



Date: 2<sup>nd</sup> December 2004

Gregory Czumak  
PCTEST Engineering Laboratory, Inc.  
6660-B Dobbin Road  
Columbia, MD 21045

Re: Correspondence Number 240923C.IHD with FCC ID: AZ489FT5842.  
Confirmation Number: TC4373

Dear MR. Czumak;

Motorola Inc., 8000 West Sunrise Boulevard, Fort Lauderdale, Florida 33322,  
herein submits its response to the 23<sup>rd</sup> November 2004 request for information in  
Correspondence Number 240923C.IHD.

- Q1. The dipole validation results for body-worn operation listed in Section 4.1 of the SAR report does not match either of the values listed on the data pages (pp. 28, 29). Please address.
- R1. The system performance result of 11.62 +/- 0.09 at the body presented in section 4.1 of the report reflects the median value of the calculated SAR results shown on pages 28 and 29 +/- ½ the difference of the calculated SAR results. Thus 11.62 + 0.09 gives the upper limit of 11.71 mW/g and 11.62 - 0.09 gives the lower limit of 11.53 mW/g presented on pages 28 and 29 respectively.
- Q2. Was the conducted output power measured with a power meter, or spectrum analyzer? If a spectrum analyzer, what settings (i.e., detector, RBW, VBW) were used?
- R2. The conducted power was measured with an Agilent E4418 Power Meter.
- Q3. Please provide spurious conducted emission results up through the 10<sup>th</sup> harmonic.
- R3. The EUT uses a fixed non removable antenna and as such conducted spurious emissions cannot be measured.
- Q4. Per Section 15.247(d), radiated emission data is required for any emissions falling within Restricted Bands (as defined in Section 15.205). The limit is a field strength limit, per Section 15.209, of 54 dBuV/m @ 3m (average) and 74 dBuV/m @ 3m (peak), and not an ERP limit of -13dBm (the latter is for licensed devices, not Part 15). Doing the math to convert the listed ERP results, I find that several emissions exceed the average limit (e.g., the emission at the 3<sup>rd</sup> harmonic for the high channel has an equivalent field strength of 71.3 dBuV/m @ 3m). Please confirm that these ERP levels are

peak levels, and then submit the average field strength data for the emissions in Restricted Bands in order to demonstrate compliance with the 15.209 limit.

- R4. All Tx radiated spurious emissions measurements were done in peak mode.
- The worst case measurement occurs at 6x(902.525Mhz), vertical, -29.81 dBm.  
 Converting this to dBuV/m using the bellow relationship yields:
- $$E(\text{dBuV/m}) = \text{EIRP}(\text{dBm}) + 104.77 - 20 \cdot \log(3\text{m})$$
- $$= -29.81 + 104.77 - 9.54$$
- $$= +65.42 \text{ dBuV/m}$$
- This is within the specified field strength limit of 74 dBuV/m @ 3m (peak), per Section 15.209 of the FCC rules.
- Q5. Please verify that the hopping sequence is pseudorandom and that the associated receiver has the ability to hop in sequence with the transmitted signal (per Section 15.247(a) (1)).
- R5. The hopping sequence is pseudo-random and the associated receiver has the ability to hop in sequence with the transmitted signal (per Section 15.247(a)(1)).
- Q6. Please provide internal photos with the shields removed.
- R6. Please see amended Exhibit 9 attached.
- Q7. The statement from Section 15.19(a) (3) must be included in the User's Manual since it is not on the label. Please confirm that it will be included prior to shipment of the EUT.
- R7. The statement from section 15.19(a) (3) will be placed on the inside of the radio battery cover; (see attach photos in exhibit 3). It will also be included in the final User's Manual.
- Q8. Please address Sections 15.247(g) and (h).
- R8. Please refer to section 6.14 to 6.17 in Exhibit 6e of the FCC application which addresses section 15.247(g) of the FCC rules. Section 15.247(h) is not applicable to this product as it is not capable of independently choosing and adapting it's hopsets to avoid hopping on occupied channels.

Proposed Grant Listings:

CPD Two-Way Portable Transceiver with MOTOTALK

Part 15      902.5 – 927.5 MHz      1.00 W

Output power listed is conducted. SAR compliance for body-worn operating configurations is limited to the specific beltclips/accessories tested for this filing.

End-users must be informed of the body-worn operating requirements for satisfying RF exposure compliance. The highest reported SAR values are: Face: 0.87 W/kg; Body-worn: 0.85 W/kg.

We would like to change the Grant title to:

DTR series Two-Way Portable Transceiver with MOTotalk ®

Contact me at (954) 723-5793 if you require any additional information.

Sincerely,

*/s/ Mike Ramnath (signed)*

Manager, Regulatory Compliance

Email: [Mike.Ramnath@motorola.com](mailto:Mike.Ramnath@motorola.com)