

Re: FCC ID J3OWCB5000A

Applicant: Xircom

Correspondence Reference Number: 22044 731 Confirmation Number: EA240240

1. Please provide the 5 GHz tissue simulant mixture parameters used for SAR testing.

The tissue was formulated using the values as presented in "Supplement C" page 35. The dielectric values presented for 5.8 GHz and 3 GHz were used as the starting basis to calculate the epsilon and sigma "Target Values" for 5.24 GHz. These values were used to interpolate the target values for 5.24 GHz. Page 13 table 3 of the SAR report provides the values measured for the mixture used for this project.

Stuart Nicol **Director Product Development** 

2. Please provide the 5 GHz probe calibration data.

The probe was calibrated for sensitivity in air using a horn antenna, within an anechoic chamber (rated from 2 GHz to 28 GHz) using a predetermined process. The controlled environment was evaluated for reflections, and then set-up with the horn antenna transmitting at a specified amplitude at a frequency of 5.24 GHz. The amplitude of the signal from the horn antenna was then normalized so that the probe was detecting a 1 mW field. At this point measurements were then taken at each 10 degree increment for each sensor and then logged.

From this the sensitivities were calculated and used during the thermal calibration. A dipole was manufactured using the parameters for 5.24 GHz while coupled to the tissue. A series of measurements were then made to determine the E-Slope vs. the T-Slope and the tissue enhancement factor was then calculated. Page 13 table 3 provides the conversion factor used for the measurements.

Due to the additional research which was carried out by APREL Laboratories a number of proprietary elements were utilized for the Xircom project which APREL do not wish to be revealed to the public domain. If any further information is required we will be more than happy to provide this direct to the FCC for consultation.

Stuart Nicol **Director Product Development**  3. Explain how the RF power and power spectral density were measured at the integrated antenna terminals, if so. If these were made by radiated method, provide the data.

The power output was re-measured using the new provided procedure from Joe Dichoso. The Power Spectral Density was measured using the UNII procedure that was provided to all the TCB's. Procedure and data for both power output and power density have been uploaded. All data was taken at the antenna terminal using the antenna-conducted method.

Do to the new peak output power measurement, please change the 731 form to reflect the new power which will be 0.1 Watts max power from 5180 – 5320 MHz.

Hopefully this answers all of your questions. Please contact me via <u>doc@elliottlabs.com</u> if you require more information.

Regards,

Guan Martinez

Sr. EMC Engineer