

	<u>Date(s) of Evaluation</u> 10/17-21, 12/07, 2011	<u>Test Report Serial No.</u> 092811OWD-T1126-S90V	<u>Test Report Revision No.</u> Rev. 1.5	
	<u>Test Report Issue Date</u> July 28, 2016	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	
Test Lab Certificate No. 2470.01				

APPENDIX E - DIPOLE CALIBRATION

Applicant:	HARRIS Corporation	FCC ID:	OWDTR-0139-E	IC ID:	3636B-0139	
DUT Type:	Portable VHF PTT Radio Transceiver	Model:	XG-25P VHF	Freq.:	138 - 174 MHz	
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Client **Celitech**

Certificate No: **D300V3-1009_Jan10**

CALIBRATION CERTIFICATE

Object **D300V3 - SN: 1009**

Calibration procedure(s) **QA CAL-15.v5**
Calibration Procedure for dipole validation kits below 800 MHz

Calibration date: **January 18, 2010**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
 The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	1-Apr-09 (No. 217-01030)	Apr-10
Power sensor E4412A	MY41495277	1-Apr-09 (No. 217-01030)	Apr-10
Power sensor E4412A	MY41498087	1-Apr-09 (No. 217-01030)	Apr-10
Reference 3 dB Attenuator	SN: S5054 (3c)	31-Mar-09 (No. 217-01026)	Mar-10
Reference 20 dB Attenuator	SN: S5086 (20b)	31-Mar-09 (No. 217-01028)	Mar-10
Type-N mismatch combination	SN: 5047.2 / 06327	31-Mar-09 (No. 217-01029)	Mar-10
Reference Probe ET3DV6 (LF)	SN: 1507	03-Jul-09 (No. ET3-1507_Jul09)	Jul-10
DAE4	SN: 654	04-May-09 (No. DAE4-654_May09)	May-10
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	04-Aug-99 (in house check Oct-09)	In house check: Oct-11
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-09)	In house check: Oct-10

Calibrated by: **Jeton Kastrati** Name **Laboratory Technician** Function

Approved by: **Katja Pokovic** Technical Manager

Signature

i.v. Kol

[Signature]

Issued: January 20, 2010

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Accreditation No.: **SCS 108**

Glossary:

TSL	tissue simulating liquid
Conf	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
- IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
- Federal Communications Commission Office of Engineering & Technology (FCC OET), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions", Supplement C (Edition 01-01) to Bulletin 65

Additional Documentation:

- DASY4 System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss:** These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay:** One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V5.2
Extrapolation	Advanced Extrapolation	
Phantom	ELI4 Flat Phantom	Shell thickness: 2 ± 0.2 mm
Distance Dipole Center - TSL	15 mm	with Spacer
Area Scan Resolution	dx, dy = 15 mm	
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	300 MHz $\pm$ 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	45.3	0.87 mho/m
Measured Head TSL parameters	(22.0 $\pm$ 0.2) °C	45.8 $\pm$ 6 %	0.84 mho/m $\pm$ 6 %
Head TSL temperature during test	(22.0 $\pm$ 0.2) °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	condition	
SAR measured	398 mW input power	1.14 mW / g
SAR normalized	normalized to 1W	2.86 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	2.95 mW / g $\pm$ 18.1 % (k=2)

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	398 mW input power	0.76 mW / g
SAR normalized	normalized to 1W	1.92 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	1.97 mW / g $\pm$ 17.6 % (k=2)

Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	56.3 Ω - 8.5 j Ω
Return Loss	- 20.1 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.747 ns
----------------------------------	----------

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	February 26, 2009

DASY5 Validation Report for Head TSL

Date/Time: 1/18/2010 2:57:54 PM

DUT: Dipole 300 MHz; Type: D300V3; Serial: D300V3 - SN:1009

Communication System: CW; Frequency: 300 MHz; Duty Cycle: 1:1

Medium: HSL300

Medium parameters used: $f = 300 \text{ MHz}$; $\sigma = 0.84 \text{ mho/m}$; $\epsilon_r = 45.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ET3DV6 - SN1507 (LF); ConvF(7.5, 7.5, 7.5); Calibrated: 7/3/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn654; Calibrated: 5/4/2009
- Phantom: ELI 4.0; Type: QDOVA001BA; Serial: 1003
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 57

Head/d=15mm, Pin=398mW/Area Scan (41x121x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 1.2 mW/g

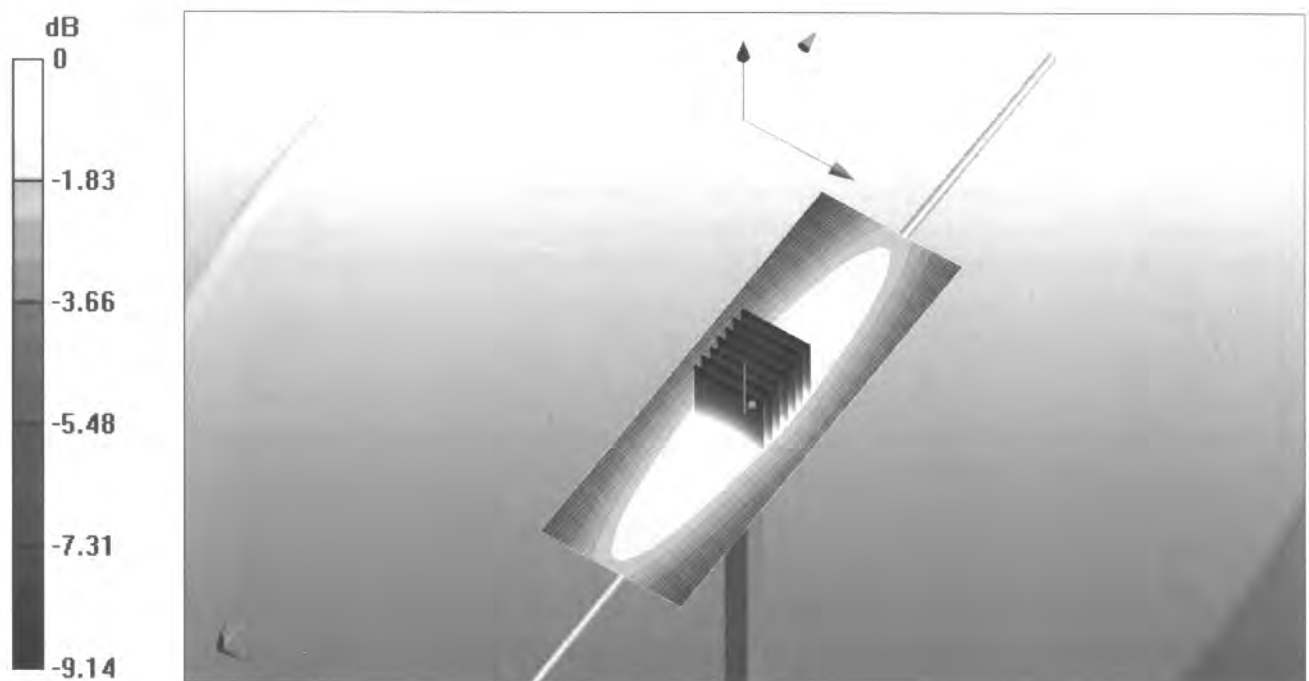
Head/d=15mm, Pin=398mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 38.7 V/m ; Power Drift = 0.00736 dB

Peak SAR (extrapolated) = 1.85 W/kg

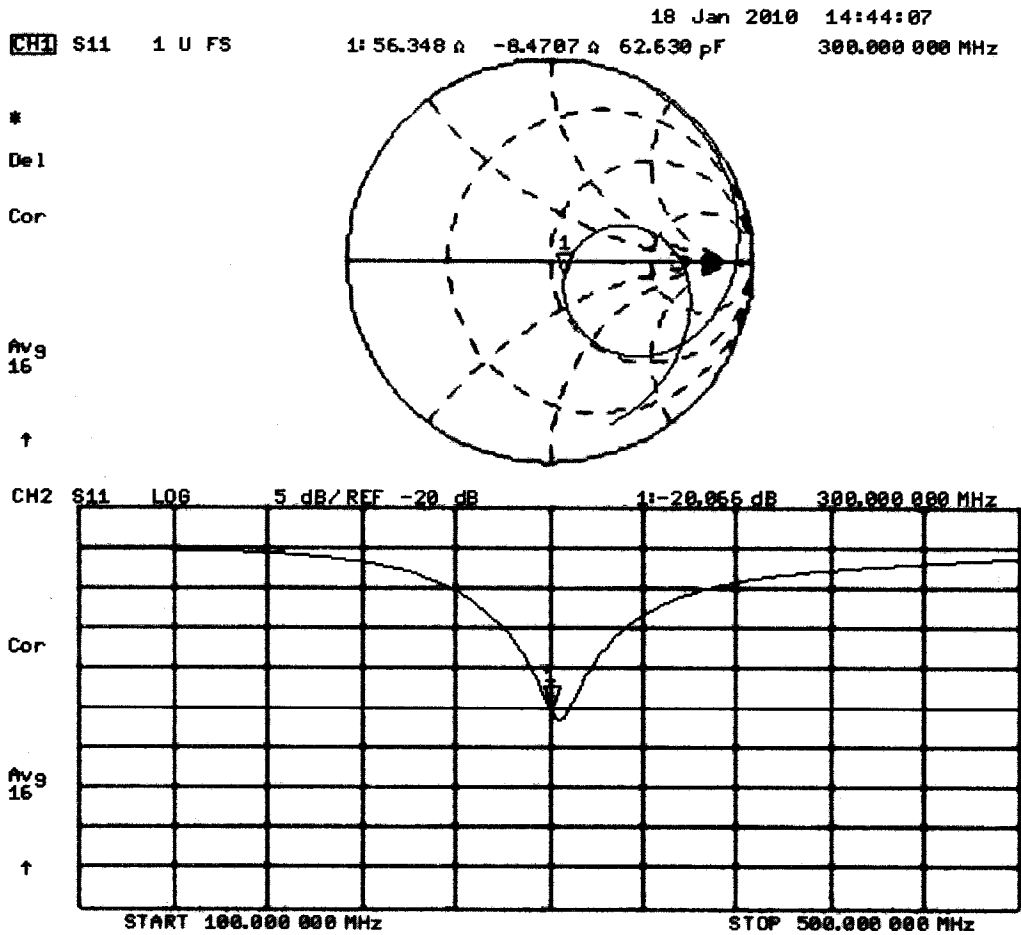
SAR(1 g) = 1.14 mW/g ; SAR(10 g) = 0.763 mW/g

Maximum value of SAR (measured) = 1.21 mW/g



0 dB = 1.21 mW/g

Impedance Measurement Plot for Head TSL



	<u>Date(s) of Evaluation</u> 10/17-21, 12/07, 2011	<u>Test Report Serial No.</u> 092811OWD-T1126-S90V	<u>Test Report Revision No.</u> Rev. 1.5	 Test Lab Certificate No. 2470.01
	<u>Test Report Issue Date</u> July 28, 2016	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

APPENDIX F - PROBE CALIBRATION

Applicant:	HARRIS Corporation	FCC ID:	OWDTR-0139-E	IC ID:	3636B-0139	
DUT Type:	Portable VHF PTT Radio Transceiver	Model:	XG-25P VHF	Freq.:	138 - 174 MHz	
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Client **Celltech**

Certificate No: **ET3-1590_Jun11**

CALIBRATION CERTIFICATE

Object **ET3DV6 - SN:1590**

Calibration procedure(s) **QA CAL-01.v8, QA CAL-12.v7, QA CAL-23.v4, QA CAL-25.v4**
Calibration procedure for dosimetric E-field probes

Calibration date: **June 22, 2011**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
 The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	31-Mar-11 (No. 217-01372)	Apr-12
Power sensor E4412A	MY41498087	31-Mar-11 (No. 217-01372)	Apr-12
Reference 3 dB Attenuator	SN: S5054 (3c)	29-Mar-11 (No. 217-01369)	Apr-12
Reference 20 dB Attenuator	SN: S5086 (20b)	29-Mar-11 (No. 217-01367)	Apr-12
Reference 30 dB Attenuator	SN: S5129 (30b)	29-Mar-11 (No. 217-01370)	Apr-12
Reference Probe ES3DV2	SN: 3013	29-Dec-10 (No. ES3-3013_Dec10)	Dec-11
DAE4	SN: 654	3-May-11 (No. DAE4-654_May11)	May-12
Secondary Standards	ID	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (in house check Oct-09)	In house check: Oct-11
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-10)	In house check: Oct-11

Calibrated by:	Name Jeton Kastrati	Function Laboratory Technician	Signature 
Approved by:	Katja Pokovic	Technical Manager	
Issued: June 23, 2011			
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Glossary:

TSL	tissue simulating liquid
NORM _{x,y,z}	sensitivity in free space
ConvF	sensitivity in TSL / NORM _{x,y,z}
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C	modulation dependent linearization parameters
Polarization φ	φ rotation around probe axis
Polarization ϑ	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., $\vartheta = 0$ is normal to probe axis

Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
- IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005

Methods Applied and Interpretation of Parameters:

- NORM_{x,y,z}**: Assessed for E-field polarization $\vartheta = 0$ ($f \leq 900$ MHz in TEM-cell; $f > 1800$ MHz: R22 waveguide). NORM_{x,y,z} are only intermediate values, i.e., the uncertainties of NORM_{x,y,z} does not affect the E^2 -field uncertainty inside TSL (see below *ConvF*).
- NORM(f)_{x,y,z}** = NORM_{x,y,z} * frequency_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of *ConvF*.
- DCP_{x,y,z}**: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR**: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- A_{x,y,z}; B_{x,y,z}; C_{x,y,z}; VR_{x,y,z}**: A, B, C are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters**: Assessed in flat phantom using E-field (or Temperature Transfer Standard for $f \leq 800$ MHz) and inside waveguide using analytical field distributions based on power measurements for $f > 800$ MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM_{x,y,z} * ConvF whereby the uncertainty corresponds to that given for *ConvF*. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- Spherical isotropy (3D deviation from isotropy)**: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.

Probe ET3DV6

SN:1590

Manufactured: March 19, 2001
Calibrated: June 22, 2011

Calibrated for DASY/EASY Systems
(Note: non-compatible with DASY2 system!)

DASY/EASY - Parameters of Probe: ET3DV6 - SN:1590

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ($\mu\text{V}/(\text{V}/\text{m})^2$) ^A	1.93	2.00	1.66	± 10.1 %
DCP (mV) ^B	96.0	98.7	88.6	

Modulation Calibration Parameters

UID	Communication System Name	PAR		A dB	B dB	C dB	VR mV	Unc ^E (k=2)
10000	CW	0.00	X	0.00	0.00	1.00	104.2	±2.7 %
			Y	0.00	0.00	1.00	117.7	
			Z	0.00	0.00	1.00	129.9	

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

^A The uncertainties of NormX,Y,Z do not affect the E²-field uncertainty inside TSL (see Pages 5 and 6).
^B Numerical linearization parameter: uncertainty not required.
^E Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

DASY/EASY - Parameters of Probe: ET3DV6 - SN:1590

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha	Depth (mm)	Unct. (k=2)
450	43.5	0.87	7.30	7.30	7.30	0.18	2.10	± 13.4 %
835	41.5	0.90	6.50	6.50	6.50	0.38	2.55	± 12.0 %
900	41.5	0.97	6.39	6.39	6.39	0.39	2.47	± 12.0 %

^C Frequency validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

^F At frequencies below 3 GHz, the validity of tissue parameters (ϵ and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ϵ and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

DASY/EASY - Parameters of Probe: ET3DV6- SN:1590

Calibration Parameter Determined in Body Tissue Simulating Media

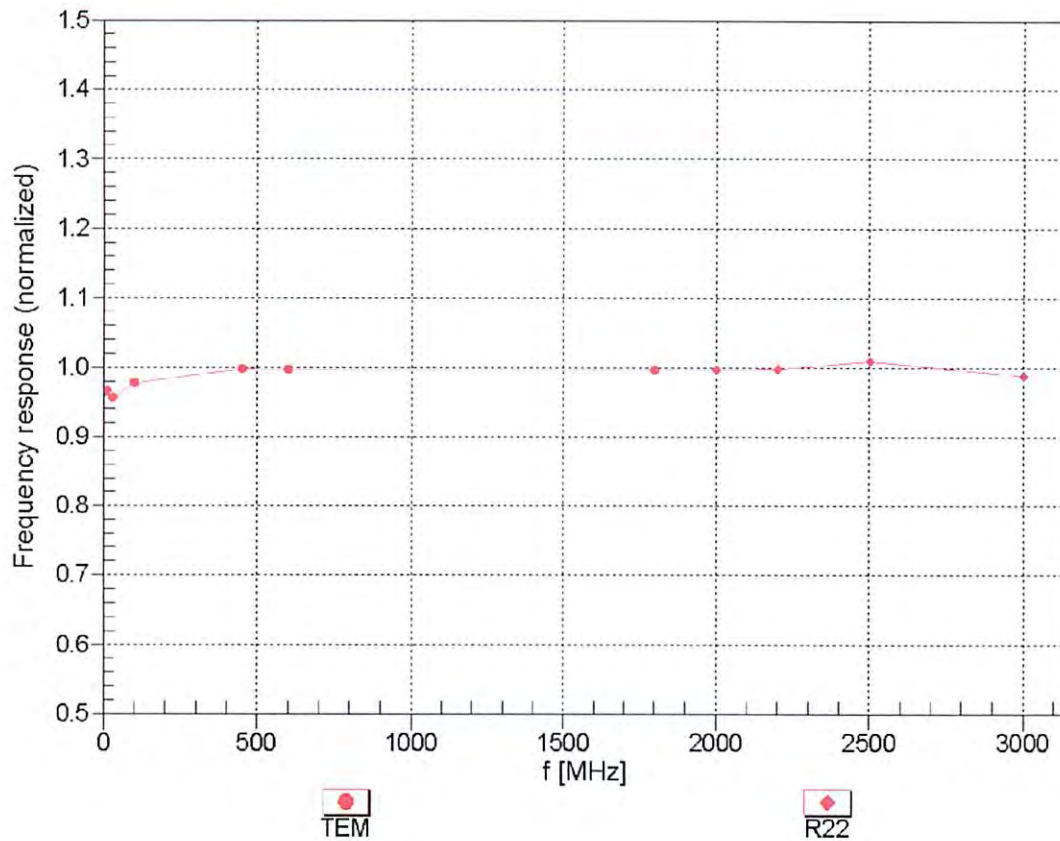
f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha	Depth (mm)	Unct. (k=2)
450	56.7	0.94	7.82	7.82	7.82	0.12	2.04	± 13.4 %
835	55.2	0.97	6.37	6.37	6.37	0.42	2.33	± 12.0 %
900	55.0	1.05	6.27	6.27	6.27	0.40	2.45	± 12.0 %

^C Frequency validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

^F At frequencies below 3 GHz, the validity of tissue parameters (ϵ and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ϵ and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

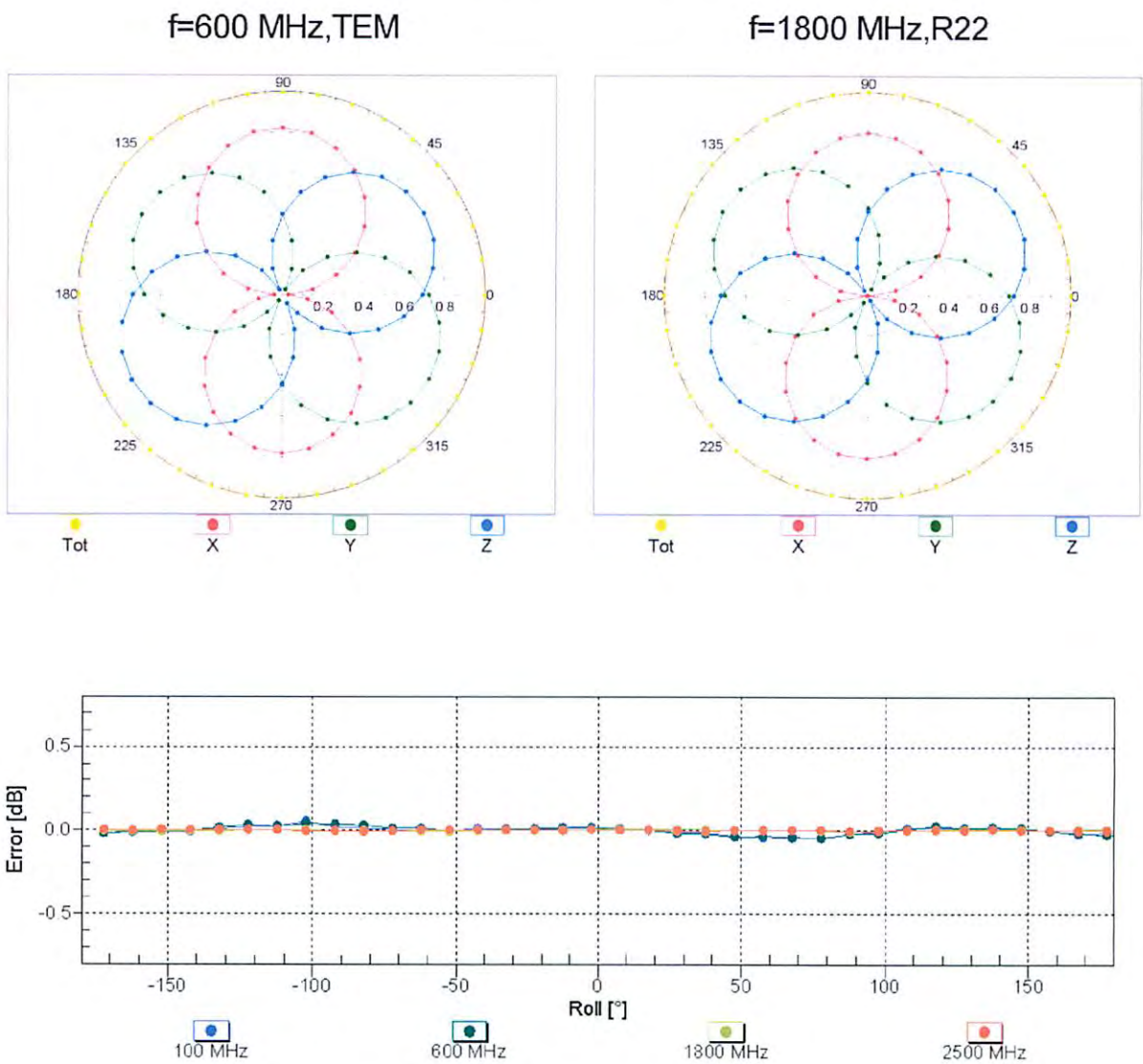
Frequency Response of E-Field

(TEM-Cell:ifi110 EXX, Waveguide: R22)



Uncertainty of Frequency Response of E-field: $\pm 6.3\%$ ($k=2$)

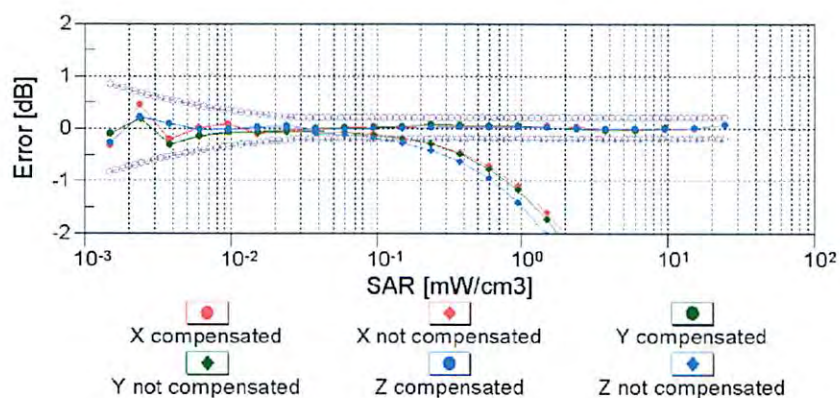
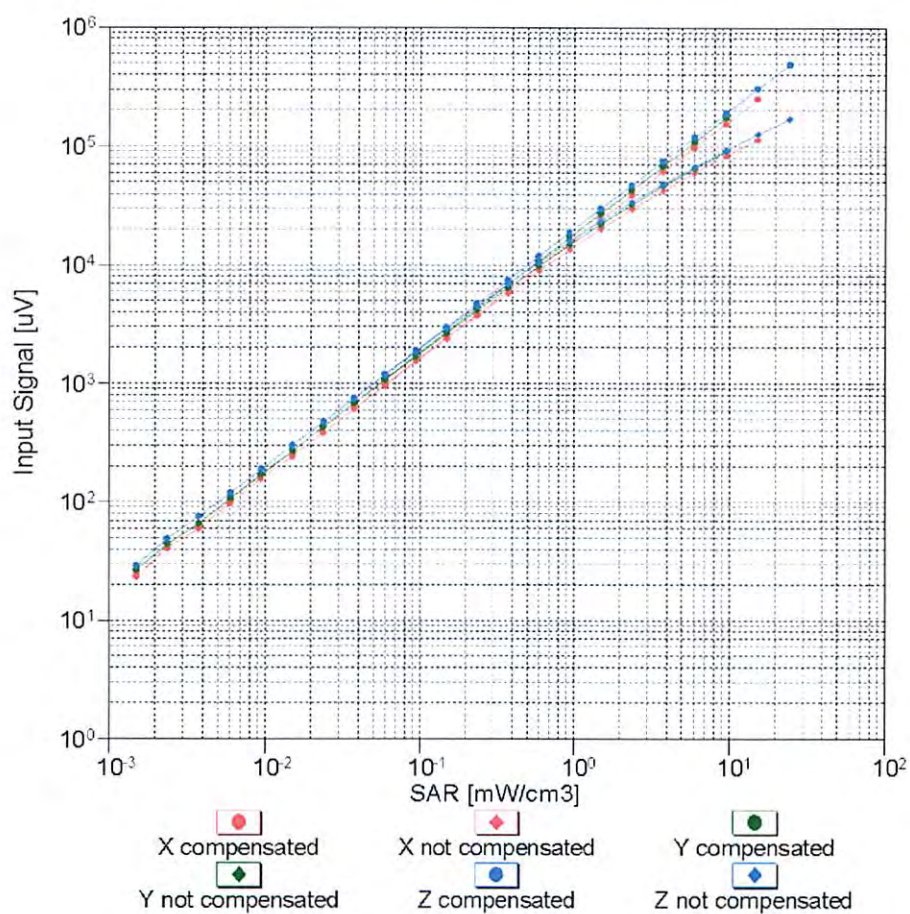
Receiving Pattern (ϕ), $\vartheta = 0^\circ$



Roll [°]	100 MHz [dB]	600 MHz [dB]	1800 MHz [dB]	2500 MHz [dB]
-180	0.0	0.0	0.0	0.0
-150	0.0	0.0	0.0	0.0
-120	0.0	0.0	0.0	0.0
-90	0.0	0.0	0.0	0.0
-60	0.0	0.0	0.0	0.0
-30	0.0	0.0	0.0	0.0
0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0
60	0.0	0.0	0.0	0.0
90	0.0	0.0	0.0	0.0
120	0.0	0.0	0.0	0.0
150	0.0	0.0	0.0	0.0
180	0.0	0.0	0.0	0.0

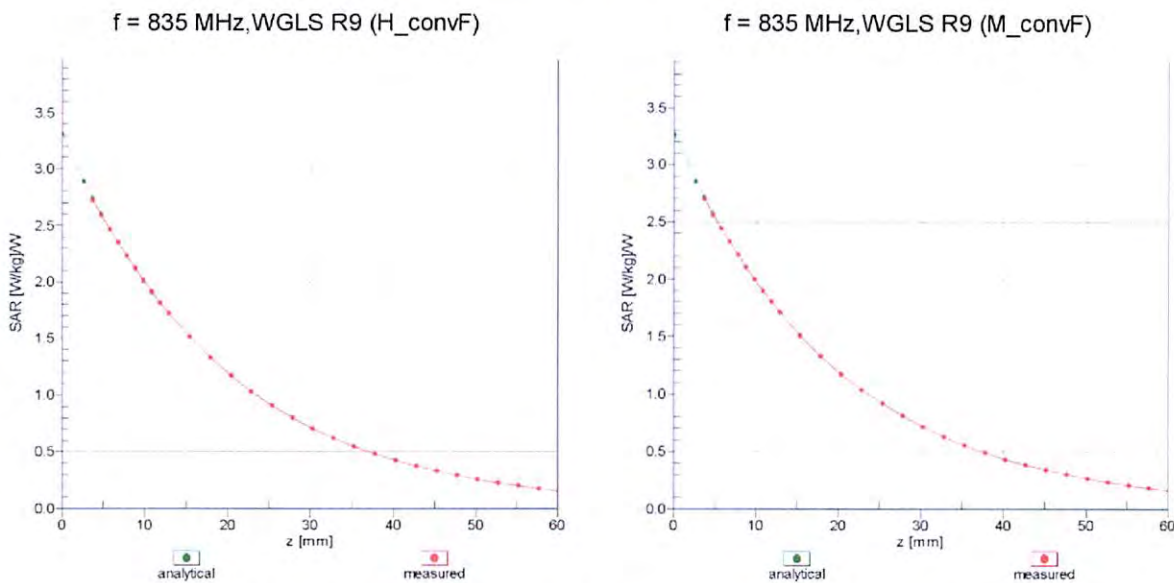
Uncertainty of Axial Isotropy Assessment: $\pm 0.5\%$ ($k=2$)

Dynamic Range $f(\text{SAR}_{\text{head}})$ (TEM cell , $f = 900 \text{ MHz}$)

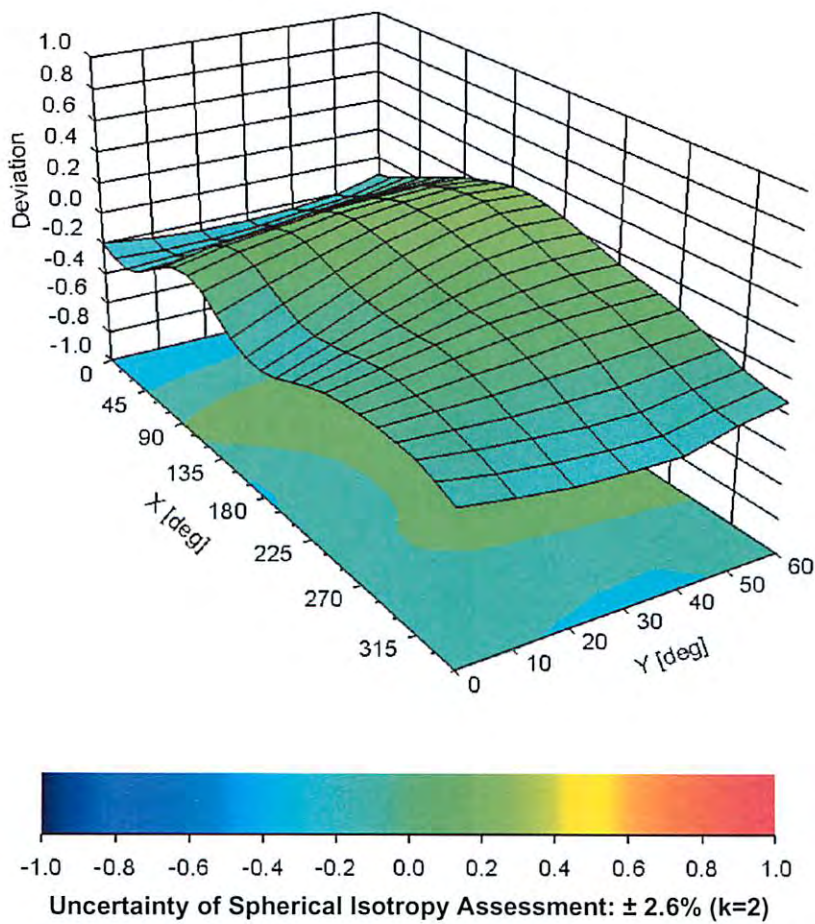


Uncertainty of Linearity Assessment: $\pm 0.6\%$ ($k=2$)

Conversion Factor Assessment



Deviation from Isotropy in Liquid Error (ϕ, ϑ), f = 900 MHz



DASY/EASY - Parameters of Probe: ET3DV6 - SN:1590

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	Not applicable
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	enabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	10 mm
Tip Diameter	6.8 mm
Probe Tip to Sensor X Calibration Point	2.7 mm
Probe Tip to Sensor Y Calibration Point	2.7 mm
Probe Tip to Sensor Z Calibration Point	2.7 mm
Recommended Measurement Distance from Surface	4 mm

Additional Conversion Factors

for Dosimetric E-Field Probe

Type:

ET3DV6

Serial Number:

1590

Place of Assessment:

Zurich

Date of Assessment:

June 24, 2011

Probe Calibration Date:

June 22, 2011

Schmid & Partner Engineering AG hereby certifies that conversion factor(s) of this probe have been evaluated on the date indicated above. The assessment was performed using the FDTD numerical code SEMCAD of Schmid & Partner Engineering AG. Since the evaluation is coupled with measured conversion factors, it has to be recalculated yearly, i.e., following the re-calibration schedule of the probe. The uncertainty of the numerical assessment is based on the extrapolation from measured value at 450, 835 and 900 MHz.

Assessed by:



Dosimetric E-Field Probe ET3DV6 SN:1590

Conversion factor ($\pm$ standard deviation)

150 $\pm$ 50 MHz *ConvF* 8.9 $\pm$ 10%

$\epsilon_r = 52.3$
 $\sigma = 0.76$ mho/m
(head tissue)

300 $\pm$ 50 MHz *ConvF* 8.0 $\pm$ 9%

$\epsilon_r = 45.3$
 $\sigma = 0.87$ mho/m
(head tissue)

150 $\pm$ 50 MHz *ConvF* 8.3 $\pm$ 10%

$\epsilon_r = 61.9$
 $\sigma = 0.80$ mho/m
(body tissue)

Important Note:

For numerically assessed probe conversion factors, parameters Alpha and Delta in the DASY software must have the following entries: Alpha = 0 and Delta = 1.

Please see also DASY Manual.

	<u>Date(s) of Evaluation</u> 10/17-21, 12/07, 2011	<u>Test Report Serial No.</u> 092811OWD-T1126-S90V	<u>Test Report Revision No.</u> Rev. 1.5	 
	<u>Test Report Issue Date</u> July 28, 2016	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	
Test Lab Certificate No. 2470.01				

APPENDIX G - BARSKI PLANAR PHANTOM CERTIFICATE OF CONFORMITY

Applicant:	HARRIS Corporation	FCC ID:	OWDTR-0139-E	IC ID:	3636B-0139	
DUT Type:	Portable VHF PTT Radio Transceiver	Model:	XG-25P VHF	Freq.:	138 - 174 MHz	
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Ph. # 250-769-6848
Fax # 250-769-6334
E-mail: barskiind@shaw.ca
Web: www.bcfiberglass.com

FIBERGLASS FABRICATORS

Certificate of Conformity

Item : Flat Planar Phantom Unit # 03-01
Date: June 16, 2003
Manufacturer: Barski Industries (1985 Ltd)

Test	Requirement	Details
Shape	Compliance to geometry according to drawing	Supplied CAD drawing
Material Thickness	Compliant with the requirements	2mm +/- 0.2mm in measurement area
Material Parameters	Dielectric parameters for required frequencies Based on Dow Chemical technical data	100 MHz-5 GHz Relative permittivity<5 Loss Tangent<0.05

Conformity

Based on the above information, we certify this product to be compliant to the requirements specified.

Signature: _____

A handwritten signature in black ink, appearing to read 'Daniel Chailier', is written over a horizontal line.

Daniel Chailier



Fiberglass Planar Phantom - Top View



Fiberglass Planar Phantom - Front View



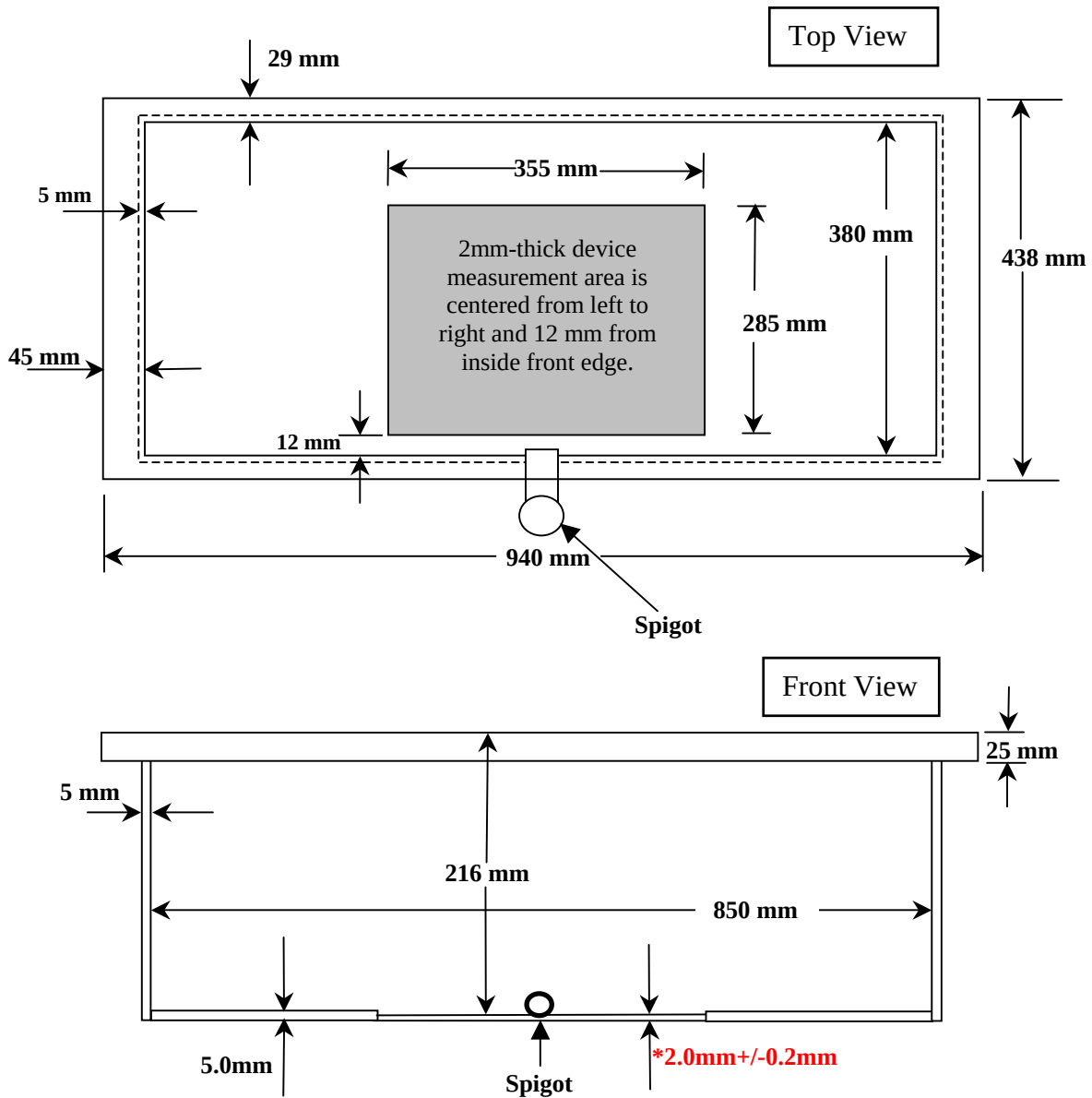
Fiberglass Planar Phantom - Back View



Fiberglass Planar Phantom - Bottom View

Dimensions of Fiberglass Planar Phantom

(Manufactured by Barski Industries Ltd. - Unit# 03-01)



Note: Measurements that aren't repeated for the opposite sides are the same as the side measured.
This drawing is not to scale.

	<u>Date(s) of Evaluation</u> 10/17-21, 12/07, 2011	<u>Test Report Serial No.</u> 092811OWD-T1126-S90V	<u>Test Report Revision No.</u> Rev. 1.5	 Test Lab Certificate No. 2470.01
	<u>Test Report Issue Date</u> July 28, 2016	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational (Controlled)	

APPENDIX H - AUDIO ACCESSORY COMBINATIONS (FCC KDB 643646 D01v01r01)

Applicant:	HARRIS Corporation	FCC ID:	OWDTR-0139-E	IC ID:	3636B-0139	
DUT Type:	Portable VHF PTT Radio Transceiver	Model:	XG-25P VHF	Freq.:	138 - 174 MHz	
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**HARRIS CORPORATION FCC ID: OWDTR-0072-E
XG-25P VHF-Band PTT Radio Transceiver (System)**

Body SAR Test Considerations for Audio Accessories without Built-in Antenna (FCC KDB 643646 D01v01r01 Page 9) - Audio Accessory Combinations																																														
Audio Accessory ID #	Battery a (Additional)						Battery b (Additional)						Battery c (Default)						Battery d (Additional)																											
	Antenna 1-4						Antenna 1-4						Antenna 1-4						Antenna 1-4																											
	Bw#1	Bw#3	Bw#4	Bw#5	Bw#6		Bw#1	Bw#3	Bw#4	Bw#5	Bw#6		Bw#1	Bw#3	Bw#4	Bw#5	Bw#6		Bw#1	Bw#3	Bw#4	Bw#5	Bw#6		Bw#1	Bw#3	Bw#4	Bw#5	Bw#6																	
G1a	1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4
G1b	1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4
G2	1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4
G3a	1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4
G3b	1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4
G4	1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4
G5	1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4
G6a	1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4
G6b	1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4
G7a	1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4
G7b	1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4
G7c	1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4
G7d	1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4
G8a	1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4
G8b	1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4
G9a	1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4
G9b	1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4
G10	1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4
G11a	1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4
G11b	1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4
G12a	1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4
G12b	1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4	1		1	2	3	4

Notes:

1. All audio accessory options can be utilized with any antenna, battery and body-worn combination.
2. The accessory combinations evaluated for SAR are highlighted in yellow.
3. Please refer to Section 7.0 of the SAR report for description of accessory ID #.
4. Bw = Body-worn

**HARRIS CORPORATION FCC ID: OWDTR-0072-E
XG-25P VHF-Band PTT Radio Transceiver (Scan)**

Body SAR Test Considerations for Audio Accessories without Built-in Antenna (FCC KDB 643646 D01v01r01 Page 9) - Audio Accessory Combinations																									
Audio Accessory ID #	Battery a (Additional)						Battery b (Additional)						Battery c (Default)						Battery d (Additional)						
	Antenna 1-4						Antenna 1-4						Antenna 1-4						Antenna 1-4						
	Bw#1	Bw#3	Bw#4	Bw#5	Bw#6		Bw#1	Bw#3	Bw#4	Bw#5	Bw#6		Bw#1	Bw#3	Bw#4	Bw#5	Bw#6		Bw#1	Bw#3	Bw#4	Bw#5	Bw#6		
G1a	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
G1b	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
G2	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
G3a	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
G3b	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
G4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
G5	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
G6a	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
G6b	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
G7a	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
G7b	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
G7c	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
G7d	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
G8a	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
G8b	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
G9a	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
G9b	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
G10	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
G11a	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
G11b	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
G12a	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
G12b	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	

Notes:

1. All audio accessory options can be utilized with any antenna, battery and body-worn combination.
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