Report Number:	R14777389-E1
Issue Date:	2023-07-28
FCC ID:	PY7-95649X

Electromagnetic Compatibility Test Report

For

Sony Corporation
1-7-1 Konan Minato-ku
Tokyo, 108-0075, Japan

TEST REPORT DETAILS

Tests Performed By:	UL LLC 12 Laboratory Dr. Research Triangle Park, NC 27709, USA
Tests Performed For:	Sony Corporation 1-7-1 Konan Minato-ku Tokyo, 108-0075, Japan
Issue Date:	DRAFT
FCC ID:	PY7-95649X
Sample Serial Number:	QV7700DDHQ, QV77003MHQ
Applicable Standards:	FCC 47 CFR PART 15 SUBPART B:2023
Date Test Item Received:	2023-06-16
Testing Start Date:	2023-07-05
Date Testing Complete:	2023-07-11
Overall Results:	Compliant

UL LLC 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.

This document may not be altered or revised in any way unless done so by UL LLC and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL LLC will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by a2La, NIST, or any agency of the U.S. government.

REPORT DIRECTORY

REPORT REVISION HISTORY

Revision Date	Revision Version	Description	Revised By	Revision Reviewed By
2023-07-28	V1	Initial Issue	B. Kiewra	M. Antola

1.0 TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4:2014.

1.1 Deviations from standard test methods

None

1.2 Device Modifications Necessary for Compliance

None

1.3 TEST RESULTS SUMMARY

This product is considered Class B

Requirement – Test	Result (Compliant / Non-Compliant)
CONDUCTED EMISSIONS	Compliant
RADIATED EMISSIONS	Compliant

Approved & Released For
UL LLC. By:

Michael Antola
Staff Engineer
Consumer Technology Division
UL LLC

Prepared By:

Brian Kiewra
Project Engineer
Consumer Technology Division
UL LLC

2.0 DECISION RULES AND MEASUREMENT UNCERTAINTY

2.1 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

2.2 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).

2.3 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, 0.15 to 30 MHz	3dB
Worst Case Radiated Disturbance, All ranges	6dB

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

2.4 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

3.0 GENERAL - Product Description

3.1 Equipment Description

GSM/WCDMA/LTE/5G Phone with BT, DTS/UNII a/b/g/n/ac/ax, GPS, WPT & NFC

3.2 Device Configuration During Test

3.2.1 Equipment Used During Test:

Use	Product Type	Manufacturer	Model	Comments
EUT	Cell phone	Sony	PY7-95649X	None
AE	Headphones	Sony	MDR-EX15AP	None
AE	Power Supply	Sony	XQZ-UC1	None
AE	Laptop	Dell	Inspiron 15 3000	Used for PC peripheral setup
AE	Power Supply	Dell	DA65NM191	Used for PC peripheral setup
AE	Monitor	ViewSonic	VS15453	Used for PC peripheral setup
AE	Mouse	Amazon Basics	MSU0939	Used for PC peripheral setup
Note: **EUT** - Equipment Under Test, **AE** - Auxiliary/Associated Equipment, or **SIM** - Simulator (Not Subjected to Test)				

3.2.2 Input/Output Ports:

Port #	Name	Type*	Cable Max. >3m (Y/N)	Cable Shielded (Y/N)	Comments
0	Enclosure	N/E	—	—	None
1	USB-C	DC	N	N	Connected to power supply/laptop. Model: XQZ-UB1
2	Audio	I/O	N	N	Connected to headphones
3	HDMI	I/O	N	N	Connected to monitor for PC Peripheral setup
4	Mains	I/O	N	N	Connected to PC Peripheral laptop power supply
5	USB	I/O	N	N	Connected to mouse for PC Peripheral setup
*Note: AC = AC Power Port DC = DC Power Port N/E = Non-Electrical I/O = Signal Input or Output Port (Not Involved in Process Control) TP = Telecommunication Ports					

3.2.3 EUT Highest Frequencies:

Frequency (MHz)	Description
5825	Highest Tx Frequency

3.2.4 Power Interface:

Mode # /Rated	Voltage (V)	Current (A)	Power (W)	Frequency (DC/AC-Hz)	Phases (#)	Comments
Rated	100-240	-	-	50/60	Single	None
1	120Vac	-	-	60Hz	Single	Power Supply
2	4.28Vdc	-	-	DC	-	Battery
3	5Vdc	-	-	DC	-	USB (PC Peripheral)

3.2.5 Subassemblies

Description	Manufacturer	Model
None		

3.2.6 Manufacturer's Description of Model Differences

None

3.2.7 Software and Firmware

The software installed during testing was 5.29 for unintentional idle testing and 2.79 for WWAN Rx mode testing.

3.3 Block Diagram

Refer to R14777389-EP1 for block diagrams.

3.4 EUT Configurations

Configuration #	Description
1	Configured as tabletop equipment

3.5 EUT Operation Modes

Mode of Operation#	Description
1	Operating as intended on battery. Radio idle.
2	Operating as intended connected to power supply. Radio idle.
3	Operating as intended connected to power supply. Radio in Rx mode on supported LTE bands that transmit <960MHz. Note: LTE B5 covers GSM850, WCDMA Band 5 and LTE B12 covers B17. Callbox was used to ensure that EUT was placed in Rx mode.
4	Operating as intended connected as PC Peripheral. Radio idle.

Supported Band(s)	Down Link Frequency Range (MHz)
GSM850, WCDMA 5, LTE B5	869-894
LTE B12	729-746
LTE B13	746-756
LTE B17	734-746

3.6 Rationale for EUT Configurations

Configuration #	Description
1	EUT was investigated in three orientations, X, Y, and Z. It was determined that worst-case orientation for radiated testing was X for AC Adaptor and PC Peripheral modes and Z for battery mode.

3.7 Rationale for EUT Mode of Operation

Mode of Operation #	Description
1,2,3,4	EUT capable of operating on battery, connected to power supply, or connected as PC peripheral. LTE Rx tested on AC Adaptor as worst-case over battery.

4.0 APPLICABLE EMISSIONS LIMITS AND TEST RESULTS

4.1 Test Conditions and Results - MAINS TERMINAL - CONDUCTED EMISSIONS

Test Engineer	11993, 27465/46722	
Test Date	2023-07-05, 2023-07-11	
Laboratory Parameters	Required prior to the test	During the test
Ambient Temperature	10 to 40 °C	20.8 - 21.8°C
Humidity	10 % to 90 %	47.7 - 50.4%
	Frequency range on each side of line	Measurement Point
Fully configured sample scanned over the following frequency range	150kHz to 30MHz	Mains

Limits - Class B

Frequency (MHz)	Limit (dBµV)	
	Quasi-Peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50

Supplementary information: None

Conducted Emissions EUT Configuration Settings

Power Interface #	EUT Configurations #	EUT Mode of Operation#
1,3	1	2,4

Supplementary information: Testing performed on EUT SN: QV7700DDHQ

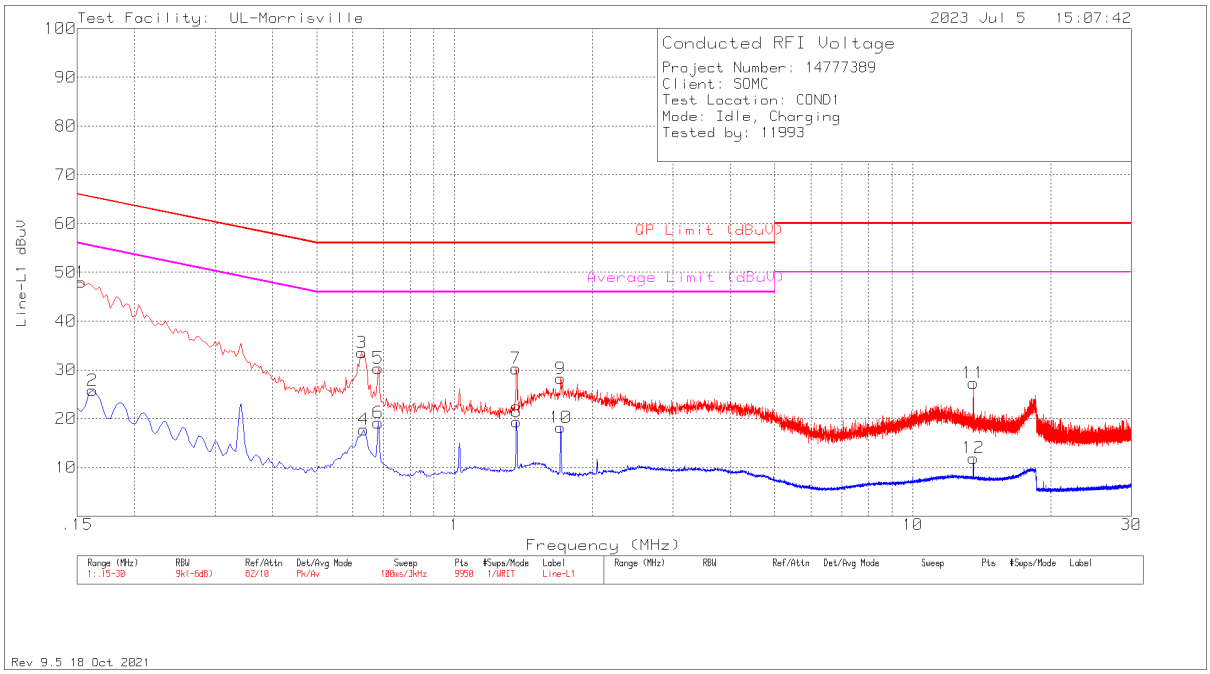
Refer to R14777389-EP1 for setup photos.

Conducted Emissions Test Equipment

Test Equipment Used - Line-Conducted Emissions – Voltage (Morrisville – Conducted 1)

Equipment ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
CBL087	Coax cable, RG223, N-male to BNC-male, 20-ft.	Pasternack	PE3W06143-240	2023-04-04	2024-04-04
HI0091	Environmental Meter	Fisher Scientific	15-077-963	2022-07-20	2023-07-20
LISN003	LISN, 50-ohm/50-uH, 250uH 2-conductor, 25A	Fischer Custom Com.	FCC-LISN-50/250-25-2-01	2022-08-01	2023-08-01
75141	EMI Test Receiver 9kHz-7GHz	Rohde & Schwarz	ESCI 7	2022-08-03	2023-08-03
52859	Transient Limiter, 0.009-100MHz	Electro-Metrics	EM-7600	2023-04-04	2024-04-04
PS214	AC Power Source	Elgar	CW2501M (s/n 1523A02396)	NA	NA
SOFTEMI	EMI Software	UL	Version 9.5 (18 Oct 2021)		
CDECABLE001	ANSI C63.4 1m extension cable.	UL	Per Annex B of ANSI C63.4	2022-09-12	2023-09-12

Conducted Emissions Graph – AC Adaptor Line 1

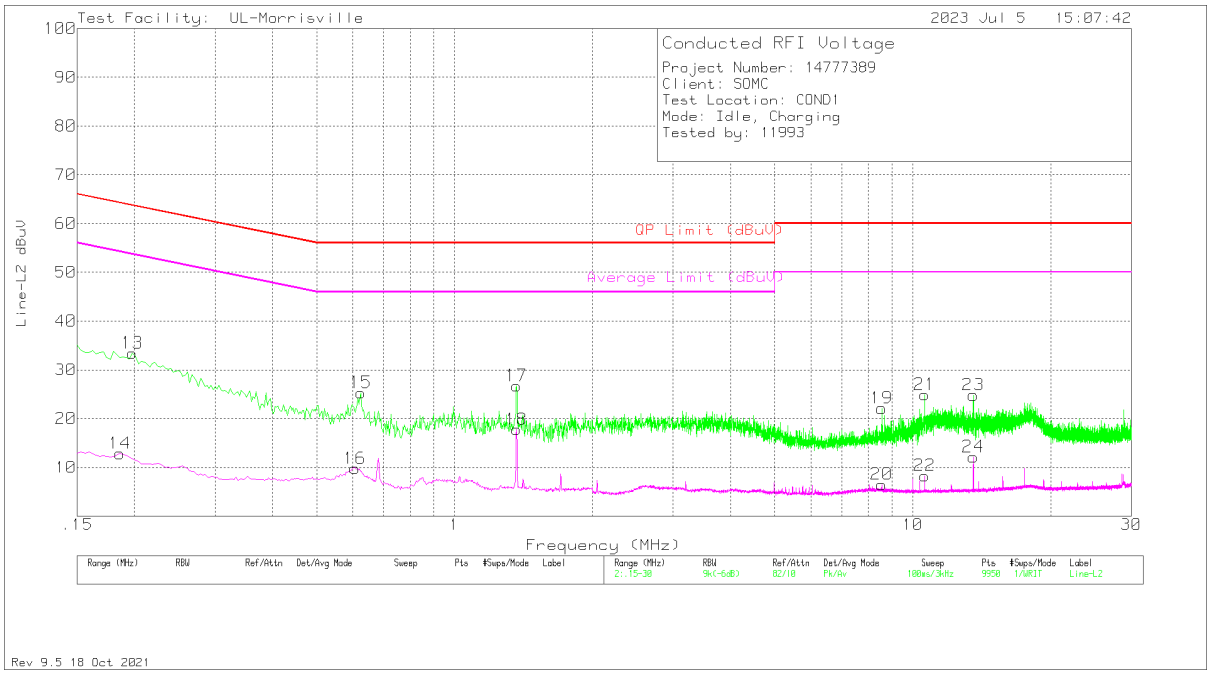


Conducted Emissions Data Points – AC Adaptor Line 1

Range 1: Line-L1 .15 - 30MHz										
Marker	**Frequency (MHz)**	**Meter Reading (dBuV)**	**Det**	**LISN VCF (dB)**	**Cbl/Limiter (dB)**	**Corrected Reading dBuV**	**QP Limit (dBuV)**	**Margin (dB)**	**Average Limit (dBuV)**	**Margin (dB)**
1	.153	37.96	Pk	.2	9.8	47.96	65.84	-17.88	-	-
2	.162	15.78	Av	.2	9.8	25.78	-	-	55.36	-29.58
3	.627	23.74	Pk	0	9.8	33.54	56	-22.46	-	-
4	.633	7.94	Av	0	9.8	17.74	-	-	46	-28.26
5	.681	20.54	Pk	0	9.8	30.34	56	-25.66	-	-
6	.681	9.38	Av	0	9.8	19.18	-	-	46	-26.82
7	1.362	20.47	Pk	0	9.8	30.27	56	-25.73	-	-
8	1.365	9.58	Av	0	9.8	19.38	-	-	46	-26.62
9	1.704	18.45	Pk	0	9.8	28.25	56	-27.75	-	-
10	1.704	8.37	Av	0	9.8	18.17	-	-	46	-27.83
11	13.56	17.21	Pk	.1	10	27.31	60	-32.69	-	-
12	13.56	1.83	Av	.1	10	11.93	-	-	50	-38.07

Pk - Peak detector
Av - Average detection

Conducted Emissions Graph – AC Adaptor Line 2

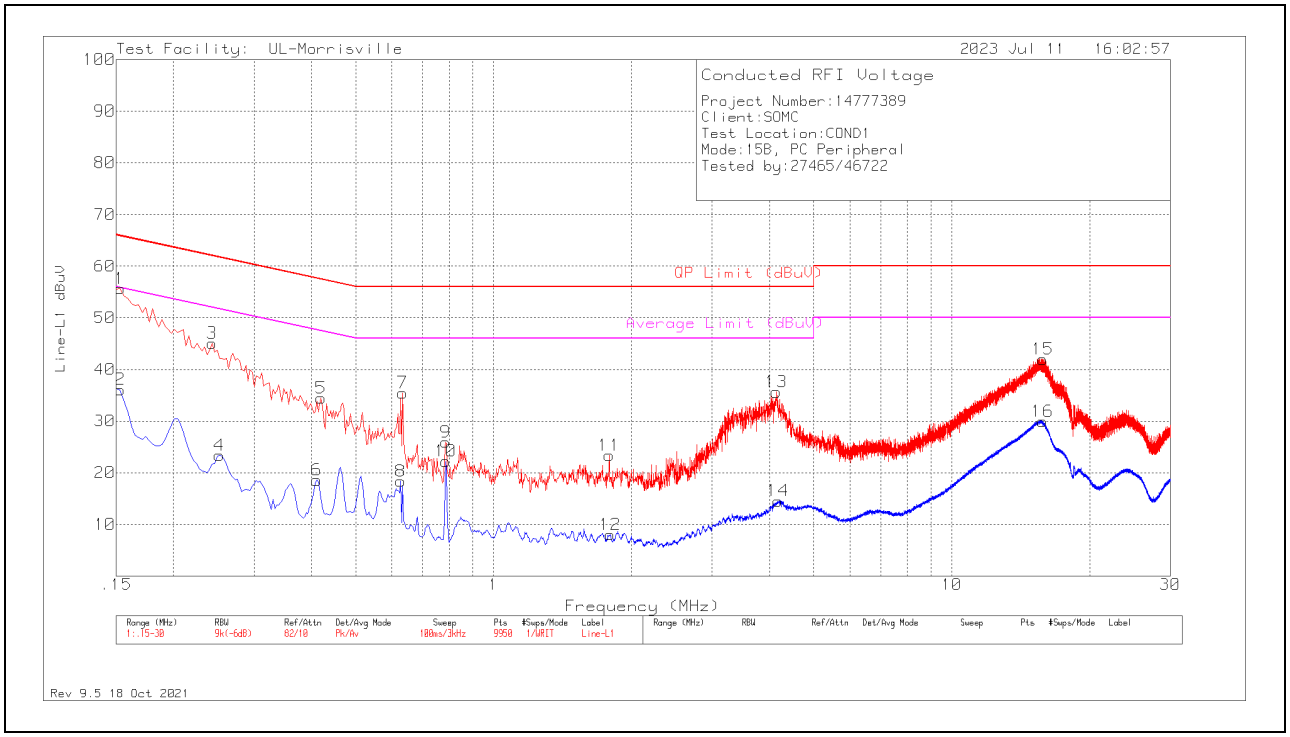


Conducted Emissions Data Points – AC Adaptor Line 2

Range 2: Line-L2 .15 - 30MHz										
Marker	**Frequency (MHz)**	**Meter Reading (dBuV)**	**Det**	**LISN VCF (dB)**	**Cbl/Limiter (dB)**	**Corrected Reading dBuV**	**QP Limit (dBuV)**	**Margin (dB)**	**Average Limit (dBuV)**	**Margin (dB)**
14	.186	2.85	Av	.2	9.8	12.85	-	-	54.21	-41.36
13	.198	23.45	Pk	.2	9.8	33.45	63.69	-30.24	-	-
16	.606	-.01	Av	0	9.8	9.79	-	-	46	-36.21
15	.624	15.52	Pk	0	9.8	25.32	56	-30.68	-	-
17	1.365	16.92	Pk	0	9.8	26.72	56	-29.28	-	-
18	1.365	7.97	Av	0	9.8	17.77	-	-	46	-28.23
19	8.556	12.03	Pk	.1	10	22.13	60	-37.87	-	-
20	8.556	-3.59	Av	.1	10	6.51	-	-	50	-43.49
21	10.617	14.82	Pk	.1	10	24.92	60	-35.08	-	-
22	10.617	-1.79	Av	.1	10	8.31	-	-	50	-41.69
24	13.56	2.06	Av	.1	10	12.16	-	-	50	-37.84
23	13.563	14.74	Pk	.1	10	24.84	60	-35.16	-	-

Pk - Peak detector
Av - Average detection

Conducted Emissions Graph – PC Peripheral Line 1

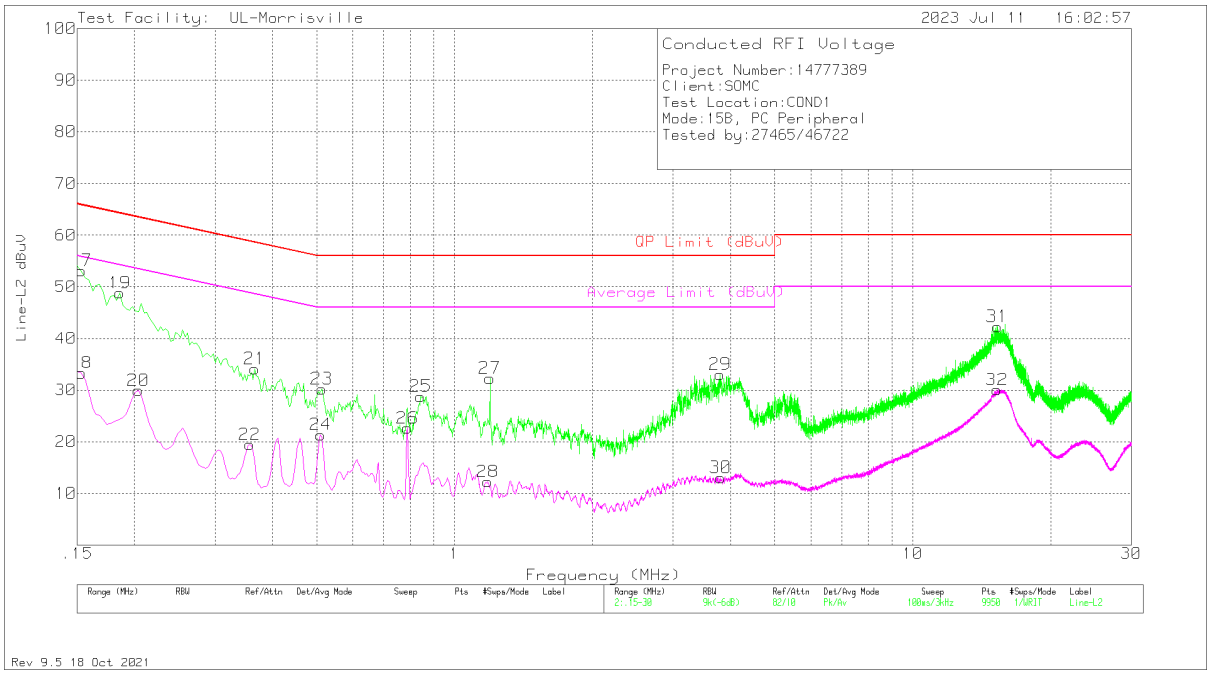


Conducted Emissions Data Points – PC Peripheral Line 1

Range 1: Line-L1 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VCF (dB)	Cbl/Limiter (dB)	Corrected Reading dBuV	QP Limit (dBuV)	Margin (dB)	Average Limit (dBuV)	Margin (dB)
1	.153	45.65	Pk	.2	9.8	55.65	65.84	-10.19	-	-
2	.153	26.1	Av	.2	9.8	36.1	-	-	55.84	-19.74
3	.243	35.17	Pk	.1	9.8	45.07	61.99	-16.92	-	-
4	.252	13.47	Av	.1	9.8	23.37	-	-	51.69	-28.32
5	.42	24.63	Pk	0	9.8	34.43	57.45	-23.02	-	-
6	.411	8.77	Av	0	9.8	18.57	-	-	47.63	-29.06
7	.633	25.65	Pk	0	9.8	35.45	56	-20.55	-	-
8	.627	8.56	Av	0	9.8	18.36	-	-	46	-27.64
9	.786	16.12	Pk	0	9.8	25.92	56	-30.08	-	-
10	.786	12.42	Av	0	9.8	22.22	-	-	46	-23.78
11	1.788	13.57	Pk	0	9.8	23.37	56	-32.63	-	-
12	1.797	-1.78	Av	0	9.8	8.02	-	-	46	-37.98
13	4.14	25.74	Pk	0	9.9	35.64	56	-20.36	-	-
14	4.176	4.63	Av	0	9.9	14.53	-	-	46	-31.47
15	15.804	31.75	Pk	.1	10.1	41.95	60	-18.05	-	-
16	15.783	19.73	Av	.1	10.1	29.93	-	-	50	-20.07

Pk - Peak detector
Av - Average detection

Conducted Emissions Graph – PC Peripheral Line 2



Conducted Emissions Data Points – PC Peripheral Line 2

Range 2: Line-L2 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VCF (dB)	Cbl/Limiter (dB)	Corrected Reading dBuV	QP Limit (dBuV)	Margin (dB)	Average Limit (dBuV)	Margin (dB)
17	.153	43.12	Pk	.2	9.8	53.12	65.84	-12.72	-	-
18	.153	23.32	Av	.2	9.8	33.32	-	-	55.84	-22.52
19	.186	38.8	Pk	.2	9.8	48.8	64.21	-15.41	-	-
20	.204	20.04	Av	.1	9.8	29.94	-	-	53.45	-23.51
21	.366	24.21	Pk	.1	9.8	34.11	58.59	-24.48	-	-
22	.357	9.55	Av	.1	9.8	19.45	-	-	48.8	-29.35
23	.513	20.42	Pk	0	9.8	30.22	56	-25.78	-	-
24	.51	11.55	Av	0	9.8	21.35	-	-	46	-24.65
25	.843	18.97	Pk	0	9.8	28.77	56	-27.23	-	-
26	.789	12.81	Av	0	9.8	22.61	-	-	46	-23.39
27	1.194	22.48	Pk	0	9.8	32.28	56	-23.72	-	-
28	1.182	2.47	Av	0	9.8	12.27	-	-	46	-33.73
29	3.798	23.13	Pk	0	9.9	33.03	56	-22.97	-	-
30	3.807	3.16	Av	0	9.9	13.06	-	-	46	-32.94
31	15.3	32.08	Pk	.1	10.1	42.28	60	-17.72	-	-
32	15.282	19.86	Av	.1	10.1	30.06	-	-	50	-19.94

Pk - Peak detector
Av - Average detection

4.2 Test Conditions and Results - RADIATED EMISSIONS

Test Engineer	28100/11993, 11993	
Test Date	2023-07-05 to 2023-07-10	
Laboratory Parameters	Required prior to the test	During the test
Ambient Temperature	10 to 40 °C	22.4 - 25.3°C
Humidity	10 % to 90 %	45.2 - 61.8%
	Frequency range	Measurement Point
Fully configured sample scanned over the following frequency range	30-40000MHz	3m

Limits - Class B

Frequency (MHz)	Limit (dBµV/m)	
30-88	40	NA
88-216	43.5	NA
216-960	46	NA
Above 960	54	NA
	Peak	Average
Above 1 GHz	74	54

Supplementary information: None.

Radiated Emissions EUT Configuration Settings

Power Interface #	EUT Configurations #	EUT Mode of Operation#
1,2	1	1,2,3,4

Supplementary information**:** All testing done with EUT SN: QV7700DDHQ, QV77003MHQ

Refer to R14777389-EP1 for setup photos.

Radiated Emissions Test Equipment

Test Equipment Used - Radiated Disturbance Emissions Test Equipment (Morrisville – Chamber 4)

Equipment ID	Description	Manufacturer/Brand	Model Number	Last Cal.	Next Cal.
30-1000 MHz					
90629	Hybrid Broadband Antenna	Sunol Sciences Corp.	JB3	2023-01-06	2024-01-06
1-18 GHz					
89509	Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz	ETS Lindgren	3117	2023-05-23	2025-05-23
18-40 GHz					
204704	Horn Antenna, 18-26.5GHz	Com-Power	AH-626	2022-07-11	2023-07-11
204705	Horn Antenna, 26-40GHz	Com-Power	AH-640	2022-07-11	2023-07-11
Gain-Loss Chains					
207639	Gain-loss string: 25-1000MHz	Various	Various	2023-05-17	2024-05-17
207640	Gain-loss string: 1-18GHz	Various	Various	2023-05-17	2024-05-17
225795	Gain-loss string: 18-40GHz	Various	Various	2023-05-17	2024-05-17
Receiver & Software					
197955	Spectrum Analyzer	Rohde & Schwarz	ESW44	2023-04-10	2024-04-10
81018	Spectrum Analyzer	Agilent	E4446A	2022-08-02	2023-08-02
SOFTEMI	EMI Software	UL	Version 9.5 (18 Oct 2021)		
Additional Equipment used					
21642	Environmental Meter	Fisher Scientific	15-077-963 (s/n 210701692)	2021-08-16	2023-08-16

Note: All equipment within calibration at time of use.

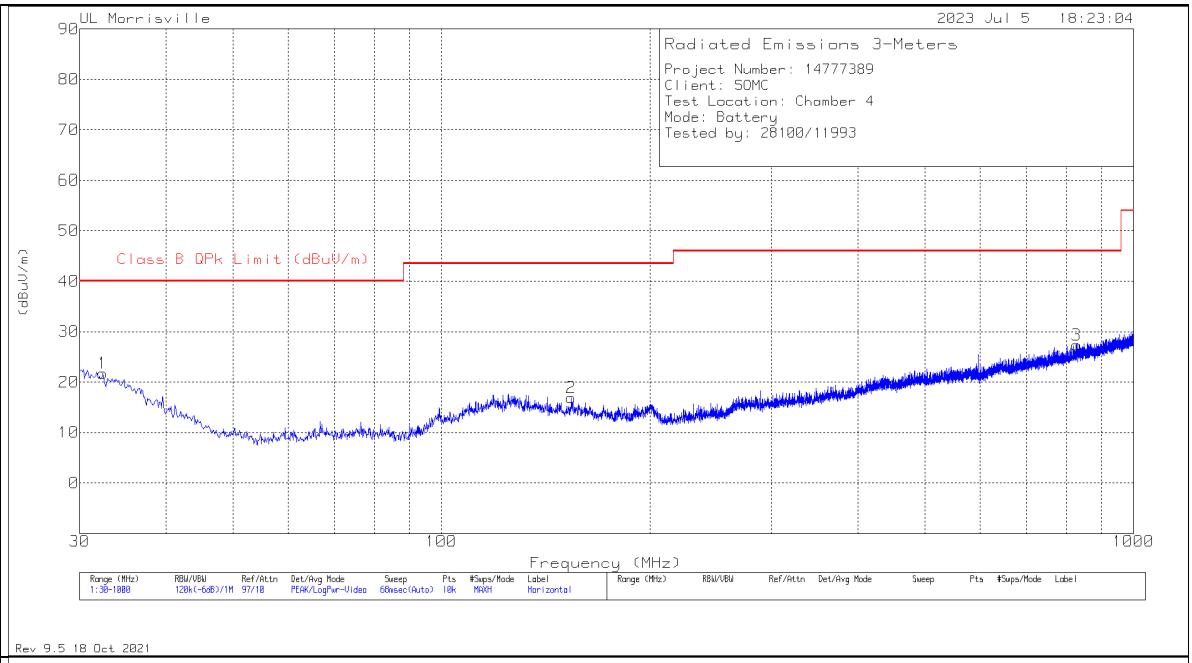
Test Equipment Used - Radiated Disturbance Emissions Test Equipment (Morrisville – Chamber 2)

Equipment ID	Description	Manufacturer/Brand	Model Number	Last Cal.	Next Cal.
30-1000 MHz					
90627	Hybrid Broadband Antenna	Sunol Sciences Corp.	JB3	2022-09-07	2023-09-07
1-18 GHz					
88761	Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz	ETS Lindgren	3117	2022-09-13	2023-09-13
Gain-Loss Chains					
91978	Gain-loss string: 25-1000MHz	Various	Various	2023-06-06	2024-06-06
91977	Gain-loss string: 1-18GHz	Various	Various	2023-06-06	2024-06-06
Receiver & Software					
90416	Spectrum Analyzer	Keysight	N9030A	2023-06-09	2024-06-30
SOFTEMI	EMI Software	UL	Version 9.5 (18 Oct 2021)		
Additional Equipment used					
200540	Environmental Meter	Fisher Scientific	15-077-963 s/n 181474409	2022-10-05	2023-10-05
208721	Wideband Radio Communications Tester	Rohde and Schwarz	CMW500	2024-06-06	2024-06-06

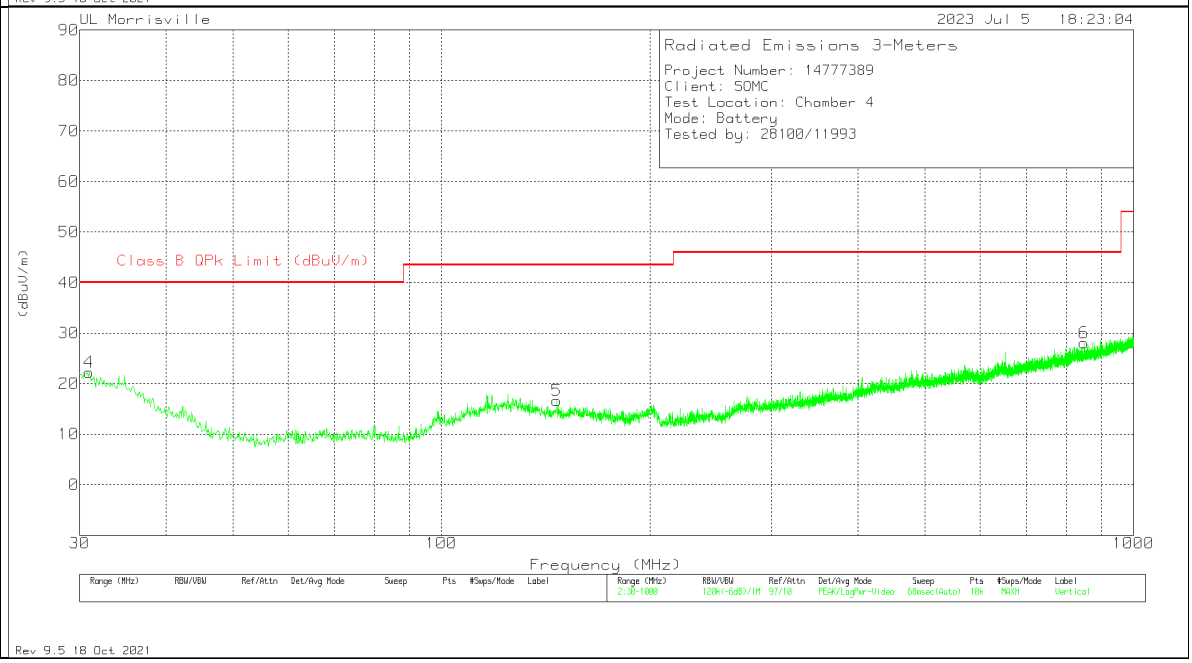
RADIATED EMISSIONS 30 TO 1000 MHz - Battery

Radiated Emissions Graph

HORIZONTAL



VERTICAL



Radiated Emissions Data Points

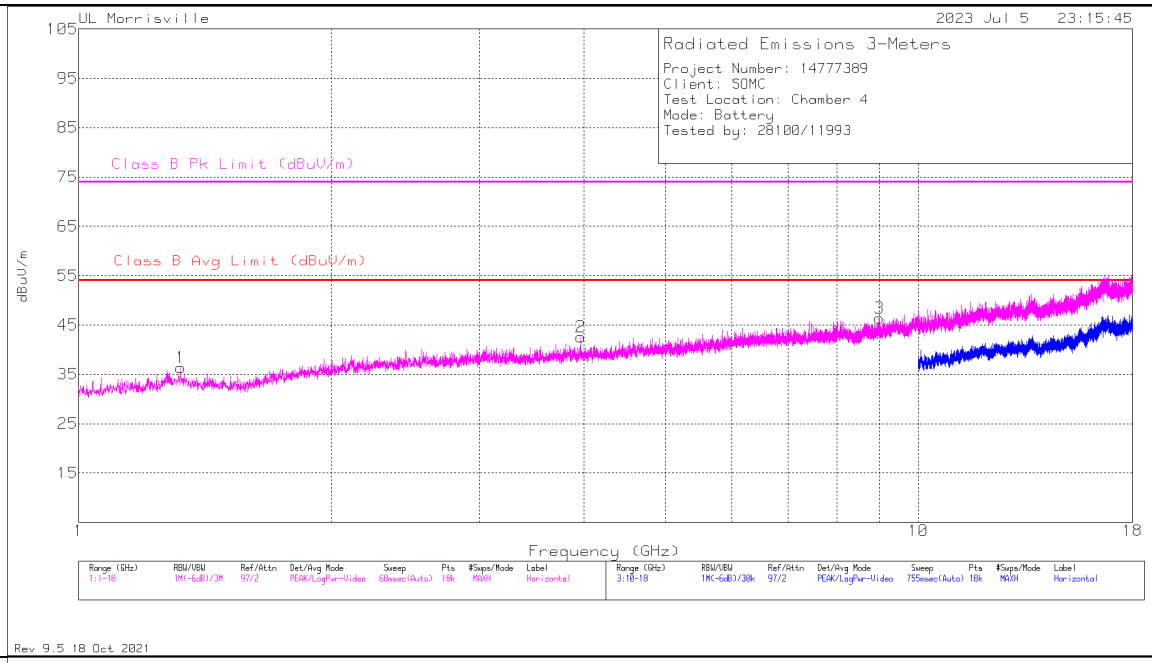
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	90629 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Class B QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	30.97	27.57	Pk	26.4	-31.7	22.27	40	-17.73	0-360	200	V
1	32.425	28.01	Pk	25.4	-31.7	21.71	40	-18.29	0-360	200	H
5	146.788	28.05	Pk	18.7	-30.1	16.65	43.52	-26.87	0-360	200	V
2	154.063	28.46	Pk	18.7	-30.2	16.96	43.52	-26.56	0-360	300	H
3	827.34	25.79	Pk	27.8	-26.2	27.39	46.02	-18.63	0-360	300	H
6	847.613	25.98	Pk	27.9	-25.8	28.08	46.02	-17.94	0-360	200	V

Pk - Peak detector

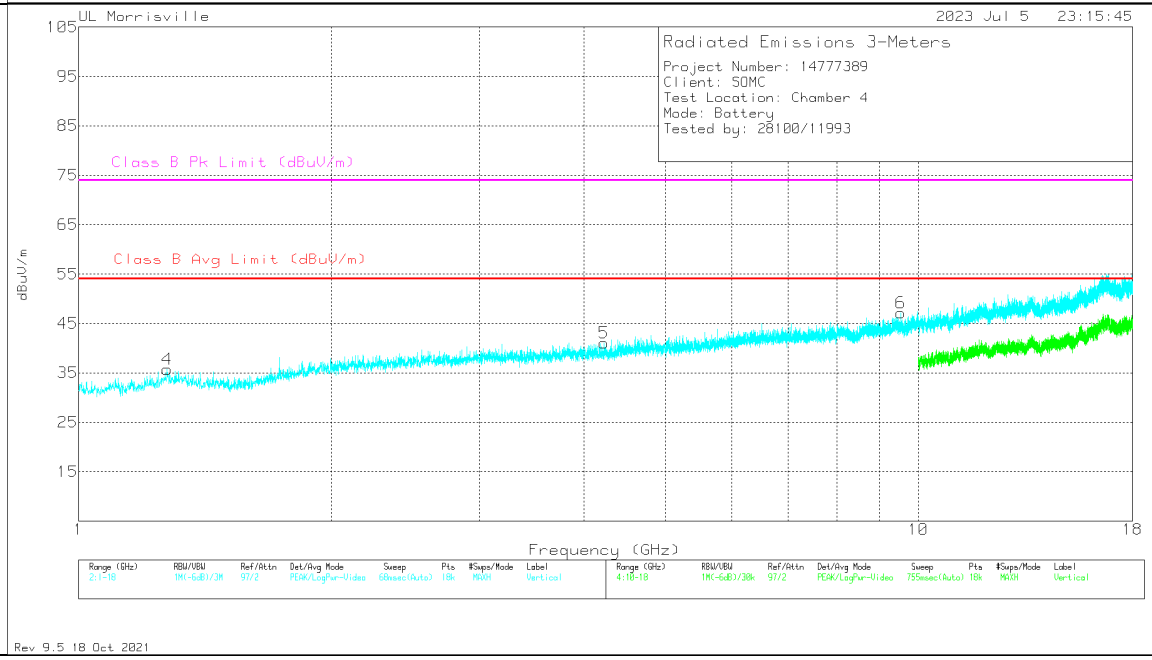
RADIATED EMISSIONS 1000 TO 18,000 MHz – Battery

Radiated Emissions Graph

HORIZONTAL



VERTICAL



Radiated Emissions Data Points

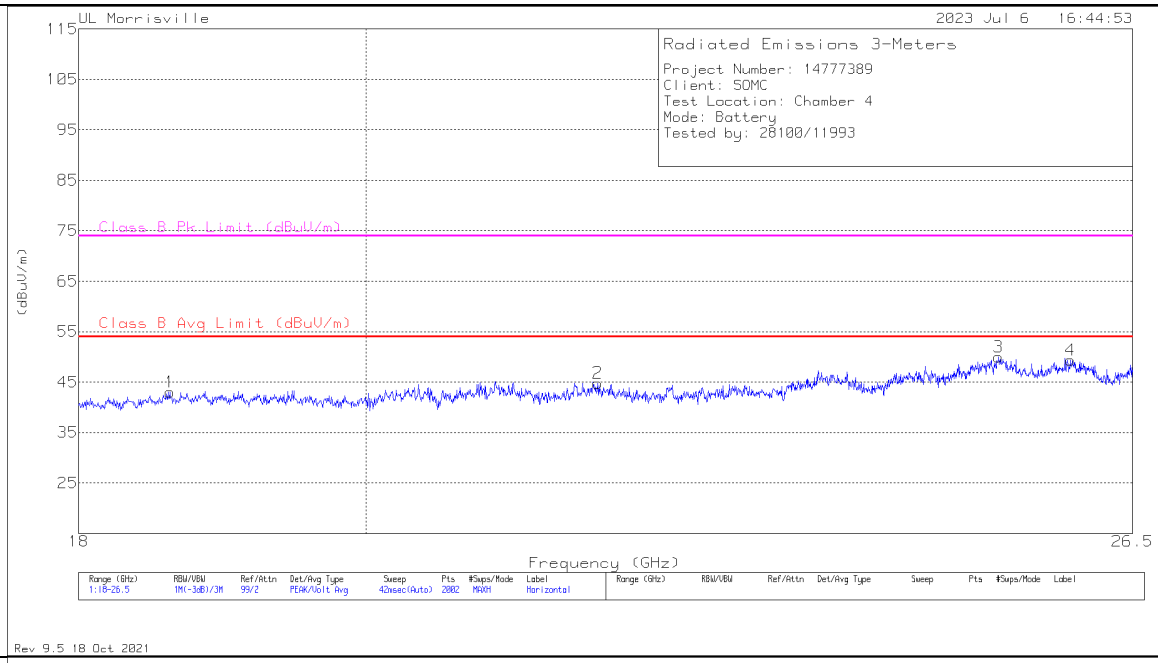
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	89509 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	1.27483	42.56	Pk	29.1	-35.9	35.76	54	-18.24	74	-38.24	0-360	200	V
1	1.32206	43.34	Pk	29	-36	36.34	54	-17.66	74	-37.66	0-360	100	H
2	3.96083	42.23	Pk	33.4	-33.1	42.53	54	-11.47	74	-31.47	0-360	100	H
5	4.22717	40.11	Pk	33.4	-32.4	41.11	54	-12.89	74	-32.89	0-360	200	V
3	8.9985	35.54	Pk	36.2	-25.3	46.44	54	-7.56	74	-27.56	0-360	100	H
6	9.54061	36.05	Pk	36.7	-25.6	47.15	54	-6.85	74	-26.85	0-360	200	V

Pk - Peak detector

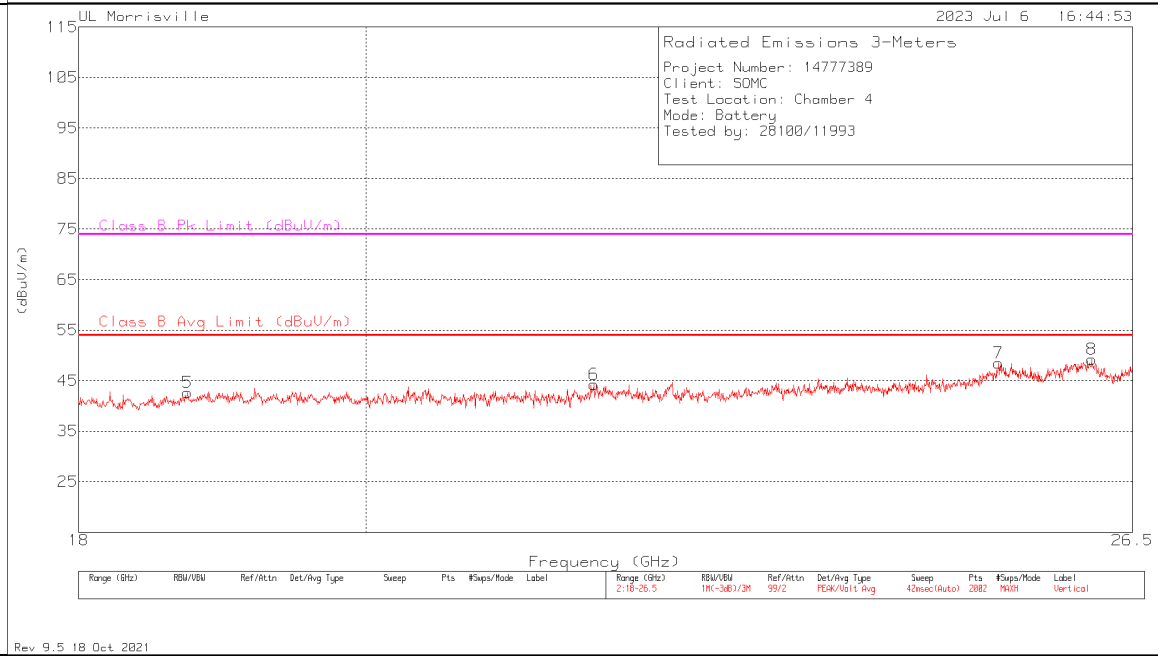
RADIATED EMISSIONS 18,000 TO 26,000 MHz – Battery

Radiated Emissions Graph

HORIZONTAL



VERTICAL



Radiated Emissions Data Points

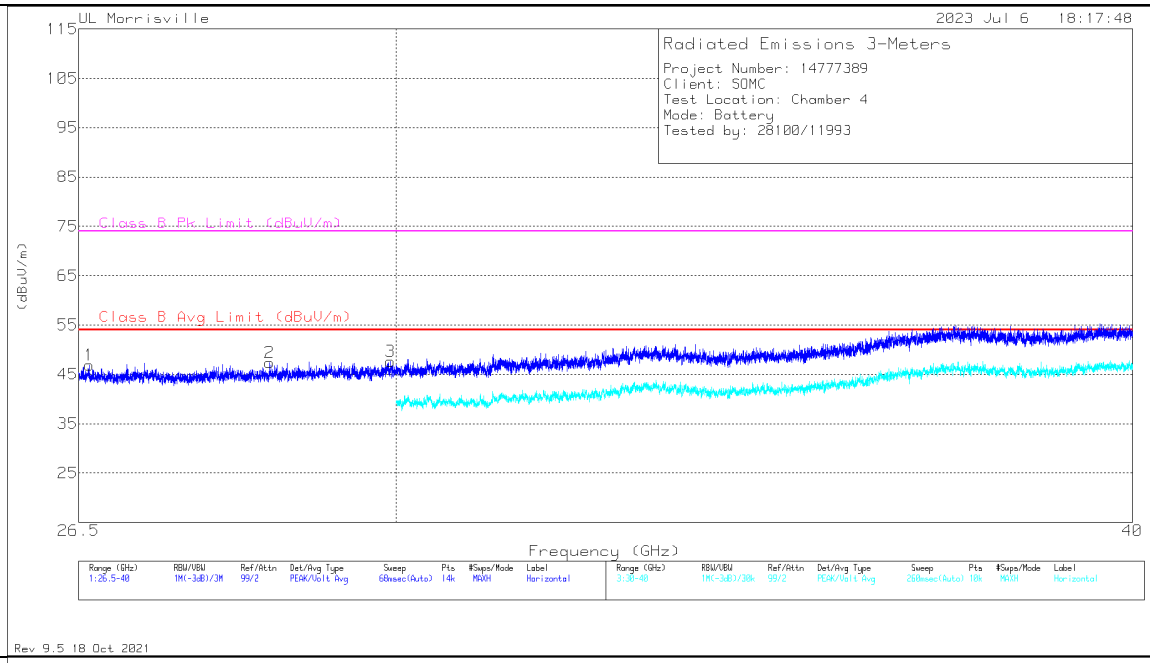
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	204704 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Class B Avg Limit (dBuV/m)	Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	18.61169	49.63	Pk	33.3	-39.9	43.03	54	-10.97	74	-30.97	0-360	100	H
5	18.73488	49.2	Pk	33.4	-39.9	42.7	54	-11.3	74	-31.3	0-360	300	V
6	21.74663	48.71	Pk	34.5	-39	44.21	54	-9.79	74	-29.79	0-360	300	V
2	21.77636	49.32	Pk	34.5	-39	44.82	54	-9.18	74	-29.18	0-360	150	H
3	25.23072	42.89	Pk	36.1	-35.1	43.89	-	-	74	-30.11	280	257	H
	25.23119	39.74	Av	36.1	-35.2	40.64	54	-13.36	-	-	280	257	H
7	25.90261	37.96	Av	35.9	-34.4	39.46	54	-14.54	-	-	165	250	H
	25.90423	41.39	Pk	35.9	-34.2	43.09	-	-	74	-30.91	165	330	H
4	25.23058	38.27	Av	36.1	-35.1	39.27	54	-14.73	-	-	11	199	V
	25.23264	42.57	Pk	36.1	-35.4	43.27	-	-	74	-30.73	11	199	V
8	26.10664	38.02	Av	36	-33.6	40.42	54	-13.58	-	-	308	229	V
	26.10887	42.49	Pk	36	-33.9	44.59	-	-	74	-29.41	308	229	V

Pk - Peak detector
Av - Average detection

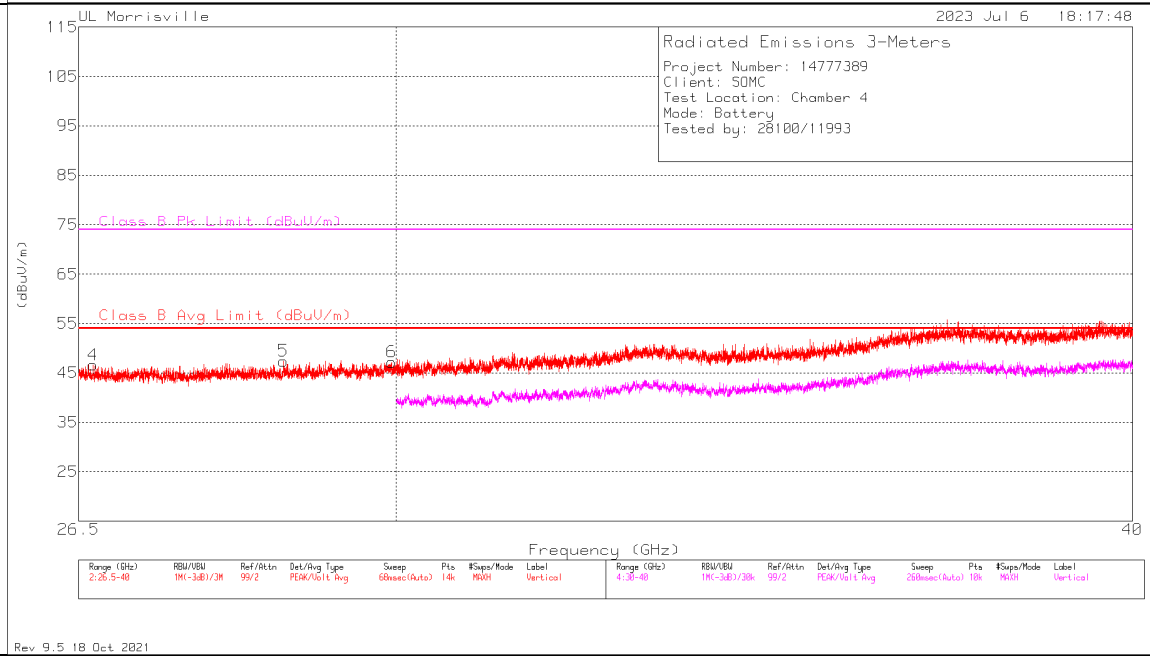
RADIATED EMISSIONS 26,000 TO 40,000 MHz – Battery

Radiated Emissions Graph

HORIZONTAL



VERTICAL



Radiated Emissions Data Points

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	204705 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Class B Avg Limit (dBuV/m)	Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	26.60703	43.96	Pk	36.4	-33.5	46.86	54	-7.14	74	-27.14	0-360	200	H
4	26.64945	43.91	Pk	36.3	-33.6	46.61	54	-7.39	74	-27.39	0-360	200	V
2	28.55282	43.32	Pk	36.4	-32.4	47.32	54	-6.68	74	-26.68	0-360	100	H
5	28.70806	42.34	Pk	36.4	-31.3	47.44	54	-6.56	74	-26.56	0-360	300	V
3	29.93261	42.18	Pk	36.8	-31.3	47.68	54	-6.32	74	-26.32	0-360	100	H
6	29.94515	41.89	Pk	36.8	-31.5	47.19	54	-6.81	74	-26.81	0-360	200	V

Pk - Peak detector

RADIATED EMISSIONS 30 TO 1000 MHz – AC Adaptor

This mode is covered by the 30 to 1000MHz LTE B13 Rx 751MHz scan

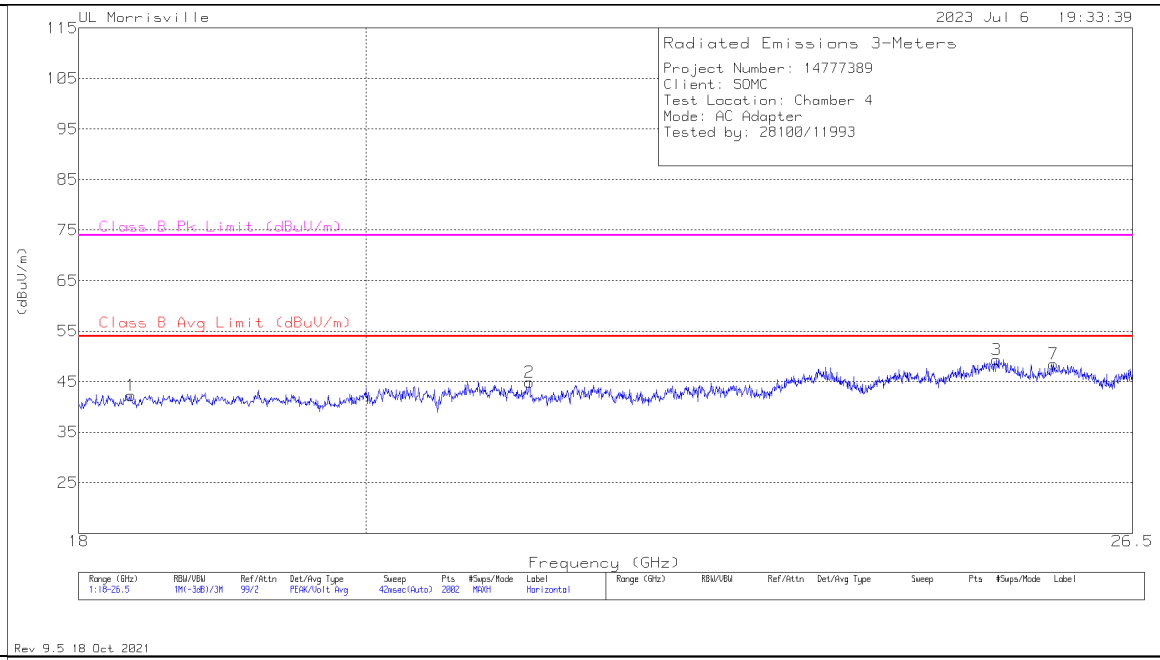
RADIATED EMISSIONS 1000 TO 18,000 MHz – AC Adaptor

This mode is covered by the 1000 to 18000MHz LTE B13 Rx 751MHz scan

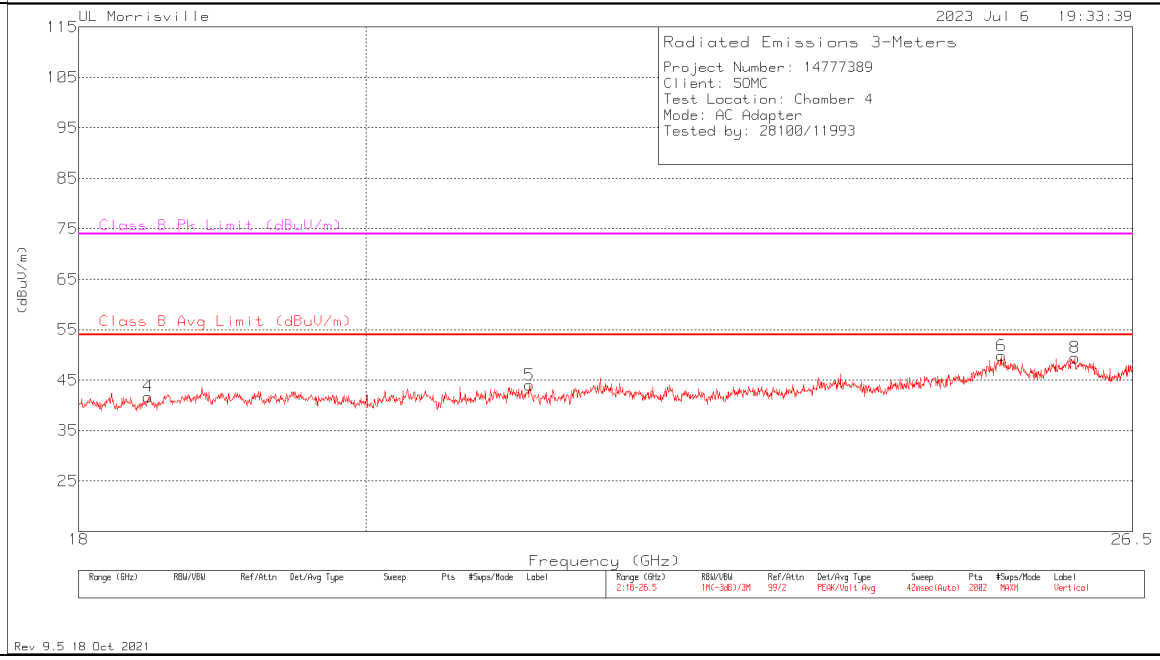
RADIATED EMISSIONS 18,000 TO 26,000 MHz – AC Adaptor

Radiated Emissions Graph

HORIZONTAL



VERTICAL



Radiated Emissions Data Points

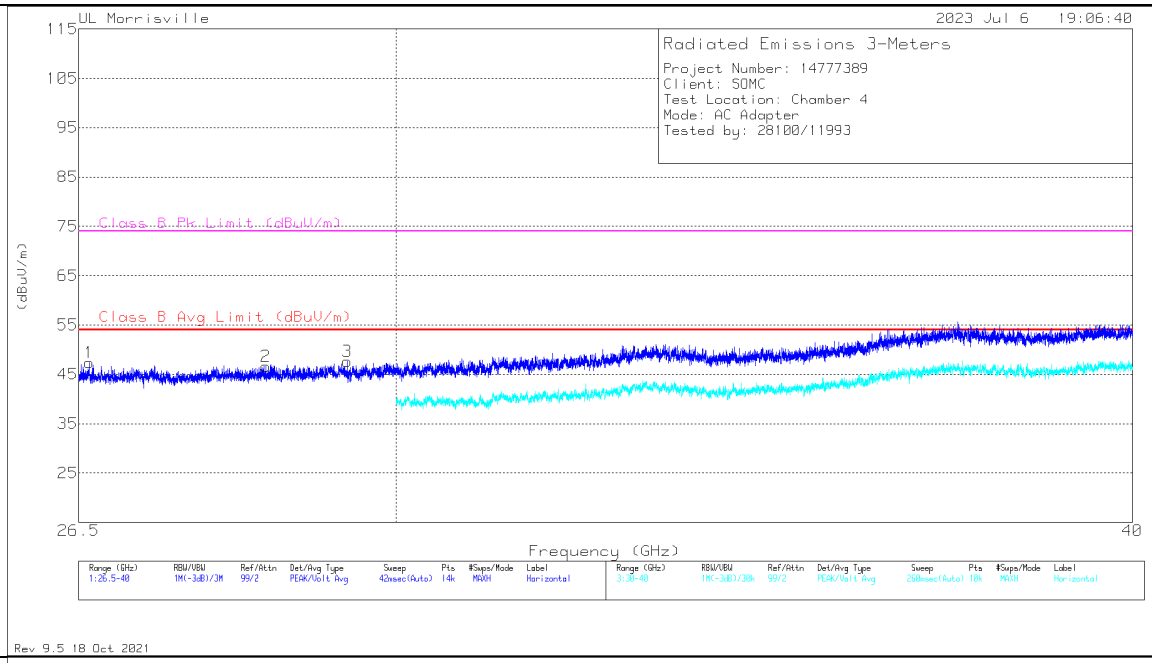
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	204704 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Class B Avg Limit (dBuV/m)	Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	18.34833	48.89	Pk	33.1	-39.7	42.29	54	-11.71	74	-31.71	0-360	100	H
4	18.46302	48.42	Pk	33.1	-39.8	41.72	54	-12.28	74	-32.28	0-360	300	V
2	21.23688	50.47	Pk	33.9	-39.5	44.87	54	-9.13	74	-29.13	0-360	250	H
5	21.23688	49.57	Pk	33.9	-39.5	43.97	54	-10.03	74	-30.03	0-360	300	V
3	25.20414	46.8	Pk	36	-35.5	47.3	-	-	74	-26.7	119	153	H
	25.211	38.79	Av	36	-34.6	40.19	54	-13.81	-	-	119	153	H
6	25.25626	46.76	Pk	36.1	-34.3	48.56	-	-	74	-25.44	41	312	V
	25.25719	39.46	Av	36.1	-34.5	41.06	54	-12.94	-	-	41	312	V
7	25.73906	45.63	Pk	35.9	-34	47.53	-	-	74	-26.47	71	326	H
	25.74762	37.31	Av	35.9	-34.3	38.91	54	-15.09	-	-	71	326	H
8	25.94894	43.33	Pk	35.9	-34.3	44.93	-	-	74	-29.07	352	257	V
	25.94937	37.84	Av	35.9	-34.3	39.44	54	-14.56	-	-	352	257	V

Pk - Peak detector
Av - Average detection

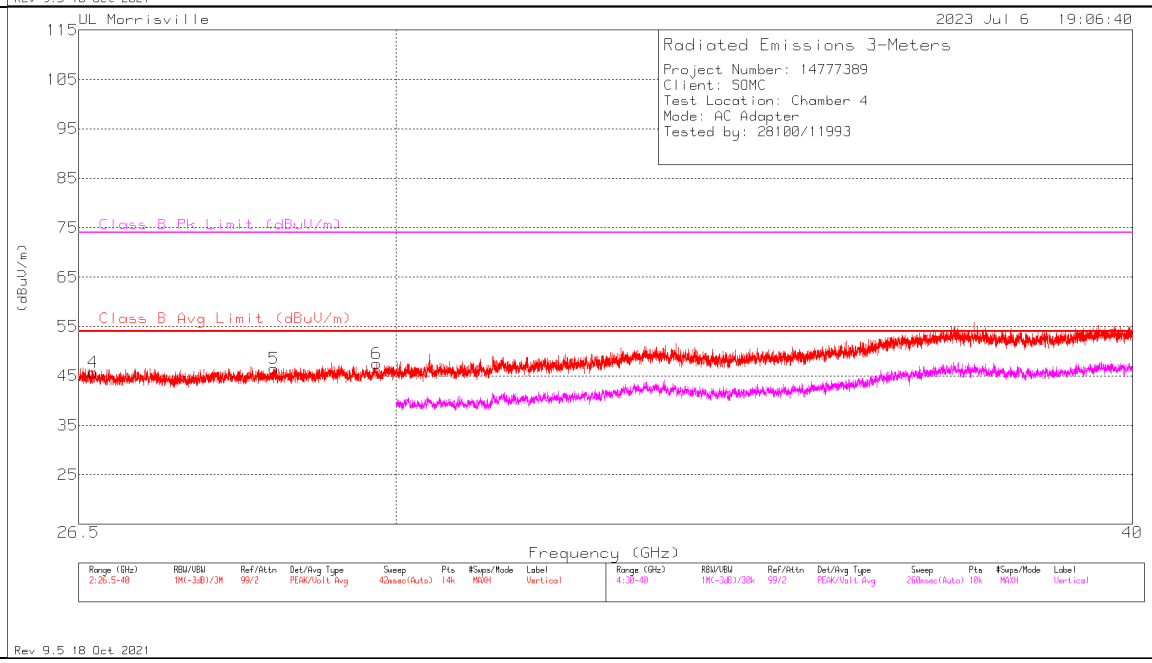
RADIATED EMISSIONS 26,000 TO 40,000 MHz – AC Adaptor

Radiated Emissions Graph

HORIZONTAL



VERTICAL



Radiated Emissions Data Points

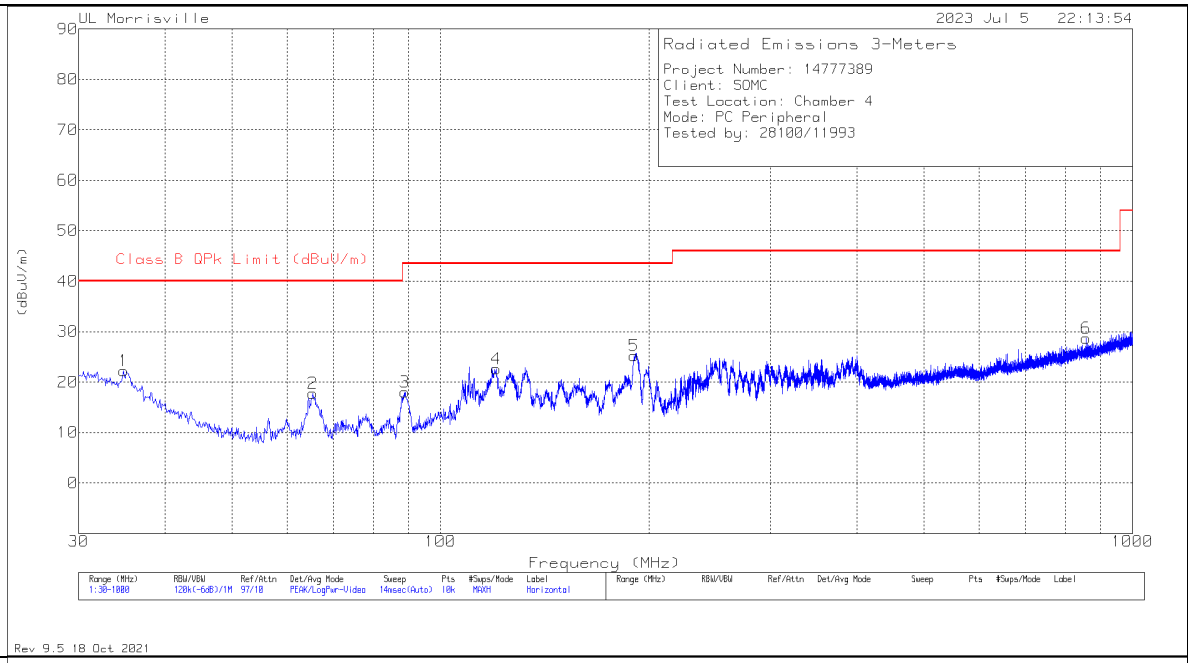
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	204705 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Class B Avg Limit (dBuV/m)	Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	26.60992	44.92	Pk	36.4	-33.9	47.42	54	-6.58	74	-26.58	0-360	100	H
4	26.65042	42.94	Pk	36.3	-33.5	45.74	54	-8.26	74	-28.26	0-360	200	V
2	28.51039	41.92	Pk	36.5	-31.8	46.62	54	-7.38	74	-27.38	0-360	100	H
5	28.60392	41.39	Pk	36.4	-31.3	46.49	54	-7.51	74	-27.51	0-360	300	V
3	29.43508	43.67	Pk	36.5	-32.5	47.67	54	-6.33	74	-26.33	0-360	100	H
6	29.77062	42.66	Pk	36.6	-31.7	47.56	54	-6.44	74	-26.44	0-360	150	V

Pk - Peak detector

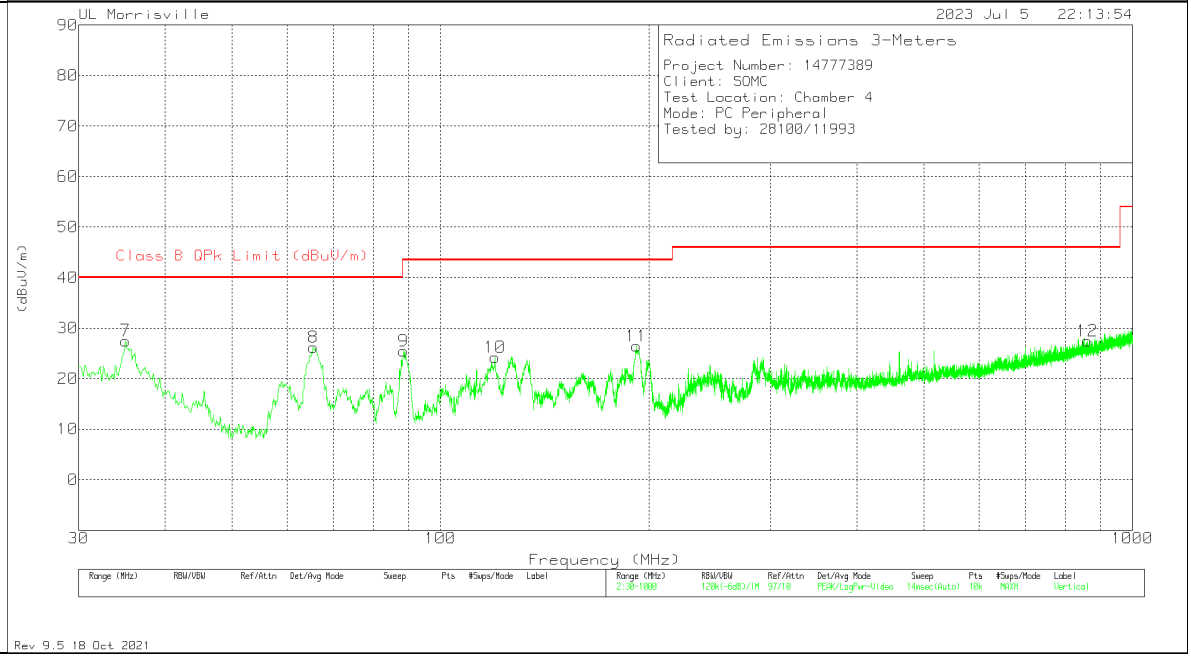
RADIATED EMISSIONS 30 TO 1000 MHz – PC Peripheral

Radiated Emissions Graph

HORIZONTAL



VERTICAL



Radiated Emissions Data Points

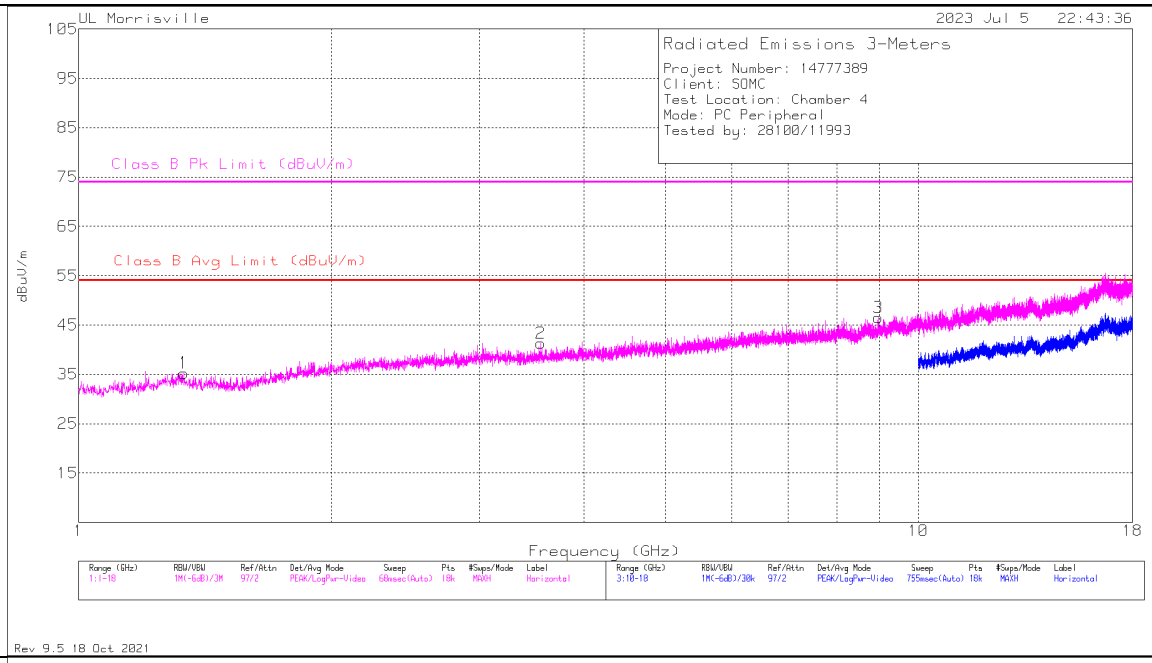
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	90629 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Class B QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	34.85	30.07	Pk	23.7	-31.5	22.27	40	-17.73	0-360	200	H
7	35.044	35.52	Pk	23.6	-31.6	27.52	40	-12.48	0-360	100	V
2	65.405	34.84	Pk	14.1	-31.2	17.74	40	-22.26	0-360	300	H
8	65.502	43.19	Pk	14.2	-31.2	26.19	40	-13.81	0-360	100	V
9	88.491	42.45	Pk	13.8	-30.8	25.45	43.52	-18.07	0-360	100	V
3	88.879	35.06	Pk	13.9	-30.9	18.06	43.52	-25.46	0-360	100	H
10	119.919	34.78	Pk	20	-30.5	24.28	43.52	-19.24	0-360	100	V
4	120.307	33.17	Pk	20	-30.5	22.67	43.52	-20.85	0-360	100	H
5	190.341	37.43	Pk	17.5	-29.7	25.23	43.52	-18.29	0-360	100	H
11	192.087	38.62	Pk	17.6	-29.8	26.42	43.52	-17.1	0-360	100	V
6	857.022	26.35	Pk	27.9	-25.5	28.75	46.02	-17.27	0-360	100	H
12	861.096	25.31	Pk	28	-25.8	27.51	46.02	-18.51	0-360	100	V

Pk - Peak detector
Qp - Quasi-Peak detector

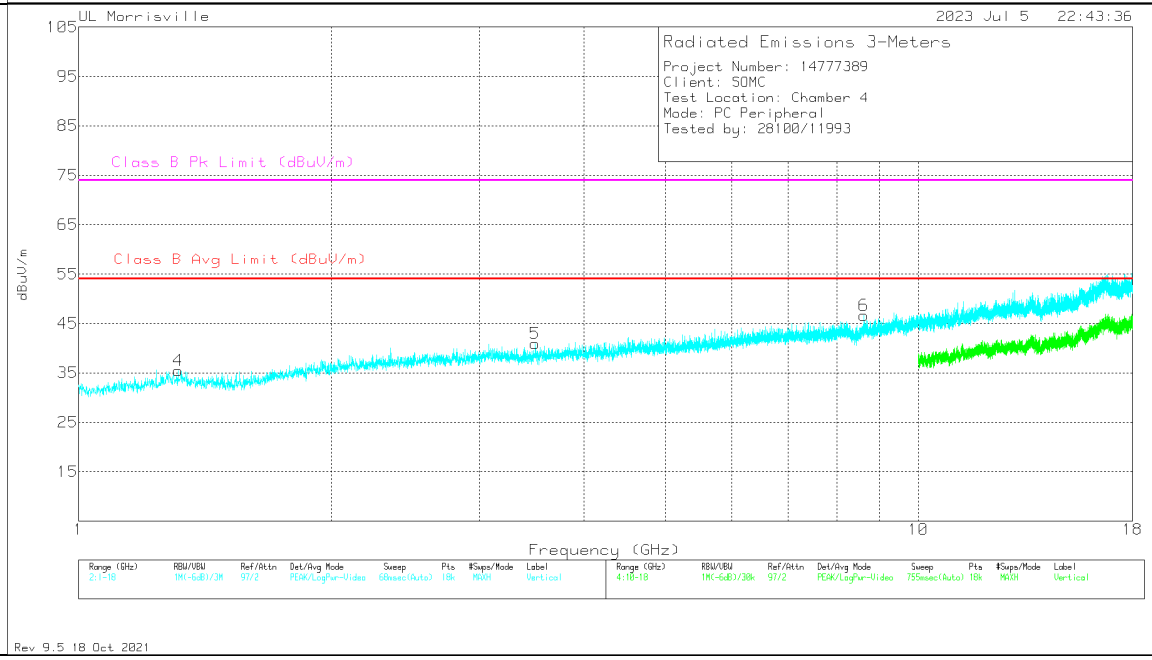
RADIATED EMISSIONS 1000 TO 18,000 MHz – PC Peripheral

Radiated Emissions Graph

HORIZONTAL



VERTICAL



Radiated Emissions Data Points

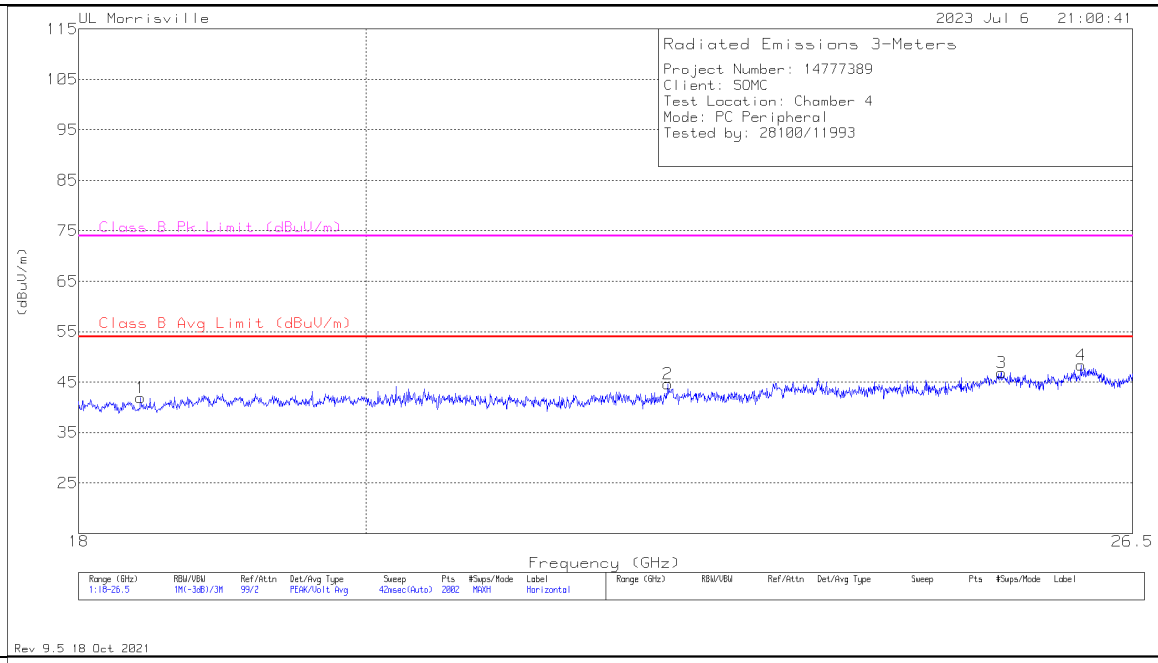
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	89509 ACF (dB/m)	Gain/Loss (dB)	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	1.31356	42.39	Pk	29.1	-36	35.49	54	-18.51	74	-38.51	0-360	200	V
1	1.33528	42.38	Pk	29	-36.1	35.28	54	-18.72	74	-38.72	0-360	100	H
5	3.499	42.41	Pk	32.9	-34.4	40.91	54	-13.09	74	-33.09	0-360	200	V
2	3.55094	42.66	Pk	32.9	-34.3	41.26	54	-12.74	74	-32.74	0-360	100	H
6	8.60844	37.58	Pk	35.8	-26.7	46.68	54	-7.32	74	-27.32	0-360	200	V
3	8.96827	36.35	Pk	36.2	-26	46.55	54	-7.45	74	-27.45	0-360	100	H

Pk - Peak detector

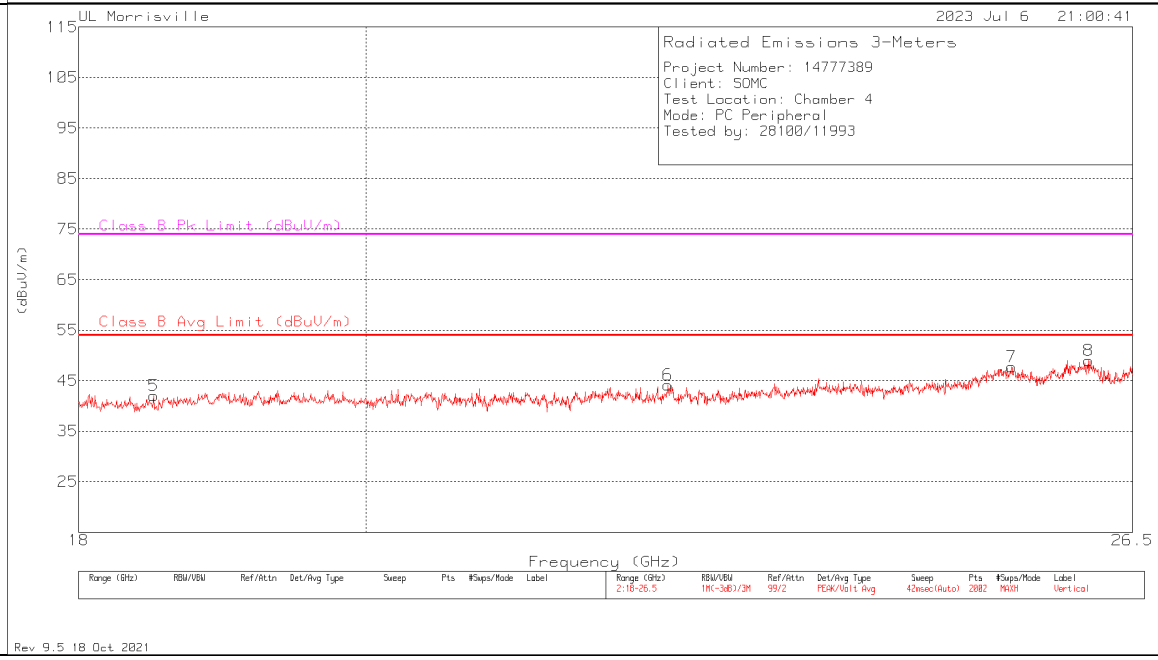
RADIATED EMISSIONS 18,000 TO 26,000 MHz – PC Peripheral

Radiated Emissions Graph

HORIZONTAL



VERTICAL



Radiated Emissions Data Points

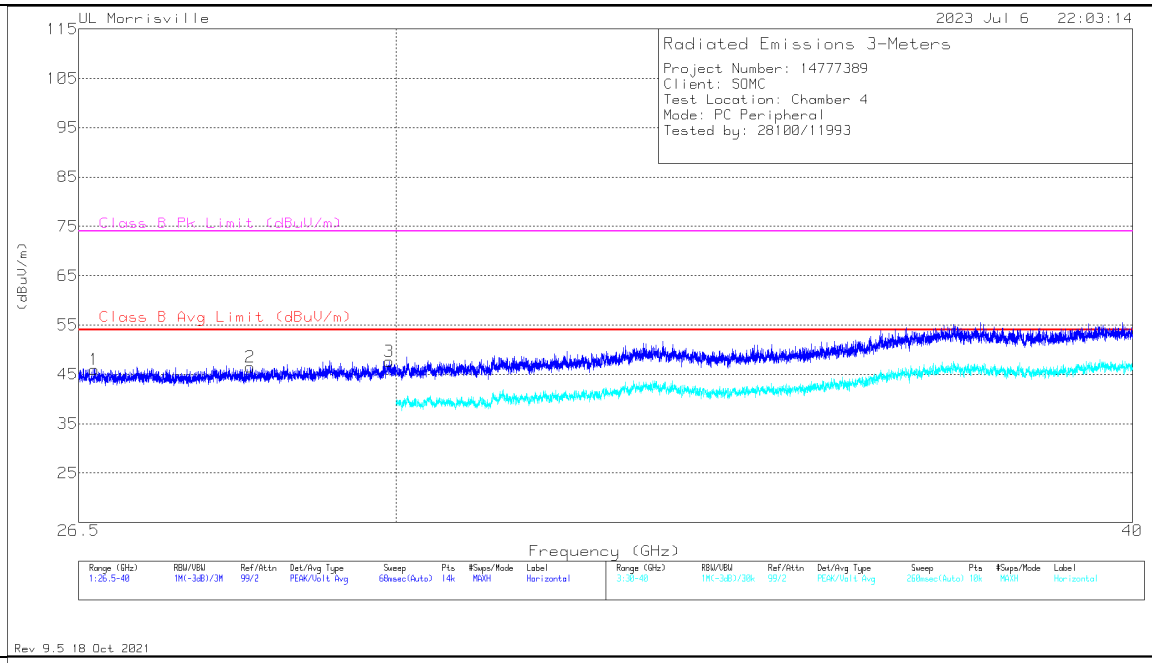
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	204704 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Class B Avg Limit (dBuV/m)	Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	18.41204	48.59	Pk	33.1	-39.8	41.89	54	-12.11	74	-32.11	0-360	300	H
5	18.50125	48.7	Pk	33.1	-39.8	42	54	-12	74	-32	0-360	100	V
2	22.34558	48.79	Pk	34.5	-38.6	44.69	54	-9.31	74	-29.31	0-360	300	H
6	22.34558	48.26	Pk	34.5	-38.6	44.16	54	-9.84	74	-29.84	0-360	150	V
3	25.25537	44.9	Pk	36.1	-34.1	46.9	54	-7.1	74	-27.1	0-360	150	H
7	25.34883	46.09	Pk	36.1	-34.4	47.79	54	-6.21	74	-26.21	0-360	250	V
4	26.00593	43.79	Pk	35.9	-34.6	45.09	-	-	74	-28.91	35	296	H
	26.00789	37.94	Av	35.9	-34.9	38.94	54	-15.06	-	-	35	296	H
8	26.07137	37.86	Av	36	-34.1	39.76	54	-14.24	-	-	330	168	V
	26.07585	45.5	Pk	36	-34.2	47.3	-	-	74	-26.7	330	168	V

Pk - Peak detector

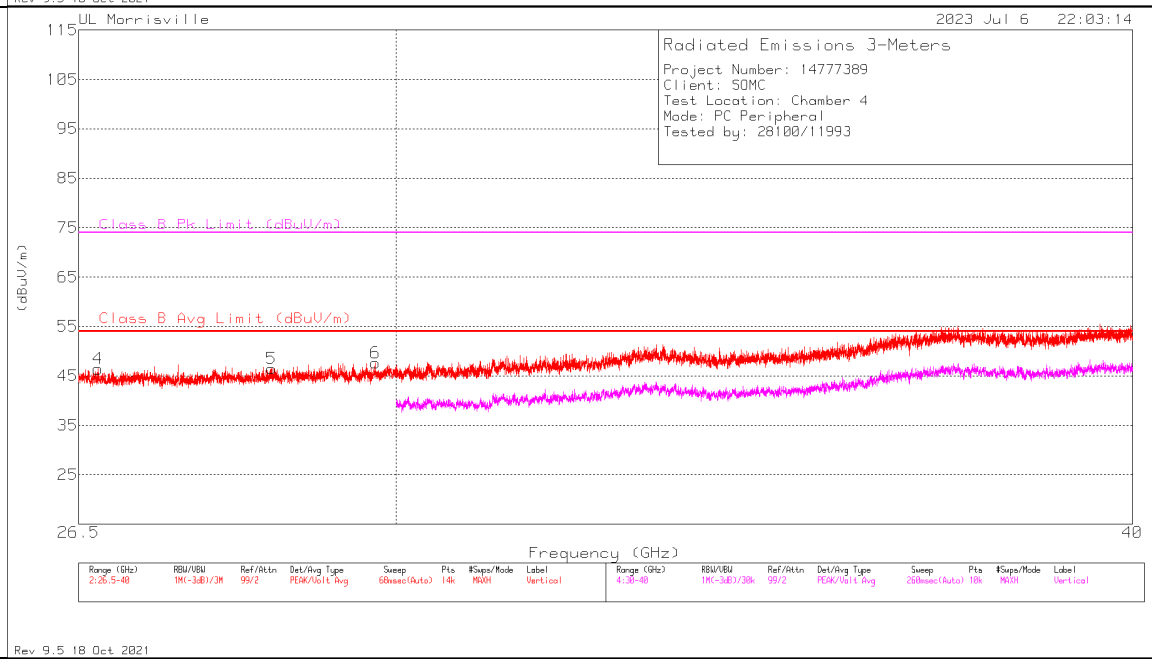
RADIATED EMISSIONS 26,000 TO 40,000 MHz – PC Peripheral

Radiated Emissions Graph

HORIZONTAL



VERTICAL



Radiated Emissions Data Points

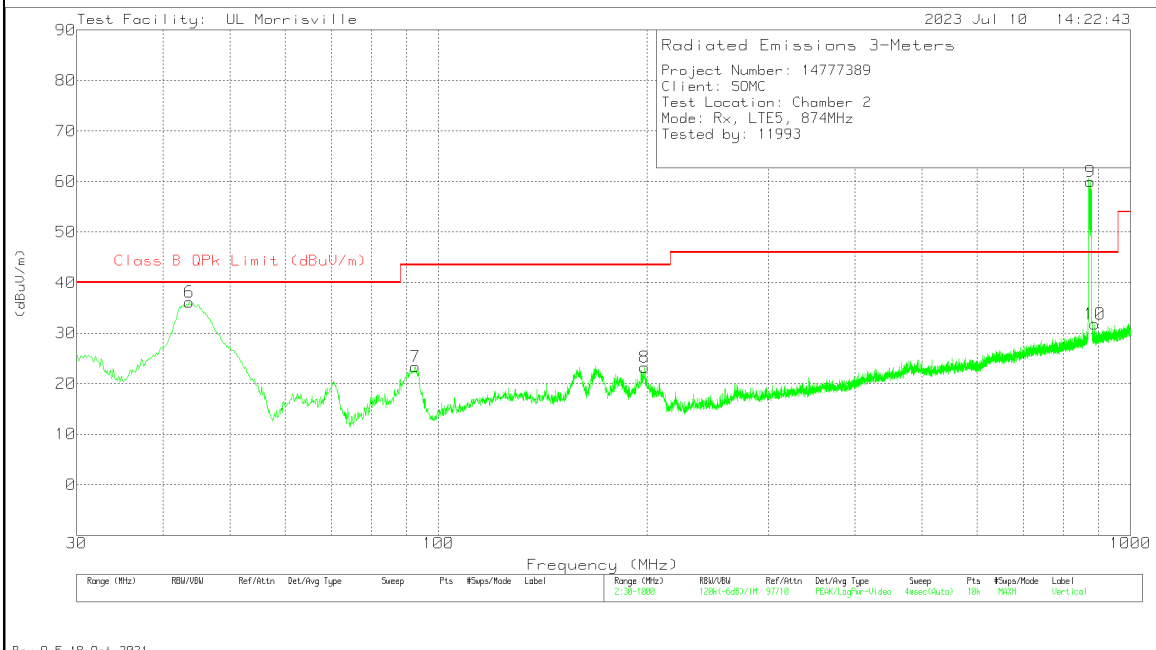
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	204705 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Class B Avg Limit (dBuV/m)	Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	26.66392	43.85	Pk	36.3	-34.2	45.95	54	-8.05	74	-28.05	0-360	100	H
4	26.70249	44.33	Pk	36.2	-34.1	46.43	54	-7.57	74	-27.57	0-360	300	V
2	28.33973	42.22	Pk	36.5	-32.2	46.52	54	-7.48	74	-27.48	0-360	100	H
5	28.57596	41.93	Pk	36.4	-31.8	46.53	54	-7.47	74	-27.47	0-360	200	V
6	29.7552	42.81	Pk	36.6	-31.8	47.61	54	-6.39	74	-26.39	0-360	200	V
3	29.91622	42.69	Pk	36.8	-31.9	47.59	54	-6.41	74	-26.41	0-360	100	H

Pk - Peak detector

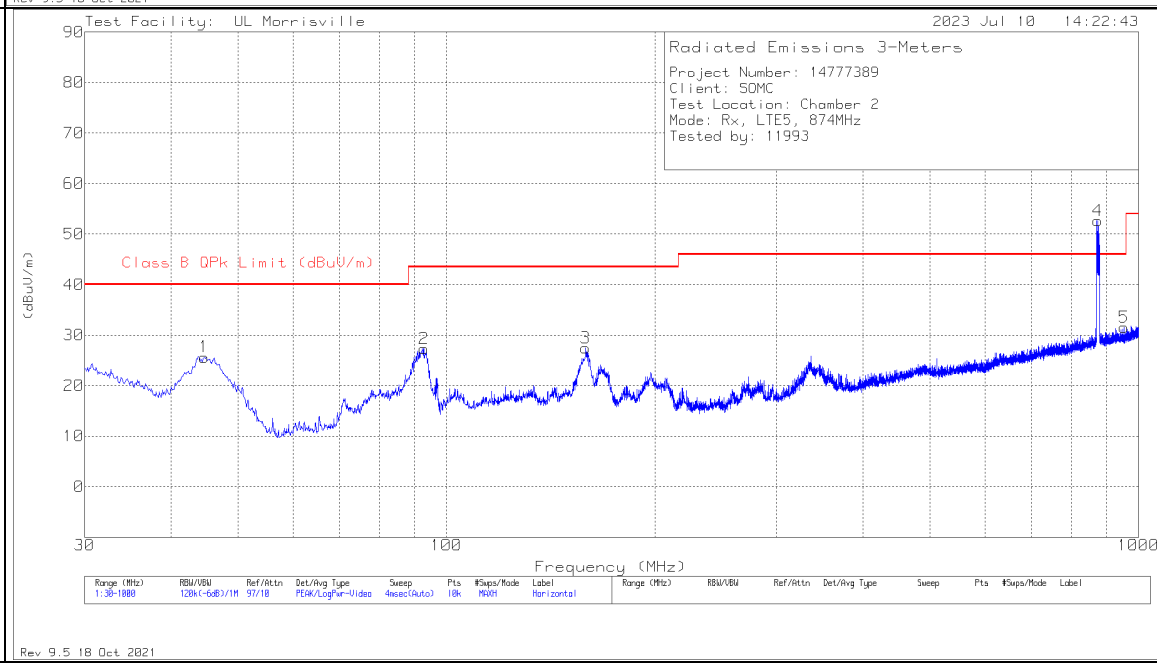
RADIATED EMISSIONS 30 TO 1000 MHz – LTE B5 Rx 874.0MHz

Radiated Emissions Graph

HORIZONTAL



VERTICAL



Radiated Emissions Data Points

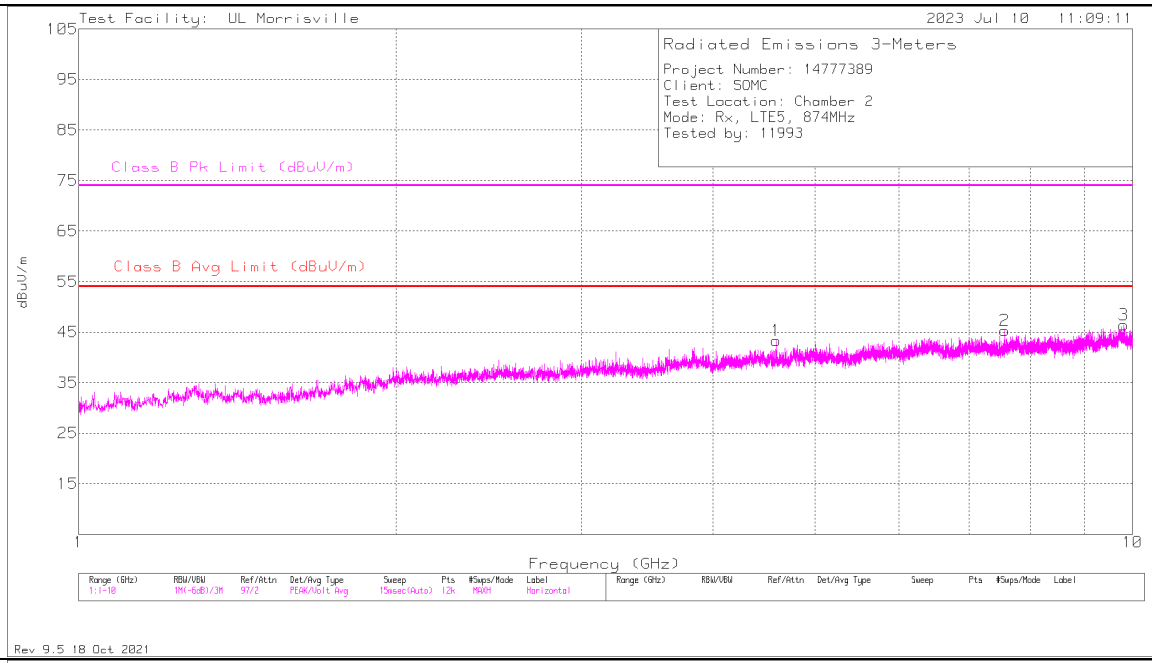
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	90627 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Class B QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
6	43.7039	46.83	Qp	17.2	-31.6	32.43	40	-7.57	350	107	V
1	44.647	40.66	Pk	16.6	-31.6	25.66	40	-14.34	0-360	398	H
7	92.565	39.82	Pk	14.5	-31	23.32	43.52	-20.2	0-360	100	V
2	92.759	43.75	Pk	14.6	-31	27.35	43.52	-16.17	0-360	299	H
3	158.816	39.68	Pk	18.4	-30.6	27.48	43.52	-16.04	0-360	198	H
8	198.683	34.18	Pk	19	-29.9	23.28	43.52	-20.24	0-360	100	V
4	873.803 (DL)	51.47	Pk	27.8	-26.6	52.67	-	-	0-360	398	H
9	874.579 (DL)	59.03	Pk	27.8	-26.8	60.03	-	-	0-360	100	V
10	887.189	30.06	Pk	27.9	-26.2	31.76	46.02	-14.26	0-360	100	V
5	953.149	29.08	Pk	28.3	-25.8	31.58	46.02	-14.44	0-360	398	H

Pk - Peak detector
Qp - Quasi-Peak detector
DL – Callbox downlink frequencies

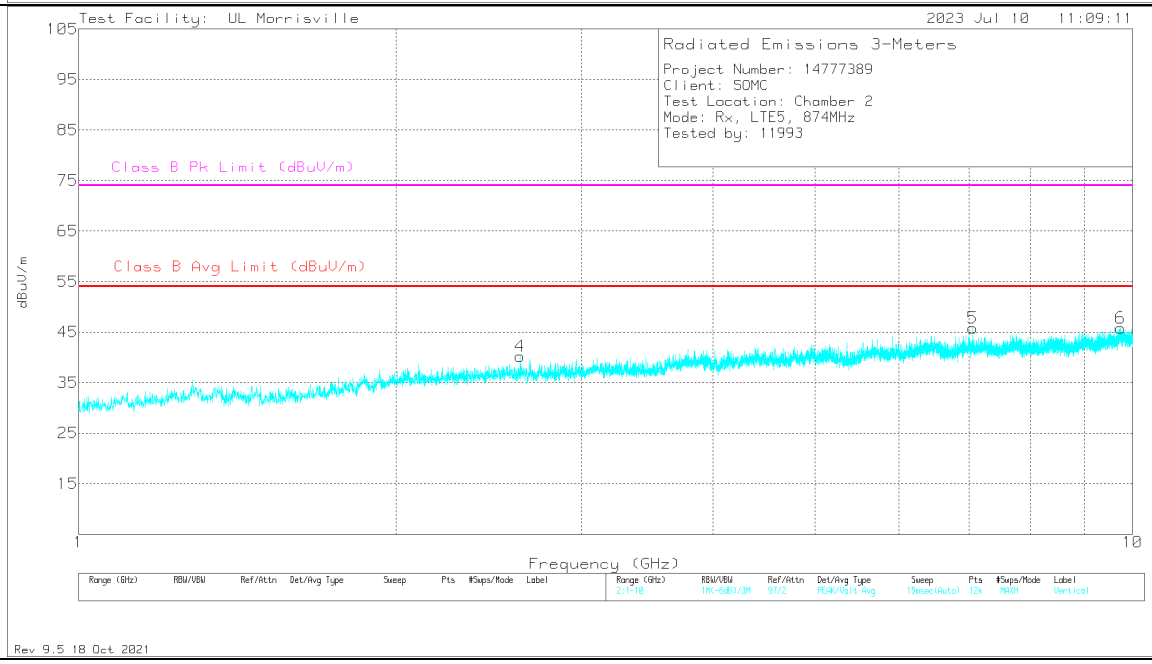
RADIATED EMISSIONS 1000 TO 10,000 MHz – LTE B5 Rx 874.0MHz

Radiated Emissions Graph

HORIZONTAL



VERTICAL



Radiated Emissions Data Points

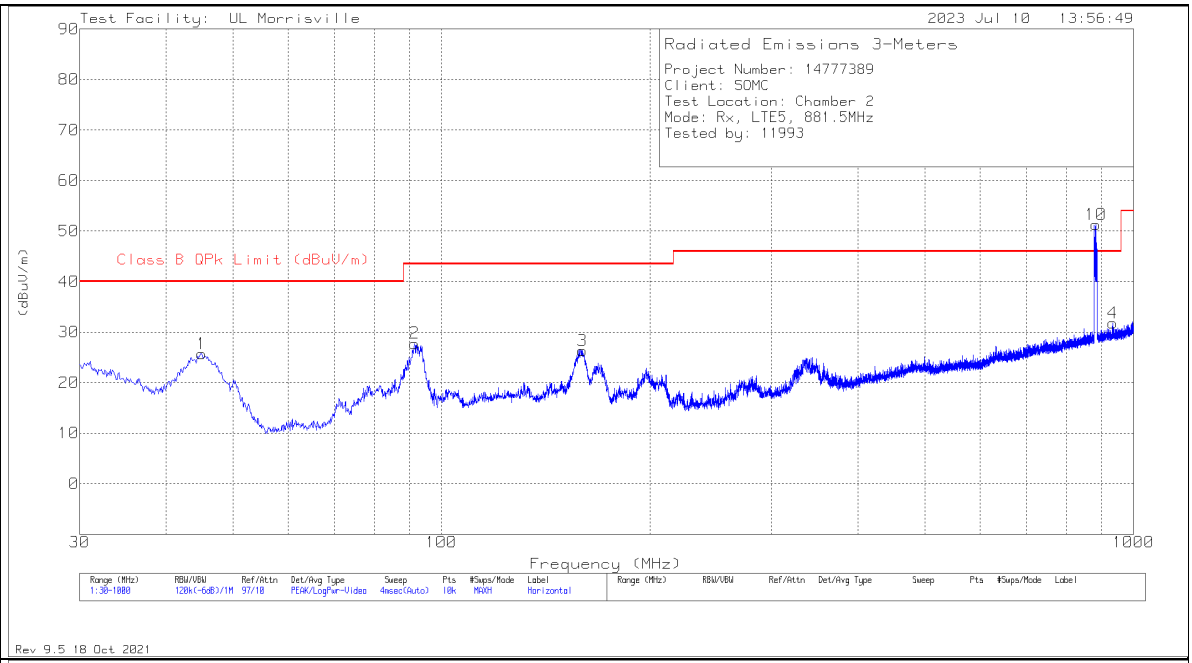
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	88761 (dB/m)	Gain/Loss (dB)	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	2.62375	42	Pk	32.1	-33.9	40.2	54	-13.8	74	-33.8	0-360	101	V
1	4.58875	41.02	Pk	34	-31.7	43.32	54	-10.68	74	-30.68	0-360	199	H
5	7.051	37.77	Pk	35.6	-27.6	45.77	54	-8.23	74	-28.23	0-360	199	V
2	7.56175	37.06	Pk	35.6	-27.3	45.36	54	-8.64	74	-28.64	0-360	101	H
6	9.73675	34.26	Pk	36.9	-25.3	45.86	54	-8.14	74	-28.14	0-360	199	V
3	9.811	34.97	Pk	36.9	-25.4	46.47	54	-7.53	74	-27.53	0-360	199	H

Pk - Peak detector

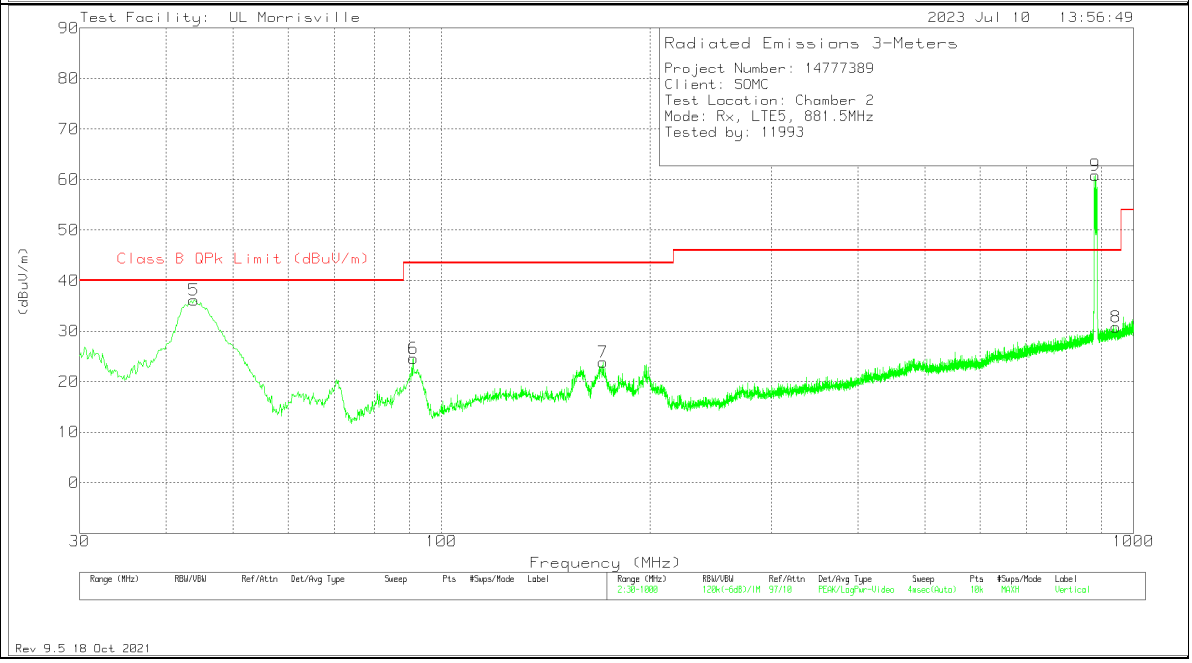
RADIATED EMISSIONS 30 TO 1000 MHz – LTE B5 Rx 881.5MHz

Radiated Emissions Graph

HORIZONTAL



VERTICAL



Radiated Emissions Data Points

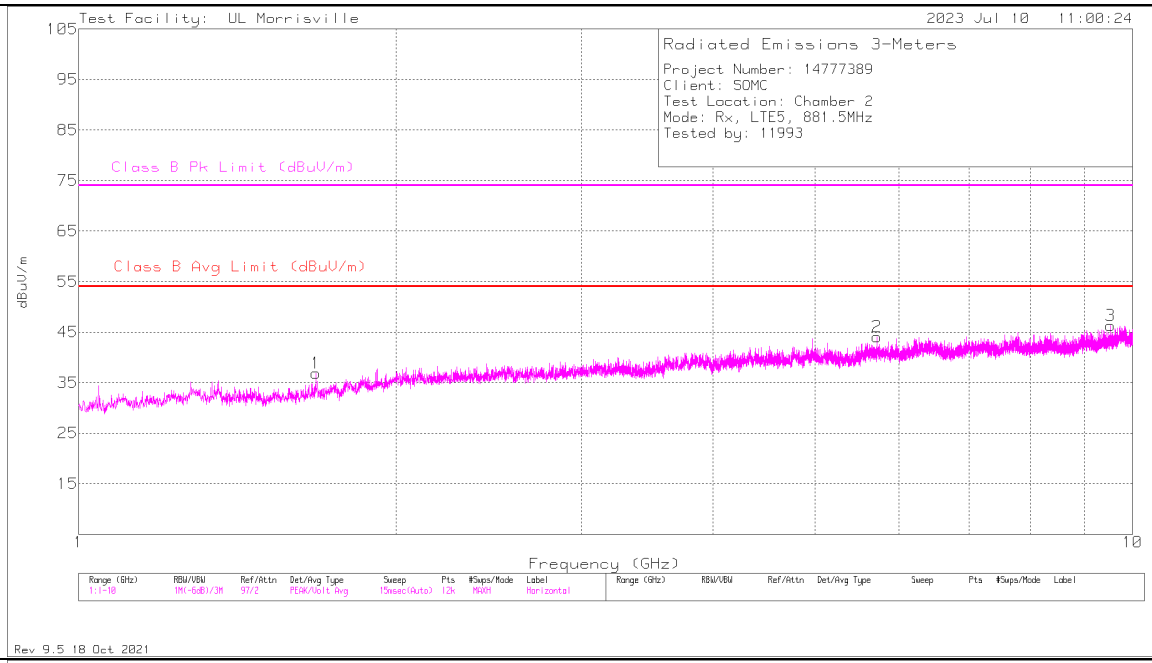
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	90627 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Class B QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5	43.6617	47.23	Qp	17.3	-31.6	32.93	40	-7.07	357	100	V
1	45.035	40.95	Pk	16.3	-31.5	25.75	40	-14.25	0-360	399	H
6	91.013	41.56	Pk	14.2	-31.1	24.66	43.52	-18.86	0-360	198	V
2	91.498	44.47	Pk	14.3	-31	27.77	43.52	-15.75	0-360	198	H
3	159.689	38.52	Pk	18.4	-30.6	26.32	43.52	-17.2	0-360	198	H
7	171.038	36.19	Pk	17.9	-30.2	23.89	43.52	-19.63	0-360	101	V
9	881.369 (DL)	59.38	Pk	27.9	-26.4	60.88	-	-	0-360	101	V
10	881.854 (DL)	49.85	Pk	27.9	-26.5	51.25	-	-	0-360	399	H
4	933.846	29.42	Pk	28.3	-25.9	31.82	46.02	-14.2	0-360	198	H
8	943.934	28.35	Pk	28.3	-25.8	30.85	46.02	-15.17	0-360	298	V

Pk - Peak detector
Qp - Quasi-Peak detector
DL – Callbox downlink frequencies

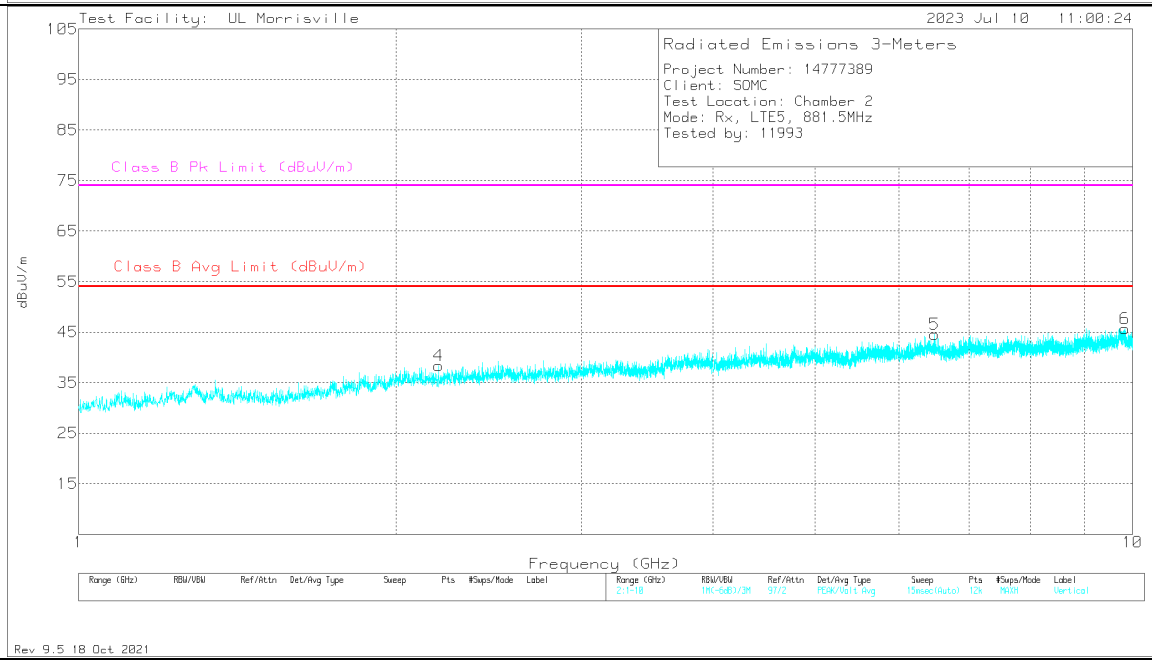
RADIATED EMISSIONS 1000 TO 10,000 MHz – LTE B5 Rx 881.5MHz

Radiated Emissions Graph

HORIZONTAL



VERTICAL



Radiated Emissions Data Points

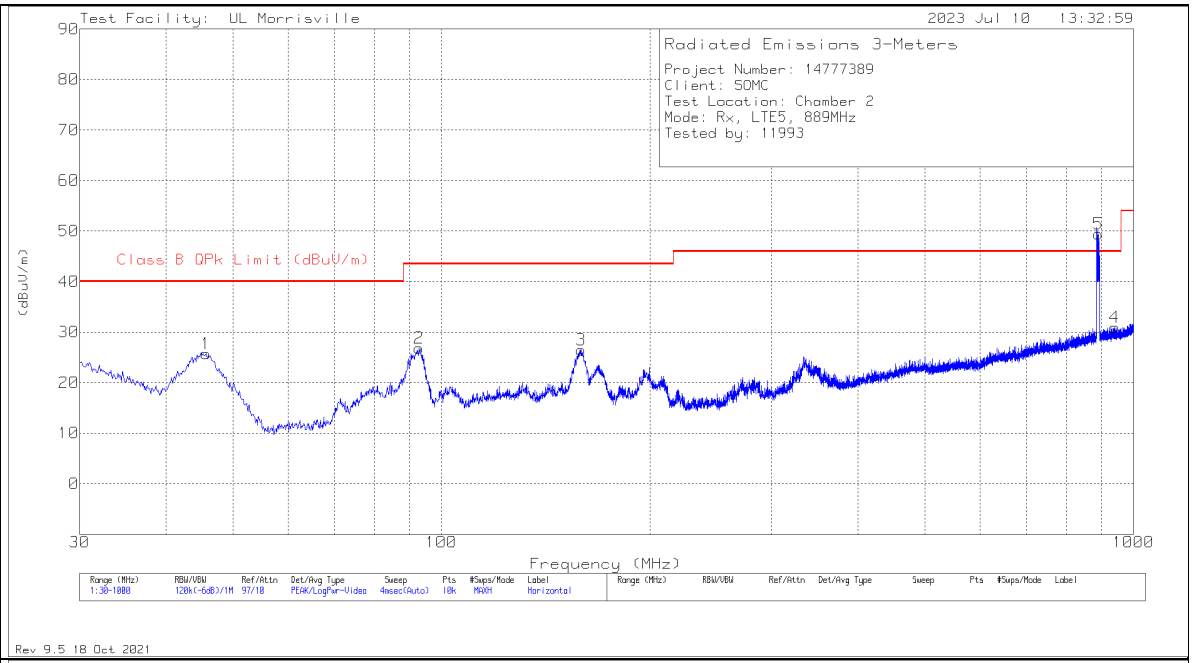
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	88761 (dB/m)	Gain/Loss (dB)	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.6795	42.53	Pk	28.7	-34.4	36.83	54	-17.17	74	-37.17	0-360	200	H
4	2.1955	41.2	Pk	31.5	-34.3	38.4	54	-15.6	74	-35.6	0-360	101	V
2	5.71975	39.72	Pk	34.6	-30.2	44.12	54	-9.88	74	-29.88	0-360	100	H
5	6.49075	37.46	Pk	35.5	-28.4	44.56	54	-9.44	74	-29.44	0-360	200	V
3	9.53575	34.83	Pk	36.7	-25.2	46.33	54	-7.67	74	-27.67	0-360	200	H
6	9.83575	33.75	Pk	36.9	-25	45.65	54	-8.35	74	-28.35	0-360	200	V

Pk - Peak detector

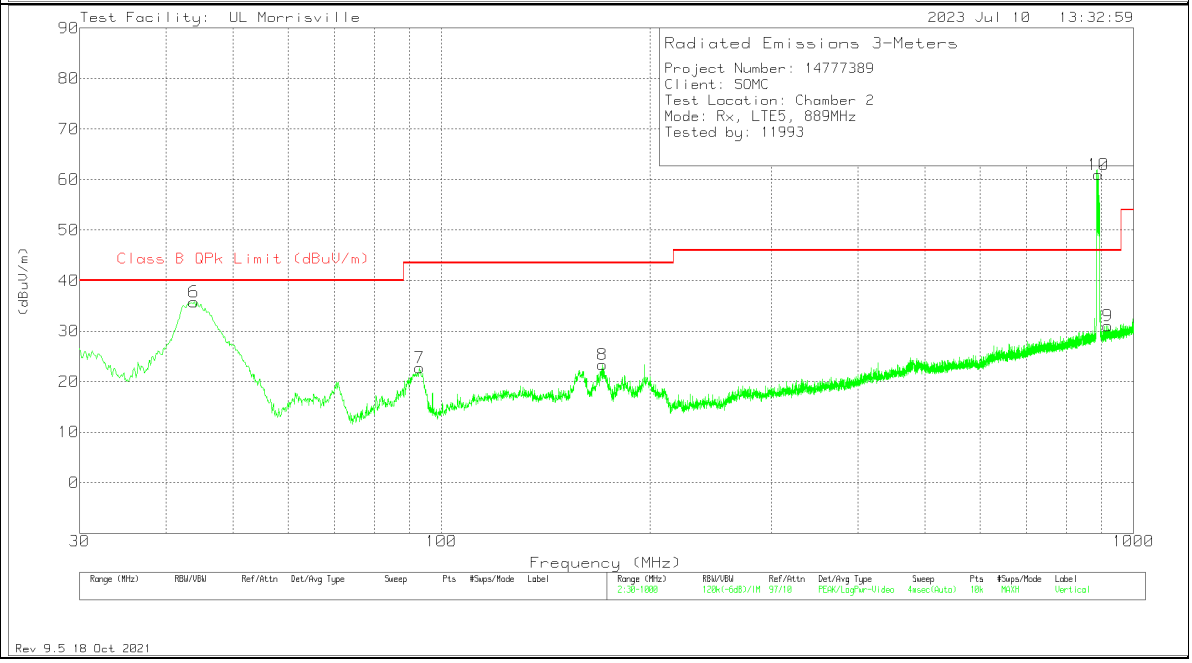
RADIATED EMISSIONS 30 TO 1000 MHz – LTE B5 Rx 889.0MHz

Radiated Emissions Graph

HORIZONTAL



VERTICAL



Radiated Emissions Data Points

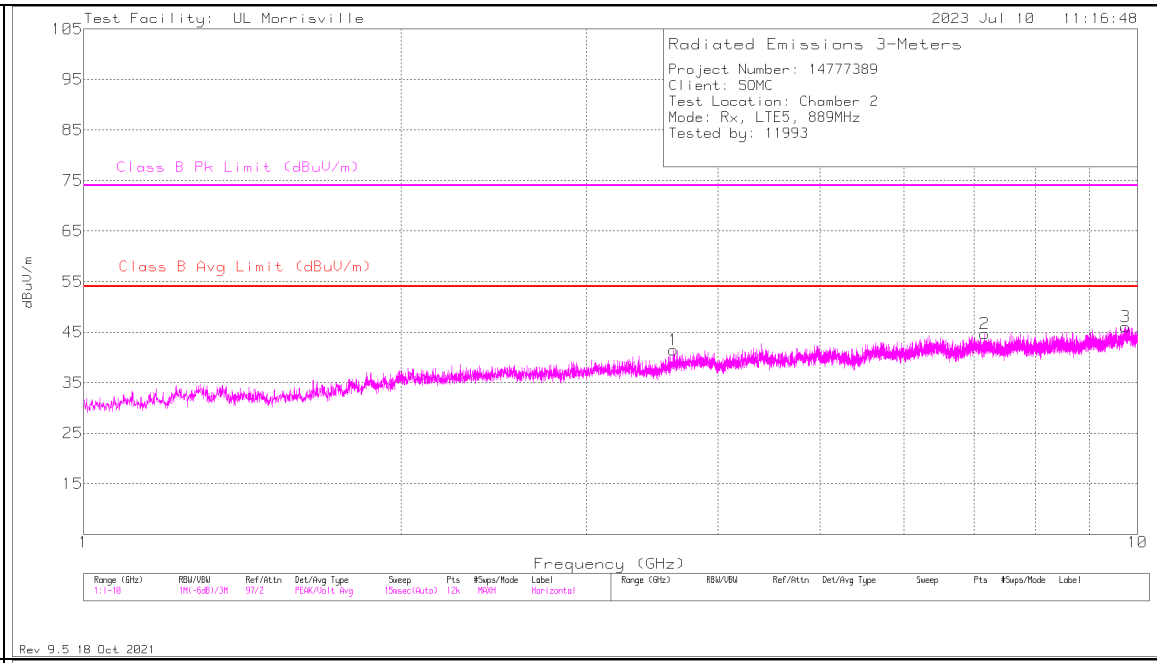
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	90627 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Class B QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
6	43.6502	47.13	Qp	17.3	-31.6	32.83	40	-7.17	358	102	V
1	45.714	41.51	Pk	15.9	-31.7	25.71	40	-14.29	0-360	398	H
2	92.856	43.16	Pk	14.6	-30.9	26.86	43.52	-16.66	0-360	298	H
7	93.05	38.93	Pk	14.7	-30.9	22.73	43.52	-20.79	0-360	101	V
3	159.107	38.54	Pk	18.4	-30.5	26.44	43.52	-17.08	0-360	199	H
8	170.844	35.55	Pk	17.9	-30.1	23.35	43.52	-20.17	0-360	101	V
5	889.129 (DL)	48.01	Pk	27.9	-26.5	49.41	-	-	0-360	101	H
10	889.711 (DL)	59.45	Pk	27.9	-26.4	60.95	-	-	0-360	101	V
9	918.132	29.08	Pk	28.1	-26.1	31.08	46.02	-14.94	0-360	299	V
4	938.502	28.5	Pk	28.3	-25.9	30.9	46.02	-15.12	0-360	101	H

Pk - Peak detector
Qp - Quasi-Peak detector
DL – Callbox downlink frequencies

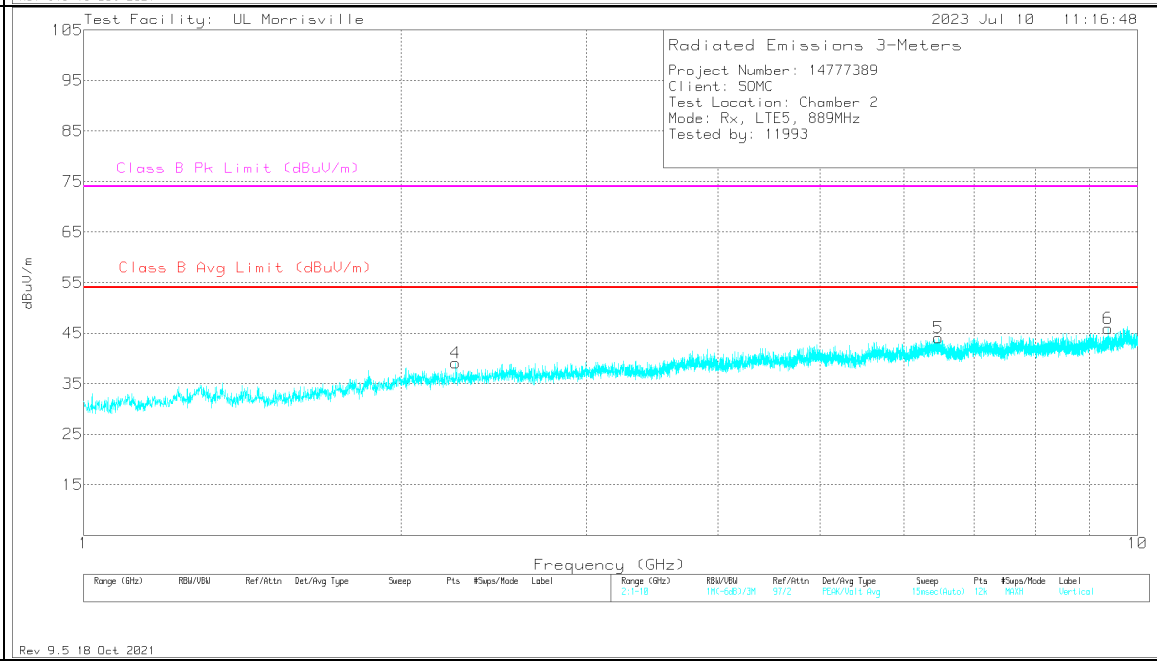
RADIATED EMISSIONS 1000 TO 10,000 MHz – LTE B5 Rx 889.0MHz

Radiated Emissions Graph

HORIZONTAL



VERTICAL



Radiated Emissions Data Points

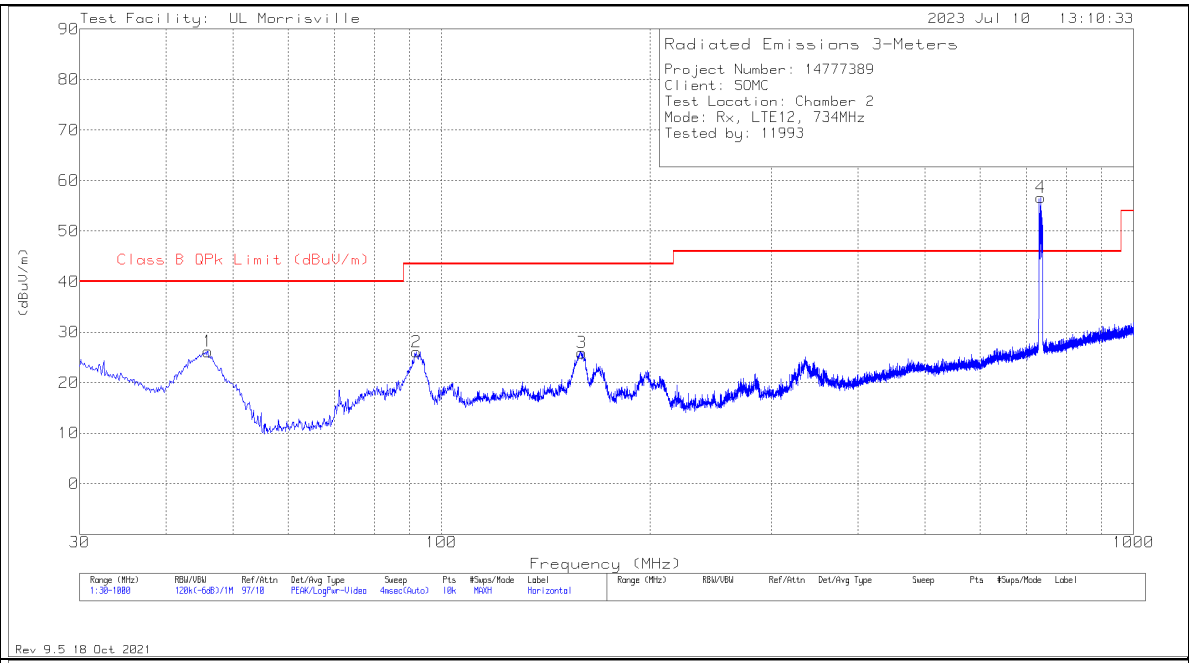
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	88761 (dB/m)	Gain/Loss (dB)	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	2.25325	41.44	Pk	31.6	-33.9	39.14	54	-14.86	74	-34.86	0-360	200	V
1	3.63025	41.13	Pk	32.9	-32.6	41.43	54	-12.57	74	-32.57	0-360	101	H
5	6.4735	37.2	Pk	35.5	-28.6	44.1	54	-9.9	74	-29.9	0-360	200	V
2	7.1605	36.96	Pk	35.5	-27.8	44.66	54	-9.34	74	-29.34	0-360	200	H
6	9.37075	35.03	Pk	36.6	-25.7	45.93	54	-8.07	74	-28.07	0-360	200	V
3	9.73675	34.43	Pk	36.9	-25.3	46.03	54	-7.97	74	-27.97	0-360	101	H

Pk - Peak detector

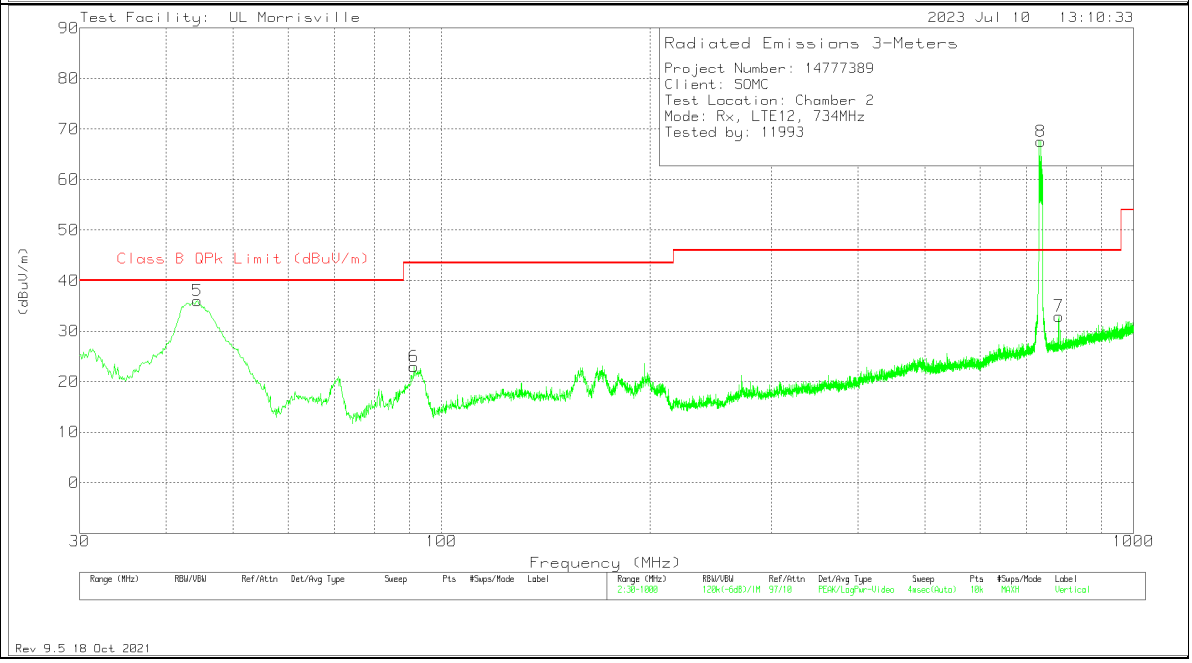
RADIATED EMISSIONS 30 TO 1000 MHz – LTE B12 Rx 734.0MHz

Radiated Emissions Graph

HORIZONTAL



VERTICAL



Radiated Emissions Data Points

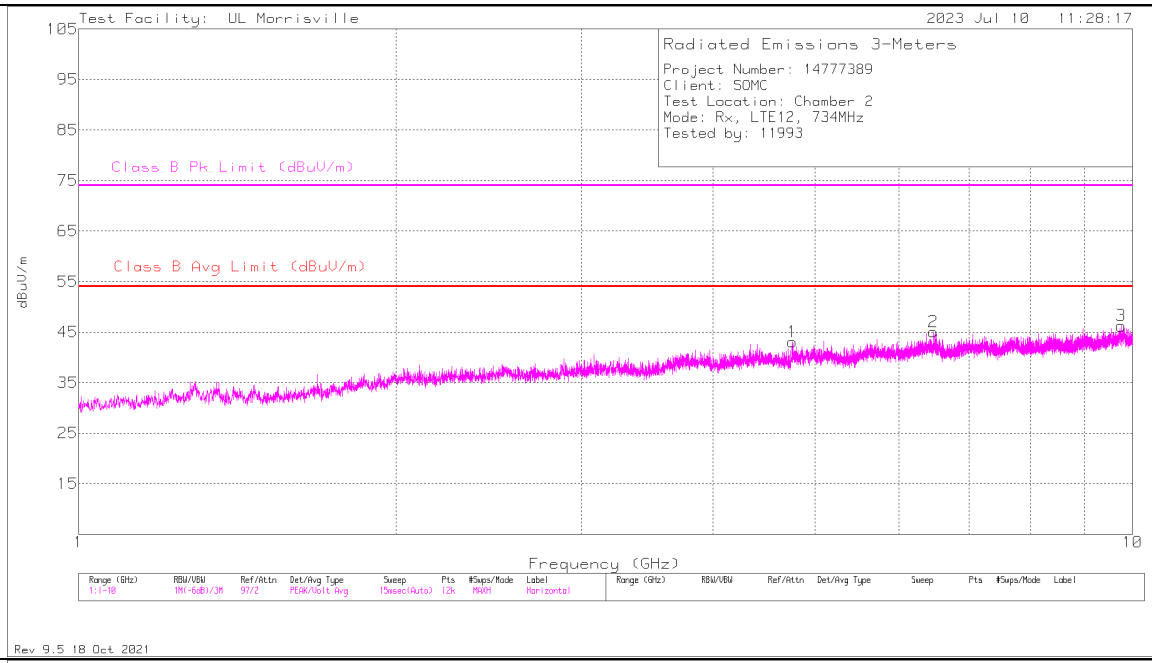
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	90627 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Class B QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5	44.3555	47.16	Qp	16.8	-31.6	32.36	40	-7.64	360	101	V
1	45.9565	41.96	Pk	15.8	-31.6	26.16	40	-13.84	0-360	399	H
6	91.304	39.82	Pk	14.2	-31	23.02	43.52	-20.5	0-360	101	V
2	91.983	42.73	Pk	14.4	-31	26.13	43.52	-17.39	0-360	399	H
3	159.495	38.11	Pk	18.4	-30.6	25.91	43.52	-17.61	0-360	198	H
8	734.705 (DL)	68.46	Pk	26.6	-27.5	67.56	-	-	0-360	101	V
4	734.802 (DL)	57.49	Pk	26.6	-27.5	56.59	-	-	0-360	198	H
7	780.004	33.48	Pk	26.8	-27.3	32.98	46.02	-13.04	0-360	101	V

Pk - Peak detector
Qp - Quasi-Peak detector
DL – Callbox downlink frequencies

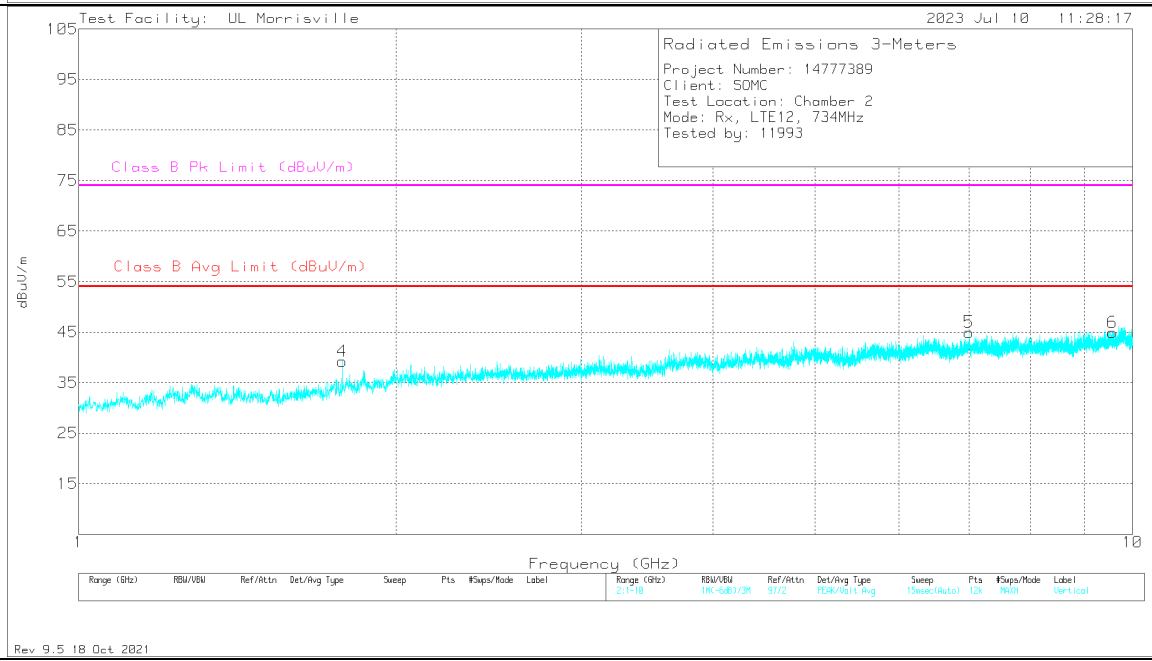
RADIATED EMISSIONS 1000 TO 10,000 MHz – LTE B12 Rx 734.0MHz

Radiated Emissions Graph

HORIZONTAL



VERTICAL



Radiated Emissions Data Points

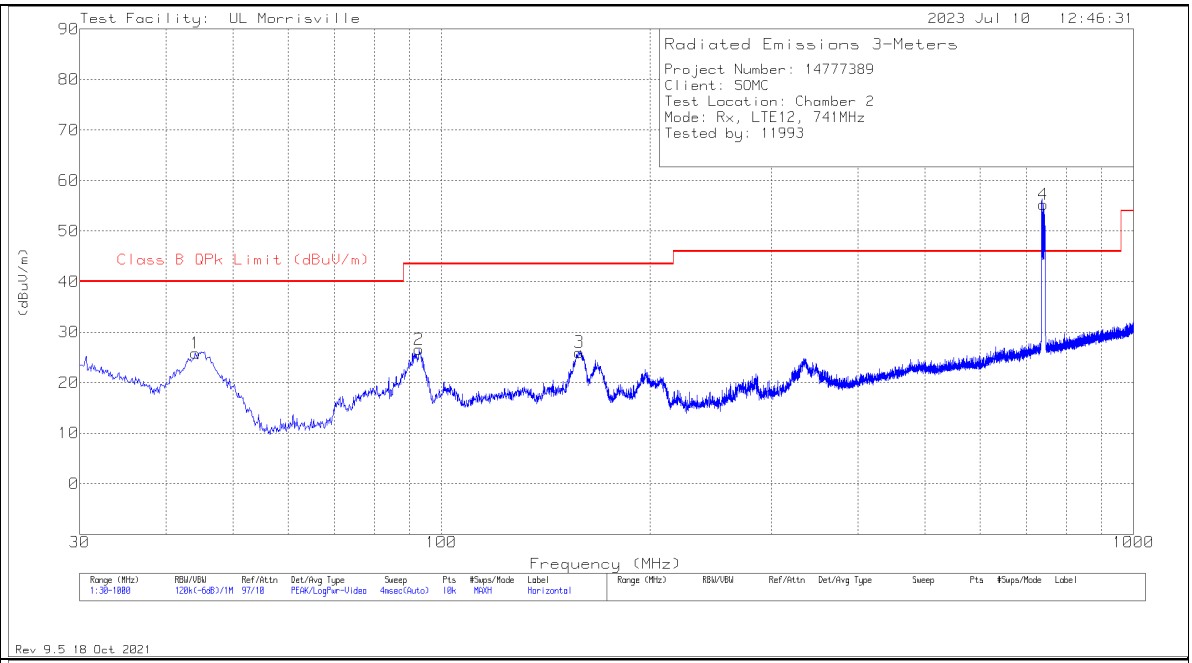
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	88761 (dB/m)	Gain/Loss (dB)	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	1.7785	44.27	Pk	29.7	-34.7	39.27	54	-14.73	74	-34.73	0-360	200	V
1	4.75975	40.41	Pk	33.9	-31.2	43.11	54	-10.89	74	-30.89	0-360	101	H
2	6.47425	38.18	Pk	35.5	-28.6	45.08	54	-8.92	74	-28.92	0-360	101	H
5	6.9985	36.8	Pk	35.6	-27.4	45	54	-9	74	-29	0-360	101	V
6	9.5665	34.1	Pk	36.7	-25.9	44.9	54	-9.1	74	-29.1	0-360	200	V
3	9.75925	34.95	Pk	36.9	-25.6	46.25	54	-7.75	74	-27.75	0-360	101	H

Pk - Peak detector

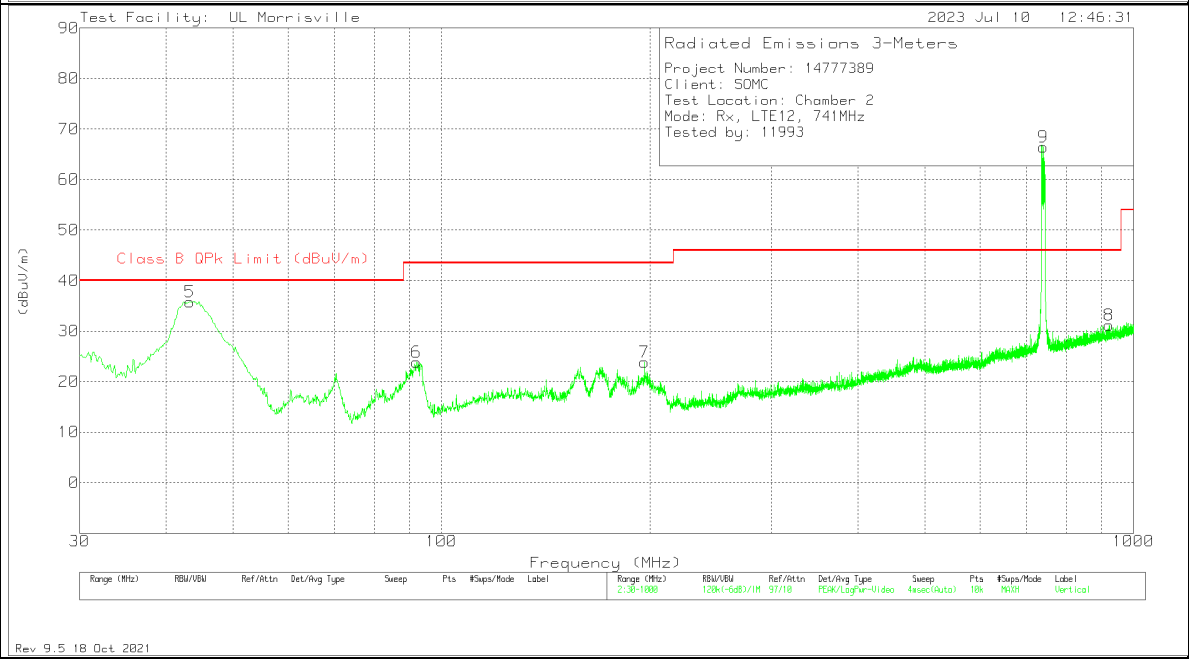
RADIATED EMISSIONS 30 TO 1000 MHz – LTE B12 Rx 741.0MHz

Radiated Emissions Graph

HORIZONTAL



VERTICAL



Radiated Emissions Data Points

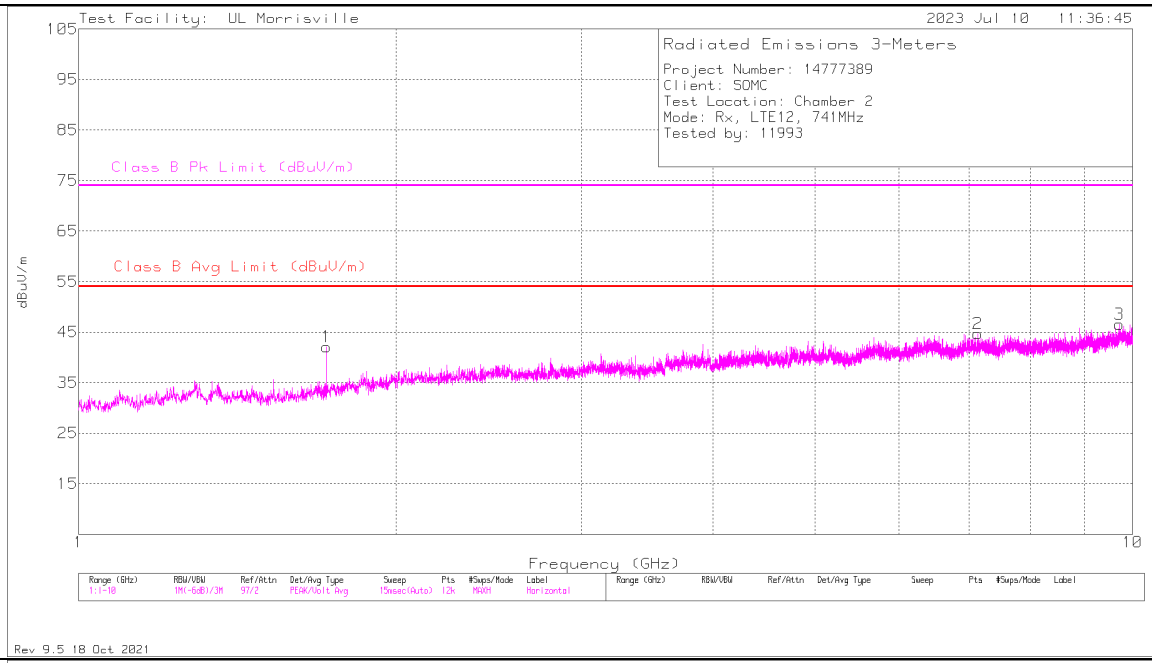
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	90627 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Class B QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5	43.4589	47.19	Qp	17.4	-31.6	32.99	40	-7.01	356	101	V
1	44.065	40.45	Pk	17	-31.6	25.85	40	-14.15	0-360	398	H
6	92.08	40.44	Pk	14.4	-31	23.84	43.52	-19.68	0-360	101	V
2	92.856	42.92	Pk	14.6	-30.9	26.62	43.52	-16.9	0-360	198	H
3	158.04	38.23	Pk	18.4	-30.6	26.03	43.52	-17.49	0-360	198	H
7	196.355	35.32	Pk	18.8	-30.3	23.82	43.52	-19.7	0-360	199	V
9	741.01 (DL)	67.32	Pk	26.7	-27.6	66.42	-	-	0-360	101	V
4	741.107 (DL)	56.14	Pk	26.7	-27.6	55.24	-	-	0-360	298	H
8	922.788	29.04	Pk	28.2	-26	31.24	46.02	-14.78	0-360	199	V

Pk - Peak detector
Qp - Quasi-Peak detector
DL – Callbox downlink frequencies

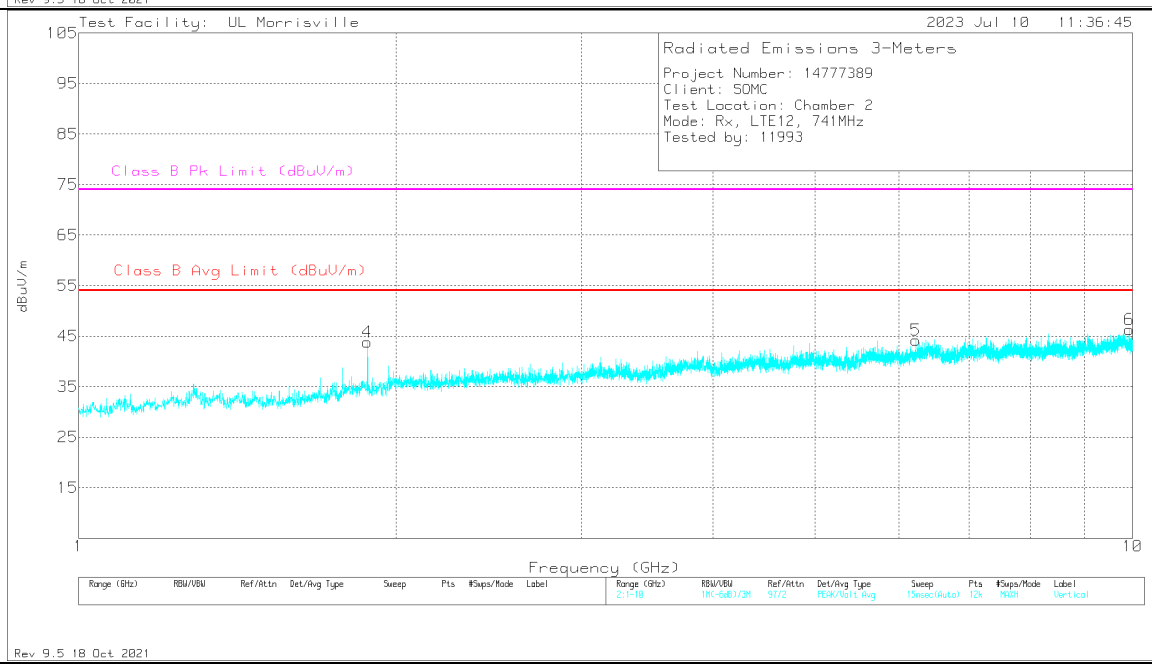
RADIATED EMISSIONS 1000 TO 10,000 MHz – LTE B12 Rx 741.0MHz

Radiated Emissions Graph

HORIZONTAL



VERTICAL



Radiated Emissions Data Points

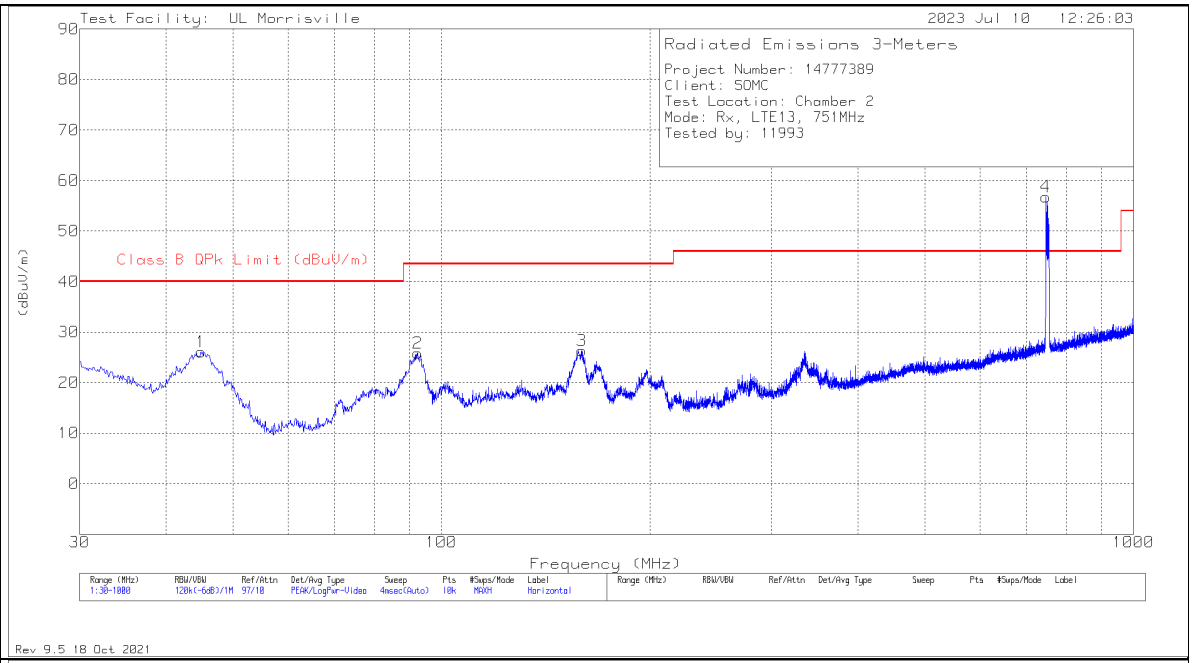
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	88761 (dB/m)	Gain/Loss (dB)	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.7185	47.55	Pk	29.1	-34.6	42.05	54	-11.95	74	-31.95	0-360	200	H
4	1.879	47.5	Pk	30.6	-34.3	43.8	54	-10.2	74	-30.2	0-360	101	V
5	6.22525	38.08	Pk	35.5	-29.4	44.18	54	-9.82	74	-29.82	0-360	200	V
2	7.1365	36.85	Pk	35.5	-27.6	44.75	54	-9.25	74	-29.25	0-360	200	H
3	9.721	34.75	Pk	36.8	-25	46.55	54	-7.45	74	-27.45	0-360	200	H
6	9.9295	34.23	Pk	37.1	-25	46.33	54	-7.67	74	-27.67	0-360	101	V

Pk - Peak detector

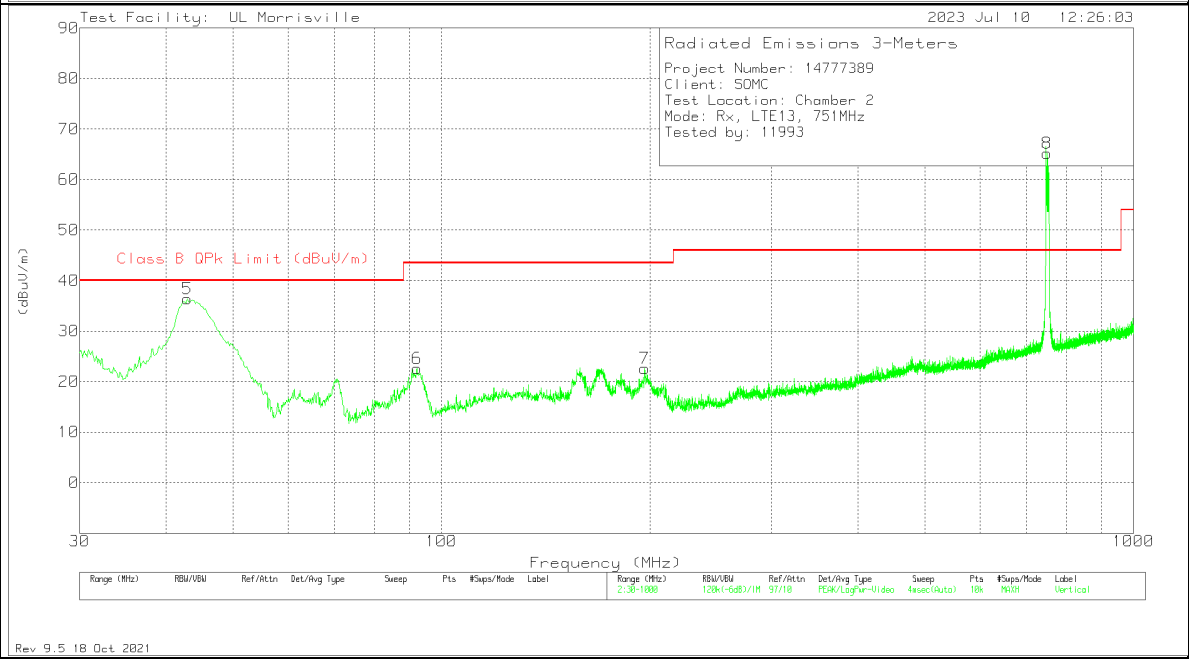
RADIATED EMISSIONS 30 TO 1000 MHz – LTE B13 Rx 751.0MHz

Radiated Emissions Graph

HORIZONTAL



VERTICAL



Radiated Emissions Data Points

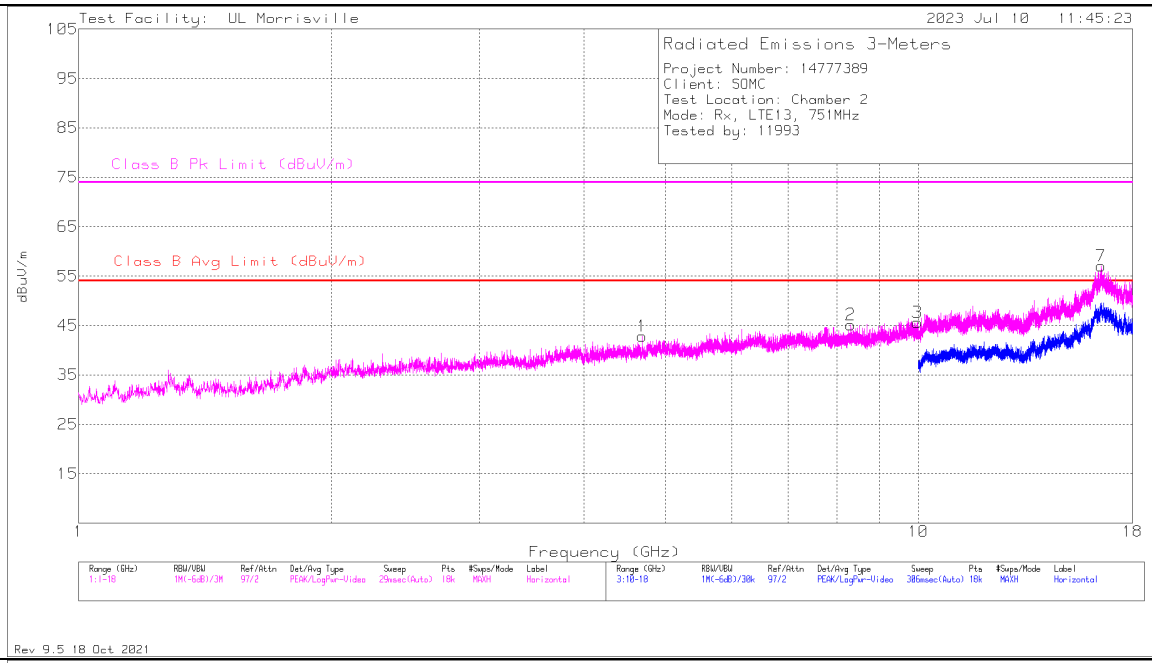
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	90627 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Class B QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5	43.0757	46.69	Qp	17.7	-31.6	32.79	40	-7.21	16	101	V
1	44.938	41.14	Pk	16.4	-31.5	26.04	40	-13.96	0-360	398	H
6	92.177	39.26	Pk	14.4	-31	22.66	43.52	-20.86	0-360	199	V
2	92.371	42.4	Pk	14.5	-31	25.9	43.52	-17.62	0-360	299	H
3	159.398	38.51	Pk	18.4	-30.6	26.31	43.52	-17.21	0-360	199	H
7	196.646	33.92	Pk	18.9	-30.2	22.62	43.52	-20.9	0-360	100	V
4	746.83 (DL)	57.72	Pk	26.7	-27.6	56.82	-	-	0-360	299	H
8	750.71 (DL)	66.12	Pk	26.7	-27.6	65.22	-	-	0-360	298	V

Pk - Peak detector
Qp - Quasi-Peak detector
DL – Callbox downlink frequencies

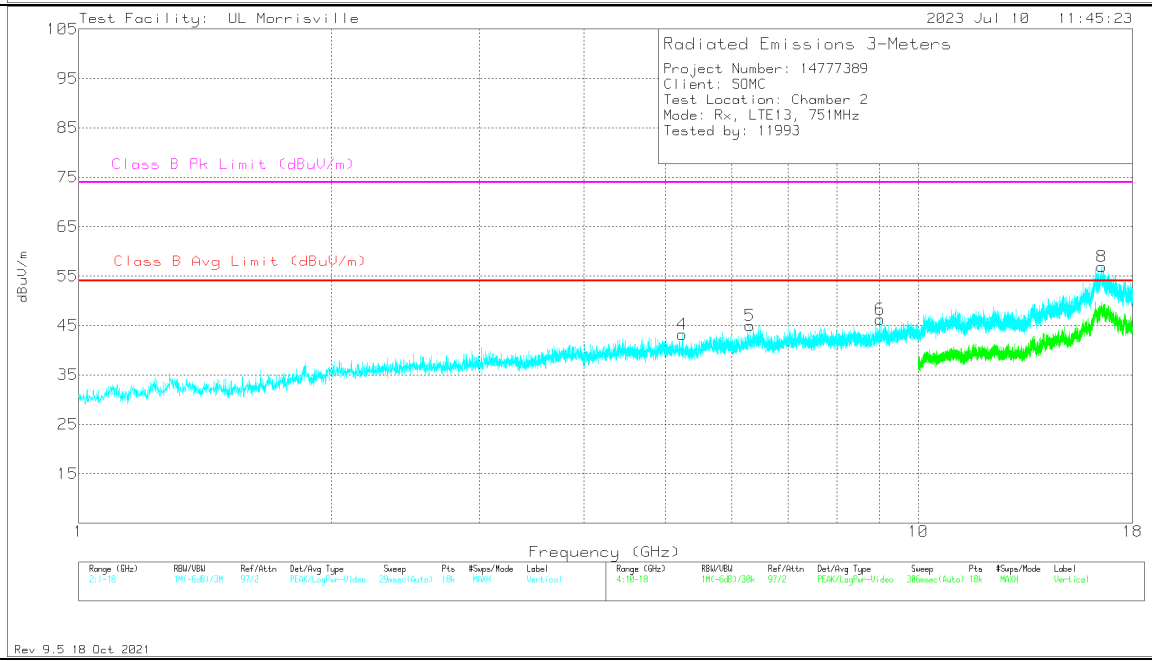
RADIATED EMISSIONS 1000 TO 18,000 MHz – LTE B13 Rx 751.0MHz

Radiated Emissions Graph

HORIZONTAL



VERTICAL



Radiated Emissions Data Points

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	88761 (dB/m)	Gain/Loss (dB)	Corrected Reading dBuV/m	Class B Avg Limit (dBuV/m)	Margin (dB)	Class B Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	4.69183	39.89	Pk	34	-31	42.89	54	-11.11	74	-31.11	0-360	101	H
4	5.23678	39.9	Pk	34.1	-30.8	43.2	54	-10.8	74	-30.8	0-360	199	V
5	6.30494	38.51	Pk	35.5	-29	45.01	54	-8.99	74	-28.99	0-360	199	V
2	8.31661	36.58	Pk	35.7	-27.1	45.18	54	-8.82	74	-28.82	0-360	199	H
6	9.00227	36.47	Pk	36.2	-26.4	46.27	54	-7.73	74	-27.73	0-360	199	V
3	9.97788	33.4	Pk	37.2	-25	45.6	54	-8.4	74	-28.4	0-360	101	H
7	16.51759	33.48	Pk	41.2	-18.1	56.58	-	-	74	-17.42	150	288	H
	16.51759	26.37	Av	41.2	-18.1	49.47	54	-4.53	-	-	150	288	H
8	16.54693	31.76	Pk	41.3	-18.3	54.76	-	-	74	-19.24	44	140	V
	16.54693	26.06	Av	41.3	-18.3	49.06	54	-4.94	-	-	44	140	V

Pk - Peak detector
Av - Average detection

Appendix A

Facilities, Accreditations and Authorizations

UL LLC is accredited by A2LA, certification # 0751.06, 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: 12 Laboratory Dr RTP, NC 27709, U.S.A	US0067	2180C	825374
☒	Building: 2800 Perimeter Park Dr. Suite B Morrisville, NC 27560, U.S.A		27265	

END OF TEST REPORT