



Engineering Test Report No. 2501346-01 Rev. A

Report Date	October 7, 2025	
Manufacturer Name	Roche Diabetes Care Inc	
Manufacturer Address	9115 Hauge Rd Indianapolis, IN 46250	
Product Name Model No.	Accu-Chek Guide Me Blood Glucose Meter 905	
Date Received	September 15, 2025	
Test Dates	September 15, 2025 – October 1, 2025	
Specifications	FCC "Code of Federal Regulations" Title 47 Part 15, Subpart C, Section 15.247 Innovation, Science, and Economic Development Canada, RSS-247	
Test Facility	Elite Electronic Engineering, Inc. 1516 Centre Circle, Downers Grove, IL 60515	FCC Reg. Number: 269750 IC Reg. Number: 2987A CAB Identifier: US0107
Signature	<i>Nathaniel Bouchie</i>	
Tested by	Nathaniel Bouchie	
Signature	<i>Raymond J. Klouda</i>	
Approved by	Raymond J. Klouda, Registered Professional Engineer of Illinois – 44894	
PO Number	4170047127	

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1. Report Revision History

Revision	Date	Description
–	7 OCT 2025	Initial Release of Engineering Test Report No. 2501346-01
A	25 NOV 2025 By NDB	- Cover page: Changed report number to 2501346-01 Rev. A. Changed EUT name from Instant to Guide Me. - Throughout report: Changed report number to 2501346-01 Rev. A. Changed EUT name from Instant to Guide Me.

2. Introduction

2.1. Scope of Tests

This document presents the results of a series of RF emissions tests that were performed on the Roche Diabetes Care Inc Accu-Chek Guide Me Blood Glucose Meter (hereinafter referred to as the Equipment Under Test (EUT)). The EUT was manufactured and submitted for testing by Roche Diabetes Care Inc located in Indianapolis, IN.

2.2. Purpose

The test series was performed to determine if the EUT meets the RF emission requirements of the FCC "Code of Federal Regulations" Title 47, Part 15, Subpart B, §15.107 and §15.109 for Receivers and Subpart C, §15.247 for a Digital Modulation intentional radiator operating within the 2400 – 2483.5MHz band.

The test series was also performed to determine if the EUT meets the RF emission requirements of the Innovation, Science, and Economic Development Canada Radio Standards Specification RSS-Gen and Innovation, Science, and Economic Development Canada Radio Standards Specification RSS-247 for a Digital Modulation intentional radiator operating within the 2400 – 2483.5MHz band.

Testing was performed in accordance with ANSI C63.10-2013.

2.3. Identification of the EUT

The EUTs were identified as follows:

EUT Identification	
Product Description	Accu-Chek Guide Me Blood Glucose Meter
Model/Part No.	905
Serial No.	Conducted Sample – 90510086540 Radiated Sample – 90510086548
Size of EUT	8 x 5 x 1.5 cm
Software/Firmware Version	EUT: v5.4.1 GenTest: V3.5.6
Device Type	Digitally Modulated Transmission Device
Band of Operation	2400 – 2483.5MHz
Modulation Type	FSK
Antenna Type	PCB Trace
Conducted Output Power	-0.93 dBm
6dB Bandwidth	840kHz
Occupied Bandwidth (99% CBW)	1.083MHz

The EUTs listed above were used throughout the test series.

3. Power Input

The EUT was powered by 3.2VDC from internal batteries.

4. Grounding

The EUT was not connected to ground.

5. Support Equipment

The EUT was submitted for testing along with the following support equipment:

Description	Model #	S/N
Support Laptop	---	RIDMWG584P0517

6. Interconnect Leads

The following interconnect cables were submitted with the test item:

Item	Description
USB	Connects laptop to EUT

7. Modifications Made to the EUT

No modifications were made to the EUT during the testing.

8. Modes of Operation

The EUT and all peripheral equipment were energized. The unit was programmed to transmit in one of the following modes:

Mode	Description
BLE @ 2404MHz	The EUT was plugged into the support laptop and the GenTest software (V3.5.6) was opened. The "Start Meter Discovery" button was pushed and the EUT's connection was verified. The file "TI_RF_Test_Menu_instant_newBLE" was opened. The following keys were pressed and followed by the enter key: "1", "J", and "G". The EUT transmitted continuously at 0dBm power, Channel 0, 2404MHz, with FSK modulation. The EUT remained connected to the laptop for the duration of the test, otherwise it would power off.
BLE @ 2444MHz	The EUT was plugged into the support laptop and the GenTest software (V3.5.6) was opened. The "Start Meter Discovery" button was pushed and the EUT's connection was verified. The file "TI_RF_Test_Menu_instant_newBLE" was opened. The following keys were pressed and followed by the enter key: "1", "J", and ":". The EUT transmitted continuously at 0dBm power, Channel 19, 2444MHz, with FSK modulation. The EUT remained connected to the laptop for the duration of the test, otherwise it would power off.
BLE @ 2480MHz	The EUT was plugged into the support laptop and the GenTest software (V3.5.6) was opened. The "Start Meter Discovery" button was pushed and the EUT's connection was verified. The file "TI_RF_Test_Menu_instant_newBLE" was opened. The following keys were pressed and followed by the enter key: "1", "J", and "/". The EUT transmitted continuously at 0dBm power, Channel 39, 2480MHz, with FSK modulation. The EUT remained connected to the laptop for the duration of the test, otherwise it would power off.

9. Test Specifications

The tests were performed to selected portions of, and in accordance with, the test specifications.

- Federal Communications Commission "Code of Federal Regulations", Title 47, Chapter I, Subchapter A, Part 15, Subpart C
- ANSI C63.10-2013, "American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices"
- Federal Communications Commission Office of Engineering and Technology Laboratory Division, Guidance For Compliance Measurements On Digital Transmission Systems, Frequency Hopping Spread Spectrum System, and Hybrid System Devices Operating Under Section 15.247 April 2, 2019 KDB 558074 D01v05r02
- RSS-247 Issue 2, February 2017, "Digital Transmission Systems (DTSS), Frequency Hopping Systems (FHSs) and License-Exempt Local Area Network (LE-LAN) Devices"

10. Test Plan

No test plan was provided. Instructions were provided by personnel from Roche Diabetes Care Inc and used in conjunction with the FCC "Code of Federal Regulations" Title 47 Part 15, Subpart C, Section 15.247, Innovation, Science, and Economic Development Canada, RSS-247, and ANSI C63.4-2014 specifications.

11. Deviation, Additions to, or Exclusions from Test Specifications

There were no deviations, additions to, or exclusions from the test specifications during this test series.

12. Laboratory Conditions

The ambient parameters of the laboratory during testing were as follows:

Ambient Parameters	Value
Temperature	24.1°C
Relative Humidity	41%
Atmospheric Pressure	1019mb

13. Summary

The following EMC tests were performed and the results are shown below:

Test Description	Requirements	Test Method	S/N	Results
6dB Bandwidth	FCC 15.247 ISED RSS-247	ANSI C63.10:2013	90510086540	Conforms
Occupied Bandwidth (99%)	FCC 15.247 ISED RSS-247	ANSI C63.10:2013	90510086540	Conforms
Maximum Peak Conducted Output Power	FCC 15.247 ISED RSS-247	ANSI C63.10:2013	90510086540	Conforms
Effective Isotropic Radiated Power (EIRP)	FCC 15.247 ISED RSS-247	ANSI C63.10:2013	90510086548	Conforms
Antenna Conducted Spurious Emissions	FCC 15.247 ISED RSS-247	ANSI C63.10:2013	90510086540	Conforms
Spurious Radiated Emissions	FCC 15.247 ISED RSS-247	ANSI C63.10:2013	90510086548	Conforms
Band-Edge Compliance	FCC 15.247 ISED RSS-247	ANSI C63.10:2013	90510086548	Conforms
Power Spectral Density	FCC 15.247 ISED RSS-247	ANSI C63.10:2013	90510086540	Conforms

Note 1: Per the FCC "Code of Federal Regulations" Title 47, Subchapter A, Part 15, Subpart B, Section 15.101(b), receivers operating above 960MHz are exempt from complying with the technical provisions of §15.5.

14. Sample Calculations

For Powerline Conducted Emissions:

The resultant voltage level (VL) is a summation in decibels (dB) of the receiver meter reading (MTR) and the cable loss factor (CF).

$$\text{Formula 1: VL (dB}\mu\text{V)} = \text{MTR (dB}\mu\text{V)} + \text{CF (dB)}.$$

For Radiated Emissions:

The resultant field strength (FS) is a summation in decibels (dB) of the receiver meter reading (MTR), the antenna correction factor (AF), and the cable loss factor (CF). If an external preamplifier is used, the total is reduced by its gain (-PA). If a distance correction (DC) is required, it is added to the total.

$$\text{Formula 1: FS (dB}\mu\text{V/m)} = \text{MTR (dB}\mu\text{V)} + \text{AF (dB/m)} + \text{CF (dB)} + (-\text{PA (dB)}) + \text{DC (dB)}$$

To convert the Field Strength dB μ V/m term to μ V/m, the dB μ V/m is first divided by 20. The Base 10 AntiLog is taken of this quotient. The result is the Field Strength value in μ V/m terms.

$$\text{Formula 2: FS (}\mu\text{V/m)} = \text{AntiLog} [(\text{FS (dB}\mu\text{V/m)})/20]$$

15. Statement of Conformity

The Roche Diabetes Care Inc, Accu-Chek Guide Me Blood Glucose Meter, Model No. 905 did fully conform to the selected requirements of FCC "Code of Federal Regulations" Title 47 Part 15, Subpart C, Section 15.247 and Innovation, Science, and Economic Development Canada, RSS-247.

16. Certification

Elite Electronic Engineering Incorporated certifies that the information contained in this report was obtained under conditions which meet or exceed those specified in the FCC "Code of Federal Regulations" Title 47 Part 15, Subpart C, Section 15.247 and Innovation, Science, and Economic Development Canada, RSS-247 test specifications. The data presented in this test report pertains to the EUT as received by the customer on the test date specified. Any electrical or mechanical modifications made to the EUT subsequent to the specified test date will serve to invalidate the data and void this certification.

17. Photographs of EUT





18. Equipment List

Eq ID	Equipment Description	Manufacturer	Model No.	Serial No.	Frequency Range	Cal Date	Due Date
APW10	Preamplifier	Planar	PE2-35-120-5R0-10-12-SFF	PL11685/1241	1-18GHz	3/18/2025	3/18/2026
CDM5	Lab Computer	ELITE		---	---	N/A	
NTA2	BILOG ANTENNA	TESEQ	6112D	28040	25-2000MHz	6/21/2024	6/21/2026
NWN1	DOUBLE RIDGED GUIDE ANTENNA	ETS LINDGREN	3116C	227802	10GHz-40GHz	9/16/2024	9/16/2026
NWQ1	Double Ridged Waveguide	ETS-Lindgren	3117	66655	1-18GHz	7/26/2024	7/26/2026
R29F	3M ANECHOIC CHAMBER NSA	EMC TEST SYSTEMS	3M ANECHOIC		30MHZ-18GHZ	6/1/2025	6/1/2027
SES0	24VDC POWER SUPPLY	P-TRANS	FS-32024-1M	001	18-27VDC	NOTE 1	
XPQ4	HIGH PASS FILTER	K&L MICROWAVE	11SH10-4800/X20000-O/O	1	4.8-20GHZ	9/16/2025	9/16/2027
EMCE02	TEMPERATURE CHAMBER	THERMOTRON	S-8	15461	-70C TO 150C	7/15/2025	7/15/2026
MPE0	DUAL POWER METER	AGILENT	E4419B	GB39511351	100kHz-50GHz	9/5/2025	9/5/2027
MPI5	POWER SENSOR	KEYSIGHT	E9304A	MY56200006	9KHZ-6GHZ	4/9/2024	4/9/2026
RBG4	EMI ANALYZER	ROHDE & SCHWARZ	ESW44	103007	2HZ-44GHZ	4/5/2025	4/5/2026
WKA1	SOFTWARE, UNIVERSAL RCV EMI	ELITE	UNIV_RCV_EMI	1	---	I/O	

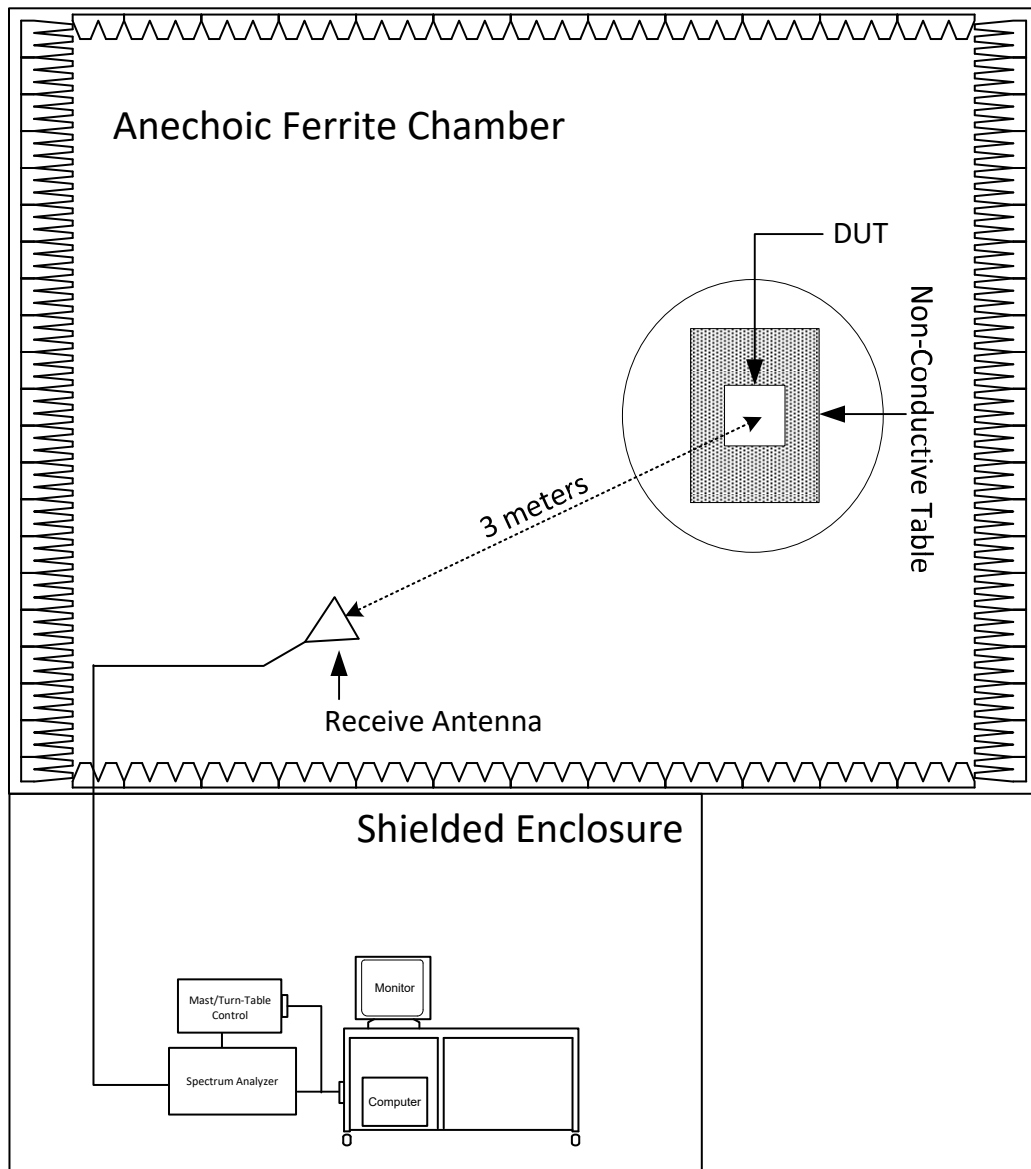
N/A: Not Applicable

I/O: Initial Only

CNR: Calibration Not Required

NOTE 1: For the purpose of this test, the equipment was calibrated over the specified frequency range, pulse rate, or modulation prior to the test or monitored by a calibrated instrument.

19. Block Diagram of Test Setup



Radiated Measurements Test Setup

20. 6dB Bandwidth

EUT Information	
Manufacturer	Roche Diabetes Care Inc
Product	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086540
Mode	BLE @ 2404MHz BLE @ 2444MHz BLE @ 2480MHz

Test Setup Details	
Setup Format	Tabletop
Measurement Method	Antenna Conducted
Type of Test Site	Tabletop
Test Site Used	Test Bench

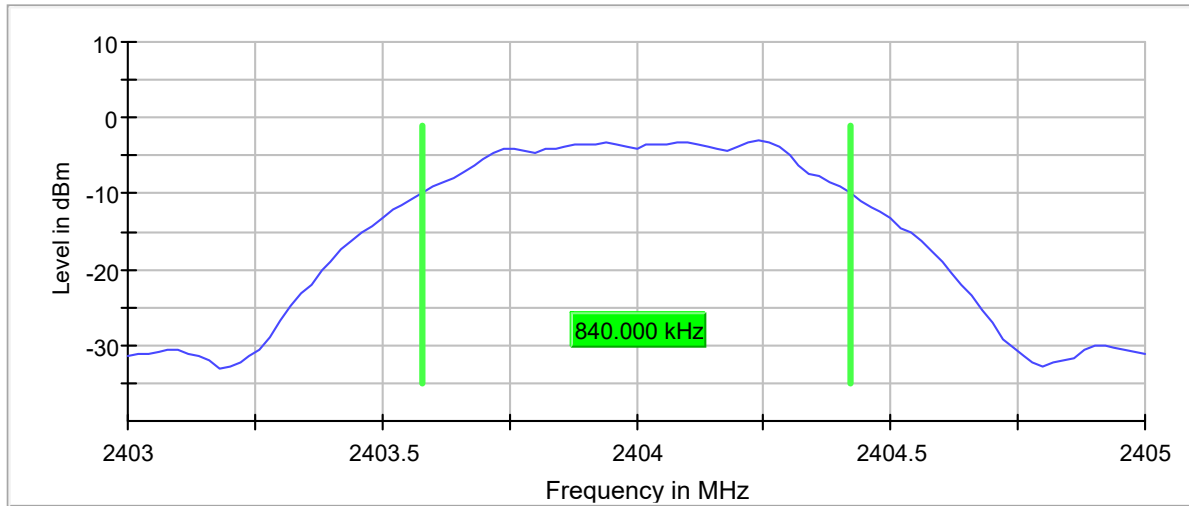
Measurement Uncertainty	
Measurement Type	Expanded Measurement Uncertainty
Radiated disturbance (electric field strength on an open area test site or alternative test site) (30 MHz – 1000 MHz)	4.3
Radiated disturbance (electric field strength on an open area test site or alternative test site) (1 GHz – 6 GHz)	3.1

Requirements
Systems using digital modulation techniques shall have a minimum 6dB bandwidth of 500kHz

Procedure
The antenna port of the EUT was connected to the spectrum analyzer through 40dB of attenuation. The EUT was allowed to transmit continuously. The transmit channel was set separately to low, middle, and high channels. The resolution bandwidth (RBW) was set to 100kHz, the video bandwidth (VBW) was set to the same as or 3 times greater than the RBW, and the span was set to 3 times the RBW. The 'Max-Hold' function was engaged. The analyzer was allowed to scan until the envelope of the transmitter bandwidth was defined. The analyzer's display was then screenshot and saved.

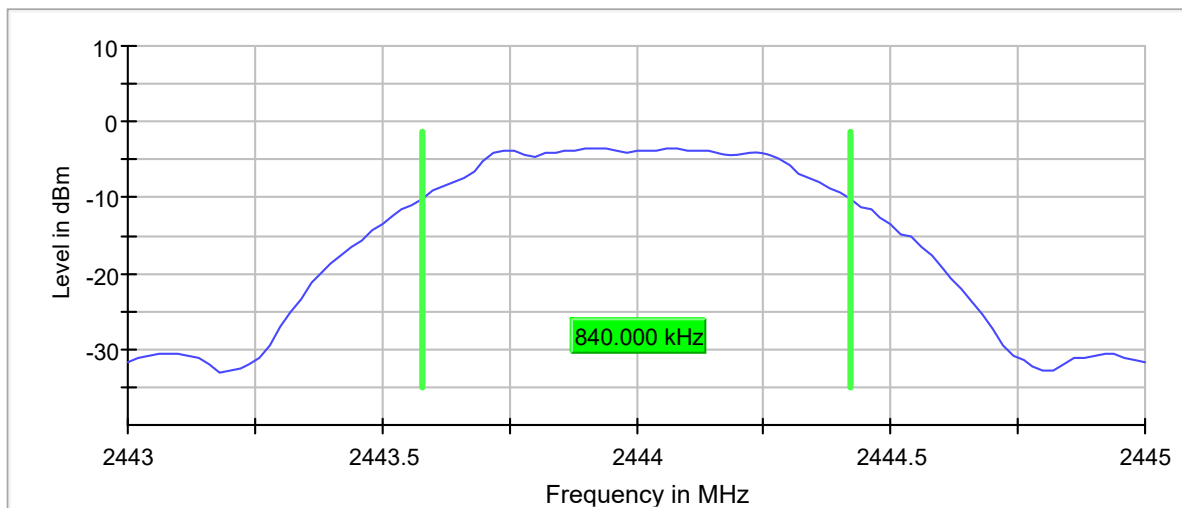
Test Details	
Manufacturer	Roche Diabetes Care Inc
EUT	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086540
Mode	BLE @ 2404MHz
Result	6dB BW = 840kHz

6 dB Bandwidth



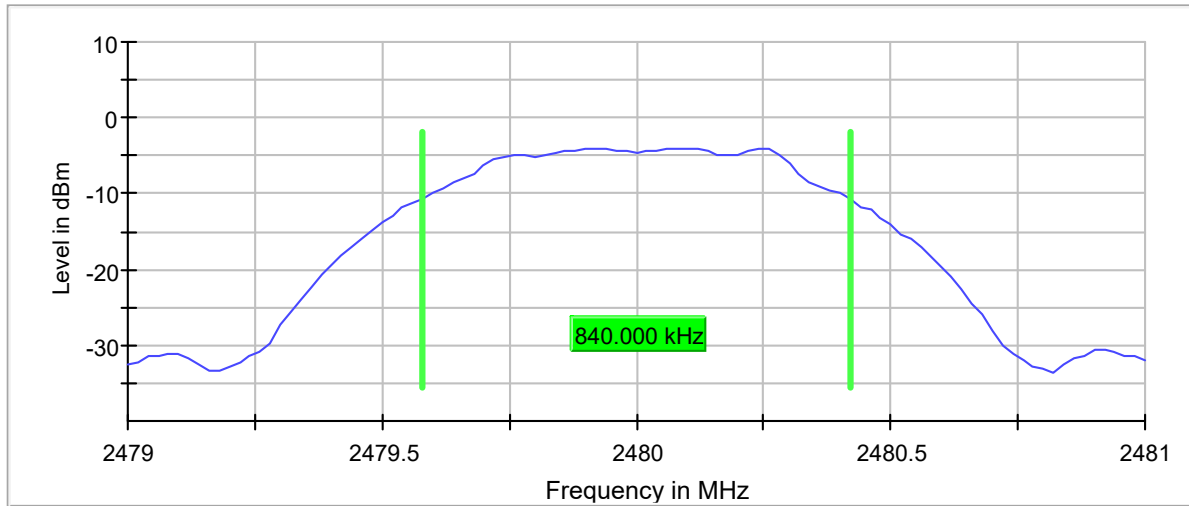
Test Details	
Manufacturer	Roche Diabetes Care Inc
EUT	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086540
Mode	BLE @ 2444MHz
Result	6dB BW = 840kHz

6 dB Bandwidth



Test Details	
Manufacturer	Roche Diabetes Care Inc
EUT	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086540
Mode	BLE @ 2480MHz
Result	6dB BW = 840kHz

6 dB Bandwidth



21. Occupied Bandwidth (99%)

EUT Information	
Manufacturer	Roche Diabetes Care Inc
Product	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086540
Mode	BLE @ 2404MHz BLE @ 2444MHz BLE @ 2480MHz

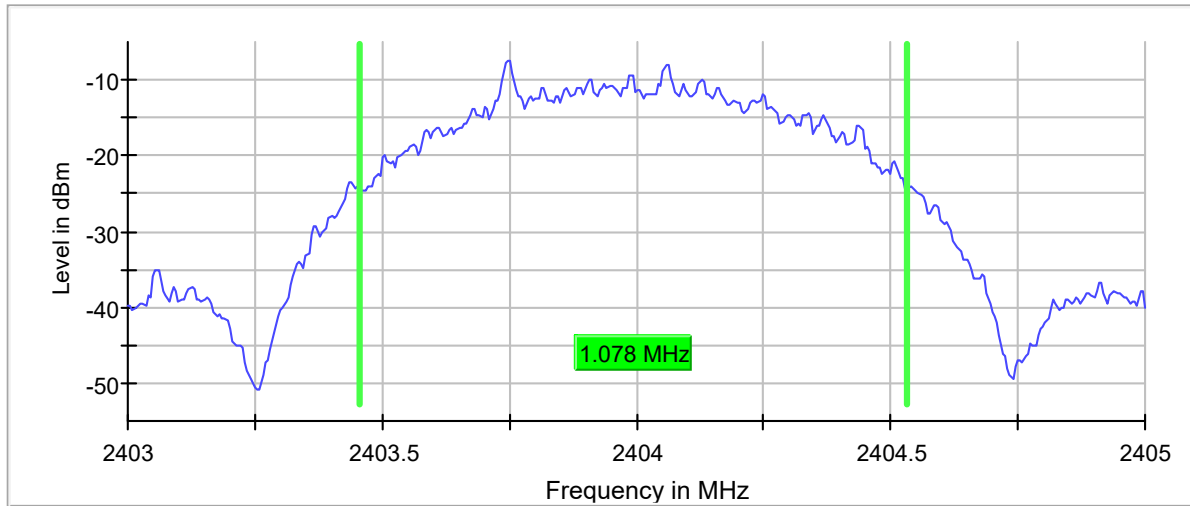
Test Setup Details	
Setup Format	Tabletop
Measurement Method	Antenna Conducted
Type of Test Site	Tabletop
Test Site Used	Test Bench

Measurement Uncertainty	
Measurement Type	Expanded Measurement Uncertainty
Radiated disturbance (electric field strength on an open area test site or alternative test site) (30 MHz – 1000 MHz)	4.3
Radiated disturbance (electric field strength on an open area test site or alternative test site) (1 GHz – 6 GHz)	3.1

Procedure
The antenna port of the EUT was connected to the spectrum analyzer through 20dB of attenuation. The EUT was allowed to transmit continuously. The transmit channel was set separately to low, middle, and high channels. The resolution bandwidth (RBW) was set to 1% to 5% of the actual occupied / x dB bandwidth, the video bandwidth (VBW) was set 3 times greater than the RBW, and the span was set large enough to capture all products of the modulation process, including the emission skirts, around the carrier frequency. The 'Max-Hold' function was engaged. The analyzer was allowed to scan until the envelope of the transmitter bandwidth was defined. The analyzer's display was plotted using a 'screen dump' utility.

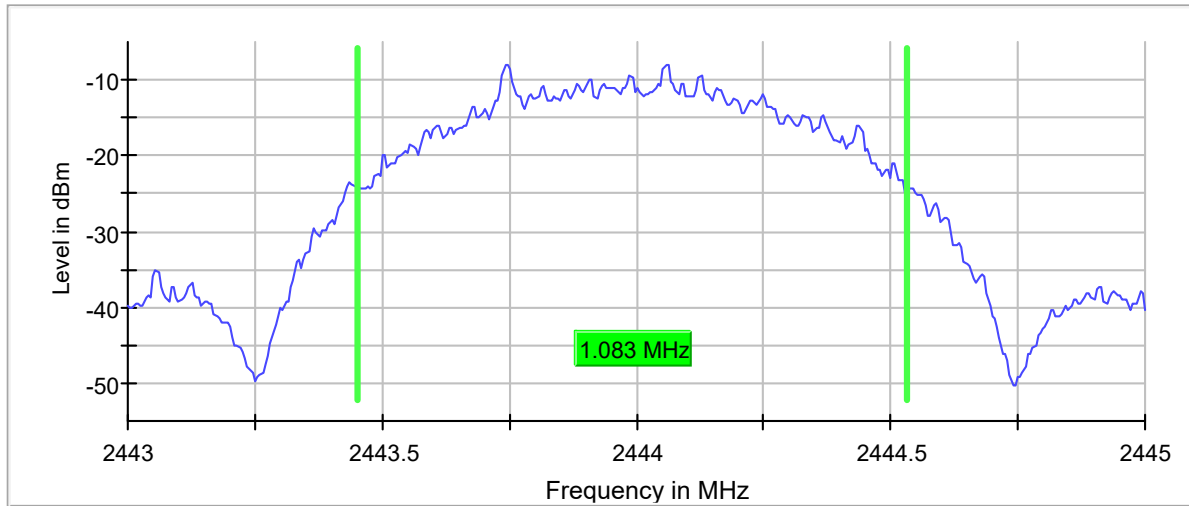
Test Details	
Manufacturer	Roche Diabetes Care Inc
EUT	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086540
Mode	BLE @ 2404MHz
Result	OBW = 1.078MHz

99 % Bandwidth



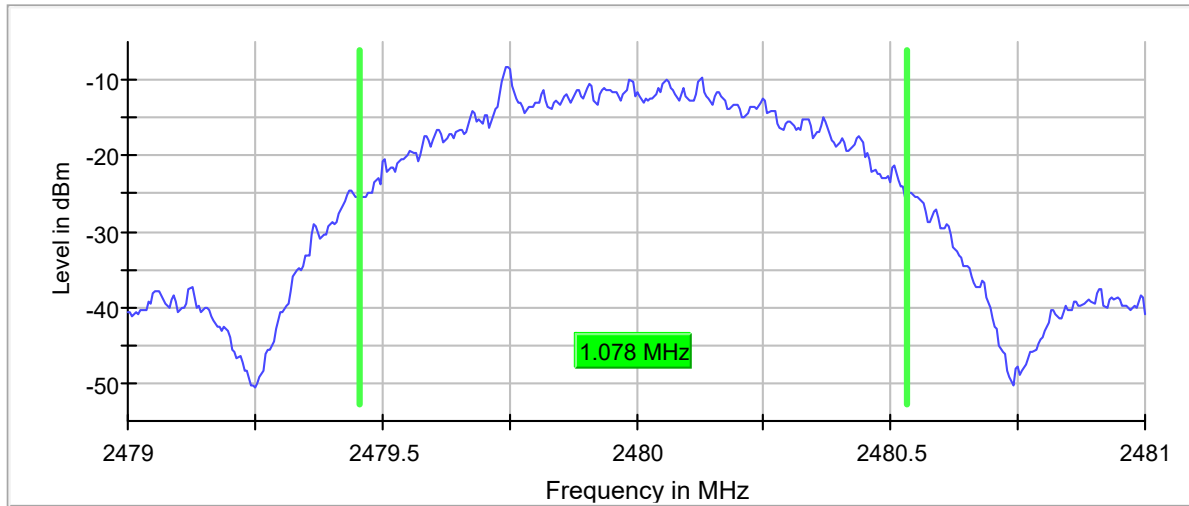
Test Details	
Manufacturer	Roche Diabetes Care Inc
EUT	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086540
Mode	BLE @ 2444MHz
Result	OBW = 1.083MHz

99 % Bandwidth



Test Details	
Manufacturer	Roche Diabetes Care Inc
EUT	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086540
Mode	BLE @ 2480MHz
Result	OBW = 1.078MHz

99 % Bandwidth



22. Maximum Peak Conducted Output Power

EUT Information	
Manufacturer	Roche Diabetes Care Inc
Product	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086540
Mode	BLE @ 2404MHz BLE @ 2444MHz BLE @ 2480MHz

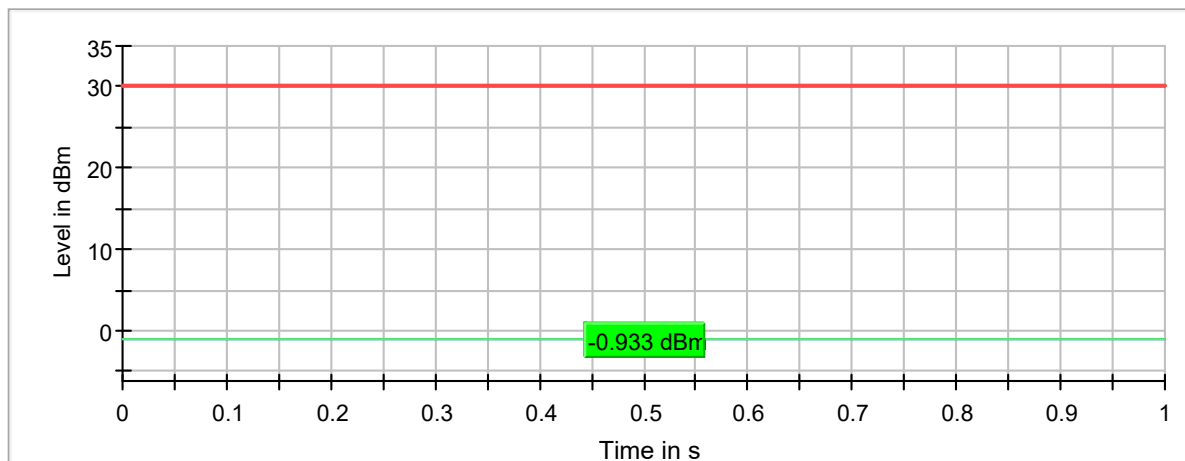
Test Setup Details	
Setup Format	Tabletop
Measurement Method	Antenna Conducted
Type of Test Site	Tabletop
Test Site Used	Test Bench

Requirements
The output power shall not exceed 1W (30dBm).

Procedure
The antenna port of the EUT was connected to the spectrum analyzer through 40dB of attenuation. The EUT was set to transmit separately at the low, middle, and high channels. The resolution bandwidth (RBW) was set to greater than the 6dB bandwidth. The span was set to greater than 3 times the RBW. The 'Max-Hold' function was engaged. The maximum meter reading was recorded. The peak power output was calculated for the low, middle, and high channels.

Test Details	
Manufacturer	Roche Diabetes Care Inc
EUT	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086540
Mode	BLE @ 2404MHz
Result	Output Power = 0.81mW (-0.933dBm)

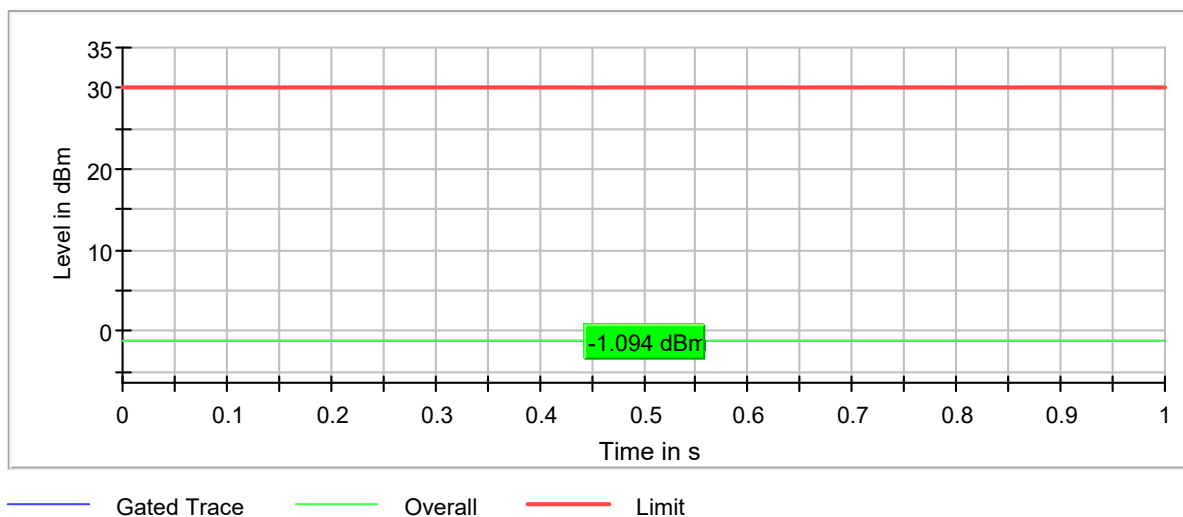
Gated Trace



— Gated Trace
 — Overall
 — Limit

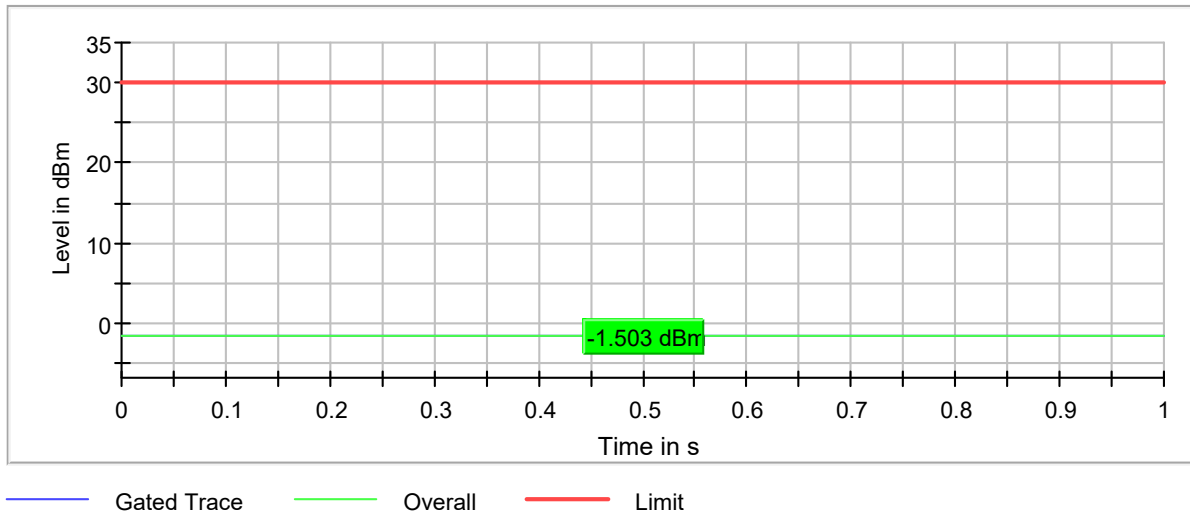
Test Details	
Manufacturer	Roche Diabetes Care Inc
EUT	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086540
Mode	BLE @ 2444MHz
Result	Output Power = 0.78mW (-1.097dBm)

Gated Trace



Test Details	
Manufacturer	Roche Diabetes Care Inc
EUT	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086540
Mode	BLE @ 2480MHz
Result	Output Power = 0.71mW (-1.503dBm)

Gated Trace



23. Effective Isotropic Radiated Power (EIRP)

EUT Information	
Manufacturer	Roche Diabetes Care Inc
Product	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086548
Mode	BLE @ 2404MHz BLE @ 2444MHz BLE @ 2480MHz

Test Setup Details	
Setup Format	Tabletop
Measurement Method	Radiated
Type of Test Site	Semi-Anechoic Chamber
Test Site Used	Room 29
Type of Antennas Used	Double-ridged waveguide (or equivalent)

Measurement Uncertainty	
Measurement Type	Expanded Measurement Uncertainty
Radiated disturbance (electric field strength on an open area test site or alternative test site) (30 MHz – 1000 MHz)	4.3
Radiated disturbance (electric field strength on an open area test site or alternative test site) (1 GHz – 6 GHz)	3.1

Requirements
The output power shall not exceed 4W (36dBm).

Procedure
The EUT was placed on the non-conductive stand and set to transmit. A double ridged waveguide antenna was placed at a test distance of 3 meters from the EUT. The resolution bandwidth (RBW) of the spectrum analyzer was set to greater than the 6dB bandwidth. The EUT was maximized for worst case emissions (or maximum output power) at the measuring antenna. The maximum meter reading was recorded. The peak power output was measured for the low, middle, and high channels. The equivalent power was determined from the field intensity levels measured at 3 meters using the substitution method. To determine the emission power, a dipole antenna (double ridged waveguide antenna for all measurements above 1GHz) was then set in place of the EUT and connected to a calibrated signal generator. The output of the signal generator was adjusted to match the received level at the spectrum analyzer. The signal level was recorded. The reading was then corrected to compensate for cable loss (and antenna gain for all measurements above 1GHz), as required. The peak power output was calculated for low, middle, and high hopping frequencies.

Test Details	
Manufacturer	Roche Diabetes Care Inc
EUT	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086548
Mode	BLE @ 2404MHz BLE @ 2444MHz BLE @ 2480MHz
Result	Max EIRP = 1.2mW (0.8dBm)

Freq (MHz)	Ant Pol	Wide BW Meter Reading (dBμV)	Cable Factor (dB)	Antenna Factor (dB/m)	Pre Amp (dB)	Peak Total (dBμV/m)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2404.00	H	59.2	2.6	32.6	0.0	94.4	-0.9	36.0	-36.9
	V	57.1	2.6	32.6	0.0	92.3	-3.0	36.0	-39.0
2444.00	H	60.7	2.6	32.8	0.0	96.1	0.8	36.0	-35.2
	V	56.6	2.6	32.8	0.0	92.0	-3.3	36.0	-39.3
2480.00	H	59.1	2.7	32.9	0.0	94.7	-0.6	36.0	-36.6
	V	55.0	2.7	32.9	0.0	90.5	-4.8	36.0	-40.8

24. Antenna Conducted Spurious Emissions

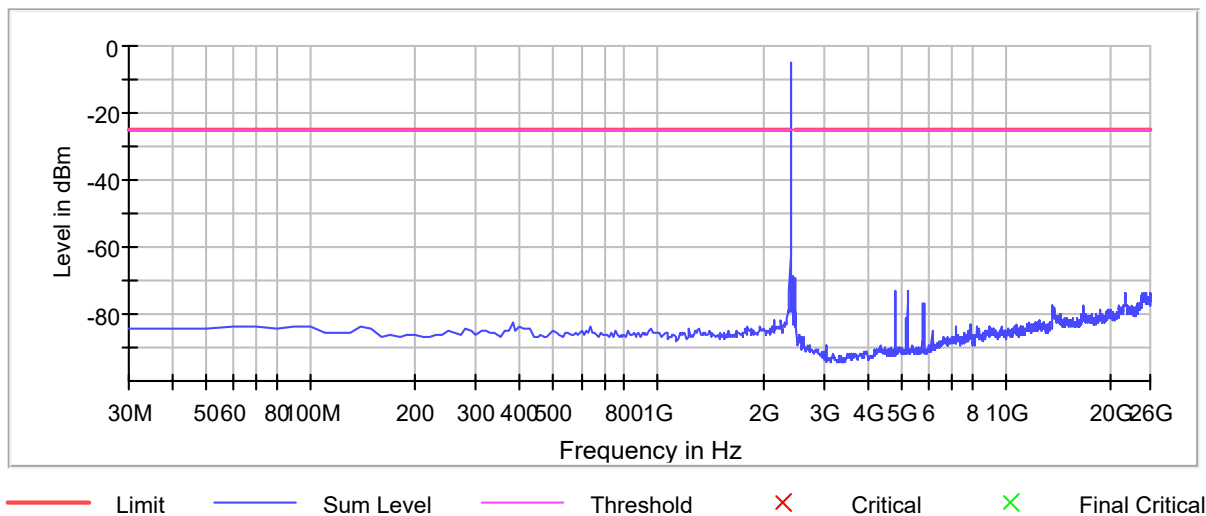
EUT Information	
Manufacturer	Roche Diabetes Care Inc
Product	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086540
Mode	BLE @ 2404MHz BLE @ 2444MHz BLE @ 2480MHz

Test Setup Details	
Setup Format	Tabletop
Measurement Method	Antenna Conducted
Type of Test Site	Tabletop
Test Site Used	Test Bench

Procedure
The antenna port of the EUT was connected to the spectrum analyzer through 20dB of attenuation. The resolution bandwidth (RBW) was set to 100kHz. The peak detector and 'Max-Hold' function were engaged. The emissions in the frequency range from 30MHz to 25GHz were observed and plotted separately with the EUT transmitting at low, middle, and high channels.

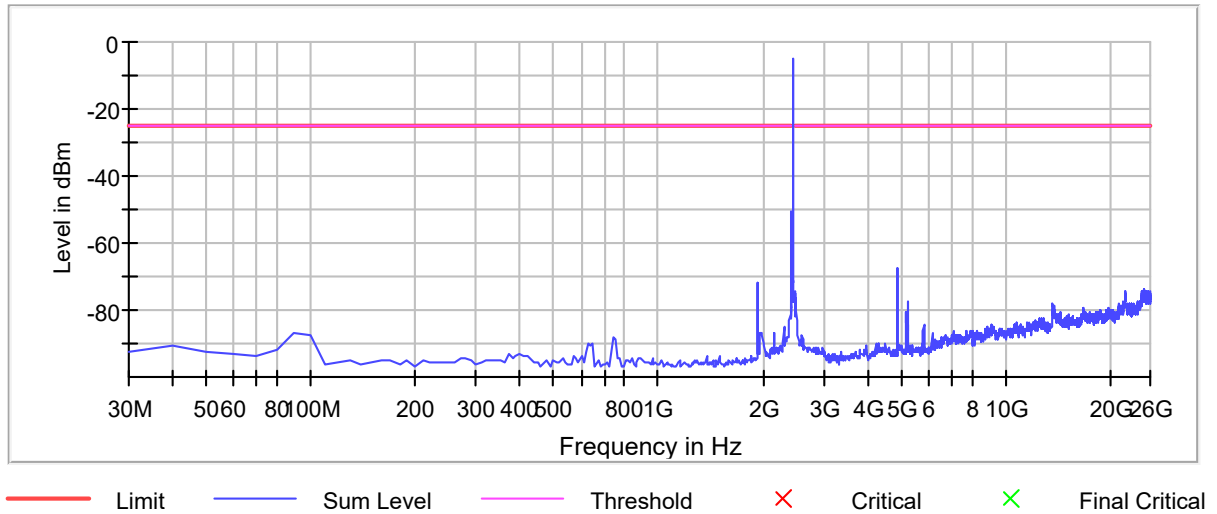
Test Details	
Manufacturer	Roche Diabetes Care Inc
EUT	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086540
Mode	BLE @ 2404MHz
Result	Pass

Spurious



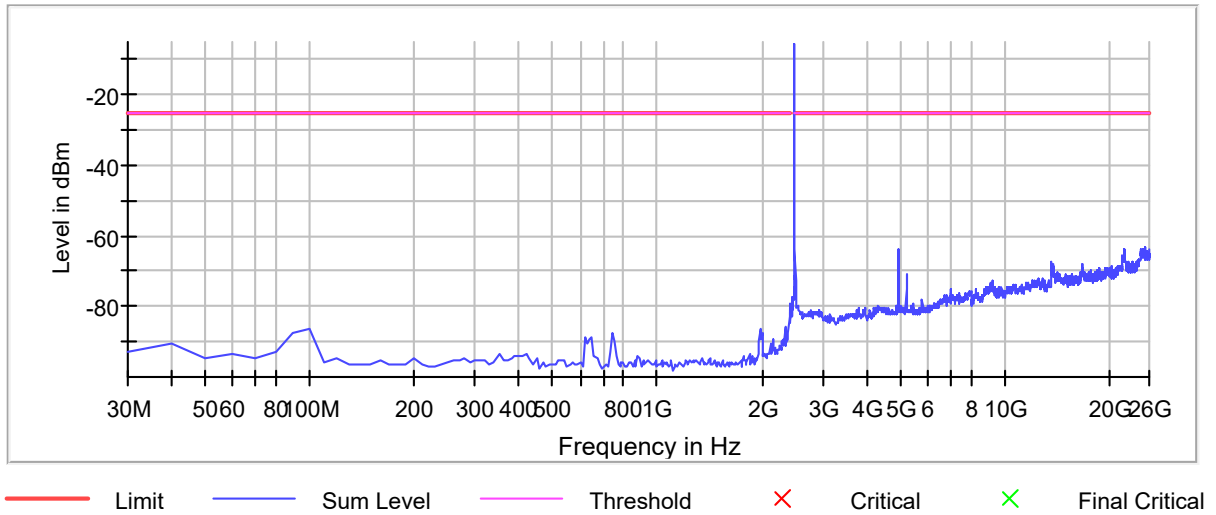
Test Details	
Manufacturer	Roche Diabetes Care Inc
EUT	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086540
Mode	BLE @ 2444MHz
Result	Pass

Spurious



Test Details	
Manufacturer	Roche Diabetes Care Inc
EUT	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086540
Mode	BLE @ 2480MHz
Result	Pass

Spurious



25. Spurious Radiated Emissions

EUT Information	
Manufacturer	Roche Diabetes Care Inc
Product	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086548
Mode	BLE @ 2404MHz BLE @ 2444MHz BLE @ 2480MHz

Test Setup Details	
Setup Format	Tabletop
Type of Test Site	Semi-Anechoic Chamber
Test Site Used	Room 29
Type of Antennas Used	Below 1GHz: Bilog (or equivalent) Above 1 – 18GHz: Double-Ridged Waveguide (or equivalent) Above 18GHz: Horn (or equivalent)

Measurement Uncertainty	
Measurement Type	Expanded Measurement Uncertainty
Radiated disturbance (electric field strength on an open area test site or alternative test site) (30 MHz – 1000 MHz)	4.3
Radiated disturbance (electric field strength on an open area test site or alternative test site) (1 GHz – 6 GHz)	3.1
Radiated disturbance (electric field strength on an open area test site or alternative test site) (6 GHz – 18 GHz)	3.2
Radiated disturbance (electric field strength on an open area test site or alternative test site) (18 GHz – 26.5 GHz)	3.3
Radiated disturbance (electric field strength on an open area test site or alternative test site) (26.5 GHz – 40 GHz)	3.4

Procedure

Radiated measurements were performed in a 32ft. x 20ft. x 14ft. high shielded enclosure. The shielded enclosure prevents emissions from other sources, such as radio and TV stations, from interfering with the measurements. All power lines and signal lines entering the enclosure pass through filters on the enclosure wall. The powerline filters prevent extraneous signals from entering the enclosure on these leads.

Preliminary radiated emissions tests were performed to determine the emission characteristics of the EUT. For the preliminary test, a broadband measuring antenna was positioned at a 3 meter distance from the EUT. The entire frequency range from 30MHz to 25GHz was investigated using a peak detector function.

The final open field emission tests were then manually performed over the frequency range of 30MHz to 25GHz.

1) For all harmonics not in the restricted bands, the following procedure was used:

- a) The field strength of the fundamental was measured using a double ridged waveguide antenna. The waveguide antenna was positioned at a 3 meter distance from the EUT. The EUT was placed on a 1.5 meter high non-conductive stand. A peak detector with a resolution bandwidth of 100 kHz was used on the spectrum analyzer.
- b) The field strengths of all of the harmonics not in the restricted band were then measured using a double-ridged waveguide antenna. The waveguide antenna was positioned at a 3 meter distance from the EUT. The EUT was placed on a 1.5 meter high non-conductive stand. A peak detector with a resolution bandwidth of 100kHz was used on the spectrum analyzer.
- c) To ensure that maximum or worst case emission levels at the fundamental and harmonics were measured, the following steps were taken when measuring the fundamental emissions and the spurious emissions:
 - i) The EUT was rotated so that all of its sides were exposed to the receiving antenna.
 - ii) Since the measuring antenna is linearly polarized, both horizontal and vertical field components were measured.
 - iii) The measuring antenna was raised and lowered for each antenna polarization to maximize the readings.
 - iv) In instances where it was necessary to use a shortened cable between the measuring antenna and the spectrum analyzer, the measuring antenna was not raised or lowered to ensure maximized readings. Instead, the EUT was rotated through all axis to ensure the maximum readings were recorded for the EUT.
- d) All harmonics not in the restricted bands must be at least 20dB below levels measured at the fundamental. However, attenuation below the general limits specified in §15.209(a) is not required.

2) For all emissions in the restricted bands, the following procedure was used:

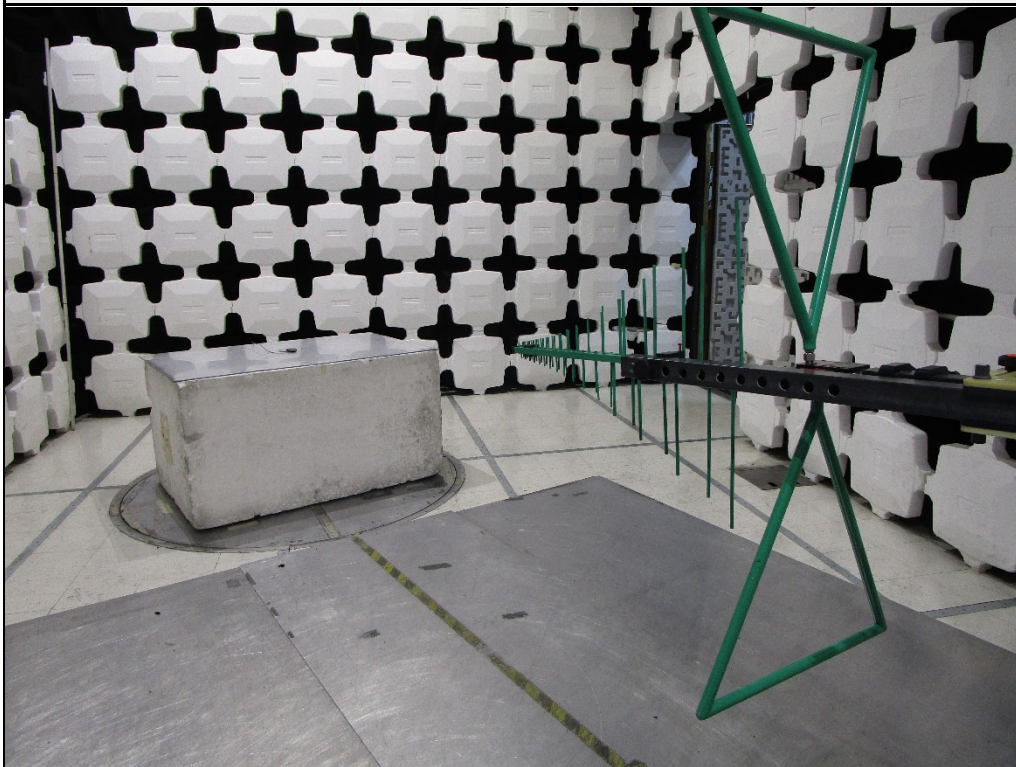
- a) The field strengths of all emissions below 1GHz were measured using a bi-log antenna. The bi-log antenna was positioned at a 3 meter distance from the EUT. The EUT was placed on an 80cm high non-conductive stand. A peak detector with a resolution bandwidth of 100 kHz was used on the spectrum analyzer.
- b) The field strengths of all emissions above 1GHz were measured using a double-ridged waveguide antenna. The waveguide antenna was positioned at a 3 meter distance from the EUT. The EUT was placed on a 1.5 meter high non-conductive stand. A peak detector with a resolution bandwidth of 1MHz was used on the spectrum analyzer.
- c) To ensure that maximum or worst case emission levels were measured, the following steps were taken when taking all measurements:
 - i) The EUT was rotated so that all of its sides were exposed to the receiving antenna.
 - ii) Since the measuring antenna is linearly polarized, both horizontal and vertical field components

were measured.

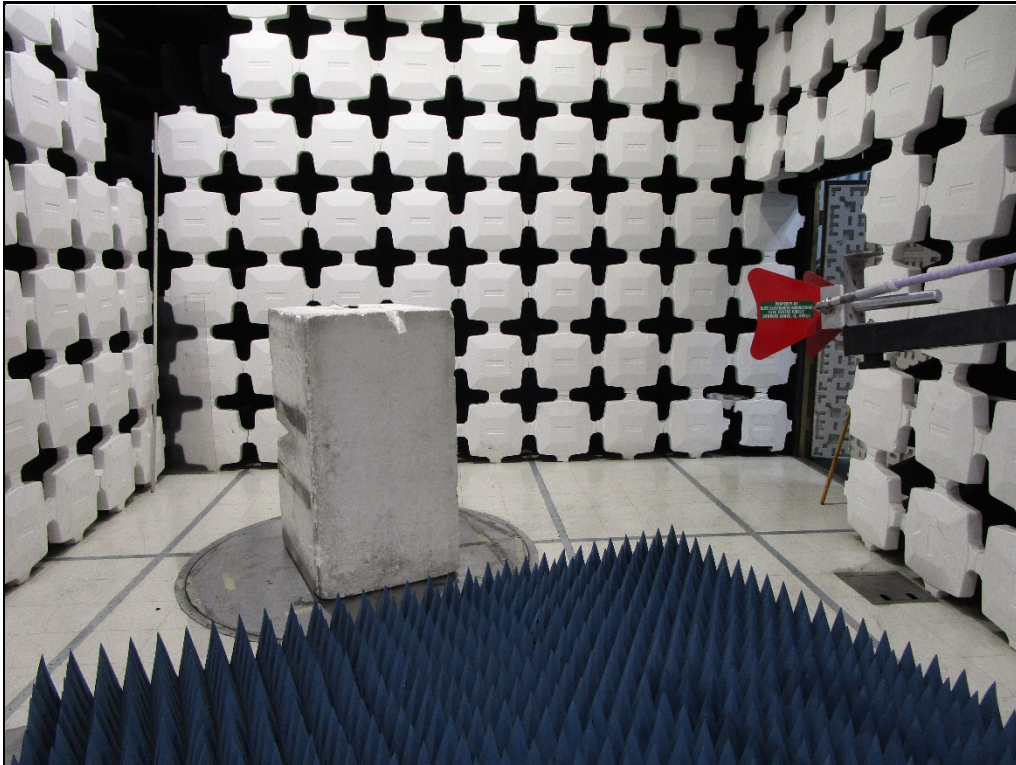
- iii) The measuring antenna was raised and lowered for each antenna polarization to maximize the readings.
- iv) In instances where it was necessary to use a shortened cable between the measuring antenna and the spectrum analyzer, the measuring antenna was not raised or lowered to ensure maximized readings. Instead, the EUT was rotated through all axis to ensure the maximum readings were recorded for the EUT.
- d) For all radiated emissions measurements below 1GHz, if the peak reading is below the limits listed in §15.209(a), no further measurements are required. If, however, the peak readings exceed the limits listed in §15.209(a), then the emissions are remeasured using a quasi-peak detector.
- e) For all radiated emissions measurements above 1GHz, the peak readings must comply with the §15.35(b) limits. §15.35(b) states that when average radiated emissions measurements are specified, there also is a limit on the peak level of the radiated emissions. The limit on the peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. Therefore, all peak readings above 1GHz must be no greater than 20dB above the limits specified in §15.209(a).
- f) Next, for all radiated emissions measurements above 1GHz, the resolution bandwidth was set to 1MHz. The analyzer was set to linear mode with a 10Hz video bandwidth in order to simulate an average detector. An average reading was taken.



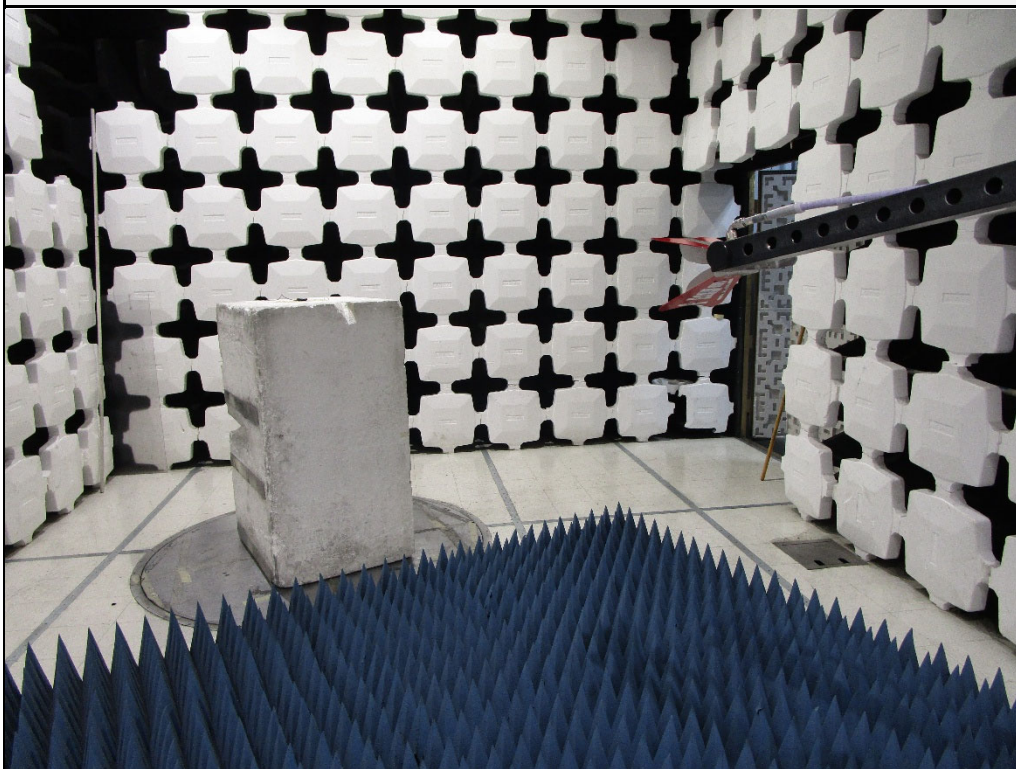
Test Setup for Spurious Radiated Emissions, 30MHz – 1GHz – Antenna
Polarization Horizontal



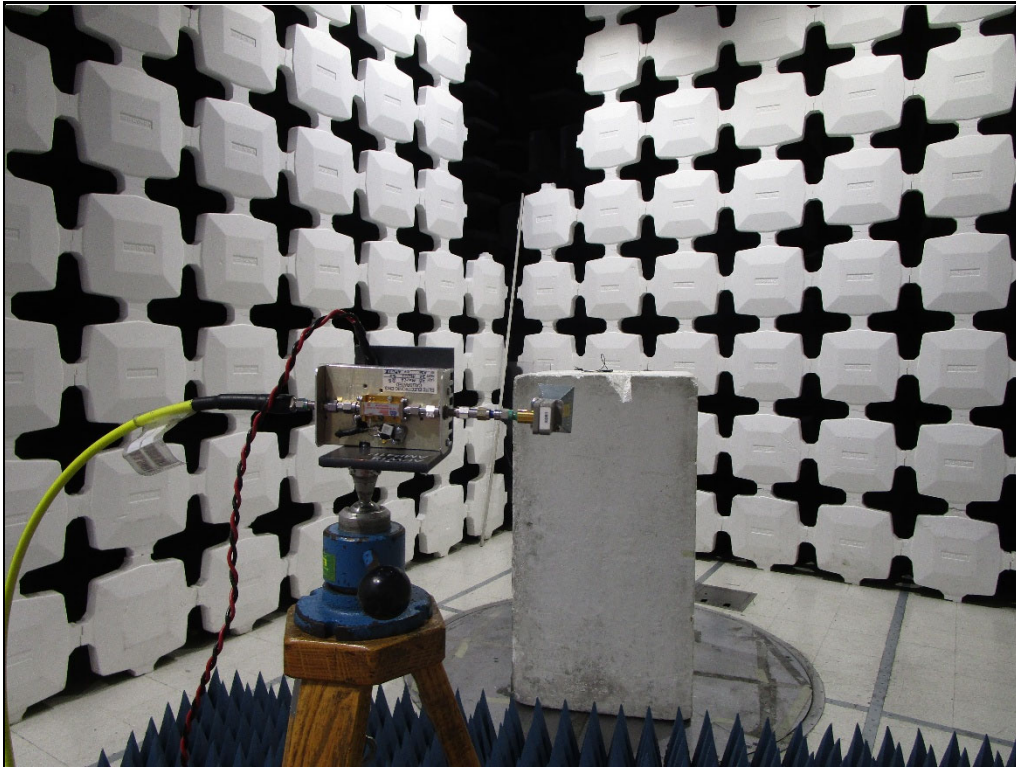
Test Setup for Spurious Radiated Emissions, 30MHz – 1GHz – Antenna
Polarization Vertical



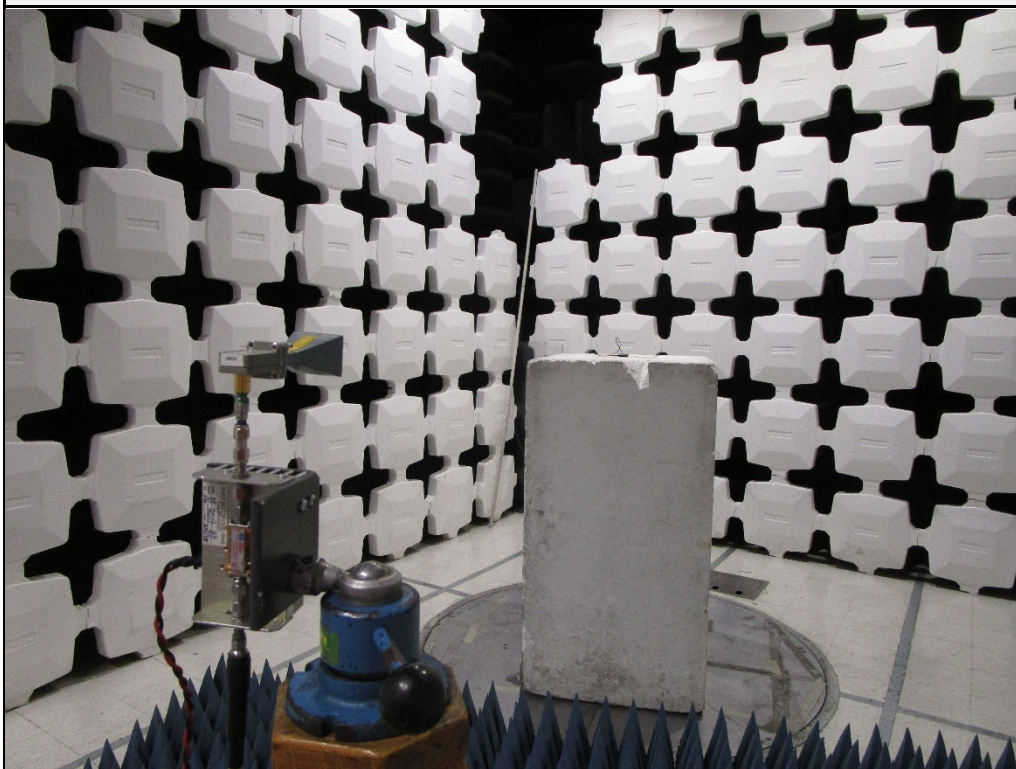
Test Setup for Spurious Radiated Emissions, 1 – 18GHz – Antenna Polarization Horizontal



Test Setup for Spurious Radiated Emissions, 1 – 18GHz – Antenna Polarization Vertical



Test Setup for Spurious Radiated Emissions, Above 18GHz – Antenna Polarization Horizontal



Test Setup for Spurious Radiated Emissions, Above 18GHz – Antenna Polarization Vertical

Test Details	
Manufacturer	Roche Diabetes Care Inc
EUT	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086548
Mode	BLE @ 2404MHz
Notes	Peak Measurements in the Restricted Bands

Freq (MHz)	Ant Pol	Meter Reading (dBμV)	Ambient	Cable Factor (dB)	Antenna Factor (dB/m)	Pre Amp (dB)	Peak Total at 3m (dBμV/m)	Peak Total at 3m (μV/m)	Peak Limit at 3m (μV/m)	Margin (dB)
4808.00	H	49.3	*	3.7	34.7	-39.3	48.4	262.2	5000.0	-25.6
	V	49.2	*	3.7	34.7	-39.3	48.3	258.6	5000.0	-25.7
12020.00	H	49.1	*	6.1	39.0	-39.2	55.1	566.3	5000.0	-18.9
	V	48.3	*	6.1	39.0	-39.2	54.2	513.5	5000.0	-19.8
19232.00	H	39.0	*	1.6	40.4	-31.9	49.1	283.6	5000.0	-24.9
	V	38.6	*	1.6	40.4	-31.9	48.6	270.5	5000.0	-25.3

Test Details	
Manufacturer	Roche Diabetes Care Inc
EUT	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086548
Mode	BLE @ 2404MHz
Notes	Average Measurements in the Restricted Bands

Freq (MHz)	Ant Pol	Meter Reading (dBμV)	Ambient	CBL Fac (dB)	Ant Fac (dB/m)	Pre Amp (dB)	Duty Cycle Factor (dB)	Average Total at 3m (dBμV/m)	Average Total at 3m (μV/m)	Average Limit at 3m (μV/m)	Margin (dB)
4808.00	H	36.32	*	3.7	34.7	-39.3	0.0	35.4	59.0	500.0	-18.6
	V	36.90	*	3.7	34.7	-39.3	0.0	36.0	63.1	500.0	-18.0
12020.00	H	35.90	*	6.1	39.0	-39.2	0.0	41.9	123.9	500.0	-12.1
	V	35.91	*	6.1	39.0	-39.2	0.0	41.9	124.0	500.0	-12.1
19232.00	H	26.33	*	1.6	40.4	-31.9	0.0	36.4	65.7	500.0	-17.6
	V	26.35	*	1.6	40.4	-31.9	0.0	36.4	65.9	500.0	-17.6

Test Details	
Manufacturer	Roche Diabetes Care Inc
EUT	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086548
Mode	BLE @ 2404MHz
Notes	Peak Measurements in Non-Restricted Bands

Freq (MHz)	Ant Pol	Meter Reading (dBμV)	Ambient	Cable Factor (dB)	Antenna Factor (dB/m)	Pre Amp (dB)	Peak Total at 3m (dBμV/m)	Peak Total at 3m (μV/m)	Peak Limit at 3m (μV/m)	Margin (dB)
2404.00	H	57.00		2.6	32.6	0.0	92.2	40693.6	NA	NA
	V	55.03		2.6	32.6	0.0	90.2	32435.9	NA	NA
7212.00	H	38.26	*	4.6	35.7	-39.4	39.2	91.5	4069.4	-33.0
	V	38.49	*	4.6	35.7	-39.4	39.5	94.0	4069.4	-32.7
9616.00	H	38.23	*	5.2	36.7	-39.3	40.8	110.1	4069.4	-31.4
	V	38.43	*	5.2	36.7	-39.3	41.0	112.6	4069.4	-31.2
14424.00	H	38.00	*	6.6	39.9	-38.3	46.3	205.4	4069.4	-25.9
	V	37.75	*	6.6	39.9	-38.3	46.0	199.6	4069.4	-26.2
16828.00	H	37.88	*	7.2	42.7	-37.5	50.2	323.7	4069.4	-22.0
	V	38.44	*	7.2	42.7	-37.5	50.8	345.2	4069.4	-21.4
21636.00	H	25.47	*	1.4	40.6	-30.4	37.0	70.8	4069.4	-35.2
	V	26.39	*	1.4	40.6	-30.4	37.9	78.7	4069.4	-34.3
24040.00	H	27.43	*	1.7	40.6	-31.0	38.8	86.9	4069.4	-33.4
	V	27.07	*	1.7	40.6	-31.0	38.4	83.4	4069.4	-33.8

Test Details	
Manufacturer	Roche Diabetes Care Inc
EUT	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086548
Mode	BLE @ 2444MHz
Notes	Peak Measurements in the Restricted Bands

Freq (MHz)	Ant Pol	Meter Reading (dBμV)	Ambient	Cable Factor (dB)	Antenna Factor (dB/m)	Pre Amp (dB)	Peak Total at 3m (dBμV/m)	Peak Total at 3m (μV/m)	Peak Limit at 3m (μV/m)	Margin (dB)
4888.00	H	49.1	*	3.7	34.6	-39.3	48.0	252.5	5000.0	-25.9
	V	50.2	*	3.7	34.6	-39.3	49.1	285.0	5000.0	-24.9
7332.00	H	49.2	*	4.7	35.7	-39.4	50.2	323.5	5000.0	-23.8
	V	50.1	*	4.7	35.7	-39.4	51.1	357.2	5000.0	-22.9
12220.00	H	47.7	*	6.1	39.1	-39.1	53.8	490.3	5000.0	-20.2
	V	48.0	*	6.1	39.1	-39.1	54.1	505.8	5000.0	-19.9
19552.00	H	39.2	*	1.6	40.4	-30.8	50.3	327.4	5000.0	-23.7
	V	37.8	*	1.6	40.4	-30.8	48.9	278.3	5000.0	-25.1

Test Details	
Manufacturer	Roche Diabetes Care Inc
EUT	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086548
Mode	BLE @ 2444MHz
Notes	Average Measurements in the Restricted Bands

Freq (MHz)	Ant Pol	Meter Reading (dBμV)	Ambient	CBL Fac (dB)	Ant Fac (dB/m)	Pre Amp (dB)	Duty Cycle Factor (dB)	Average Total at 3m (dBμV/m)	Average Total at 3m (μV/m)	Average Limit at 3m (μV/m)	Margin (dB)
4888.00	H	36.52	*	3.7	34.6	-39.3	0.0	35.5	59.3	500.0	-18.5
	V	36.24	*	3.7	34.6	-39.3	0.0	35.2	57.4	500.0	-18.8
7332.00	H	36.52	*	4.7	35.7	-39.4	0.0	37.5	75.2	500.0	-16.5
	V	37.57	*	4.7	35.7	-39.4	0.0	38.6	84.9	500.0	-15.4
12220.00	H	35.87	*	6.1	39.1	-39.1	0.0	41.9	125.2	500.0	-12.0
	V	35.88	*	6.1	39.1	-39.1	0.0	42.0	125.3	500.0	-12.0
19552.00	H	26.52	*	1.6	40.4	-30.8	0.0	37.6	76.1	500.0	-16.3
	V	26.37	*	1.6	40.4	-30.8	0.0	37.5	74.8	500.0	-16.5

Test Details	
Manufacturer	Roche Diabetes Care Inc
EUT	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086548
Mode	BLE @ 2444MHz
Notes	Peak Measurements in Non-Restricted Bands

Freq (MHz)	Ant Pol	Meter Reading (dBμV)	Ambient	Cable Factor (dB)	Antenna Factor (dB/m)	Pre Amp (dB)	Peak Total at 3m (dBμV/m)	Peak Total at 3m (μV/m)	Peak Limit at 3m (μV/m)	Margin (dB)
2444.00	H	59.20		2.6	32.8	0.0	94.6	53723.6	NA	NA
	V	54.35		2.6	32.8	0.0	89.8	30737.3	NA	NA
9776.00	H	39.08	*	5.2	36.9	-39.3	42.0	126.0	5372.4	-32.6
	V	38.45	*	5.2	36.9	-39.3	41.4	117.2	5372.4	-33.2
14664.00	H	37.33	*	6.7	40.2	-38.2	46.0	200.1	5372.4	-28.6
	V	37.52	*	6.7	40.2	-38.2	46.2	204.5	5372.4	-28.4
17108.00	H	38.47	*	7.3	41.8	-37.6	49.9	313.9	5372.4	-24.7
	V	38.18	*	7.3	41.8	-37.6	49.6	303.6	5372.4	-25.0
21996.00	H	27.18	*	1.5	40.6	-30.2	39.1	89.8	5372.4	-35.5
	V	27.63	*	1.5	40.6	-30.2	39.5	94.6	5372.4	-35.1
24440.00	H	27.08	*	1.6	40.6	-31.2	38.1	80.5	5372.4	-36.5
	V	27.32	*	1.6	40.6	-31.2	38.4	82.7	5372.4	-36.2

Test Details	
Manufacturer	Roche Diabetes Care Inc
EUT	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086548
Mode	BLE @ 2480MHz
Notes	Peak Measurements in the Restricted Bands

Freq (MHz)	Ant Pol	Meter Reading (dBμV)	Ambient	Cable Factor (dB)	Antenna Factor (dB/m)	Pre Amp (dB)	Peak Total at 3m (dBμV/m)	Peak Total at 3m (μV/m)	Peak Limit at 3m (μV/m)	Margin (dB)
4960.00	H	48.6	*	3.7	34.4	-39.3	47.4	234.7	5000.0	-26.6
	V	49.4		3.7	34.4	-39.3	48.2	258.5	5000.0	-25.7
7440.00	H	48.8	*	4.7	35.7	-39.4	49.8	309.7	5000.0	-24.2
	V	49.0	*	4.7	35.7	-39.4	50.0	316.9	5000.0	-24.0
12400.00	H	48.9	*	6.1	38.9	-39.0	54.9	553.2	5000.0	-19.1
	V	49.1	*	6.1	38.9	-39.0	55.0	564.8	5000.0	-18.9
19840.00	H	38.1	*	1.5	40.4	-31.1	48.8	276.8	5000.0	-25.1
	V	38.3	*	1.5	40.4	-31.1	49.1	284.6	5000.0	-24.9
22320.00	H	37.7	*	1.4	40.6	-30.8	49.0	280.6	5000.0	-25.0
	V	37.3	*	1.4	40.6	-30.8	48.6	268.9	5000.0	-25.4

Test Details	
Manufacturer	Roche Diabetes Care Inc
EUT	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086548
Mode	BLE @ 2480MHz
Notes	Average Measurements in the Restricted Bands

Freq (MHz)	Ant Pol	Meter Reading (dBμV)	Ambient	CBL Fac (dB)	Ant Fac (dB/m)	Pre Amp (dB)	Duty Cycle Factor (dB)	Average Total at 3m (dBμV/m)	Average Total at 3m (μV/m)	Average Limit at 3m (μV/m)	Margin (dB)
4960.00	H	36.39	*	3.7	34.4	-39.3	0.0	35.2	57.5	500.0	-18.8
	V	37.06		3.7	34.4	-39.3	0.0	35.9	62.1	500.0	-18.1
7440.00	H	37.00	*	4.7	35.7	-39.4	0.0	38.0	79.7	500.0	-16.0
	V	36.18	*	4.7	35.7	-39.4	0.0	37.2	72.5	500.0	-16.8
12400.00	H	36.68	*	6.1	38.9	-39.0	0.0	42.6	135.3	500.0	-11.4
	V	36.75	*	6.1	38.9	-39.0	0.0	42.7	136.4	500.0	-11.3
19840.00	H	26.29	*	1.5	40.4	-31.1	0.0	37.0	71.2	500.0	-16.9
	V	26.21	*	1.5	40.4	-31.1	0.0	37.0	70.5	500.0	-17.0
22320.00	H	25.40	*	1.4	40.6	-30.8	0.0	36.7	68.1	500.0	-17.3
	V	25.35	*	1.4	40.6	-30.8	0.0	36.6	67.7	500.0	-17.4

Test Details	
Manufacturer	Roche Diabetes Care Inc
EUT	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086548
Mode	BLE @ 2480MHz
Notes	Peak Measurements in Non-Restricted Bands

Freq (MHz)	Ant Pol	Meter Reading (dBμV)	Ambient	Cable Factor (dB)	Antenna Factor (dB/m)	Pre Amp (dB)	Peak Total at 3m (dBμV/m)	Peak Total at 3m (μV/m)	Peak Limit at 3m (μV/m)	Margin (dB)
2480.00	H	56.69		2.7	32.9	0.0	92.3	41123.8	NA	NA
	V	51.51		2.7	32.9	0.0	87.1	22651.3	NA	NA
9920.00	H	38.99	*	5.3	37.1	-39.2	42.1	127.3	4112.4	-30.2
	V	39.04	*	5.3	37.1	-39.2	42.1	128.0	4112.4	-30.1
14880.00	H	48.35	*	6.8	40.1	-38.2	57.1	714.8	4112.4	-15.2
	V	47.95	*	6.8	40.1	-38.2	56.7	682.7	4112.4	-15.6
17360.00	H	48.81	*	7.4	41.7	-37.7	60.1	1017.0	4112.4	-12.1
	V	48.89	*	7.4	41.7	-37.7	60.2	1026.4	4112.4	-12.1
24800.00	H	27.02	*	1.8	40.6	-31.1	38.4	82.9	4112.4	-33.9
	V	26.92	*	1.8	40.6	-31.1	38.3	81.9	4112.4	-34.0

26. Band-Edge Compliance

EUT Information	
Manufacturer	Roche Diabetes Care Inc
Product	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905 905
Serial No.	90510086548 90510086540
Mode	BLE @ 2404MHz BLE @ 2480MHz

Test Setup Details	
Setup Format	Tabletop
Measurement Method	Radiated Antenna Conducted
Type of Test Site	Semi-Anechoic Chamber Elite Test Bench
Type of Antennas Used	Double-Ridged Waveguide (or equivalent)

Measurement Uncertainty	
Measurement Type	Expanded Measurement Uncertainty
Radiated disturbance (electric field strength on an open area test site or alternative test site) (30 MHz – 1000 MHz)	4.3
Radiated disturbance (electric field strength on an open area test site or alternative test site) (1 GHz – 6 GHz)	3.1

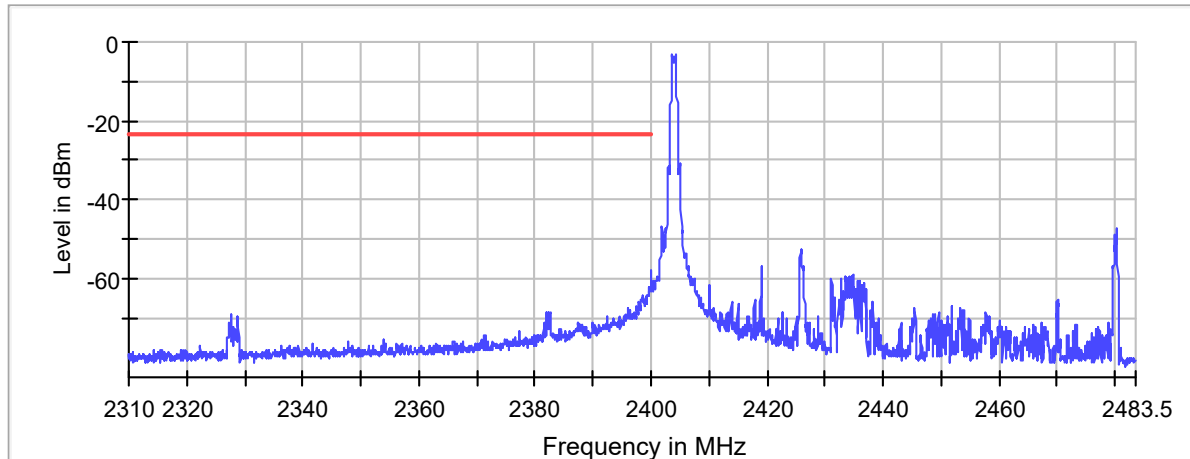
Procedure
1) Low Band Edge: - The EUT was set up inside the test chamber on a non-conductive stand and a broadband measuring antenna was placed at a test distance of 3 meters from the EUT. - The EUT was set to transmit continuously at the channel closest to the low band-edge. - The EUT was maximized for worst case emissions at the measuring antenna and the maximum meter reading was recorded. - To determine the band edge compliance, the following spectrum analyzer settings were used: - Center Frequency = 2400MHz (low band-edge frequency). - Span = Wide enough to capture the peak level of the emission operating on the channel closest to the band-edge, as well as any modulation products which fall outside of the authorized band of operation. - Resolution Bandwidth (RBW) = $\geq 1\%$ of the span. 'Max-Hold' function was engaged. - The analyzer was allowed to scan until the envelope of the transmitter bandwidth was defined. - The marker was set on the peak of the in-band emissions. A display line was placed 20dB down from the peak of the in-band emissions. All emissions which fall outside of the authorized band of operation must be below the 20dB down display line. (All emissions to the left of the center frequency (band-edge) must be below the display line.) - The analyzer's display was then screenshot and saved.

2) High Band Edge:

- a) The EUT was set up inside the test chamber on a non-conductive stand and set to transmit continuously at the channel closest to the high band-edge.
- b) A broadband measuring antenna was placed at a test distance of 3 meters from the EUT. The antenna was connected to the input of a spectrum analyzer.
- c) The center frequency of the analyzer was set to the high band edge (2483.5MHz).
- d) The Resolution Bandwidth was set to 1MHz.
- e) To ensure that the maximum or worst case emission level was measured, the following steps were taken:
 - o The EUT was rotated so that all of its sides were exposed to the receiving antenna.
 - o Since the measuring antenna is linearly polarized, both horizontal and vertical field components were measured.
 - o The EUT was rotated so that all of its sides were exposed to the receiving antenna.
 - o The measuring antenna was raised and lowered from 1 to 4 meters for each antenna polarization to maximize the readings.
 - o The highest measured peak reading and the highest measured average reading were recorded.

Test Details	
Manufacturer	Roche Diabetes Care Inc
EUT	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086540
Mode	BLE @ 2404MHz
Notes	Low Band Edge

Band Edge

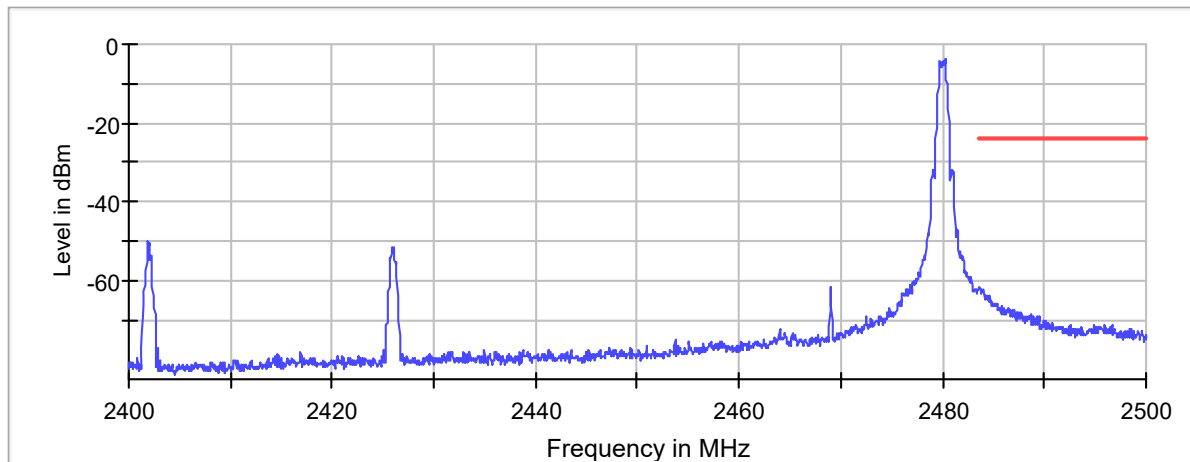


— Limit — Sum Level × Fail

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2399.949972	-58.1	34.9	-23.2	PASS
2399.899944	-61.7	38.6	-23.2	PASS
2399.549750	-62.2	39.0	-23.2	PASS
2399.649805	-62.2	39.1	-23.2	PASS
2399.599778	-62.4	39.2	-23.2	PASS
2399.849917	-62.4	39.2	-23.2	PASS
2399.499722	-62.9	39.7	-23.2	PASS
2399.799889	-63.4	40.2	-23.2	PASS
2399.749861	-63.5	40.3	-23.2	PASS
2399.699833	-64.0	40.8	-23.2	PASS
2399.099500	-64.0	40.8	-23.2	PASS
2399.449694	-64.4	41.2	-23.2	PASS
2399.399666	-64.4	41.2	-23.2	PASS
2398.449138	-64.4	41.3	-23.2	PASS
2399.149528	-64.5	41.3	-23.2	PASS

Test Details	
Manufacturer	Roche Diabetes Care Inc
EUT	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905 905
Serial No.	90510086548 90510086540
Mode	BLE @ 2480MHz
Notes	High Band Edge

Band Edge



— Limit — Sum Level × Fail

Freq (MHz)	Ant Pol	Meter Reading (dBμV)	Ambient	Cable Factor (dB)	Antenna Factor (dB/m)	Pre Amp (dB)	Peak Total at 3m (dBμV/m)	Peak Total at 3m (μV/m)	Peak Limit at 3m (μV/m)	Margin (dBm)
2483.50	H	26.5		2.7	32.9	0.0	62.1	1270.6	5000.0	-11.9
	V	26.2		2.7	32.9	0.0	61.8	1227.4	5000.0	-12.2

Freq (MHz)	Ant Pol	Meter Reading (dBμV)	Ambient	CBL Fac (dB)	Ant Fac (dB/m)	Pre Amp (dB)	Duty Cycle Factor (dB)	Average Total at 3m (dBμV/m)	Average Total at 3m (μV/m)	Average Limit at 3m (μV/m)	Margin (dB)
2483.50	H	10.68		2.7	32.9	0.0	0.0	46.3	206.3	500.0	-7.7
	V	10.63		2.7	32.9	0.0	0.0	46.2	205.1	500.0	-7.7

27. Power Spectral Density

EUT Information	
Manufacturer	Roche Diabetes Care Inc
Product	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086540
Mode	BLE @ 2404MHz BLE @ 2444MHz BLE @ 2480MHz

Test Setup Details	
Setup Format	Tabletop
Measurement Method	Antenna Conducted
Type of Test Site	Tabletop
Test Site Used	Test Bench

Measurement Uncertainty	
Measurement Type	Expanded Measurement Uncertainty
Radiated disturbance (electric field strength on an open area test site or alternative test site) (30 MHz – 1000 MHz)	4.3
Radiated disturbance (electric field strength on an open area test site or alternative test site) (1 GHz – 6 GHz)	3.1

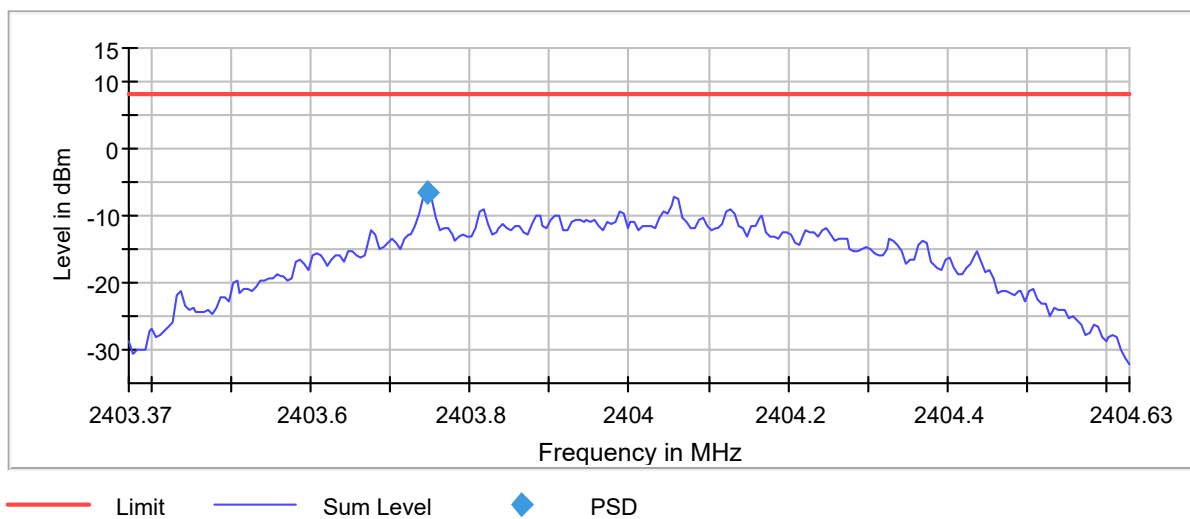
Requirement
The power spectral density from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz band during any time interval of continuous transmission.

Procedure
1) The antenna port of the EUT was connected to the spectrum analyzer through a 20dB pad. 2) The EUT was then placed in the normal operation mode. 3) To determine the power spectral density, the following spectrum analyzer settings were used: a) Center Frequency = Transmit Frequency b) Span = 1.5× the DTS (6dB) bandwidth c) Resolution Bandwidth (RBW) = 3kHz ≤ RBW ≤ 100kHz d) Sweep time = Auto e) Detector = Peak f) Trace Function = Max-Hold 4) A display line was then placed on the corresponding +8dBm level. 5) The analyzers display was then screenshot and saved.

Test Details	
Manufacturer	Roche Diabetes Care Inc
EUT	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086540
Mode	BLE @ 2404MHz
Result	PSD = -6.486dBm

DUT Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2404.000000	-6.486	8.0	PASS

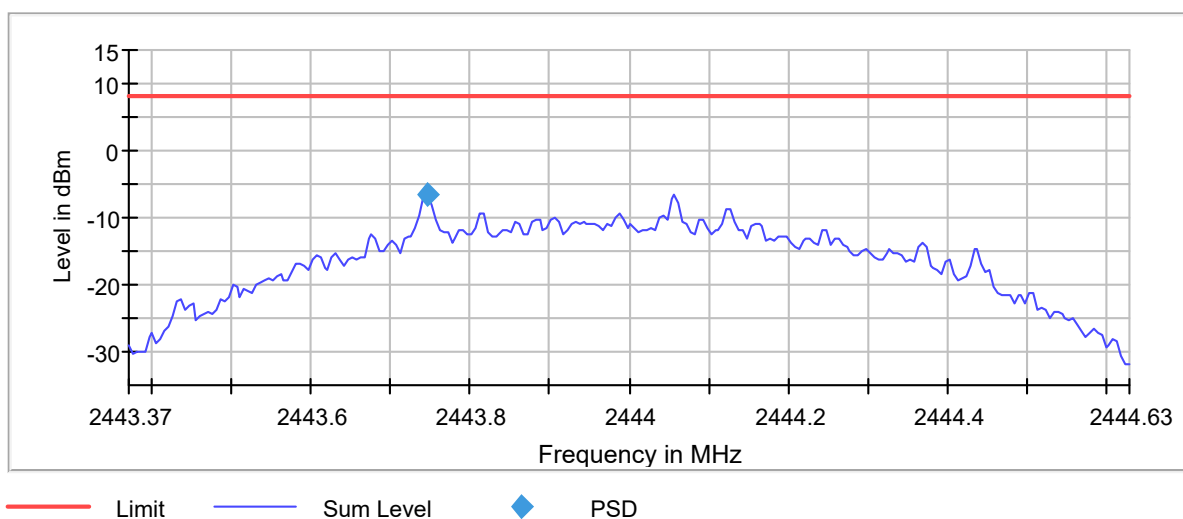
Peak Power Spectral Density



Test Details	
Manufacturer	Roche Diabetes Care Inc
EUT	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086540
Mode	BLE @ 2444MHz
Result	PSD = -6.632dBm

DUT Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2444.000000	-6.632	8.0	PASS

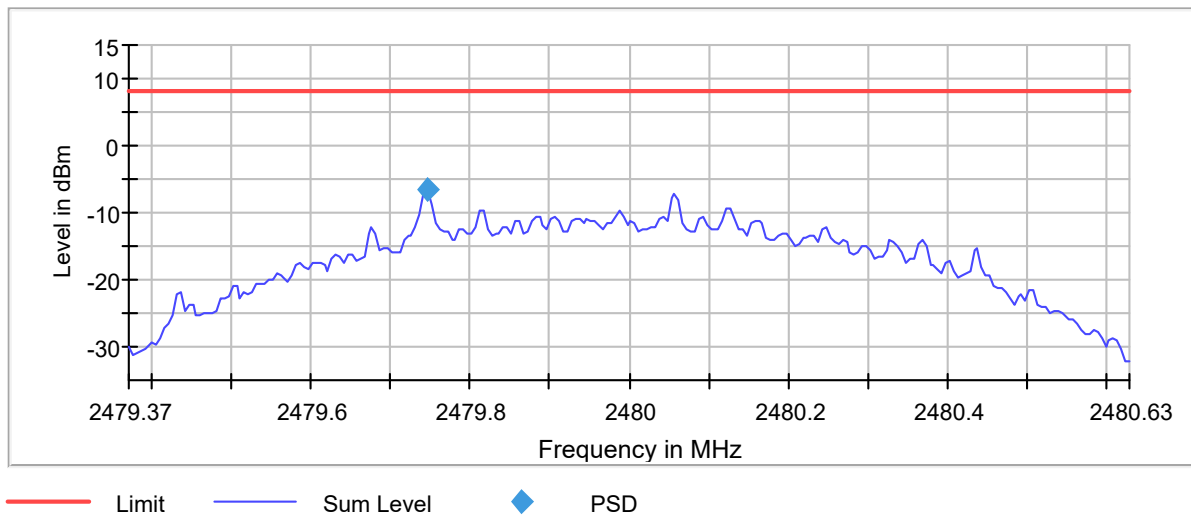
Peak Power Spectral Density



Test Details	
Manufacturer	Roche Diabetes Care Inc
EUT	Accu-Chek Guide Me Blood Glucose Meter
Model No.	905
Serial No.	90510086540
Mode	BLE @ 2480MHz
Result	PSD = -6.658dBm

DUT Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2480.000000	-6.658	8.0	PASS

Peak Power Spectral Density



28. Scope of Accreditation

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

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Website: www.elitetest.com

ELECTRICAL

Valid To: June 30, 2027

Certificate Number: 1786.01

In recognition of the successful completion of the A2LA Accreditation Program evaluation process, accreditation is granted to this laboratory at the location listed above, as well as the satellite location listed below, to perform the following automotive electromagnetic compatibility and other electrical tests:

Test Technology:**Test Method(s)¹:**

Transient Immunity
(Max Voltage 1500 V/Max current 1000 A)

ISO 7637-2 (including emissions); ISO 7637-3; ISO 7637-4;
ISO 16750-2, Sections 4.6.3 and 4.6.4;
ISO 21498-1; ISO 21498-2;
CS.00054, Section 5.9; CS.00244 Section 5.2.15 through 5.2.21; CS.00245; CS.00246 Section 5.2.4;
EMC-CS-2009.1 (CI220); FMC1278 (CI220, CI221, CI222);
GMW 3097, Section 3.5; SAE J1113-11; SAE J1113-12;
ECE Regulation 10.06 Annex 10

Electrostatic Discharge (ESD)
(Up to +/-25 kV)

ISO 10605 (2001, 2008); ISO 10605;
CS.00054, Section 5.10; CS.00244 Section 5.5;
EMC-CS-2009.1 (CI 280); FMC1278 (CI280); SAE J1113-13;
GMW 3097 Section 3.6

Conducted Emissions

CISPR 25 (2002, 2008), Sections 6.2 and 6.3;
CISPR 25 (2016), Sections 6.3 and 6.4; CISPR 25;
CS.00054, Sections 5.6.1 and 5.6.2;
CS.00244 Sections 5.4.2 and 5.4.3; GMW 3097, Section 3.3.2;
EMC-CS-2009.1 (CE 420); FMC1278 (CE420, CE421, CE 430, CE440)

(A2LA Cert. No. 1786.01) 08/14/2025



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5202 Presidents Court, Suite 220 | Frederick, MD 21703-8398 | Phone: 301 644 3248 | Fax: 240 454 9449 | www.A2LA.org

Test Technology:
Test Method(s)¹:

Radiated Emissions Anechoic
(Up to 6 GHz)

CISPR 25 (2002, 2008), Section 6.4;
CISPR 25 (2016), Section 6.5; CISPR 25;
CS.00054, Section 5.6.3; CS.00244 Section 5.4.4;
GMW 3097, Section 3.3.1;
EMC-CS-2009.1 (RE 310); FMC1278 (RE310, RE320)

Vehicle Radiated Emissions

CISPR 12; CISPR 36; ICES-002;
ECE Regulation 10.06 Annex 4;
ECE Regulation 10.06 Annex 5

Bulk Current Injection (BCI)
(1 to 400MHz 500mA)

ISO 11452-4; CS.00054, Section 5.8.1;
CS.00244 Section 5.3.2;
GMW 3097, Section 3.4.1; SAE J1113-4;
EMC-CS-2009.1 (RI112); FMC1278 (RI112);
ECE Regulation 10.06 Annex 9

Radiated Immunity Anechoic
(Up to 6GHz and 200V/m)
(Including Radar Pulse 600V/m)

ISO 11452-2;
CS.00054, Section 5.8.2; CS.00244 Section 5.3.3;
GMW 3097, Section 3.4.2;
EMC-CS-2009.1 (RI114); FMC1278 (RI114); SAE J1113-21;
ECE Regulation 10.06 Annex 9

Radiated Immunity Magnetic Field

ISO 11452-8; FMC 1278 (RI140); CS.00244 Section 5.3.4

Radiated Immunity Reverb
(360MHz to 6GHz and 100V/m)

ISO/IEC 61000-4-21; GMW 3097, Section 3.4.3;
EMC-CS-2009.1 (RI114); FMC1278 (RI114);
ISO 11452-11

Radiated Immunity
(Portable Transmitters)
(Up to 6GHz and 20W)

ISO 11452-9;
CS.00244 Section 5.3.5;
EMC-CS-2009.1 (RI115); FMC1278 (RI115);
GMW 3097, Sec 3.4.4

Vehicle Radiated Immunity (ALSE)

ISO 11451-2; ECE Regulation 10.06 Annex 6

Vehicle Product Specific EMC Standards

EN 14982; EN ISO 13309; ISO 13766; EN 50498;
EC Regulation No. 2015/208; EN 55012

Electrical Loads

ISO 16750-2

Stripline

ISO 11452-5

Emissions

Radiated and Conducted
(3m Semi-anechoic chamber,
up to 40 GHz)

47 CFR, FCC Part 15 B (using ANSI C63.4:2014);
47 CFR, FCC Part 18 (using FCC MP-5:1986);
ICES-001; ICES-003; ICES-005;
IEC/CISPR 11, Ed. 4.1 (2004-06); AS/NZS CISPR 11 (2004);
IEC/CISPR 11 Ed 5 (2009-05) + A1 (2010);
KN 11 (2008-5) with RRL Notice No. 2008-3 (May 20, 2008);
CISPR 11; EN 55011; KS C 9811; CNS 13803 (1997, 2003);
CISPR 14-1; EN 55014-1; AS/NZS CISPR 14.1;

Test Technology:

Radiated and Conducted (cont'd)
(3m Semi-anechoic chamber,
up to 40 GHz)

Test Method(s)¹:

CISPR 16-2-1 (2008); CISPR 16-2-1; KS C 9814-1; KN 14-1;
IEC/CISPR 22 (1997);
EN 55022 (1998) + A1(2000);
EN 55022 (1998) + A1(2000) + A2(2003); EN 55022 (2006);
IEC/CISPR 22 (2008-09); AS/NZS CISPR 22 (2004);
AS/NZS CISPR 22, 3rd Edition (2006); KN 22 (up to 6 GHz);
CNS 13438 (up to 6 GHz); VCCI V-3 (up to 6 GHz);
CISPR 32; EN 55032; KS C 9832; KN 32;
ECE Regulation 10.06 Annex 7 (Broadband);
ECE Regulation 10.06 Annex 8 (Narrowband);
ECE Regulation 10.06 Annex 13 (Conducted);
ECE Regulation 10.06 Annex 14 (Conducted)

Cellular Radiated Spurious Emissions

ETSI TS 151 010-1 GSM; 3GPP TS 51.010-1, Sec 12;
ETSI TS 134 124 UMTS; 3GPP TS 34.124;
ETSI TS 136 124 LTE; E-UTRA; 3GPP TS 36.124

Current Harmonics

IEC 61000-3-2; IEC 61000-3-12;
EN 61000-3-2; KN 61000-3-2;
KS C 9610-3-2; ECE Regulation 10.06 Annex 11

Flicker and Fluctuations

IEC 61000-3-3; IEC 61000-3-11;
EN 61000-3-3; KN 61000-3-3;
KS C 9610-3-3; ECE Regulation 10.06 Annex 12

Immunity

Electrostatic Discharge

IEC 61000-4-2, Ed. 1.2 (2001);
IEC 61000-4-2 (1995) + A1(1998) + A2(2000);
EN 61000-4-2 (1995); EN 61000-4-2 (2009-05);
KN 61000-4-2 (2008-5);
RRL Notice No. 2008-4 (May 20, 2008);
IEC 61000-4-2; EN 61000-4-2; KN 61000-4-2;
KS C 9610-4-2; IEEE C37.90.3 2001

Radiated Immunity

IEC 61000-4-3 (1995) + A1(1998) + A2(2000);
IEC 61000-4-3, Ed. 3.0 (2006-02);
IEC 61000-4-3, Ed. 3.2 (2010);
KN 61000-4-3 (2008-5);
RRL Notice No. 2008-4 (May 20, 2008);
IEC 61000-4-3; EN 61000-4-3; KN 61000-4-3;
KS C 9610-4-3; IEEE C37.90.2 2004

Electrical Fast Transient/Burst

IEC 61000-4-4, Ed. 2.0 (2004-07);
IEC 61000-4-4, Ed. 2.1 (2011);
IEC 61000-4-4 (1995) + A1(2000) + A2(2001);
KN 61000-4-4 (2008-5);
RRL Notice No. 2008-5 (May 20, 2008);
IEC 61000-4-4; EN 61000-4-4; KN 61000-4-4;
KS C 9610-4-4; ECE Regulation 10.06 Annex 15

Test Technology:
Test Method(s)¹:

Surge

IEC 61000-4-5 (1995) + A1(2000);
IEC 61000-4-5, Ed 1.1 (2005-11);
EN 61000-4-5 (1995) + A1(2001);
KN 61000-4-5 (2008-5);
RRL Notice No. 2008-4 (May 20, 2008);
IEC 61000-4-5; EN 61000-4-5; KN 61000-4-5;
KS C 9610-4-5;
IEEE C37.90.1 2012; IEEE STD C62.41.2 2002;
ECE Regulation 10.06 Annex 16

Conducted Immunity

IEC 61000-4-6 (1996) + A1(2000);
IEC 61000-4-6, Ed 2.0 (2006-05);
IEC 61000-4-6 Ed. 3.0 (2008);
KN 61000-4-6 (2008-5);
RRL Notice No. 2008-4 (May 20, 2008);
EN 61000-4-6 (1996) + A1(2001); IEC 61000-4-6;
EN 61000-4-6; KN 61000-4-6; KS C 9610-4-6

Power Frequency Magnetic Field Immunity (*Down to 3 A/m*)

IEC 61000-4-8 (1993) + A1(2000); IEC 61000-4-8 (2009);
EN 61000-4-8 (1994) + A1(2000);
KN 61000-4-8 (2008-5);
RRL Notice No. 2008-4 (May 20, 2008);
IEC 61000-4-8; EN 61000-4-8; KN 61000-4-8; KS C 9610-4-8

Voltage Dips, Short Interrupts, and Line Voltage Variations

IEC 61000-4-11, Ed. 2 (2004-03);
KN 61000-4-11 (2008-5);
RRL Notice No. 2008-4 (May 20, 2008);
IEC 61000-4-11; EN 61000-4-11; KN 61000-4-11;
KS C 9610-4-11

Ring Wave

IEC 61000-4-12, Ed. 2 (2006-09);
EN 61000-4-12:2006;
IEC 61000-4-12; EN 61000-4-12; KN 61000-4-12;
IEEE STD C62.41.2 2002

Generic and Product Specific EMC Standards

IEC/EN 61000-6-1; AS/NZS 61000-6-1; KN 61000-6-1;
KS C 9610-6-1; IEC/EN 61000-6-2; AS/NZS 61000-6-2;
KN 61000-6-2; KS C 9610-6-2; IEC/EN 61000-6-3;
AS/NZS 61000-6-3; KN 61000-6-3; KS C 9610-6-3;
IEC/EN 61000-6-4; AS/NZS 61000-6-4; KN 61000-6-4;
KS C 9610-6-4; EN 50130-4; EN 61326-1; EN 50121-3-2;
EN 12895; EN 50270; EN 50491-1; EN 50491-2; EN 50491-3;
EN 55015; EN 60730-1; EN 60945; IEC 60533;
EN 61326-2-6; EN 61800-3; IEC/CISPR 14-2; EN 55014-2;
AS/NZS CISPR 14.2; KN 14-2; KS C 9814-2;
IEC/CISPR 24; AS/NZS CISPR 24; EN 55024; KN 24;
IEC/CISPR 35; AS/NZS CISPR 35; EN 55035; KN 35;
KS C 9835; IEC 60601-1-2; JIS T0601-1-2; ANSI C63.27

Test Technology:
Test Method(s)¹:
TxRx EMC Requirements

EN 301 489-1; EN 301 489-3; EN 301 489-9;
EN 301 489-17; EN 301 489-19; EN 301 489-20

European Radio Test Standards

ETSI EN 300 086-1; ETSI EN 300 086-2;
ETSI EN 300 113-1; ETSI EN 300 113-2;
ETSI EN 300 220-1; ETSI EN 300 220-2;
ETSI EN 300 220-3-1; ETSI EN 300 220-3-2;
ETSI EN 300 330-1; ETSI EN 300 330-2;
ETSI EN 300 440-1; ETSI EN 300 440-2;
ETSI EN 300 422-1; ETSI EN 300 422-2;
ETSI EN 300 328; ETSI EN 301 893;
ETSI EN 301 511; ETSI EN 301 908-1;
ETSI EN 908-2; ETSI EN 908-13;
ETSI EN 303 413; ETSI EN 302 502;
EN 303 340; EN 303 345-2; EN 303 345-3; EN 303 345-4

Canadian Radio Tests

RSS-102; RSS-102.NS.MEAS;
SPR-002; RSS-111; RSS-112; RSS-117; RSS-119; RSS-123;
RSS-125; RSS-127; RSS-130; RSS-131; RSS-132; RSS-133;
RSS-134; RSS-135; RSS-137; RSS-139; RSS-140; RSS-141;
RSS-142; RSS-170; RSS-181; RSS-182; RSS-192; RSS-194;
RSS-195; RSS-196; RSS-197; RSS-198; RSS-199;
RSS-210 (up to 40 GHz); RSS-211 (up to 40 GHz);
RSS-213; RSS-215; RSS-216 (up to 40 GHz);
RSS-220 (up to 40 GHz); RSS-222; RSS-236; RSS-238;
RSS-243; RSS-244; RSS-247; RSS-248; RSS-252; RSS-287;
RSS-288; RSS-310; RSS-GEN

Mexico Radio Tests

IFT-008-2015; NOM-208-SCFI-2016

Japan Radio Tests

Radio Law No. 131, Ordinance of MPT No. 37, 1981,
MIC Notification No. 88:2004, Table No. 22-11;
ARIB STD-T66, Regulation 18

Taiwan Radio Tests

LP-0002 (February 6, 2024)

Australia/New Zealand Radio Tests

AS/NZS 4268; Radiocommunications (Short Range Devices)
Standard (2014)

Hong Kong Radio Tests

HKCA 1039 Issue 6; HKCA 1042; HKCA 1033 Issue 7;
HKCA 1061; HKCA 1008; HKCA 1043; HKCA 1057;
HKCA 1073

Korean Radio Test Standards

KN 301 489-1; KN 301 489-3; KN 301 489-9;
KN 301 489-17; KN 301 489-52; KS X 3124; KS X 3125;
KS X 3130; KS X 3126; KS X 3129

Vietnam Radio Test Standards

QCVN 47:2015/BTTTT; QCVN 54:2020/BTTTT;
QCVN 55:2011/BTTTT; QCVN 65:2013/BTTTT;
QCVN 73:2013/BTTTT; QCVN 74:2020/BTTTT;
QCVN 112:2017/BTTTT; QCVN 117:2020/BTTTT

Test Technology:
Test Method(s)¹:
Vietnam EMC Test Standards

QCVN 18:2014/BTTTT; QCVN 86:2019/BTTTT;
QCVN 96:2015/BTTTT; QCVN 118:2018/BTTTT

Unlicensed Radio Frequency Devices
(3 Meter Semi-Anechoic Room)

47 CFR FCC Part 15C, 15D, 15E, 15F, 15G, 15H
(using ANSI C63.10:2020, ANSI C63.17:2013 and
FCC KDB 905462 D02 (v02))

Licensed Radio Service Equipment

47 CFR FCC Parts 20, 22, 24, 25, 27, 30, 73, 74, 80, 87,
90, 95, 96, 97, 101 (using ANSI/TIA-603-E,
TIA-102.CAAA-E, ANSI C63.26:2015); ANSI/TIA-603-F

OTA (Over the Air) Performance

GSM, GPRS, EGPRS
UMTS (W-CDMA)
LTE Cat 0+, M1, NB1
A-GNSS for UMTS/GSM, LTE
Large Device/Laptop/Tablet Testing
Integrated Device Testing
WiFi 802.11 a/b/g/n/ac

CTIA Test Plan for Wireless Device Over-the-Air
Performance (Method for Measurement for Radiated Power
and Receiver Performance) V6.0²;
CTIA Test Plan for RF Performance Evaluation of WiFi
Mobile Converged Devices V4.0²
***Electrical Measurements and
Simulation***

AC Voltage / Current
(1mV to 5kV) 60 Hz
(0.1V to 250V) up to 500 MHz
(1μA to 150A) 60 Hz

FAA AC 150/5345-10;
FAA AC 150/5345-43;
FAA AC 150/5345-44;
FAA AC 150/5345-46;
FAA AC 150/5345-47;
FAA EB 67

DC Voltage / Current
(1mV to 15 kV) / (1μA to 10A)

Power Factor / Efficiency / Crest Factor
(Power to 30kW)

Resistance
(1mΩ to 4000MΩ)

Surge
(Up to 10 kV / 5 kA) (Combination
Wave and Ring Wave)