

RE: AKTV8, LLC  
FCC ID: 2AOSC-IAIR3  
IC ID: 23531-IAIR3  
ATCB026011

The following is in response to the comments made on the above referenced application.

b. In the correspondence with the FCC regarding the Surveillance Test failure, it was stated that application of the marker-delta method yielded compliant lower bandedge results, while a straightforward field strength measurement at the bandedge yielded results that were 15 dB over the limit. I note that this current report of the modified device shows a fundamental f.s. level that is only a dB, or less, lower than the originally reported levels, however, lower bandedge compliance is being demonstrated with a straightforward f.s. measurement at the lower bandedge – the marker-delta method is not used, or apparently needed. Please clarify how the current results show a drop of more than 15 dB at the lower bandedge from the unmodified post-grant device's failing bandedge level, using the same measurement procedure, with a reduction in the fundamental f.s. at the low channel of just 0.1 dB. Were the other modifications performed sufficient to account for this amount of reduction in the bandedge level?

The production sample that exhibited the failure was measured by AHD, LC to exceed the 15.249 power limit by almost 5.6 dB. (The Surveillance Lab reported the sample they received exceeded the fundamental limit by only 0.26 dB, but we feel that measurement was in error.). To bring the product into compliance with the 15.249 limit, the manufacturer dropped the EUT power setting by 6 dB. This decrease significantly reduced the skirt noise of the radio signal resulting in a much lower band edge emission and harmonics than were observed by the surveillance lab. It appears the the radio output was saturated at the full power output setting.

c. In the Spurious Radiated Emission data table on p.17, the PAR for the bandedge and harmonic emissions varies between ~5 dB and ~12 dB. Typically, emissions generated by a constant-envelope modulation format, such as GFSK, exhibit either a very low PAR, or none at all. Was the EUT actually transmitting continuously, or was there any pulsed operation occurring? Please clarify.

Near the bandedge of the continuously modulated signal a transient spike was observed, causing the Peak-to-Average Ratio to be higher at the band edge than at the harmonics. For harmonics, as the fundamental emission OBW is roughly 1 MHz, the 2<sup>nd</sup> harmonic exhibits a 2 MHz modulation width, and the 3<sup>rd</sup> harmonic a 3 MHz modulation width. Thus, it is our experience that harmonic PAR is greater than fundamental PAR. Please note that a time domain plot of the fundamental is provided in the report showing that the device is not pulsed.