

## Exhibit 13 - APPENDIX D HAC T-Coil Data Plots

**Z (AXIAL) MEASUREMENT: CDMA 800 Channel 1013**

**Equipment Setting:**

**DUT: LightPipe; Type: Cellular Phone ; Serial Number: 3180;**

Date:7/2/2008

Communication System: CDMA; Frequency: 824.7 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>

Phantom section: AMB with Coil Section

DASY4 Configuration:

- Probe: AM1DV2 - 1045; ; Calibrated: 9/19/2007
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn603; Calibrated: 10/15/2007
- Phantom: HAC Test Arch with Coil; Type: SD HAC P01 BA; Serial: 100x
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Scans CH1013/z (axial) rough 50 x 50/ABM Interpolated Signal(x,y,z) (51x51x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 = -6.77836 dB A/m  
BWC Factor = -0.198998 dB  
Location: 4, -3, 363.7 mm

**Scans CH1013/z (axial) 16 x 16/ABM Interpolated Signal(x,y,z) (41x41x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 = -1.15613 dB A/m  
BWC Factor = -0.198998 dB  
Location: 1, -1, 363.7 mm

**Point meas,TCoil on CH1013/z (axial) at max z/ABM Signal(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 comp = -1.37133 dB A/m  
BWC Factor = -0.198998 dB  
Location: 1, -1, 363.7 mm

**Point meas,TCoil on CH1013/z (axial) at max z/ABM Noise(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM2 = -48.8697 dB A/m  
Location: 1, -1, 363.7 mm

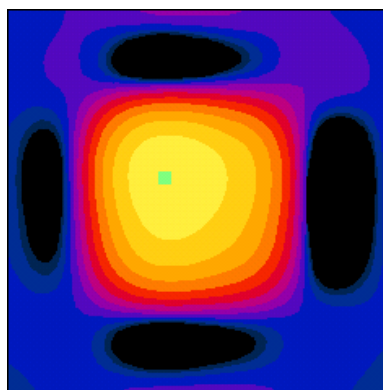
**Point meas,TCoil on CH1013/z (axial) at max z/ABM SNR(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

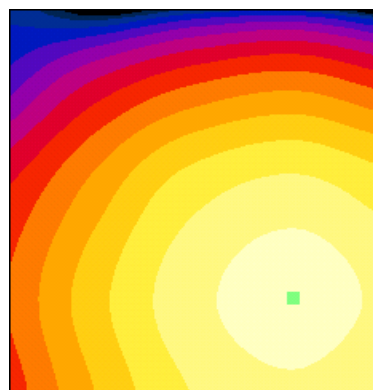
ABM1/ABM2 = 47.4984 dB  
BWC Factor = -0.198998 dB  
Location: 1, -1, 363.7 mm

**Z (axial) rough 50x50 scan:**



0 dB = 1.00A/m

**Z (axial) 16x16scan:**



0 dB = 1.00A/m

**X RADIAL MEASUREMENT: CDMA 800 Channel 1013**

**Equipment Setting:**

**DUT: LightPipe; Type: Cellular Phone ; Serial Number: 3180;**

Date:7/2/2008

Communication System: CDMA; Frequency: 824.7 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>

Phantom section: AMB with Coil Section

DASY4 Configuration:

- Probe: AM1DV2 - 1045; ; Calibrated: 9/19/2007
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn603; Calibrated: 10/15/2007
- Phantom: HAC Test Arch with Coil; Type: SD HAC P01 BA; Serial: 100x
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Scans CH1013/x (longitudinal) 24 x 16/ABM Interpolated Signal(x,y,z) (61x41x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 = -10.514 dB A/m

BWC Factor = -0.198998 dB

Location: -6.2, -1.4, 363.7 mm

**Point meas,TCoil on CH1013/x (longitudinal) at max x/ABM Signal(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 comp = -10.8217 dB A/m

BWC Factor = -0.198998 dB

Location: -7, -1, 363.7 mm

**Point meas,TCoil on CH1013/x (longitudinal) at max x/ABM Noise(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM2 = -55.4441 dB A/m

Location: -7, -1, 363.7 mm

**Point meas,TCoil on CH1013/x (longitudinal) at max x/ABM SNR(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

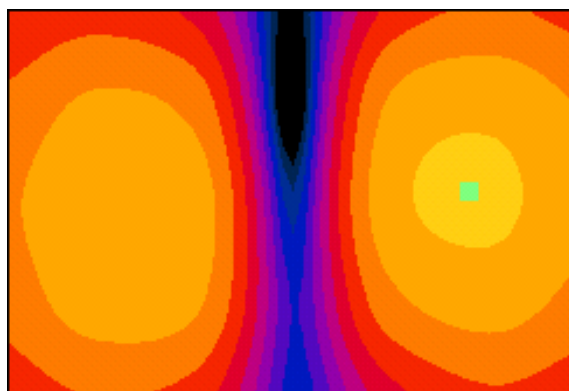
**Cursor:**

ABM1/ABM2 = 44.6225 dB

BWC Factor = -0.198998 dB

Location: -7, -1, 363.7 mm

**X (Radial) 24x16 scan:**



0 dB = 1.00A/m

**Y RADIAL MEASUREMENT: CDMA 800 Channel 1013**

**Equipment Setting:**

**DUT: LightPipe; Type: Cellular Phone ; Serial Number: 3180;**

Date:7/2/2008

Communication System: CDMA; Frequency: 824.7 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>

Phantom section: AMB with Coil Section

DASY4 Configuration:

- Probe: AM1DV2 - 1045; ; Calibrated: 9/19/2007
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn603; Calibrated: 10/15/2007
- Phantom: HAC Test Arch with Coil; Type: SD HAC P01 BA; Serial: 100x
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Scans CH1013/y (transversal) 16 x 24/ABM**

**Interpolated Signal(x,y,z) (41x61x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 = -9.00157 dB A/m

BWC Factor = -0.198998 dB

Location: 1, -6.2, 363.7 mm

**Point meas,TCoil on CH1013/y (transversal) at max**

**y/ABM Signal(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 comp = -9.24022 dB A/m

BWC Factor = -0.198998 dB

Location: 1, -5, 363.7 mm

**Point meas,TCoil on CH1013/y (transversal) at max**

**y/ABM Noise(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM2 = -58.5963 dB A/m

Location: 1, -5, 363.7 mm

**Point meas,TCoil on CH1013/y (transversal) at max**

**y/ABM SNR(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

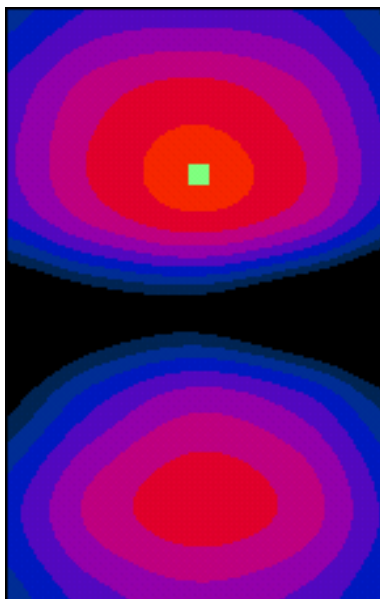
**Cursor:**

ABM1/ABM2 = 49.3561 dB

BWC Factor = -0.198998 dB

Location: 1, -5, 363.7 mm

**Y (Radial) 16x24 scan:**



0 dB = 1.00A/m

**Z (AXIAL) MEASUREMENT: CDMA 800 Channel 383**

**Equipment Setting:**

**DUT: LightPipe; Type: Cellular Phone ; Serial Number: 3180;**  
 Communication System: CDMA; Frequency: 836.49 MHz; Duty Cycle: 1:1  
 Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>

Date: 7/2/2008

Phantom section: AMB with Coil Section

DASY4 Configuration:

- Probe: AM1DV2 - 1045; ; Calibrated: 9/19/2007
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn603; Calibrated: 10/15/2007
- Phantom: HAC Test Arch with Coil; Type: SD HAC P01 BA; Serial: 100x
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Scans CH383/z (axial) rough 50 x 50/ABM Interpolated Signal(x,y,z) (51x51x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 = -7.30524 dB A/m  
 BWC Factor = -0.198998 dB  
 Location: 3, -3, 363.7 mm

**Scans CH383/z (axial) 16 x 16/ABM Interpolated Signal(x,y,z) (41x41x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 = -1.3203 dB A/m  
 BWC Factor = -0.198998 dB  
 Location: 1, -1, 363.7 mm

**Point meas, TCoil on CH383/z (axial) at max z/ABM Signal(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 comp = -1.32334 dB A/m  
 BWC Factor = -0.198998 dB  
 Location: 1, -1, 363.7 mm

**Point meas, TCoil on CH383/z (axial) at max z/ABM Noise(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM2 = -48.4236 dB A/m  
 Location: 1, -1, 363.7 mm

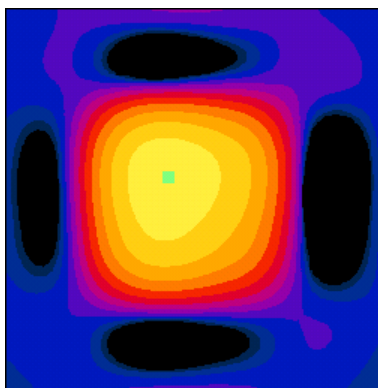
**Point meas, TCoil on CH383/z (axial) at max z/ABM SNR(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

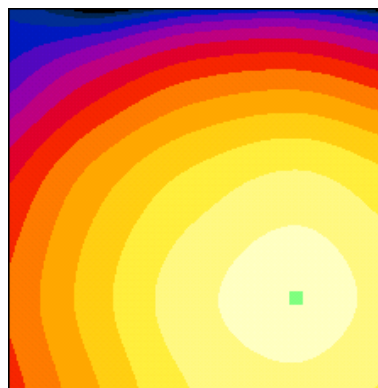
ABM1/ABM2 = 47.1003 dB  
 BWC Factor = -0.198998 dB  
 Location: 1, -1, 363.7 mm

**Z (axial) rough 50x50 scan:**



0 dB = 1.00A/m

**Z (axial) 16x16 scan:**



0 dB = 1.00A/m

**X RADIAL MEASUREMENT: CDMA 800 Channel 383**

**Equipment Setting:**

**DUT: LightPipe; Type: Cellular Phone ; Serial Number: 3180;**  
 Communication System: CDMA; Frequency: 836.49 MHz; Duty Cycle: 1:1  
 Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>

Date: 7/2/2008

Phantom section: AMB with Coil Section

DASY4 Configuration:

- Probe: AM1DV2 - 1045; ; Calibrated: 9/19/2007
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn603; Calibrated: 10/15/2007
- Phantom: HAC Test Arch with Coil; Type: SD HAC P01 BA; Serial: 100x
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Scans CH383/x (longitudinal) 24 x 16/ABM Interpolated Signal(x,y,z) (61x41x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 = -10.5887 dB A/m  
 BWC Factor = -0.198998 dB  
 Location: -6.2, -1.4, 363.7 mm

**Point meas, TCoil on CH383/x (longitudinal) at max x/ABM Signal(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 comp = -10.7308 dB A/m  
 BWC Factor = -0.198998 dB  
 Location: -7, -1, 363.7 mm

**Point meas, TCoil on CH383/x (longitudinal) at max x/ABM Noise(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM2 = -55.072 dB A/m  
 Location: -7, -1, 363.7 mm

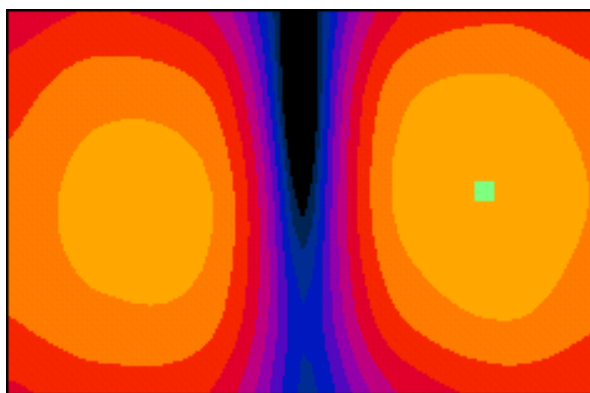
**Point meas, TCoil on CH383/x (longitudinal) at max x/ABM SNR(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1/ABM2 = 44.3412 dB  
 BWC Factor = -0.198998 dB  
 Location: -7, -1, 363.7 mm

**X (Radial) 24x16 scan:**



0 dB = 1.00A/m

**Y RADIAL MEASUREMENT: CDMA 800 Channel 383**

**Equipment Setting:**

**DUT: LightPipe; Type: Cellular Phone ; Serial Number: 3180;**  
 Communication System: CDMA; Frequency: 836.49 MHz; Duty Cycle: 1:1  
 Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>  
 Phantom section: AMB with Coil Section

Date:7/2/2008

**DASY4 Configuration:**

- Probe: AM1DV2 - 1045; ; Calibrated: 9/19/2007
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn603; Calibrated: 10/15/2007
- Phantom: HAC Test Arch with Coil; Type: SD HAC P01 BA; Serial: 100x
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Scans CH383/y (transversal) 16 x 24/ABM Interpolated Signal(x,y,z) (41x61x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 = -9.23484 dB A/m  
 BWC Factor = -0.198998 dB  
 Location: 1.4, -6.2, 363.7 mm

**Point meas,TCoil on CH383/y (transversal) at max y/ABM Signal(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 comp = -9.25502 dB A/m  
 BWC Factor = -0.198998 dB  
 Location: 1, -5, 363.7 mm

**Point meas,TCoil on CH383/y (transversal) at max y/ABM Noise(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM2 = -58.4593 dB A/m  
 Location: 1, -5, 363.7 mm

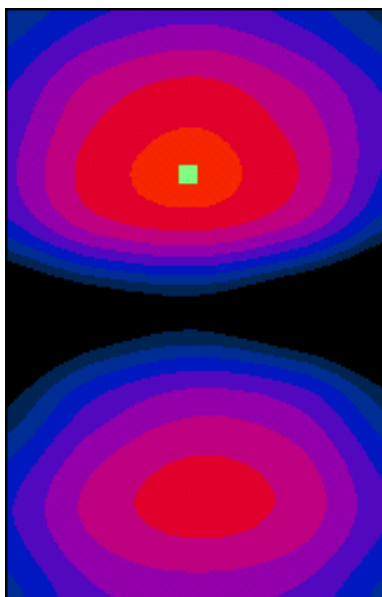
**Point meas,TCoil on CH383/y (transversal) at max y/ABM SNR(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1/ABM2 = 49.2043 dB  
 BWC Factor = -0.198998 dB  
 Location: 1, -5, 363.7 mm

**Y (Radial) 16x24 scan:**



0 dB = 1.00A/m

**Z (AXIAL) MEASUREMENT: CDMA 800 Channel 777**

**Equipment Setting:**

**DUT: LightPipe; Type: Cellular Phone ; Serial Number: 3180;**

Date:7/2/2008

Communication System: CDMA; Frequency: 848.31 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>

Phantom section: AMB with Coil Section

**DASY4 Configuration:**

- Probe: AM1DV2 - 1045; ; Calibrated: 9/19/2007

- Sensor-Surface: 0mm (Fix Surface)

- Electronics: DAE4 Sn603; Calibrated: 10/15/2007

- Phantom: HAC Test Arch with Coil; Type: SD HAC P01 BA; Serial: 100x

- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Scans CH777/z (axial) rough 50 x 50/ABM Interpolated Signal(x,y,z) (51x51x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 = -7.14885 dB A/m

BWC Factor = -0.198998 dB

Location: 4, -3, 363.7 mm

**Scans CH777/z (axial) 16 x 16/ABM Interpolated Signal(x,y,z) (41x41x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 = -1.7662 dB A/m

BWC Factor = -0.198998 dB

Location: 1, -1, 363.7 mm

**Point meas,TCoil on CH777/z (axial) at max z/ABM Signal(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 comp = -1.57993 dB A/m

BWC Factor = -0.198998 dB

Location: 1, -1, 363.7 mm

**Point meas,TCoil on CH777/z (axial) at max z/ABM Noise(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM2 = -49.9206 dB A/m

Location: 1, -1, 363.7 mm

**Point meas,TCoil on CH777/z (axial) at max z/ABM SNR(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

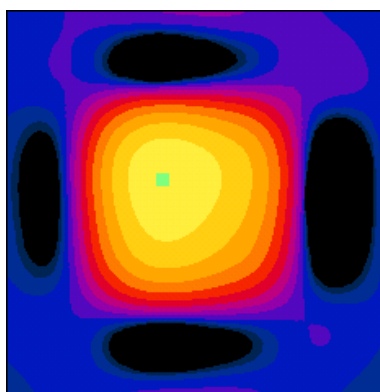
**Cursor:**

ABM1/ABM2 = 48.3407 dB

BWC Factor = -0.198998 dB

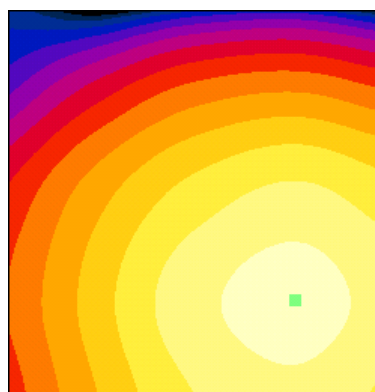
Location: 1, -1, 363.7 mm

**Z (axial) rough 50x50 scan:**



0 dB = 1.00A/m

**Z (axial) 16x16scan:**



0 dB = 1.00A/m

**X RADIAL MEASUREMENT: CDMA 800 Channel 777**

**Equipment Setting:**

**DUT: LightPipe; Type: Cellular Phone ; Serial Number: 3180; Date:7/2/2008**

Communication System: CDMA; Frequency: 848.31 MHz; Duty Cycle: 1:1  
 Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>  
 Phantom section: AMB with Coil Section

**DASY4 Configuration:**

- Probe: AM1DV2 - 1045; ; Calibrated: 9/19/2007
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn603; Calibrated: 10/15/2007
- Phantom: HAC Test Arch with Coil; Type: SD HAC P01 BA; Serial: 100x
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Scans CH777/x (longitudinal) 24 x 16/ABM**

**Interpolated Signal(x,y,z) (61x41x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 = -10.7476 dB A/m  
 BWC Factor = -0.198998 dB  
 Location: -6.6, -1, 363.7 mm

**Point meas,TCoil on CH777/x (longitudinal) at max**

**x/ABM Signal(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 comp = -10.7092 dB A/m  
 BWC Factor = -0.198998 dB  
 Location: -7, -1, 363.7 mm

**Point meas,TCoil on CH777/x (longitudinal) at max**

**x/ABM Noise(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM2 = -55.5262 dB A/m  
 Location: -7, -1, 363.7 mm

**Point meas,TCoil on CH777/x (longitudinal) at max**

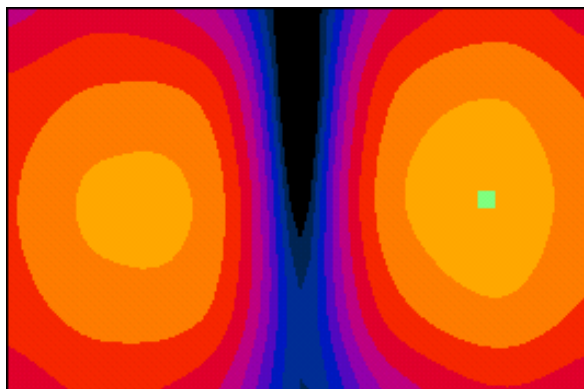
**x/ABM SNR(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1/ABM2 = 44.817 dB  
 BWC Factor = -0.198998 dB  
 Location: -7, -1, 363.7 mm

**X (Radial) 24x16 scan:**



0 dB = 1.00A/m



**Y RADIAL MEASUREMENT: CDMA 800 Channel 777**

**Equipment Setting:**

**DUT: LightPipe; Type: Cellular Phone ; Serial Number: 3180;**

Date:7/2/2008

Communication System: CDMA; Frequency: 848.31 MHz;Duty Cycle: 1:1  
 Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>  
 Phantom section: AMB with Coil Section

**DASY4 Configuration:**

- Probe: AM1DV2 - 1045; ; Calibrated: 9/19/2007
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn603; Calibrated: 10/15/2007
- Phantom: HAC Test Arch with Coil; Type: SD HAC P01 BA; Serial: 100x
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Scans CH777/y (transversal) 16 x 24/ABM**

**Interpolated Signal(x,y,z) (41x61x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 = -9.58144 dB A/m  
 BWC Factor = -0.198998 dB  
 Location: 1.8, -6.2, 363.7 mm

**Point meas,TCoil on CH777/y (transversal) at max y/ABM Signal(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 comp = -9.85104 dB A/m  
 BWC Factor = -0.198998 dB  
 Location: 1, -5, 363.7 mm

**Point meas,TCoil on CH777/y (transversal) at max y/ABM Noise(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM2 = -58.6909 dB A/m  
 Location: 1, -5, 363.7 mm

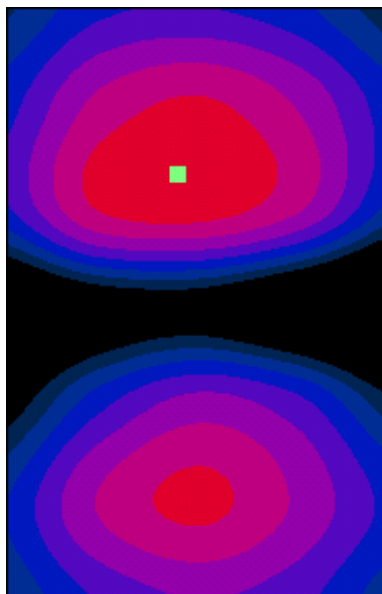
**Point meas,TCoil on CH777/y (transversal) at max y/ABM SNR(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1/ABM2 = 48.8399 dB  
 BWC Factor = -0.198998 dB  
 Location: 1, -5, 363.7 mm

**Y (Radial) 16x24 scan:**



0 dB = 1.00A

**Z (AXIAL) MEASUREMENT: CDMA 1900 Channel 25**

**Equipment Setting:**

**DUT: LightPipe; Type: Cellular Phone ; Serial Number: 3180;**

Date:7/2/2008

Communication System: CDMA; Frequency: 1850 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>

Phantom section: AMB with Coil Section

DASY4 Configuration:

- Probe: AM1DV2 - 1045; ; Calibrated: 9/19/2007
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn603; Calibrated: 10/15/2007
- Phantom: HAC Test Arch with Coil; Type: SD HAC P01 BA; Serial: 100x
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Scans CH25/z (axial) rough 50 x 50/ABM Interpolated Signal(x,y,z) (51x51x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 = -7.25914 dB A/m

BWC Factor = -0.198002 dB

Location: 3, -4, 363.7 mm

**Scans CH25/z (axial) 16 x 16/ABM Interpolated**

**Signal(x,y,z) (41x41x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 = -1.9134 dB A/m

BWC Factor = -0.198002 dB

Location: 1, -1, 363.7 mm

**Point meas,TCoil on CH25/z (axial) at max z/ABM**

**Signal(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 comp = -2.1701 dB A/m

BWC Factor = -0.198998 dB

Location: 1, -1, 363.7 mm

**Point meas,TCoil on CH25/z (axial) at max z/ABM**

**Noise(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM2 = -48.6609 dB A/m

Location: 1, -1, 363.7 mm

**Point meas,TCoil on CH25/z (axial) at max z/ABM**

**SNR(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

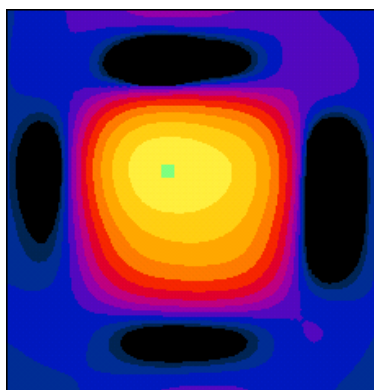
**Cursor:**

ABM1/ABM2 = 46.4908 dB

BWC Factor = -0.198998 dB

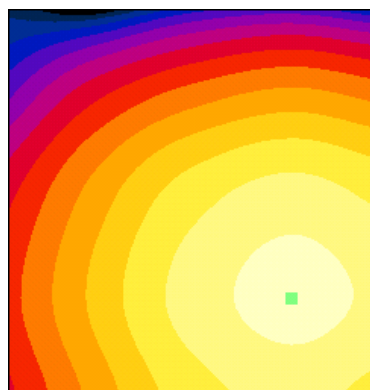
Location: 1, -1, 363.7 mm

**Z (axial) rough 50x50 scan:**



0 dB = 1.00A/m

**Z (axial) 16x16scan:**



0 dB = 1.00A/m

**X RADIAL MEASUREMENT: CDMA 1900 Channel 25**

**Equipment Setting:**

**DUT: LightPipe; Type: Cellular Phone ; Serial Number: 3180;**

Date:7/2/2008

Communication System: CDMA; Frequency: 1850 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>

Phantom section: AMB with Coil Section

DASY4 Configuration:

- Probe: AM1DV2 - 1045; ; Calibrated: 9/19/2007
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn603; Calibrated: 10/15/2007
- Phantom: HAC Test Arch with Coil; Type: SD HAC P01 BA; Serial: 100x
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Scans CH25/x (longitudinal) 24 x 16/ABM Interpolated Signal(x,y,z) (61x41x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 = -10.5141 dB A/m

BWC Factor = -0.198002 dB

Location: -7, -1.4, 363.7 mm

**Point meas,TCoil on CH25/x (longitudinal) at max x/ABM Signal(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 comp = -11.0851 dB A/m

BWC Factor = -0.198998 dB

Location: -7, -1, 363.7 mm

**Point meas,TCoil on CH25/x (longitudinal) at max x/ABM Noise(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM2 = -56.3326 dB A/m

Location: -7, -1, 363.7 mm

**Point meas,TCoil on CH25/x (longitudinal) at max x/ABM SNR(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

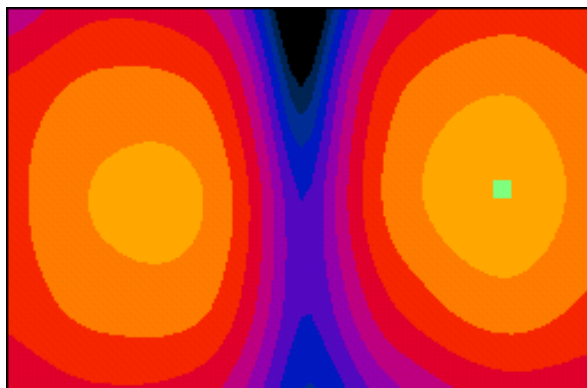
**Cursor:**

ABM1/ABM2 = 45.2475 dB

BWC Factor = -0.198998 dB

Location: -7, -1, 363.7 mm

**X (Radial) 24x16 scan:**



0 dB = 1.00A/m

**Y RADIAL MEASUREMENT: CDMA 1900 Channel 25**

**Equipment Setting:**

**DUT: LightPipe; Type: Cellular Phone ; Serial Number: 3180;**

Date:7/2/2008

Communication System: CDMA; Frequency: 1850 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>

Phantom section: AMB with Coil Section

DASY4 Configuration:

- Probe: AM1DV2 - 1045; Calibrated: 9/19/2007
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn603; Calibrated: 10/15/2007
- Phantom: HAC Test Arch with Coil; Type: SD HAC P01 BA; Serial: 100x
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Scans CH25/y (transversal) 16 x 24/ABM Interpolated Signal(x,y,z) (41x61x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 = -9.40759 dB A/m

BWC Factor = -0.198002 dB

Location: 1, -6.6, 363.7 mm

**Point meas,TCoil on CH25/y (transversal) at max y/ABM Signal(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 comp = -10.1225 dB A/m

BWC Factor = -0.198998 dB

Location: 1, -9, 363.7 mm

**Point meas,TCoil on CH25/y (transversal) at max y/ABM Noise(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM2 = -58.9988 dB A/m

Location: 1, -9, 363.7 mm

**Point meas,TCoil on CH25/y (transversal) at max y/ABM SNR(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

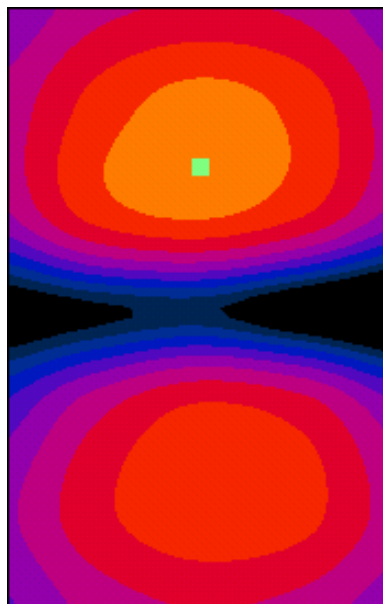
**Cursor:**

ABM1/ABM2 = 48.8763 dB

BWC Factor = -0.198998 dB

Location: 1, -9, 363.7 mm

**Y (Radial) 16x24 scan:**



0 dB = 1.00A/m

**Z (AXIAL) MEASUREMENT: CDMA 1900 Channel 600**

**Equipment Setting:**

**DUT: LightPipe; Type: Cellular Phone ; Serial Number: 3180; Date:7/2/2008**

Communication System: CDMA; Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>

Phantom section: AMB with Coil Section

DASY4 Configuration:

- Probe: AM1DV2 - 1045; ; Calibrated: 9/19/2007
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn603; Calibrated: 10/15/2007
- Phantom: HAC Test Arch with Coil; Type: SD HAC P01 BA; Serial: 100x
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Scans CH600/z (axial) rough 50 x 50/ABM Interpolated Signal(x,y,z) (51x51x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 = -6.96864 dB A/m

BWC Factor = -0.198998 dB

Location: 3, -4, 363.7 mm

**Scans CH600/z (axial) 16 x 16/ABM Interpolated Signal(x,y,z) (41x41x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 = -1.89464 dB A/m

BWC Factor = -0.198998 dB

Location: 1, -1, 363.7 mm

**Point meas,TCoil on CH600/z (axial) at max z/ABM Signal(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 comp = -1.92461 dB A/m

BWC Factor = -0.198998 dB

Location: 1, -1, 363.7 mm

**Point meas,TCoil on CH600/z (axial) at max z/ABM Noise(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM2 = -49.7691 dB A/m

Location: 1, -1, 363.7 mm

**Point meas,TCoil on CH600/z (axial) at max z/ABM SNR(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

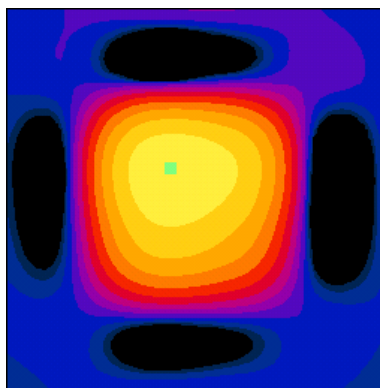
**Cursor:**

ABM1/ABM2 = 47.8444 dB

BWC Factor = -0.198998 dB

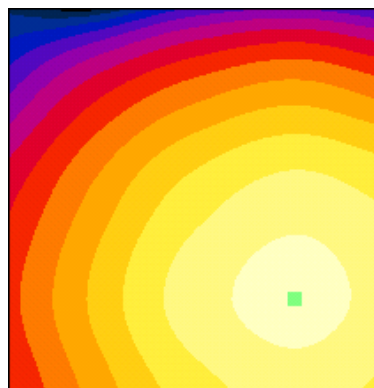
Location: 1, -1, 363.7 mm

**Z (axial) rough 50x50 scan:**



0 dB = 1.00A/m

**Z (axial) 16x16scan:**



0 dB = 1.00A/m

**X RADIAL MEASUREMENT: CDMA 1900 Channel 600**

**Equipment Setting:**

**DUT: LightPipe; Type: Cellular Phone ; Serial Number: 3180;**

Date:7/2/2008

Communication System: CDMA; Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>

Phantom section: AMB with Coil Section

DASY4 Configuration:

- Probe: AM1DV2 - 1045; ; Calibrated: 9/19/2007
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn603; Calibrated: 10/15/2007
- Phantom: HAC Test Arch with Coil; Type: SD HAC P01 BA; Serial: 100x
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Scans CH600/x (longitudinal) 24 x 16/ABM Interpolated Signal(x,y,z) (61x41x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 = -11.2732 dB A/m

BWC Factor = -0.198998 dB

Location: -7, -1.4, 363.7 mm

**Point meas,TCoil on CH600/x (longitudinal) at max x/ABM Signal(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 comp = -10.8843 dB A/m

BWC Factor = -0.198998 dB

Location: -7, -1, 363.7 mm

**Point meas,TCoil on CH600/x (longitudinal) at max x/ABM Noise(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM2 = -56.7637 dB A/m

Location: -7, -1, 363.7 mm

**Point meas,TCoil on CH600/x (longitudinal) at max x/ABM SNR(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

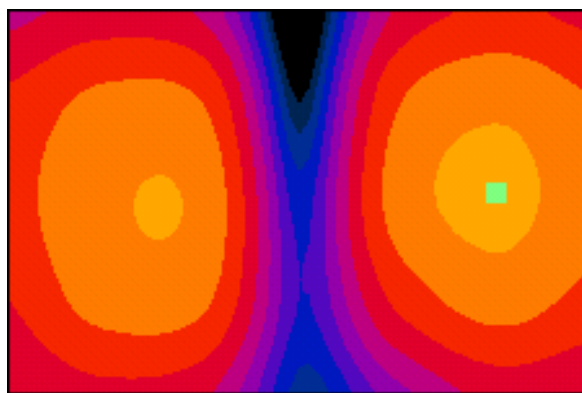
**Cursor:**

ABM1/ABM2 = 45.8794 dB

BWC Factor = -0.198998 dB

Location: -7, -1, 363.7 mm

**X (Radial) 24x16 scan:**



0 dB = 1.00A/m

**Y RADIAL MEASUREMENT: CDMA 1900 Channel 600**

**Equipment Setting:**

**DUT: LightPipe; Type: Cellular Phone ; Serial Number: 3180;**

Date:7/2/2008

Communication System: CDMA; Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>

Phantom section: AMB with Coil Section

DASY4 Configuration:

- Probe: AM1DV2 - 1045; ; Calibrated: 9/19/2007
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn603; Calibrated: 10/15/2007
- Phantom: HAC Test Arch with Coil; Type: SD HAC P01 BA; Serial: 100x
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Scans CH600/y (transversal) 16 x 24/ABM Interpolated Signal(x,y,z) (41x61x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 = -9.39569 dB A/m

BWC Factor = -0.198998 dB

Location: 1, -7, 363.7 mm

**Point meas,TCoil on CH600/y (transversal) at max y/ABM Signal(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 comp = -10.0948 dB A/m

BWC Factor = -0.198998 dB

Location: 1, -9, 363.7 mm

**Point meas,TCoil on CH600/y (transversal) at max y/ABM Noise(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM2 = -59.097 dB A/m

Location: 1, -9, 363.7 mm

**Point meas,TCoil on CH600/y (transversal) at max y/ABM SNR(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

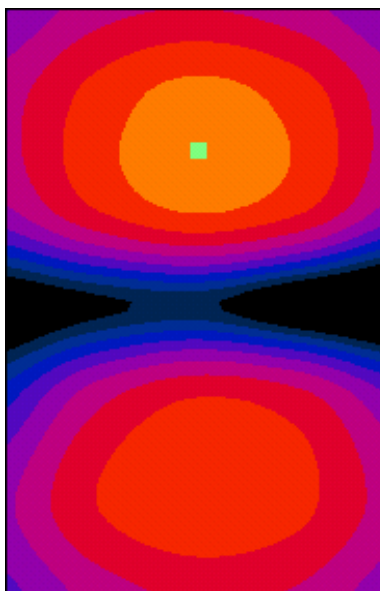
**Cursor:**

ABM1/ABM2 = 49.0022 dB

BWC Factor = -0.198998 dB

Location: 1, -9, 363.7 mm

**Y (Radial) 16x24 scan:**



0 dB = 1.00A/m

**Z (AXIAL) MEASUREMENT: CDMA 1900 Channel 1175**

**Equipment Setting:**

**DUT: LightPipe; Type: Cellular Phone ; Serial Number: 3180;**

Date:7/2/2008

Communication System: CDMA; Frequency: 1910 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>

Phantom section: AMB with Coil Section

DASY4 Configuration:

- Probe: AM1DV2 - 1045; ; Calibrated: 9/19/2007
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn603; Calibrated: 10/15/2007
- Phantom: HAC Test Arch with Coil; Type: SD HAC P01 BA; Serial: 100x
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Scans CH1175/z (axial) rough 50 x 50/ABM Interpolated Signal(x,y,z) (51x51x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 = -6.69724 dB A/m

BWC Factor = -0.198998 dB

Location: 3, -4, 363.7 mm

**Scans CH1175/z (axial) 16 x 16/ABM Interpolated Signal(x,y,z) (41x41x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 = -2.09908 dB A/m

BWC Factor = -0.198998 dB

Location: 1, -1, 363.7 mm

**Point meas,TCoil on CH1175/z (axial) at max z/ABM Signal(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 comp = -4.36947 dB A/m

BWC Factor = -0.198998 dB

Location: -3, -1, 363.7 mm

**Point meas,TCoil on CH1175/z (axial) at max z/ABM Noise(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM2 = -53.912 dB A/m

Location: -3, -1, 363.7 mm

**Point meas,TCoil on CH1175/z (axial) at max z/ABM SNR(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

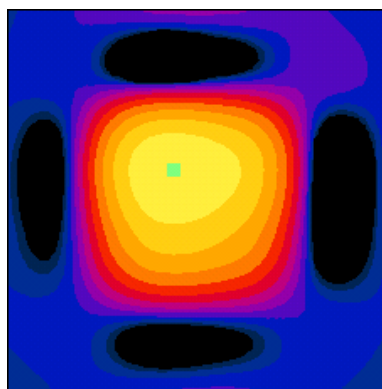
**Cursor:**

ABM1/ABM2 = 49.5425 dB

BWC Factor = -0.198998 dB

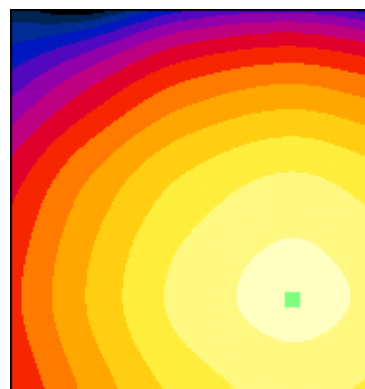
Location: -3, -1, 363.7 mm

**Z (axial) rough 50x50 scan:**



0 dB = 1.00A/m

**Z (axial) 16x16scan:**



0 dB = 1.00A/m



**X RADIAL MEASUREMENT: CDMA 1900 Channel 1175**

**Equipment Setting:**

**DUT: LightPipe; Type: Cellular Phone ; Serial Number: 3180;**

Date:7/2/2008

Communication System: CDMA; Frequency: 1910 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>

Phantom section: AMB with Coil Section

DASY4 Configuration:

- Probe: AM1DV2 - 1045; ; Calibrated: 9/19/2007
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn603; Calibrated: 10/15/2007
- Phantom: HAC Test Arch with Coil; Type: SD HAC P01 BA; Serial: 100x
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Scans CH1175/x (longitudinal) 24 x 16/ABM Interpolated Signal(x,y,z) (61x41x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 = -10.8815 dB A/m

BWC Factor = -0.198998 dB

Location: -7, -1.8, 363.7 mm

**Point meas,TCoil on CH1175/x (longitudinal) at max x/ABM Signal(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 comp = -10.9578 dB A/m

BWC Factor = -0.198998 dB

Location: -7, -1, 363.7 mm

**Point meas,TCoil on CH1175/x (longitudinal) at max x/ABM Noise(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM2 = -56.5954 dB A/m

Location: -7, -1, 363.7 mm

**Point meas,TCoil on CH1175/x (longitudinal) at max x/ABM SNR(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

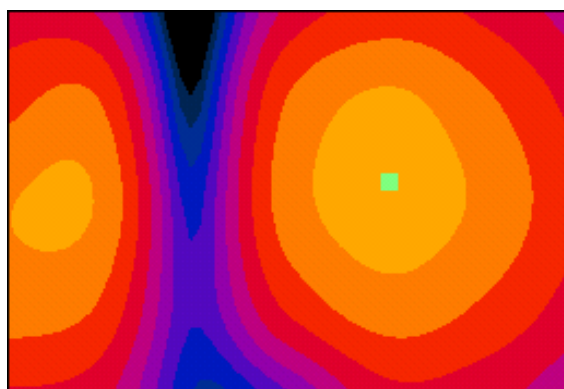
**Cursor:**

ABM1/ABM2 = 45.6376 dB

BWC Factor = -0.198998 dB

Location: -7, -1, 363.7 mm

**X (Radial) 24x16 scan:**



0 dB = 1.00A/m

**Y RADIAL MEASUREMENT: CDMA 1900 Channel 1175**

**Equipment Setting:**

**DUT: LightPipe; Type: Cellular Phone ; Serial Number: 3180;**

Date:7/2/2008

Communication System: CDMA; Frequency: 1910 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>

Phantom section: AMB with Coil Section

DASY4 Configuration:

- Probe: AM1DV2 - 1045; ; Calibrated: 9/19/2007
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn603; Calibrated: 10/15/2007
- Phantom: HAC Test Arch with Coil; Type: SD HAC P01 BA; Serial: 100x
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Scans CH1175/y (transversal) 16 x 24/ABM**

**Interpolated Signal(x,y,z) (41x61x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 = -9.53627 dB A/m

BWC Factor = -0.198998 dB

Location: 1, -6.6, 363.7 mm

**Point meas,TCoil on CH1175/y (transversal) at max**

**y/ABM Signal(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM1 comp = -10.8129 dB A/m

BWC Factor = -0.198998 dB

Location: 1, 7, 363.7 mm

**Point meas,TCoil on CH1175/y (transversal) at max**

**y/ABM Noise(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

**Cursor:**

ABM2 = -59.1705 dB A/m

Location: 1, 7, 363.7 mm

**Point meas,TCoil on CH1175/y (transversal) at max**

**y/ABM SNR(x,y,z) (1x1x1):**

Measurement grid: dx=10mm, dy=10mm

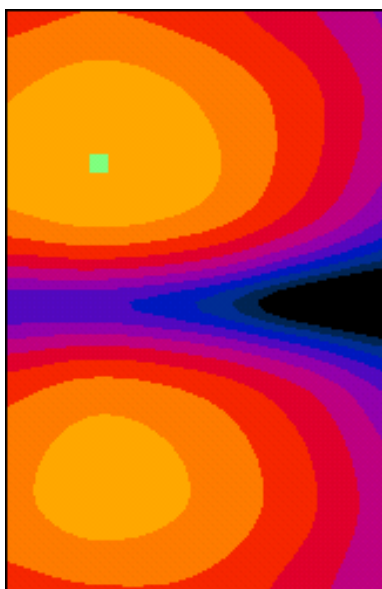
**Cursor:**

ABM1/ABM2 = 48.3575 dB

BWC Factor = -0.198998 dB

Location: 1, 7, 363.7 mm

**Y (Radial) 16x24 scan:**



0 dB = 1.00A/m