MOTOROLA

ACCREDITED
Certificate Number: 1449-01

FCC ID: AZ489FT5844
DECLARATION OF COMPLIANCE SAR ASSESSMENT Part 3 of 3

Government & Enterprise Mobility Solutions
EME Test Laboratory
8000 West Sunrise Blvd
Fort Lauderdale, FL. 33322

Date of Report: March 29, 2005
Report Revision: Rev. O
Report ID: FCC rpt_i850_Rev O_050329 SR2008

Responsible Engineer:	Kim Uong (EME lead Eng.)
Date/s Tested:	3/06/05-3/28/05
Manufacturer/Location:	Motorola - Plantation
Sector/Group/Div.:	iDEN Subscriber
Date submitted for test:	2/21/05
DUT Description:	i850; TDMA: 236:310 (76.1%), 1:6, 2:6, 81:120, 1:12; 64QAM, 16 QAM & QPSK Modulation; 0.6W Pulse Avg. MOTOtalk (114:120 8FSK; 0.85 W nominal); GPS capable
Test TX mode(s):	1:3, 1:6, 114:120, 236:310, 81:120,
Max. Power output:	Mototalk - 0.891W, iDEN/WiDEN - 0.640W
Nominal Power:	MOTOtalk - 0.85W, iDEN/WiDEN - 0.60W
Tx Frequency Bands:	MOTOtalk - 902-928MHz, iDEN/WiDEN – 806-825, 896-902MHz
Signaling type:	TDMA: iDEN; WiDEN, MOTOtalk - (FHSS 8FSK)
Model(s) Tested:	H65XAN6RR4AN/NWF1000A
Model(s) Certified:	H65XAN6RR4AN/NWF1000A
Serial Number(s):	364AFA021M
Classification:	General Population/Uncontrolled
Rule Part(s):	15 & 90

Approved Accessories:
Antenna(s):
8585744F04 (806-825MHz retractable ¼ wave antenna, -2.4dBd; 896-902MHz, -1.1dBd; 902-925MHz, -1.2dBd)
Battery(ies):
SNN5705C (Hi performance Li Ion); SNN5704C (Slim battery); NNTN5728A (Hi performance battery door); NNTN5727A (Slim battery door)
Body worn accessory(ies):
NNTN6026A (Holster); NNTN4747A (Belt clip)
Audio accessory(ies):
NSN6066A (Light duty RSM), NNTN5004A (PTT headset over ear), NNTN5005A (PTT headset over head), SYN8390B (Privacy earpiece), SYN8146C (Lightweight headset w/ boom mic), NTN8496A (Lightweight headset w/ mic), NNTN4033A (Privacy Earpiece/mic w/ PTT), NNTN5006A (Silver Earbud), SYN7875C (Hearing Aide Neckloop), NTN8513B (Lightweight headband), NNTN5330A (Ear bud accessory), NNTN4620A (Silver ear bud), NNTN5211A (Falcon Surveillance kit); NKN6559A (USB Cable), NKN6560A (RS232), NNTN5405A (USB cable w/ charging), NNTN5406A (RS-232 data cable w/ charging)

Max. Calc. 1-g/10-g Avg. SAR: 1.15/0.84 mW/g (Body)
Max. Calc. 1-g/10-g Avg. SAR: 0.43/0.31 mW/g (Face)
Max. Calc. 1-g/10-g Avg. SAR: 1.05/0.72 mW/g (Head)

Based on the information and the testing results provided herein, the undersigned certifies that when used as stated in the operating instructions supplied, said product complies with the national and international reference standards and guidelines listed in section 2.0 of this report. This report shall not be reproduced without written approval from an officially designated representative of the Motorola EME Laboratory.

This reporting format is consistent with the test report guidelines of the TIA TSB-150 December 2004
The results and statements contained in this report pertain only to the device(s) evaluated.

Signature on file
Ken Enger GEMS EME Lab Senior Resource Manager, Laboratory Director,

3/29/05
Approval Date:

Certification Date: 3/29/05

Certification No.: L1050365P

Appendix E
DUT Scans (Shortened scans & Highest SAR configurations)

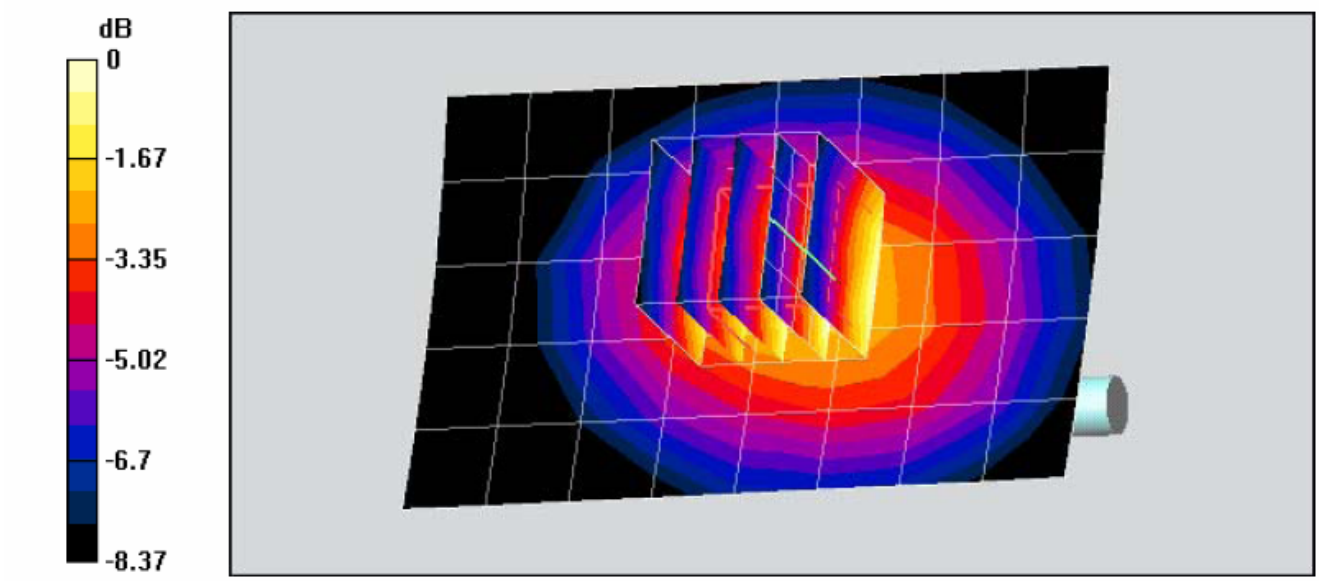
Shortened Scan Results

Motorola GEMS EME Laboratory
FCC ID: AZ489FT5844; Test Date: 3/21/05
Run #: 050321-08 Test operator: C. Miller
Tissue Temp: 20.7 (C)
Model #: H65XAN6RR4AN/NWF1000A SN: 364AFA021M

Antenna: IN TX Freq: 824.9875 MHz
Battery: SNN5704C Start power: 0.654 W
Carry acc.: NNTN6026A Audio/Data acc.: NONE

Comments: Short Scan at the body w/ body worn accessory against phantom
Shortened scan reflect highest S.A.R. producing configuration; Run time 4 minutes.
Representative "normal" scan run time was 16 minutes
"Shortened" scan max calculated S.A.R. using S.A.R. drift: 1-g Avg. = 0.89mW/g; 10-g Avg. = 0.65mW/g
"Normal" scan max calculated S.A.R. using S.A.R. drift: 1-g Avg. = 1.15mW/g; 10-g Avg. = 0.84mW/g
(see part 1 of 2 section 9.0 run # CM-Ab-R2-050318-04)

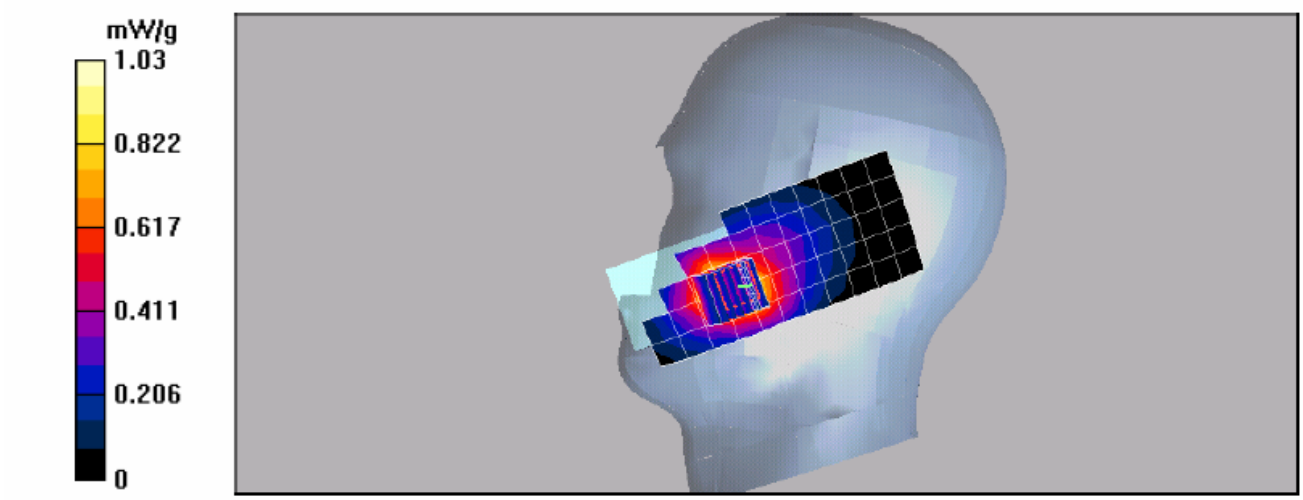
Probe: ET3DV6 - SN1393, Calibrated: 4/28/2004, ConvF(6.35, 6.35, 6.35)
Duty Cycle: 1:1.31, Medium: 813 MHz FCC Body, Medium parameters used: σ = 0.95; mho/m, ε_r = 53.4; ρ = 1000 kg/m3
Electronics: DAE3 Sn406, Calibrated: 11/17/2004
Body template/Zoom Scan (5x5x5)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=7.5mm
Reference Value = 31 V/m; Power Drift = -0.0196 dB
SAR(1 g) = 0.890 mW/g; SAR(10 g) = 0.651 mW/g
Maximum value of SAR (measured) = 0.951 mW/g

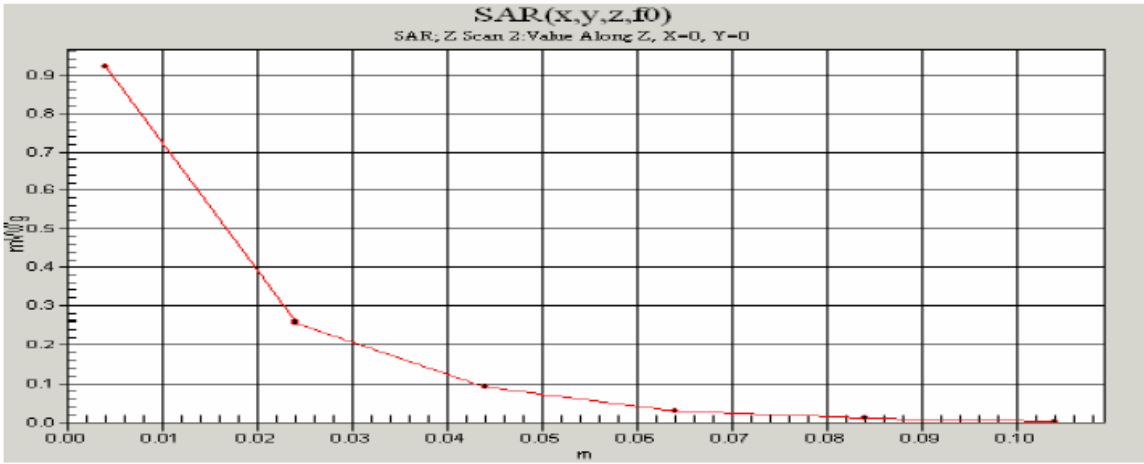


Highest SAR Configurations Results

Motorola GEMS EME Laboratory
FCC ID: AZ489FT5844; Test Date: 3/16/05
Run #: 050316-04 Test operator: C. Miller
Tissue Temp: 20.5 (C)
Model #: H65XAN6RR4AN/NWF1000A SN: 364AFA021M
Antenna: IN TX Freq: 824.9875 MHz
Battery: SNN5704C Start power: 0.659 W
Carry acc.: None Audio/Data acc.: None

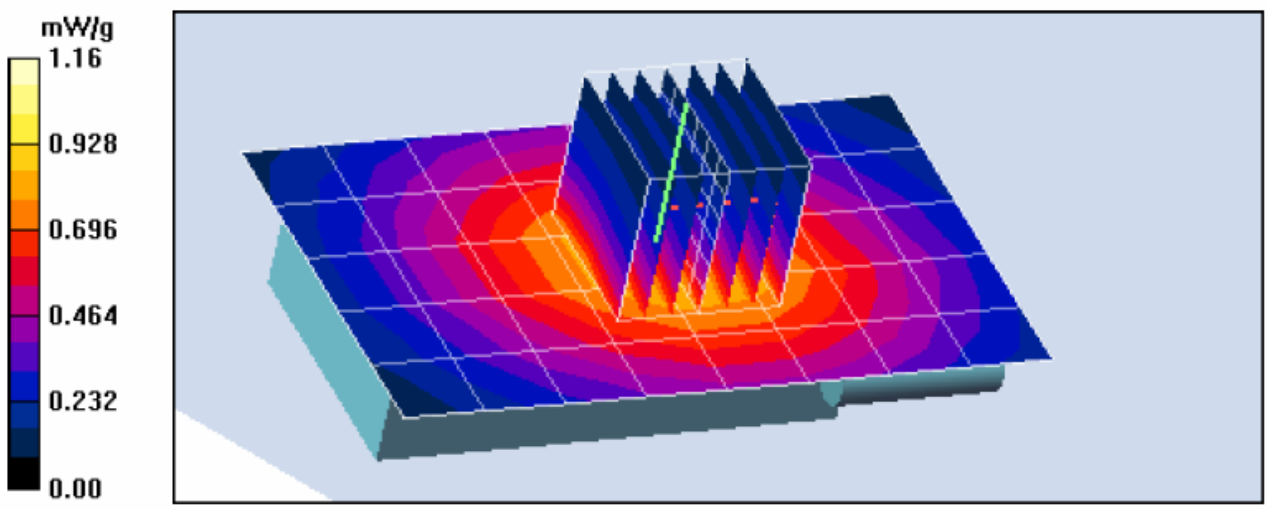
Probe: ET3DV6 - SN1393, Calibrated: 4/28/2004, ConvF(6.73, 6.73, 6.73)
Duty Cycle: 1:3, Medium: 813 IEEE Head, Medium parameters used: $\sigma = 0.93$; mho/m, $\varepsilon_r = 41.4$; $\rho = 1000$ kg/m3
Electronics: DAE3 Sn406, Calibrated: 11/17/2004
Right Ear - Touch position/7x7x7 Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 34.2 V/m; Power Drift = -0.613 dB
SAR(1 g) = 0.913 mW/g; SAR(10 g) = 0.628 mW/g

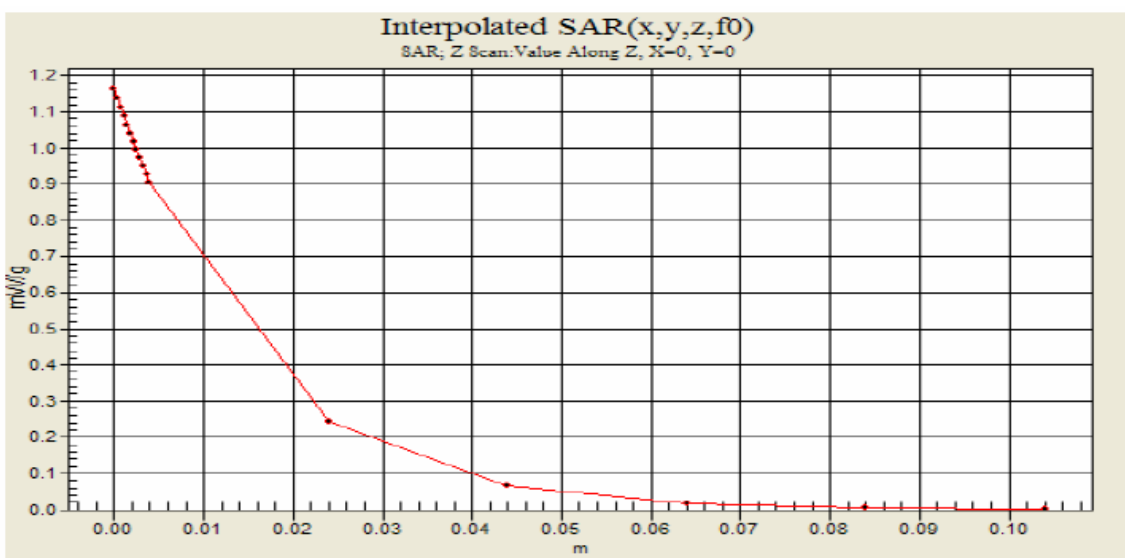




Motorola GEMS EME Laboratory
FCC ID: AZ489FT5844; Test Date: 3/28/05
Run #: 050328-03 Test operator: C. Miller
Tissue Temp: 20.5 (C)
Model #: H65XAN6RR4AN/NWF1000A SN: 364AFA021M
Antenna: IN TX Freq: 902.525 MHz
Battery: SNN5704C Start power: 0.860 W
Carry acc.: NONE Audio/Data acc.: NONE

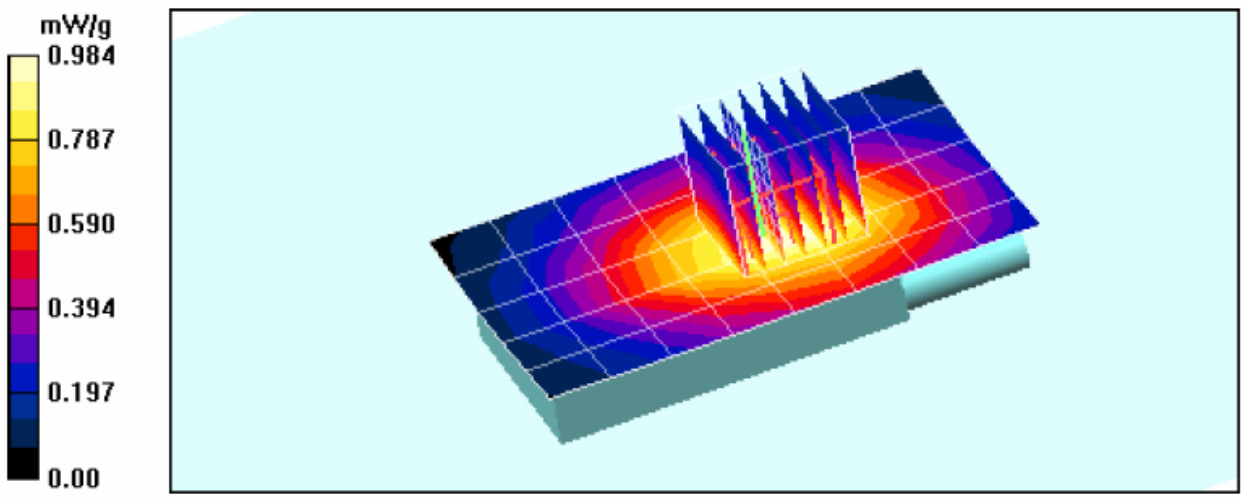
Comments: Flip closed, from of DUT separated 2.5cm from phantom
Probe: ET3DV6 - SN1393, Calibrated: 4/28/2004, ConvF(6.73, 6.73, 6.73)
Duty Cycle: 1:1.05, Medium: 915 IEEE Head, Medium parameters used: σ = 1.02 mho/m, ε_r = 40.2; ρ = 1000 kg/m^3 ;
Electronics: DAE3 Sn406, Calibrated: 11/17/2004
Face template/7x7x7 Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 28.7 V/m; Power Drift = 0.467 dB
SAR(1 g) = 0.831 mW/g; SAR(10 g) = 0.591 mW/g

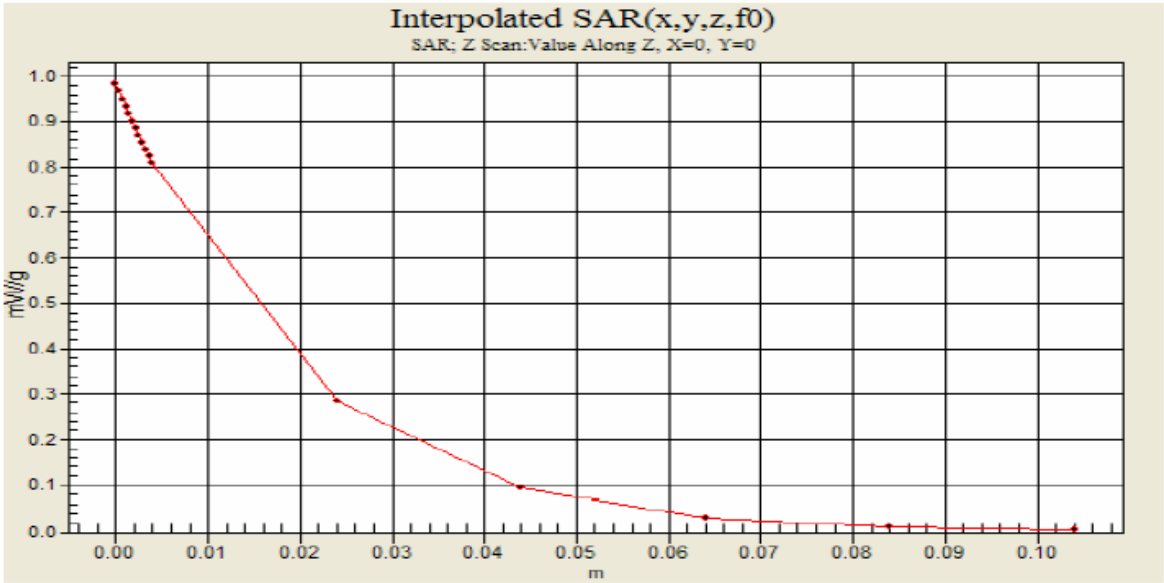




Motorola GEMS EME Laboratory
FCC ID: AZ489FT5844; Test Date: 3/18/05
Run #: 050318-06 Test operator: C. Miller
Tissue Temp: 20.4 (C)
Model #: H65XAN6RR4AN/NWF1000A SN: 364AFA021M
Antenna: IN TX Freq: 813.5125 MHz
Battery: SNN5704C Start power: 0.645 W
Carry acc.: NNTN6026A Audio/Data acc.: NONE

Comments: DUT with carry accessory against the phantom
Probe: ET3DV6 - SN1393, Calibrated: 4/28/2004, ConvF(6.35, 6.35, 6.35)
Duty Cycle: 1:1.31, Medium: 813 MHz FCC Body, Medium parameters used: σ = 0.95 mho/m, ε_r = 53.4; ρ = 1000 kg/m^3 ;
Electronics: DAE3 Sn406, Calibrated: 11/17/2004
Body template/7x7x7 Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 28.6 V/m; Power Drift = -1.25 dB
SAR(1 g) = 0.842 mW/g; SAR(10 g) = 0.614 mW/g



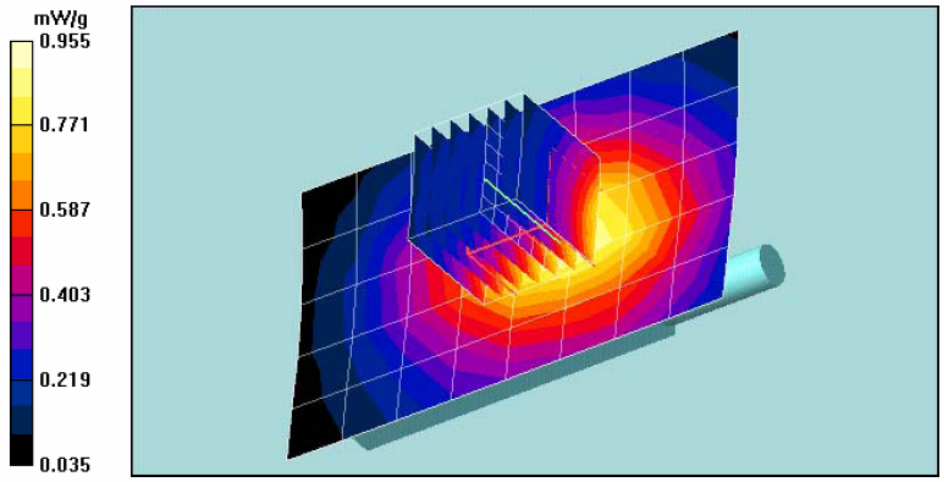


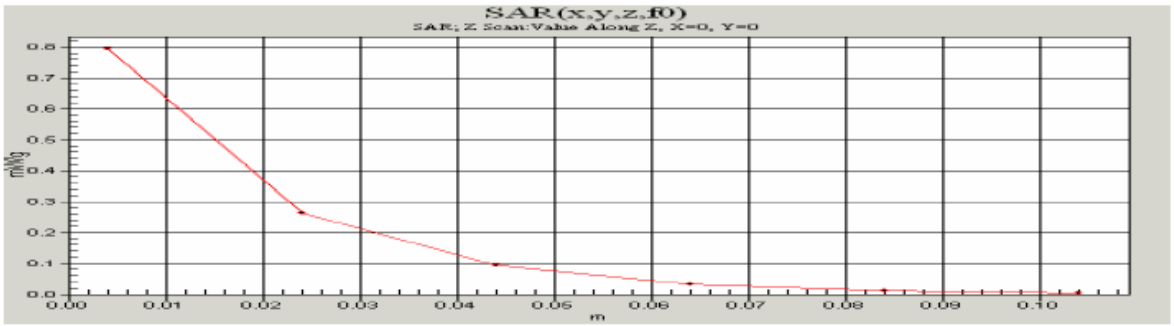
Motorola GEMS EME Laboratory
FCC ID: AZ489FT5844; Test Date: 3/18/05
Run #: 050318-09 Test operator: C. Miller
Tissue Temp: 20.5 (C)
Model #: H65XAN6RR4AN/NWF1000A SN: 364AFA021M

Antenna: IN TX Freq: 806.0125 MHz
Battery: SNN5704C Start power: 0.641 W
Carry acc.: NNTN6026A Audio/Data acc.: NONE

Comments: DUT with carry accessory against the phantom

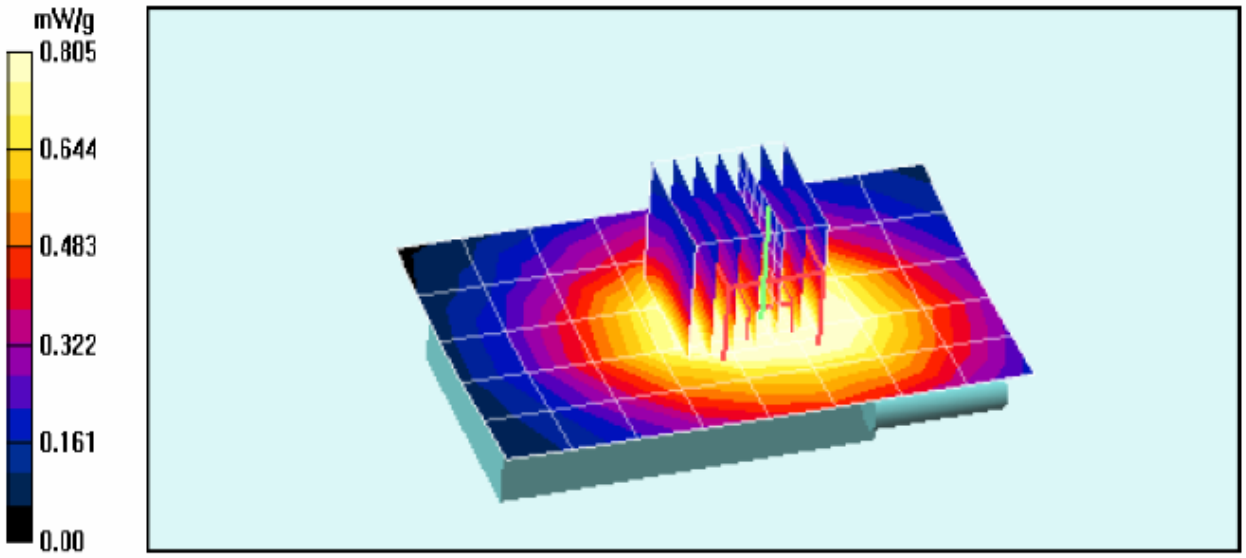
Probe: ET3DV6 - SN1393, Calibrated: 4/28/2004, ConvF(6.35, 6.35, 6.35)
Duty Cycle: 1:1.31, Medium: 813 MHz FCC Body, Medium parameters used: σ = 0.95; mho/m, ε_r = 53.4; ρ = 1000 kg/m3
Electronics: DAE3 Sn406, Calibrated: 11/17/2004
Body template/7x7x7 Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 27.8 V/m; Power Drift = -0.998 dB
SAR(1 g) = 0.788 mW/g; SAR(10 g) = 0.581 mW/g

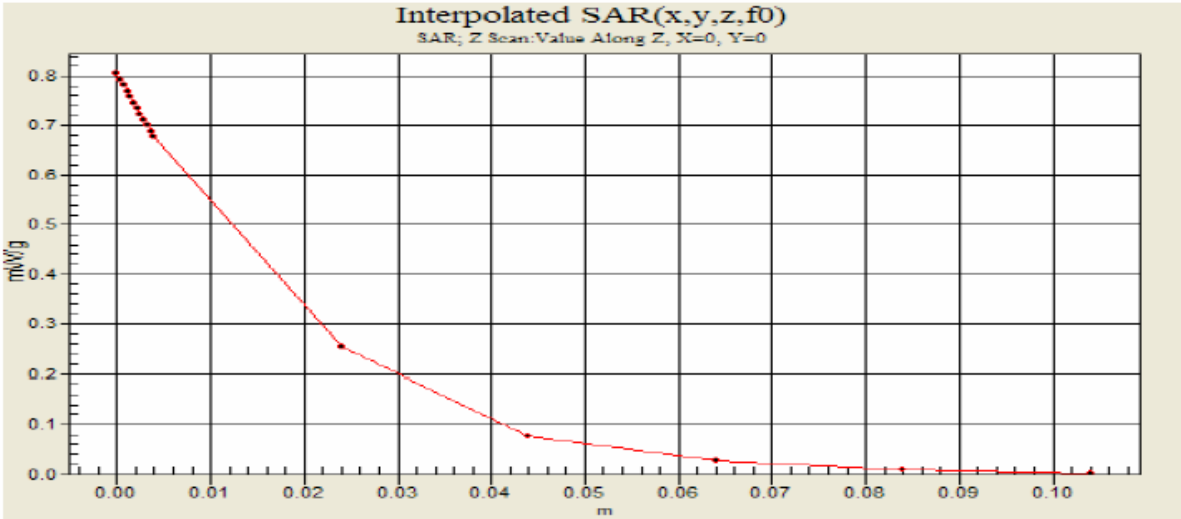




Motorola GEMS EME Laboratory
FCC ID: AZ489FT5844; Test Date: 3/18/05
Run #: 050318-04 Test operator: C. Miller
Sim. Tissue Temp: 20.3 (C)
Model #: H65XAN6RR4AN/NWF1000A SN: 364AFA021M
Antenna: IN TX Freq: 824.9875 MHz
Battery: SNN5704C Start power: 0.640 W
Carry acc.: NNTN6026A Audio/Data acc.: NONE

Comments: DUT with carry accessory against the phantom
Probe: ET3DV6 - SN1393, Calibrated: 4/28/2004, ConvF(6.35, 6.35, 6.35)
Duty Cycle: 1:1.31, Medium: 813 MHz FCC Body, Medium parameters used: σ = 0.95 mho/m, ε_r = 53.4; ρ = 1000 kg/m3 ;
Electronics: DAE3 Sn406, Calibrated: 11/17/2004
Body template/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 29.4 V/m; Power Drift = -1.31 dB
SAR(1 g) = 0.850 mW/g; SAR(10 g) = 0.621 mW/g





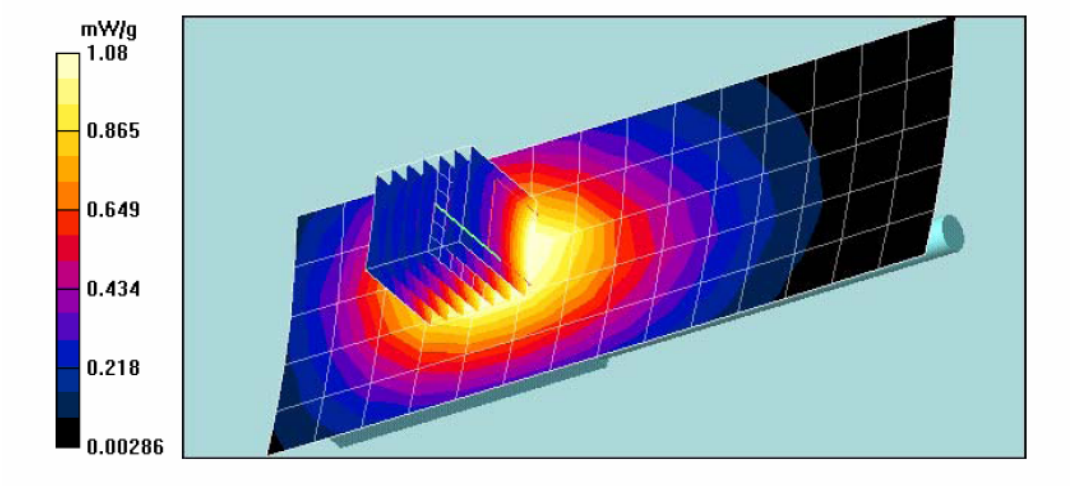
Motorola GEMS EME Laboratory
FCC ID: AZ489FT5844; Test Date: 3/21/05
Run #: 050321-12 Test operator: C. Miller
Tissue Temp: 20.6 (C)
Model #: H65XAN6RR4AN/NWF1000A SN: 364AFA021M

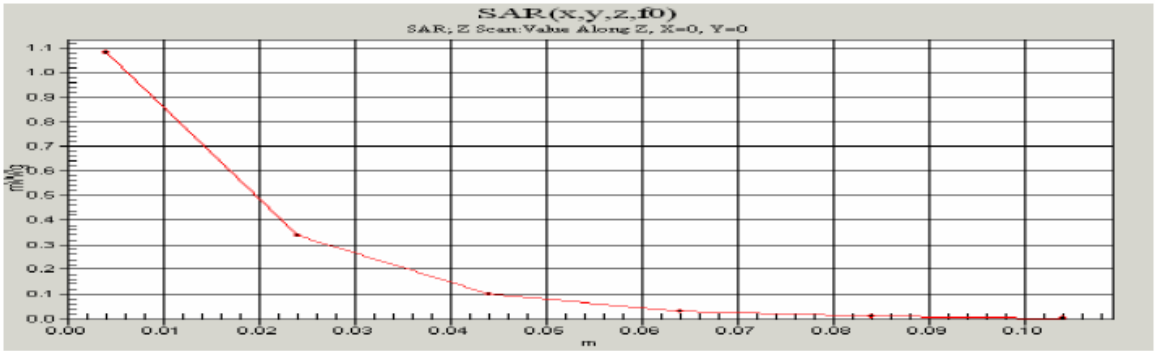
Antenna: OUT TX Freq: 915.525 MHz
Battery: SNN5704C Start power: 0.868 W
Carry acc.: NNTN6026A Audio/Data acc.: SYN8146C

Comments: DUT with carry accessory against the phantom

Probe: ET3DV6 - SN1393, Calibrated: 4/28/2004, ConvF(6.35, 6.35, 6.35)
Duty Cycle: 1:1.05, Medium: 915 MHz FCC Body, Medium parameters used: σ = 1.05; mho/m, ε_r = 52.5; ρ = 1000 kg/m3
Electronics: DAE3 Sn406, Calibrated: 11/17/2004

Body template/7x7x7 Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 31 V/m; Power Drift = -0.253 dB
SAR(1 g) = 1.18 mW/g; SAR(10 g) = 0.833 mW/g



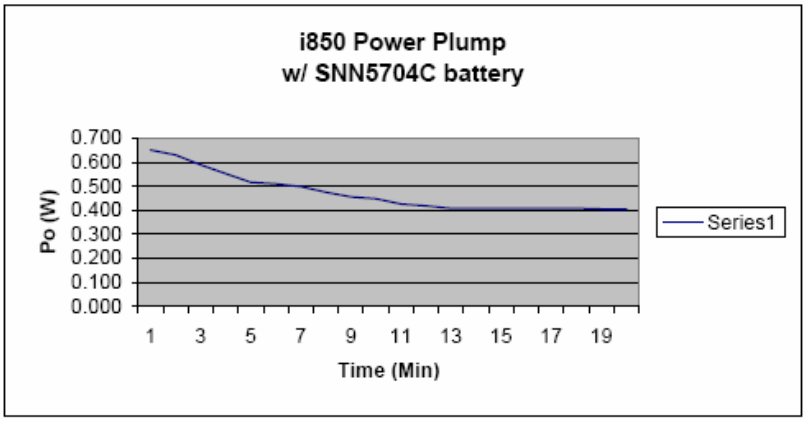


APPENDIX F
DUT Supplementary Data (Power slump)

i850 POWER SLUMP

Model H65XAN6RR4AN/NWF1000A, serial # 364AFA021M, WiDEN mode at 824.9875, SNN5704C battery, antenna IN

TIME (min)	Power (W)
Start	0.650
2	0.629
4	0.588
6	0.552
8	0.516
10	0.509
12	0.497
14	0.475
16	0.455
18	0.447
20	0.426
22	0.418
24	0.407
26	0.407
28	0.407
30	0.407
32	0.407
34	0.407
36	0.405
38	0.405
40	NA



Appendix G
DUT Test Position Photos

Figure 1: Highest S.A.R. Test Position (Body)
DUT w/ holster against the phantom; worst case audio accessory attached, and antenna retracted
(same position used for all other audio/data accessories and for ant extended)

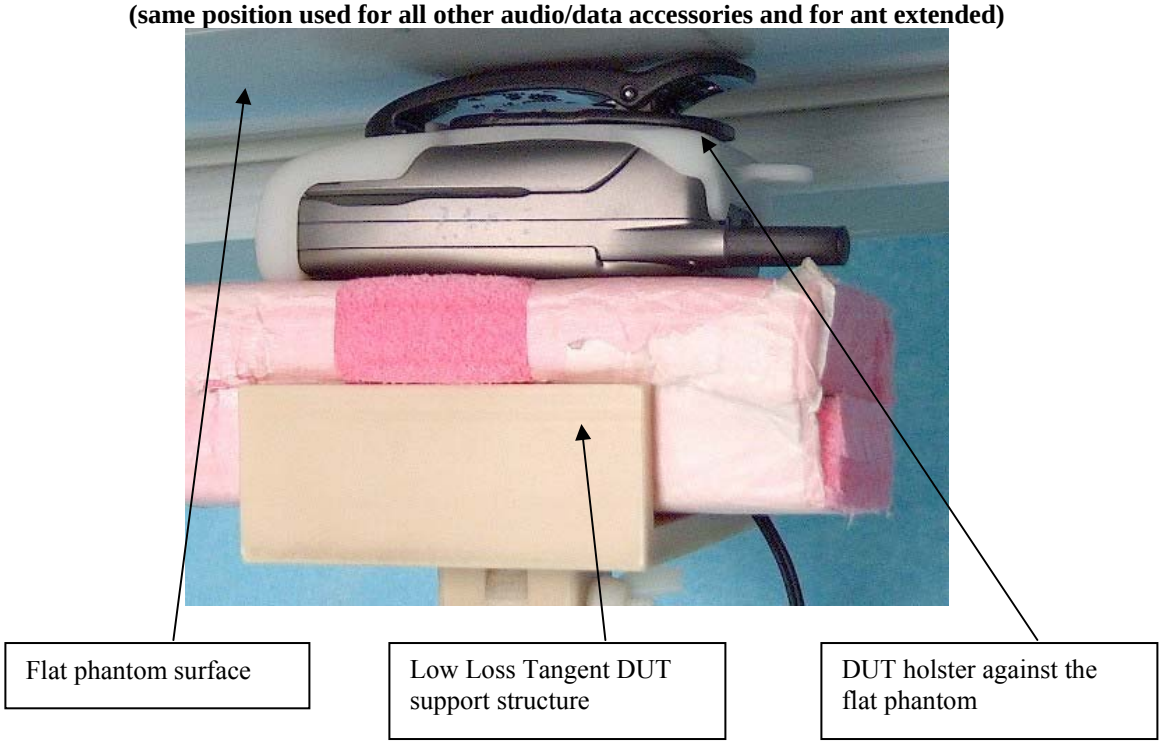


Figure 2: Highest S.A.R. Test Position (face)
DUT flip closed w/ front side separated 2.5cm from the phantom
(same position used for antenna extended)

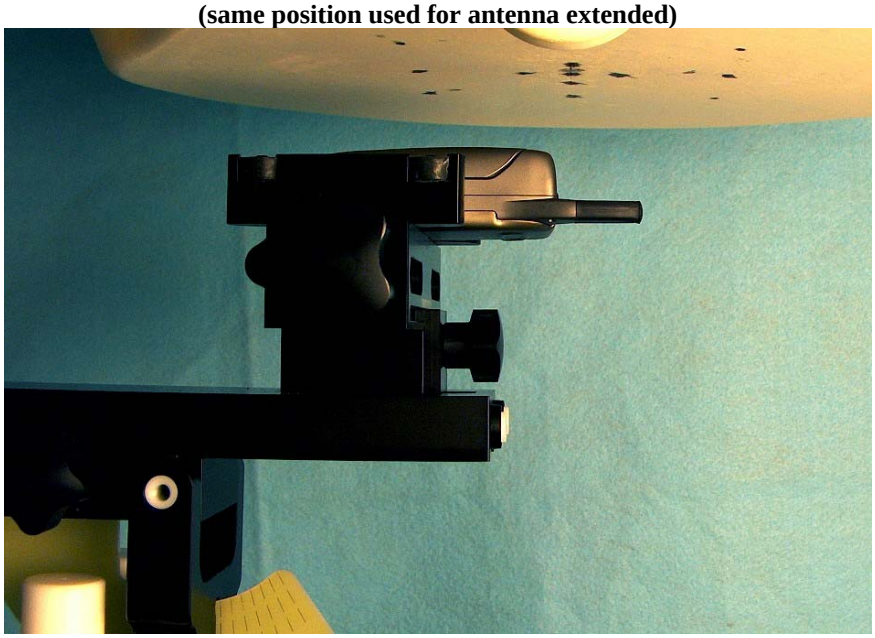


Figure 3: Highest S.A.R. Test Position (Head)
DUT at the right ear in cheek touch position. (same position used for antenna extended)

Figure 4: Body Assessment
DUT w/ belt clip against the phantom. (same position used for antenna extended)

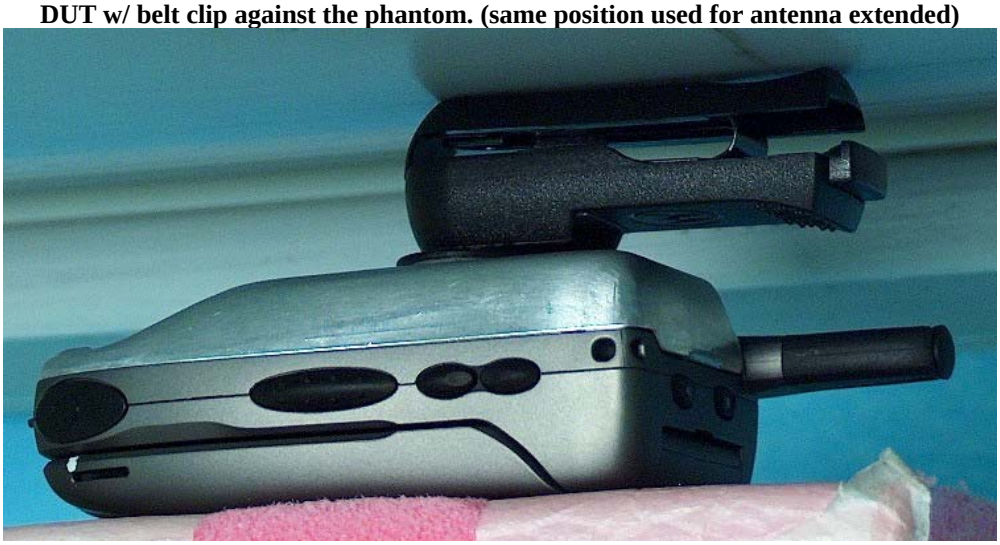


Figure 5: Body Assessment
DUT w/ back side separated 2.5cm from the phantom. (same position used for antenna extended)

Figure 6: Body Assessment
DUT w/ front side separated 2.5cm from the phantom. (same position used for antenna extended)

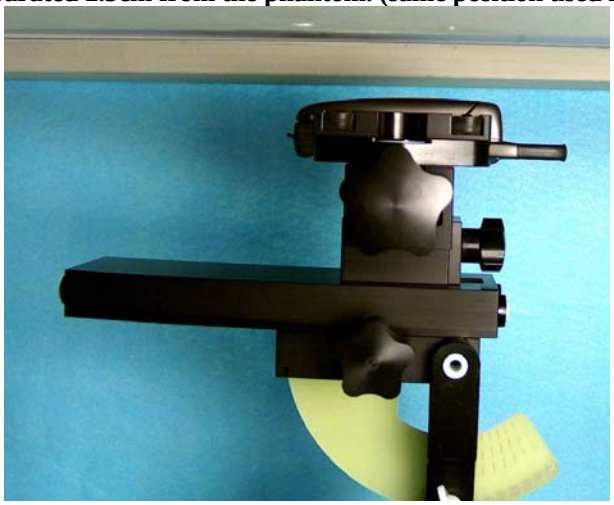


Figure 7: Face Assessment
DUT Flip opened w/ front side separated 2.5cm from the phantom. (same position used for antenna extended)

Figure 8: Assessment at the Head
DUT at the right ear in tilt position. (same position used for antenna extended)

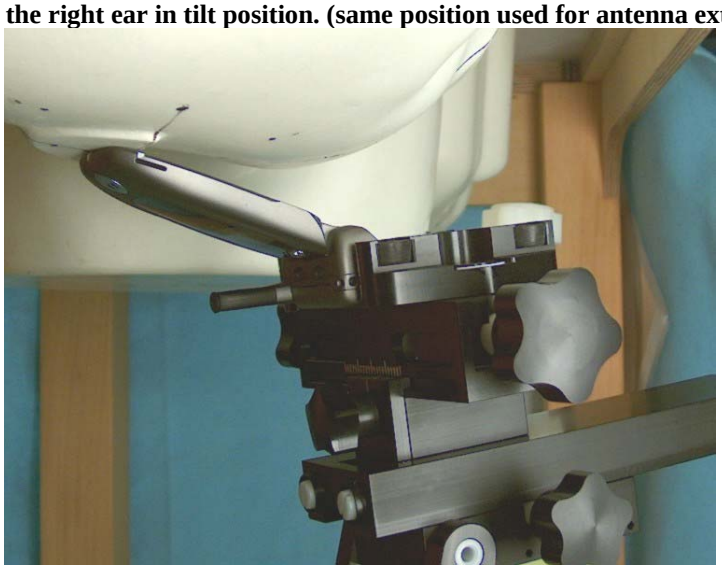
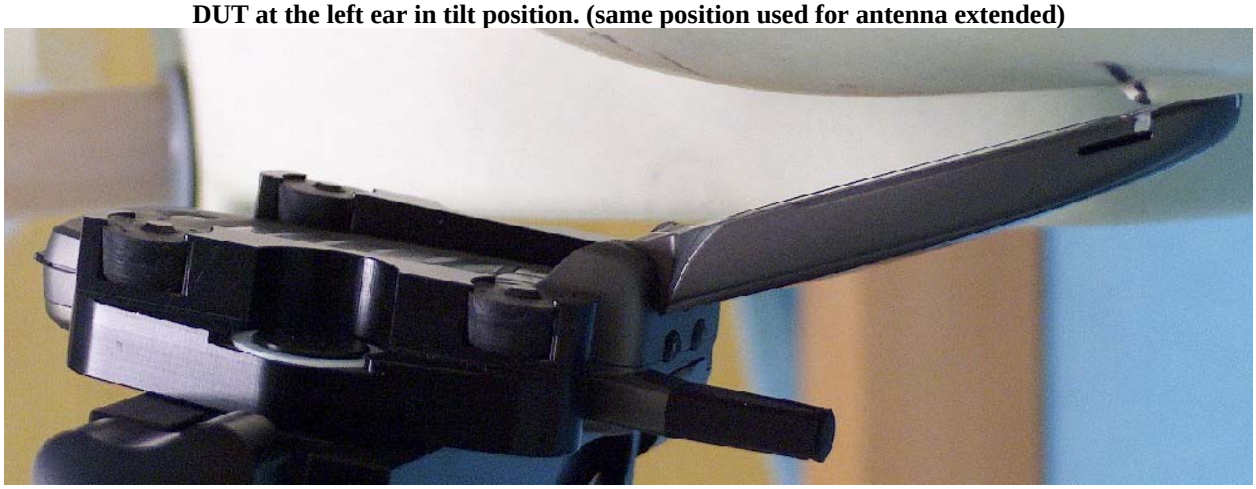


Figure 9: Assessment at the Head
DUT at the left ear in cheek touch position. (same position used for antenna extended)

Figure 10: Assessment at the Head
DUT at the left ear in tilt position. (same position used for antenna extended)



Appendix H
DUT and Accessory Photos

The purpose of this appendix is to illustrate the body-worn carry accessory(ies) for FCC ID: AZ489FT5844. The sample that was used in the following photos represents the product used to obtain the results presented herein and was used in this section to demonstrate the offered body-worn accessory(ies).

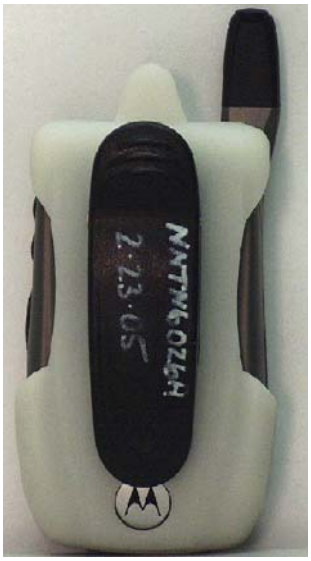


Photo 1.
Model NNTN6026A
Front View

Photo 2.
Model NNTN6026A
Back View

Photo 3.
Model NNTN6026A
Side View

Photo 4.
Model NNTN4747A
Front View

Photo 5.
Model NNTN4747A
Back View

Photo 6.
Model NNTN4747A
Side View

Appendix I
DUT Body-worn Separation Distances

The following table summarizes the test status and separation distance provided by each of the applicable body-worn accessory(ies):

Carry Case Models	Tested ?	Min. Separation distances between DUT antenna and phantom surface. (mm)	Comments
NNTN6026A	Yes	37-45	NA
NNTN4747A	Yes	28-31	NA

Audio Acc. Models	Tested ?	Separation distances between DUT antenna and phantom surface. (mm)	Comments
NNTN4620A	Yes	NA	NA
SYN8146C	Yes	NA	NA
SYN7875C	Yes	NA	NA
NTN8496A	Yes	NA	NA
NTN8513B	Yes	NA	NA
SYN8390B	Yes	NA	NA
NNTN4033A	Yes	NA	NA
NSN6066A	Yes	NA	NA
NNTN5004A	Yes	NA	NA
NNTN5005A	Yes	NA	NA
NNTN5006A	Yes	NA	NA
NNTN5330A	Yes	NA	NA
NNTN5211A	Yes	NA	NA

Data cable Models	Tested ?	Separation distances between DUT antenna and phantom surface. (mm)	Comments
NKN6560A	Yes	NA	NA
NKN6559A	Yes	NA	NA
NNTN5405A	Yes	NA	NA
NNTN5406A	Yes	NA	NA

Other attachment models	Tested ?	Separation distances between DUT antenna and phantom surface. (mm)	Comments
NNTN5728A	Yes	NA	Tested with high performance battery
NNTN5727A	Yes	NA	Tested with slim battery