Annex C Plots of T-Coil Test Results

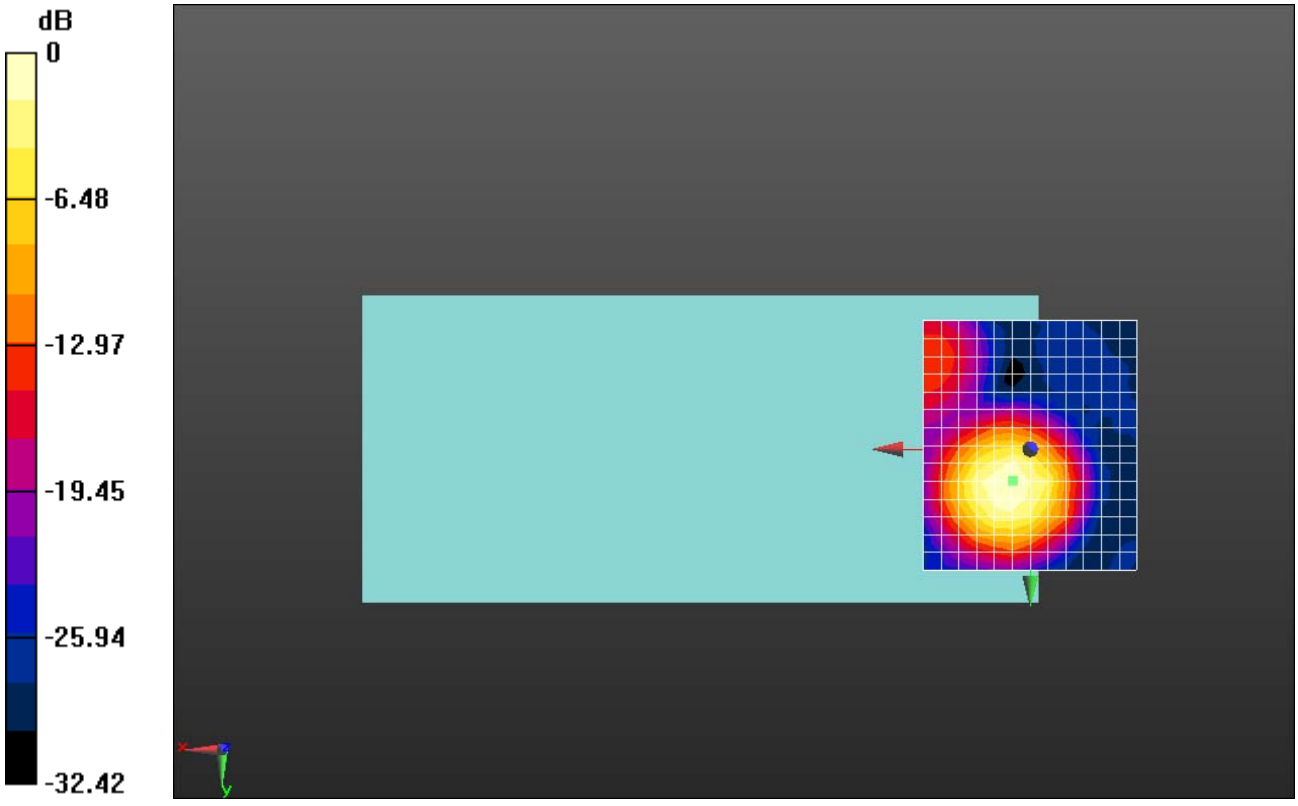
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.16

HAC_T-Coil_GSM850_GSM Voice_Ch189_Z

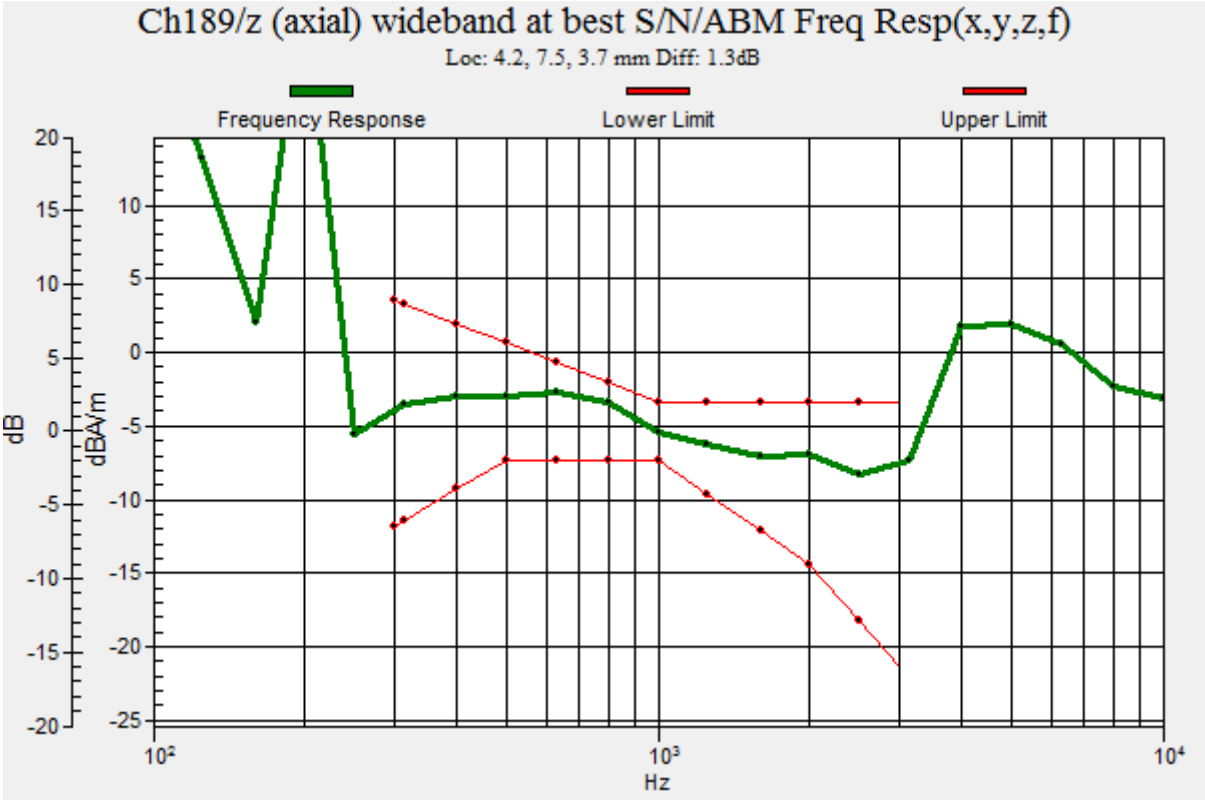
Communication System: UID 0, Generic GSM (0); Frequency: 836.6 MHz;Duty Cycle: 1:8.30042
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 22.00 dB
ABM1 comp = -3.44 dBA/m
BWC Factor = 0.15 dB
Location: 4.2, 7.5, 3.7 mm



0 dB = 12.59 = 22.00 dB


Ch189/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)
Loc: 4.2, 7.5, 3.7 mm Diff: 1.3dB
Frequency Response
Lower Limit
Upper Limit
dB
dBA/m
Hz
20
15
10
5
0
-5
-10
-15
-20
10
5
0
-5
-10
-15
-20
-25
10²
10³
10⁴

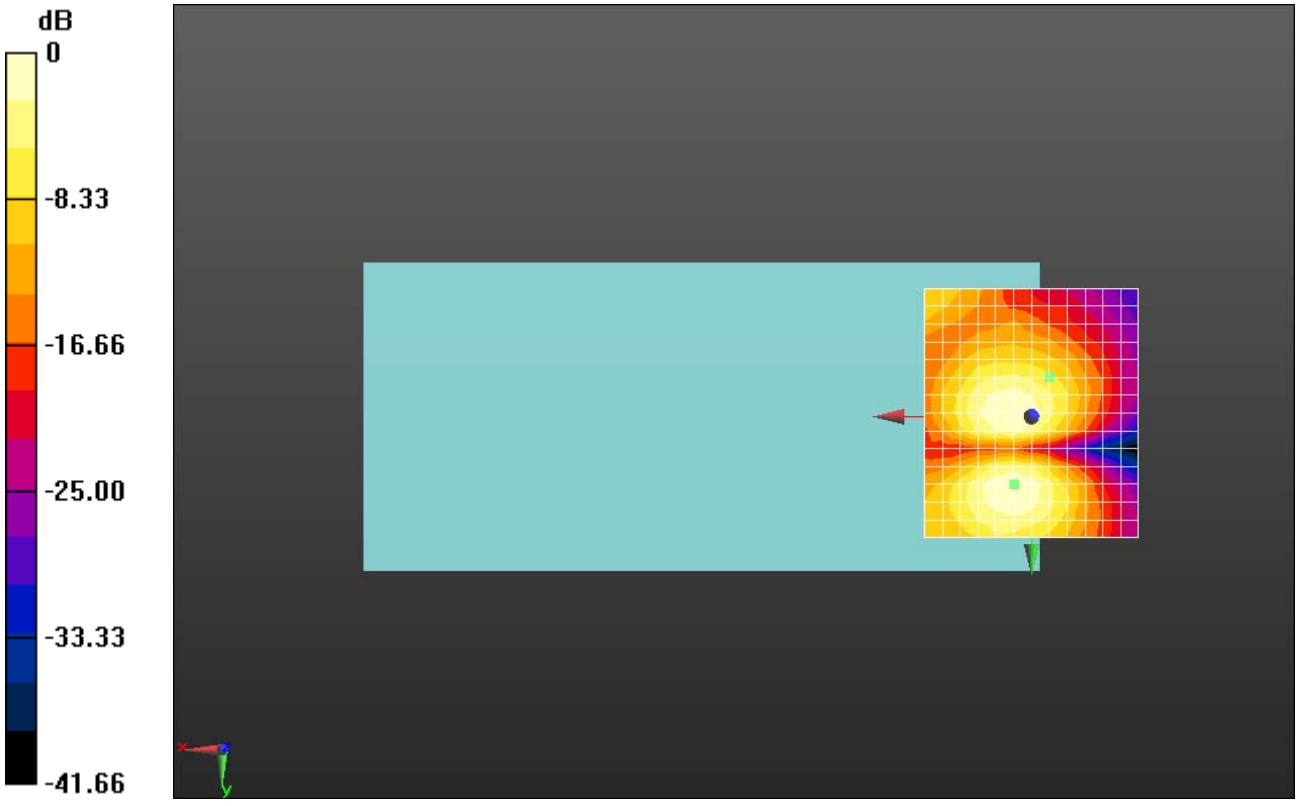
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.16

HAC_T-Coil_GSM850_GSM Voice_Ch189_Y

Communication System: UID 0, Generic GSM (0); Frequency: 836.6 MHz;Duty Cycle: 1:8.30042
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 32.76 dB
ABM1 comp = -16.10 dBA/m
BWC Factor = 0.15 dB
Location: -4.2, -9.2, 3.7 mm



0 dB = 43.46 = 32.76 dB

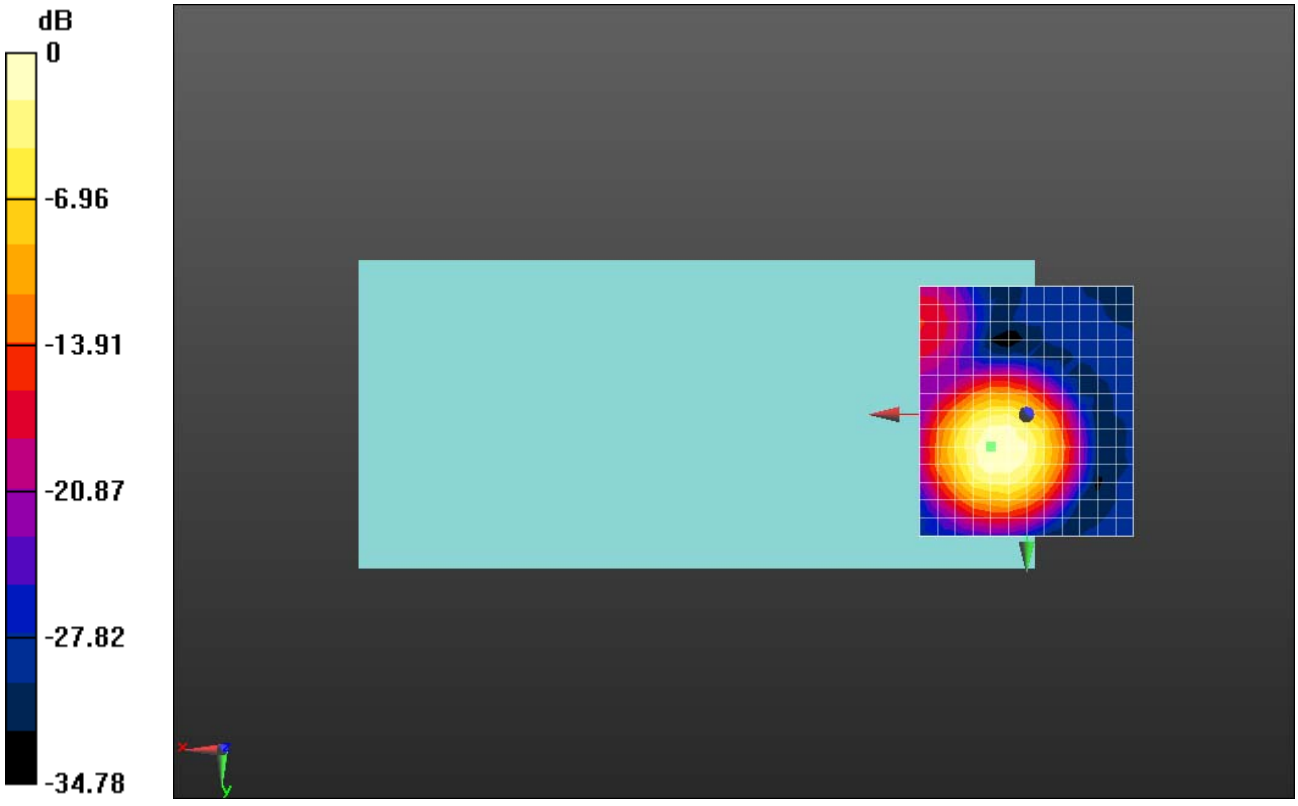
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.16

HAC_T-Coil_GSM1900_GSM Voice_Ch661_Z

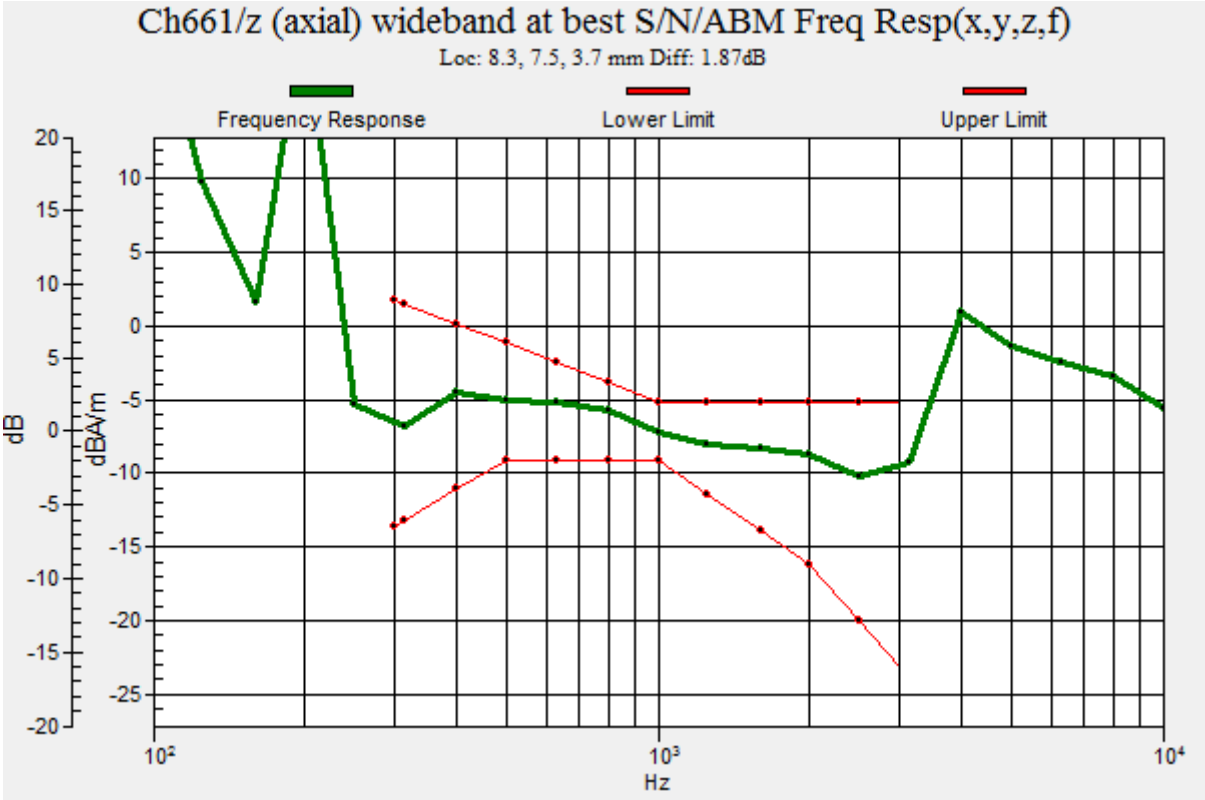
Communication System: UID 0, Generic GSM (0); Frequency: 1880 MHz;Duty Cycle: 1:8.30042
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 24.06 dB
ABM1 comp = -2.91 dBA/m
BWC Factor = 0.16 dB
Location: 8.3, 7.5, 3.7 mm



0 dB = 15.96 = 24.06 dB


Ch661/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)
Loc: 8.3, 7.5, 3.7 mm Diff: 1.87dB
Frequency Response
Lower Limit
Upper Limit
dB
dBA/m
Hz
20
15
10
5
0
-5
-10
-15
-20
-25
10²
10³
10⁴

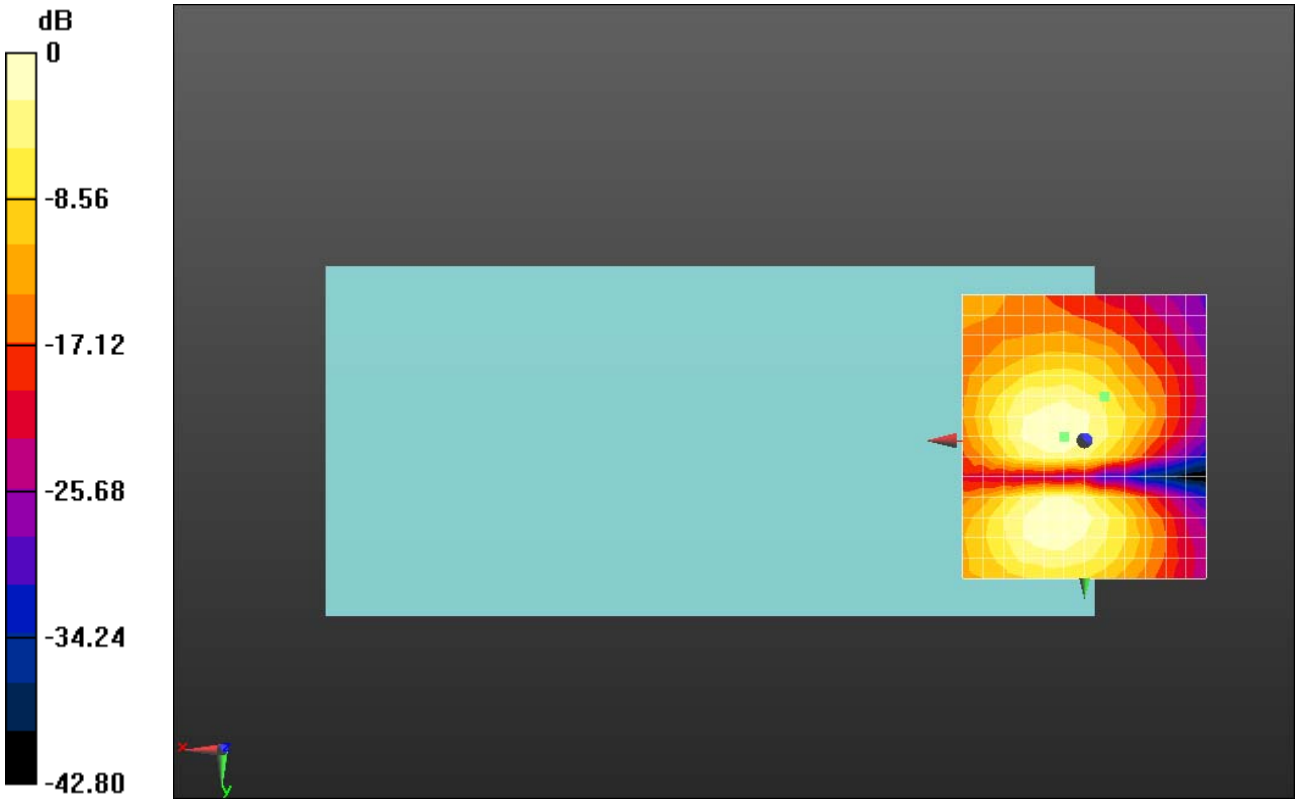
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.16

HAC_T-Coil_GSM1900_GSM Voice_Ch661_Y

Communication System: UID 0, Generic GSM (0); Frequency: 1880 MHz;Duty Cycle: 1:8.30042
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 33.61 dB
ABM1 comp = -15.38 dBA/m
BWC Factor = 0.16 dB
Location: -4.2, -9.2, 3.7 mm



0 dB = 47.91 = 33.61 dB

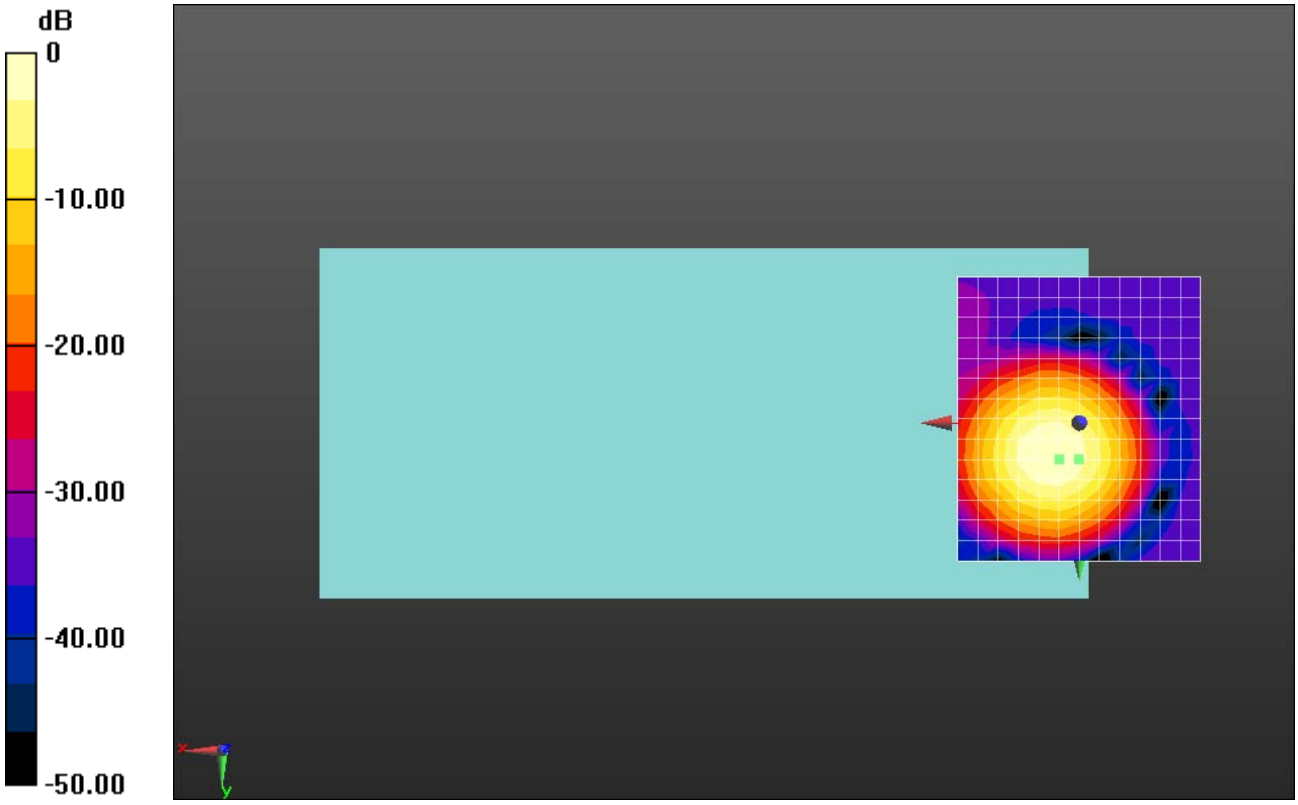
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.16

HAC_T-Coil_WCDMA Band II_AMR 12.12Kbps_Ch9400_Z

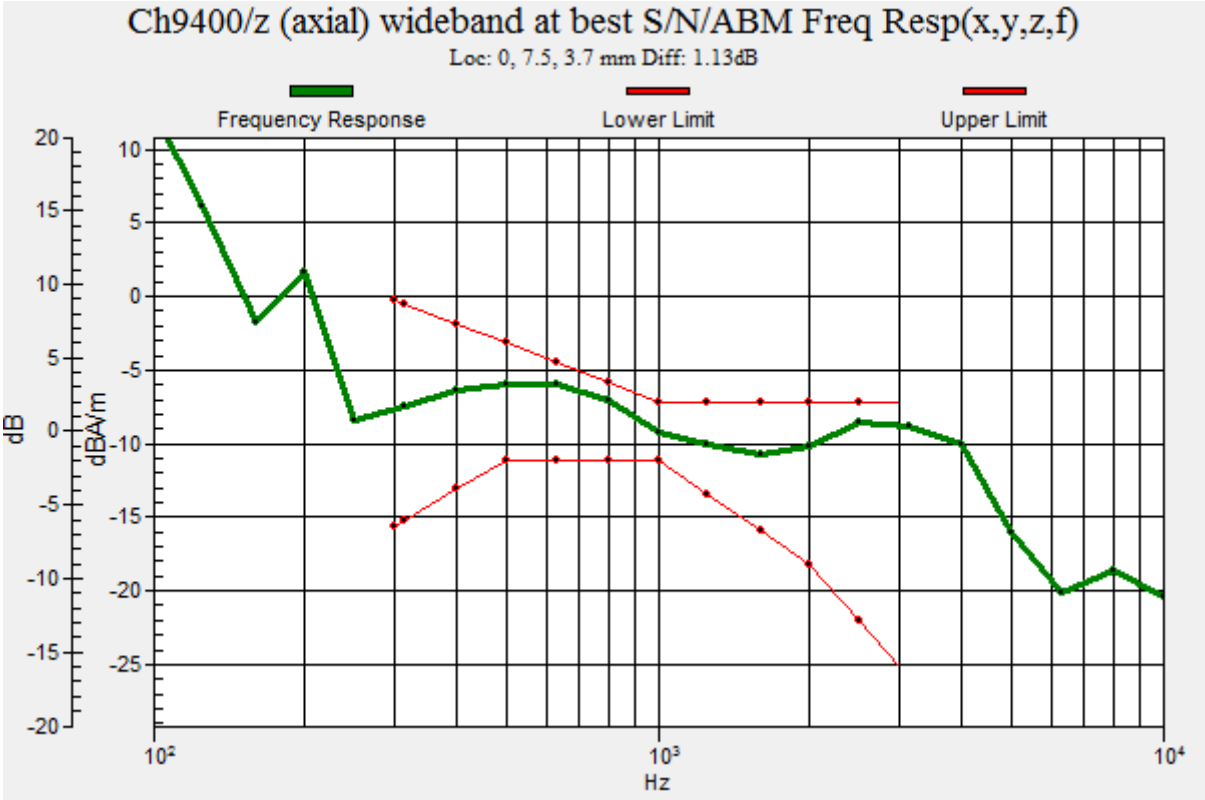
Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1880 MHz;Duty Cycle: 1:1.95434
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 45.45 dB
ABM1 comp = -4.60 dBA/m
BWC Factor = 0.15 dB
Location: 0, 7.5, 3.7 mm



0 dB = 187.2 = 45.45 dB


Ch9400/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)
Loc: 0, 7.5, 3.7 mm Diff: 1.13dB
Frequency Response
Lower Limit
Upper Limit
dB
dBA/m
Hz
20
15
10
5
0
-5
-10
-15
-20
10
5
0
-5
-10
-15
-20
-25
10²
10³
10⁴

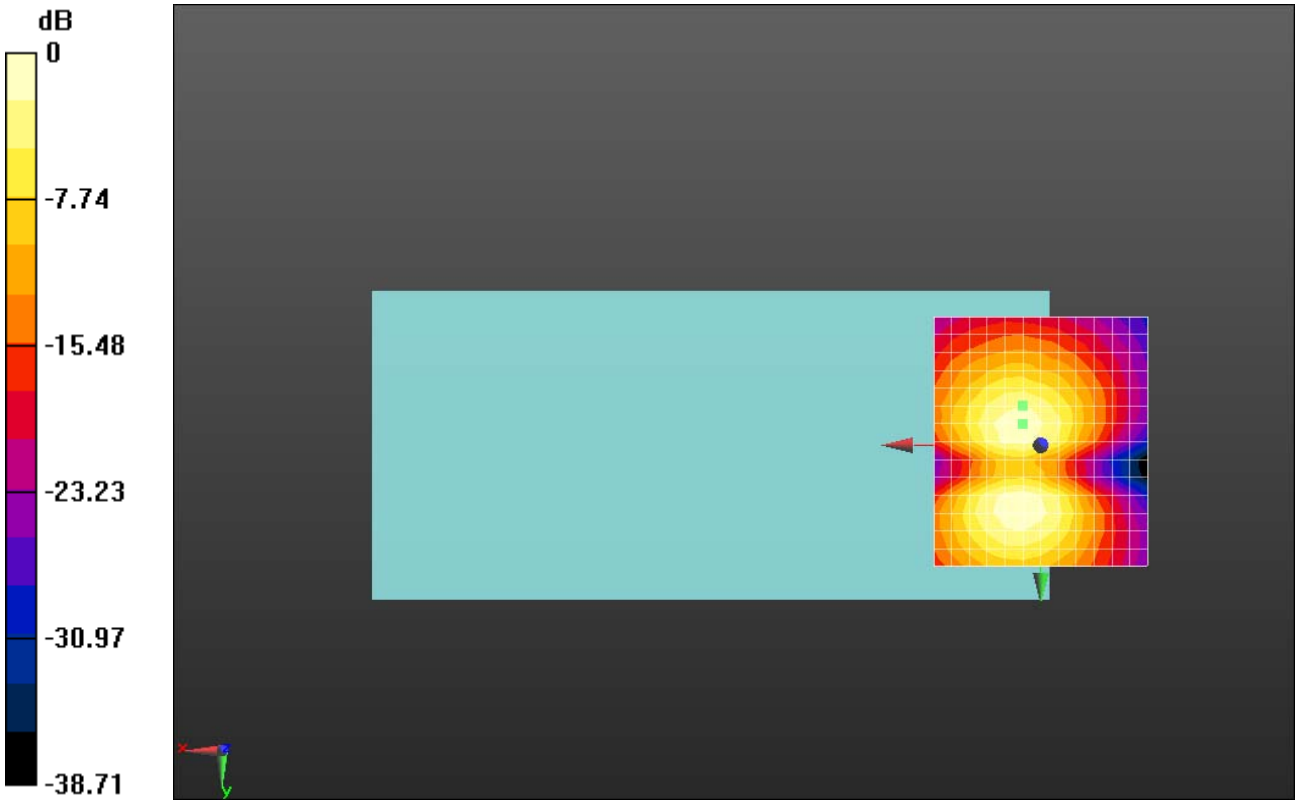
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.16

HAC_T-Coil_WCDMA Band II_AMR 12.12Kbps_Ch9400_Y

Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1880 MHz;Duty Cycle: 1:1.95434
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 40.36 dB
ABM1 comp = -11.07 dBA/m
BWC Factor = 0.15 dB
Location: 4.2, -9.2, 3.7 mm



0 dB = 104.3 = 40.37 dB

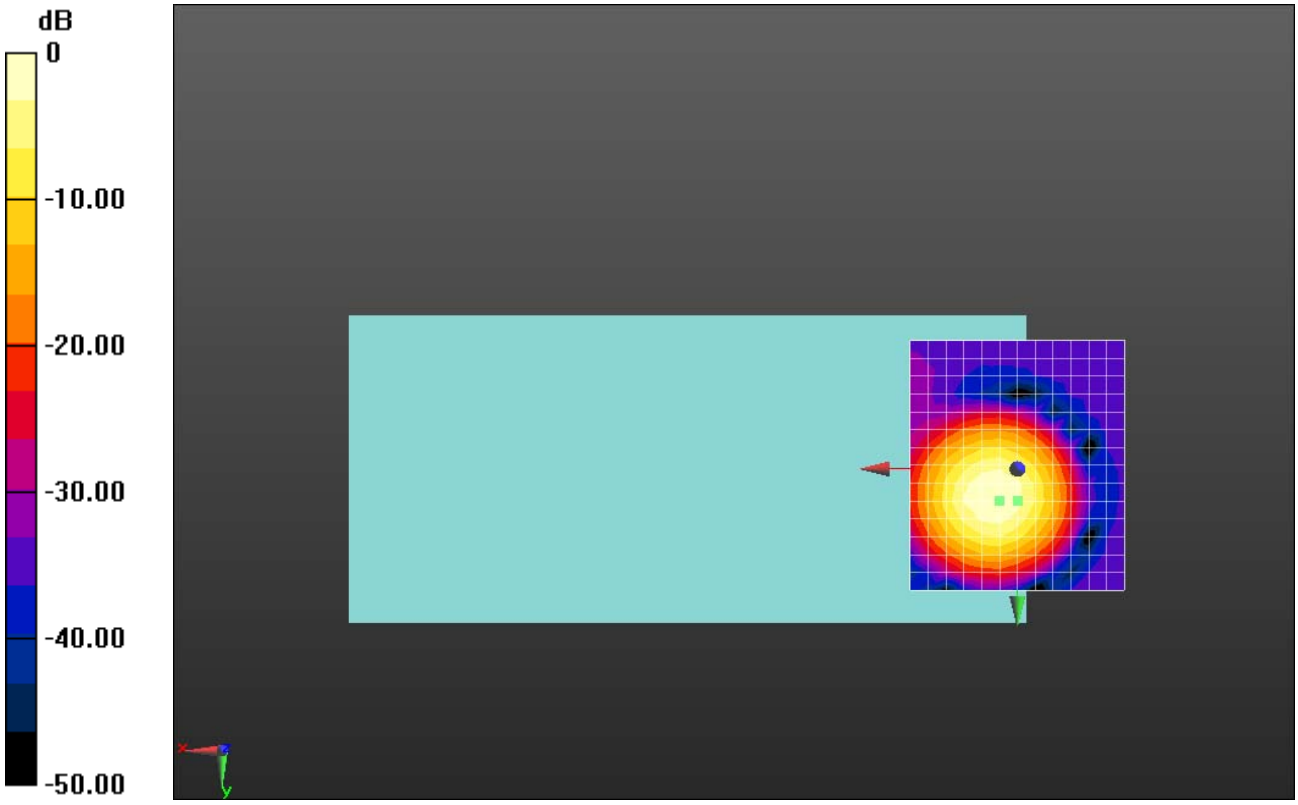
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.17

HAC_T-Coil_WCDMA Band IV_AMR 12.12Kbps_Ch1413_Z

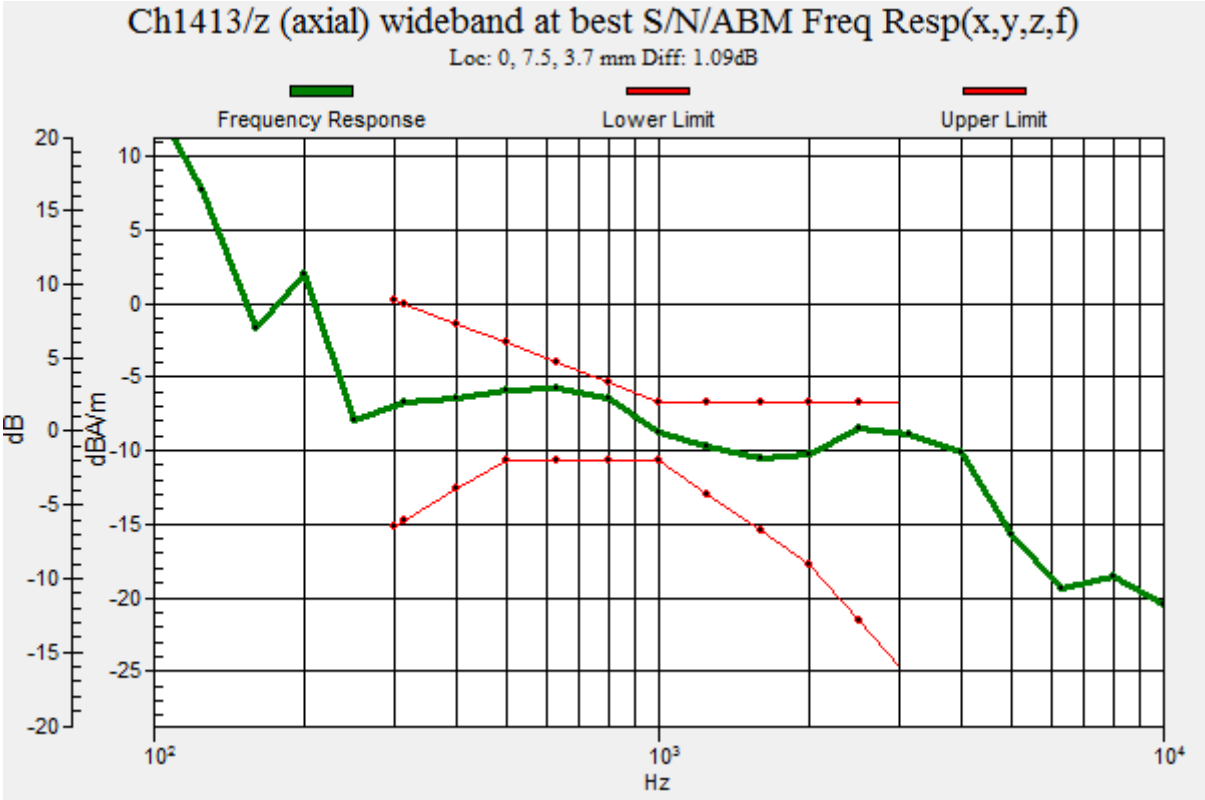
Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1732.4 MHz;Duty Cycle: 1:1.95434
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 45.40 dB
ABM1 comp = -4.49 dBA/m
BWC Factor = 0.15 dB
Location: 0, 7.5, 3.7 mm



0 dB = 186.2 = 45.40 dB


Ch1413/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)
Loc: 0, 7.5, 3.7 mm Diff: 1.09dB
Frequency Response
Lower Limit
Upper Limit
dB
dBA/m
Hz
20
15
10
5
0
-5
-10
-15
-20
10
5
0
-5
-10
-15
-20
-25
10²
10³
10⁴

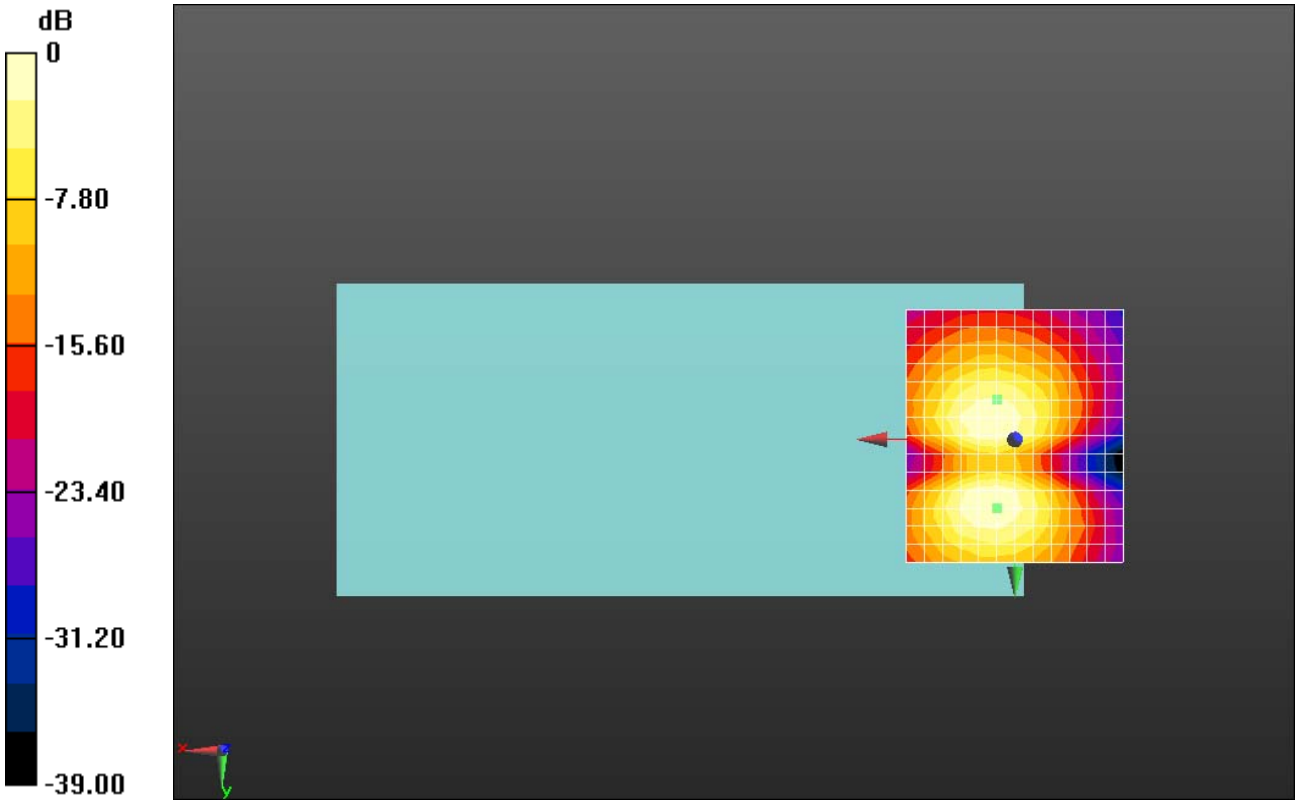
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.17

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: 1:1.95434
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 40.61 dB
ABM1 comp = -11.21 dBA/m
BWC Factor = 0.15 dB
Location: 4.2, -9.2, 3.7 mm



0 dB = 107.3 = 40.61 dB

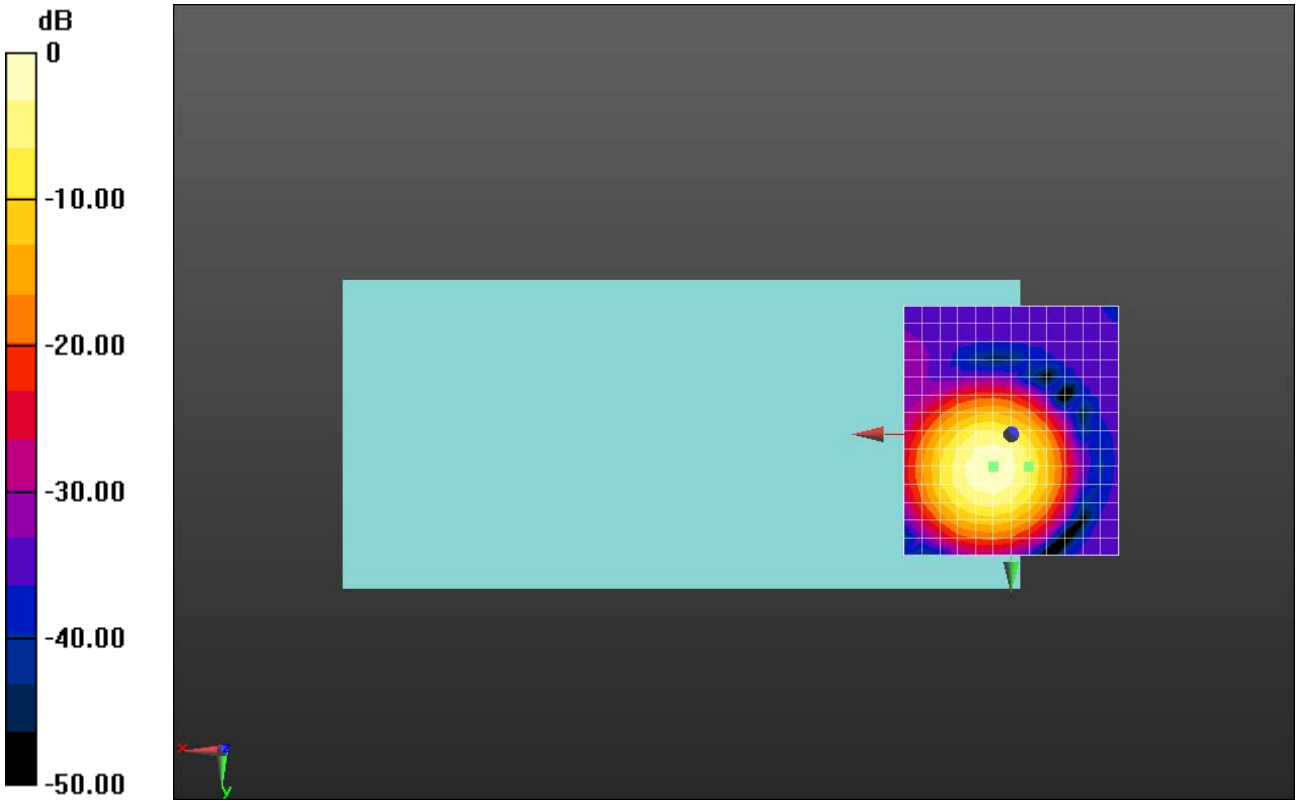
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.17

HAC_T-Coil_WCDMA Band V_AMR 12.12Kbps_Ch4182_Z

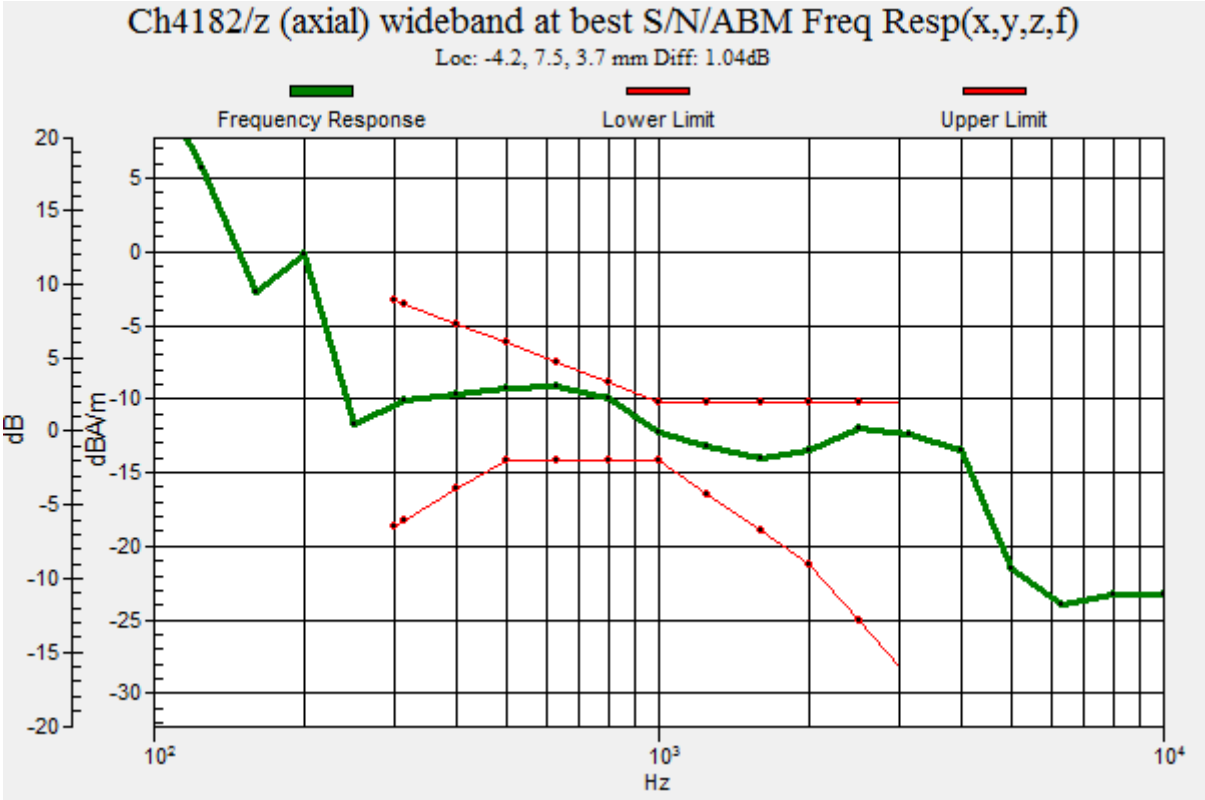
Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 836.4 MHz;Duty Cycle: 1:1.95434
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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)

Ch4182/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 45.34 dB
ABM1 comp = -8.32 dBA/m
BWC Factor = 0.15 dB
Location: -4.2, 7.5, 3.7 mm



0 dB = 184.8 = 45.33 dB


Ch4182/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)
Loc: -4.2, 7.5, 3.7 mm Diff: 1.04dB
Frequency Response
Lower Limit
Upper Limit
dB
dBA/m
Hz
20
15
10
5
0
-5
-10
-15
-20
5
0
-5
-10
-15
-20
-25
-30
10²
10³
10⁴

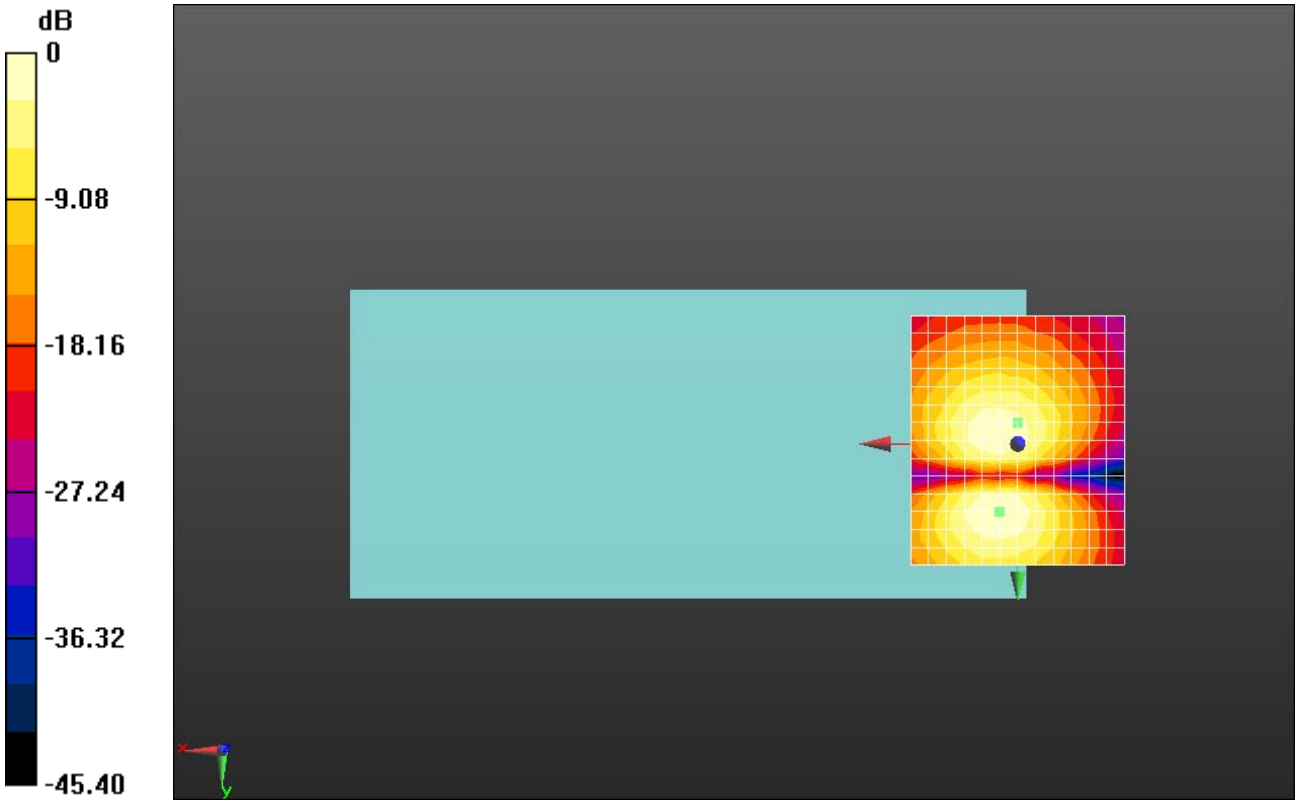
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.17

HAC_T-Coil_WCDMA Band V_AMR 12.12Kbps_Ch4182_Y

Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 836.4 MHz;Duty Cycle: 1:1.95434
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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)

Ch4182/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 41.14 dB
ABM1 comp = -10.59 dBA/m
BWC Factor = 0.15 dB
Location: 0, -5, 3.7 mm



0 dB = 114.0 = 41.14 dB

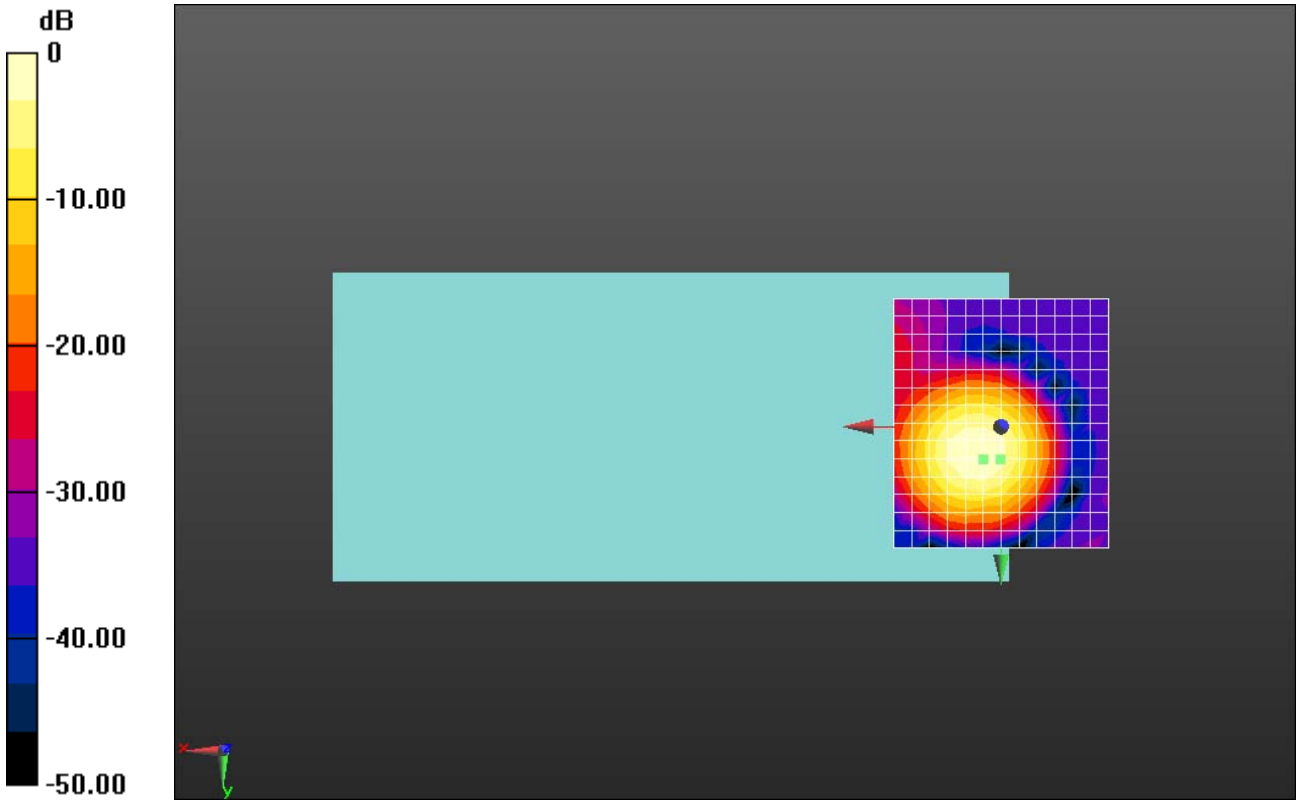
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.17

HAC_T-Coil_LTE Band 2_20M_QPSK_1RB_0offset_12.2Kbps_Ch18900_Z

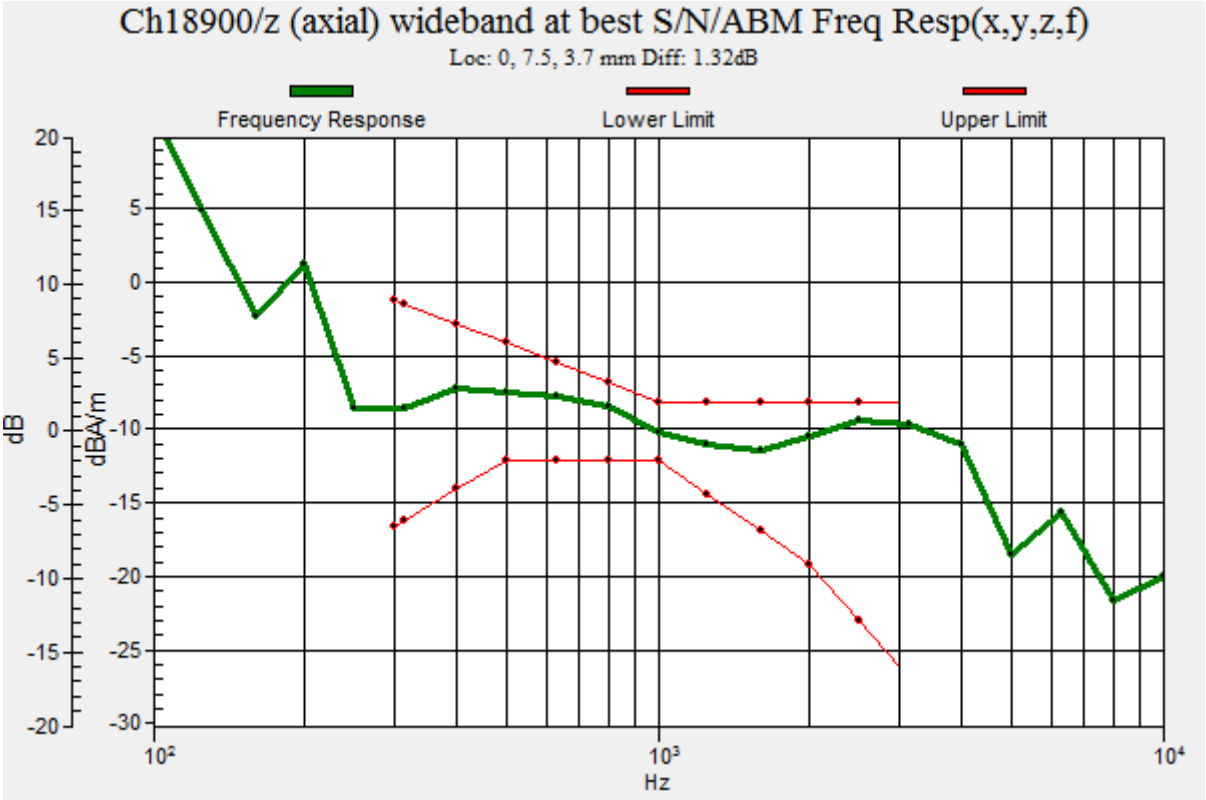
Communication System: UID 10169 - CAB, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK);
Frequency: 1880 MHz;Duty Cycle: 1:3.74111
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid:
dx=10mm, dy=10mm
ABM1/ABM2 = 44.12 dB
ABM1 comp = -4.97 dBA/m
BWC Factor = 0.15 dB
Location: 0, 7.5, 3.7 mm



0 dB = 160.7 = 44.12 dB


Ch18900/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)
Loc: 0, 7.5, 3.7 mm Diff: 1.32dB
Frequency Response
Lower Limit
Upper Limit
dB
dBA/m
Hz
20
15
10
5
0
-5
-10
-15
-20
5
0
-5
-10
-15
-20
-25
-30
10²
10³
10⁴

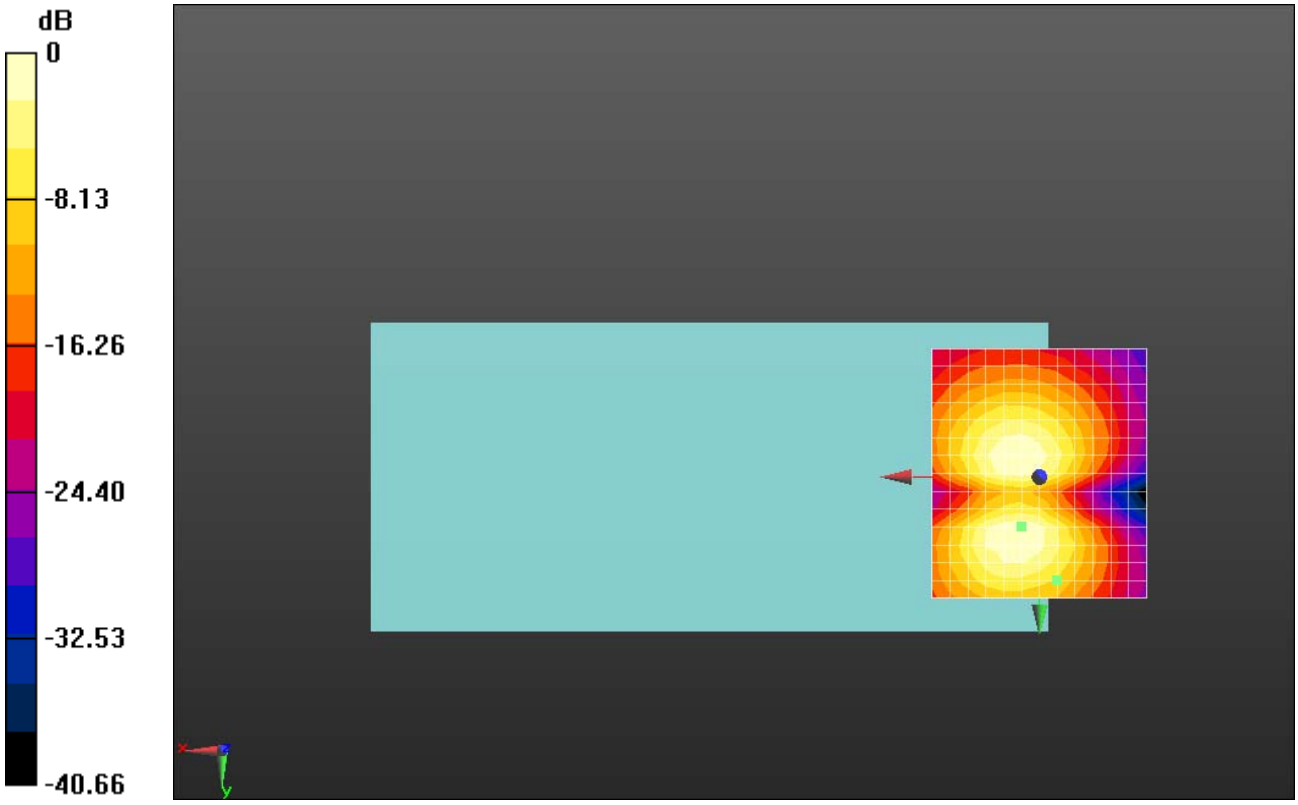
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.17

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: 1:3.74111
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 34.47 dB
ABM1 comp = -17.60 dBA/m
BWC Factor = 0.15 dB
Location: -4.2, 24.2, 3.7 mm



0 dB = 52.90 = 34.47 dB

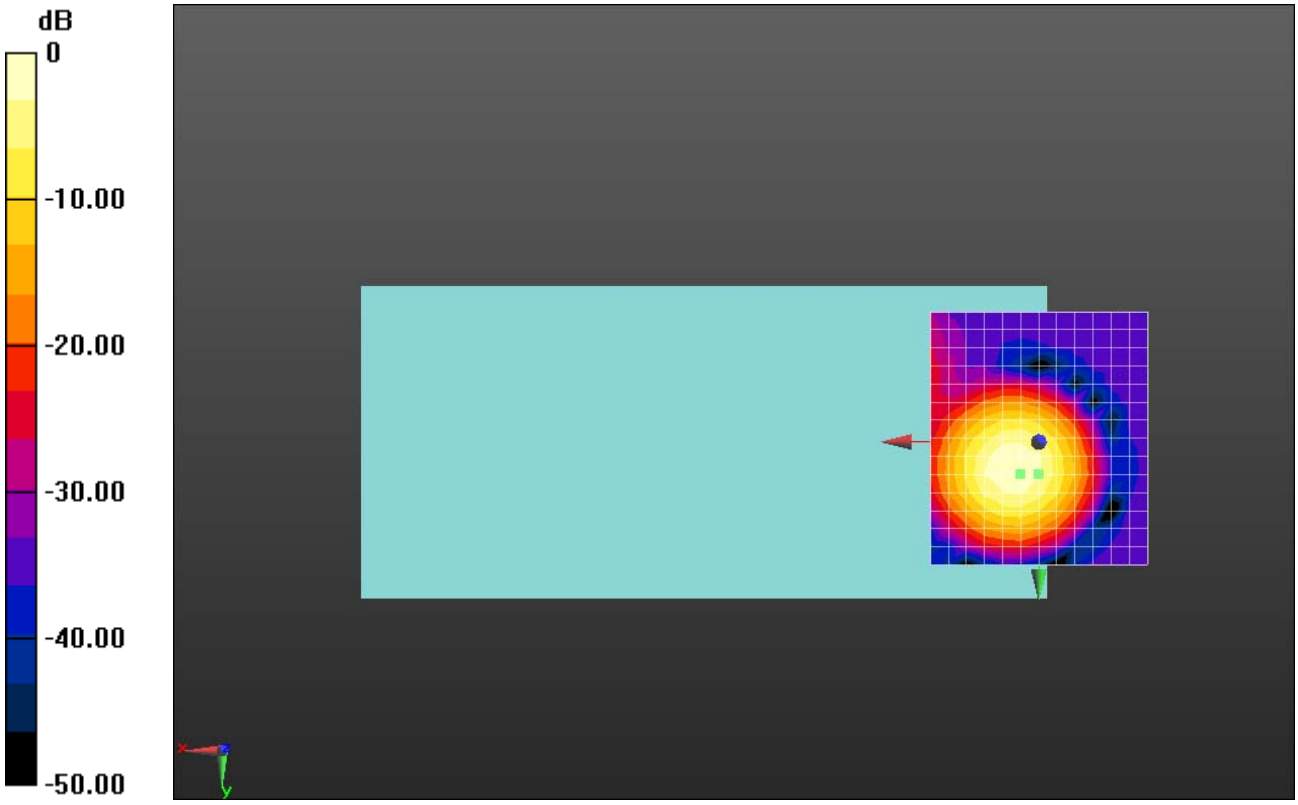
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.17

HAC_T-Coil_LTE Band 4_20M_QPSK_1RB_0offset_12.2Kbps_Ch20175_Z

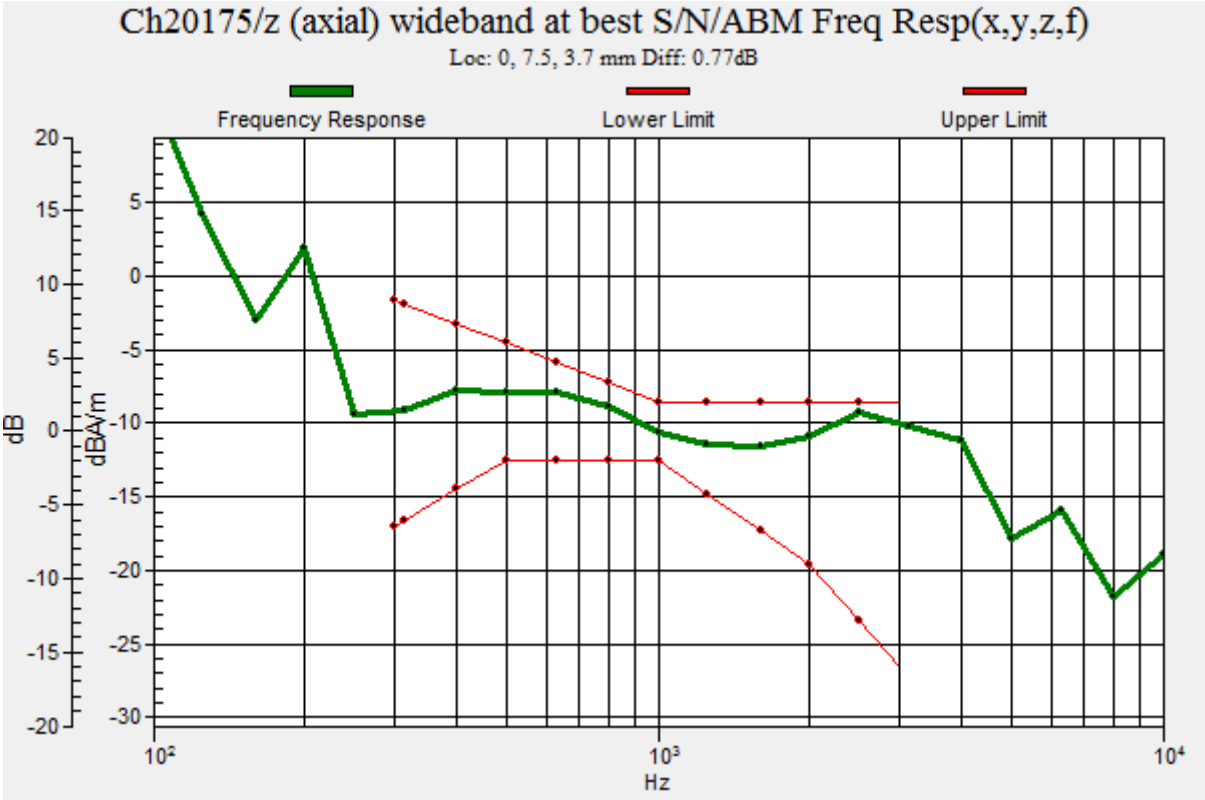
Communication System: UID 10169 - CAB, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK);
Frequency: 1732.5 MHz;Duty Cycle: 1:3.74111
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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) (13x15x1): Measurement grid:
dx=10mm, dy=10mm
ABM1/ABM2 = 44.17 dB
ABM1 comp = -5.47 dBA/m
BWC Factor = 0.15 dB
Location: 0, 7.5, 3.7 mm



0 dB = 161.5 = 44.16 dB


Ch20175/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)
Loc: 0, 7.5, 3.7 mm Diff: 0.77dB
Frequency Response
Lower Limit
Upper Limit
dB
dBA/m
Hz
20
15
10
5
0
-5
-10
-15
-20
5
0
-5
-10
-15
-20
-25
-30
10²
10³
10⁴

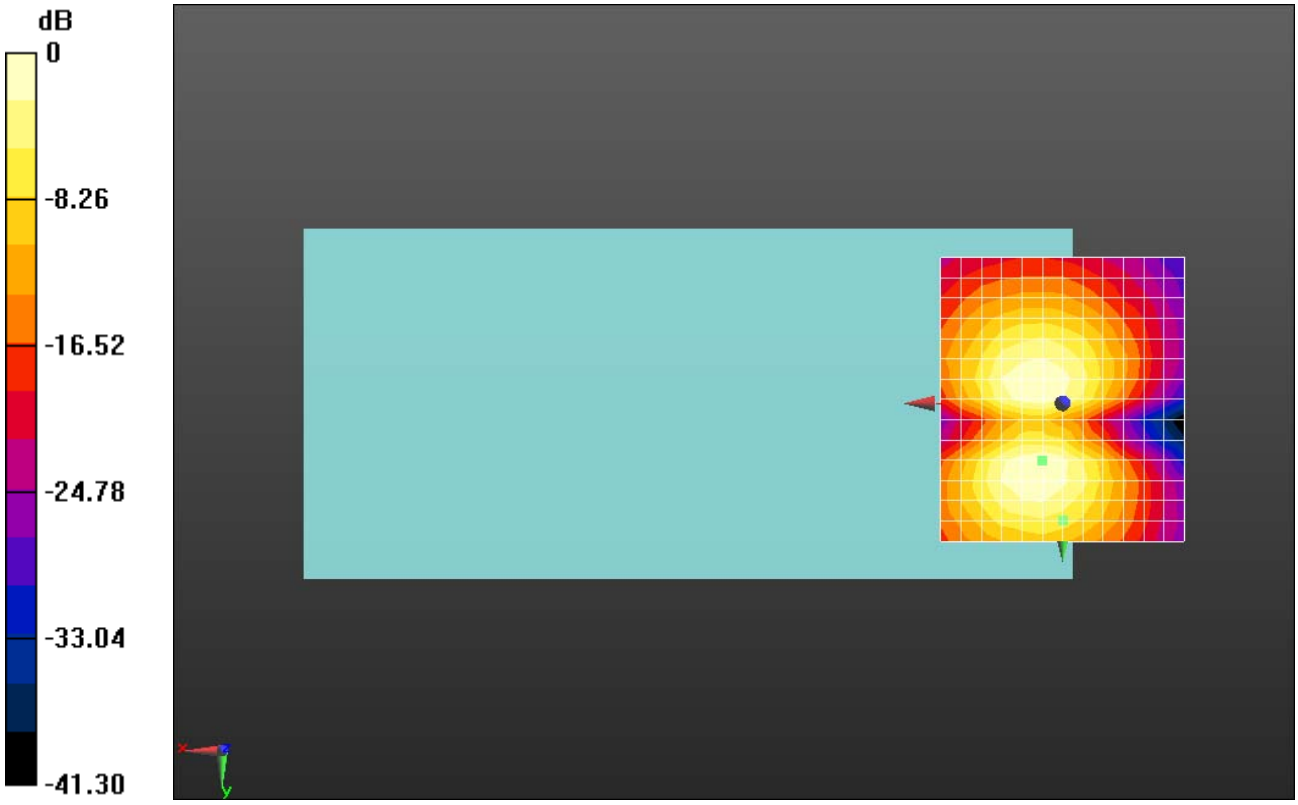
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.17

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: 1:3.74111
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 34.80 dB
ABM1 comp = -15.70 dBA/m
BWC Factor = 0.15 dB
Location: 0, 24.2, 3.7 mm



0 dB = 54.94 = 34.80 dB

Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.8.17

HAC_T-Coil_LTE Band 5_10M_QPSK_1RB_0offset_12.2Kbps_Ch20525_Z

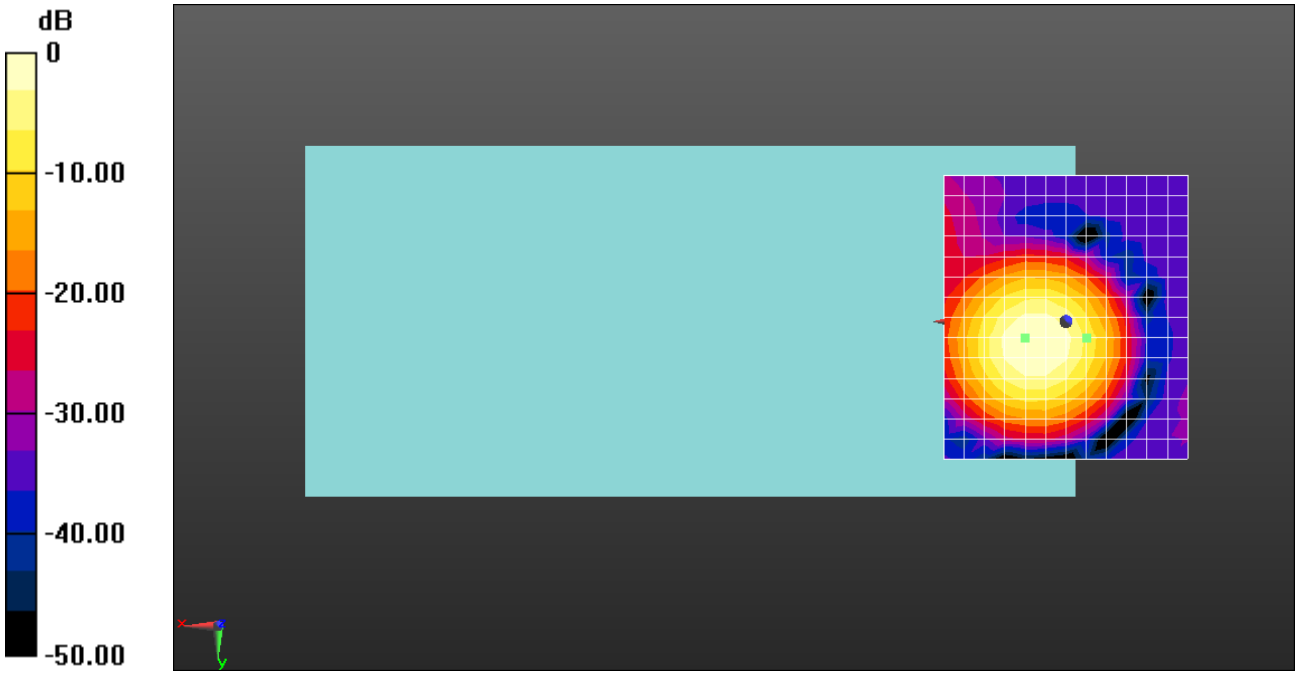
Communication System: UID 10175 - CAB, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK); Frequency: 836.5 MHz;Duty Cycle: 1:3.7325

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3

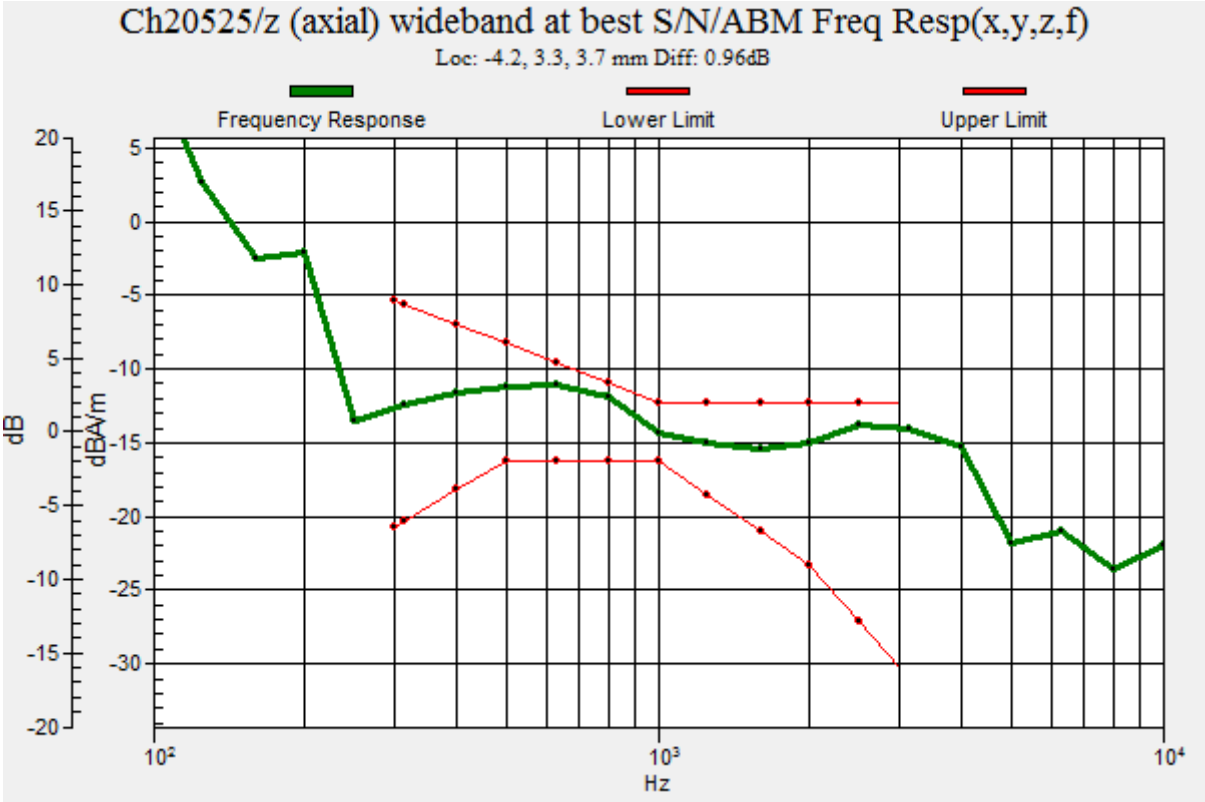
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.6.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.14 (7501)

Ch20525/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 41.60 dB
ABM1 comp = -10.50 dBA/m
BWC Factor = 0.15 dB
Location: -4.2, 3.3, 3.7 mm



0 dB = 120.2 = 41.60 dB


Ch20525/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)
Loc: -4.2, 3.3, 3.7 mm Diff: 0.96dB
Frequency Response
Lower Limit
Upper Limit
dB
dBA/m
Hz
20
15
10
5
0
-5
-10
-15
-20
5
0
-5
-10
-15
-20
-25
-30
10²
10³
10⁴

Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.8.17

HAC_T-Coil_LTE Band 5_10M_QPSK_1RB_0offset_12.2Kbps_Ch20525_Y

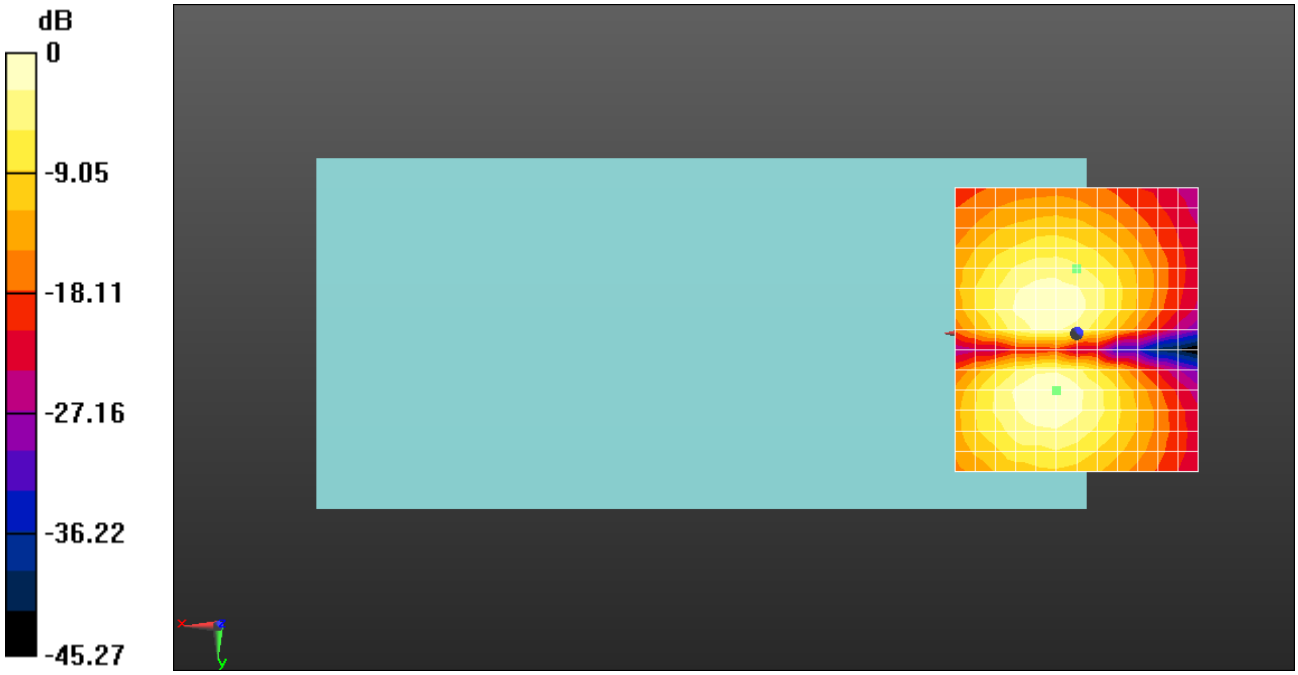
Communication System: UID 10175 - CAB, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK); Frequency: 836.5 MHz;Duty Cycle: 1:3.7325

Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3

Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.6.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.14 (7501)

Ch20525/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 35.75 dB
ABM1 comp = -14.85 dBA/m
BWC Factor = 0.15 dB
Location: 0, -13.3, 3.7 mm



0 dB = 61.32 = 35.75 dB

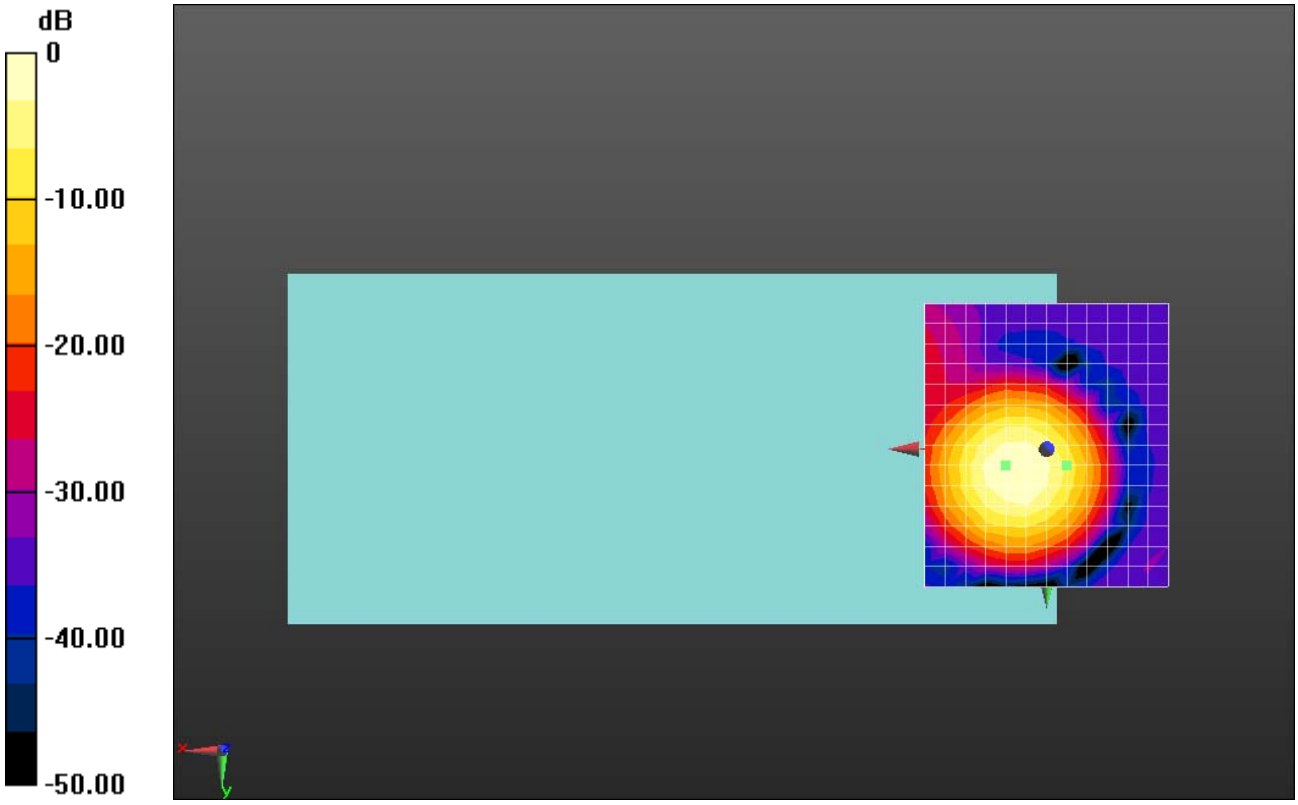
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.17

HAC_T-Coil_LTE Band 12_10M_QPSK_1RB_0offset_12.2Kbps_Ch23095_Z

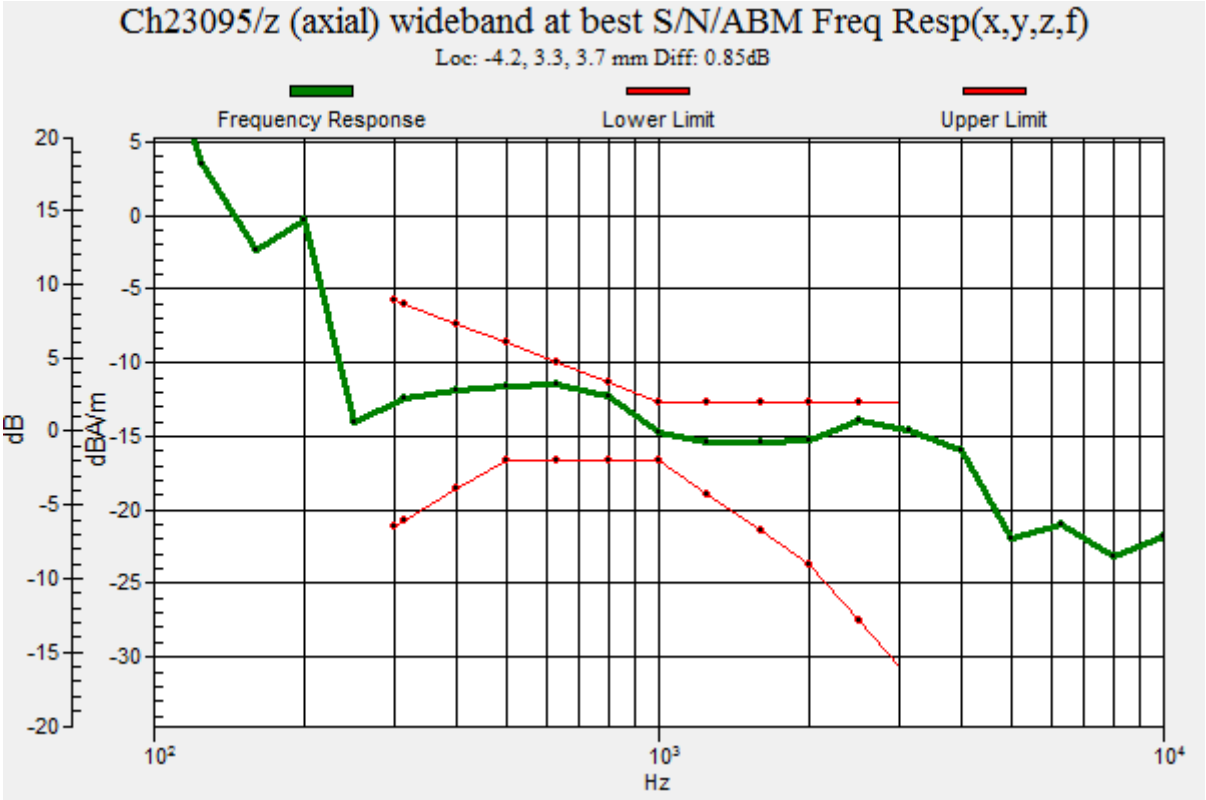
Communication System: UID 10175 - CAB, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK);
Frequency: 707.5 MHz;Duty Cycle: 1:3.7325
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid:
dx=10mm, dy=10mm
ABM1/ABM2 = 40.76 dB
ABM1 comp = -10.34 dBA/m
BWC Factor = 0.16 dB
Location: -4.2, 3.3, 3.7 mm



0 dB = 109.2 = 40.76 dB


Ch23095/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)
Loc: -4.2, 3.3, 3.7 mm Diff: 0.85dB
Frequency Response
Lower Limit
Upper Limit
dB
dBA/m
Hz
20
15
10
5
0
-5
-10
-15
-20
5
0
-5
-10
-15
-20
-25
-30
10²
10³
10⁴

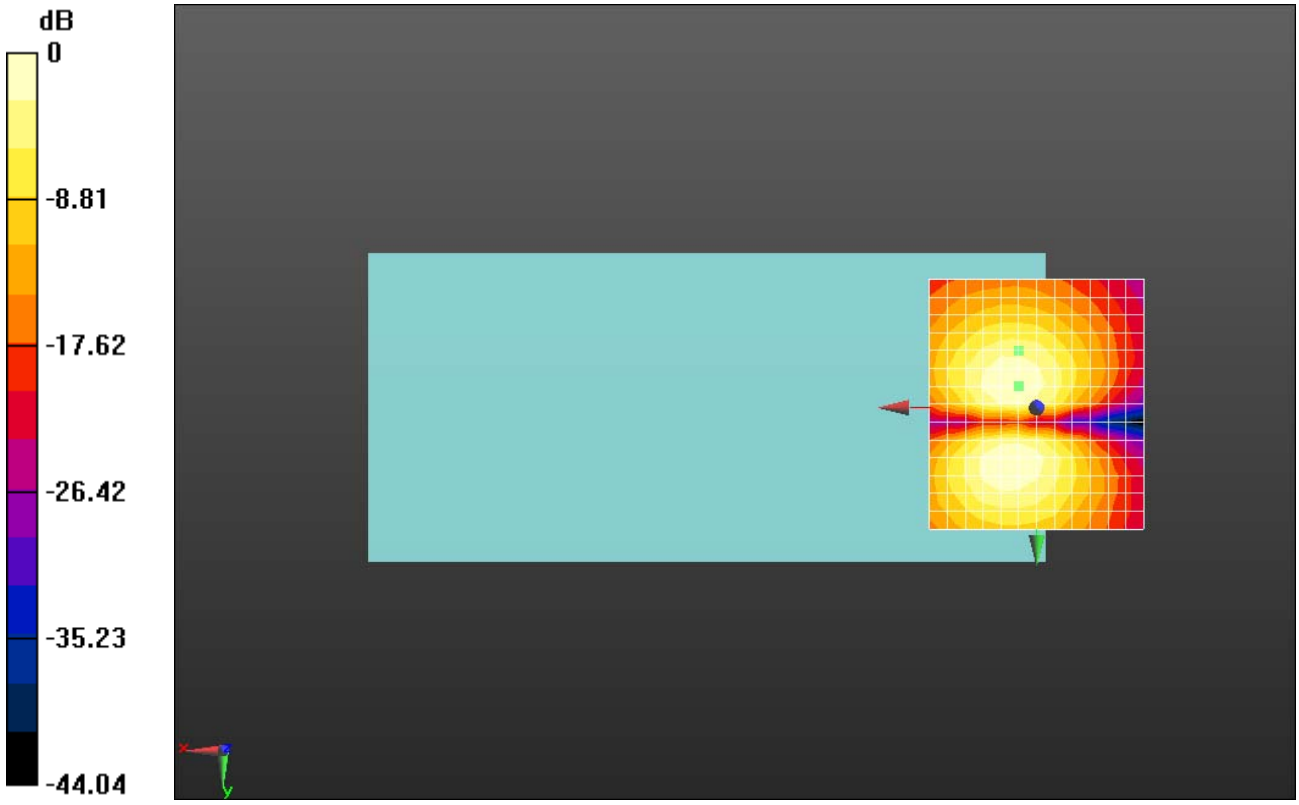
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.17

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: 1:3.7325
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 33.75 dB
ABM1 comp = -13.44 dBA/m
BWC Factor = 0.16 dB
Location: 4.2, -13.3, 3.7 mm



0 dB = 48.69 = 33.75 dB

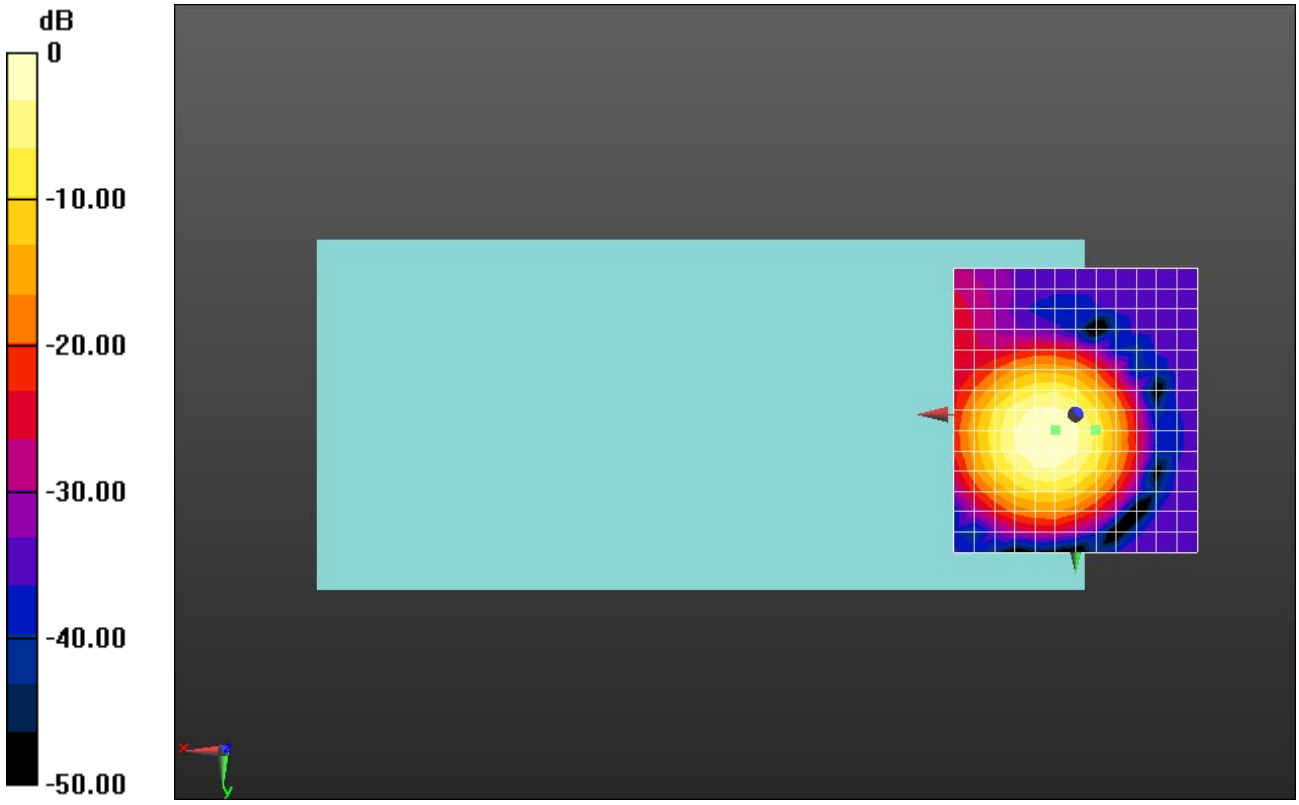
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.17

HAC_T-Coil_LTE Band 17_10M_QPSK_1RB_0offset_12.2Kbps_Ch23790_Z

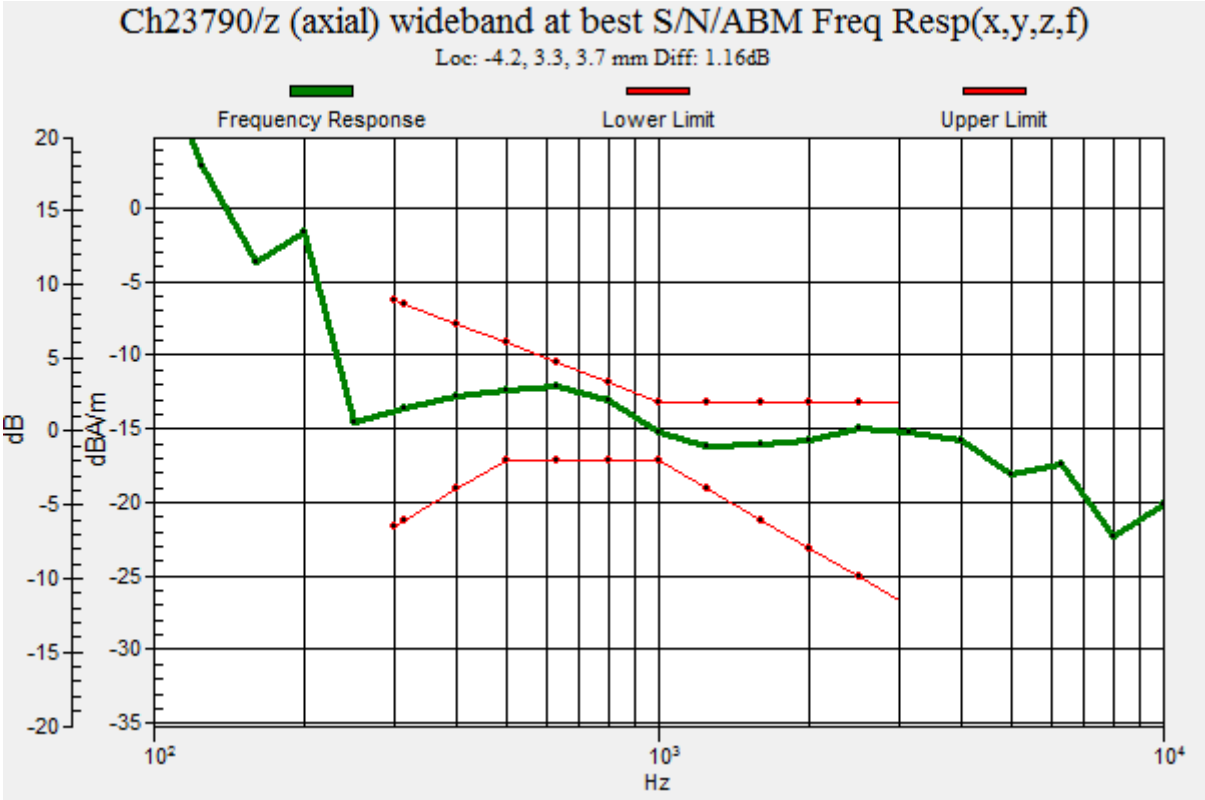
Communication System: UID 10175 - CAB, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK);
Frequency: 710 MHz;Duty Cycle: 1:3.7325
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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)

Ch23790/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid:
dx=10mm, dy=10mm
ABM1/ABM2 = 40.09 dB
ABM1 comp = -10.26 dBA/m
BWC Factor = 0.15 dB
Location: -4.2, 3.3, 3.7 mm



0 dB = 101.0 = 40.09 dB


Ch23790/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)
Loc: -4.2, 3.3, 3.7 mm Diff: 1.16dB
Frequency Response
Lower Limit
Upper Limit
dB
dBA/m
Hz
20
15
10
5
0
-5
-10
-15
-20
0
-5
-10
-15
-20
-25
-30
-35
10²
10³
10⁴

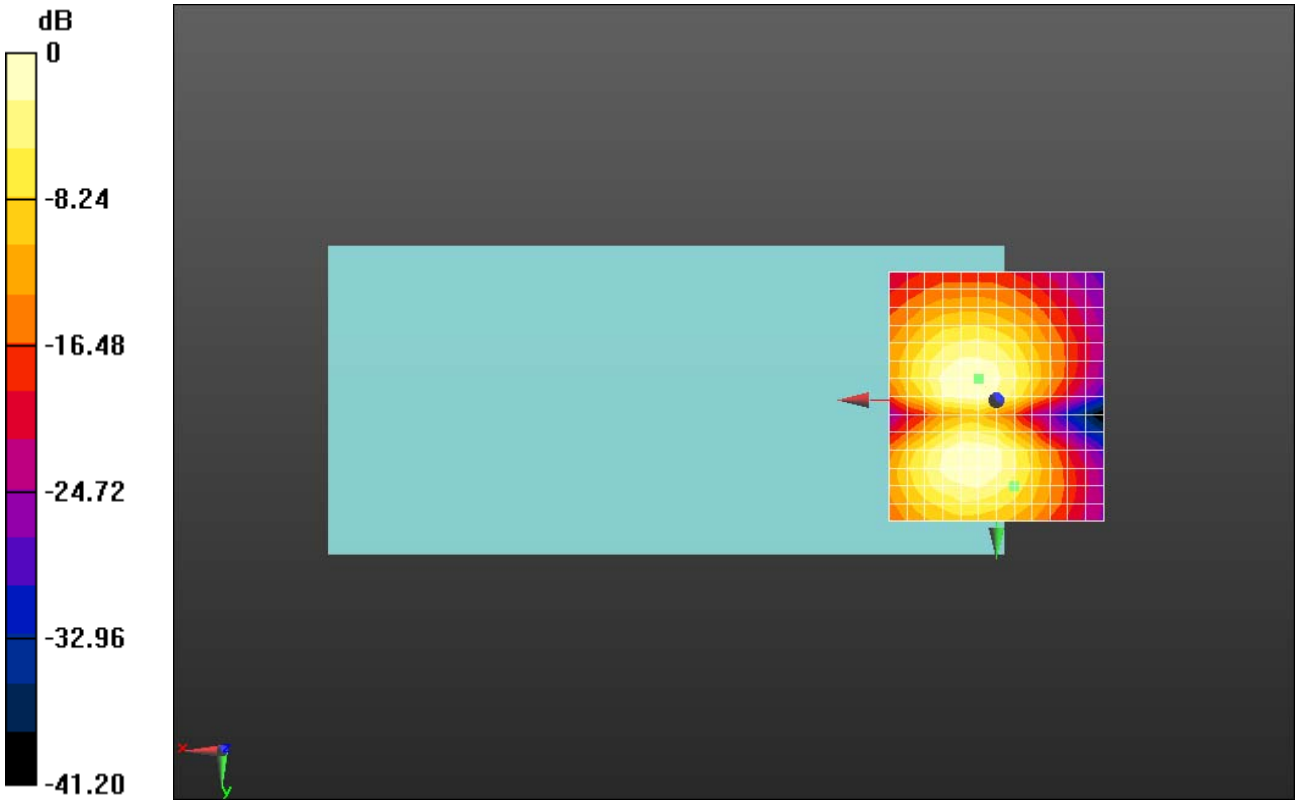
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.17

HAC_T-Coil_LTE Band 17_10M_QPSK_1RB_0offset_12.2Kbps_Ch23790_Y

Communication System: UID 10175 - CAB, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK);
Frequency: 710 MHz;Duty Cycle: 1:3.7325
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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)

Ch23790/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 33.53 dB
ABM1 comp = -15.84 dBA/m
BWC Factor = 0.15 dB
Location: -4.2, 20, 3.7 mm



0 dB = 47.45 = 33.52 dB

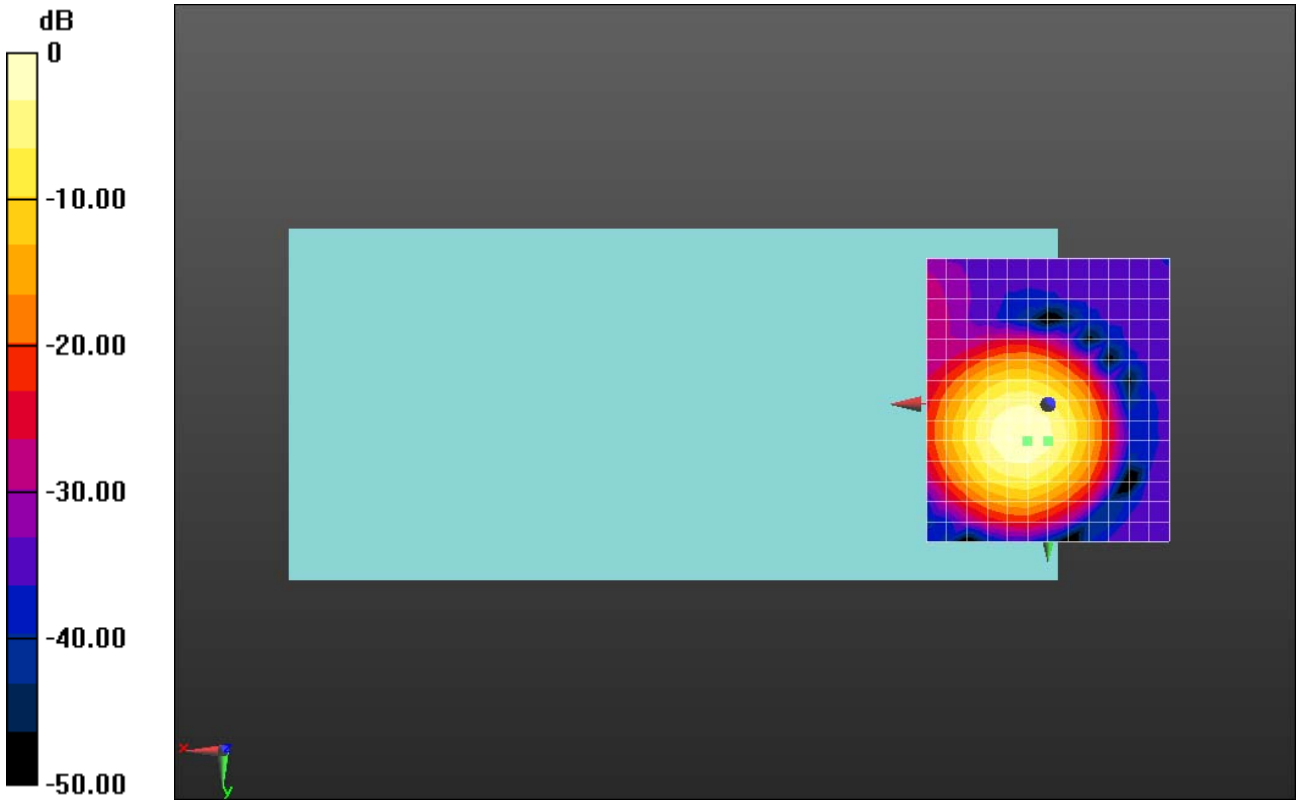
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.17

HAC_T-Coil_LTE Band 66_20M_QPSK_1RB_0offset_12.2Kbps_Ch132322_Z

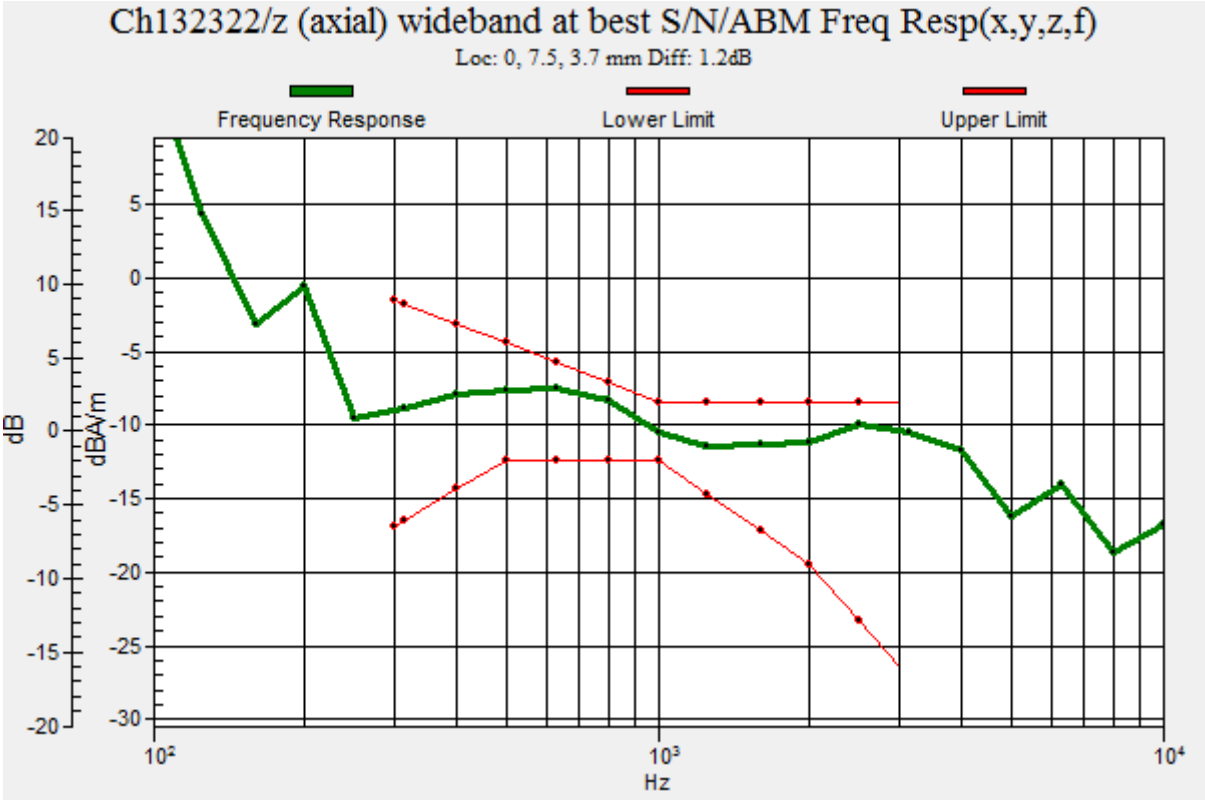
Communication System: UID 0, LTE-FDD (SC-FDMA, 1RB, 20MHz, QPSK) (0); Frequency: 1745 MHz;Duty Cycle: 1:3.74111
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 44.32 dB
ABM1 comp = -4.78 dBA/m
BWC Factor = 0.15 dB
Location: 0, 7.5, 3.7 mm



0 dB = 164.4 = 44.32 dB


Ch132322/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)
Loc: 0, 7.5, 3.7 mm Diff: 1.2dB
Frequency Response
Lower Limit
Upper Limit
dB
dBA/m
Hz
20
15
10
5
0
-5
-10
-15
-20
5
0
-5
-10
-15
-20
-25
-30
10²
10³
10⁴

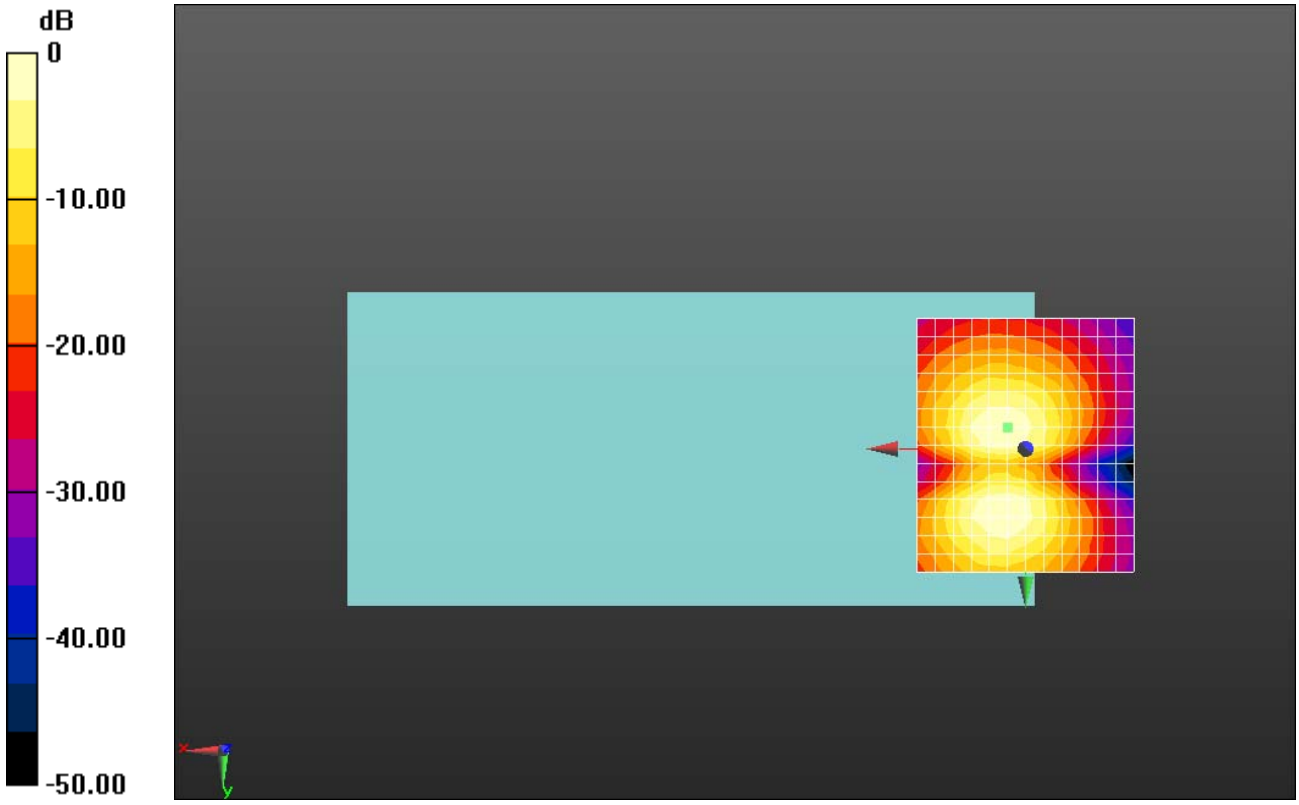
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.17

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: 1:3.74111
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 44.25 dB
ABM1 comp = -9.37 dBA/m
BWC Factor = 0.15 dB
Location: 4.2, -5, 3.7 mm



0 dB = 163.1 = 44.25 dB

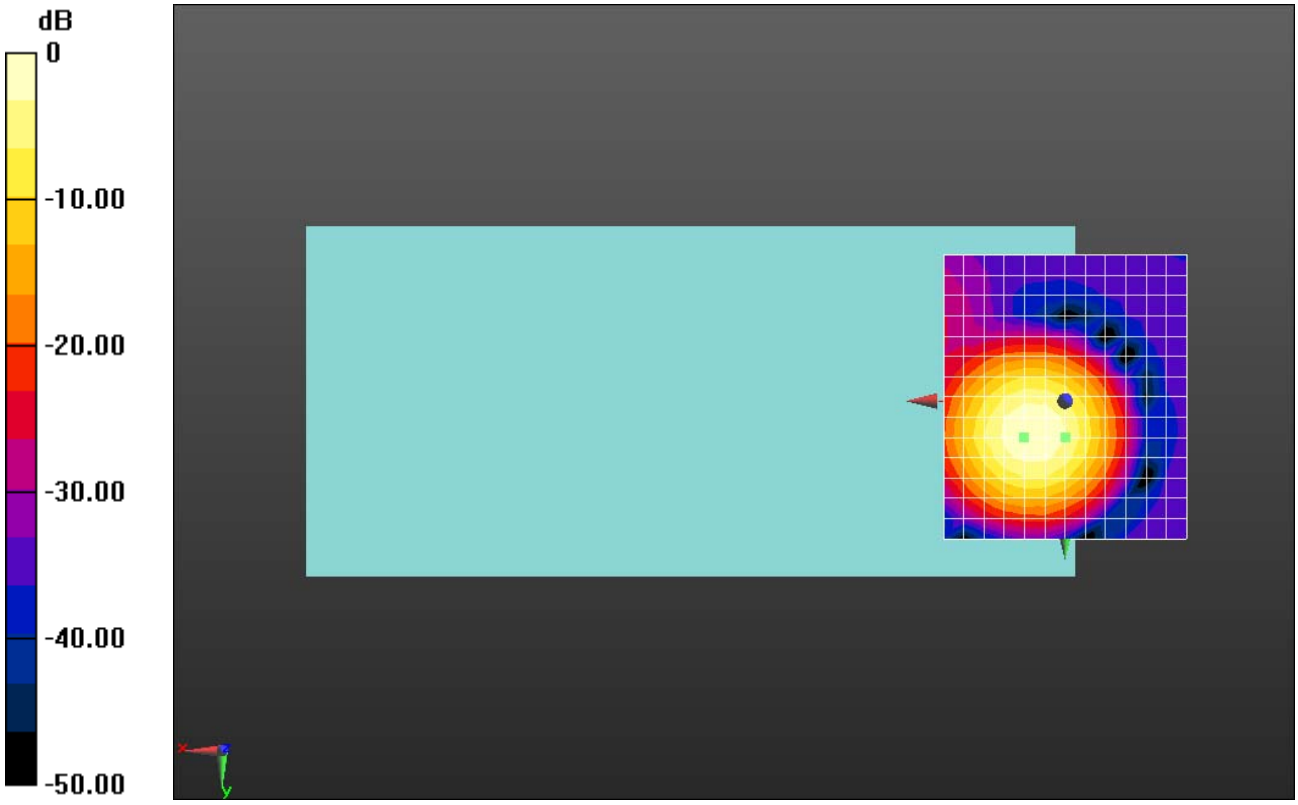
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.17

HAC_T-Coil_VoWiFi 2.4GHz_802.11b 1Mbps_AMR 4.75Kbps_Ch7_Z

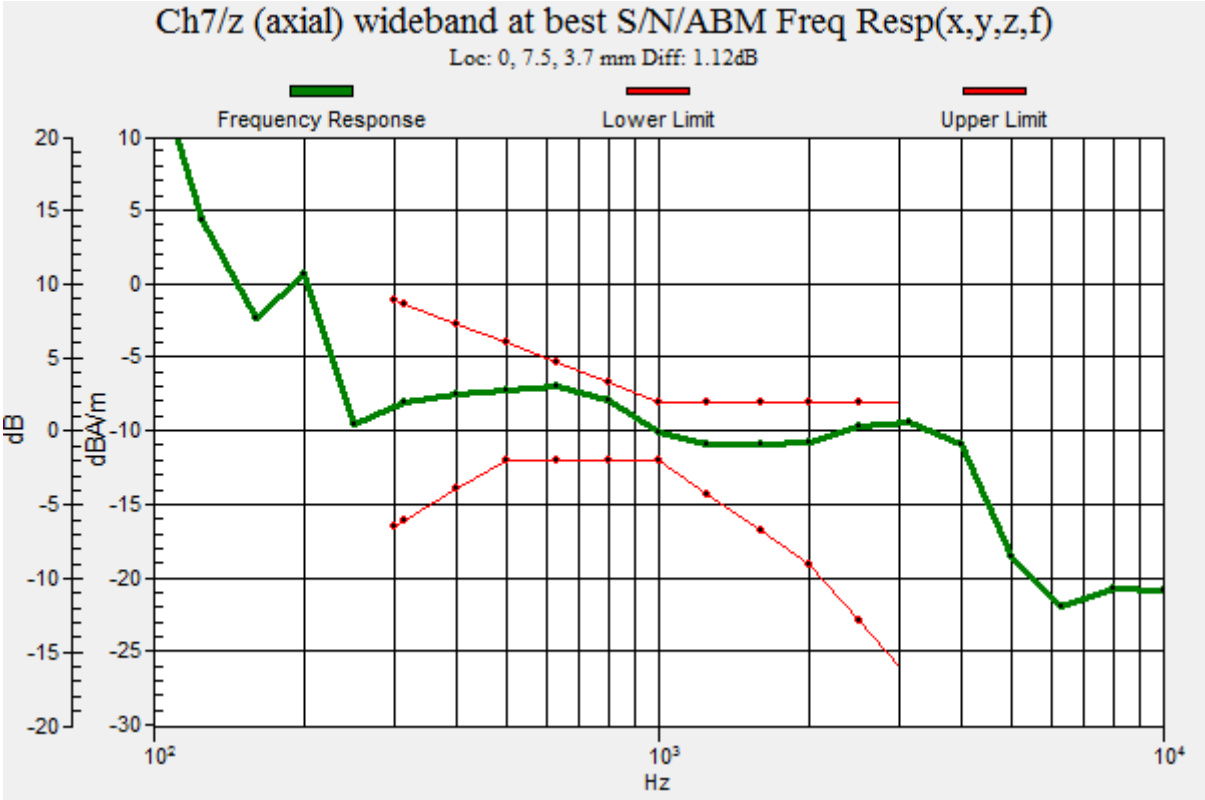
Communication System: UID 10415 - AAA, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle); Frequency: 2442 MHz;Duty Cycle: 1:1.42561
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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)

Ch7/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 44.54 dB
ABM1 comp = -5.70 dBA/m
BWC Factor = 0.15 dB
Location: 0, 7.5, 3.7 mm



0 dB = 168.6 = 44.54 dB


Ch7/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)
Loc: 0, 7.5, 3.7 mm Diff: 1.12dB
Frequency Response
Lower Limit
Upper Limit
dB
dBA/m
Hz
20
15
10
5
0
-5
-10
-15
-20
10
5
0
-5
-10
-15
-20
-25
-30
10²
10³
10⁴

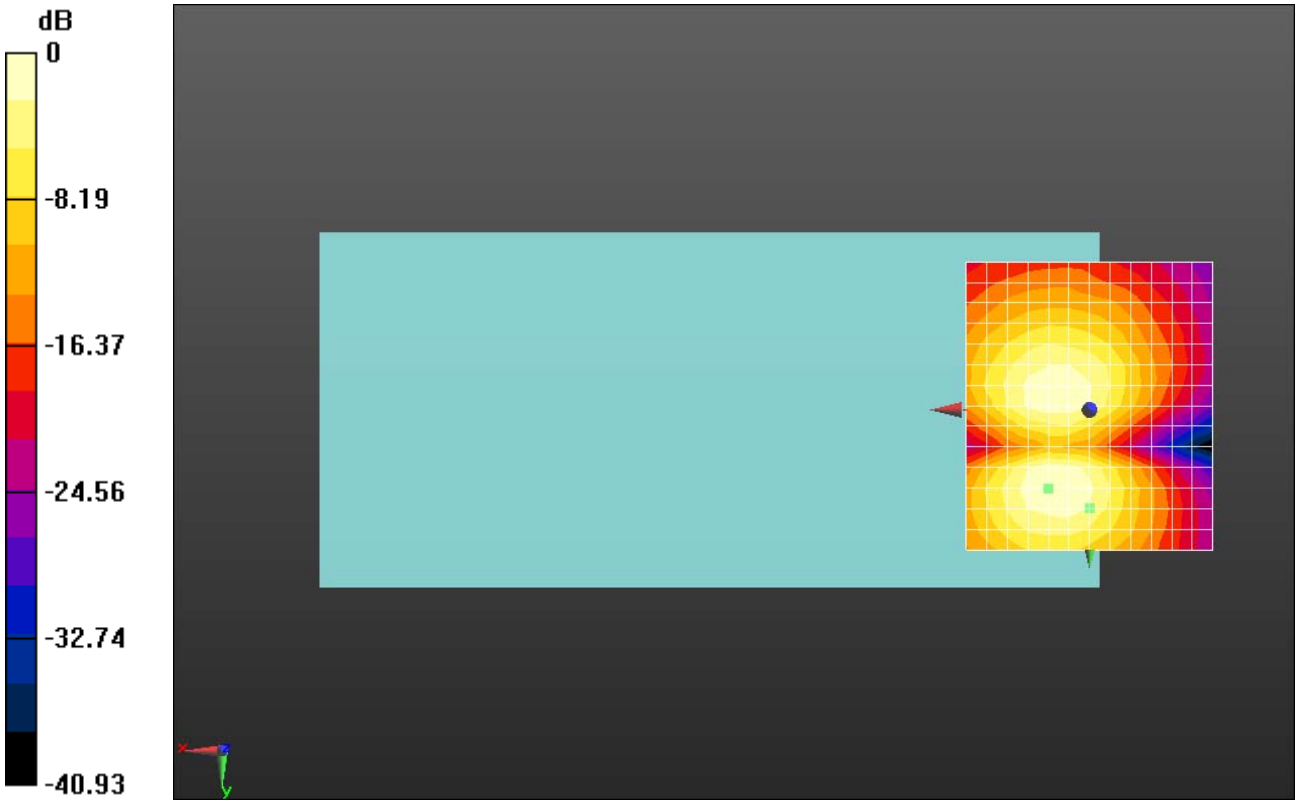
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.17

HAC_T-Coil_VoWiFi 2.4GHz_802.11b 1Mbps_AMR 4.75Kbps_Ch7_Y

Communication System: UID 10415 - AAA, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle); Frequency: 2442 MHz;Duty Cycle: 1:1.42561
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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)

Ch7/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 36.79 dB
ABM1 comp = -12.65 dBA/m
BWC Factor = 0.15 dB
Location: 0, 20, 3.7 mm



0 dB = 69.09 = 36.79 dB

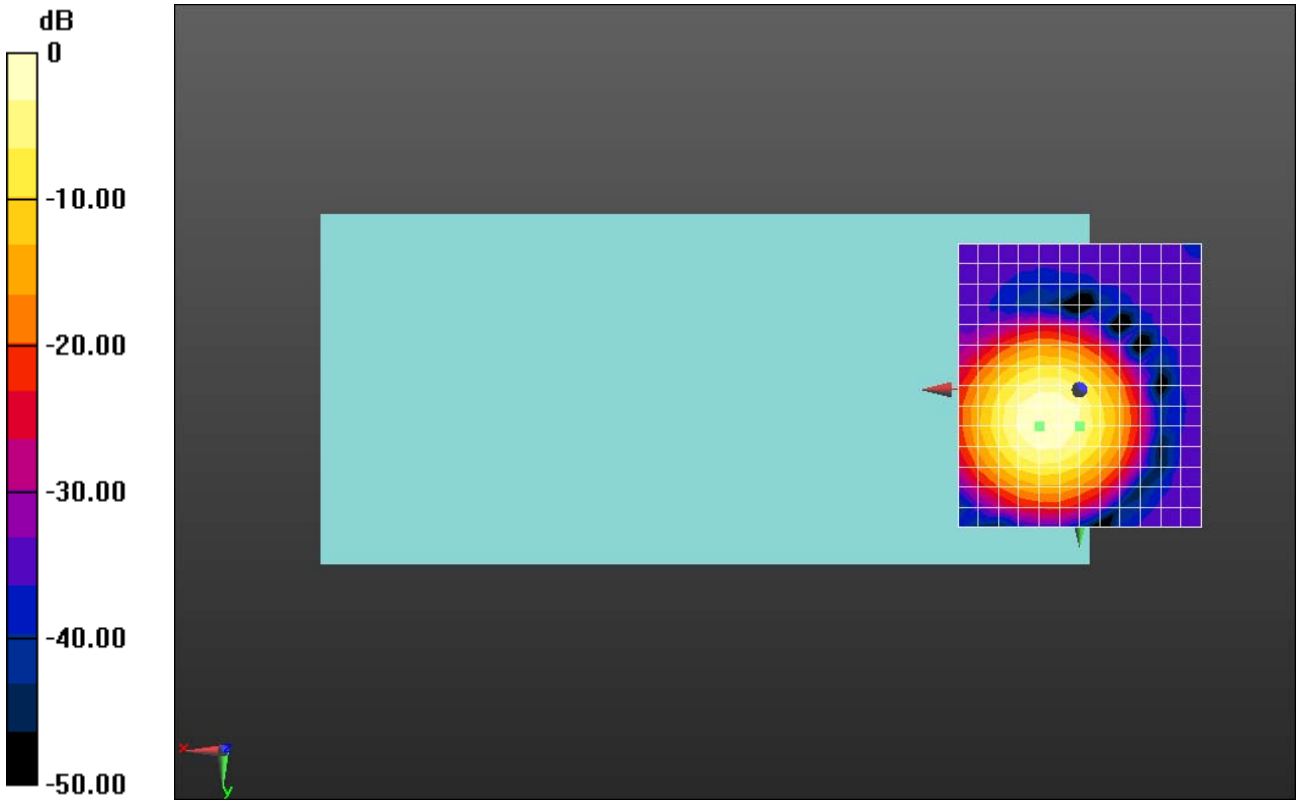
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.17

HAC_T-Coil_VoWiFi 2.4GHz_802.11g 6Mbps_AMR 4.75Kbps_Ch7_Z

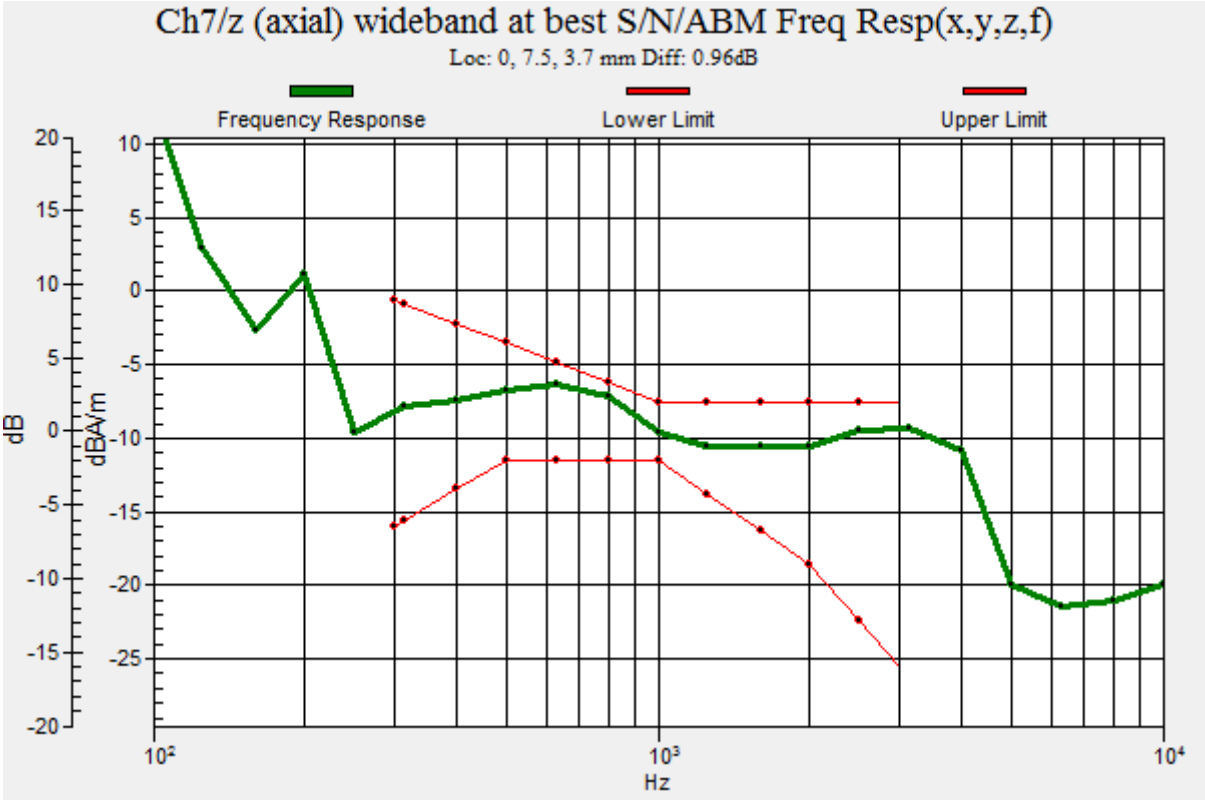
Communication System: UID 10416 - AAA, IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle); Frequency: 2442 MHz;Duty Cycle: 1:6.65273
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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)

Ch7/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 46.48 dB
ABM1 comp = -5.84 dBA/m
BWC Factor = 0.15 dB
Location: 0, 7.5, 3.7 mm



0 dB = 211.0 = 46.49 dB


Ch7/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)
Loc: 0, 7.5, 3.7 mm Diff: 0.96dB
Frequency Response
Lower Limit
Upper Limit
dB
dBA/m
Hz
20
15
10
5
0
-5
-10
-15
-20
10
5
0
-5
-10
-15
-20
-25
10²
10³
10⁴

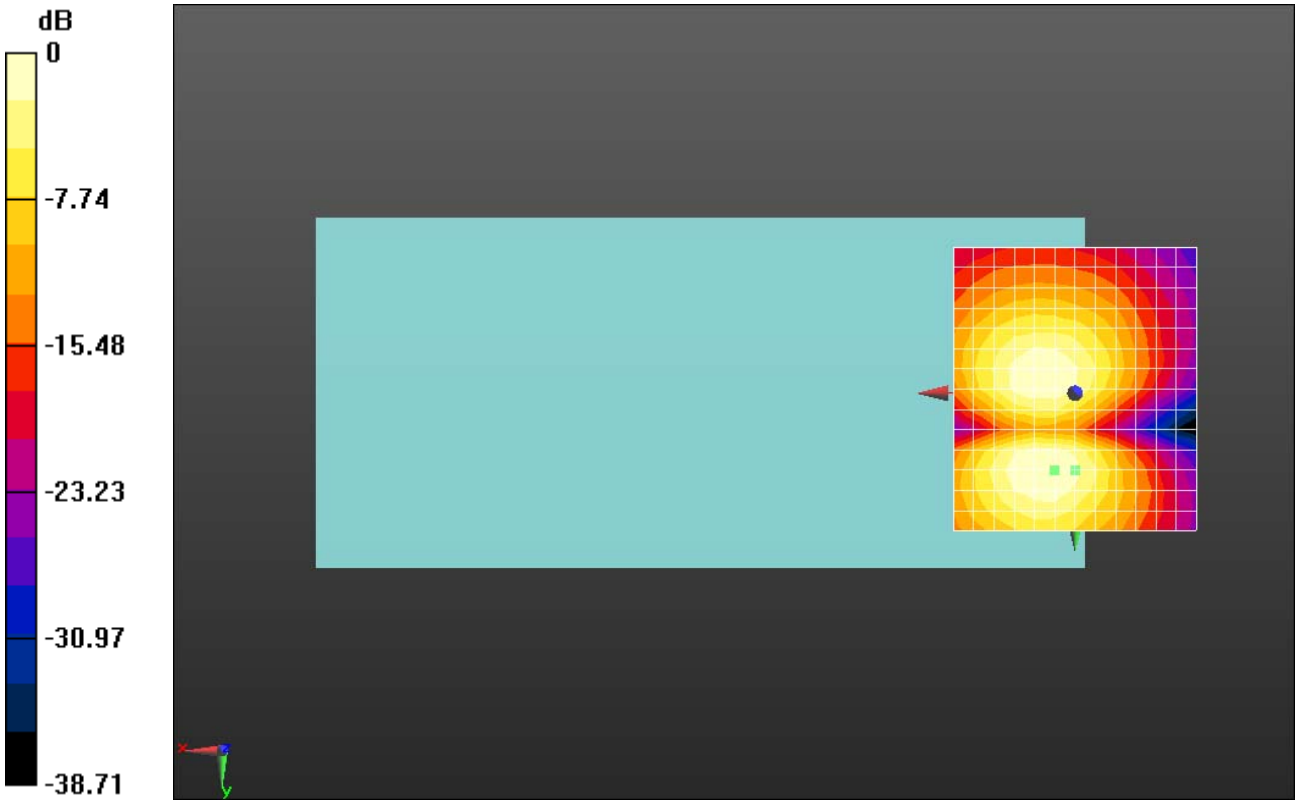
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.17

HAC_T-Coil_VoWiFi 2.4GHz_802.11g 6Mbps_AMR 4.75Kbps_Ch7_Y

Communication System: UID 10416 - AAA, IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle); Frequency: 2442 MHz;Duty Cycle: 1:6.65273
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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)

Ch7/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 38.16 dB
ABM1 comp = -11.24 dBA/m
BWC Factor = 0.15 dB
Location: 0, 15.8, 3.7 mm



0 dB = 80.95 = 38.16 dB

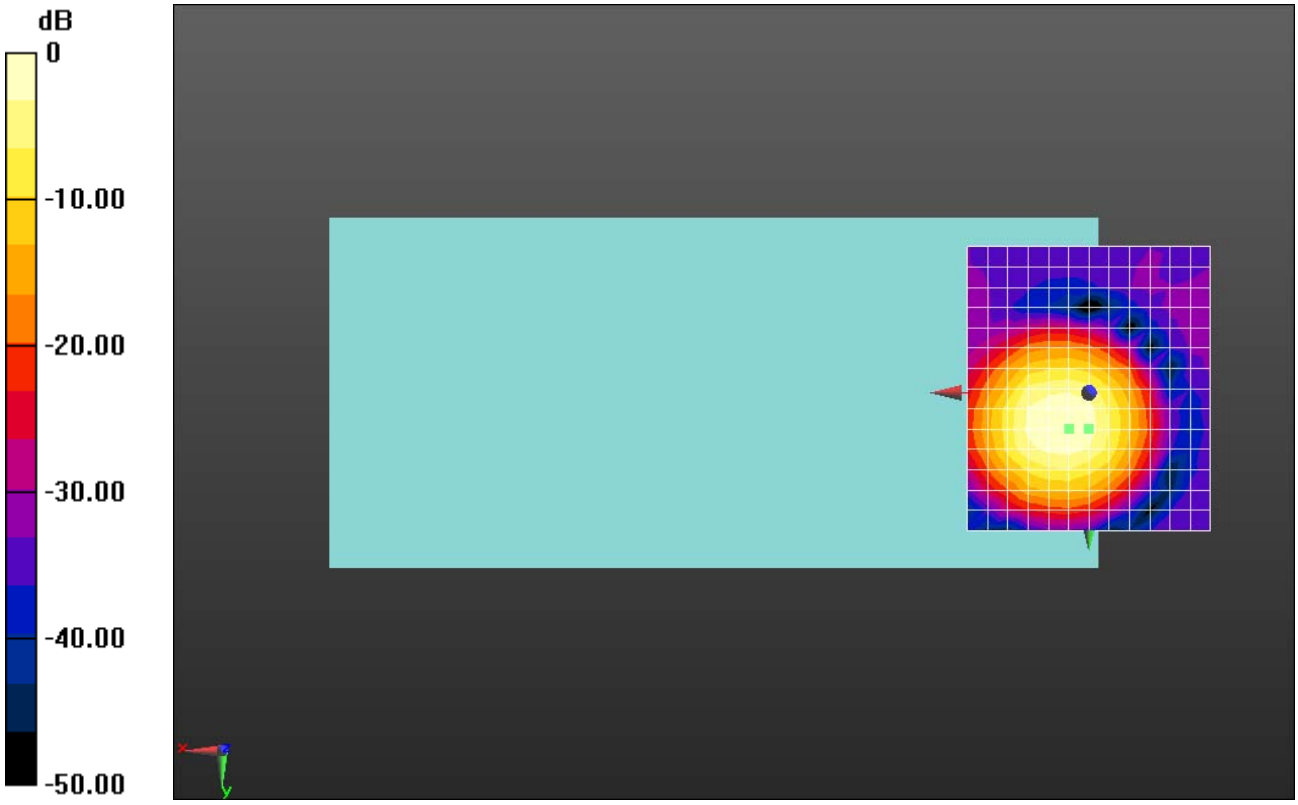
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.17

HAC_T-Coil_VoWiFi 2.4GHz_802.11n-HT20 MCS0_AMR 4.75Kbps_Ch7_Z

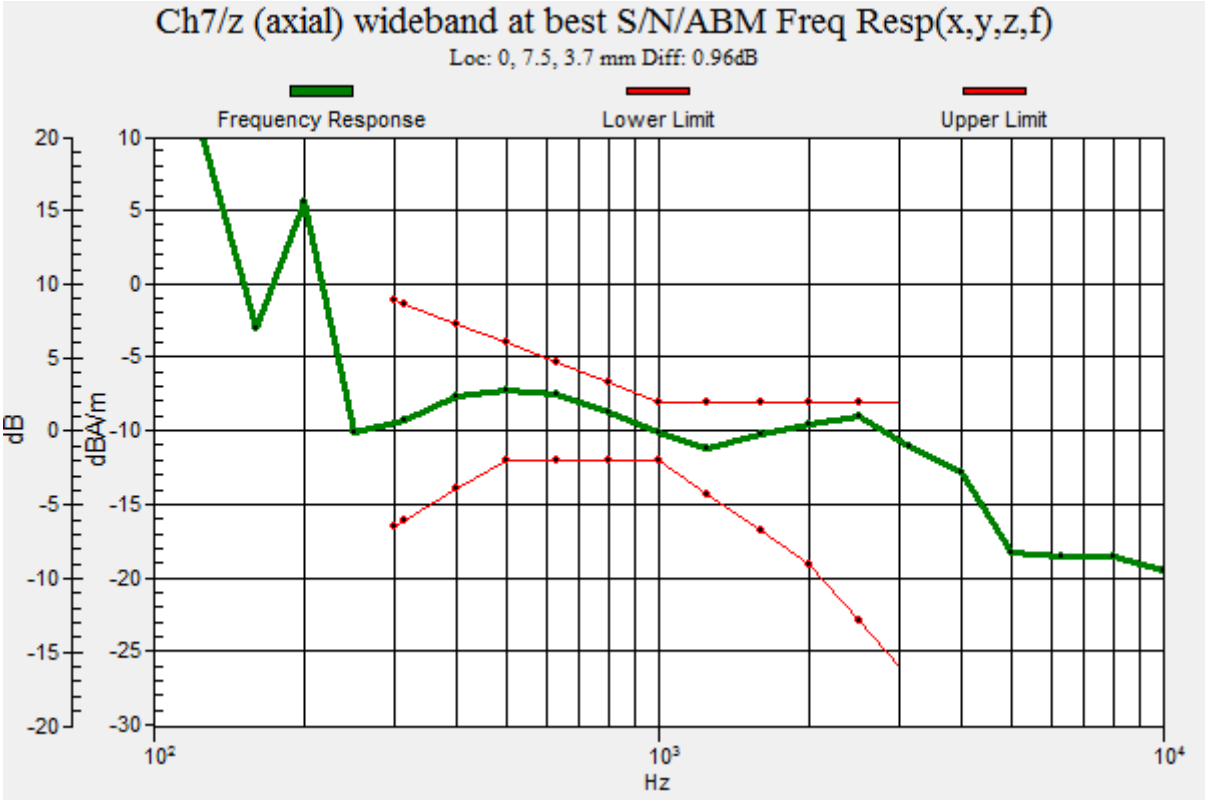
Communication System: UID 10193 - CAA, IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK); Frequency: 2442 MHz;Duty Cycle: 1:6.44169
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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)

Ch7/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 46.77 dB
ABM1 comp = -4.75 dBA/m
BWC Factor = 0.16 dB
Location: 0, 7.5, 3.7 mm



0 dB = 217.9 = 46.77 dB


Ch7/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)
Loc: 0, 7.5, 3.7 mm Diff: 0.96dB
Frequency Response
Lower Limit
Upper Limit
dB
dBA/m
Hz
20
15
10
5
0
-5
-10
-15
-20
10
5
0
-5
-10
-15
-20
-25
-30
10²
10³
10⁴

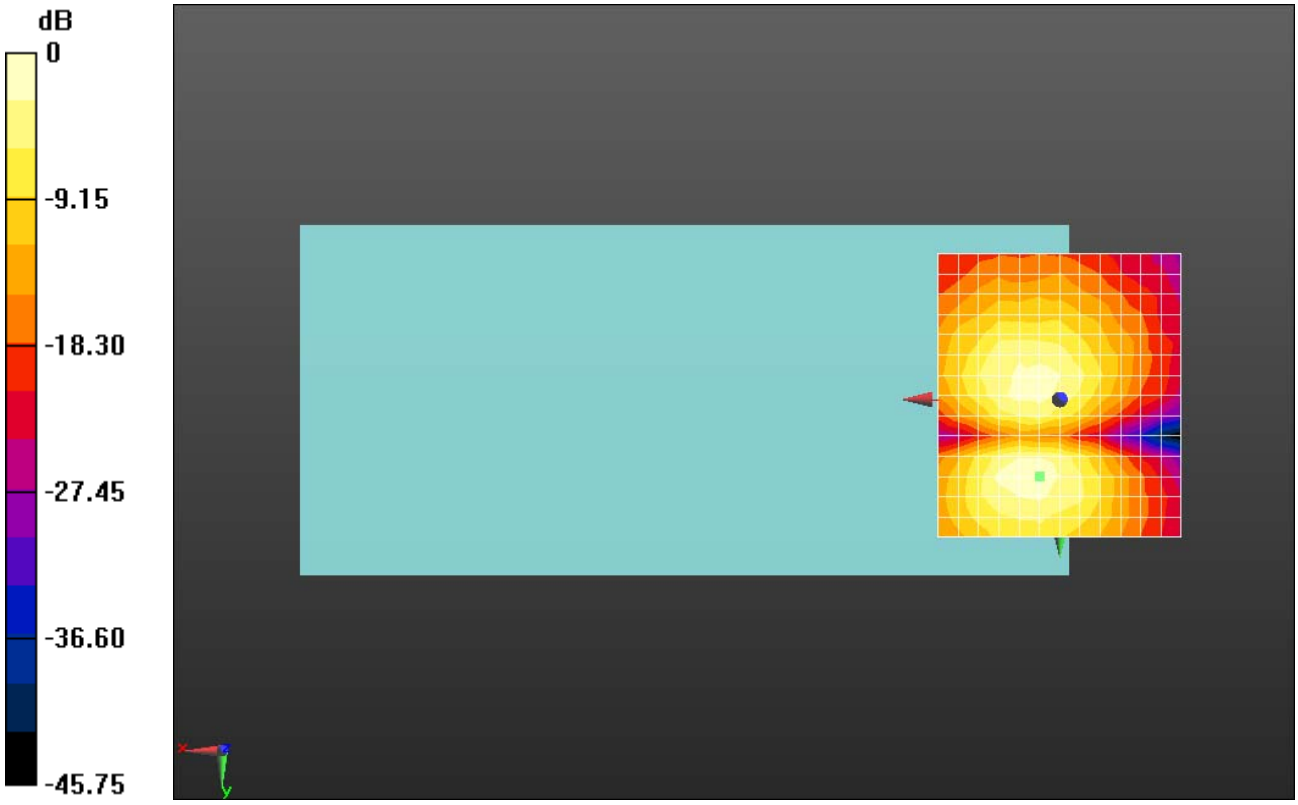
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.17

HAC_T-Coil_VoWiFi 2.4GHz_802.11n-HT20 MCS0_AMR 4.75Kbps_Ch7_Y

Communication System: UID 10193 - CAA, IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK);
Frequency: 2442 MHz;Duty Cycle: 1:6.44169
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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)

Ch7/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 37.76 dB
ABM1 comp = -8.44 dBA/m
BWC Factor = 0.16 dB
Location: 4.2, 15.8, 3.7 mm



0 dB = 77.27 = 37.76 dB

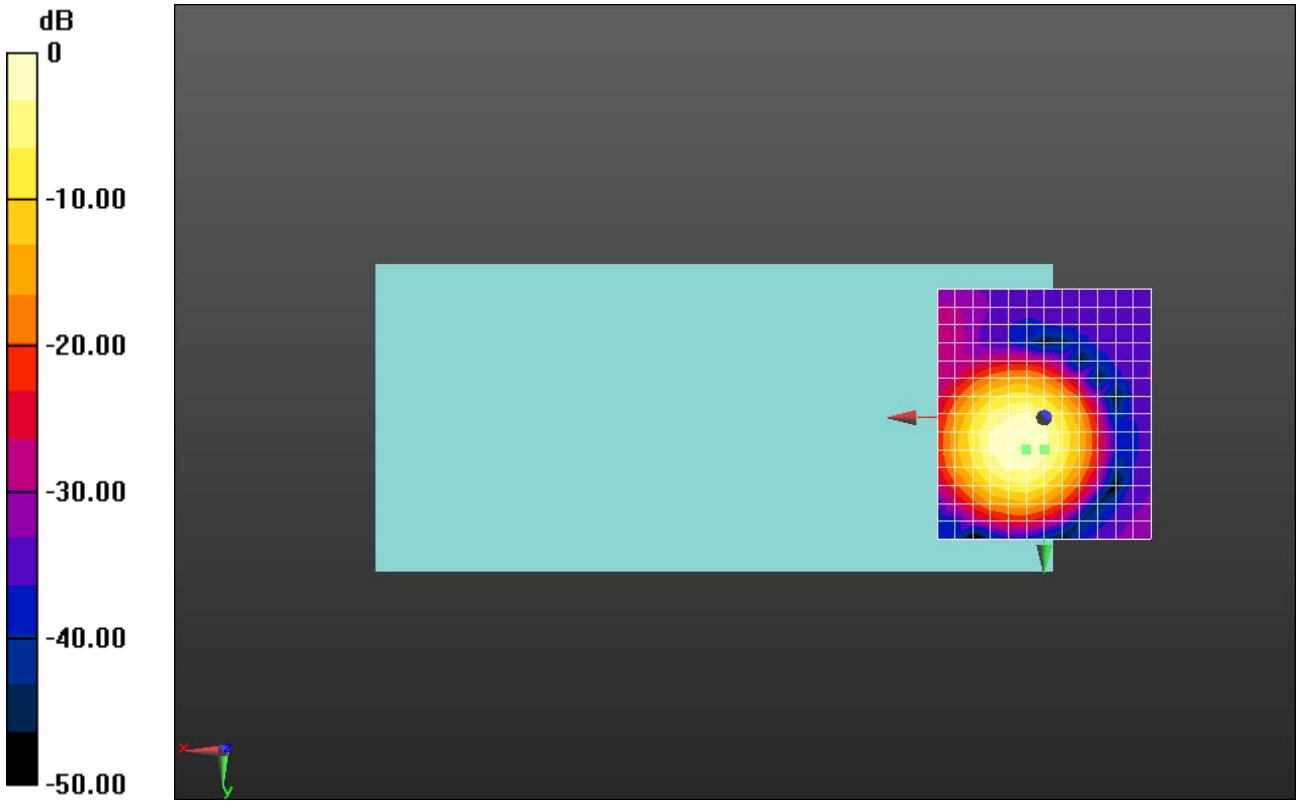
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.17

HAC_T-Coil_VoWiFi 5.2GHz_802.11a 6Mbps_AMR 4.75Kbps_Ch44_Z

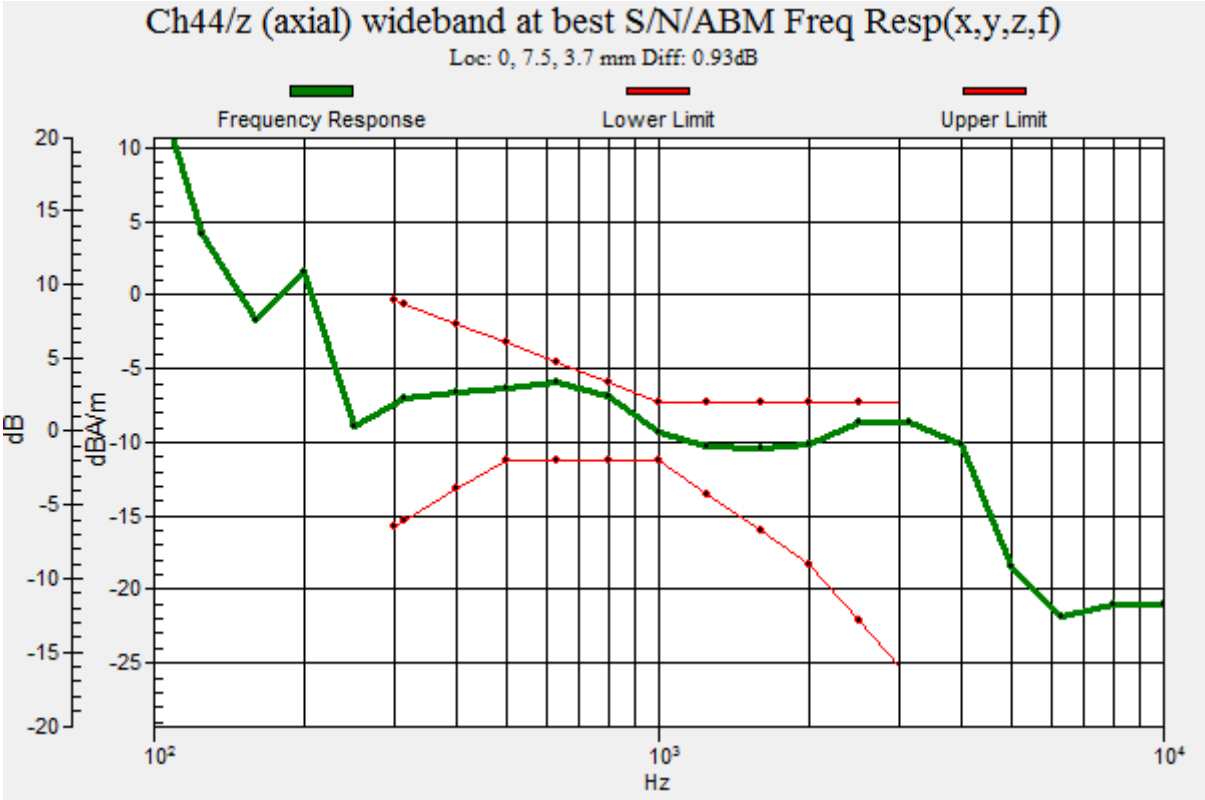
Communication System: UID 10317 - AAA, IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle); Frequency: 5220 MHz;Duty Cycle: 1:6.85488
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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)

Ch44/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 45.59 dB
ABM1 comp = -5.19 dBA/m
BWC Factor = 0.15 dB
Location: 0, 7.5, 3.7 mm



0 dB = 190.3 = 45.59 dB


Ch44/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)
Loc: 0, 7.5, 3.7 mm Diff: 0.93dB
Frequency Response
Lower Limit
Upper Limit
dB
dBA/m
Hz

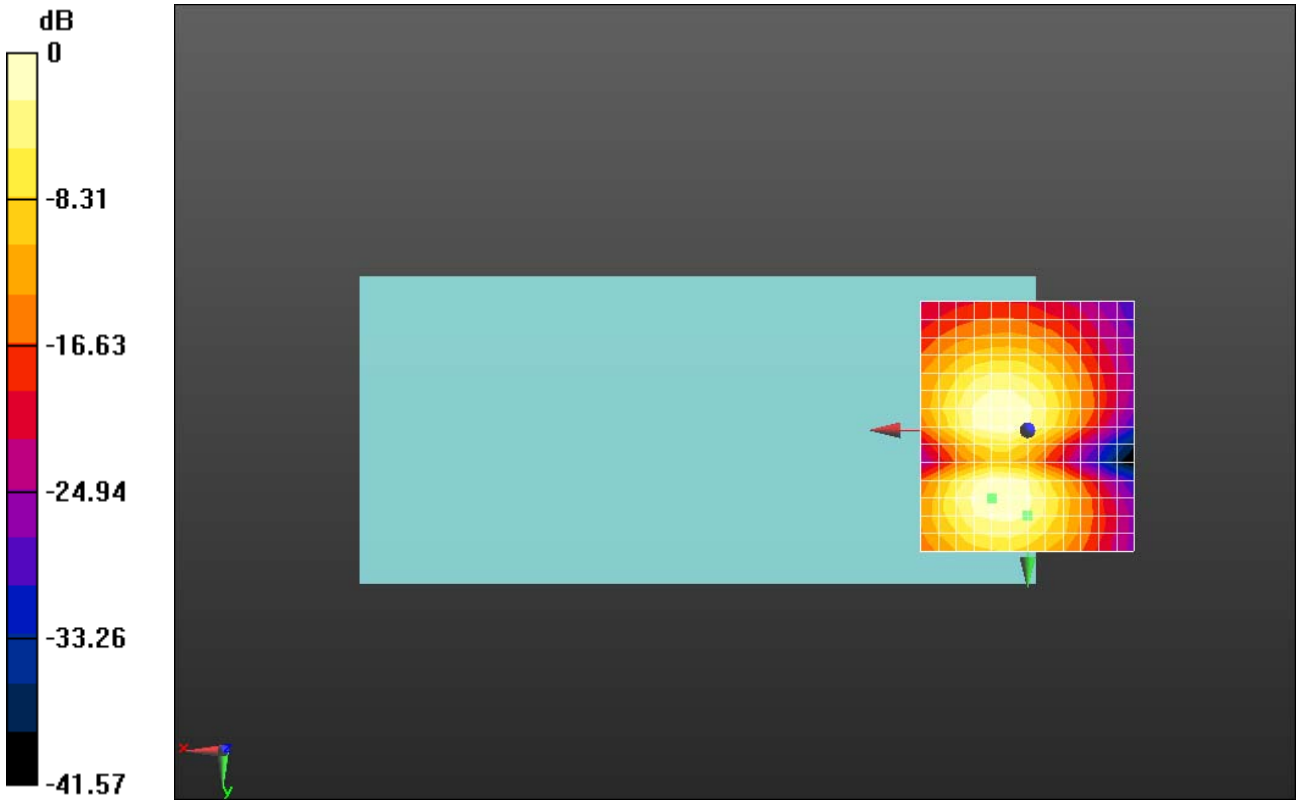
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.17

HAC_T-Coil_VoWiFi 5.2GHz_802.11a 6Mbps_AMR 4.75Kbps_Ch44_Y

Communication System: UID 10317 - AAA, IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle); Frequency: 5220 MHz;Duty Cycle: 1:6.85488
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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)

Ch44/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 37.30 dB
ABM1 comp = -12.20 dBA/m
BWC Factor = 0.15 dB
Location: 0, 20, 3.7 mm



0 dB = 77.12 = 37.74 dB

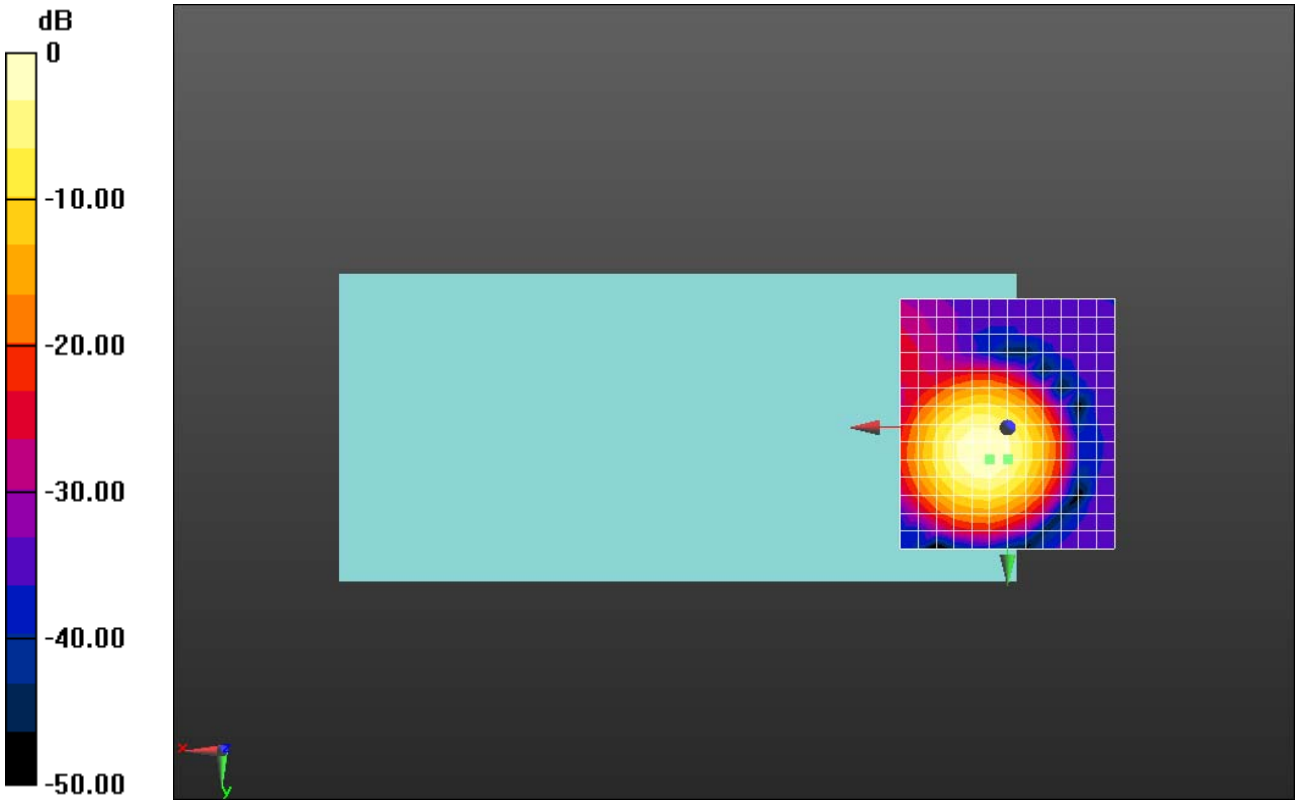
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.17

HAC_T-Coil_VoWiFi 5.3GHz_802.11a 6Mbps_AMR 4.75Kbps_Ch60_Z

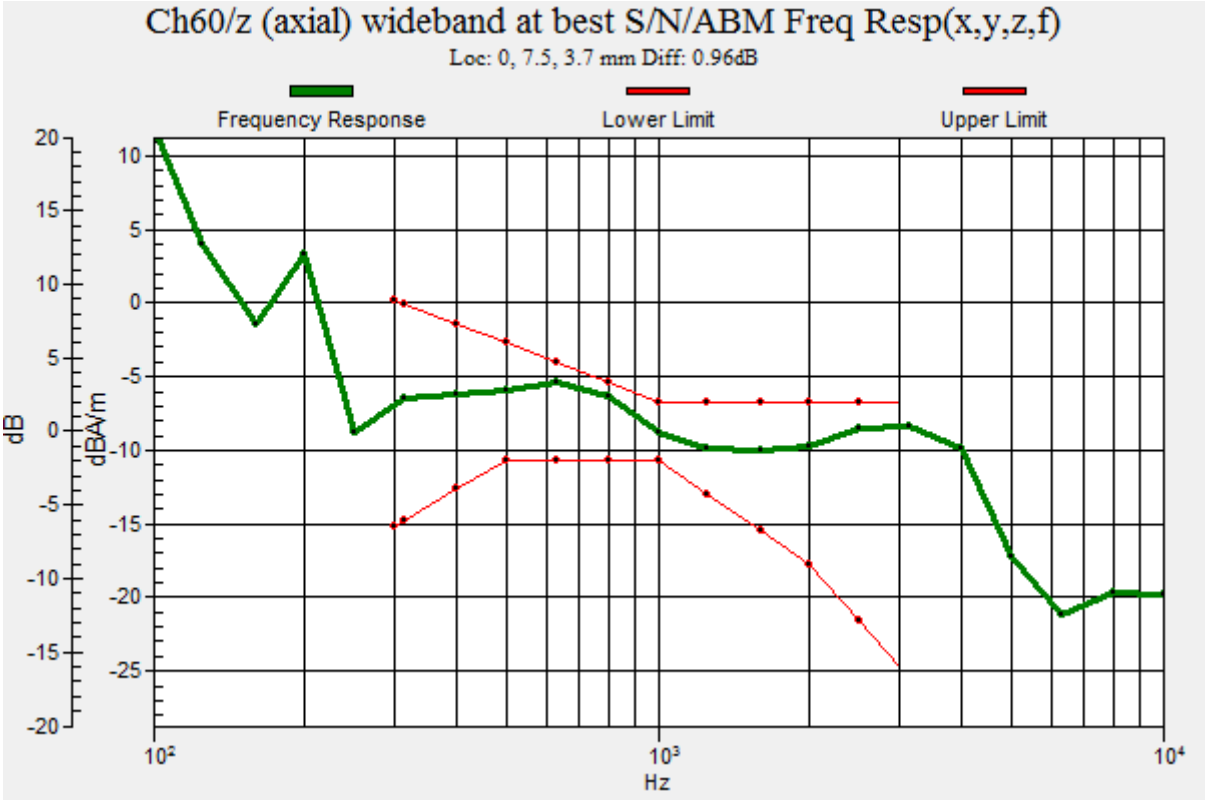
Communication System: UID 10317 - AAA, IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle); Frequency: 5300 MHz;Duty Cycle: 1:6.85488
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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)

Ch60/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 45.04 dB
ABM1 comp = -4.91 dBA/m
BWC Factor = 0.15 dB
Location: 0, 7.5, 3.7 mm



0 dB = 178.7 = 45.04 dB


Ch60/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)
Loc: 0, 7.5, 3.7 mm Diff: 0.96dB
Frequency Response
Lower Limit
Upper Limit
dB
dBA/m
Hz
20
15
10
5
0
-5
-10
-15
-20
10
5
0
-5
-10
-15
-20
-25
10²
10³
10⁴

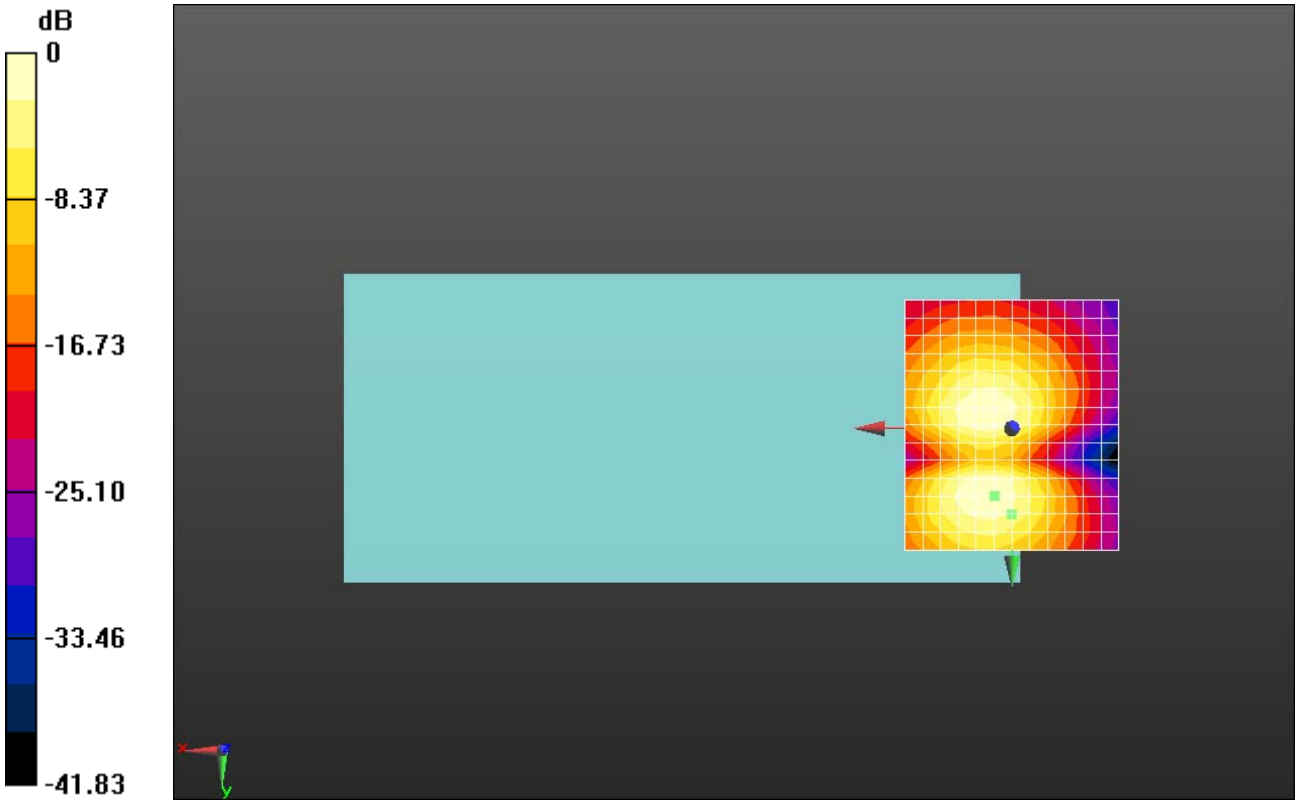
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.17

HAC_T-Coil_VoWiFi 5.3GHz_802.11a 6Mbps_AMR 4.75Kbps_Ch60_Y

Communication System: UID 10317 - AAA, IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle); Frequency: 5300 MHz;Duty Cycle: 1:6.85488
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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)

Ch60/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 37.74 dB
ABM1 comp = -12.63 dBA/m
BWC Factor = 0.15 dB
Location: 0, 20, 3.7 mm



0 dB = 73.31 = 37.30 dB

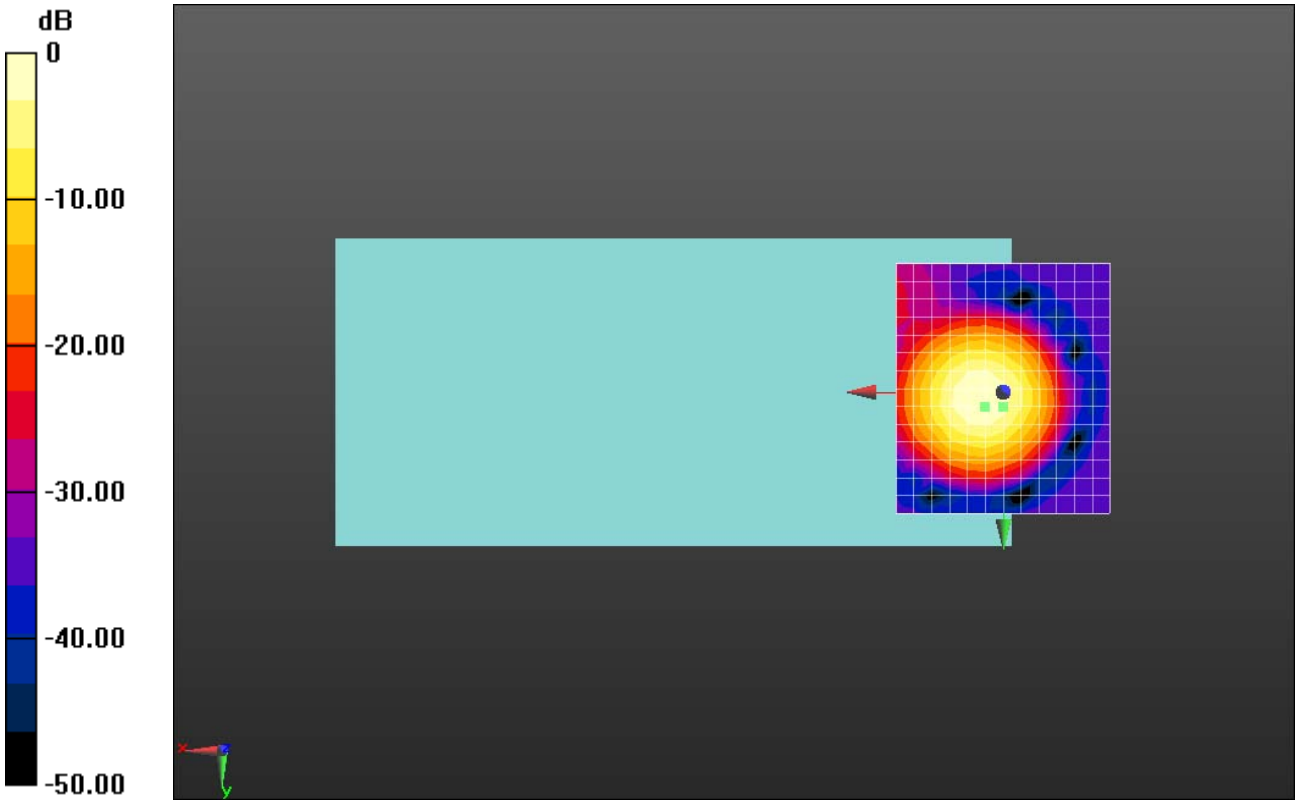
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.18

HAC_T-Coil_VoWiFi 5.8GHz_802.11a 6Mbps_AMR 4.75Kbps_Ch157_Z

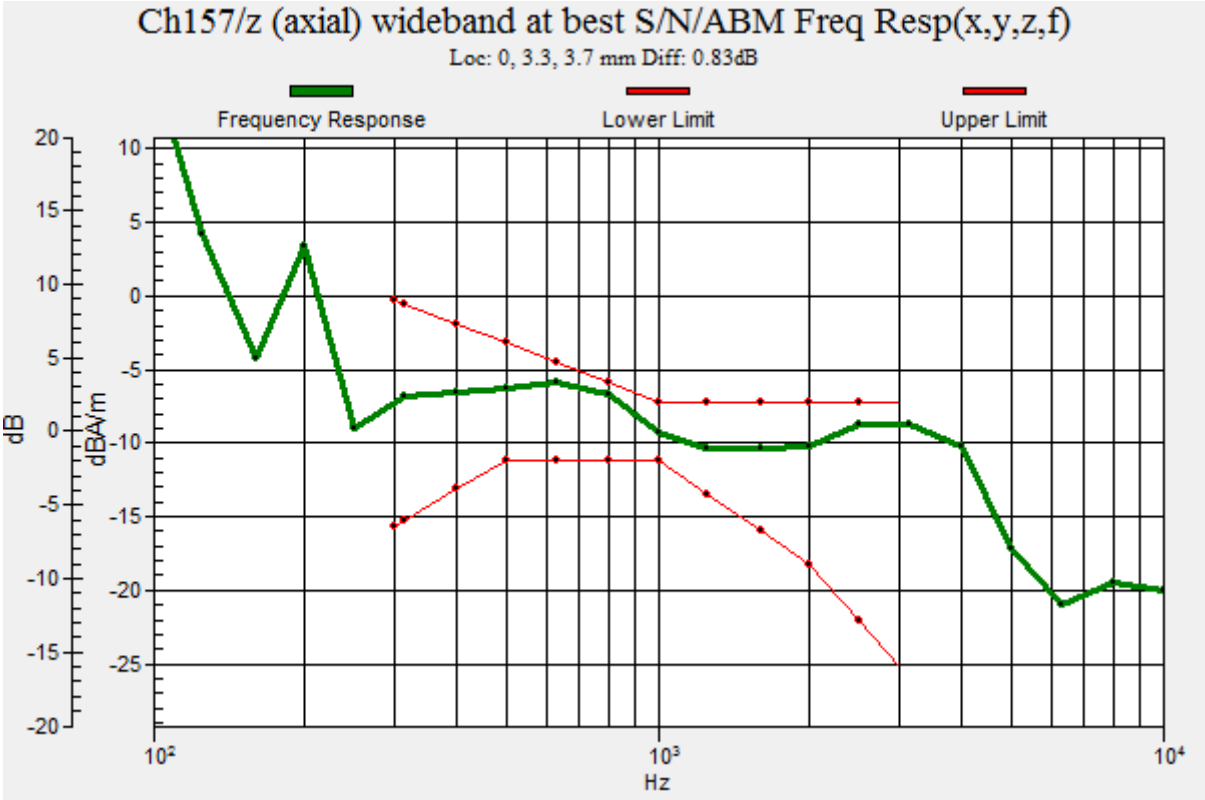
Communication System: UID 10317 - AAA, IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle); Frequency: 5785 MHz;Duty Cycle: 1:6.85488
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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)

Ch157/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 45.19 dB
ABM1 comp = -5.06 dBA/m
BWC Factor = 0.15 dB
Location: 0, 3.3, 3.7 mm



0 dB = 181.8 = 45.19 dB


Ch157/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)
Loc: 0, 3.3, 3.7 mm Diff: 0.83dB
Frequency Response
Lower Limit
Upper Limit
dB
dBA/m
Hz
20
15
10
5
0
-5
-10
-15
-20
10
5
0
-5
-10
-15
-20
-25
10²
10³
10⁴

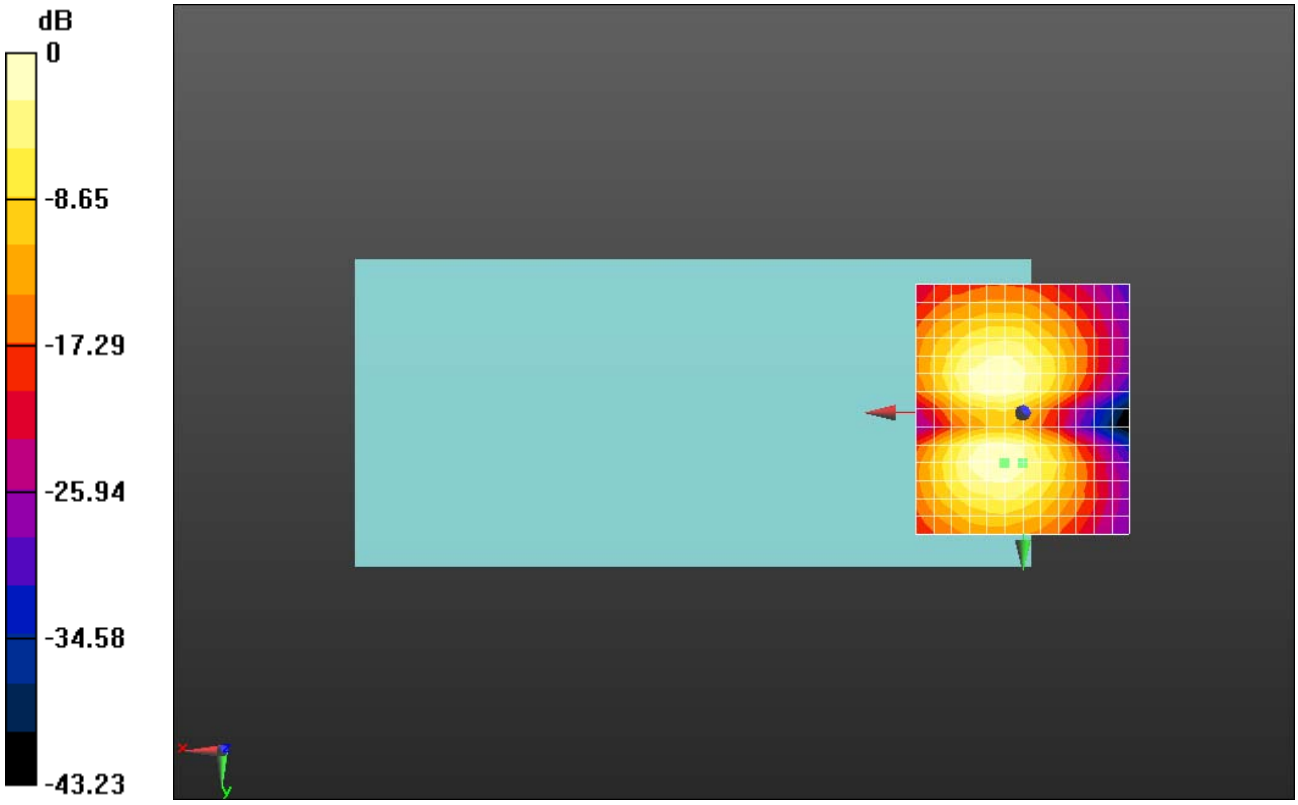
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.18

HAC_T-Coil_VoWiFi 5.8GHz_802.11a 6Mbps_AMR 4.75Kbps_Ch157_Y

Communication System: UID 10317 - AAA, IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle); Frequency: 5785 MHz;Duty Cycle: 1:6.85488
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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)

Ch157/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 37.80 dB
ABM1 comp = -11.53 dBA/m
BWC Factor = 0.15 dB
Location: 0, 11.7, 3.7 mm



0 dB = 77.64 = 37.80 dB

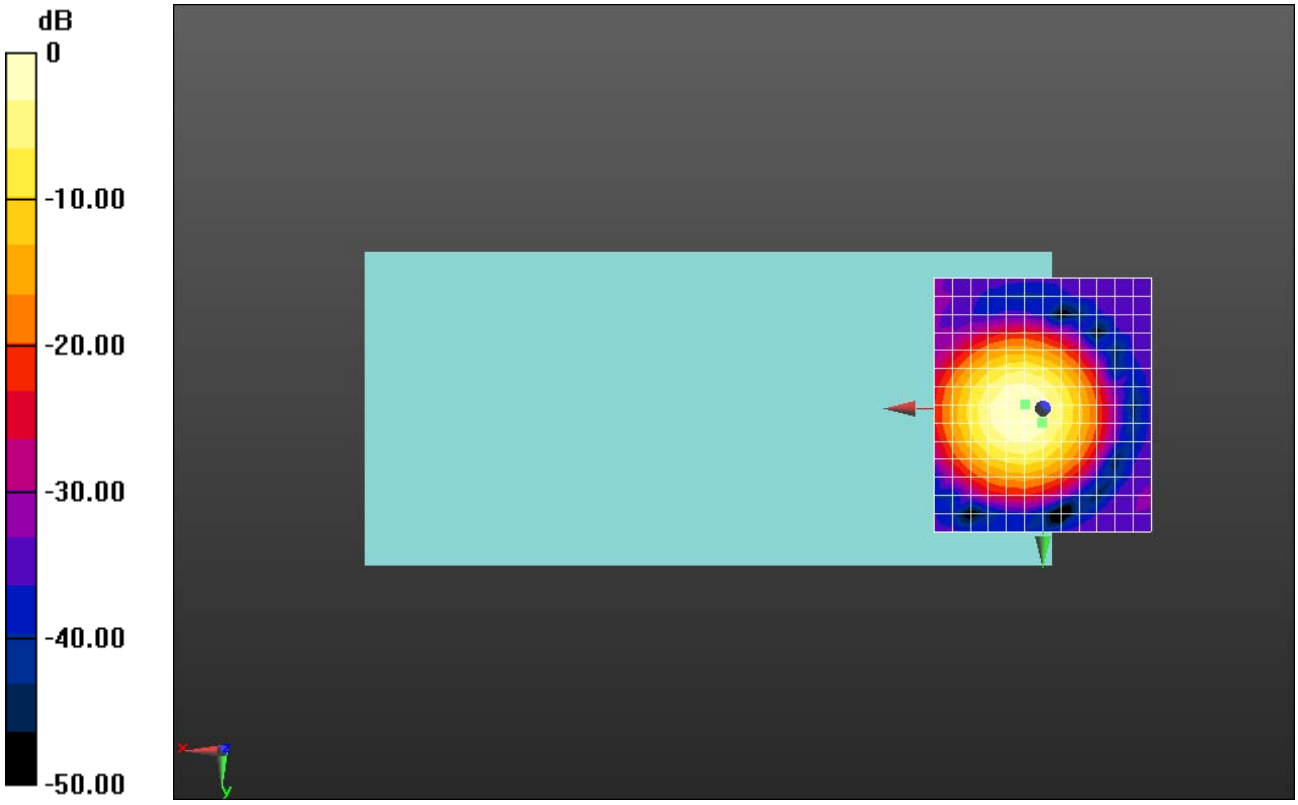
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.18

HAC_T-Coil_VoWiFi 5.2GHz_802.11n-HT20 MCS0_AMR 4.75Kbps_Ch44_Z

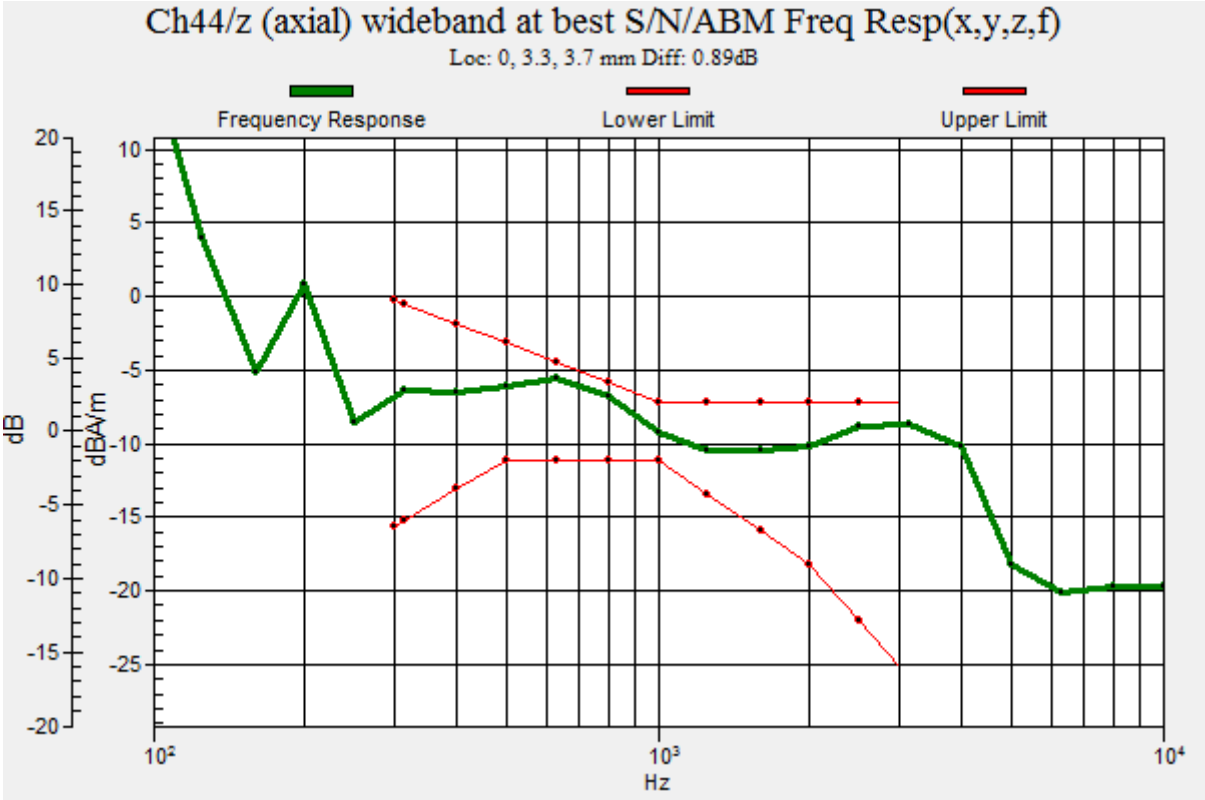
Communication System: UID 10193 - CAA, IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK); Frequency: 5220 MHz;Duty Cycle: 1:6.44169
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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)

Ch44/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 47.21 dB
ABM1 comp = -5.18 dBA/m
BWC Factor = 0.15 dB
Location: 0, 3.3, 3.7 mm



0 dB = 229.5 = 47.22 dB


Ch44/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)
Loc: 0, 3.3, 3.7 mm Diff: 0.89dB
Frequency Response
Lower Limit
Upper Limit
dB
dBA/m
Hz
20
15
10
5
0
-5
-10
-15
-20
10
5
0
-5
-10
-15
-20
-25
10²
10³
10⁴

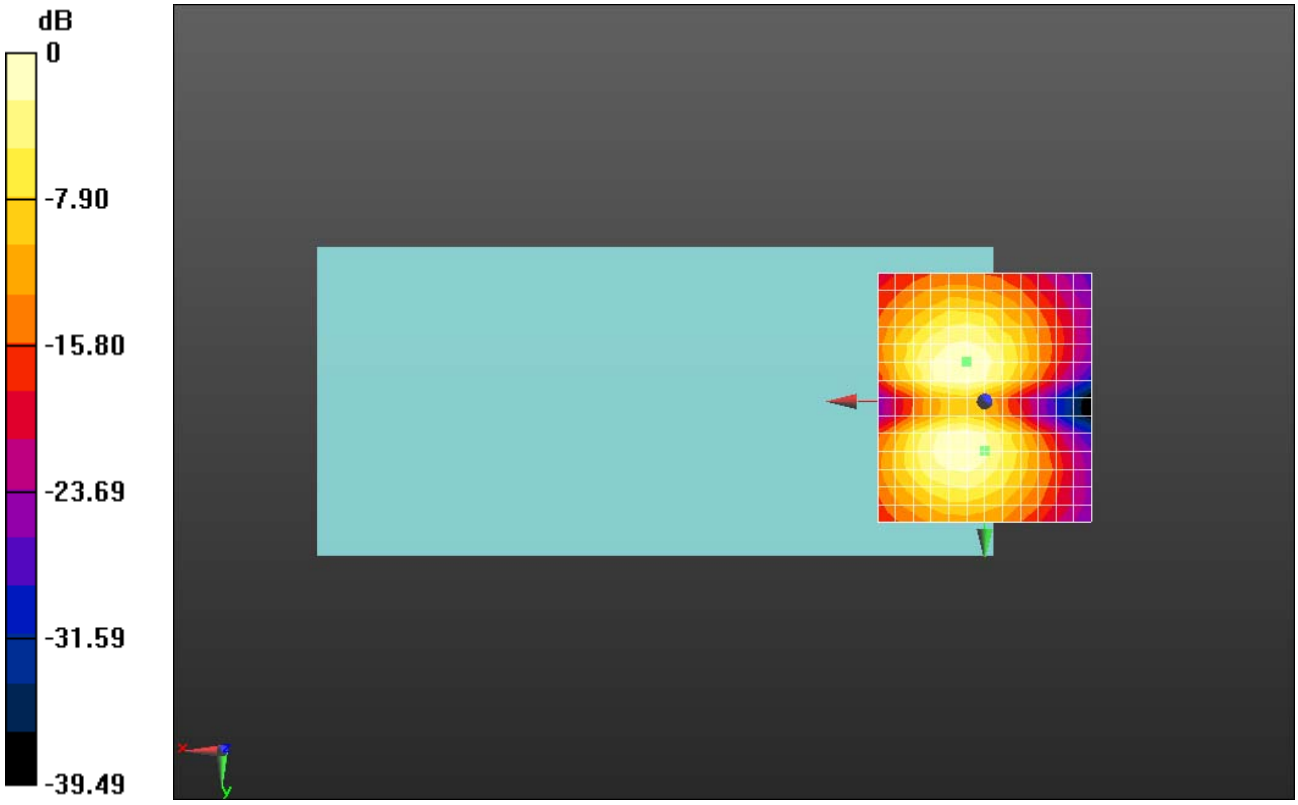
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.18

HAC_T-Coil_VoWiFi 5.2GHz_802.11n-HT20 MCS0_AMR 4.75Kbps_Ch44_Y

Communication System: UID 10193 - CAA, IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK);
Frequency: 5220 MHz;Duty Cycle: 1:6.44169
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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)

Ch44/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 38.07 dB
ABM1 comp = -11.82 dBA/m
BWC Factor = 0.15 dB
Location: 0, 11.7, 3.7 mm



0 dB = 80.05 = 38.07 dB

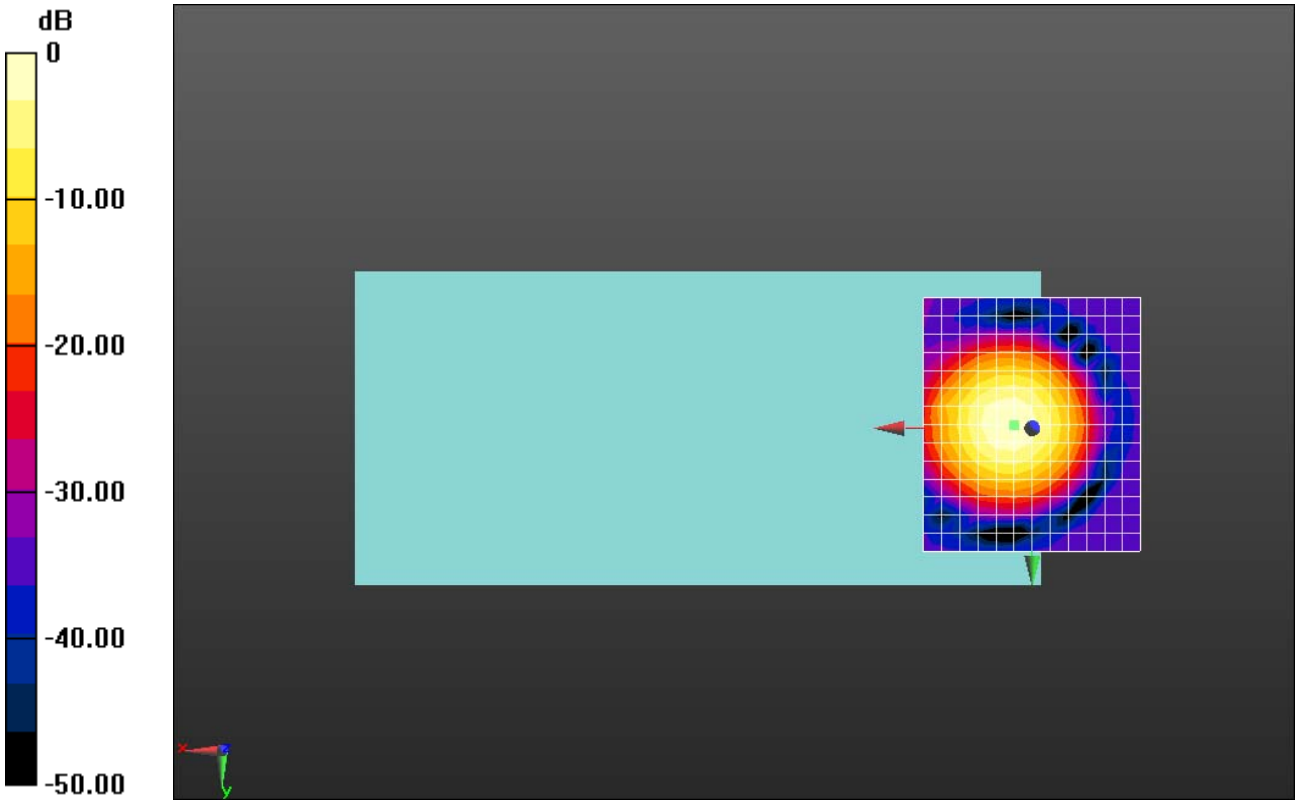
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.18

HAC_T-Coil_VoWiFi 5.2GHz_802.11n-HT40 MCS0_AMR 4.75Kbps_Ch46_Z

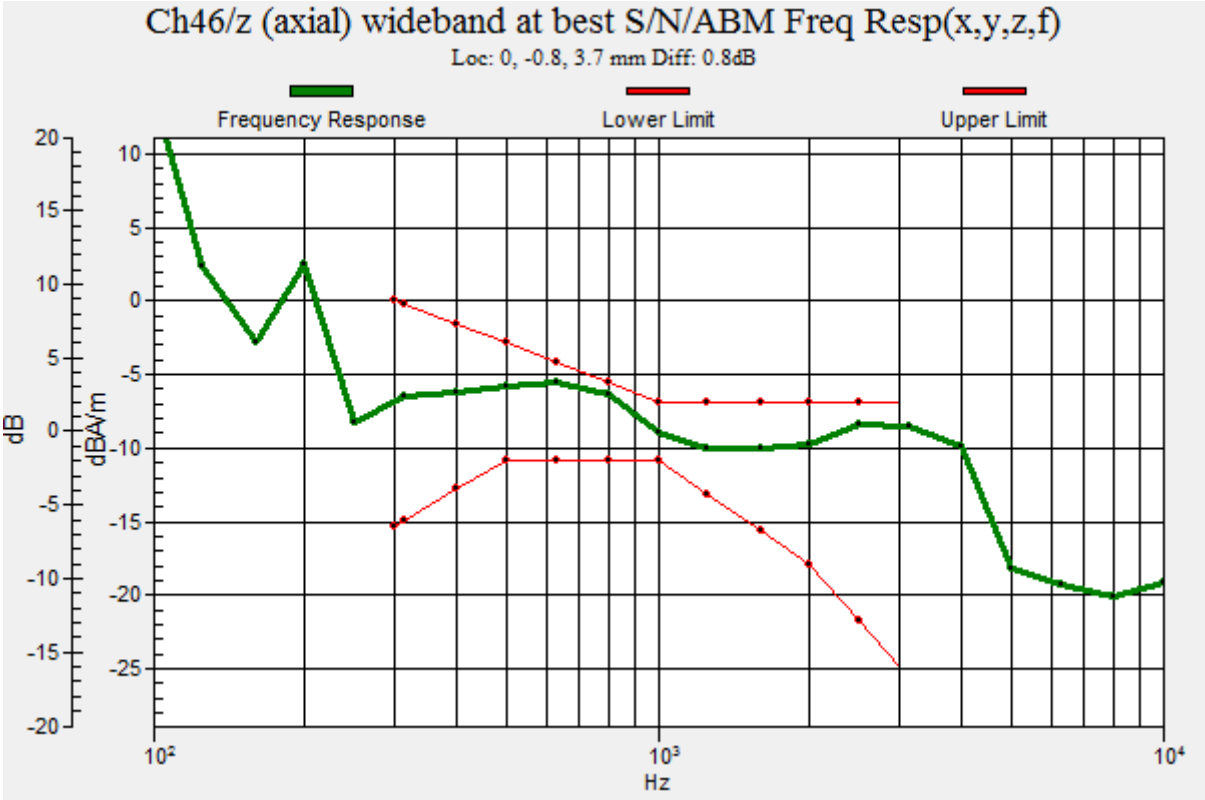
Communication System: UID 10117 - CAA, IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK);
Frequency: 5230 MHz;Duty Cycle: 1:6.4121
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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)

Ch46/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 47.75 dB
ABM1 comp = -4.68 dBA/m
BWC Factor = 0.15 dB
Location: 0, -0.8, 3.7 mm



0 dB = 244.1 = 47.75 dB


Ch46/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)
Loc: 0, -0.8, 3.7 mm Diff: 0.8dB
Frequency Response
Lower Limit
Upper Limit
dB
dBA/m
Hz
20
15
10
5
0
-5
-10
-15
-20
10
5
0
-5
-10
-15
-20
-25
10²
10³
10⁴

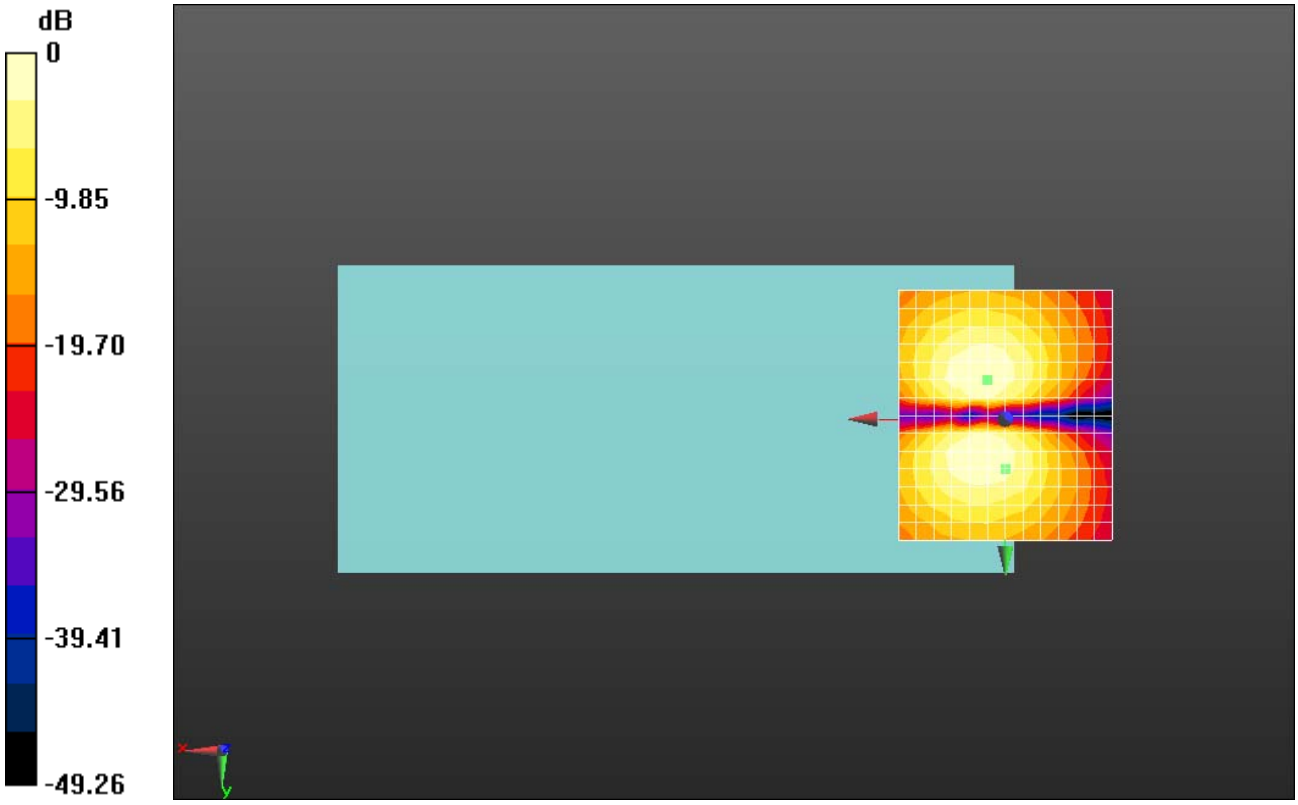
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.18

HAC_T-Coil_VoWiFi 5.2GHz_802.11n-HT40 MCS0_AMR 4.75Kbps_Ch46_Y

Communication System: UID 10117 - CAA, IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK);
Frequency: 5230 MHz;Duty Cycle: 1:6.4121
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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)

Ch46/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 38.52 dB
ABM1 comp = -11.71 dBA/m
BWC Factor = 0.15 dB
Location: 0, 11.7, 3.7 mm



0 dB = 84.30 = 38.52 dB

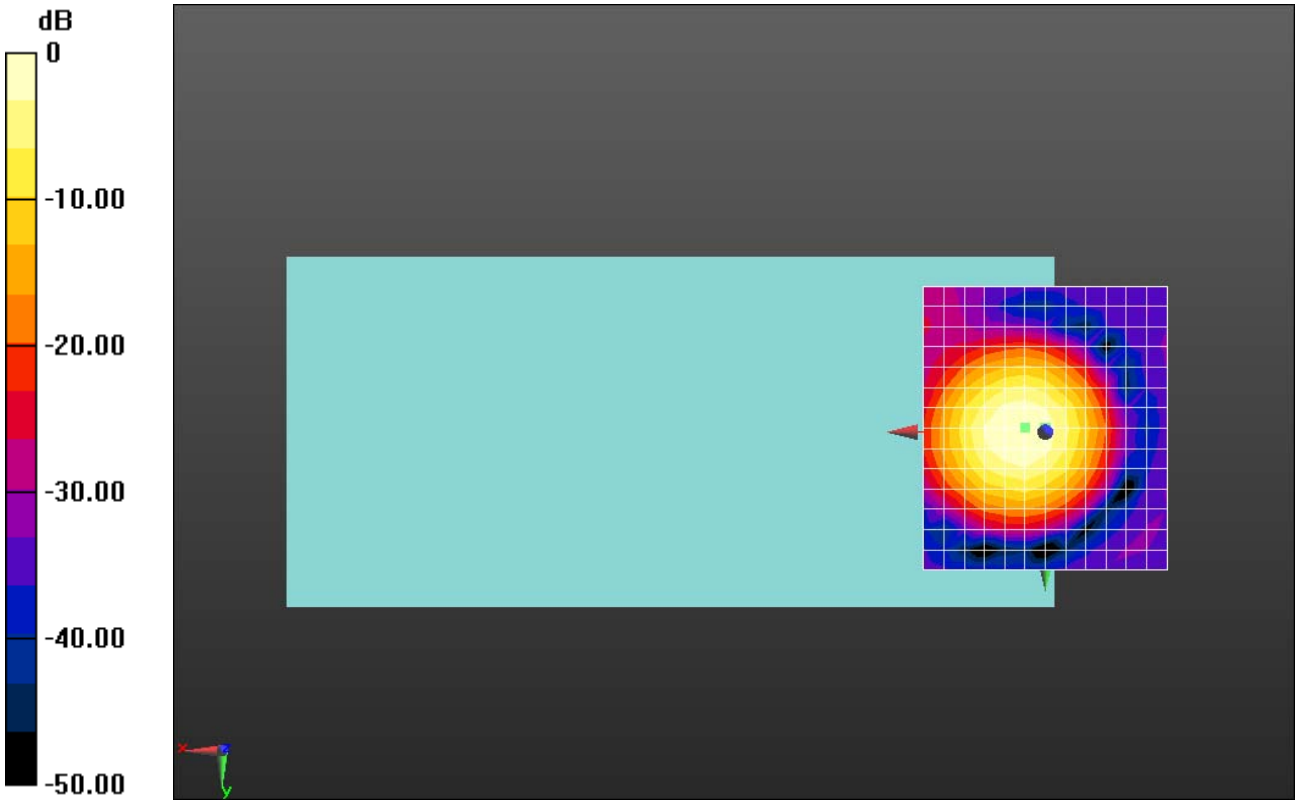
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.18

HAC_T-Coil_VoWiFi 5.2GHz_802.11ac-VHT20 MCS0_AMR 4.75Kbps_Ch44_Z

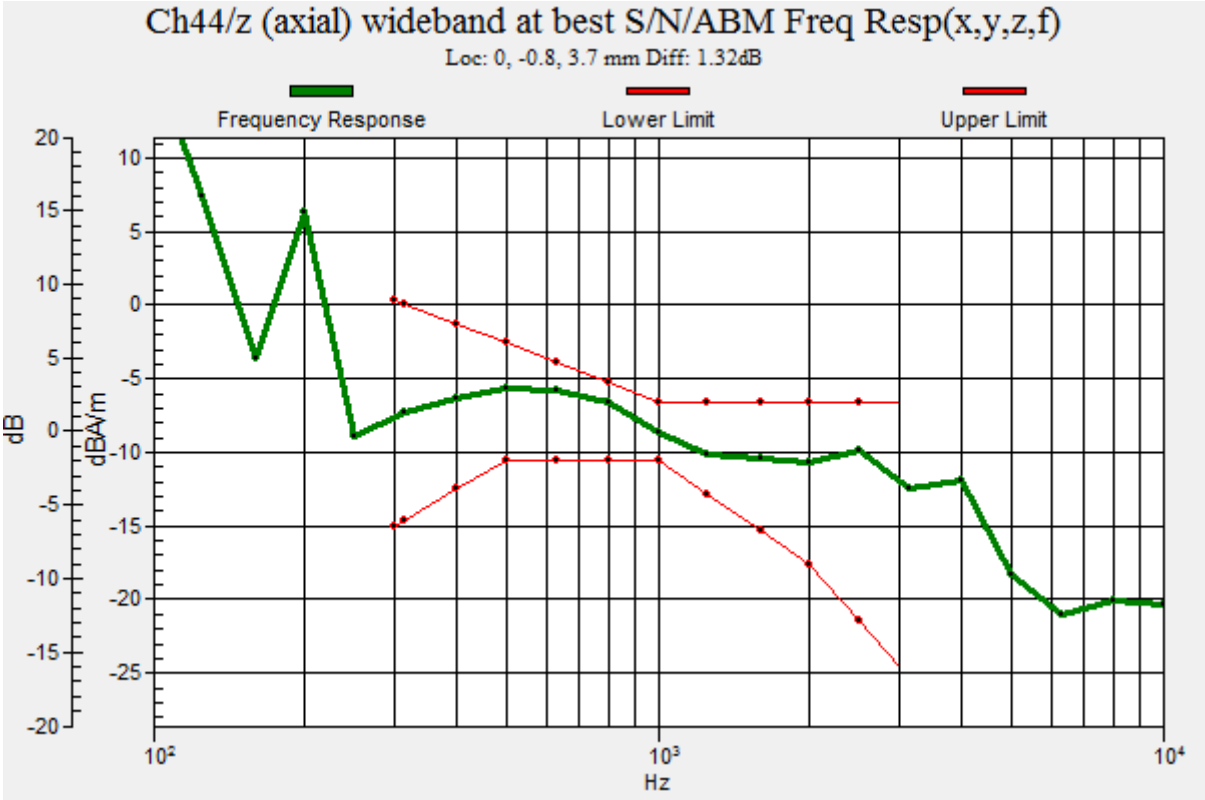
Communication System: UID 10400 - AAA, IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle); Frequency: 5220 MHz;Duty Cycle: 1:6.87068
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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)

Ch44/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 45.36 dB
ABM1 comp = -4.72 dBA/m
BWC Factor = 0.15 dB
Location: 0, -0.8, 3.7 mm



0 dB = 185.3 = 45.36 dB


Ch44/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)
Loc: 0, -0.8, 3.7 mm Diff: 1.32dB
Frequency Response
Lower Limit
Upper Limit
dB
dBA/m
Hz
20
15
10
5
0
-5
-10
-15
-20
10
5
0
-5
-10
-15
-20
-25
10²
10³
10⁴

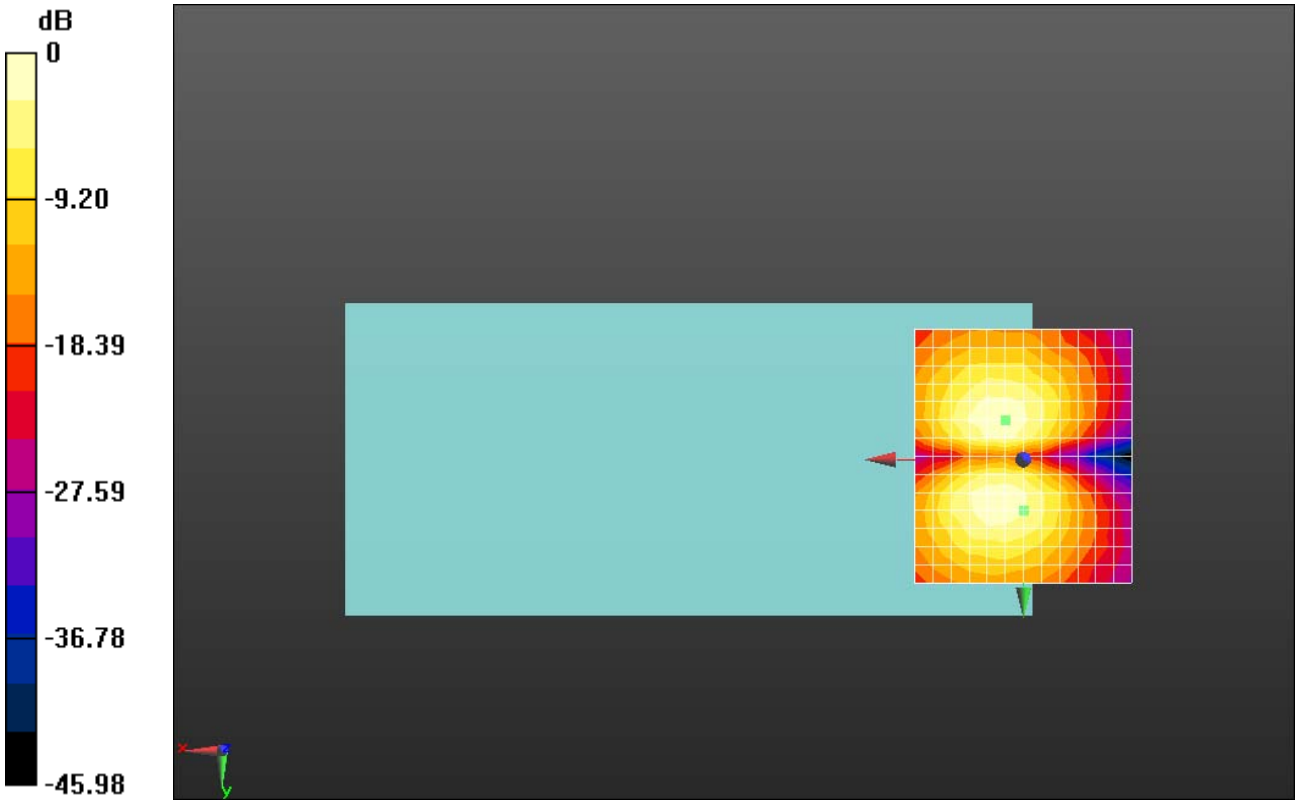
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.18

HAC_T-Coil_VoWiFi 5.2GHz_802.11ac-VHT20 MCS0_AMR 4.75Kbps_Ch44_Y

Communication System: UID 10400 - AAA, IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle); Frequency: 5220 MHz;Duty Cycle: 1:6.87068
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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)

Ch44/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 38.06 dB
ABM1 comp = -11.31 dBA/m
BWC Factor = 0.15 dB
Location: 0, 11.7, 3.7 mm



0 dB = 80.00 = 38.06 dB

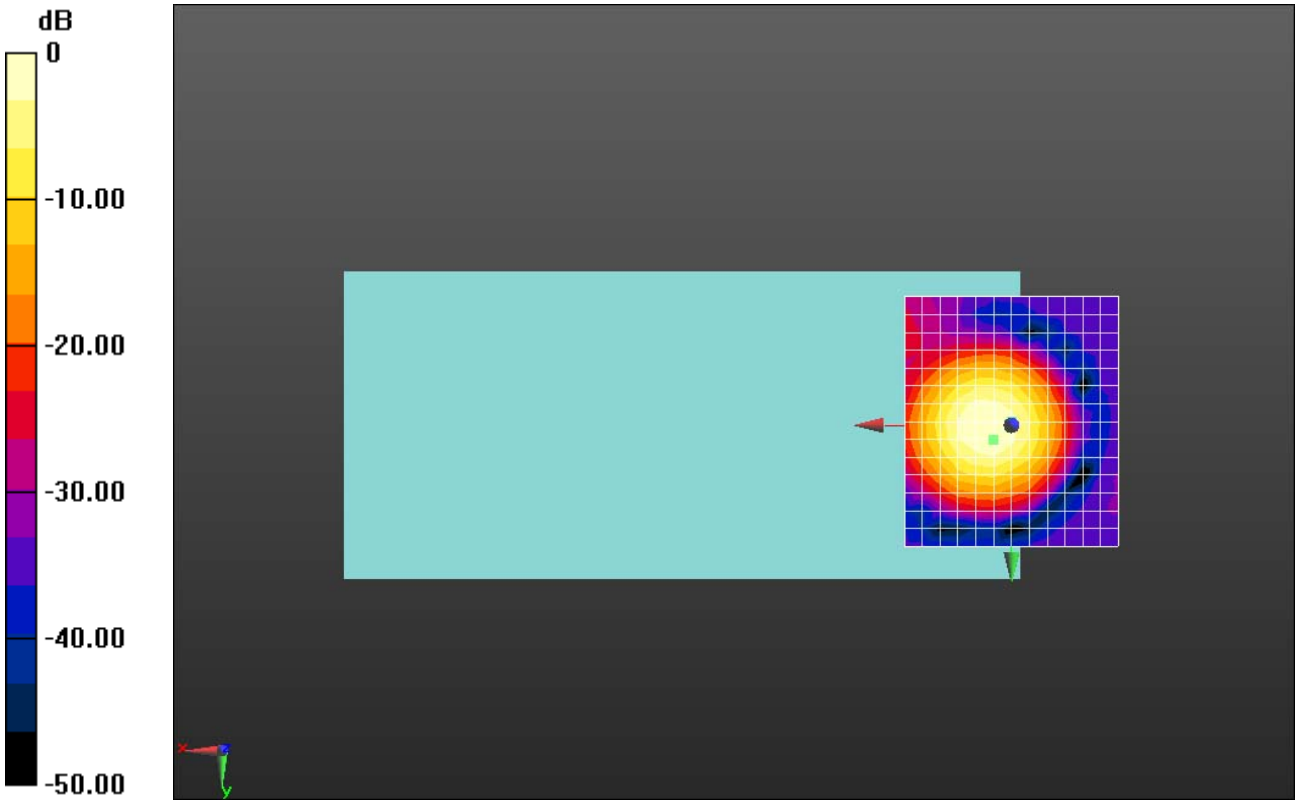
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.18

HAC_T-Coil_VoWiFi 5.2GHz_802.11ac-VHT40 MCS0_AMR 4.75Kbps_Ch46_Z

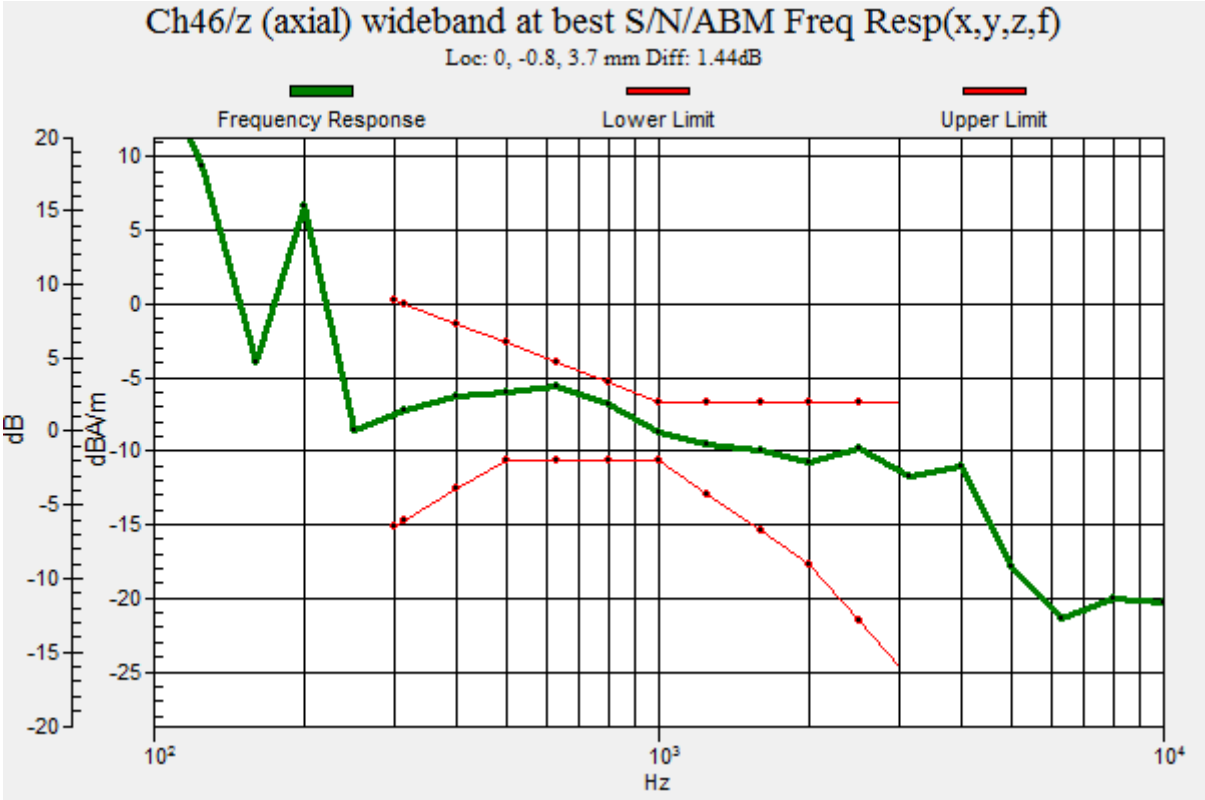
Communication System: UID 10400 - AAA, IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle); Frequency: 5230 MHz;Duty Cycle: 1:6.87068
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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)

Ch46/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 45.26 dB
ABM1 comp = -4.46 dBA/m
BWC Factor = 0.15 dB
Location: 0, -0.8, 3.7 mm



0 dB = 183.3 = 45.26 dB


Ch46/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)
Loc: 0, -0.8, 3.7 mm Diff: 1.44dB
Frequency Response
Lower Limit
Upper Limit
dB
dBA/m
Hz
20
15
10
5
0
-5
-10
-15
-20
10
5
0
-5
-10
-15
-20
-25
10²
10³
10⁴

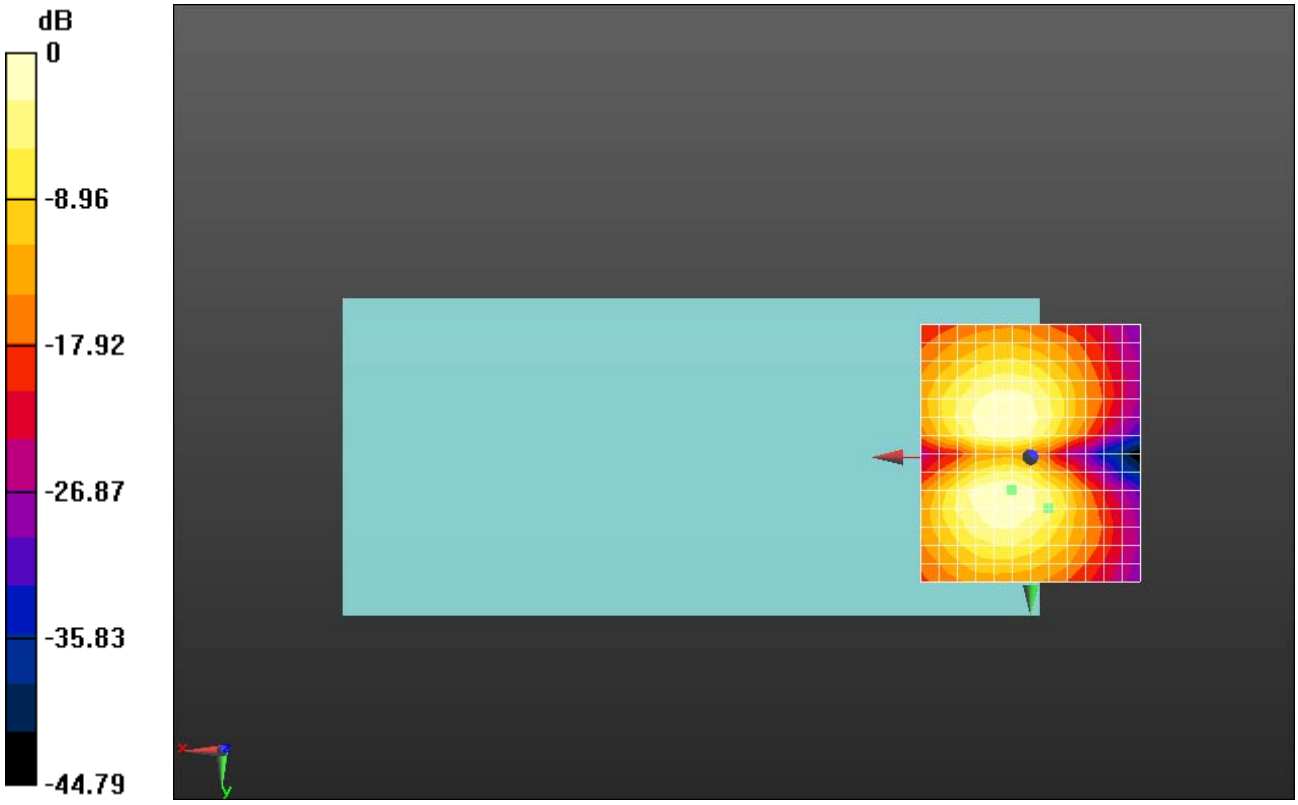
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.18

HAC_T-Coil_VoWiFi 5.2GHz_802.11ac-VHT40 MCS0_AMR 4.75Kbps_Ch46_Y

Communication System: UID 10400 - AAA, IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle); Frequency: 5230 MHz;Duty Cycle: 1:6.87068
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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)

Ch46/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 37.54 dB
ABM1 comp = -13.56 dBA/m
BWC Factor = 0.15 dB
Location: -4.2, 11.7, 3.7 mm



0 dB = 75.30 = 37.54 dB

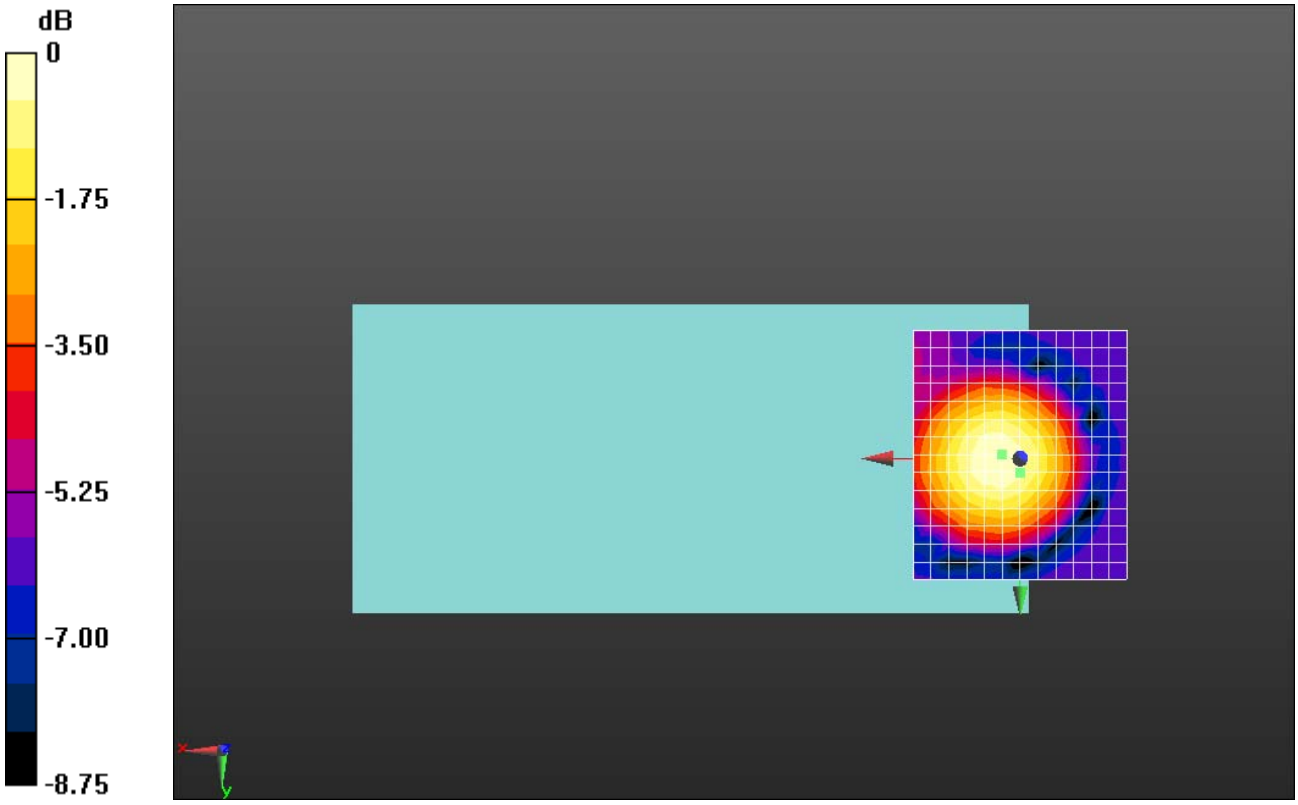
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.18

HAC_T-Coil_VoWiFi 5.2GHz_802.11ac-VHT80 MCS0_AMR 4.75Kbps_Ch42_Z

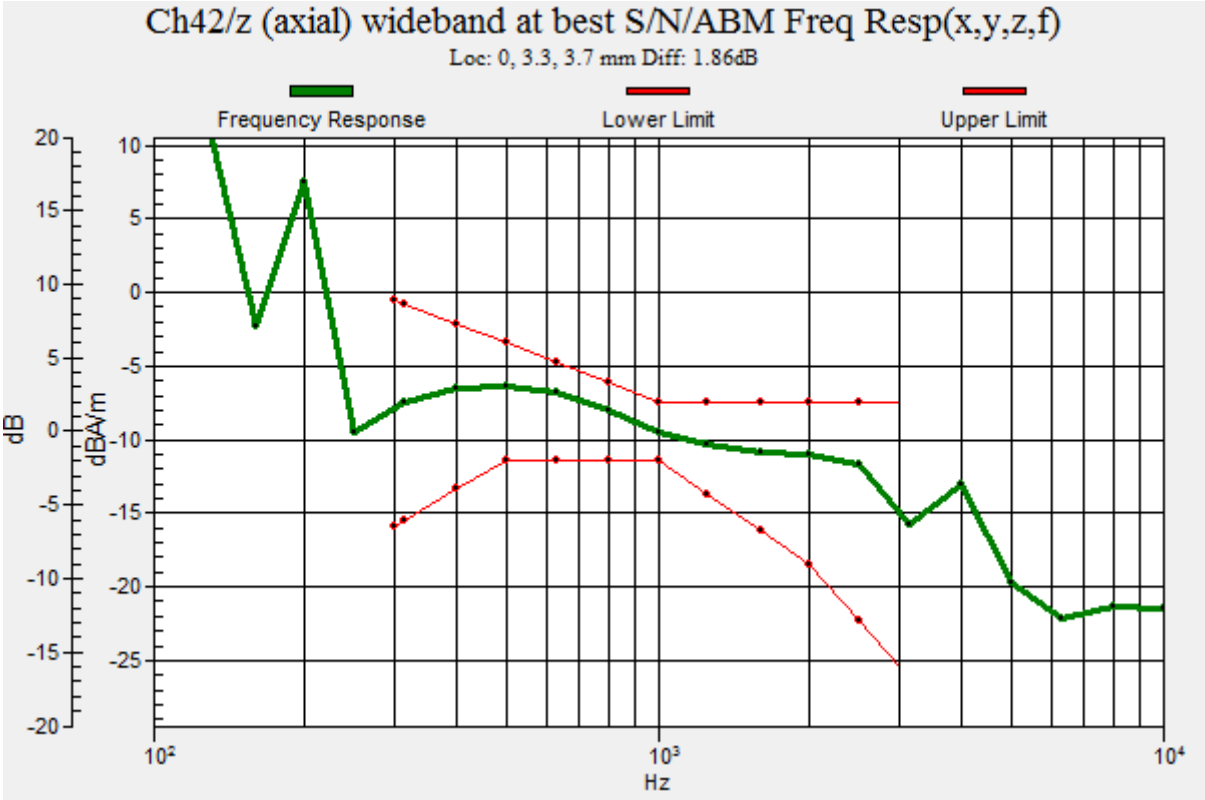
Communication System: UID 10402 - AAA, IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle); Frequency: 5210 MHz;Duty Cycle: 1:7.12853
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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)

Ch42/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 46.81 dB
ABM1 comp = -5.31 dBA/m
BWC Factor = 0.15 dB
Location: 0, 3.3, 3.7 mm



0 dB = 1.000 = 0.00 dB


Ch42/z (axial) wideband at best S/N/ABM Freq Resp(x,y,z,f)
Loc: 0, 3.3, 3.7 mm Diff: 1.86dB
Frequency Response
Lower Limit
Upper Limit
dB
dBA/m
Hz
20
15
10
5
0
-5
-10
-15
-20
10
5
0
-5
-10
-15
-20
-25
10²
10³
10⁴

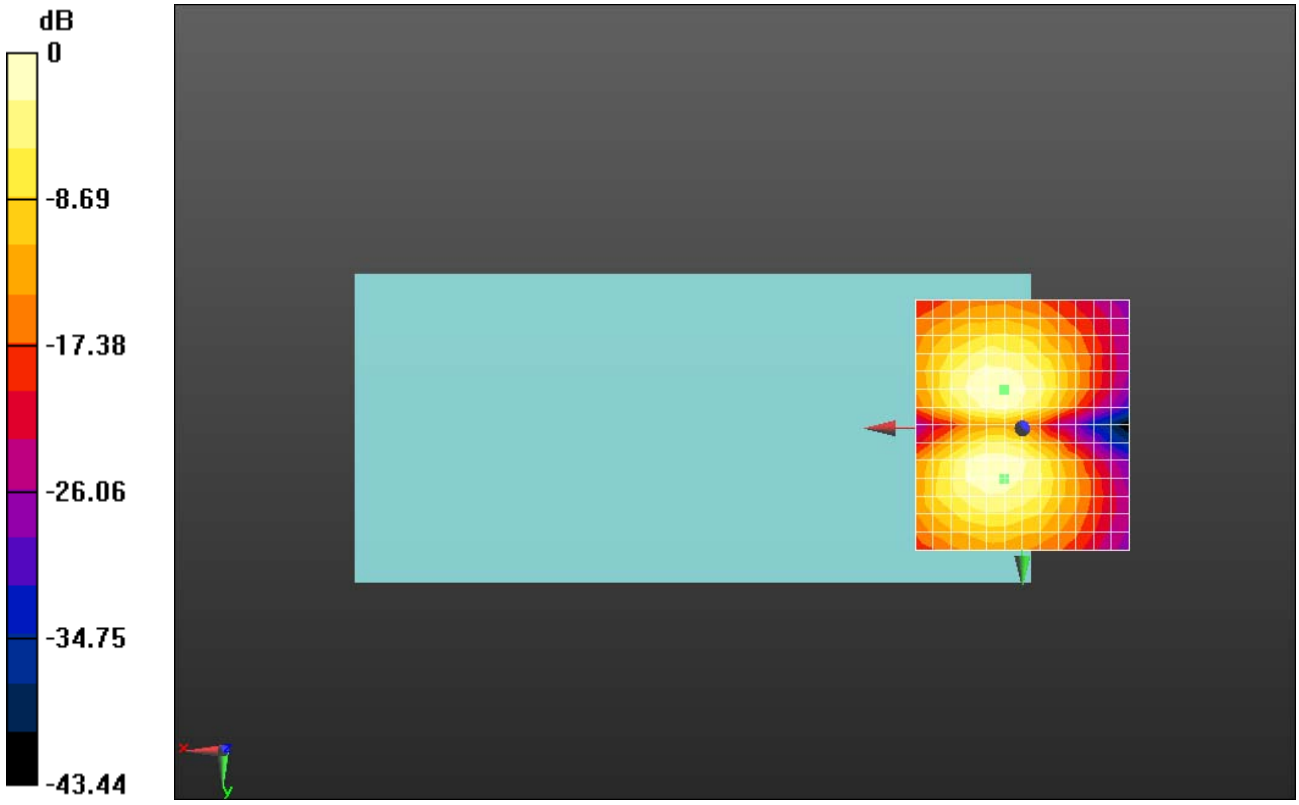
Test Laboratory: Shenzhen Morlab Communications Technology Co., Ltd. Date: 2023.08.18

HAC_T-Coil_VoWiFi 5.2GHz_802.11ac-VHT80 MCS0_AMR 4.75Kbps_Ch42_Y

Communication System: UID 10402 - AAA, IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle); Frequency: 5210 MHz;Duty Cycle: 1:7.12853
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Ambient Temperature：23.2 ℃

DASY5 Configuration:
- Probe: AM1DV3 - 1048; ; Calibrated: 2023.06.13
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn373; Calibrated: 2022.12.28
- 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)

Ch42/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x15x1): Measurement grid: dx=10mm, dy=10mm
ABM1/ABM2 = 38.06 dB
ABM1 comp = -9.34 dBA/m
BWC Factor = 0.15 dB
Location: 4.2, 11.7, 3.7 mm



0 dB = 79.98 = 38.06 dB