RF SAFETY LAB
A NEXT GENERATION TEST LABORATORY™

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HAC RF INTERFERENCE TEST REPORT

FCC ID:	A3LSMS942U
Model(s):	SM-S942U SM-S942U1
Device Type:	Portable Handset
Report Issue Date:	12/1/2025

Samsung Electronics Co., Ltd.
129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea

Certification

Provisions Tested	RF-Emissions
47 CFR 2.1033(d) & §20.19(b) FCC KDB 285076 D01 FCC KDB 285076 D03 ANSI C63.19-2019 Clause 4	PASS

The measurement evaluation presented in this report are based on the tested device(s), which have been shown to be capable of compliance for hearing aid RF interference federal limits per 47CFR §20.19, in accordance with the measurement procedures specified in this report.

ANSI National Accreditation Board ACCREDITED ISO/IEC 17025 TESTING LABORATORY

Steve Liu
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1. Introduction

Figure 1 Smartphone Held-to-Ear

The FCC has a longstanding commitment to ensuring that all Americans, including individuals with disabilities, can access communications services on an equal basis. This commitment explicitly includes accessibility for individuals with hearing loss. More than 37.5 million Americans rely on equal access to communications services, as required under Section 710 of the Communications Act.

According to the FCC, the Hearing Aid Compatibility Act and other federal statutes require the Commission to ensure that wireless handsets are compatible with hearing aids and cochlear implants.

When people with hearing aids use telephones or wireless handsets that are not hearing-aid compatible, they may experience significant unwanted noise. Wireline telephones and wireless handsets certified as hearing-aid compatible under FCC requirements are designed to minimize such noise and to operate effectively with the magnetic coils (telecoils or T-coils) in hearing aids. These devices also provide volume control within prescribed amplification limits.

Hearing aids operating in acoustic coupling mode receive sound through a microphone and amplify all surrounding audio including both desired signals (e.g., handset audio) and unwanted ambient noise. To use a mobile handset with a hearing aid or cochlear implant in acoustic coupling mode, radiofrequency and other electromagnetic interference must be controlled.

The FCC employs a technical standard to determine whether a handset is hearing-aid compatible. The most recent standard is the 2019 ANSI Standard, and handsets meeting this standard are labeled as “hearing aid compatible.” Wireless communications devices are tested for compatibility during standard call conditions, in accordance with FCC HAC requirements. The test methods used in this report evaluate RF interference potential based on the Audio Interference Level (AIL) and Audio Interference Power Level (AIPL) defined in the 2019 ANSI Standard to demonstrate compliance.

1.1. About Wireless Device RF Interference Potential

Figure 2 - Various Hearing Aids

The testing described in this report evaluates the potential for RF emissions from a wireless device, operating between 614 MHz and 6 GHz (the frequency range most commonly used when devices are held to the user's ear), to cause audio noise interference in hearing aids.

The purpose of these measurements is to quantify the RF signal most closely correlated with the intensity of interference in hearing aids, referred to as the "RF audio interference level."

1.2. Wireless Device Emission Requirements per ANSI C63.19-2019

The Wireless Device (WD) may demonstrate compliance by meeting any of the four requirements (for each of its operating bands at its established worst-case normal speech-mode operating condition).

1.2.1. Requirement 1: If Conducted Power ≤ RF_{AIPL}

Per ANSI C63.19-2019 Section 4.7, the conducted power must be at or below the RF_{AIPL} per Table 1:

Table 1.1 - Wireless device RF "audio interference power level"

Frequency range (MHz)	RF_{AIPL} (dBm)
<960	29
960–2000	26
>2000	25

1.2.2. Condition 2: If Conducted Power ≤ $RF_{Peak\ Power}$

Per ANSI C63.19-2019 Section 4.7, the conducted power must be at or below the $RF_{Peak\ Power}$ limits in Table 1.2:

Table 1.2 - Wireless device RF "peak power" level

Frequency range (MHz)	$RF_{Peak\ Power}$ (dBm)
< 960	35
960–2000	32
>2000	31

1.2.3. Condition 3: If Near-Field Emissions Measurement ≤ RF_{AIL}

If near-field emissions measurement is performed, then the average near-field emissions (in dB(V/m)) must be at or below the RF_{AIL} per Table 1.3:

Table 1.3 - Wireless device RF "audio interference power level"

Frequency range (MHz)	RF_{AIL} [dB(V/m)]
≤960	39
960–2000	36
>2000	35

1.2.4. Condition 4: If Near-Field Emissions Measurement ≤ RF_{Peak}

If near-field emissions measurement is performed, then the average near-field emissions (in dB(V/m)) must be at or below RF_{peak} near-field level per Table 1.4:

Table 1.4 - Wireless device RF "peak power" level

Frequency range (MHz)	RF_{peak} [dB(V/m)]
≤960	45
960–2000	42
>2000	41

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1.3. Simultaneous / Multiple Transmitters

Per ANSI C63.19-2019 Section 4.6, when a wireless device supports multiple transmitters, it is subject to emission requirements for all transmitters that are expected to operate while the device is in voice mode and positioned at the user's ear. Each applicable transmitter is tested individually. All other transmitters must be temporarily disabled or set to operate at least 6 dB below the average antenna input power of the transmitter under test.

1.4. Hearing Aids per C63.19-2019 Section 5

ANSI C63.19-2019 Section 5 pertain to measurements determining a hearing aid's ability to be sufficiently immune to the electromagnetic fields generated by wireless devices. The scope of this report will not cover testing of hearing aid devices and is not required by the FCC.

2. RF Interference Testing (from ANSI C63.19)

The purpose of the measurements in ANSI C63.19 Section 4 is to measure the RF signal most closely correlated with the intensity of interference to hearing aids, or the "RF audio interference level." Conceptually, this definition is intended to correlate to the user perception of interference received through an idealized hearing aid and is characterized by the following attributes:

- The full signal bandwidth is presented to a wideband square-law detector, which demodulates the RF signal. When reproducing this function, which is a characteristic of RF interference, the sensing elements and the detector shall have a bandwidth greater than or equal to the emission bandwidth. After the square-law detector, the RF signal will be in the baseband.

- The post-detection recovered audio signal shall be filtered by the spectral and temporal filters specified in ANSI C63.19 Annex D.4 and D.5.

A WD's interference potential is a function of both the WD's average in-use near-field field strength and of the signal's audio-frequency amplitude modulation characteristics. The portion of the interference potential attributable to the modulation characteristic can be evaluated independently of any particular WD. This evaluation of this interference potential relative to a signal's average field strength is described in D.7 and is termed its Modulation Interference Factor (MIF). The MIF may be determined through analysis and simulation, allowing evaluation of RF technology's RF interference potential in advance of actual product development.

3. Executive Summary

3.1. Scope

All relevant provisions and test cases from ANSI C63.19-2019 are included in the testing process, covering potential RF interference from wireless devices to hearing aids.

3.2. Device Description

The WD tested per ANSI C63.19-2019 Section 9.4 is as follows:

FCC ID:	A3LSMS942U
Model Number(s):	SM-S942U, SM-S942U1
Serial Number(s):	YK60385M
Product Type:	Portable Handset
Modifications:	None
Accessories or Cables:	N/A

Several test samples may have been used to support testing. The manufacturer has confirmed that the devices tested have the same physical, mechanical and thermal characteristics and are within expected operational tolerances of production units.

3.3. Air Interfaces

Table 3.1 –Air interfaces and Voice Services Capability

Air-Interface	Band (MHz)	Type Transport	HAC Evaluation	Simultaneous Transmissions	Name of Voice Service
GSM[1,2]	850	VO	RF_{AIL}	Yes: BT, WLAN	CMRS Voice
	1900				
	GPRS/EDGE	VD	N/A	Yes: BT, WLAN	Google Meet
UMTS[1]	850	VO	RF_{AIPL}	Yes: BT, WLAN	CMRS Voice
	1700				
	1900				
	HSPA	VD	N/A	Yes: BT, WLAN	Google Meet
LTE (FDD)[1]	680 (B71)	VD	RF_{AIPL}	Yes: NR, BT, WLAN	VoLTE, Google Meet
	700 (B12/13/14)				
	850 (B5,26)				
	1700 (B4/66)				
	1900 (B2,25)				
	2300 (B30)				
	2500 (B7)				
LTE (TDD)[1]	2600 (B38/41)	VD	RF_{AIPL}	Yes: NR, WIFI or BT	VoLTE, Google Meet
	3600 (B48)				
NB NTN	1640 (B255)	DT	No	N/A	N/A
NR (FDD)[1]	680 (n71)	VD	RF_{AIPL}	Yes: LTE, WIFI or BT	VoNR, Google Meet
	700 (n12/B14)				
	850 (n5/26)				
	1700 (n66)				
	1900 (n2/25)				
	2300 (n30)				
	2500 (n7)				
NR (TDD)[1,2]	2600 (n38/41)	VD	RF_{AIL}	Yes: LTE, WLAN or BT	VoNR, Google Meet
	3600 (n48)		RF_{AIPL}		
	3800 (n77/78)		RF_{AIL}		
WLAN[1,3,4]	2450	VD	RF_{AIPL}	Yes: WWAN, BT and WLAN 5GHz, 6GHz	VoWIFI, Google Meet
	5200 (U-NII 1)			Yes: WWAN and WLAN 2.4GHz, BT	
	5300 (U-NII 2A)				
	5500 (U-NII 2C)				
	5800 (U-NII 3)				
	5900 (U-NII 4)				
	6200 (UNII 5)				
	6500 (UNII 6)		No		
	6700 (UNII 7)				
	7000 (UNII 8)				
BT	2450	DT	RF_{AIPL}	Yes: WWAN and Wifi 5GHz	N/A

Type Transport
VO = Voice Only
DT = Digital Data - Not intended for Voice Services
VD = CMRS and/or IP Voice over Data Transport

Notes:
1. WD RF Audio Interference power level(AIPL) evaluated for compliance.
2. WD RF Audio Interference level (AIL) evalued for compliance.
3. WIFI U-NII band 5 was evaluated for operations which are entirely below 6GHz. Operations partially or entirely above 6GHz were not evaluated due to equipment limitations and being outside of the current scope of ANSI C63.19 and FCC HAC regulations.
4. WIFI U-NII bands 6 through 8 were not evaluated due to being outside of the current scope of ANSI C63.19 and FCC HAC regulations.

3.4. Location of Test Site

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3.5. Ambient Conditions / Test Environment

Per ANSI C63.19-2019, tests are performed at the manufacturer recommended normal operating temperature and humidity, and if important barometric pressure.

The basic ambient conditions specified in ANSI C63.19-2019 Section 8.2 are as follows:

Normal Operating Test Environment per ANSI C63.19

Ambient Temperature:	23 °C ± 5°C
Relative Humidity (RH):	0% < RH < 80%
Baseband magnetic ambient noise:	> 10 dB below the measurement level, where applicable

3.6. LTE Band Selection

This device supports LTE functionality across overlapping frequency ranges. When an LTE band's frequency range is fully contained within that of another LTE band with a broader range, and both bands have the same or higher target power (with the broader band having the greater power), and share identical transmission paths and signal characteristics, hearing-aid compatibility is evaluated only for the LTE band with the larger frequency range. In cases where overlapping LTE bands serve as anchor bands for dual connectivity (EN-DC) scenarios with NR, each LTE band is assessed independently.

3.7. NR Band Selection

This device also supports NR functionality with overlapping frequency ranges. If an NR band's frequency range is completely within another NR band with a larger range, and both bands have the same target power or the larger band has a higher power, sharing the same transmission path and signal characteristics, hearing-aid compatibility is evaluated solely for the NR band with the larger frequency range.

4. RF Interference Measurement System Information

4.1. Isotropic E-Field Probe for General Near-Field Measurements

Figure 3
Isotropic E-Field Probe

Manufacturer	Schmid & Partner Engineering AG
Probe Model	EF3DV3
Construction	One dipole parallel, two dipoles normal to probe axis Interleaved sensors Built-in shielding against static charges PEEK enclosure material
Frequency	30 MHz – 6 GHz Linearity: ±0.2 dB (30 MHz – 6 GHz)
Directivity	±0.2 dB in air (rotation around probe axis) ±0.4 dB in air (rotation normal to probe axis)
Dynamic Range	2 ~ >1000 V/m Linearity: ± 0.2 dB
Dimensions	Overall length: 337 mm (tip: 20 mm) Tip diameter: 3.9 mm (body: 12 mm) Distance from probe tip to dipole centers: 1.5 mm Sensor displacement to probe's calibration point: <0.7 mm

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4.2. Measurement System

The Dosimetric Assessment System (DASY) is a robot-based high precision electromagnetic (EM) near-field scanning platform. DASY8, the 8th generation of DASY, is the most precise and advanced flexible scanning platform for testing compliance with any national (e.g., FCC, CENELEC) and international guidelines, standards, and regulations (e.g., IEC, IEEE, ICNIRP) and for a wide range of R&D measurement tasks related to EM exposure from 3 kHz to 110 GHz.

The DASY8 Modules offer optimal solutions for any near-field tasks and are continuously updated to meet the latest regulatory and research requirements.

DASY8 Module HAC (Hearing Aid Compatibility) is composed of hardware and software components optimized to demonstrate the compliance of wireless devices according to ANSI-C63.19-2019. The solution comprises the Radiofrequency (RF) Extension for RF emission tests and the Tele-Coil (T-COIL) Extension for audio-band magnetic tests.

These components are required to fully characterize wireless devices according to the ANSI-C63.19-2019 standard.

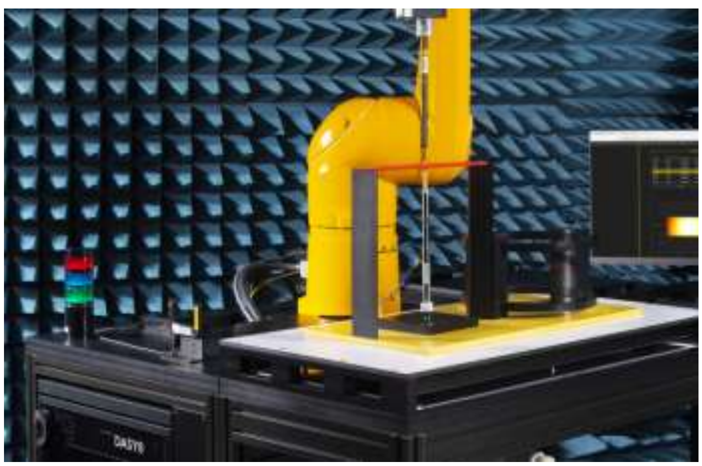

Figure 4
HAC Test System

The RF Interference hardware enables measurements of the electric (E-) field generated by wireless communication devices around their audio acoustic output. It is composed of an isotropic E-field probe (i.e., EF3DV3) mounted to the precision robot allowing to scan the field over a user-defined area. The probes are miniaturized, sensitive, isotopic, linear, and stable. The spatial precision of the probe position during scanning is better than 0.2 mm. A Test Arch enables easy and repeatable positioning of the device to be tested. The E-field averaged over the measurement area is provided as requested by the ANSI-C63.19-2019.

5. System Verification

5.1. System Verification Configuration

Verification of the RF interference measurements requires a half-wave dipole, a signal generator, and a reference power meter. The Test Arch ensures precise and repeatable positioning of the dipole relative to the scanning distance.

The dipole is positioned beneath the Test Arch phantom at the specified distance and oriented parallel to the surface of the arch. The RF signal is then applied to the dipole at the desired frequency and power level. A forward power of 100 mW is recommended to allow direct comparison with the calibrated reference targets.

Please see Appendix B for the System Verification Plots.

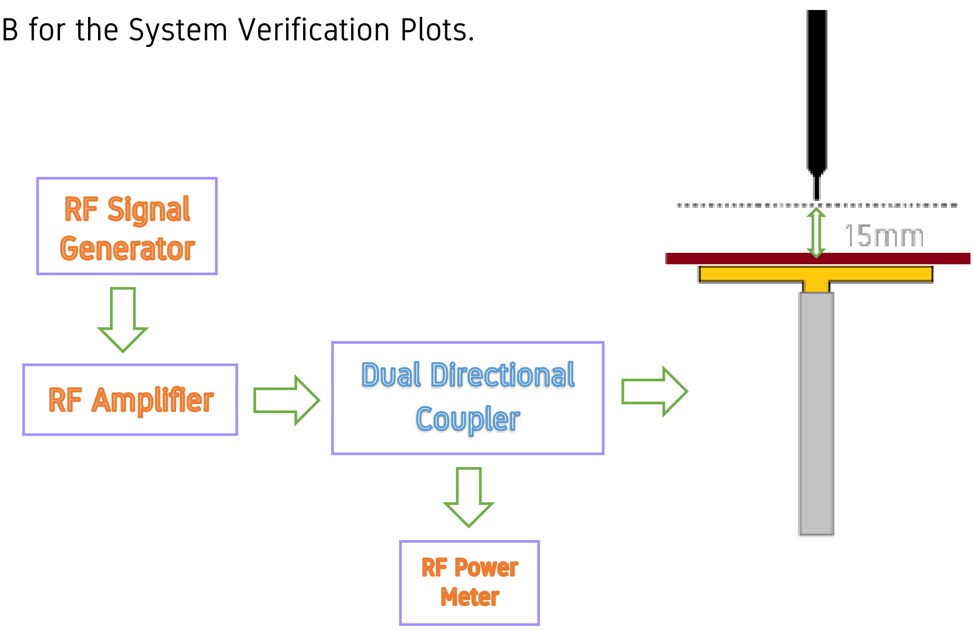

Figure 5
System Verification Setup

5.2. System Verification Results

Table 5.1 – RFE System Verification Results

Date	Ambient Temp. [°]	Probe	DAE	Dipole Serial #	Frequency [MHz]	Input Power [dBm]	Average Max. Above arm [V/m]	Target Value SPEAG [V/m]	Deviation	Dipole Calibration Due Date
9/15/2025	23.50	4101	1838	1225	835	20.00	109.50	107.90	1.48%	8/19/2026
				1114	1880	20.00	86.70	89.00	-2.58%	9/15/2026
				1038	2600	20.00	83.80	86.30	-2.90%	9/10/2026
				1025	3500	20.00	82.20	85.00	-3.29%	9/15/2026
				1025	3800	20.00	77.40	80.80	-4.21%	9/15/2026

6. Summary of Test Results

6.1. ANSI C63.19-2019 Method used

RF_{AIPL} and RF_{AIL} measurements were taken against the threshold limits in accordance with ANSI C63.19-2019 and tables 1.1 and 1.3 in section 1.2 of this report for HAC compliance.

6.2. RF Modulation Interference Factors

The *Modulation Interference Factor (MIF)* is defined in ANSI C63.19 Section D.7. It is determined by feeding an RMS demodulated RF signal through a spectral filter, followed by a temporal filter that acts as a quasi-peak detector. The averaged output of this filtering process is referenced to a 1 kHz, 80% AM signal.

MIF measurement requires additional instrumentation and is not well-suited for evaluation by end users with reasonable accuracy. Alternatively, MIF can be determined through analysis and simulation, as it is an inherent characteristic of a communication signal. For example, the DASY8 system uses standardized signals for PMR calibration, and the MIF of these signals has been pre-determined through simulation and is automatically applied.

For any specific, fixed, and repeatable modulated signal not covered by the UID specification sheet (July 7, 2023) provided by the equipment manufacturer (SPEAG), the MIF (expressed in decibels) was determined using the procedure outlined below. This "indirect" measurement method is applied in accordance with Section 4.4 of ANSI C63.19-2019.

MIF may be determined using a radiated RF field, or a conducted RF signal:

1. Using RF illumination or conducted coupling, apply the specific modulated signal under test to the measurement system at a level within its confirmed operating dynamic range.
2. Measure the steady-state RMS level at the output of the fast probe or sensor.
3. Measure the steady-state average level at the weighting output.
4. Without changing the square-law detector or weighting system, and using RF illumination or conducted coupling, replace the specific modulated signal with a 1 kHz, 80% amplitude-modulated carrier at the same frequency. Adjust its strength until the level at the weighting output matches the measurement obtained in Step 3.
5. Without changing the carrier level from Step 4, remove the 1 kHz modulation and measure the steady-state RMS level at the output of the fast probe or sensor.
6. Calculate the MIF for the specific modulation characteristic as the ratio of the measurement in Step 5 to the measurement in Step 2, expressed in decibels:

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$$\text{MIF (dB)} = 20 \cdot \log_{10}\left(\frac{\text{Step 5 measurement}}{\text{Step 2 measurement}}\right)$$

The following procedure was used to measure the MIF using the SPEAG Modulation and Audio Interference Analyzer (MAIA), Type No: SE UMS 171 E CB, Serial No.: 1814:

1. The device was placed into a simulated call using a base station simulator or set to transmit using test software for a given mode.
2. The device was then set to continuously transmit at maximum power.
3. Using a coupler if and when needed, the device output signal was connected to the “RF In” port of the MAIA, which was connected to a computer. Alternatively, a radiated RF signal may be used with the MAIA’s built-in antenna.
4. The MIF measurement procedure in the DASY software was executed, and the resulting MIF value was recorded.
5. Steps 1-4 was repeated for all CMRS air interfaces, frequency bands, and modulations.

The modulation interference factors obtained were applied to readings taken of the actual wireless device to obtain an accurate audio interference power level and audio interference level reading using the formula:

Audio Interference Power Level RF_{AIPL} (dBm) = P_{avg}(dBm) + MIF (dB)

Audio Interference Level RF_{AIL} [dB(V/m)] = 20 * $\log_{10}$[Raw E-Field Value (V/m)] + MIF (dB)

Because the MIF value is output power independent, MIF values for a given mode should be constant across all devices; however, per C63.19-2019 §D.7, MIF values should be measured for each device being evaluated. The voice modes for this device have been investigated.

6.3. Test Setup Diagrams

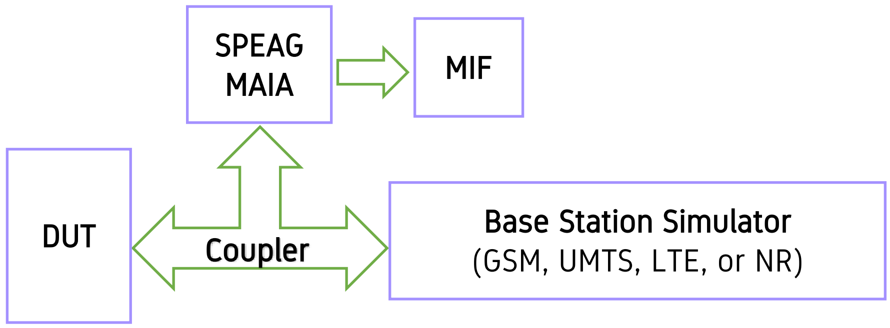

Figure 6
Test Setup for RF MIFs in GSM, UMTS, LTE or NR air interfaces

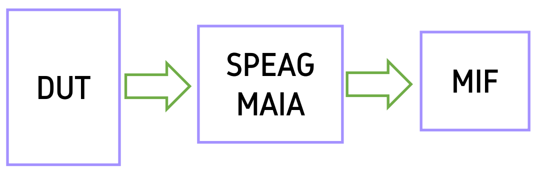

Figure 7
Test Setup for RF MIFs in WIFI air interfaces

6.4. MIF Evaluation

MIF values are based on SPEAG analysis for GSM, WCDMA, LTE, NR, and Wi-Fi unless labeled Measured* in the UID column. Please refer to Appendix C for more information regarding modulation interference factors in Table 6.

All the entries marked 'Measured*' were taken with the test setup from Section 6.3.

All values represent worst-case operation. Please find the worse-case operation MIF values below:

Table 6.1 -MIFs Table

UID	Communication System Name	MIF (dB)
10021-DAC	GSM-FDD (TDMA, GMSK)	3.63
10460-AAB	UMTS-FDD (WCDMA,AMR)	-25.43
10176-CAH	LTE-FDD (SC-FDMA, 1 RB, 10 MHZ, 16QAM)	-9.76
10182-CAF	LTE-FDD (SC-FDMA, 1 RB, 15 MHZ, 16QAM)	-9.76
10170-CAF	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16QAM)	-9.76
10173-CAH	LTE-TDD (SC-FDMA, 1 RB, 20 MHZ, 16QAM)	-1.44
10030-CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	1.02
10061-CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	-2.02
10077-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	0.12
10069-CAE	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	-3.15
10591-AAD	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle)	-5.59
10607-AAD	IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle)	-5.60
10616-AAD	IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)	-5.57
10626-AAD	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)	-5.64
10636-AAE	IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle)	-5.56
10671-AAC	IEEE 802.11ax/be (20MHz, MCS0, 90pc duty cycle)	-5.58
10695-AAC	IEEE 802.11ax/be (40MHz, MCS0, 90pc duty cycle)	-6.01
10719-AAC	IEEE 802.11ax/be (80MHz, MCS0, 90pc duty cycle)	-6.04
10743-AAC	IEEE 802.11ax/be (160MHz, MCS0, 90pc duty cycle)	-6.60
Measured*	IEEE 802.11ax/be (320MHz, MCS0, 90pc duty cycle)	-14.00
10929-AAD	5G NR (DFT-s-OFDM, 1 RB, 10 MHZ, QPSK, 15 kHz)	-15.06
10930-AAC	5G NR (DFT-s-OFDM, 1 RB, 15 MHZ, QPSK, 15 kHz)	-15.06
10931-AAC	5G NR (DFT-s-OFDM, 1 RB, 20 MHZ, QPSK, 15 kHz)	-15.06
Measured*	5G NR (DFT-s-OFDM, 1 RB, 35 MHZ, QPSK, 15 kHz)	-16.05
10934-AAC	5G NR (DFT-s-OFDM, 1 RB, 40 MHZ, QPSK, 15 kHz)	-15.07
Measured*	5G NR (DFT-s-OFDM, 1 RB, 45 MHZ, QPSK, 15 kHz)	-16.22
10935-AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHZ, QPSK, 15 kHz)	-15.07
10973-AAD	5G NR (DFT-s-OFDM, 1 RB, 40 MHZ, QPSK, 30 kHz)	-1.64
	5G NR (DFT-s-OFDM, 1 RB, 100 MHZ, QPSK, 30 kHz)	

6.5. Target RF Output Powers

Table 6.2 - RF Maximum Output Power Targets – GSM Voice (Held to Ear)

Mode: GSM		
Band	Antenna Configuration	Maximum Output Power level
GSM850	A	33.50
GSM850	E	31.00
GSM1900	A	30.50

Table 6.3 - RF Maximum Output Power Targets – UMTS Voice (Held to Ear)

Mode: UMTS		
Band	Antenna Configuration	Maximum Output Power level
UMTS Band 5	A	25.00
UMTS Band 5	E	21.00
UMTS Band 4	A	24.00
UMTS Band 2	A	24.00

Table 6.4 - RF Maximum Output Power Targets – LTE

Mode: LTE		
Band	Antenna Configuration	Maximum Output Power level
LTE Band 71	E	24.00
LTE Band 71	A	24.00
LTE Band 12	E	24.00
LTE Band 12	A	24.00
LTE Band 13	E	24.00
LTE Band 13	A	24.00
LTE Band 14	E	24.00
LTE Band 14	A	24.00
LTE Band 26	E	24.00
LTE Band 26	A	24.00
LTE Band 5	E	24.00
LTE Band 5	A	24.00
LTE Band 66	A	23.50
LTE Band 66	F	23.50
LTE Band 4	A	23.50
LTE Band 4	F	23.50
LTE Band 25	A	23.50
LTE Band 25	F	23.50
LTE Band 2	A	23.50
LTE Band 2	F	23.50
LTE Band 30	A	22.00
LTE Band 30	F	22.00
LTE Band 7	B	23.00
LTE Band 7	F	23.00
LTE Band 41 PC3	B	24.00
LTE Band 41 PC3	F	24.00
LTE Band 38	B	24.00
LTE Band 38	F	24.00
LTE Band 48	F	22.00

Table 6.5 - RF Maximum Output Power Targets – NR

Mode: NR		
Band	Antenna Configuration	Maximum Output Power level
NR Band n71	E	24.00
NR Band n71	A	24.00
NR Band n12	E	24.00
NR Band n12	A	24.00
NR Band n14	E	24.00
NR Band n14	A	24.00
NR Band n26	E	24.00
NR Band n26	A	24.00
NR Band n5	E	24.00
NR Band n5	A	24.00
NR Band n70	A	23.50
NR Band n70	F	23.50
NR Band n66	A	23.50
NR Band n66	F	23.50
NR Band n25	A	23.50
NR Band n25	F	23.50
NR Band n2	A	23.50
NR Band n2	F	23.50
NR Band n30	A	22.00
NR Band n30	F	22.00
NR Band n7	B	23.00
NR Band n7	F	23.00
NR Band n41 PC2	F	26.00
NR Band n41 PC2	B	26.00
NR Band n48	F	22.00
NR Band n77 PC2	F	26.00

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Table 6.6 - RF Output Power Targets – WLAN

Mode: WLAN		
Standard	Antenna Configuration	Maximum Output Power level
2.4GHz IEEE 802.11b	SISO	20.00
2.4GHz IEEE 802.11b	MIMO	-
2.4GHz IEEE 802.11g	SISO	18.00
2.4GHz IEEE 802.11g	MIMO	21.00
2.4GHz IEEE 802.11n	SISO	18.00
2.4GHz IEEE 802.11n	MIMO	21.00
2.4GHz IEEE 802.11ac	SISO	18.00
2.4GHz IEEE 802.11ac	MIMO	21.00
2.4GHz IEEE 802.11ax	SISO	16.00
2.4GHz IEEE 802.11ax	MIMO	19.00
2.4GHz IEEE 802.11be	SISO	16.00
2.4GHz IEEE 802.11be	MIMO	19.00
5GHz IEEE 802.11a	SISO	18.00
5GHz IEEE 802.11a	MIMO	21.00
5GHz IEEE 802.11n	SISO	18.00
5GHz IEEE 802.11n	MIMO	21.00
5GHz IEEE 802.11ac	SISO	18.00
5GHz IEEE 802.11ac	MIMO	21.00
5GHz IEEE 802.11ax	SISO	17.00
5GHz IEEE 802.11ax	MIMO	20.00
5GHz IEEE 802.11be	SISO	17.00
5GHz IEEE 802.11be	MIMO	20.00

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6.6. WD RF Audio Interference Power Level (AIPL) evaluation

To demonstrate hearing aid compliance with the ANSI standard C63.19-2019, an evaluation was performed using the RF Audio interference power level requirement in Table 1.1. The worst-case MIF value was applied to the maximum power level possible for all relevant operating bands/modes against the RF_{AIPL} limits. The operating bands and modes in which that exceeded the RF_{AIPL} limit were additionally evaluated using the WD RF audio interference level requirements in table 1.3 An evaluation of each applicable air interface was performed to ensure compliance for each band.

Note(*) This device also supports NR bands with overlapping frequency ranges. If an NR band's frequency range is completely within another NR band with a larger range, and both bands have the same target power or the larger band has a higher power, sharing the same transmission path and signal characteristics, hearing-aid compatibility is evaluated solely for the NR band with the larger frequency range.

Table 6.7 - AIPL Evaluation

Air Interface	Maximum Average Power [dBm]	Worst case MIF [dBm]	RF_{AIPL} (Power + MIF) [dBm]	RF_{AIPL} Limit [dBm]	RF_{AIPL}
GSM850 ANT A	33.50	3.63	37.13	29.00	AIL Measurement
GSM850 ANT E	31.00	3.63	34.63	29.00	AIL Measurement
GSM1900 ANT A	30.50	3.63	34.13	26.00	AIL Measurement
UMTS Band 5 ANT A	25.00	-25.43	-0.43	29.00	Pass
UMTS Band 5 ANT E	25.00	-25.43	-0.43	29.00	Pass
UMTS Band 4 ANT A	24.00	-25.43	-1.43	26.00	Pass
UMTS Band 2 ANT A	24.00	-25.43	-1.43	26.00	Pass
LTE Band 71 ANT A	25.00	-9.76	15.24	29.00	Pass
LTE Band 71 ANT E	25.00	-9.76	15.24	29.00	Pass
LTE Band 12 ANT A	25.00	-9.76	15.24	29.00	Pass
LTE Band 12 ANT E	25.00	-9.76	15.24	29.00	Pass
LTE Band 13 ANT A	25.00	-9.76	15.24	29.00	Pass
LTE Band 13 ANT E	25.00	-9.76	15.24	29.00	Pass
LTE Band 14 ANT A	25.00	-9.76	15.24	29.00	Pass
LTE Band 14 ANT E	25.00	-9.76	15.24	29.00	Pass
LTE Band 26 ANT A	25.00	-9.76	15.24	29.00	Pass
LTE Band 26 ANT E	25.00	-9.76	15.24	29.00	Pass
LTE Band 5 ANT A	25.00	-9.76	15.24	29.00	Pass
LTE Band 5 ANT E	25.00	-9.76	15.24	29.00	Pass
LTE Band 66 ANT A	24.50	-9.76	14.74	26.00	Pass
LTE Band 66 ANT F	24.50	-9.76	14.74	26.00	Pass
LTE Band 4 ANT A	24.50	-9.76	14.74	26.00	Pass
LTE Band 4 ANT F	24.50	-9.76	14.74	26.00	Pass
LTE Band 25 ANT A	24.50	-9.76	14.74	26.00	Pass
LTE Band 25 ANT F	24.50	-9.76	14.74	26.00	Pass
LTE Band 2 ANT A	24.50	-9.76	14.74	26.00	Pass
LTE Band 2 ANT F	24.50	-9.76	14.74	26.00	Pass
LTE Band 30 ANT A	23.00	-9.76	13.24	25.00	Pass
LTE Band 30 ANT F	23.00	-9.76	13.24	25.00	Pass
LTE Band 7 ANT B	24.00	-9.76	14.24	25.00	Pass
LTE Band 7 ANT F	24.00	-9.76	14.24	25.00	Pass
LTE Band 41 (PC3) ANT B	25.00	-1.44	23.56	25.00	Pass
LTE Band 41 (PC3) ANT F	25.00	-1.44	23.56	25.00	Pass
LTE Band 38 ANT B	25.00	-1.44	23.56	25.00	Pass
LTE Band 38 ANT F	25.00	-1.44	23.56	25.00	Pass
LTE Band 48 ANT F	23.00	-1.44	21.56	25.00	Pass

NR Band 71 ANT A	25.00	-16.05	8.95	29.00	Pass
NR Band 71 ANT E	25.00	-16.05	8.95	29.00	Pass
NR Band 12 ANT A	25.00	-15.06	9.94	29.00	Pass
NR Band 12 ANT E	25.00	-15.06	9.94	29.00	Pass
NR Band 14 ANT A	25.00	-15.06	9.94	29.00	Pass
NR Band 14 ANT E	25.00	-15.06	9.94	29.00	Pass
NR Band 26 ANT A	25.00	-15.06	9.94	29.00	Pass
NR Band 26 ANT E	25.00	-15.06	9.94	29.00	Pass
NR Band 5 ANT A	25.00	-15.06	9.94	29.00	Pass
NR Band 5 ANT E	25.00	-15.06	9.94	29.00	Pass
NR Band 70 ANT A	24.50	-15.06	9.44	29.00	Pass
NR Band 70 ANT E	24.50	-15.06	9.44	29.00	Pass
NR Band 66 ANT A	24.50	-15.06	9.44	26.00	Pass
NR Band 66 ANT F	24.50	-15.06	9.44	26.00	Pass
NR Band 25 ANT A	24.50	-15.06	9.44	26.00	Pass
NR Band 25 ANT F	24.50	-15.06	9.44	26.00	Pass
NR Band 2 ANT A	24.50	-15.06	9.44	26.00	Pass
NR Band 2 ANT F	24.50	-15.06	9.44	26.00	Pass
NR Band 30 ANT B	23.00	-15.06	7.94	25.00	Pass
NR Band 30 ANT F	23.00	-15.06	7.94	25.00	Pass
NR Band 7 ANT B	24.00	-15.06	8.94	25.00	Pass
NR Band 7 ANT F	24.00	-15.06	8.94	25.00	Pass
NR Band 41 (PC2) ANT B	27.00	-1.64	25.36	25.00	AIL Measurement
NR Band 41 (PC2) ANT F	27.00	-1.64	25.36	25.00	AIL Measurement
NR Band 48 ANT F	23.00	-1.64	21.36	25.00	Pass
NR Band 77 DoD(PC2) F	27.00	-1.64	25.36	25.00	AIL Measurement
NR Band 77(PC2) ANT F	27.00	-1.64	25.36	25.00	AIL Measurement
NR Band 78 DoD(PC2) F*	27.00	-1.64	25.36	25.00	AIL Measurement
NR Band 78(PC2) ANT F*	27.00	-1.64	25.36	25.00	AIL Measurement
802.11b(2.4GHz) Antenna 1	20.00	-2.02	17.98	25.00	Pass
802.11g(2.4GHz) Antenna 1	18.00	0.12	18.12	25.00	Pass
802.11n (2.4GHz) Antenna 1	18.00	-5.59	12.41	25.00	Pass
802.11ac (2.4GHz) Antenna 1	18.00	-5.60	12.40	25.00	Pass
802.11ax (2.4GHz) Antenna 1	16.00	-5.58	10.42	25.00	Pass
802.11be (2.4GHz) Antenna 1	16.00	-5.58	10.42	25.00	Pass
802.11b(2.4GHz) Antenna 2	20.00	-2.02	17.98	25.00	Pass
802.11g(2.4GHz) Antenna 2	18.00	0.12	18.12	25.00	Pass
802.11n (2.4GHz) Antenna 2	18.00	-5.59	12.41	25.00	Pass
802.11ac (2.4GHz) Antenna 2	18.00	-5.60	12.40	25.00	Pass
802.11ax (2.4GHz) Antenna 2	16.00	-5.58	10.42	25.00	Pass
802.11be (2.4GHz) Antenna 2	16.00	-5.58	10.42	25.00	Pass
802.11b(2.4GHz) MIMO	N/A	-2.02	-2.02	25.00	Pass
802.11g(2.4GHz) MIMO	21.00	0.12	21.12	25.00	Pass
802.11n (2.4GHz) MIMO	21.00	-3.15	17.85	25.00	Pass
802.11ac (2.4GHz) MIMO	21.00	-5.60	15.40	25.00	Pass
802.11ax (2.4GHz) MIMO	19.00	-5.58	13.42	25.00	Pass
802.11be (2.4GHz) MIMO	19.00	-5.58	13.42	25.00	Pass
802.11a(5GHz) Antenna 1	18.00	-3.15	14.85	25.00	Pass
802.11n(5GHz) Antenna 1	18.00	-5.59	12.41	25.00	Pass
802.11ac(5GHz) Antenna 1	18.00	-5.60	12.40	25.00	Pass
802.11ax(5GHz) Antenna 1	17.00	-5.58	11.42	25.00	Pass
802.11be(5GHz) Antenna 1	17.00	-5.58	11.42	25.00	Pass
802.11a(5GHz) Antenna 2	18.00	-3.15	14.85	25.00	Pass
802.11n(5GHz) Antenna 2	18.00	-5.59	12.41	25.00	Pass
802.11ac(5GHz) Antenna 2	18.00	-5.60	12.40	25.00	Pass
802.11ax(5GHz) Antenna 2	17.00	-5.58	11.42	25.00	Pass
802.11be(5GHz) Antenna 2	17.00	-5.58	11.42	25.00	Pass
802.11a(5GHz) MIMO	21.00	-3.15	17.85	25.00	Pass
802.11n(5GHz) MIMO	21.00	-5.59	15.41	25.00	Pass
802.11ac(5GHz) MIMO	21.00	-5.60	15.40	25.00	Pass
802.11ax(5GHz) MIMO	20.00	-5.58	14.42	25.00	Pass
802.11be(5GHz) MIMO	20.00	-5.58	14.42	25.00	Pass
Bluetooth Antenna 1	17.00	1.02	18.02	25.00	Pass
Bluetooth Antenna 2	17.00	1.02	18.02	25.00	Pass
Bluetooth MIMO	16.00	1.02	17.02	25.00	Pass

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6.7. RF Emission Compliance Results

During HAC RF-interference testing per ANSI C63.19-2019, certain operating modes of the handset produced measured RF audio interference power levels (RF_{AIPL}) that exceeded the applicable limit in §4.7, Table 4.1. Accordingly, a follow-on Audio Interference Level (AIL) assessment was performed in accordance with §4.7, Table 4.3. Based on those measurements, the device under test satisfies the AIL limits across the evaluated bands/air interfaces; therefore, the wireless device meets the ANSI C63.19-2019 requirement for audio interference (PASS).

Please see Appendix A for the RFE AIL Test Plots.

Table 6.8 - Audio interference Level for GSM Modes

Mode	Channel	RF_{AIL} Results [dB(V/m)]	Results + 0.2dB [dB(V/m)]	RF_{AIL} Limit [dB(V/m)]	FCC Margin [dB]	RF_{AIL} Pass/Fail	Plot No.
GSM 850 ANT A	128	32.34	32.54	39.00	6.46	Pass	1
	190	32.10	32.30	39.00	6.70	Pass	
	251	32.02	32.22	39.00	6.78	Pass	
GSM 850 ANT E	128	35.41	35.61	39.00	3.39	Pass	
	190	35.91	36.11	39.00	2.89	Pass	
	251	36.16	36.36	39.00	2.64	Pass	2
GSM 1900 ANT A	512	21.05	21.25	36.00	14.75	Pass	
	661	21.07	21.27	36.00	14.73	Pass	
	810	21.18	21.38	36.00	14.62	Pass	3

Table 6.9 - Audio interference Level for NR Modes

Mode	Channel	Mod.	BW	RB Size	RB Offset	RF_{AIL} Results [dB(V/m)]	Results + 0.2dB [dB(V/m)]	RF Limit [dB(V/m)]	FCC Margin [dB]	RF Pass/Fail	Plot No.
NR Band n41 PC2 ANT B	518598	DFT-s QPSK	100	1	1	25.05	25.25	35	9.75	Pass	4
NR Band n41 PC2 ANT F	518598	DFT-s QPSK	100	1	1	26.07	26.27	35	8.73	Pass	5
NR Band n77 DoD PC2 ANT F	633334	DFT-s QPSK	100	1	1	25.46	25.66	35	9.34	Pass	6
NR Band n77 PC2 ANT F	656000	DFT-s QPSK	100	1	1	24.89	25.09	35	9.91	Pass	7

7. Conclusion

According to the methodology in ANSI C63.19-2019, all air interfaces demonstrate compliance based on evaluations meeting the Audio Interference power level requirement and/or Audio interference level requirements in section 6.6 and 6.7.

8. Test Equipment

Table 8.1 – Equipment Table

Manufacturer	Model	Serial #	Description	Cal Interval	Cal Due
SPEAG	DAE	1838	Data Acquisition Electronics	Annual	12/4/2025
SPEAG	E-Field Probe EF3DV3	4101	Isotropic E-field probe	Annual	8/20/2026
SPEAG	Dipole CD835V3	1225	RF emission calibration 835MHz dipole	Annual	8/19/2026
SPEAG	Dipole CD1880V3	1114	RF emission calibration 1880MHz dipole	Annual	9/15/2026
SPEAG	Dipole CD2600V3	1038	RF emission calibration 2600MHz dipole	Annual	9/10/2026
SPEAG	Dipole CD3500V3	1025	RF emission calibration 3500MHz dipole	Annual	9/15/2026
SPEAG	MAIA	1814	Modulation and Audio Interference Analyser	CBT*	N/A
Rohde & Schwarz	CMW 500	168212	Wideband Radio Communication Tester	Annual	9/30/2026
Rohde & Schwarz	CMX OBT	100198	Radio Communication Tester	Annual	8/28/2026
Rohde & Schwarz	SMCV100B	103882	Vector Signal Generator	Annual	12/19/2025
Rohde & Schwarz	NRP8S	114183	USB Power Sensor	Annual	3/10/2026
Anritsu	MA24118A	2123431	USB Power Sensor	Annual	1/13/2026
Amplifier Research	5S1G4	0331258	Amplifier	CBT*	N/A
Mini-Circuits	15542 VLF-1000+	N/A	Low Pass Filter DC to 1000 MHz	CBT*	N/A
Mini-Circuits	15542 VLF-6000+	N/A	Low Pass Filter DC to 6000 MHz	CBT*	N/A
Mini-Circuits	BW-E6-1W653+	N/A	6dB Power Attenuator	CBT*	N/A
HUBER & SUHNER	74Z-0-0-21	27655	Torque Wrench (100 cN·m)	Biennial	10/7/2026

*Note: CBT (Calibrated Before Testing). Prior to testing, the measurement paths containing a cable, attenuator, coupler or filter were connected to a calibrated source (i.e. a signal generator) to determine the losses of the measurement path. The power meter offset was then adjusted to compensate for the measurement system losses. This level offset is stored within the power meter before measurements are made. This calibration verification procedure applies to the system verification and output power measurements. The calibrated reading is then taken directly from the power meter after compensation of the losses for all final power measurements.

9. Measurement Uncertainty

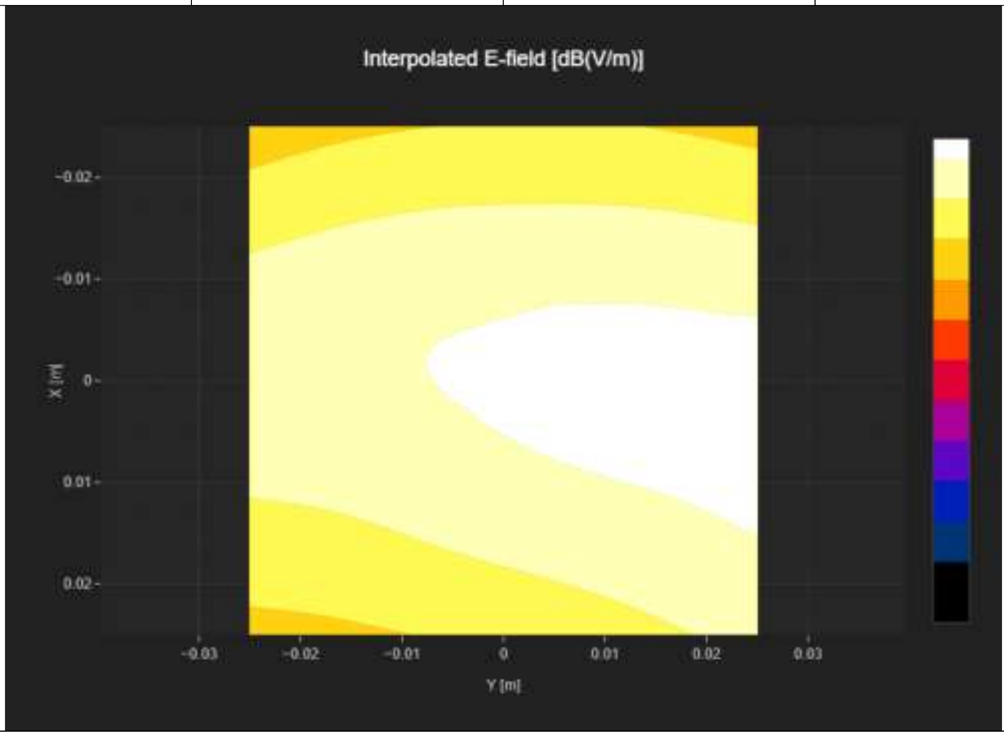
Table 9.1 – RF Emission Measurement Uncertainty

For ANSI C63.19-2019 600 - 6000 MHz, Scanning distance 15 mm					
Error Description	Uncertainty value [±%]	Probe Dist.	Div.	(Ci) E	Std. Unc E [±%]
Measurement System					
Probe Calibration	5.10	N	1	1	5.10
Axial Isotropy	4.70	R	√3	1	2.71
Sensor Displacement	7.20	R	√3	0.5	4.16
Boundary Effects	2.40	R	√3	1	1.39
Phantom Boundary Effect	7.20	R	√3	1	4.16
Linearity	4.70	R	√3	1	2.71
Scaling with PMR calibration	10.00	R	√3	1	5.77
System Detection Limit	1.00	R	√3	1	0.58
Readout Electronics	0.30	N	1	1	0.30
Response Time	0.80	R	√3	1	0.46
Integration Time	2.60	R	√3	1	1.50
RF Ambient Conditions	3.00	R	√3	1	1.73
RF Reflections	12.00	R	√3	1	6.93
Probe Positioner	1.20	R	√3	1	0.69
Probe Positioning	3.00	R	√3	1	1.73
Extrap. and Interpolation	1.00	R	√3	1	0.58
Test Sample Related					
Device Positioning Vertical	4.70	R	√3	1	2.71
Device Positioning Lateral	1.00	R	√3	1	0.58
Device Holder and Phantom	2.40	R	√3	1	1.39
Power Drift	5.00	R	√3	1	2.89
Phantom and Setup Related					
Phantom Thickness	2.40	R	√3	1	1.39
Combined Std. Uncertainty		(k=1)			13.72
Expanded Std. Uncertainty on Power		(Coverage Factor for 95%, k=2)			27.44
Expanded Std. Uncertainty on Field		(Coverage Factor for 95%)			13.72

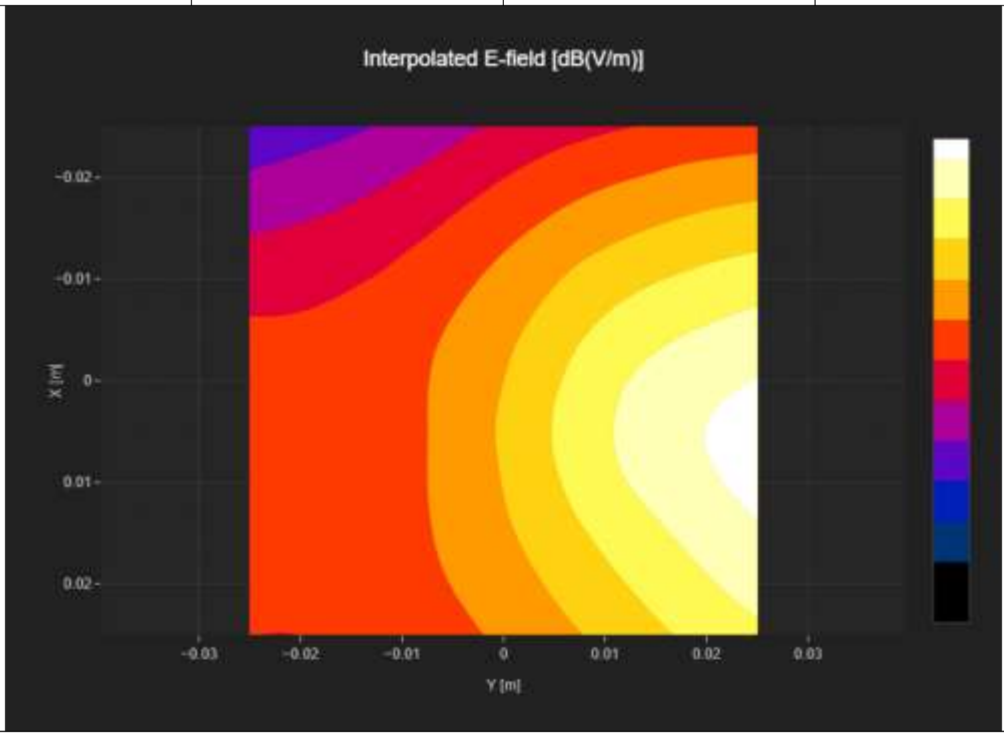
Measurement uncertainty reflects the quality and accuracy of a measured result as compared to the true value. Measurement results vary due to the measurement uncertainty of the instrumentation, measurement technique, and test engineer. The repeat measurement results with that of the instrumentation chain using the technique contained in NIS 81 and NIS 3003 were combined to obtain the overall estimated measurement uncertainty.

Appendix A: Audio Interference Level Test Plots

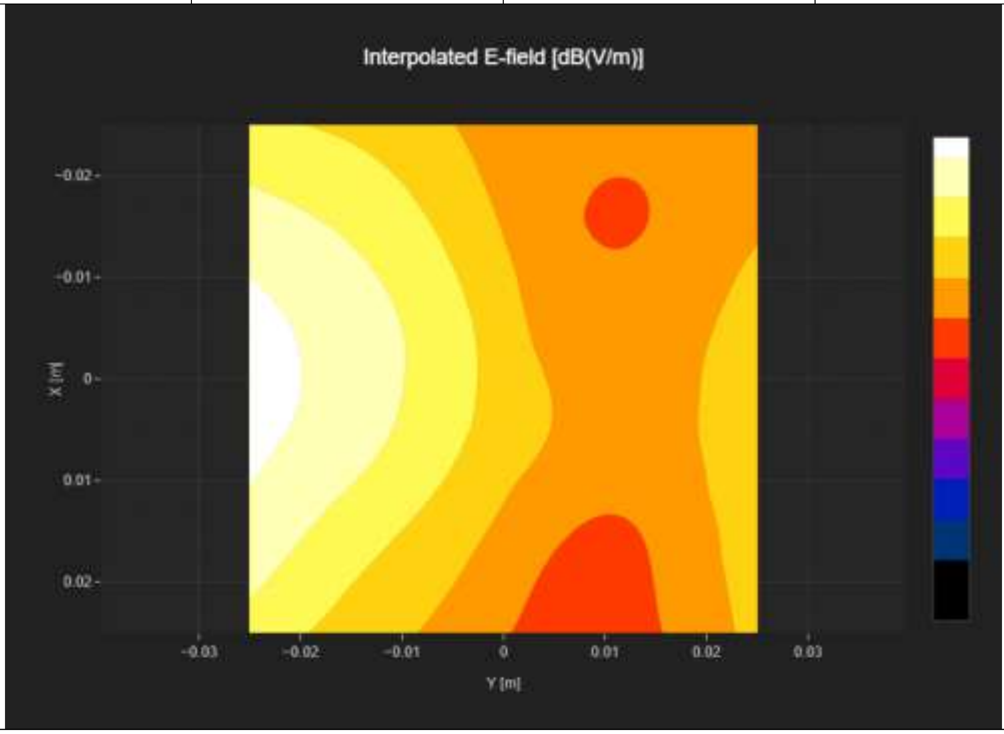
PLOT 1			
Manufacturer	Model	Dimensions[mm]	Speaker Position [mm]
SAMSUNG	A3LSMS942U	149.35 x 71.48 x 5	148
Hardware Setup			
Probe Name	Probe Calibration Date	DAE Name	DAE Calibration Date
EF3DV3 - SN4101	20-Aug-25	DAE4ip Sn1838	4-Dec-24
Communication Systems			
Band Name	Antenna Configuration	Channel	Frequency [MHz]
GSM 850	Antenna A	128	824.2
Grid Settings			
Test Date	Extent X [mm] x Extent Y [mm]	Step X & Step Y [mm]	Distance [mm]
9/18/2025	50 x 50	10	15
Results			
Emax [dB(V/m)]	Eavg50x50 max [dB(V/m)]	MIF [dB]	RFail [dB(V/m)]
30.38	28.71	3.63	32.34



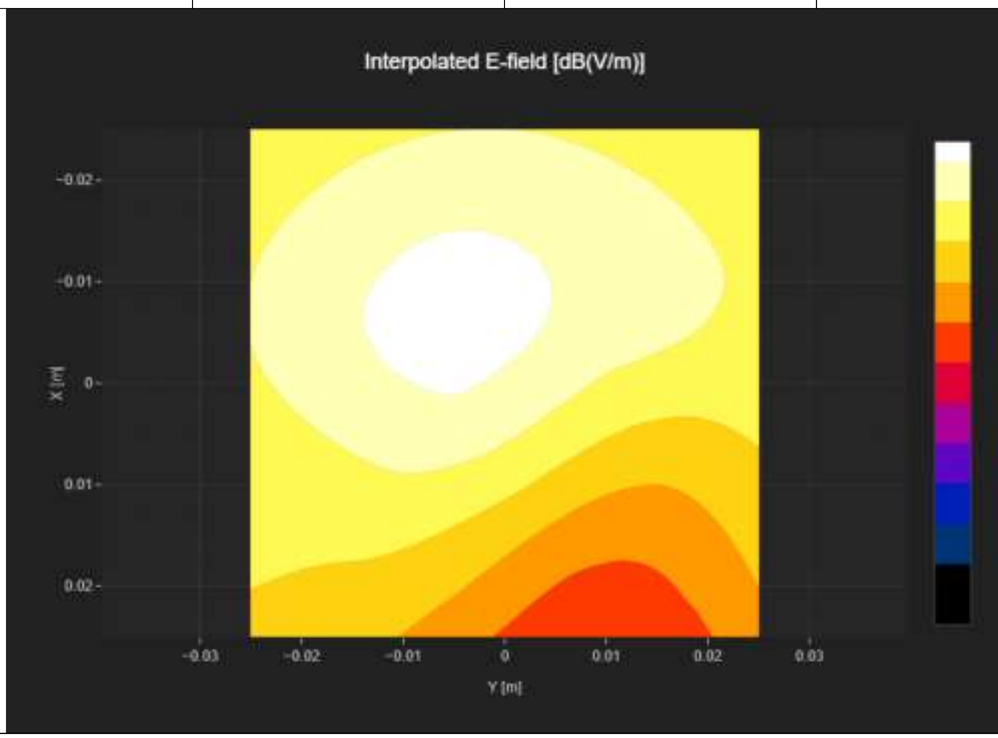
PLOT 2			
Manufacturer	Model	Dimensions[mm]	Speaker Position [mm]
SAMSUNG	A3LSMS942U	149.35 x 71.48 x 5	148
Hardware Setup			
Probe Name	Probe Calibration Date	DAE Name	DAE Calibration Date
EF3DV3 - SN4101	20-Aug-25	DAE4ip Sn1838	4-Dec-24
Communication Systems			
Band Name	Antenna Configuration	Channel	Frequency [MHz]
GSM 850	Antenna E	251	848.8
Grid Settings			
Test Date	Extent X [mm] x Extent Y [mm]	Step X & Step Y [mm]	Distance [mm]
9/18/2025	50 x 50	10	15
Results			
Emax [dB(V/m)]	Eavg50x50 max [dB(V/m)]	MIF [dB]	RFail [dB(V/m)]
38.71	32.53	3.63	36.16



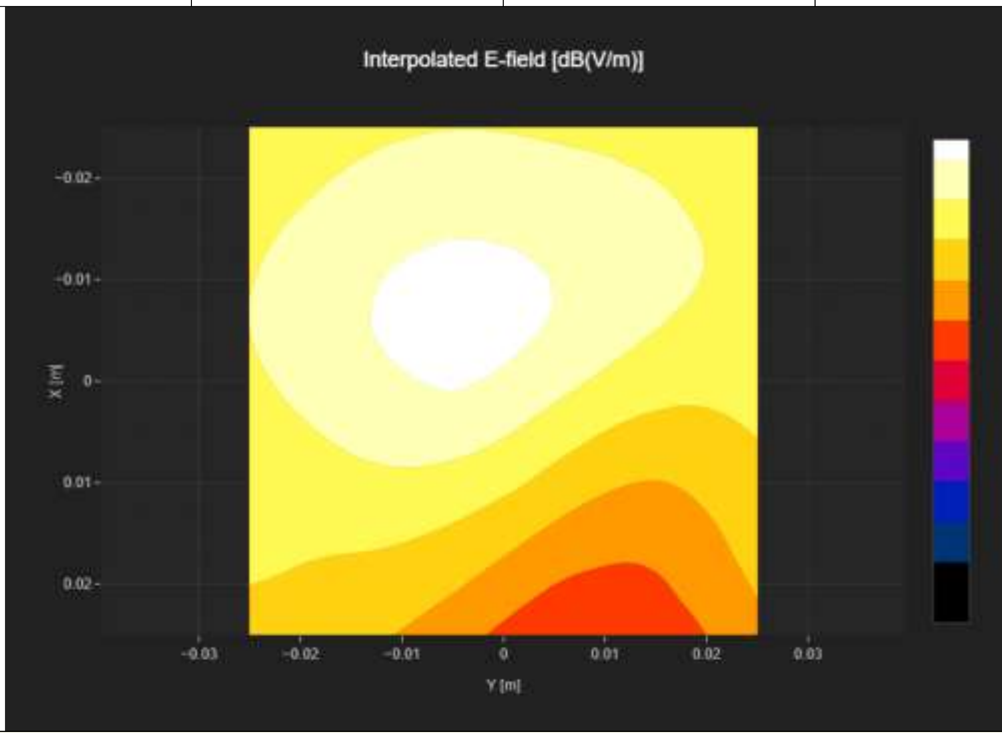
PLOT 3			
Manufacturer	Model	Dimensions[mm]	Speaker Position [mm]
SAMSUNG	A3LSMS942U	149.35 x 71.48 x 5	148
Hardware Setup			
Probe Name	Probe Calibration Date	DAE Name	DAE Calibration Date
EF3DV3 - SN4101	20-Aug-25	DAE4ip Sn1838	4-Dec-24
Communication Systems			
Band Name	Antenna Configuration	Channel	Frequency [MHz]
GSM 1900	Antenna A	810	1909.8
Grid Settings			
Test Date	Extent X [mm] x Extent Y [mm]	Step X & Step Y [mm]	Distance [mm]
9/18/2025	50 x 50	10	15
Results			
Emax [dB(V/m)]	Eavg50x50 max [dB(V/m)]	MIF [dB]	RFail [dB(V/m)]
22.31	17.55	3.63	21.18



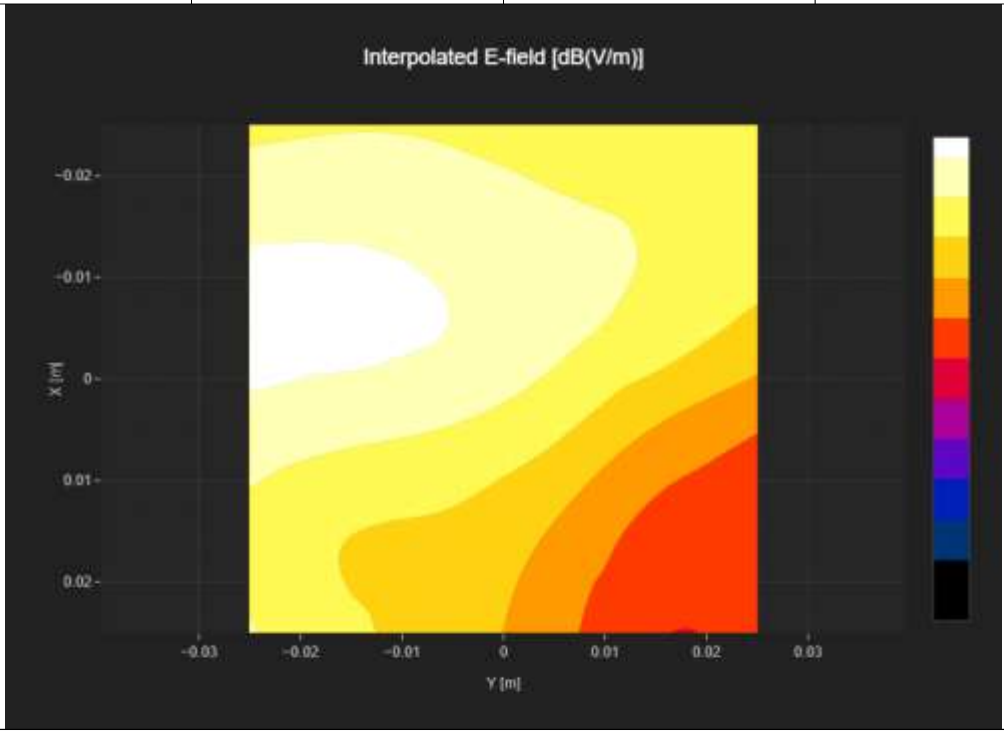
PLOT 4			
Manufacturer	Model	Dimensions[mm]	Speaker Position [mm]
SAMSUNG	A3LSMS942U	149.35 x 71.48 x 5	148
Hardware Setup			
Probe Name	Probe Calibration Date	DAE Name	DAE Calibration Date
EF3DV3 - SN4101	20-Aug-25	DAE4ip Sn1838	4-Dec-24
Communication Systems			
Band Name	Antenna Configuration	Channel	Frequency [MHz]
Band n41	Antenna B	518598	2592.99
Grid Settings			
Test Date	Extent X [mm] x Extent Y [mm]	Step X & Step Y [mm]	Distance [mm]
9/17/2025	50 x 50	10	15
Results			
Emax [dB(V/m)]	Eavg50x50 max [dB(V/m)]	MIF [dB]	RFail [dB(V/m)]
29.65	26.69	-1.64	25.05



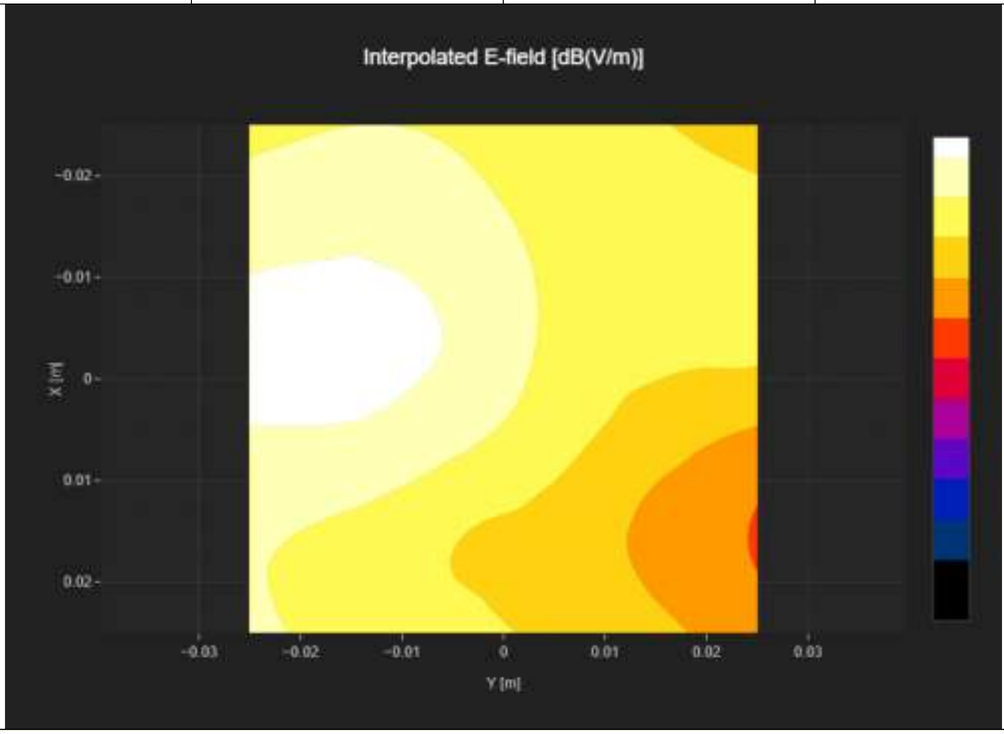
PLOT 5			
Manufacturer	Model	Dimensions[mm]	Speaker Position [mm]
SAMSUNG	A3LSMS942U	149.35 x 71.48 x 5	148
Hardware Setup			
Probe Name	Probe Calibration Date	DAE Name	DAE Calibration Date
EF3DV3 - SN4101	20-Aug-25	DAE4ip Sn1838	4-Dec-24
Communication Systems			
Band Name	Antenna Configuration	Channel	Frequency [MHz]
Band n41	Antenna F	518598	2592.99
Grid Settings			
Test Date	Extent X [mm] x Extent Y [mm]	Step X & Step Y [mm]	Distance [mm]
9/17/2025	50 x 50	10	15
Results			
Emax [dB(V/m)]	Eavg50x50 max [dB(V/m)]	MIF [dB]	RFail [dB(V/m)]
30.74	27.71	-1.64	26.07



PLOT 6			
Manufacturer	Model	Dimensions[mm]	Speaker Position [mm]
SAMSUNG	A3LSMS942U	149.35 x 71.48 x 5	148
Hardware Setup			
Probe Name	Probe Calibration Date	DAE Name	DAE Calibration Date
EF3DV3 - SN4101	20-Aug-25	DAE4ip Sn1838	4-Dec-24
Communication Systems			
Band Name	Antenna Configuration	Channel	Frequency [MHz]
Band n77 DoD	Antenna F	633334	3500.01
Grid Settings			
Test Date	Extent X [mm] x Extent Y [mm]	Step X & Step Y [mm]	Distance [mm]
9/17/2025	50 x 50	10	15
Results			
Emax [dB(V/m)]	Eavg50x50 max [dB(V/m)]	MIF [dB]	RFail [dB(V/m)]
30.31	27.1	-1.64	25.46



PLOT 7			
Manufacturer	Model	Dimensions[mm]	Speaker Position [mm]
SAMSUNG	A3LSMS942U	149.35 x 71.48 x 5	148
Hardware Setup			
Probe Name	Probe Calibration Date	DAE Name	DAE Calibration Date
EF3DV3 - SN4101	20-Aug-25	DAE4ip Sn1838	4-Dec-24
Communication Systems			
Band Name	Antenna Configuration	Channel	Frequency [MHz]
Band n77 C	Antenna F	656000	3840
Grid Settings			
Test Date	Extent X [mm] x Extent Y [mm]	Step X & Step Y [mm]	Distance [mm]
9/17/2025	50 x 50	10	15
Results			
Emax [dB(V/m)]	Eavg50x50 max [dB(V/m)]	MIF [dB]	RFail [dB(V/m)]
29.45	26.53	-1.64	24.89



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Appendix B: System Verification Plots

Next Generation Test Laboratory (RF Safety Laboratory, LLC)
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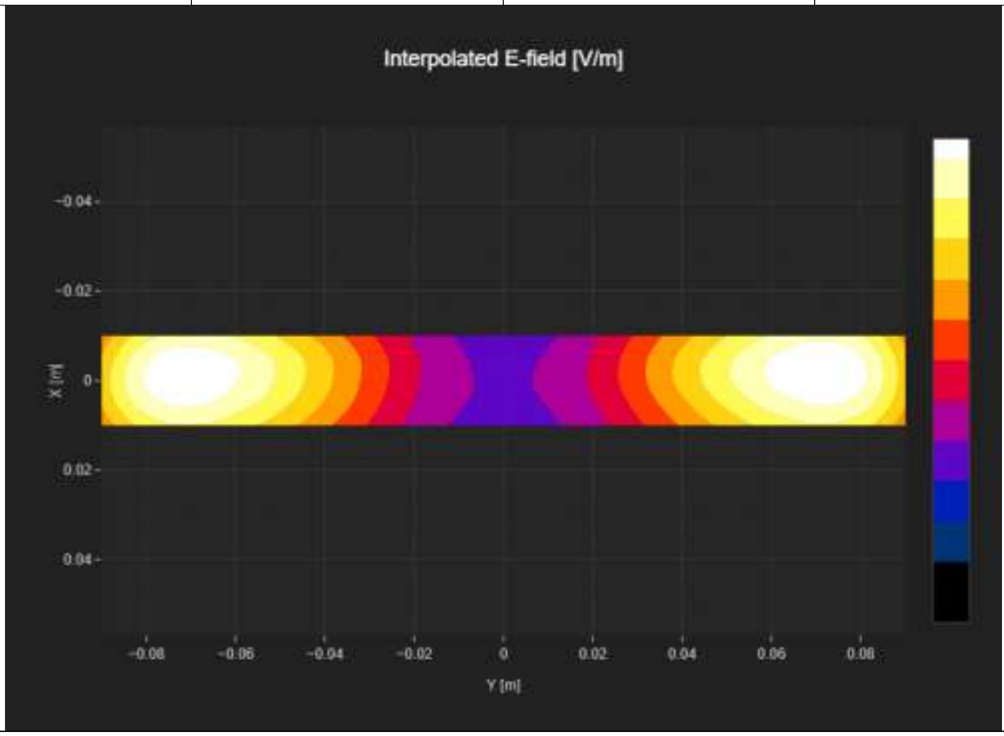
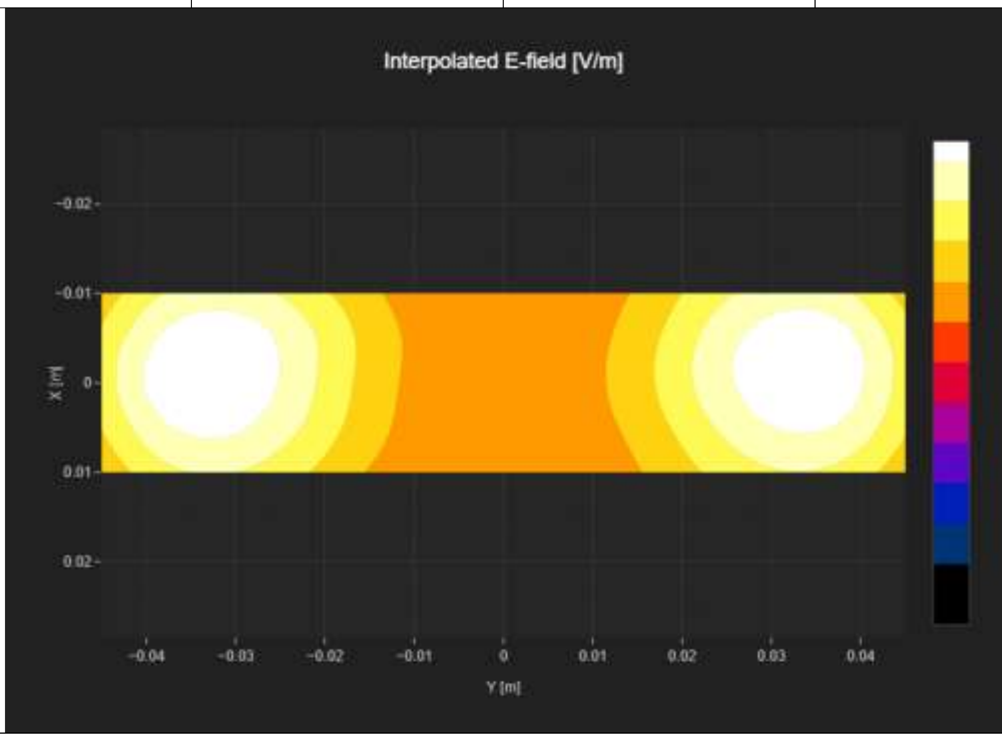
RFE SYSTEM VERIFICATION			
Hardware Setup			
Probe Name	Probe Calibration Date	DAE Name	DAE Calibration Date
EF3DV3 - SN4101	20-Aug-25	DAE4ip Sn1838	4-Dec-24
Communication Systems			
Test Date	Band Name	Antenna Configuration	Frequency [MHz]
9/15/2025	CD835	CW	835
Grid Settings			
Extent X [mm]	Extent Y [mm]	Step X & Step Y [mm]	Distance [mm]
20	180	5	15
Results			
Dipole Type	Dipole Serial Number	Emax [V/m]	Drift [dB]
CD835	1225	109	0.02



RFE SYSTEM VERIFICATION			
Hardware Setup			
Probe Name	Probe Calibration Date	DAE Name	DAE Calibration Date
EF3DV3 - SN4101	20-Aug-25	DAE4ip Sn1838	4-Dec-24
Communication Systems			
Test Date	Band Name	Communication Systems Name	Frequency [MHz]
9/15/2025	CD1880	CW	1880
Grid Settings			
Extent X [mm]	Extent Y [mm]	Step X & Step Y [mm]	Distance [mm]
20	90	5	15
Results			
Dipole Type	Dipole Serial Number	Emax [V/m]	Drift [dB]
CD1880	1114	86.7	-0.01



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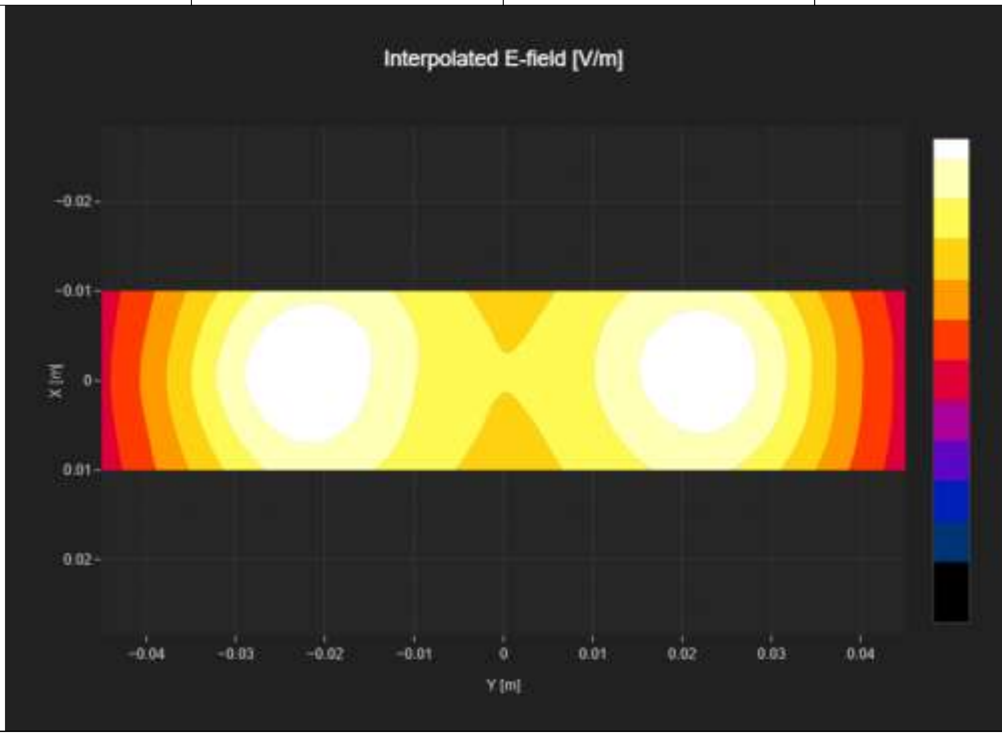
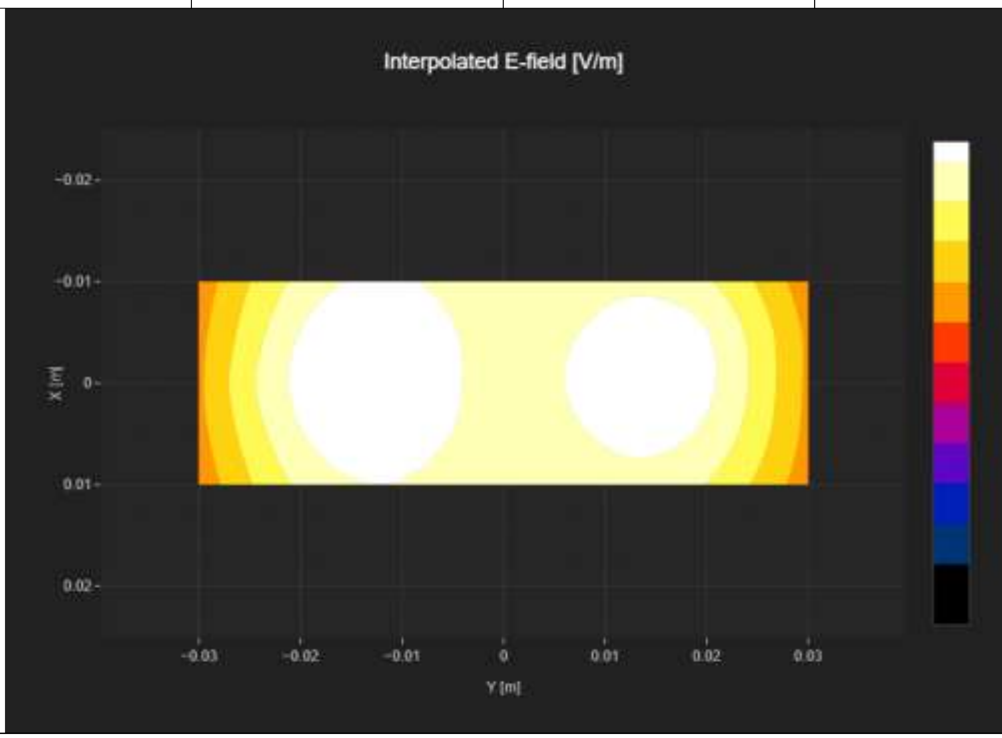
RFE SYSTEM VERIFICATION			
Hardware Setup			
Probe Name	Probe Calibration Date	DAE Name	DAE Calibration Date
EF3DV3 - SN4101	20-Aug-25	DAE4ip Sn1838	4-Dec-24
Communication Systems			
Test Date	Band Name	Communication Systems Name	Frequency [MHz]
9/15/2025	CD2600V3	CW	2600
Grid Settings			
Extent X [mm]	Extent Y [mm]	Step X & Step Y [mm]	Distance [mm]
20	90	5	15
Results			
Dipole Type	Dipole Serial Number	Emax [V/m]	Drift [dB]
CD2600	1038	83.8	-0.02



RFE SYSTEM VERIFICATION			
Hardware Setup			
Probe Name	Probe Calibration Date	DAE Name	DAE Calibration Date
EF3DV3 - SN4101	20-Aug-25	DAE4ip Sn1838	4-Dec-24
Communication Systems			
Test Date	Band Name	Communication Systems Name	Frequency [MHz]
9/15/2025	CD3500V3	CW	3900
Grid Settings			
Extent X [mm]	Extent Y [mm]	Step X & Step Y [mm]	Distance [mm]
20	60	5	15
Results			
Dipole Type	Dipole Serial Number	Emax [V/m]	Drift [dB]
CD3500	1025	82.2	0



RFE SYSTEM VERIFICATION			
Hardware Setup			
Probe Name	Probe Calibration Date	DAE Name	DAE Calibration Date
EF3DV3 - SN4101	20-Aug-25	DAE4ip Sn1838	4-Dec-24
Communication Systems			
Test Date	Band Name	Communication Systems Name	Frequency [MHz]
9/15/2025	CD3500V3	CW	3900
Grid Settings			
Extent X [mm]	Extent Y [mm]	Step X & Step Y [mm]	Distance [mm]
20	60	5	15
Results			
Dipole Type	Dipole Serial Number	Emax [V/m]	Drift [dB]
CD3500	1025	77.4	0