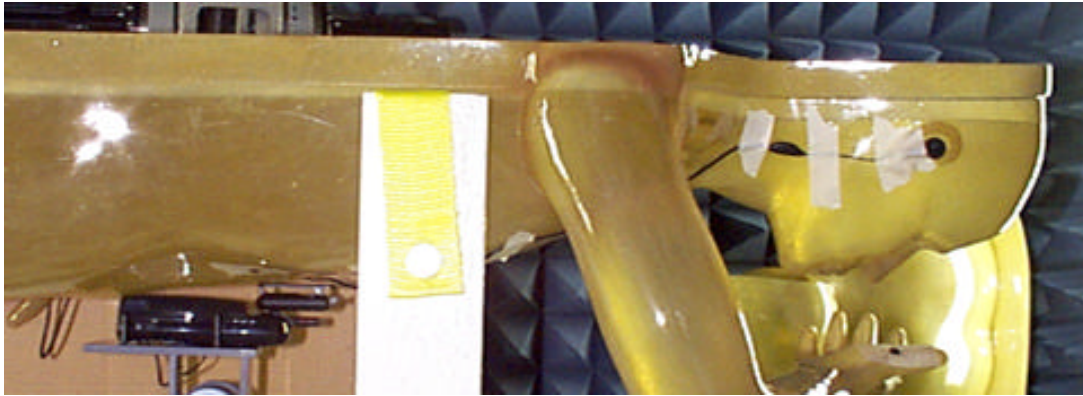


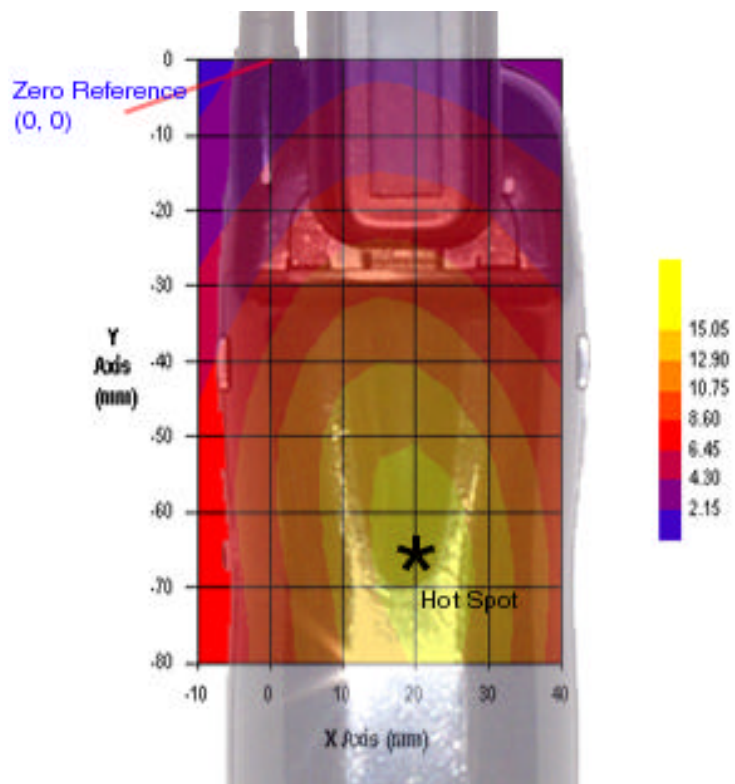
## Positioning of the radio

The surface of the radio is always in parallel with the phantom's shell and accessories (belt-clip and head-set) are equipped as shown below.

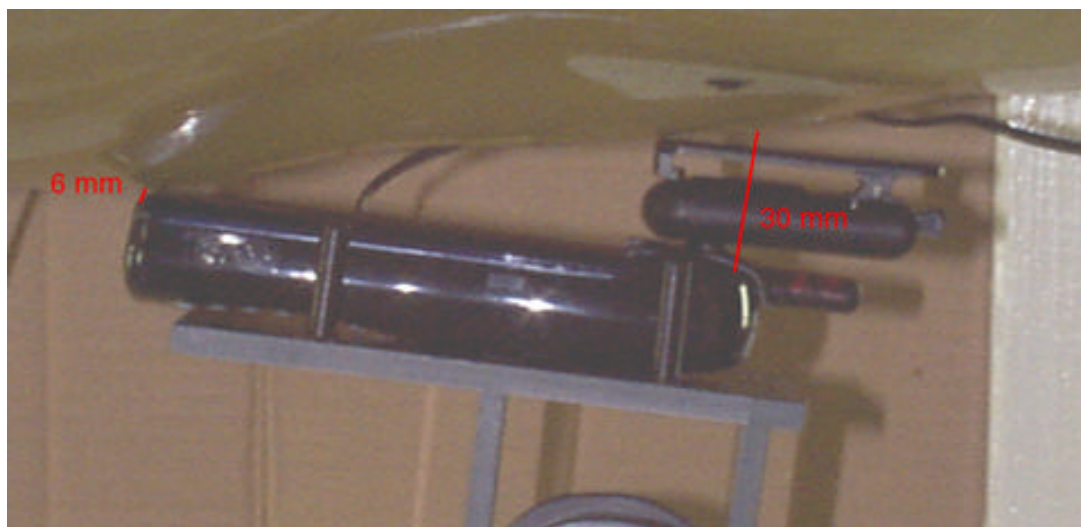


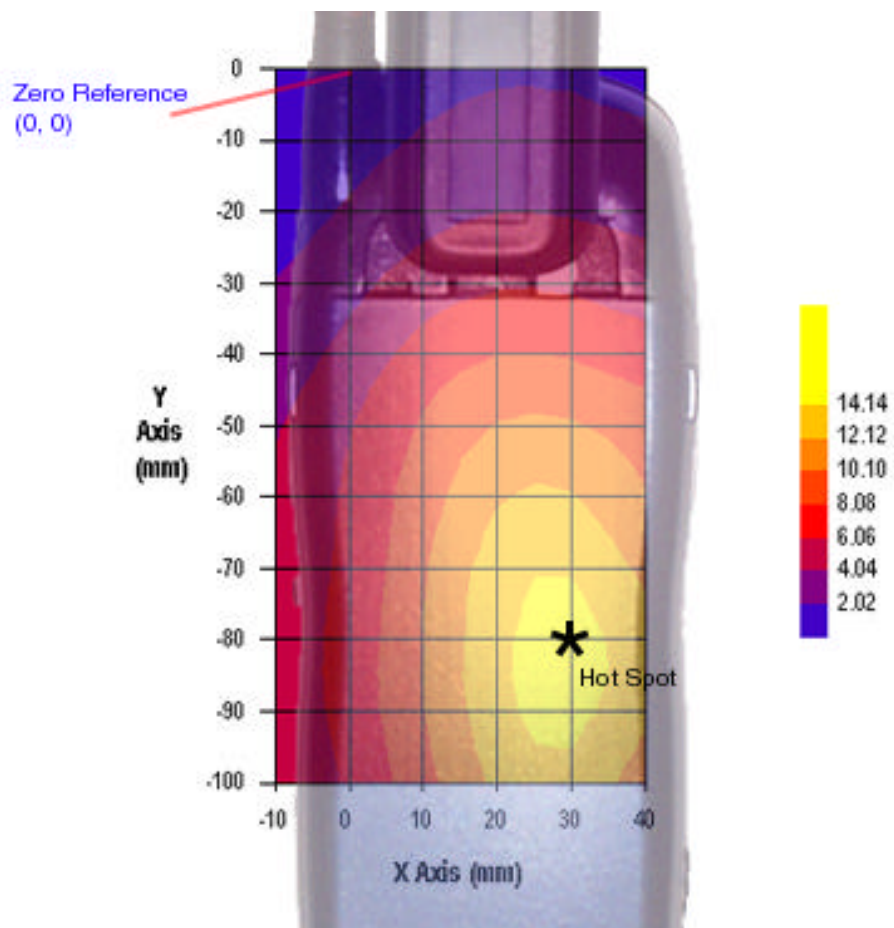
### - With High Capacity Battery





- With Low Capacity Battery





## **Index of the measurements**

The following results of measurement are ordered as listed below.

### **Radio with High capacity battery**

A800 mode

|                    |            |
|--------------------|------------|
| @ low frequency    | (SAR:1.00) |
| @ middle frequency | (0.97)     |
| @ high frequency   | (1.03)     |

D800 mode

|                    |        |
|--------------------|--------|
| @ low frequency    | (0.41) |
| @ middle frequency | (0.36) |
| @ high frequency   | (0.37) |

D1900 mode

|                    |        |
|--------------------|--------|
| @ low frequency    | (0.11) |
| @ middle frequency | (0.11) |
| @ high frequency   | (0.10) |

### **Radio with Low capacity battery**

A800 mode

|                  |        |
|------------------|--------|
| @ high frequency | (0.97) |
|------------------|--------|

### **Electrical characteristic of Simulated tissue**

Muscle tissue @ 835 MHz

Muscle tissue @ 1900 MHz

### Test Information

Date : 11/10/99  
Time : 11:36:22 AM

Product : Cellular Phone  
Manufacturer : Mitsubishi  
Model Number : MT-254  
Serial Number : 00001  
FCC ID Number : BGBMT254XF06A

Test : SAR  
Frequency (MHz) : 825  
Nominal Output Power (W) : 0.6  
Antenna Type : 1/4 Wave  
Signal : CW

Phantom : Waist  
Simulated Tissue : Muscle

Dielectric Constant : 49.1  
Conductivity : 1.15

Probe : E  
Probe Offset (mm) : 3.0  
Sensor Factor (mV) : 10.8  
Conversion Factor : 0.72  
Calibrated Date : 3/24/99

Antenna Position : FIX  
Measured Power (W) : 0.378  
(conducted)  
Cable Insertion Loss (dB) : 0.6  
Compensated Power (W) : 0.434

#### **Amplifier Setting :**

Channel 1 : 0.0045      Channel 2 : 0.0039      Channel 3 : 0.0031

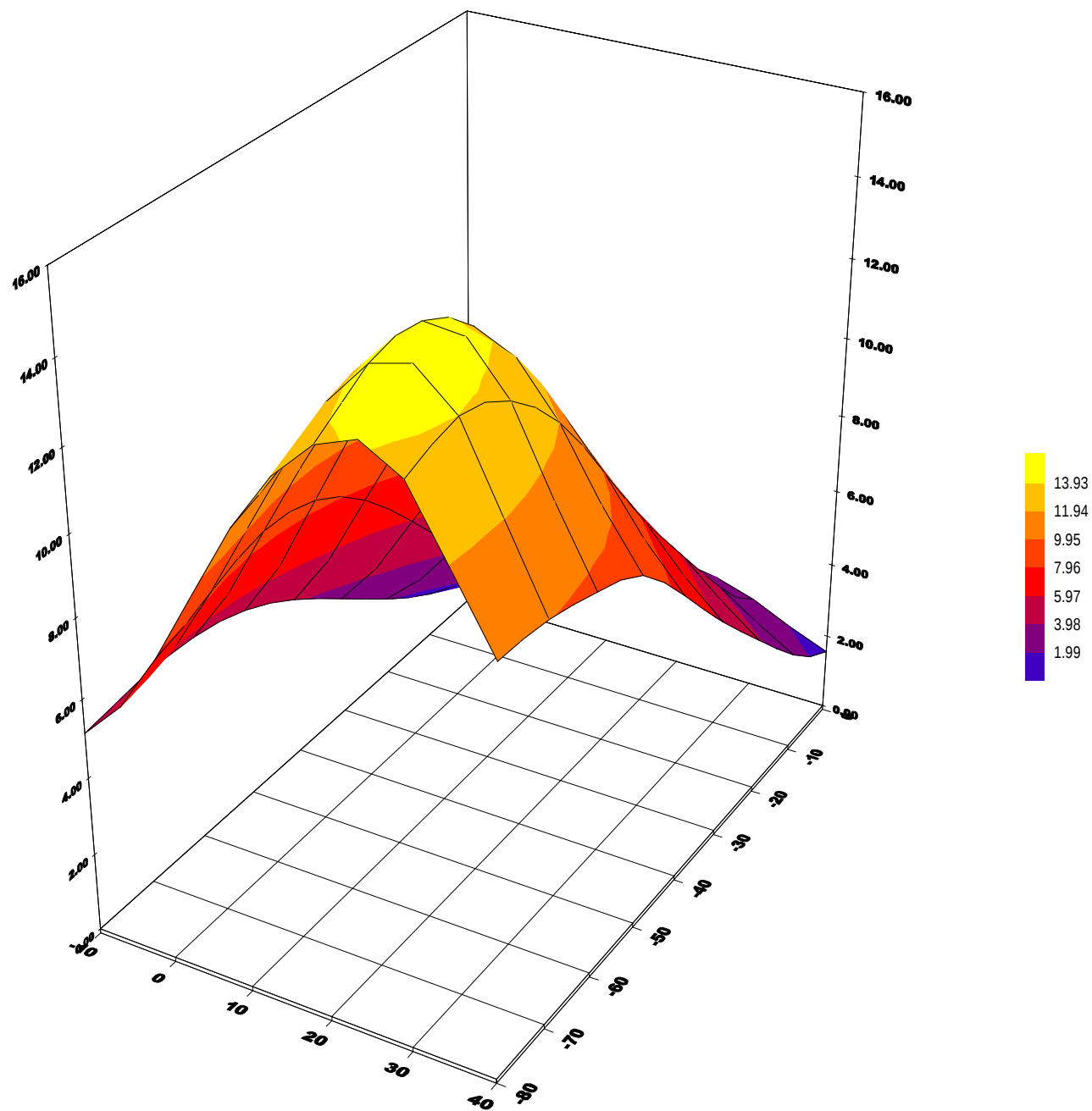
#### **Location of Maximum Field :**

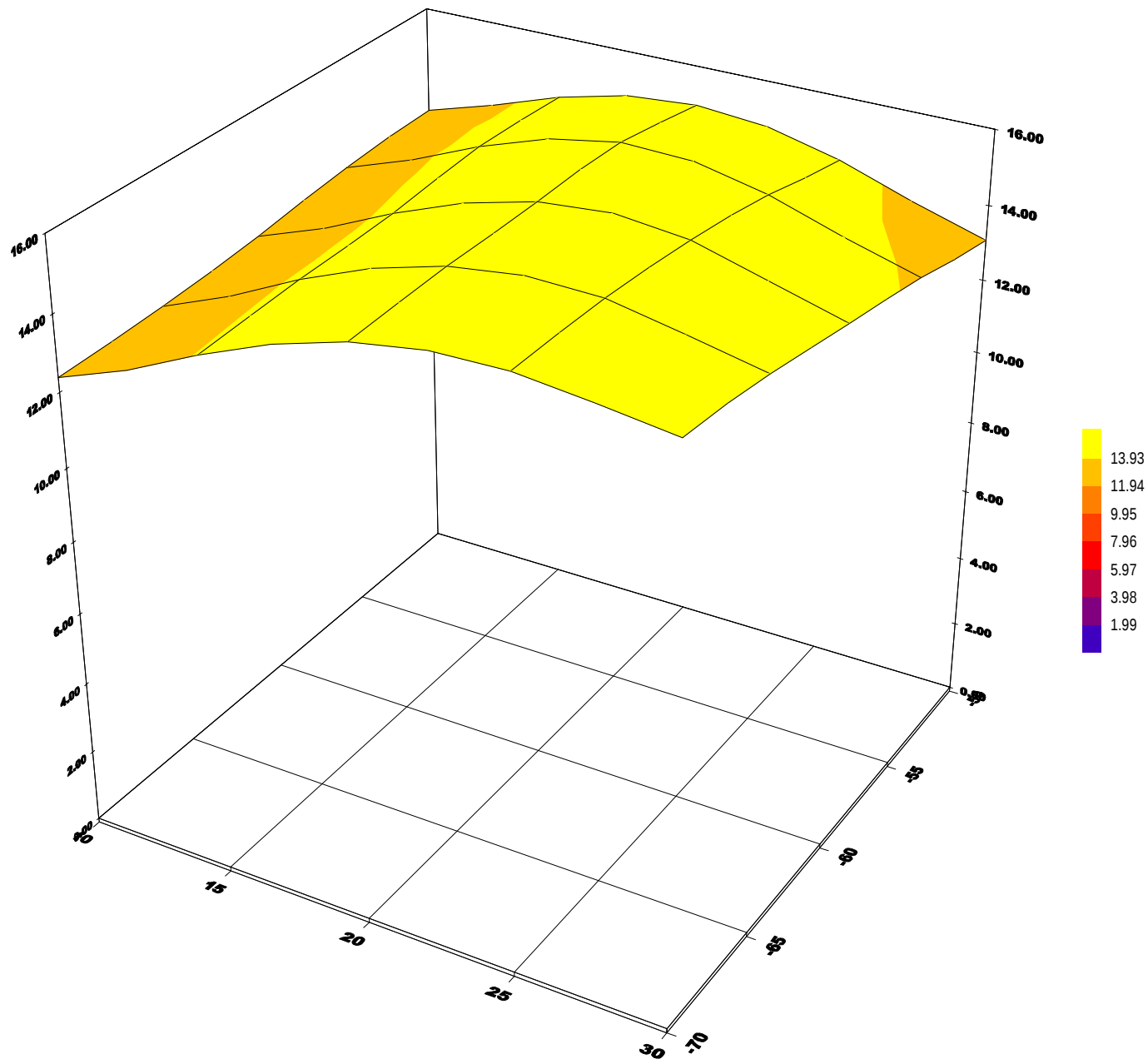
X = 25      Y = -65

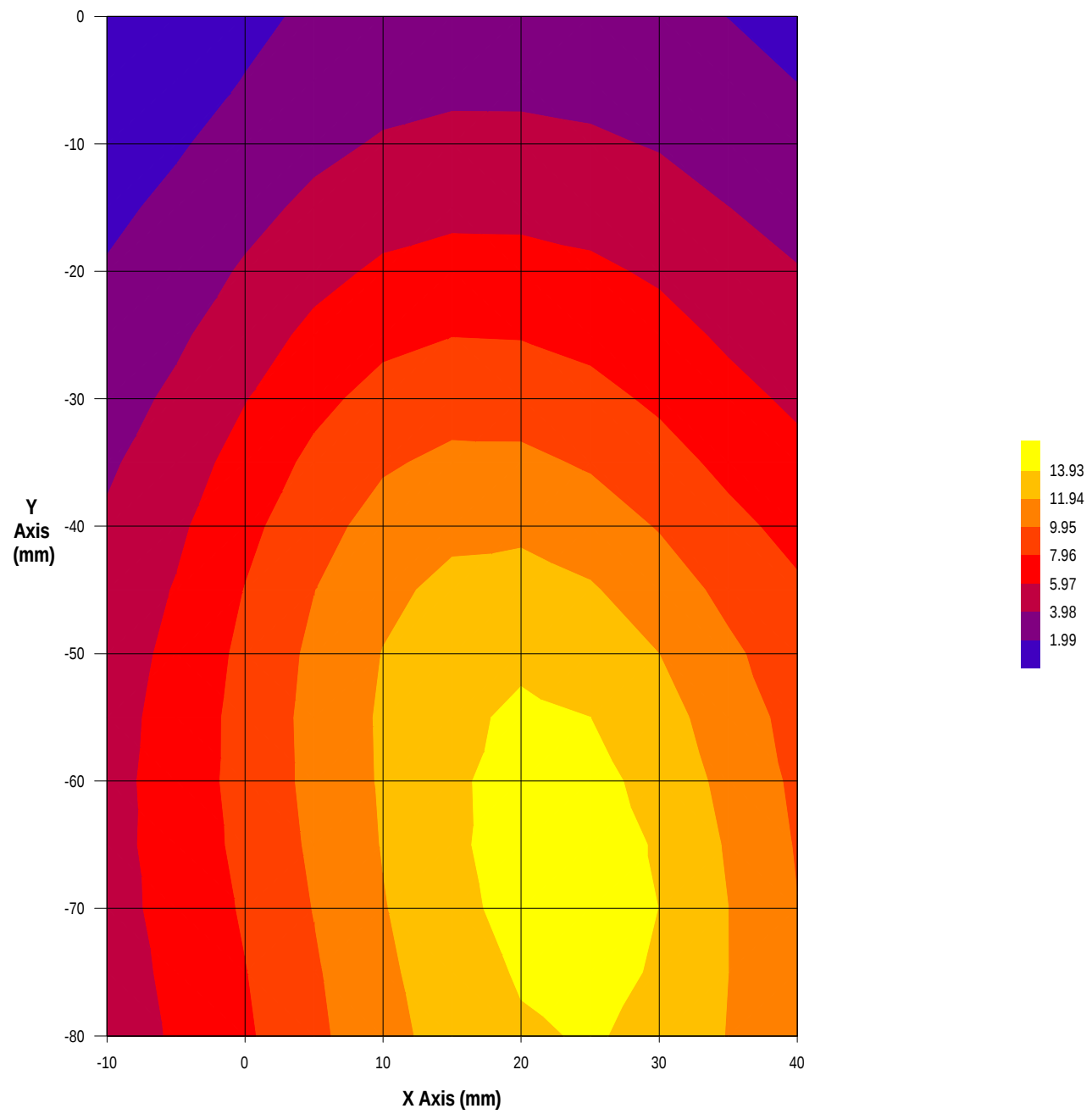
#### **Measured Values (mV) :**

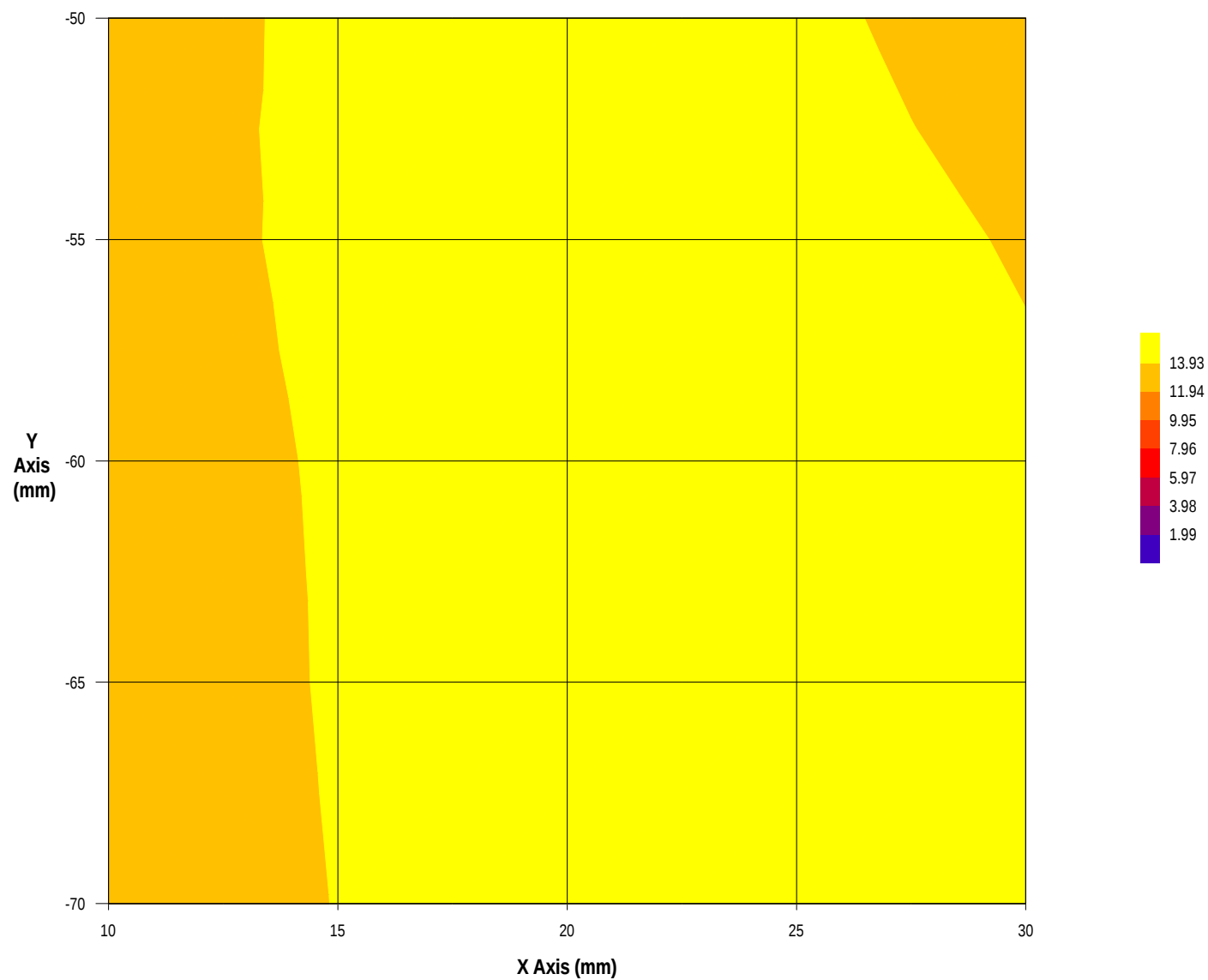
|       |       |      |      |      |      |
|-------|-------|------|------|------|------|
| 16.40 | 10.41 | 6.92 | 4.56 | 2.85 | 1.68 |
| 1.13  | 0.71  | 0.40 | 0.18 | 0.03 |      |

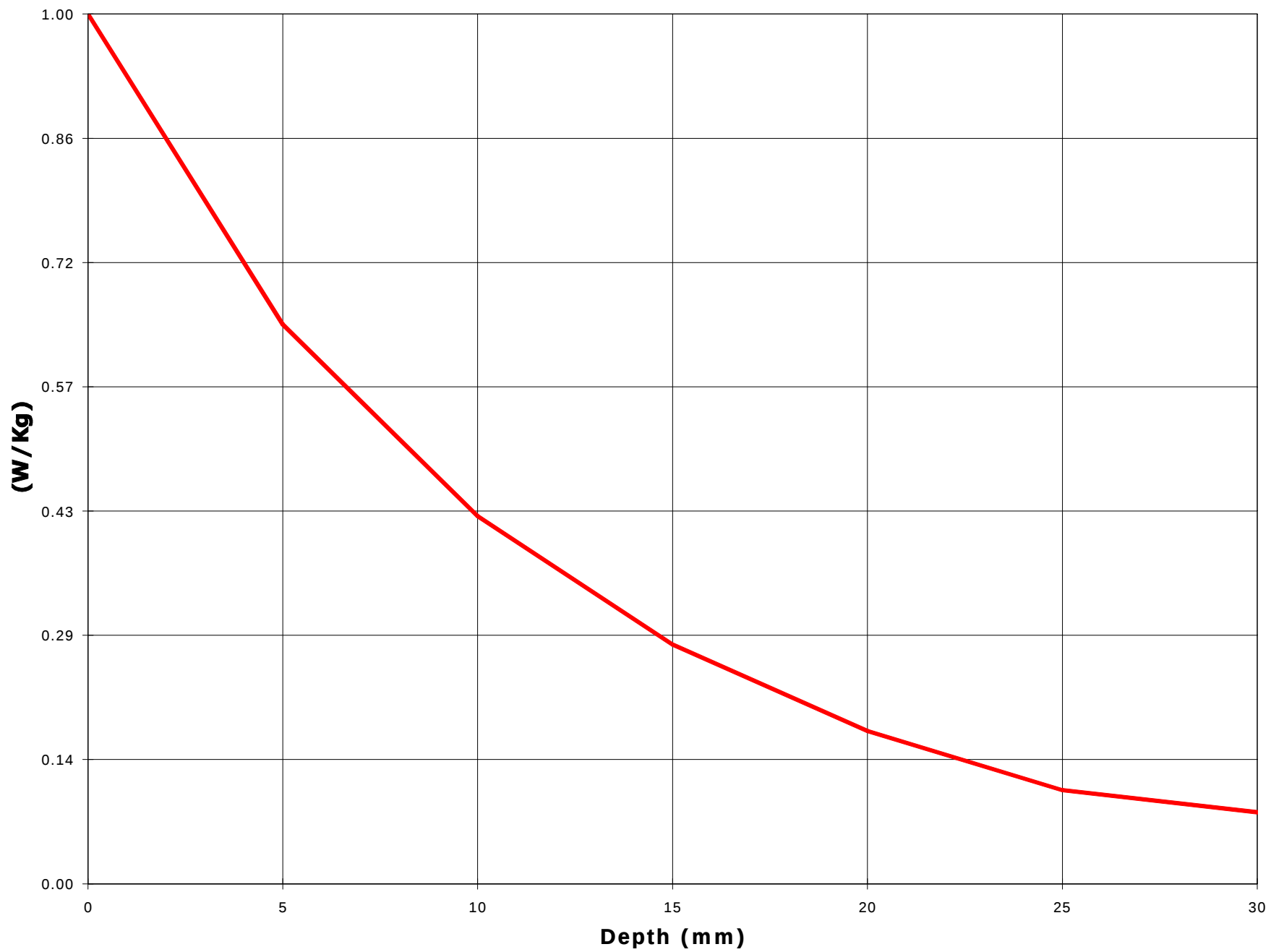
Peak Voltage (mV) : 21.24      1 Cm Voltage (mV) : 9.03      SAR (W/Kg) : 1.00











### Test Information

Date : 11/10/99

Time : 12:47:01 PM

Product : Cellular Phone  
Manufacturer : Mitsubishi  
Model Number : MT-254  
Serial Number : 00001  
FCC ID Number : BGBMT254XF06A

Test : SAR  
Frequency (MHz) : 836  
Nominal Output Power (W) : 0.6  
Antenna Type : 1/4 Wave  
Signal : CW

Phantom : Waist  
Simulated Tissue : Muscle

Dielectric Constant : 49.1  
Conductivity : 1.15

Probe : E  
Probe Offset (mm) : 3.0  
Sensor Factor (mV) : 10.8  
Conversion Factor : 0.72  
Calibrated Date : 3/24/99

Antenna Position : FIX  
Measured Power (W) : 0.370  
(conducted)  
Cable Insertion Loss (dB) : 0.6  
Compensated Power (W) : 0.425

#### Amplifier Setting :

Channel 1 : 0.0045

Channel 2 : 0.0039

Channel 3 : 0.0031

#### Location of Maximum Field :

X = 20

Y = -60

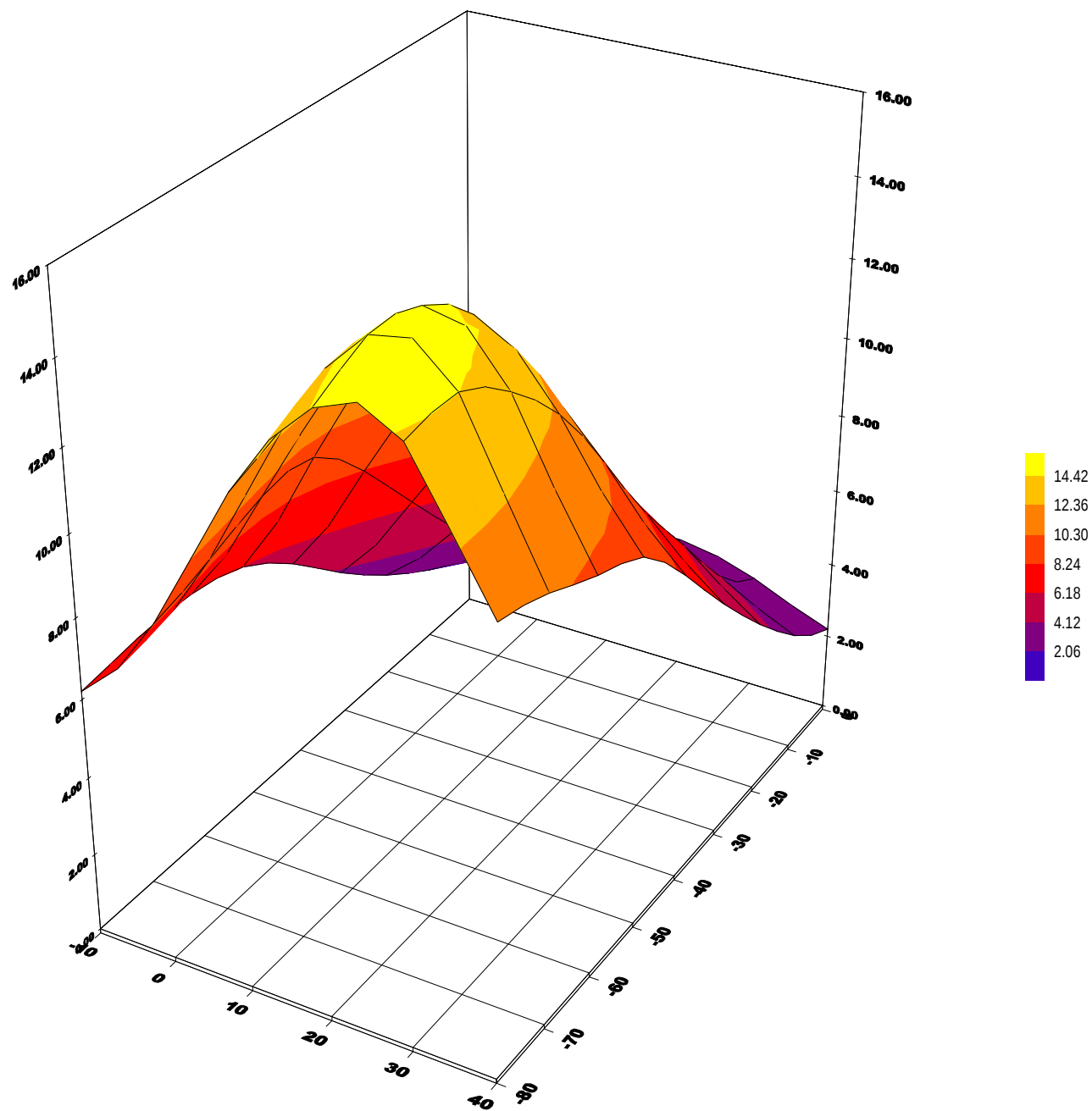
#### Measured Values (mV) :

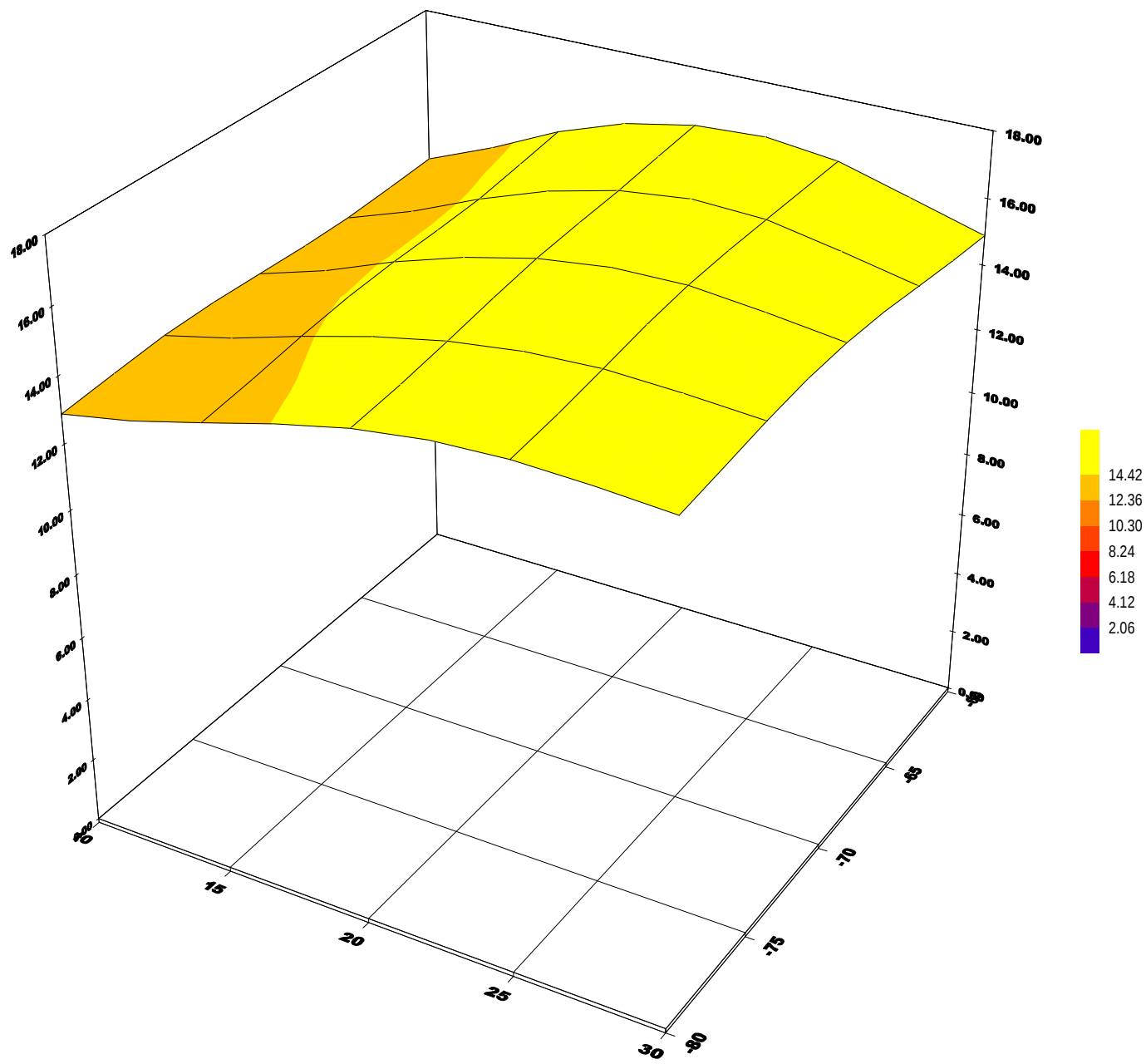
|       |       |      |      |      |      |
|-------|-------|------|------|------|------|
| 16.09 | 10.63 | 7.39 | 5.21 | 3.67 | 2.53 |
| 1.70  | 1.08  | 0.62 | 0.29 | 0.07 |      |

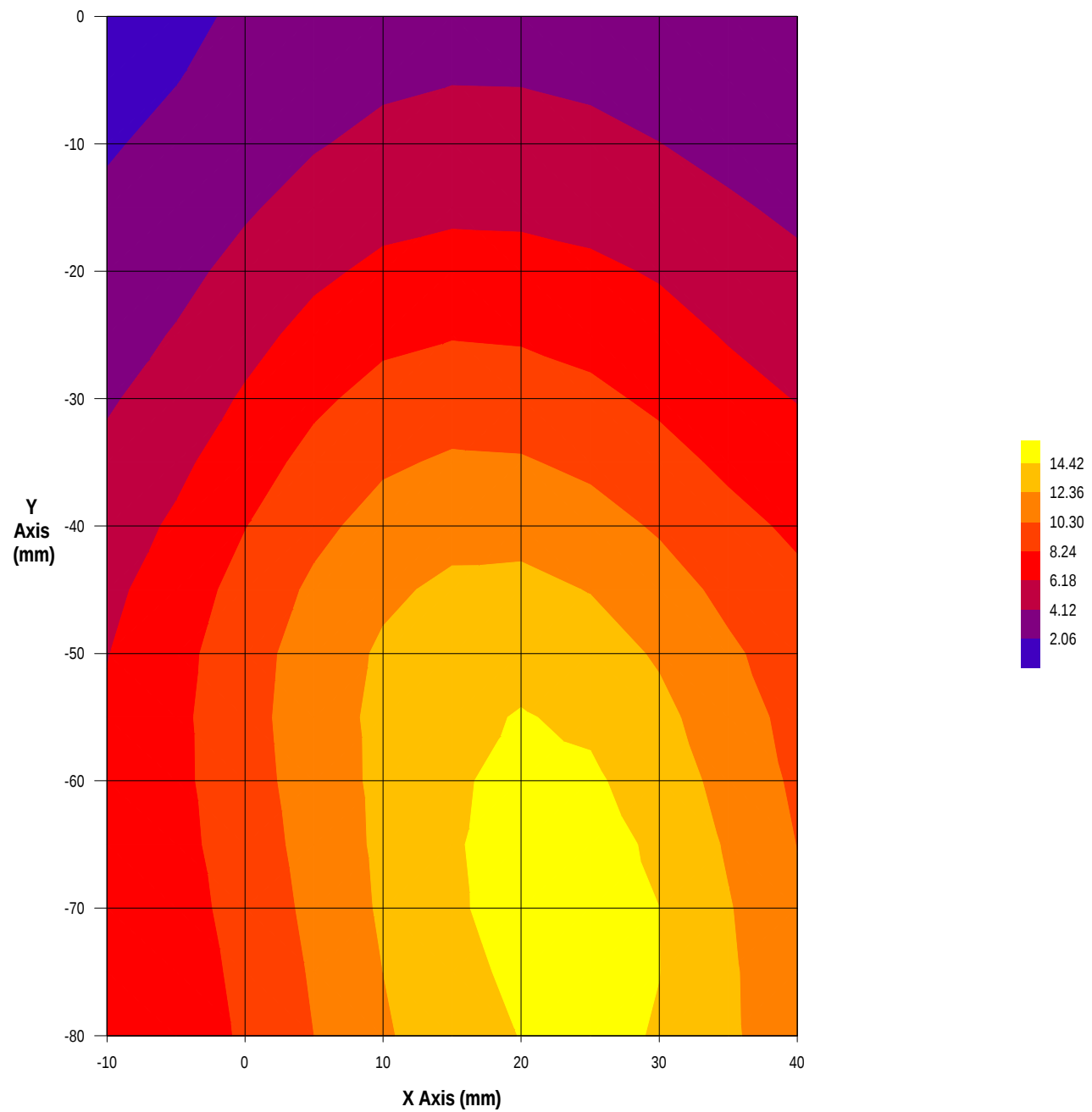
Peak Voltage (mV) : 20.33

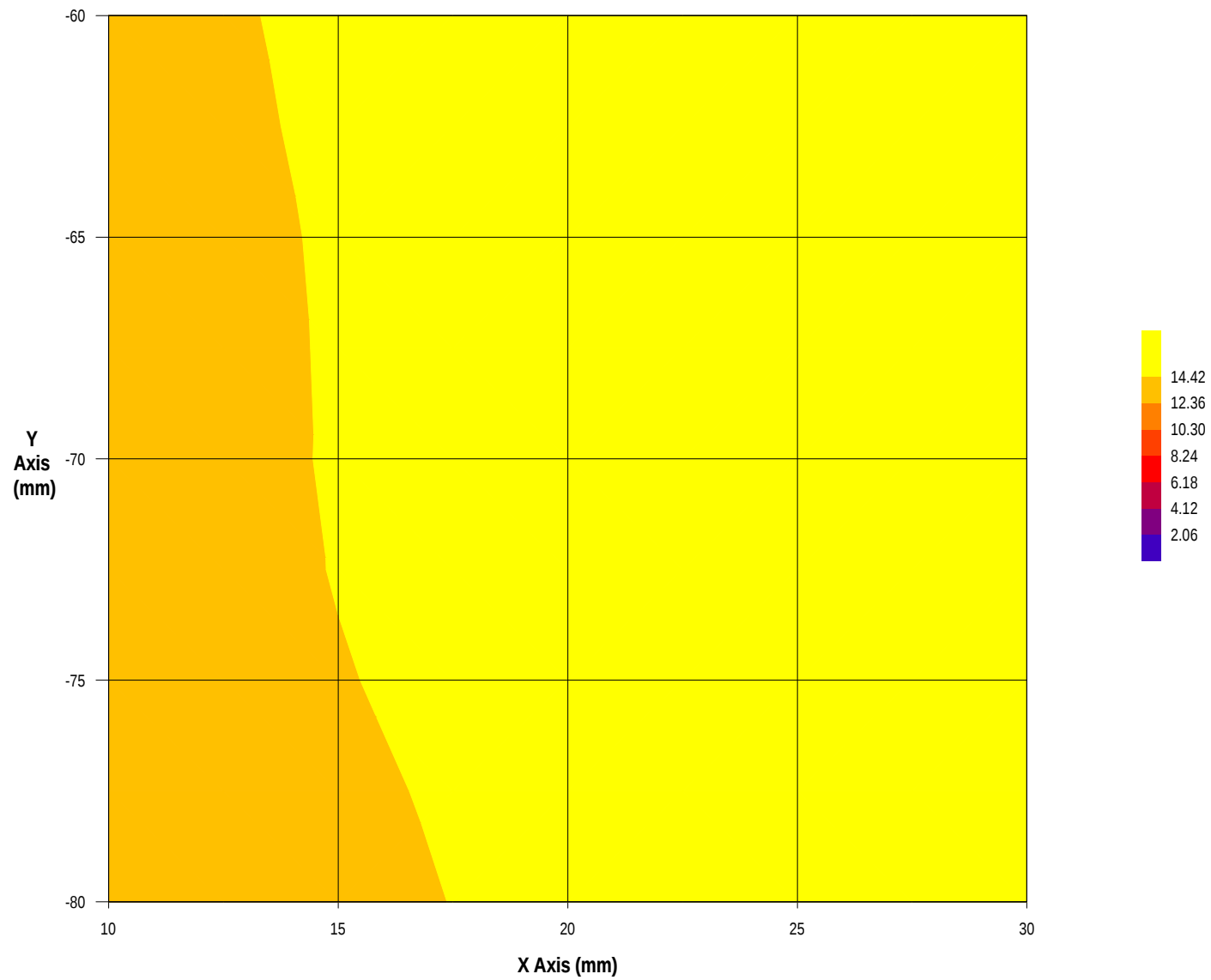
1 Cm Voltage (mV) : 9.12

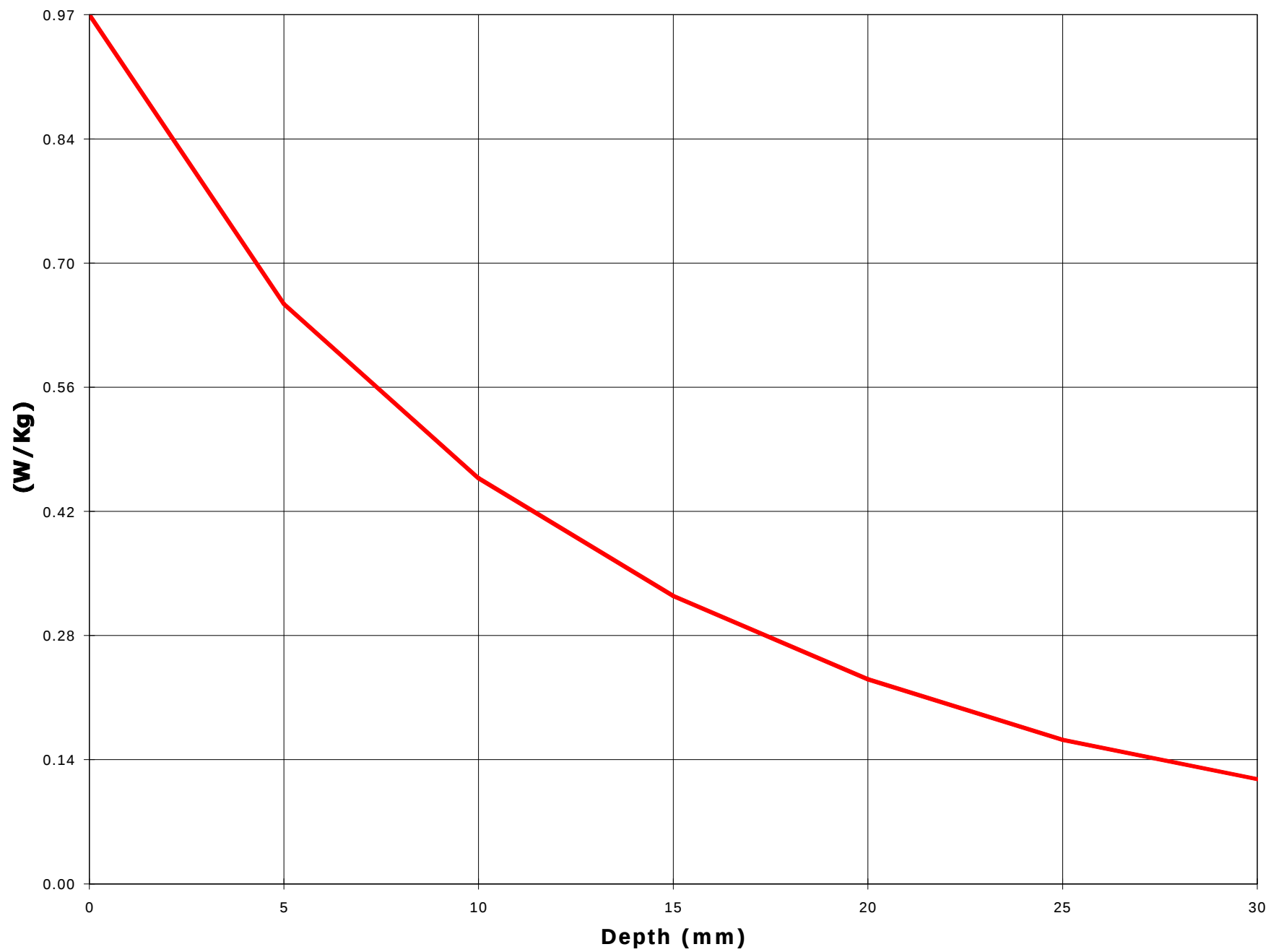
SAR (W/Kg) : 0.97











### Test Information

Date : 11/10/99  
Time : 1:36:47 PM

Product : Cellular Phone  
Manufacturer : Mitsubishi  
Model Number : MT-254  
Serial Number : 00001  
FCC ID Number : BGBMT254XF06A

Test : SAR  
Frequency (MHz) : 849  
Nominal Output Power (W) : 0.6  
Antenna Type : 1/4 Wave  
Signal : CW

Phantom : Waist  
Simulated Tissue : Muscle

Dielectric Constant : 49.1  
Conductivity : 1.15

Probe : E  
Probe Offset (mm) : 3.0  
Sensor Factor (mV) : 10.8  
Conversion Factor : 0.72  
Calibrated Date : 3/24/99

Antenna Position : FIX  
Measured Power (W) : 0.377  
(conducted)  
Cable Insertion Loss (dB) : 0.6  
Compensated Power (W) : 0.433

#### **Amplifier Setting :**

Channel 1 : 0.0045      Channel 2 : 0.0039      Channel 3 : 0.0031

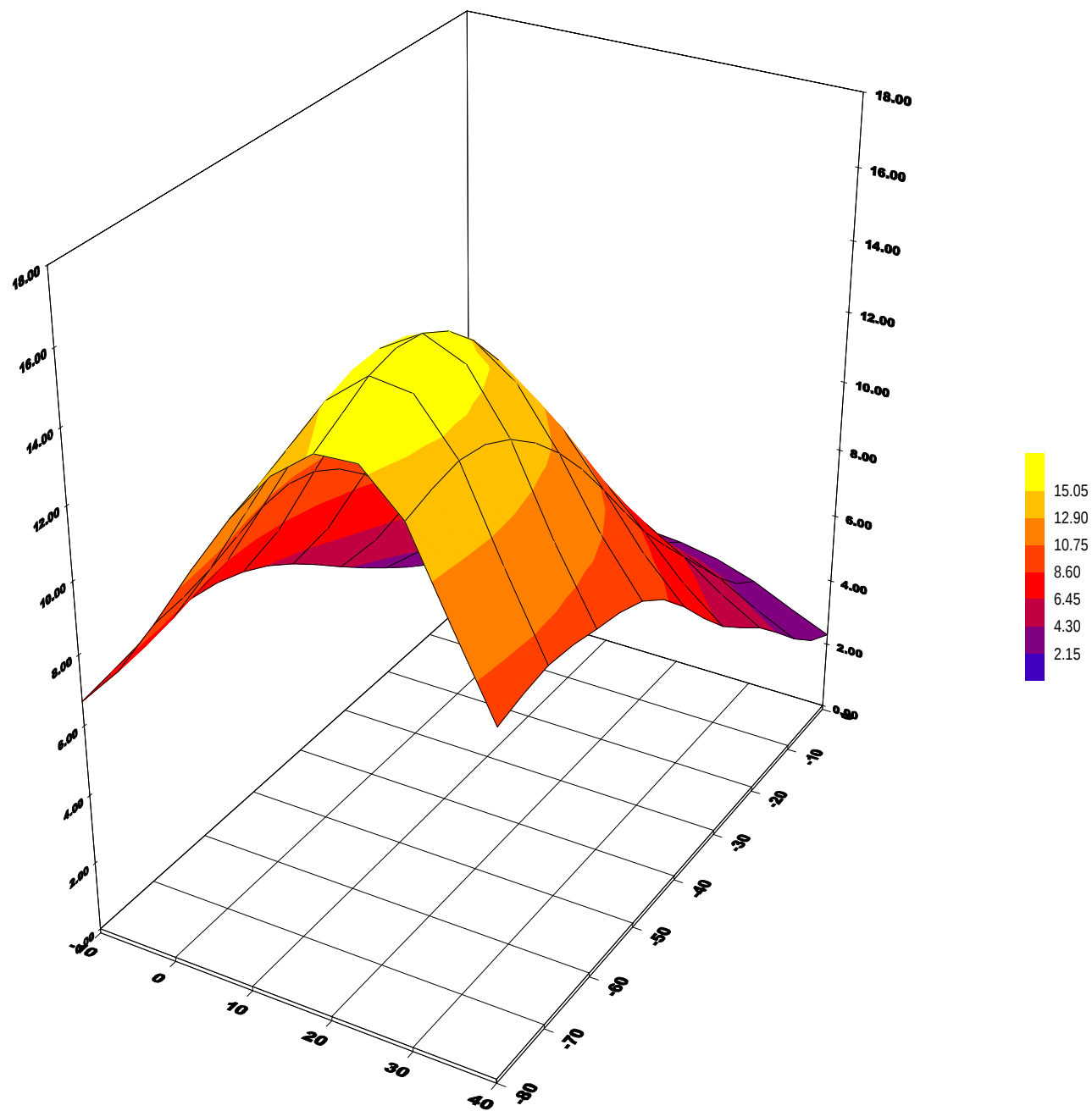
#### **Location of Maximum Field :**

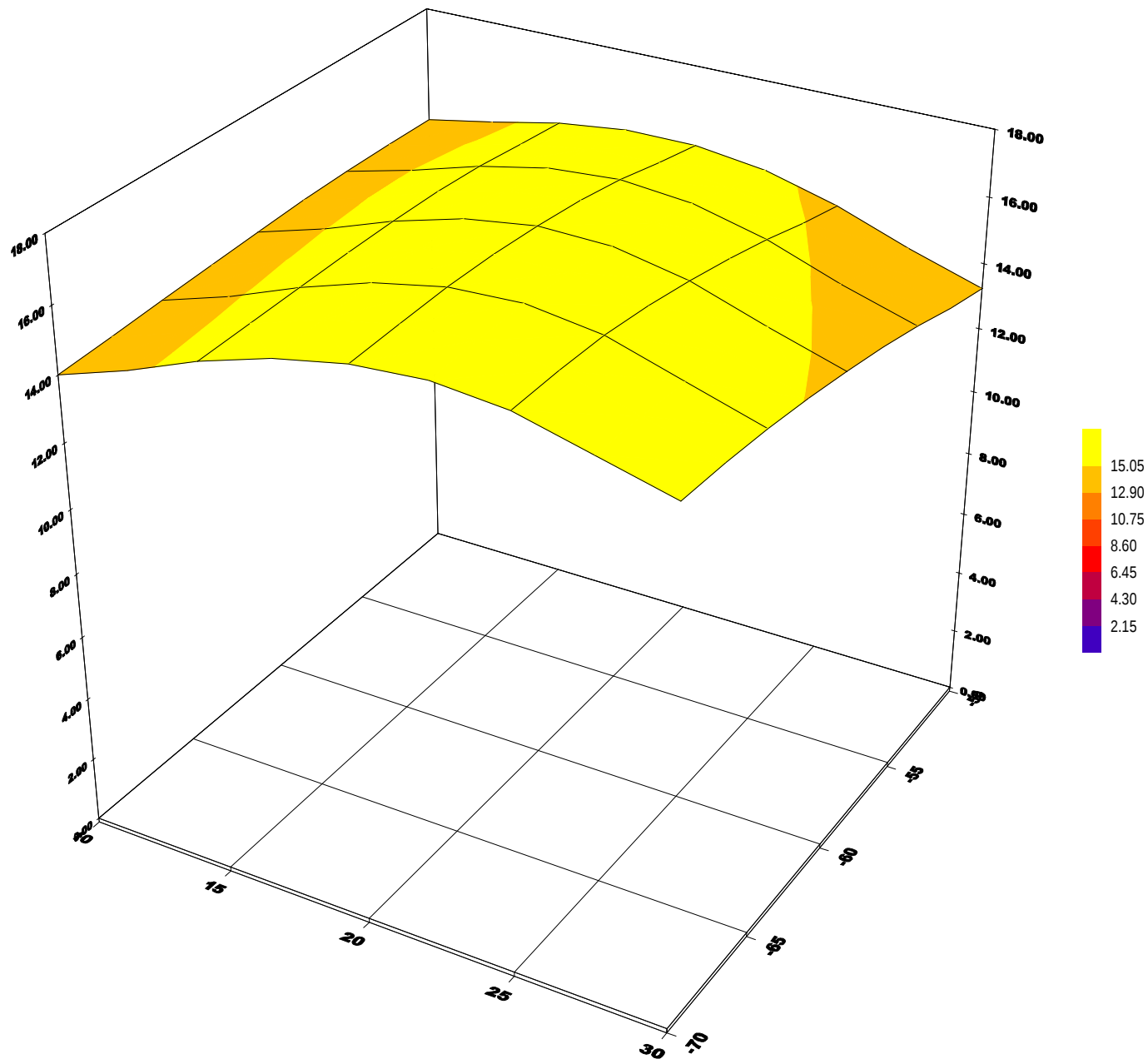
X = 20                      Y = -65

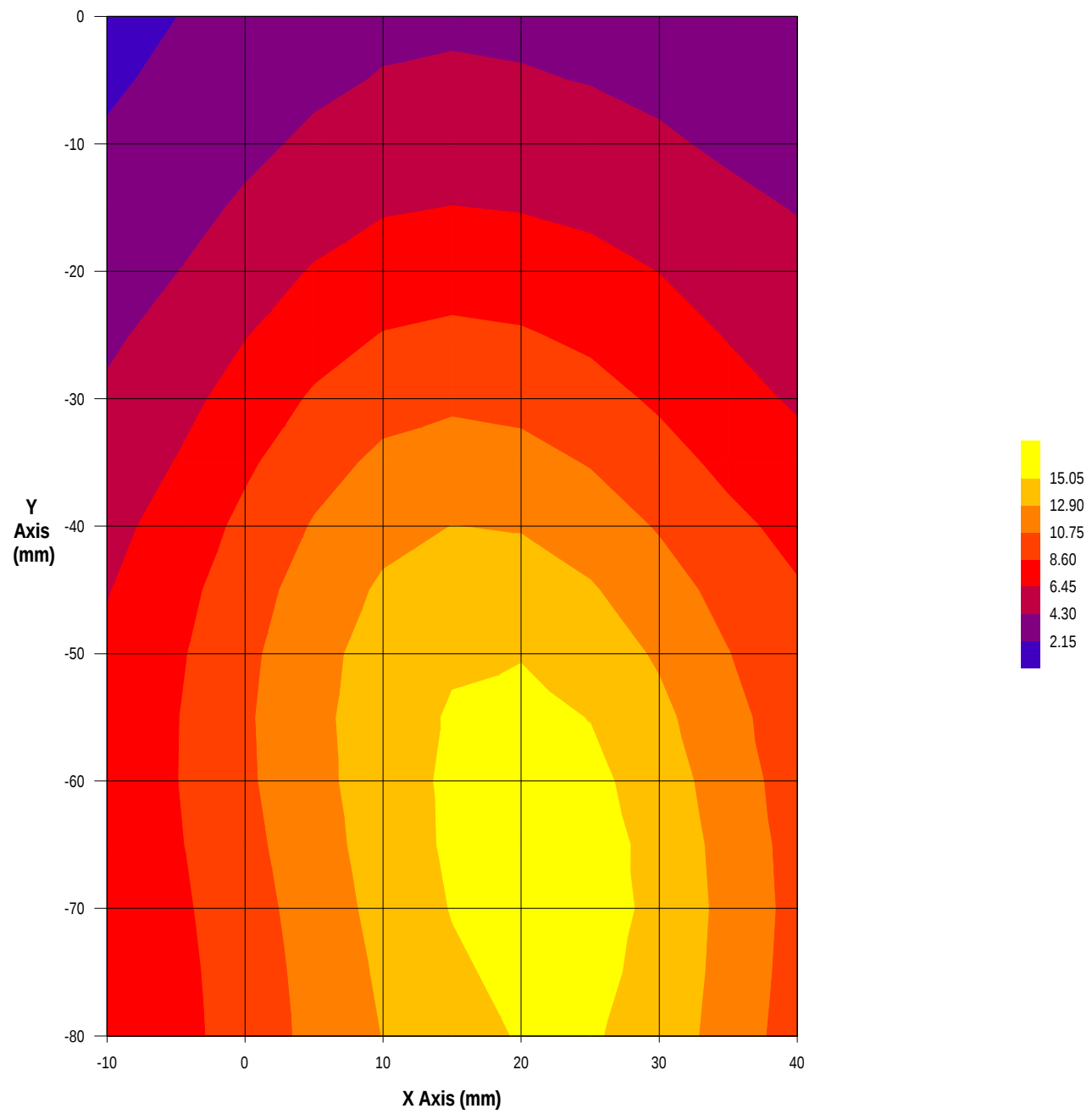
#### **Measured Values (mV) :**

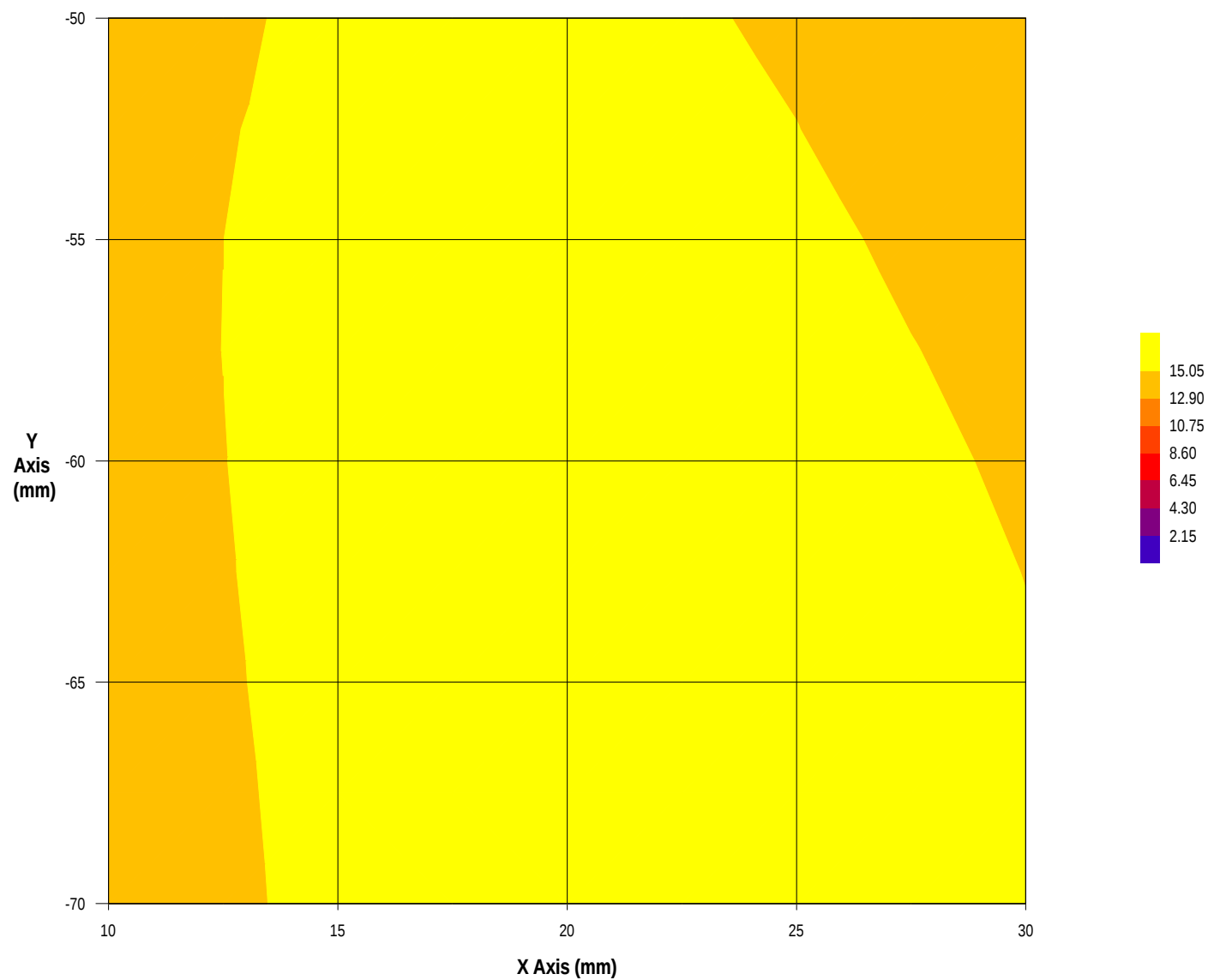
|       |       |      |      |      |      |
|-------|-------|------|------|------|------|
| 17.04 | 11.10 | 7.55 | 5.21 | 3.61 | 2.45 |
| 1.61  | 0.99  | 0.55 | 0.21 | 0.03 |      |

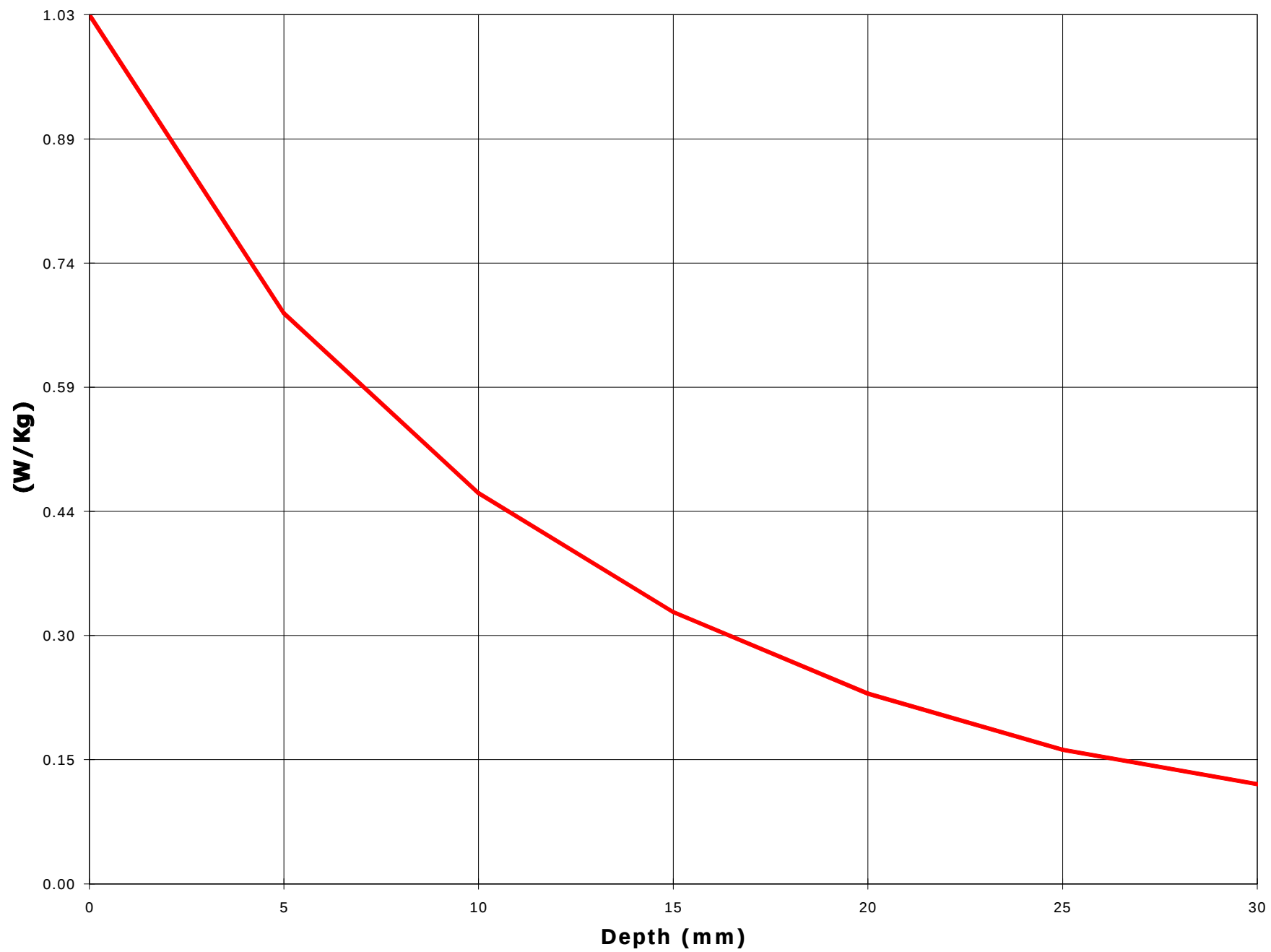
Peak Voltage (mV) : 21.76      1 Cm Voltage (mV) : 9.42      SAR (W/Kg) : 1.03











### Test Information

Date : 11/10/99  
Time : 2:12:38 PM

Product : Cellular Phone  
Manufacturer : Mitsubishi  
Model Number : MT-254  
Serial Number : 00001  
FCC ID Number : BGBMT254XF06A

Test : SAR  
Frequency (MHz) : 825  
Nominal Output Power (W) : 0.6  
Antenna Type : 1/4 Wave  
Signal : TDMA

Phantom : Waist  
Simulated Tissue : Muscle

Dielectric Constant : 49.1  
Conductivity : 1.15

Probe : E  
Probe Offset (mm) : 3.0  
Sensor Factor (mV) : 10.8  
Conversion Factor : 0.72  
Calibrated Date : 3/24/99

Antenna Position : FIX  
Measured Power (W) : 0.147  
(conducted)  
Cable Insertion Loss (dB) : 0.6  
Compensated Power (W) : 0.169

#### **Amplifier Setting :**

Channel 1 : 0.0045      Channel 2 : 0.0039      Channel 3 : 0.0031

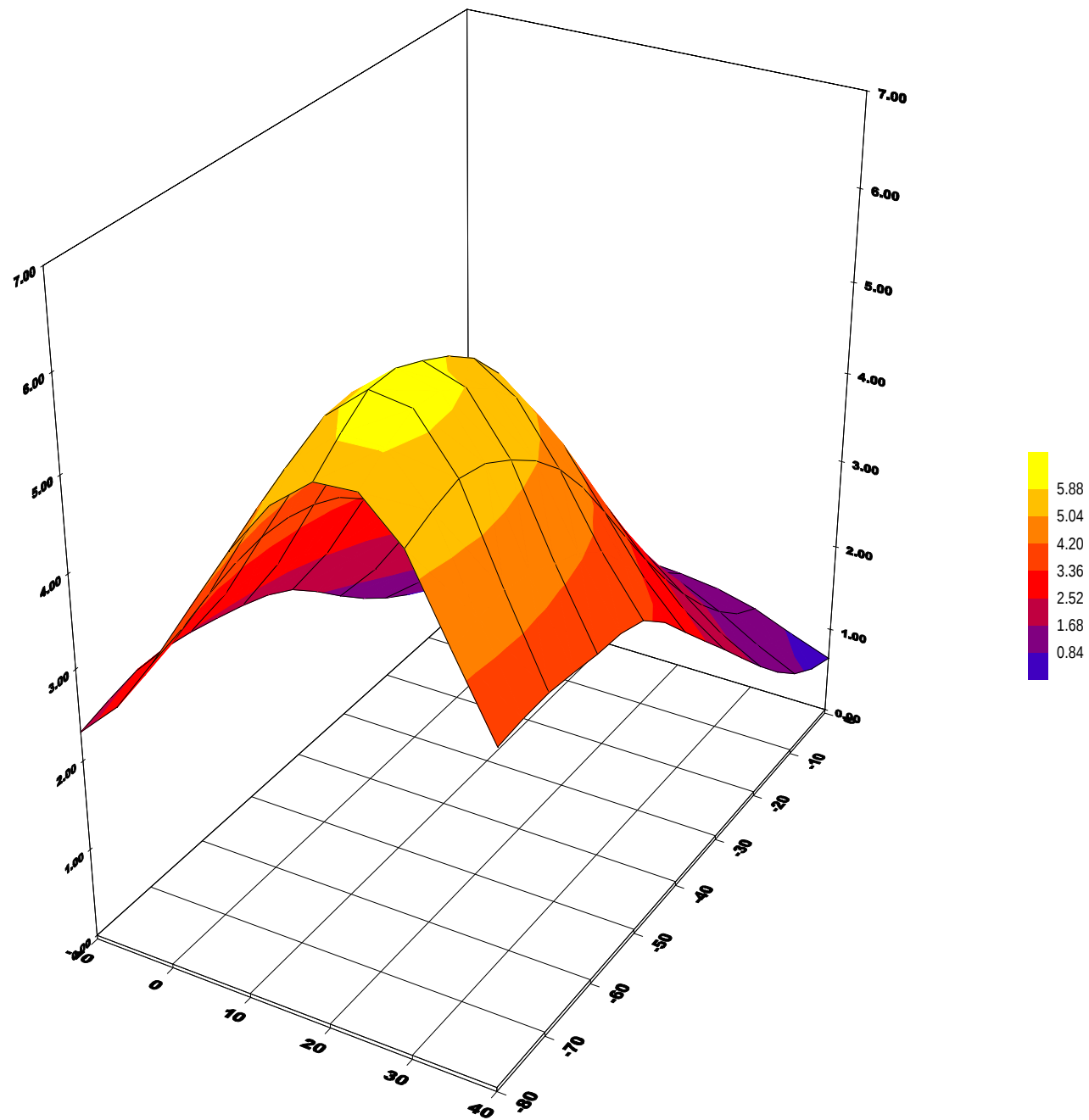
#### **Location of Maximum Field :**

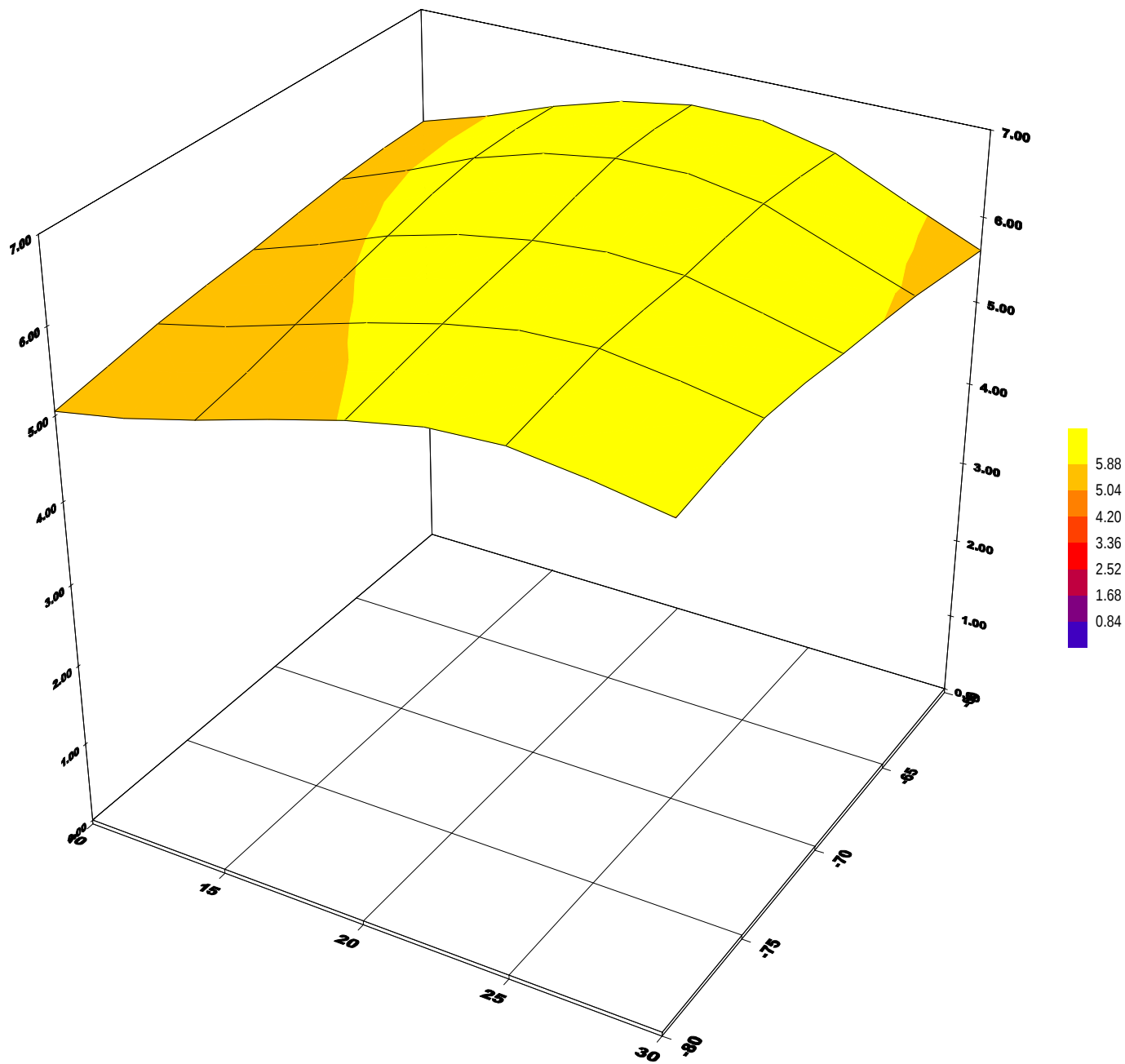
X = 20                      Y = -65

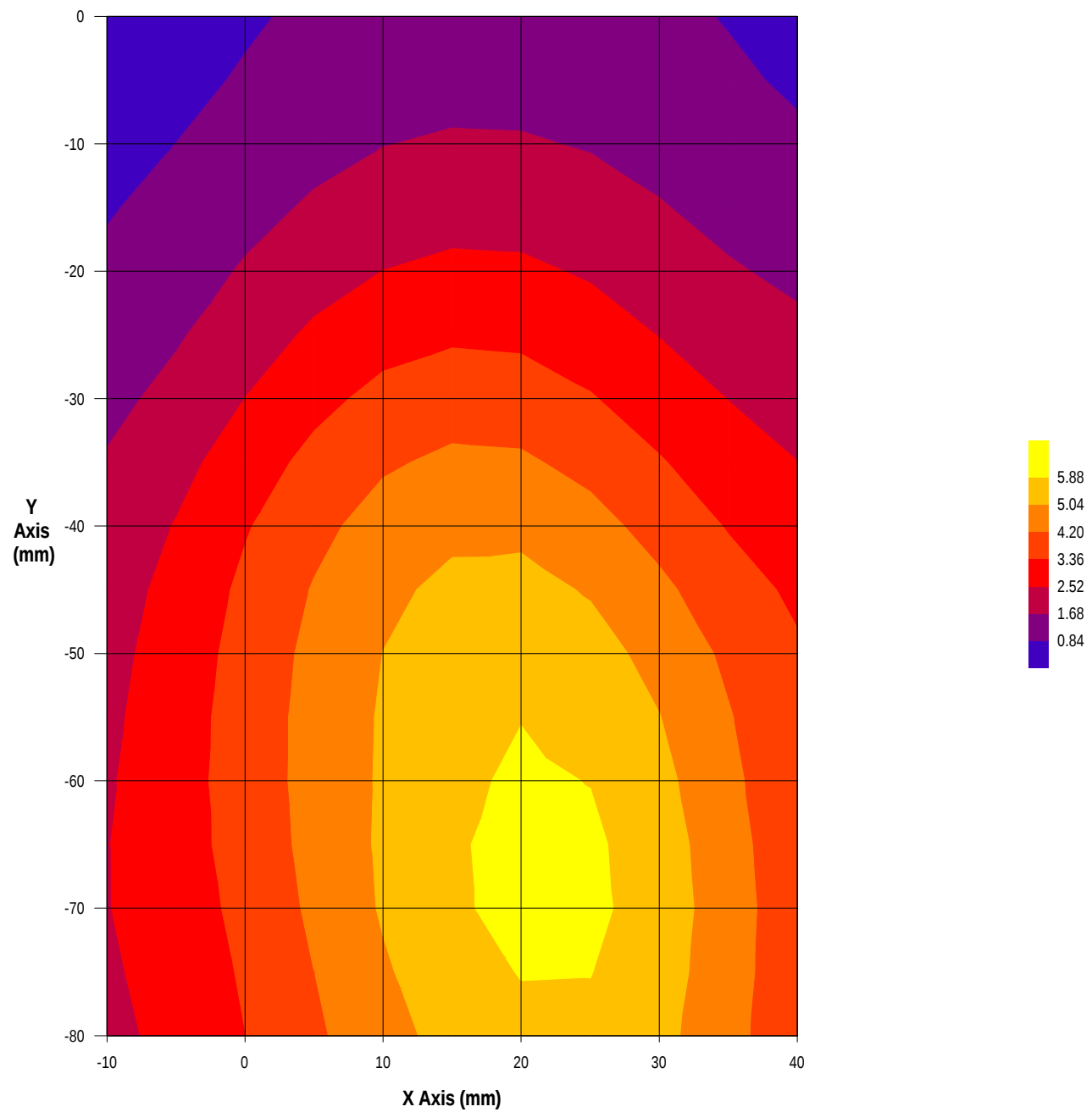
#### **Measured Values (mV) :**

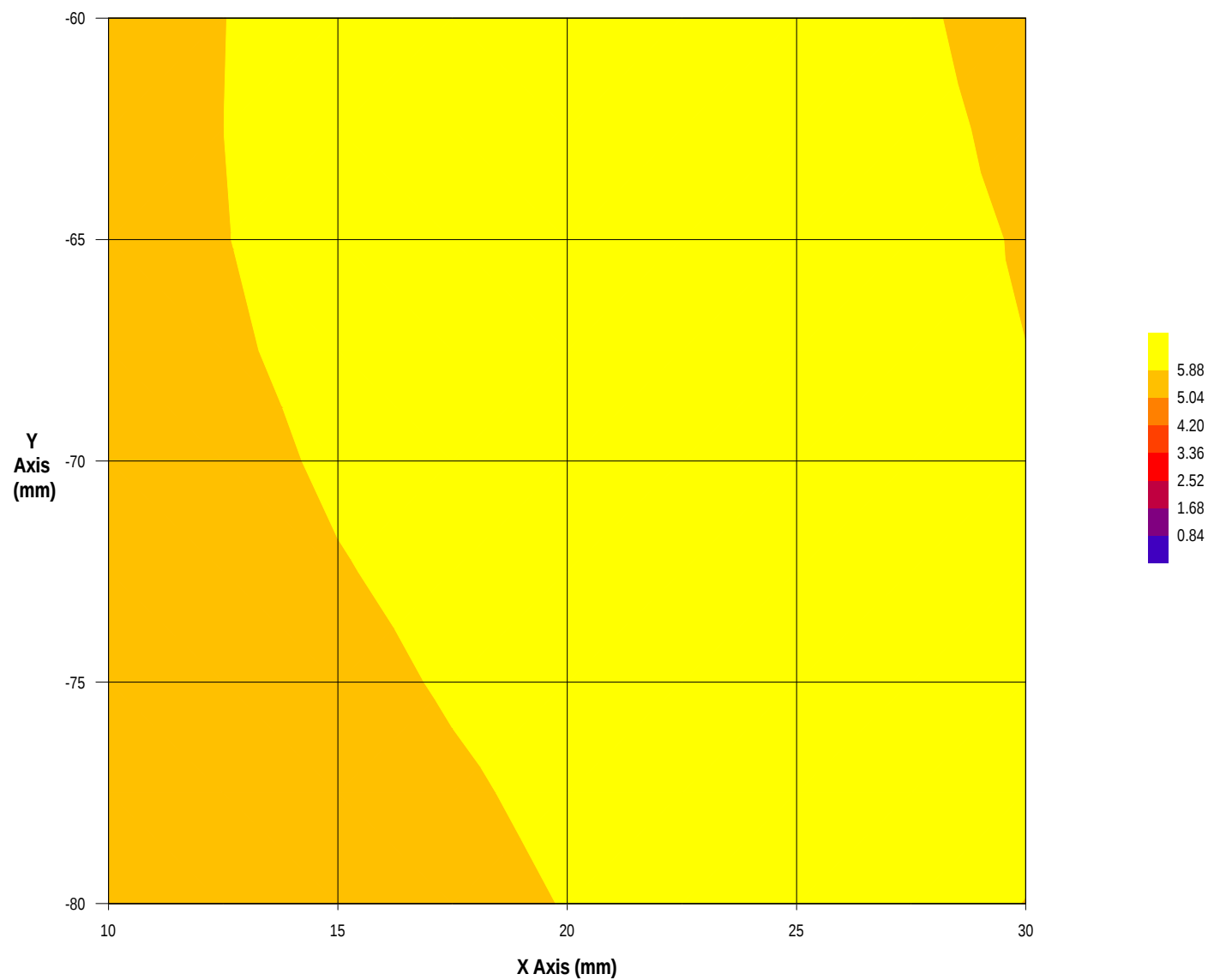
|      |      |      |      |      |      |
|------|------|------|------|------|------|
| 6.76 | 4.08 | 2.80 | 1.80 | 1.11 | 0.68 |
| 0.29 | 0.07 | 0.00 | 0.00 | 0.00 |      |

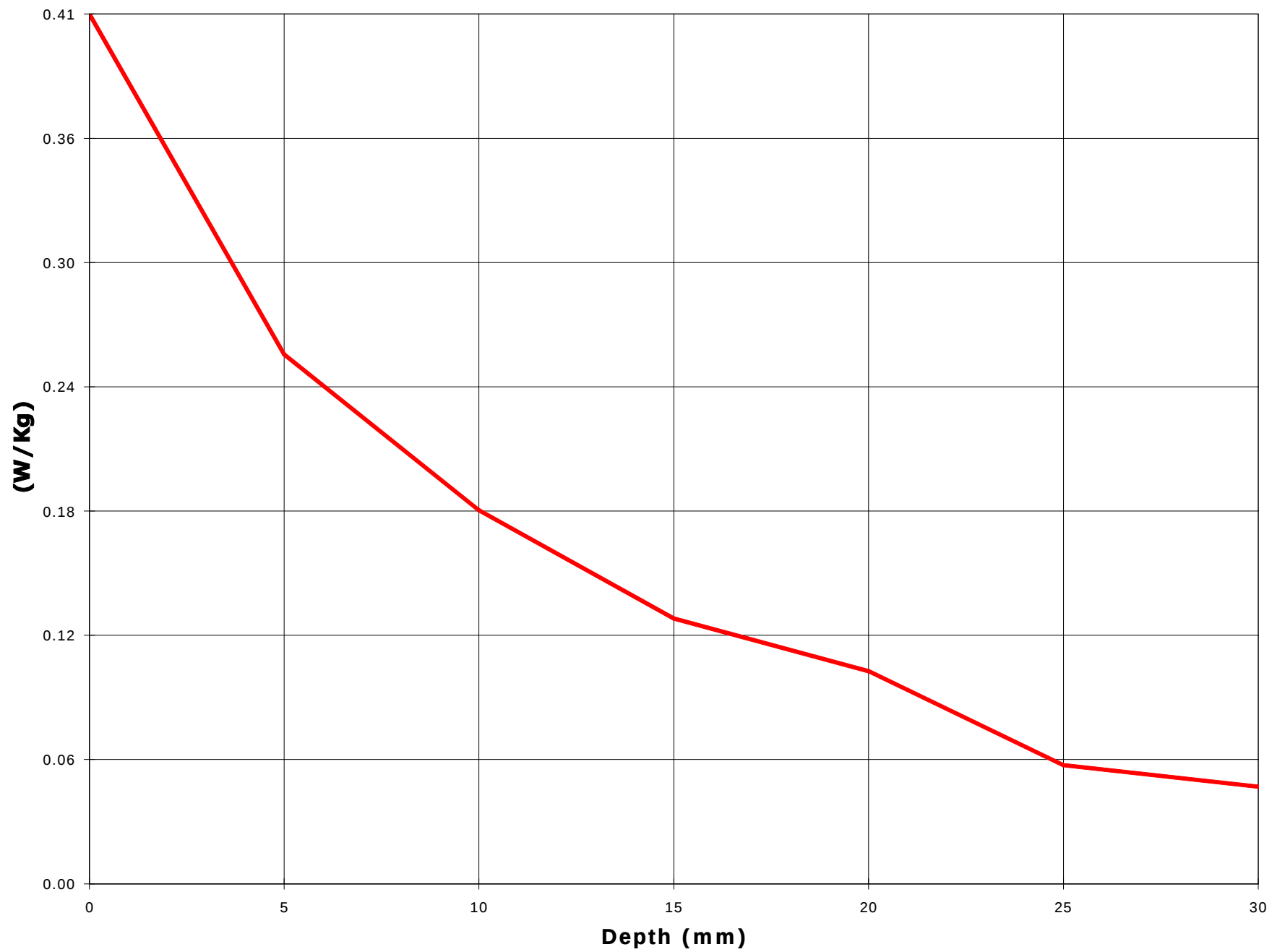
Peak Voltage (mV) : 8.81      1 Cm Voltage (mV) : 3.71      SAR (W/Kg) : 0.41











### Test Information

Date : 11/10/99  
Time : 2:25:57 PM

Product : Cellular Phone  
Manufacturer : Mitsubishi  
Model Number : MT-254  
Serial Number : 00001  
FCC ID Number : BGBMT254XF06A

Test : SAR  
Frequency (MHz) : 836  
Nominal Output Power (W) : 0.6  
Antenna Type : 1/4 Wave  
Signal : TDMA

Phantom : Waist  
Simulated Tissue : Muscle

Dielectric Constant : 49.1  
Conductivity : 1.15

Probe : E  
Probe Offset (mm) : 3.0  
Sensor Factor (mV) : 10.8  
Conversion Factor : 0.72  
Calibrated Date : 3/24/99

Antenna Position : FIX  
Measured Power (W) : 0.140  
(conducted)  
Cable Insertion Loss (dB) : 0.6  
Compensated Power (W) : 0.161

#### Amplifier Setting :

Channel 1 : 0.0045      Channel 2 : 0.0039      Channel 3 : 0.0031

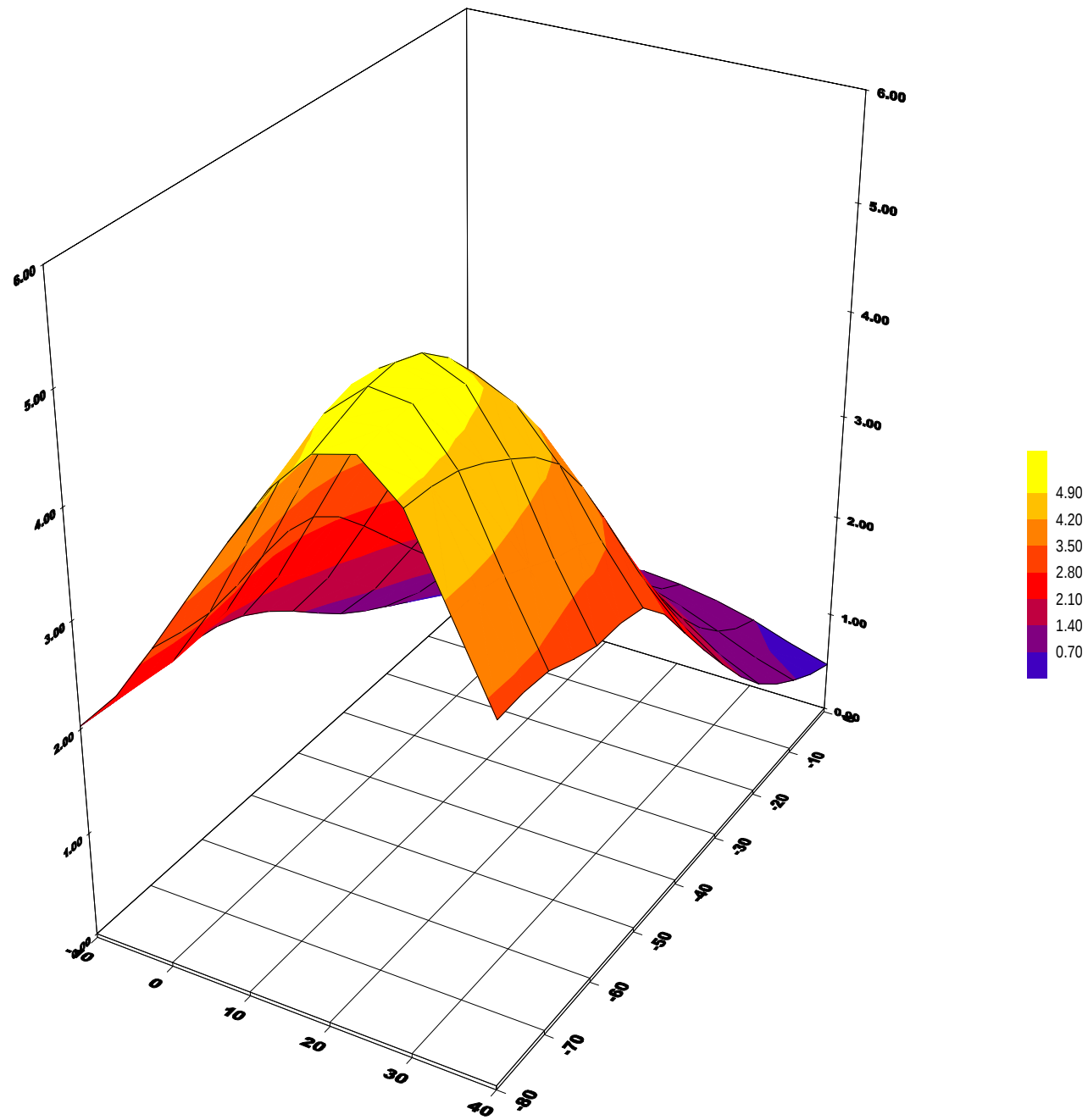
#### Location of Maximum Field :

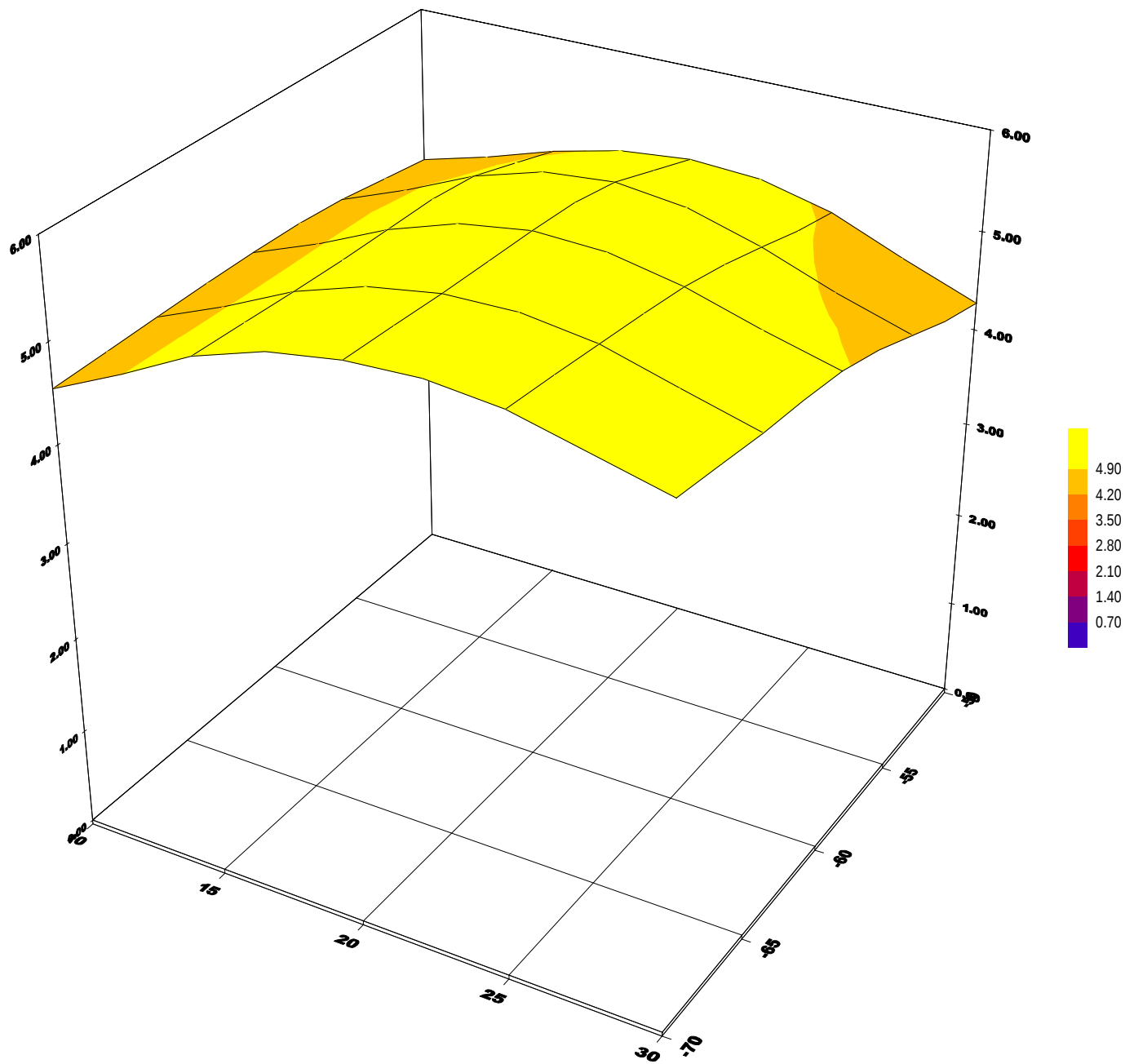
X = 25      Y = -70

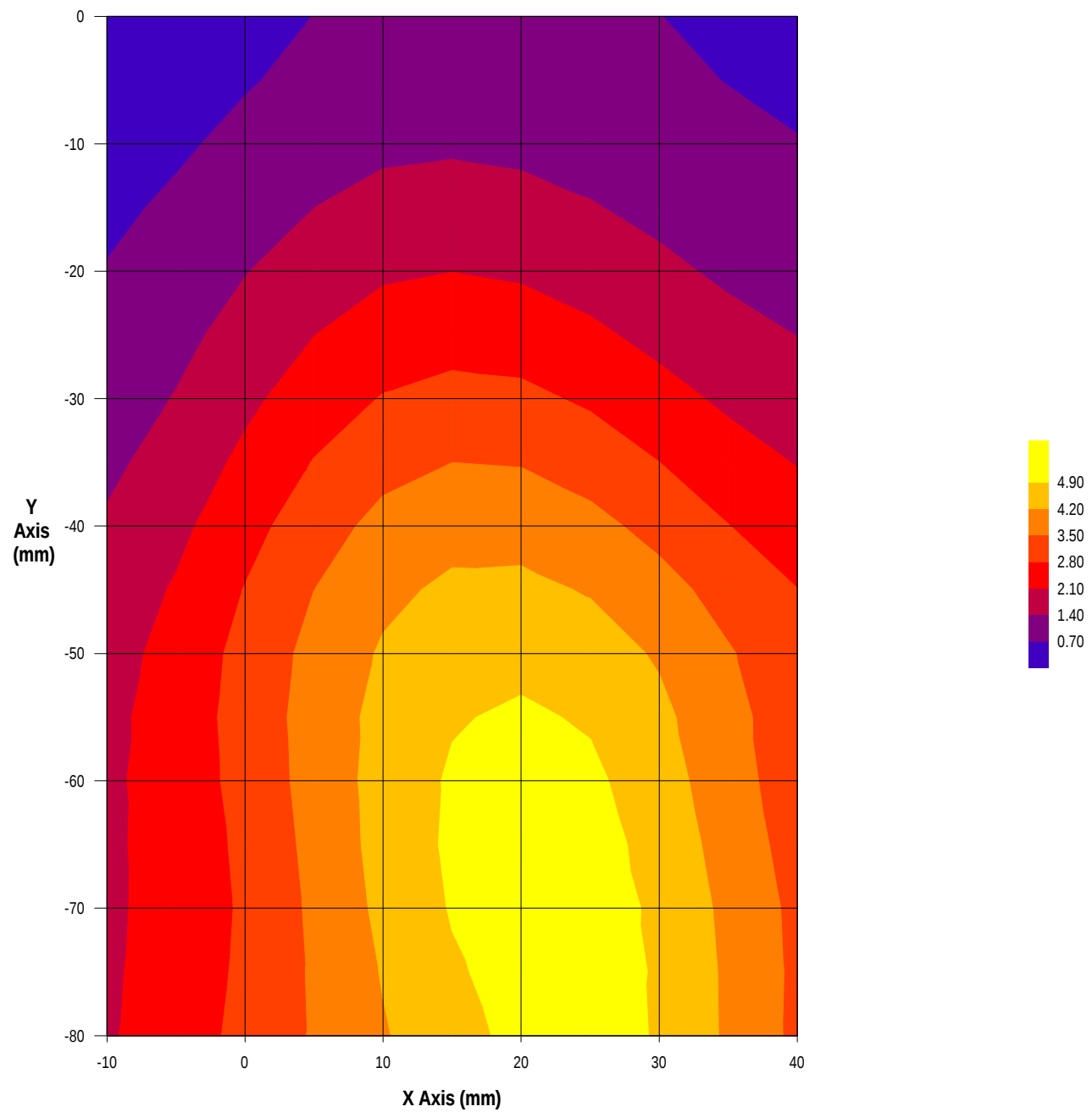
#### Measured Values (mV) :

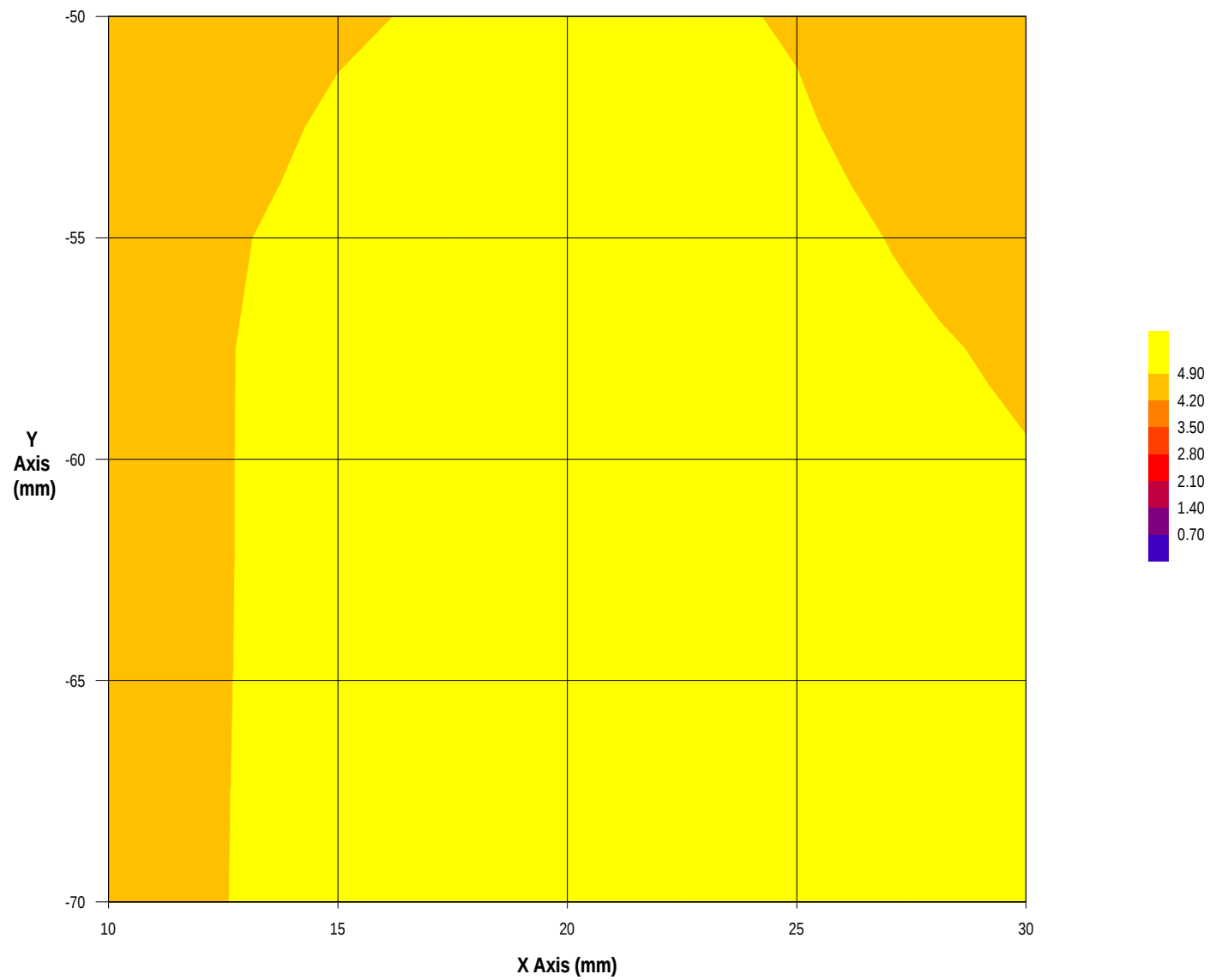
|      |      |      |      |      |      |
|------|------|------|------|------|------|
| 5.86 | 3.49 | 2.39 | 1.49 | 0.88 | 0.50 |
| 0.15 | 0.02 | 0.00 | 0.00 | 0.00 |      |

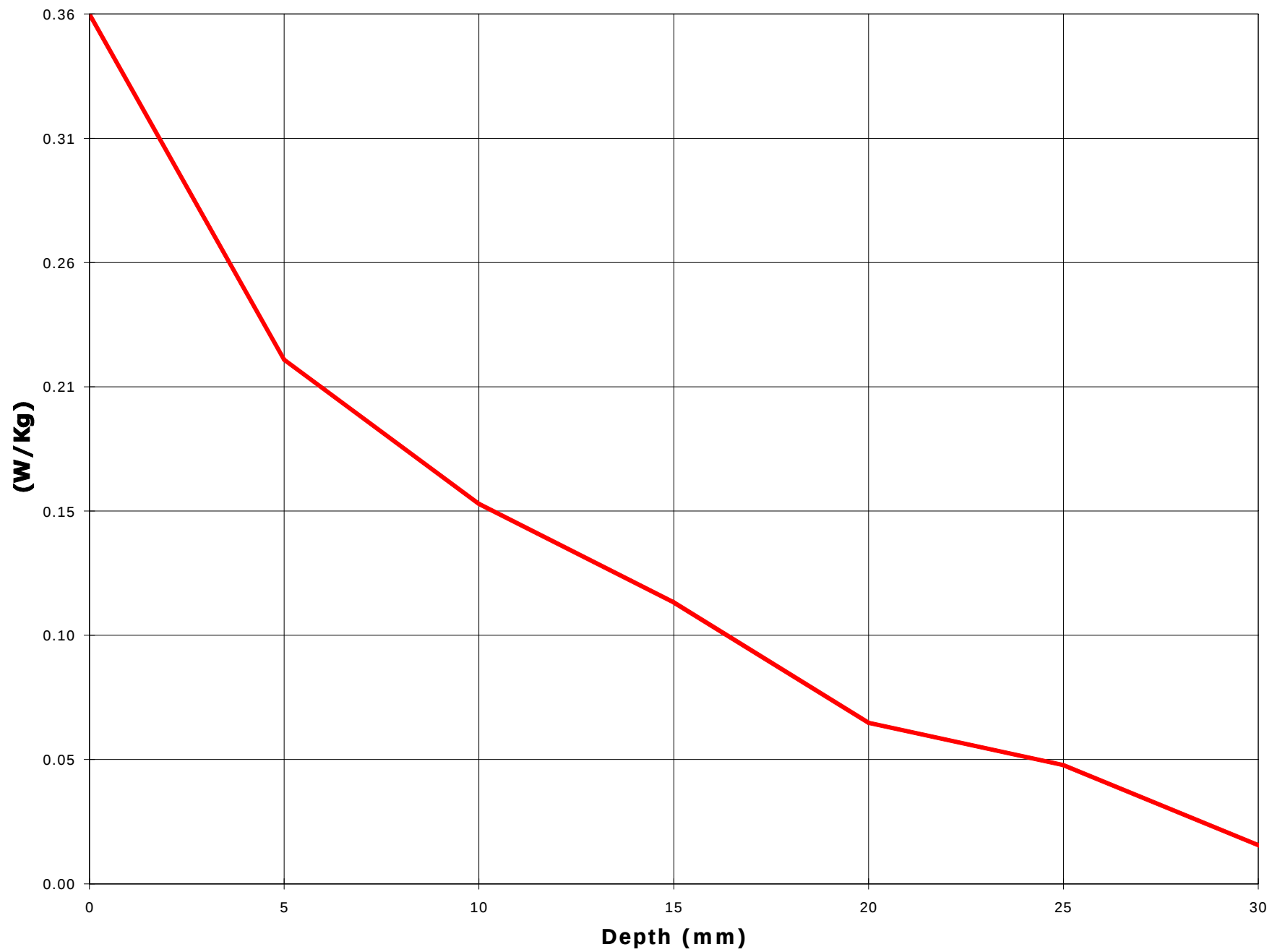
Peak Voltage (mV) : 7.69      1 Cm Voltage (mV) : 3.23      SAR (W/Kg) : 0.36











### Test Information

Date : 11/10/99  
Time : 2:58:39 PM

Product : Cellular Phone  
Manufacturer : Mitsubishi  
Model Number : MT-254  
Serial Number : 00001  
FCC ID Number : BGBMT254XF0R6A

Test : SAR  
Frequency (MHz) : 849  
Nominal Output Power (W) : 0.6  
Antenna Type : 1/4 Wave  
Signal : TDMA

Phantom : Waist  
Simulated Tissue : Muscle

Dielectric Constant : 49.1  
Conductivity : 1.15

Probe : E  
Probe Offset (mm) : 3.0  
Sensor Factor (mV) : 10.8  
Conversion Factor : 0.72  
Calibrated Date : 3/24/99

Antenna Position : FIX  
Measured Power (W) : 0.135  
(conducted)  
Cable Insertion Loss (dB) : 0.6  
Compensated Power (W) : 0.155

#### **Amplifier Setting :**

Channel 1 : 0.0045      Channel 2 : 0.0039      Channel 3 : 0.0031

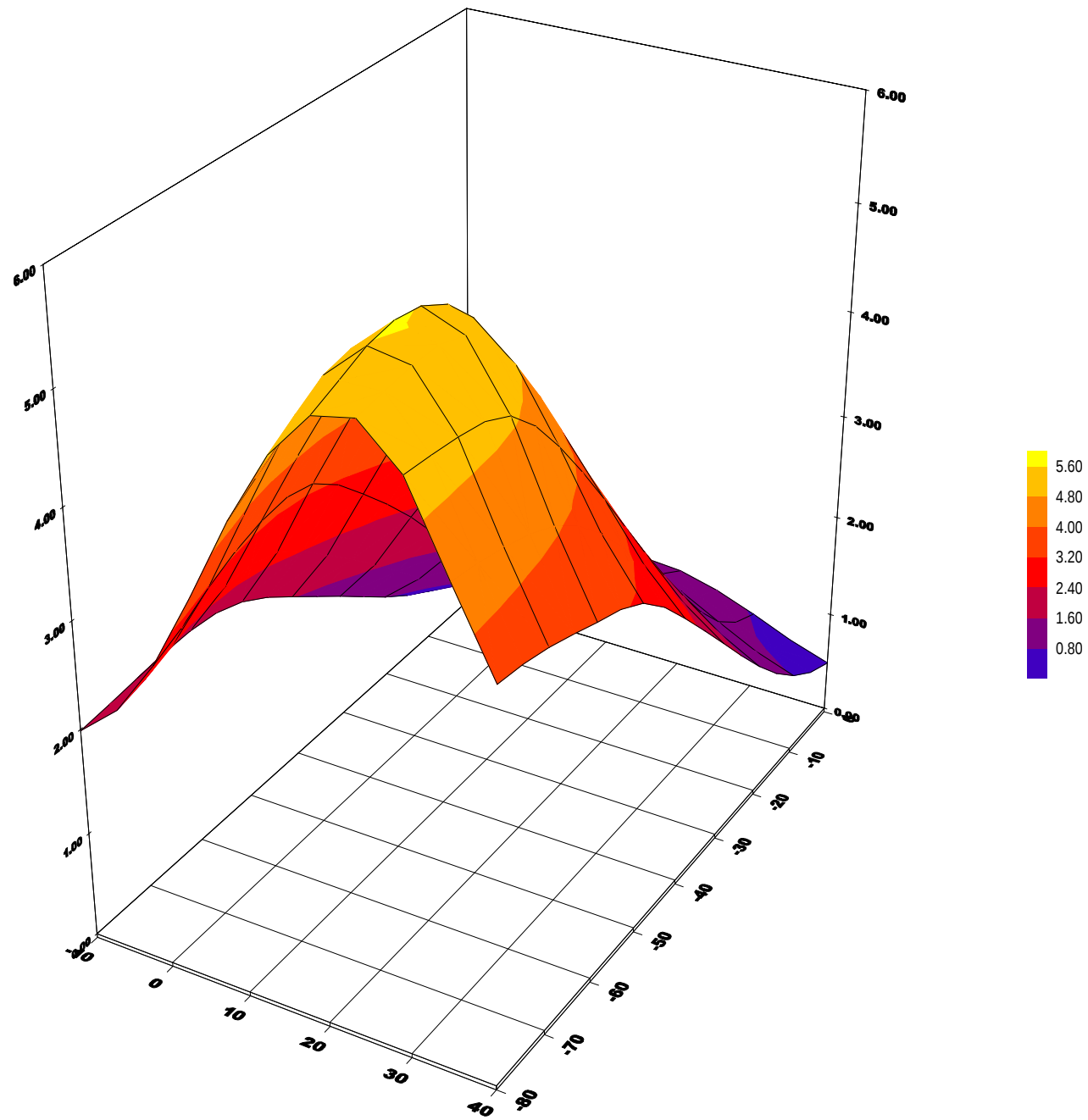
#### **Location of Maximum Field :**

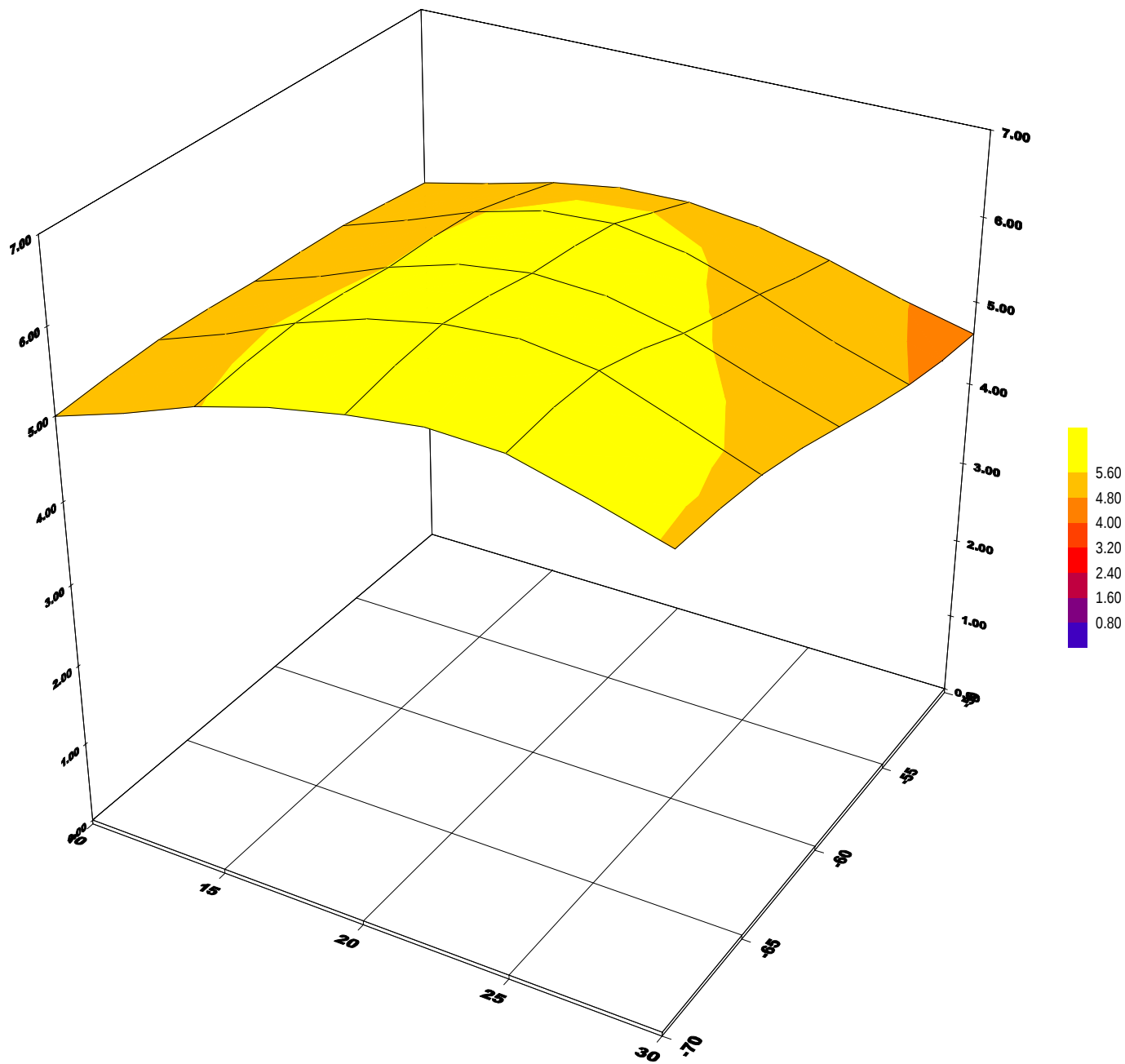
X = 25                      Y = -65

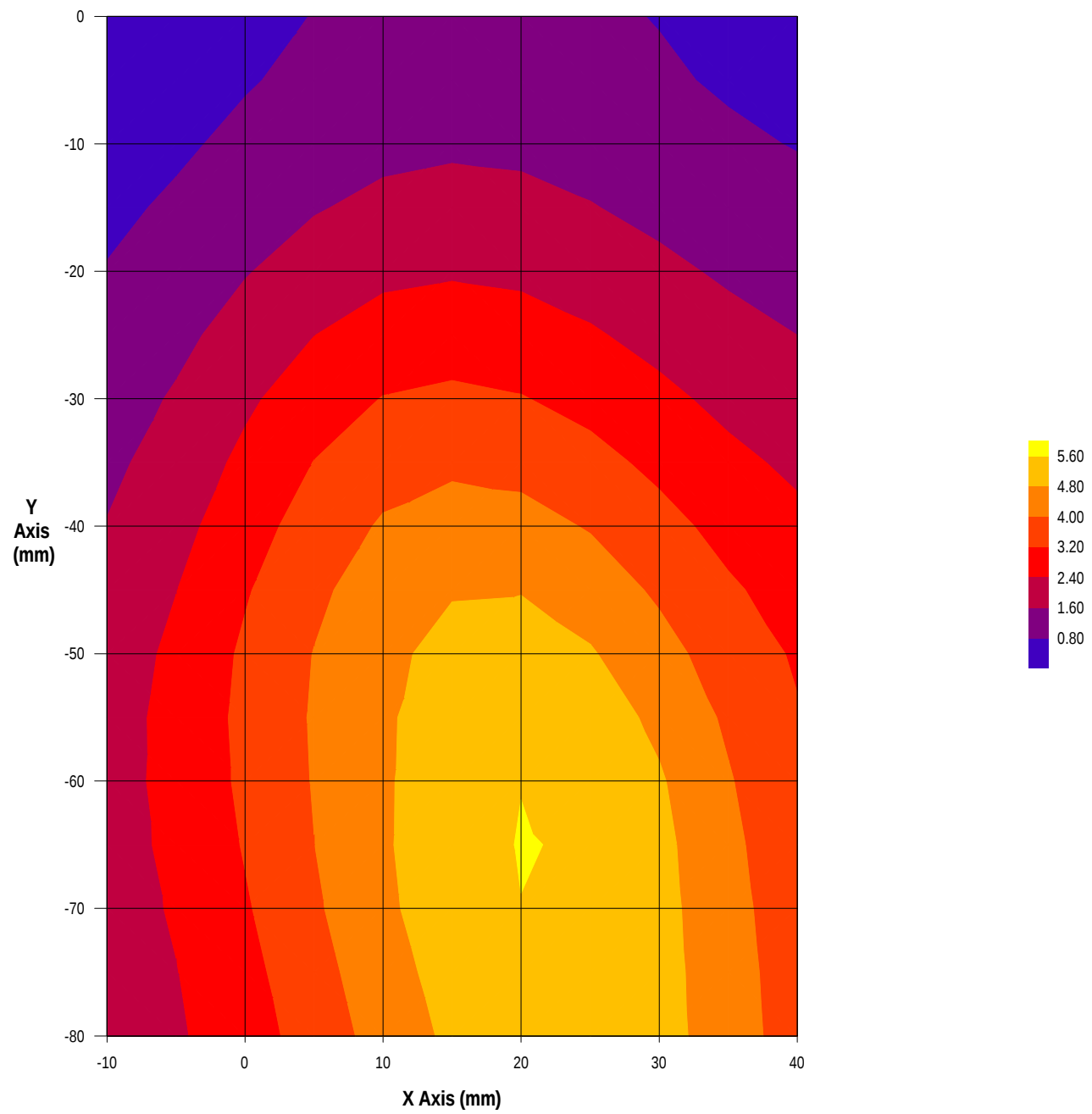
#### **Measured Values (mV) :**

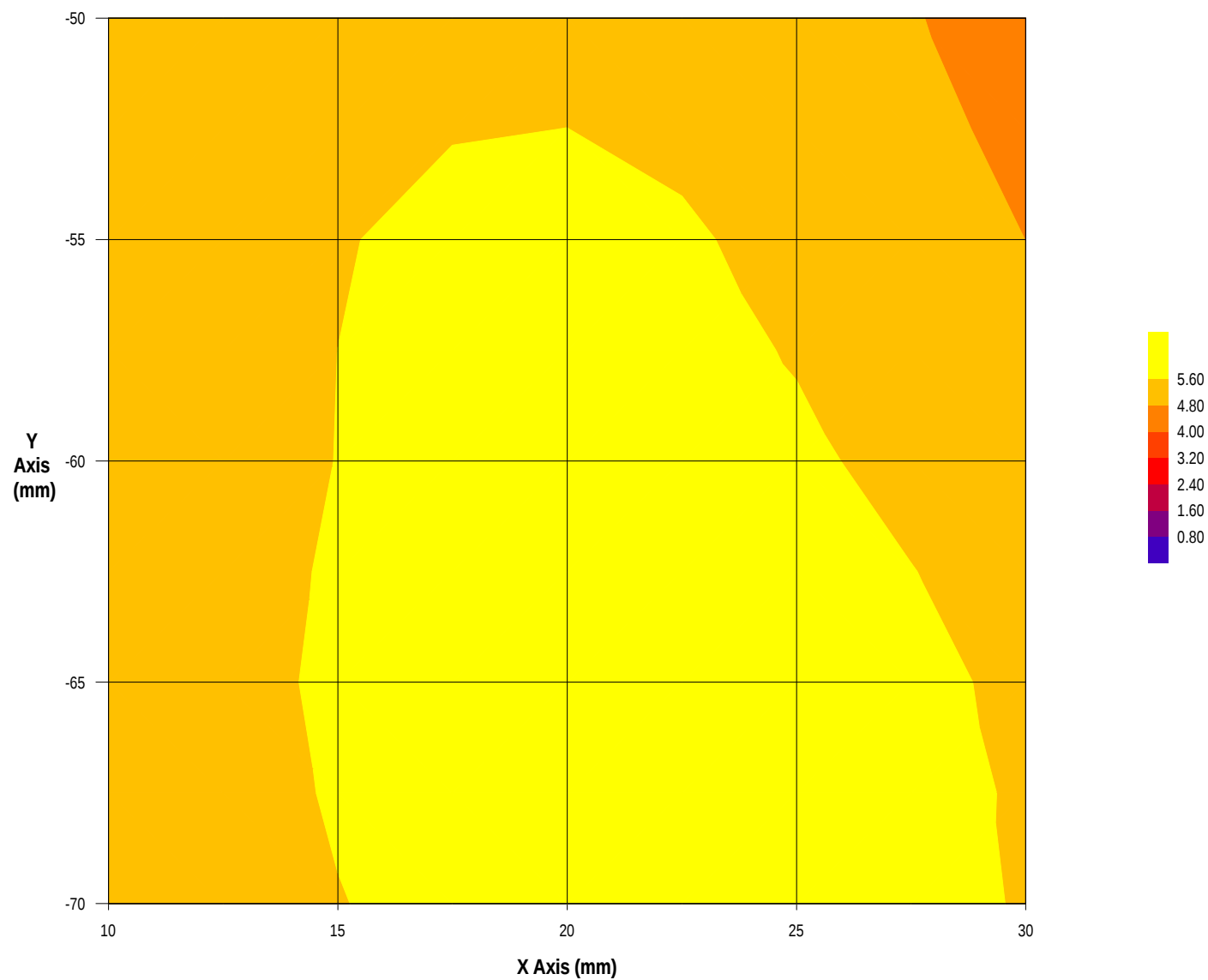
|      |      |      |      |      |      |
|------|------|------|------|------|------|
| 6.10 | 3.89 | 2.53 | 1.59 | 1.03 | 0.53 |
| 0.22 | 0.03 | 0.00 | 0.00 | 0.00 |      |

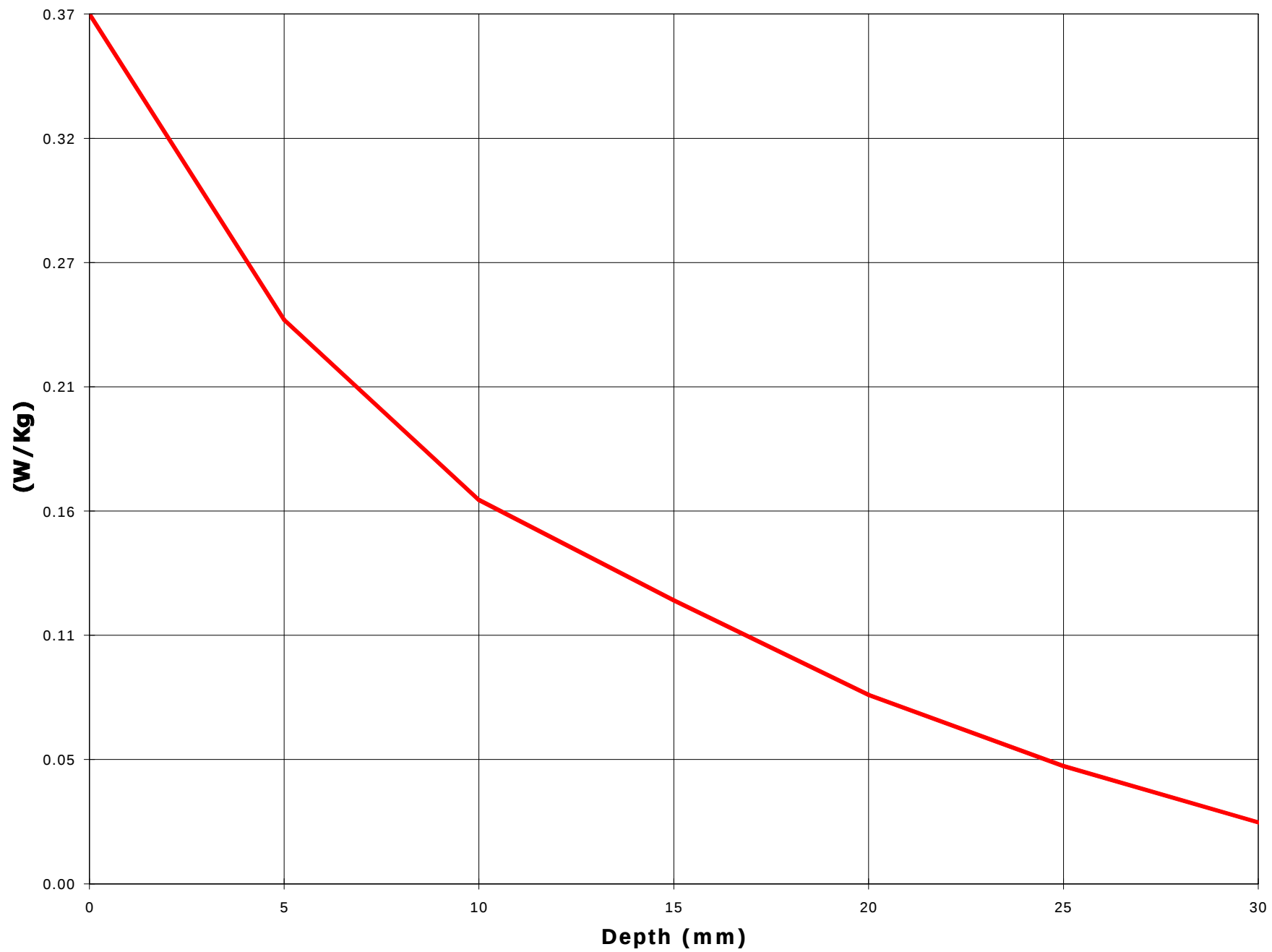
Peak Voltage (mV) : 7.95      1 Cm Voltage (mV) : 3.31      SAR (W/Kg) : 0.37











### Test Information

Date : 11/11/99  
Time : 2:34:44 PM

Product : Cellular Phone  
Manufacturer : Mitsubishi  
Model Number : MT-254  
Serial Number : 00001  
FCC ID Number : BGBMT254XF06A

Test : SAR  
Frequency (MHz) : 1850  
Nominal Output Power (W) : 0.6  
Antenna Type : 1/4 Wave  
Signal : TDMA

Phantom : Waist  
Simulated Tissue : Muscle

Dielectric Constant : 46.8  
Conductivity : 1.46

Probe : E3  
Probe Offset (mm) : 3.0  
Sensor Factor (mV) : 10.8  
Conversion Factor : 1.36  
Calibrated Date : 4/23/99

Antenna Position : FIX  
Measured Power (W) : 0.118  
(conducted)  
Cable Insertion Loss (dB) : 1.2  
Compensated Power (W) : 0.156

#### **Amplifier Setting :**

Channel 1 : 0.0046      Channel 2 : 0.0042      Channel 3 : 0.0032

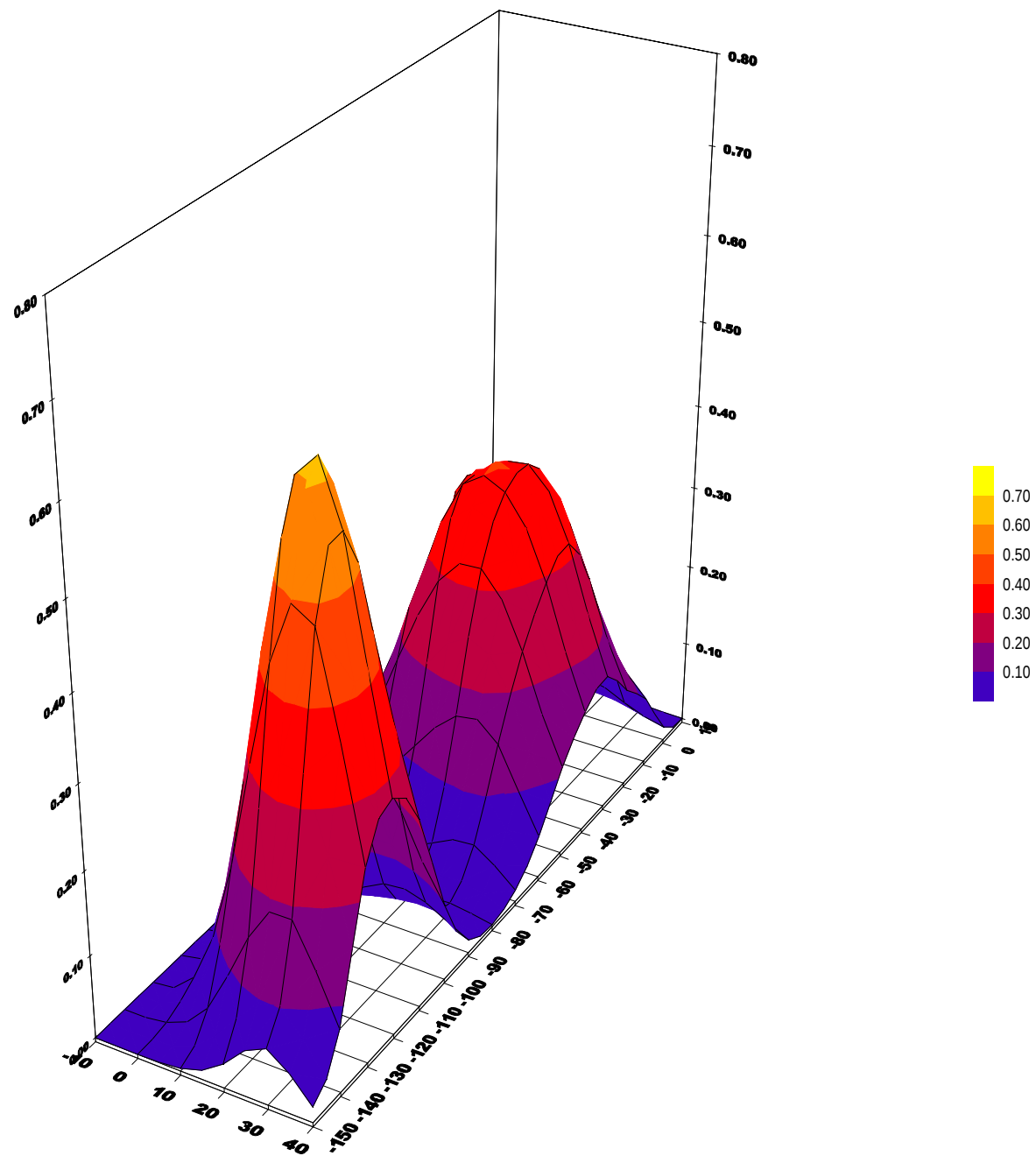
#### **Location of Maximum Field :**

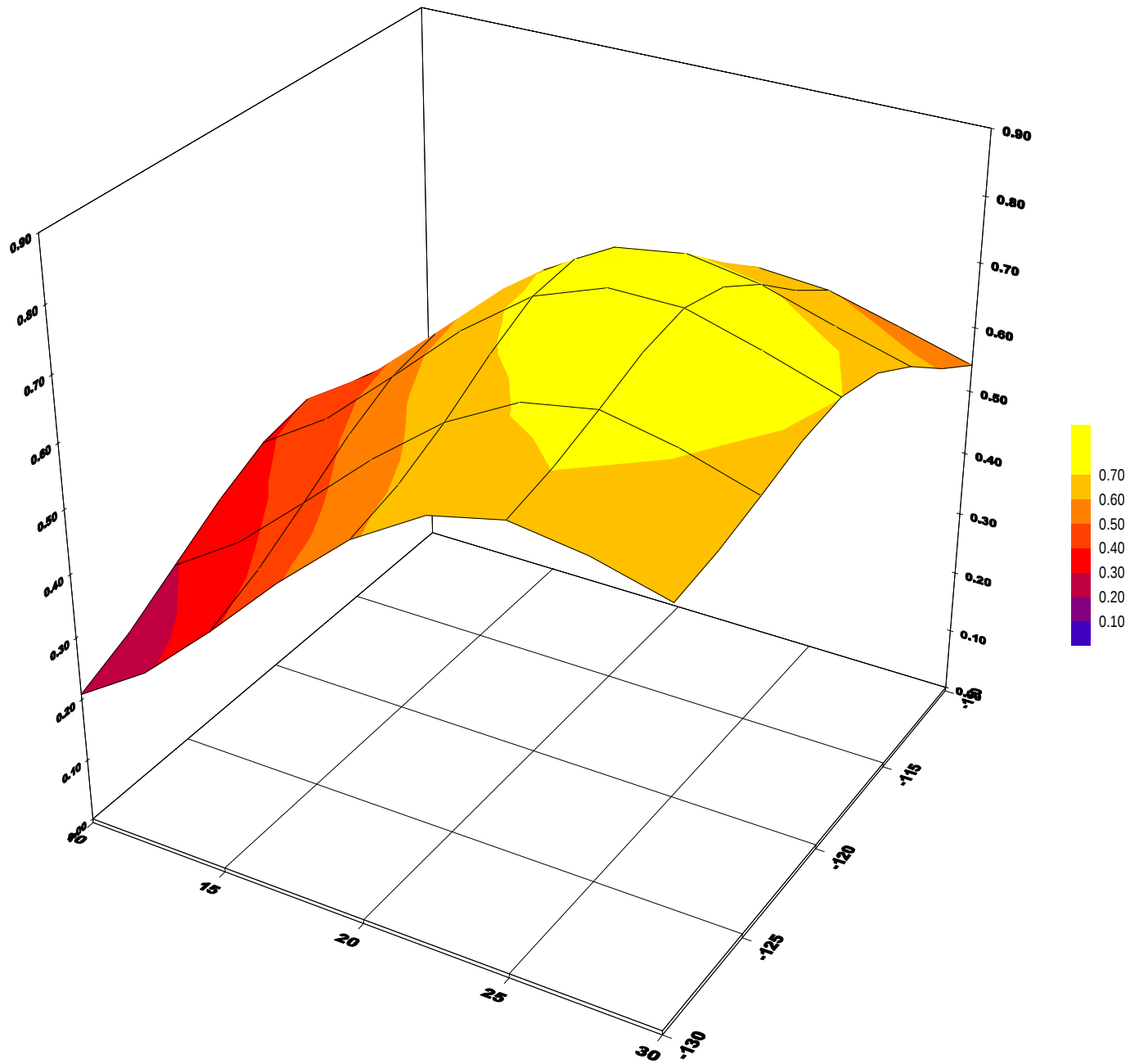
X = 25      Y = -120

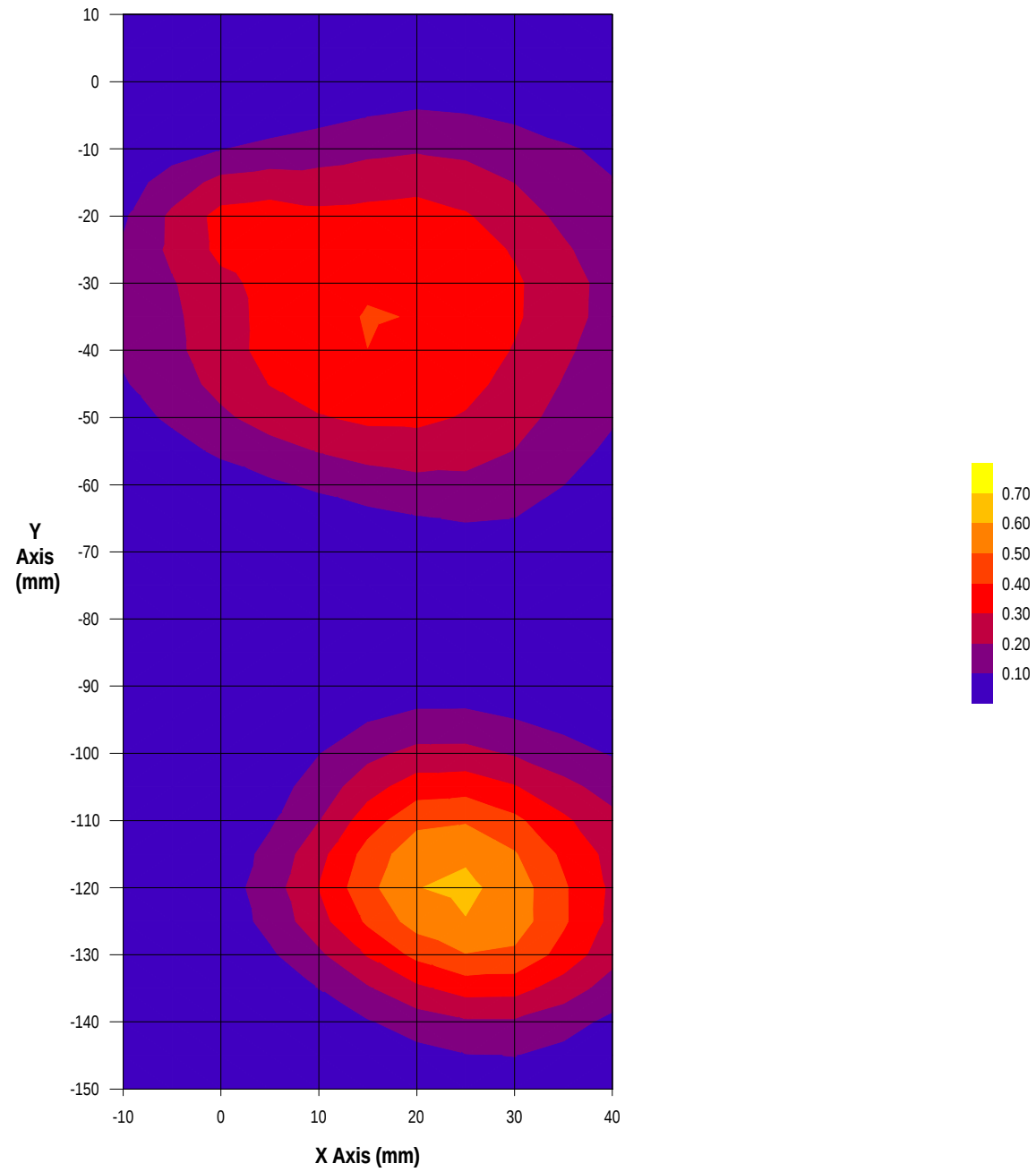
#### **Measured Values (mV) :**

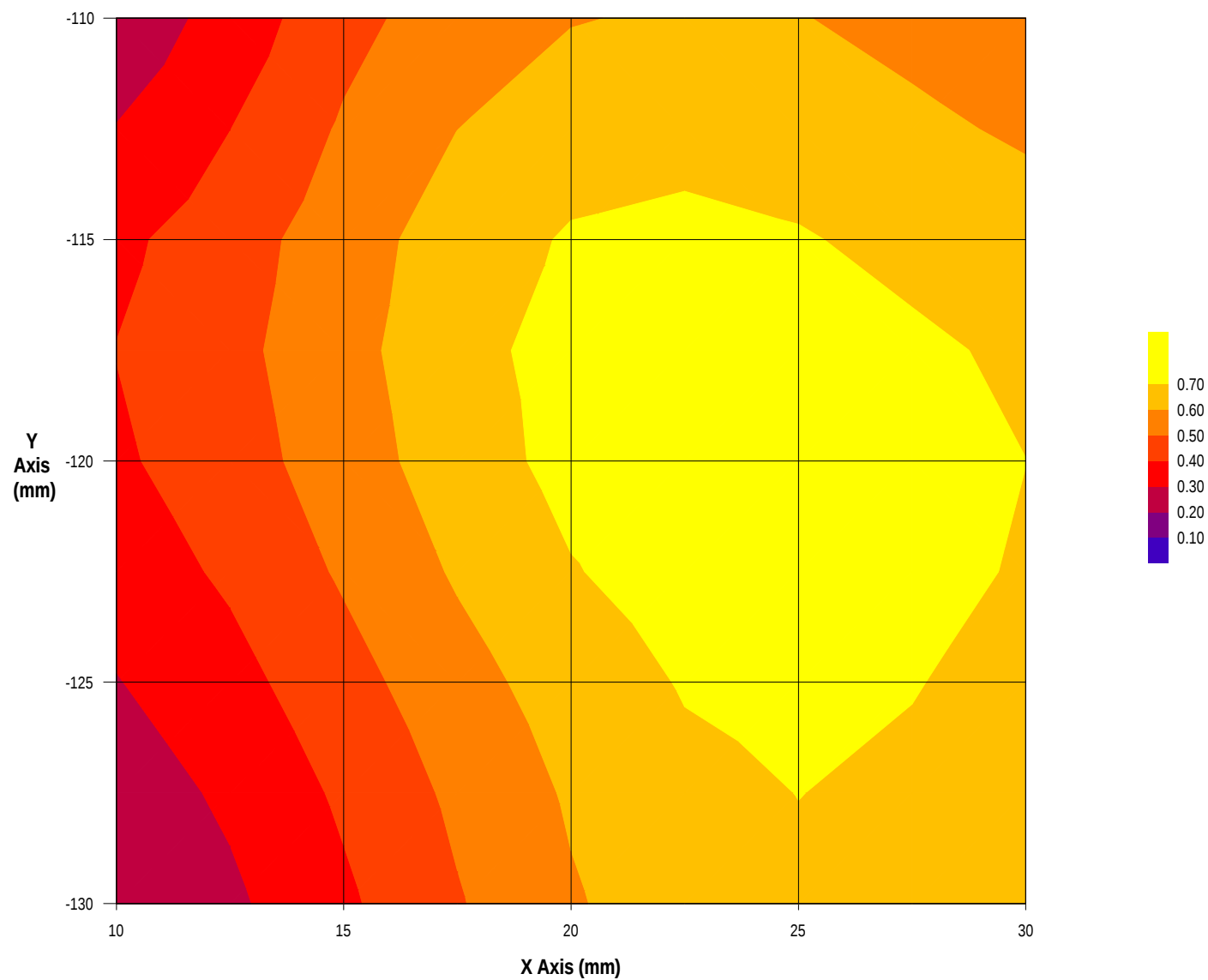
|      |      |      |      |      |      |
|------|------|------|------|------|------|
| 0.83 | 0.32 | 0.12 | 0.02 | 0.01 | 0.01 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |      |

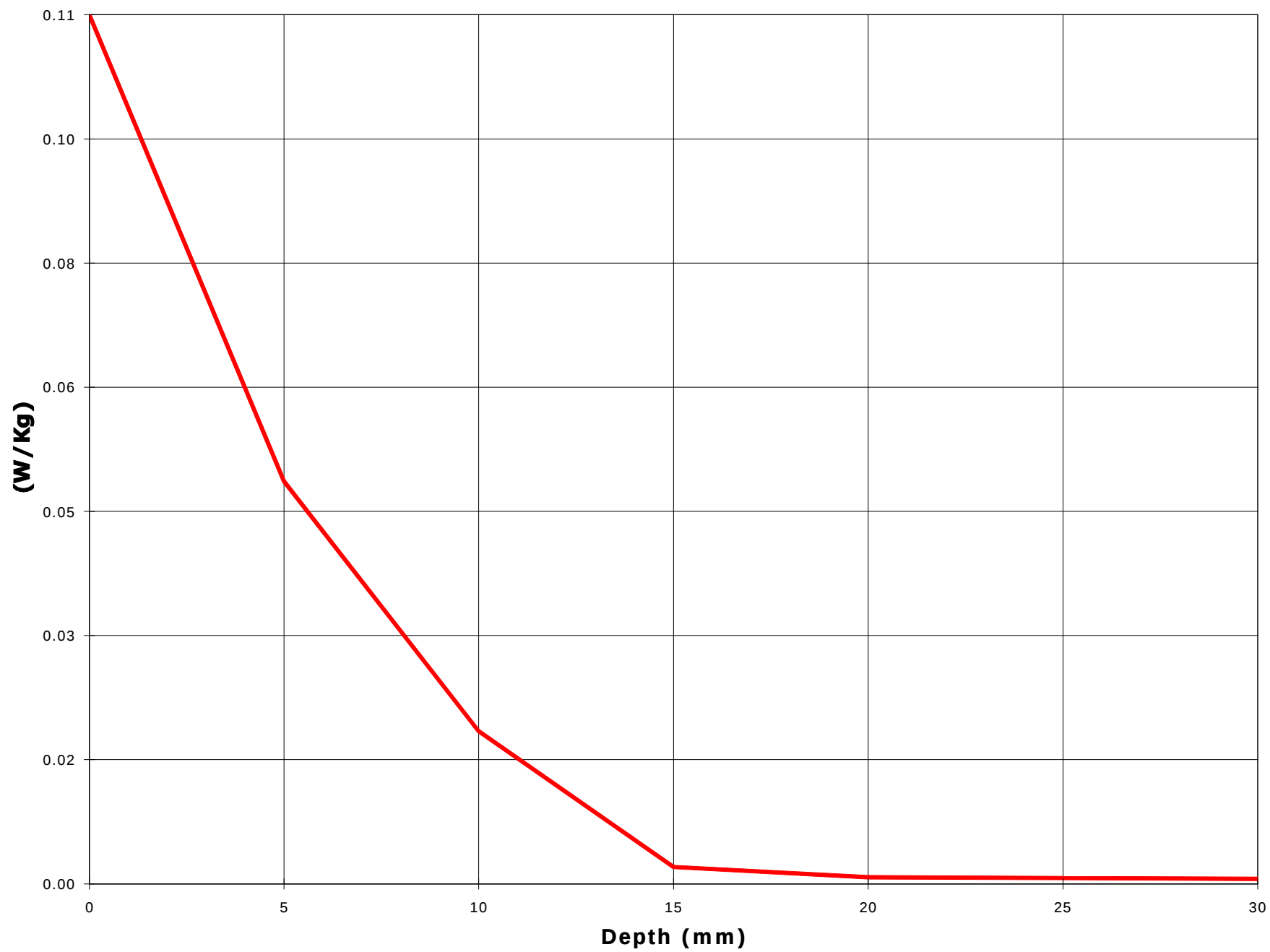
Peak Voltage (mV) : 1.47      1 Cm Voltage (mV) : 0.30      SAR (W/Kg) : 0.11











### Test Information

Date : 11/11/99  
Time : 3:07:02 PM

Product : Cellular Phone  
Manufacturer : Mitsubishi  
Model Number : MT-254  
Serial Number : 00001  
FCC ID Number : BGBMT254XF06A

Test : SAR  
Frequency (MHz) : 1880  
Nominal Output Power (W) : 0.6  
Antenna Type : 1/4 Wave  
Signal : TDMA

Phantom : Waist  
Simulated Tissue : Muscle

Dielectric Constant : 46.8  
Conductivity : 1.46

Probe : E3  
Probe Offset (mm) : 3.0  
Sensor Factor (mV) : 10.8  
Conversion Factor : 1.36  
Calibrated Date : 4/23/99

Antenna Position : FIX  
Measured Power (W) : 0.169  
(conducted)  
Cable Insertion Loss (dB) : 1.2  
Compensated Power (W) : 0.147

#### Amplifier Setting :

Channel 1 : 0.0046      Channel 2 : 0.0042      Channel 3 : 0.0032

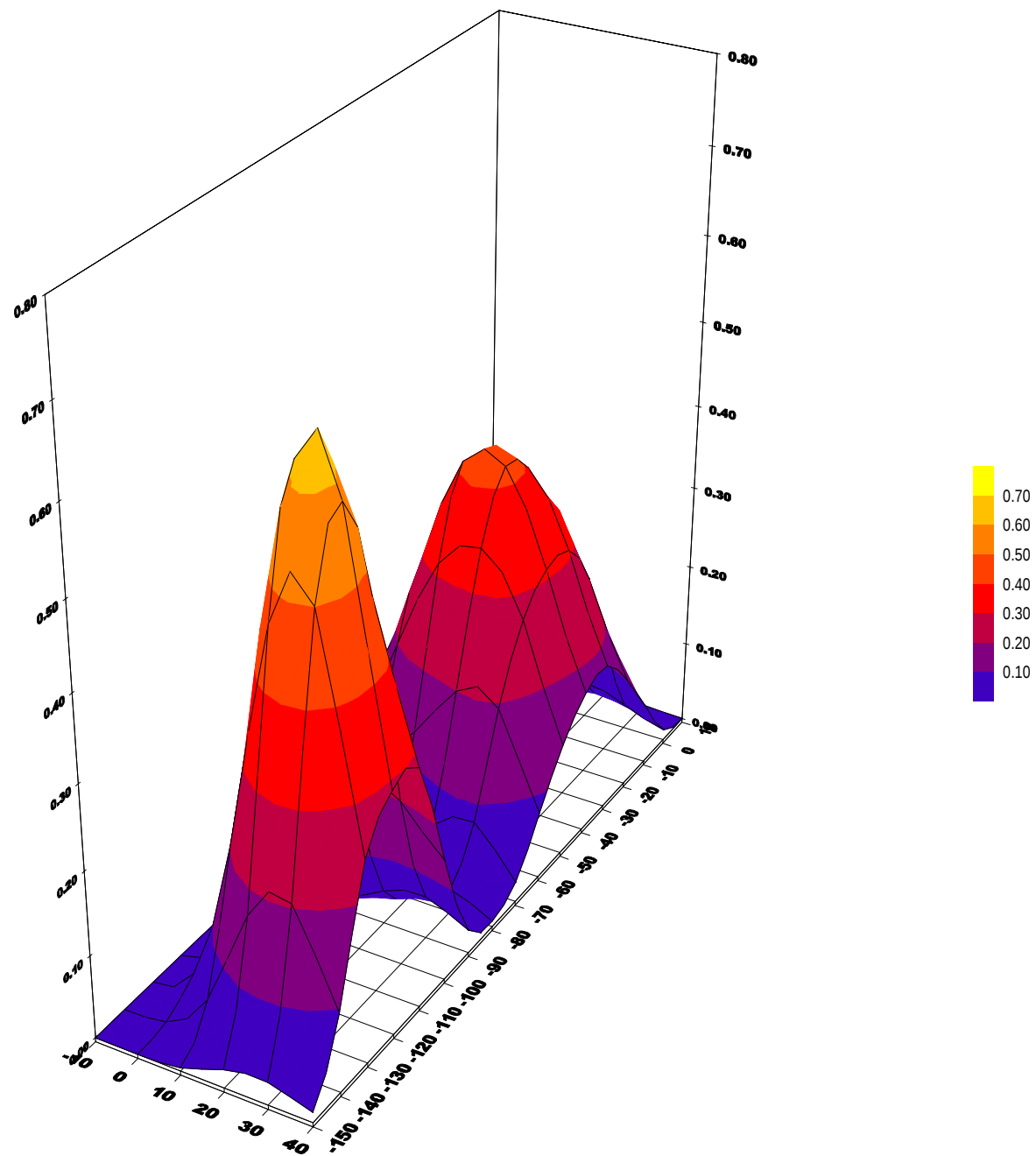
#### Location of Maximum Field :

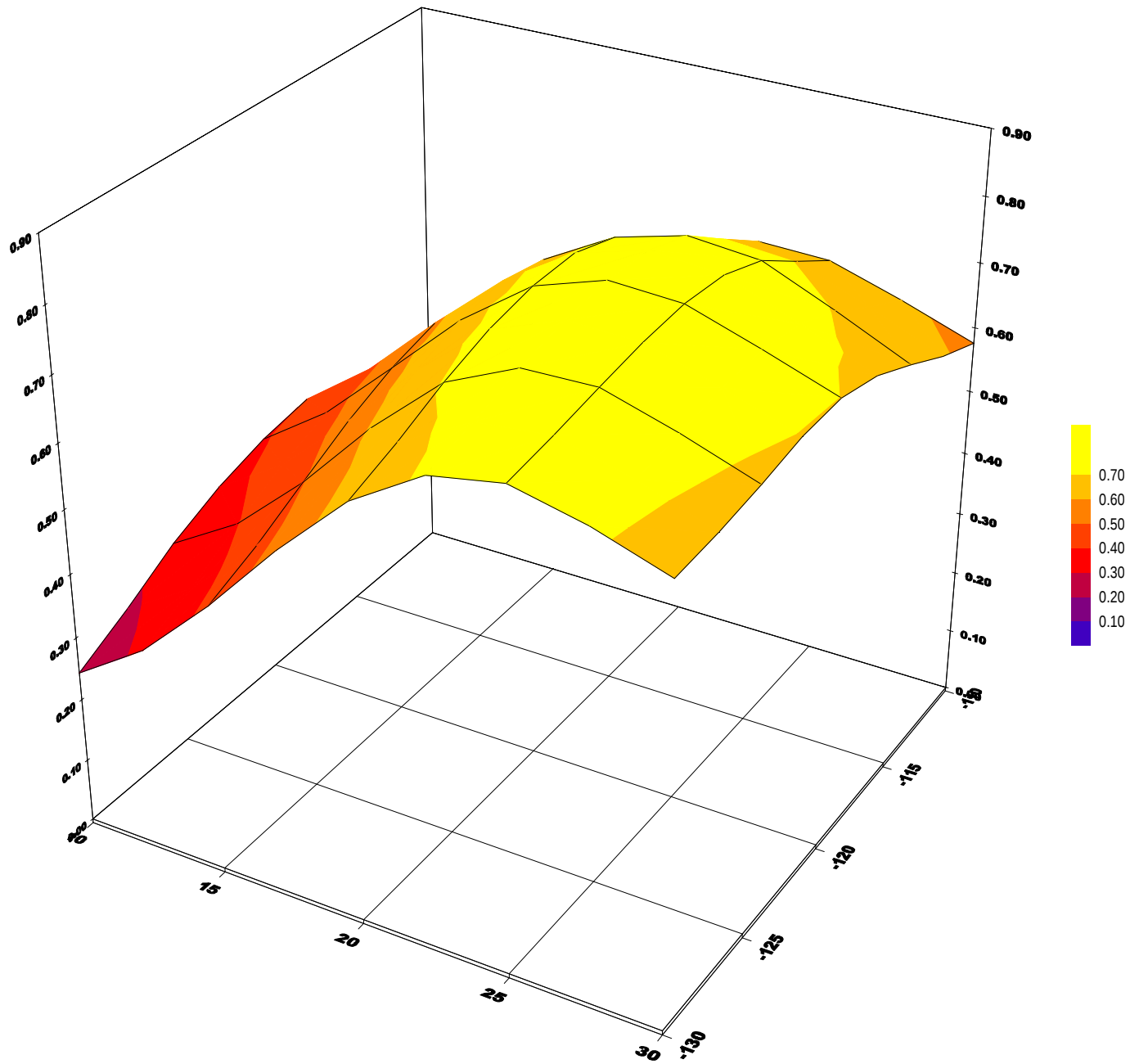
X = 25      Y = -120

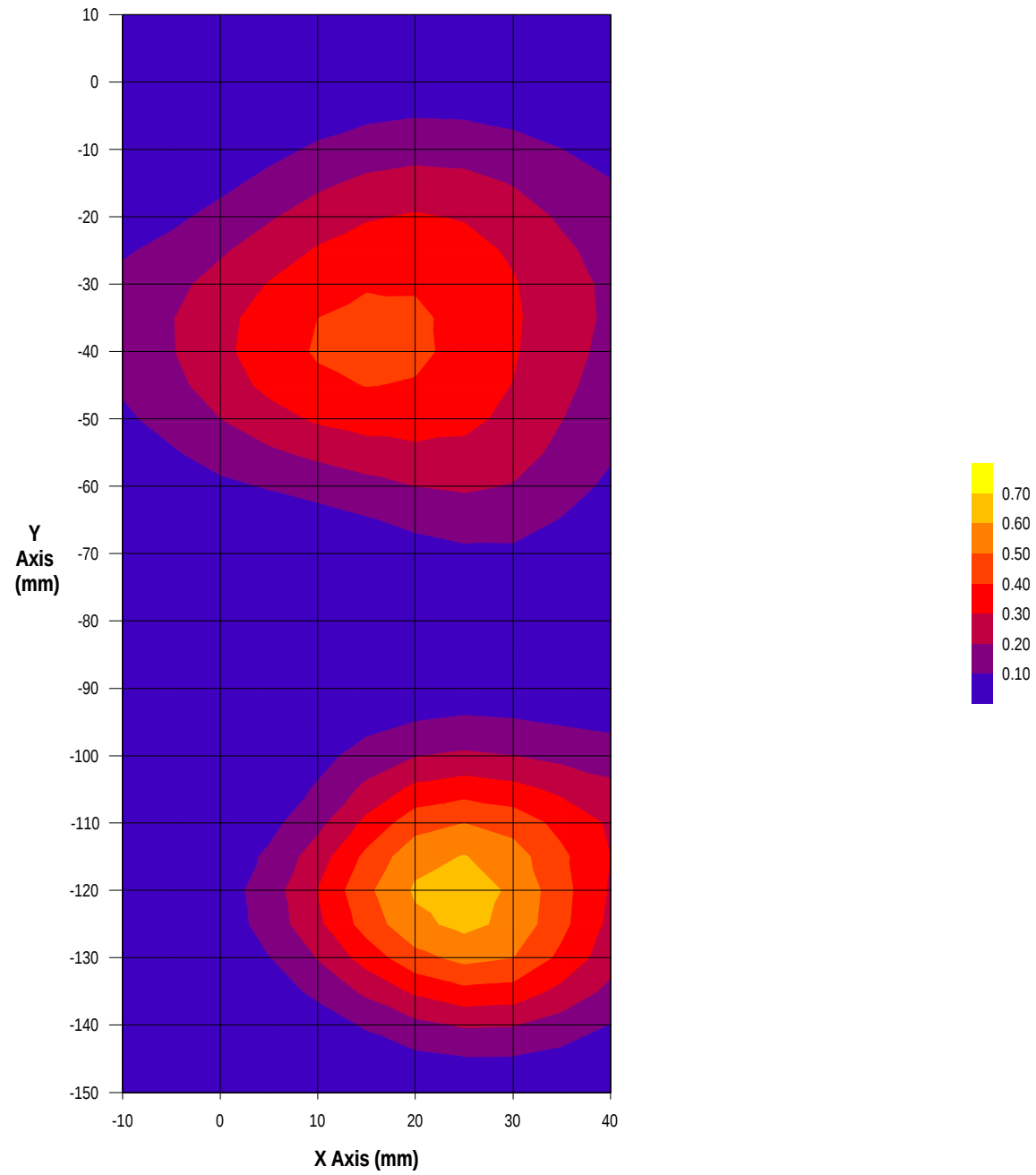
#### Measured Values (mV) :

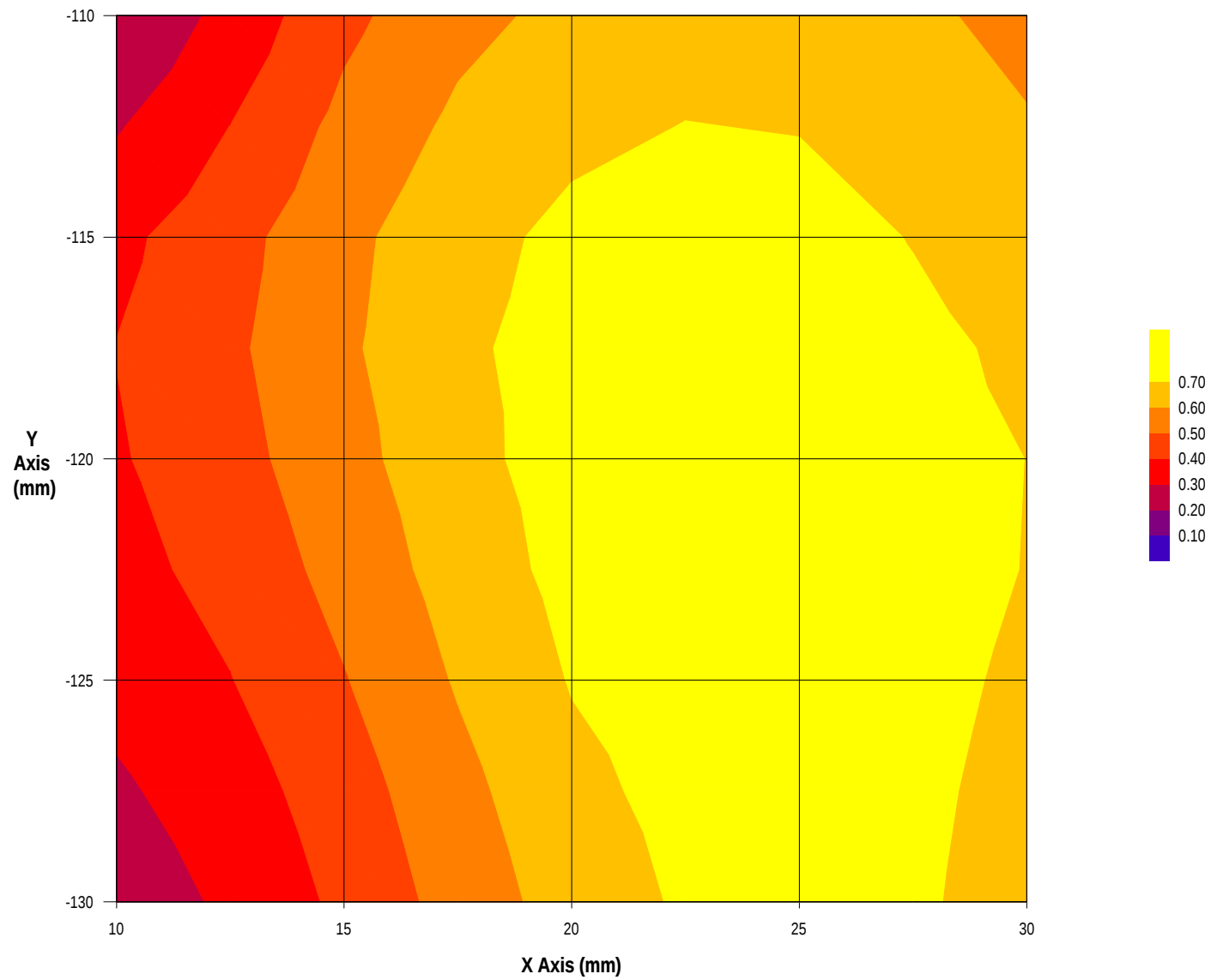
|      |      |      |      |      |      |
|------|------|------|------|------|------|
| 0.80 | 0.29 | 0.09 | 0.01 | 0.01 | 0.01 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |      |

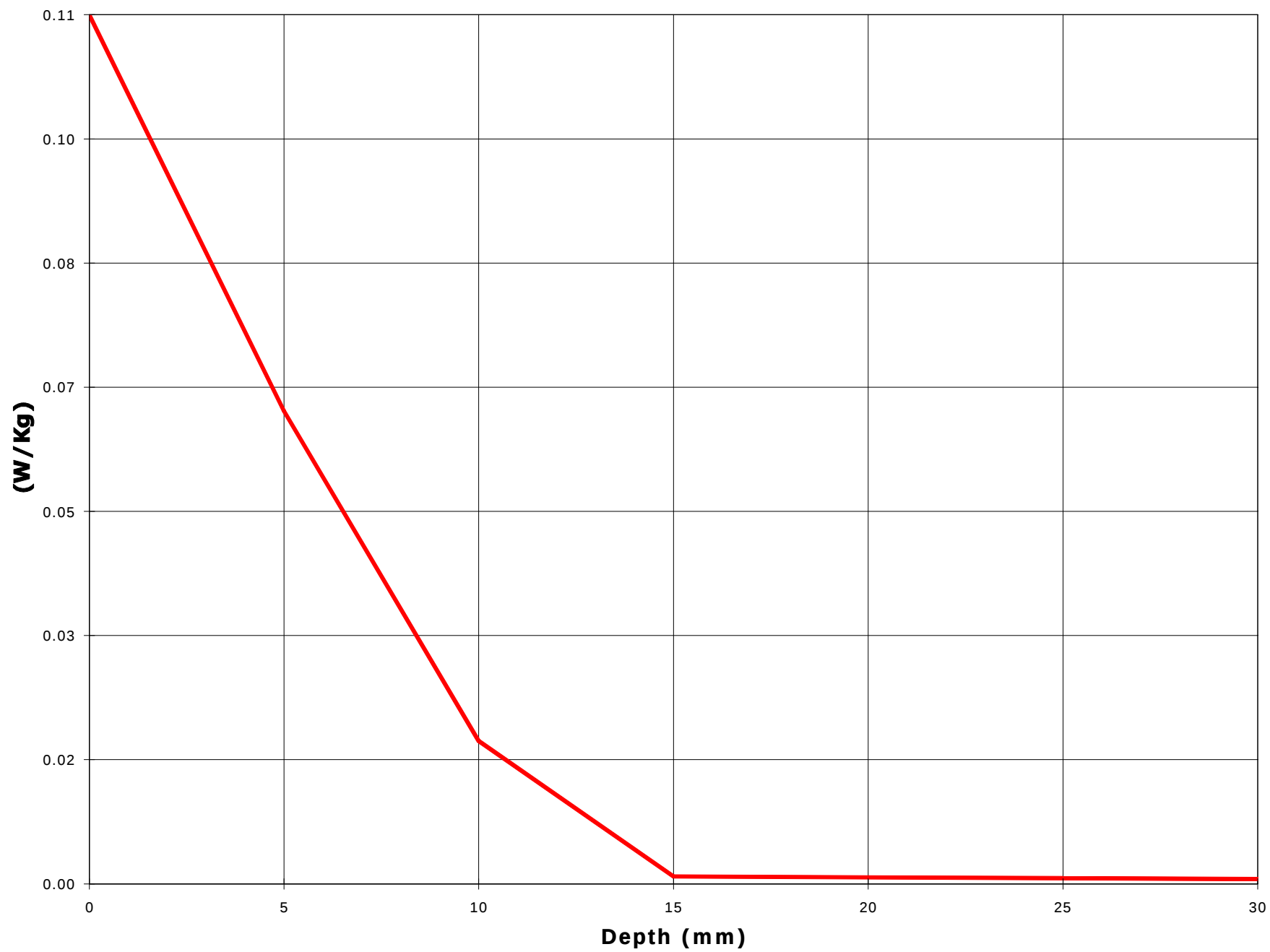
Peak Voltage (mV) : 1.53      1 Cm Voltage (mV) : 0.29      SAR (W/Kg) : 0.11











### Test Information

Date : 11/11/99  
Time : 3:26:55 PM

Product : Cellular Phone  
Manufacturer : Mitsubishi  
Model Number : MT-254  
Serial Number : 00001  
FCC ID Number : BGBMT254XF06A

Test : SAR  
Frequency (MHz) : 1910  
Nominal Output Power (W) : 0.6  
Antenna Type : 1/4 Wave  
Signal : TDMA

Phantom : Waist  
Simulated Tissue : Muscle

Dielectric Constant : 46.8  
Conductivity : 1.46

Probe : E3  
Probe Offset (mm) : 3.0  
Sensor Factor (mV) : 10.8  
Conversion Factor : 1.36  
Calibrated Date : 4/23/99

Antenna Position : FIX  
Measured Power (W) : 0.124  
(conducted)  
Cable Insertion Loss (dB) : 1.2  
Compensated Power (W) : 0.163

#### **Amplifier Setting :**

Channel 1 : 0.0046      Channel 2 : 0.0042      Channel 3 : 0.0032

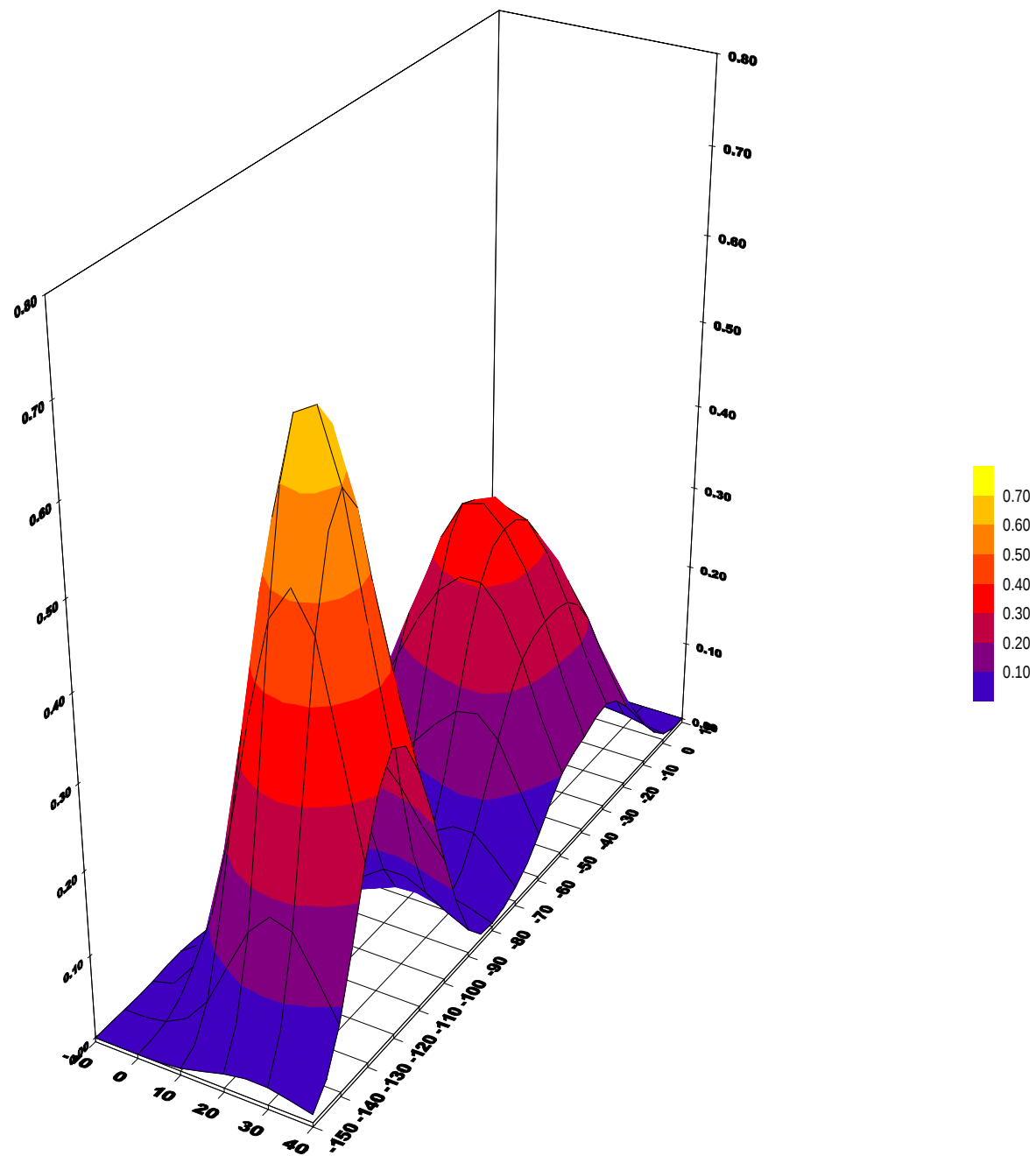
#### **Location of Maximum Field :**

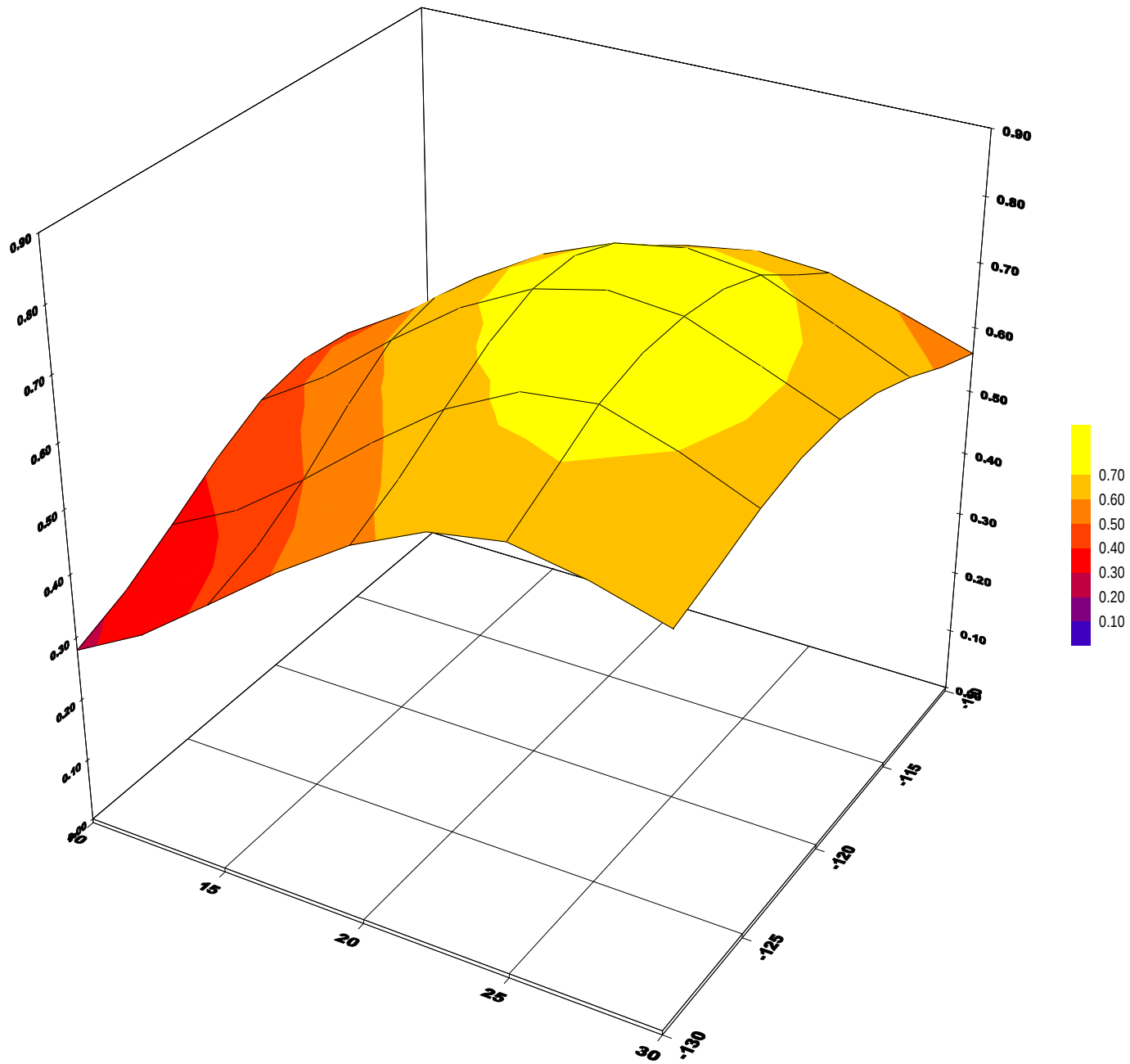
X = 25      Y = -125

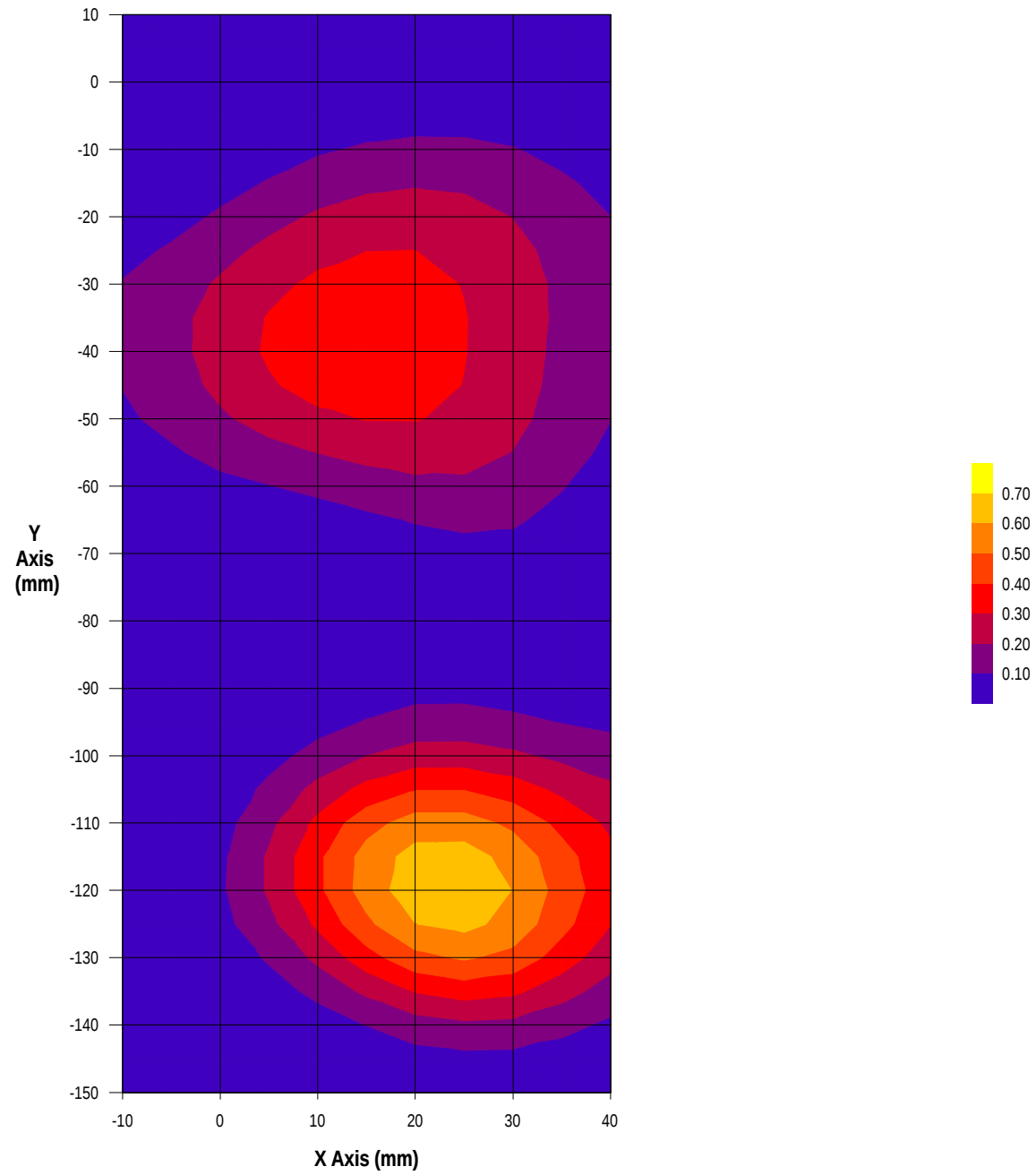
#### **Measured Values (mV) :**

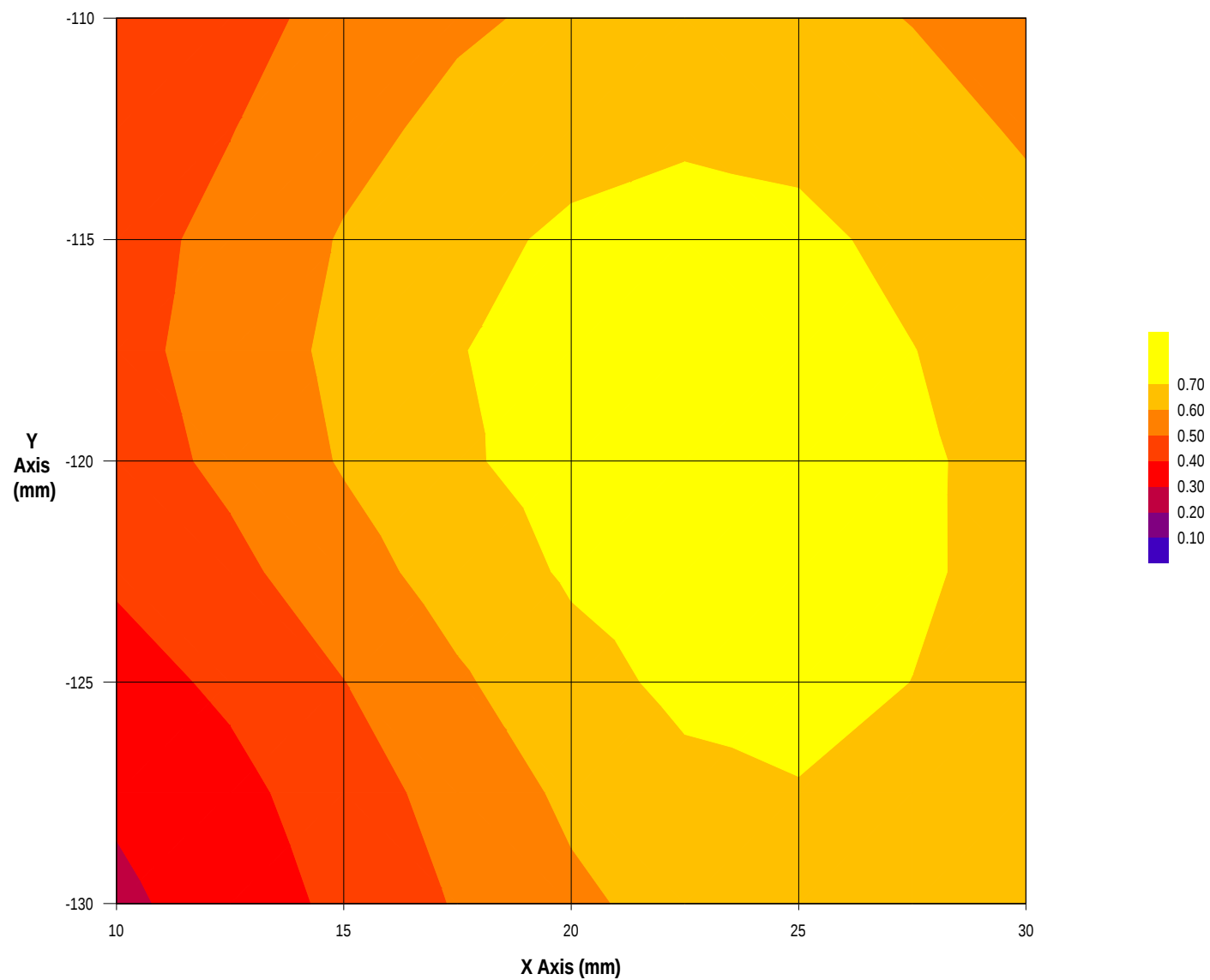
|      |      |      |      |      |      |
|------|------|------|------|------|------|
| 0.68 | 0.32 | 0.12 | 0.01 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |      |

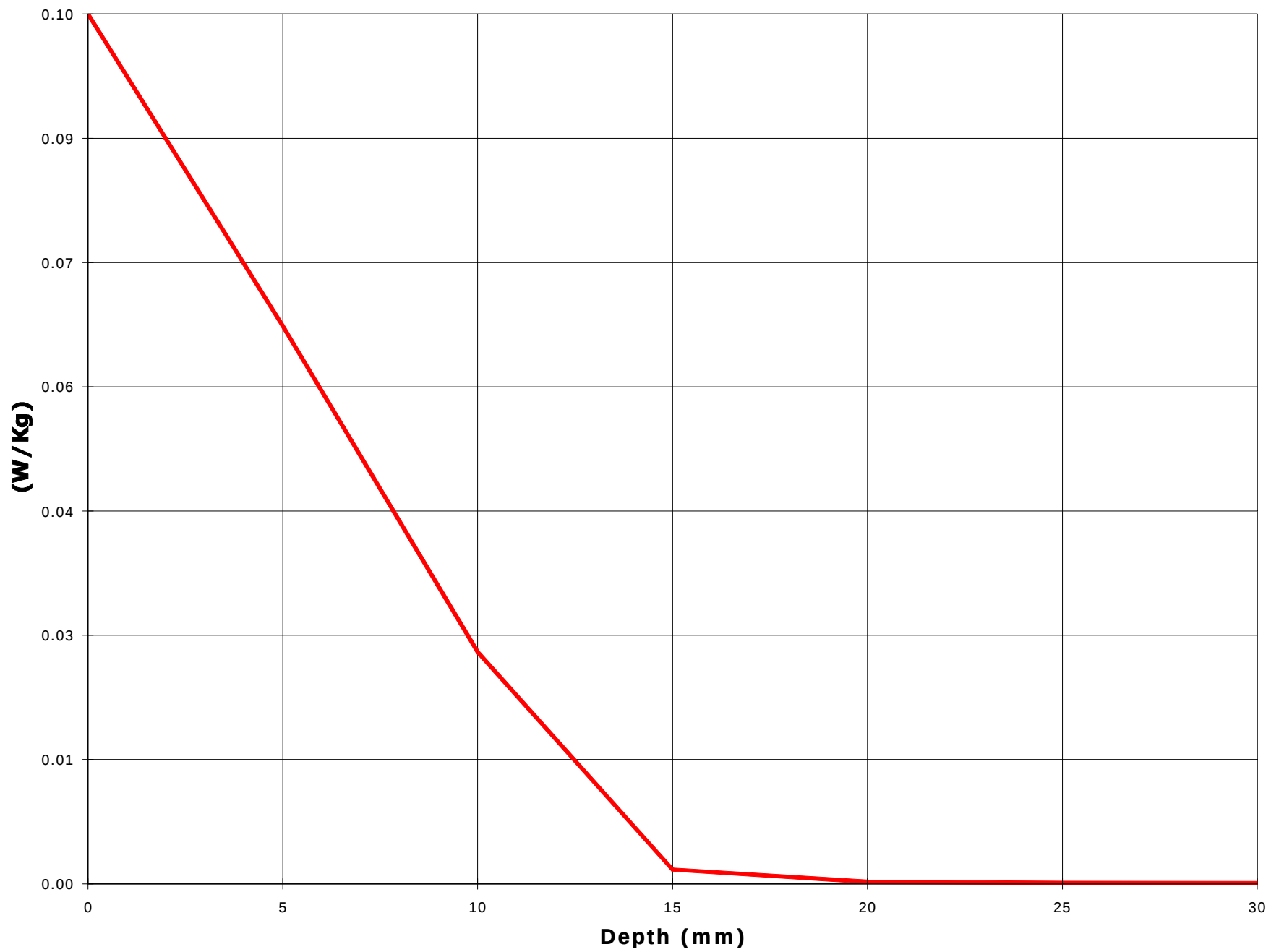
Peak Voltage (mV) : 1.16      1 Cm Voltage (mV) : 0.42      SAR (W/Kg) : 0.10











### Test Information

Date : 11/10/99  
Time : 4:09:12 PM

Product : Cellular Phone  
Manufacturer : Mitsubishi  
Model Number : MT-254  
Serial Number : 00001  
FCC ID Number : BGBMT254XF06A

Test : SAR  
Frequency (MHz) : 849  
Nominal Output Power (W) : 0.6  
Antenna Type : 1/4 Wave  
Signal : CW

Phantom : Waist  
Simulated Tissue : Muscle

Dielectric Constant : 49.1  
Conductivity : 1.15

Probe : E  
Probe Offset (mm) : 3.0  
Sensor Factor (mV) : 10.8  
Conversion Factor : 0.72  
Calibrated Date : 3/24/99

Antenna Position : FIX  
Measured Power (W) : 0.375  
(conducted)  
Cable Insertion Loss (dB) : 0.6  
Compensated Power (W) : 0.431

#### **Amplifier Setting :**

Channel 1 : 0.0045      Channel 2 : 0.0039      Channel 3 : 0.0031

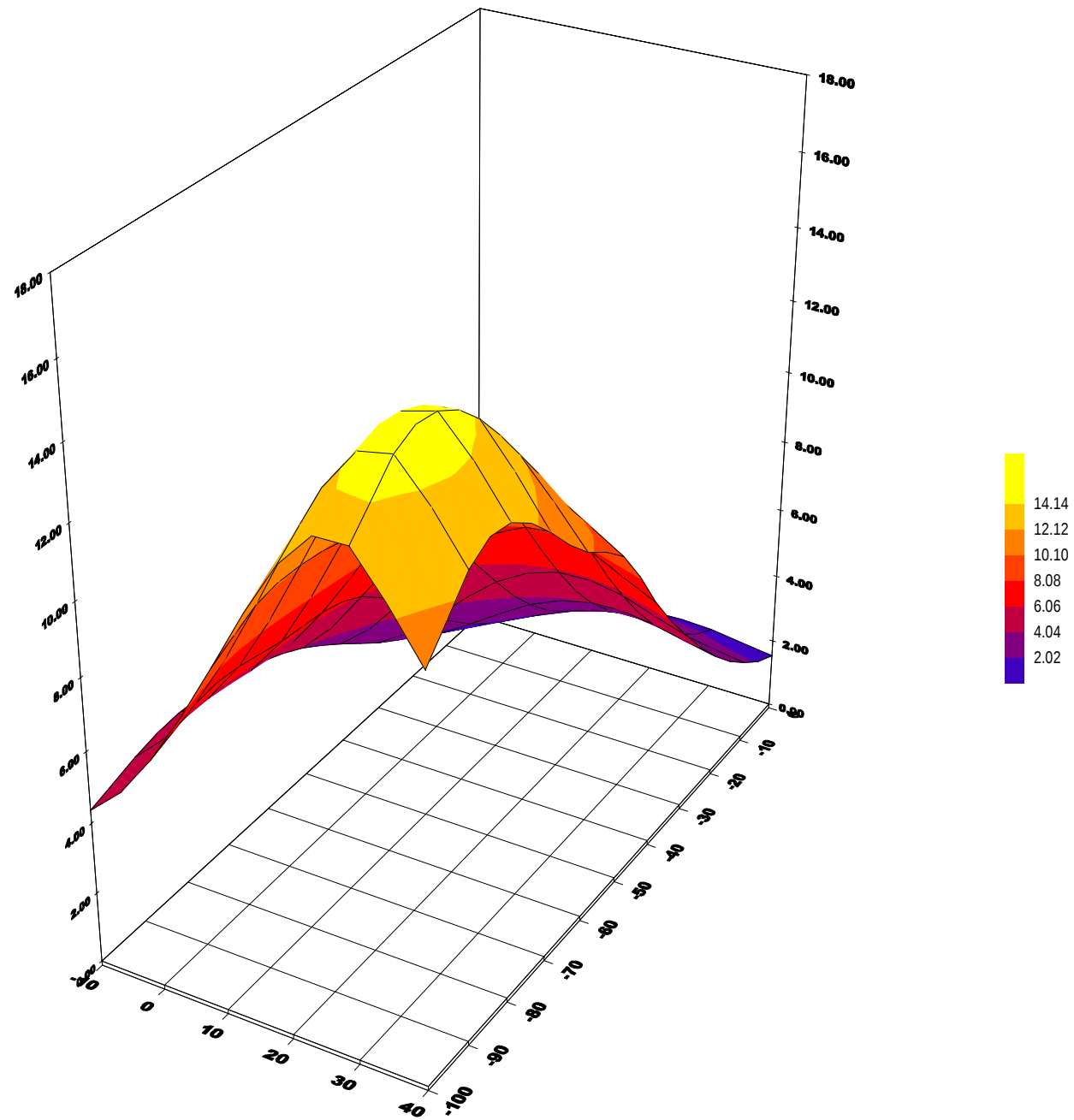
#### **Location of Maximum Field :**

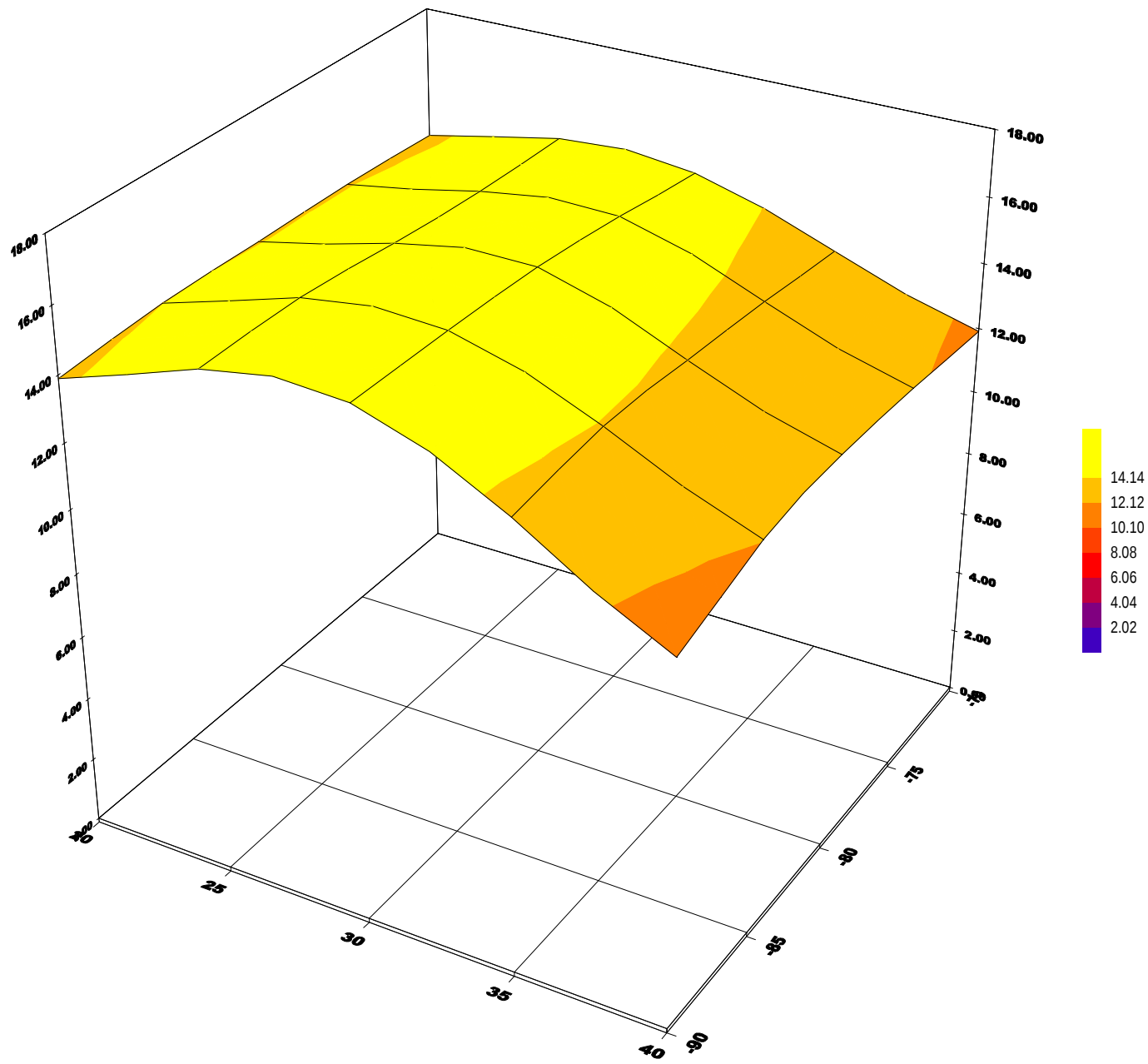
X = 30      Y = -80

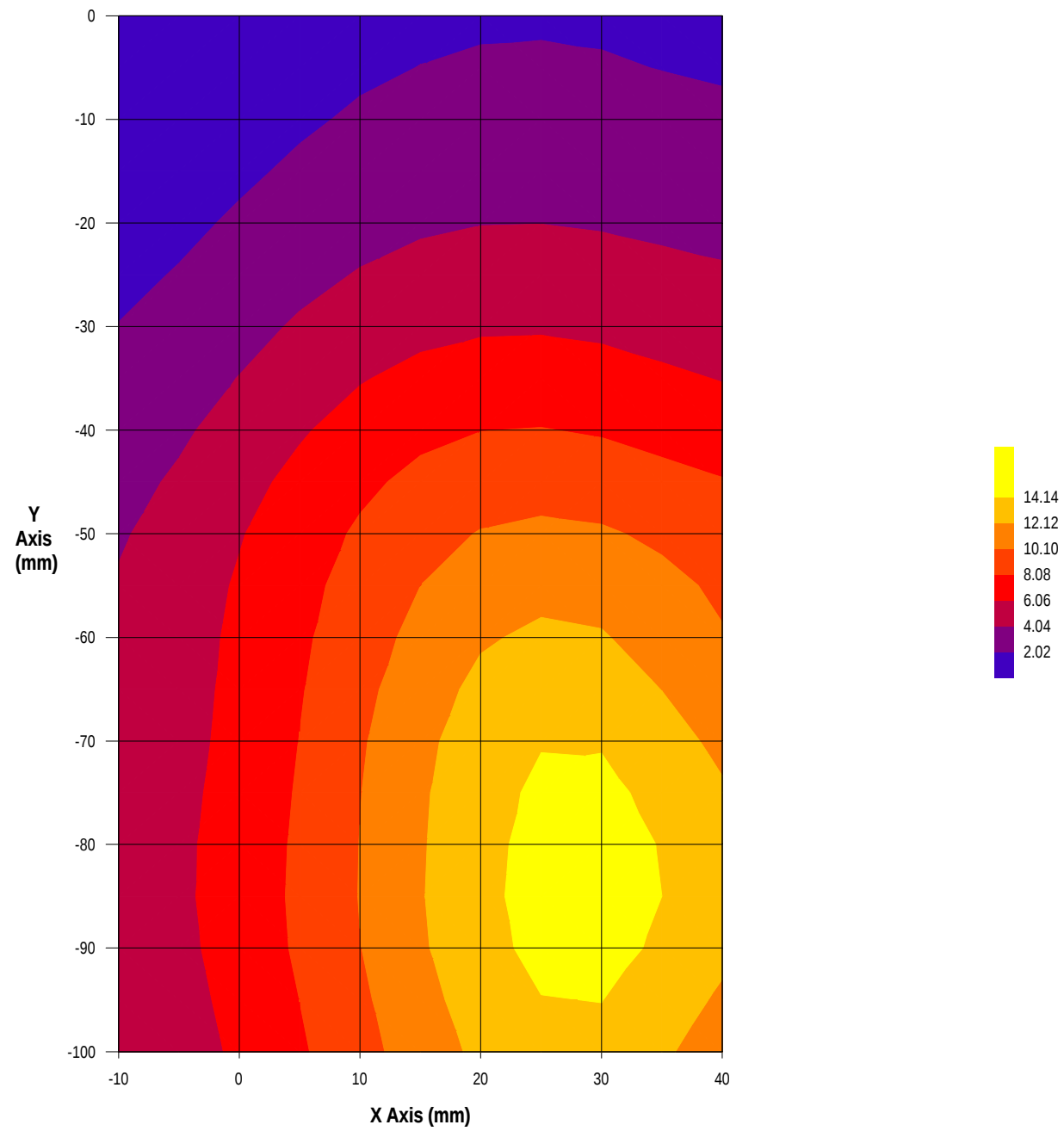
#### **Measured Values (mV) :**

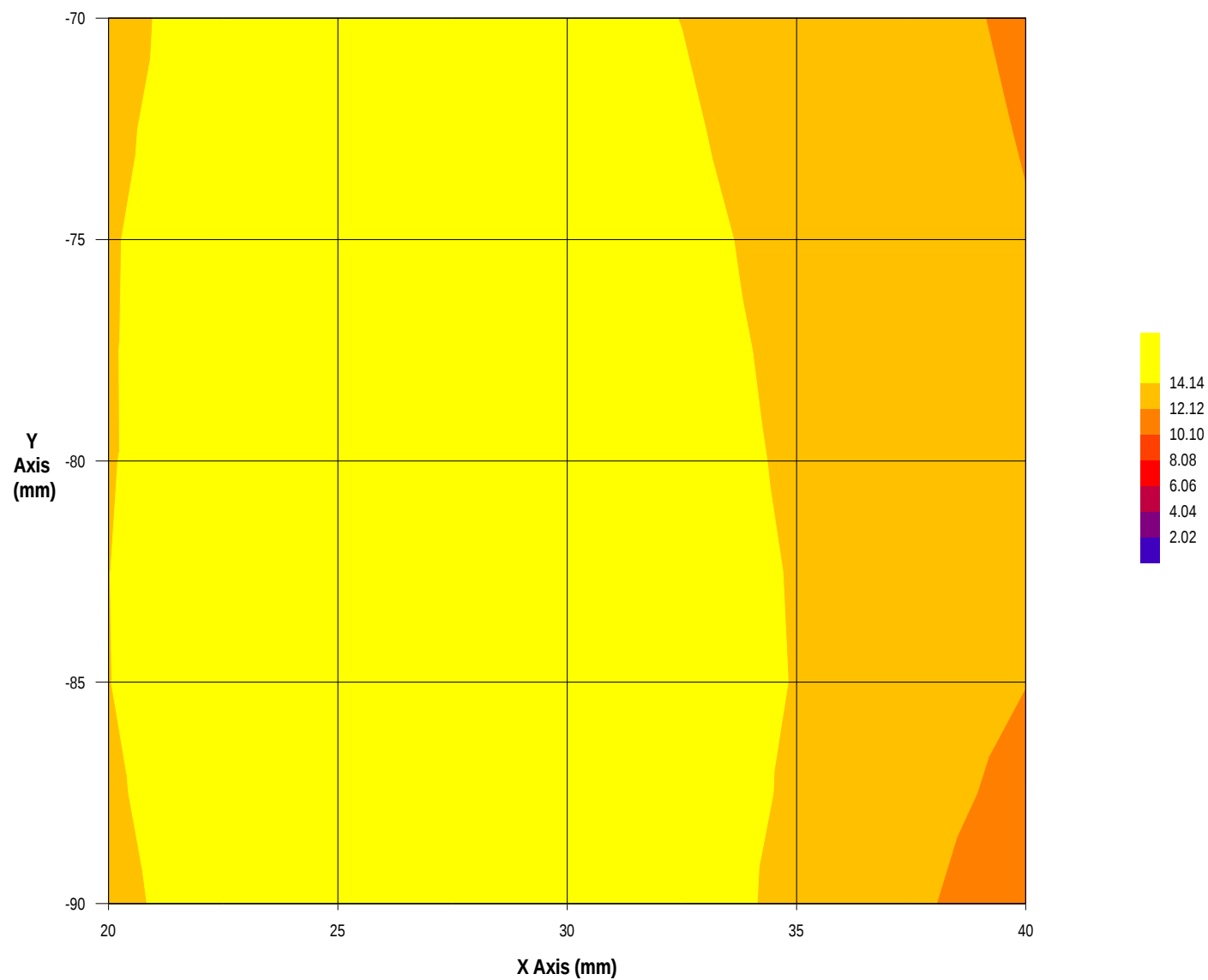
|       |       |      |      |      |      |
|-------|-------|------|------|------|------|
| 16.01 | 10.44 | 7.33 | 5.13 | 3.54 | 2.43 |
| 1.59  | 0.97  | 0.52 | 0.21 | 0.03 |      |

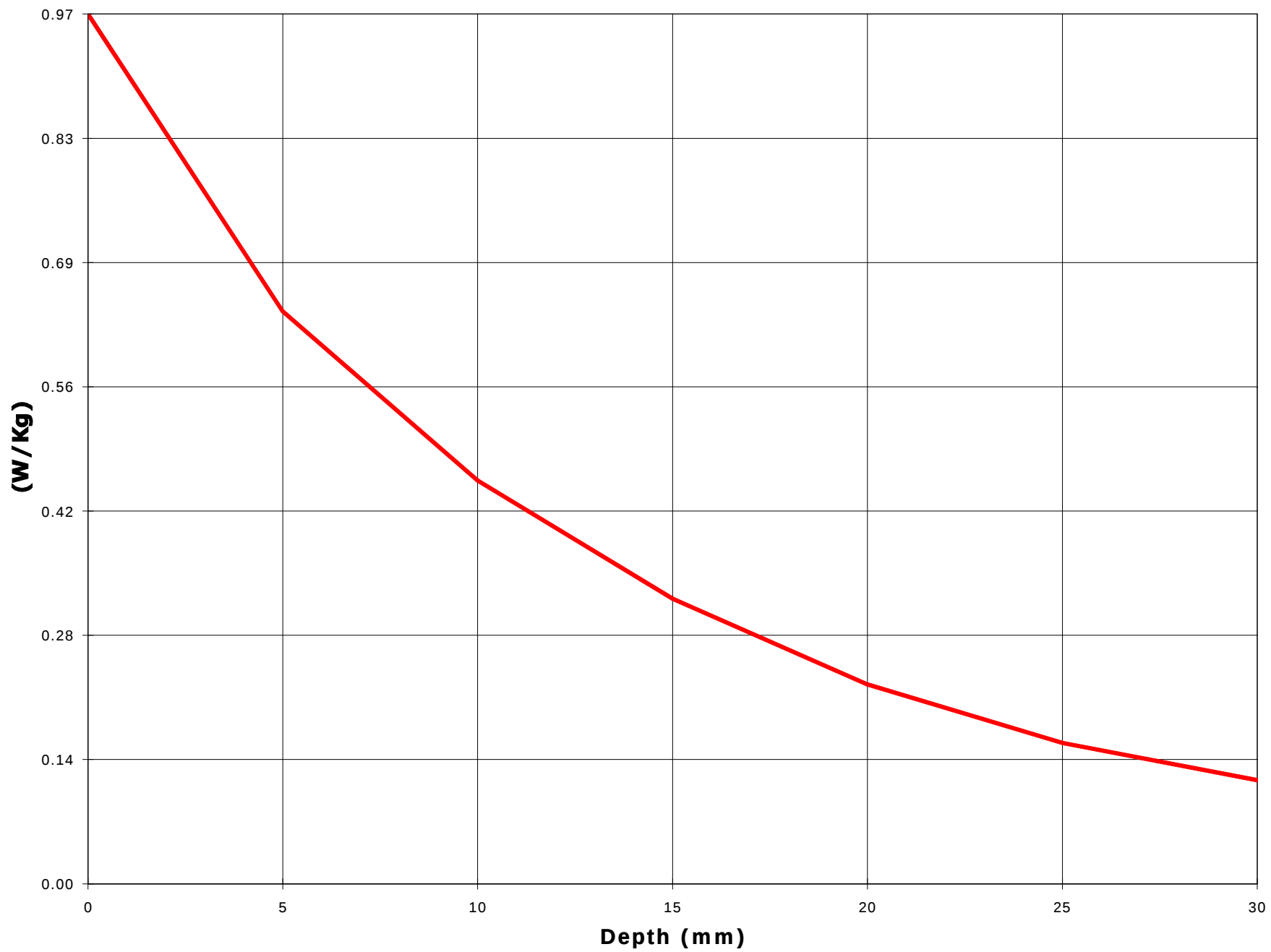
Peak Voltage (mV) : 20.26      1 Cm Voltage (mV) : 9.11      SAR (W/Kg) : 0.97











Date: 11/10/99, 8:31

Frequency: 835 MHz

Comments: Mitsubishi

Mixture: Muscle ('Brain' or 'Muscle')

# of Points: 11

Point Dist: 1 cm.

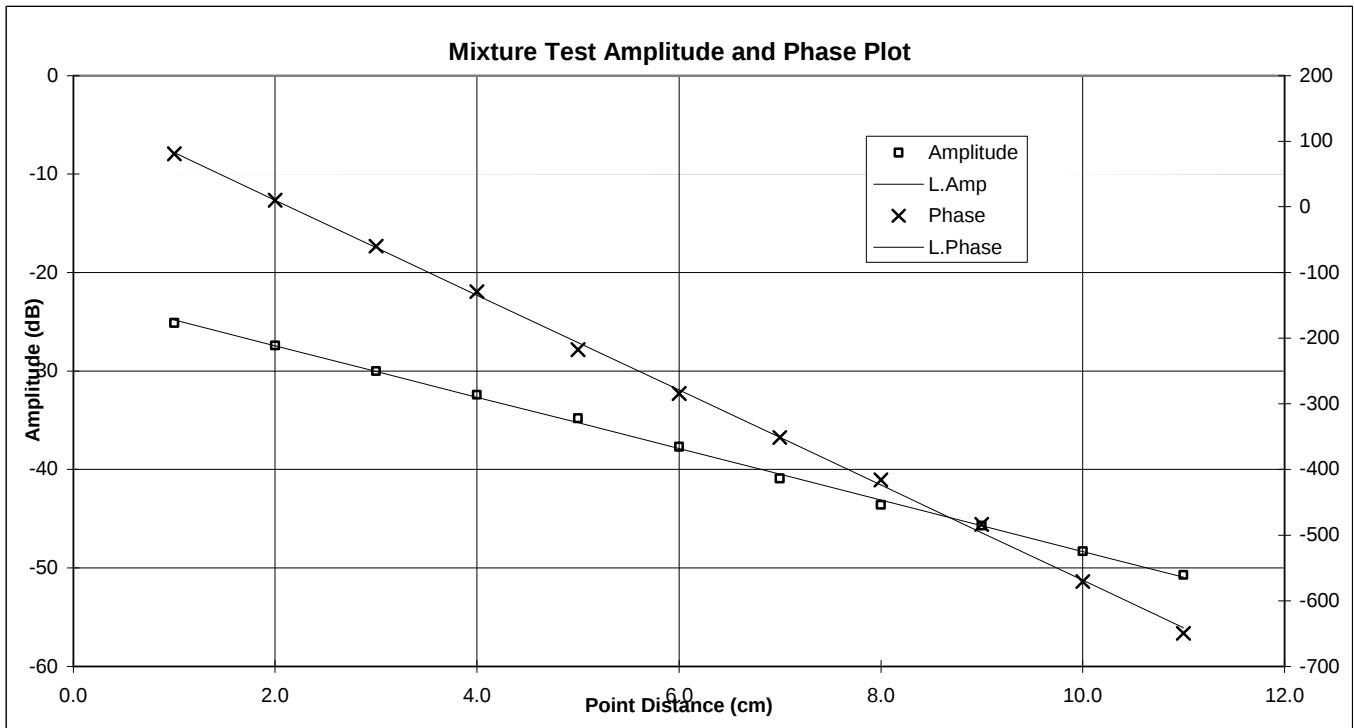
Room Temp.: 26

| Point | Amplitude | Phase   |
|-------|-----------|---------|
| 1     | -25.10    | 80.80   |
| 2     | -27.40    | 10.50   |
| 3     | -30.00    | -59.70  |
| 4     | -32.40    | -128.80 |
| 5     | -34.80    | 142.70  |
| 6     | -37.70    | 75.80   |
| 7     | -40.90    | 8.80    |
| 8     | -43.60    | -55.90  |
| 9     | -45.70    | -123.70 |
| 10    | -48.30    | 149.30  |
| 11    | -50.70    | 70.40   |

|       |              |
|-------|--------------|
| -49.9 |              |
| -51.6 |              |
| -53.5 | -2.610909091 |
| -55.3 | -22.20727273 |
| -56.9 | -72.33545455 |
|       | 154.94       |

|            |                     |
|------------|---------------------|
| Omega:     | 5246459731 rad/sec  |
| Epsilon 0: | 8.85E-14 F/m        |
| mu:        | 1.26E-08 H/m        |
| alpha avg: | -0.300592018 Np/cm  |
| beta avg:  | -1.262491848 rad/cm |

| Results:  |      | Target | Low Limit | High Limit | % Off Target |
|-----------|------|--------|-----------|------------|--------------|
| D. Const: | 49.1 | 52.0   | 49.4      | 54.6       | -5.75        |
| Cond:     | 1.15 | 1.10   | 1.045     | 1.155      | 4.55         |



Date: 11/11/99, 13:52

Frequency: 1900 MHz

Comments: Mitsubishi

Mixture: Muscle ('Brain' or 'Muscle')

# of Points: 11

Point Dist: 0.5 cm.

Room Temp.: 26

| Point | Amplitude | Phase   |
|-------|-----------|---------|
| 1     | -42.30    | 51.00   |
| 2     | -44.50    | -45.40  |
| 3     | -46.10    | -118.20 |
| 4     | -47.30    | 157.70  |
| 5     | -48.50    | 82.30   |
| 6     | -50.10    | 4.70    |
| 7     | -52.30    | -71.00  |
| 8     | -53.70    | -148.50 |
| 9     | -55.80    | 132.20  |
| 10    | -58.00    | 50.90   |
| 11    | -60.40    | -29.90  |

|       |              |
|-------|--------------|
| -49.9 |              |
| -51.6 |              |
| -53.5 | -3.458181818 |
| -55.3 | -40.44363636 |
| -56.9 | -157.7054545 |
|       | 119.0981818  |

|            |                     |
|------------|---------------------|
| Omega:     | 11938052084 rad/sec |
| Epsilon 0: | 8.85E-14 F/m        |
| mu:        | 1.26E-08 H/m        |
| alpha avg: | -0.398137895 Np/cm  |
| beta avg:  | -2.75247943 rad/cm  |

| Results:  |      | Target | Low Limit | High Limit | % Off Target |
|-----------|------|--------|-----------|------------|--------------|
| D. Const: | 46.8 | 50.0   | 47.5      | 52.5       | -6.65        |
| Cond:     | 1.46 | 1.50   | 1.425     | 1.575      | -2.63        |

