Test Laboratory: UL Verification Services Inc. SAR Lab C Date: 5/22/2014

GSM850 with Wireless Charging Battery Cover

Communication System: UID 0, GPRS-FDD (TDMA, GMSK, 1 slot) (0); Frequency: 836.6 MHz; Duty Cycle: 1:8.00018

T-Coil scan (scan for ANSI C63.19-2011 compliance)/General Scans ch 190/z (axial) wideband at best S/N/ABM Freq Resp(y,z,f) (1x1x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_300-3000_2s.wav

Output Gain: 76.75

Measure Window Start: 300ms Measure Window Length: 2000ms

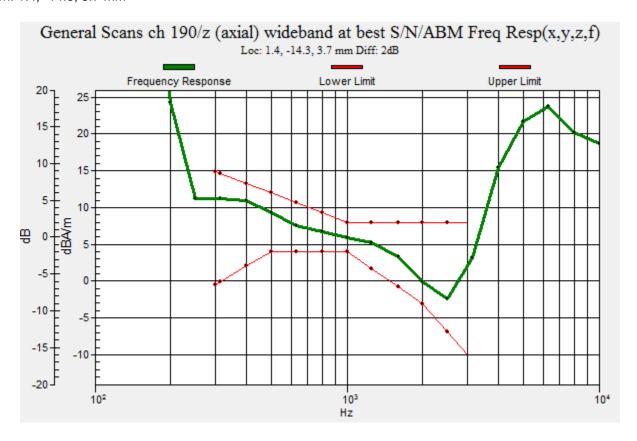
BWC applied: 10.80 dB

Device Reference Point: 0, 0, -6.3 mm

Category	Telephone parameters WD signal quality [(signal+noise)-to-noise ratio in decibels]
Category T1	0 dB to 10 dB
Category T2	10 dB to 20 dB
Category T3	20 dB to 30 dB
Category T4	> 30 dB

Cursor: Diff = 2.00 dB

BWC Factor = 10.80 dB Location: 1.4, -14.3, 3.7 mm



Test Laboratory: UL Verification Services Inc. SAR Lab C Date: 5/22/2014

GSM850 with Wireless Charging Battery Cover

Communication System: UID 0, GPRS-FDD (TDMA, GMSK, 1 slot) (0); Frequency: 836.6 MHz; Duty Cycle: 1:8.00018

Phantom section: TCoil Section

DASY5 Configuration:

- Probe: AM1DV3 3083; ; Calibrated: 1/22/2014
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn1360; Calibrated: 3/17/2014
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BB
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

T-Coil scan (scan for ANSI C63.19-2011 compliance)/General Scans ch 190/z (axial) 4.2mm 50 x 50/ABM Interpolated SNR(y,z) (121x121x1): Interpolated grid: dx=1.000 mm, dy=1.000

mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 38.81

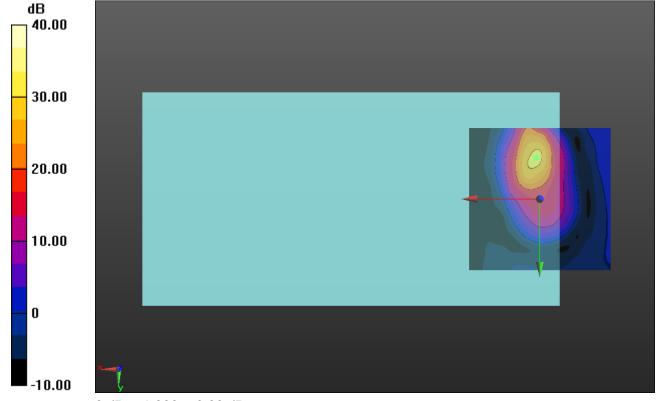
Measure Window Start: 300ms Measure Window Length: 1000ms

BWC applied: 0.16 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 30.94 dB ABM1 comp = 6.06 dBA/m BWC Factor = 0.16 dB Location: 1.3, -14.6, 3.7 mm



0 dB = 1.000 = 0.00 dB

GSM850 with Wireless Charging Battery Cover

Communication System: UID 0, GPRS-FDD (TDMA, GMSK, 1 slot) (0); Frequency: 836.6 MHz; Duty Cycle: 1:8.00018

Phantom section: TCoil Section

DASY5 Configuration:

- Probe: AM1DV3 3083; ; Calibrated: 1/22/2014
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn1360; Calibrated: 3/17/2014
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BB
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

T-Coil scan (scan for ANSI C63.19-2011 compliance)/General Scans ch 190/y (transversal) 4.2mm 50 x 50/ABM Interpolated SNR(y,z) (121x121x1): Interpolated grid:

dx=1.000 mm, dy=1.000 mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 38.81

Measure Window Start: 300ms Measure Window Length: 1000ms

BWC applied: 0.16 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 28.59 dB ABM1 comp = -14.60 dBA/m BWC Factor = 0.16 dB

Location: -11.2, -17.1, 3.7 mm

dB

40.00

20.00

10.00

-10.00

Date: 5/22/2014

Test Laboratory: UL Verification Services Inc., SAR Lab 2

GSM1900 with Wireless Charging Battery Cover

Communication System: UID 0, GPRS-FDD (TDMA, GMSK, 1 slot) (0); Frequency: 1880 MHz; Duty Cycle: 1:8.00018

T-Coil scan (scan for ANSI C63.19-2011 compliance)/General Scans ch 661/z (axial) wideband at best S/N/ABM Freq Resp(y,z,f) (1x1x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_300-3000_2s.wav

Output Gain: 76.75

Measure Window Start: 300ms Measure Window Length: 2000ms

BWC applied: 10.80 dB

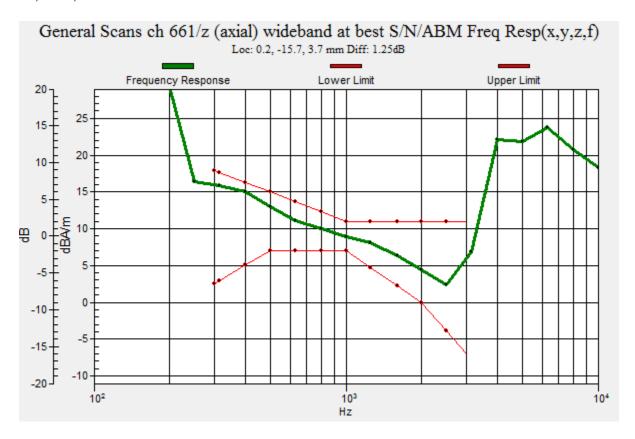
Device Reference Point: 0, 0, -6.3 mm

Category	Telephone parameters WD signal quality [(signal+noise)-to-noise ratio in decibels]
Category T1	0 dB to 10 dB
Category T2	10 dB to 20 dB
Category T3	20 dB to 30 dB
Category T4	> 30 dB

Cursor:

Diff = 1.25 dB

BWC Factor = 10.80 dB Location: 0.2, -15.7, 3.7 mm



GSM1900 with Wireless Charging Battery Cover

Communication System: UID 0, GPRS-FDD (TDMA, GMSK, 1 slot) (0); Frequency: 1880 MHz; Duty Cycle: 1:8.00018

Phantom section: TCoil Section

DASY5 Configuration:

- Probe: AM1DV3 3083; ; Calibrated: 1/22/2014
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn1359; Calibrated: 2/17/2014
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BB
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

T-Coil scan (scan for ANSI C63.19-2011 compliance)/General Scans ch 661/z (axial) 4.2mm 50 x 50/ABM Interpolated SNR(y,z) (121x121x1): Interpolated grid: dx=1.000 mm, dy=1.000

mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 38.81

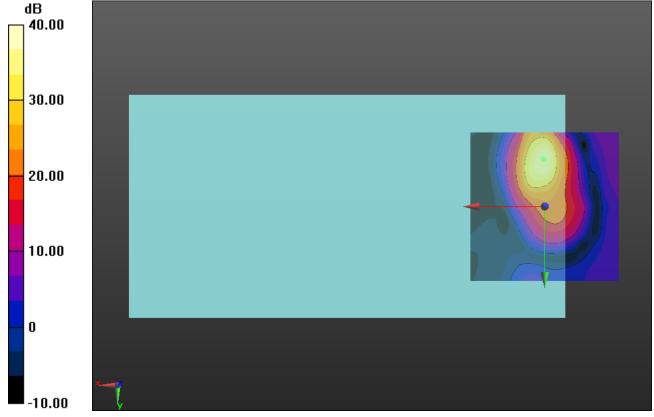
Measure Window Start: 300ms Measure Window Length: 1000ms

BWC applied: 0.16 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 39.75 dB ABM1 comp = 10.76 dBA/m BWC Factor = 0.16 dB Location: 0.4, -15.8, 3.7 mm



0 dB = 1.000 = 0.00 dB

GSM1900 with Wireless Charging Battery Cover

Communication System: UID 0, GPRS-FDD (TDMA, GMSK, 1 slot) (0); Frequency: 1880 MHz; Duty Cycle: 1:8.00018

Phantom section: TCoil Section

DASY5 Configuration:

- Probe: AM1DV3 3083; ; Calibrated: 1/22/2014
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn1359; Calibrated: 2/17/2014
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BB
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

T-Coil scan (scan for ANSI C63.19-2011 compliance)/General Scans ch 661/y (transversal) 4.2mm 50 x 50/ABM Interpolated SNR(y,z) (121x121x1): Interpolated grid:

dx=1.000 mm, dy=1.000 mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 38.81

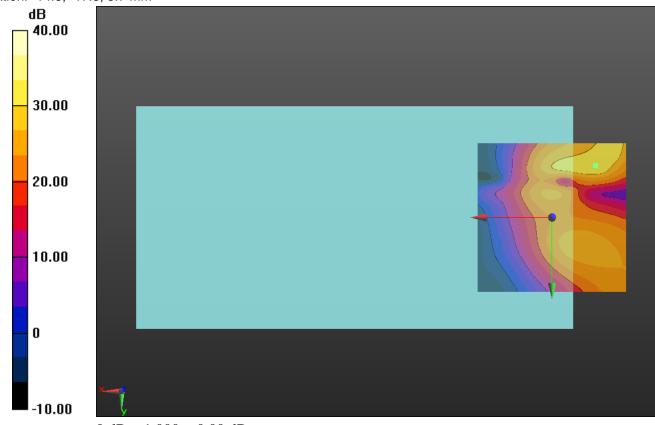
Measure Window Start: 300ms Measure Window Length: 1000ms

BWC applied: 0.16 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 33.20 dB ABM1 comp = -13.48 dBA/m BWC Factor = 0.16 dB Location: -14.6, -17.5, 3.7 mm



0 dB = 1.000 = 0.00 dB

Test Laboratory: UL Verification Services Inc., SAR Lab 2 Date: 4/23/2014

W-CDMA Band V with Wireless Charging Battery Cover

Communication System: UID 0, UMTS-FDD (WCDMA) (0); Frequency: 836.6 MHz;Duty Cycle: 1:1

T-Coil scan (scan for ANSI C63.19-2011 compliance)/General Scans ch 4183/z (axial) wideband at best S/N/ABM Freq Resp(y,z,f) (1x1x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_300-3000_2s.wav

Output Gain: 76.75

Measure Window Start: 300ms Measure Window Length: 2000ms

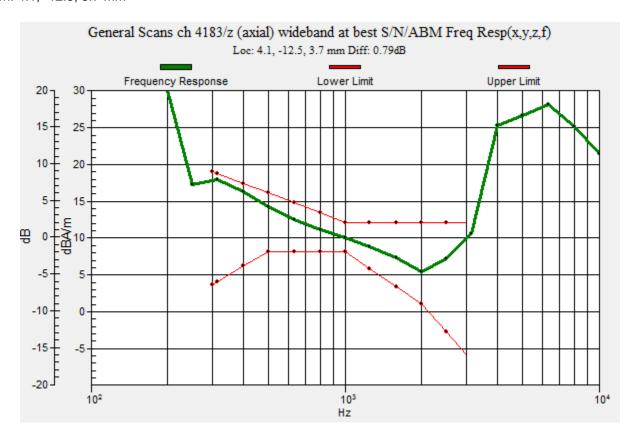
BWC applied: 10.80 dB

Device Reference Point: 0, 0, -6.3 mm

Category	Telephone parameters WD signal quality [(signal+noise)-to-noise ratio in decibels]
Category T1	0 dB to 10 dB
Category T2	10 dB to 20 dB
Category T3	20 dB to 30 dB
Category T4	> 30 dB

Cursor: Diff = 0.79 dB

BWC Factor = 10.80 dB Location: 4.1, -12.5, 3.7 mm



W-CDMA Band V with Wireless Charging Battery Cover

Communication System: UID 0, UMTS-FDD (WCDMA) (0); Frequency: 836.6 MHz; Duty Cycle: 1:1

Phantom section: TCoil Section

DASY5 Configuration:

- Probe: AM1DV3 3083; ; Calibrated: 1/22/2014
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn1359; Calibrated: 2/17/2014
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BB
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

T-Coil scan (scan for ANSI C63.19-2011 compliance)/General Scans ch 4183/z (axial) 4.2mm 50 x 50/ABM Interpolated SNR(y,z) (121x121x1): Interpolated grid: dx=1.000 mm, dy=1.000

mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 38.81

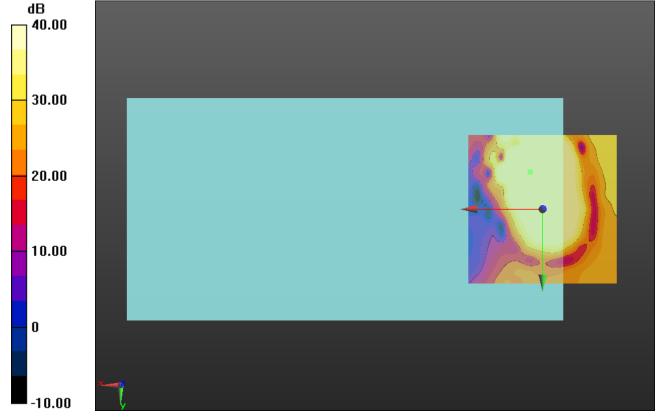
Measure Window Start: 300ms Measure Window Length: 1000ms

BWC applied: 0.16 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 60.73 dB ABM1 comp = 12.71 dBA/m BWC Factor = 0.16 dB Location: 4.2, -12.5, 3.7 mm



0 dB = 1.000 = 0.00 dB

W-CDMA Band V with Wireless Charging Battery Cover

Communication System: UID 0, UMTS-FDD (WCDMA) (0); Frequency: 836.6 MHz; Duty Cycle: 1:1

Phantom section: TCoil Section

DASY5 Configuration:

- Probe: AM1DV3 3083; ; Calibrated: 1/22/2014
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn1359; Calibrated: 2/17/2014
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BB
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

T-Coil scan (scan for ANSI C63.19-2011 compliance)/General Scans ch 4183/y (transversal) 4.2mm 50 x 50/ABM Interpolated SNR(y,z) (121x121x1): Interpolated grid:

dx=1.000 mm, dy=1.000 mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 38.81

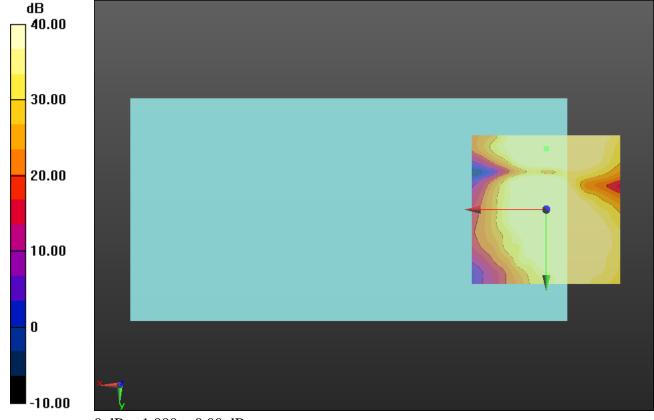
Measure Window Start: 300ms Measure Window Length: 1000ms

BWC applied: 0.16 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 51.51 dB ABM1 comp = 3.02 dBA/m BWC Factor = 0.16 dB Location: 0, -20.4, 3.7 mm



Test Laboratory: UL Verification Services Inc., SAR Lab 2 Date: 4/23/2014

W-CDMA Band II with Wireless Charging Battery Cover

Communication System: UID 0, UMTS-FDD (WCDMA) (0); Frequency: 1880 MHz; Duty Cycle: 1:1

T-Coil scan (scan for ANSI C63.19-2011 compliance)/General Scans ch 9400/z (axial) wideband at best S/N/ABM Freq Resp(y,z,f) (1x1x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_300-3000_2s.wav

Output Gain: 76.75

Measure Window Start: 300ms Measure Window Length: 2000ms

BWC applied: 10.80 dB

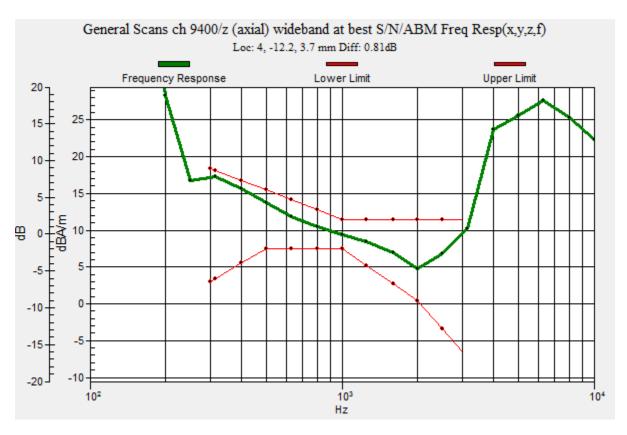
Device Reference Point: 0, 0, -6.3 mm

Category	Telephone parameters WD signal quality [(signal+noise)-to-noise ratio in decibels]
Category T1	0 dB to 10 dB
Category T2	10 dB to 20 dB
Category T3	20 dB to 30 dB
Category T4	> 30 dB

Cursor:

Diff = 0.81 dB

BWC Factor = 10.80 dB Location: 4, -12.2, 3.7 mm



W-CDMA Band II with Wireless Charging Battery Cover

Communication System: UID 0, UMTS-FDD (WCDMA) (0); Frequency: 1880 MHz; Duty Cycle: 1:1

Phantom section: TCoil Section

DASY5 Configuration:

- Probe: AM1DV3 3083; ; Calibrated: 1/22/2014
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn1359; Calibrated: 2/17/2014
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BB
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

T-Coil scan (scan for ANSI C63.19-2011 compliance)/General Scans ch 9400/z (axial) 4.2mm 50 x 50/ABM Interpolated SNR(y,z) (121x121x1): Interpolated grid: dx=1.000 mm, dy=1.000

mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 38.81

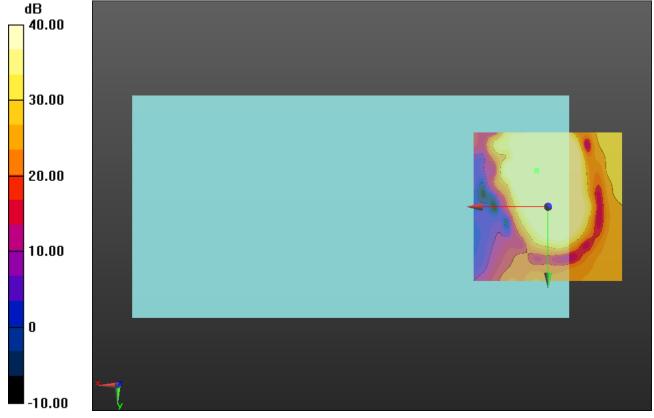
Measure Window Start: 300ms Measure Window Length: 1000ms

BWC applied: 0.16 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 55.12 dB ABM1 comp = 12.22 dBA/m BWC Factor = 0.16 dB Location: 3.8, -12.1, 3.7 mm



0 dB = 1.000 = 0.00 dB

W-CDMA Band II with Wireless Charging Battery Cover

Communication System: UID 0, UMTS-FDD (WCDMA) (0); Frequency: 1880 MHz; Duty Cycle: 1:1

Phantom section: TCoil Section

DASY5 Configuration:

- Probe: AM1DV3 3083; ; Calibrated: 1/22/2014
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn1359; Calibrated: 2/17/2014
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BB
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

T-Coil scan (scan for ANSI C63.19-2011 compliance)/General Scans ch 9400/y (transversal) 4.2mm 50 x 50/ABM Interpolated SNR(y,z) (121x121x1): Interpolated grid:

dx=1.000 mm, dy=1.000 mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 38.81

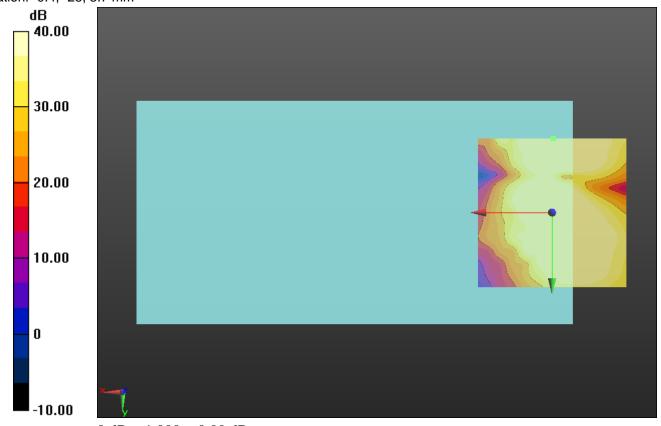
Measure Window Start: 300ms Measure Window Length: 1000ms

BWC applied: 0.16 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 50.74 dB ABM1 comp = 1.86 dBA/m BWC Factor = 0.16 dB Location: -0.4, -25, 3.7 mm



0 dB = 1.000 = 0.00 dB

Test Laboratory: UL Verification Services Inc., SAR Lab 2 Date: 4/23/2014

CDMA2000 BC0 with Wireless Charging Battery Cover

Communication System: UID 0, CDMA2000 (0); Frequency: 836.52 MHz; Duty Cycle: 1:1

T-Coil scan (scan for ANSI C63.19-2011 compliance)/General Scans ch 384/z (axial) wideband at best S/N/ABM Freq Resp(y,z,f) (1x1x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_300-3000_2s.wav

Output Gain: 76.75

Measure Window Start: 300ms Measure Window Length: 2000ms

BWC applied: 10.80 dB

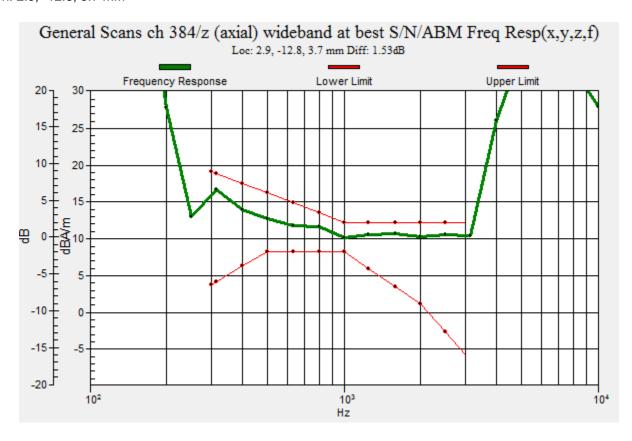
Device Reference Point: 0, 0, -6.3 mm

Category	Telephone parameters WD signal quality [(signal+noise)-to-noise ratio in decibels]
Category T1	0 dB to 10 dB
Category T2	10 dB to 20 dB
Category T3	20 dB to 30 dB
Category T4	> 30 dB

Cursor:

Diff = 1.53 dB

BWC Factor = 10.80 dB Location: 2.9, -12.8, 3.7 mm



CDMA2000 BC0 with Wireless Charging Battery Cover

Communication System: UID 0, CDMA2000 (0); Frequency: 836.52 MHz; Duty Cycle: 1:1

Phantom section: TCoil Section

DASY5 Configuration:

- Probe: AM1DV3 3083; ; Calibrated: 1/22/2014
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn1359; Calibrated: 2/17/2014
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BB
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

T-Coil scan (scan for ANSI C63.19-2011 compliance)/General Scans ch 384/z (axial) 4.2mm 50 x 50/ABM Interpolated SNR(y,z) (121x121x1): Interpolated grid: dx=1.000 mm, dy=1.000

mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 38.81

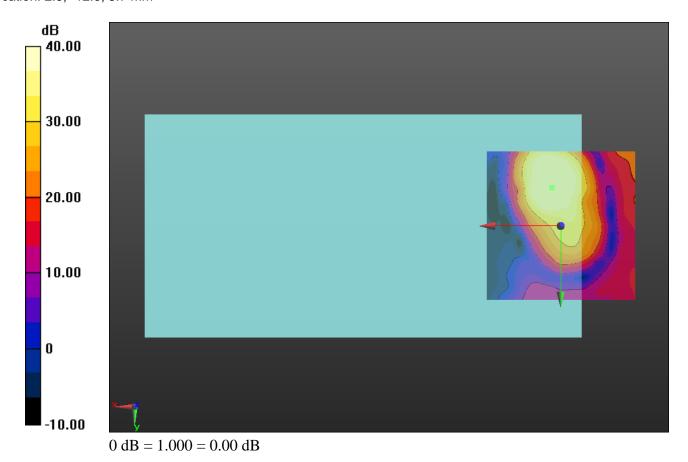
Measure Window Start: 300ms Measure Window Length: 1000ms

BWC applied: 0.16 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 45.06 dB ABM1 comp = 11.23 dBA/m BWC Factor = 0.16 dB Location: 2.9, -12.9, 3.7 mm



CDMA2000 BC0 with Wireless Charging Battery Cover

Communication System: UID 0, CDMA2000 (0); Frequency: 836.52 MHz; Duty Cycle: 1:1

Phantom section: TCoil Section

DASY5 Configuration:

- Probe: AM1DV3 3083; ; Calibrated: 1/22/2014
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn1359; Calibrated: 2/17/2014
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BB
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

T-Coil scan (scan for ANSI C63.19-2011 compliance)/General Scans ch 384/y (transversal) 4.2mm 50 x 50/ABM Interpolated SNR(y,z) (121x121x1): Interpolated grid:

dx=1.000 mm, dy=1.000 mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 38.81

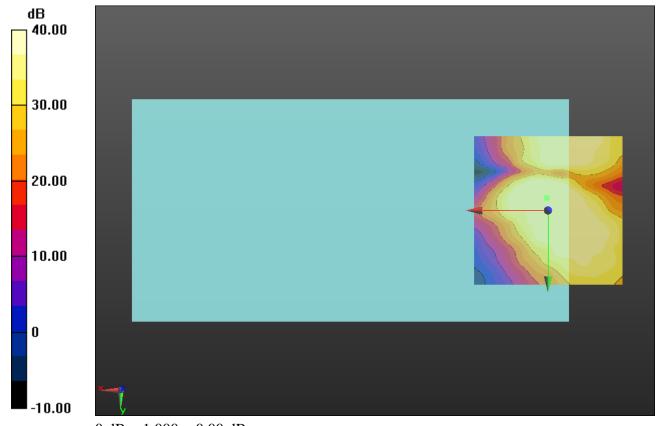
Measure Window Start: 300ms Measure Window Length: 1000ms

BWC applied: 0.16 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 47.24 dB ABM1 comp = -1.48 dBA/m BWC Factor = 0.16 dB Location: 0.4, -4.2, 3.7 mm



0 dB = 1.000 = 0.00 dB

Test Laboratory: UL Verification Services Inc., SAR Lab 2 Date: 4/24/2014

CDMA2000 BC1 with Wireless Charging Battery Cover

Communication System: UID 0, CDMA2000 (0); Frequency: 1880 MHz; Duty Cycle: 1:1

T-Coil scan (scan for ANSI C63.19-2011 compliance)/General Scans ch 600/z (axial) wideband at best S/N/ABM Freq Resp(y,z,f) (1x1x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_300-3000_2s.wav

Output Gain: 76.75

Measure Window Start: 300ms Measure Window Length: 2000ms

BWC applied: 10.80 dB

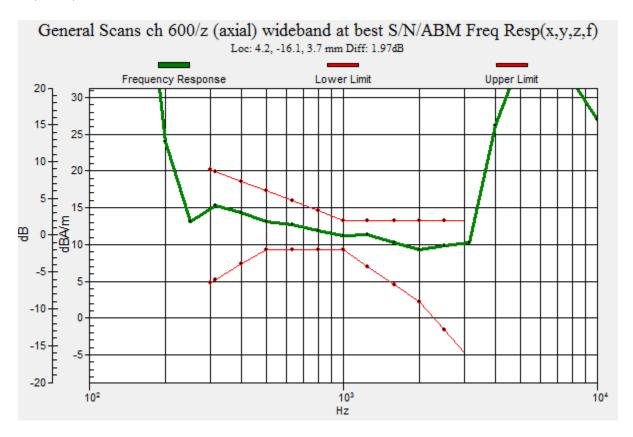
Device Reference Point: 0, 0, -6.3 mm

Category	Telephone parameters WD signal quality [(signal+noise)-to-noise ratio in decibels]
Category T1	0 dB to 10 dB
Category T2	10 dB to 20 dB
Category T3	20 dB to 30 dB
Category T4	> 30 dB

Cursor:

Diff = 1.97 dB

BWC Factor = 10.80 dB Location: 4.2, -16.1, 3.7 mm



CDMA2000 BC1 with Wireless Charging Battery Cover

Communication System: UID 0, CDMA2000 (0); Frequency: 1880 MHz; Duty Cycle: 1:1

Phantom section: TCoil Section

DASY5 Configuration:

- Probe: AM1DV3 3083; ; Calibrated: 1/22/2014
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn1359; Calibrated: 2/17/2014
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BB
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

T-Coil scan (scan for ANSI C63.19-2011 compliance)/General Scans ch 600/z (axial) 4.2mm 50 x 50/ABM Interpolated SNR(y,z) (121x121x1): Interpolated grid: dx=1.000 mm, dy=1.000

mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 38.81

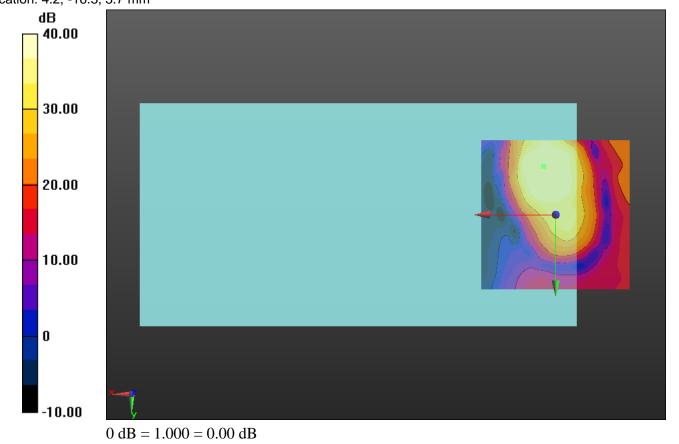
Measure Window Start: 300ms Measure Window Length: 1000ms

BWC applied: 0.16 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 48.96 dB ABM1 comp = 11.87 dBA/m BWC Factor = 0.16 dB Location: 4.2, -16.3, 3.7 mm



CDMA2000 BC1 with Wireless Charging Battery Cover

Communication System: UID 0, CDMA2000 (0); Frequency: 1880 MHz; Duty Cycle: 1:1

Phantom section: TCoil Section

DASY5 Configuration:

- Probe: AM1DV3 3083; ; Calibrated: 1/22/2014
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn1359; Calibrated: 2/17/2014
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BB
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

T-Coil scan (scan for ANSI C63.19-2011 compliance)/General Scans ch 600/y (transversal) 4.2mm 50 x 50/ABM Interpolated SNR(y,z) (121x121x1): Interpolated grid:

dx=1.000 mm, dy=1.000 mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 38.81

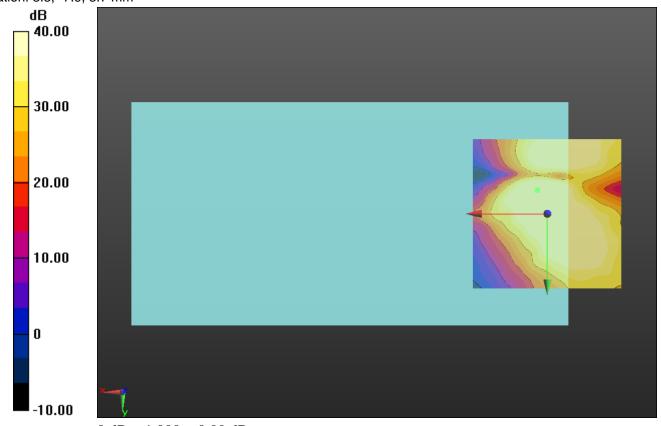
Measure Window Start: 300ms Measure Window Length: 1000ms

BWC applied: 0.16 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 46.87 dB ABM1 comp = 0.90 dBA/m BWC Factor = 0.16 dB Location: 3.3, -7.9, 3.7 mm



0 dB = 1.000 = 0.00 dB