

9/14/10

- 10) It is uncertain who performed the validation dipole calibrations. Calibrations do not define this. Please explain compliance to the following regarding the FCC:

01/13/09 TCB conference call:

SAR tests using third-party SAR probe [and system accessory calibrations](#) may be accepted only if they have prior FCC coordination. The SAR report must include the following:

- a. a written acceptance from the FCC
- b. a confirmation from the original equipment manufacturer regarding its acceptance of the third-party calibration accuracy and reliability for all applicable equipment
- c. protocol identifying the regular training provided by the original equipment manufacturer, results of annual comparisons for specific probe(s) and equipment calibrated by the third-party and the original equipment manufacturer

The target values for the dipoles were established internally, not by a third party. The probe and DAE were recently calibrated by the manufacturer and the dipole target values were reconfirmed using all the supplied support equipment, i.e. phantoms, spacers, fluid, which was supplied by the manufacturer of the system. P1528 has target SAR values for the particular reference dipoles based on predefined physical parameters. The dipoles demonstrated that system remains accurate to within the allowable limits from the time of purchase.

10/14/10

- 1) While the explanation regarding previous comment 10 seems reasonable, despite the use of "third party" it is my understanding is one of the reasons the FCC established this policy was due to concerns they had of labs doing their own SAR calibrations. Kindly have SAR facility provide affirmation (i.e. coordination through FCC KDB) that their calibrations of dipoles will be accepted.

Tim,

Re: Continuation of the responses to the comment (ATCB009504) dated Oct 14, 2010.

The test lab has provided the following data to confirm the integrity of previous results;

A rescan was conducted for the worst case configuration and the data is available for your review in the Data Table along with the raw data in Appendix A.

The system check was done with new manufacturer calibrated dipole. The data for the system check is in Appendix B.

Appendix D captures the dipole certification provided by the manufacturer for the new dipole used for the system check (Appendix B).

Appendix E captures the fluid check for 11/29/2010.

Thanks,
Krishna

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- 9) This device does contain 2 transmitters. It is unclear how the BT meets the requirements of KDB447498 for simultaneous TX. Note that internal construction appears to show antennas are < 5 cm apart.

The following response is based on "SAR Evaluation Considerations for Handsets with Multiple Transmitters and Antennas"¹. The Bluetooth and GSM antennas are < 5 cm apart. The Bluetooth on the zlink is in a receive mode during communication with another device. The transmitter is put in TX mode (very short bursts, < 5ms) to send acknowledgement packets for data received during inbound messages. Furthermore, if this falls under the requirement for simultaneous transmission, then the following is the rationale for not needing SAR evaluation;

(a) Standalone SAR for the individual Bluetooth transmitter is not required since the transmitter output power is < 12 mW and the GSM antenna is < 1.2 W/kg.

(b) SAR evaluation for simultaneous transmission is not required for all transmitters and antennas since the sum of the 1-g SAR is < 1.6 W/kg for all simultaneous transmitting antennas.