

Dear Sir,

Thanks for your effort in advance,

1) As of today, ANSI 63.19-2007 is not accepted as a test procedure. ANSI 63.19-2006 is the currently accepted standard. Please adjust filing appropriately.

Answer: Both test reports (RF HAC and T-coil) have been applied by the ANSI 63.19-2006 V3.12. Please find it in chapter 3.2 applied standard of RF-HAC report (HA741601), and in front page of the T-coil test report (0703080162.O8F).

2) Please explain all co-location and co-transmission modes and how they fit into test procedures. When filing the test results for a subset of operational modes, the documentation must list all operational modes of the device that may effect compliance with FCC rules. This includes user selectable options, as well as the modes that are used to implement the service capabilities that may be invisible to a user. For each mode listed the applicant must justify why it was or was not tested, and how it ensures compliance if not tested. The documentation should be submitted in the HAC report.

Answer: In the page 297 of user manual, the BT is turned off, and the WiFi is turned off, while using HAC mode. So that they were turned off for both HAC (RF emissions and T-coil) testing. The CDMA test modes for HAC were evaluated for different RC/SO showed in the Appendix D of RF-HAC report (HA741601) and the chapter 3.d WD Radio Configuration Selection of the T-coil test report (0703080162.O8F). HAC report needs to provide details of any special user selectable HAC modes. Acceptable modes might be back light off, BT off, Tcoil on, and similar. (RF power cannot be reduced and basic phone functionality must be preserved.)

- Filings for 3 G devices with section 20.19 HAC compliance information should be handled in a similar fashion as EMC is handled above.
- Voice modes for at the ear usage modes should be addressed
- How are composite transmitters such as Bluetooth and WLAN handled? C63.19 contains no procedures for simultaneous transmission. User turn off is allowed. Appropriate user instructions should be provided.
- Subset testing should be justified as mentioned for EMC. The key parameters to focus on for RF emission testing are peak field, and peak power (defined in C63.19 section 4). Conditions where modulation rates fall into the audio spectrum are of special interest. Sample testing of the various modes can be performed at the worst case probe location for each band and field type (E or H) as part of subset testing justification. Sample testing of conducted RF peak power can also be used to help in the justification.
- For T-coil compliance, modes that produce higher levels of base band magnetic noise are of interest for the ABM2 measurements, such as RF modes with high peak-to-average power ratio, noisy display settings, or operational modes requiring high digital computations/processing.

3) Please submit a description of the distance used between reference and measurement plan. What procedure is being followed, 10 or 15 mm? [Answer: The test distance is 10mm. Please find below for test procedure of description for DUT testing position.](#)

### **Description for DUT Testing Position**

Figure 1 illustrate the references and reference plane that shall be used in a typical DUT emissions measurement. The principle of this section is applied to DUT with similar geometry.

- The grid is 5 cm by 5 cm area that is divided into 9 evenly sized blocks or sub-grids.
- The grid is centered on the audio frequency output transducer of the DUT.
- The grid is in a reference plane, which is defined as the planar area that contains the highest point in the area of the phone that normally rests against the user's ear. It is parallel to the centerline of the receiver area of the phone and is defined by the points of the receiver-end of the DUT handset, which, in normal handset use, rest against the ear.
- The measurement plane is parallel to, and 1.0 cm in front of, the reference plane.



**Figure 1: A typical DUT reference and plane for HAC measurements**