



MOTOROLA

Date: May 5, 2006

To: Gregory Czumak / PC TEST TCB

Subject: Request for additional information regarding FCC ID: IHDT56GH1 (Portable PCS CDMA transceiver with Blue Tooth and EV-DO)

Reference:

Application Received:	02/27/2006
Correspondence Reference Number:	160227A.IHD
Confirmation Number:	1602270097 / 0098
Date of Original Email:	05/03/2006

Questions and responses follow:

1. Page 8 of the EMC Test Report, Note (2), states that the data was integrated to provide the equivalent response of a true 3 kHz RBW, however, since this is a cdma device (not GSM), the minimum required RBW is, in this case, 13 kHz. Please address.

RESPONSE:

Resolution Bandwidth settings at 1900 MHz, was 30 KHz for both OCBW and the bandedge plots. At 800 MHz, RBW was 30 KHz for OCBW and 13 KHz for both upper and lower bandedges.

Plot	Equipment Settings					
	Resolution Bandwidth (kHz)	Video Bandwidth (kHz)	Sweep Points (#)	(Trace Mode)	Detector	Samples (≥ #)
Reference Plot - CDMA 800	3000	Auto	2001	Max Hold	Peak	100
OCBW - CDMA 800	30	Auto	1601	Max Hold	Peak	100
Lower Band Edge - CDMA 800	1	Auto	2004	Max Hold	Peak	30
Upper Band Edge - CDMA 800	1	Auto	2004	Max Hold	Peak	30

Notes:

- 1) When the video bandwidth is set to Auto the video bandwidth self adjusts for ³ the resolution bandwidth.
- 2) The plotted data shown for the band edge measurements is representative of data taken with a true 13 kHz resolution bandwidth filter. The raw data was taken using a 1 kHz resolution bandwidth and was integrated to produce a response representative of data taken using a true 13 kHz resolution bandwidth filter.

2. What is the CDMA MS Protocol Revision number?

RESPONSE:

Protocol revision 6 (complaint to IS-2000 Rev 0).

3. Please specify the base station simulator and test device configuration info and procedures used to establish maximum output in all applicable modes, including code domain channels, power & relative gain levels.

RESPONSE:

The EUT was operated using an actual transmission through a base station simulator. The base station simulator was setup to (eg: for 800MHz):

System Type: IS-2000 (CDMA 2000 or CDMA 1x)

Cell Band: US CELLULAR

Channel: 1013, 384 or 777

Protocol Rev: 6 (IS-2000)

Radio Config: FWD3, REV3

FCH Service Option Setup: Select Service Option for FWD3, REV3 and then S055 Loopback.

Because the base station simulator is set to "All Up Bits", the secondary code domain channels were automatically turned off.

4. Please identify the CDMA Radio Configurations, Service Options, multiplex options, voice/data, code channel combinations and options available to the EUT.

RESPONSE:

To test voice calls on the DUT, the test equipment was configured to use "all up bits" for RC1 / SO2 on J-STD-008 for CDMA 1900MHz and TSB-74 for CDMA 800MHz on the Agilent E8285A CDMA Mobile Station test set.

5. Please identify the CDMA Radio Configurations, Service Options, multiplex options, voice/data, code channel combinations and options used for the SAR tests.

RESPONSE:

See response in #6. below.

6. Because of the different RC's, SO's, data rates, channel combinations and modulations, the filing should include justification for the selection of applicable configurations used to establish and maintain maximum output in order to demonstrate SAR compliance for other configurations that were not tested. Please provide the justification for the specific combination(s) used during the SAR tests.

RESPONSE:

Motorola IS-2000 CDMA cellular phones does not use different data rates or concurrent channels (supplemental channels) while in the voice mode, thus testing voice modes using RC1 is applicable. Motorola IS2000 CDMA products do use supplemental channels and different data rates for data mode. The output power of the DUT is controlled by a power control loop within the DUT. This power control loop measures the total RF power supplied into the antenna match network for emission. This output power measurement will include the power from different data rates and concurrent channels. The measured power level is controlled and limited to the maximum output power setting for the phone. Motorola performs SAR tests of IS2000 CDMA phones at this maximum power level using RC1 / SO2, thus the output power under this test setup is equivalent to the maximum output power for any data rate and/or concurrent channel capability of the DUT. The Motorola IS2000 CDMA cellular phones were measured in voice calls only.

7. Does the EUT employ EV-DO? If so, body-worn SAR should be repeated in EV-DO (Rev. 0 only) using the CDMA 2000 body-worn channel configuration that resulted in the highest SAR among the various Radio Configurations in this frequency band (that is, just a single SAR test for EV-DO, as a sanity check). If this EV-DO SAR is greater than the highest body-worn SAR in CDMA 2000, perform body-worn SAR for the other 2 channels (among the required H, M, L channels).

Note: EV-DO operates independently of CDMA 2000 with different modulation, channel and protocol structures. It is not an integral part (seamless) of the CDMA 2000 structure, but overlays the 1x structure. EV-DO Rev A allows 307 kbps and higher order modulations; therefore, may need additional considerations. The above procedures applies to single band CDMA 2000 1x handsets with built-in EV-DO (Rev. 0) using the same transmit path hardware. Please contact us if the device in question operates in other configurations or EV-DO does not apply to body-worn conditions.

RESPONSE:

Yes, the EUT does employ EV-DO Rev. 0 (Not Rev. A) but the EV-DO Rev. 0 reverse link is a CDMA 2000 1x connection. Different modulations are not transmitted by the EUT in the Rev. 0 mode. The higher data rates and alternative modulations are only available on the forward link. Please reference Supplemental SAR Report Exhibit 11A submitted on May 5, 2006.

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