr. Robert Paxman

Intel Corporation  
San Diego CA

Re: FCC ID PU5MS2133  
Applicant: Wistron Corporation  
Correspondence Reference Number: 25905  
731 Confirmation Number: EA859241

Dear Mr. Paxman,

Here are the responses to the questions set by Diane Poole from the FCC. Please note that I have only addressed the questions which reflect issues resulting from the SAR test report.

**Question 1.**

**Per reply to crn 25598 #2, 15-page exhibit entitled "Approval Sheet, Wistron Corporation" shows antennas at top and bottom left of LCD - need SAR data.**

The antennas used on this unit are a set of diverse antennas with a main and auxiliary specification. The main antenna being the one used for transmitting and the auxiliary antenna being used for receive. APREL Laboratories executed an E-field scan to locate the area where the main antenna is located and then completed the SAR evaluation. The other antenna location does not have a transmit characteristic and as such NO SAR will/was measured.

**Question 2.**

**Per reply to crn 25598 #1 please provide the related probe certification that you mentioned.**

The calibration report has been included for review.

**Question 3.**

**Per reply to crn 25598 #5, please re-address. Your answer appears to address questions from the related 5 GHz filings. At 2.4 GHz use of head target with body liquid is unconventional. Please justify.**

APREL Laboratories have run extensive experimental assessments using the IEEE dipole to assess and analyze the effects of feeding a dipole primarily matched for head applications but by illuminating a body tissue. The results from these assessments have shown that the SWR, along with RL for the dipole does not change, to a point where it would be detrimental to the efficiency, or appropriate use for the application of validating a system. Having drawn this conclusion experiments utilizing system validation methodologies were run using the dipole in both head and body tissues and the data was compared. The delta between each assessment was within 10% of the target values presented in IEEE.

Further investigations using XFDTD have been made where both body and head tissues have been used within a high resolution mesh and compared. The results from this investigation support the findings from the experimental activities, and support the deviation which is within the 10% delta which is allowed in line with IEEE-1528. Results show that a body validation run using the dipole as described in IEEE-1528 utilizing body tissue as per the description contained within FCC supplement C is within the allowable tolerance of 10%. Taking all the results into account APREL Laboratories feel that there is no additional need to further justify using the IEEE target values.

APREL Laboratories disagree with the statement from the FCC that the process employed for system validations is unconventional, as this methodology is a working methodology which encapsulates both experimental and numerical techniques, widely accepted with the global standards community, regulatory agencies, and scientific establishments.

I trust that the above information should be enough for the FCC to proceed. If you have any further questions please let me know.

Regards,

Stuart Nicol

**Director Product Development,  
Dosimetric R&D.**

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