

TEST REPORT

Report Number.: 13079858-E1V2

- Applicant : SRAM LLC 1000 W Fulton Market 4th Floor Chicago, IL 60607, United States
 - Models : 00601 and 00610
 - FCC ID : C9O-AIRFB2
 - **ISED** : 10161A-AIRFB2
- **EUT Description :** Front and Rear AirWiz with BLE and ANT+ Radios
- Test Standard(s) : FCC 47 CFR PART 15 SUBPART C ISED RSS-247 ISSUE 2 ISED RSS-GEN ISSUE 5 + A1

Date of Issue: April 21, 2021

Prepared by: UL Verification Services Inc. 47173 Benicia Street Fremont, CA 94538 U.S.A. TEL: (510) 319-4000 FAX: (510) 661-0888



NVLAP Lab code: 200065-0

REPORT REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	1/25/2021	Initial Issue	
V2	4/21/2021	Added Additional Model #00610. Updated Sections, 1, 5.3, 5.5, 7 and 11. Added Section 10 Spot Check Data	Kiya Kedida

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME:	SRAM LLC 1000 W Fulton Market 4 th Fl Chicago, IL 60607, United S	SRAM LLC 1000 W Fulton Market 4 th Floor Chicago, IL 60607, United States			
EUT DESCRIPTION:	Front and Rear AirWiz with	BLE and ANT+ Radios			
MODELS:	00601 and 00610	00601 and 00610			
SERIAL NUMBER:	Conducted: QuarqLYR2783 Radiated: QuarqLYS27832	Conducted: QuarqLYR27832 Radiated: QuarqLYS27832, QuarqPYQ27483			
DATE TESTED:	OCTOBER 23, 2020 – APR	OCTOBER 23, 2020 – APRIL 8, 2021			
	APPLICABLE STANDAR	RDS			
	STANDARD	TEST RESULTS			
CFR 47	7 Part 15 Subpart C	Complies			
ISED	RSS-247 Issue 2	Complies			
ISED RS	S-GEN Issue 5 + A1	Complies			

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. All samples tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise.

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This report contains data provided by the customer, which can impact the validity of results. UL Verification Services Inc. is only responsible for the validity of results after the integration of the data provided by the customer.

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2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, ANSI C63.10-2013, KDB 558074 D01 15.247 Meas Guidance v05r02, KDB 414788 D01 Radiated Test Site v01r01, RSS-GEN Issue 5 + A1, and RSS-247 Issue 2.

3. FACILITIES AND ACCREDITATION

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0, for all testing performed within the scope of this report. Testing was performed at the locations noted below.

	Address	ISED CABID	ISED Company Number	FCC Registration
	Building 1: 47173 Benicia Street, Fremont, California 94538, USA	US0104	2324A	208313
	Building 2: 47266 Benicia Street, Fremont, California 94538, USA	US0104	22541	208313
\boxtimes	Building 4: 47658 Kato Rd, Fremont, California 94538, USA	US0104	2324B	208313

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4. DECISION RULES AND MEASUREMENT UNCERTAINTY

4.1. METROLOGICAL TRACEABILITY

All test and measuring equipment utilized to perform the tests documented in this report are calibrated on a regular basis, with a maximum time between calibrations of one year or the manufacturers' recommendation, whichever is less, and where applicable is traceable to recognized national standards.

4.2. DECISION RULES

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4:2012 Clause 8.2. (Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	U _{Lab}
Worst Case Conducted Disturbance, 9KHz to 0.15 MHz	3.78 dB
Worst Case Conducted Disturbance, 0.15 to 30 MHz	3.4 dB
Worst Case Radiated Disturbance, 9KHz to 30 MHz	2.84 dB
Worst Case Radiated Disturbance, 30 to 1000 MHz	4.84 dB
Worst Case Radiated Disturbance, 1000 to 18000 MHz	4.73 dB
Worst Case Radiated Disturbance, 18000 to 26000 MHz	4.51 dB
Worst Case Radiated Disturbance, 26000 to 40000 MHz	5.29 dB

Uncertainty figures are valid to a confidence level of 95%.

4.4. SAMPLE CALCULATION

RADIATED EMISSIONS

Where relevant, the following sample calculation is provided: Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB) 36.5 dBuV + 18.7 dB/m + 0.6 dB - 26.9 dB = 28.9 dBuV/m

MAINS CONDUCTED EMISSIONS

Where relevant, the following sample calculation is provided: Final Voltage (dBuV) = Measured Voltage (dBuV) + Cable Loss (dB) + Limiter Factor (dB) + LISN Insertion Loss. 36.5 dBuV + 0 dB + 10.1 dB + 0 dB = 46.6 dBuV

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5. EQUIPMENT UNDER TEST

5.1. EUT DESCRIPTION

The EUT will measure suspension air pressure and display it an app for bicycle use. It includes BLE and ANT+ Radios.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum peak conducted output power as follows:

Frequency		Peak		Average	
Range	Mode	Output Power	Output Power	Output Power	Output Power
(MHz)		(dBm)	(mW)	(dBm)	(mW)
2402 - 2480	BLE	6.17	4.14	6.01	3.99

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The antenna gain(s) and type, as provided by the manufacturer, are as follows:

The radio utilizes a ceramic chip antenna, with a maximum gain of 2.20 dBi.

5.4. SOFTWARE AND FIRMWARE

The EUT firmware installed during testing was version B-1.0.

The test utility software used during testing was nRF Connect version 3.3.0.

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5.5. WORST-CASE CONFIGURATION AND MODE

According to the manufacturer, the AirWiz rear suspension model (00610) contains an identical PCBA and firmware to the AirWiz front suspension model (00601). They share the same chipset, same power and same antenna performance including antenna gain. The only differences between the two devices Front AirWiz model (00601) and Rear AirWiz model (00610) is outer enclosure. The AirWiz Front suspension model (00601) was set for full test. Spot check verification has been done on the AirWiz rear suspension model (00610) for radiated harmonic spurious and radiated band-edge.

Radiated emissions below 1GHz and above 18GHz were performed with the EUT set to transmit at the channel with highest output power as worst-case scenario.

Band edge and radiated emissions between 1GHz and 18GHz were performed with the EUT set to transmit at the highest power on low, middle and high channels.

The fundamental of the EUT was investigated in two orthogonal orientations Horizontal, and Vertical, it was determined that Horizontal orientation was worst-case orientation; therefore, all final radiated testing was performed with the EUT in Horizontal orientation.

Worst-case data rate as provided by the client was 1Mbps.

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5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List						
Description	Manufacturer	Model	Serial Number			
Laptop	Lenovo	T450s	PC044FTD			
AC/DC Adapter	Lenovo	ADLX45NCC2A	N/A			
USB Dongle	Segger	E204460	680435024			
DC Power Supply	Kenwood Corporation	PA36-3A	7060074			
DC Power Supply	TDK.Lambda	ZUP36-6U	LOC-738A019-0007			

I/O CABLES (CONDUCTED EMISSIONS)

	I/O CABLE LIST								
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length (m)	Remarks			
1	AC	1	AC	Unshielded	1.5	AC Main to DC Supply, to Analyzer			
2	DC	1	DC	Unshielded	0.5	Power Supply to EUT			
3	Antenna Port	1	SMA	Unshielded	0.1	EUT to Analyzer			

I/O CABLES (RADIATED EMISSIONS)

	I/O CABLE LIST							
Cable No.	Port	# of Identical Ports	Connector Type	nector Cable ype Type		Remarks		
1	AC	1	AC	Unshielded	1.5	AC Main to DC Supply		
2	DC	1	DC	Unshielded	0.5	Power Supply to EUT		

TEST SETUP

For the purposes of testing, the EUT is connected to a 3V DC Power supply for radiated emissions above 1GHz. The EUT is normally powered by a CR2032 battery at 3V. The laptop and USB dongle were used for set up purposes and were removed during testing.

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6. MEASUREMENT METHOD

On Time and Duty Cycle: ANSI C63.10 Section 11.6.

6 dB BW: ANSI C63.10 Section 11.8.1

Occupied BW (99%): ANSI C63.10-2013 Section 6.9.3

Output Power: ANSI C63.10 Section 11.9.1.3 Method PKPM1 Peak-reading power meter

<u>Output Power</u>: ANSI C63.10 Section 11.9.2.3.2Method AVGPM-G (Measurement using a gated RF average-reading power meter)

PSD: ANSI C63.10 Section 11.10.2. Method PKPSD (peak PSD)

Radiated emissions non-restricted frequency bands: ANSI C63.10 Section -11.11

Radiated emissions restricted frequency bands: ANSI C63.10 Section -11.12.1

Conducted emissions in restricted frequency bands: ANSI C63.10 Section -11.12.2

Band-edge: ANSI C63.10 Section 6.10

Radiated Spurious Emissions Below 30MHz: ANSI C63.10-2013 Section 6.4

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7. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

TEST EQUIPMENT LIST							
Description	Manufacturer	Model	Asset	Cal Due			
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	PRE0179376	4/3/2021			
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	T863	8/31/2021			
Amplifier, 100MHz-18GHz	AMPLICAL	AMP0.1G18-47-20	PRE0197319	5/4/2021			
Antenna, BroadBand Hybrid, 30MHz to 3GHz	Sunol Sciences Corp.	JB3	T477	9/24/2021			
Amplifier, 9KHz to 1GHz, 32dB	SONOMA INSTRUMENT	310	175953	1/23/2021			
Filter, HPF 3.0GHz	MICRO-TRONICS	HPM17543	175973	5/4/2021			
Antenna, Passive Loop 30Hz - 1MHz	ELECTRO METRICS	EM-6871	PRE0179466	5/27/2021			
Antenna, Passive Loop 100KHz - 30MHz	ELECTRO METRICS	EM-6872	PRE0179468	5/27/2021			
Antenna, Horn 18 to 26.5GHz	ARA	MWH-1826/B	T447	9/20/2021			
Rf Amplifier, 18-26.5GHz, 60dB gain	AMPLICAL	AMP18G26.5-60	PRE0181238	9/24/2021			
Spectrum Analyzer, PXA, 3Hz to 44GHz	Keysight Technologies Inc	N9030A	T341	7/29/2021			
Power Meter, P-series single channel	Keysight Technologies Inc	N1911A	T1268	1/22/2021			
Power Sensor, P - series, 50MHz to 18GHz, Wideband	Keysight Technologies Inc	N1921A	T413	2/26/2021			
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	PRE0179367	2/21/2022			
Amplifier, 9KHz to 1GHz, 32dB	SONOMA	310	175953	1/21/2022			
INSTRUMENT							
UL AUTOMATION SOFTWARE							
Radiated Software	UL	UL EMC	Ver 9.5, Marc	h 30, 2020			
Radiated Software	UL	UL EMC	Rev 9.5, Apr	il 30, 2020			
Antenna Port Software	UL	UL RF	Ver 2020	0.9.18			

NOTES:

- 1. Equipment listed above that calibrated during the testing period was set for test after the calibration.
- 2. Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.

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8. ANTENNA PORT TEST RESULTS

8.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method.

ON TIME AND DUTY CYCLE RESULTS

Mode	ON Time	Period	Duty Cycle	Duty	Duty Cycle	1/B
	В		x	Cycle	Correction Factor	Minimum VBW
	(msec)	(msec)	(linear)	(%)	(dB)	(kHz)
2.4GHz Band						
BLE	100.000	100.000	1.000	100.00	0.00	0.010

Frequency #Avg Type: RMS Avg|Hold: 1/1 PNO: Fast +++ Trig: Free Run #Atten: 30 dB DET P ΔMkr3 98.40 ms 0.003 dB Auto Tune Ref 20.00 dBm 10 dB/div Center Freq 2.440000000 GH Start Freq 2.440000000 GH Stop Freq 2.440000000 GH Span 0 Hz Sweep 100.0 ms (1001 pts) Center 2.440000000 GHz Res BW 8 MHz CF Step 8.000000 MHz Man #VBW 50 MHz ۱uto Δ2 Ν Δ2 0.003 dB -4.747 dBm 0.003 dB (Δ) 98.40 ms (Δ) 1 2 600.0 μs 98.40 ms (Δ) t t (Δ) Freq Offset 0 Hz 6 6 7 8 9 10 11 🕼 STATUS **DUTY CYCLE BLE**

DUTY CYCLE PLOTS

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8.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency	99% Bandwidth
	(MHz)	(MHz)
Low	2402	1.7647
Middle	2440	1.7699
High	2480	1.7839





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8.3. 6 dB BANDWIDTH

DATE: 4/21/2021 ISED: 10161A-AIRFB2

LIMITS

FCC §15.247 (a) (2)

RSS-247 5.2 (a)

The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2402	0.801	0.5
Middle	2440	0.822	0.5
High	2480	0.813	0.5





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8.4. OUTPUT POWER

LIMITS

FCC §15.247 (b) (3)

RSS-247 5.4 (d)

The maximum antenna gain is less than or equal to 6 dBi, therefore the limit is 30 dBm.

TEST PROCEDURE

The transmitter output is connected to a power meter.

The power output measured on the EUT antenna port using SMA cable with 10dB attenuator connected to a power meter via wideband peak power sensor. Peak output power was read directly from power meter.

<u>RESULTS</u>

Tested By:	16080 ZS
Date:	10/23/2020

Channel	Frequency	Peak Power	Limit	Margin
	(MHz)	Reading (dBm)	(dBm)	(dB)
Low	2402	6.17	30	-23.83
Middle	2440	5.46	30	-24.54
High	2480	5.43	30	-24.57

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8.5. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

The power output measured on the EUT antenna port using SMA cable with 10dB attenuator connected to a power meter via wideband peak power sensor. Average output power was read directly from power meter.

RESULTS

Tested By:	16080 ZS
Date:	10/23/2020

Channel	Frequency	AV power				
	(MHz)	(dBm)				
Low	2402	6.01				
Middle	2440	5.34				
High	2480	5.30				

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8.6. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

RSS-247 (5.2) (b)

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

RESULTS

Channel	Frequency	PSD	Limit	Margin
	(MHz)	(dBm/3kHz)	(dBm/3kHz)	(dB)
Low	2402	-7.12	8	-15.12
Middle	2440	-7.52	8	-15.52
High	2480	-7.33	8	-15.33



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HIGH CHANNEL

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8.7. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

RSS-247 5.5

Output power was measured based on the use of a peak measurement; therefore, spurious emissions are required to be 20 dBc.

RESULTS

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9. RADIATED TEST RESULTS

9.1. LIMITS AND PROCEDURE

<u>LIMITS</u>

FCC §15.205 and §15.209

RSS-GEN, Section 8.9 and 8.10.

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
0.009-0.490	2400/F(kHz) @ 300 m	-
0.490-1.705	24000/F(kHz) @ 30 m	-
1.705 - 30	30 @ 30m	-
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For pre-scans above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 30 KHz for peak measurements.

For final measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and as applicable for average measurements.

The spectrum from 1 GHz to 18 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band. Below 1GHz and above 18GHz emissions, the channel with the highest output power was tested.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

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2D antenna use - For below 30MHz testing, investigation was done on three antenna orientations (parallel, perpendicular, and ground-parallel), parallel and perpendicular are the worst orientations, therefore testing was performed on these two orientations only.

KDB 414788 Open Field Site(OFS) and Chamber Correlation Justification

Base on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field.

OFS and chamber correlation testing had been performed and chamber measured test result is the worst-case test result.

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9.2. TRANSMITTER ABOVE 1 GHz

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.38999	52.64	Pk	32.4	-35	50.04	-	-	74	-23.96	233	373	Н
2	* 2.34019	54.47	Pk	32.2	-35.2	51.47	-	-	74	-22.53	233	373	Н
3	* 2.38999	41.24	RMS	32.4	-35	38.64	54	-15.36	-	-	233	373	Н
4	* 2.38245	42.23	RMS	32.4	-35.1	39.53	54	-14.47	-	-	233	373	Н

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

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VERTICAL RESULT



Trace Markers

Marker	Frequency	Meter	Det	AF T863	Amp/Cbl/Fltr/Pad	Corrected	Average	Margin	Peak Limit	РК	Azimuth	Height	Polarity
	(GHz)	Reading		(dB/m)	(dB)	Reading	Limit	(dB)	(dBuV/m)	Margin	(Degs)	(cm)	
		(dBuV)				(dBuV/m)	(dBuV/m)			(dB)			
1	* 2.38999	51.48	Pk	32.4	-35	48.88	-	-	74	-25.12	197	154	V
2	* 2.35535	54.71	Pk	32.4	-35.2	51.91	-	-	74	-22.09	197	154	V
3	* 2.38999	41.05	RMS	32.4	-35	38.45	54	-15.55	-	-	197	154	V
4	* 2.36976	42.35	RMS	32.4	-35.1	39.65	54	-14.35	-	-	197	154	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band Pk - Peak detector RMS - RMS detection

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BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading	Average Limit	Margin (dB)	Peak Limit (dBuV/m)	PK Margin	Azimuth (Degs)	Height (cm)	Polarity
	(-	(dBuV)				(dBuV/m)	(dBuV/m)			(dB)	1 -0-7	V 7	
1	* 2.48351	55.65	Pk	32.5	-34.6	53.55	-	-	74	-20.45	232	401	Н
2	* 2.4836	57.66	Pk	32.5	-34.6	55.56	-	-	74	-18.44	232	401	Н
3	* 2.48351	44.58	RMS	32.5	-34.6	42.48	54	-11.52	-	-	232	401	Н
4	* 2.4879	46.58	RMS	32.5	-34.6	44.48	54	-9.52	-	-	232	401	Н

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band Pk - Peak detector RMS - RMS detection

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VERTICAL RESULT



Trace Markers

Marker	Frequency	Meter	Det	AF T863	Amp/Cbl/Fltr/Pad	Corrected	Average	Margin	Peak Limit	РК	Azimuth	Height	Polarity
	(GHz)	Reading		(dB/m)	(dB)	Reading	Limit	(dB)	(dBuV/m)	Margin	(Degs)	(cm)	
		(dBuV)				(dBuV/m)	(dBuV/m)			(dB)			
1	* 2.48351	58.36	Pk	32.5	-34.6	56.26	-	-	74	-17.74	200	361	V
2	* 2.48354	60.19	Pk	32.5	-34.6	58.09	-	-	74	-15.91	200	361	V
3	* 2.48351	46.66	RMS	32.5	-34.6	44.56	54	-9.44	-	-	200	361	V
4	* 2.48777	49.7	RMS	32.5	-34.6	47.6	54	-6.4	-	-	200	361	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band Pk - Peak detector RMS - RMS detection

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HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS





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UL VERIFICATION SERVICES INC. 47173 Benicia Street, Fremont, CA 94538; USA

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.80394	48.15	PK2	34.4	-40.8	41.75	-	-	74	-32.25	357	96	н
	* 4.80348	37.16	MAv1	34.4	-40.8	30.76	54	-23.24	-	-	357	96	Н
2	7.20499	50.95	PK2	36	-38.6	48.35	-	-	74	-25.65	136	98	Н
3	* 10.97837	44.97	PK2	37.9	-36.1	46.77	-	-	74	-27.23	17	127	Н
	* 10.97879	33.21	MAv1	37.9	-36.1	35.01	54	-18.99	-	-	17	127	Н
4	* 4.80382	48.88	PK2	34.4	-40.8	42.48	-	-	74	-31.52	158	173	V
	* 4.80383	38.4	MAv1	34.4	-40.8	32	54	-22	-	-	158	173	V
5	7.20706	50.55	PK2	36	-38.6	47.95	-	-	74	-26.05	162	107	V
6	* 11.8353	43.65	PK2	38.7	-34.8	47.55	-	-	74	-26.45	173	300	V
	* 11.83554	32.37	MAv1	38.7	-34.8	36.27	54	-17.73	-	-	173	300	V

 * - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

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REPORT NO: 13079858-E1V2 FCC ID: C9O-AIRFB2

MID CHANNEL RESULTS





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UL VERIFICATION SERVICES INC. 47173 Benicia Street, Fremont, CA 94538; USA

TEL:(510) 319-4000

FAX:(510) 661-0888

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.04802	49.86	PK2	33.6	-42	41.46	-	-	74	-32.54	26	106	Н
	* 4.04947	37.64	MAv1	33.6	-42	29.24	54	-24.76	-	-	26	106	Н
2	* 7.3192	48.92	PK2	36	-38.2	46.72	-	-	74	-27.28	135	179	Н
	* 7.31908	38.55	MAv1	36	-38.2	36.35	54	-17.65	-	-	135	179	Н
3	10.27174	44.83	PK2	37.5	-36.8	45.53	-	-	74	-28.47	92	110	Н
4	* 4.87991	48.66	PK2	34.4	-40.6	42.46	-	-	74	-31.54	157	185	V
	* 4.87907	37.32	MAv1	34.4	-40.6	31.12	54	-22.88	-	-	157	185	V
5	* 7.31902	50.62	PK2	36	-38.2	48.42	-	-	74	-25.58	160	211	V
	* 7.31905	40.87	MAv1	36	-38.2	38.67	54	-15.33	-	-	160	211	V
6	10.25184	45.1	PK2	37.5	-36.8	45.8	-	-	74	-28.2	271	280	V

 * - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

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REPORT NO: 13079858-E1V2 FCC ID: C9O-AIRFB2

HIGH CHANNEL RESULTS





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UL VERIFICATION SERVICES INC. 47173 Benicia Street, Fremont, CA 94538; USA

TEL:(510) 319-4000

FAX:(510) 661-0888

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.86509	47.41	PK2	34.3	-40.6	41.11	-	-	74	-32.89	195	381	Н
	* 4.86627	35.91	MAv1	34.3	-40.6	29.61	54	-24.39	-	-	195	381	Н
2	* 7.43908	48.59	PK2	36.1	-38	46.69	-	-	74	-27.31	191	196	Н
	* 7.4391	39.15	MAv1	36.1	-38	37.25	54	-16.75	-	-	191	196	Н
3	10.16918	45.97	PK2	37.3	-36.8	46.47	-	-	74	-27.53	331	123	Н
4	* 5.01412	47.19	PK2	34.3	-40.6	40.89	-	-	74	-33.11	101	285	V
	* 5.01145	35.85	MAv1	34.3	-40.6	29.55	54	-24.45	-	-	101	285	V
5	* 7.44003	49.18	PK2	36.1	-38	47.28	-	-	74	-26.72	138	172	V
	* 7.43908	40.3	MAv1	36.1	-38	38.4	54	-15.6	-	-	138	172	V
6	9.91881	46.98	PK2	37.1	-36.6	47.48	-	-	74	-26.52	154	340	V

 * - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

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9.3. WORST CASE BELOW 30MHz

SPURIOUS EMISSIONS 9KHz TO 30 MHz (WORST-CASE CONFIGURATION)



Below 30MHz Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (E ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	.01616	27.69	Pk	59.3	-31.8	-80	-24.81	63.42	-88.23	43.42	-68.23	-	-	0-360
4	.02471	9.84	Pk	58.3	-32.1	-80	-43.96	59.73	-103.69	39.73	-83.69	-	-	0-360

Pk - Peak detector

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (E ACF)	Amp/ Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
2	.81218	30.5	Pk	56	-32.2	-40	14.3	-		-		29.42	-15.12	0-360
3	.86405	32.81	Pk	56	-32.2	-40	16.61	-		-		28.89	-12.28	0-360
5	.81077	30.39	Pk	56	-32.2	-40	14.19	-		-		29.44	-15.25	0-360
6	.86059	29.99	Pk	56	-32.2	-40	13.79	-	-	-	-	28.92	-15.13	0-360

Pk - Peak detector

Note: The Limits in CRF 47, Part 15, Subpart C, Paragraph 15.209(a), are identical to those in RSS-Gen section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as reported in the table) using the free space impedance of 377 Ohms. For example, the measurement at frequency X kHz resulted in a level of Y dBuV/m, which is equivalent to Y -51.5 = Z dBuA/m, which has the same margin, W dB, to the corresponding RSS-Gen Table 6 limit as it has to 15.209(a) limit.

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9.4. WORST CASE BELOW 1 GHz

SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION)





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UL VERIFICATION SERVICES INC. 47173 Benicia Street, Fremont, CA 94538; USA

REPORT NO: 13079858-E1V2 FCC ID: C9O-AIRFB2

Below 1GHz Data

Marker	Frequency	Meter	Det	AF 81560 (dB/m)	Amp/Cbl (dB)	Corrected	QPk Limit	Margin	Azimuth	Height	Polarity
	(MHz)	Reading				Reading	(dBuV/m)	(dB)	(Degs)	(cm)	
		(dBuV)				(dBuV/m)					
1	102.3537	35.88	Pk	16.9	-30.9	21.88	43.52	-21.64	0-360	400	Н
2	* 168.6284	34.43	Pk	18	-30.5	21.93	43.52	-21.59	0-360	200	Н
4	99.4205	42.01	Pk	16	-30.9	27.11	43.52	-16.41	0	341	V
	99.3169	21.41	Qp	16	-30.9	6.51	43.52	-37.01	0	341	V
3	637.7569	30.43	Pk	26.1	-28.9	27.63	46.02	-18.39	0-360	301	Н
5	466.0346	31.15	Pk	23.4	-29.2	25.35	46.02	-20.67	0-360	200	V
6	732.1692	31.08	Pk	26.9	-28.5	29.48	46.02	-16.54	0-360	99	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

Qp - Quasi-Peak detector

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9.5. WORST CASE 18-26 GHz

SPURIOUS EMISSIONS 18-26 GHz (WORST-CASE CONFIGURATION)





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UL VERIFICATION SERVICES INC. 47173 Benicia Street, Fremont, CA 94538; USA

18 – 26GHz DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T447 AF (dB/m)	Amp/Cbl (dB)	Dist Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)
1	19.55833	70.63	Pk	32.8	-57	-9.5	36.93	54	-17.07	74	-37.07
2	20.96178	69.65	Pk	33.3	-57.1	-9.5	36.35	54	-17.65	74	-37.65
3	22.43039	69.81	Pk	33.6	-57.8	-9.5	36.11	54	-17.89	74	-37.89
4	18.81506	71.22	Pk	32.4	-58.3	-9.5	35.82	54	-18.18	74	-38.18
5	20.08533	69.38	Pk	32.9	-56.4	-9.5	36.38	54	-17.62	74	-37.62
6	23.48344	70.18	Pk	34.2	-57.3	-9.5	37.58	54	-16.42	74	-36.42

Pk - Peak detector

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UL VERIFICATION SERVICES INC. 47173 Benicia Street, Fremont, CA 94538; USA

10. SPOT CHECK DATA (Model 00610)

10.1. TRANSMITTER ABOVE 1 GHz

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBu)()	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBu)(/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
		(ubuv)				(ubuv/iii)	(ubuv/iii)			(ub)			
1	* 2.38999	52.42	Pk	32.4	-35	49.82	-	-	74	-24.18	38	241	н
2	* 2.38808	54.54	Pk	32.4	-35	51.94	-	-	74	-22.06	38	241	н
3	* 2.38999	41.72	RMS	32.4	-35	39.12	54	-14.88	-	-	38	241	н
4	* 2.37009	43.59	RMS	32.4	-35.1	40.89	54	-13.11	-	-	38	241	Н

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band Pk - Peak detector

RMS - RMS detection

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VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading	Average Limit	Margin (dB)	Peak Limit (dBuV/m)	PK Margin	Azimuth (Degs)	Height (cm)	Polarity
		(ubuv)				(ubuV/m)	(ubuV/m)			(uB)			
1	* 2.39	32.78	Pk	32.4	-11.6	53.58	-	-	74	-20.42	83	220	V
2	* 2.35785	34.42	Pk	32.4	-11.6	55.22	-	-	74	-18.78	83	220	V
3	* 2.39	21.87	RMS	32.4	-11.6	42.67	54	-11.33	-	-	83	220	V
4	* 2.36989	24.08	RMS	32.4	-11.6	44.88	54	-9.12	-	-	83	220	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

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BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	53.68	Pk	32.5	-34.6	51.58	-	-	74	-22.42	36	250	н
2	* 2.48385	55.28	Pk	32.5	-34.6	53.18	-	-	74	-20.82	36	250	Н
3	* 2.48351	43.04	RMS	32.5	-34.6	40.94	54	-13.06	-	-	36	250	Н
4	* 2.48369	43.64	RMS	32.5	-34.6	41.54	54	-12.46	-	-	36	250	н

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

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VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	57.19	Pk	32.5	-34.6	55.09	-	-	74	-18.91	78	228	V
2	* 2.4837	56.87	Pk	32.5	-34.6	54.77	-	-	74	-19.23	78	228	V
3	* 2.48351	45.5	RMS	32.5	-34.6	43.4	54	-10.6	-	-	78	228	V
4	* 2.48357	46	RMS	32.5	-34.6	43.9	54	-10.1	-	-	78	228	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band Pk - Peak detector

RMS - RMS detection

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HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS





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UL VERIFICATION SERVICES INC. 47173 Benicia Street, Fremont, CA 94538; USA

TEL:(510) 319-4000

FAX:(510) 661-0888

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin	Azimuth (Degs)	Height (cm)	Polarity
	(0112)	(dBuV)		(42))	(42)	(dBuV/m)	(4541))	(42)	(4241))	(dB)	(2080)	(0)	
1	* 4.80453	50.46	PK2	34.4	-40.7	44.16	-	-	74	-29.84	149	246	Н
	* 4.8038	41.15	MAv1	34.4	-40.8	34.75	54	-19.25	-	-	149	246	Н
2	7.20505	51.26	PK2	36	-38.6	48.66	-	-	-	-	169	184	Н
3	9.60673	50.14	PK2	36.8	-36.7	50.24	-	-	-	-	250	96	н
4	7.20508	52.22	PK2	36	-38.6	49.62	-	-	-	-	170	170	V
5	9.60673	52.6	PK2	36.8	-36.7	52.7	-	-	-	-	166	191	V
6	* 12.01167	45.72	PK2	39	-34.9	49.82	-	-	74	-24.18	162	213	V
	* 12.00865	35.15	MAv1	38.9	-35	39.05	54	-14.95	-	-	162	213	V

 * - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

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TEL:(510) 319-4000



115<mark>UL Fremont - Chamber K</mark> 2021 Apr 1 18:05:50 Radiated Emissions 3-Meters Project Number:13712358 Client:SRAM Config:EUT + Support Equipment Mode:BLE_2440MHz Tested by:23529 OL 105 95 85 Peak Limit (dBuV/m) 75 65 dBuU Avg Limit (dBuV/m) 55 6 5 45 35 25 10 18 Frequency (GHz)
Position
Ronge (BHz)
4:3-18 RBW/UBW Pts Sups/Node Pts #Swps/Mode Pasition Ref/Attn Det/Avg Mode RBU/VBU Ref/Attn Det/Avg Mode Range (GHz) Sweep Position Ѕыеер FCC Part15C 2.4GHz RSE.TST 30915 15 Jun 2018 Rev 9.5 30 Apr 2020 VERTICAL

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UL VERIFICATION SERVICES INC. 47173 Benicia Street, Fremont, CA 94538; USA

TEL:(510) 319-4000

FAX:(510) 661-0888

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.87962	51.27	PK2	34.4	-40.6	45.07	-	-	74	-28.93	168	213	Н
	* 4.87986	41.84	MAv1	34.4	-40.6	35.64	54	-18.36	-	-	168	213	Н
2	* 7.31906	52.06	PK2	36	-38.2	49.86	-	-	74	-24.14	174	179	Н
	* 7.31906	43.33	MAv1	36	-38.2	41.13	54	-12.87	-	-	174	179	Н
3	9.75871	43.37	Pk	37	-36.7	43.67	-	-	-	-	0-360	200	Н
4	* 12.19845	47.22	PK2	39.2	-35	51.42	-	-	74	-22.58	168	204	Н
	* 12.19864	36.21	MAv1	39.2	-35	40.41	54	-13.59	-	-	168	204	Н
5	* 7.31908	53.93	PK2	36	-38.2	51.73	-	-	74	-22.27	172	197	V
	* 7.31915	46.15	MAv1	36	-38.2	43.95	54	-10.05	-	-	172	197	V
7	* 12.19862	45.48	PK2	39.2	-35	49.68	-	-	74	-24.32	165	196	V
	* 12.19868	33.46	MAv1	39.2	-35	37.66	54	-16.34	-	-	165	196	V
6	9.75869	50.66	PK2	37	-36.7	50.96	-	-	-	-	172	212	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band PK2 - KDB558074 Method: Maximum Peak MAv1 - KDB558074 Option 1 Maximum RMS Average

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REPORT NO: 13079858-E1V2 FCC ID: C9O-AIRFB2

HIGH CHANNEL RESULTS





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UL VERIFICATION SERVICES INC. 47173 Benicia Street, Fremont, CA 94538; USA

TEL:(510) 319-4000

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.9594	51.32	PK2	34.3	-40.6	45.02	-	-	74	-28.98	141	206	Н
	* 4.95973	41.27	MAv1	34.3	-40.6	34.97	54	-19.03	-	-	141	206	Н
2	* 7.4391	50.54	PK2	36.1	-38	48.64	-	-	74	-25.36	172	205	Н
	* 7.43908	41.46	MAv1	36.1	-38	39.56	54	-14.44	-	-	172	205	Н
3	9.91872	40.47	Pk	37.1	-36.6	40.97	-	-	-	-	0-360	200	Н
4	* 12.39846	45.62	PK2	39.3	-34.4	50.52	-	-	74	-23.48	167	243	Н
	* 12.39873	34.88	MAv1	39.3	-34.4	39.78	54	-14.22	-	-	167	243	Н
5	* 4.95948	50.12	PK2	34.3	-40.6	43.82	-	-	74	-30.18	225	100	V
	* 4.95995	40.59	MAv1	34.3	-40.7	34.19	54	-19.81	-	-	225	100	V
7	* 7.44099	54.34	PK2	36.1	-37.9	52.54	-	-	74	-21.46	177	177	V
	* 7.43911	45.98	MAv1	36.1	-38	44.08	54	-9.92	-	-	177	177	V
6	9.92135	50.19	PK2	37.1	-36.6	50.69	-	-	-	-	168	189	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band PK2 - KDB558074 Method: Maximum Peak MAv1 - KDB558074 Option 1 Maximum RMS Average

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10.2. WORST CASE BELOW 30MHz

SPURIOUS EMISSIONS 9KHz TO 30 MHz (WORST-CASE CONFIGURATION)



Below 30MHz Data

Marker	Frequency	Meter	Det	Loop	Amp/Cbl	Dist	Corrected	Peak	Margin	Avg Limit	Margin	Peak	Margin	Avg Limit	Margin	Azimuth
	(MHz)	Reading		Antenna	(dB)	Corr	Reading	Limit	(dB)	(dBuV/m)	(dB)	Limit	(dB)	(dBuV/m)	(dB)	(Degs)
		(dBuV)		(E ACF)		300m	(dBuV/m)	(dBuV/m)				(dBuV/m)				
1	.06011	10.37	Pk	56.2	-32.3	-80	-45.73	52.01	-97.74	32.01	-77.74	-	-		-	0-360
2	.24173	22.11	Pk	56.3	-32.2	-80	-33.79	-	-	-	-	39.95	-73.74	19.95	-53.74	0-360
4	.0601	11.13	Pk	56.2	-32.3	-80	-44.97	52.01	-96.98	32.01	-76.98	-	-	-	-	0-360
5	.24058	23.61	Pk	56.3	-32.2	-80	-32.29	-	-	-	-	39.99	-72.28	19.99	-52.28	0-360

Pk - Peak detector

Marker	Frequency (MHz)	Meter Reading	Det	Loop Antenna (E ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBu)(/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
		(ubuv)					(abav/iii)			
3	.81197	21.74	Pk	56.3	-32.2	-40	5.84	29.43	-23.59	0-360
6	.81189	22.27	Pk	56.3	-32.2	-40	6.37	29.43	-23.06	0-360
7	1.33937	16.88	Pk	45.1	-32.1	-40	-10.12	25.09	-35.21	0-360
8	10.80164	17.21	Pk	34.6	-31.8	-40	-19.99	29.5	-49.49	0-360
9	1.41963	17.64	Pk	44.7	-32.1	-40	-9.76	24.59	-34.35	0-360
10	11.0825	16.25	Pk	34.6	-31.8	-40	-20.95	29.5	-50.45	0-360

Pk - Peak detector

Note: The Limits in CRF 47, Part 15, Subpart C, Paragraph 15.209(a), are identical to those in RSS-Gen section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as reported in the table) using the free space impedance of 377 Ohms. For example, the measurement at frequency X kHz resulted in a level of Y dBuV/m, which is equivalent to Y -51.5 = Z dBuA/m, which has the same margin, W dB, to the corresponding RSS-Gen Table 6 limit as it has to 15.209(a) limit.

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UL VERIFICATION SERVICES INC. 47173 Benicia Street, Fremont, CA 94538; USA

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10.3. WORST CASE BELOW 1 GHz

SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION)





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UL VERIFICATION SERVICES INC. 47173 Benicia Street, Fremont, CA 94538; USA

REPORT NO: 13079858-E1V2 FCC ID: C9O-AIRFB2

Below 1GHz Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF 81560 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	31.6336	30.28	Pk	26.8	-31.6	25.48	40	-14.52	17	363	Н
	31.6336	21.93	Qp	26.8	-31.6	17.13	40	-22.87	17	363	Н
2	101.7161	34.7	Pk	16.7	-30.9	20.5	43.52	-23.02	0-360	201	Н
3	32.7632	28.69	Pk	25.9	-31.5	23.09	40	-16.91	0-360	95	V
4	104.3092	37.74	Pk	17.4	-30.9	24.24	43.52	-19.28	0-360	95	V
5	492.538	27.6	Pk	23.8	-29.2	22.2	46.02	-23.82	0-360	201	Н
6	492.238	29.48	Pk	23.8	-29.2	24.08	46.02	-21.94	0-360	301	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

Qp - Quasi-Peak detector

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10.4. WORST CASE 18-26 GHz

SPURIOUS EMISSIONS 18-26 GHz (WORST-CASE CONFIGURATION)





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UL VERIFICATION SERVICES INC. 47173 Benicia Street, Fremont, CA 94538; USA

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18 – 26GHz DATA

Marker	Frequency	Meter	Det	T447 AF	Amp/Cbl (dB)	Dist Corr	Corrected	Avg Limit	Margin	Peak Limit	PK Margin
	(GHz)	Reading		(dB/m)		(dB)	Reading	(dBuV/m)	(dB)	(dBuV/m)	(dB)
		(dBuV)					(dBuV/m)				
1	19.28728	68.13	Pk	32.7	-57.2	-9.5	34.13	54	-19.87	74	-39.87
2	21.61439	67.66	Pk	33.2	-57.3	-9.5	34.06	54	-19.94	74	-39.94
3	23.25866	67.94	Pk	33.8	-57	-9.5	35.24	54	-18.76	74	-38.76
4	19.3685	68.24	Pk	32.7	-57.1	-9.5	34.34	54	-19.66	74	-39.66
5	21.58228	68.39	Pk	33.2	-57.4	-9.5	34.69	54	-19.31	74	-39.31
6	23.70161	68.05	Pk	34.2	-57.1	-9.5	35.65	54	-18.35	74	-38.35

Pk - Peak detector

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