

January 30, 2015

VIA ECFS

Ms. Marlene Dortch
Secretary
Federal Communications Commission
445 12th Street, SE
Washington, DC 20554

Re: Sony Mobile Communications
Sony Electronics Inc.
Notice of ex parte presentation
ET Docket Nos. 13-44, 13-84, 03-137, 14-208
RM-11652

Dear Ms. Dortch:

On January 28, 2015, Mats Hansson and Micke Nilsson of Sony Mobile Communications, Craig Blakeley and Steve Kaminer of Alliance Law Group, and the undersigned from Sony Electronics Inc. (collectively, "Sony"), met with Dr. Rashmi Doshi, William Hurst, Mark Neumann, and Kwok Chan of the Laboratory Division of the Office of Engineering & Technology in connection with the above-referenced proceedings.

At the meeting, Sony addressed the following issues:

- 5G
 - Frequencies higher than 6GHz are anticipated for new wireless technology to be used in 5G. Sony is participating in pilot projects at frequencies as high as 30 GHz. We discussed the technical and practical reasons why those frequencies were selected and the difficulties we have encountered in developing products that can operate at those frequencies.
 - Frequencies above 6 GHz behave differently than those below 6 GHz, so different compliance levels and measurement methods need to be considered for the higher frequencies.
 - Today's SAR limits below 6GHz use localized SAR exposure limits. Above 6GHz, power density exposure limits are used. When recalculating these to maximum allowed output power, we pointed out that a discontinuity occurs at 6GHz allowing approximately 21dBm at 5.999GHz and approximately 15.5dBm at 6.001GHz.

- We discussed issues encountered due to the directional radiation patterns of antennas anticipated to be used in 5G. We urged the Commission not to foreclose the possibility of highly directional antennas when evaluating existing and potential regulations.
- Test optimization
 - SAR: We suggested that the FCC adopt international standards for SAR testing, notably IEC 62209-1 and -3.
 - EMC: The FCC requirements for EMC testing primarily refer to peak measurements while other regulatory bodies generally base testing on quasi-peak/average measurements. This requires the industry to double test in bands that are used in domestic and foreign markets. A major reduction in cost and time could be realized if testing in each band were only required to be performed once. We suggested that the FCC consider adopting international standards and limits for EMC testing, and if that is not practical, then perhaps higher power limits could be adopted, which would allow a reduction in testing.
 - Spurious emission: Limits and methods for measuring maximum emissions are different in the US and the EU, even though the limits and methods have similarities. This requires double testing by companies that are selling in both markets. Harmonizing these standards would reduce testing time and expenses for such companies.
 - General: FCC and EU requirements are somewhat similar but also differ from each other in some significant respects. We suggested that the FCC's concerns might be addressed by testing under international standards but adopting more conservative limits. For example, as RF power is normally measured in 3 channels, one idea would be to adopt a more conservative limit but only require testing on the middle channel.
- New products & test methods
 - We discussed the difficulty of testing wrist-worn devices for SAR and EMC compliance if the antennas of the devices are tuned to be optimal when worn. Measuring such devices on a stand-alone basis would not reflect their true performance. Thus, Sony is looking for acceptable ways to emulate the characteristics of the wrist in order to test antenna performance.
- Body Area Networks:
 - With respect to body area networks, we discussed the issues encountered in developing non-medical products that transfer signals from the human body. It was suggested that Sony contact the FDA to learn of its concerns in this regard.

This notice is submitted pursuant to Section 1.1206 of the Commission's rules. Please contact the undersigned with any questions.

Sincerely,

/s/ Jim Morgan

Jim Morgan
Director and Counsel
Sony Electronics Inc.
james.morgan@am.sony.com
202-429-3651

cc: (via electronic mail)
Dr. Rashmi Doshi
William Hurst
Mark Neumann
Kwok Chan