

### Measurement Conditions

DASY system configuration, as far as not given on page 1.

<b>DASY Version</b>	DASY5	V52.10.4
<b>Phantom</b>	HAC Test Arch	
<b>Distance Dipole Top - Probe Center</b>	15 mm	
<b>Scan resolution</b>	dx, dy = 5 mm	
<b>Frequency</b>	2600 MHz $\pm$ 1 MHz	
<b>Input power drift</b>	< 0.05 dB	

### Maximum Field values at 2600 MHz

<b>E-field 15 mm above dipole surface</b>	<b>condition</b>	<b>Interpolated maximum</b>
Maximum measured above high end	100 mW input power	84.0 V/m = 38.48 dBV/m
Maximum measured above low end	100 mW input power	83.8 V/m = 38.46 dBV/m
Averaged maximum above arm	100 mW input power	<b>83.9 V/m <math>\pm</math> 12.8 % (k=2)</b>

### Appendix (Additional assessments outside the scope of SCS 0108)

#### Antenna Parameters

<b>Frequency</b>	<b>Return Loss</b>	<b>Impedance</b>
2450 MHz	23.8 dB	44.1 $\Omega$ + 1.5 j $\Omega$
2550 MHz	22.0 dB	57.5 $\Omega$ + 4.1 j $\Omega$
2600 MHz	20.6 dB	59.4 $\Omega$ - 3.8 j $\Omega$
2650 MHz	19.3 dB	55.0 $\Omega$ - 10.2 j $\Omega$
2750 MHz	15.7 dB	41.3 $\Omega$ - 12.3 j $\Omega$

#### 3.2 Antenna Design and Handling

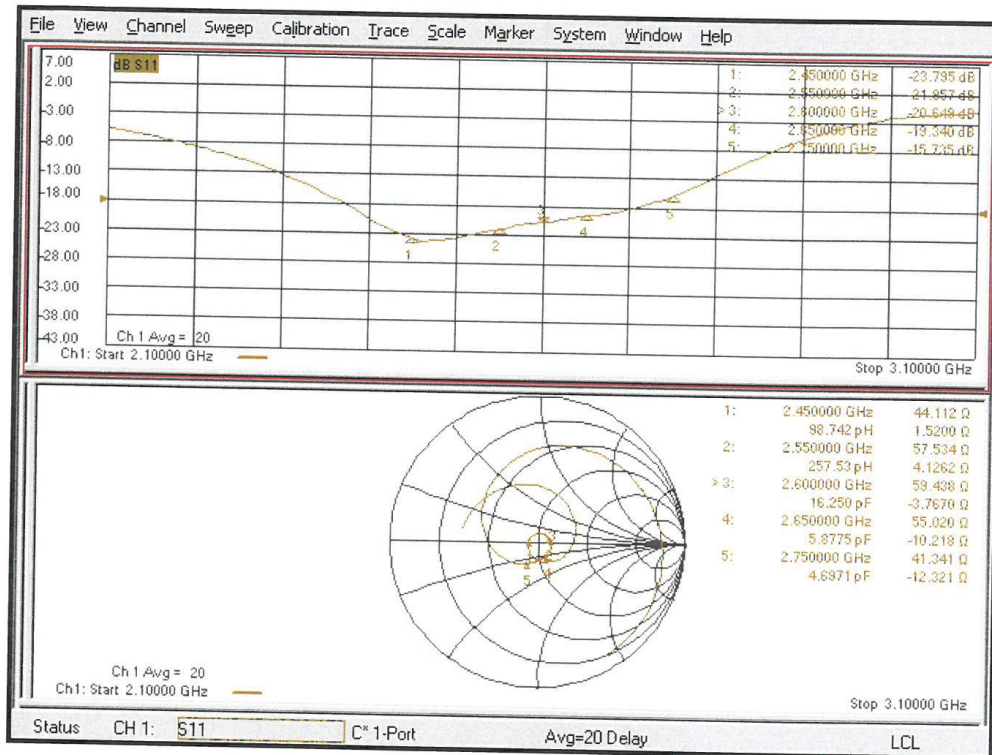
The calibration dipole has a symmetric geometry with a built-in two stub matching network, which leads to the enhanced bandwidth.

The dipole is built of standard semirigid coaxial cable. The internal matching line is open ended. The antenna is therefore open for DC signals.

Do not apply force to dipole arms, as they are liable to bend. The soldered connections near the feedpoint may be damaged. After excessive mechanical stress or overheating, check the impedance characteristics to ensure that the internal matching network is not affected.

After long term use with 40W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

Impedance Measurement Plot



**DASY5 E-field Result**

Date: 18.08.2020

Test Laboratory: SPEAG Lab2

**DUT: HAC Dipole 2600 MHz; Type: CD2600V3; Serial: CD2600V3 - SN: 1017**

Communication System: UID 0 - CW ; Frequency: 2600 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EF3DV3 - SN4013; ConvF(1, 1, 1) @ 2600 MHz; Calibrated: 31.12.2019
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn781; Calibrated: 27.12.2019
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: 1070
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

**Dipole E-Field measurement @ 2600MHz/E-Scan - 2600MHz d=15mm/Hearing Aid Compatibility Test (41x181x1):**

Interpolated grid: dx=0.5000 mm, dy=0.5000 mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 65.44 V/m; Power Drift = 0.01 dB

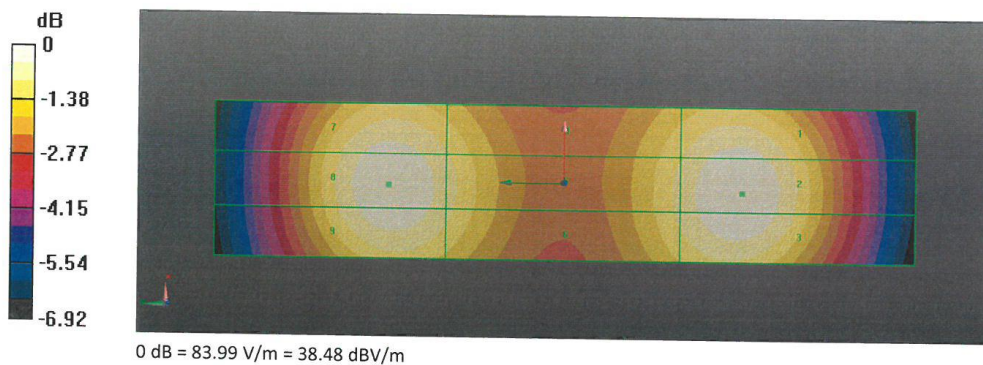
Applied MIF = 0.00 dB

RF audio interference level = 38.48 dBV/m

**Emission category: M2**

MIF scaled E-field

Grid 1 M2	Grid 2 M2	Grid 3 M2
38.23 dBV/m	38.48 dBV/m	38.41 dBV/m
Grid 4 M2	Grid 5 M2	Grid 6 M2
37.58 dBV/m	37.78 dBV/m	37.71 dBV/m
Grid 7 M2	Grid 8 M2	Grid 9 M2
38.22 dBV/m	38.46 dBV/m	38.35 dBV/m





**The photos of HAC test are presented in the additional document:**

Appendix to test report No.I21Z60989-SEM03

The photos of HAC test