



**MOTOROLA**

**Date:** November 28, 2006

**Subject:** Request for additional information regarding FCC ID: IHDT56GN1

**Reference:**

Correspondence Reference Number:	IHD0643
Confirmation Number:	1610060642/0644
Date of Original Email:	November 21, 2006

**Prepared by:**

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Questions and responses follow:

1. Please indicate which WCDMA 3G mode (RMC or AMR) was used for EMC, SAR and HAC tests and show the method used to select the 3G modes for each subset of tests. Please note that for the HAC T-coil testing, ABM2 levels are to be investigated to select final configurations used for T-coil testing per May FCC 3G guidance.

**RESPONSE:** 12.2 kbps AMR mode is used for EMC, SAR and HAC testing. Per the "Preliminary Guidance for Reviewing Applications for Certifications of 3G Devices" released on May 9, 2006, 12.2 kbps RMC and 12.2 kbps AMR modes are considered. The conducted power measurements (per 3GPP TS 34.121) for each mode are shown in the Table 1 below. The conducted power measurements show that the portable cellular phone FCC ID IHDT56GN1 has the same output conducted power for both 12.2 kbps RMC and 12.2 kbps AMR modes.

**Table 1**

Conducted power (dBm) for WCDMA modes			
	Channel	RMC	AMR
WCDMA 850	4132	24.07	24.06
	4180	24.08	24.03
	4233	24.06	24.07
WCDMA 1900	9262	24.14	24.16
	9400	24.09	24.10
	9538	24.07	24.08

For T-coil measurements, ABM2 levels are investigated in the Table 2 below. 12.2 kbps AMR is used for T-coil testing because it shows one of the worst case scenarios.

**Table 2**

		ABM2 (dB A/m)
AMR 12.2 kbps	3.4k SRB	-49.33
	1.7k SRB	-50.07
	13.6k SRB	-49.33
AMR 7.95k	3.4k SRB	-49.60
AMR 4.75k	3.4k SRB	-50.47

2. Please confirm that no special HAC modes are available for this device.

**RESPONSE:** The measurements for “HAC Test Report for T-coil IHDT56GN1” are taken using normal operation mode (no special HAC modes).

3. There appears to be two axial centers according to Table 6. Please clarify. If this device exhibits two distinct T-coil locations, both user positions should be accounted for in the T-coil environment evaluation.

**RESPONSE:** The portable cellular phone FCC ID IHDT56GN1 has only one axial center. The T-coil location is the earpiece speaker area, and this is the axial center. The measurements in Table 6 are performed at the best SNR point. This point might be slightly different from the highest signal point or the axial center.

4. WCDMA Band Edge plots should be evaluated with RBW of at least 1% of the emission bandwidth. Please clarify.

**RESPONSE:** Please refer to the following procedure and measurement results:

## **OCCUPIED BANDWIDTH**

### **Measurement Procedure**

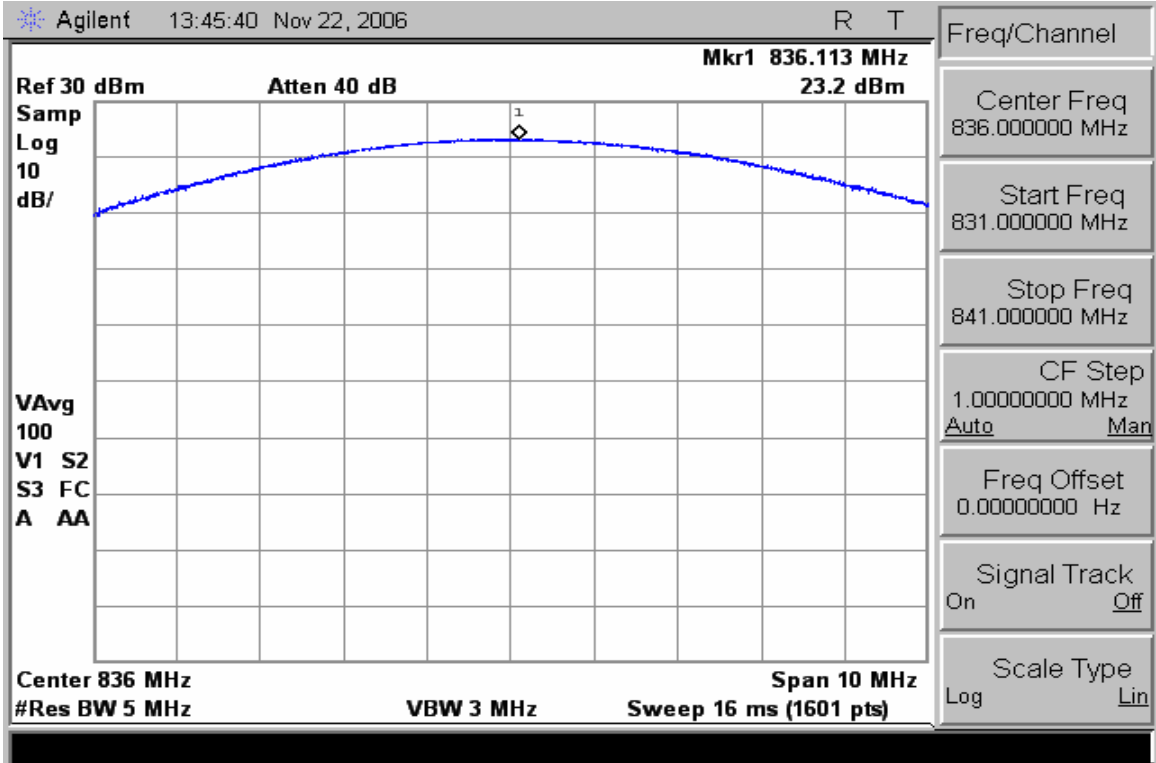
The RF output port of the equipment under test is directly coupled to the input of the EMC analyzer through a specialized RF connector and a 10dB passive attenuator. The amplitude of the spectrum analyzer is corrected for the attenuator and any other applicable losses. The analyzer is set for Peak Detector and each trace is set for Max Hold. A fully charged battery was used for the supply voltage.

The middle channel within the designated frequency block was measured. For digital modulation, the lower and upper band edge plots are displayed.

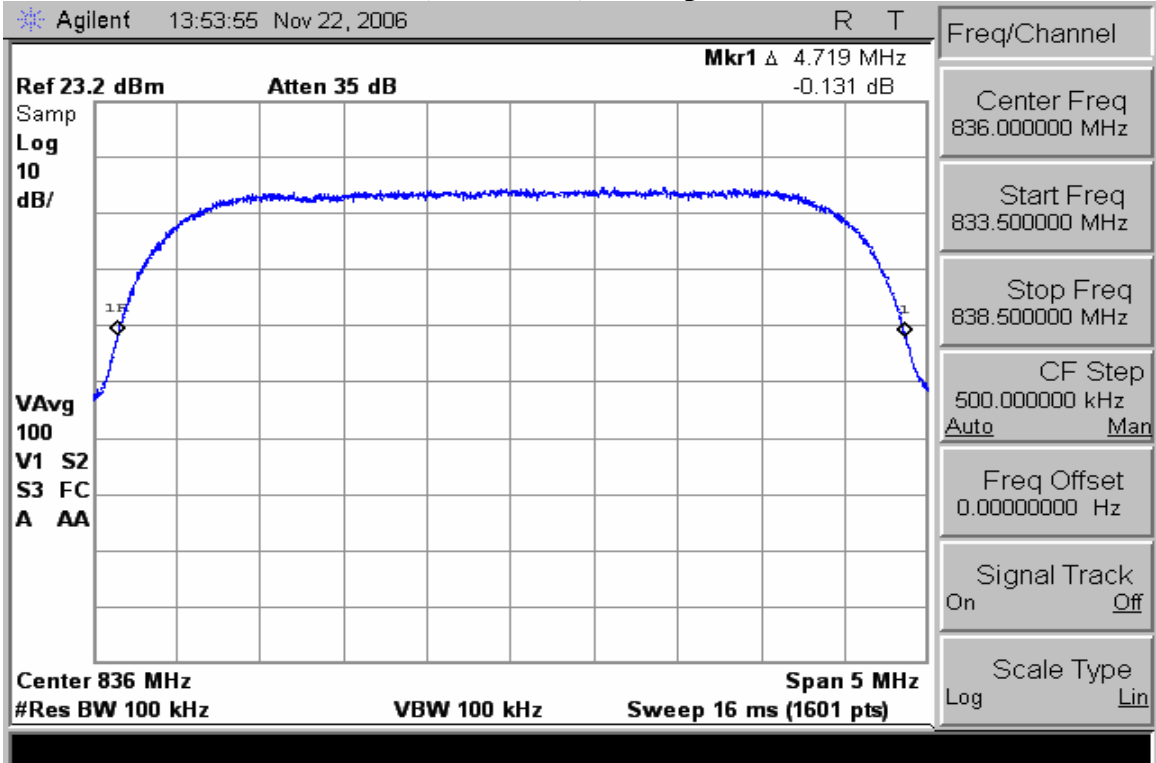
Measurement Results  
Attached

# Measurement Results – WCDMA 850

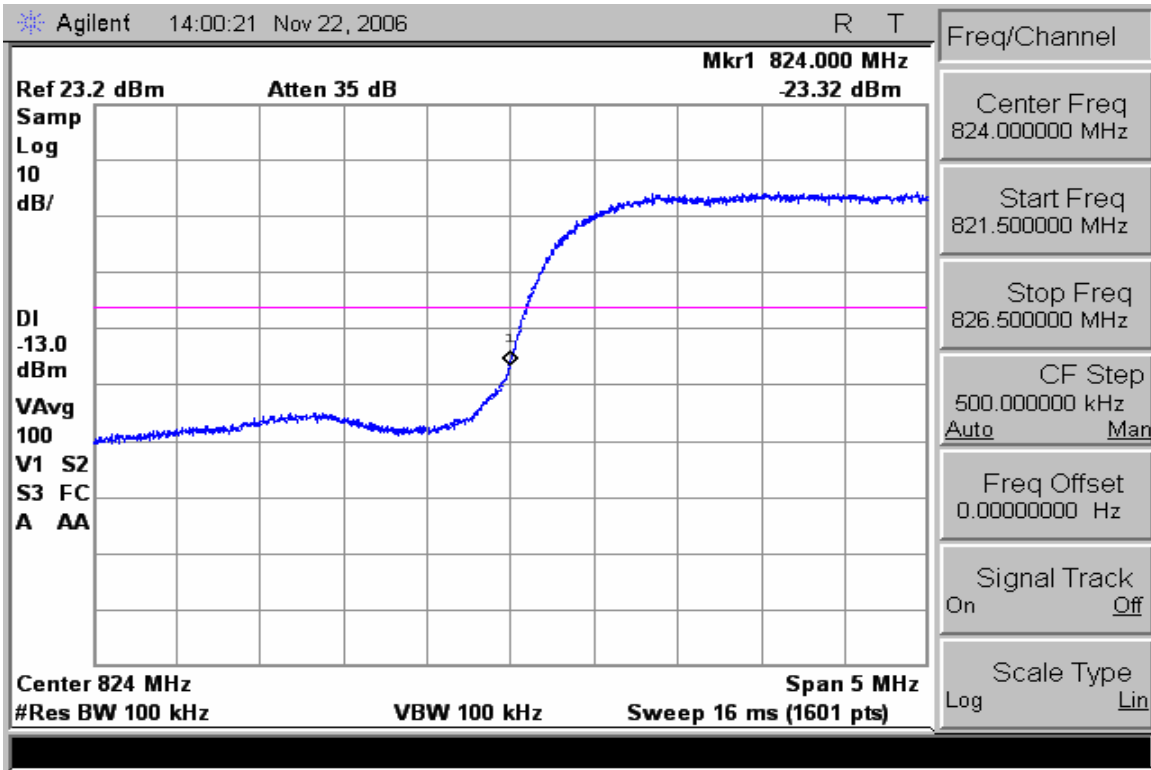
## WCDMA 850 – Reference Level Plot – Channel 4180 (836.0 MHz)



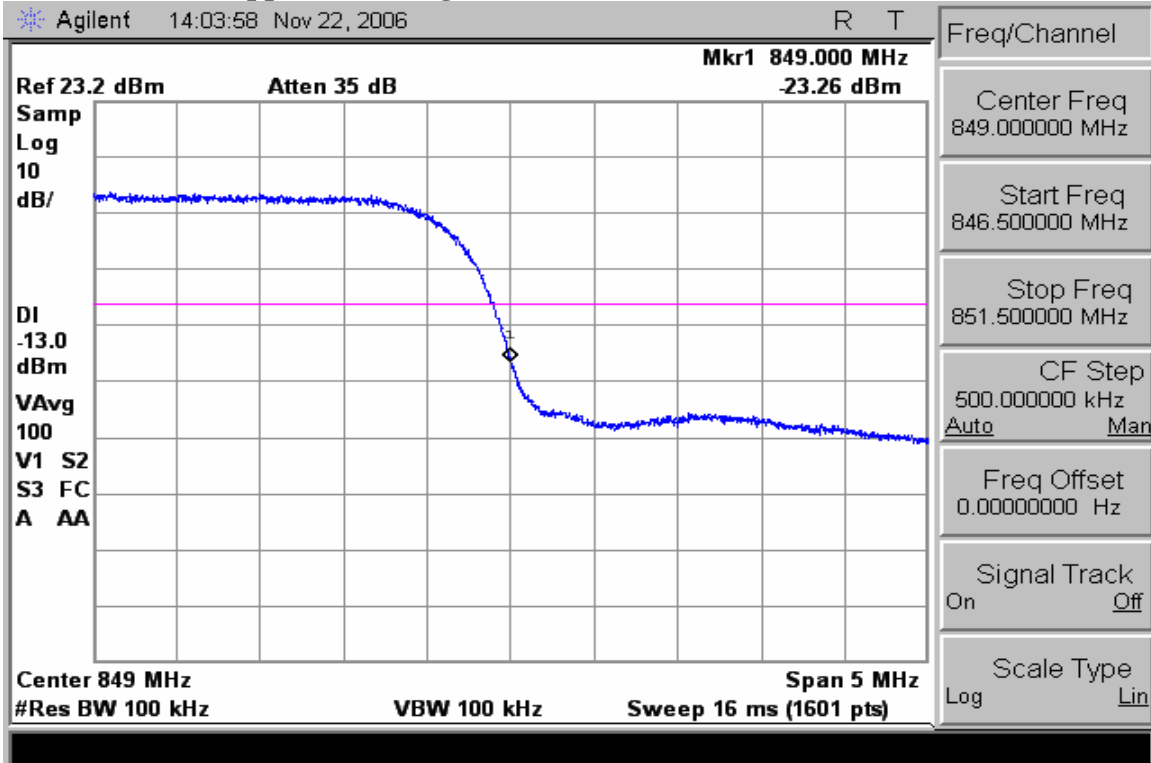
## WCDMA 850 – Channel 4180 (836.0 MHz)– Occupied Bandwidth



## WCDMA 850 – Lower Band Edge – Channel 4132 (826.4 MHz)

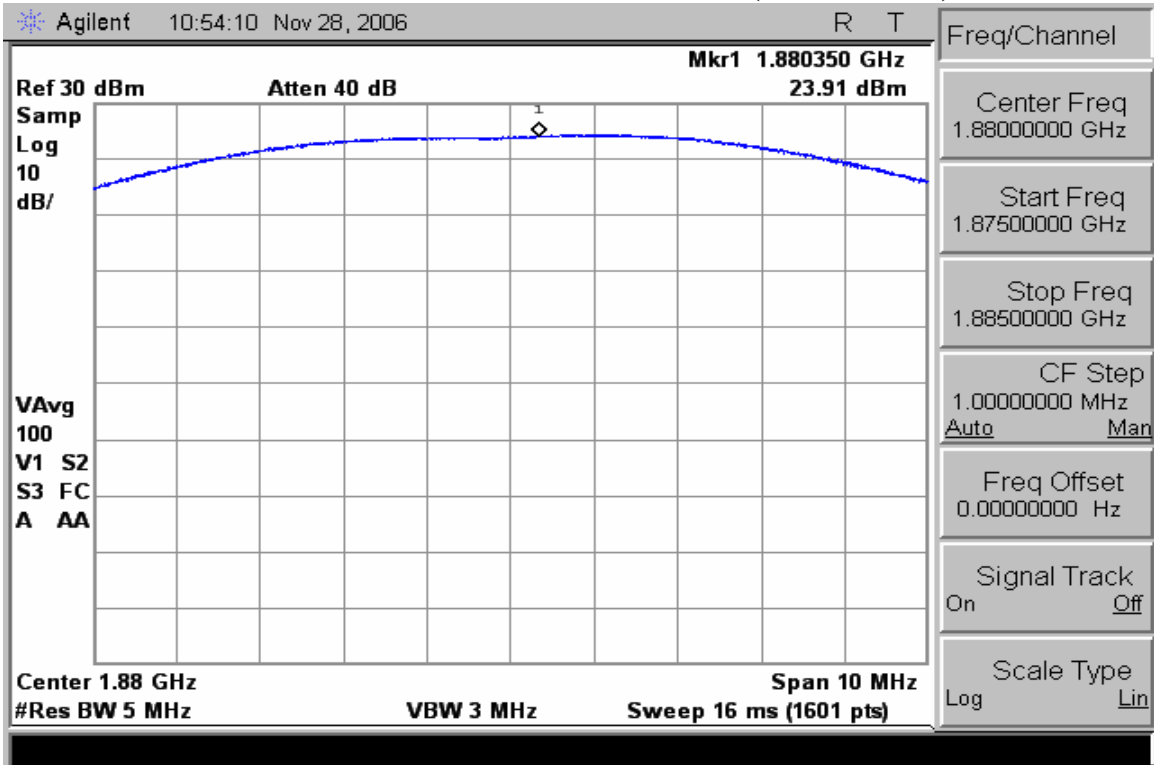


**WCDMA 850 – Upper Band Edge – Channel 4233 (848.6 MHz)**

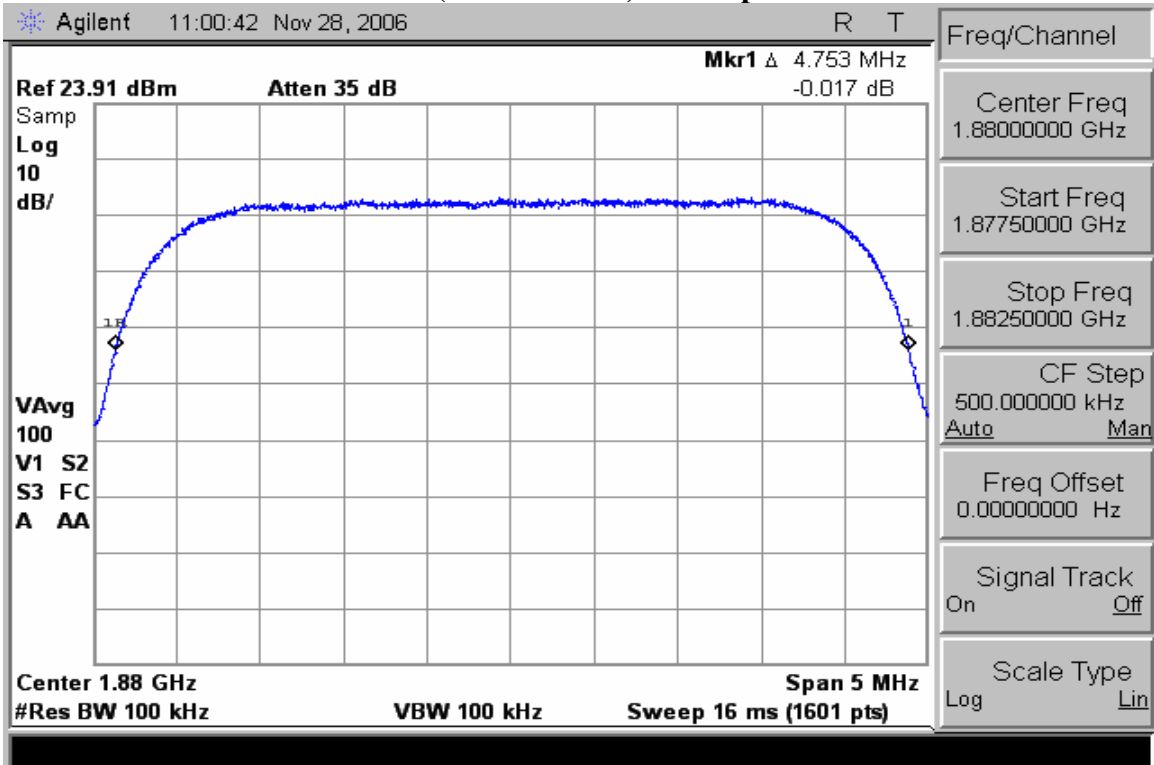


## Measurement Results – WCDMA 1900

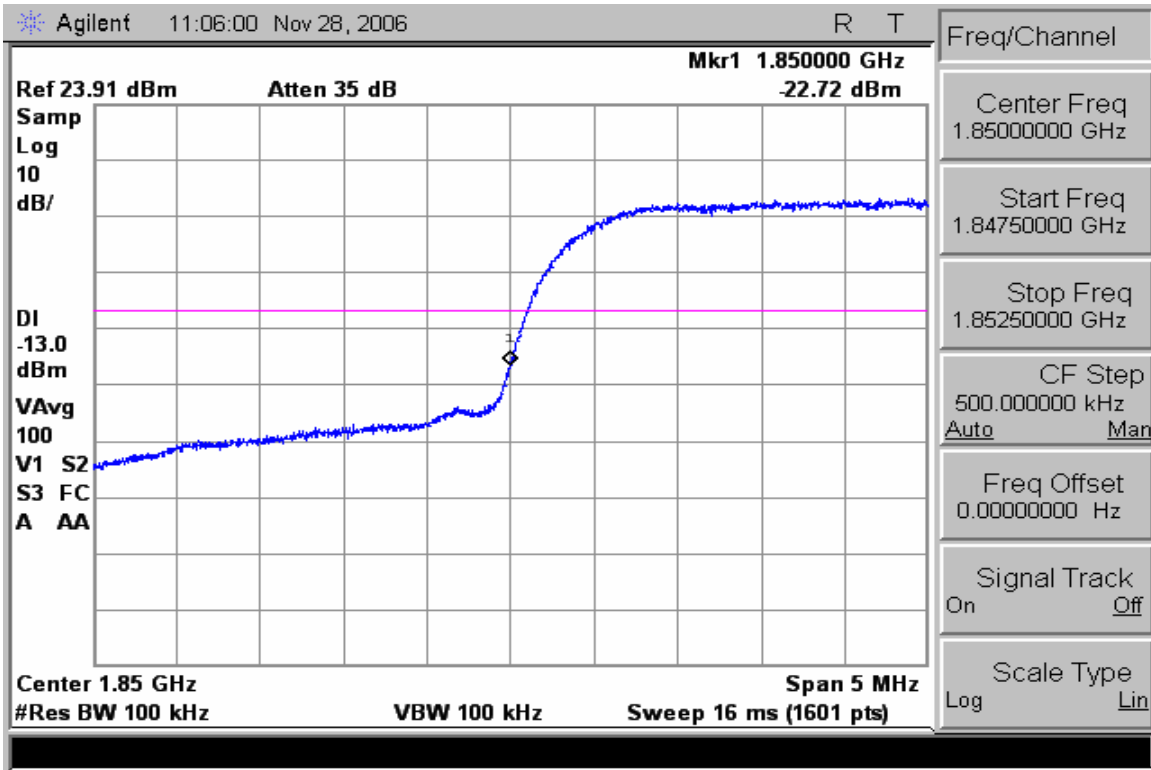
### WCDMA 1900 – Reference Level Plot – Channel 9400 (1880.00 MHz)



### WCDMA 1900 – Channel 9400 (1880.00 MHz) – Occupied Bandwidth



### WCDMA 1900 – Lower Band Edge – Channel 9262 (1852.4 MHz)



### WCDMA 1900 – Upper Band Edge – Channel 9538 (1907.6 MHz)

