TEST REPORT

Your Ref:

Date: 5 Oct 2001

Our Ref: EMC/R/02238

DID: 7729722

Fax: 7776409

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FORMAL REPORT ON TESTING IN ACCORDANCE WITH
SAR (Specific Absorption Rate) Requirements
using guidelines established in :
FCC OET Bulletin 65 - Supplement C (Edition 97-01)

OF A

MOBILE RADIO SYSTEM with AM/FM Stereo Receiver
[Model : GMRS1000H]

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JOB NUMBER 56S00334

TEST PERIOD 24 Sept 2001 - 4 Oct 2001

PREPARED BY	**APPROVED BY**
Gary Ng Ah Chye Associate Engineer	Teo Swee Hoe Senior Engineer

Your product quality and safety mark

LA-2001-0212-A
LA-2001-0213-F
LA-2001-0214-E
LA-2001-0215-B
LA-2001-0216-G
LA-2001-0217-G

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The product was tested in accordance with the following standards.

Test Results Summary

Test Standards	Description	Pass / Fail
• FCC OET Bulletin 65-1997 (Supplement C)	SAR Measurement For Face-Hand Held Location	Pass *
• ANSI/IEEE Standard C95.1-1993	SAR Measurement For Waist Position with Belt-Clip Location	Pass *

* Based on Spatial Peak Uncontrolled exposure / General population Level :
Brain : 1.60 W/Kg
Body : 1.60 W/Kg

Modifications

No modifications were made.

Note :

The manufacturer, Musical Electronics Limited had declared and confirmed that the model UGMR-3000 (without AM/FM radio feature), Unwired Brand, is similar to the Musical original model GMRS1000H (with AM/FM radio feature). Both the models are identical in electrical, mechanical and physical design except for trade name, model number and cosmetic.

Description	:	The Equipment Under Test (EUT) is a **MOBILE RADIO SYSTEM with AM/FM Stereo Receiver.**
Model Number	:	GMRS1000H
Radio Type	:	Two way mobile radio system with AM/FM Stereo Receiver
Serial Numbers	:	FCC 001
Frequency Band	:	1) 462.550MHz – 462.725MHz (Mail Channel) 2) 467.550MHz – 467.725MHz (Repeater-Assisted Comm. Channels) 3) 462.675MHz, 467.675MHz (Emergency Channels)
Operating Frequencies	:	1) 462.550MHz – 462.725MHz (Mail Channel) 2) 467.550MHz – 467.725MHz (Repeater-Assisted Comm. Channels) 3) 462.675MHz, 467.675MHz (Emergency Channels)
Rated Output Power	:	2.25Watt
Clock / Oscillator Frequency	:	Voltage-Controlled Oscillator
Antenna Type	:	Detachable Spiral Antenna
Duty Cycle	:	50%
Input Power	:	9V DC (AAA size Battery x Qty 06)
Accessories	:	1) Belt-Clip 2) Headset with Mic. and Speaker

The measurement results were obtained with the EUT tested in the conditions described in this report (Annex A). Detailed measurement data and plots indicating the maximum SAR location of the EUT are indicated as follow.

Table 1 - Face-Hand Held SAR Test Results

Channel	Frequency (MHz)	Antenna Position	Max. Conducted Power (dBm) (Before SAR Measurement)	Max. Conducted Power (dBm) (After SAR Measurement)	1 cm Voltage (mV)	SAR (W/Kg)	SAR (50% Duty cycle) (W/Kg)
01	462.5	Fixed	33.3	31.5	10.15	0.89	0.45
14	462.7	Fixed	33.3	31.6	12.96	1.06	0.53
15	467.5	Fixed	33.3	31.8	11.76	0.97	0.49
21	467.7	Fixed	33.3	31.7	10.58	0.77	0.39

Remarks:
1. All modes of operations were investigated and the worst-case SAR levels are reported.
2. A fully charged Ni-MH Battery is used for each mode of operation.
3. The worst-case SAR value was found to be 0.53W/Kg (50% Duty Cycle) at Channel 14, which is lower than the maximum limit of 1.60 W/Kg.
4. The SAR limit of 1.60W/Kg (Spatial Peak level for Uncontrolled Exposure / General Population) is based on the Test Standards :
    a) FCC OET Bulletin 65-1997 (Supplement C)
    b) ANSI/IEEE Standard C95.1-1993

The measurement results were obtained with the EUT tested in the conditions described in this report (Annex A). Detailed measurement data and plots indicating the maximum SAR location of the EUT are indicated as follow.

Table 2 - Waist Position with Belt-Clip SAR Test Results

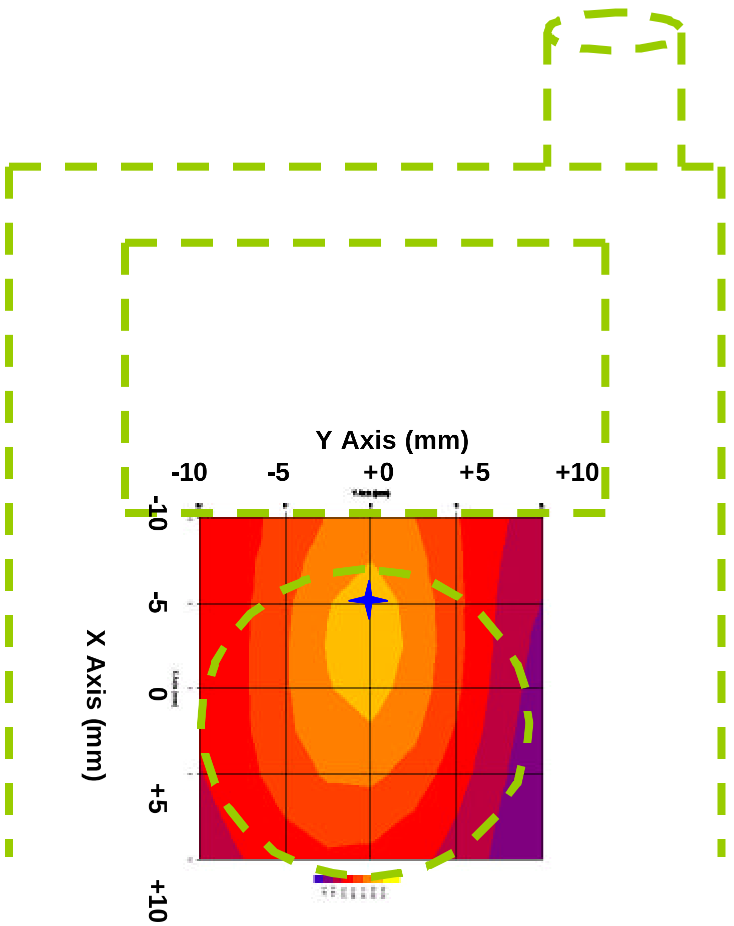
Channel	Frequency (MHz)	Antenna Position	Max. Conducted Power (dBm) (Before SAR Measurement)	Max. Conducted Power (dBm) (After SAR Measurement)	1 cm Voltage (mV)	SAR (W/Kg)	SAR (50% Duty cycle) (W/Kg)
01	462.5	Fixed	33.3	31.6	20.88	1.31	0.66
14	462.7	Fixed	33.3	31.6	14.87	1.01	0.51
15	467.5	Fixed	33.3	31.8	15.38	1.04	0.52
21	467.7	Fixed	33.3	31.7	16.09	1.10	0.55

Remarks:

1. All modes of operations were investigated and the worst-case SAR levels are reported.
2. A fully charged Ni-MH Battery is used for each mode of operation.
3. The worst-case SAR value was found to be 0.66W/Kg (50% Duty Cycle) at Channel 1, which is lower than the maximum limit of 1.60 W/Kg.
4. The SAR limit of 1.60W/Kg (Spatial Peak level for Uncontrolled Exposure / General Population) is based on the Test Standards :
   a) FCC OET Bulletin 65-1997 (Supplement C)
   b) ANSI/IEEE Standard C95.1-1993

Area Scan Plot 1 - Location of RF Energy for Face-Hand Held Position

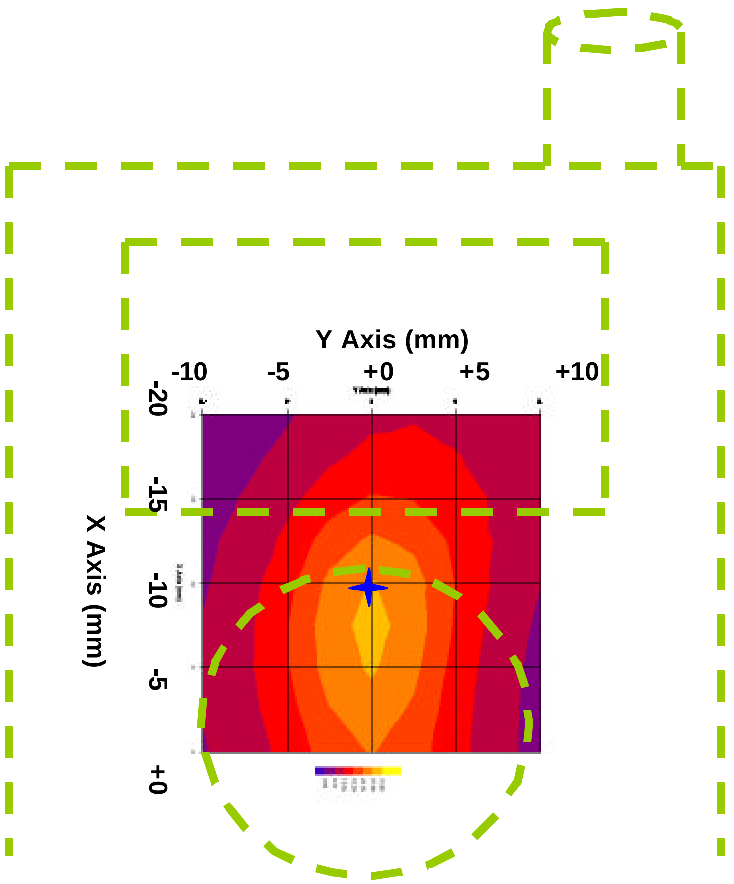
Channel	Frequency (MHz)	SAR (1 gram) (100% Duty Cycle) (W/Kg)	SAR (10 gram) (100% Duty Cycle) (W/Kg)	Max. Field Location X Axis (mm)	Max. Field Location Y Axis (mm)
01	462.5	0.89	0.43	-5	0



Denotes as the RF Energy Location.

Area Scan Plot 2 - Location of RF Energy for Face-Hand Held Position

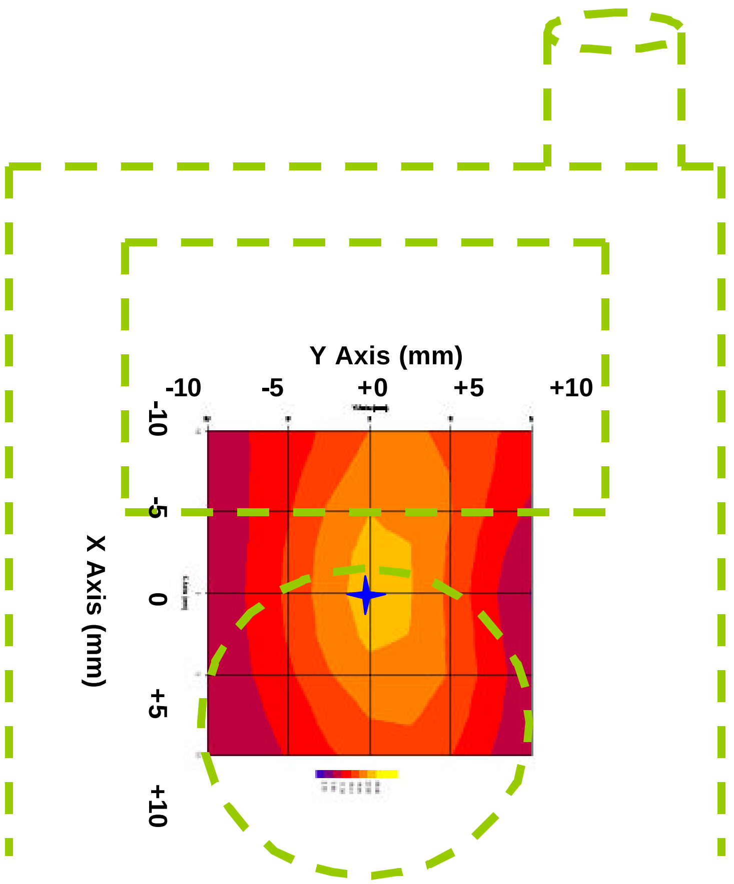
Channel	Frequency (MHz)	SAR (1 gram) (100% Duty Cycle) (W/Kg)	SAR (10 gram) (100% Duty Cycle) (W/Kg)	Max. Field Location	
				X Axis (mm)	Y Axis (mm)
14	462.7	1.06	0.46	-10	0



 Denotes as the RF Energy Location.

Area Scan Plot 3 - Location of RF Energy for Face-Hand Held Position

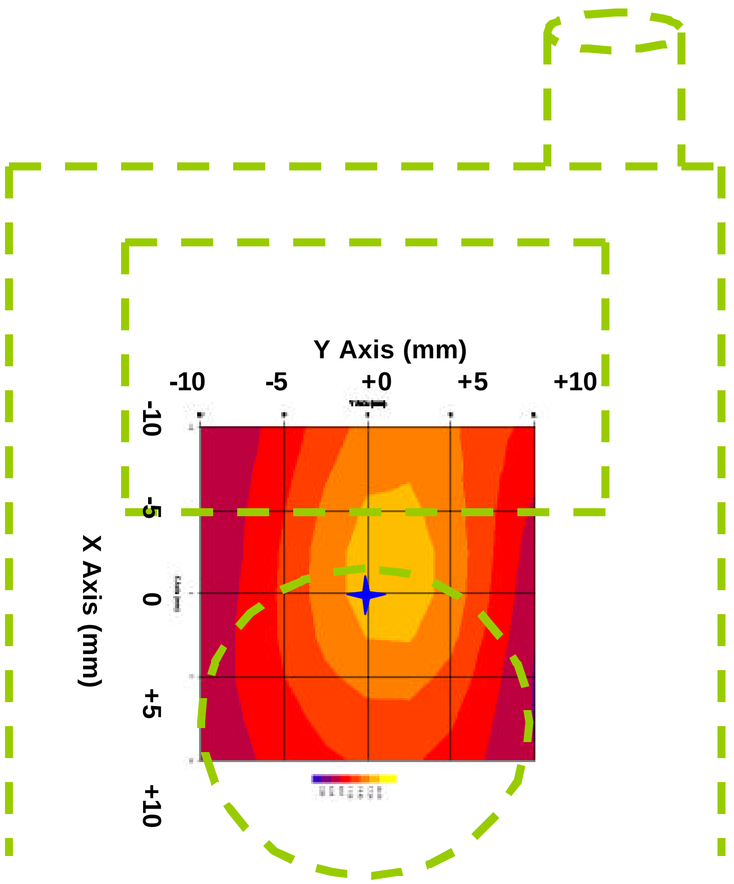
Channel	Frequency (MHz)	SAR (1 gram) (100% Duty Cycle) (W/Kg)	SAR (10 gram) (100% Duty Cycle) (W/Kg)	Max. Field Location X Axis (mm)	Max. Field Location Y Axis (mm)
15	467.5	0.97	0.48	0	0



Denotes as the RF Energy Location.

Area Scan Plot 4 - Location of RF Energy for Face-Hand Held Position

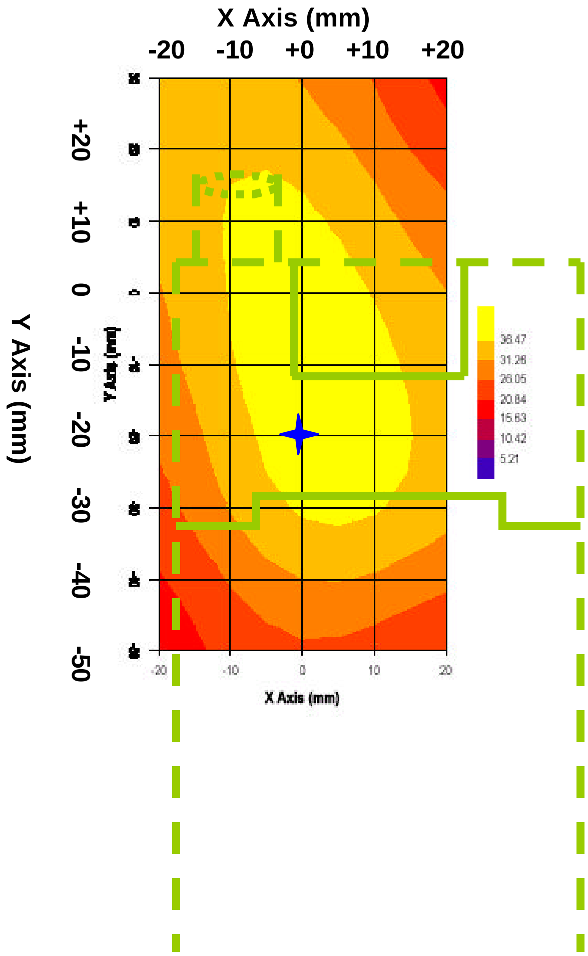
Channel	Frequency (MHz)	SAR (1 gram) (100% Duty Cycle) (W/Kg)	SAR (10 gram) (100% Duty Cycle) (W/Kg)	Max. Field Location	
				X Axis (mm)	Y Axis (mm)
21	467.7	0.77	0.39	0	0



Denotes as the RF Energy Location.

Area Scan Plot 5 - Location of RF Energy for Waist Position with Belt-Clip

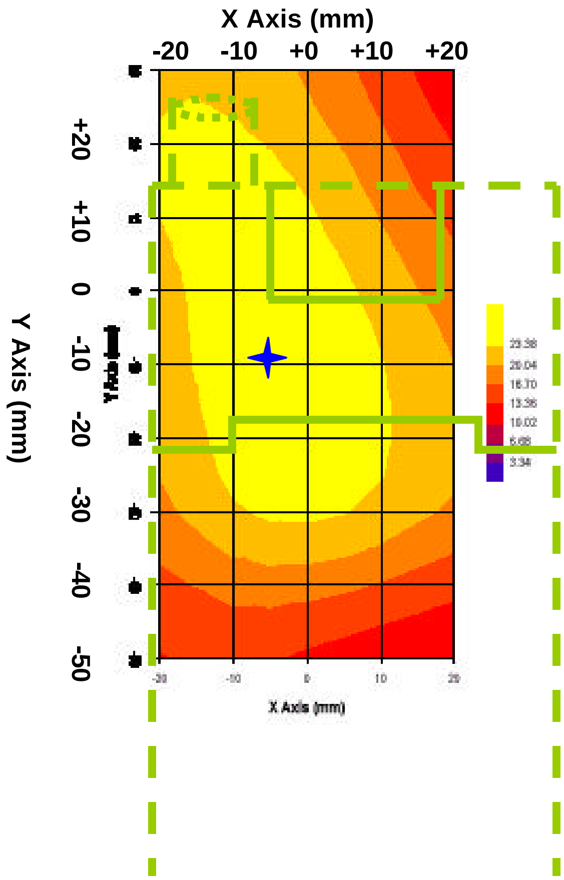
Channel	Frequency	SAR (1 gram) (100% Duty Cycle)	SAR (10 gram) (100% Duty Cycle)	Max. Field Location	
				X Axis (mm)	Y Axis (mm)
	(MHz)	(W/Kg)	(W/Kg)		
01	462.5	1.31	0.96	0	-20



Denotes as the RF Energy Location.

Area Scan Plot 6 - Location of RF Energy for Waist Position with Belt-Clip

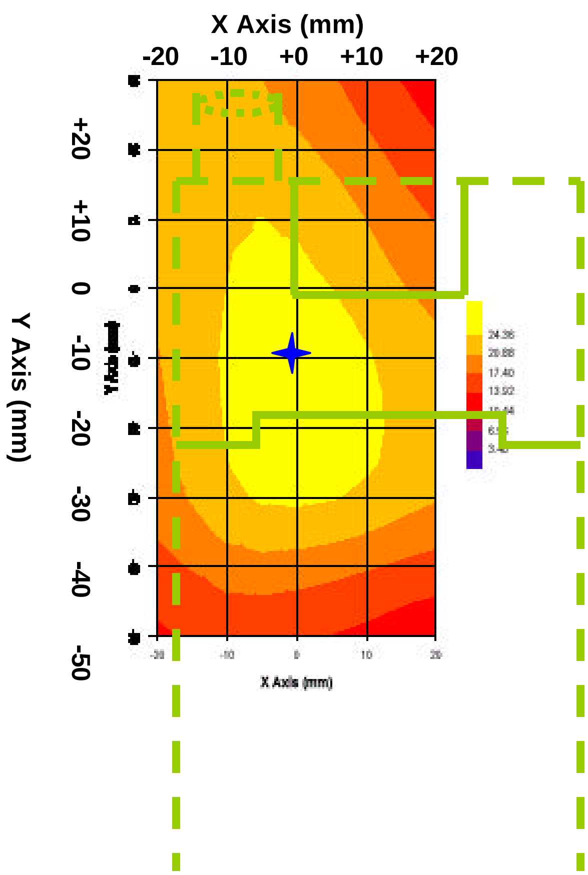
Channel	Frequency (MHz)	SAR (1 gram) (100% Duty Cycle) (W/Kg)	SAR (10 gram) (100% Duty Cycle) (W/Kg)	Max. Field Location X Axis (mm)	Max. Field Location Y Axis (mm)
14	462.7	1.01	0.74	-5	-10



Denotes as the RF Energy Location.

Area Scan Plot 7 - Location of RF Energy for Waist Position with Belt-Clip

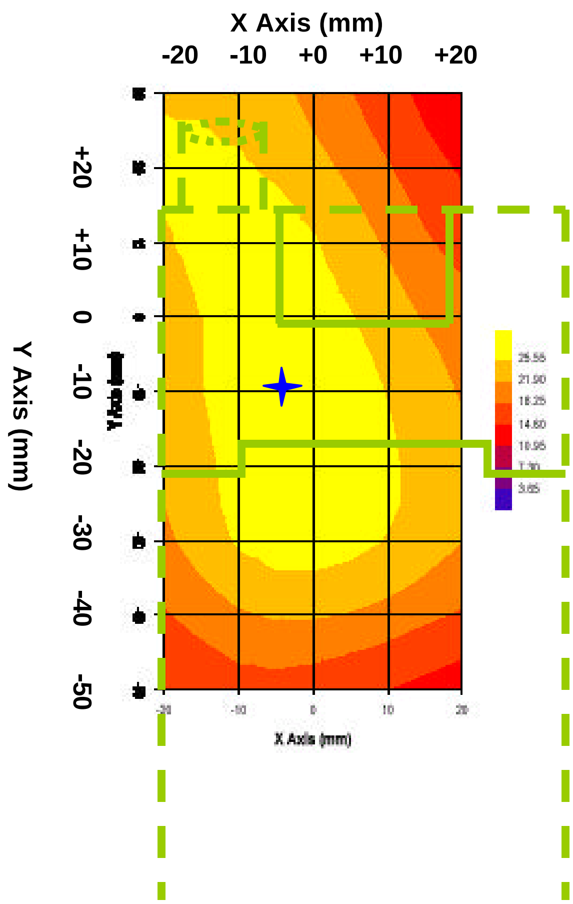
Channel	Frequency (MHz)	SAR (1 gram) (100% Duty Cycle) (W/Kg)	SAR (10 gram) (100% Duty Cycle) (W/Kg)	Max. Field Location	
				X Axis (mm)	Y Axis (mm)
15	467.5	1.04	0.77	0	-10



Denotes as the RF Energy Location.

Area Scan Plot 8 - Location of RF Energy for Waist Position with Belt-Clip

Channel	Frequency (MHz)	SAR (1 gram) (100% Duty Cycle) (W/Kg)	SAR (10 gram) (100% Duty Cycle) (W/Kg)	Max. Field Location	
				X Axis (mm)	Y Axis (mm)
21	467.7	1.10	0.80	-5	-10



Denotes as the RF Energy Location.

Measurement Uncertainty

Standards Covered Are:

WGMTE 96/4 - Secretary SC211/B

FCC 96-326, ET Docket No. 93-62

Industry Canada RSS 102

The laboratory test procedure, and this uncertainty analysis, may be used to cover all standards above.

Contribution	Error (±dB)	Probability Distribution	Type Evaluation	Standard Uncertainty (±dB)
A. Field Measurement Errors:		Rectangular	Type B	
Isotropy in Phantom BTS Liquid	0.8			0.46
Frequency Response	0.2			0.12
Linearity	0.2			0.12
Probe Calibration Error (rss)	0.7			0.40
Duty Factor Variability	0.2			0.12
B. Spatial Peak SAR Errors:		Normal	Type A	
Extrapolation & Interpolation, and Position	0.2			0.20
Integration & Search Routine	0.1			0.10
Cube Shape	0.2			0.20
C. Additional Errors:		Rectangular	Type B	
Solution Variability (Worst-Case SAR)	0.21			0.12
D. Combined Standard Uncertainty, u_c:		Normal	-	0.52
E. Expanded Uncertainty, U:		Normal (k=2)	-	1.04
		95% Confidence	-	27.14%

Table I. Estimated SAR Measurement Uncertainty

All test measurement carried out are traceable to national standards. The uncertainty of measurement at a confidence level of 95%, with a coverage of 2, is ± 27.14%

ANNEX A

TEST INSTRUMENTATION
&
GENERAL PROCEDURE

A.1 General Test Procedure

In the SAR measurement, the positioning of the probes must be performed with sufficient accuracy to obtain repeatable measurements in the presence of rapid spatial attenuation phenomena. The accurate positioning of the E-field probe is accomplished by using a high precision robot. The robot can be taught to position the probe sensor following a specific pattern of points. In a first sweep, the sensor is positioned as close as possible to the interface, with the sensor enclosure touching the inside of the fiberglass shell. The SAR is measured on a grid of points, which covers the curved surface of the phantom in an area larger than the size of the DUT. After the initial scan, a high- resolution grid is used to locate the absolute maximum measured energy point. At this location, attenuation versus depth scan will be accomplished by the measurement system to calculate the SAR value.

A.2 Test Setup

Phantom

The phantom used in the evaluation of the RF exposure of the user of the wireless device is a clear fiberglass enclosure 1.5 mm thick, shaped like a human head or body and filled with a mixture simulating the dielectric characteristics of the brain, muscle or other types of human tissue. The maximum width of the cranial model is 17 cm, the cephalic index is 0.7 and the crown circumference of the cranial model is 61 cm. The ear is 6 mm above the outer surface of the shell.

Simulated tissue

Simulated Tissue: Suggested in a paper by George Hartsgrove and colleagues in University of Ottawa Ref.: Bioelectromagnetics 8:29-36 (1987)

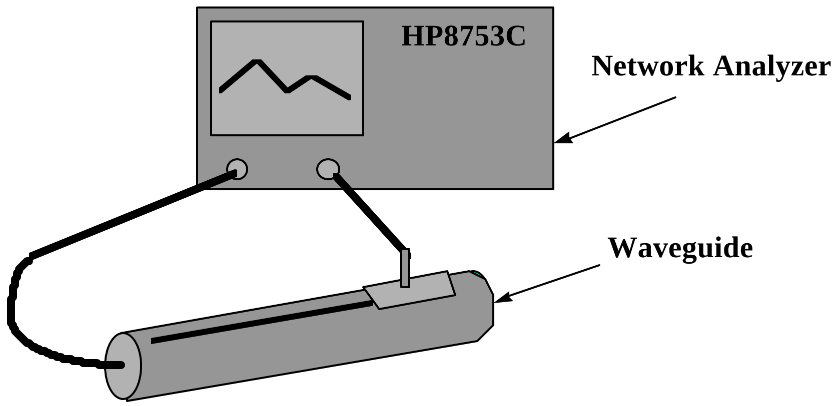
This simulated tissue is mainly composed of water, sugar and salt. At higher frequencies, in order to achieve the proper conductivity, the solution does not contain salt. Also, at these frequencies, D.I. water and alcohol is preferred.
Tissue Density : Approximately 1.25 g/cm^3

- **Preparation**
  We determine the volume needs and carefully measure all components. A clean container is used where the ingredients will be mixed. A stirring paddle and a hand drill is used to stir the mixture. First we heat the water to about 40 ^{o}C to help the ingredients to dissolve and then we pour the salt and the bactericide. We stir until all the ingredients are completely dissolved. We continue stirring slowly while adding the sugar. We avoid high RPM from the mixing device to prevent air bubbles in the mixture. Later on, we add the HEC to maintain the solution homogeneous. Mixing time is approximately 30 to 40 min.

- **Measurement of Electrical Characteristics of Simulated Tissue**
  1) Network Analyzer HP8753C or others
  2) Slotted Coaxial Waveguide

- **Description of the slotted coaxial waveguide**
  The cylindrical waveguide is constructed with copper tube of about 30 to 40 cm of length, generally 12.5 mm diameter, with connectors at both ends. Inside of this tube, a conductive rod about 6.3 mm is coaxial supported by the two ends connectors (radiator). A slot 3 mm wide start at the beginning of the tube to almost the two third of the tube length. The outer edge of the slotted tube is marked in centimeters. For frequency below 1GHz, 1 centimeter per step. For higher frequency above 1 GHz, 0.5 centimeter per step. A saddle piece containing the sampling probe is inserted in the slot so the tip of the probe is close but not in contact with the inner conductor (radiator).
  To measure the electrical characteristics of the liquid simulated tissue, which fill the coaxial waveguide, select CW frequency and measure amplitude and phase with the Network Analyzer for every point in the slot (typically 11). An effort is made to keep the results dielectric constant and conductivity within 5 % of published data.

Electrical Characteristics
Measurement Setup



$$c = 3 \cdot 10^{8}\ \text{m/s}$$

$$A = \frac{\Delta A}{20} \ln_{10} \frac{1}{m}$$

$$q = \frac{\Delta q \cdot 2p}{360}$$

$$l = \frac{c}{f} \cdot \frac{100}{2.54} \text{inches}$$

$$e_{re} = \frac{(A^{2} + q^{2}) \cdot l^{2}}{4p^{2}}$$

$$q' = \left| \frac{|A| \cdot l}{4p \sqrt{e_{re}}} \right|$$

$$S = \tan(2q')$$

$$e_{r} = \frac{e_{re}}{\sqrt{(1 + S^{2})}}$$

$$s = S \cdot 2p \cdot f \cdot 8.854 \cdot 10^{12} \cdot e_{r}\ \text{(S/m)}$$

where;

A is the amplitude attenuation in dB

è is the phase change in degrees for 5 cm of wave propagation in the slotted line

f is the frequency of interest in Hz

Conversion Factor and SAR Value Calculation

The measurement system consists of an E-field probe, instrumentation amplifiers, RF transparent cable connecting the amplifiers to the computer, the robotics arm with its extension and proximity sensors, a phantom with simulated tissue and a radio holder to support the device under test. The E-field probe is a three channel device used to measure RF electric fields in the near vicinity of the source. The three sensors are mutually orthogonal positioned dipoles, and are constructed over a quartz substrate. Located in the center of the dipole is a Schottky diode. High impedance lines are connecting the sensor to the amplifier and then optically linked to the computer. The probe has an isotropic response and is transparent to the RF fields.

- **Calibration is performed by two steps:**
  1) Determination of free space E-field from amplified probe outputs in a test RF field. This calibration is performed in a TEM cell when the frequency is below 1 GHz and in a waveguide or some other methodologies above 1 GHz. For the free space calibration, we place the probe in the volumetric center of the cavity and at the proper orientation with the field. The probe is then rotated 360 degrees until the three channels show the maximum reading. This reading equate to 1mW/cm^2 if that power density is available in the correspondent cavity.

  2) Correlation of the measured free space E-field, to temperature rise in a dielectric medium. E-field temperature correlation calibration is performed in a planar phantom filled with the appropriate simulated tissue.

For temperature correlation calibration, a RF transparent thermistor-based temperature probe is used in conjunction with the E-field probe. First, the location of the maximum E-field close to the phantom's inner surface is determined as a function of power into the RF source; in this case, a dipole. Then, the E-field probe is moved sideways so that the temperature probe, while affixed to the E-field probe is placed at the previous location of the E-field probe. Finally, temperature changes for 30 seconds exposure at the same RF power levels used for the E-field measurement are recorded. The following equation relates SAR to initial temperature slope:

$$SAR = C\frac{\Delta T}{\Delta t}$$

where:
t = exposure time (30 seconds),
C = heat capacity of tissue (brain or muscle),
T = temperature increase due to RF exposure.

The heat capacity used for brain simulated tissue is 2.7 joules/^{0}C/g and 3.0 joules/^{0}C/g for muscle.

SAR is proportional to T / t, the initial rate of tissue heating, before thermal diffusion takes place. Now, it's possible to quantify the electric field in the simulated tissue by equating the thermally derived SAR to the E-field;

$$SAR = \frac{|E|^2 \cdot s}{r}$$

where:
ó = Simulated tissue conductivity,
ð = Tissue density (1.25 g/cm^3 for simulated tissue)

- **Data Extrapolation (Curve Fitting)**
  There is a distance from the center of the sensor (diode) to the end of the protective tube called ‘probe offset’. To compensate we use an exponential curve fitting method to obtain the peak surface value from the voltages measured at the distance from the inner surface of the phantom. At the point where the highest voltage was recorded, the field is measured as close as possible to the phantom’s surface and every 1mm along the ` Z ` axis for a distance of 50 mm. The appropriate exponential curve is obtained from all the points measured and used to define an exponential decay of the energy density versus depth.

$$E(z) = E_0 \cdot e^{-z/d} \text{ (mV)}$$

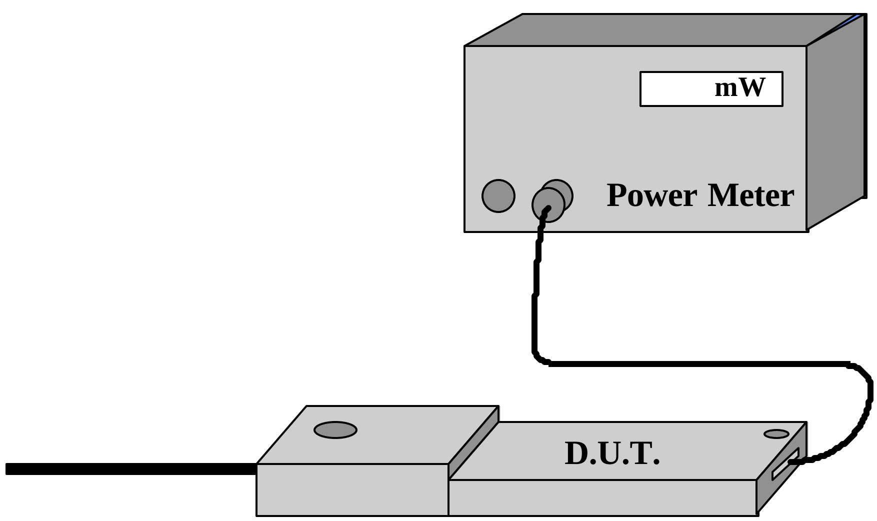
- **Interpolation and Gram Averaging**
  The voltage, (1 cm) above the phantoms surface (E_{tot} 1 cm), is needed to calculate the exposure over one gram of tissue. This SAR value that estimates the average over 1 gram of tissue, is obtained by taking the integral over 1 cm^2 surface of the measured field along the exponential decay curve of the energy density with depth.

$$SAR(mW/g) = \int_{v=1g} SAR(\bullet)dv = \int_{s=1cm^2} \int_0^{1cm} E(z) \cdot \frac{CF}{SensorFactor} dzds$$

EUT's Output Power Measurement

When ever possible, a conducted power measurement is performed. To accomplish this, we utilize a fully charged battery, a calibrated power meter and a cable adapter provided by the manufacturer. The data of the cable and related circuit losses are also provided by the manufacturer. The power measurement is then performed across the operational band and the channel with the highest output power is recorded.

Power measurement is performed before and after the SAR to verify if the battery was delivering full power for the time of test. A difference in output power would determinate a need for battery replacement and repetition the SAR test.



Measured Power Measured Power + Cable and Switching Mechanism Loss

Positioning of EUT

The clear fibreglass phantom shell have been previously marked with a highly visible line, so can easily be seen through the liquid simulated tissue. In the case of testing a cellular phone, this line is connecting the ear channel with the corner of the lips. The EUT is then placed by centering the speaker with the ear channel and the center of the radio width with the corner of the mouth. At the same time the surface of the EUT is always in contact with the phantoms shell. Three points contact; two in the ear region and one on the chin in addition to the previously describe alignment will assure repeatability of the test.

For HAND HELD devices (push-to-talk), or any other type of wireless transmitters, the EUT will be positioned as suggested by manufacturer operational manuals.

A.3 SAR Test Instrumentation

SAR Measurement System -- S/N: 9912002

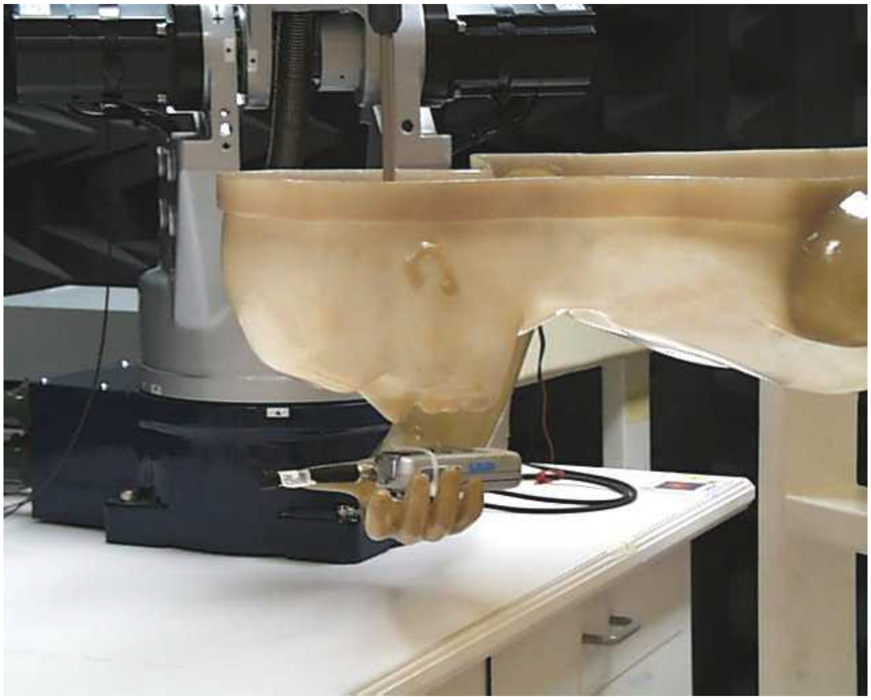
- ***Positioning Equipment***
  Type : 3D Near Field Scanner using 6-axis robot
  Location Repeatability : 0.1mm
  Speed 180 ^{o}/sec
  AC motors
- ***Computer***
  Type : 700 MHz Pentium III
  Memory : 128MB SDRAM
  Operating System : Windows NT
  Monitor : 17" LCD
- *Probe*
  Sensor : E-Field, 3Ch
  Spatial Resolution : 0.1 cm^3
  Isotropic Response : ± 0.25 dB
  Dynamic Range : 2 kW/g to 100 mW/g
- *Phantom & Tissue*
  Tissue: Simulated Tissue with electrical characteristics similar to those of the human at normal body temperature (23 ± 1 °C)
  Shell : Fiberglass human shell shaped (1.5 mm thick)
  Model: Models Head and shoulder (left and right ear, or face)
  Half Full Body, open back (Face-Hand held, Waist)

Instrument	Model	S/N	Cal Date
Boonton RF Power Meter	4532	97701	Mar 2002
Boonton Power Sensor	51075	30574	Mar 2002
Boonton Power Sensor	51075	32079	Mar 2002
Spectrum Analyzer	8564E	3831U02087	Apr 2002
Network Analyzer	8753D	MY40001026	May 2002
RF Signal Generator	68347C	04306	Dec 2001
Amplifier Research Power Amplifier	25W1000B	27226	N/A
Dual Directional Coupler	HP778D	18286	N/A

ANNEX B

TEST SETUP PHOTOGRAPHS

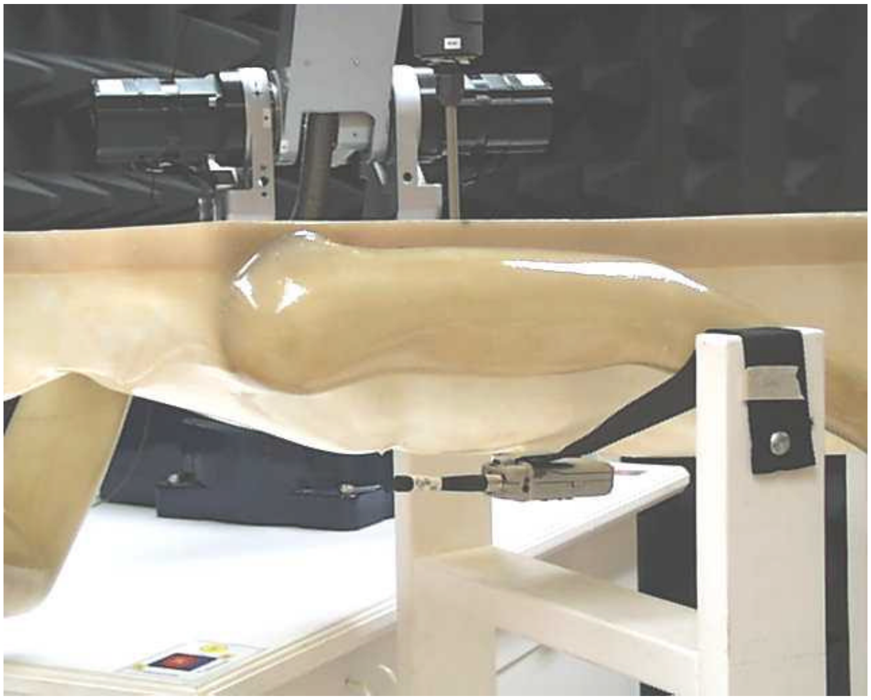
Face-Hand Held SAR Test Setup Photographs
(Using the Open Back Full Body Phantom)



Close-up View

Test Setup View

Waist Position with Belt-Clip (Body-Worn) SAR Test Setup Photographs
(Using the Open Back Full Body Phantom)



Close-up View

Test Setup View

PICTURE OF THE TEST SETUP

SAR Measurement System

EUT Views

Front of EUT

Rear of EUT

EUT Views

EUT with Mic Cable

ANNEX C

TISSUE SIMULANT DATA SHEETS

Type of Tissue	Brain	Muscle
Target Frequency (MHz)	450MHz	450MHz
Target Dielectric Constant	43.5	56.7
Target Conductivity (S/m)	0.87	0.94
Composition (by weight)	Water (42.78%) Sugar (54.45%) Salt (2.72%) HEC (0.00%) Bactericide (0.04%)	Water (53.46%) Sugar (45.44%) Salt (1.07%) HEC (0.00%) Bactericide (0.04%)
Measured Dielectric Constant	43.0	55.2
Measured Conductivity (S/m)	0.83	0.97
Probe Name	PSB_Triangular Probe_E1	PSB_Triangular Probe_E1
Probe Orientation	Isotropic	Isotropic
Probe Offset (mm)	3.0	3.0
Sensor Factor	10.8	10.8
Conversion Factor	0.4906	0.4940
Calibration Date (MM/DD/YY)	21 Sept 01	20 Sept 01

Tissue for Brain at 450MHz

Tested By: NAC **Date:** 20/09/2001

Frequency: 450 MHz

Mixture: Brain

Composition					
Tap Water	DI Water	Sugar	Salt	HEC	Bactericide
22000.00 g	0.00 g	28000.00 g	1400.00 g	0.00 g	20.00 g
42.78 %	0.00 %	54.45 %	2.72 %	0.00 %	0.04 %

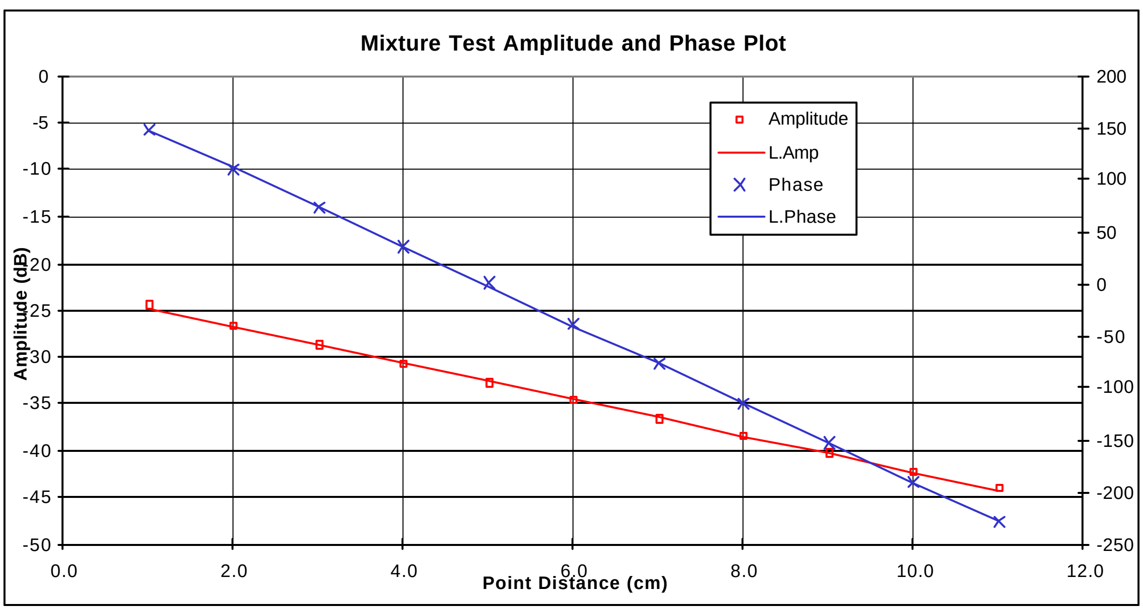
# of Points: 11 **Point Dist:** 1.00 cm **Temperature:** 25.00 °C

Point	Amplitude	Phase
1	-24.40	148.00
2	-26.70	111.00
3	-28.70	74.00
4	-30.70	36.00
5	-32.70	1.00
6	-34.60	-39.00
7	-36.60	-76.00
8	-38.50	-114.00
9	-40.30	-152.00
10	-42.20	169.00
11	-44.00	131.00

-49.9	
-51.6	-1.948181818
-53.5	-22.80181818
-55.3	-37.70909091
-56.9	187.0727273

Omega:	2827433388	rad/sec
Epsilon 0:	8.85E-14	F/m
mu:	1.26E-08	H/m
alpha avg:	-0.224292721	Np/cm
beta avg:	-0.658147794	rad/cm

Results:		**Target**	**Low Limit**	**High Limit**	**% Off Target**
D. Const:	**43.0**	43.5	41.325	45.675	-1.05
Cond:	**0.83**	0.87	0.8265	0.9135	-4.59



Tissue for Muscle at 450MHz

Tested By: NAC

Date: 20/09/2001

Frequency: 450 MHz

Mixture: Muscle

Composition					
Tap Water	DI Water	Sugar	Salt	HEC	Bactericide
30000.00 g	0.00 g	25500.00 g	600.00 g	0.00 g	20.00 g
53.46 %	0.00 %	45.44 %	1.07 %	0.00 %	0.04 %

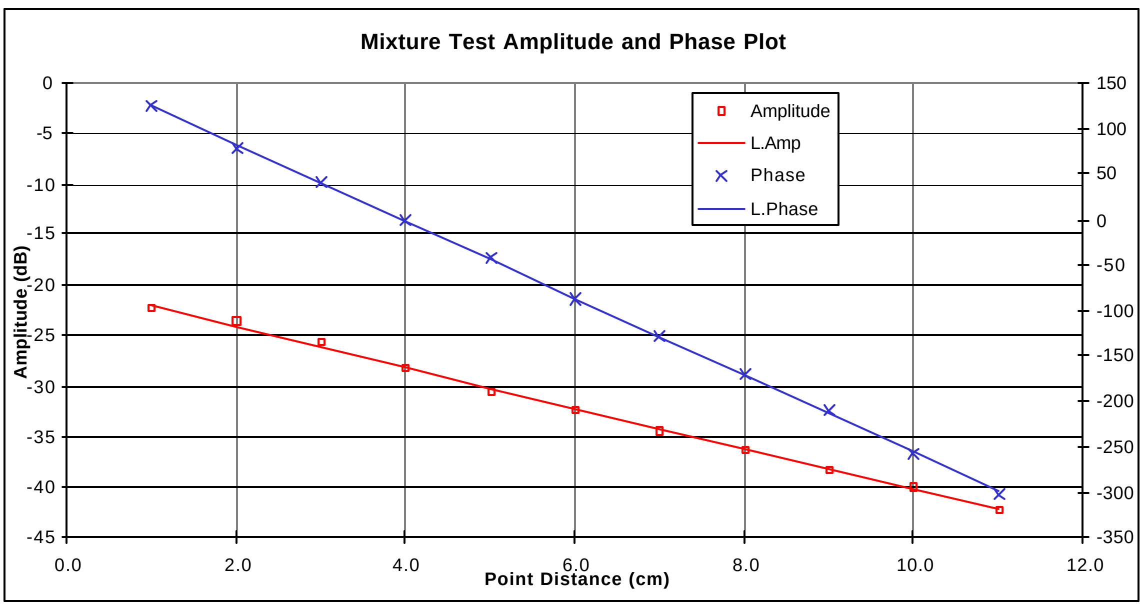
# of Points: 11 **Point Dist:** 1.00 cm **Temperature:** 25.00 °C

Point	Amplitude	Phase
1	-22.30	125.00
2	-23.60	78.00
3	-25.70	40.00
4	-28.20	0.00
5	-30.50	-43.00
6	-32.50	-87.00
7	-34.40	-130.00
8	-36.30	-170.00
9	-38.30	150.00
10	-40.00	103.00
11	-42.30	57.00

-49.9	
-51.6	-2.031818182
-53.5	-20
-55.3	-42.33636364
-56.9	167.0181818

Omega:	2827433388	rad/sec
Epsilon 0:	8.85E-14	F/m
mu:	1.26E-08	H/m
alpha avg:	-0.233921713	Np/cm
beta avg:	-0.738908939	rad/cm

Results:		**Target**	**Low Limit**	**High Limit**	**% Off Target**
D. Const:	**55.2**	56.7	53.865	59.535	-2.62
Cond:	**0.97**	0.94	0.893	0.987	3.45



ANNEX D

REFERENCES

The methods and procedures used for the measurements contained in this report are details in the following reference standards:

Publications	Year	Title
FCC OET Bulletin 65	1997	"Evaluating Compliance with FCC Guidelines for Human Exposure to radio Frequency Fields"
IEEE Standard 1528-200X	2000	"Product Performance Standards Relative to the safe Use of Electromagnetic Energy"
ANSI/IEEE C95.3	1992	"Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave"
ANSI/IEEE C95.1	1992	"Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3kHz to 300GHz"