Certificate Number: 1449-02

MOTOROLA

ELECTROMAGNETIC EXPOSURE (EME) TESTING LABORATORY

8000 West Sunrise Blvd
Fort Lauderdale, Florida

S.A.R. TEST REPORT

(APPENDIX C & D)
FCC ID: AZ489FT5804
H46UCH9PW7AN

August 23, 2001 - Rev. O

Tested By:	Eric Trosper SAR Test Technician
Tested By:	Stephen Whalen Senior Engineer
Tested and Prepared By:	Jim Fortier Lead Engineer
Reviewed and Approved By:	Ken Enger Sr. Resource Manager Product Safety and EME Lab Director

Appendix C: Measurement Probe Calibration Certificate

Schmid & Partner AG
Engineering

Zeughausstrasse 43, 8004 Zurich, Switzerland, Phone +41 1 245 97 00, Fax +41 1 245 97 79

Calibration Certificate

Dosimetric E-Field Probe

Type:	**ET3DV6**
Serial Number:	**1383**
Place of Calibration:	**Zurich**
Date of Calibration:	**May 23, 2001**
Calibration Interval:	**12 months**

Schmid & Partner Engineering AG hereby certifies, that this device has been calibrated on the date indicated above. The calibration was performed in accordance with specifications and procedures of Schmid & Partner Engineering AG.

Wherever applicable, the standards used in the calibration process are traceable to international standards. In all other cases the standards of the Laboratory for EMF and Microwave Electronics at the Swiss Federal Institute of Technology (ETH) in Zurich, Switzerland have been applied.

Calibrated by:

Schmid & Partner
Engineering AG

Zeughausstrasse 43, 8004 Zurich, Switzerland, Telephone +41 1 245 97 00, Fax +41 1 245 97 79

Probe ET3DV6

SN:1383

Manufactured:	August 16, 1999
Last calibration:	August 30, 2000
Recalibrated:	May 23, 2001

Calibrated for System DASY3

DASY3 - Parameters of Probe: ET3DV6 SN:1383

Sensitivity in Free Space

NormX	**1.81** $\mu V/(V/m)^2$
NormY	**1.57** $\mu V/(V/m)^2$
NormZ	**1.65** $\mu V/(V/m)^2$

Diode Compression

DCP X	**96 mv**
DCP Y	**96 mv**
DCP z	**96** mV

Sensitivity in Tissue Simulating Liquid

Head	**450** MHz	6,= 43.5 ± 5%	a = 0.87 ± 10% mholm
	ConvF **X**	6.82 extrapolated	Boundary effect:
	ConvF **Y**	6.82 extrapolated	Alpha 0.94
	ConvF **Z**	6.82 extrapolated	Dept 1.53
			h
Head	900 MHz	&,= 42 ± 6%	a = **0.97 t 10%** mbofm
	ConvF **X**	**6.41** ± 7% (k=2)	Boundary effect:
	ConvF **Y**	**6.41** ± 7% (k=2)	Alpha
	ConvF **Z**	**6.41** ± 7% (k=2)	Dept
			h
Head	**1500** MHz	P,, = 40.4 t 5%	a = 1.23 t 10% mholm
	ConvF X	**5.86** interpolated	**Boundary effect:**
	ConvF Y	**5.86** interpolated	**Alpha**
	ConvF Z	**.5.86** interpolated	**Depth**
Head	**1800** MHz	F,= 40 t 5%	c; = **1.40 ± 10%** mho/m
	ConvF X	**5.59** i 7% (k=2)	Boundary effect:
	ConvF Y	**5.59** ± 7% (k=2)	Alpha 0.6
	ConvF Z	**5.59** ± 7% (k=2)	Dept 8
			h 1.9 8

Sensor Offset

Probe Tip to Sensor Center	2.7	mm
Optical Surface Detection	1.5 ± 0.2	mm

Schmid & Partner
Engineering AG

Zeughausstrasse 43, 8004 Zurich, Switzerland, Phone +41 1 245 97 00, Fax +41 1 245 97 79

Additional Conversion Factors

for Dosimetric E-Field Probe

Type:	ET3DV6
Serial Number:	1383
Place of Assessment:	Zurich
Date of Assessment:	May 28, 2001
Probe Calibration Date:	May 23, 2001

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 900 MHz or at 1800 MHz.

Assessed by

Dosimetric E-Field Probe ET3DV6 SN:1383

Conversion factor (± standard deviation)

400 MHz	ConvF	7.64 ± 8%	ε_r = 44.4 σ = 0.87 mho/m (CENELEC head tissue)
835 MHz	ConvF	6.54 ± 8%	ε_r = 42.5 σ = 0.98 mho/m (CENELEC head tissue)
900 MHz	ConvF	6.41± 8%	ε_r = 42.3 σ = 0.99 mho/m (CENELEC head tissue)
350 MHz	ConvF	7.76 ± 8%	ε_r = 44.7 σ = 0.87 mho/m (IEEE head tissue)
450 MHz	ConvF	7.52 ± 8%	ε_r = 43.5 σ = 0.87mho/m (IEEE head tissue)
835 MHz	ConvF	6.53 ± 8%	ε_r = 41.5 σ = 0.90 mho/m (IEEE head tissue)
925 MHz	ConvF	6.37 ± 8%	ε_r = 41.45 σ = 0.98 mho/m (IEEE head tissue)
1500 MHz	ConvF	6.04 ± 8%	ε_r = 40.43 σ = 1.23 mho/m (IEEE head tissue)
1900 MHz	ConvF	5.41± 8%	ε_r = 40.0 σ = 1.40 mho/m (IEEE head tissue)
2450 MHz	ConvF	5.18+8%	ε_r = 39.2 σ = 1.8 mho/m (IEEE head tissue)
2450 MHz	ConvF	5.40 ± 8%	ε_r = 37.2 σ = 2.09 mho/m (H1800 at 2450 MHz)

Dosimetric E-Field Probe ET3DV6 SN: 1383

Conversion factor (± standard deviation)

35 MHz	ConvF	8.77 ± **15%**	ε_r = **85.19** σ = **0.69 mho/m** (FCC muscle tissue)
75 MHz	ConvF	8.68 ± 10%	ε_r = **69.93** σ = **0.72 mho/m** (FCC muscle tissue)
150 MHz	ConvF	8.51 ± 8%	ε_r = **62.68** σ = **0.75 mho/m** (FCC muscle tissue)
350 MHz	ConvF	7.64 ± 8%	ε_r = **58.41** σ = **0.80 mho/m** (FCC muscle tissue)
450 MHz	ConvF	7.40 ± 8%	ε_r = **57.62** σ = **0.83 mho/m** (FCC muscle tissue)
784 MHz	ConvF	6.38 ± 8%	ε_r = **56.25** σ = **0.93 mho/m** (FCC muscle tissue)
835 MHz	ConvF	6.28 ± **8%**	***F,,*= 56.11** **cy = 0.95 mholm** (FCC muscle tissue)
925 MHz	ConvF	6.10 ± 8%	ε_r = **55.9** σ = **0.98 mho/m** (FCC muscle tissue)
1500 MHz	ConvF	5.44 ± 8%	***F,*** = 54.87 (y = **1.23 mho/m** (FCC muscle tissue)
1900 MHz	ConvF	4.82 ± **8%**	ε_r = **54.3** σ = **1.45 mho/m** (FCC muscle tissue)
2450 MHz	ConvF	4.53 ± 8%	F-,= **53.57** **a= 1.81 mbo/m** (FCC muscle tissue)

Appendix D: Illustrations of Body-worn Accessories

The purpose of this appendix is to illustrate the body-worn carry accessories for XTS2500 Series Radios. The radio that is used in the following photos is of the XTS2500 type and was used solely to demonstrate the different body - worn carry accessories. There are two types of body-worn carry accessories 1) Belt clip and 2) Leather Case with Swivel belt loop.

1) Belt Clip

There are two version available, HLN9844A (for 2" belt) and HLN6853A (for 2.25" belt). These belt clips are plastic assemblies with a spring and small metal clip which attaches to the back of the battery. Photos 1 and 2 illustrate the HLN9844A belt clip and the metal spring.

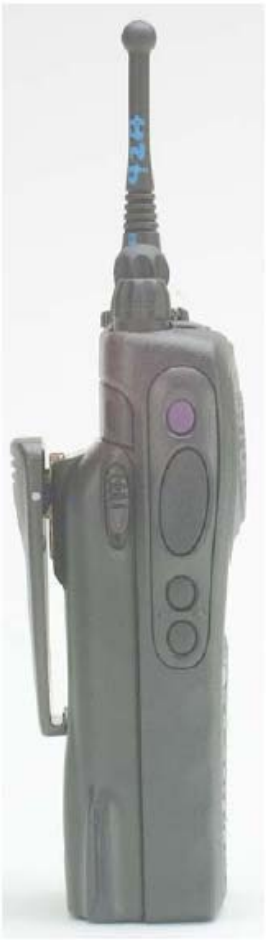

Photo 1. Side view of HLN9844A

Photo 2. Front and Rear view of HLN9844A

Leather Case with Swivel belt loop

This carry case, NTN8036B, is constructed of hard leather and includes a 2.5 inch belt loop attached at the rear with a heavy duty metal swivel joint. The design allows the radio and case to swivel freely at the waist and yet allow rapid removal for hand - held use by rotating and lifting upward. A snap on "T-strap", incorporating 3 metal snaps, secures the radio within the case.

Photo 3, Side view of NTN8036B

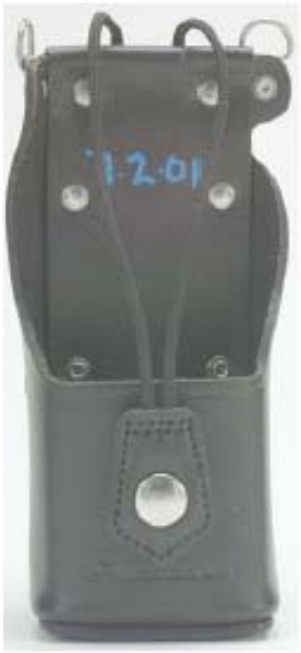

Photo 4, Front view of NTN8036B

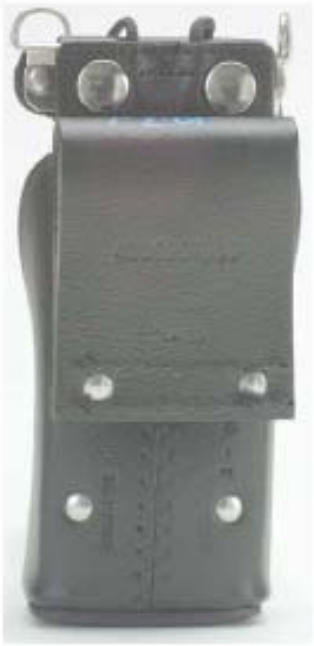

Photo 5, Rear view of NTN8036B

The following table summarizes the body spacing distance provided by each of the body – worn accessories:

Carry Case Kit #	Closest separation distance @ base of antenna to the bottom of phantom surface (mm)
HLN9844A	32 mm
NTN8036B	72 mm
HLN6853A	32 mm