

**Engineering Test Report No. 2102299-01 Rev. A**

Report Date	August 9, 2021	
Applicant Name	Roche Diabetes Care, Inc	
Applicant Address	9115 Hauge Rd Indianapolis, IN 46250	
Manufacturer Name and Address	Roche Diabetes Care, GmbH Sandhofer Strasse 116 68305 Mannheim Germany	
Model No.	Accu-Chek Instant	
Date Received	July 29, 2021	
Test Dates	August 3, 2021 to August 5, 2021	
Specifications	FCC "Code of Federal Regulations" Title 47 Part 15, Subpart C, Section 15.247 FCC "Code of Federal Regulations" Title 47, Part15, Subpart 15B	
Test Facility	Elite Electronic Engineering, Inc. 1516 Centre Circle, Downers Grove, IL 60515	FCC Reg. Number: 269750 CAB Identifier: US0107
Signature		
Tested by	John Peters	
Signature		
Approved by	Raymond J. Klouda, Registered Professional Engineer of Illinois – 44894	
PO Number	4170030386	

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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 test specification. The data presented in this test report pertains to the EUT on the test date(s) 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. This report must not be used to claim product certification, approval, or endorsement by A2LA, NIST, or any agency of the Federal Government.

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## 1. Report Revision History

Revision	Date	Description
–	10 AUG 2021	Initial Release of Engineering Test Report No. 2102299-01 Rev. A
A	19 AUG 2021 By John Peters	Throughout report: Added Rev A to the report number in the header of each page. Cover page: Changed Manufacturer Name to Applicant Name. Changed Manufacturer Address to Applicant Address. Added the Manufacturer name and address located in Germany.

## 2. Introduction

### 2.1. Scope of Tests

This document presents the results of a limited series of RF emissions tests that were performed on the Roche Diabetes Care, Inc Instant 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, Part15, Subpart C, Sections 15.247 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	Instant Forward Blood Glucose Meter
Model/Part No.	Accu-Chek Instant
S/N	97204633982 & 97204633980
Device Type	Digitally Modulated Transmission Device
Band of Operation	2400-2483.5MHz
Modulation Type	BLE
Manufacturer Declared Output Power	0dBm
6dB Bandwidth	900kHz
Occupied Bandwidth (99% CBW)	3.9MHz
Size of EUT	77.1 x 48.6 x 15.3 mm (LWH)

The EUTs listed above were used throughout the test series.

## 3. Power Input

The EUTs were powered by 3VDC from internal batteries.

## 4. Grounding

The EUTs were not connected to ground.

## 5. Support Equipment

The EUTs were submitted for testing along with the following support equipment:

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

## 6. Interconnect Leads

The following interconnect cables were submitted with the test item:

Item	Description
USB cable	Connects laptop to EUT

## 7. Modifications Made to the EUT

No modifications were made to the EUTs during the testing.

## 8. Modes of Operation

The EUTs and all peripheral equipment were energized. The units were programmed to transmit in one of the following modes:

Mode	Description
Bluetooth Tx	<ul style="list-style-type: none"><li>- 2402MHz, Power Setting = 0dBm</li><li>- 2440MHz, Power Setting = 0dBm</li><li>- 2480MHz, Power Setting = 0dBm</li></ul>

## 9. Test Specifications

The tests were performed to selected portions of, and in accordance with the FCC "Code of Federal Regulations" Title 47 Part 15, Subpart C, Section 15.247 test specifications.

- 1) Federal Communications Commission "Code of Federal Regulations", Title 47, Part 15, Subpart C
- 2) Federal Communications Commission "Code of Federal Regulations", Title 47, Part 15, Subpart B
- 3) ANSI C63.4-2014, "American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9kHz to 40 GHz"
- 4) ANSI C63.10-2013, "American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices"

1. 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

## 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 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

Ambient Parameters	Value
Temperature	24.1°C
Relative Humidity	30%
Atmospheric Pressure	1019.8mb



## 13. Summary

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

Test Description	Requirements	Test Methods	S/N	Results
6dB Bandwidth	FCC 15C 15.247 ISED RSS-247	ANSI C63.10: 2013	97204633982	Conforms
Occupied Bandwidth (99%)	FCC 15C 15.247 ISED RSS-247	ANSI C63.10: 2013	97204633982	Conforms
Maximum Peak Conducted Output Power	FCC 15C 15.247 ISED RSS-247	ANSI C63.10: 2013	97204633982	Conforms
Antenna Conducted Spurious Emissions	FCC 15C 15.247 ISED RSS-247	ANSI C63.10: 2013	97204633982	Conforms
Band-Edge Compliance	FCC 15C 15.247 ISED RSS-247	ANSI C63.10: 2013	97204633982 and 97204633980	Conforms
Power Spectral Density	FCC 15C 15.247 ISED RSS-247	ANSI C63.10: 2013	97204633982	Conforms

## 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).

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

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.

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

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

$$\text{Formula 2: } FS \text{ (uV/m)} = \text{AntiLog} [(FS \text{ (dBuV/m)})/20]$$

## 15. Statement of Conformity

The Roche Diabetes Care, Inc Instant Blood Glucose Meter, Model No. Accu-Chek Instant, did fully conform to the selected requirements of FCC "Code of Federal Regulations" Title 47 Part 15, Subpart C, Section 15.247.

## 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 test specification. The data presented in this test report pertains to the EUTs on the test date specified. Any electrical or mechanical modifications made to the EUTs 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
GSFB	OSP120 BASE UNIT	ROHDE & SCHWARZ	OSP120	101246	---	5/11/2021	5/11/2023
GSFE	OSP120	ROHDE & SCHWARZ	OSP120	101288	.01-40GHZ	6/11/2021	6/11/2023
MDC30	DIGITAL MULTIMETER (J. PETERS)	FLUKE	179	31370208	I;VDC;VAC;R	2/25/2021	2/25/2022
NSDS1	UNIVERSAL SPHERICAL DIPOLE SOURCE	AET	USDS-H	AET-1116		NOTE 1	
NWQ2	DOUBLE RIDGED WAVEGUIDE ANTENNA	ETS LINDGREN	3117	66659	1GHZ-18GHZ	4/7/2020	4/7/2022
RBG0	EMI ANALYZER	ROHDE & SCHWARZ	ESW44	101533	10HZ-44GHZ	3/2/2021	3/2/2022
RBG2	EMI ANALYZER	ROHDE & SCHWARZ	ESW44	101591	2HZ-44GHZ	3/11/2021	3/11/2022
SES0	24VDC POWER SUPPLY	P-TRANS	FS-32024-1M	001	18-27VDC	NOTE 1	
VBV2	CISPR EN FCC ICES RE.EXE	ELITE	CISPR EN FCC ICES RE.EXE	---	---	N/A	
WKA1	SOFTWARE, UNIVERSAL RCV EMI	ELITE	UNIV_RCV_EMI	1	---	I/O	

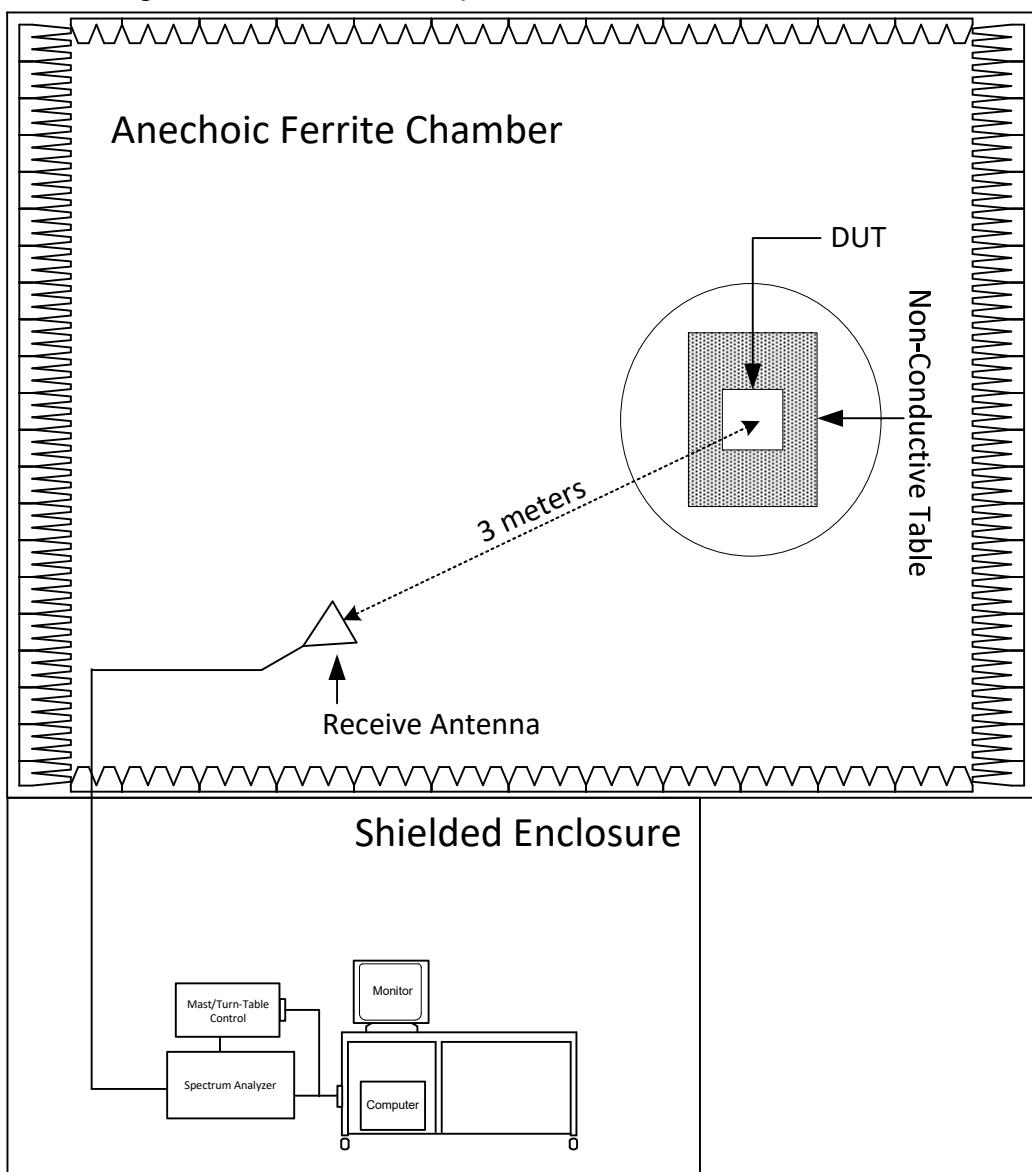
N/A: Not Applicable

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

Test Information	
Manufacturer	Roche Diabetes Care, Inc
Product	Instant Blood Glucose Meter
Model	Accu-Chek Instant
Serial No	97204633982
Mode	Bluetooth Tx

Test Setup Details	
Setup Format	Tabletop
Height of Support	NA
Measurement Method	Antenna Conducted
Type of Test Site	EMC Workbench
Test site used	NA
Type of Antennas Used	NA
Notes	None

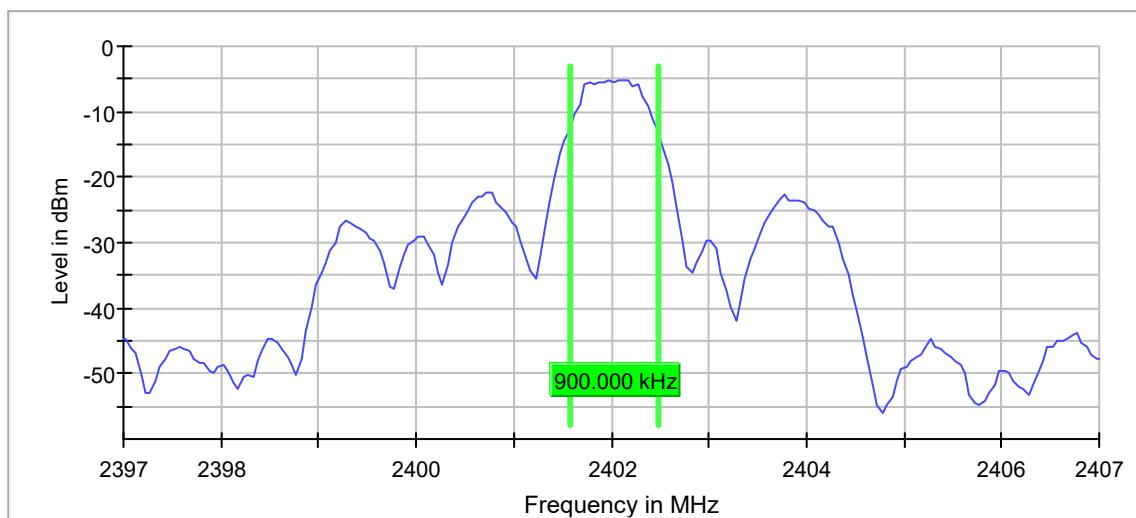
Requirements	
Systems using digital modulation techniques shall have a minimum 6 dB bandwidth of 500 kHz	

Procedures	
The antenna port of the EUT was connected to the spectrum analyzer.	
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 plotted using a 'screen dump' utility.	

Test Details	
Manufacturer	Roche Diabetes Care, Inc
Model	Accu-Chek Instant
S/N	97204633982
Mode	Bluetooth Tx
Carrier Frequency	2402MHz
Parameters	6dB BW = 900kHz
Notes	None

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	0.900000	0.500000	---	2401.575000	2402.475000

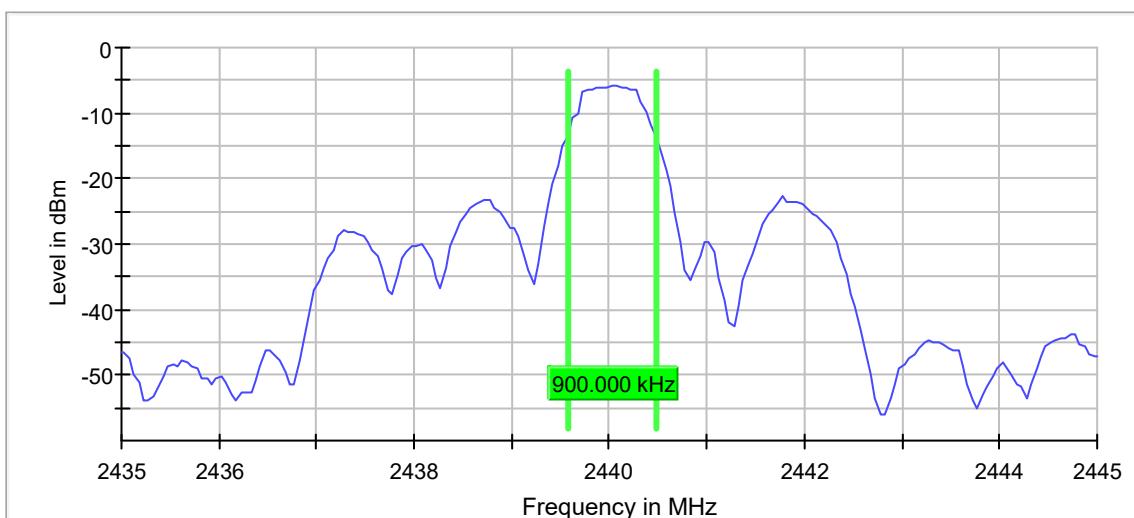
DUT Frequency (MHz)	Max Level (dBm)	Result
2402.000000	-5.2	PASS



Test Details	
Manufacturer	Roche Diabetes Care, Inc
Model	Accu-Chek Instant
S/N	97204633982
Mode	Bluetooth Tx
Carrier Frequency	2440MHz
Parameters	6dB BW = 900kHz
Notes	None

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	0.900000	0.500000	---	2439.575000	2440.475000

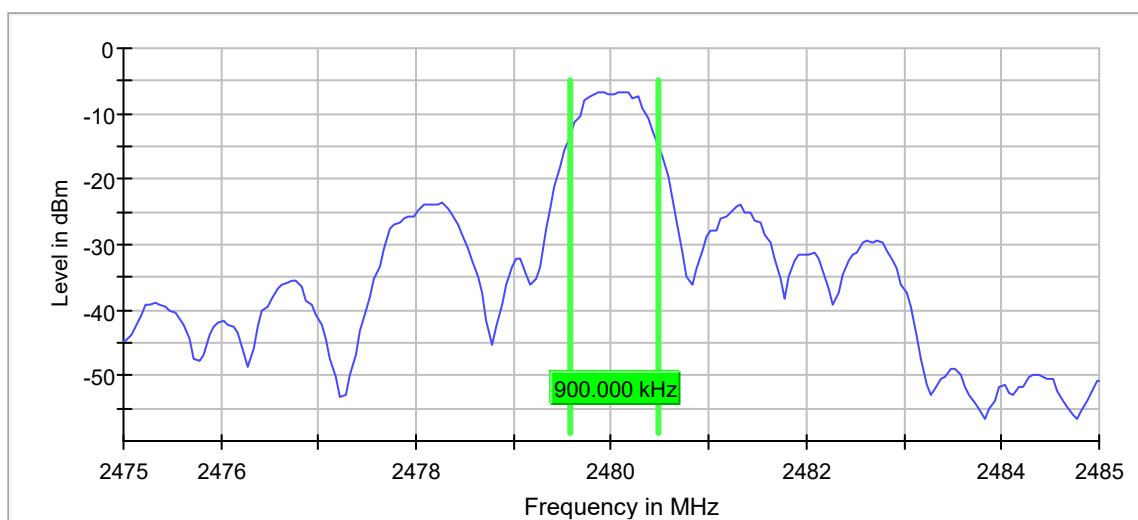
DUT Frequency (MHz)	Max Level (dBm)	Result
2440.000000	-5.7	PASS



Test Details	
Manufacturer	Roche Diabetes Care, Inc
Model	Accu-Chek Instant
S/N	97204633982
Mode	Bluetooth Tx
Carrier Frequency	2480MHz
Parameters	6dB BW = 900kHz
Notes	None

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	0.900000	0.500000	---	2479.575000	2480.475000

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	-6.8	PASS



## 21. Occupied Bandwidth (99%)

Test Information	
Manufacturer	Roche Diabetes Care, Inc
Product	Instant Blood Glucose Meter
Model	Accu-Chek Instant
Serial No	97204633982
Mode	Bluetooth Tx

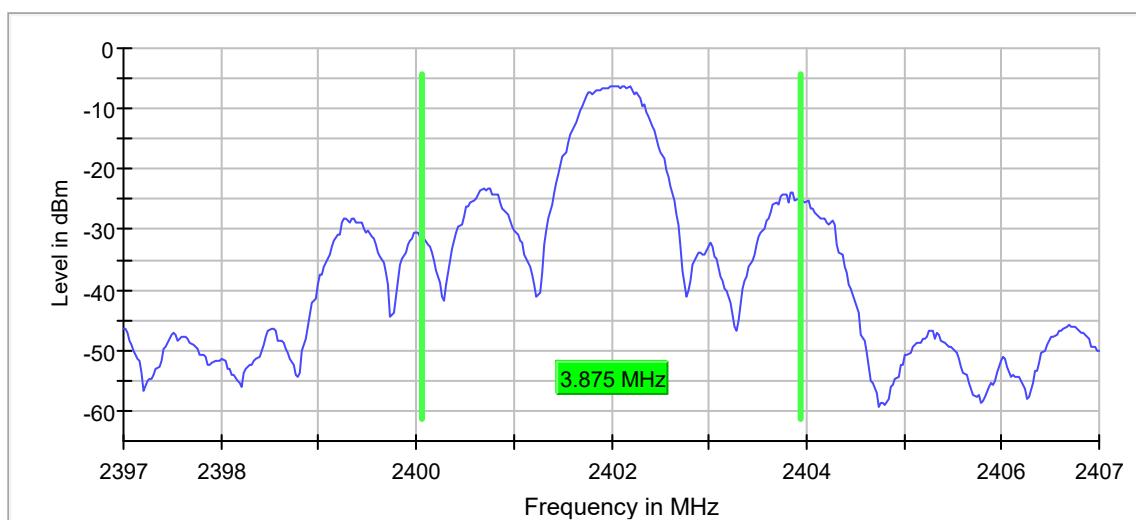
Test Setup Details	
Setup Format	Tabletop
Height of Support	NA
Measurement Method	Antenna Conducted
Type of Test Site	EMC Workbench
Test site used	NA
Type of Antennas Used	NA
Notes	None

Procedures
<p>The antenna port of the EUT was connected to the spectrum analyzer.</p> <p>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.</p> <p>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.</p>

Test Details	
Manufacturer	Roche Diabetes Care, Inc
Model	Accu-Chek Instant
S/N	97204633982
Mode	Bluetooth Tx
Carrier Frequency	2402MHz
Parameters	OBW = 3.875MHz
Notes	None

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	3.875000	---	---	2400.062500	2403.937500

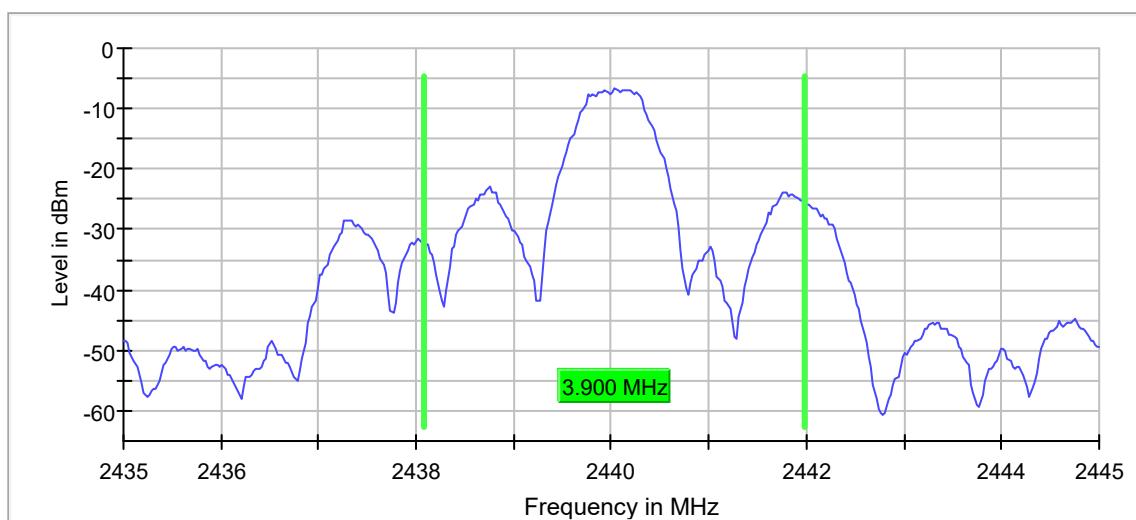
DUT Frequency (MHz)	Result
2402.000000	PASS



Test Details	
Manufacturer	Roche Diabetes Care, Inc
Model	Accu-Chek Instant
S/N	97204633982
Mode	Bluetooth Tx
Carrier Frequency	2440MHz
Parameters	OBW = 3.900MHz
Notes	None

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	3.900000	---	---	2438.087500	2441.987500

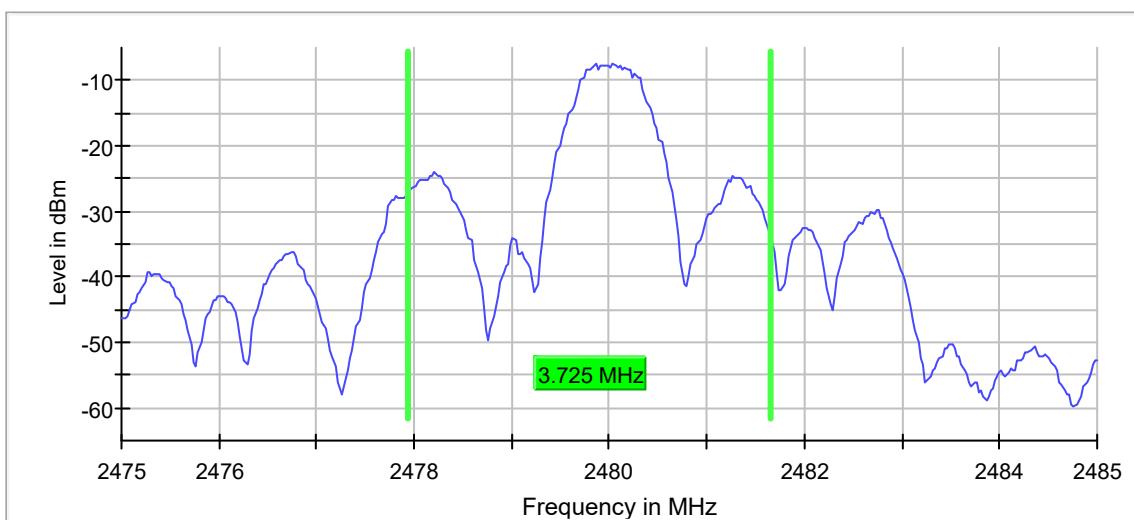
DUT Frequency (MHz)	Result
2440.000000	PASS



Test Details	
Manufacturer	Roche Diabetes Care, Inc
Model	Accu-Chek Instant
S/N	97204633982
Mode	Bluetooth Tx
Carrier Frequency	2480MHz
Parameters	OBW = 3.725MHz
Notes	None

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	3.725000	---	---	2477.937500	2481.662500

DUT Frequency (MHz)	Result
2480.000000	PASS



## 22. Maximum Peak Conducted Output Power

Test Information	
Manufacturer	Roche Diabetes Care, Inc
Product	Instant Blood Glucose Meter
Model	Accu-Chek Instant
Serial No	97204633982
Mode	Bluetooth Tx

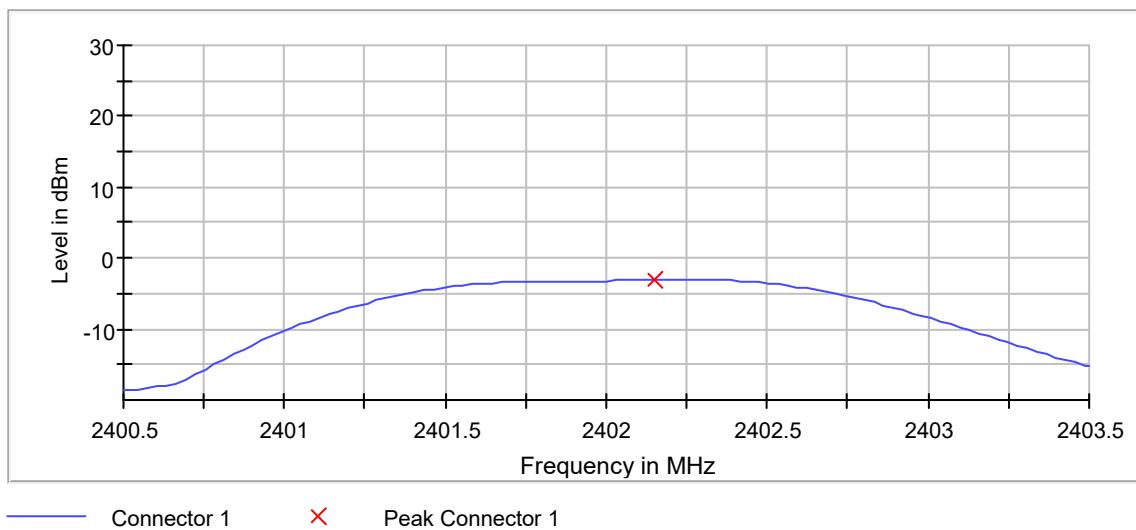
Test Setup Details	
Setup Format	Tabletop
Height of Support	NA
Measurement Method	Antenna Conducted
Type of Test Site	EMC Workbench
Test site used	NA
Type of Antennas Used	NA
Notes	None

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

Procedures	
The antenna port of the EUT was connected to the spectrum analyzer. 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.	

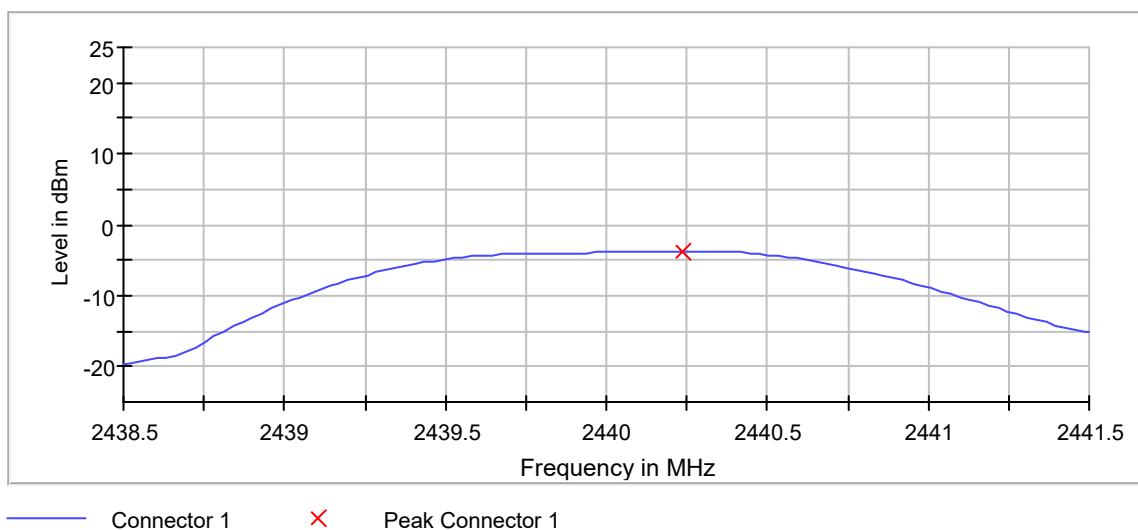
Test Details	
Manufacturer	Roche Diabetes Care, Inc
Model	Accu-Chek Instant
S/N	97204633982
Mode	Bluetooth Tx
Carrier Frequency	2402MHz
Parameters	Output Power = 0.5mW (-3dBm)
Notes	None

DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2402.000000	-3.0	30.0	PASS



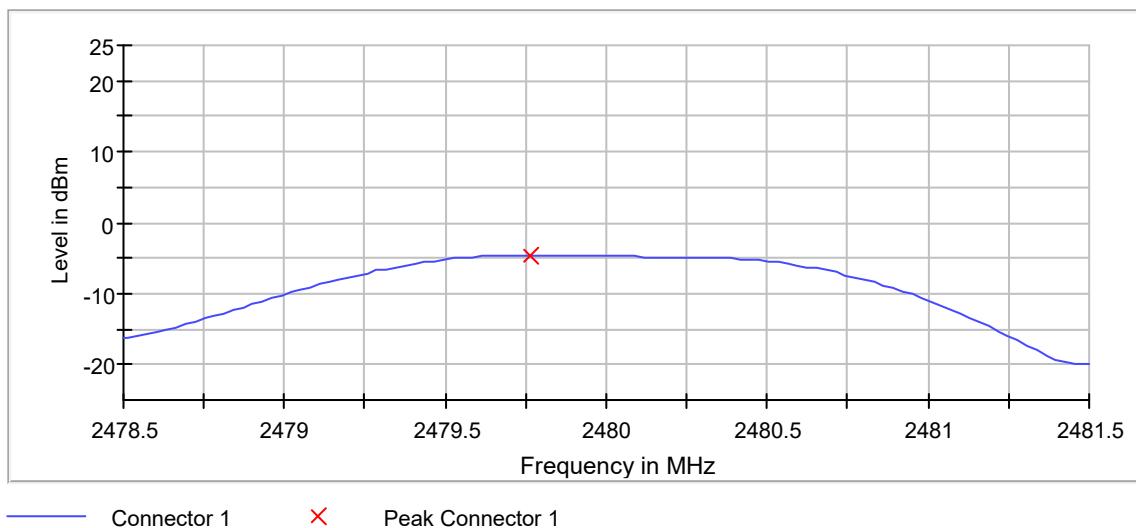
Test Details	
Manufacturer	Roche Diabetes Care, Inc
Model	Accu-Chek Instant
S/N	97204633982
Mode	Bluetooth Tx
Carrier Frequency	2440Mhz
Parameters	Output Power = 0.43mW (-3.7dBm)
Notes	None

DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2440.000000	-3.7	30.0	PASS



Test Details	
Manufacturer	Roche Diabetes Care, Inc
Model	Accu-Chek Instant
S/N	97204633982
Mode	Bluetooth Tx
Carrier Frequency	2480MHz
Parameters	Output Power = 0.35mW (-4.5dBm)
Notes	None

DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2480.000000	-4.5	30.0	PASS



## 23. Antenna Conducted Spurious Emissions

Test Information	
Manufacturer	Roche Diabetes Care, Inc
Product	Instant Blood Glucose Meter
Model	Accu-Chek Instant
Serial No	97204633982
Mode	Bluetooth Tx

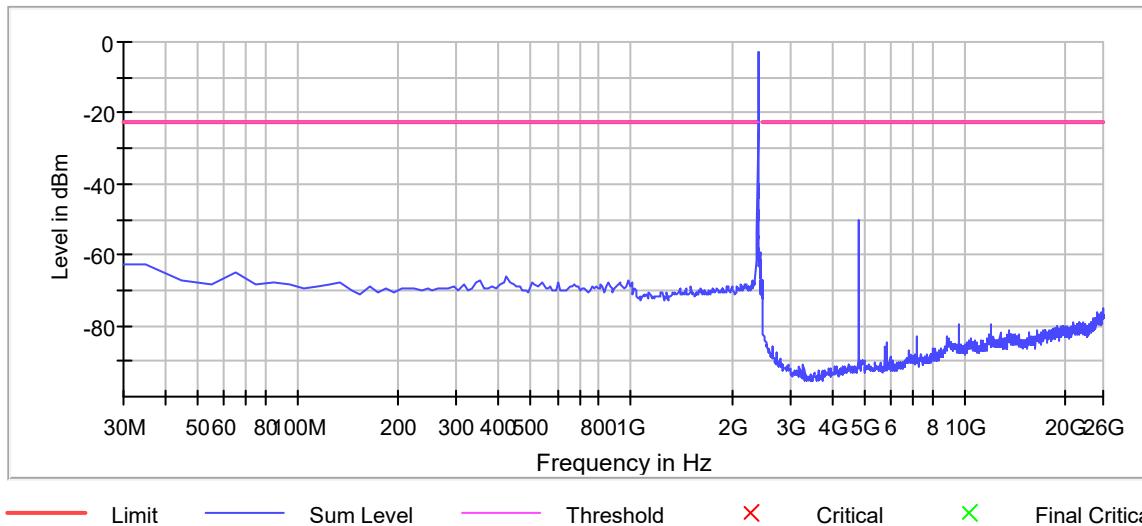
Test Setup Details	
Setup Format	Tabletop
Height of Support	NA
Measurement Method	Antenna Conducted
Type of Test Site	EMC Workbench
Test site used	NA
Type of Antennas Used	NA
Notes	None

Procedures
The antenna port of the EUT was connected to the spectrum analyzer. 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	
Model		Accu-Chek Instant	
S/N		97204633982	
Mode		Bluetooth Tx	
Carrier Frequency		2402MHz	
Notes		None	

## Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
2395.021008	-24.3	1.5	-22.8
4807.166065	-50.1	27.3	-22.8
2385.063025	-53.5	30.7	-22.8
2375.105042	-59.9	37.1	-22.8
2365.147059	-61.9	39.1	-22.8
34.978992	-62.9	40.1	-22.8
30.000000	-62.9	40.1	-22.8
4797.171802	-64.2	41.4	-22.8
64.852941	-64.8	42.0	-22.8
423.340336	-66.1	43.3	-22.8
353.634454	-67.0	44.2	-22.8
980.987395	-67.1	44.3	-22.8
2295.441176	-67.4	44.6	-22.8
44.936975	-67.5	44.7	-22.8
851.533613	-67.5	44.7	-22.8

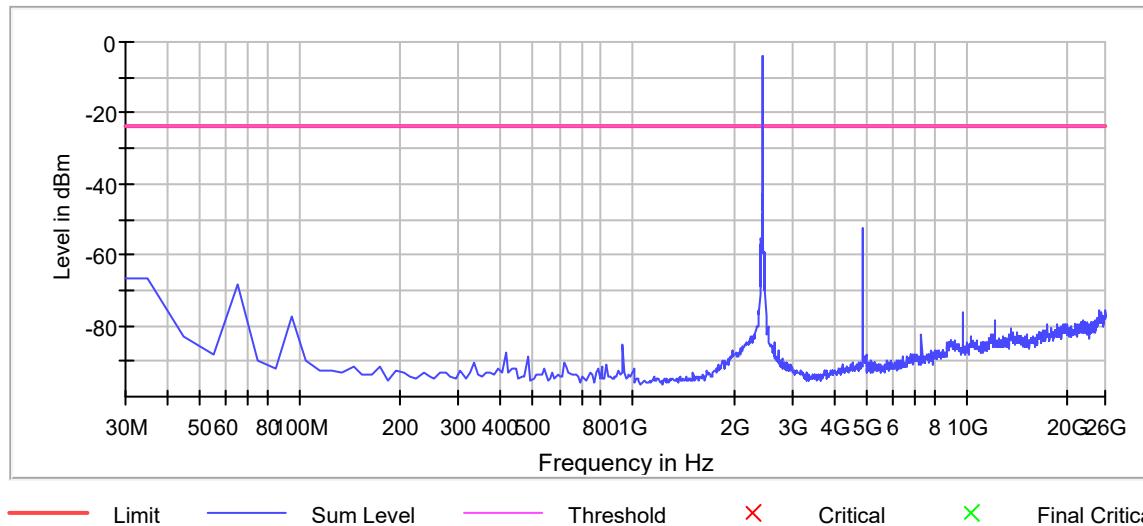


— Limit    — Sum Level    — Threshold    ✕ Critical    ✕ Final Critical

Test Details			
Manufacturer		Roche Diabetes Care, Inc	
Model		Accu-Chek Instant	
S/N		97204633982	
Mode		Bluetooth Tx	
Carrier Frequency		2440MHz	
Notes		None	

## Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
4877.125903	-52.8	28.9	-23.9
4887.120166	-65.3	41.3	-23.9
34.978992	-66.6	42.7	-23.9
30.000000	-66.6	42.7	-23.9
64.852941	-68.6	44.7	-23.9
2488.497131	-69.6	45.7	-23.9
2395.021008	-71.4	47.5	-23.9
25015.565130	-75.4	51.5	-23.9
25895.060242	-75.7	51.8	-23.9
2375.105042	-75.9	51.9	-23.9
25945.031555	-76.0	52.1	-23.9
9754.326073	-76.1	52.2	-23.9
25885.065980	-76.4	52.5	-23.9
25345.375797	-76.5	52.6	-23.9
9764.320336	-76.6	52.6	-23.9

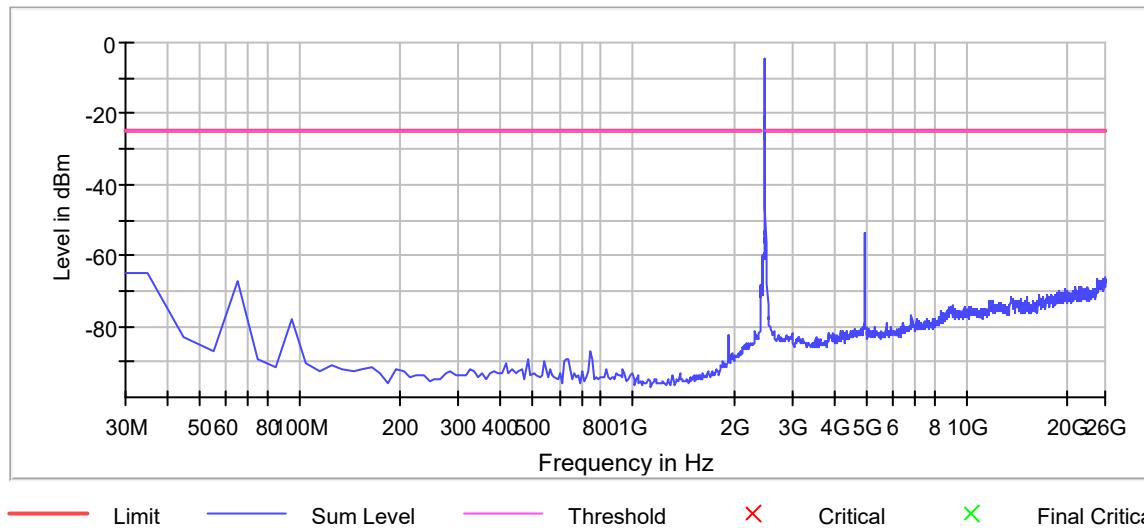


— Limit   — Sum Level   — Threshold   ✕ Critical   ✕ Final Critical

Test Details			
Manufacturer		Roche Diabetes Care, Inc	
Model		Accu-Chek Instant	
S/N		97204633982	
Mode		Bluetooth Tx	
Carrier Frequency		2480MHz	
Notes		None	

## Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
2488.497131	-46.3	21.6	-24.7
4957.080004	-53.4	28.7	-24.7
2498.491394	-56.3	31.6	-24.7
34.978992	-65.0	40.3	-24.7
30.000000	-65.0	40.3	-24.7
2508.485657	-65.3	40.6	-24.7
26000.000000	-66.3	41.7	-24.7
25995.002869	-66.3	41.7	-24.7
25915.048768	-66.4	41.7	-24.7
24635.783149	-66.5	41.8	-24.7
25895.060242	-66.5	41.8	-24.7
25965.020081	-66.7	42.0	-24.7
25555.255312	-66.8	42.1	-24.7
25755.140565	-66.8	42.2	-24.7
25935.037293	-67.0	42.3	-24.7



## 24. Band-Edge Compliance

Test Information	
Manufacturer	Roche Diabetes Care, Inc
Product	Instant Blood Glucose Meter
Model	Accu-Chek Instant
Serial No	97204633982 and 97204633980
Mode	Bluetooth Tx

Test Setup Details	
Setup Format	Tabletop
Height of Support	NA
Measurement Method	Antenna Conducted
Type of Test Site	Semi-anechoic Chamber
Test site used	R29
Type of Antennas Used	Double-ridge Waveguide
Notes	None

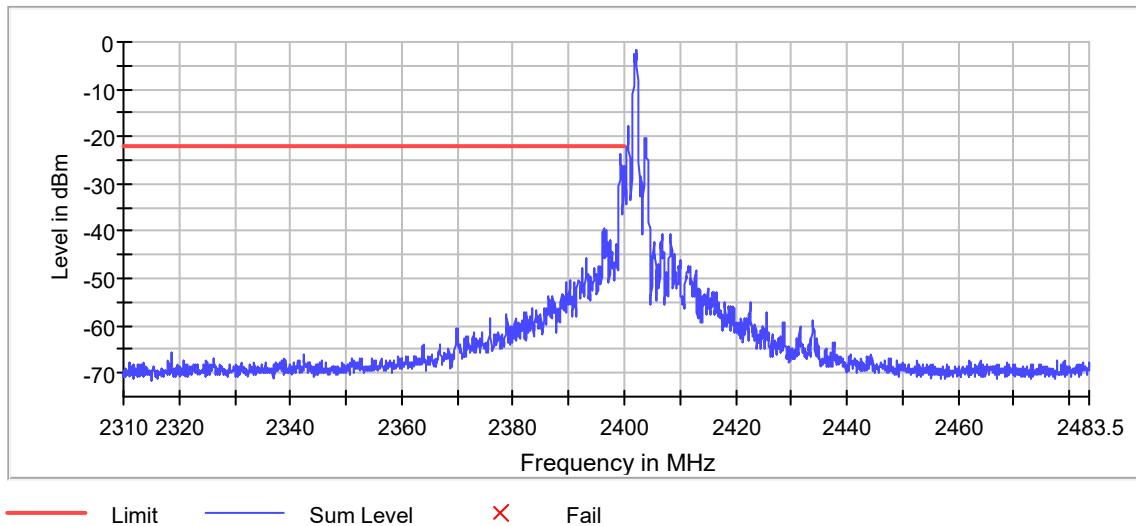
Procedures	
Low Band Edge	<ol style="list-style-type: none"> <li>1. The antenna port of the EUT was connected to the spectrum analyzer.</li> <li>2. The EUT was set to transmit continuously at the channel closest to the low band-edge</li> <li>3. To determine the band edge compliance, the following spectrum analyzer settings were used:           <ol style="list-style-type: none"> <li>1. Center frequency = low band-edge frequency.</li> <li>2. 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.</li> <li>3. Resolution bandwidth (RBW) <math>\geq 1\%</math> of the span.</li> <li>4. The 'Max-Hold' function was engaged. The analyzer was allowed to scan until the envelope of the transmitter bandwidth was defined.</li> <li>5. 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.)</li> <li>6. The analyzer's display was plotted using a 'screen dump' utility.</li> </ol> </li> </ol>
High Band Edge	<ol style="list-style-type: none"> <li>1. The EUT was set to transmit continuously at the channel closest to the high band-edge.</li> <li>2. A double ridged waveguide was placed 3 meters away from the EUT. The antenna was connected to the input of a spectrum analyzer.</li> <li>3. The center frequency of the analyzer was set to the high band edge (2483.5MHz)</li> <li>4. The resolution bandwidth was set to 1MHz.</li> <li>5. To ensure that the maximum or worst case emission level was measured, the following steps were taken:           <ol style="list-style-type: none"> <li>1. The EUT was rotated so that all of its sides were exposed to the receiving antenna.</li> <li>2. Since the measuring antenna is linearly polarized, both horizontal and vertical field components were measured.</li> <li>3. The measuring antenna was raised and lowered from 1 to 4 meters for each antenna polarization to maximize the readings.</li> </ol> </li> <li>1. The highest measured peak reading was recorded.</li> <li>2. The highest measured average reading was recorded.</li> </ol>

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

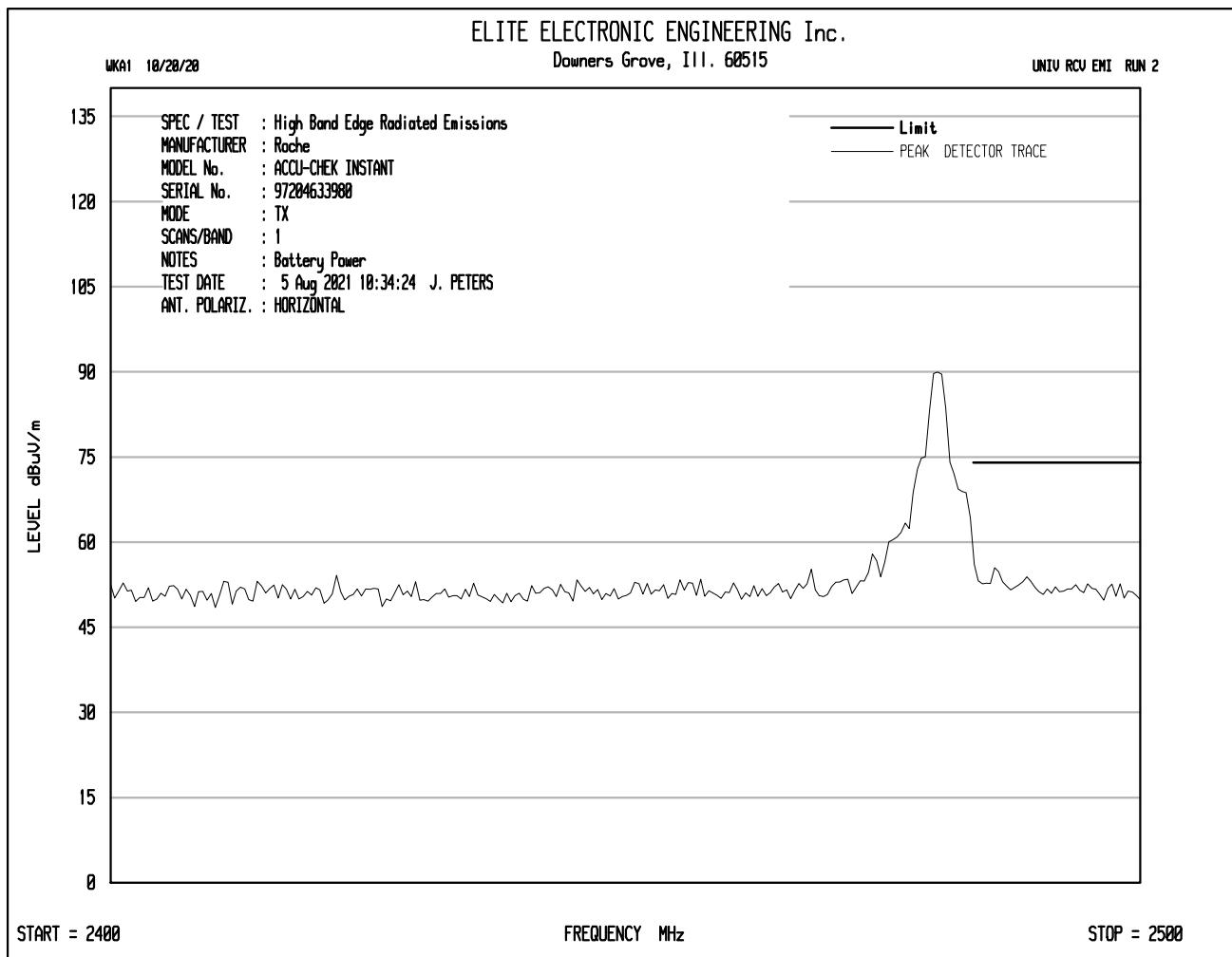
Test Details	
Manufacturer	Roche Diabetes Care, Inc
Model	Accu-Chek Instant
S/N	97204633982
Mode	Bluetooth Tx
Carrier Frequency	2402MHz
Parameters	Low Band-Edge
Notes	None

## Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2399.225000	-23.6	1.8	-21.8	PASS
2399.275000	-23.7	1.9	-21.8	PASS
2399.325000	-24.6	2.8	-21.8	PASS
2399.375000	-25.4	3.6	-21.8	PASS
2399.425000	-25.7	3.9	-21.8	PASS
2399.475000	-26.4	4.5	-21.8	PASS
2399.175000	-26.5	4.7	-21.8	PASS
2399.975000	-26.6	4.8	-21.8	PASS
2399.525000	-26.7	4.9	-21.8	PASS
2399.925000	-28.1	6.3	-21.8	PASS
2399.575000	-28.8	7.0	-21.8	PASS
2399.125000	-29.2	7.4	-21.8	PASS
2399.875000	-29.4	7.6	-21.8	PASS
2399.625000	-30.3	8.5	-21.8	PASS
2399.075000	-30.6	8.8	-21.8	PASS



Test Details	
Manufacturer	Roche Diabetes Care, Inc
Model	Accu-Chek Instant
S/N	97204633980
Mode	Bluetooth Tx
Carrier Frequency	2480MHz
Parameters	High Band-Edge
Notes	None



## ELITE ELECTRONIC ENGINEERING Inc.

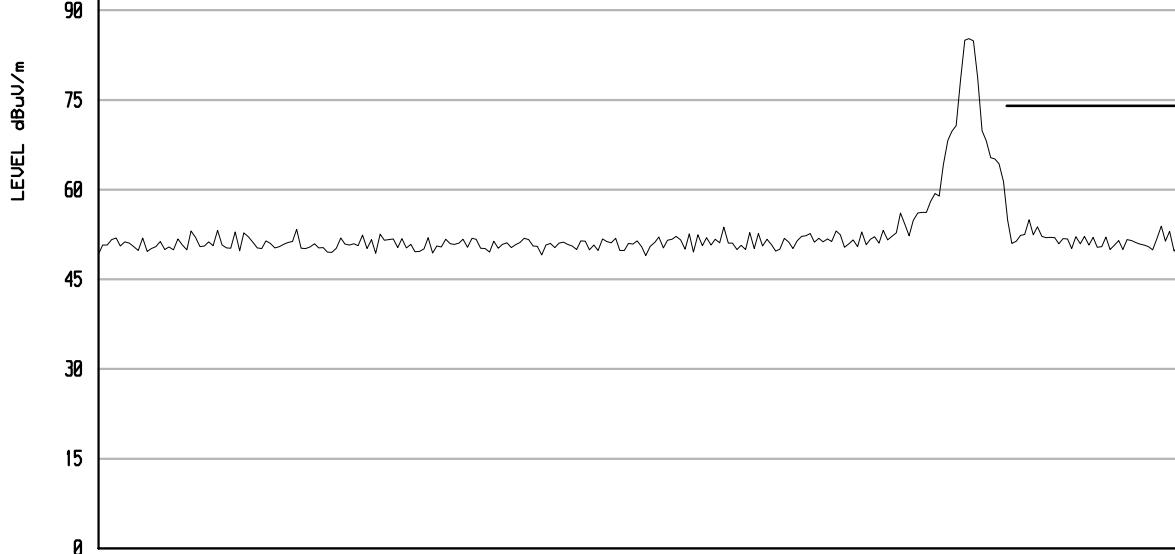
Downers Grove, Ill. 60515

UNIV RCU EMI RUN 3

WKA1 10/28/28

SPEC / TEST : High Band Edge Radiated Emissions  
MANUFACTURER : Roche  
MODEL No. : ACCU-CHEK INSTANT  
SERIAL No. : 97204633988  
MODE : TX  
SCANS/BAND : 1  
NOTES : Battery Power  
TEST DATE : 5 Aug 2021 10:34:55 J. PETERS  
ANT. POLARIZ. : VERTICAL

— Limit  
— PEAK DETECTOR TRACE



START = 2400

FREQUENCY MHz

STOP = 2500

Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	CBL Fac (dB)	Ant Fac (dB/m)	Pre Amp (dB)	Peak Total dBuV/m at 3m	Peak Total uV/m at 3 m	Peak Limit uV/m at 3 m	Margin (dB)
2483.50	H	31.3		2.7	33.1	0.0	67.1	2258.4	5000.0	-6.9
2483.50	V	29.1		2.7	33.1	0.0	64.9	1749.0	5000.0	-9.1

Peak Total (dBuV/m) = Meter Reading (dBuV) + CBL Fac (dB) + Ant Fac (dB/m) + Pre Amp (dB)

Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	CBL Fac (dB)	Ant Fac (dB/m)	Pre Amp (dB)	Duty Cycle (dB)	Average Total dBuV/m at 3m	Average Total uV/m at 3 m	Average Limit uV/m at 3 m	Margin (dB)
2483.50	H	17.1		2.7	33.1	0.0	0.0	52.8	437.8	500.0	-1.2
2483.50	V	14.2		2.7	33.1	0.0	0.0	50.0	314.6	500.0	-4.0

AVG Total (dBuV/m) = Meter Reading (dBuV) + CBL Fac (dB) + Ant Fac (dB/m) + Pre Amp (dB)

## 25. Power Spectral Density

Test Information	
Manufacturer	Roche Diabetes Care, Inc
Product	Instant Blood Glucose Meter
Model	Accu-Chek Instant
Serial No	97204633982
Mode	Bluetooth Tx

Information	
Setup Format	Tabletop
Height of Support	NA
Measurement Method	Antenna Conducted
Type of Test Site	EMC Workbench
Test site used	NA
Type of Antennas Used	NA
Notes	None

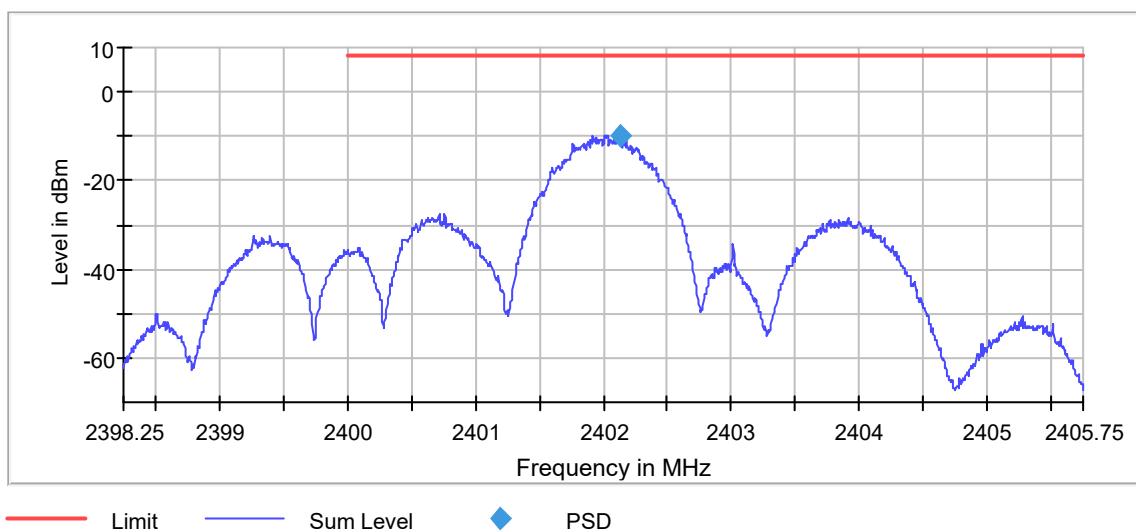
Requirements	
The power spectral density from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.	

Procedures	
<p>The EUT was placed on the non-conductive stand and set to transmit continuously. The antenna port of the EUT was connected to the spectrum analyzer. To determine the power spectral density, the following steps were followed:</p> <ol style="list-style-type: none"><li>1. Center frequency = transmit frequency</li><li>2. Span = 1.5 times the DTS (6 dB) bandwidth</li><li>3. Resolution bandwidth (RBW): <math>3\text{kHz} \leq \text{RBW} \leq 100\text{kHz}</math></li><li>4. Sweep time = auto</li><li>5. The peak detector and 'Max-Hold' function was engaged.</li><li>6. The display line represents the 8 dBm limit</li><li>7. The analyzer's display was plotted using a 'screen dump' utility.</li><li>8. If the measured value exceeded the limit, the RBW was reduced (no less than 3kHz) and repeated.</li></ol>	

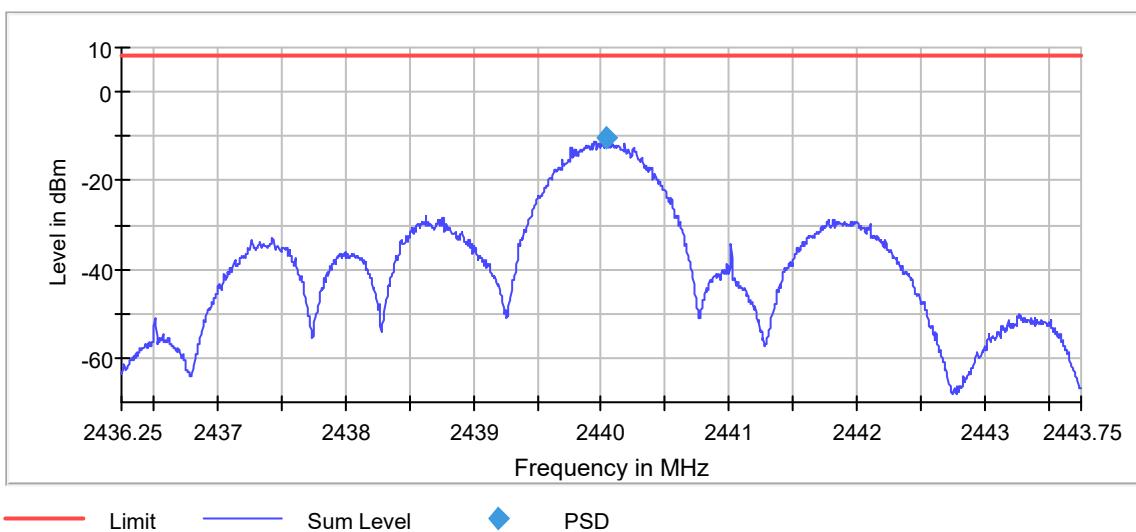
Test Details	
Manufacturer	Roche Diabetes Care, Inc
Model	Accu-Chek Instant
S/N	97204633982
Mode	Bluetooth Tx
Carrier Frequency	2402MHz
Parameters	PSD = -9.708dBm
Notes	None

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2402.000000	2402.132500	-9.708	8.0	PASS



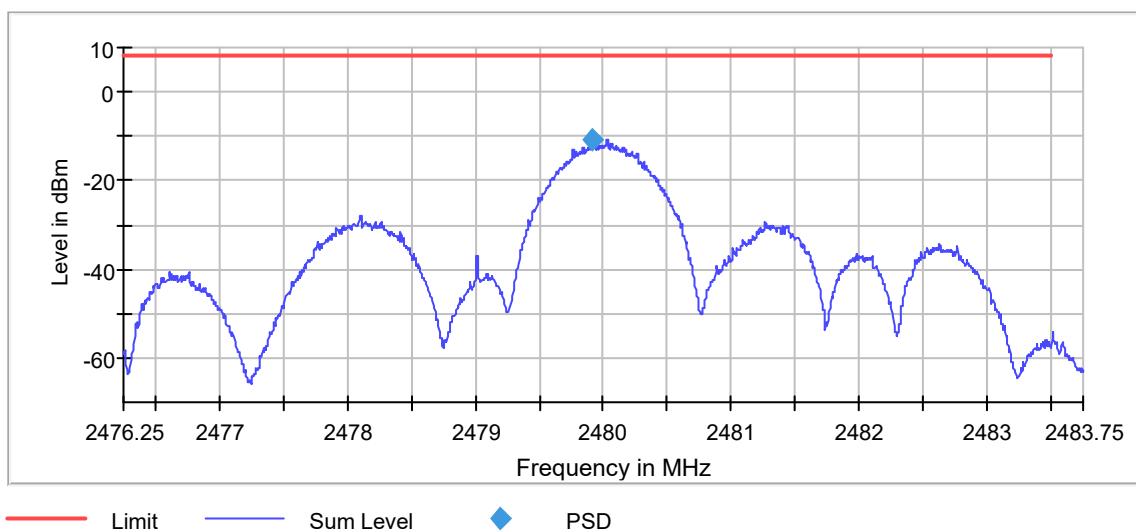
Test Details	
Manufacturer	Roche Diabetes Care, Inc
Model	Accu-Chek Instant
S/N	97204633982
Mode	Bluetooth Tx
Carrier Frequency	2440MHz
Parameters	PSD = -10.478dBm
Notes	None

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2440.000000	2440.032500	-10.478	8.0	PASS



Test Details	
Manufacturer	Roche Diabetes Care, Inc
Model	Accu-Chek Instant
S/N	97204633982
Mode	Bluetooth Tx
Carrier Frequency	2480MHz
Parameters	PSD = -10.840dBm
Notes	None

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2480.000000	2479.917500	-10.840	8.0	PASS



## 26. Scope of Accreditation

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

ELITE ELECTRONIC ENGINEERING, INC.  
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Website: [www.elitetest.com](http://www.elitetest.com)

## ELECTRICAL

Valid To: June 30, 2023

Certificate Number: 1786.01

In recognition of the successful completion of the A2LA Accreditation Program evaluation process, accreditation is granted to this laboratory to perform the following automotive electromagnetic compatibility and other electrical tests:

Test Technology:Test Method(s)<sup>1</sup>:*Transient Immunity*

ISO 7637-2 (including emissions); ISO 7637-3;  
ISO 16750-2:2012, Sections 4.6.3 and 4.6.4;  
CS-11979, Section 6.4; CS.00054, Section 5.9;  
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)*

ISO 10605 (2001, 2008);  
CS-11979 Section 7.0; CS.00054, Section 5.10;  
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;  
CS-11979, Section 5.1; CS.00054, Sections 5.6.1 and 5.6.2;  
GMW 3097, Section 3.3.2;  
EMC-CS-2009.1 (CE 420); FMC1278 (CE420, CE421)

*Radiated Emissions Anechoic*

CISPR 25 (2002, 2008), Section 6.4;  
CISPR 25 (2016), Section 6.5;  
CS-11979, Section 5.3; CS.00054, Section 5.6.3;  
GMW 3097, Section 3.3.1;  
EMC-CS-2009.1 (RE 310); FMC1278 (RE310);  
ECE Regulation 10.06 Annex 7 (Broadband)  
ECE Regulation 10.06 Annex 8 (Narrowband)

(A2LA Cert. No. 1786.01) Revised 06/24/2021

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<u>Test Technology:</u>	<u>Test Method(s)<sup>1</sup>:</u>
<i>Vehicle Radiated Emissions</i>	CISPR 12; CISPR 36; ICES-002; ECE Regulation 10.06 Annex 5
<i>Bulk Current Injection (BCI)</i>	ISO 11452-4; CS-11979, Section 6.1; CS.00054, Section 5.8.1; GMW 3097, Section 3.4.1; SAE J1113-4; EMC-CS-2009.1 (RI112); FMC1278 (RI112); ECE Regulation 10.06 Annex 9
<i>Radiated Immunity Anechoic (Including Radar Pulse)</i>	ISO 11452-2; ISO 11452-5; CS-11979, Section 6.2; CS.00054, Section 5.8.2; GMW 3097, Section 3.4.2; EMC-CS-2009.1 (RI114); FMC1278 (RI114); SAE J1113-21; ECE Regulation 10.06 Annex 9
<i>Radiated Immunity Magnetic Field</i>	ISO 11452-8
<i>Radiated Immunity Reverb</i>	ISO/IEC 61000-4-21; GMW 3097, Section 3.4.3; EMC-CS-2009.1 (RI114); FMC1278 (RI114); ISO 11452-11
<i>Radiated Immunity (Portable Transmitters)</i>	ISO 11452-9; EMC-CS-2009.1 (RI115); FMC1278 (RI115)
<i>Vehicle Radiated Immunity (ALSE)</i>	ISO 11451-2; ECE Regulation 10.06 Annex 6
<i>Vehicle Product Specific EMC Standards</i>	EN 14982; EN ISO 13309, ISO 13766; EN 50498; EC Regulation No. 2015/208; EN 55012
<i>Electrical Loads</i>	ISO 16750-2
<b>Emissions</b> 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; 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 14
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

<u>Test Technology:</u>	<u>Test Method(s)<sup>1</sup>:</u>
<b>Emissions (cont'd)</b>	
Current Harmonics	IEC 61000-3-2; 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; EN 61000-3-3; KN 61000-3-3; KS C 9610-3-3; ECE Regulation 10.06 Annex 12
<b>Immunity</b>	
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
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

<u>Test Technology:</u>	<u>Test Method(s)<sup>1</sup>:</u>
<b>Immunity (cont'd)</b> 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
<b>TxRx EMC Requirements</b>	EN 301 489-1; EN 301 489-3; EN 301 489-9; EN 301 489-17; EN 301 489-19; EN 301 489-20
<b>European Radio Test Standards</b>	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

<u>Test Technology:</u>	<u>Test Method(s)<sup>1</sup>:</u>
<i>Canadian Radio Tests</i>	RSS-102 (RF Exposure Evaluation only); 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-191; RSS-192; RSS-194; RSS-195; RSS-196; RSS-197; RSS-199; RSS-210; RSS-211; RSS-213; RSS-215; RSS-216; RSS-220; RSS-222; RSS-236; RSS-238; RSS-243; RSS-244; RSS-247; RSS-251; RSS-252; RSS-287; RSS-288; RSS-310; RSS-GEN
<i>Mexico Radio Tests</i>	IFT-008-2015; NOM-208-SCFI-2016
<i>Japan Radio Tests</i>	Radio Law No. 131, Ordinance of MPT No. 37, 1981, MIC Notification No. 88:2004, Table No. 22-11; ARIB STD-T66, Regulation 18
<i>Taiwan Radio Tests</i>	LP-0002 (July 15, 2020)
<i>Australia/New Zealand Radio Tests</i>	AS/NZS 4268; Radiocommunications (Short Range Devices) Standard (2014)
<i>Hong Kong Radio Tests</i>	HKCA 1039 Issue 6; HKCA 1042; HKCA 1033 Issue 7; HKCA 1061; HKCA 1008; HKCA 1043; HKCA 1057; HKCA 1073
<i>Korean Radio Test Standards</i>	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
<i>Vietnam Radio Test Standards</i>	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
<i>Vietnam EMC Test Standards</i>	QCVN 18:2014/BTTTT; QCVN 86:2019/BTTTT; QCVN 96:2015/BTTTT; QCVN 118:2018/BTTTT
<i>Unlicensed Radio Frequency Devices (3 Meter Semi-Anechoic Room)</i>	47 CFR FCC Part 15C, 15D, 15E, 15F, 15G, 15H (using ANSI C63.10:2013, ANSI C63.17:2013 and FCC KDB 905462 D02 (v02))
<i>Licensed Radio Service Equipment</i>	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)

Test Technology:

**OIA (Over the Air) Performance**  
 GSM, GPRS, EGPRS  
 UMTS (W-CDMA)  
 LTE including CAT M1  
 A-GPS for UMTS/GSM  
 LTS A-GPS, A-GLONASS,  
 SIB8/SIB16  
 Large Device/Laptop/Tablet Testing  
 Integrated Device Testing  
 WiFi 802.11 a/b/g/n/a

Test Method(s)<sup>1</sup>:

CTIA Test Plan for Wireless Device Over-the-Air Performance (Method for Measurement for Radiated Power and Receiver Performance) V3.8.2;  
 CTIA Test Plan for RF Performance Evaluation of WiFi Mobile Converged Devices V2.1.0

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 150/5345-10H  
 FAA AC 150/5345-43J  
 FAA AC 150/5345-44K

DC Voltage / Current

(1mV to 15-kV) / (1µA to 10A)

FAA AC 150/5345-46E  
 FAA AC 150/5345-47C

Power Factor / Efficiency / Crest Factor

(Power to 30kW)

FAA EB 67D

Resistance

(1mΩ to 4000MΩ)

Surge

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

On the following products and materials:

Telecommunications Terminal Equipment (TTE), Radio Equipment, Network Equipment, Information Technology Equipment (ITE), Automotive Electronic Equipment, Automotive Hybrid Electronic Devices, Maritime Navigation and Radio Communication Equipment and Systems, Vehicles, Boats and Internal Combustion Engine Driven Devices, Automotive, Aviation, and General Lighting Products, Medical Electrical Equipment, Motors, Industrial, Scientific and Medical (ISM) Radio-Frequency Equipment, Household Appliances, Electric Tools, Low-voltage Switchgear and Control gear, Programmable Controllers, Electrical Equipment for Measurement, Control and Laboratory Use, Base Materials, Power and Data Transmission Cables and Connectors

<sup>1</sup> When the date, edition, version, etc. is not identified in the scope of accreditation, laboratories may use the version that immediately precedes the current version for a period of one year from the date of publication of the standard measurement method, per part C., Section 1 of A2LA *R101 - General Requirements- Accreditation of ISO-IEC 17025 Laboratories*.

Testing Activities Performed in Support of FCC Certification in Accordance with 47 Code of Federal Regulations and FCC KDB 974614, Appendix A, Table A.1<sup>2</sup>

Rule Subpart/Technology	Test Method	Maximum Frequency (MHz)
<u>Unintentional Radiators</u> Part 15B	ANSI C63.4:2014	40000

Testing Activities Performed in Support of FCC Certification in Accordance with 47 Code of Federal Regulations and FCC KDB 974614, Appendix A, Table A.1<sup>2</sup>

Rule Subpart/Technology	Test Method	Maximum Frequency (MHz)
<u>Industrial, Scientific, and Medical Equipment</u> Part 18	FCC MP-5 (February 1986)	40000
<u>Intentional Radiators</u> Part 15C	ANSI C63.10:2013	40000
<u>Unlicensed Personal Communication Systems Devices</u> Part 15D	ANSI C63.17:2013	40000
<u>U-NII without DFS Intentional Radiators</u> Part 15E	ANSI C63.10:2013	40000
<u>U-NII with DFS Intentional Radiators</u> Part 15E	FCC KDB 905462 D02 (v02)	40000
<u>UWB Intentional Radiators</u> Part 15F	ANSI C63.10:2013	40000
<u>BPL Intentional Radiators</u> Part 15G	ANSI C63.10:2013	40000
<u>White Space Device Intentional Radiators</u> Part 15H	ANSI C63.10:2013	40000
<u>Commercial Mobile Services (FCC Licensed Radio Service Equipment)</u> Parts 22 (cellular), 24, 25 (below 3 GHz), and 27	ANSI/TIA-603-E; TIA-102.CAAA-E; ANSI C63.26:2015	40000
<u>General Mobile Radio Services (FCC Licensed Radio Service Equipment)</u> Parts 22 (non-cellular), 90 (below 3 GHz), 95, 97, and 101 (below 3 GHz)	ANSI/TIA-603-E; TIA-102.CAAA-E; ANSI C63.26:2015	40000
<u>Citizens Broadband Radio Services (FCC Licensed Radio Service Equipment)</u> Part 96	ANSI/TIA-603-E; TIA-102.CAAA-E; ANSI C63.26:2015	40000

Testing Activities Performed in Support of FCC Certification in Accordance with 47 Code of Federal Regulations and FCC KDB 974614, Appendix A, Table A.1<sup>2</sup>

Rule Subpart/Technology	Test Method	Maximum Frequency (MHz)
<u>Maritime and Aviation Radio Services</u> Parts 80 and 87	ANSI/TIA-603-E; ANSI C63.26:2015	40000
<u>Microwave and Millimeter Bands Radio Services</u> Parts 25, 30, 74, 90 (above 3 GHz), 97 (above 3 GHz), and 101	ANSI/TIA-603-E; TIA-102.CAAA-E; ANSI C63.26:2015	40000
<u>Broadcast Radio Services</u> Parts 73 and 74 (below 3 GHz)	ANSI/TIA-603-E; TIA-102.CAAA-E; ANSI C63.26:2015	40000
<u>Signal Boosters</u> Part 20 (Wideband Consumer Signal Boosters, Provider-specific signal boosters, and Industrial Signal Boosters) Section 90.219	ANSI C63.26:2015	40000

<sup>2</sup> Accreditation does not imply acceptance to the FCC equipment authorization program. Please see the FCC website (<https://apps.fcc.gov/oetcf/eas/>) for a listing of FCC approved laboratories.



## Accredited Laboratory

A2LA has accredited

### ELITE ELECTRONIC ENGINEERING INC.

Downers Grove, IL

for technical competence in the field of

#### Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 19<sup>th</sup> day of May 2021.



Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 1786.01  
Valid to June 30, 2023

For the tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.