Mobicom Corporation
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March 29, 2002

Mr. Chris Harvey
MET Laboratories, Inc.
914 West Patapsco Avenue
Baltimore, MD 21230

Subject: FCCID: P8D-C6088I, Transmit Power Calibration Procedures for the C6088i

Dear Mr. Harvey,

The purpose of this letter is to explain why the highest conducted power listed in the EMC report (29.4dBm) is higher than the value in the SAR report (28.2dBm). This letter will also address how Mobicom will guarantee that our production models will never exceed the FCC limit of 1.6W/kg for SAR measurements.

Firstly let me explain the reason for the output power variation between the units tested for Part 24 and SAR. These two models are lab prototypes and as such they were calibrated at our R&D facility in New Jersey. The target power was set to 29.0dBm and an acceptable tolerance of ±1dB was applied to these units. The high tolerance is due to the fact that at the R&D facility we do not have a dedicated calibration setup. These units were calibrated on available test setups and cable loss was estimated rather than calculated. This is acceptable for prototype models, but this is not acceptable for production models.

We will not see such transmit power variations with our production calibration setup. In production we use a fixed setup that is calibrated for cable loss and power accuracy, at the start of every 8-hour shift. Every mobile will run through the production calibration program, which uses an Agilent 8960 Series 10 Mobile Phone Manufacturing Test Set for power measurements. This test set has a measurement accuracy of <±0.4dB. Transmit power is adjusted to a set target that is controlled by production software. The target is accurate to <+0.1dB. Based on our manufacturing experience and test equipment specifications, we can reliably set the power of all mobiles to ±0.5dB (equipment accuracy + target accuracy) of our selected target output power.

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Our SAR report from IMST shows a worst-case measurement of 1.18W/kg. This measurement was recorded with an output power of 28.2dBm. Based on this measurement IMST calculates that we have margin up to 29.5dBm. This means that as long as our output power is below 29.5dBm, our SAR will be below 1.6W/kg. Using these calculations, Mobicom has decided to set the C6088i transmit output power target to 28.5dBm. Applying the ±0.5dB accuracy of our production calibration setup to the 28.5dBm target will generate a highest possible transmit power of 29.0dBm and this is well below the calculated limit of 29.5dBm for SAR compliance.

Please feel free to contact me directly with any further questions about our production calibration programs, procedures and equipment.

Sincerely,

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