



May 30, 2001

Supplement to SAR Test Report for Motorola portable cellular phone (FCC ID IHDT56ZZ2).

Prepared by:

Steven Hauswirth, Staff Engineer

Motorola Personal Communications Sector Product Safety Laboratory

Libertyville, Illinois

Contents

1. Corrected SAR Summary Table for PCS Conducted Output Power
2. Additional Head Adjacent SAR Testing with Clip-On Organizer Attached
3. Additional SAR Testing with the Slim Battery Attached
4. Graphical Display of Dipole Validation
5. SAR in the Hand Measurement Results

1. Corrected SAR Summary Table for PCS Conducted Output Power

<i>f</i> (MHz)	Description	Conducted Output Power (dBm)	SAR, 1g (W/kg)			
			Left Head		Right Head	
			Ant Ext	Ant Ret	Ant Ext	Ant Ret
Analog 800MHz	Channel 991	27.20 Ant Ext/ 26.70 Ant Ret	0.56	0.84	0.39	0.53
	Channel 384	27.30 Ant Ext/ 26.80 Ant Ret	0.40	0.53	0.25	0.29
	Channel 799	27.32 Ant Ext/ 26.82 Ant Ret	0.38	0.55	0.24	0.37
Digital 800MHz	Channel 1013	24.92 Ant Ext/ 24.42 Ant Ret	0.17	0.63	0.17	0.32
	Channel 384	25.02 Ant Ext/ 24.52 Ant Ret	0.11	0.38	0.14	0.24
	Channel 779	24.94 Ant Ext/ 24.44 Ant Ret	0.19	0.45	0.13	0.28
Digital 1900MHz	Channel 25	24.27	1.12	0.65	0.62	0.40
	Channel 600	24.34	0.89	0.88	0.43	0.44
	Channel 1175	24.24	0.55	0.83	0.30	0.47

Table 1: SAR measurement results for the portable cellular telephone FCC ID IHDT56ZZ2 at highest possible output power. Measured against the head.

<i>f</i> (MHz)	Description	Conducted Output Power (dBm)	SAR, 1g (W/kg)	
			Plastic Belt Clip	
			Ant Ext	Ant Ret
Analog 800MHz	Channel 991	27.20 Ant Ext/ 26.70 Ant Ret	0.33	0.53
	Channel 384	27.30 Ant Ext/ 26.80 Ant Ret	0.20	0.35
	Channel 799	27.32 Ant Ext/ 26.82 Ant Ret	0.21	0.38
Digital 800MHz	Channel 1013	24.92 Ant Ext/ 24.42 Ant Ret		0.41
	Channel 384	25.02 Ant Ext/ 24.52 Ant Ret		
	Channel 779	24.94 Ant Ext/ 24.44 Ant Ret	0.13	
Digital 1900MHz	Channel 25	24.27	0.22	0.42
	Channel 600	24.34	0.12	0.41
	Channel 1175	24.24	0.10	0.27

Table 2: SAR measurement results for the portable cellular telephone FCC ID IHDT56ZZ2 at highest possible output power. Measured against the body.

2. Additional Head Adjacent SAR Testing with Clip-On Organizer Attached

The clip-on organizer can be positioned on the back of the phone during the normal usage of the phone against the Head. Table 3 shows the highest SAR values for this configuration.

<i>f</i> (MHz)	Description	Conducted Output Power (dBm)	SAR, 1g (W/kg)	
			Left Head with the Clip-on Organizer	
			Ant Ext	Ant Ret
Analog 800MHz	Channel 991	27.20 Ant Ext/ 26.70 Ant Ret	0.44	0.64
Digital 1900MHz	Channel 25	24.27	0.96	
	Channel 600	24.34		1.18

Table 3: Highest SAR measurement results for the portable cellular telephone FCC ID IHDT56ZZ2 at the highest possible output power. Measured against the head with the Clip-on Organizer

3. Additional SAR Testing with the Slim Battery Attached

Additional tests were performed to verify SAR for the slim battery. Table 4 shows SAR values for 800 and 1900 MHz band of the phone with the slim battery against the head and Table 5 shows SAR values against the body with the provided belt clip.

<i>f</i> (MHz)	Description	Conducted Output Power (dBm)	SAR, 1g (W/kg)	
			Left Head with the thin battery	
			Ant Ext	Ant Ret
Analog 800MHz	Channel 991	27.20 Ant Ext/ 26.70 Ant Ret	0.645	0.97
Digital 1900MHz	Channel 25	24.27	0.847	
	Channel 600	24.34		0.164

Table 4: Highest SAR measurement results for the portable cellular telephone FCC ID IHDT56ZZ2 at the highest possible out put power. Measured against the head with the thin battery

<i>f</i> (MHz)	Description	Conducted Output Power (dBm)	SAR, 1g (W/kg)	
			Body worn tests with the thin battery with the belt clip	
			Ant Ext	Ant Ret
Analog 800MHz	Channel 991	27.20 Ant Ext/ 26.70 Ant Ret	0.36	0.575
Digital 1900MHz	Channel 25	24.27	0.21	0.318

Table 5: Highest SAR measurement results for the portable cellular telephone FCC ID IHDT56ZZ2 at the highest possible out put power. Measured against the body with the provided belt clip with the thin battery.

4. Graphical Display of Dipole Validation

The graphical display of the SAR distribution was not centered on the dipole because the dipole figure in the measurement software was not aligned. The SAR distribution is centered on the physical setup of the dipole. This is a graphical problem only and does not impact SAR measurement and validation.

5. SAR in the Hand Measurement Results

For the subject phone, the maximum power deposited in the hand was found to be less than 40 mW for both the antenna retracted and extended. Federal Communications Commission rule §2.1093(d)(2), the ANSI/IEEE C95.1 1992 and the NCRP Report Number 86 specify the maximum exposure limit in the hand of 4 W/kg as averaged over any 10 grams of tissue for portable devices being used within 20cm of the user in the uncontrolled environment. More than 40mW of total power deposited in the hand would be required for the limit of 4 W/kg averaged over 10 grams to be exceeded. Since the total power deposited in the hand for the test phone is less than 23 mW, the standard is not exceeded.