



REPORT No. : SZ19090323S02

Annex C Plots of T-Coil Test Results

HAC_T-Coil_GSM850_GSM Voice_Ch189_Z

Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn480; Calibrated: 2019.04.11
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

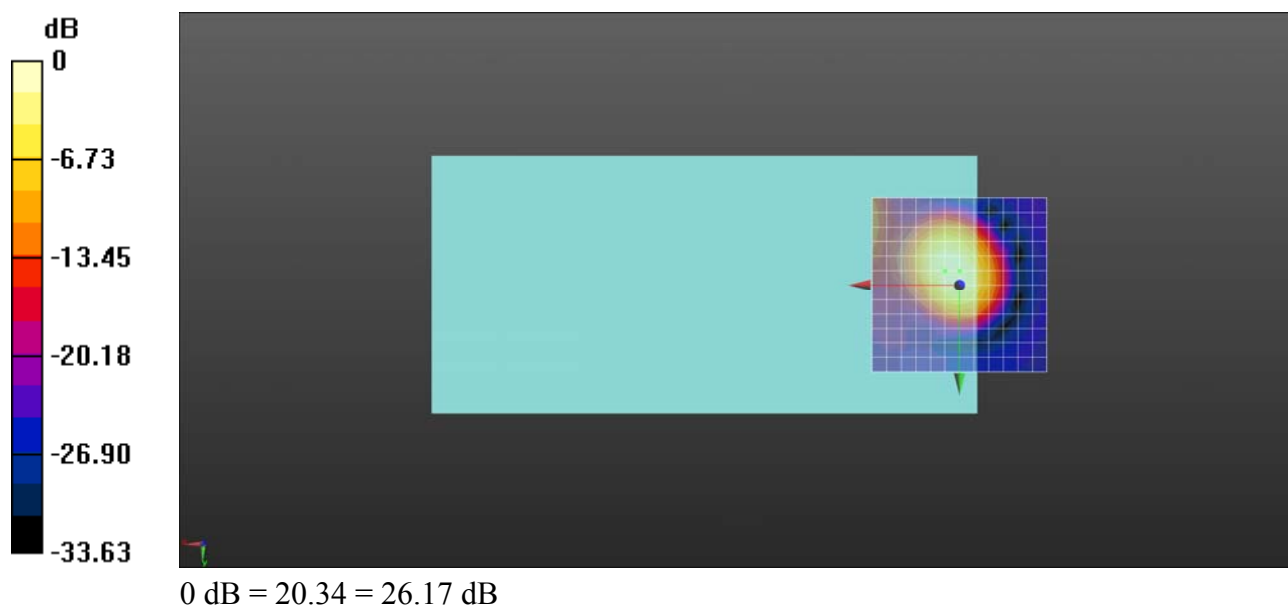
Ch189/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm

ABM1/ABM2 = 26.17 dB

ABM1 comp = -0.91 dBA/m

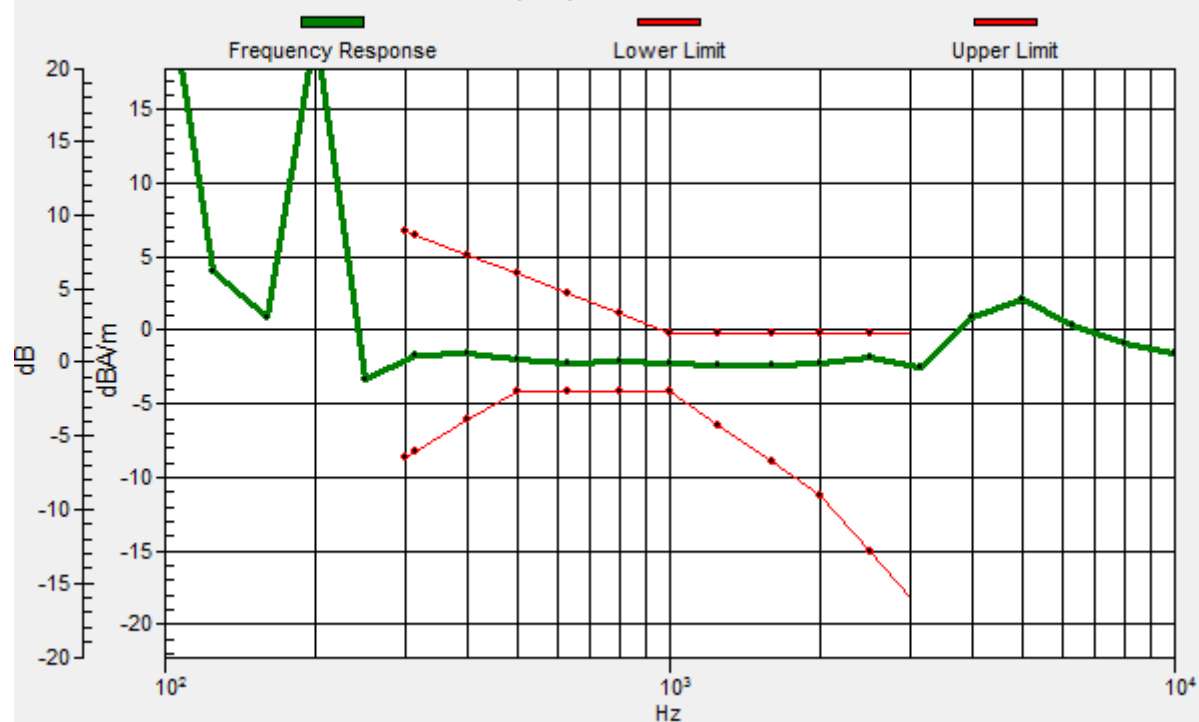
BWC Factor = 0.03 dB

Location: 0, -4.2, 3.7 mm



Ch189/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)

Loc: 0, -4.2, 3.7 mm Diff: 1.71dB



HAC_T-Coil_GSM850_GSM Voice_Ch189_Y

Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn480; Calibrated: 2019.04.11
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch189/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid:

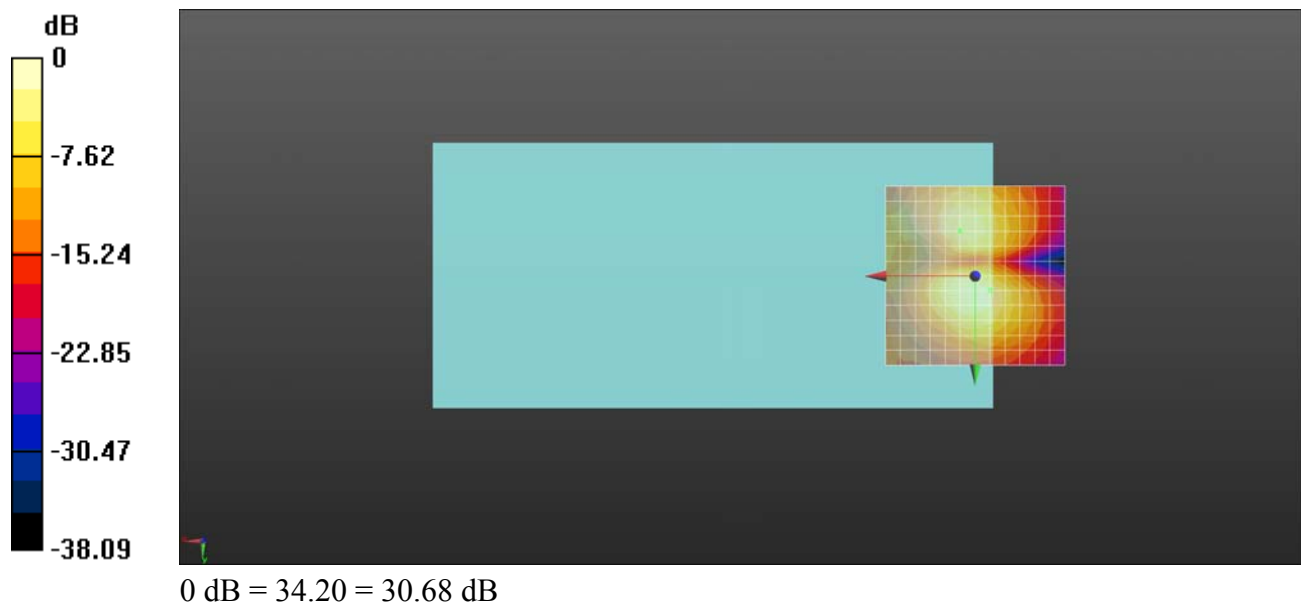
dx=10mm, dy=10mm

ABM1/ABM2 = 30.68 dB

ABM1 comp = -10.35 dBA/m

BWC Factor = 0.03 dB

Location: -4.2, 4.2, 3.7 mm



HAC_T-Coil_GSM1900_GSM Voice_Ch661_Z

Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn480; Calibrated: 2019.04.11
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch661/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f) (1x1x1): Measurement

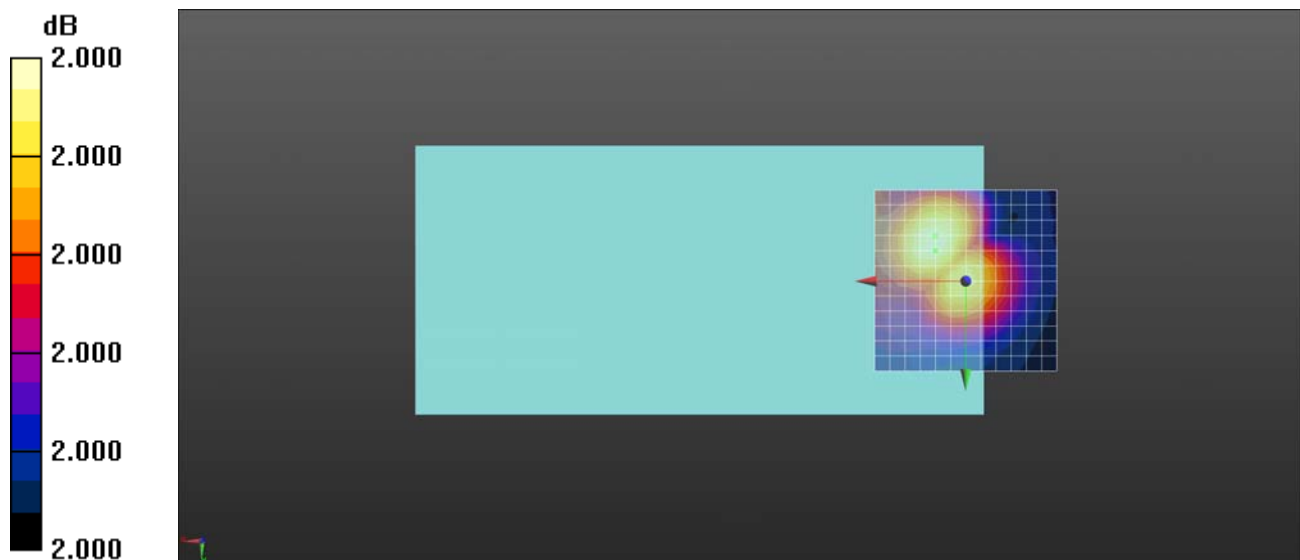
grid: dx=10mm, dy=10mm

ABM1/ABM2 = 22.34 dB

ABM1 comp = -5.95 dBA/m

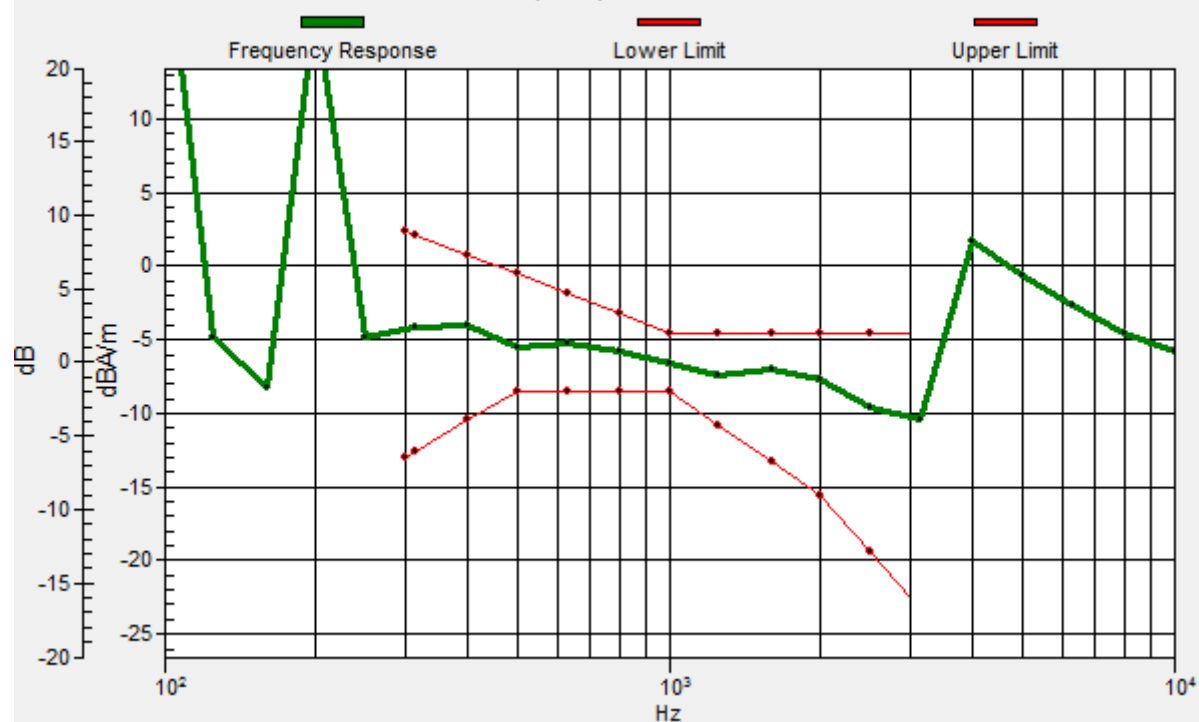
BWC Factor = -0.0049 dB

Location: 8.3, -12.5, 3.7 mm



Ch661/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)

Loc: 8.3, -12.5, 3.7 mm Diff: 2dB



HAC_T-Coil_GSM1900_GSM Voice_Ch661_Y

Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn480; Calibrated: 2019.04.11
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch661/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid:

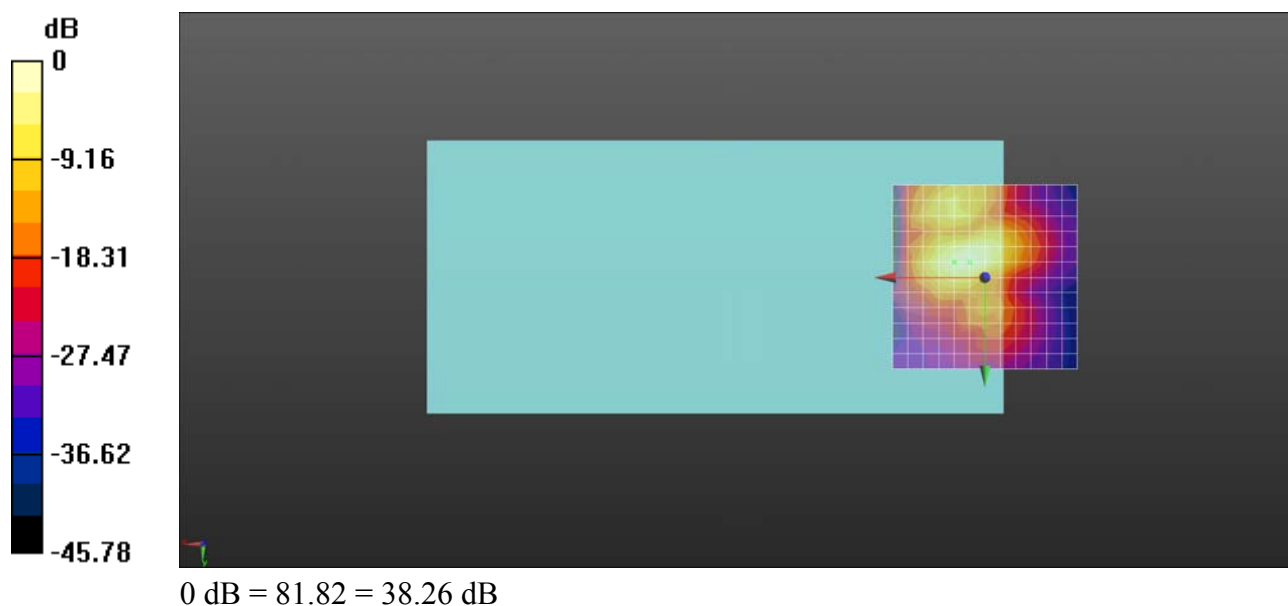
dx=10mm, dy=10mm

ABM1/ABM2 = 38.26 dB

ABM1 comp = -11.20 dBA/m

BWC Factor = -0.0049 dB

Location: 4.2, -4.2, 3.7 mm



HAC_T-Coil_WCDMA Band II AMR 12.12Kbps_Ch9400_Z

Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn480; Calibrated: 2019.04.11
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch9400/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid:

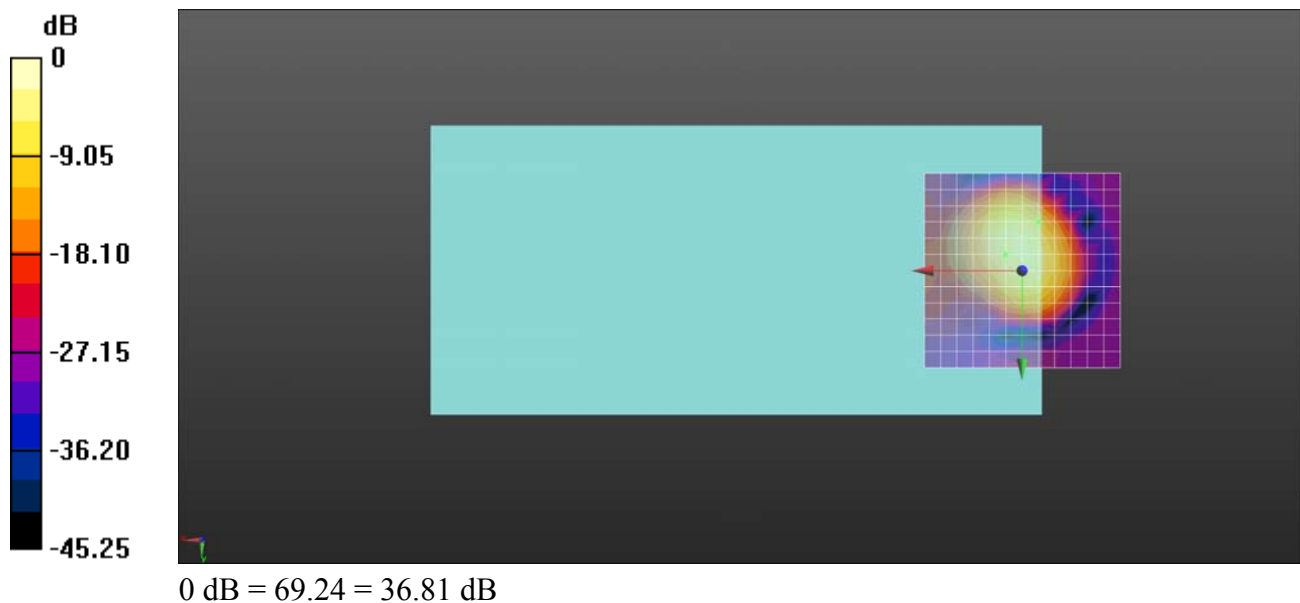
dx=10mm, dy=10mm

ABM1/ABM2 = 36.81 dB

ABM1 comp = -12.36 dBA/m

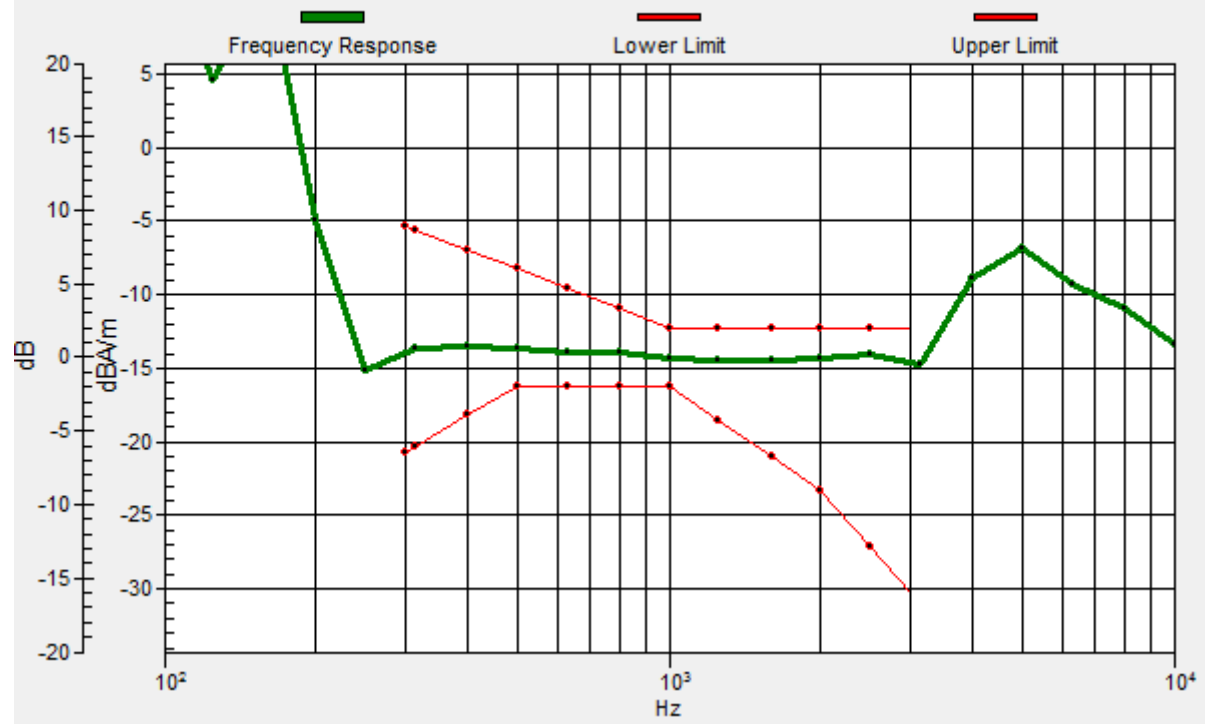
BWC Factor = 0.05 dB

Location: -4.2, -12.5, 3.7 mm



Ch9400/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)

Loc: -4.2, -12.5, 3.7 mm Diff: 1.85dB



HAC_T-Coil_WCDMA Band II AMR 12.12Kbps_Ch9400_Y

Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn480; Calibrated: 2019.04.11
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch9400/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid:

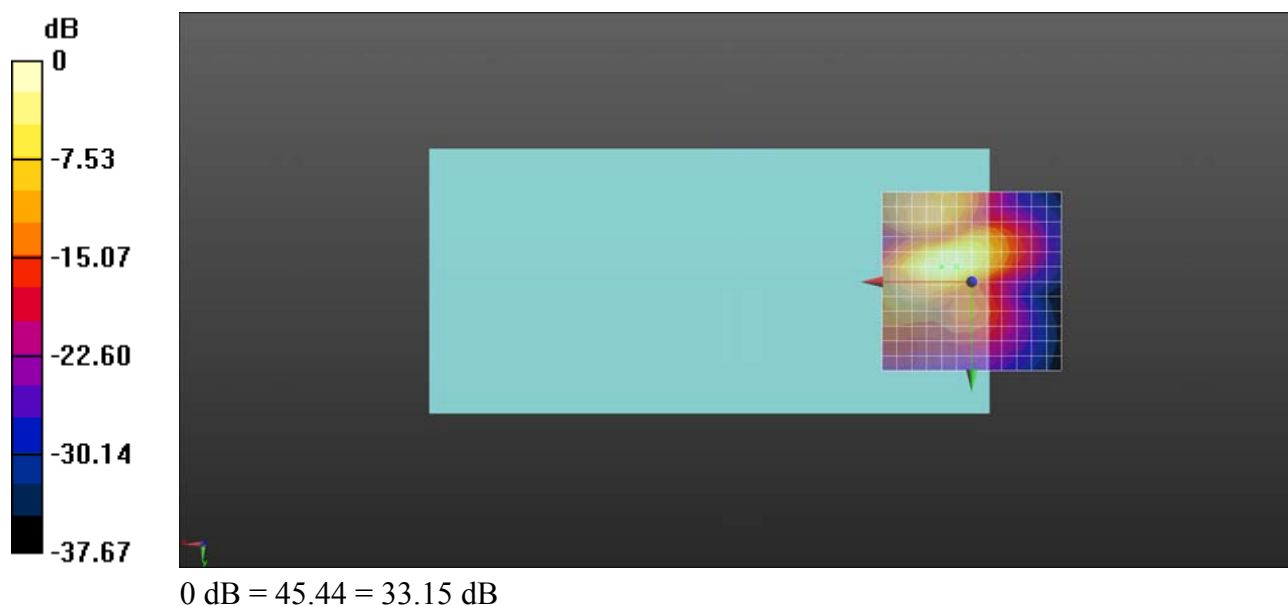
dx=10mm, dy=10mm

ABM1/ABM2 = 33.15 dB

ABM1 comp = -12.83 dBA/m

BWC Factor = -0.0071 dB

Location: 4.2, -4.2, 3.7 mm



HAC_T-Coil_WCDMA Band IV AMR 12.12Kbps_Ch1413_Z

Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn480; Calibrated: 2019.04.11
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch1413/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid:

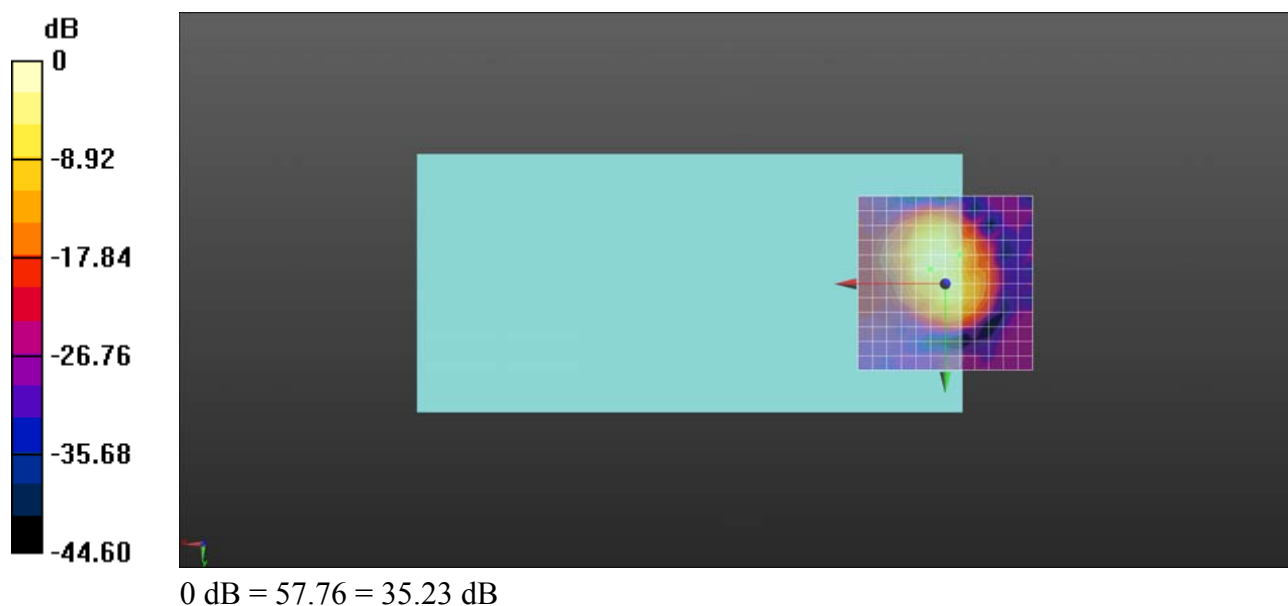
dx=10mm, dy=10mm

ABM1/ABM2 = 35.23 dB

ABM1 comp = -7.95 dBA/m

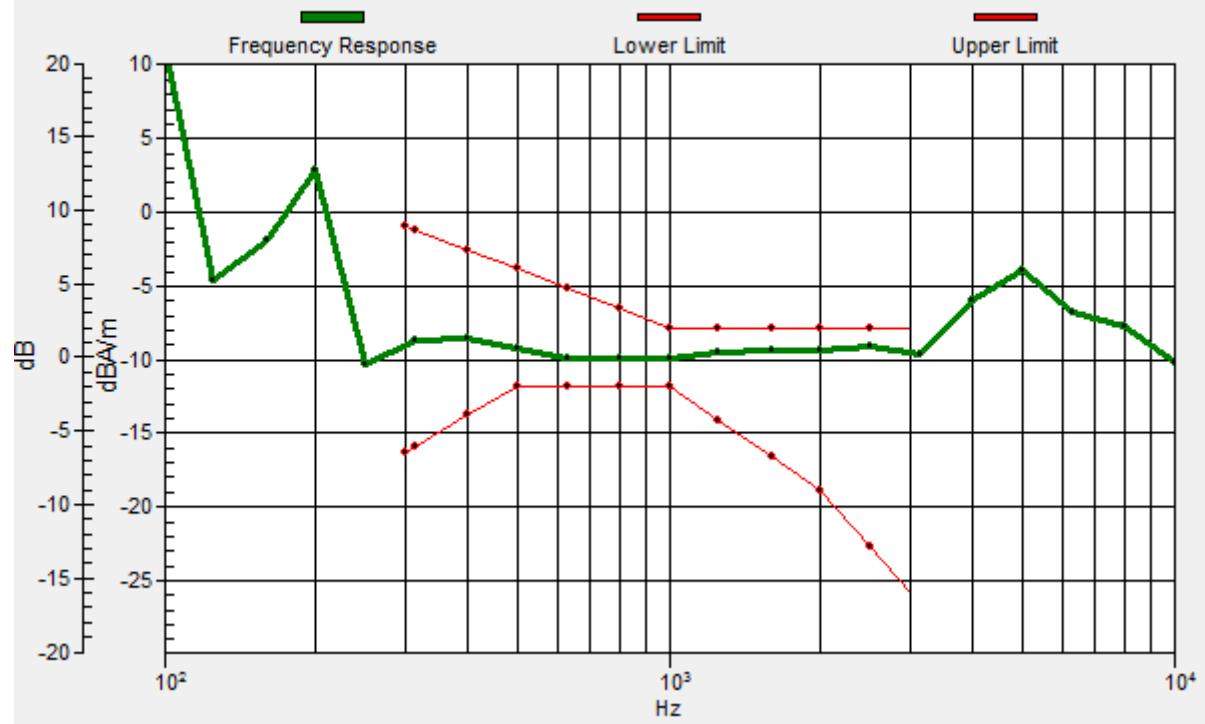
BWC Factor = 0.02 dB

Location: -4.2, -8.3, 3.7 mm



Ch1413/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)

Loc: -4.2, -8.3, 3.7 mm Diff: 1.26dB



HAC_T-Coil_WCDMA Band IV AMR 12.12Kbps_Ch1413_Y

Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn480; Calibrated: 2019.04.11
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch1413/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid:

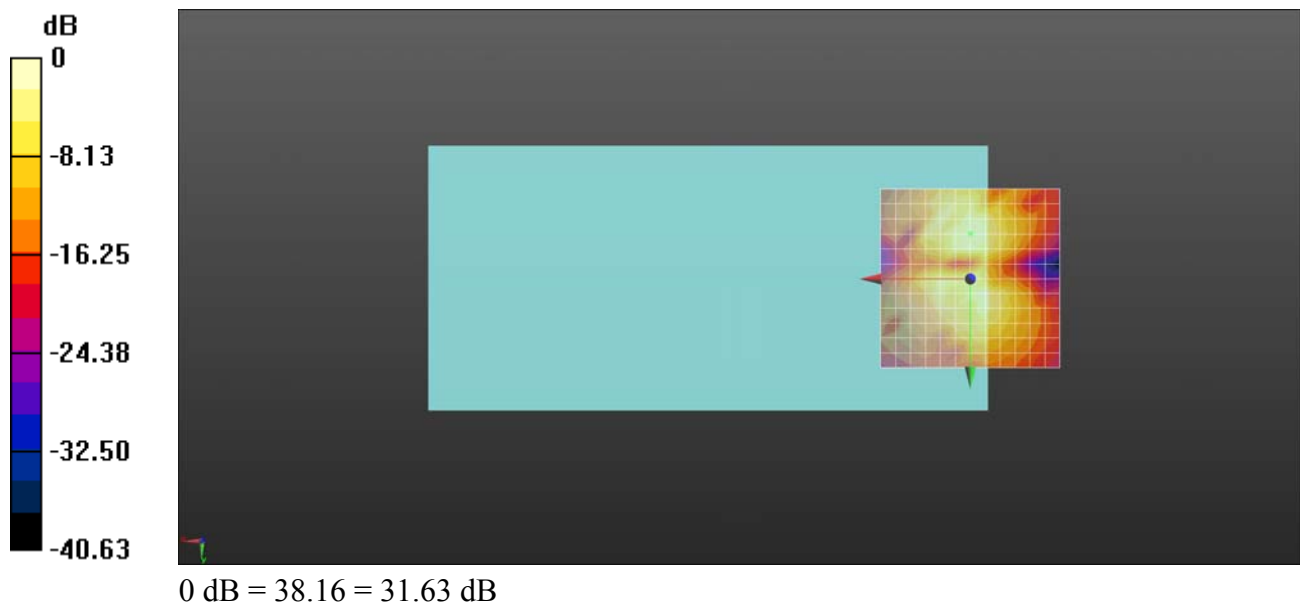
dx=10mm, dy=10mm

ABM1/ABM2 = 31.63 dB

ABM1 comp = -12.60 dBA/m

BWC Factor = 0.02 dB

Location: 0, 0, 3.7 mm



HAC_T-Coil_WCDMA Band V AMR 12.12Kbps_Ch4183_Z

Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 836.6 MHz; Duty Cycle: 1:1

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn480; Calibrated: 2019.04.11
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch4183/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid:

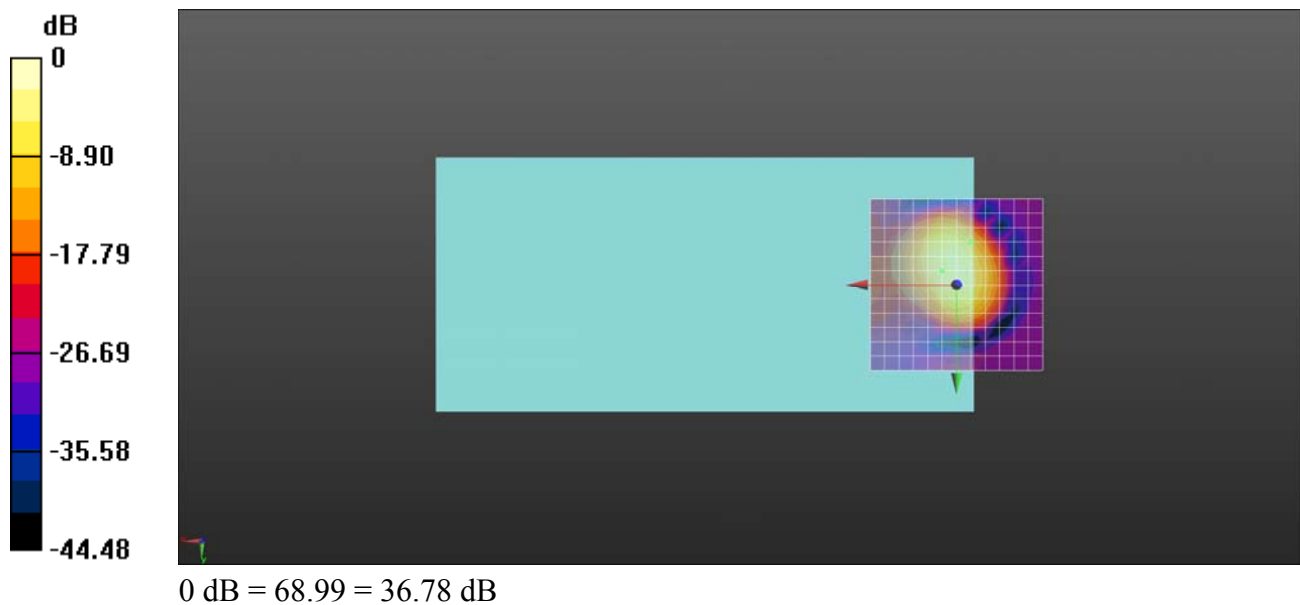
dx=10mm, dy=10mm

ABM1/ABM2 = 36.78 dB

ABM1 comp = -12.69 dBA/m

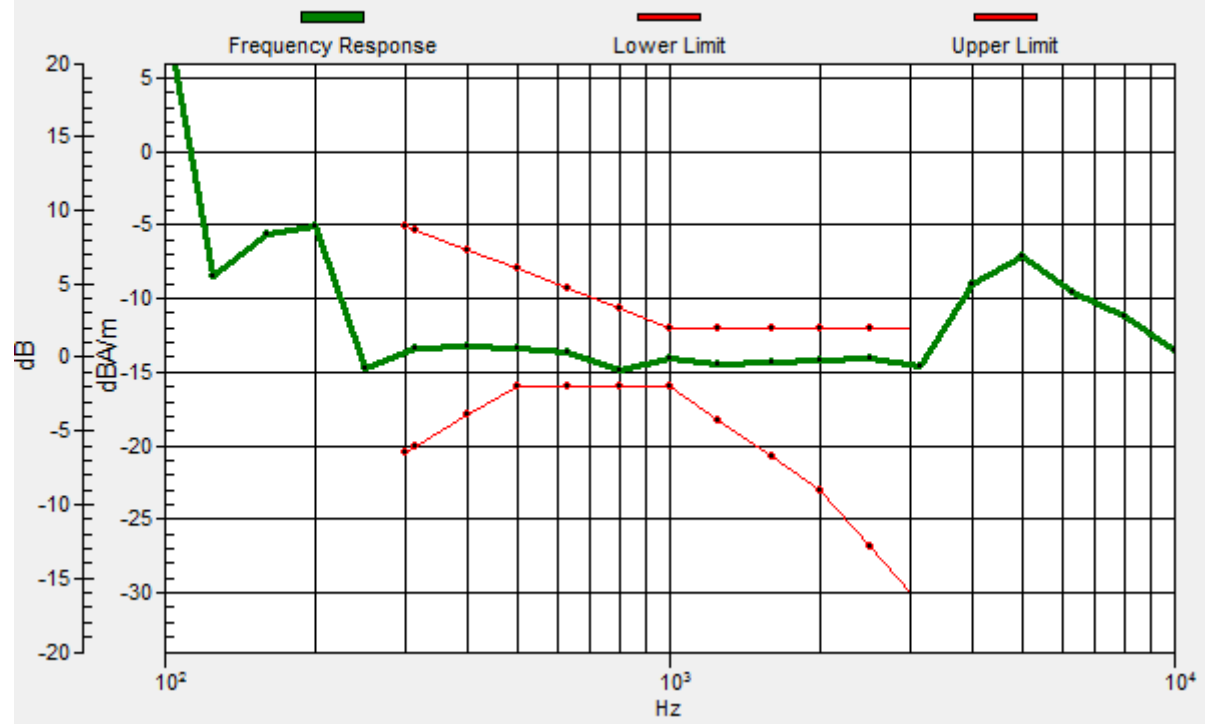
BWC Factor = 0.02 dB

Location: -4.2, -12.5, 3.7 mm



Ch4183/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)

Loc: -4.2, -12.5, 3.7 mm Diff: 1.11dB



HAC_T-Coil_WCDMA Band V AMR 12.12Kbps_Ch4183_Y

Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 836.6 MHz; Duty Cycle: 1:1

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn480; Calibrated: 2019.04.11
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch4183/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid:

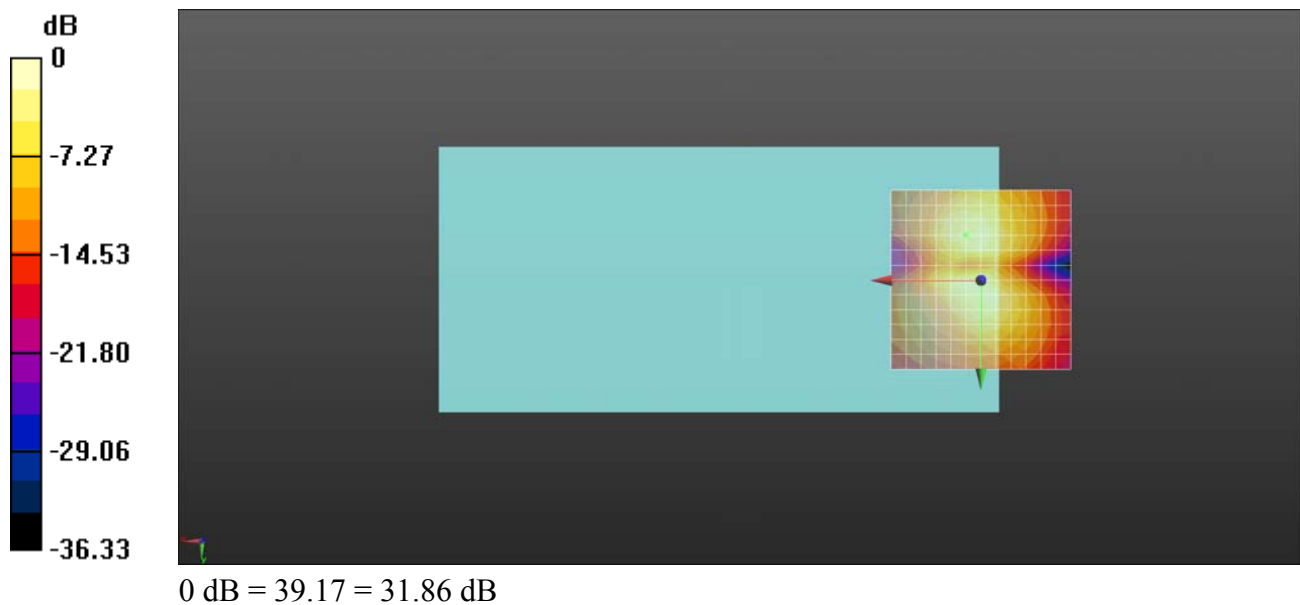
dx=10mm, dy=10mm

ABM1/ABM2 = 31.86 dB

ABM1 comp = -12.49 dBA/m

BWC Factor = 0.02 dB

Location: 0, 0, 3.7 mm



HAC_T-Coil_CDMA2000 BC0_RC1 SO3_Ch384_Z

Communication System: UID 10295 - AAB, CDMA2000, RC1, SO3, 1/8th Rate 25 fr.; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV3 - 3128; ; Calibrated: 2019.01.15
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn480; Calibrated: 2019.04.11
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch384/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f) (1x1x1): Measurement

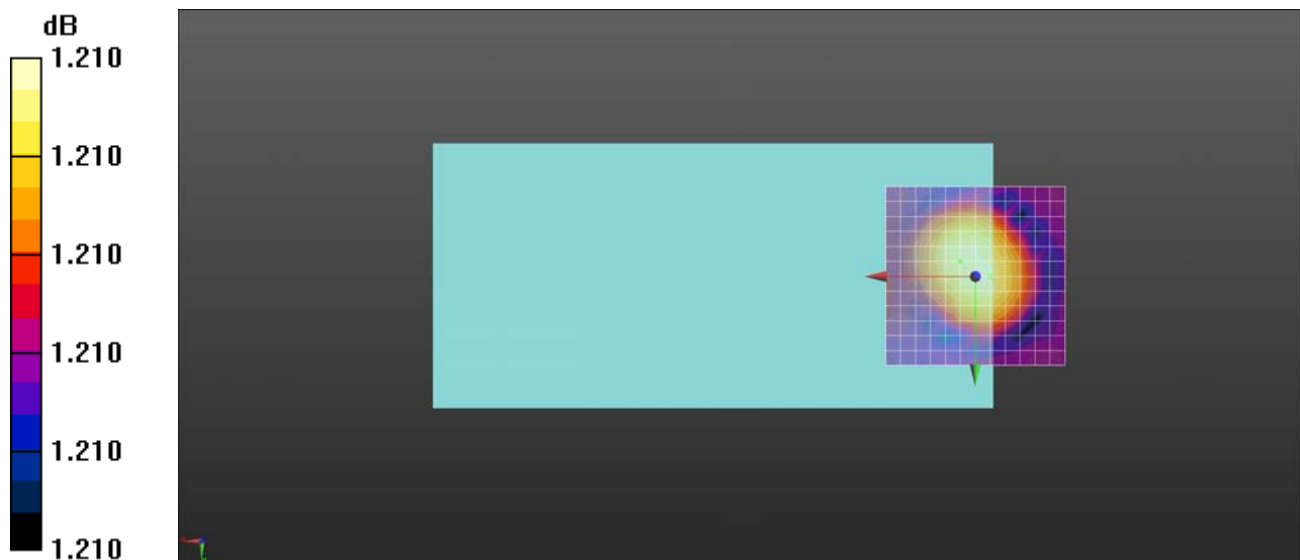
grid: dx=10mm, dy=10mm

ABM1/ABM2 = 38.04 dB

ABM1 comp = -3.67 dBA/m

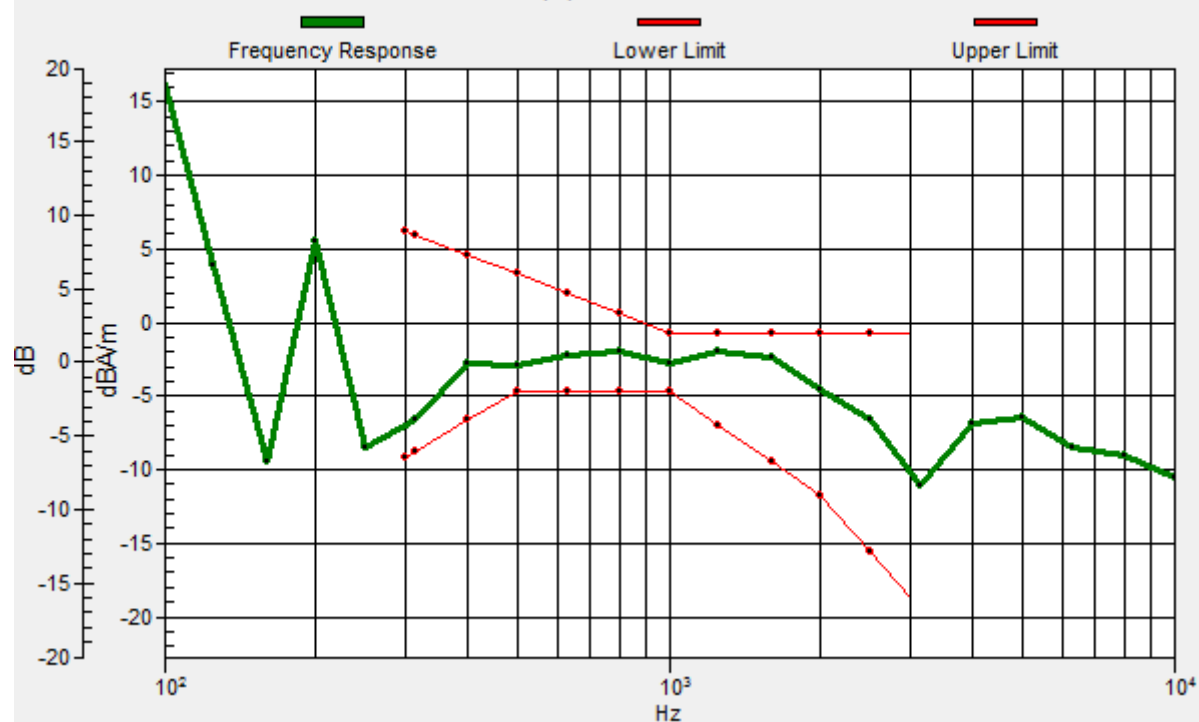
BWC Factor = 0.0012 dB

Location: -4.2, 0, 3.7 mm



Ch384/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)

Loc: -4.2, 0, 3.7 mm Diff: 1.21dB



HAC_T-Coil_CDMA2000 BC0_RC1 SO3_Ch384_Y

Communication System: UID 10295 - AAB, CDMA2000, RC1, SO3, 1/8th Rate 25 fr.; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn480; Calibrated: 2019.04.11
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch384/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid:

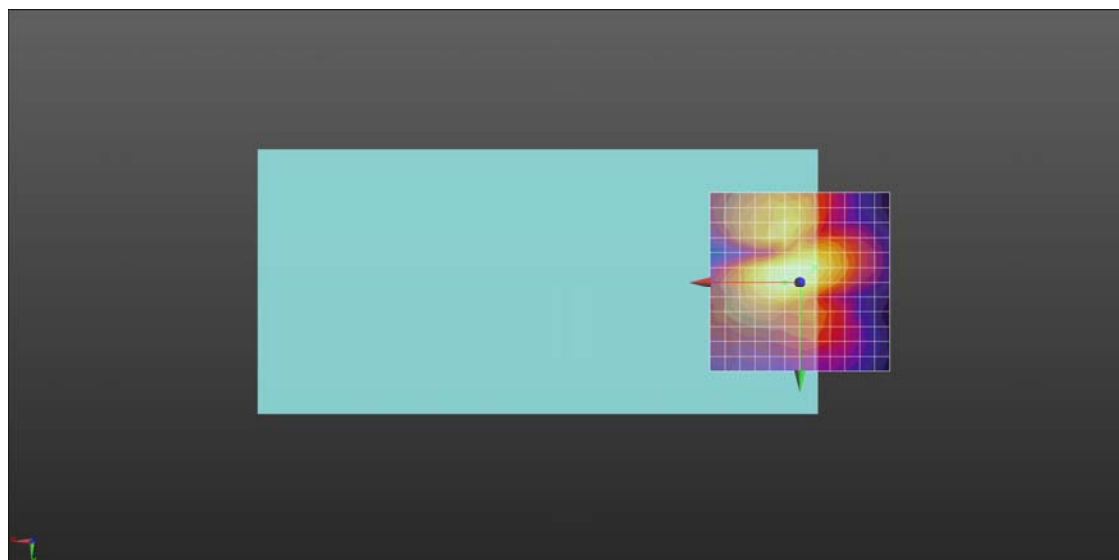
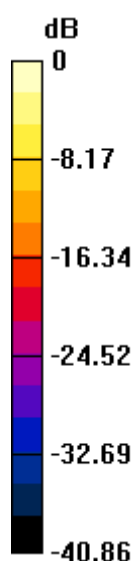
dx=10mm, dy=10mm

ABM1/ABM2 = 32.58 dB

ABM1 comp = -14.51 dBA/m

BWC Factor = 0.0056 dB

Location: -4.2, -4.2, 3.7 mm



0 dB = 42.55 = 32.58 dB

HAC_T-Coil_CDMA2000 BC1_RC1 SO3_Ch600_Z

Communication System: UID 10295 - AAB, CDMA2000, RC1, SO3, 1/8th Rate 25 fr.; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn480; Calibrated: 2019.04.11
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

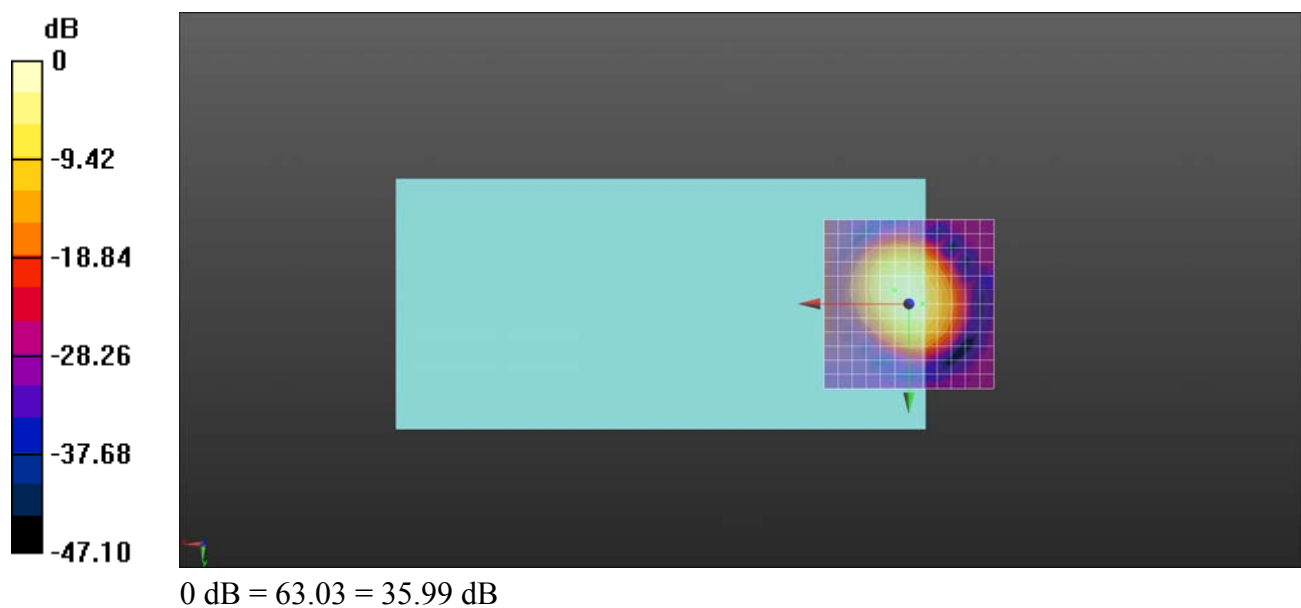
Ch600/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm

ABM1/ABM2 = 35.99 dB

ABM1 comp = -2.88 dBA/m

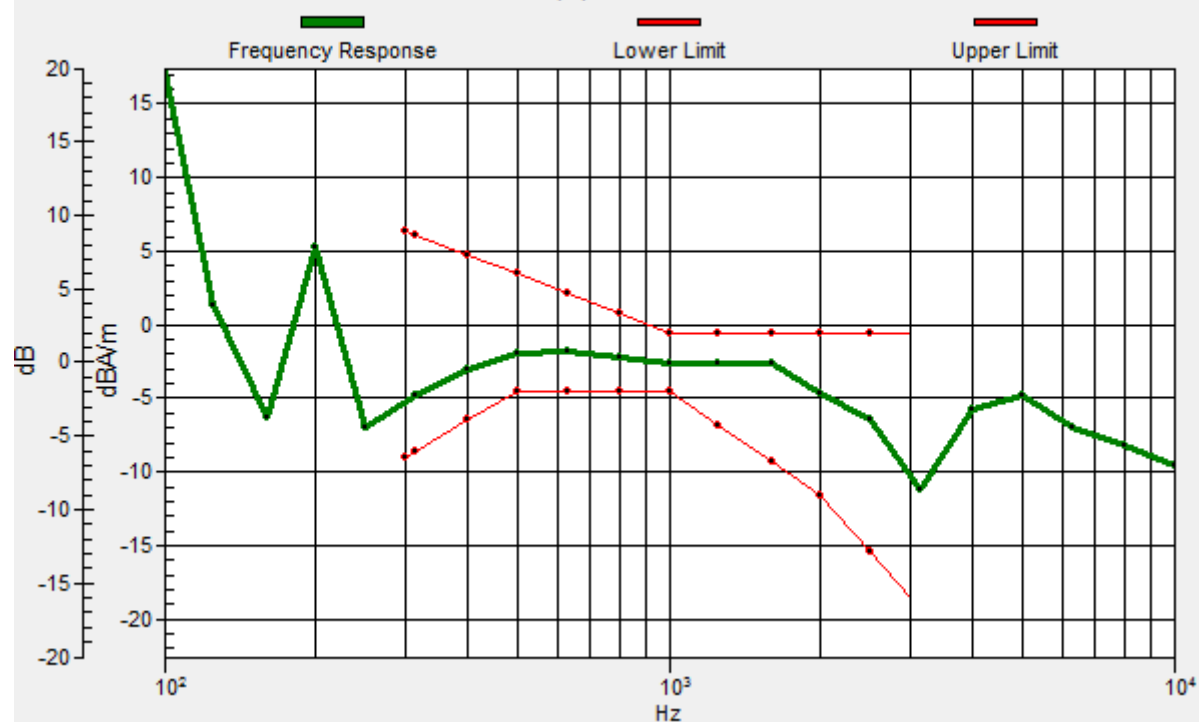
BWC Factor = 0.0041 dB

Location: -4.2, 0, 3.7 mm



Ch600/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)

Loc: -4.2, 0, 3.7 mm Diff: 2dB



HAC_T-Coil_CDMA2000 BC1_RC1 SO3_Ch600_Y

Communication System: UID 10295 - AAB, CDMA2000, RC1, SO3, 1/8th Rate 25 fr.; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn480; Calibrated: 2019.04.11
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch600/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid:

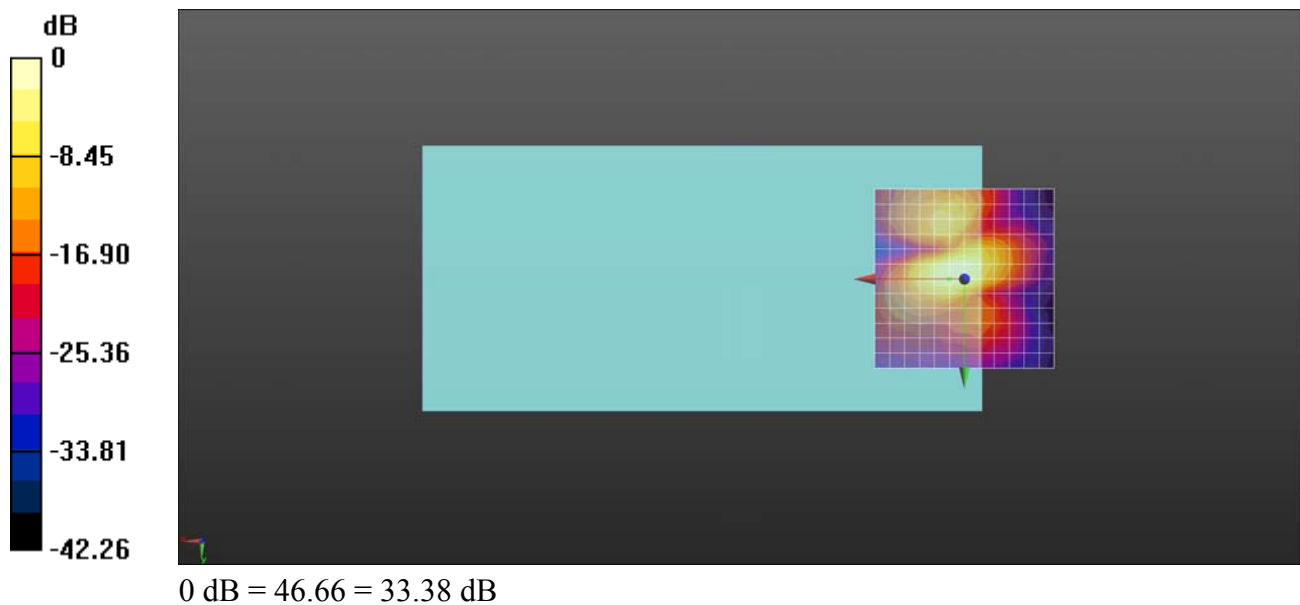
dx=10mm, dy=10mm

ABM1/ABM2 = 33.38 dB

ABM1 comp = -13.31 dBA/m

BWC Factor = 0.0039 dB

Location: 0, 0, 3.7 mm



HAC_T-Coil_CDMA2000 BC10_RC1 SO3_Ch580_Z

Communication System: UID 10295 - AAB, CDMA2000, RC1, SO3, 1/8th Rate 25 fr.; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn480; Calibrated: 2019.04.11
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch580/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f) (1x1x1): Measurement

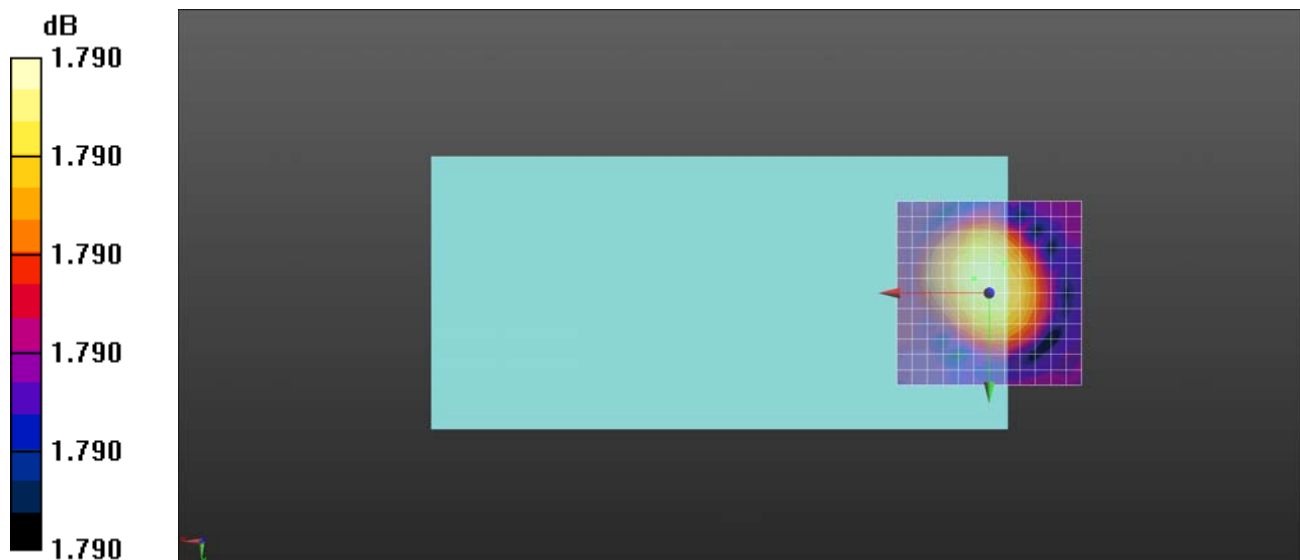
grid: dx=10mm, dy=10mm

ABM1/ABM2 = 44.23 dB

ABM1 comp = -6.78 dBA/m

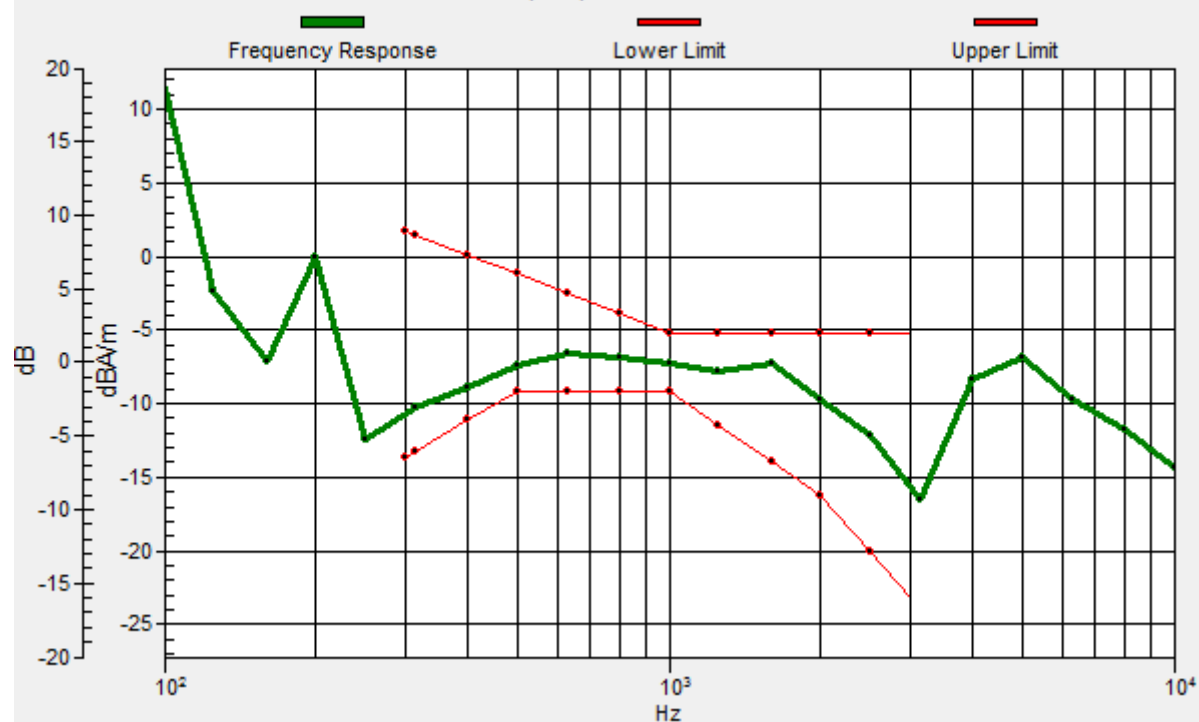
BWC Factor = 0.0036 dB

Location: -4.2, -8.3, 3.7 mm



Ch580/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)

Loc: -4.2, -8.3, 3.7 mm Diff: 1.79dB



HAC_T-Coil_CDMA2000 BC10_RC1 SO3_Ch580_Y

Communication System: UID 10295 - AAB, CDMA2000, RC1, SO3, 1/8th Rate 25 fr.; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn480; Calibrated: 2019.04.11
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch580/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid:

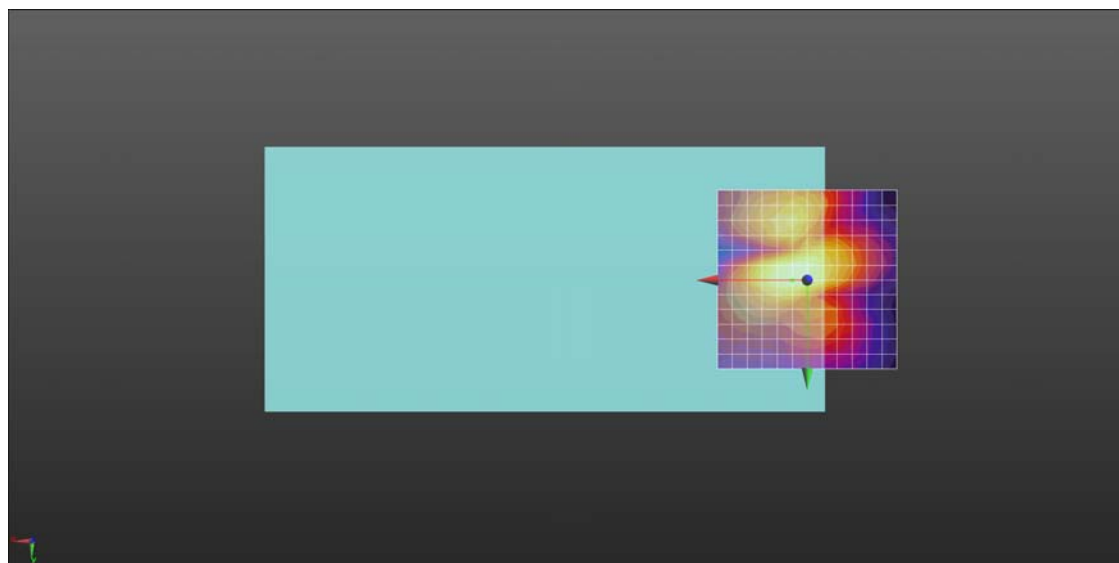
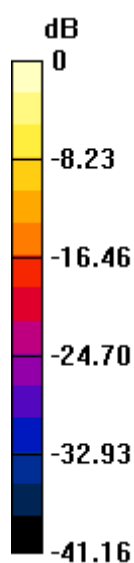
dx=10mm, dy=10mm

ABM1/ABM2 = 32.43 dB

ABM1 comp = -14.44 dBA/m

BWC Factor = 0.0035 dB

Location: 0, 0, 3.7 mm



0 dB = 41.81 = 32.43 dB

HAC_T-Coil_LTE Band 2_20M_QPSK_1RB_0offset_12.2Kbps_Ch18900_Z

Communication System: UID 10169 - CAB, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK);

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24

- Sensor-Surface: 0mm (Fix Surface)

- Electronics: DAE4 Sn480; Calibrated: 2019.04.11

- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch18900/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f) (1x1x1): Measurement

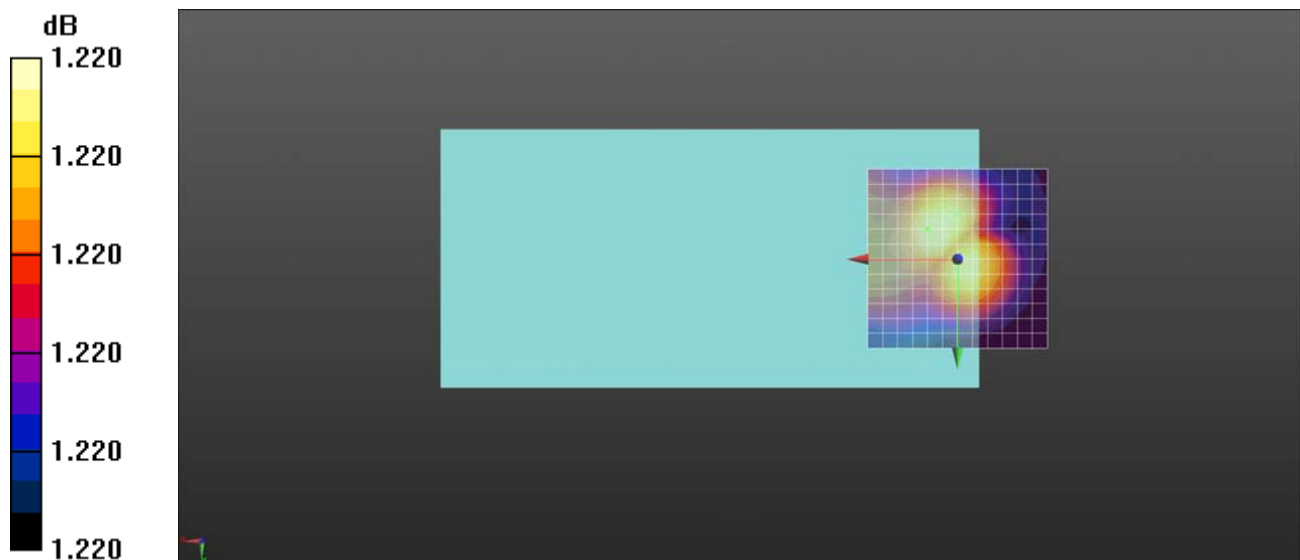
grid: dx=10mm, dy=10mm

ABM1/ABM2 = 28.25 dB

ABM1 comp = -12.98 dBA/m

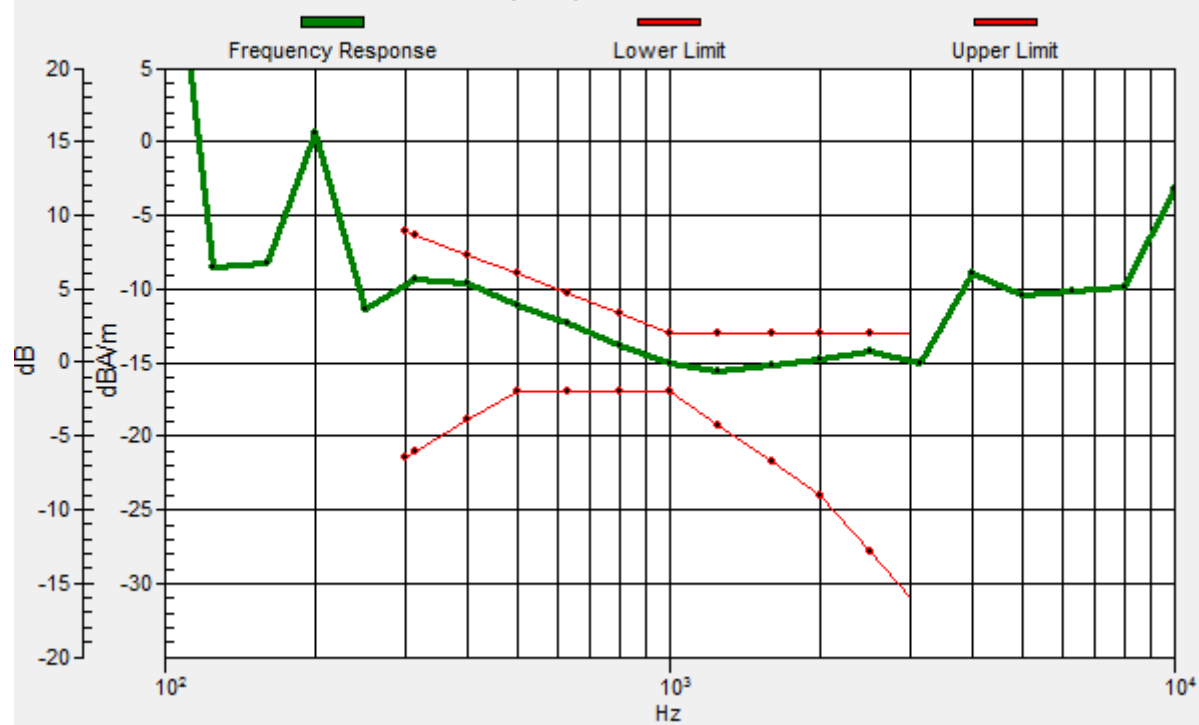
BWC Factor = -0.0033 dB

Location: 0, -12.5, 3.7 mm



Ch18900/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)

Loc: 0, -12.5, 3.7 mm Diff: 1.22dB



HAC_T-Coil_LTE Band 2_20M_QPSK_1RB_0offset_12.2Kbps_Ch18900_Y

Communication System: UID 10169 - CAB, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK);

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24

- Sensor-Surface: 0mm (Fix Surface)

- Electronics: DAE4 Sn480; Calibrated: 2019.04.11

- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch18900/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid:

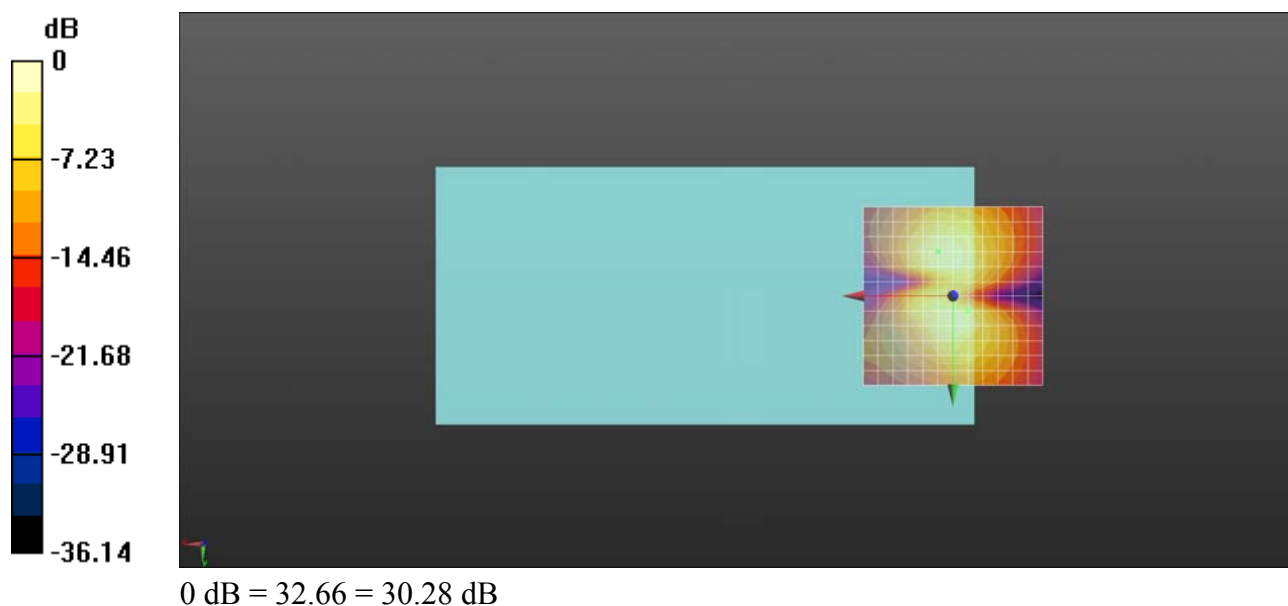
dx=10mm, dy=10mm

ABM1/ABM2 = 30.28 dB

ABM1 comp = -12.05 dBA/m

BWC Factor = -0.01 dB

Location: -4.2, 4.2, 3.7 mm



HAC_T-Coil_LTE Band 4_20M_QPSK_1RB_0offset_12.2Kbps_Ch20175_Z

Communication System: UID 10169 - CAB, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK);

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24

- Sensor-Surface: 0mm (Fix Surface)

- Electronics: DAE4 Sn480; Calibrated: 2019.04.11

- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch20175/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid:

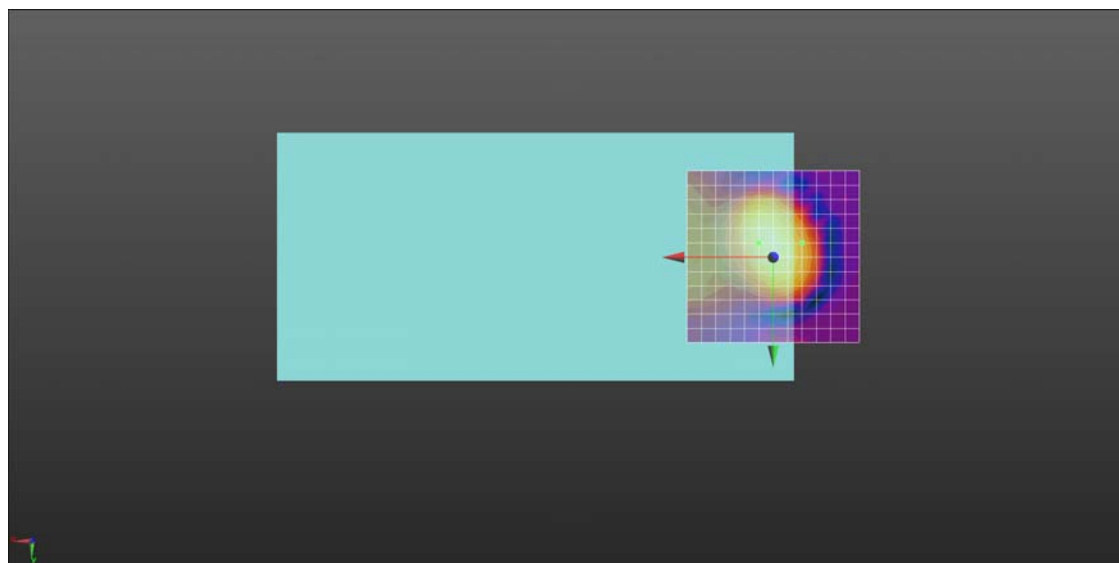
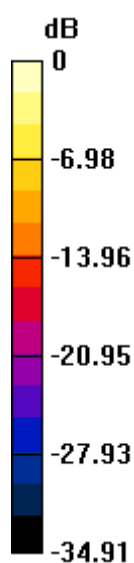
dx=10mm, dy=10mm

ABM1/ABM2 = 27.01 dB

ABM1 comp = -15.90 dBA/m

BWC Factor = -0.0063 dB

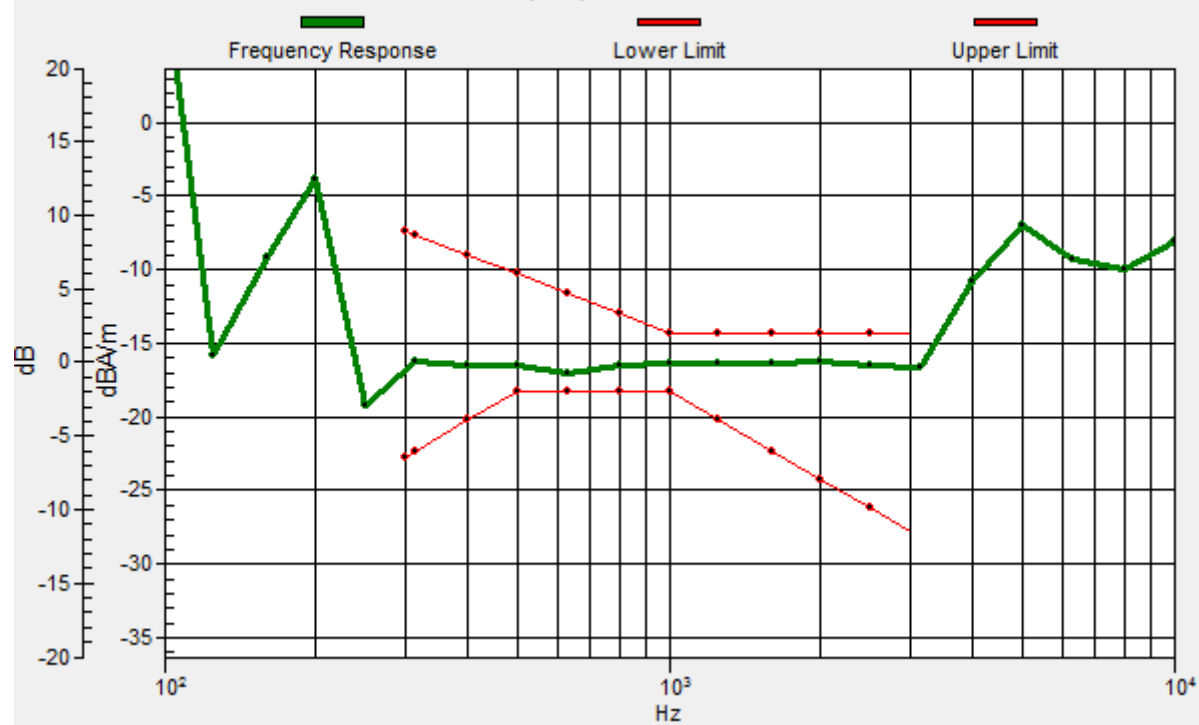
Location: -8.3, -4.2, 3.7 mm



0 dB = 22.40 = 27.01 dB

Ch20175/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)

Loc: -8.3, -4.2, 3.7 mm Diff: 1.26dB



HAC_T-Coil_LTE Band 4_20M_QPSK_1RB_0offset_12.2Kbps_Ch20175_Y

Communication System: UID 10169 - CAB, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK);

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24

- Sensor-Surface: 0mm (Fix Surface)

- Electronics: DAE4 Sn480; Calibrated: 2019.04.11

- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch20175/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid:

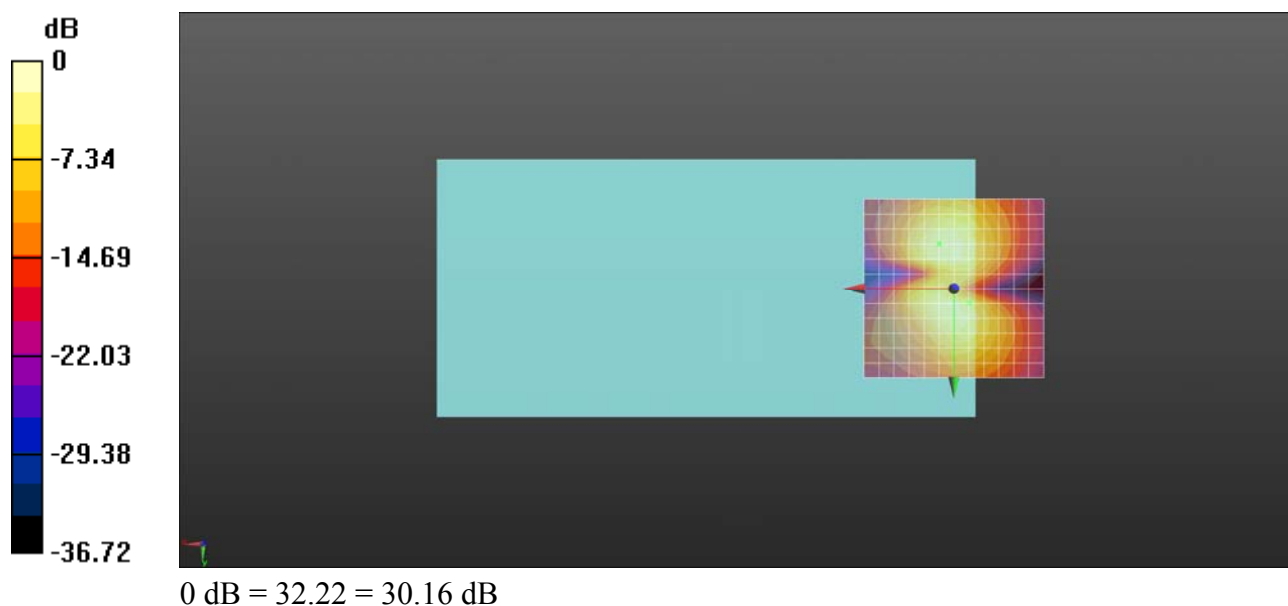
dx=10mm, dy=10mm

ABM1/ABM2 = 30.16 dB

ABM1 comp = -12.08 dBA/m

BWC Factor = -0.0068 dB

Location: -4.2, 4.2, 3.7 mm



HAC_T-Coil_LTE Band 5_10M_QPSK_1RB_0offset_12.2Kbps_Ch20525_Z

Communication System: UID 10175 - CAB, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK);

Frequency: 836.5 MHz; Duty Cycle: 1:1

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24

- Sensor-Surface: 0mm (Fix Surface)

- Electronics: DAE4 Sn480; Calibrated: 2019.04.11

- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch20525/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid:

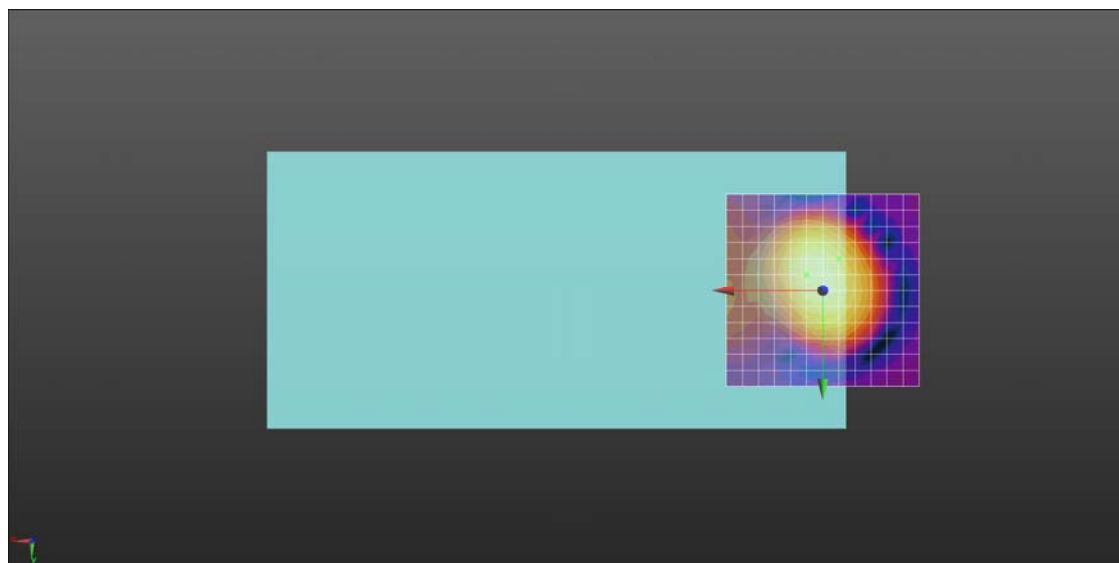
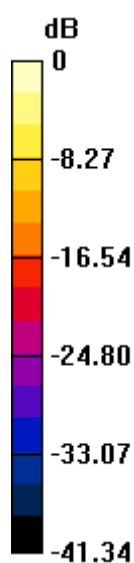
dx=10mm, dy=10mm

ABM1/ABM2 = 35.26 dB

ABM1 comp = -7.58 dBA/m

BWC Factor = 0.00017 dB

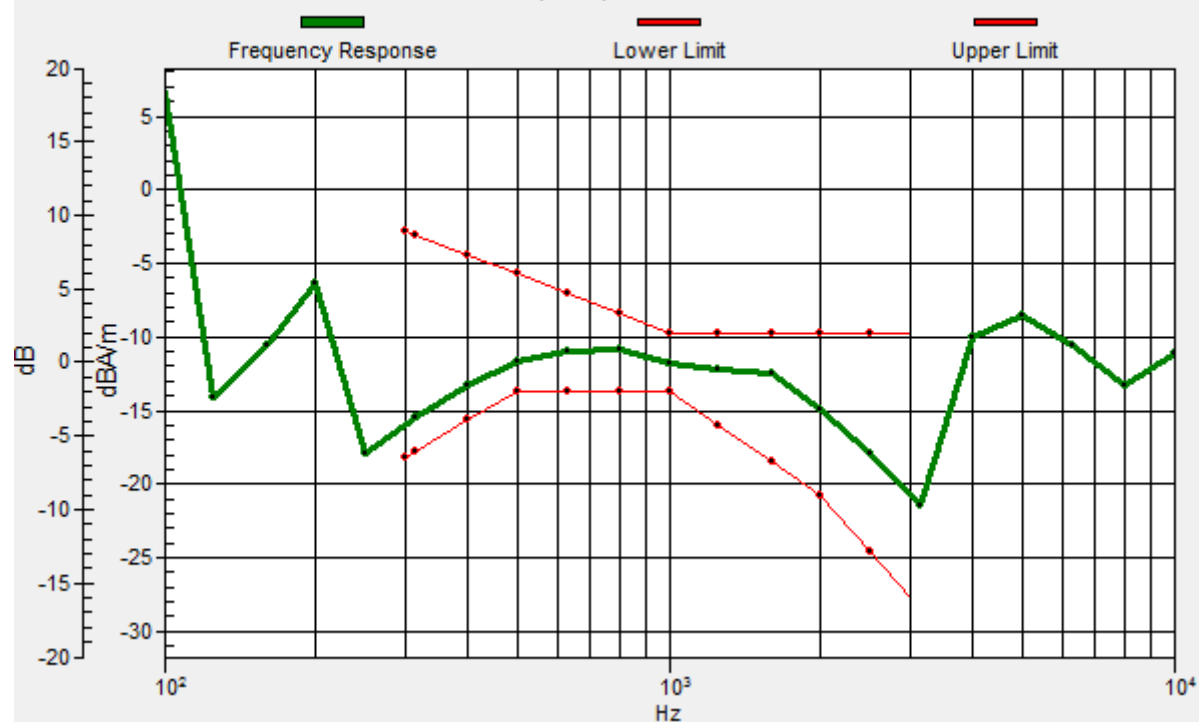
Location: -4.2, -8.3, 3.7 mm



0 dB = 57.93 = 35.26 dB

Ch20525/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)

Loc: -4.2, -12.5, 3.7 mm Diff: 2dB



HAC_T-Coil_LTE Band 5_10M_QPSK_1RB_0offset_12.2Kbps_Ch20525_Y

Communication System: UID 10175 - CAB, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK);

Frequency: 836.5 MHz; Duty Cycle: 1:1

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24

- Sensor-Surface: 0mm (Fix Surface)

- Electronics: DAE4 Sn480; Calibrated: 2019.04.11

- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch20525/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid:

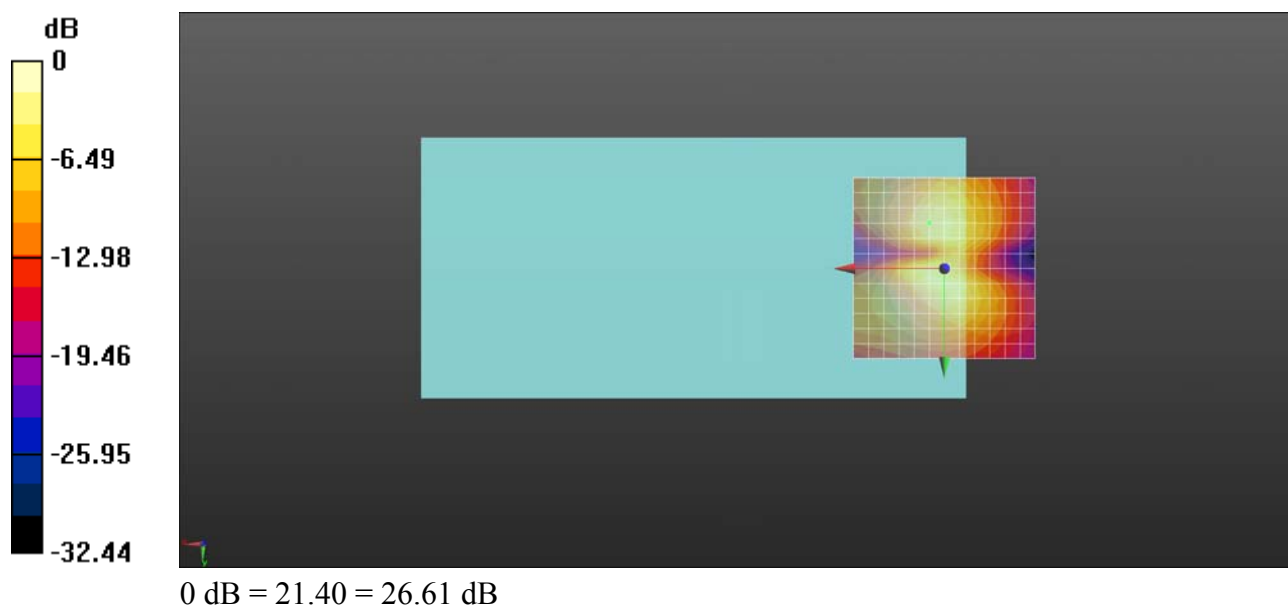
dx=10mm, dy=10mm

ABM1/ABM2 = 26.61 dB

ABM1 comp = -16.80 dBA/m

BWC Factor = -0.00053 dB

Location: 0, 0, 3.7 mm



HAC_T-Coil_LTE Band 12_10M_QPSK_1RB_0offset_12.2Kbps_Ch23095_Z

Communication System: UID 10175 - CAB, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK);

Frequency: 707.5 MHz; Duty Cycle: 1:1

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24

- Sensor-Surface: 0mm (Fix Surface)

- Electronics: DAE4 Sn480; Calibrated: 2019.04.11

- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

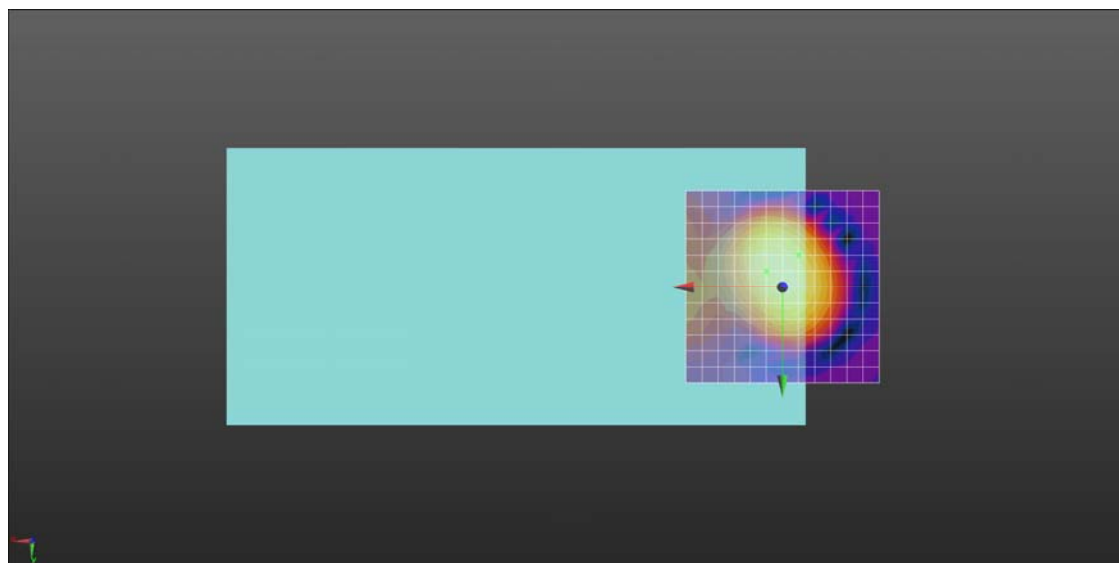
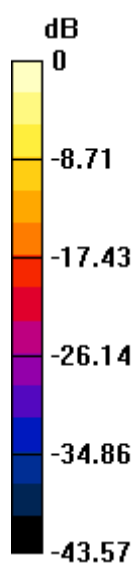
23095/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm

ABM1/ABM2 = 38.73 dB

ABM1 comp = -6.13 dBA/m

BWC Factor = 0.0045 dB

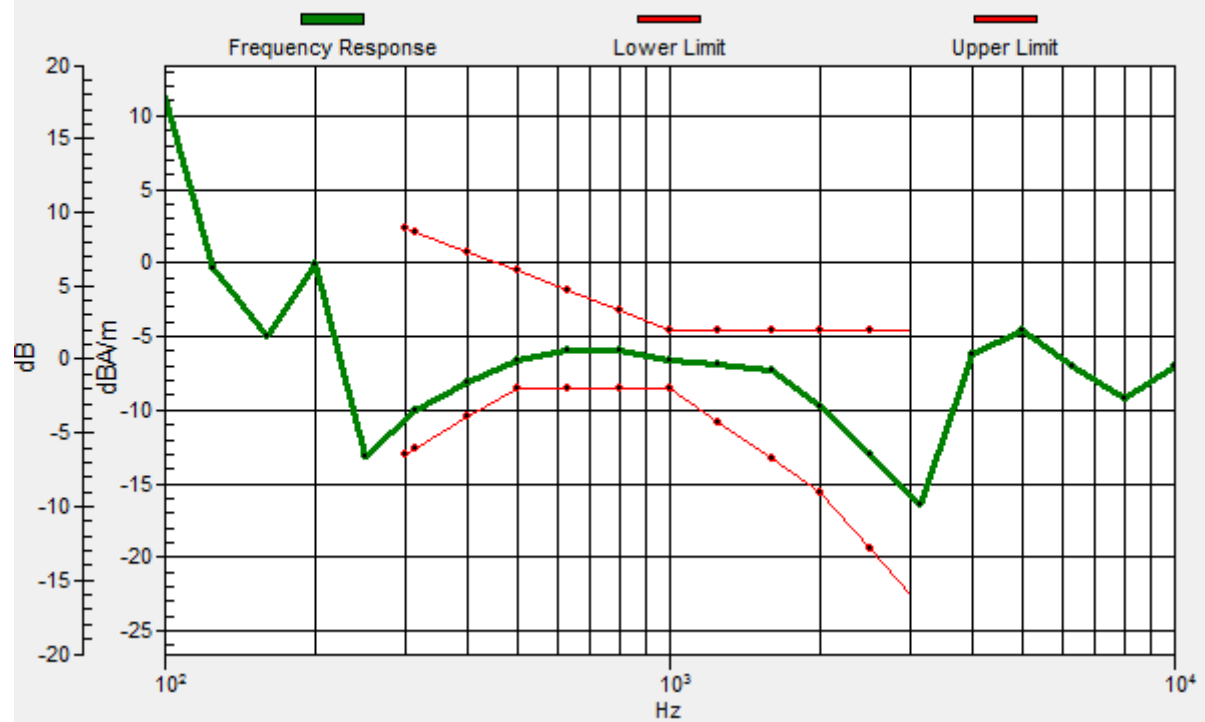
Location: -4.2, -8.3, 3.7 mm



0 dB = 86.45 = 38.74 dB

23095/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)

Loc: -4.2, -8.3, 3.7 mm Diff: 1.91dB



HAC_T-Coil_LTE Band 12_10M_QPSK_1RB_0offset_12.2Kbps_Ch23095_Y

Communication System: UID 10175 - CAB, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK);

Frequency: 707.5 MHz; Duty Cycle: 1:1

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24

- Sensor-Surface: 0mm (Fix Surface)

- Electronics: DAE4 Sn480; Calibrated: 2019.04.11

- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch23095/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid:

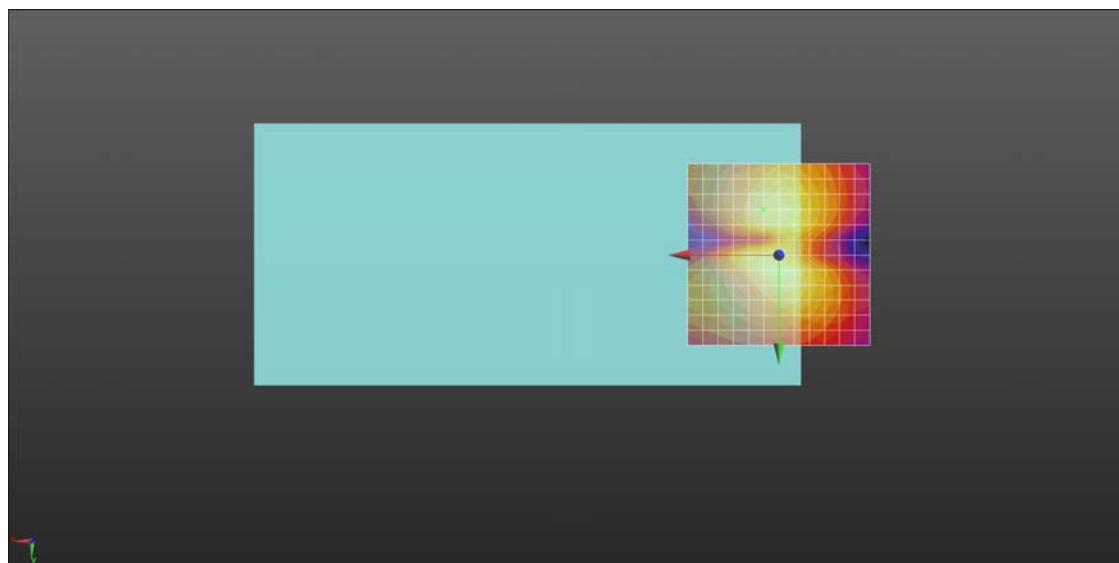
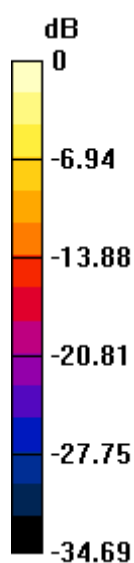
dx=10mm, dy=10mm

ABM1/ABM2 = 27.57 dB

ABM1 comp = -16.64 dBA/m

BWC Factor = 0.0024 dB

Location: 0, 0, 3.7 mm



0 dB = 23.90 = 27.57 dB

HAC_T-Coil_LTE Band 13_10M_QPSK_1RB_0offset_12.2Kbps_Ch23230_Z

Communication System: UID 10175 - CAB, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK);

Frequency: 782 MHz; Duty Cycle: 1:1

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24

- Sensor-Surface: 0mm (Fix Surface)

- Electronics: DAE4 Sn480; Calibrated: 2019.04.11

- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch23230/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid:

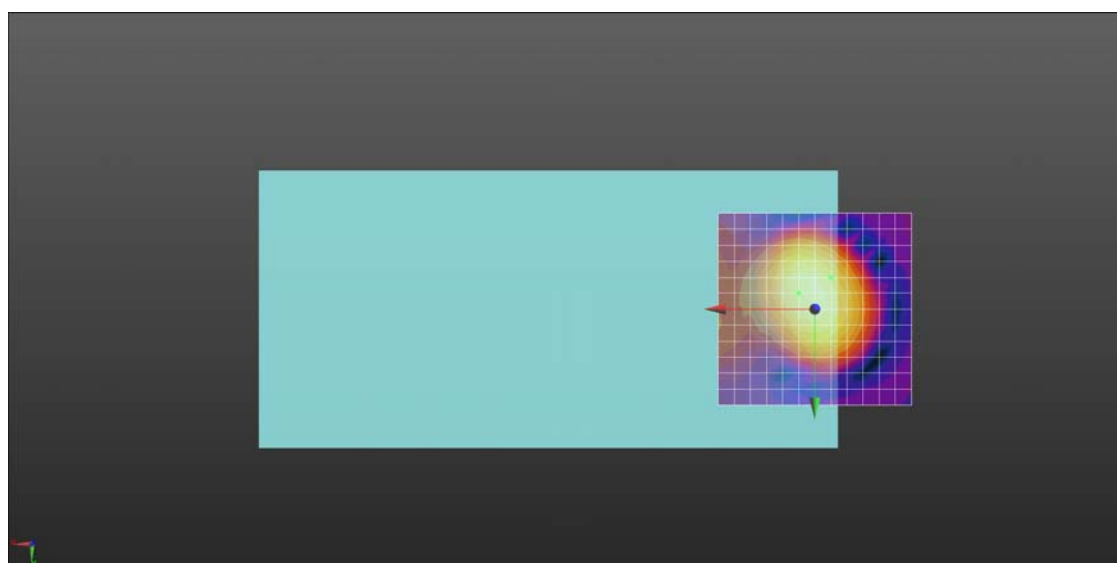
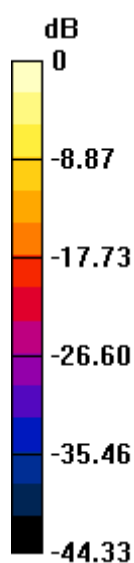
dx=10mm, dy=10mm

ABM1/ABM2 = 38.24 dB

ABM1 comp = -6.39 dBA/m

BWC Factor = 0.0017 dB

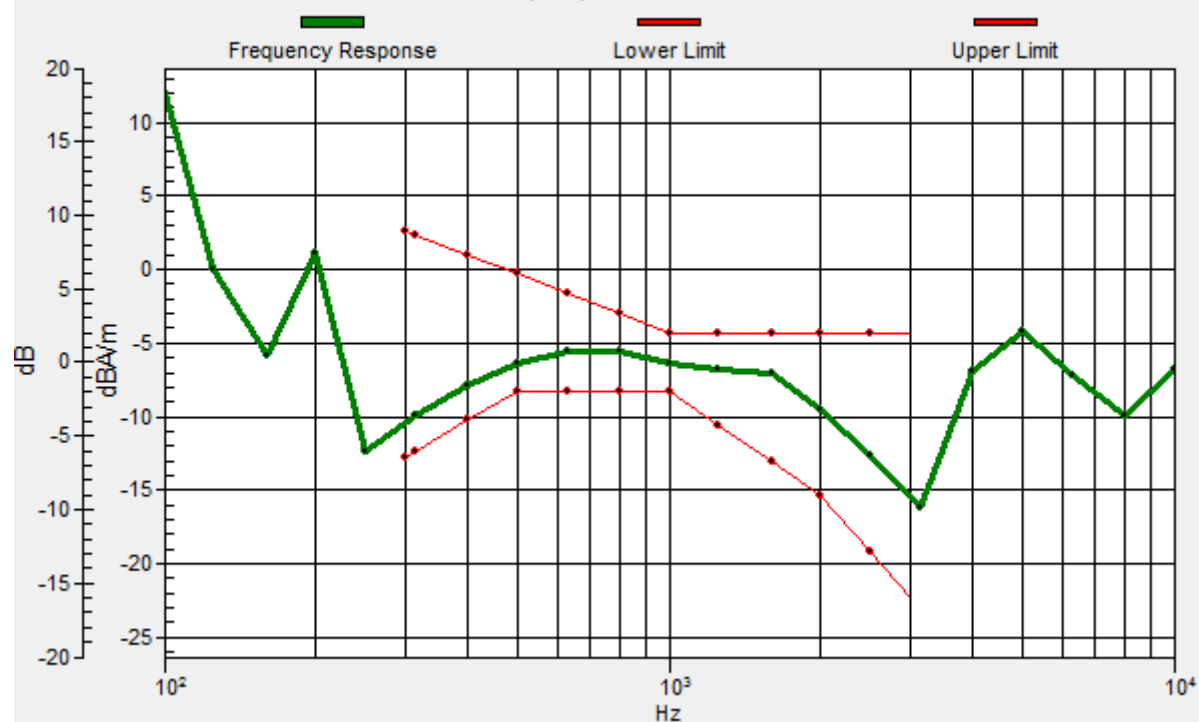
Location: -4.2, -8.3, 3.7 mm



0 dB = 81.70 = 38.24 dB

Ch23230/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)

Loc: -4.2, -8.3, 3.7 mm Diff: 1.97dB



HAC_T-Coil_LTE Band 13_10M_QPSK_1RB_0offset_12.2Kbps_Ch23230_Y

Communication System: UID 10175 - CAB, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK);

Frequency: 782 MHz; Duty Cycle: 1:1

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24

- Sensor-Surface: 0mm (Fix Surface)

- Electronics: DAE4 Sn480; Calibrated: 2019.04.11

- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch23230/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid:

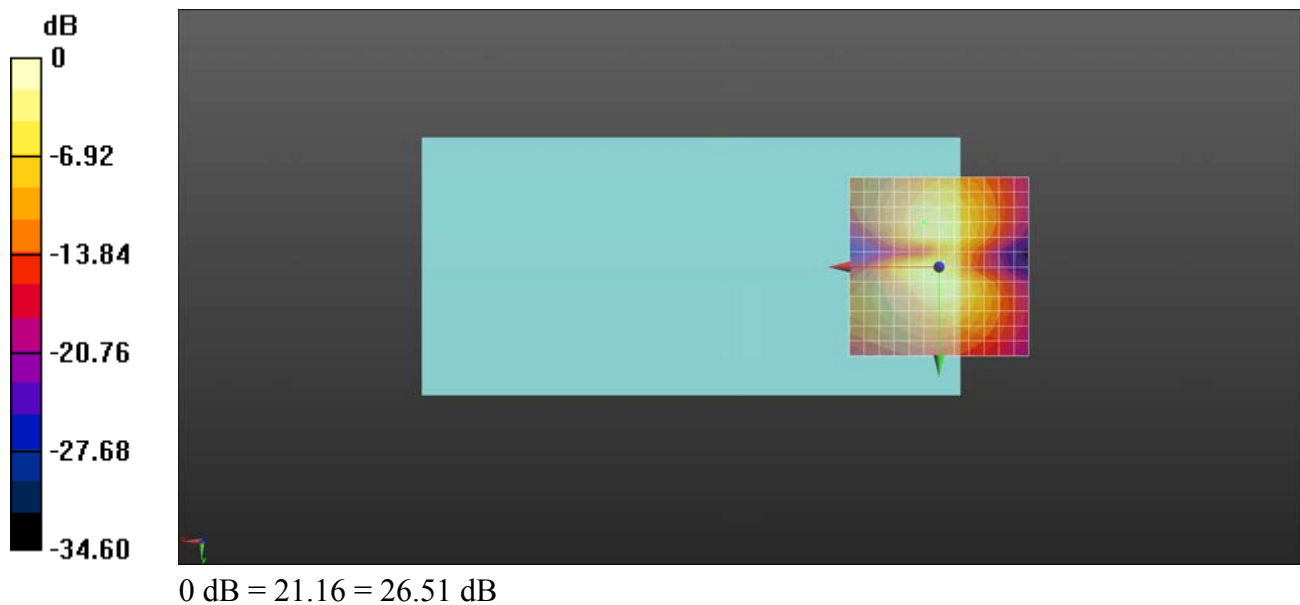
dx=10mm, dy=10mm

ABM1/ABM2 = 26.51 dB

ABM1 comp = -16.86 dBA/m

BWC Factor = 0.0018 dB

Location: 0, 0, 3.7 mm



HAC_T-Coil_LTE Band 25_20M_QPSK_1RB_0offset_12.2Kbps_Ch26340_Z

Communication System: UID 10169 - CAB, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK);

Frequency: 1882.5 MHz; Duty Cycle: 1:1

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24

- Sensor-Surface: 0mm (Fix Surface)

- Electronics: DAE4 Sn480; Calibrated: 2019.04.11

- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch26340/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid:

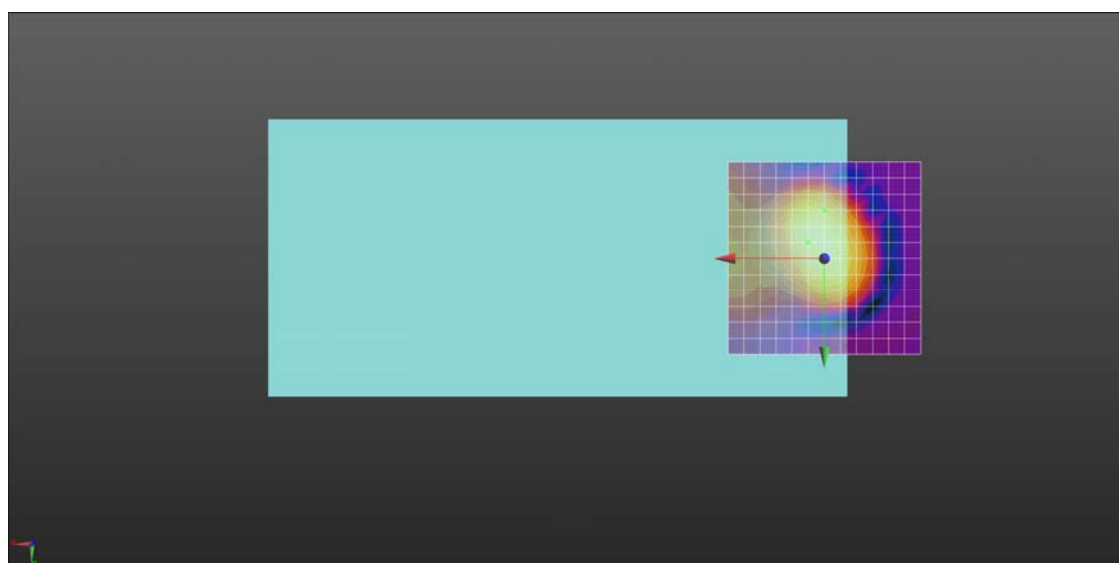
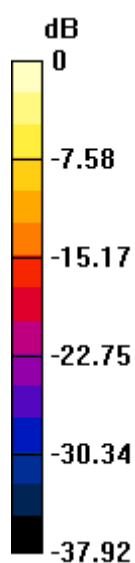
dx=10mm, dy=10mm

ABM1/ABM2 = 29.12 dB

ABM1 comp = -12.54 dBA/m

BWC Factor = -0.0038 dB

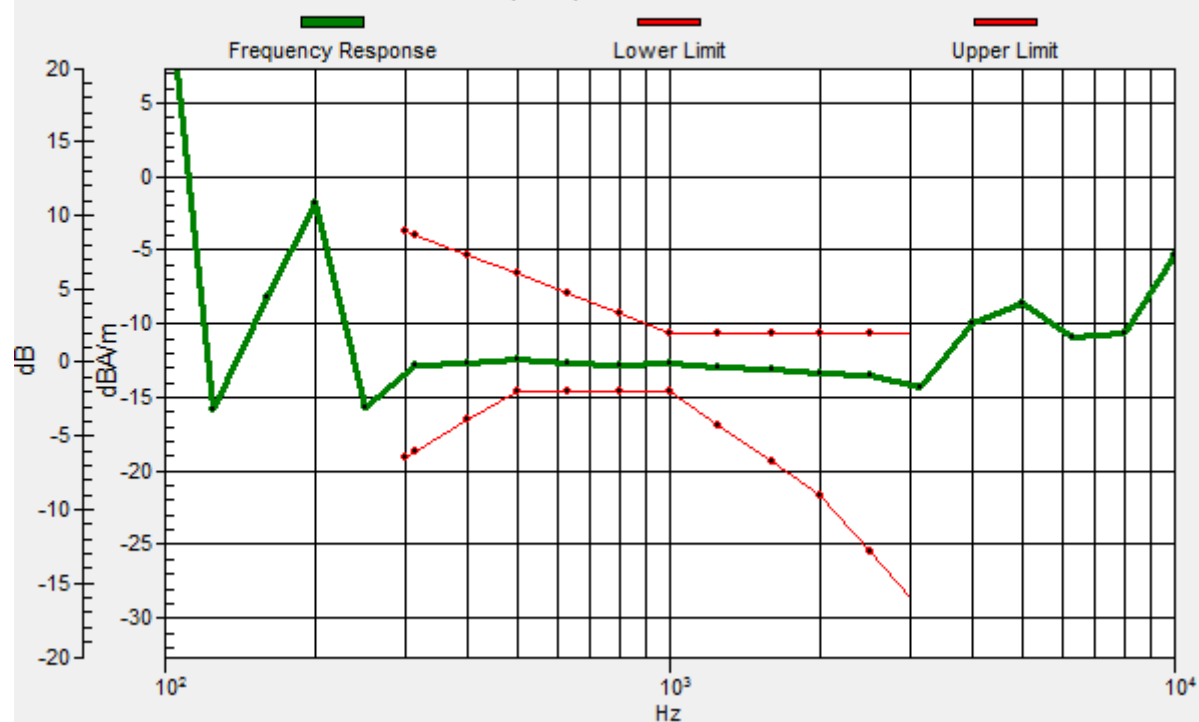
Location: 0, -12.5, 3.7 mm



0 dB = 28.59 = 29.12 dB

Ch26340/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)

Loc: 0, -12.5, 3.7 mm Diff: 1.79dB



HAC_T-Coil_LTE Band 25_20M_QPSK_1RB_0offset_12.2Kbps_Ch26340_Y

Communication System: UID 10169 - CAB, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK);

Frequency: 1882.5 MHz; Duty Cycle: 1:1

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24

- Sensor-Surface: 0mm (Fix Surface)

- Electronics: DAE4 Sn480; Calibrated: 2019.04.11

- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch26340/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid:

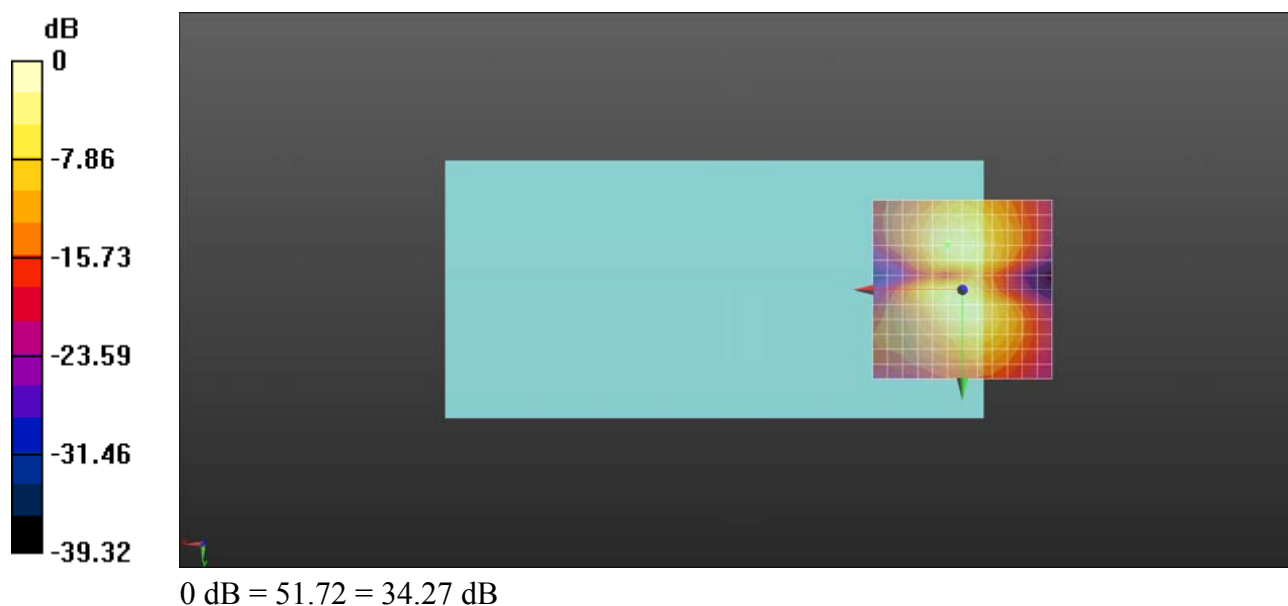
dx=10mm, dy=10mm

ABM1/ABM2 = 34.27 dB

ABM1 comp = -10.72 dBA/m

BWC Factor = -0.0029 dB

Location: 0, 0, 3.7 mm



HAC_T-Coil_LTE Band 26_15M_QPSK_1RB_0offset_12.2Kbps_Ch26865_Z

Communication System: UID 10181 - CAB, LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK);

Frequency: 831.5 MHz; Duty Cycle: 1:1

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24

- Sensor-Surface: 0mm (Fix Surface)

- Electronics: DAE4 Sn480; Calibrated: 2019.04.11

- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch26865/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid:

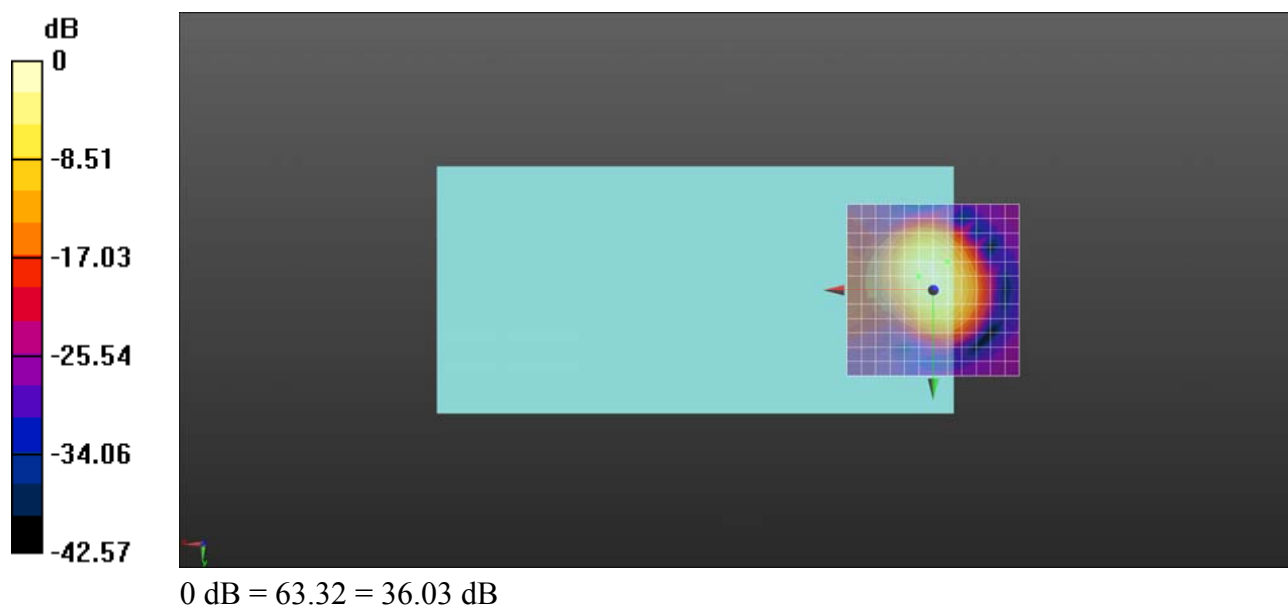
dx=10mm, dy=10mm

ABM1/ABM2 = 36.03 dB

ABM1 comp = -6.82 dBA/m

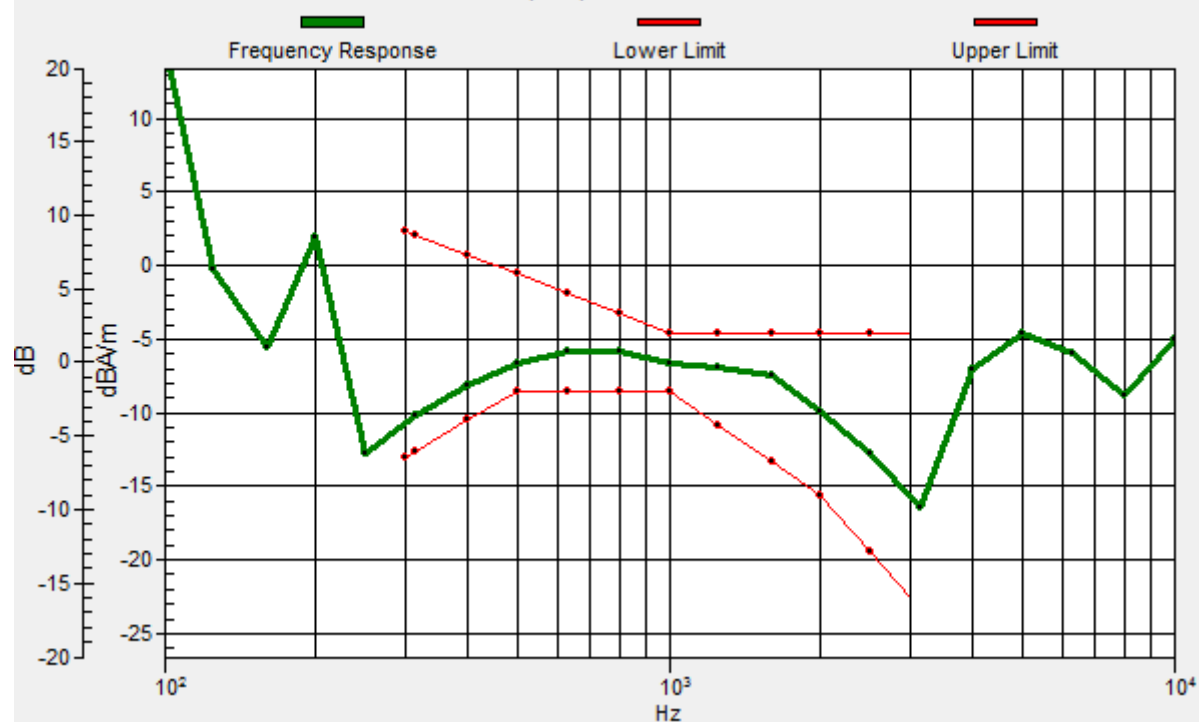
BWC Factor = 0.0032 dB

Location: -4.2, -8.3, 3.7 mm



Ch26865/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)

Loc: -4.2, -8.3, 3.7 mm Diff: 1.96dB



HAC_T-Coil_LTE Band 26_15M_QPSK_1RB_0offset_12.2Kbps_Ch26865_Y

Communication System: UID 10181 - CAB, LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK);

Frequency: 831.5 MHz; Duty Cycle: 1:1

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24

- Sensor-Surface: 0mm (Fix Surface)

- Electronics: DAE4 Sn480; Calibrated: 2019.04.11

- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch26865/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid:

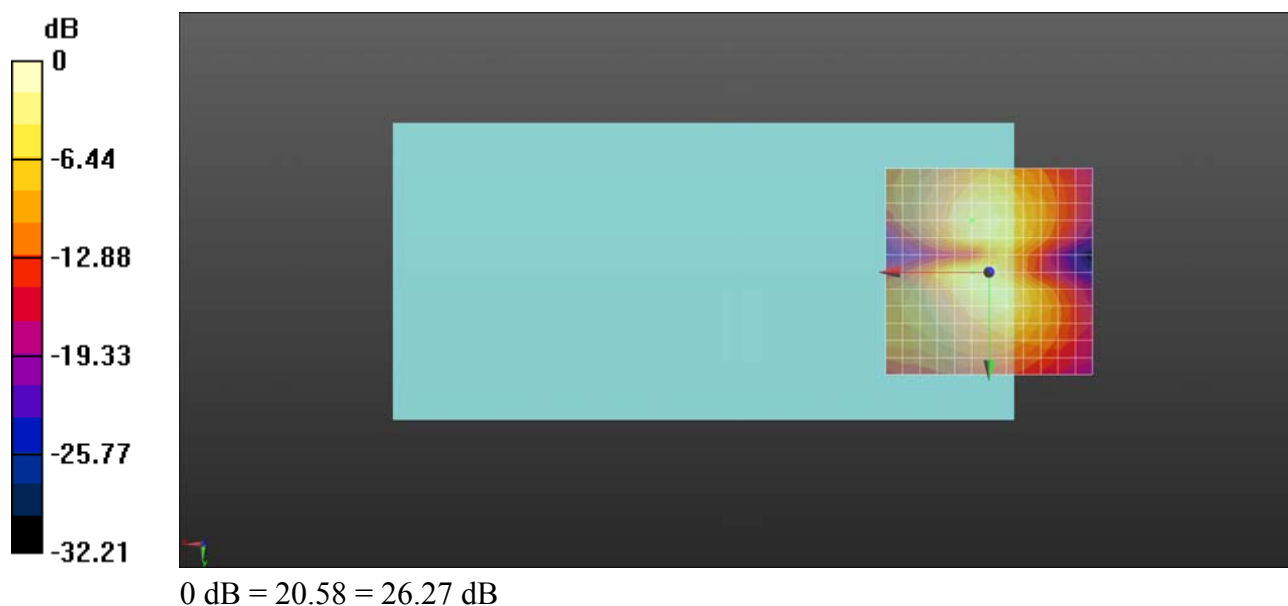
dx=10mm, dy=10mm

ABM1/ABM2 = 26.27 dB

ABM1 comp = -14.56 dBA/m

BWC Factor = -0.0045 dB

Location: 4.2, 0, 3.7 mm



HAC_T-Coil_LTE Band 41_20M_QPSK_1RB_0offset_12.2Kbps_Ch40620_Z

Communication System: UID 10172 - CAB, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK);
Frequency: 2593 MHz; Duty Cycle: 1:1.59

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn480; Calibrated: 2019.04.11
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch40620/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid:

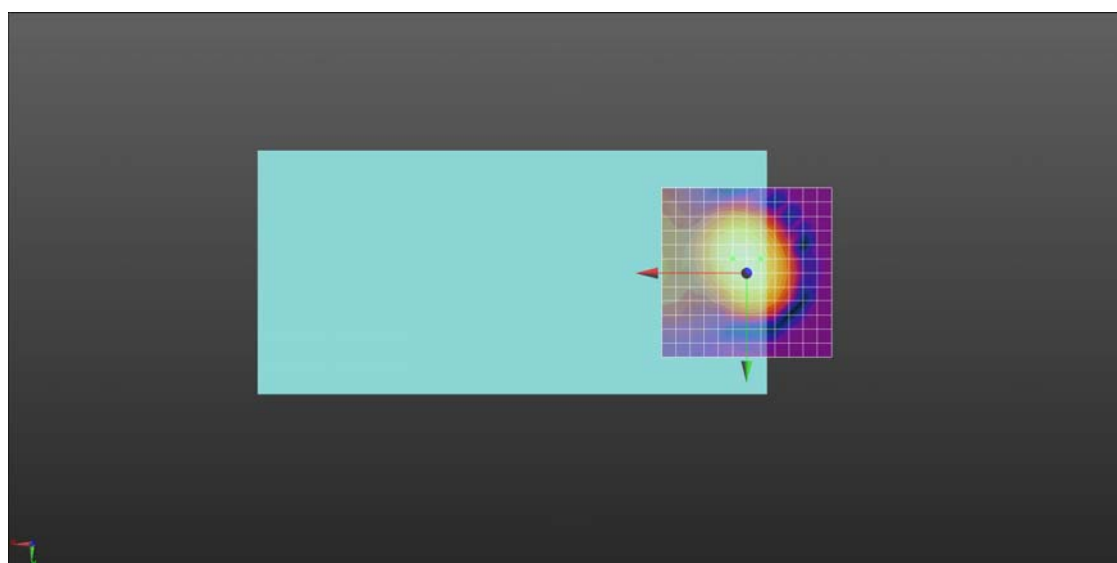
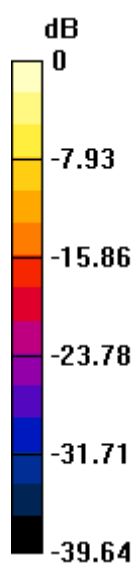
dx=10mm, dy=10mm

ABM1/ABM2 = 23.98 dB

ABM1 comp = -8.14 dBA/m

BWC Factor = -0.0048 dB

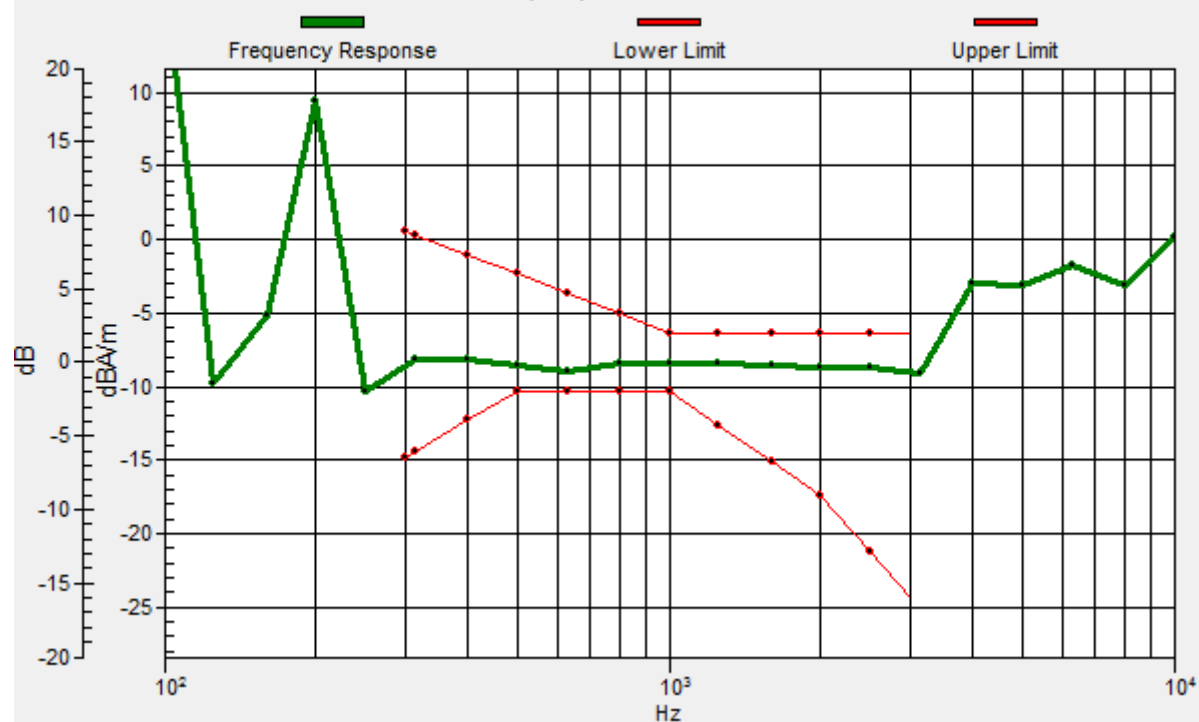
Location: -4.2, -4.2, 3.7 mm



0 dB = 15.81 = 23.98 dB

Ch40620/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)

Loc: -4.2, -4.2, 3.7 mm Diff: 1.44dB



HAC_T-Coil_LTE Band 41_20M_QPSK_1RB_0offset_12.2Kbps_Ch40620_Y

Communication System: UID 10172 - CAB, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK);
Frequency: 2593 MHz; Duty Cycle: 1:1.59

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn480; Calibrated: 2019.04.11
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch40620/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid:

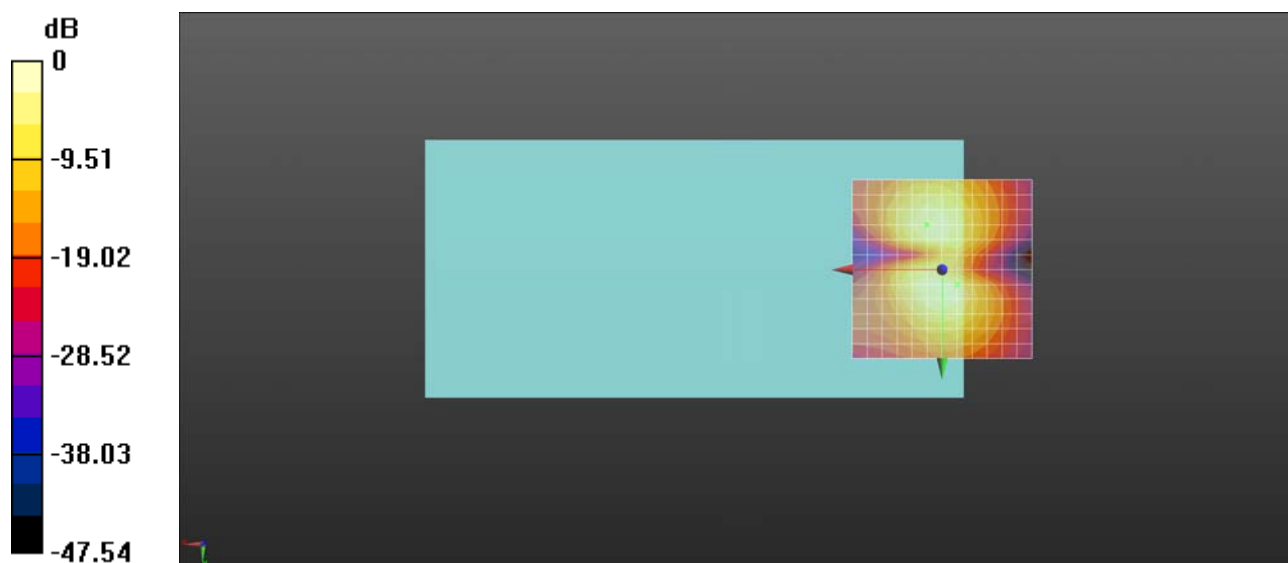
dx=10mm, dy=10mm

ABM1/ABM2 = 25.76 dB

ABM1 comp = -14.53 dBA/m

BWC Factor = -0.0048 dB

Location: -4.2, 4.2, 3.7 mm



0 dB = 12.24 = 25.76 dB

HAC_T-Coil_LTE Band 66_20M_QPSK_1RB_0offset_12.2Kbps_Ch132322_Z

Communication System: UID 0, LTE-FDD (SC-FDMA, 1RB, 20MHz, QPSK) (0); Frequency: 1745 MHz; Duty Cycle: 1:1

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn480; Calibrated: 2019.04.11
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch132322/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid:

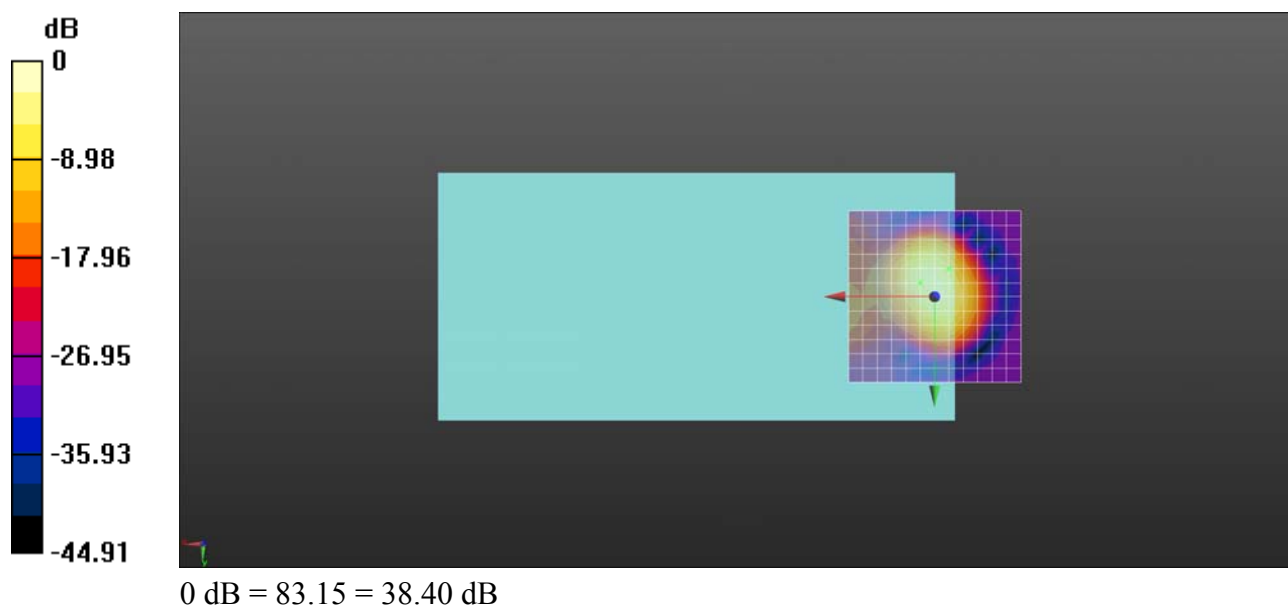
dx=10mm, dy=10mm

ABM1/ABM2 = 38.40 dB

ABM1 comp = -7.49 dBA/m

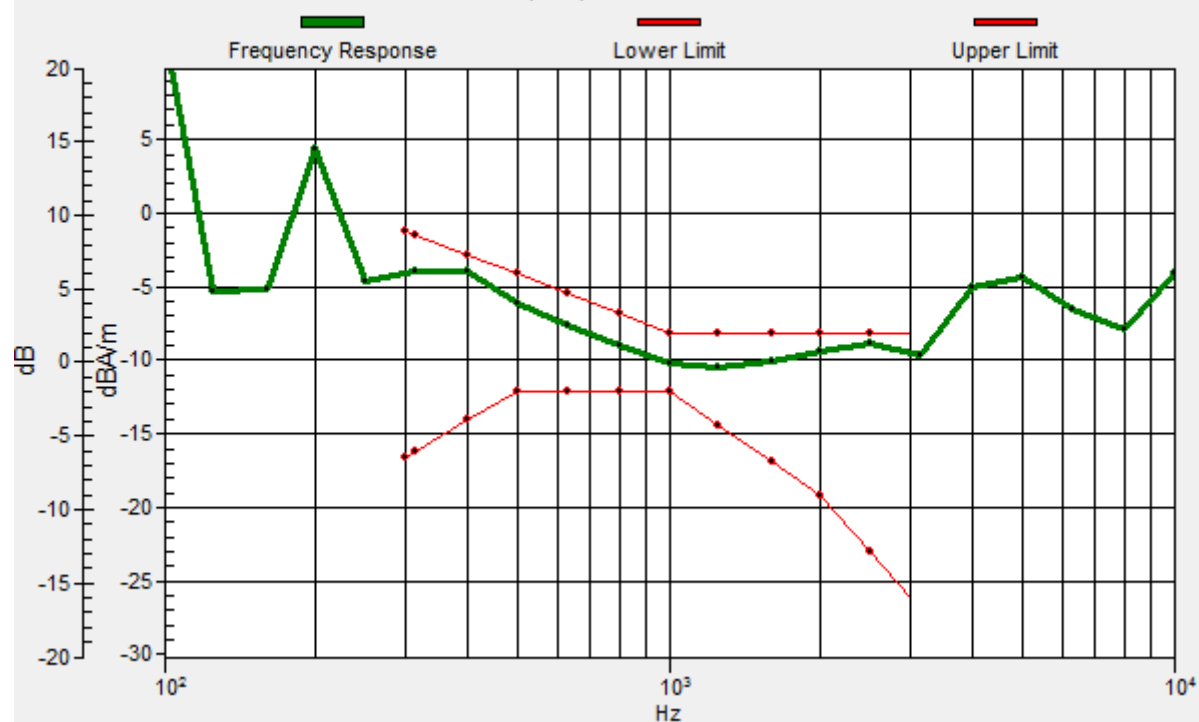
BWC Factor = -0.00091 dB

Location: -4.2, -8.3, 3.7 mm



Ch132322/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)

Loc: -4.2, -8.3, 3.7 mm Diff: 0.67dB



HAC_T-Coil_LTE Band 66_20M_QPSK_1RB_0offset_12.2Kbps_Ch132322_Y

Communication System: UID 0, LTE-FDD (SC-FDMA, 1RB, 20MHz, QPSK) (0); Frequency: 1745 MHz; Duty Cycle: 1:1

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Ambient Temperature : 23.2 °C

DASY5 Configuration:

- Probe: AM1DV2 - 1048; ; Calibrated: 2018.10.24
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn480; Calibrated: 2019.04.11
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch132322/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement

grid: dx=10mm, dy=10mm

ABM1/ABM2 = 25.88 dB

ABM1 comp = -16.80 dBA/m

BWC Factor = 0.0038 dB

Location: 0, 0, 3.7 mm

