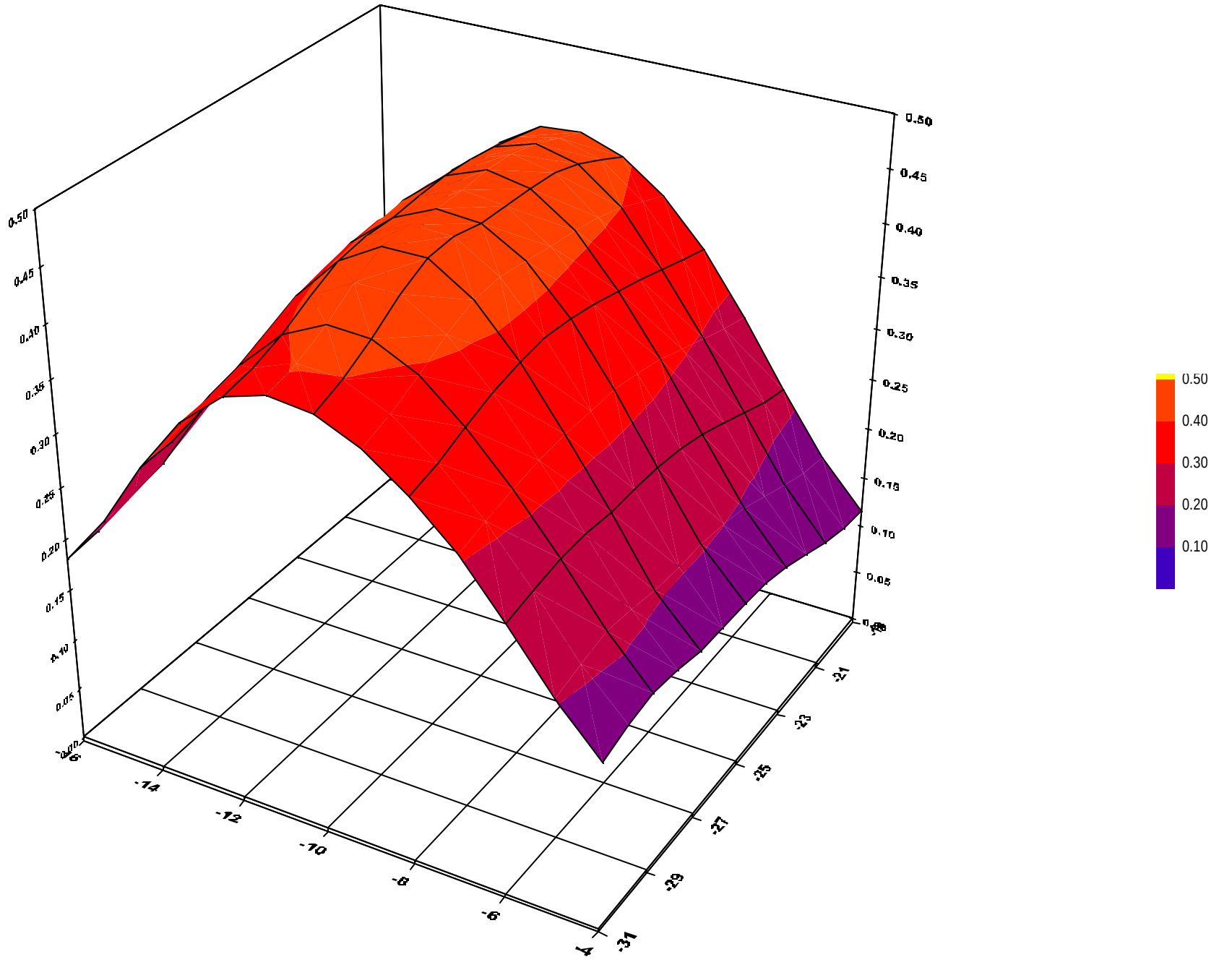
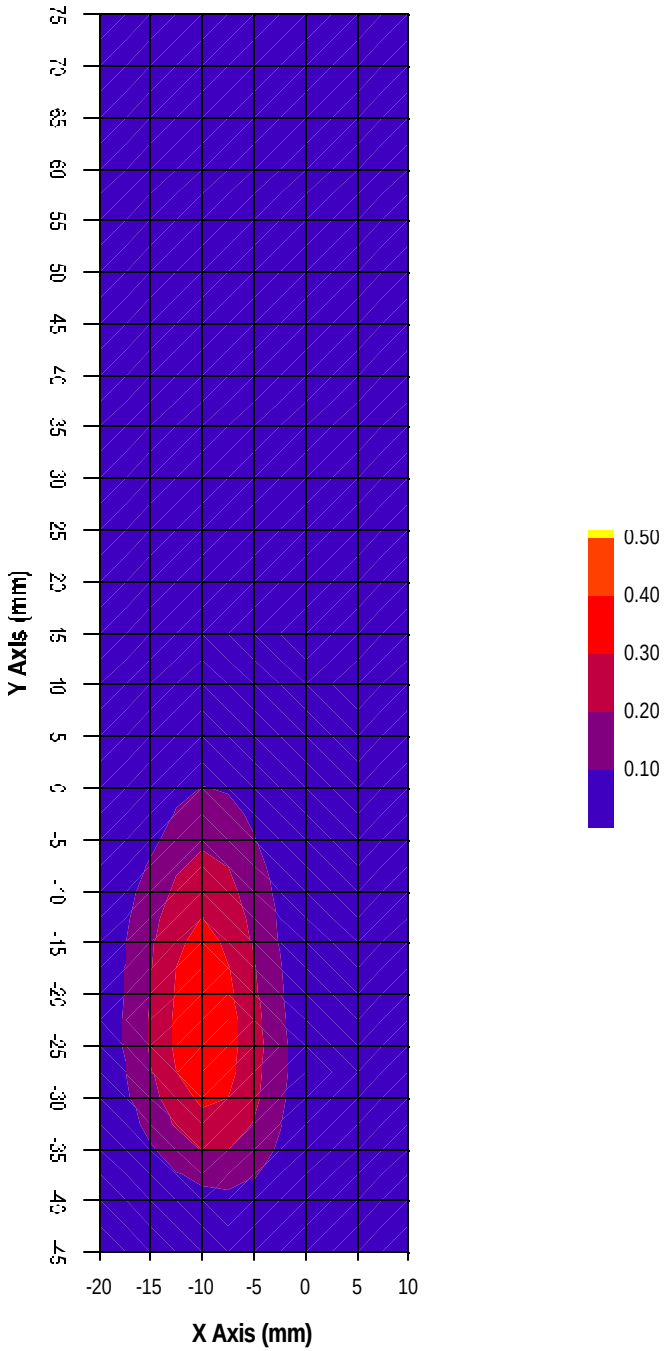
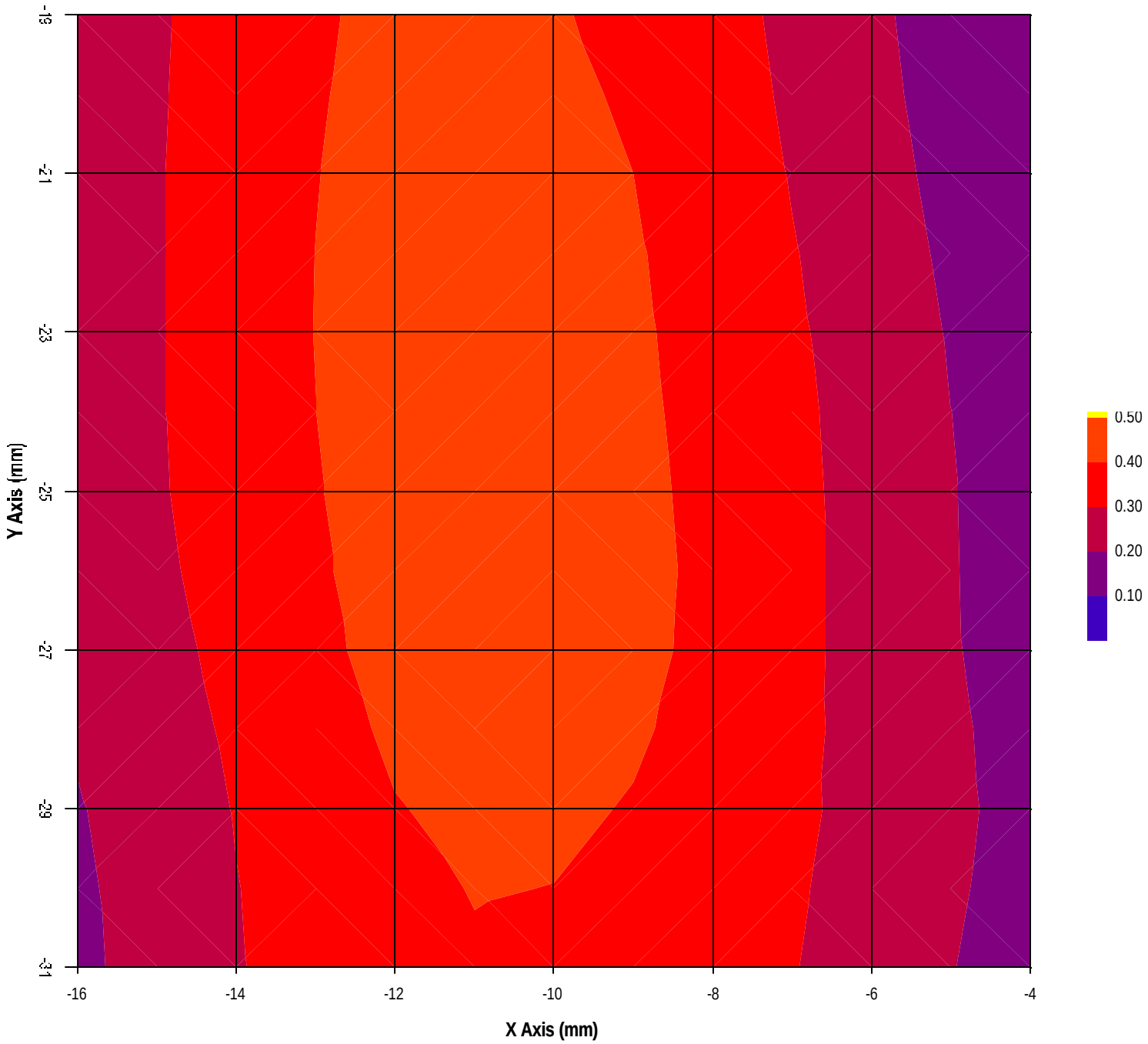
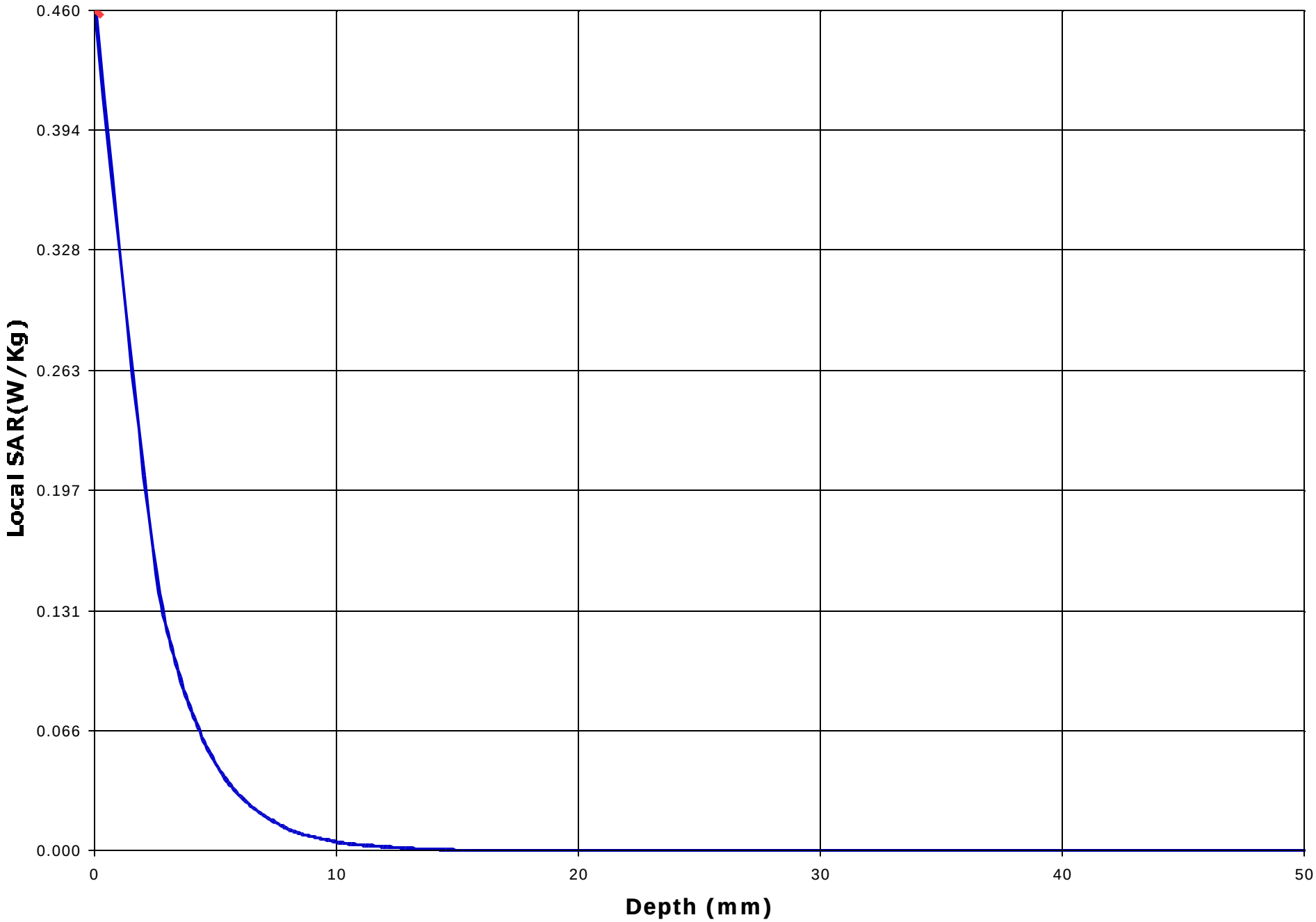
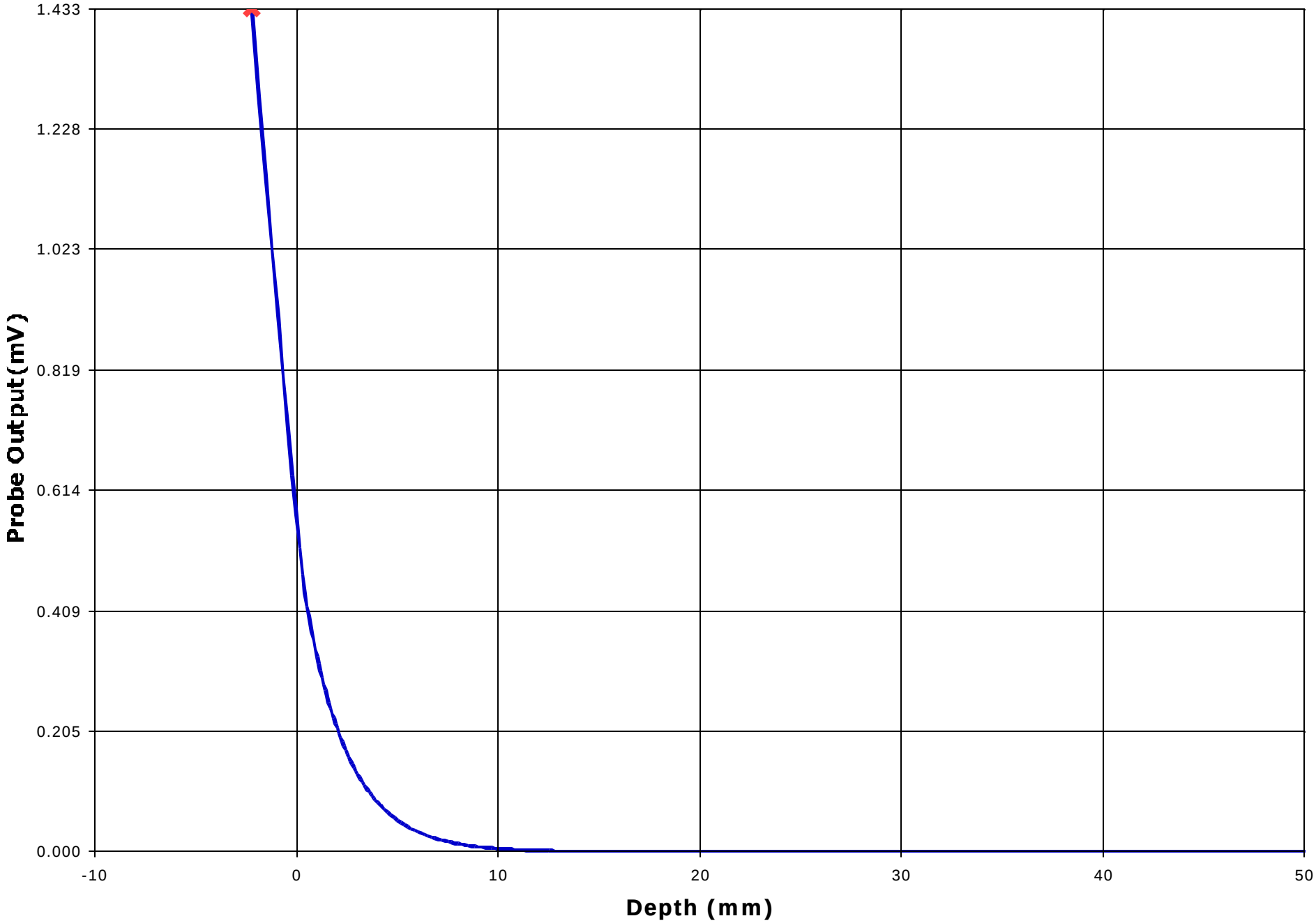

0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
-16
-14
-12
-10
-8
-6
-4
-31
-29
-27
-25
-23
-21
0.50
0.40
0.30
0.20
0.10


75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
-5
-10
-15
-20
-25
-30
-35
-40
-45
Y Axis (mm)
-20
-15
-10
-5
0
5
10
X Axis (mm)
0.50
0.40
0.30
0.20
0.10


-19
-21
-23
-25
-27
-29
-31
Y Axis (mm)
-16
-14
-12
-10
-8
-6
-4
X Axis (mm)
0.50
0.40
0.30
0.20
0.10


0.460
0.394
0.328
0.263
0.197
0.131
0.066
0.000
Local SAR(W/Kg)
0
10
20
30
40
50
Depth (mm)


1.433
1.228
1.023
0.819
0.614
0.409
0.205
0.000
Probe Output(mV)
-10
0
10
20
30
40
50
Depth (mm)

Test Information

Date : 26/10/2001
Time : 1:28:58 PM

Product	: 2.4GHz FHSS Cordless Telephone	**Test**	: SAR
Manufacturer	: Panasonic Canada Inc.	**Frequency (MHz)**	: 2440
Model Number	: KX-TD7690	**EIRP (W)**	: 0.329
Serial Number	: N/A	**Antenna Type**	: Monopole
FCC ID Number	:	**Signal**	: Spread Spectrum

Phantom	: Waist	**Dielectric Constant**	: 52.64
Simulated Tissue	: Muscle	**Conductivity**	: 1.98

Probe	: UT-ETR-0200-1	**Antenna Position**	: Retracted
Probe Offset (mm)	: 2.250		
Sensor Factor (mV)	: 10.8		
Conversion Factor	: 3.467		
Calibrated Date	: 29/06/2001		

Amplifier Setting :

Channel 1 : 0.0043 Channel 2 : 0.0042 Channel 3 : 0.0052

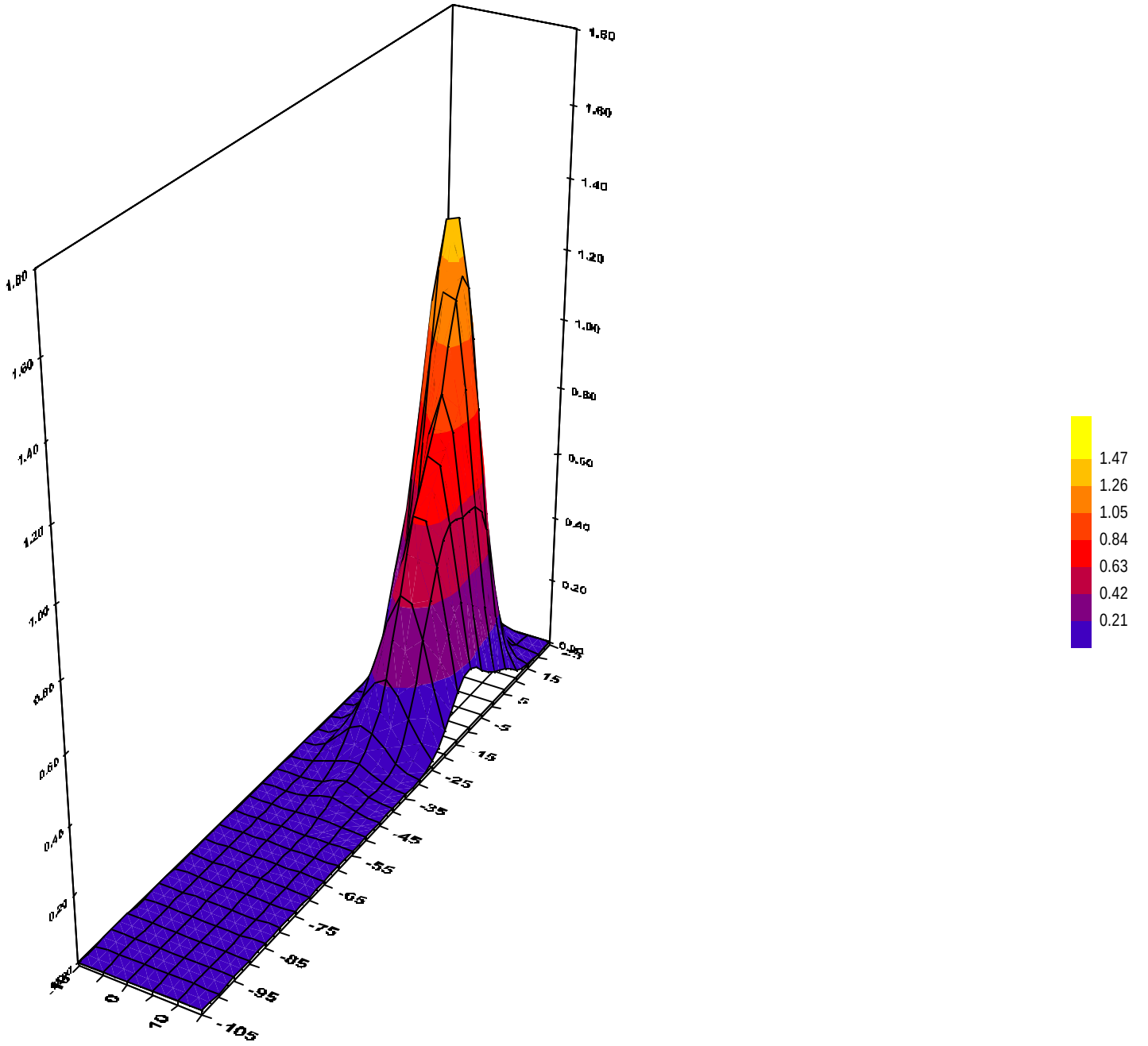
Location of Maximum Field :

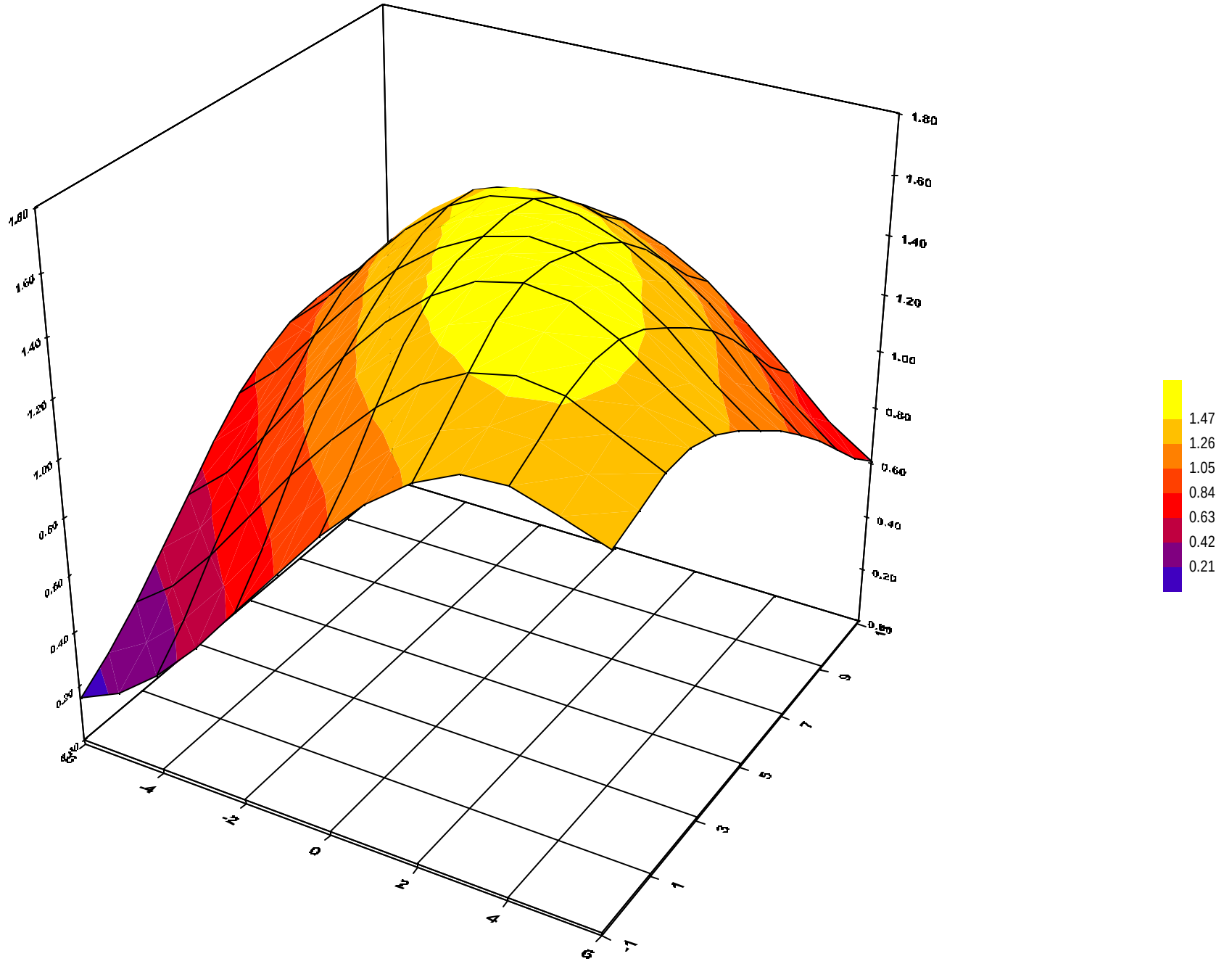
X = 2 Y = 3

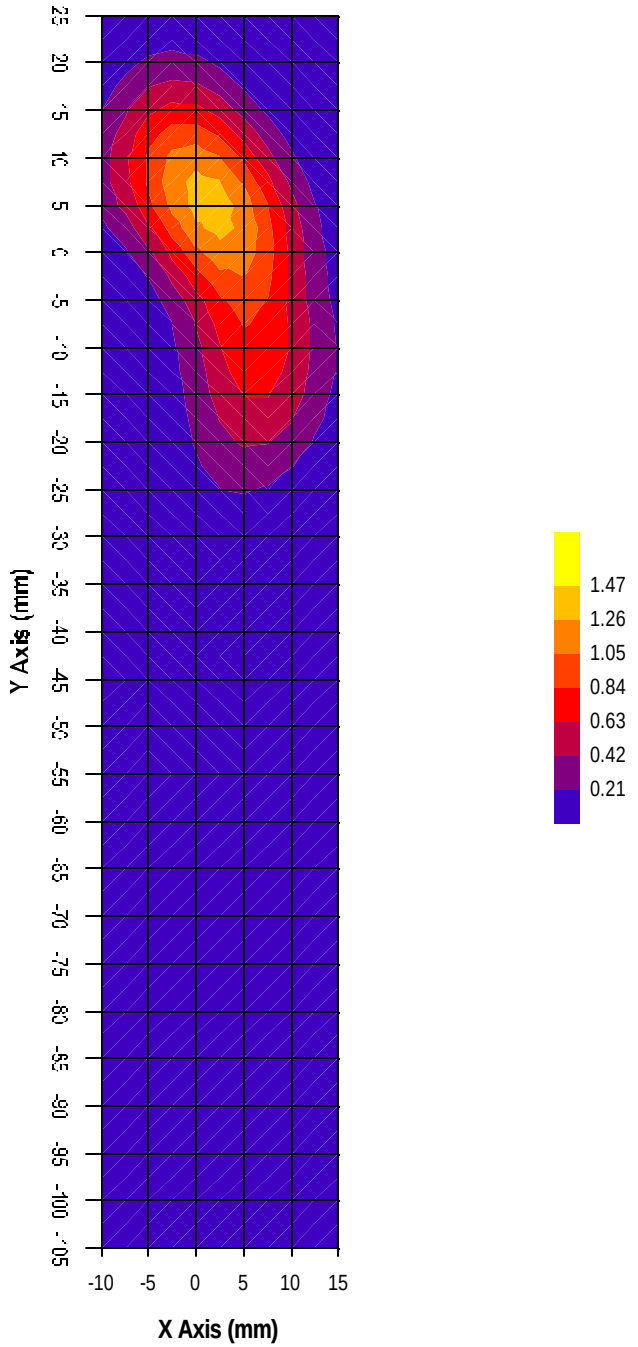
Measured Values (mV) :

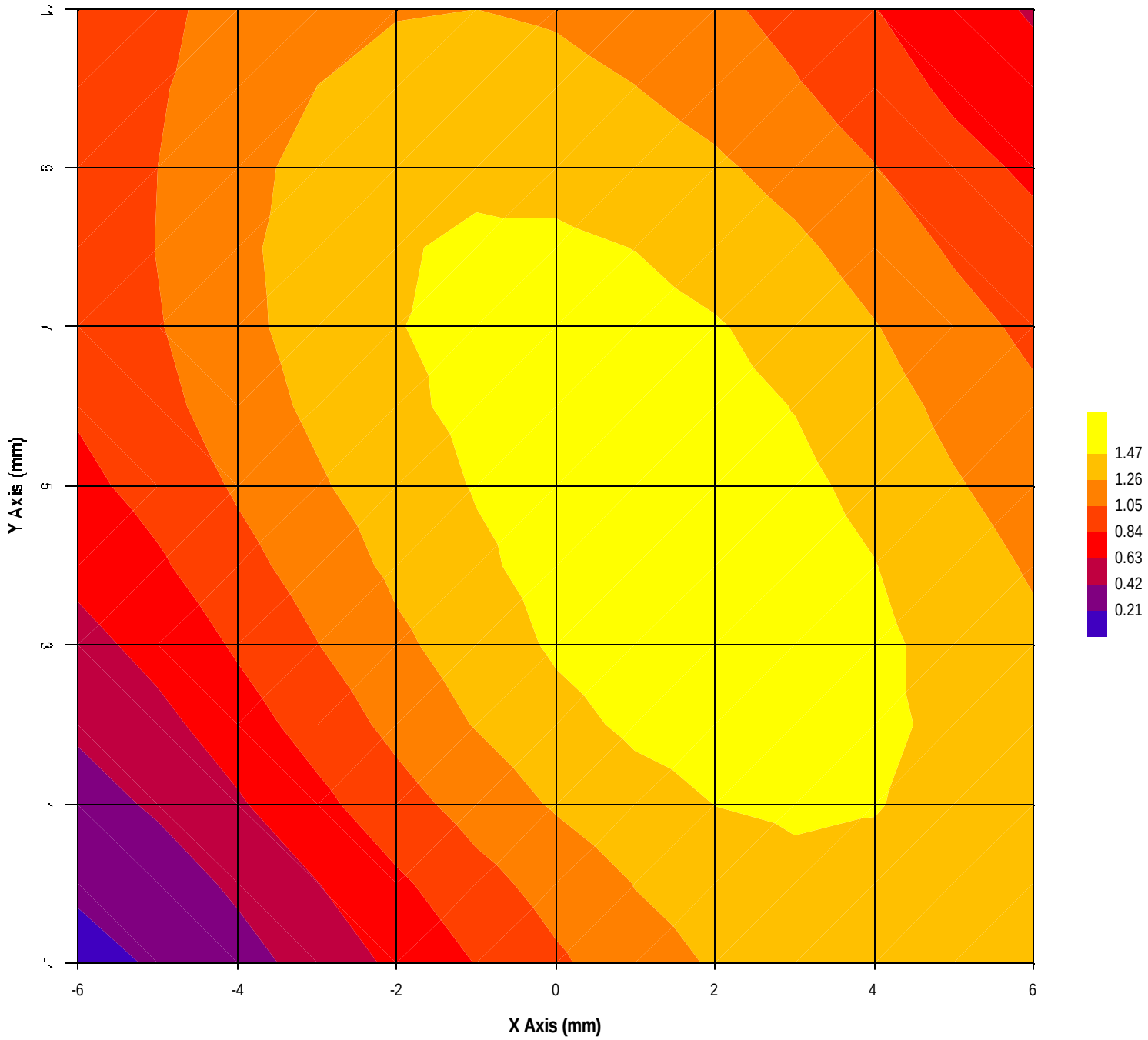
1.689	1.433	1.105	0.853	0.586	0.405
0.266	0.133	0.047	0.000	0.000	

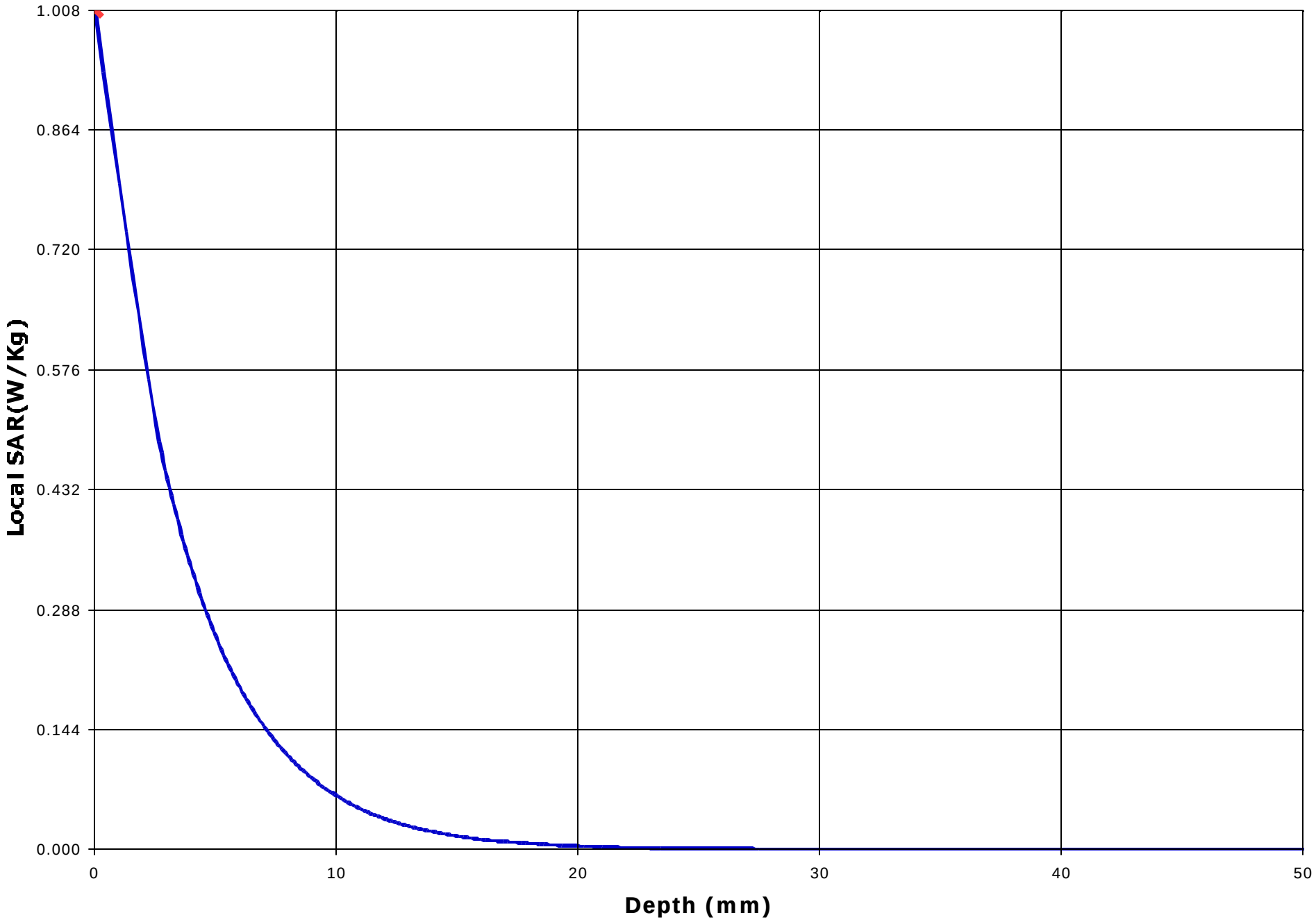
Peak Voltage (mV) : 3.141 **1 Cm Voltage (mV)** : 0.199 **SAR (W/Kg)** : 0.274

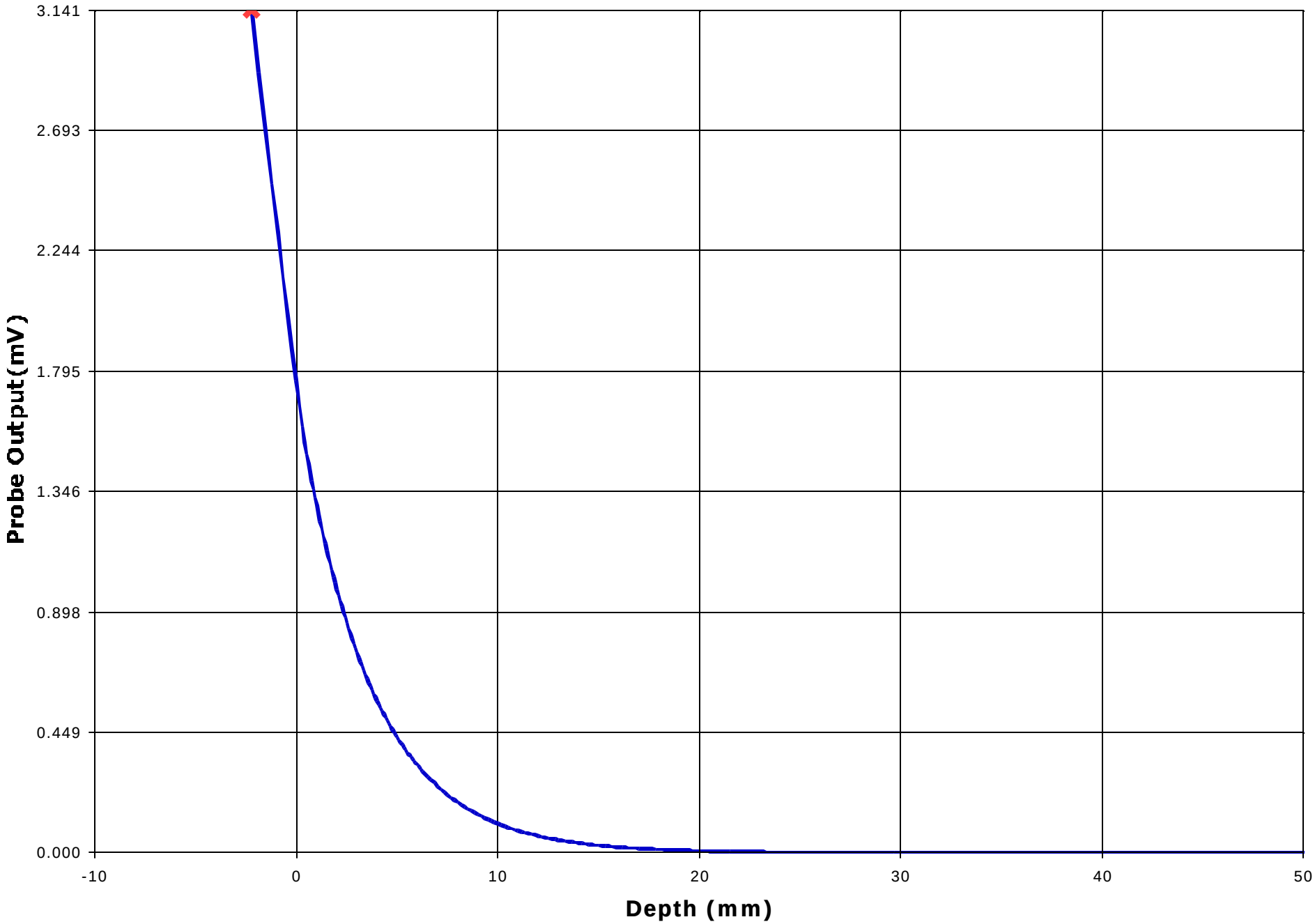

1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
15
5
-5
-15
-25
-35
-45
-55
-65
-75
-85
-95
-105
0
10
1.47
1.26
1.05
0.84
0.63
0.42
0.21


1.47
1.26
1.05
0.84
0.63
0.42
0.21


25
20
15
10
5
0
-5
-10
-15
-20
-25
-30
-35
-40
-45
-50
-55
-60
-65
-70
-75
-80
-85
-90
-95
-100
-105
Y Axis (mm)
-10
-5
0
5
10
15
X Axis (mm)
1.47
1.26
1.05
0.84
0.63
0.42
0.21


Y Axis (mm)
X Axis (mm)
-6
-4
-2
0
2
4
6
1.47
1.26
1.05
0.84
0.63
0.42
0.21


1.008
0.864
0.720
0.576
0.432
0.288
0.144
0.000
Local SAR(W/Kg)
0
10
20
30
40
50
Depth (mm)


3.141
2.693
2.244
1.795
1.346
0.898
0.449
0.000
Probe Output (mV)
-10
0
10
20
30
40
50
Depth (mm)

Test Information

Date : 26/10/2001
Time : 1:59:25 PM

Product	: 2.4GHz FHSS Cordless Telephone	**Test**	: SAR
Manufacturer	: Panasonic Canada Inc.	**Frequency (MHz)**	: 2440
Model Number	: KX-TD7690	**EIRP (W)**	: 0.329
Serial Number	: N/A	**Antenna Type**	: Monopole
FCC ID Number	:	**Signal**	: Spread Spectrum

Phantom	: Waist	**Dielectric Constant**	: 52.64
Simulated Tissue	: Muscle	**Conductivity**	: 1.98

Probe	: UT-ETR-0200-1	**Antenna Position**	: Extended
Probe Offset (mm)	: 2.250		
Sensor Factor (mV)	: 10.8		
Conversion Factor	: 3.467		
Calibrated Date	: 29/06/2001		

Amplifier Setting :

Channel 1 : 0.0043 Channel 2 : 0.0042 Channel 3 : 0.0052

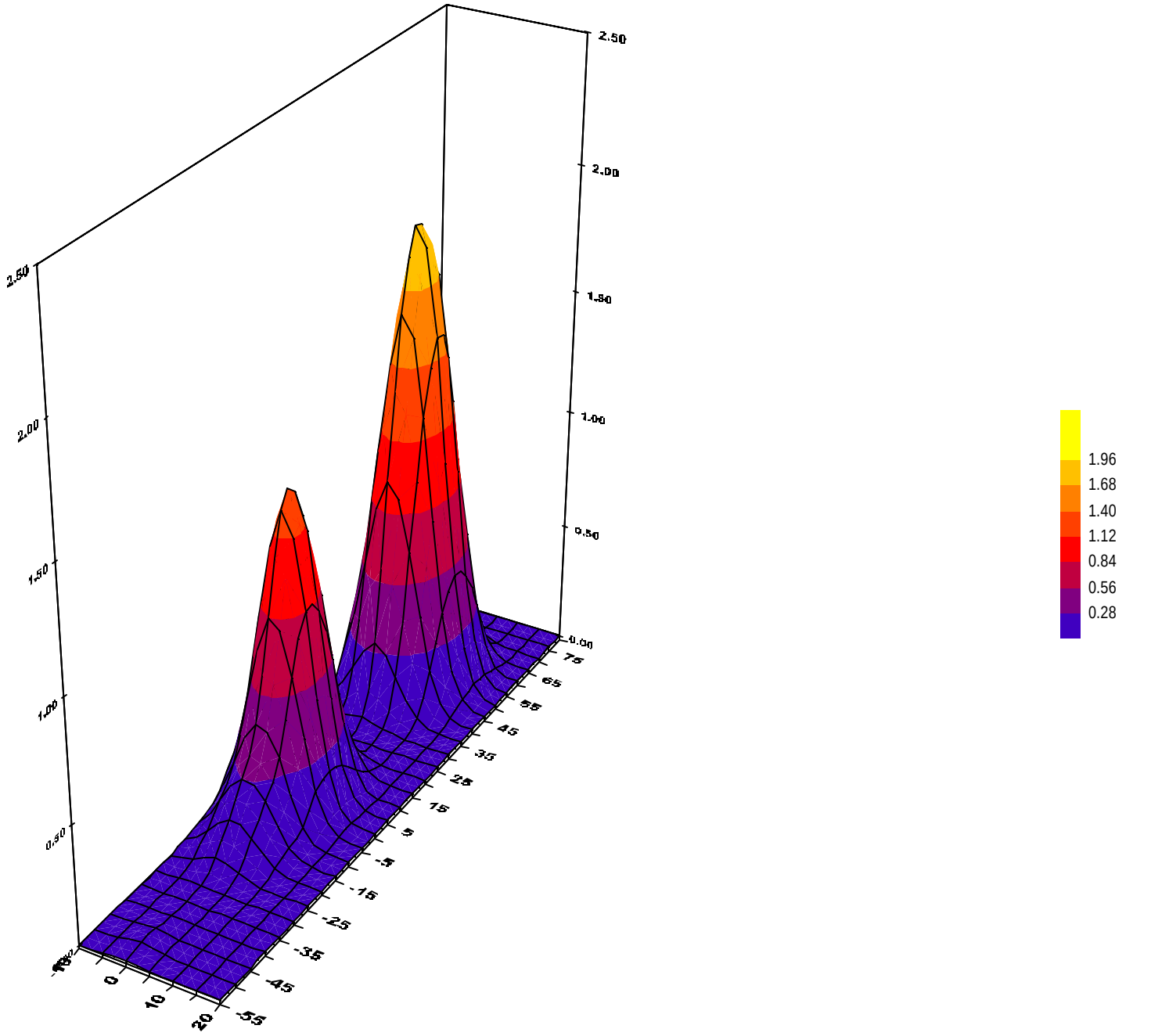
Location of Maximum Field :

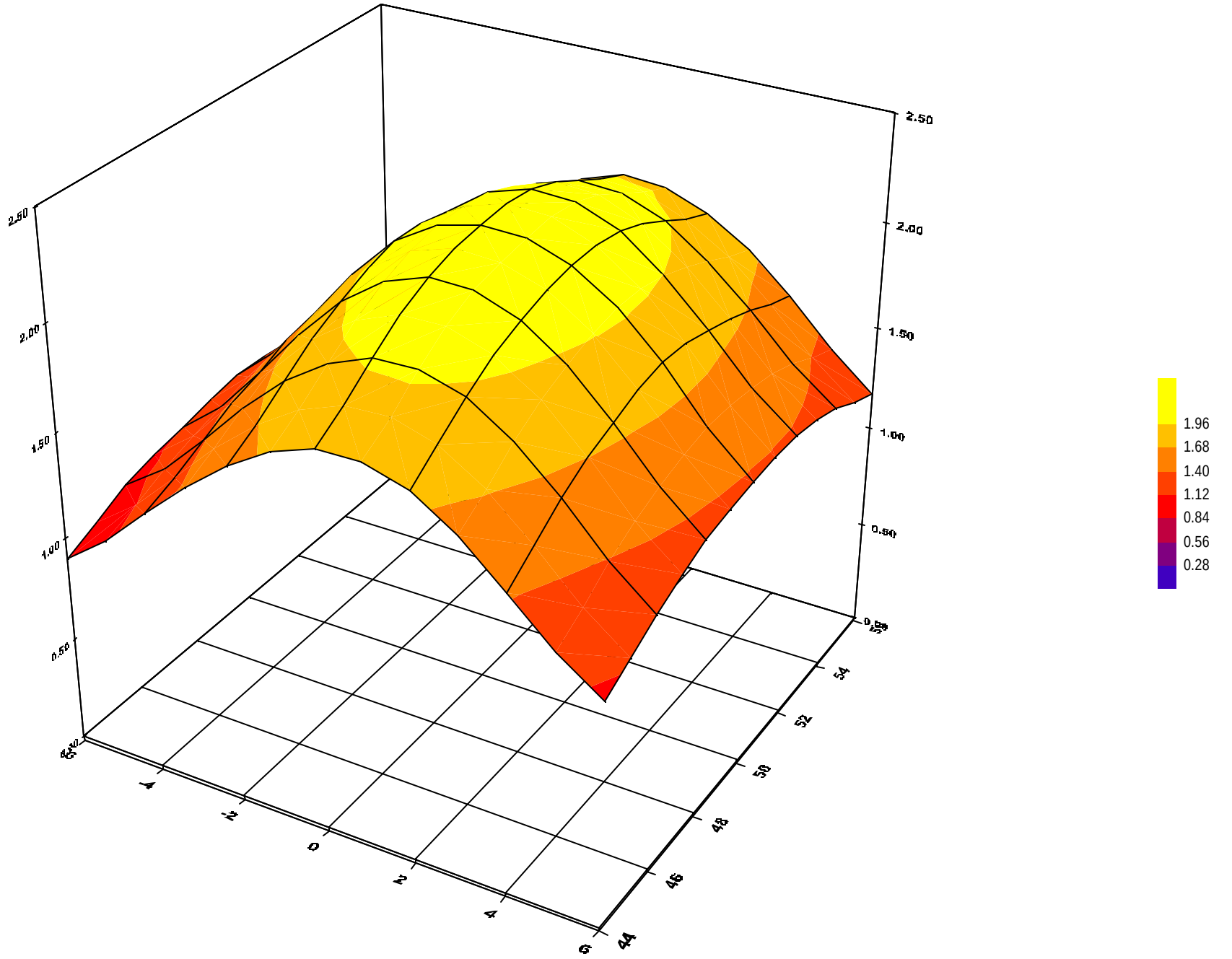
X = 0 Y = 52

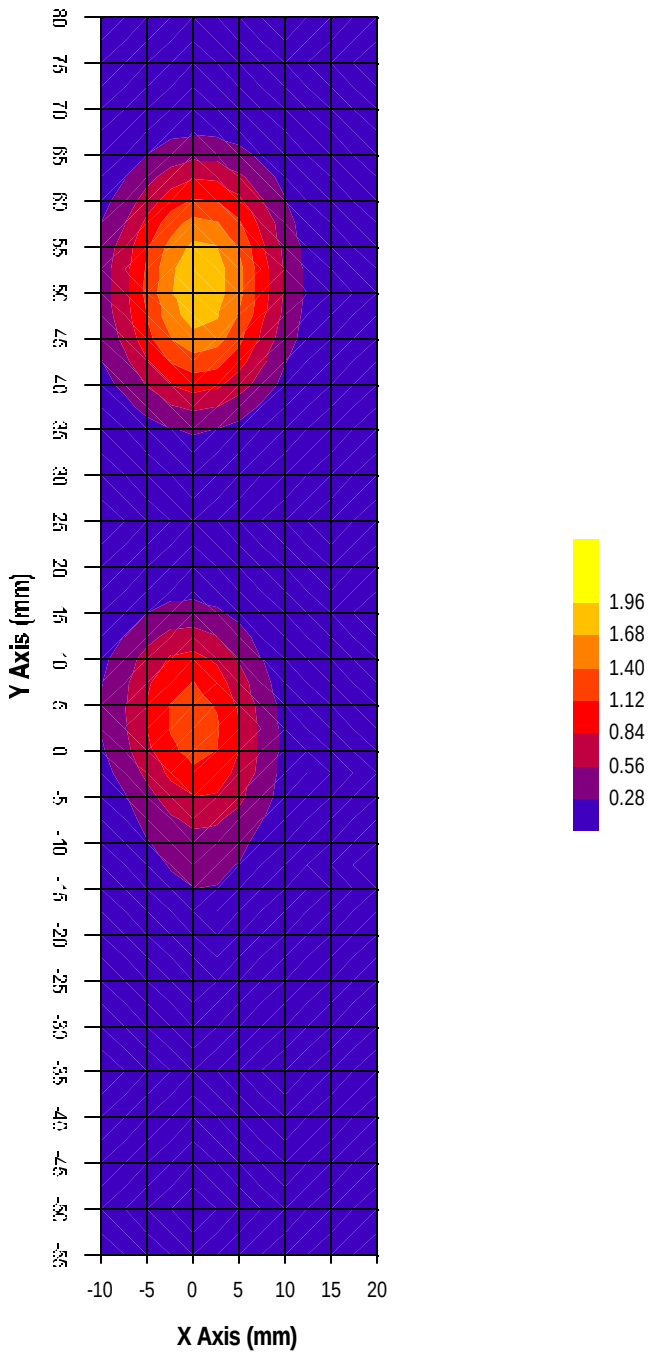
Measured Values (mV) :

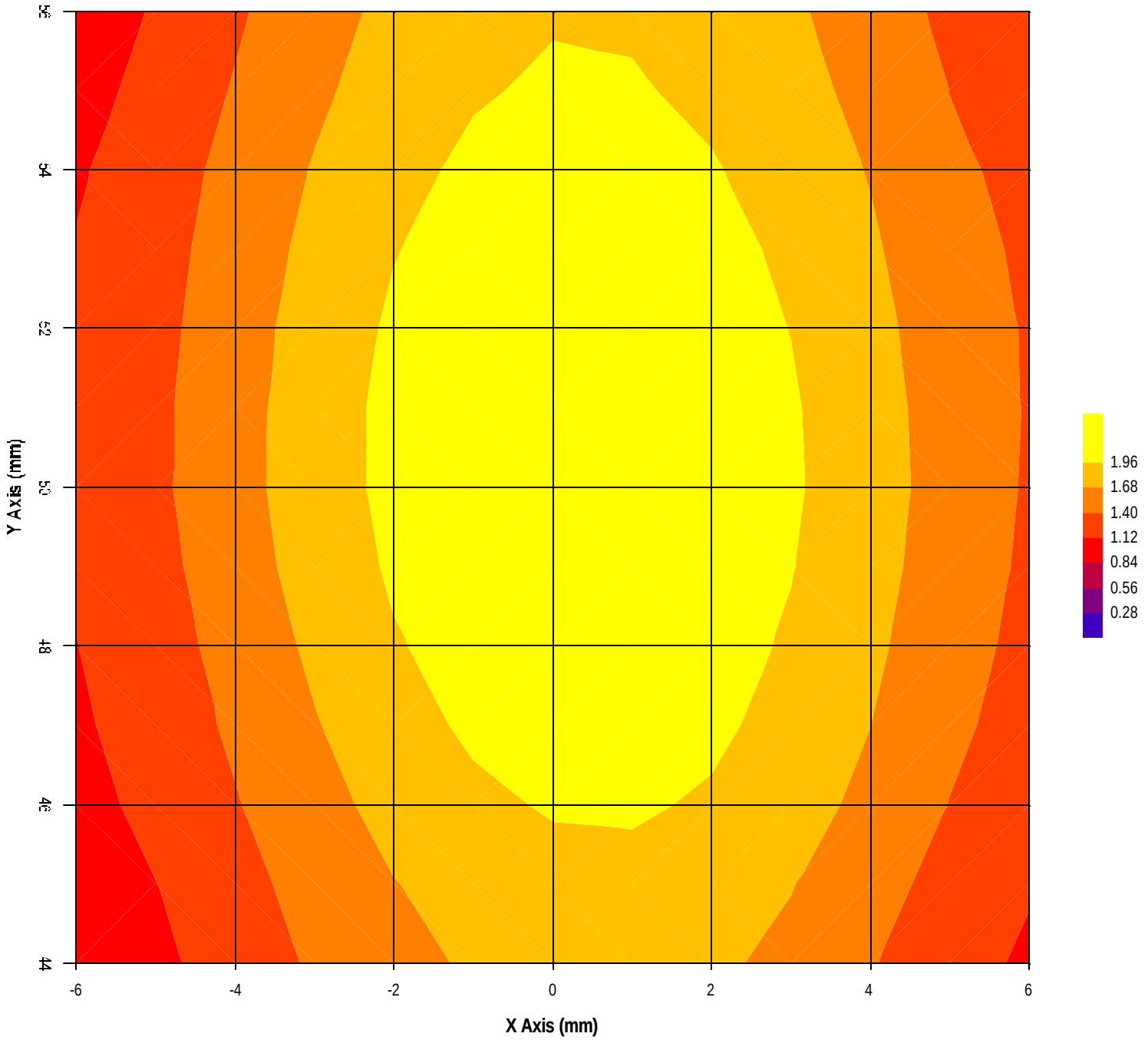
2.247	1.890	1.463	1.126	0.846	0.647
0.484	0.353	0.280	0.208	0.144	

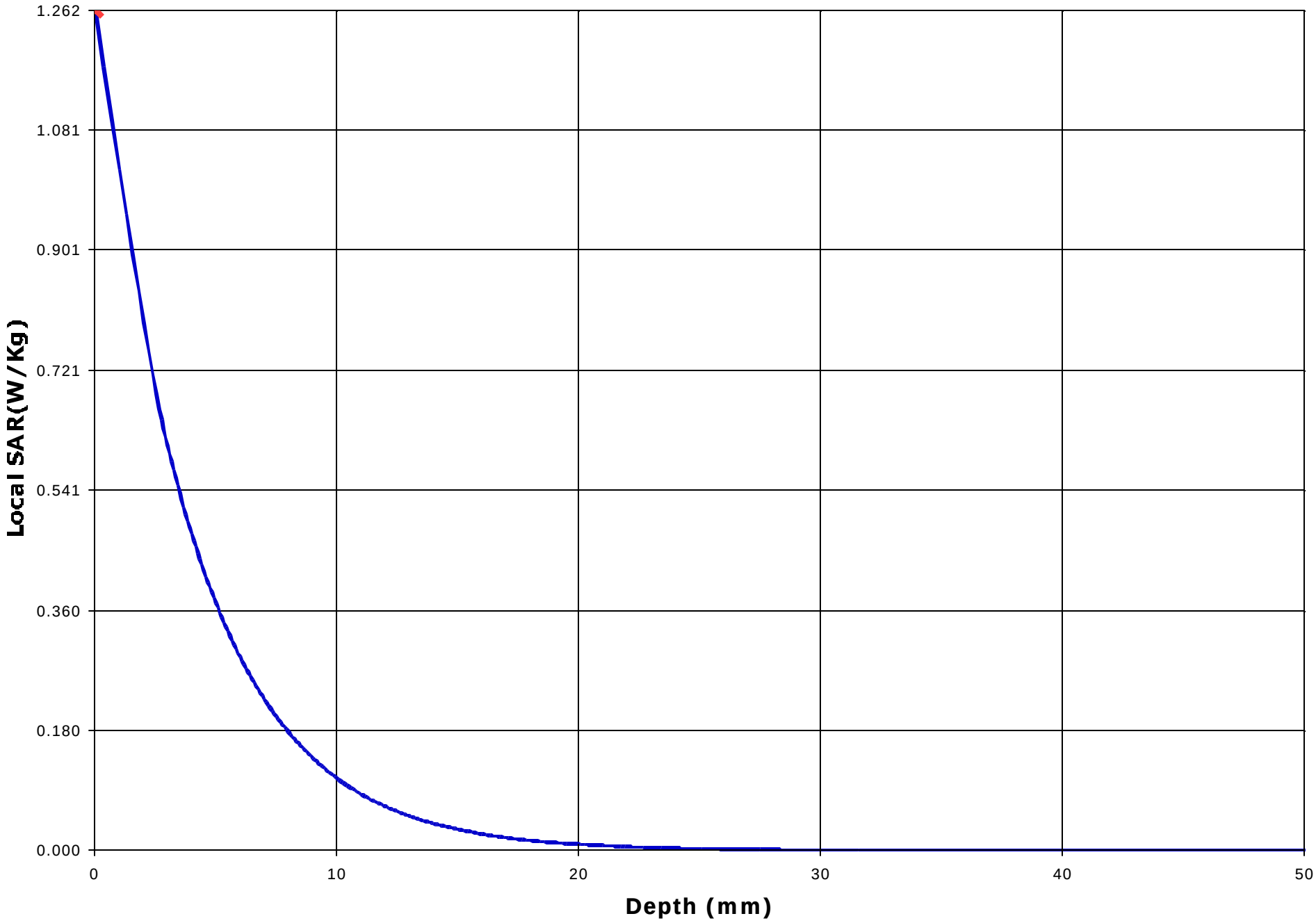
Peak Voltage (mV) : 3.930 **1 Cm Voltage (mV)** : 0.336 **SAR (W/Kg)** : 0.390


2.50
2.00
1.50
1.00
0.50
0.00
75
65
55
45
35
25
15
5
-5
-15
-25
-35
-45
-55
0
10
20
1.96
1.68
1.40
1.12
0.84
0.56
0.28


2.50
2.00
1.50
1.00
0.50
0.00
44
46
48
50
52
54
56
1.96
1.68
1.40
1.12
0.84
0.56
0.28


Y Axis (mm)
X Axis (mm)
-10
-5
0
5
10
15
20
1.96
1.68
1.40
1.12
0.84
0.56
0.28


Y Axis (mm)
56
54
52
50
48
46
44
-6
-4
-2
0
2
4
6
X Axis (mm)
1.96
1.68
1.40
1.12
0.84
0.56
0.28


1.262
1.081
0.901
0.721
0.541
0.360
0.180
0.000
Local SAR(W/Kg)
0
10
20
30
40
50
Depth (mm)

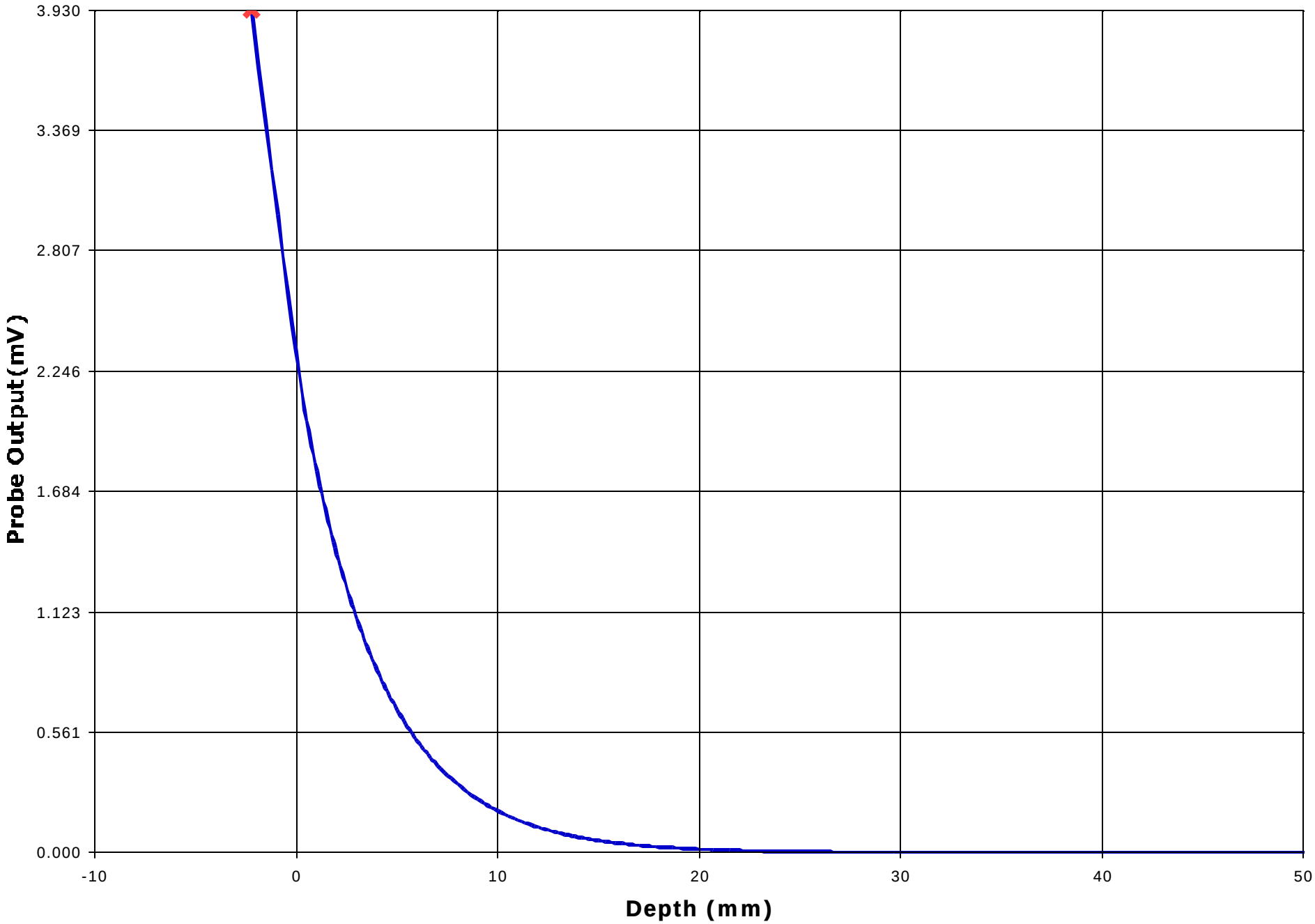

3.930
3.369
2.807
2.246
1.684
1.123
0.561
0.000
Probe Output(mV)
-10
0
10
20
30
40
50
Depth (mm)

EXHIBIT 8. PRESCAN RESULTS OF HEAD CONFIGURATION AT 2441.0 MHZ

Prescan results of Head configuration at 2441.0 MHz are presented in following order:

Test Configuration	Antenna Position	SAR (W/Kg)	Location of hot spot (mm) * Center of ear piece as reference point (0, 0)
Right Head Tilt Position	Retracted	0.138	(-13, 5)
	Extended	0.057	(-12, 51)
Right Head Cheek Position	Retracted	0.085	(-12, 3)
	Extended	0.000	(0, 0)
Left Head Tilt Position	Retracted	0.059	(-7, 8)
	Extended	0.026	(-5, 55)
Left Head Cheek Position	Retracted	0.019	(-10, 8)
	Extended	0.000	N/A

Test Information

Date : 02/11/2001
Time : 1:25:02 PM

Product	: 2.4GHz FHSS Cordless	**Test**	: SAR
Manufacturer	: Panasonic Canada Inc.	**Frequency (MHz)**	: 2440
Model Number	: KX-TD7690	**EIRP (W)**	: 0.329
Serial Number	: N/A	**Antenna Type**	: Monopole
FCC ID Number	:	**Signal**	: CW

Phantom	: Head - Right Ear	**Dielectric Constant**	: 38.70
Simulated Tissue	: Brain	**Conductivity**	: 2.01

Probe	: UT-ETR-0200-1	**Antenna Position**	: Retracted
Probe Offset (mm)	: 2.250	**Measured Power (W)**	:
Sensor Factor (mV)	: 10.8	**(conducted)**	
Conversion Factor	: 4.482	**Cable Insertion Loss (dB)**	:
Calibrated Date	: 24/10/2001	**Compensated Power (W)**	: 0.000

Amplifier Setting :

Channel 1 : 0.0045 Channel 2 : 0.0045 Channel 3 : 0.0056

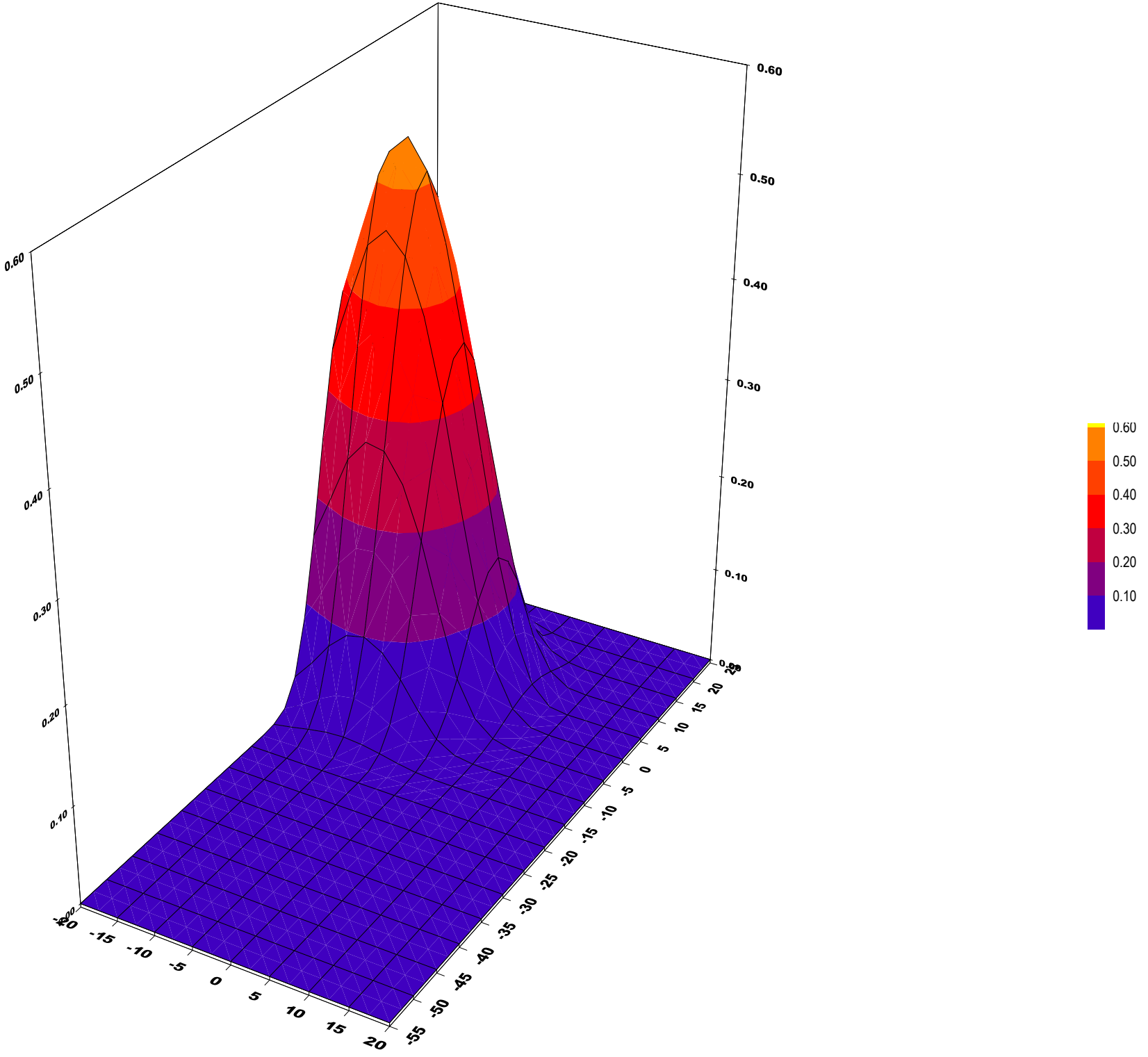
Location of Maximum Field :

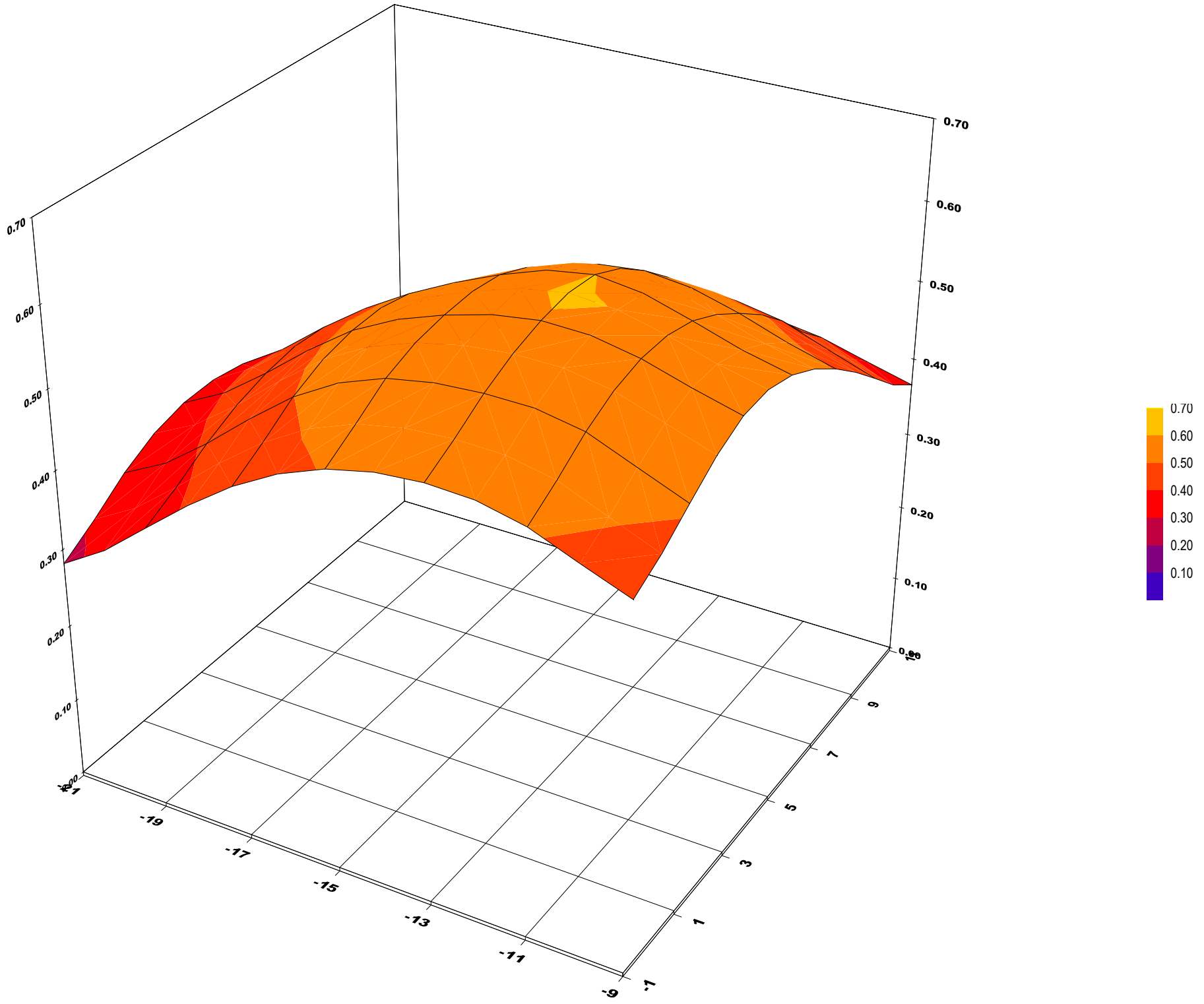
X = -13 Y = 5

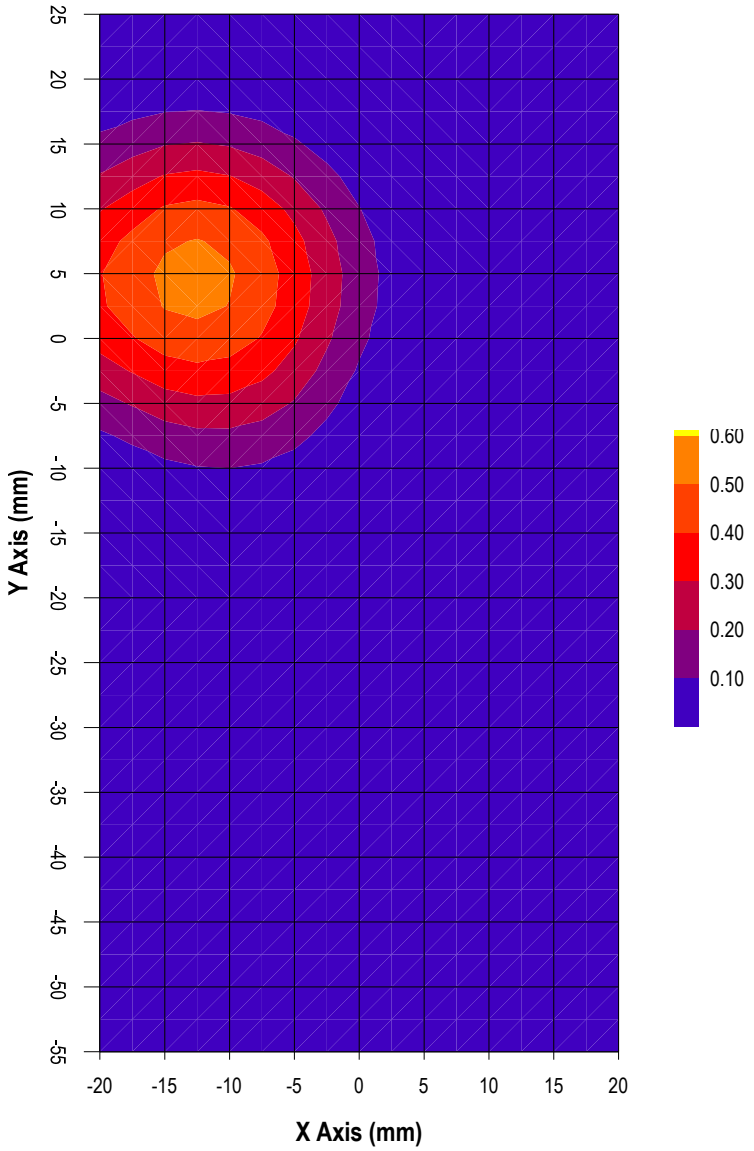
Measured Values (mV) :

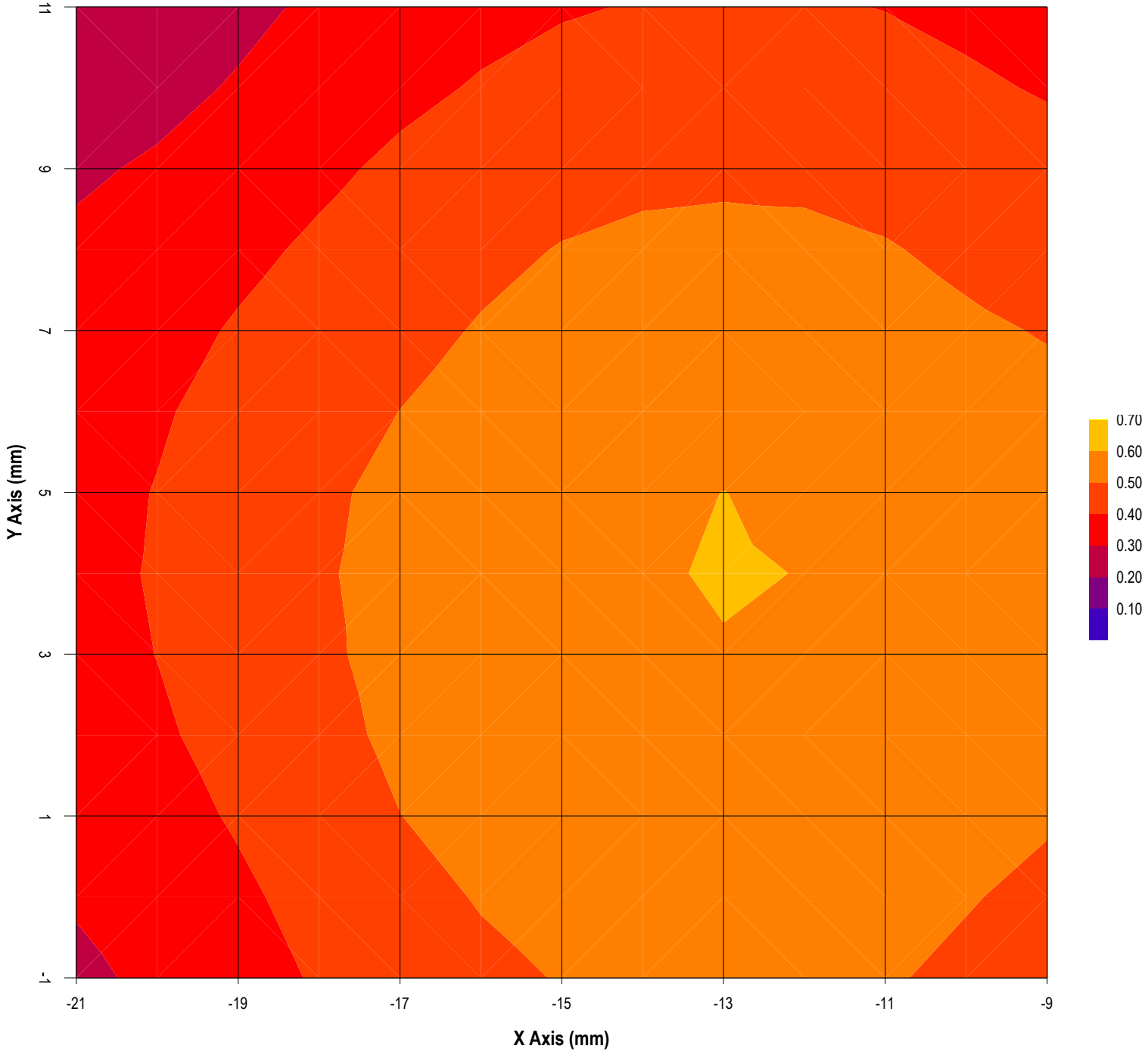
0.581	0.482	0.356	0.257	0.180	0.113
0.050	0.000	0.000	0.000	0.000	

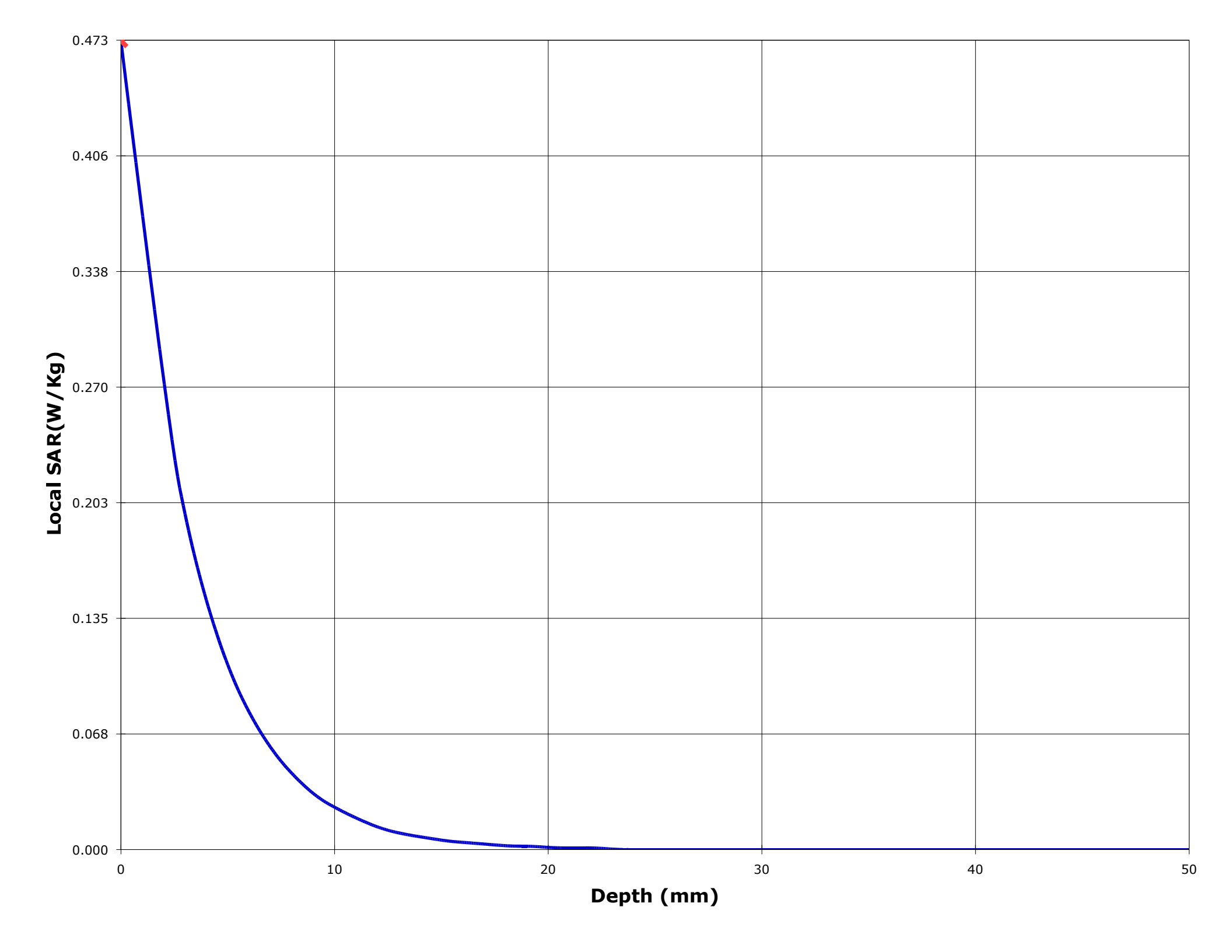
Peak Voltage (mV) : 1.140 **1 Cm Voltage (mV)** : 0.058 **SAR (W/Kg)** : 0.138

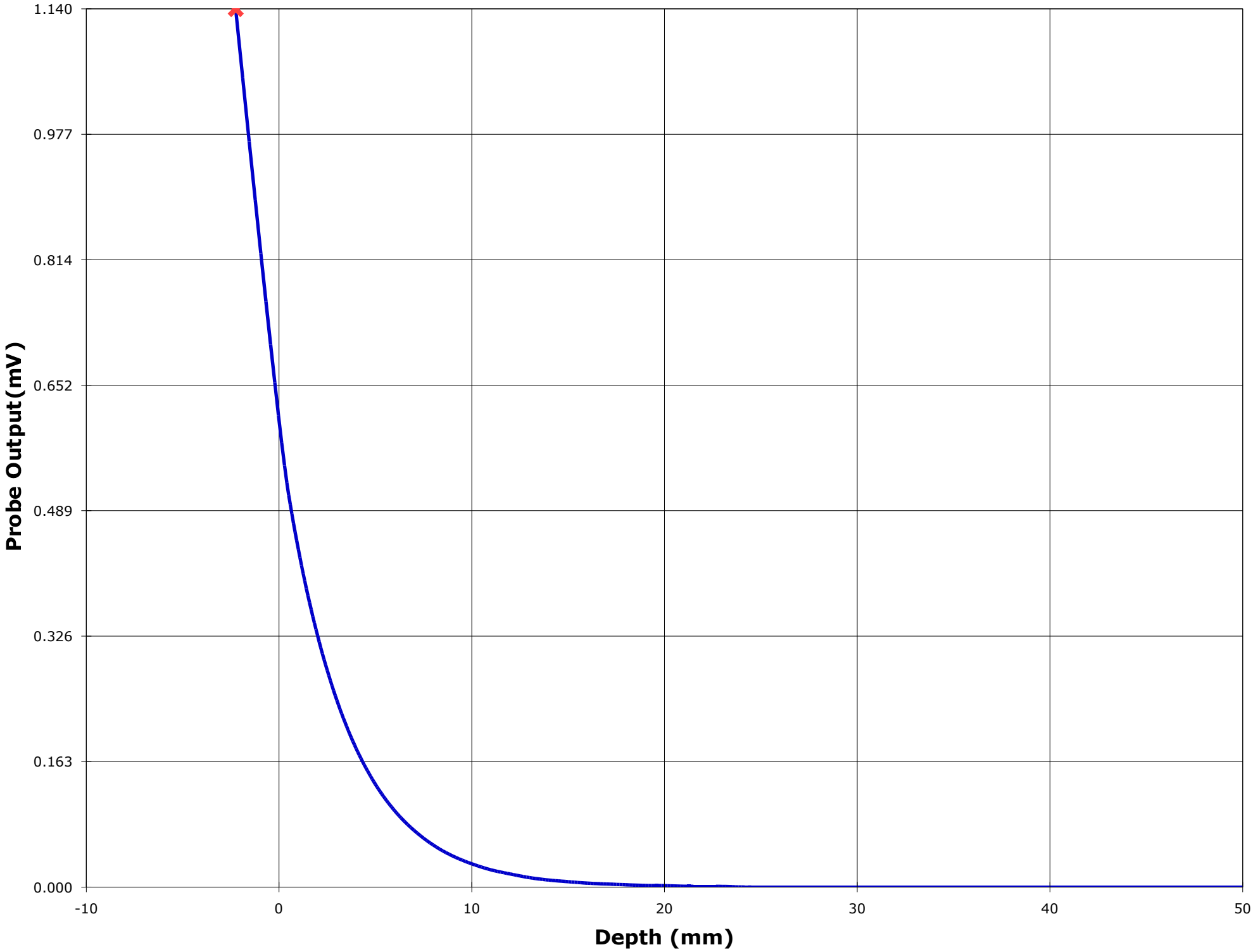

0.60
0.50
0.40
0.30
0.20
0.10
-20
-15
-10
-5
0
5
10
15
20
-55
-50
-45
-40
-35
-30
-25
-20
-15
-10
-5
0
5
10
15
20
0.60
0.50
0.40
0.30
0.20
0.10


0.70
0.60
0.50
0.40
0.30
0.20
0.10
-21
-19
-17
-15
-13
-11
-9
-7
1
3
5
7
9


Y Axis (mm)
25
20
15
10
5
0
-5
-10
-15
-20
-25
-30
-35
-40
-45
-50
-55
-20
-15
-10
-5
0
5
10
15
20
X Axis (mm)
0.60
0.50
0.40
0.30
0.20
0.10


11
9
7
5
3
1
-1
Y Axis (mm)
-21
-19
-17
-15
-13
-11
-9
X Axis (mm)
0.70
0.60
0.50
0.40
0.30
0.20
0.10


0.473
0.406
0.338
0.270
0.203
0.135
0.068
0.000
Local SAR(W/Kg)
0
10
20
30
40
50
Depth (mm)


1.140
0.977
0.814
0.652
0.489
0.326
0.163
0.000
Probe Output(mV)
-10
0
10
20
30
40
50
Depth (mm)

Test Information

Date : 02/11/2001
Time : 2:10:35 PM

Product	: 2.4GHz FHSS Cordless	**Test**	: SAR
Manufacturer	: Panasonic Canada Inc.	**Frequency (MHz)**	: 2440
Model Number	: KX-TD7690	**EIRP (W)**	: 0.329
Serial Number	: N/A	**Antenna Type**	: Monopole
FCC ID Number	:	**Signal**	: CW

Phantom	: Head - Right Ear	**Dielectric Constant**	: 38.70
Simulated Tissue	: Brain	**Conductivity**	: 2.01

Probe	: UT-ETR-0200-1	**Antenna Position**	: Extended
Probe Offset (mm)	: 2.250	**Measured Power (W)**	:
Sensor Factor (mV)	: 10.8	**(conducted)**	
Conversion Factor	: 4.482	**Cable Insertion Loss (dB)**	:
Calibrated Date	: 24/10/2001	**Compensated Power (W)**	: 0.000

Amplifier Setting :

Channel 1 : 0.0045 Channel 2 : 0.0045 Channel 3 : 0.0056

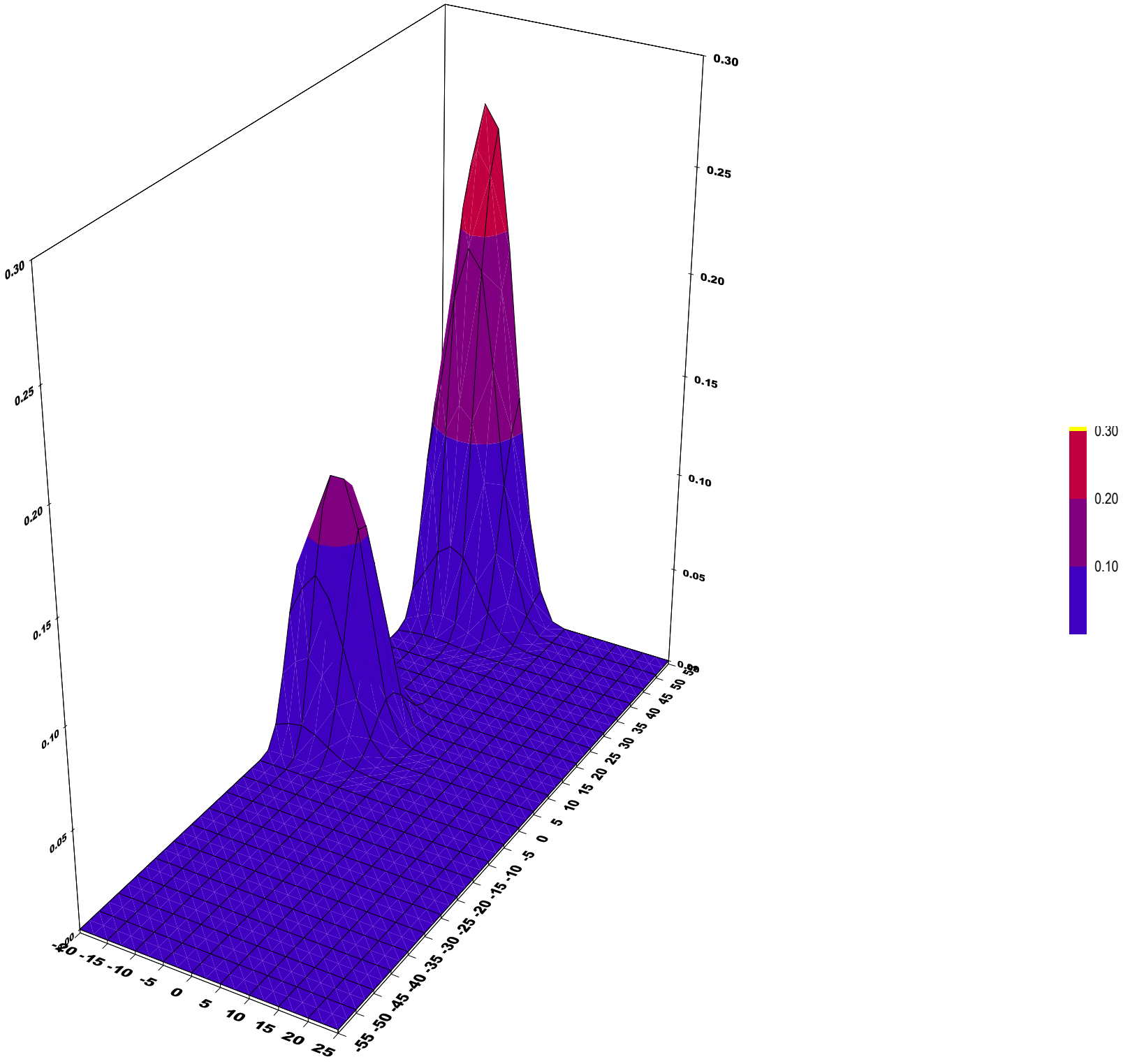
Location of Maximum Field :

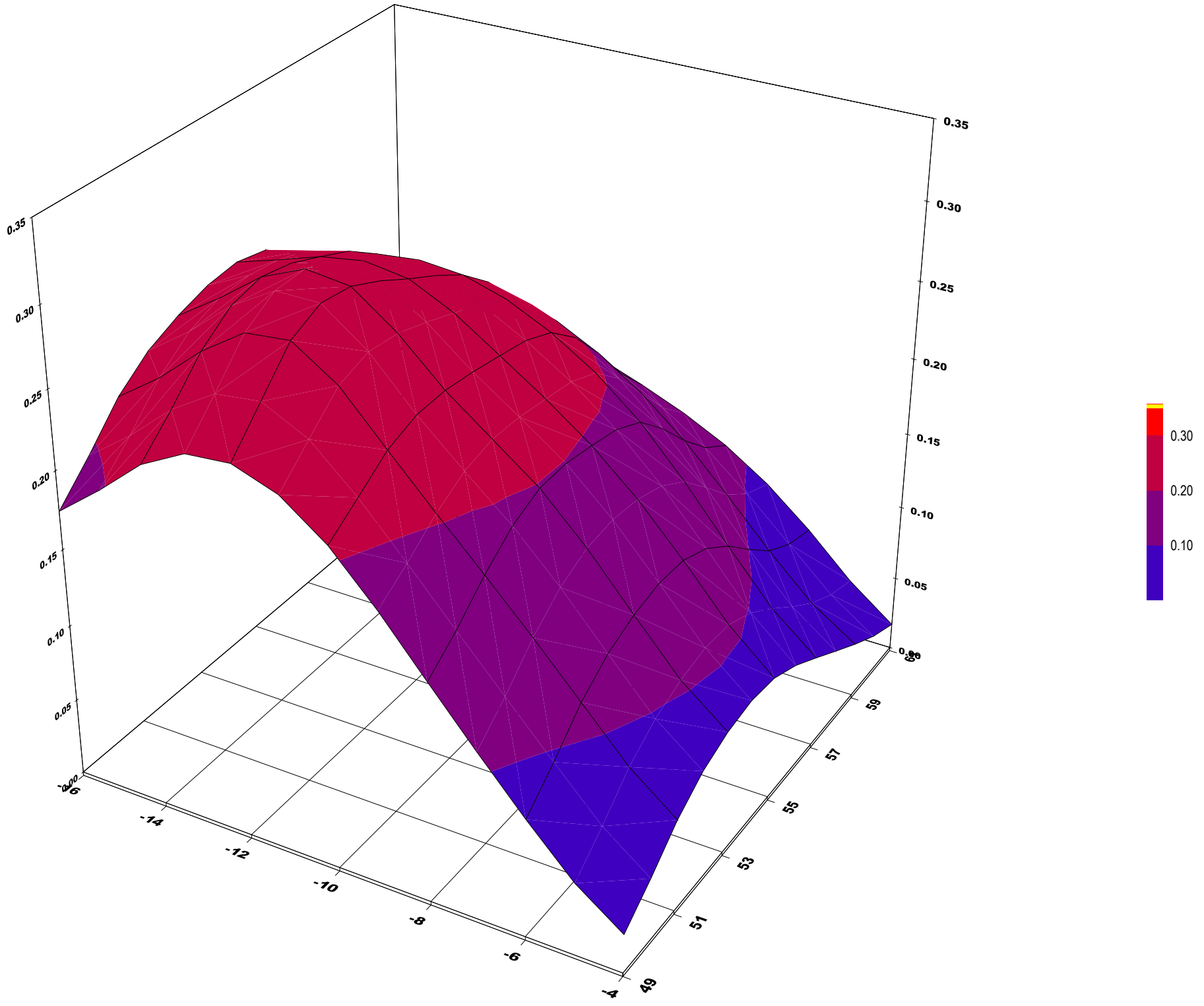
X = -12 Y = 51

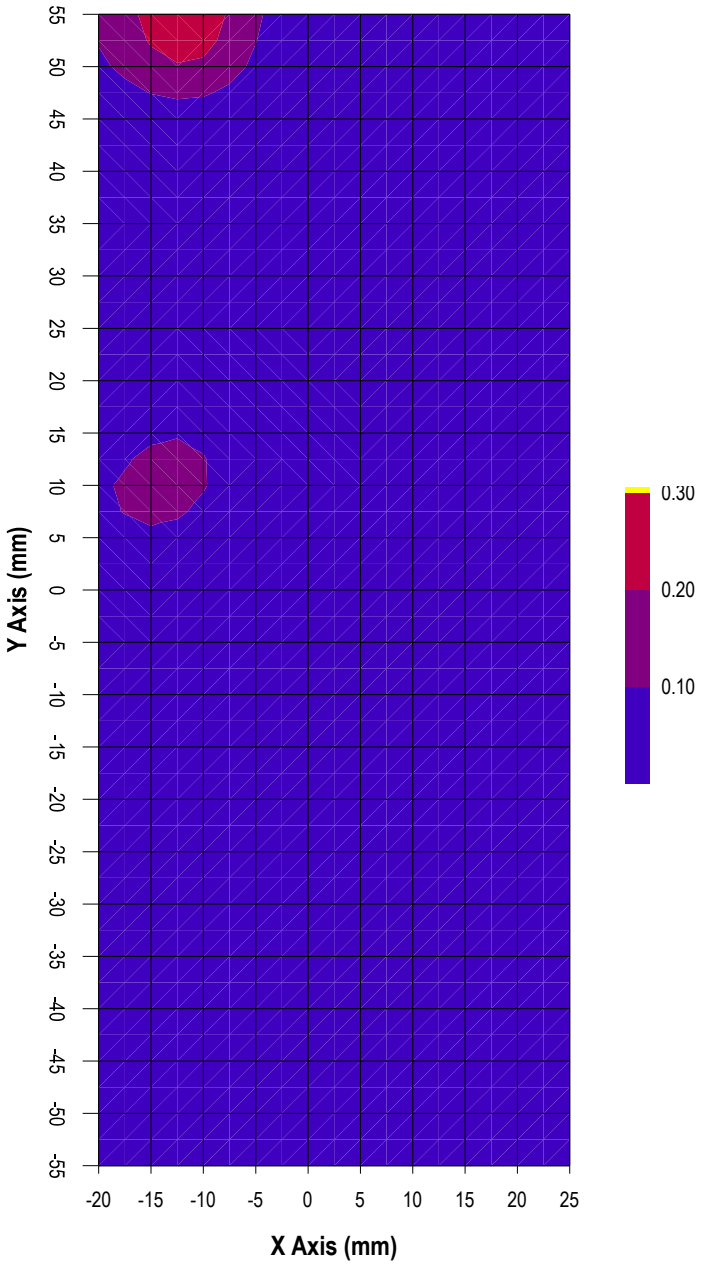
Measured Values (mV) :

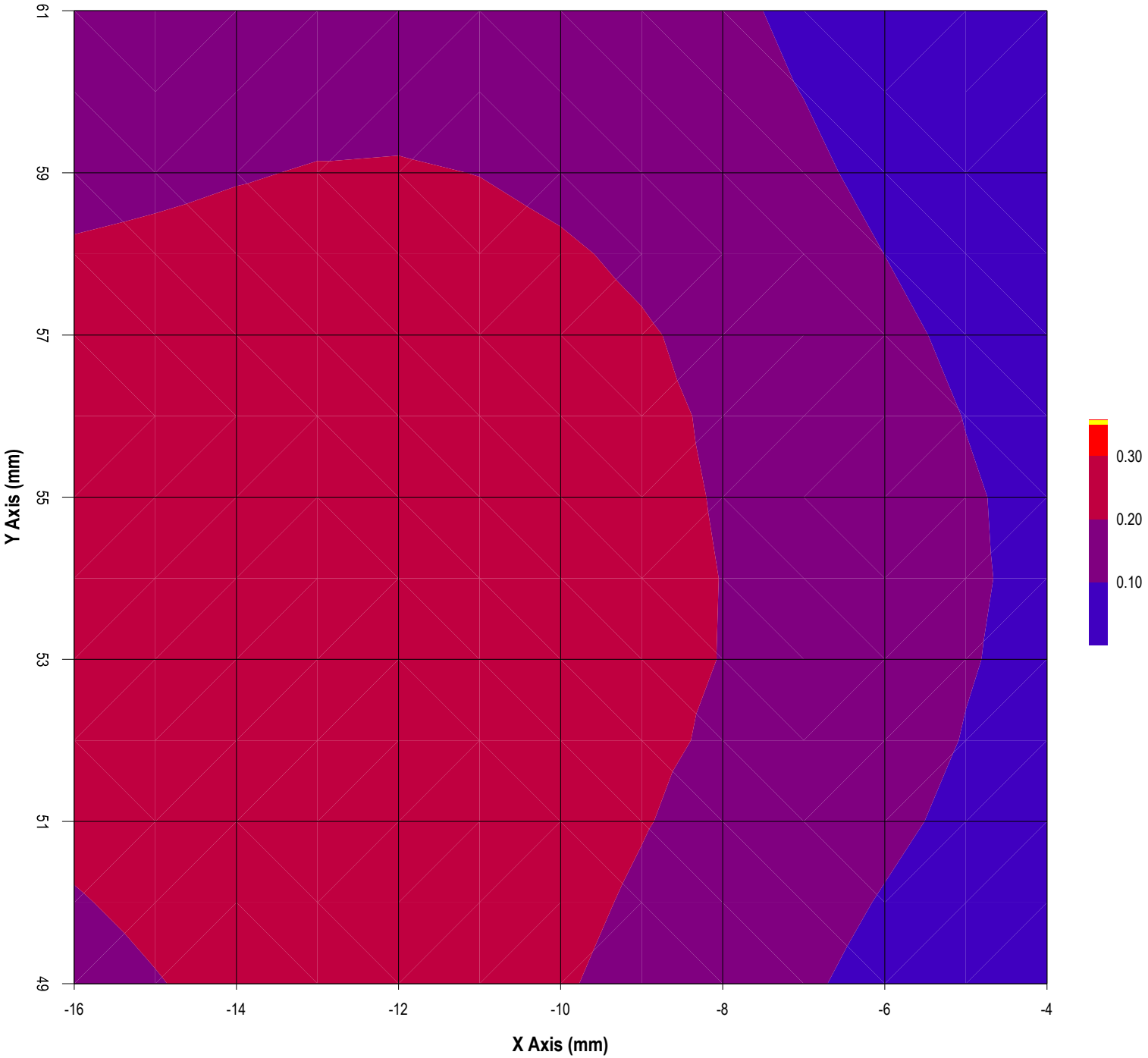
0.283	0.220	0.129	0.073	0.000	0.000
0.000	0.000	0.000	0.000	0.000	

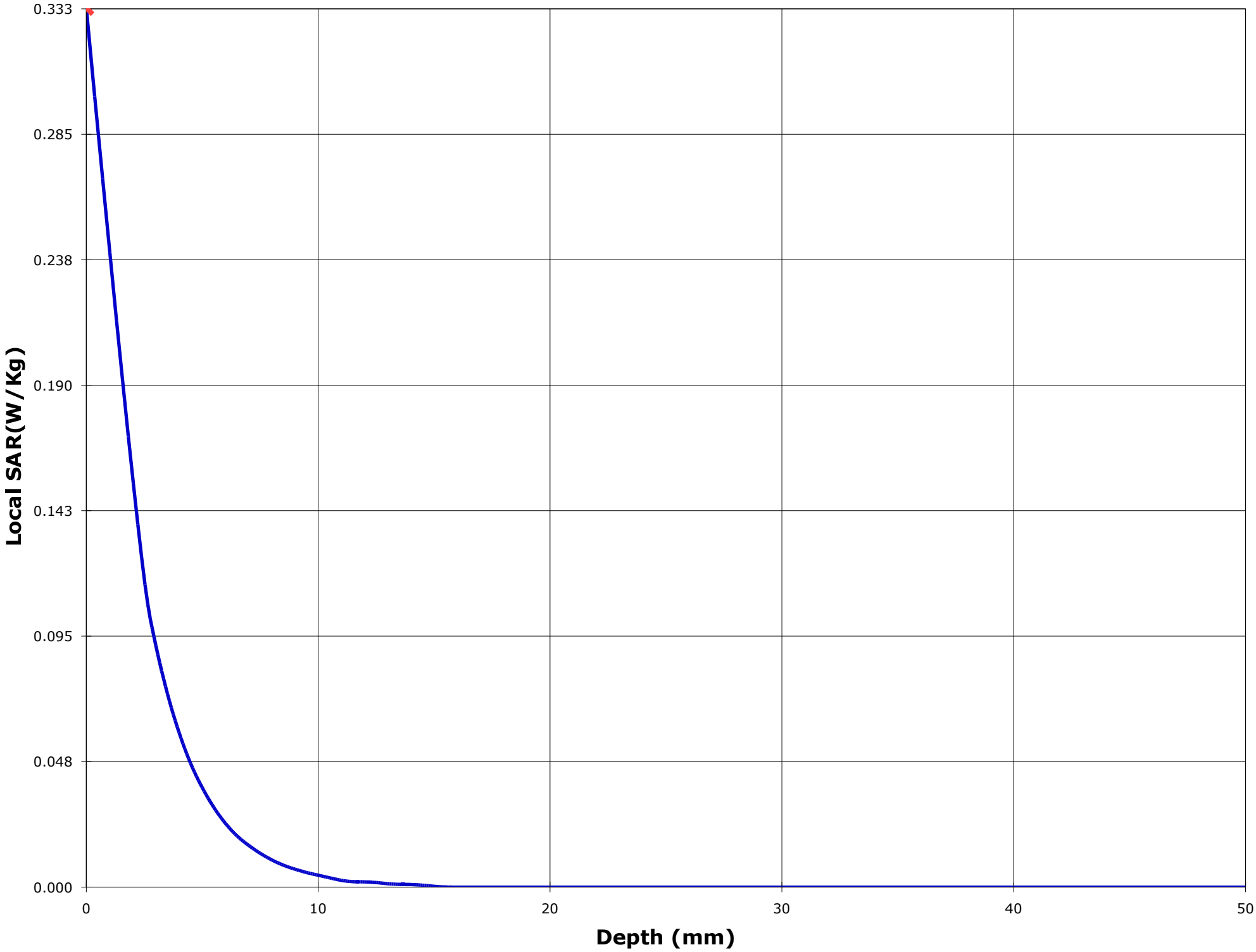
Peak Voltage (mV) : 0.801 **1 Cm Voltage (mV)** : 0.010 **SAR (W/Kg)** : 0.057

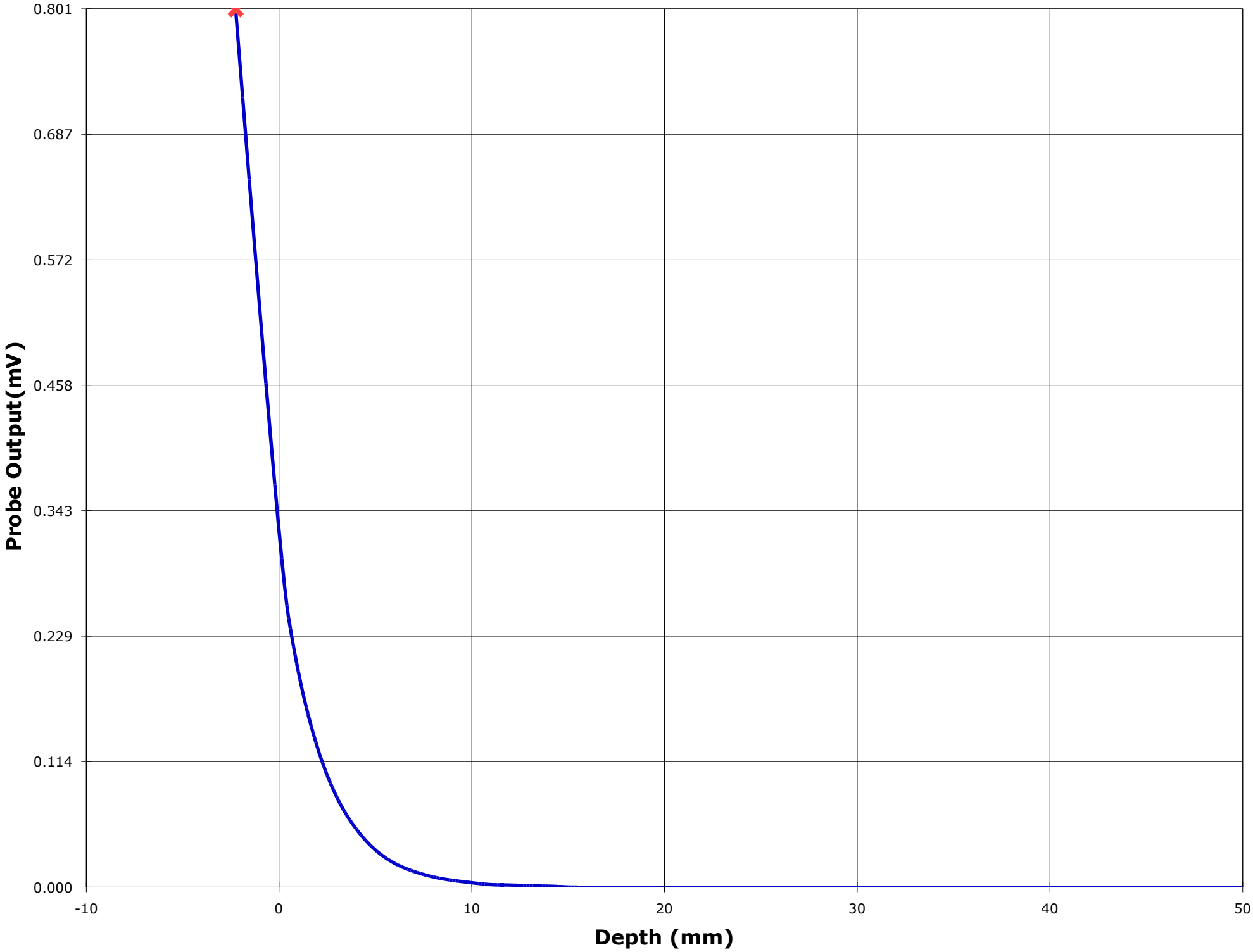

0.30
0.25
0.20
0.15
0.10
0.05
-20 -15 -10 -5 0 5 10 15 20 25
-55 -50 -45 -40 -35 -30 -25 -20 -15 -10 -5 0 5 10 15 20 25 30 35 40 45 50
0.30
0.20
0.10


0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-16
-14
-12
-10
-8
-6
-4
49
51
53
55
57
59
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.30
0.20
0.10


Y Axis (mm)
55
50
45
40
35
30
25
20
15
10
5
0
-5
-10
-15
-20
-25
-30
-35
-40
-45
-50
-55
-20
-15
-10
-5
0
5
10
15
20
25
X Axis (mm)
0.30
0.20
0.10


61
59
57
55
53
51
49
Y Axis (mm)
-16
-14
-12
-10
-8
-6
-4
X Axis (mm)
0.30
0.20
0.10


0.333
0.285
0.238
0.190
0.143
0.095
0.048
0.000
Local SAR(W/Kg)
0
10
20
30
40
50
Depth (mm)


0.801
0.687
0.572
0.458
0.343
0.229
0.114
0.000
Probe Output(mV)
-10
0
10
20
30
40
50
Depth (mm)

Test Information

Date : 02/11/2001
Time : 12:29:29 PM

Product	: 2.4GHz FHSS Cordless	**Test**	: SAR
Manufacturer	: Panasonic Canada Inc.	**Frequency (MHz)**	: 2440
Model Number	: KX-TD7690	**EIRP (W)**	: 0.329
Serial Number	: N/A	**Antenna Type**	: Monopole
FCC ID Number	:	**Signal**	: CW

Phantom	: Head - Right Ear	**Dielectric Constant**	: 38.70
Simulated Tissue	: Brain	**Conductivity**	: 2.01

Probe	: UT-ETR-0200-1	**Antenna Position**	: Retracted
Probe Offset (mm)	: 2.250	**Measured Power (W)**	:
Sensor Factor (mV)	: 10.8	**(conducted)**	
Conversion Factor	: 4.482	**Cable Insertion Loss (dB)**	:
Calibrated Date	: 24/10/2001	**Compensated Power (W)**	: 0.000

Amplifier Setting :

Channel 1 : 0.0045 Channel 2 : 0.0045 Channel 3 : 0.0056

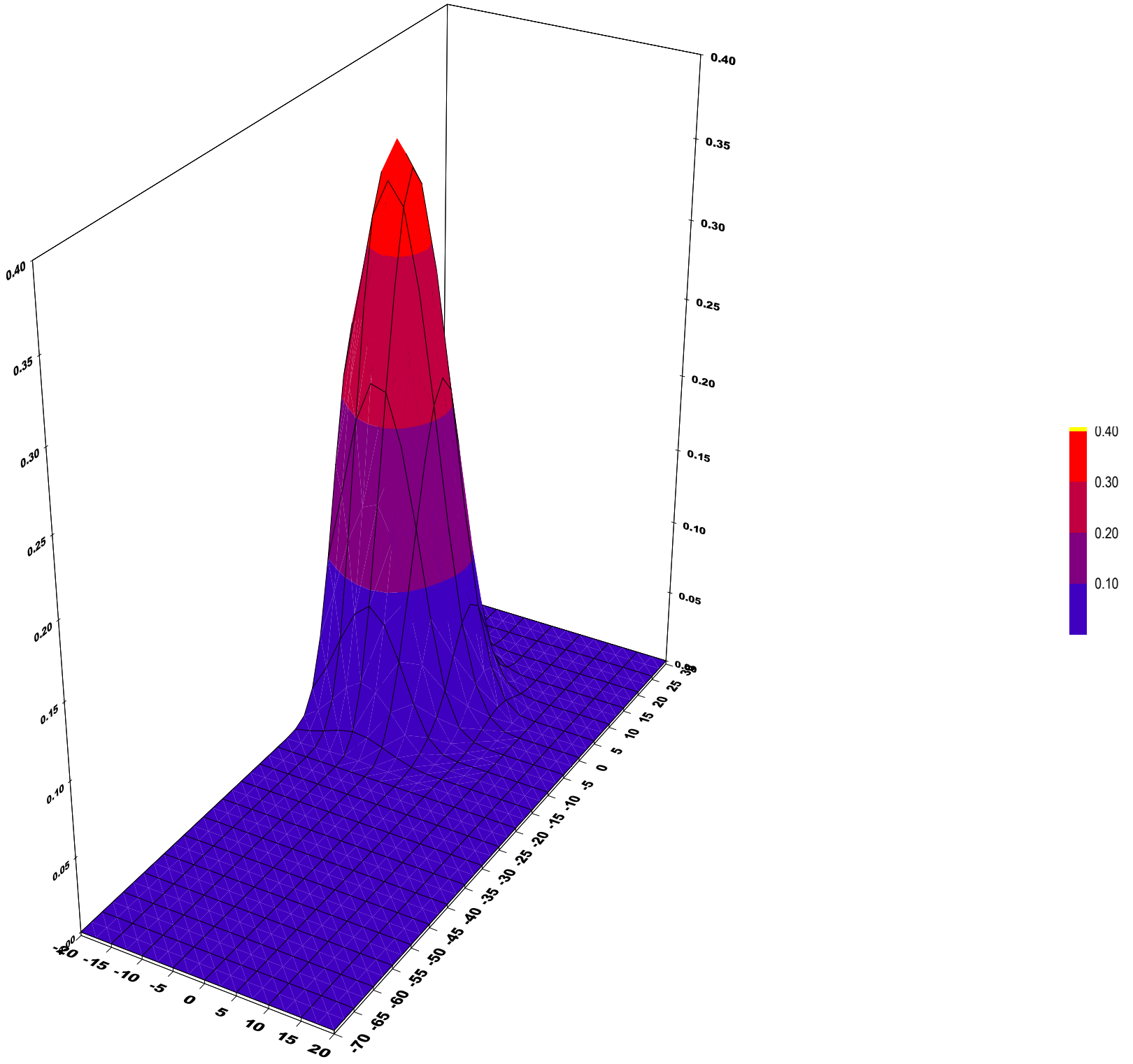
Location of Maximum Field :

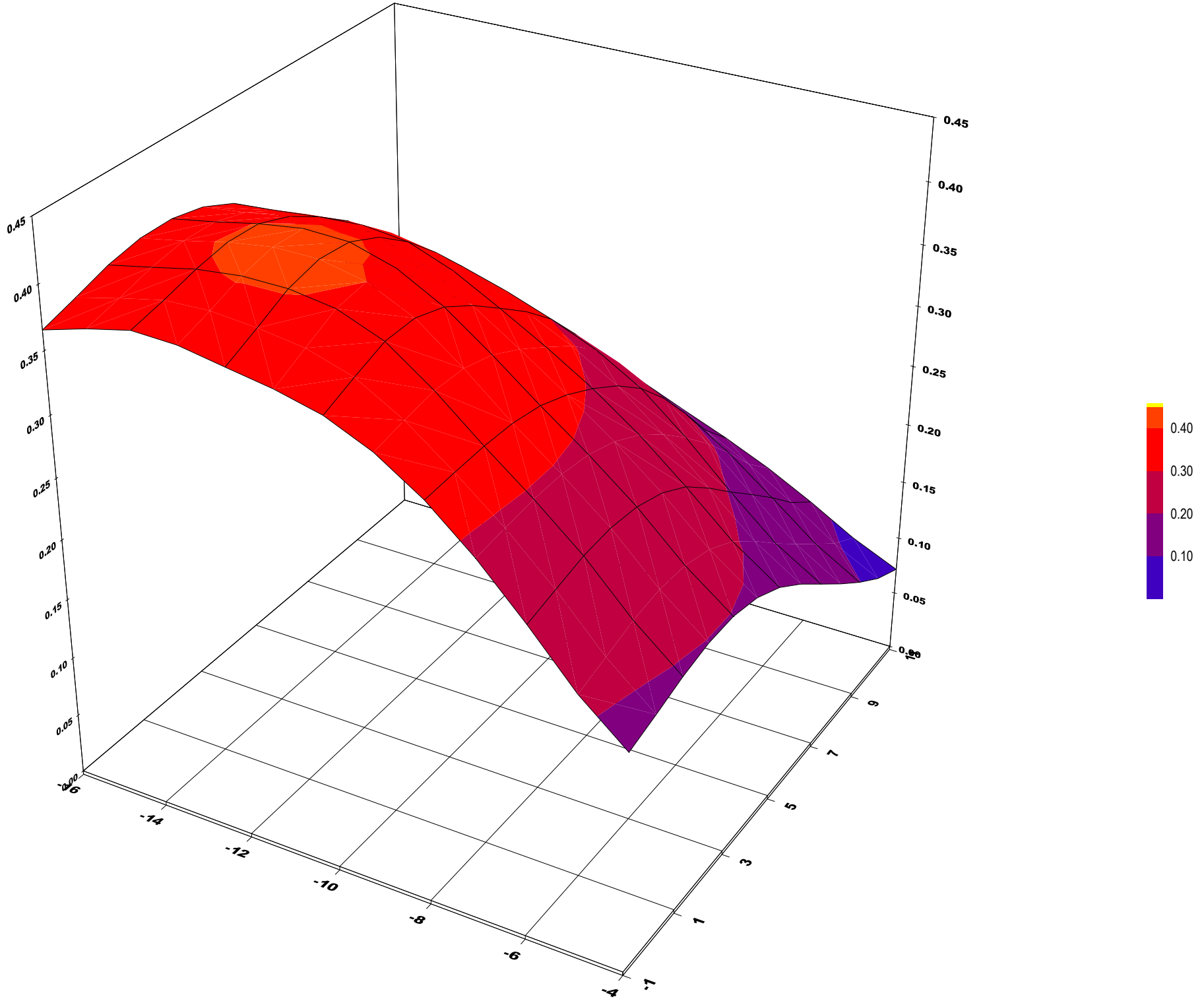
X = -12 Y = 3

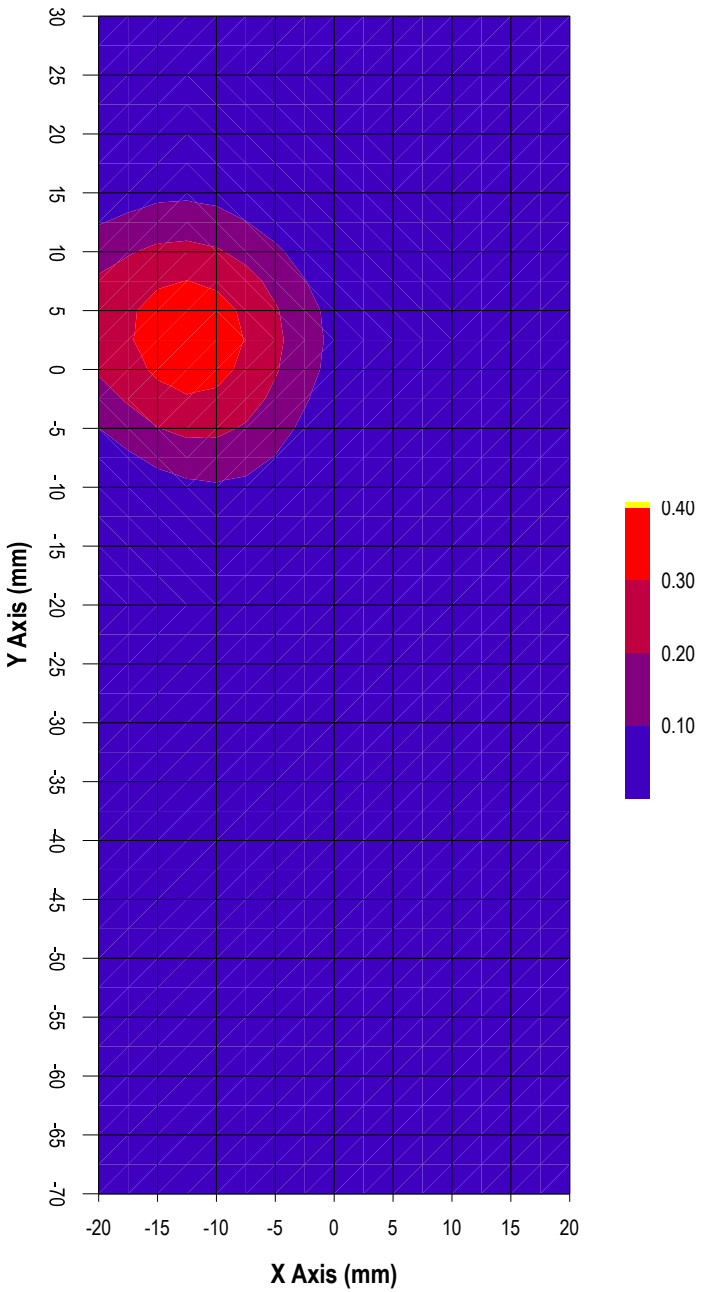
Measured Values (mV) :

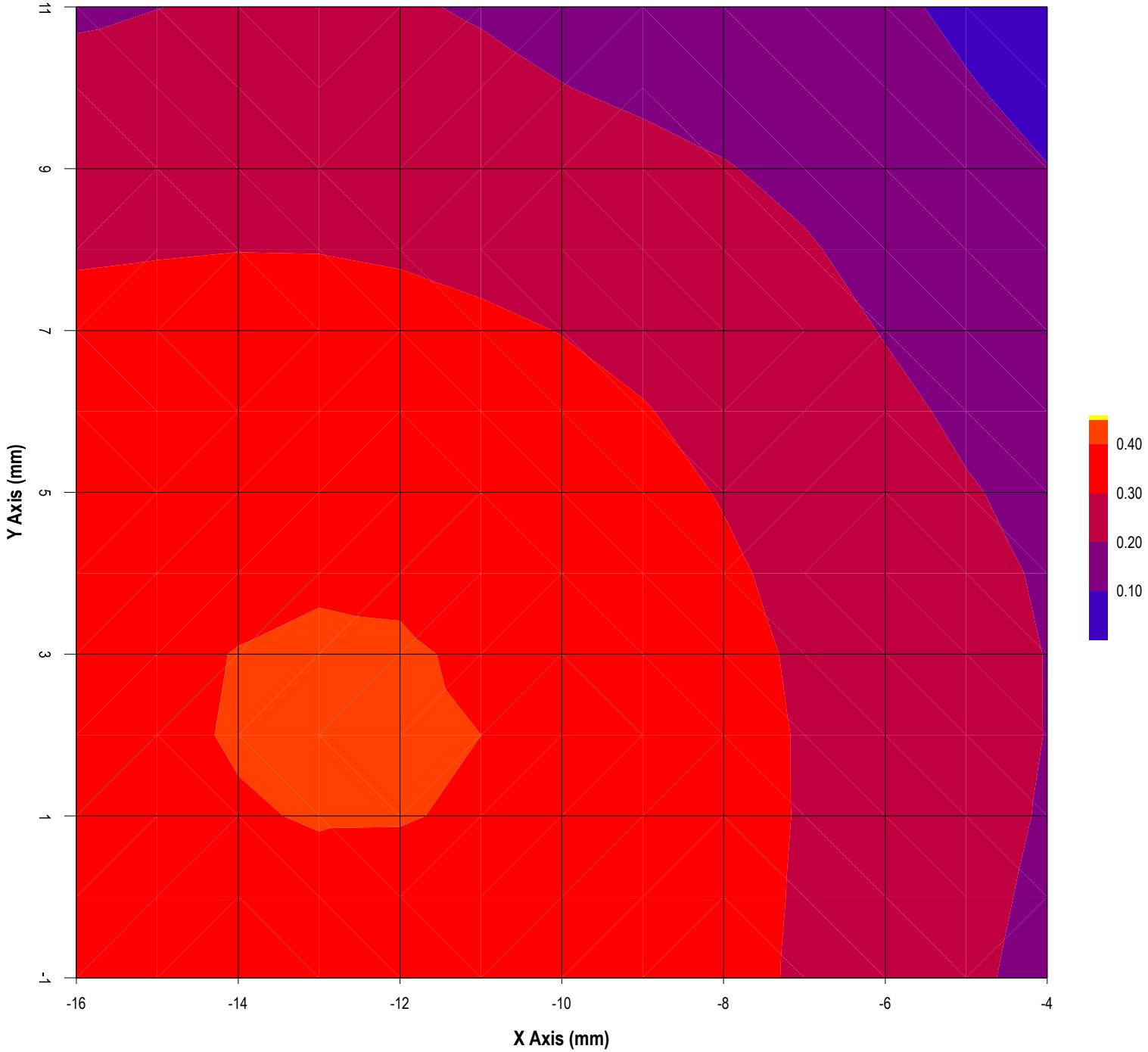
0.405	0.338	0.239	0.140	0.068	0.005
0.000	0.000	0.000	0.000	0.000	

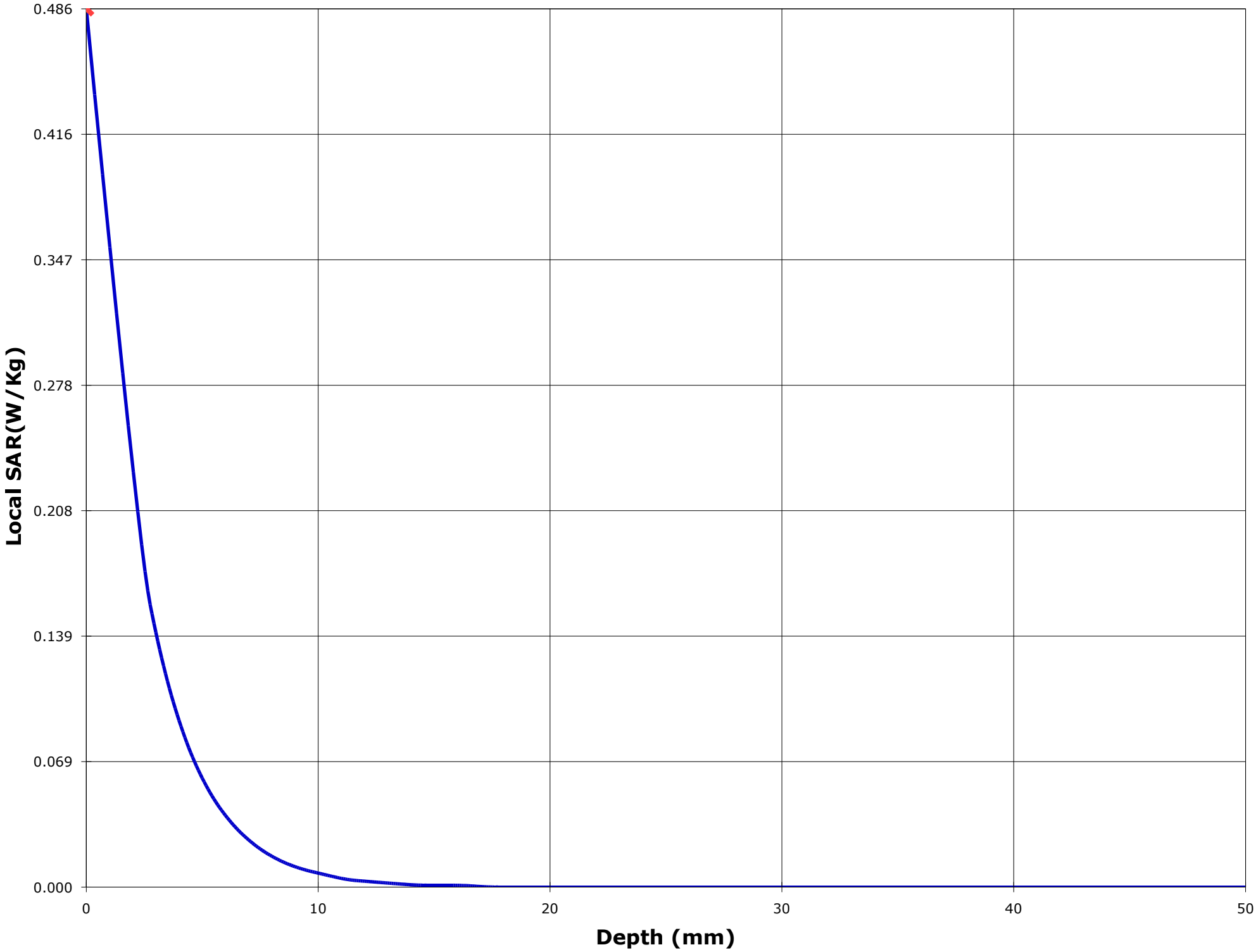
Peak Voltage (mV) : 1.170 **1 Cm Voltage (mV)** : 0.017 **SAR (W/Kg)** : 0.085

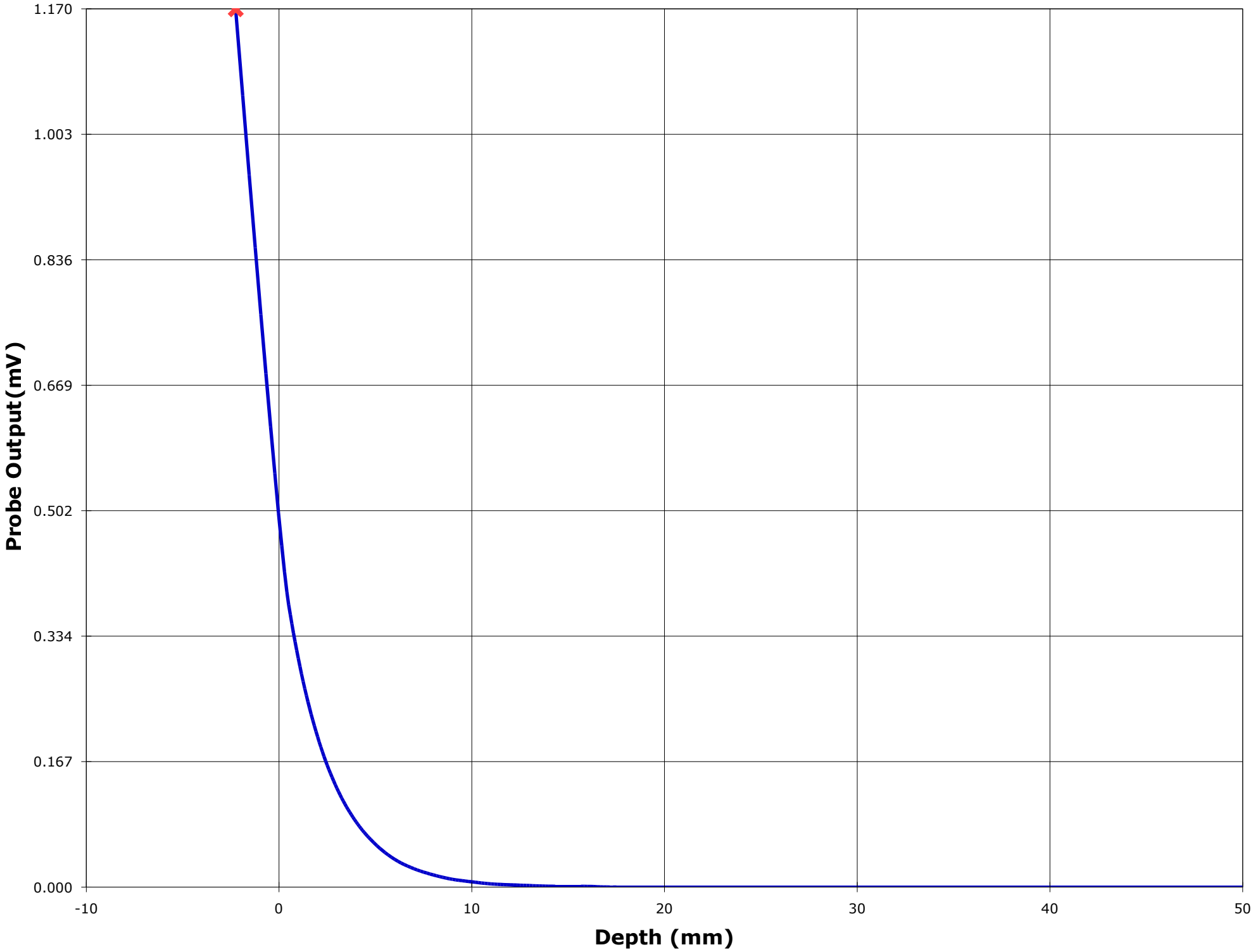

0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
-20 -15 -10 -5 0 5 10 15 20
-70 -65 -60 -55 -50 -45 -40 -35 -30 -25 -20 -15 -10 -5 0 5 10 15 20 25
0.40
0.30
0.20
0.10


0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-16
-14
-12
-10
-8
-6
-4
-7
1
3
5
7
9
0.40
0.30
0.20
0.10


30
25
20
15
10
5
0
-5
-10
-15
-20
-25
-30
-35
-40
-45
-50
-55
-60
-65
-70
Y Axis (mm)
-20
-15
-10
-5
0
5
10
15
20
X Axis (mm)
0.40
0.30
0.20
0.10


11
9
7
5
3
1
-1
Y Axis (mm)
-16
-14
-12
-10
-8
-6
-4
X Axis (mm)
0.40
0.30
0.20
0.10


0.486
0.416
0.347
0.278
0.208
0.139
0.069
0.000
Local SAR(W/Kg)
0
10
20
30
40
50
Depth (mm)


1.170
1.003
0.836
0.669
0.502
0.334
0.167
0.000
Probe Output(mV)
-10
0
10
20
30
40
50
Depth (mm)

Test Information

Date : 02/11/2001
Time : 11:37:25 AM

Product	: 2.4GHz FHSS Cordless	**Test**	: SAR
Manufacturer	: Panasonic Canada Inc.	**Frequency (MHz)**	: 2440
Model Number	: KX-TD7690	**EIRP (W)**	: 0.329
Serial Number	: N/A	**Antenna Type**	: Monopole
FCC ID Number	:	**Signal**	: CW

Phantom	: Head - Right Ear	**Dielectric Constant**	: 38.70
Simulated Tissue	: Brain	**Conductivity**	: 2.01

Probe	: UT-ETR-0200-1	**Antenna Position**	: Extended
Probe Offset (mm)	: 2.250	**Measured Power (W)**	:
Sensor Factor (mV)	: 10.8	**(conducted)**	
Conversion Factor	: 4.482	**Cable Insertion Loss (dB)**	:
Calibrated Date	: 24/10/2001	**Compensated Power (W)**	: 0.000

Amplifier Setting :

Channel 1 : 0.0045 Channel 2 : 0.0045 Channel 3 : 0.0056

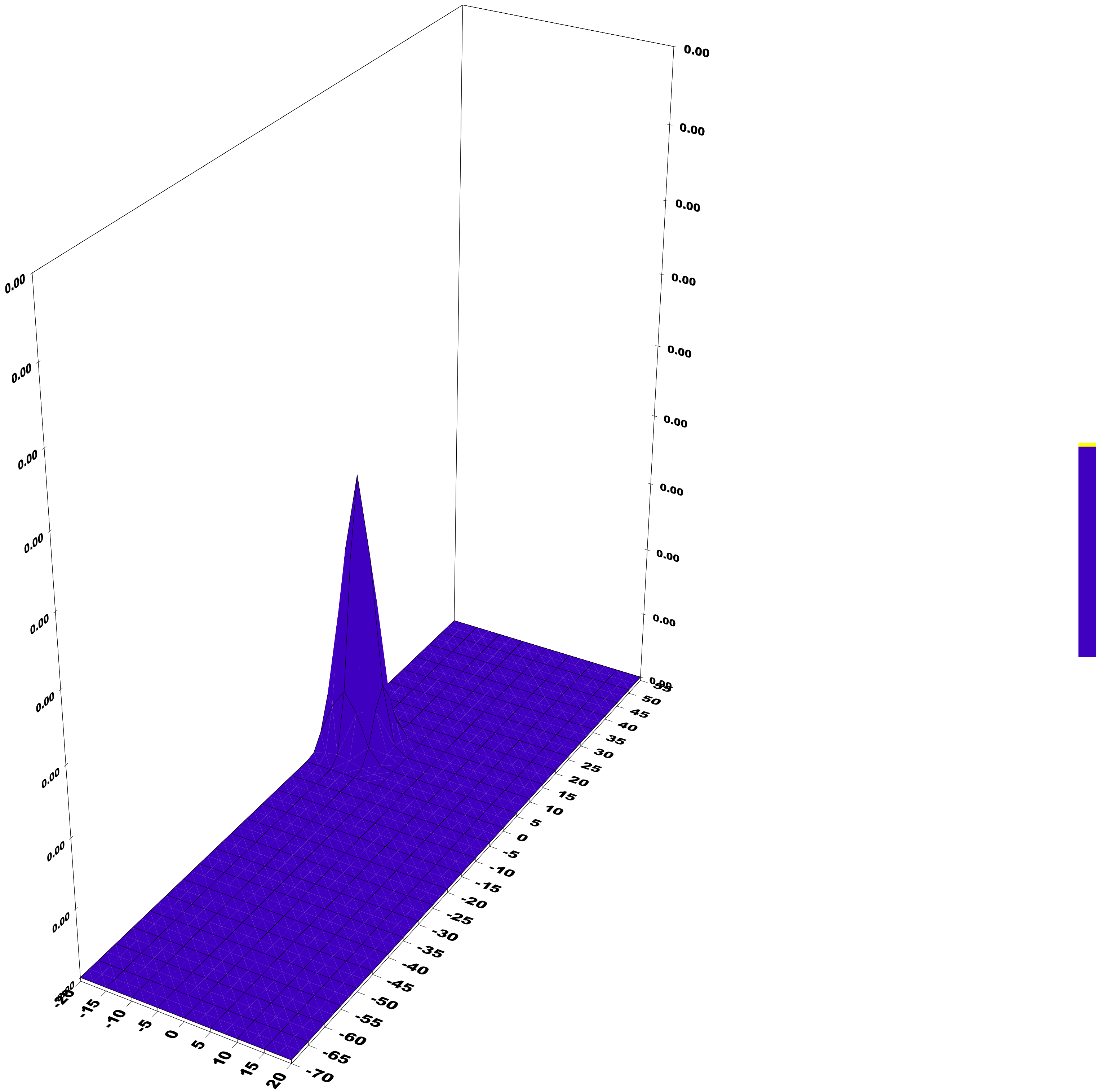
Location of Maximum Field :

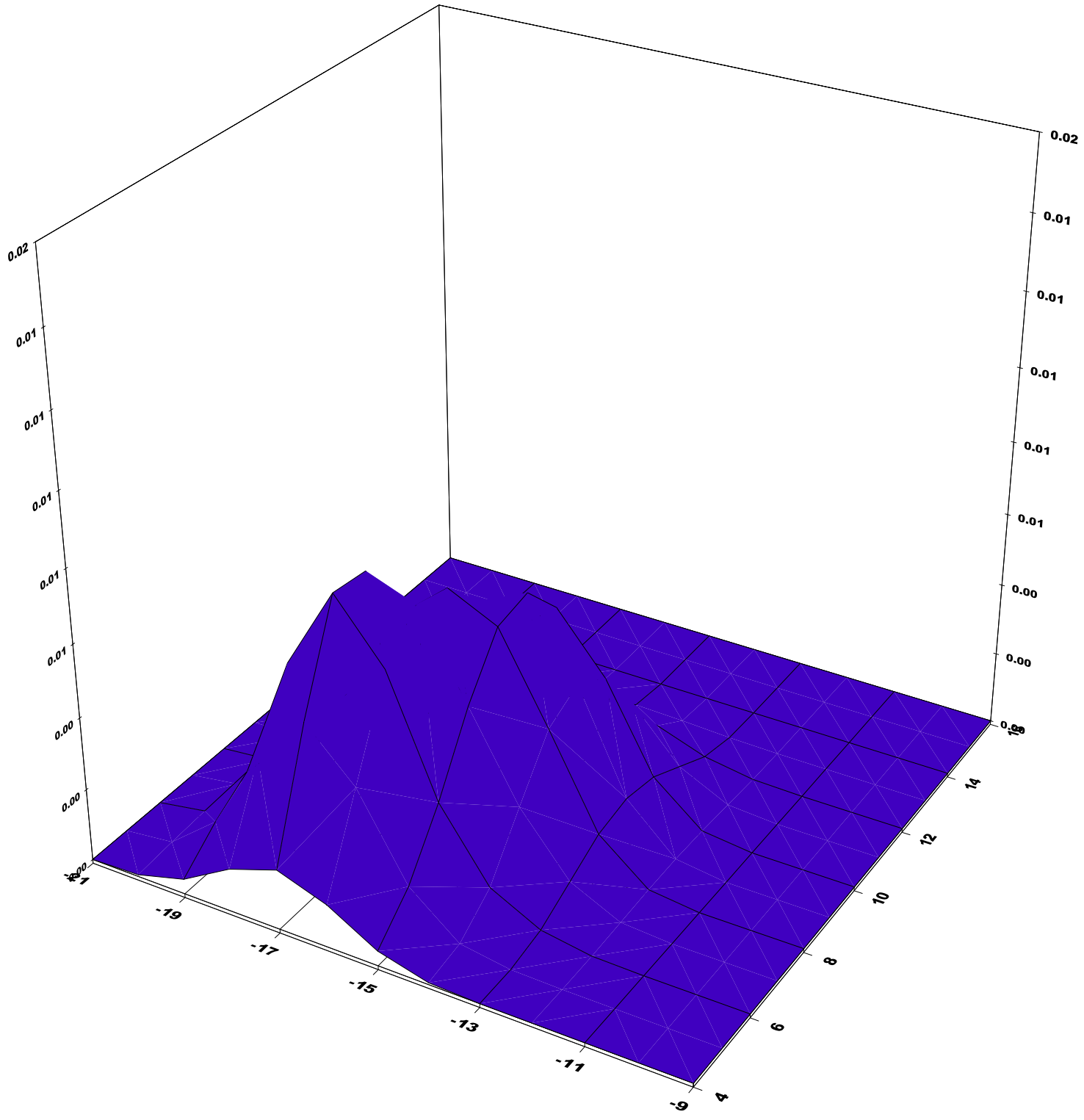
X = 0 Y = 0

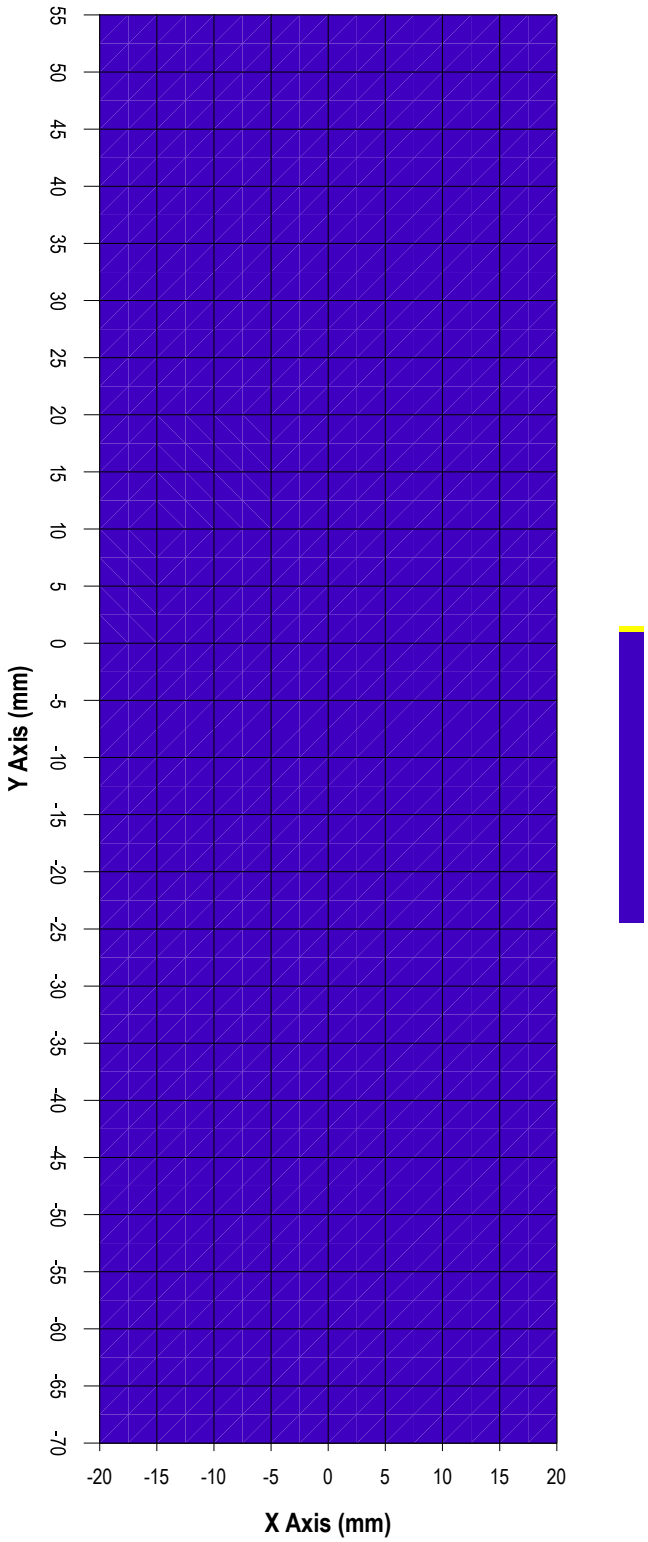
Measured Values (mV) :

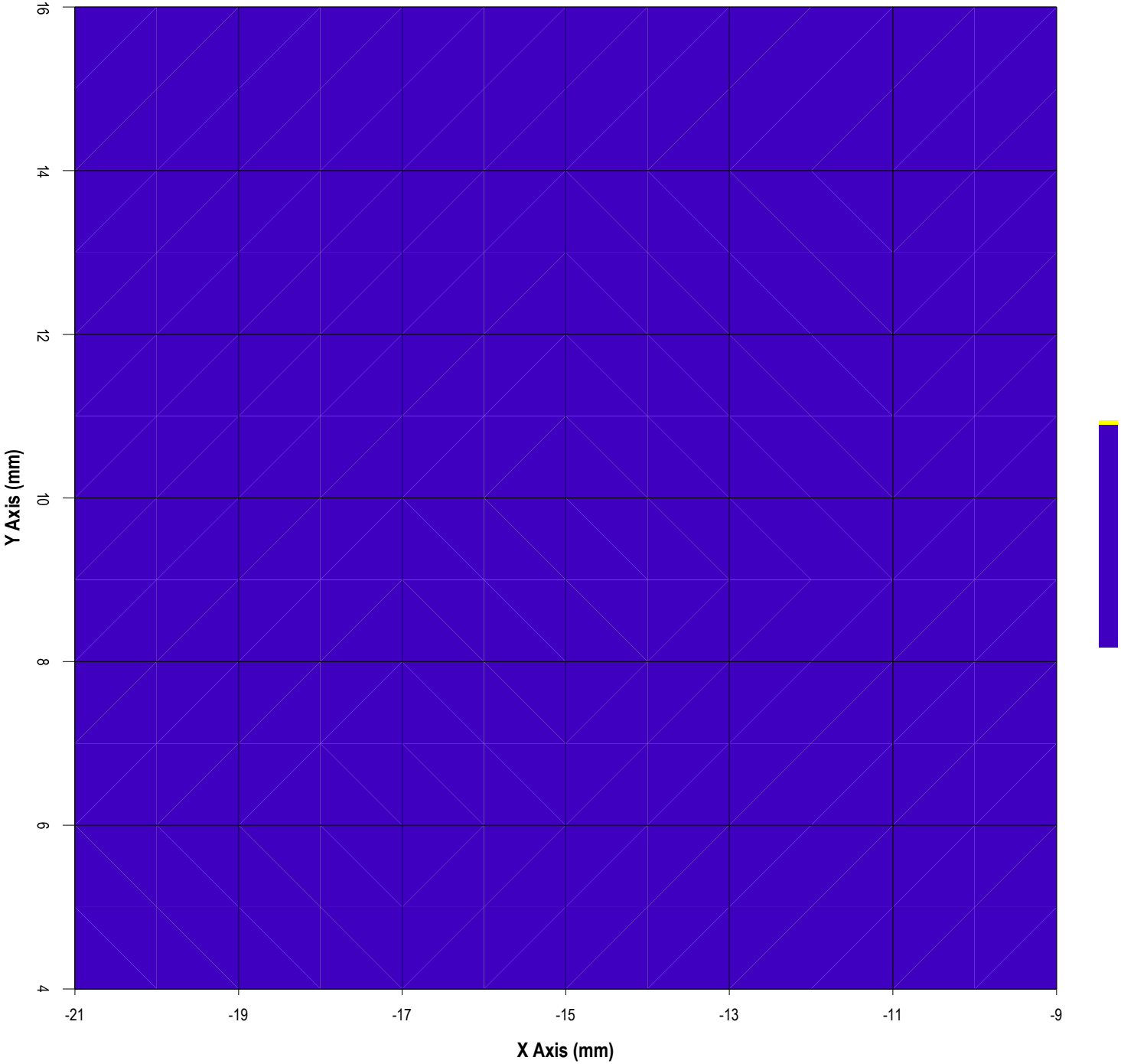
0.005	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	

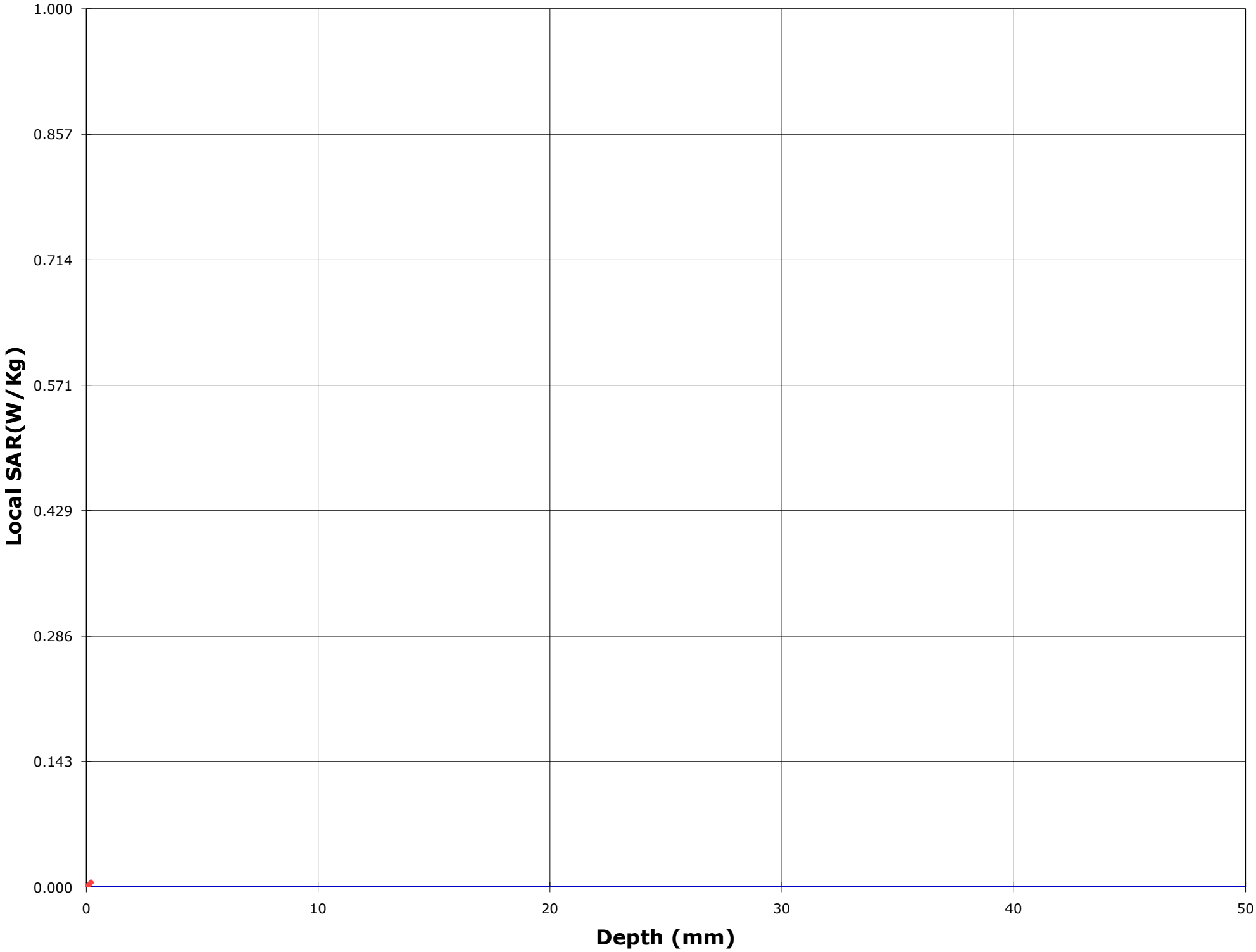
Peak Voltage (mV) : 0.000 **1 Cm Voltage (mV)** : 0.000 **SAR (W/Kg)** : 0.000

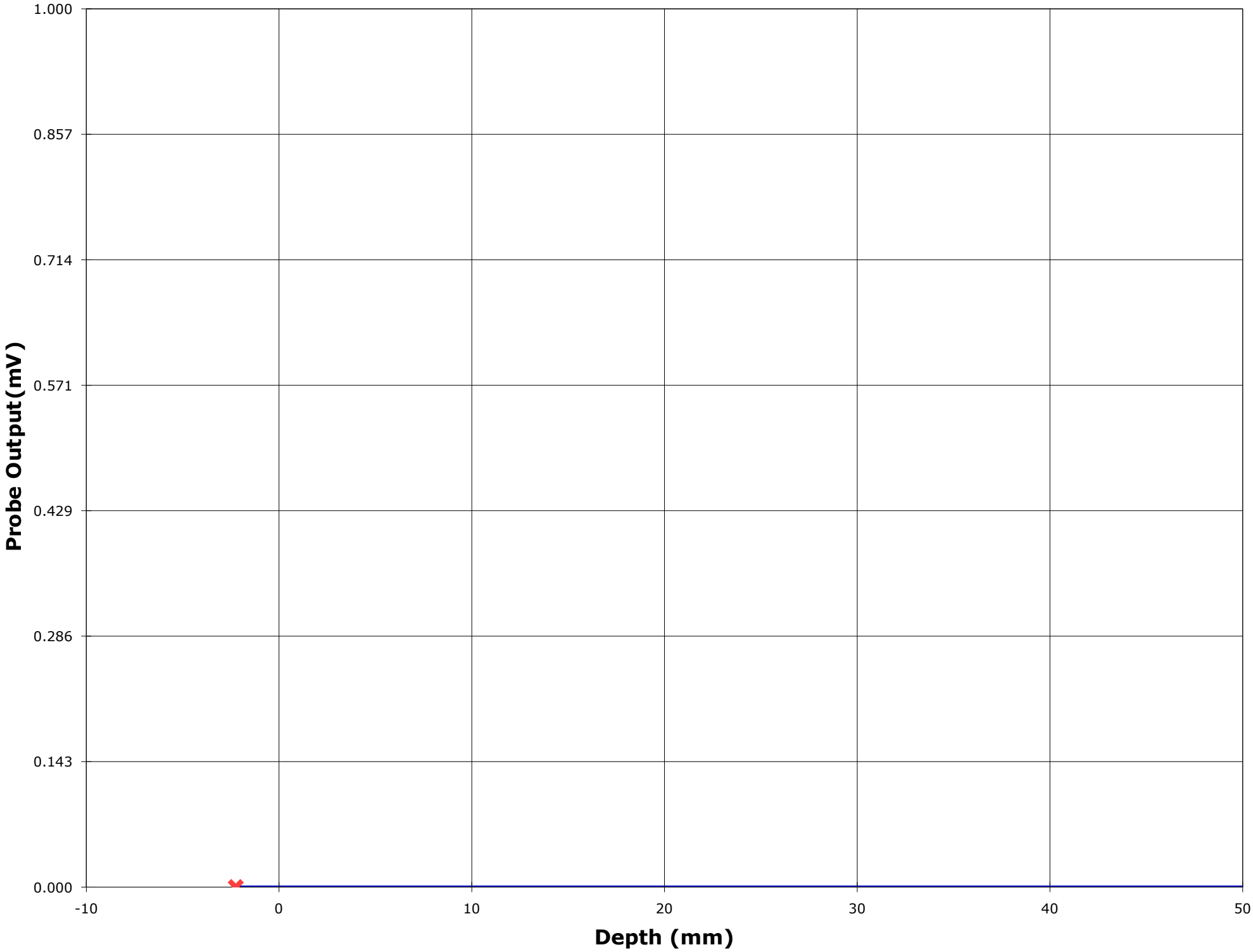

0.00
-20
-15
-10
-5
0
5
10
15
20
-70
-65
-60
-55
-50
-45
-40
-35
-30
-25
-20
-15
-10
-5
0
5
10
15
20
25
30
35
40
45
50
55


0.02
0.01
0.01
0.01
0.01
0.01
0.00
0.00
0.01
0.01
0.01
0.01
0.01
0.02
-21
-19
-17
-15
-13
-11
-9
4
6
8
10
12
14


Y Axis (mm)
55
50
45
40
35
30
25
20
15
10
5
0
-5
-10
-15
-20
-25
-30
-35
-40
-45
-50
-55
-60
-65
-70
-20
-15
-10
-5
0
5
10
15
20
X Axis (mm)


16
14
12
10
8
6
4
Y Axis (mm)
-21
-19
-17
-15
-13
-11
-9
X Axis (mm)


1.000
0.857
0.714
0.571
0.429
0.286
0.143
0.000
Local SAR(W/Kg)
0
10
20
30
40
50
Depth (mm)


1.000
0.857
0.714
0.571
0.429
0.286
0.143
0.000
Probe Output(mV)
-10
0
10
20
30
40
50
Depth (mm)

Test Information

Date : 02/11/2001
Time : 3:53:53 PM

Product	: 2.4GHz FHSS Cordless	**Test**	: SAR
Manufacturer	: Panasonic Canada Inc.	**Frequency (MHz)**	: 2440
Model Number	: KX-TD7690	**EIRP (W)**	: 0.329
Serial Number	: N/A	**Antenna Type**	: Monopole
FCC ID Number	:	**Signal**	: CW

Phantom	: Head - Left Ear	**Dielectric Constant**	: 38.70
Simulated Tissue	: Brain	**Conductivity**	: 2.01

Probe	: UT-ETR-0200-1	**Antenna Position**	: Retracted
Probe Offset (mm)	: 2.250	**Measured Power (W)**	:
Sensor Factor (mV)	: 10.8	**(conducted)**	
Conversion Factor	: 4.482	**Cable Insertion Loss (dB)**	:
Calibrated Date	: 24/10/2001	**Compensated Power (W)**	: 0.000

Amplifier Setting :

Channel 1 : 0.0045 Channel 2 : 0.0045 Channel 3 : 0.0056

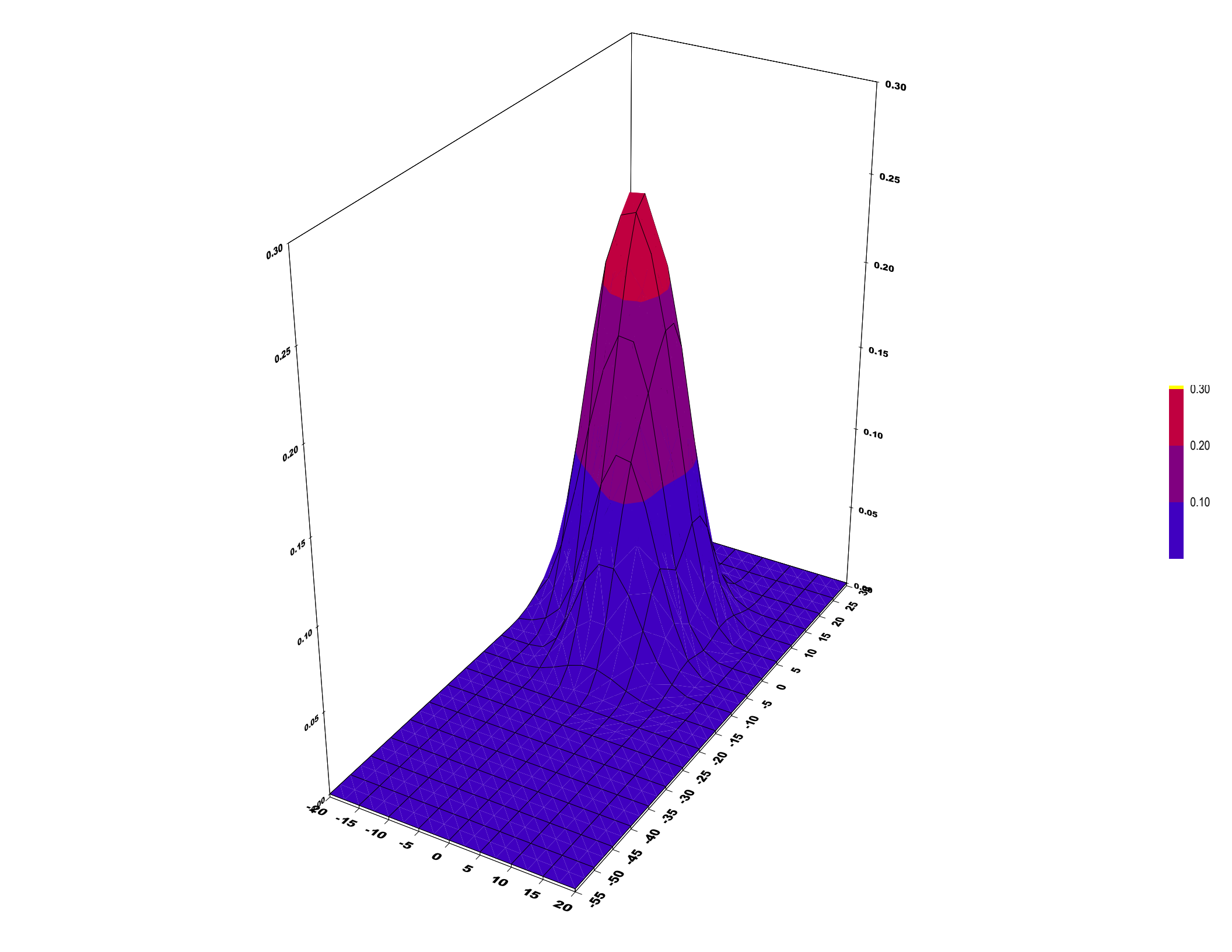
Location of Maximum Field :

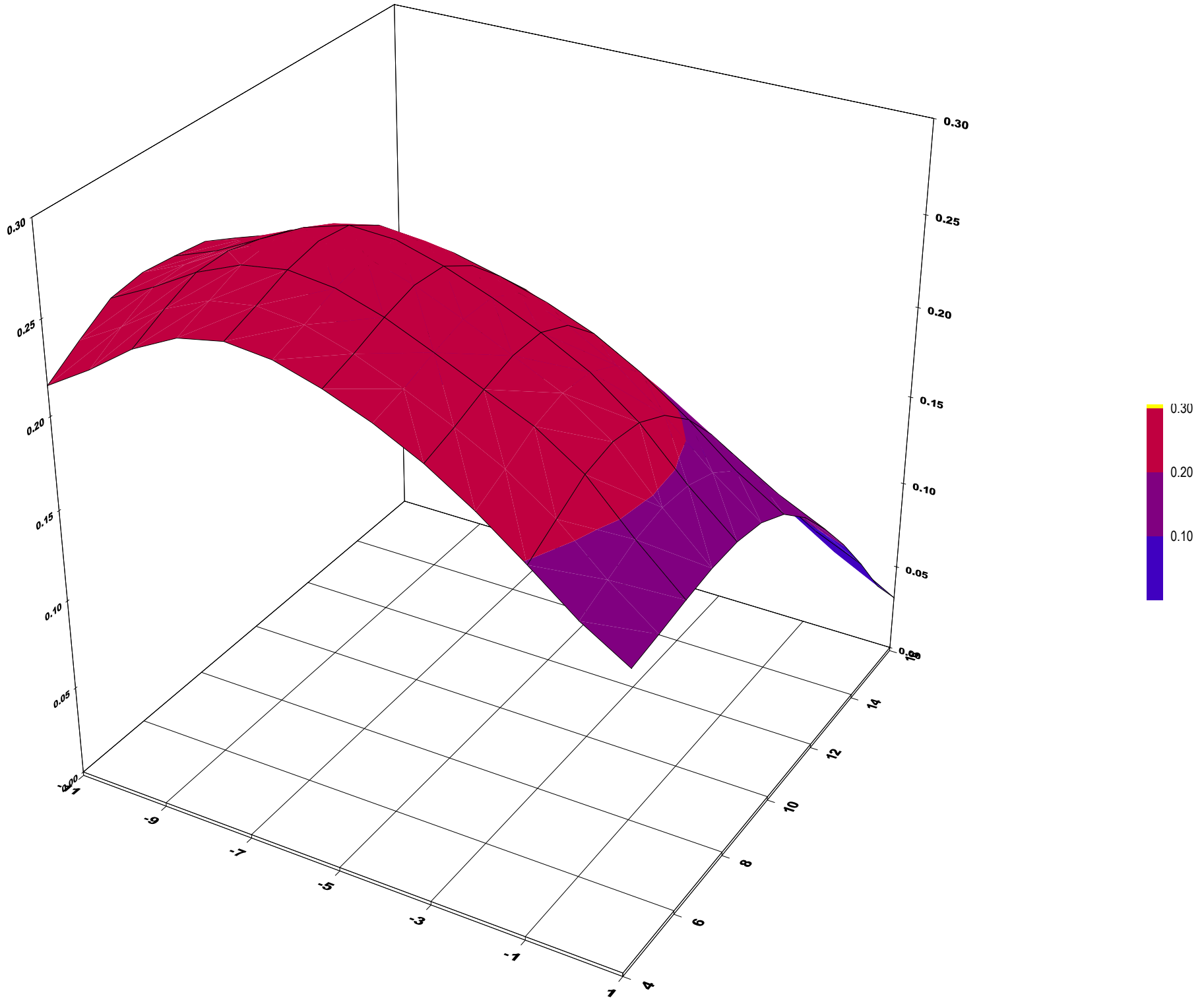
X = -7 Y = 8

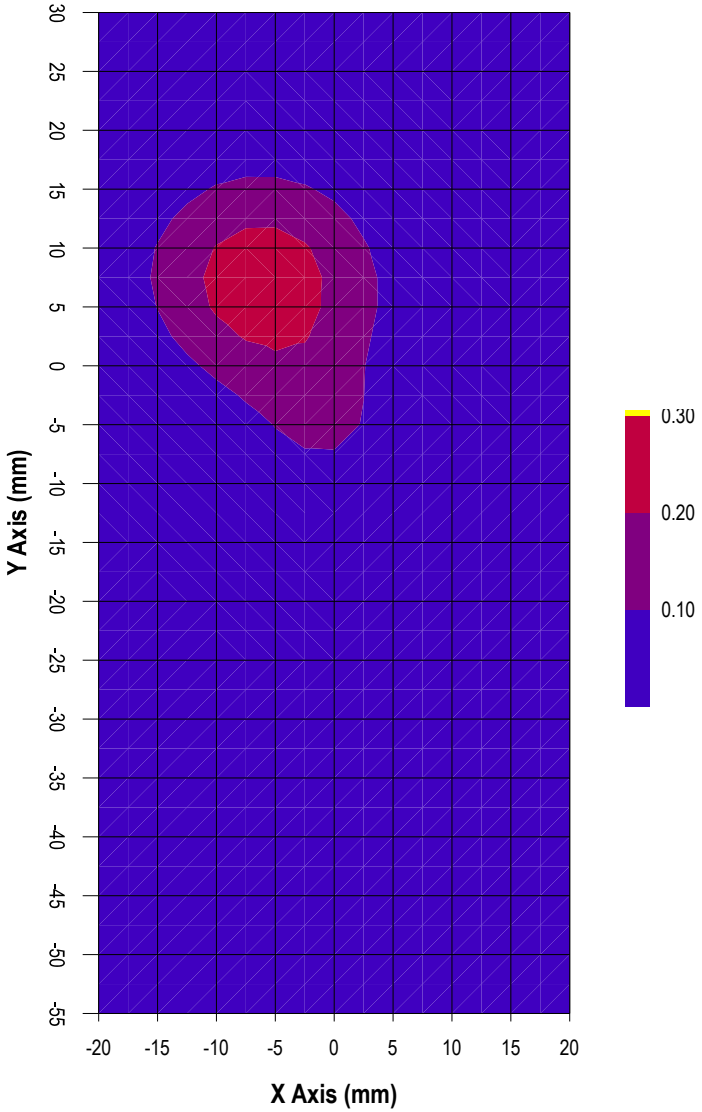
Measured Values (mV) :

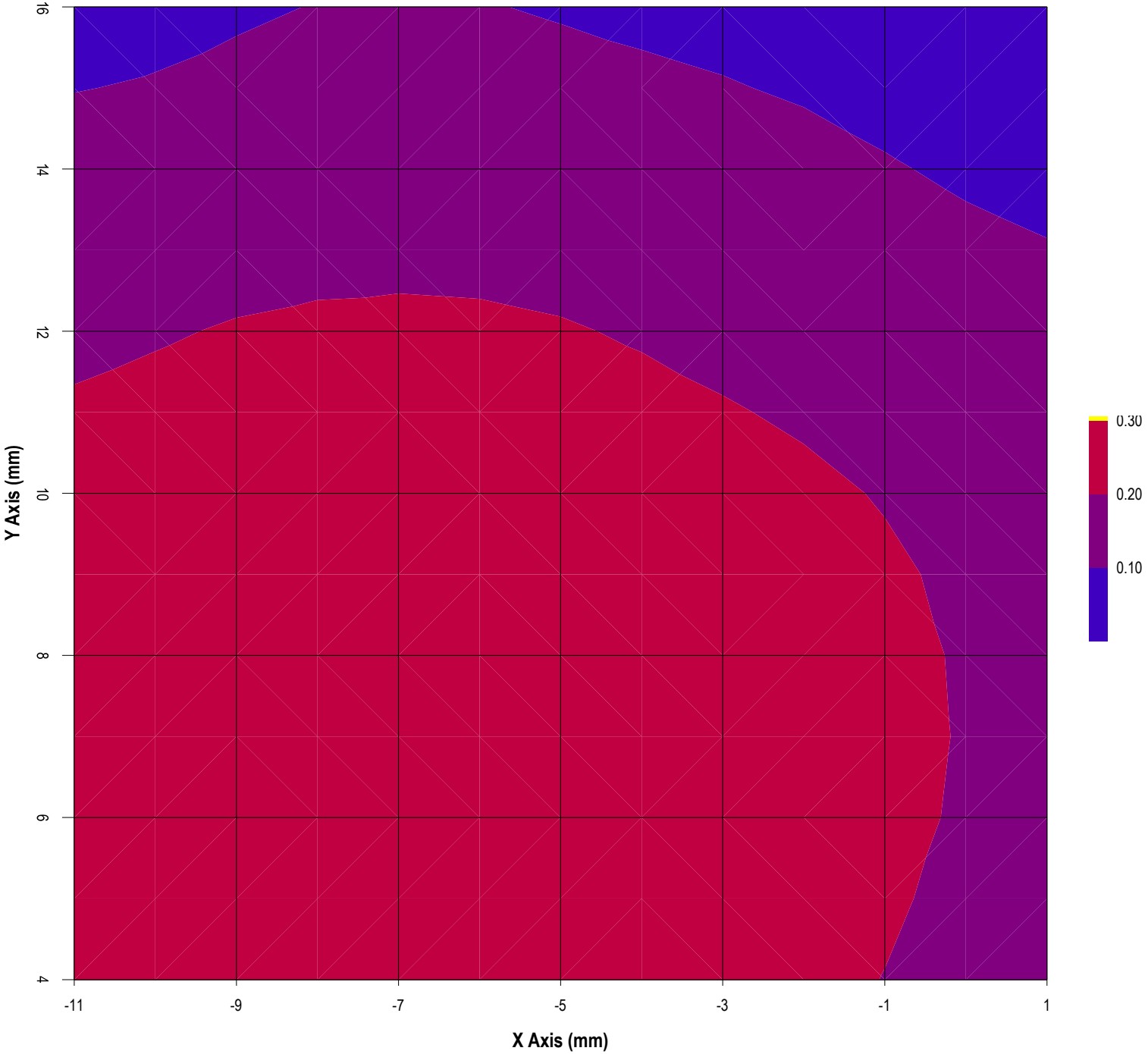
0.284	0.266	0.189	0.099	0.041	0.000
0.000	0.000	0.000	0.000	0.000	

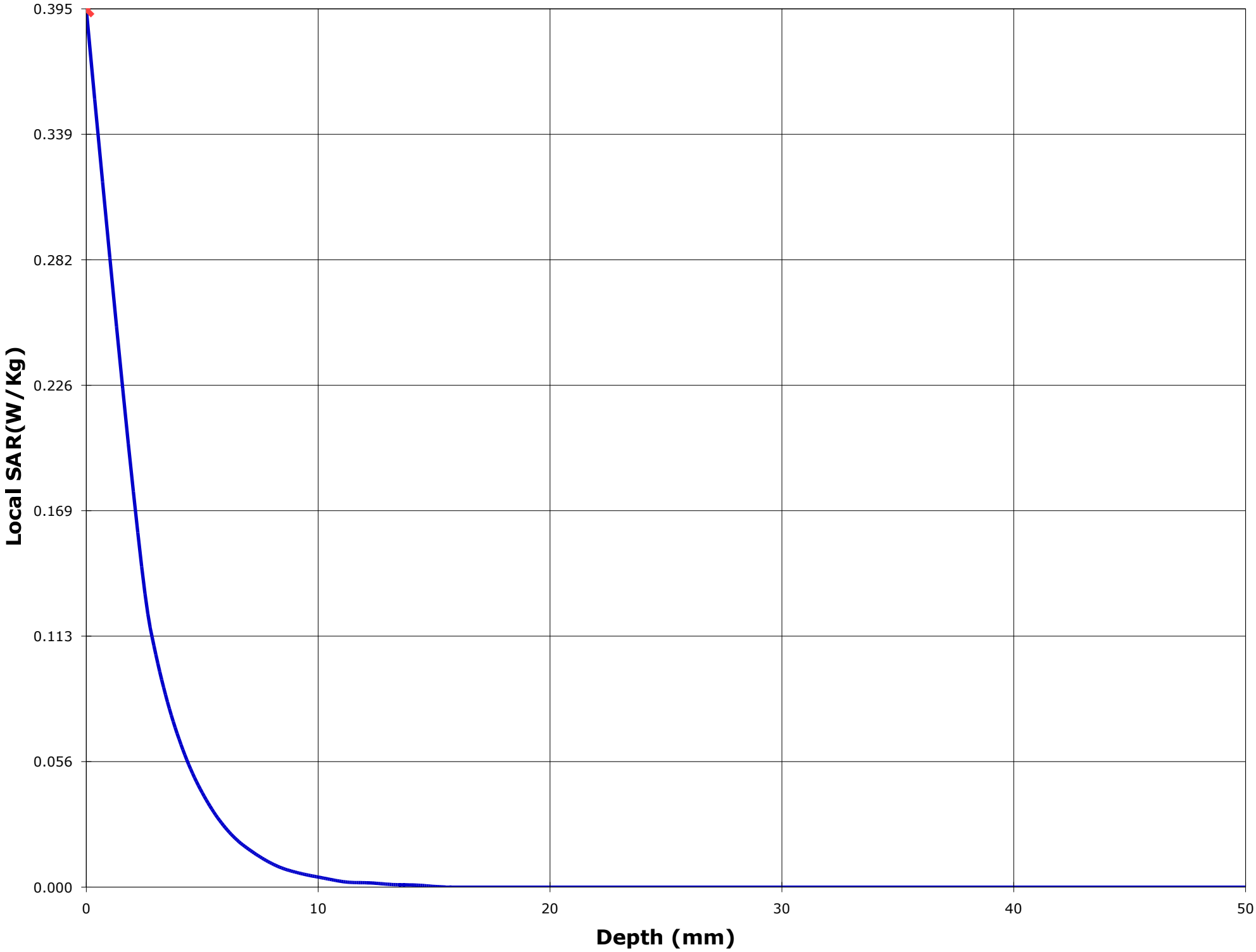
Peak Voltage (mV) : 0.952 **1 Cm Voltage (mV)** : 0.010 **SAR (W/Kg)** : 0.059

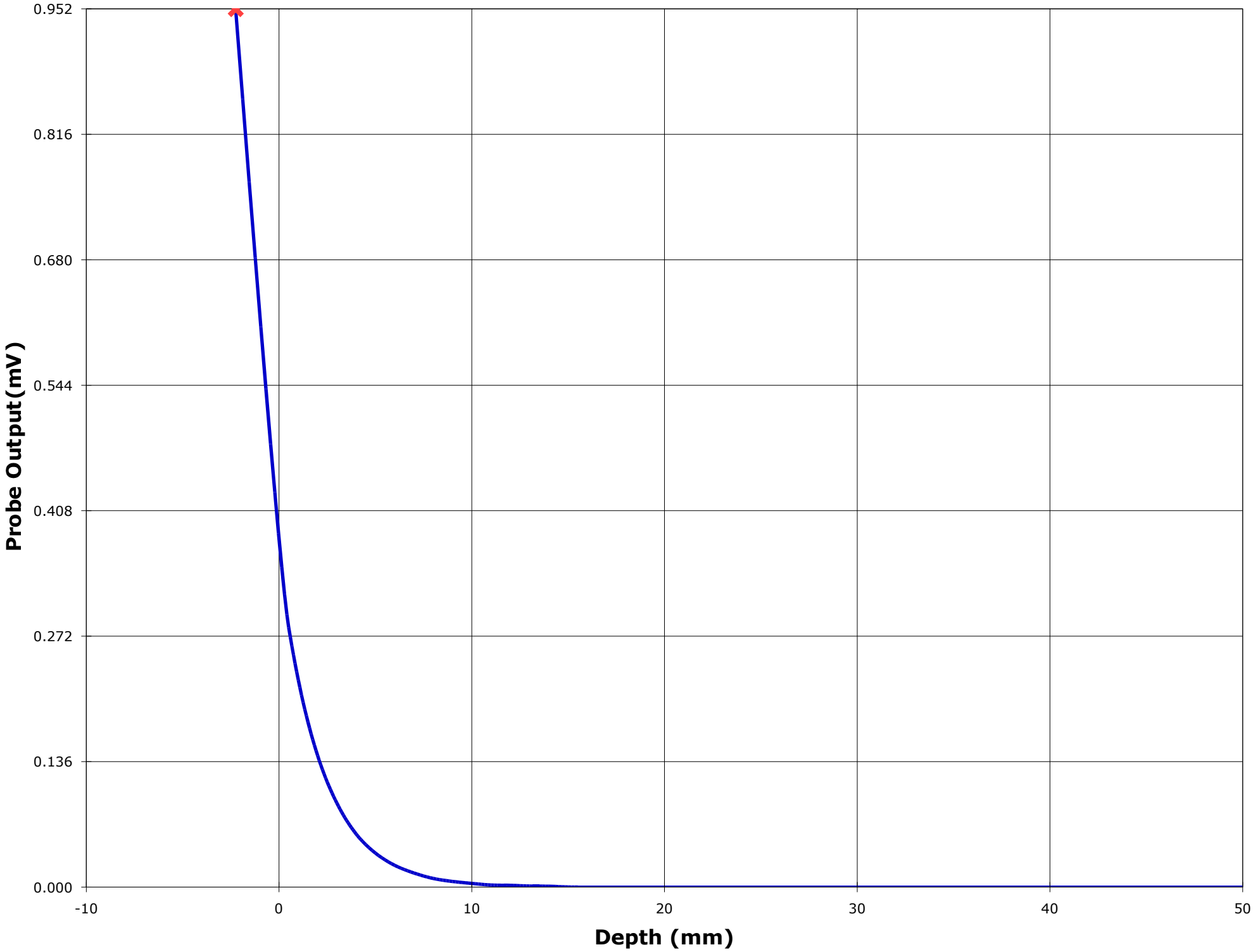

0.30
0.25
0.20
0.15
0.10
0.05
0.30
0.25
0.20
0.15
0.10
0.05
-20 -15 -10 -5 0 5 10 15 20
-55 -50 -45 -40 -35 -30 -25 -20 -15 -10 -5 0 5 10 15 20 25
0.30
0.20
0.10


0.30
0.25
0.20
0.15
0.10
0.05
0.00
-11
-9
-7
-5
-3
-1
1
4
6
8
10
12
14
0.30
0.25
0.20
0.15
0.10
0.05
0.30
0.20
0.10


30
25
20
15
10
5
0
-5
-10
-15
-20
-25
-30
-35
-40
-45
-50
-55
Y Axis (mm)
-20
-15
-10
-5
0
5
10
15
20
X Axis (mm)
0.30
0.20
0.10


16
14
12
10
8
6
4
Y Axis (mm)
-11
-9
-7
-5
-3
-1
1
X Axis (mm)
0.30
0.20
0.10


0.395
0.339
0.282
0.226
0.169
0.113
0.056
0.000
Local SAR(W/Kg)
0
10
20
30
40
50
Depth (mm)


0.952
0.816
0.680
0.544
0.408
0.272
0.136
0.000
Probe Output(mV)
-10
0
10
20
30
40
50
Depth (mm)

Test Information

Date : 02/11/2001
Time : 3:27:17 PM

Product	: 2.4GHz FHSS Cordless	**Test**	: SAR
Manufacturer	: Panasonic Canada Inc.	**Frequency (MHz)**	: 2440
Model Number	: KX-TD7690	**EIRP (W)**	: 0.329
Serial Number	: N/A	**Antenna Type**	: Monopole
FCC ID Number	:	**Signal**	: CW

Phantom	: Head - Left Ear	**Dielectric Constant**	: 38.70
Simulated Tissue	: Brain	**Conductivity**	: 2.01

Probe	: UT-ETR-0200-1	**Antenna Position**	: Extended
Probe Offset (mm)	: 2.250	**Measured Power (W)**	:
Sensor Factor (mV)	: 10.8	**(conducted)**	
Conversion Factor	: 4.482	**Cable Insertion Loss (dB)**	:
Calibrated Date	: 24/10/2001	**Compensated Power (W)**	: 0.000

Amplifier Setting :

Channel 1 : 0.0045 Channel 2 : 0.0045 Channel 3 : 0.0056

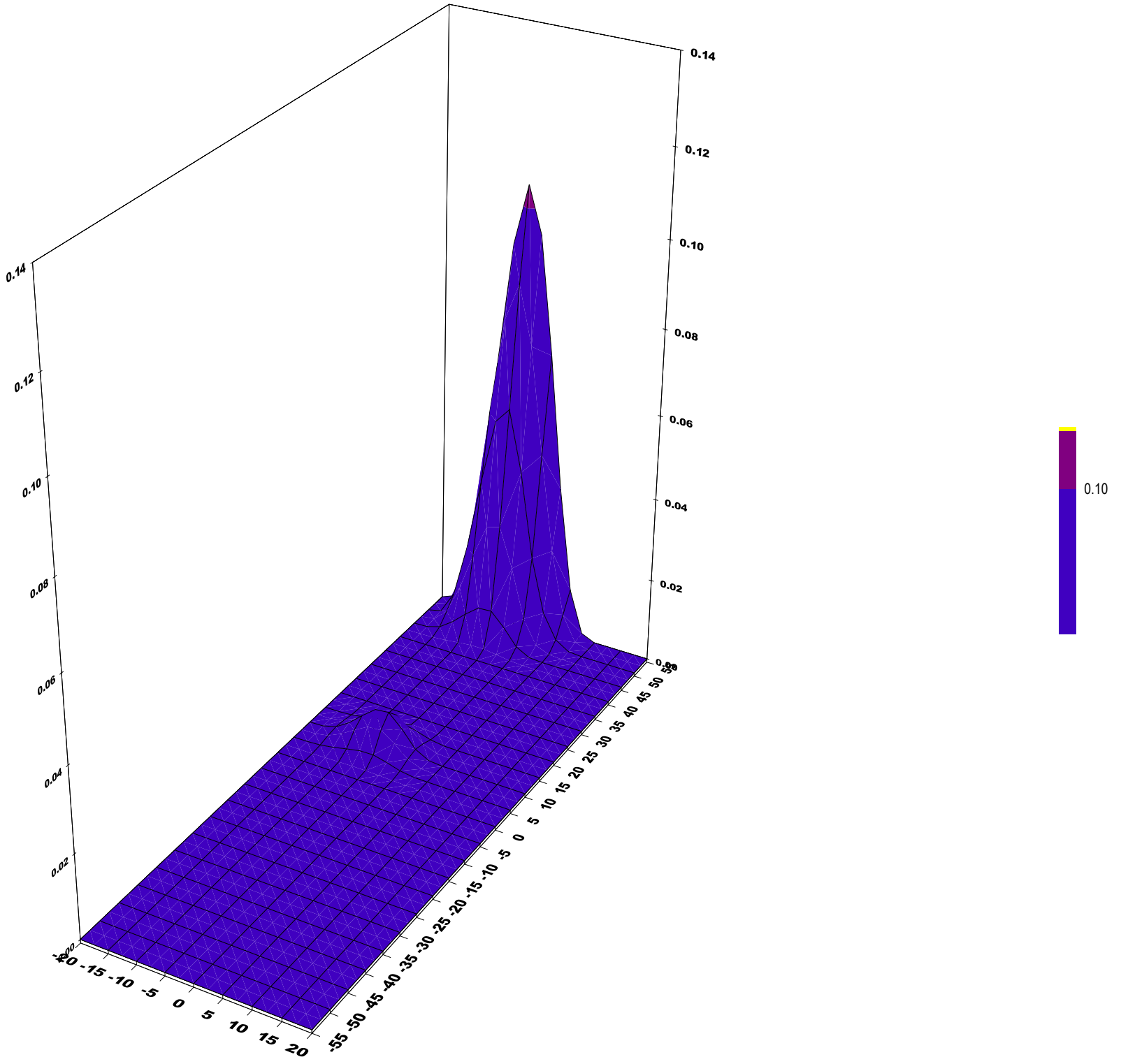
Location of Maximum Field :

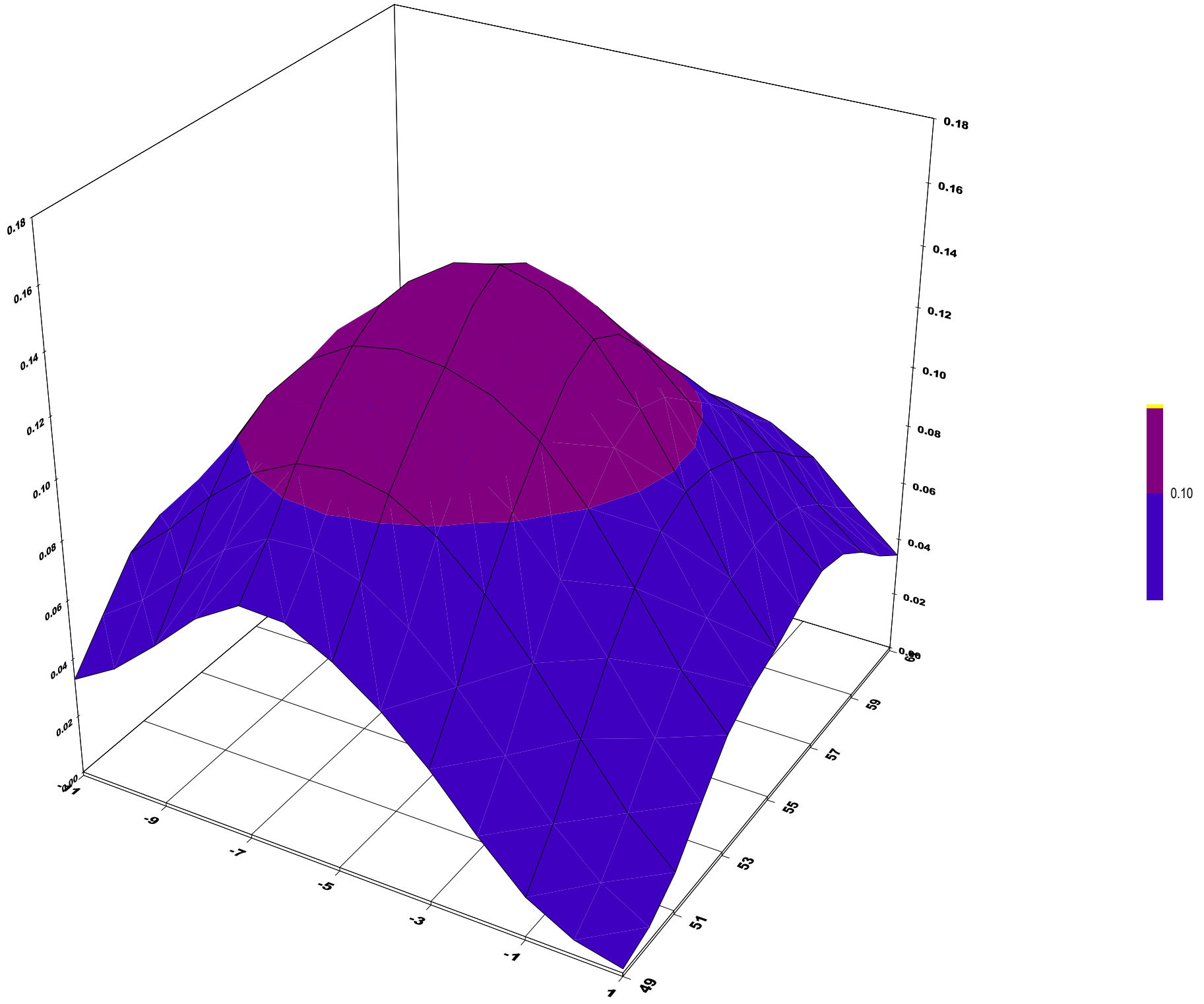
X = -5 Y = 55

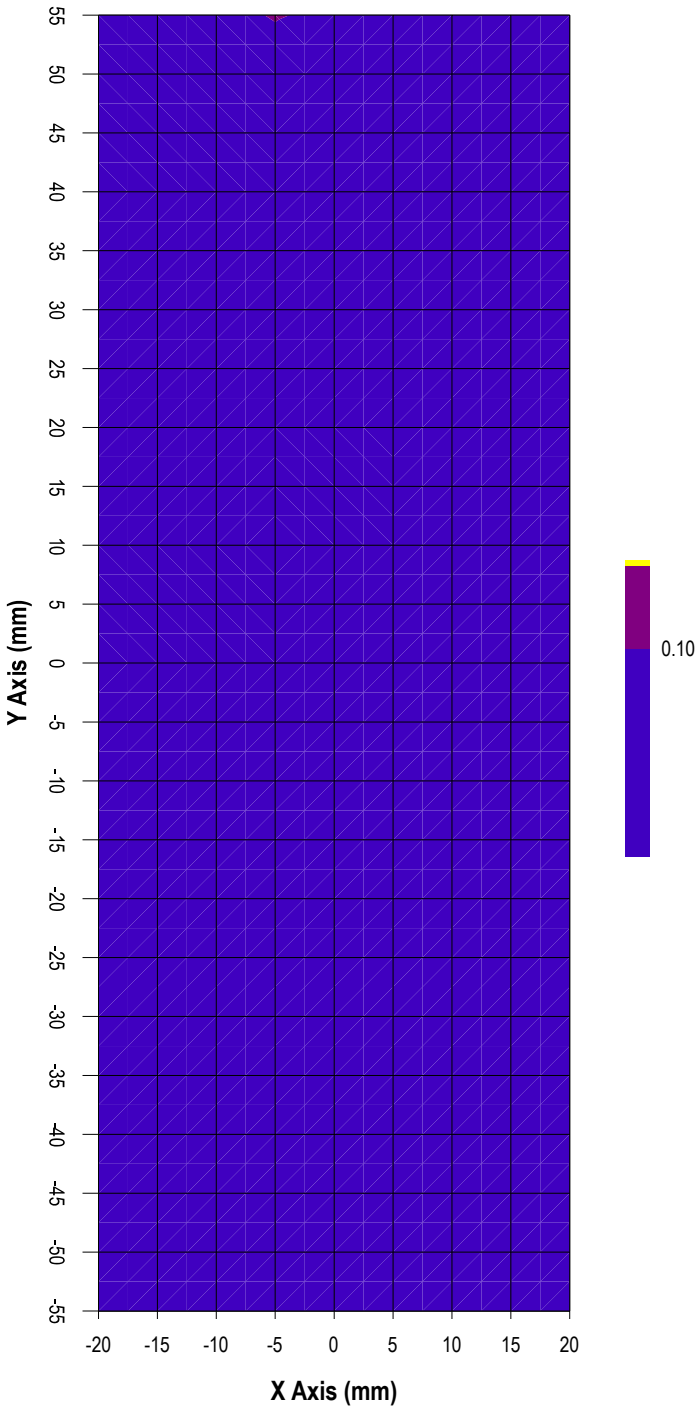
Measured Values (mV) :

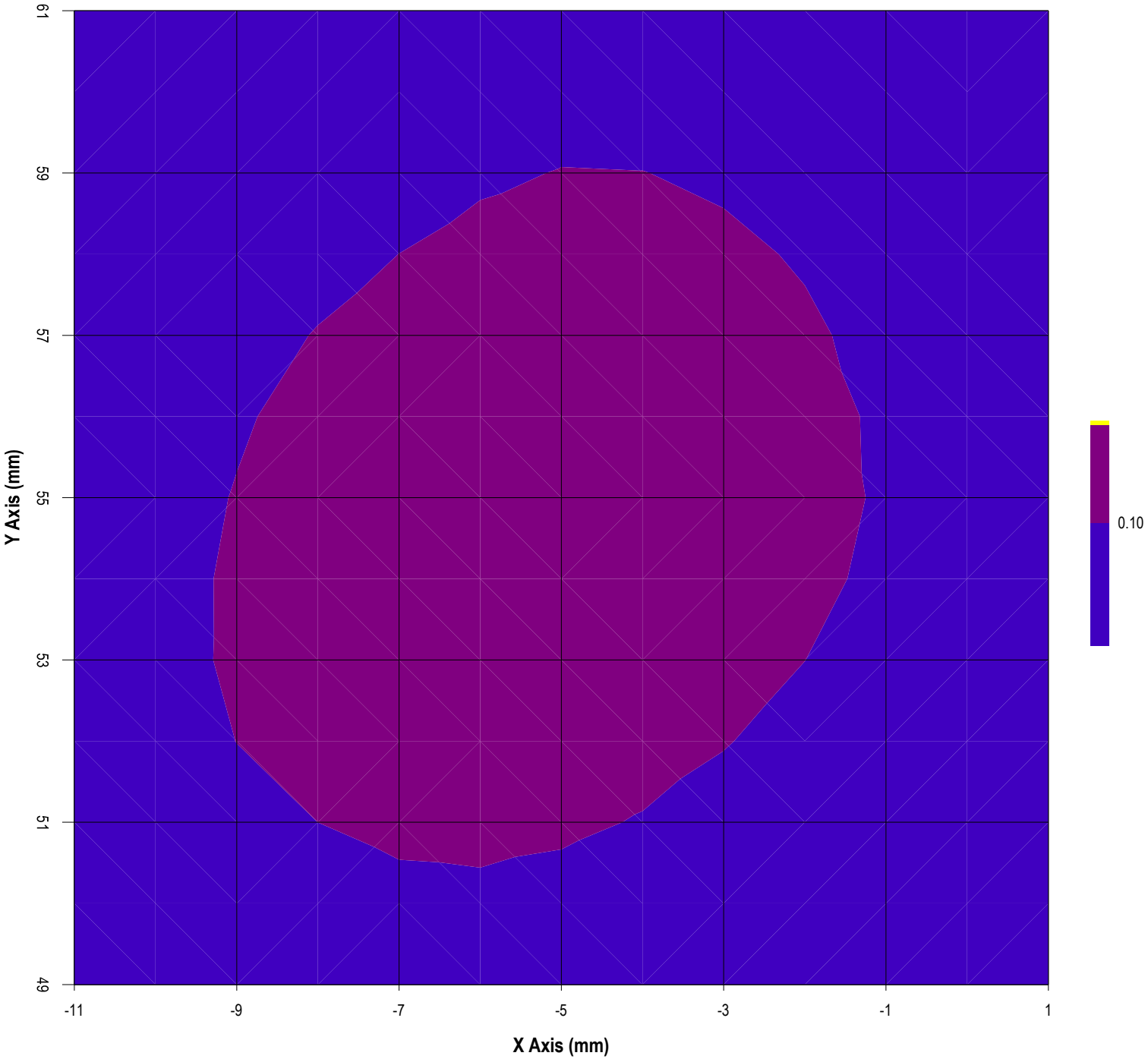
0.163	0.163	0.129	0.050	0.000	0.000
0.000	0.000	0.000	0.000	0.000	

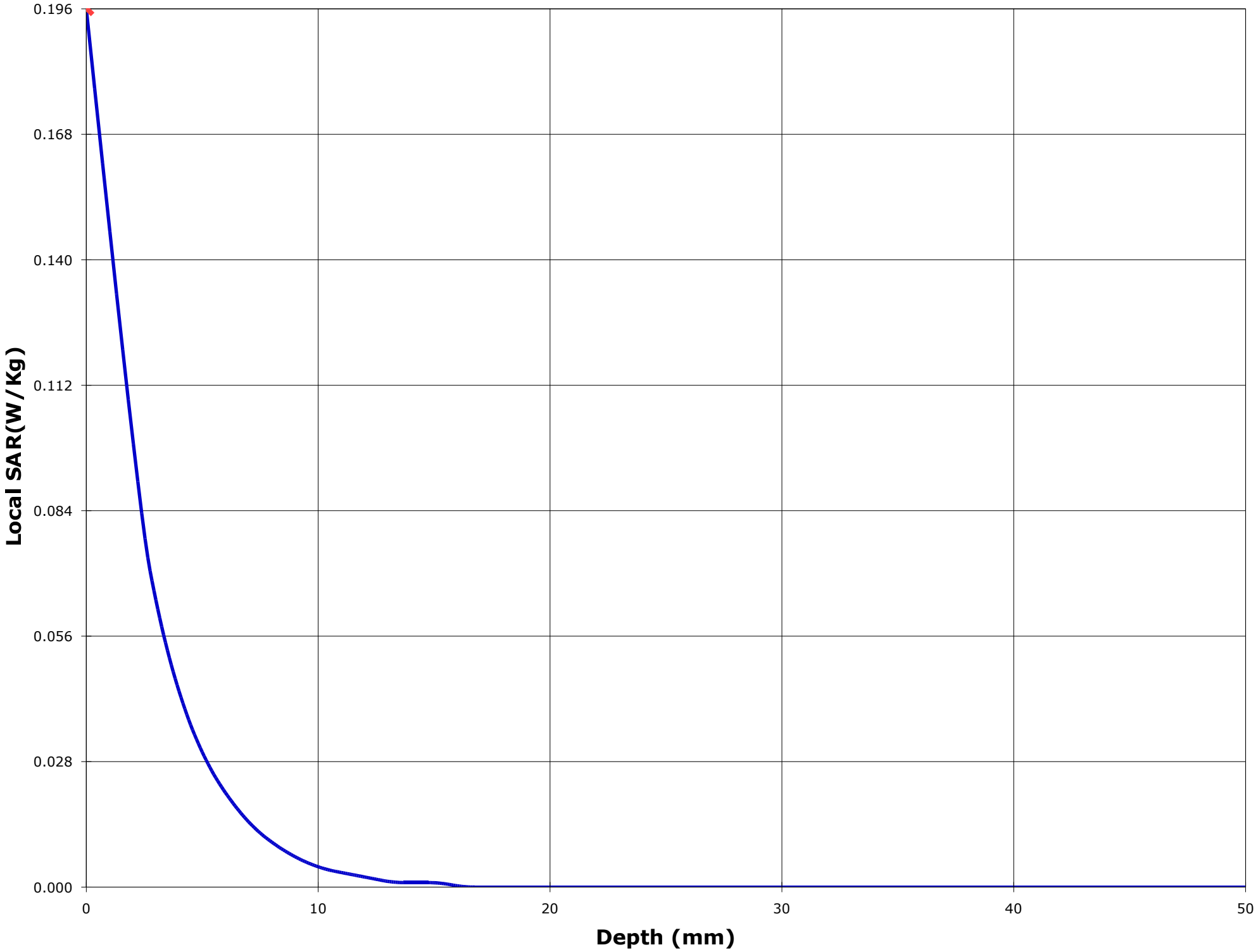
Peak Voltage (mV) : 0.472 **1 Cm Voltage (mV)** : 0.011 **SAR (W/Kg)** : 0.026

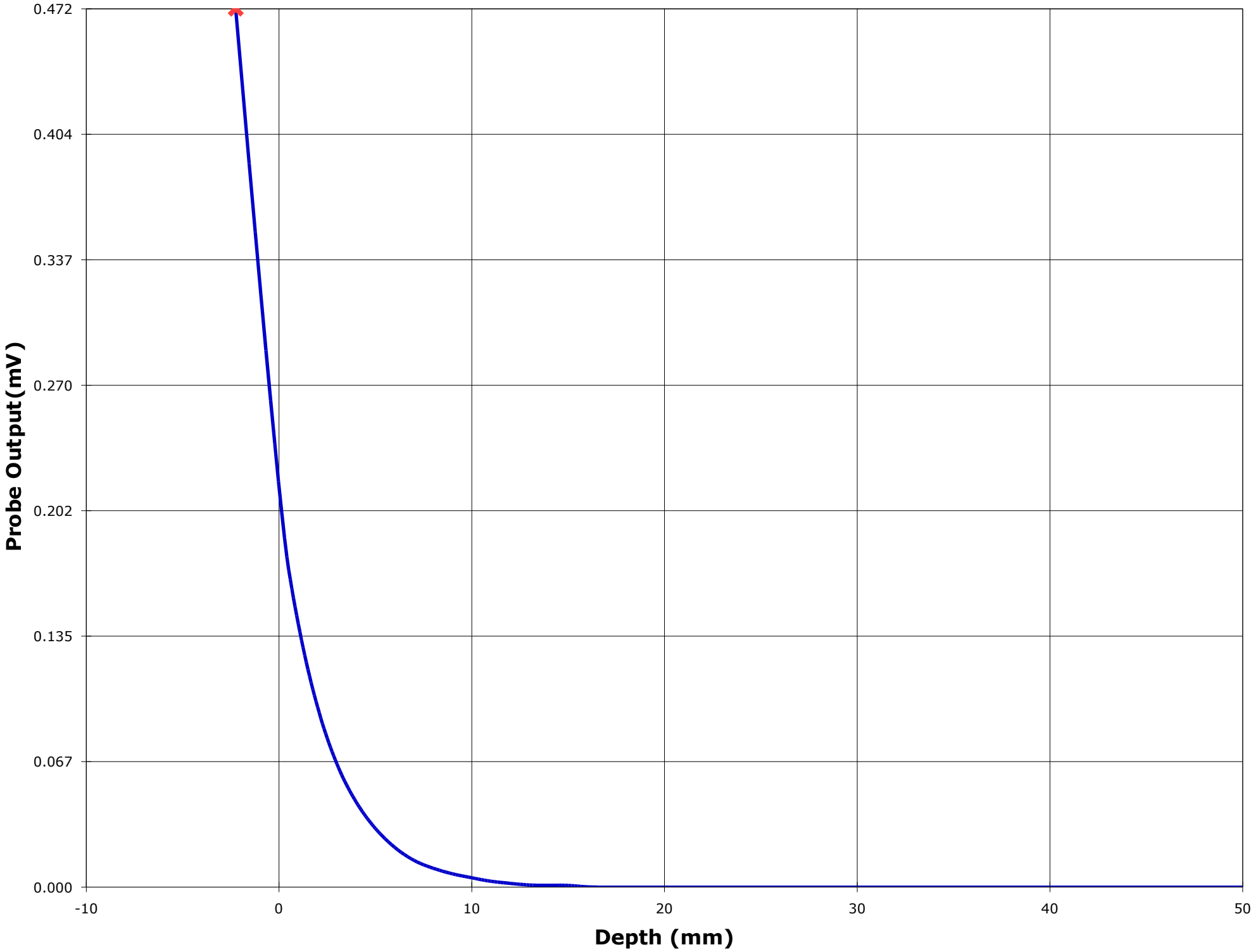

0.14
0.12
0.10
0.08
0.06
0.04
0.02
-20 -15 -10 -5 0 5 10 15 20
-55 -50 -45 -40 -35 -30 -25 -20 -15 -10 -5 0 5 10 15 20 25 30 35 40 45 50
0.10


0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
-1
-9
-7
-5
-3
-1
1
49
51
53
55
57
59
0.10


55
50
45
40
35
30
25
20
15
10
5
0
-5
-10
-15
-20
-25
-30
-35
-40
-45
-50
-55
Y Axis (mm)
-20
-15
-10
-5
0
5
10
15
20
X Axis (mm)
0.10


61
59
57
55
53
51
49
Y Axis (mm)
-11
-9
-7
-5
-3
-1
1
X Axis (mm)
0.10


0.196
0.168
0.140
0.112
0.084
0.056
0.028
0.000
Local SAR(W/Kg)
0
10
20
30
40
50
Depth (mm)


0.472
0.404
0.337
0.270
0.202
0.135
0.067
0.000
Probe Output(mV)
-10
0
10
20
30
40
50
Depth (mm)

Test Information

Date : 02/11/2001
Time : 4:25:20 PM

Product	: 2.4GHz FHSS Cordless	**Test**	: SAR
Manufacturer	: Panasonic Canada Inc.	**Frequency (MHz)**	: 2440
Model Number	: KX-TD7690	**EIRP (W)**	: 0.329
Serial Number	: N/A	**Antenna Type**	: Monopole
FCC ID Number	:	**Signal**	: CW

Phantom	: Head - Left Ear	**Dielectric Constant**	: 38.70
Simulated Tissue	: Brain	**Conductivity**	: 2.01

Probe	: UT-ETR-0200-1	**Antenna Position**	: Retracted
Probe Offset (mm)	: 2.250	**Measured Power (W)**	:
Sensor Factor (mV)	: 10.8	**(conducted)**	
Conversion Factor	: 4.482	**Cable Insertion Loss (dB)**	:
Calibrated Date	: 24/10/2001	**Compensated Power (W)**	: 0.000

Amplifier Setting :

Channel 1 : 0.0045 Channel 2 : 0.0045 Channel 3 : 0.0056

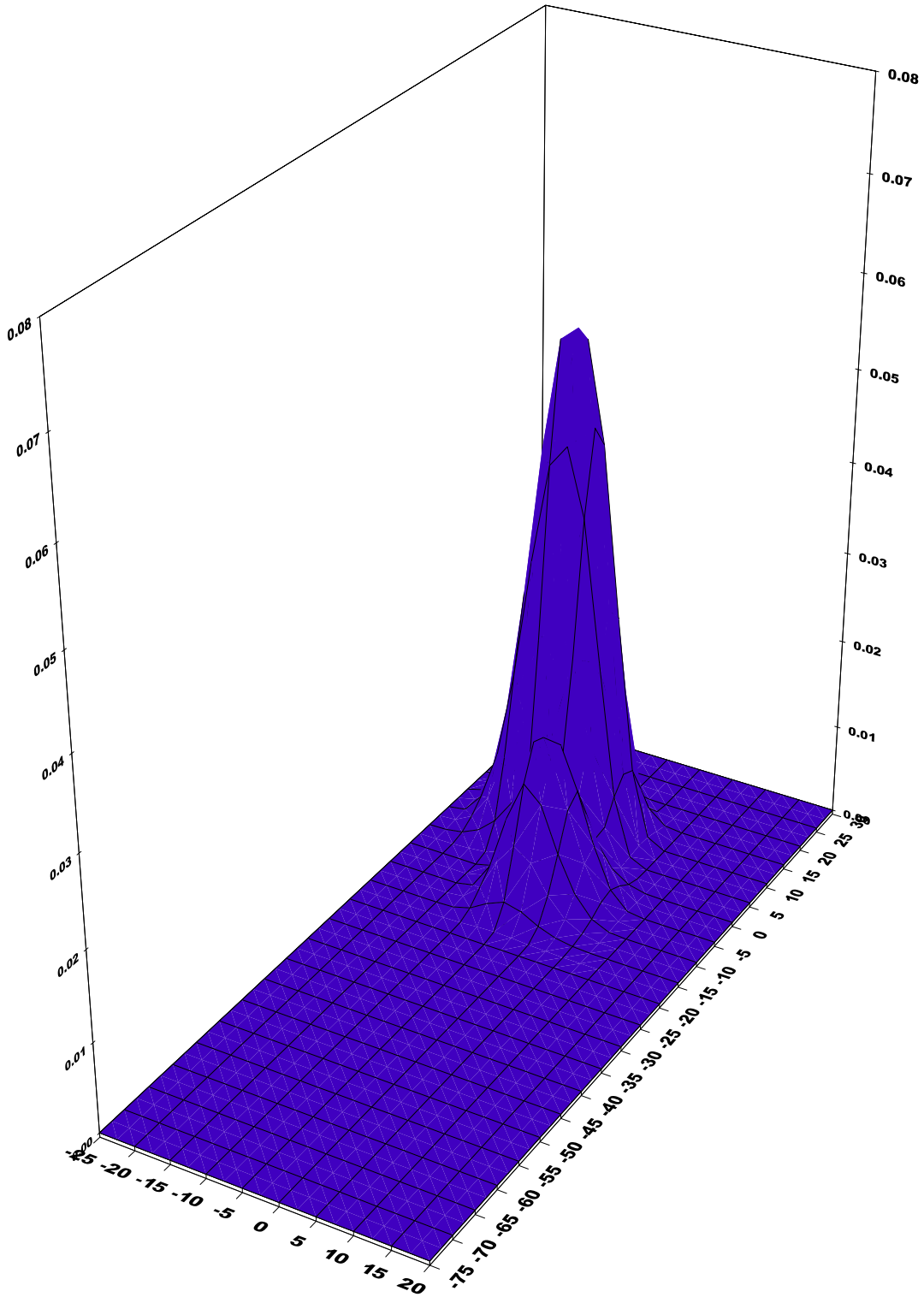
Location of Maximum Field :

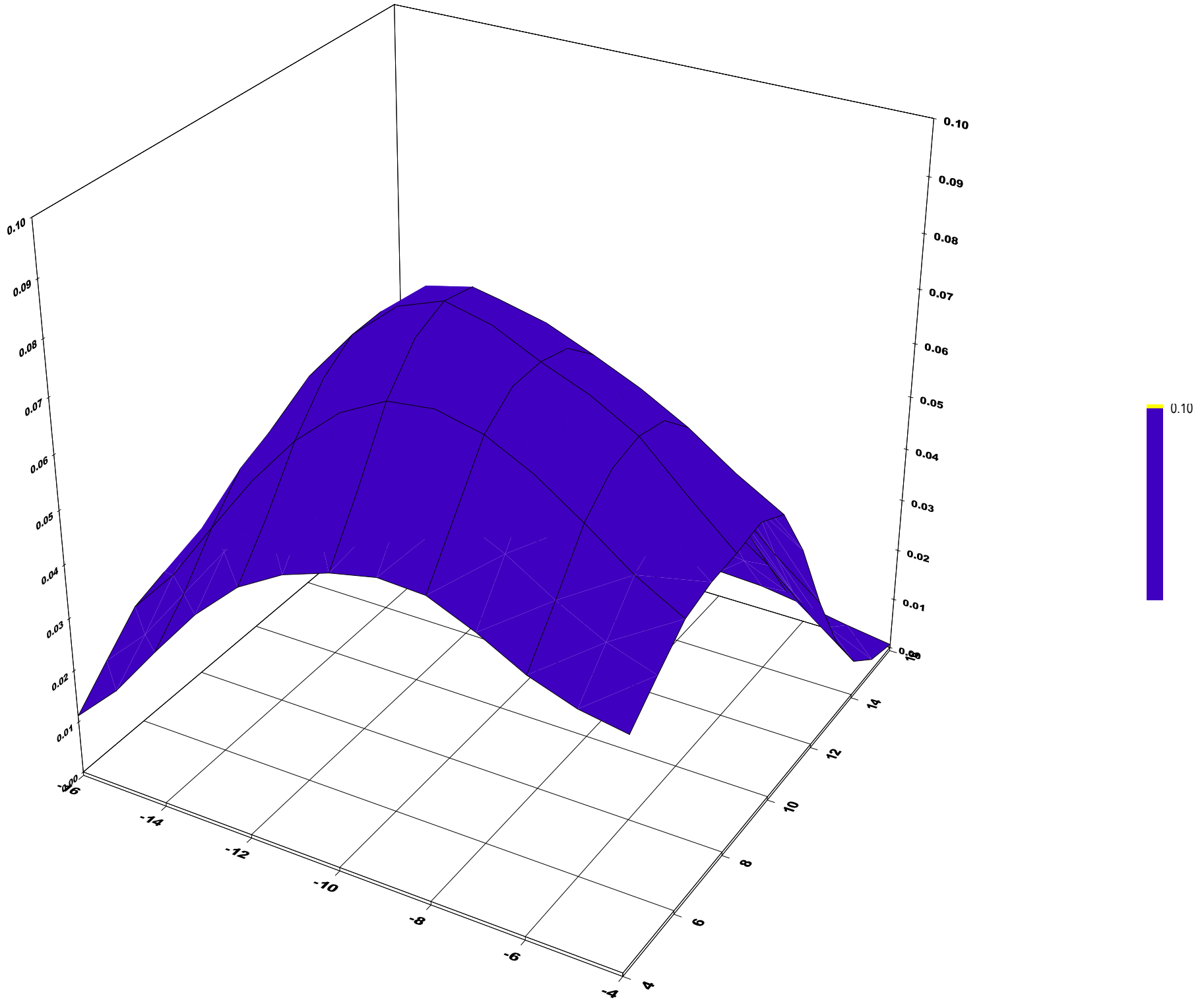
X = -10 Y = 8

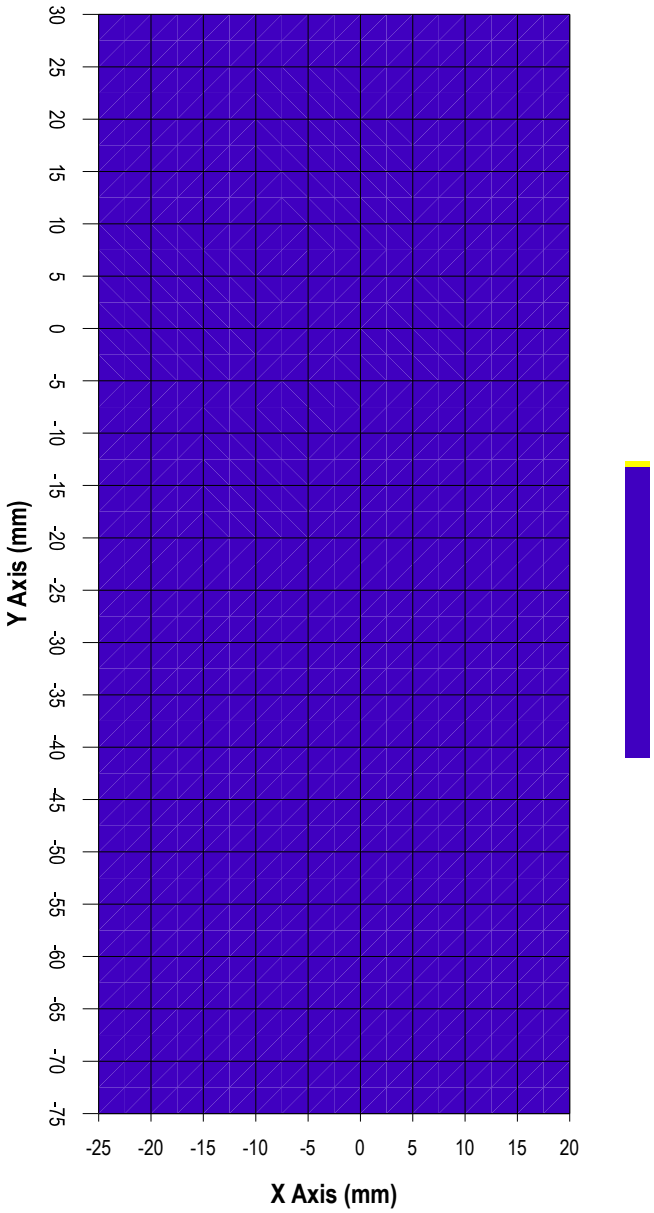
Measured Values (mV) :

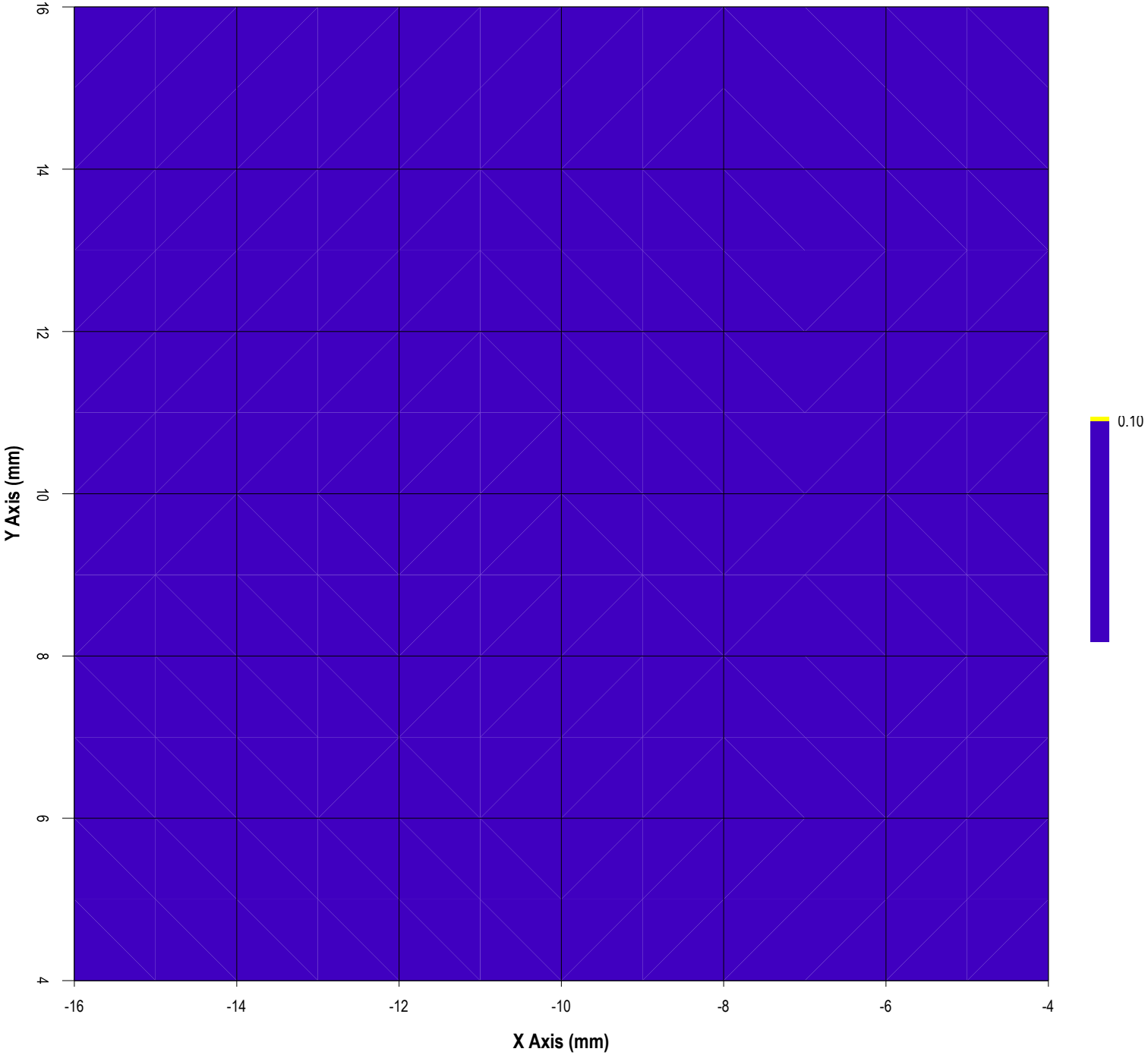
0.081	0.037	0.015	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	

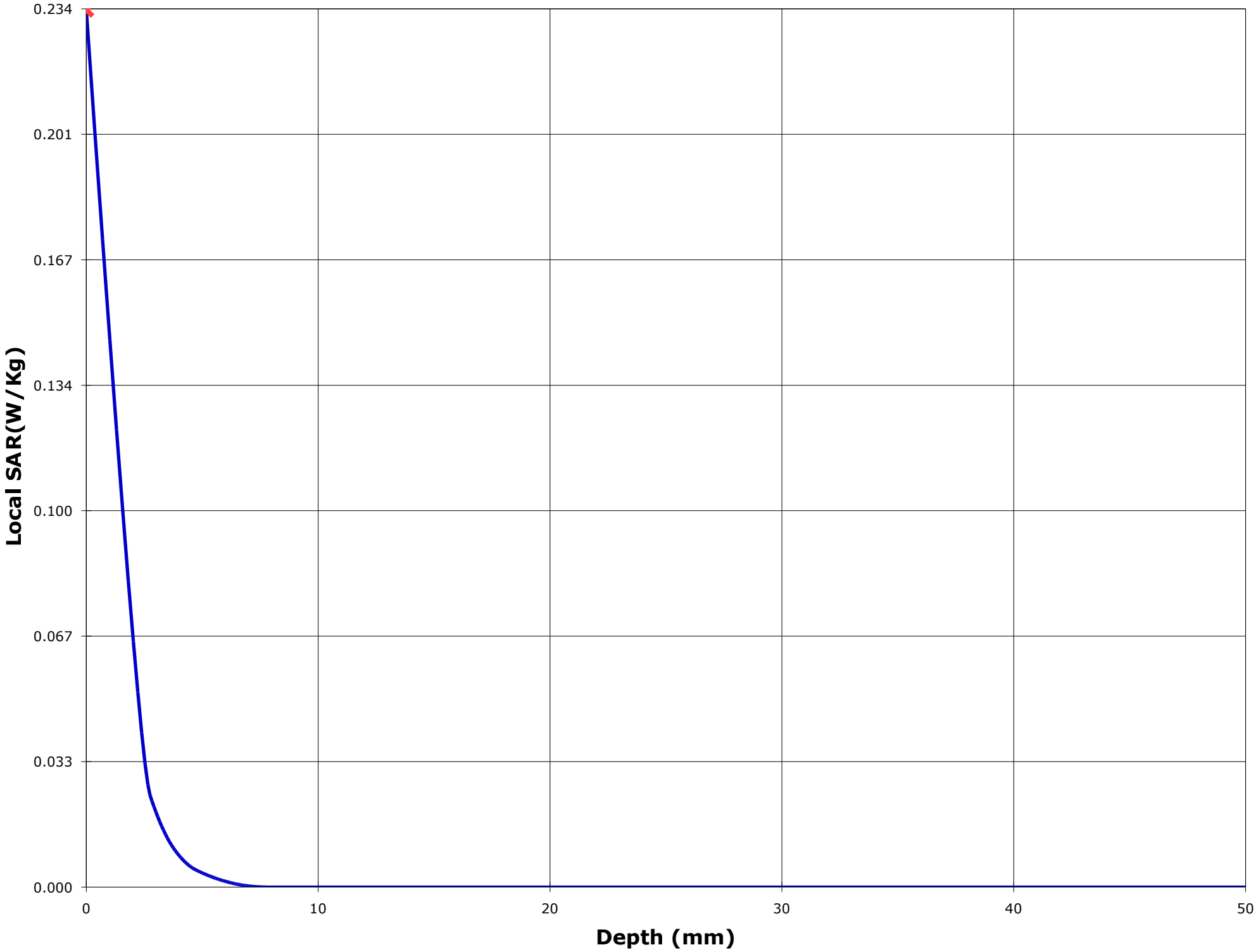
Peak Voltage (mV) : 0.564 **1 Cm Voltage (mV)** : 0.000 **SAR (W/Kg)** : 0.019

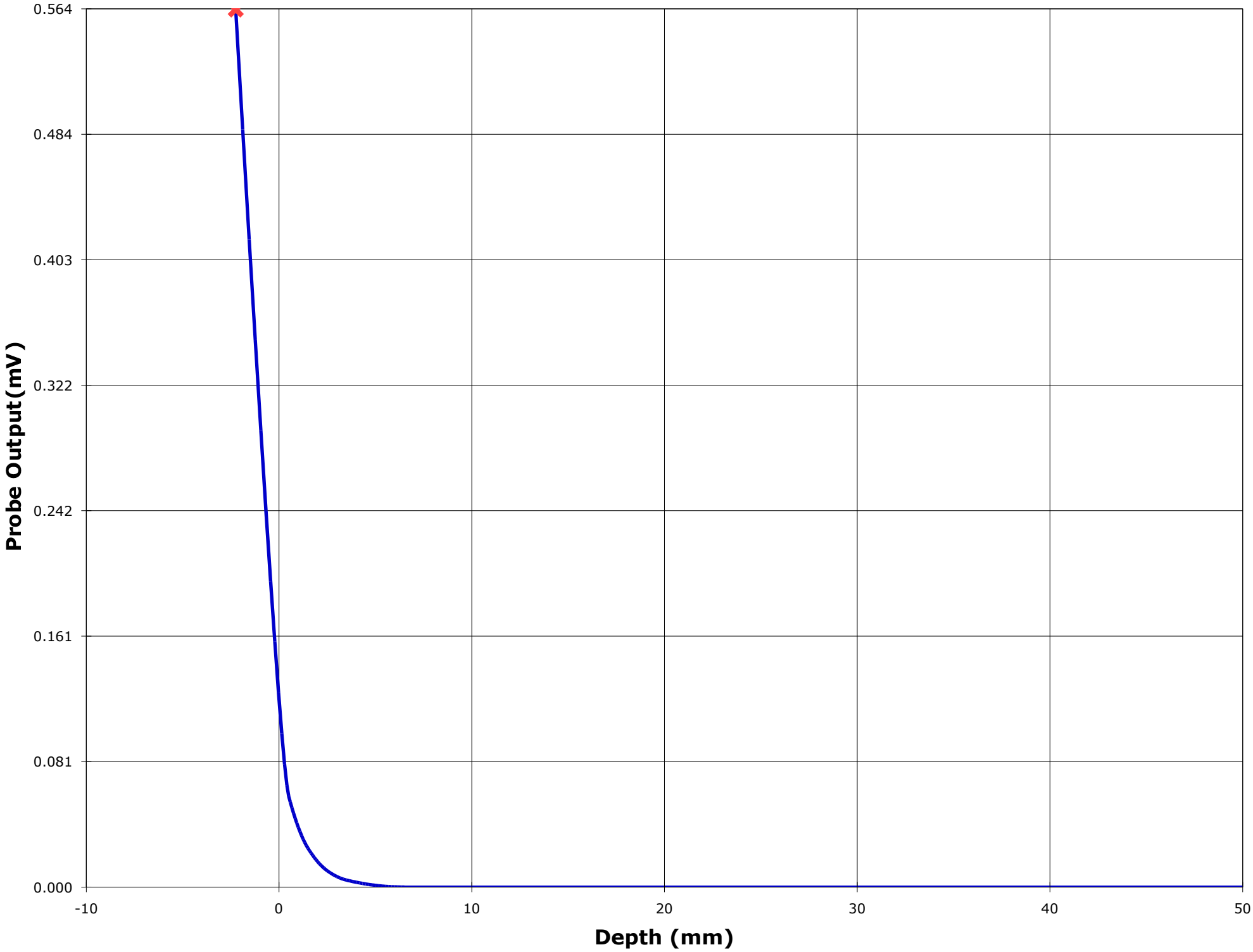

0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
-25 -20 -15 -10 -5 0 5 10 15 20
-75 -70 -65 -60 -55 -50 -45 -40 -35 -30 -25 -20 -15 -10 -5 0 5 10 15 20 25


0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
-16
-14
-12
-10
-8
-6
-4
4
6
8
10
12
14
0.10


Y Axis (mm)
30
25
20
15
10
5
0
-5
-10
-15
-20
-25
-30
-35
-40
-45
-50
-55
-60
-65
-70
-75
-25
-20
-15
-10
-5
0
5
10
15
20
X Axis (mm)


16
14
12
10
8
6
4
Y Axis (mm)
-16
-14
-12
-10
-8
-6
-4
X Axis (mm)
0.10


0.234
0.201
0.167
0.134
0.100
0.067
0.033
0.000
Local SAR(W/Kg)
0
10
20
30
40
50
Depth (mm)


0.564
0.484
0.403
0.322
0.242
0.161
0.081
0.000
Probe Output(mV)
-10
0
10
20
30
40
50
Depth (mm)

Test Information

Date : 02/11/2001
Time : 5:17:39 PM

Product	: 2.4GHz FHSS Cordless	**Test**	: SAR
Manufacturer	: Panasonic Canada Inc.	**Frequency (MHz)**	: 2440
Model Number	: KX-TD7690	**EIRP (W)**	: 0.329
Serial Number	: N/A	**Antenna Type**	: Monopole
FCC ID Number	:	**Signal**	: CW

Phantom	: Head - Left Ear	**Dielectric Constant**	: 38.70
Simulated Tissue	: Brain	**Conductivity**	: 2.01

Probe	: UT-ETR-0200-1	**Antenna Position**	: Extended
Probe Offset (mm)	: 2.250	**Measured Power (W)**	:
Sensor Factor (mV)	: 10.8	**(conducted)**	
Conversion Factor	: 4.482	**Cable Insertion Loss (dB)**	:
Calibrated Date	: 24/10/2001	**Compensated Power (W)**	: 0.000

Amplifier Setting :

Channel 1 : 0.0045 Channel 2 : 0.0045 Channel 3 : 0.0056

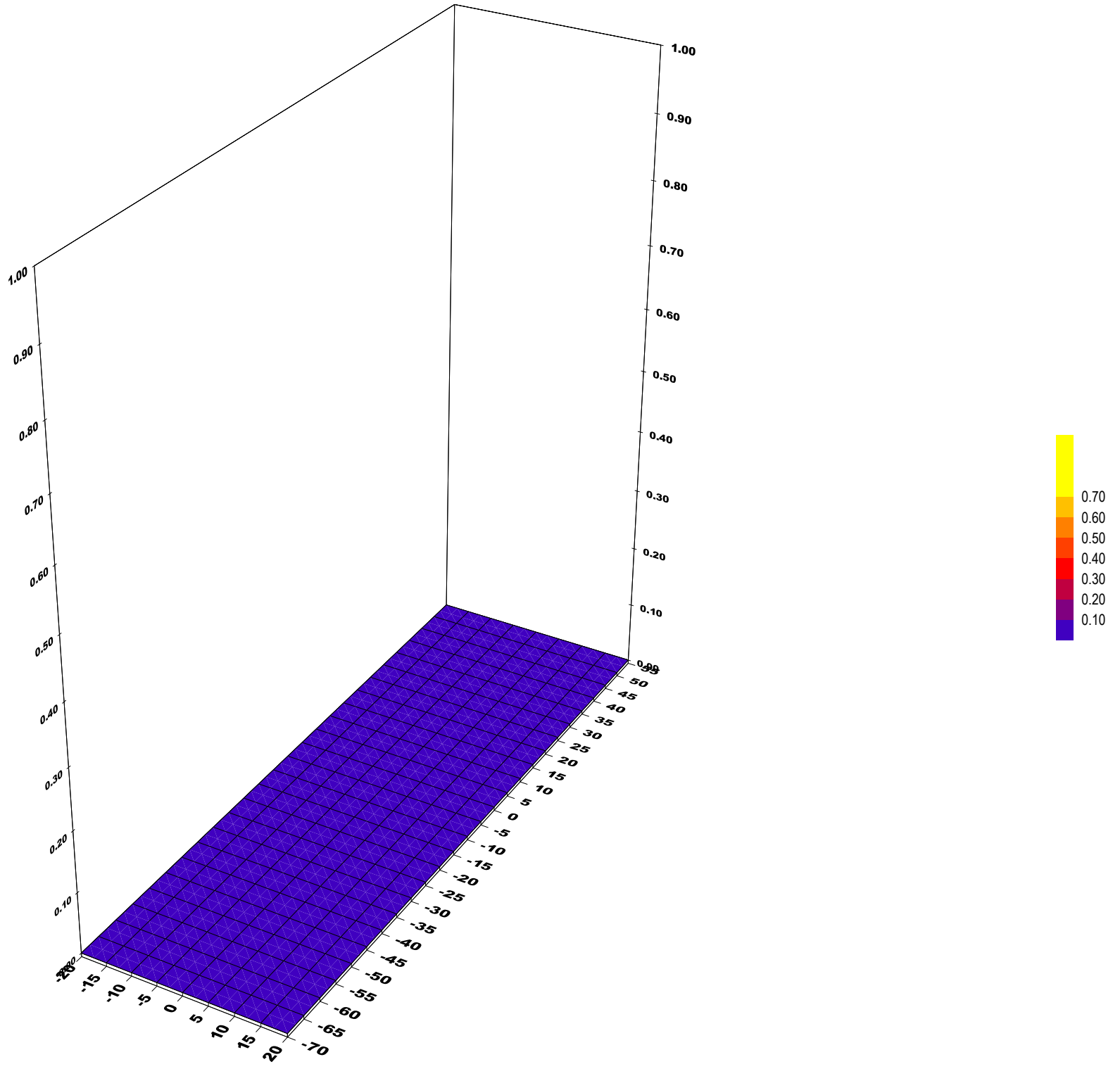
Location of Maximum Field :

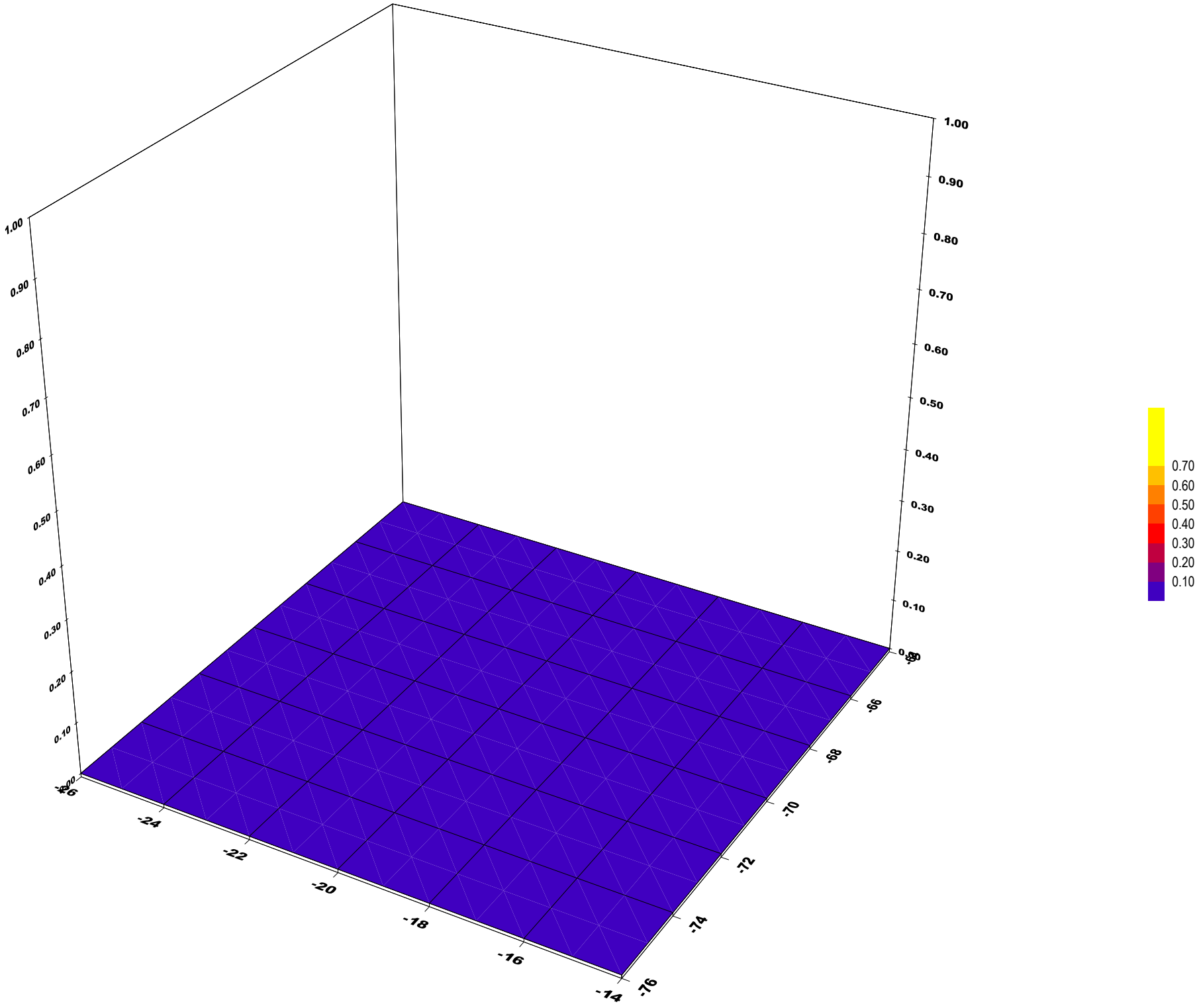
X = -26 Y = -76

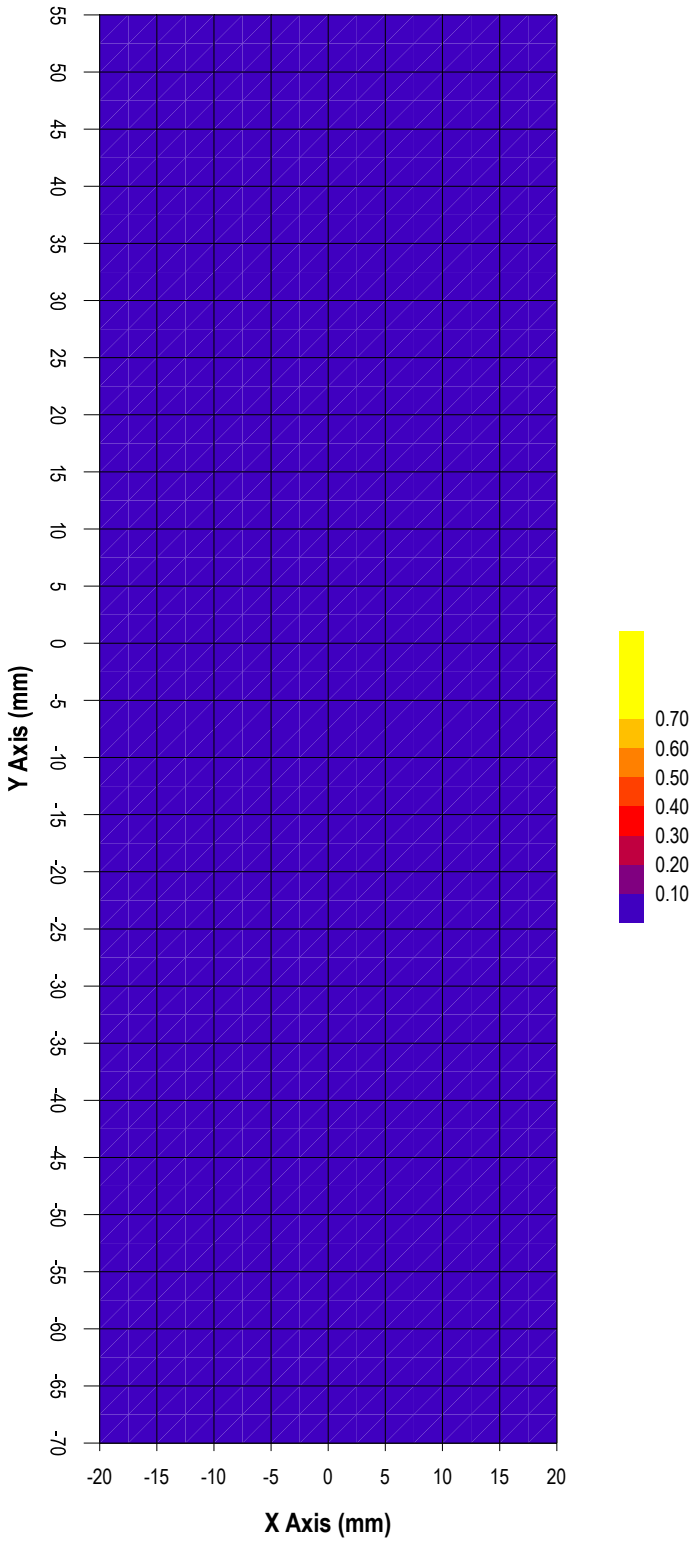
Measured Values (mV) :

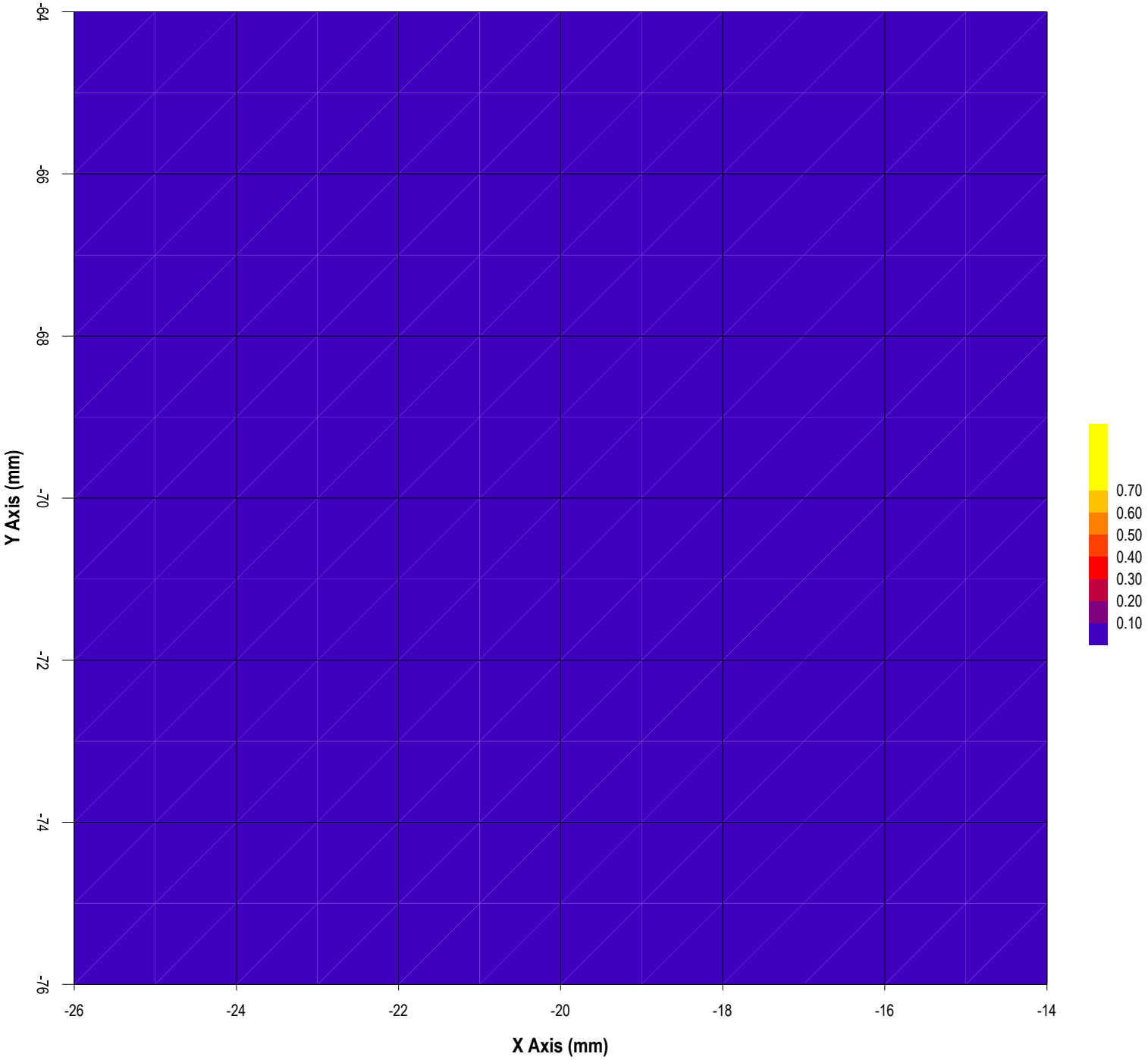
0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	

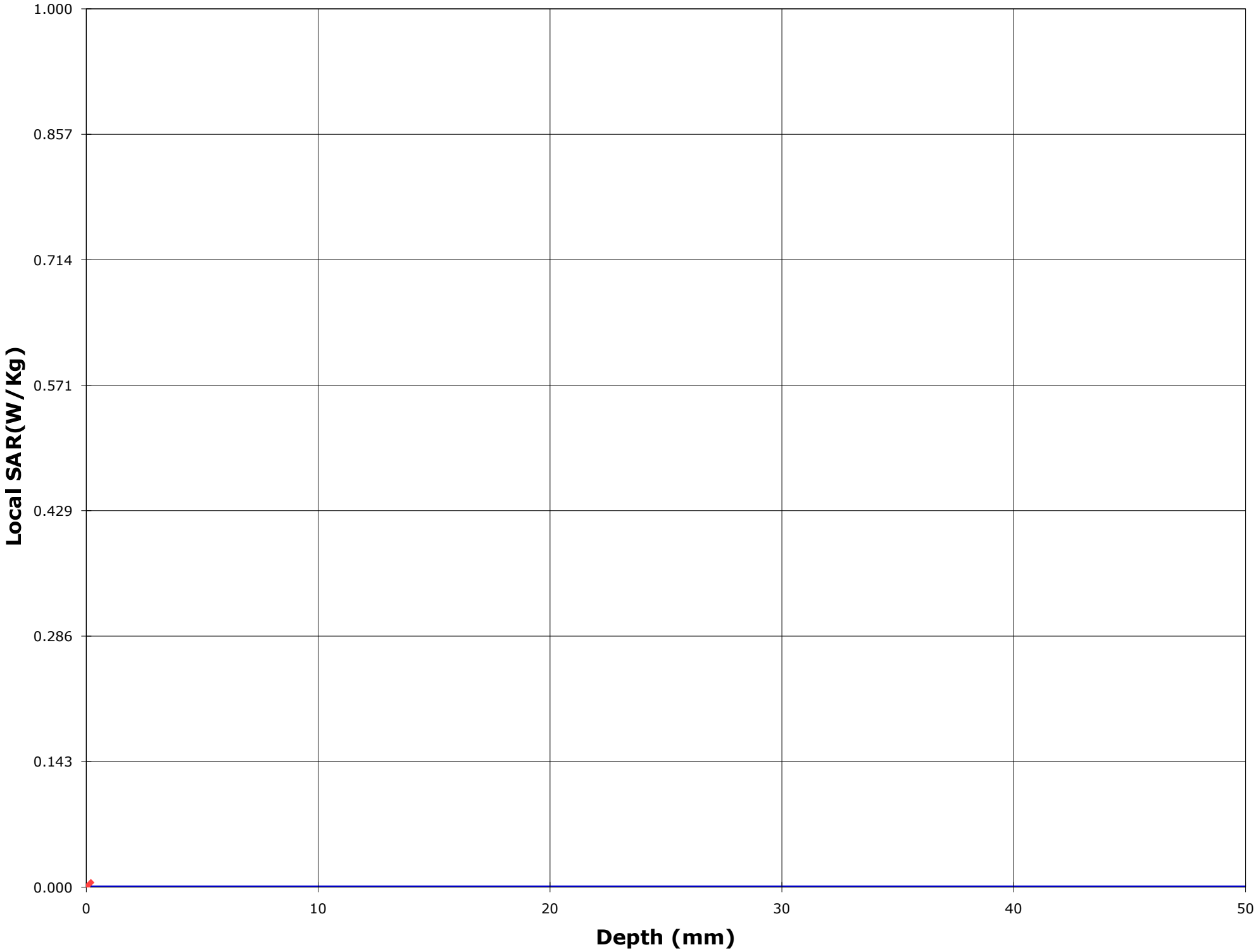
Peak Voltage (mV) : 0.000 **1 Cm Voltage (mV)** : 0.000 **SAR (W/Kg)** : 0.000


1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
-20
-15
-10
-5
0
5
10
15
20
-70
-65
-60
-55
-50
-45
-40
-35
-30
-25
-20
-15
-10
-5
0
5
10
15
20
25
30
35
40
45
50
0.70
0.60
0.50
0.40
0.30
0.20
0.10


1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
-26
-24
-22
-20
-18
-16
-14
-76
-74
-72
-70
-68
-66
0.70
0.60
0.50
0.40
0.30
0.20
0.10


55
50
45
40
35
30
25
20
15
10
5
0
-5
-10
-15
-20
-25
-30
-35
-40
-45
-50
-55
-60
-65
-70
Y Axis (mm)
-20
-15
-10
-5
0
5
10
15
20
X Axis (mm)
0.70
0.60
0.50
0.40
0.30
0.20
0.10


-64
-66
-68
-70
-72
-74
-76
Y Axis (mm)
-26
-24
-22
-20
-18
-16
-14
X Axis (mm)
0.70
0.60
0.50
0.40
0.30
0.20
0.10


1.000
0.857
0.714
0.571
0.429
0.286
0.143
0.000
Local SAR(W/Kg)
0
10
20
30
40
50
Depth (mm)

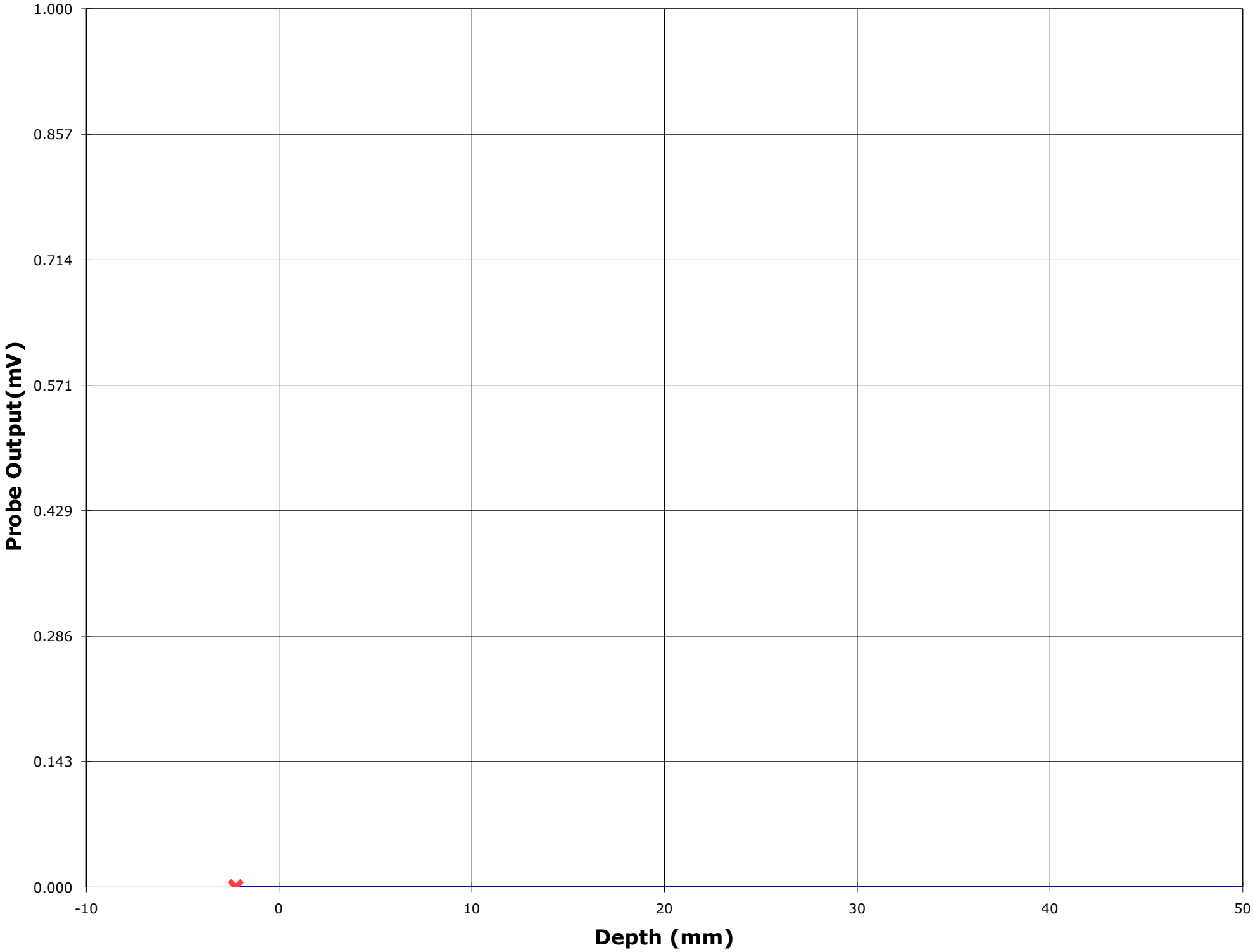

1.000
0.857
0.714
0.571
0.429
0.286
0.143
0.000
Probe Output(mV)
-10
0
10
20
30
40
50
Depth (mm)

EXHIBIT 9. TISSUE CALIBRATION

The tissue conductivity was calibrated in accordance with IEEE Std 1528-200X, Draft 6.1 November 14, 2000, Sponsor IEEE SCC 34.

Ultratech Group of Labs.
3000 Bristol Circle Road
Oakville, Ontario
Canada L6H 6G4

Phone (905) 829-1570
FAX (905) 829-8050
Email vhk.ultratech@sympatico.ca

Name: Wayne **Date:** 10/24/2001

Frequency: 2,450 MHz **Mixture:** Muscle **Room Temp.:** 23.0 ±1°C

# of Points: 9 **Point Dist:** 0.5 cm

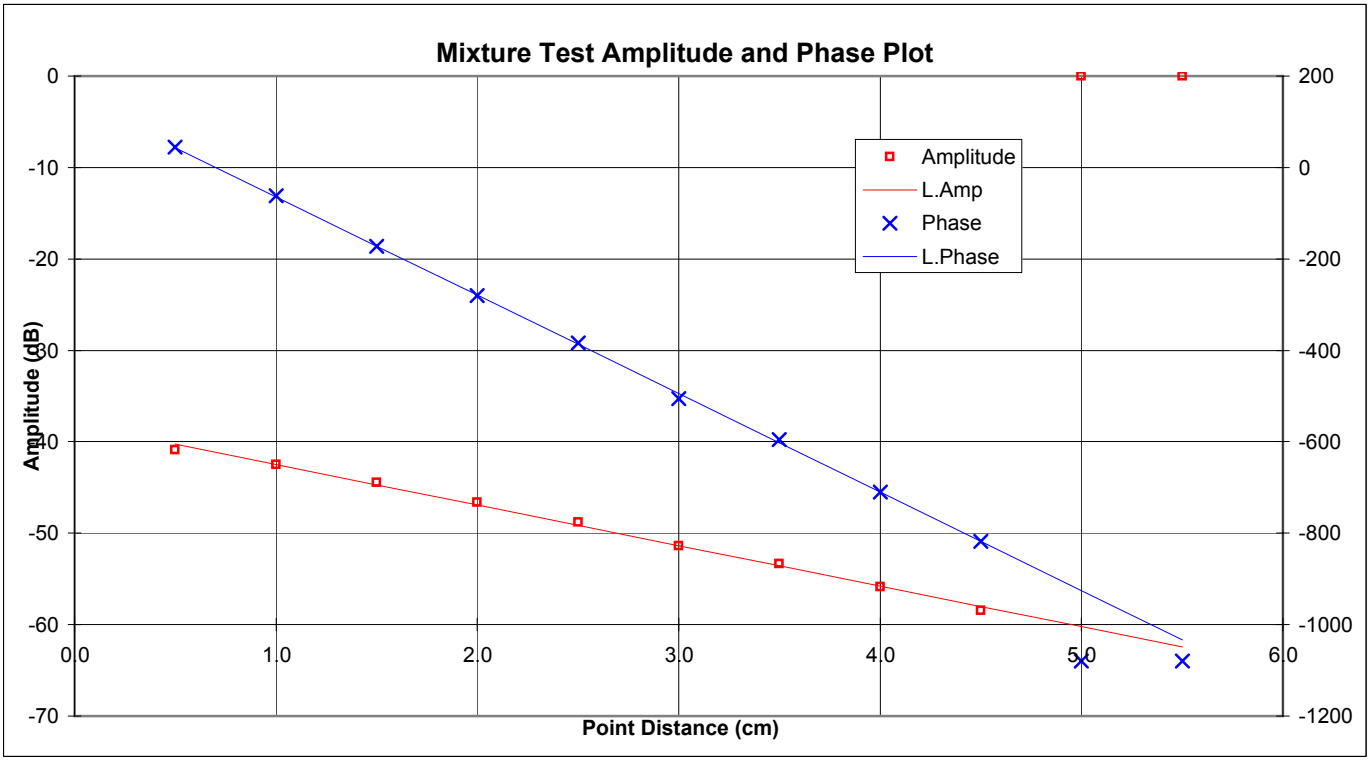
Point	Amplitude	Phase
1	-40.87	43.93
2	-42.52	-61.78
3	-44.43	-172.95
4	-46.65	79.14
5	-48.79	-23.30
6	-51.35	-145.73
7	-53.33	124.47
8	-55.85	9.66
9	-58.47	-97.97
10	0.00	0.00
11	0.00	0.00

Composition

	weight	% by weight
DI Water	48,310.0 g	72.42 %
Sucrose (98 %) ← Sugar	0.0 g	0.00 %
2-(2-ButoxyEthoxy) Ethanol ← Alcohol	17,600.0 g	26.38 %
Sodium Chloride (99+ %) ← Salt	800.0 g	1.20 %
Hydroxyethyl Cellulose ← HEC	0.0 g	0.00 %
Bactericide	0.0 g	0.00 %
1,2-propanedio	0.0 g	0.00 %
	0.0 g	0.00 %
	0.0 g	0.00 %
Total	66,710.0 g	100.00 %

ω(rad/sec)	1.539E+10
ε_0(F/m)	8.854E-12
μ(H/m)	1.257E-06
α_{avg}(Np/cm)	-0.50991
β_{avg}(rad/cm)	-3.76018

Results:		Target	Low Limit	High Limit	% Off Target
D. Const:	52.64	52.70	50.065	55.335	-0.11
Conductivity:	1.98	1.95	1.853	2.048	1.66



Ultratech Group of Labs.
3000 Bristol Circle Road
Oakville, Ontario
Canada L6H 6G4

Phone (905) 829-1570
FAX (905) 829-8050
Email vhk.ultratech@sympatico.ca

Name: Jay **Date:** 10/23/2001

Frequency: 2,450 MHz **Mixture:** Brain **Room Temp.:** 22.5 ±1°C

# of Points: 11 **Point Dist:** 0.5 cm

Point	Amplitude	Phase
1	-42.62	-10.16
2	-44.78	-112.12
3	-47.05	158.55
4	-50.28	73.08
5	-52.29	-27.35
6	-54.83	-119.35
7	-57.97	146.48
8	-60.21	56.39
9	-62.91	-37.09
10	-65.61	-131.29
11	-68.61	134.10

Composition

	weight	% by weight
DI Water	31,980.0 g	53.30 %
Sucrose (98 %) ← Sugar	0.0 g	0.00 %
2-(2-ButoxyEthoxy) Ethanol ← Alcohol	28,020.0 g	46.70 %
Sodium Chloride (99+ %) ← Salt	0.0 g	0.00 %
Hydroxyethyl Cellulose ← HEC	0.0 g	0.00 %
Bactericide	0.0 g	0.00 %
1,2-propanedio	0.0 g	0.00 %
	0.0 g	0.00 %
	0.0 g	0.00 %
Total	60,000.0 g	100.00 %

Results:		Target	Low Limit	High Limit	% Off Target
D. Const:	38.70	39.20	37.240	41.160	-1.27
Conductivity:	2.01	1.80	1.710	1.890	11.91

ω(rad/sec)	1.539E+10
ε_0(F/m)	8.854E-12
μ(H/m)	1.257E-06
α_{avg}(Np/cm)	-0.59945
β_{avg}(rad/cm)	-3.25007

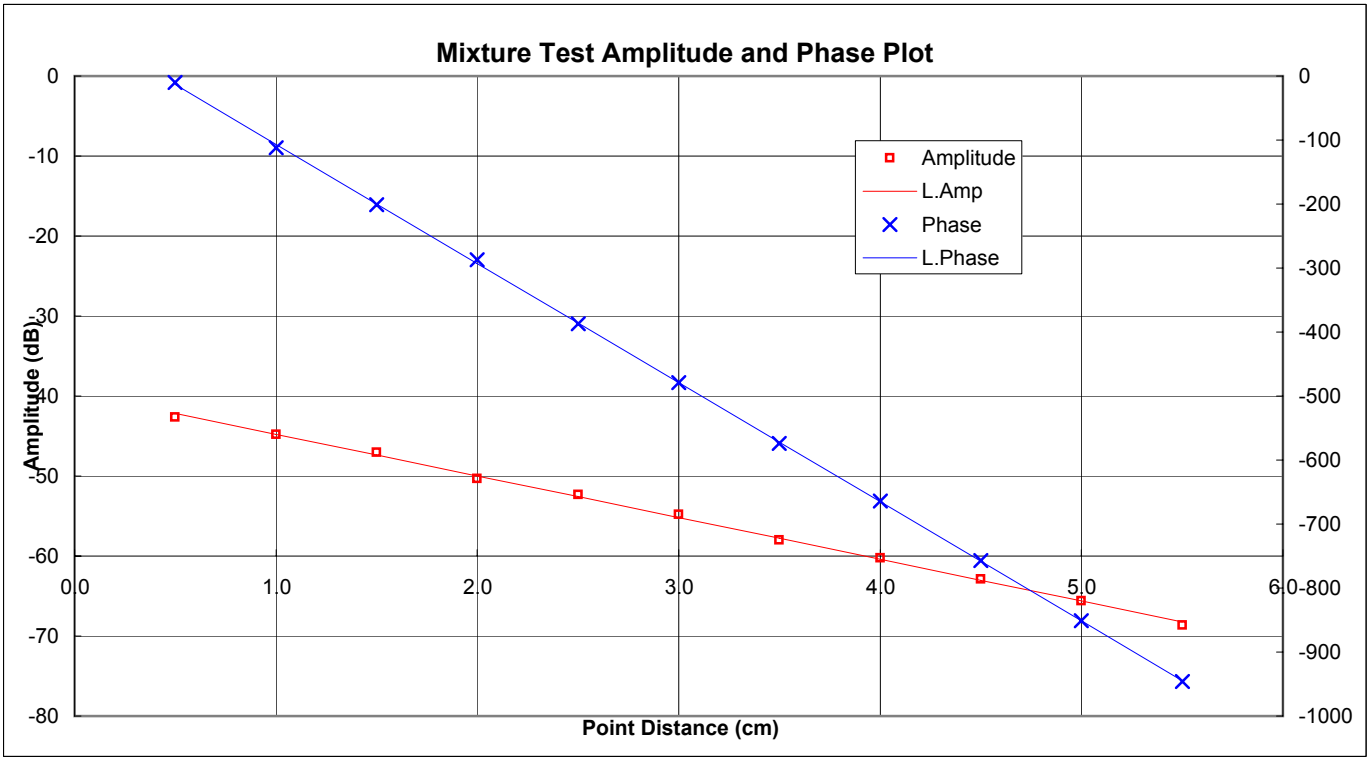
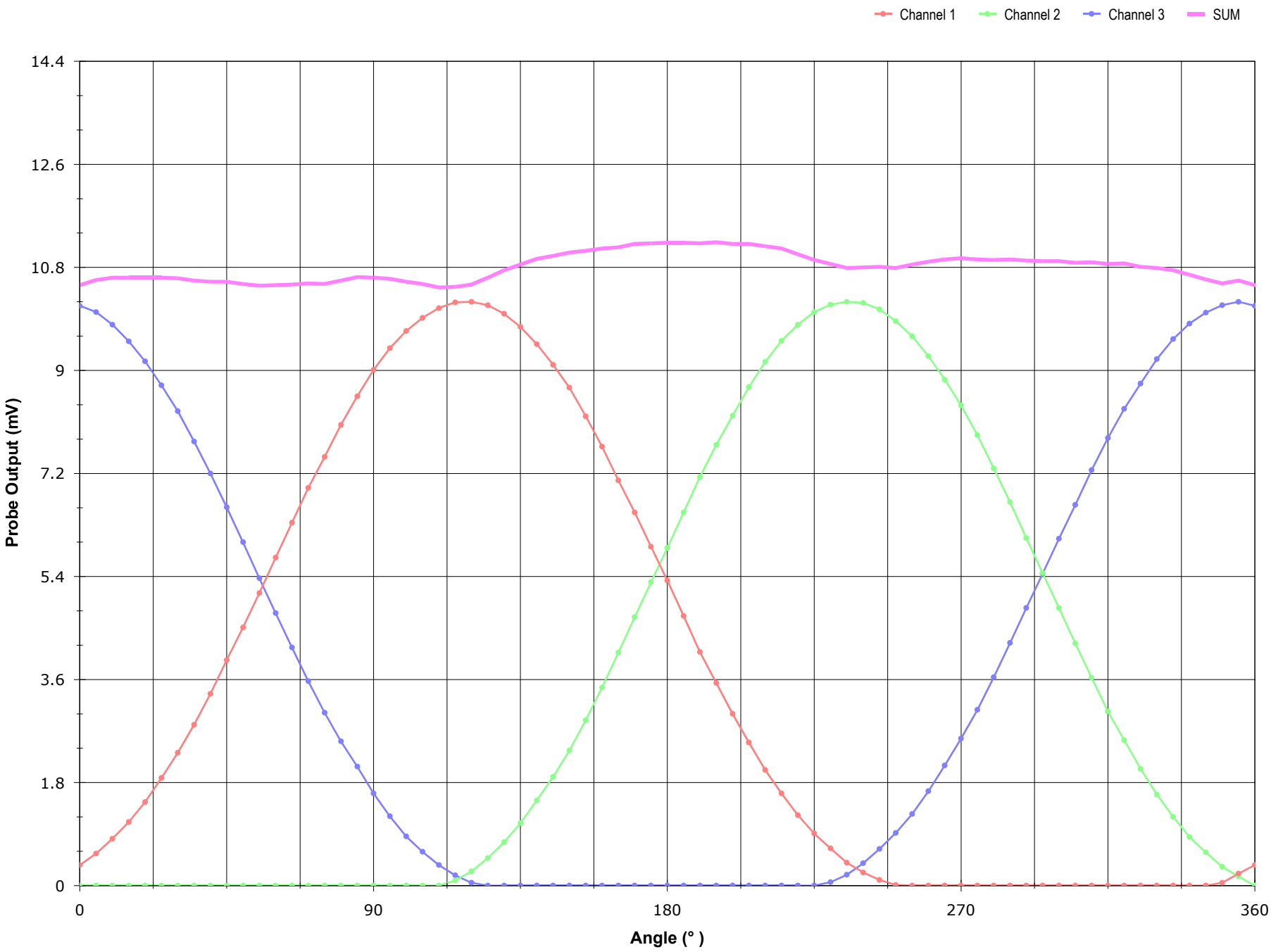


EXHIBIT 10. PROBE CALIBRATION FREE SPACE

Probe Name : UT-ETR-0200-1
Type : E-field (Triangular beam), Offset(mm) : 2.25
Frequency(MHz) : 2450
Amplifier Setting : 0.00447186, 0.00433385, 0.00535965
Calibrated Date : 24/10/2001 3:19:02 PM



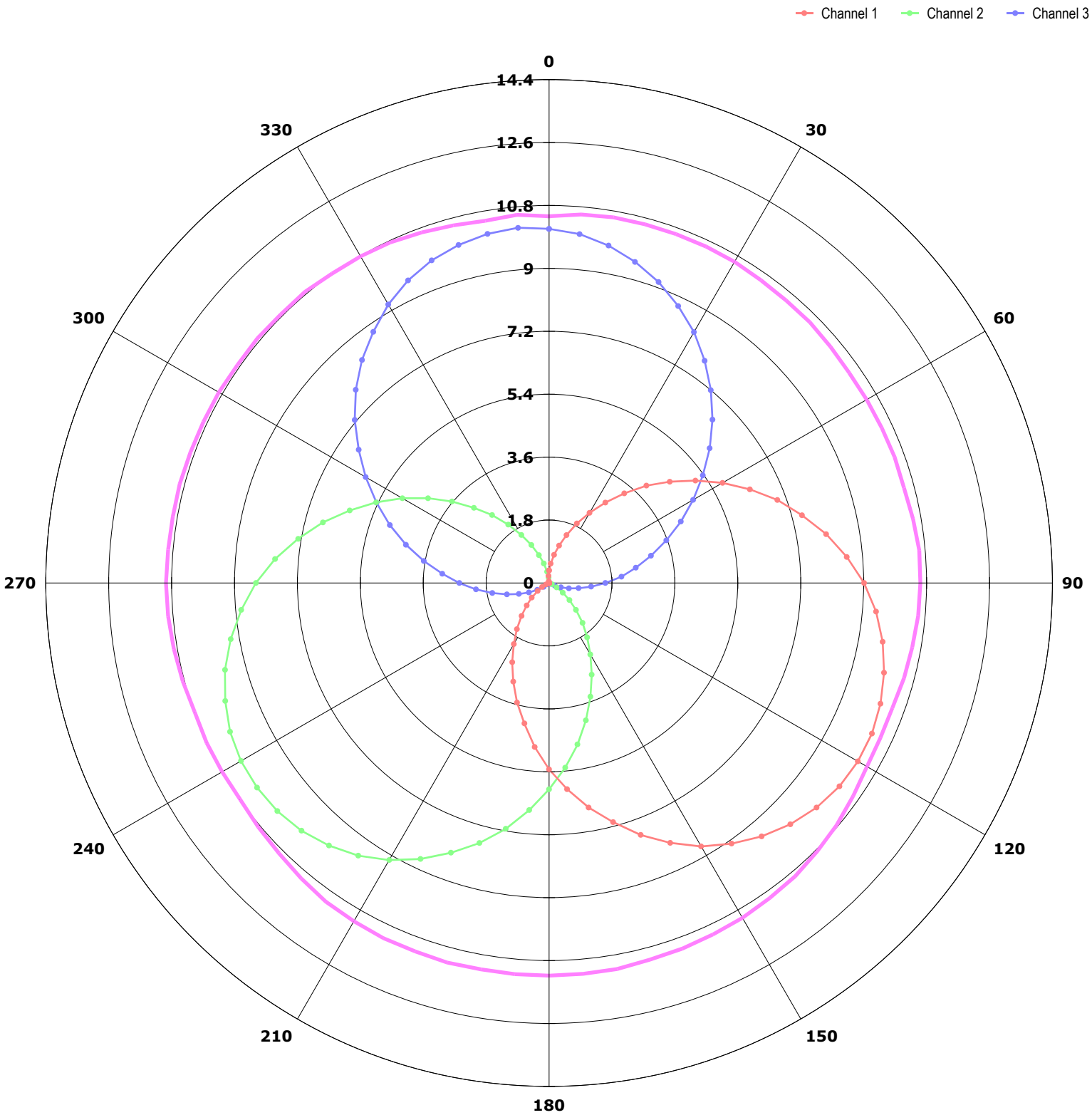
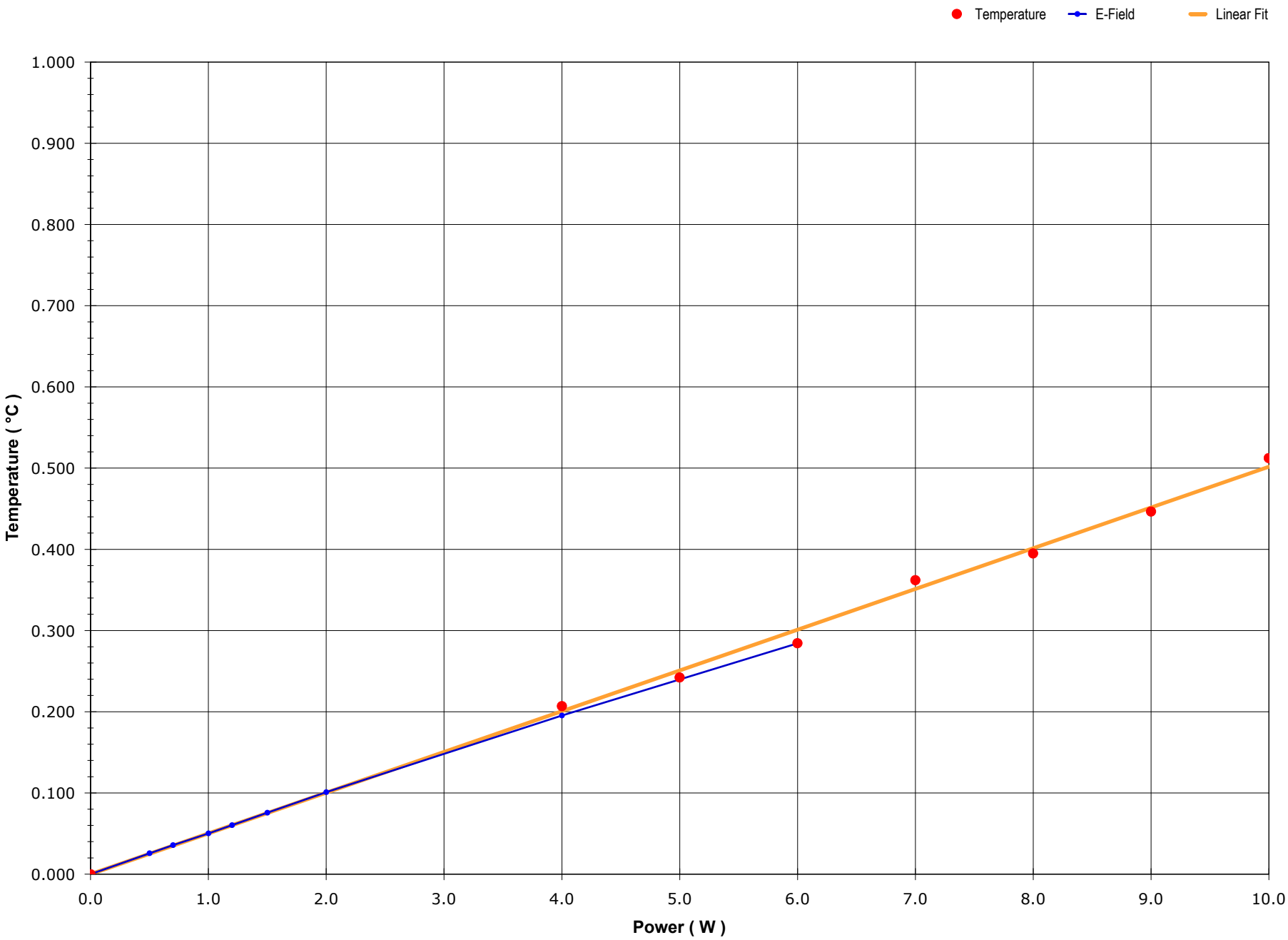

Channel 1
Channel 2
Channel 3
SUM
0
30
60
90
120
150
180
210
240
270
300
330
14.4
12.6
10.8
9
7.2
5.4
3.6
1.8
0

EXHIBIT 11. PROBE TEMPERATURE TRANSFER CALIBRATION FOR BODY TISSUE

Probe Name : UT-ETR-0200-1
Type : E-field (Triangular beam), Offset(mm) : 2.25
Frequency(MHz) : 2450, Conversion Factor : 3.4667
Simulated Tissue Type : Muscle
Dielectrical Const. : 49.99, Conductivity : 2.30
Temperature - Simulated Tissue : 22.9°C, Room : 22.0°C
Calibrated Date : 29/06/2001 9:12:34 PM



E-Field & Diode Compensation

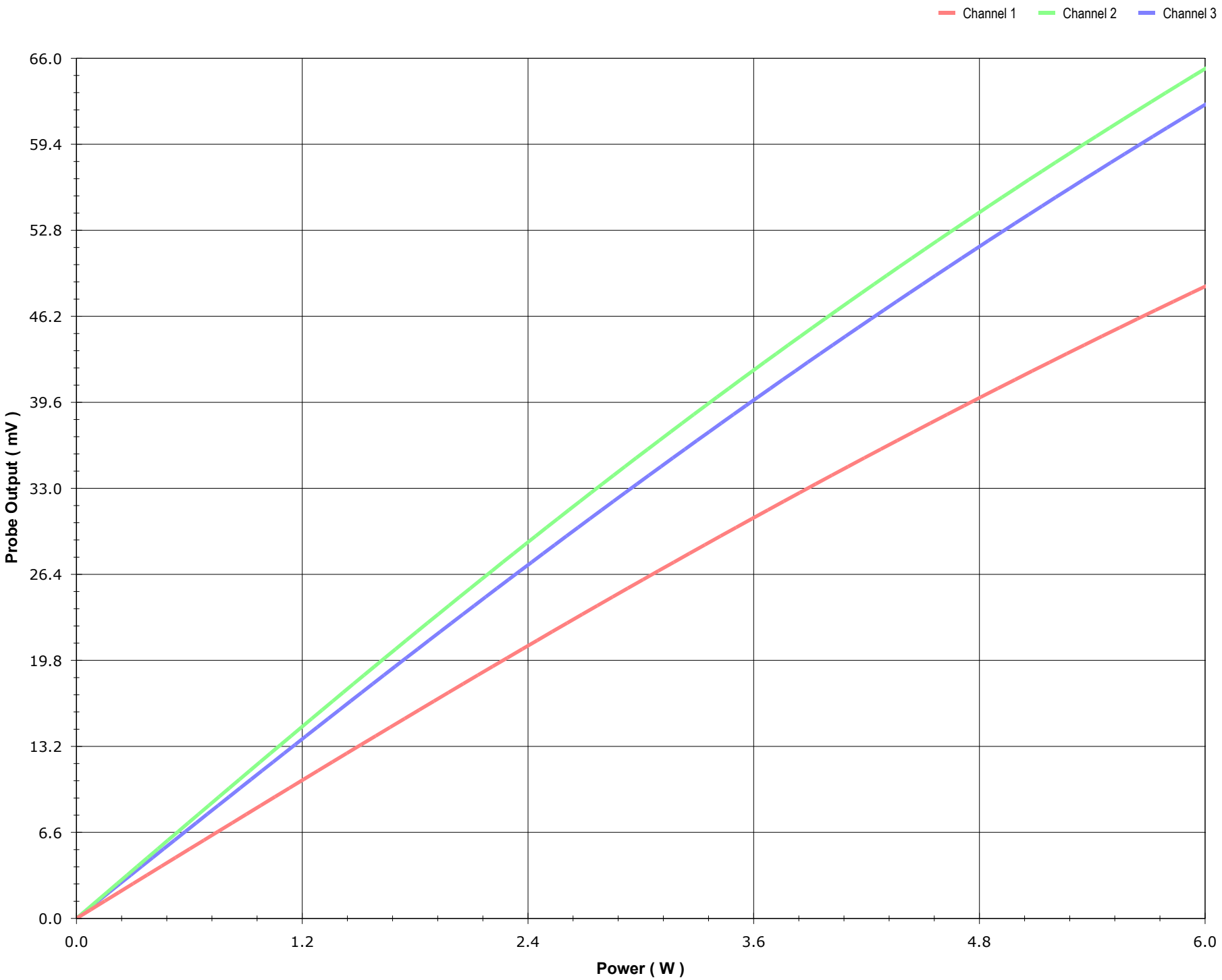
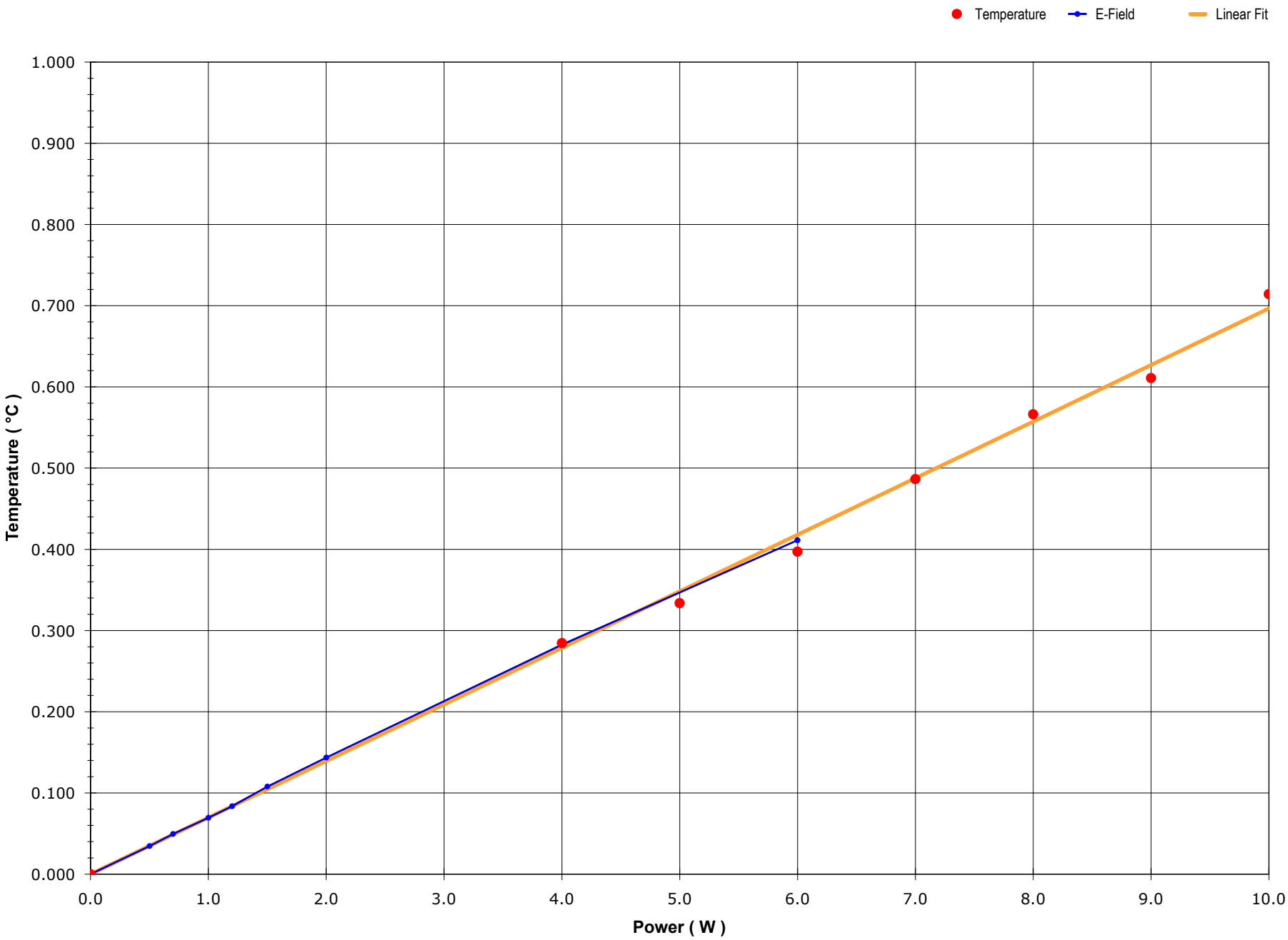


EXHIBIT 12. PROBE TEMPERATURE TRANSFER CALIBRATION FOR HEAD TISSUE

Probe Name : UT-ETR-0200-1
Type : E-field (Triangular beam), Offset(mm) : 2.25
Frequency(MHz) : 2450, Conversion Factor : 4.4824
Simulated Tissue Type : Brain
Dielectrical Const. : 38.7, Conductivity : 2.01
Temperature - Simulated Tissue : 21.0°C, Room : 22.5°C
Calibrated Date : 24/10/2001 7:17:05 PM



E-Field & Diode Compensation

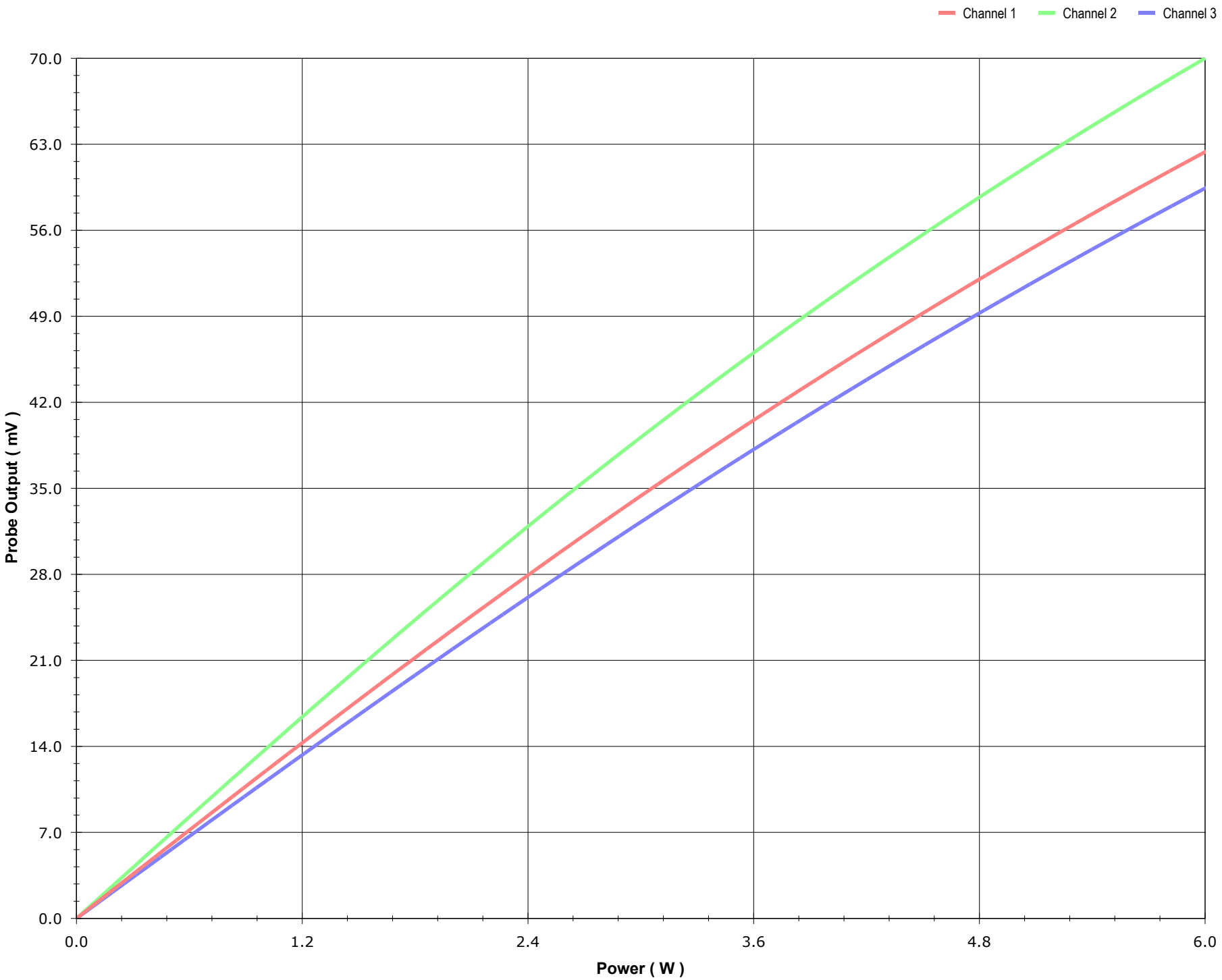
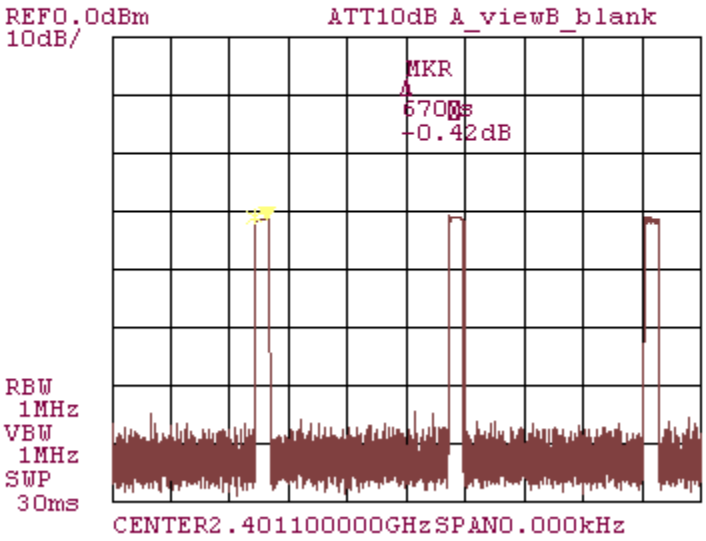


EXHIBIT 13. DUTY CYCLE



Duty Cycle = 670 µS / 9.7 mS * 100 ≈ 7 %