



Report Number:	R15872942-E7
Issue Date:	2025-08-11
FCC ID:	A3LSMA175F
MODEL:	SM-A175F, SM-A175F/DS

Electromagnetic Compatibility Test Report

For

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



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TEST REPORT DETAILS

Tests Performed By:	UL LLC 12 LABORATORY DR. DURHAM, NC 27713, U.S.A.
Tests Performed For:	Samsung Electronics Co., Ltd. 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Republic of Korea
Issue Date:	2025-08-11
FCC ID:	A3LSMA175F
Sample Serial Number:	R38Y500BA5H
Applicable Standards:	FCC 47 CFR PART 15 SUBPART B:2025 ANSI C63.4
Date Test Item Received:	2025-06-20
Testing Start Date:	2025-06-30
Date Testing Complete:	2025-07-08
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.

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REPORT REVISION HISTORY

Revision Date	Revision Version	Description	Revised By	Revision Reviewed By
2025-07-24	V1	Initial Issue	N. Bennett	B. Kiewra
2025-07-31	V2	Removed Setup photos	N. Bennett	B. Kiewra
2025-08-08	V3	Added clarifying information for B13	N. Bennett	J. Moser
2025-08-11	V4	Added clarifying information for GSM/WCDMA.	N. Bennett	J. Moser

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

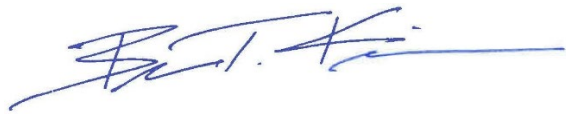
1.3 TEST RESULTS SUMMARY

This product is considered Class B

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

Approved & Released For

UL LLC. By:



Brian Kiewra
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Prepared By:



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Engineer Project Associate
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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	$\pm 3dB$
Worst Case Radiated Disturbance, All ranges	$\pm 6dB$

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)
 $36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} = 28.9 \text{ dBuV/m}$

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.

$36.5 \text{ dBuV} + 0 \text{ dB} + 10.1 \text{ dB} + 0 \text{ dB} = 46.6 \text{ dBuV}$

3.0 GENERAL - Product Description

3.1 Equipment Description

SMARTPHONE.

3.2 Device Configuration During Test

3.2.1 Equipment Used During Test:

Use	Product Type	Manufacturer	Model	Comments
EUT	SMARTPHONE	Samsung	SM-A175F	EUT.
AE	Power Supply	Samsung	EP-T2510	None
SIM	Support Laptop	Lenovo	T14 Gen3	Used to simulate PC Peripheral
SIM	Network Switch	Netgear	GS305	Used to populate Support laptop
SIM	HDMI EDID Adaptor	Woieyeks	N/A	
SIM	USB Keyboard	Lenovo	Pro II	
SIM	USB Mouse	Lenovo	300	
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
2	Cat5e, STP	I/O	N	N	Connected to Support Laptop
3	HDMI	I/O	N	N	Connected to Support Laptop
4	USB-C	I/O	N	N	Connected to EUT
5	USB-A Mouse	I/O	N	N	Connected to Support Laptop
6	USB-A Keyboard	I/O	N	N	Connected to Support Laptop
*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

3.2.5 Subassemblies

Description	Manufacturer	Model
None		

3.2.6 Manufacturer's Description of Model Differences

SM-A175F and SM-A175F/DS

3.2.7 Software and Firmware

Manufacturer to disclose upon request.

3.3 Block Diagram

Refer to R15872942-EP1 for setup block diagram.

3.4 EUT Configurations

Configuration #	Description
1	Configured as tabletop equipment

3.5 EUT Operation Modes

Mode of Operation#	Description
1	Operating as intended with EUT connected to AC Mains.
2	Operating as intended with data transfer over USB-C.
3	Operating as intended with EUT connected to AC Mains and LTE Rx Mode.

3.6 Rationale for EUT Configurations

Configuration #	Description
1	EUT was investigated in three orientations, X, Y, and Z in worst-case data operation mode. It was determined that worst-case orientation for radiated testing was X.

3.7 Rationale for EUT Mode of Operation

Mode of Operation #	Description
1,2,3	Through pretesting AC Adaptor Mode was chosen to represent a worst-case scenario for LTE <960MHz Rx radiated testing. EUT supports Bands 5,12,13, 17,26. Band 5 and Band 12 were tested to cover Bands 13, 17 and 26. Note – All testing for LTE covers GSM and WCDMA/UMTS functionality.

4.0 APPLICABLE EMISSIONS LIMITS AND TEST RESULTS

4.1 Test Conditions and Results - MAINS TERMINAL - CONDUCTED EMISSIONS

Test Engineer	104463/85502	
Test Date	2025-07-08	
Laboratory Parameters	Required prior to the test	During the test
Ambient Temperature	10 to 40 °C	23.6 °C
Humidity	10 % to 90 %	42.5 %
	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: For Setup photos refer to exhibit R15872942-EP1		

Conducted Emissions EUT Configuration Settings

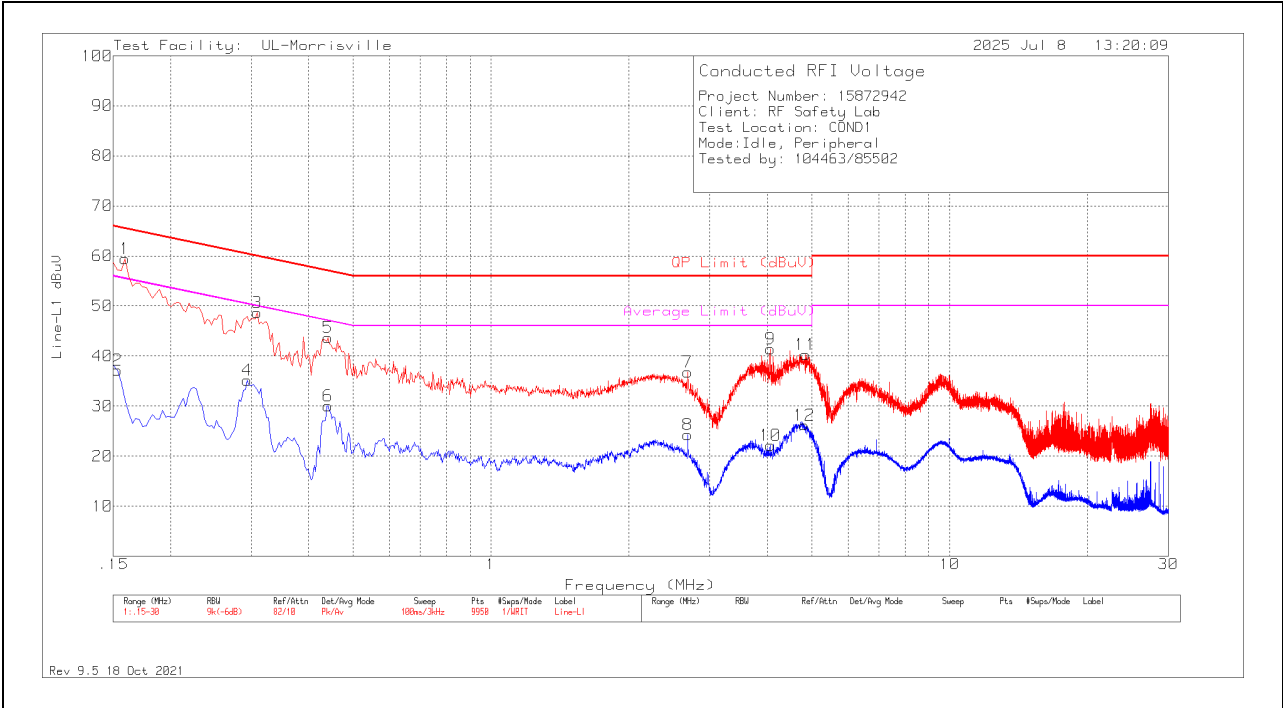
Power Interface #	EUT Configurations #	EUT Mode of Operation#
1	1	1,2
Supplementary information:		

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	2025-04-17	2026-04-17
179892	Environmental Meter	Fisher Scientific	15-077-963	2024-08-12	2025-08-12
72095	LISN, 50-ohm/50-uH, 2-conductor, 25A	Fischer Custom Com.	FCC-LISN-50-25-2-01-550V	2024-08-01	2025-08-01
80391	LISN, 50-ohm/50-uH, 250uH 2-conductor, 25A	Fischer Custom Com.	FCC-LISN-50/250-25-2-01	2024-08-01	2025-08-01
75141	EMI Test Receiver 9kHz-7GHz	Rohde & Schwarz	ESCI 7	2024-08-01	2025-08-01
52859	Transient Limiter, 0.009-100MHz	Electro-Metrics	EM-7600	2025-04-17	2026-04-17
236852	AC Power Source	California Instruments	NA	NA	NA
SOFTEMI	EMI Software	UL	Version 9.5 (18 Oct 2021)		

Conducted Emissions Graph – PC Peripheral Mode Line 1

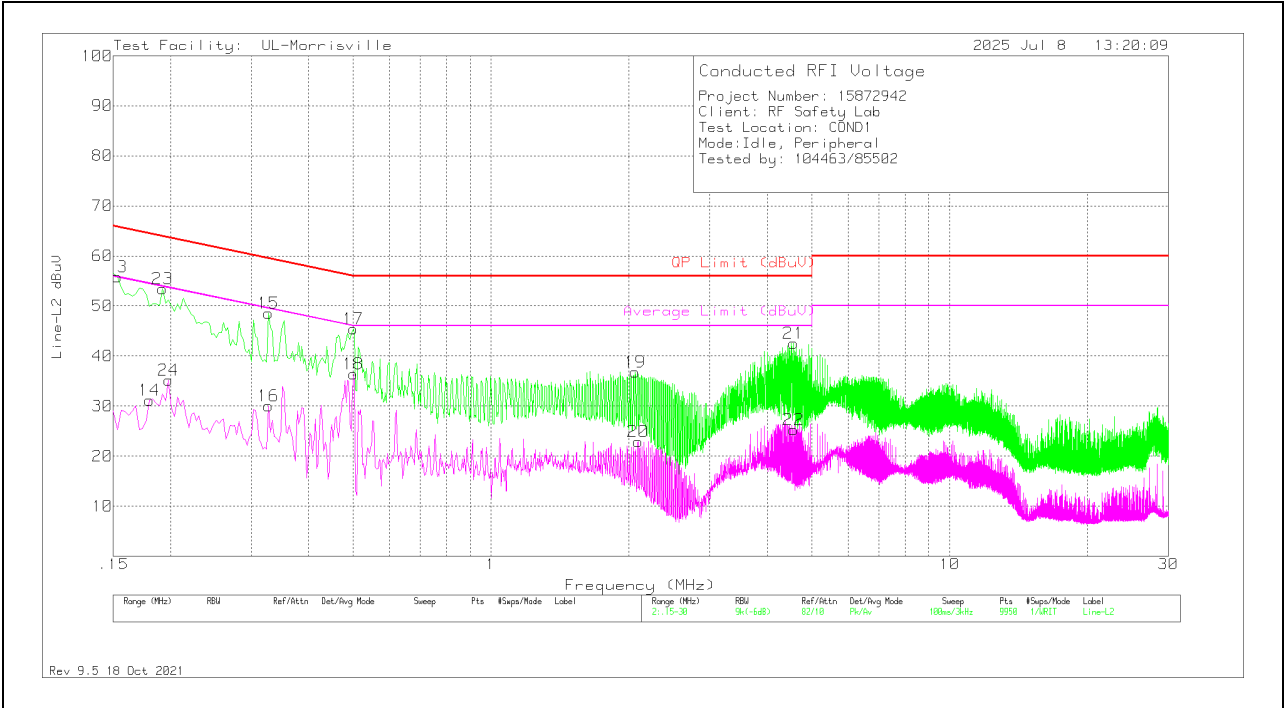


Conducted Emissions Data Points – PC Peripheral Mode Line 1

Range 1: Line-L1 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VDF (dB)	Cbl/Limiter (dB)	Corrected Reading dBuV	QP Limit (dBuV)	Margin (dB)	Average Limit (dBuV)	Margin (dB)
2	.153	27.31	Av	.2	9.7	37.21	-	-	55.84	-18.63
1	.159	49.57	Pk	.2	9.7	59.47	65.52	-6.05	-	-
4	.294	25.34	Av	.1	9.7	35.14	-	-	50.41	-15.27
3	.309	38.85	Pk	.1	9.7	48.65	60	-11.35	-	-
5	.441	33.92	Pk	.1	9.7	43.72	57.04	-13.32	-	-
6	.441	20.27	Av	.1	9.7	30.07	-	-	47.04	-16.97
7	2.685	27.07	Pk	0	9.7	36.77	56	-19.23	-	-
8	2.685	14.61	Av	0	9.7	24.31	-	-	46	-21.69
9	4.068	31.73	Pk	0	9.7	41.43	56	-14.57	-	-
10	4.068	12.4	Av	0	9.7	22.1	-	-	46	-23.9
12	4.818	16.41	Av	.1	9.7	26.21	-	-	46	-19.79
11	4.848	30.49	Pk	.1	9.7	40.29	56	-15.71	-	-

Pk - Peak detector
Av - Average detection

Conducted Emissions Graph – PC Peripheral Mode Line 2

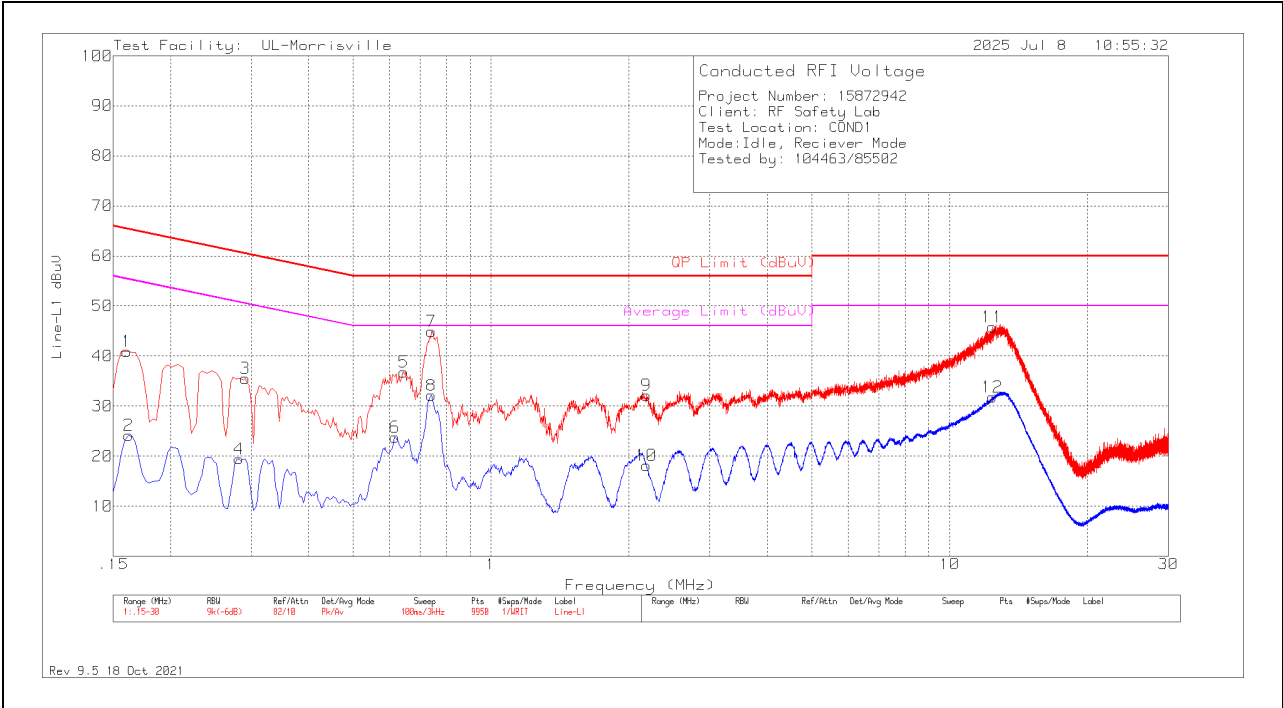


Conducted Emissions Data Points – PC Peripheral Mode Line 2

Range 2: Line-L2 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VDF (dB)	Cbl/Limiter (dB)	Corrected Reading dBuV	QP Limit (dBuV)	Margin (dB)	Average Limit (dBuV)	Margin (dB)
13	.153	45.97	Pk	.2	9.7	55.87	65.84	-9.97	-	-
14	.18	21.27	Av	.2	9.7	31.17	-	-	54.49	-23.32
23	.192	43.56	Pk	.2	9.7	53.46	63.95	-10.49	-	-
24	.198	25.27	Av	.2	9.7	35.17	-	-	53.69	-18.52
15	.327	38.78	Pk	.1	9.7	48.58	59.53	-10.95	-	-
16	.327	20.21	Av	.1	9.7	30.01	-	-	49.53	-19.52
17	.501	35.69	Pk	0	9.7	45.39	56	-10.61	-	-
18	.501	26.71	Av	0	9.7	36.41	-	-	46	-9.59
19	2.064	27.12	Pk	0	9.7	36.82	56	-19.18	-	-
20	2.091	13.2	Av	0	9.7	22.9	-	-	46	-23.1
21	4.563	32.77	Pk	.1	9.7	42.57	56	-13.43	-	-
22	4.569	15.44	Av	.1	9.7	25.24	-	-	46	-20.76

Pk - Peak detector
Av - Average detection

Conducted Emissions Graph – AC Adaptor Mode Line 1

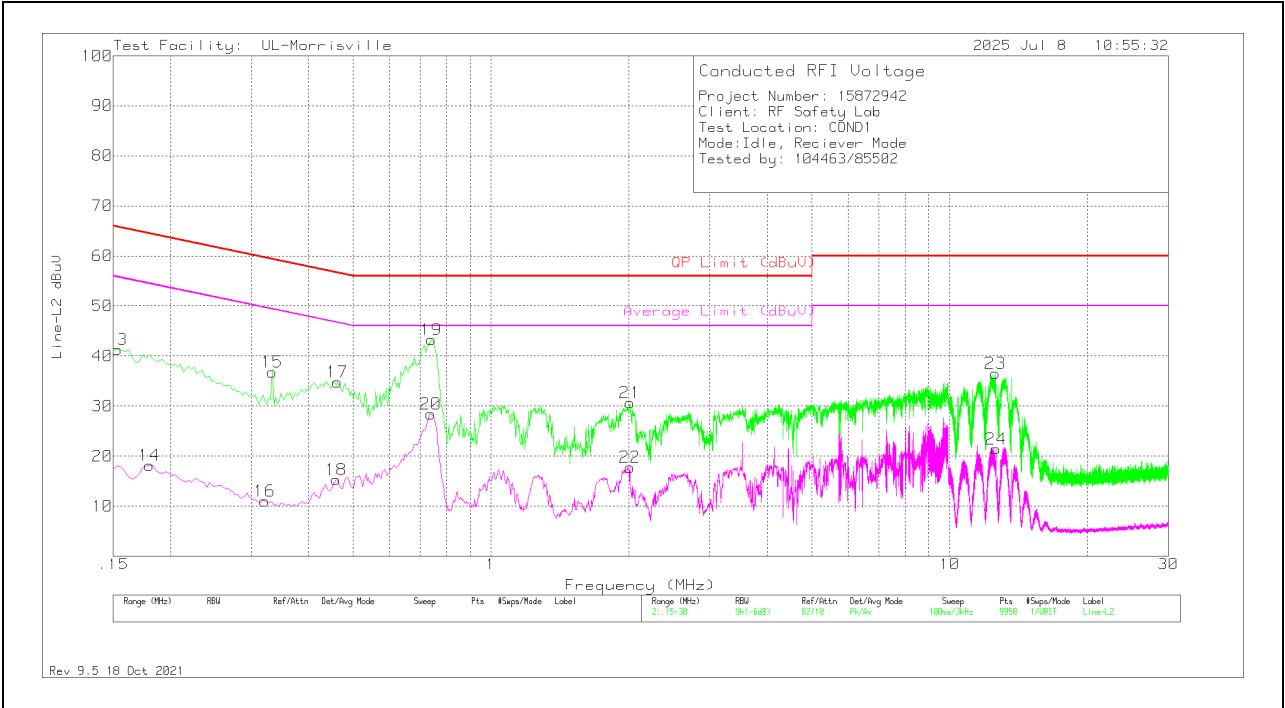


Conducted Emissions Data Points – Receiver Mode Line 1

Range 1: Line-L1 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VDF (dB)	Cbl/Limiter (dB)	Corrected Reading dBuV	QP Limit (dBuV)	Margin (dB)	Average Limit (dBuV)	Margin (dB)
1	.1605	31	Pk	.2	9.7	40.9	65.44	-24.54	-	-
2	.162	14.28	Av	.2	9.7	24.18	-	-	55.36	-31.18
4	.282	9.65	Av	.1	9.7	19.45	-	-	50.76	-31.31
3	.291	25.78	Pk	.1	9.7	35.58	60.5	-24.92	-	-
6	.618	14.06	Av	0	9.7	23.76	-	-	46	-22.24
5	.645	27.14	Pk	0	9.7	36.84	56	-19.16	-	-
7	.741	35.19	Pk	0	9.7	44.89	56	-11.11	-	-
8	.741	22.41	Av	0	9.7	32.11	-	-	46	-13.89
10	2.181	8.46	Av	0	9.7	18.16	-	-	46	-27.84
9	2.184	22.5	Pk	0	9.7	32.2	56	-23.8	-	-
11	12.378	35.94	Pk	.1	9.8	45.84	60	-14.16	-	-
12	12.384	21.9	Av	.1	9.8	31.8	-	-	50	-18.2

Pk - Peak detector
Av - Average detection

Conducted Emissions Graph – AC Adaptor Mode Line 2



Conducted Emissions Data Points – Receiver Mode Line 2

Range 2: Line-L2 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VDF (dB)	Cbl/Limiter (dB)	Corrected Reading dBuV	QP Limit (dBuV)	Margin (dB)	Average Limit (dBuV)	Margin (dB)
13	.153	31.43	Pk	.2	9.7	41.33	65.84	-24.51	-	-
14	.18	8.25	Av	.2	9.7	18.15	-	-	54.49	-36.34
16	.321	1.25	Av	.1	9.7	11.05	-	-	49.68	-38.63
15	.333	26.95	Pk	.1	9.7	36.75	59.38	-22.63	-	-
18	.459	5.62	Av	0	9.7	15.32	-	-	46.71	-31.39
17	.462	25.14	Pk	0	9.7	34.84	56.66	-21.82	-	-
20	.738	18.66	Av	0	9.7	28.36	-	-	46	-17.64
19	.741	33.55	Pk	0	9.7	43.25	56	-12.75	-	-
21	2.007	20.96	Pk	0	9.7	30.66	56	-25.34	-	-
22	2.007	8.08	Av	0	9.7	17.78	-	-	46	-28.22
23	12.597	26.66	Pk	.1	9.8	36.56	60	-23.44	-	-
24	12.609	11.55	Av	.1	9.8	21.45	-	-	50	-28.55

Pk - Peak detector
Av - Average detection

4.2 Test Conditions and Results - RADIATED EMISSIONS

Test Engineer	85501; 19289	
Test Date	2025-06-30; 2025-07-01	
Laboratory Parameters	Required prior to the test	During the test
Ambient Temperature	10 to 40 °C	23.7 – 24.0 °C
Humidity	10 % to 90 %	43.9 - 49.5 %
	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: For Setup photos refer to exhibit R15872942-EP1		

Radiated Emissions EUT Configuration Settings

Power Interface #	EUT Configurations #	EUT Mode of Operation#
1	1	1,2,3
Supplementary information: EUT Mode 1 was tested >18GHz as Worst-Case. For LTE Rx, Mid Channel was tested for >1GHz.		

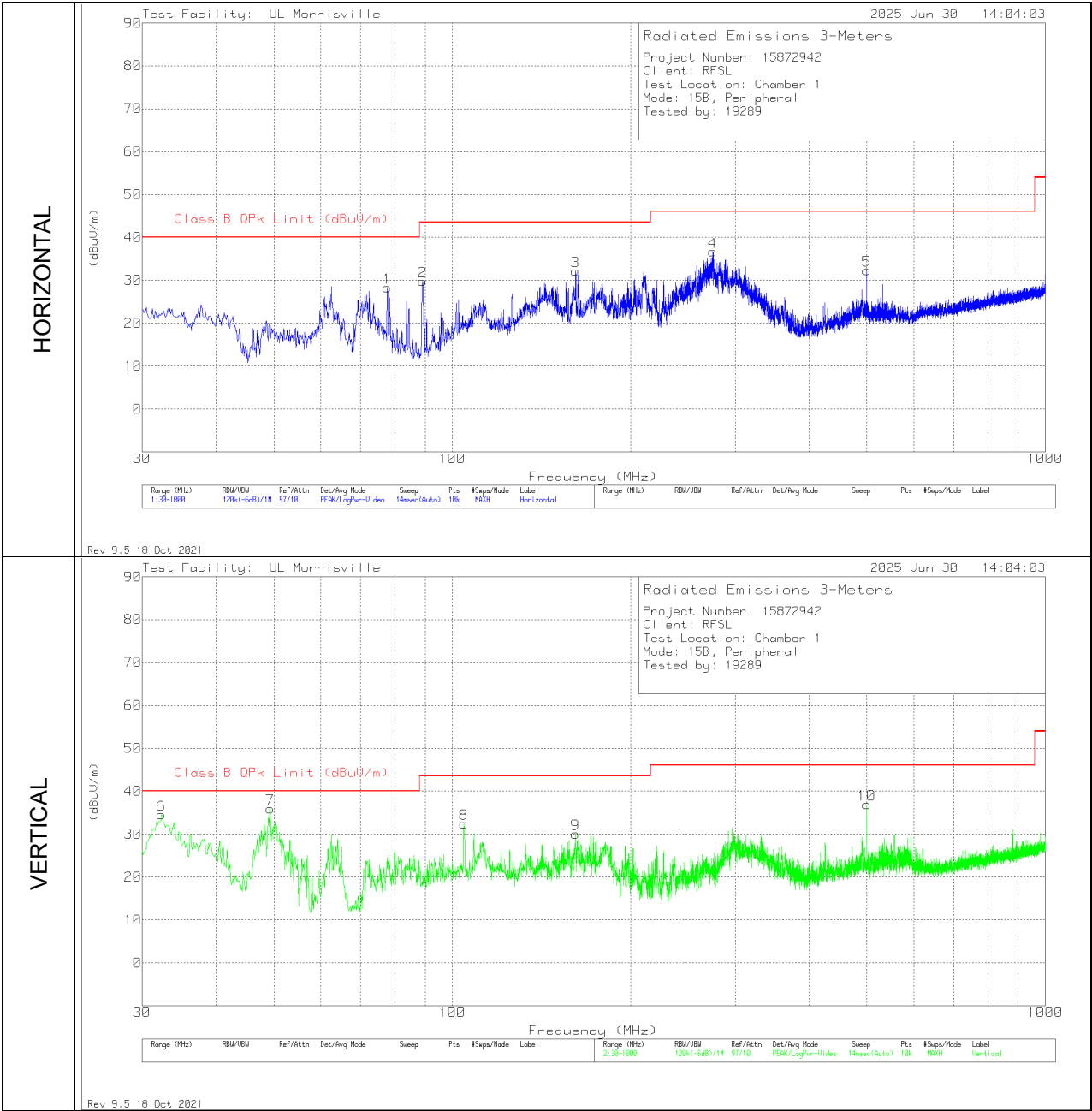
Radiated Emissions Test Equipment

Test Equipment Used - Radiated Disturbance Emissions Test Equipment (Morrisville – Chamber 1)

Equip. ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
	30-1000 MHz				
90629	Hybrid Broadband Antenna	Sunol Sciences Corp.	JB3	2024-01-30	2026-01-30
	1-18 GHz				
135143	Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz	ETS Lindgren	3117	2024-02-07	2026-02-07
	18-40 GHz				
91186	Horn Antenna, 18-26.5GHz	ARA	MWH-1826/B	2024-05-16	2026-05-16
204704	Horn Antenna, 18-26.5GHz	Com-Power	AH-826	2023-07-20	2025-07-20
	Gain-Loss Chains				
91976	Gain-loss string: 25-1000MHz	Various	Various	2025-05-31	2026-05-31
91979	Gain-loss string: 1-18GHz	Various	Various	2025-05-31	2026-05-31
135999	Gain-loss string: 18-40GHz	Various	Various	2025-05-31	2026-05-31
	Receiver & Software				
197955	Spectrum Analyzer	Rohde & Schwarz	ESW44	2025-05-12	2026-05-12
81018	Spectrum Analyzer	Agilent	E4446A	2024-07-31	2025-07-31
SOFTEMI	EMI Software	UL	Version 9.5 (18 Oct 2021)		
	Additional Equipment used				
241205	Environmental Meter	Fisher Scientific	15-077-963	2023-09-05	2025-09-05

RADIATED EMISSIONS 30 TO 1000 MHz – PC Peripheral Mode

Radiated Emissions Graph



Radiated Emissions Data Points

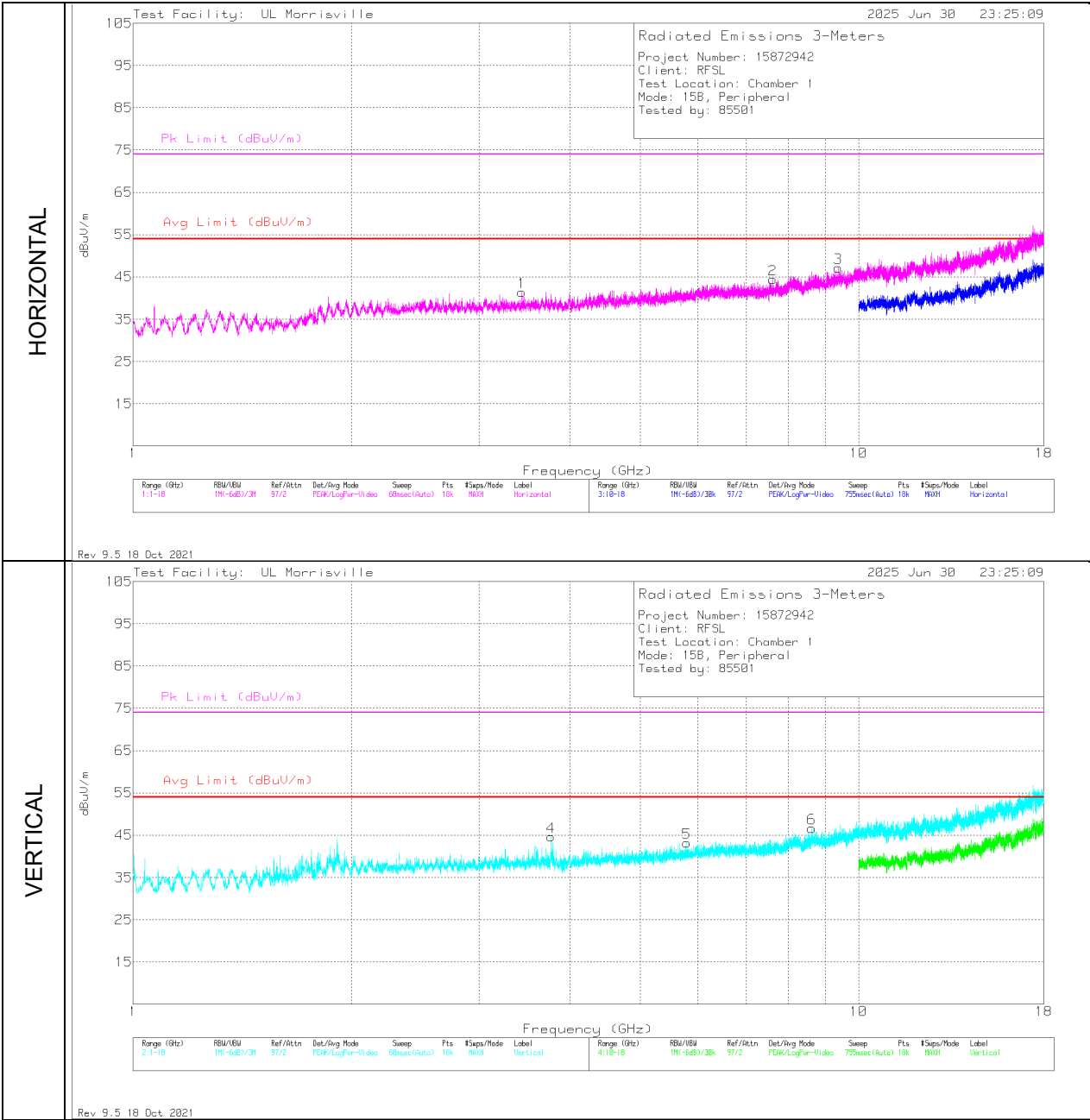
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	90629 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Class B QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
6	35.365	32.44	Qp	23.2	-31.5	24.14	40	-15.86	318	111	V
7	48.811	43.15	Qp	14.4	-31.6	25.95	40	-14.05	330	106	V
1	77.724	44.9	Pk	14.3	-30.9	28.3	40	-11.7	0-360	199	H
2	89.17	47.4	Pk	13.8	-31.4	29.8	43.52	-13.72	0-360	299	H
8	104.69	45.26	Pk	18	-30.8	32.46	43.52	-11.06	0-360	100	V
9	161.338	41.85	Pk	18.5	-30.3	30.05	43.52	-13.47	0-360	100	V
3	161.435	43.85	Pk	18.5	-30.2	32.15	43.52	-11.37	0-360	199	H
4	274.731	46.53	Pk	19.5	-29.4	36.63	46.02	-9.39	0-360	100	H
5	499.965	36.64	Pk	24	-28.3	32.34	46.02	-13.68	0-360	199	H
10	499.965	41.19	Pk	24	-28.3	36.89	46.02	-9.13	0-360	100	V

Pk - Peak detector

Qp - Quasi-Peak detector

RADIATED EMISSIONS 1000 TO 18,000 MHz – PC Peripheral Mode

Radiated Emissions Graph



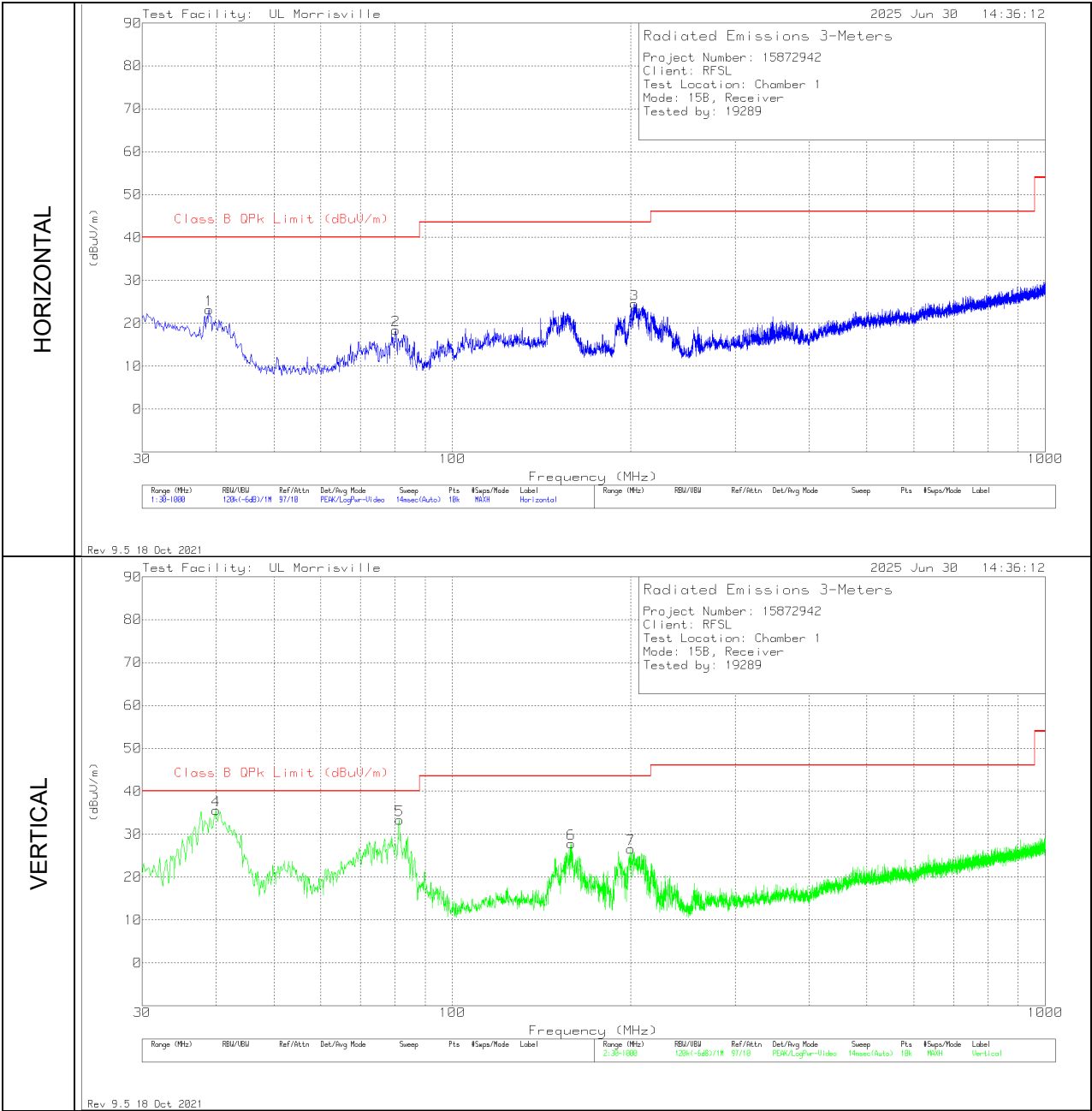
Radiated Emissions Data Points

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	135143 (dB/m)	Gain/Loss (dB)	Corrected Reading dBuV/m	Avg Limit (dBuV/m)	Margin (dB)	Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.43478	53.25	Pk	32.8	-44.6	41.45	54	-12.55	74	-32.55	0-360	199	H
4	3.76722	56.56	Pk	33.2	-45.1	44.66	54	-9.34	74	-29.34	0-360	200	V
5	5.79494	51.5	Pk	34.9	-43.2	43.2	54	-10.8	74	-30.8	0-360	101	V
2	7.61772	50.62	Pk	35.6	-41.8	44.42	54	-9.58	74	-29.58	0-360	101	H
6	8.61789	51.83	Pk	35.7	-40.9	46.63	54	-7.37	74	-27.37	0-360	101	V
3	9.37722	51.78	Pk	36.2	-40.8	47.18	54	-6.82	74	-26.82	0-360	199	H

Pk - Peak detector
Av - Average detection

RADIATED EMISSIONS 30 TO 1000 MHz – Receiver Mode

Radiated Emissions Graph



Radiated Emissions Data Points

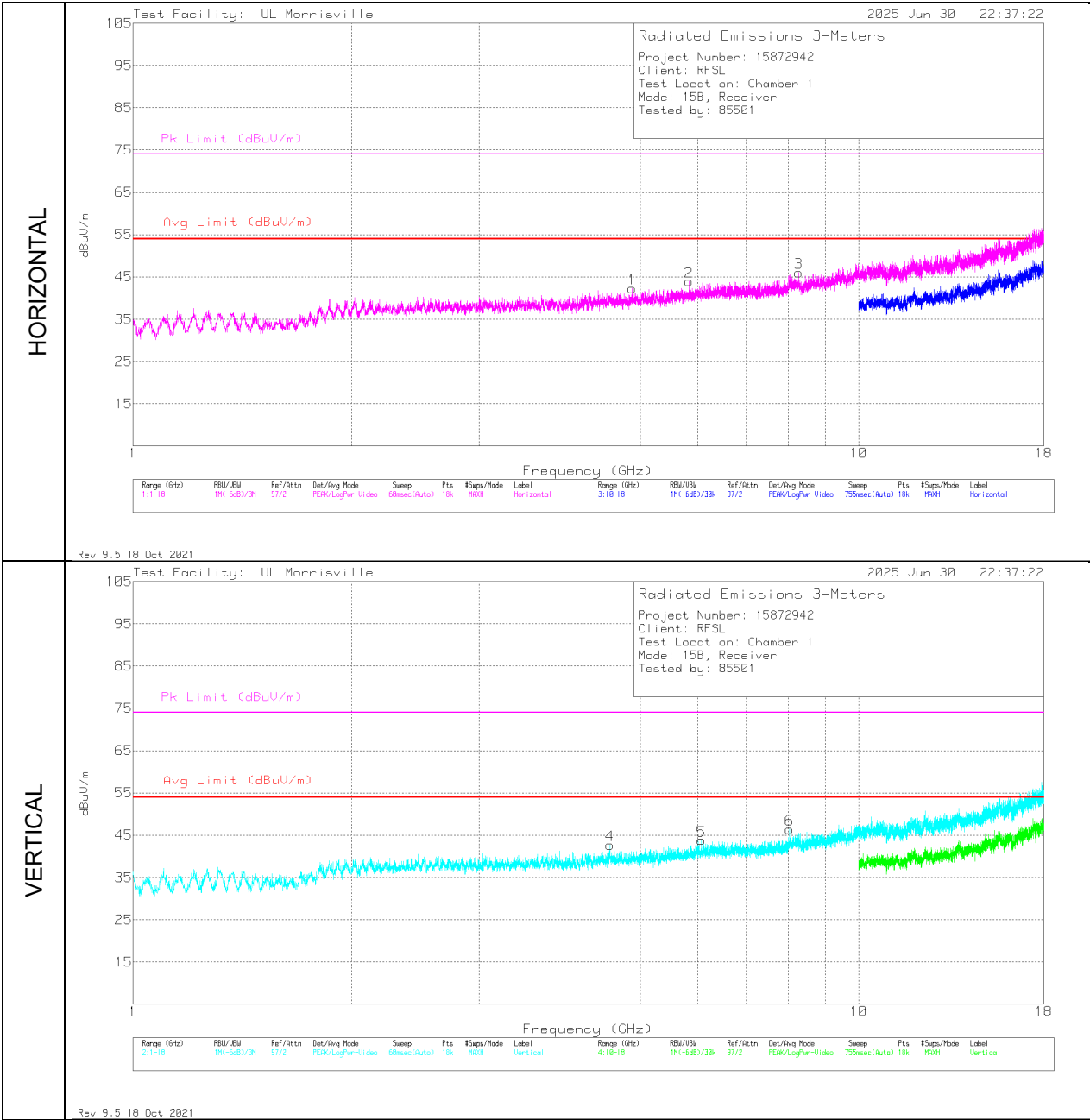
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	90629 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Class B QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	38.924	34.16	Pk	20.6	-31.6	23.16	40	-16.84	0-360	199	H
4	40.51	43.73	Qp	19.4	-31.7	31.43	40	-8.57	315	105	V
2	80.246	35.6	Pk	13.9	-31.1	18.4	40	-21.6	0-360	399	H
5	81.41	50.6	Pk	13.8	-31.1	33.3	40	-6.7	0-360	100	V
6	158.719	39.89	Pk	18.5	-30.6	27.79	43.52	-15.73	0-360	100	V
7	200.041	37.34	Pk	19.2	-30	26.54	43.52	-16.98	0-360	100	V
3	202.66	36.28	Pk	18.3	-30.1	24.48	43.52	-19.04	0-360	100	H

Pk - Peak detector

Qp - Quasi-Peak detector

RADIATED EMISSIONS 1000 TO 18,000 MHz – Receiver Mode

Radiated Emissions Graph



Radiated Emissions Data Points

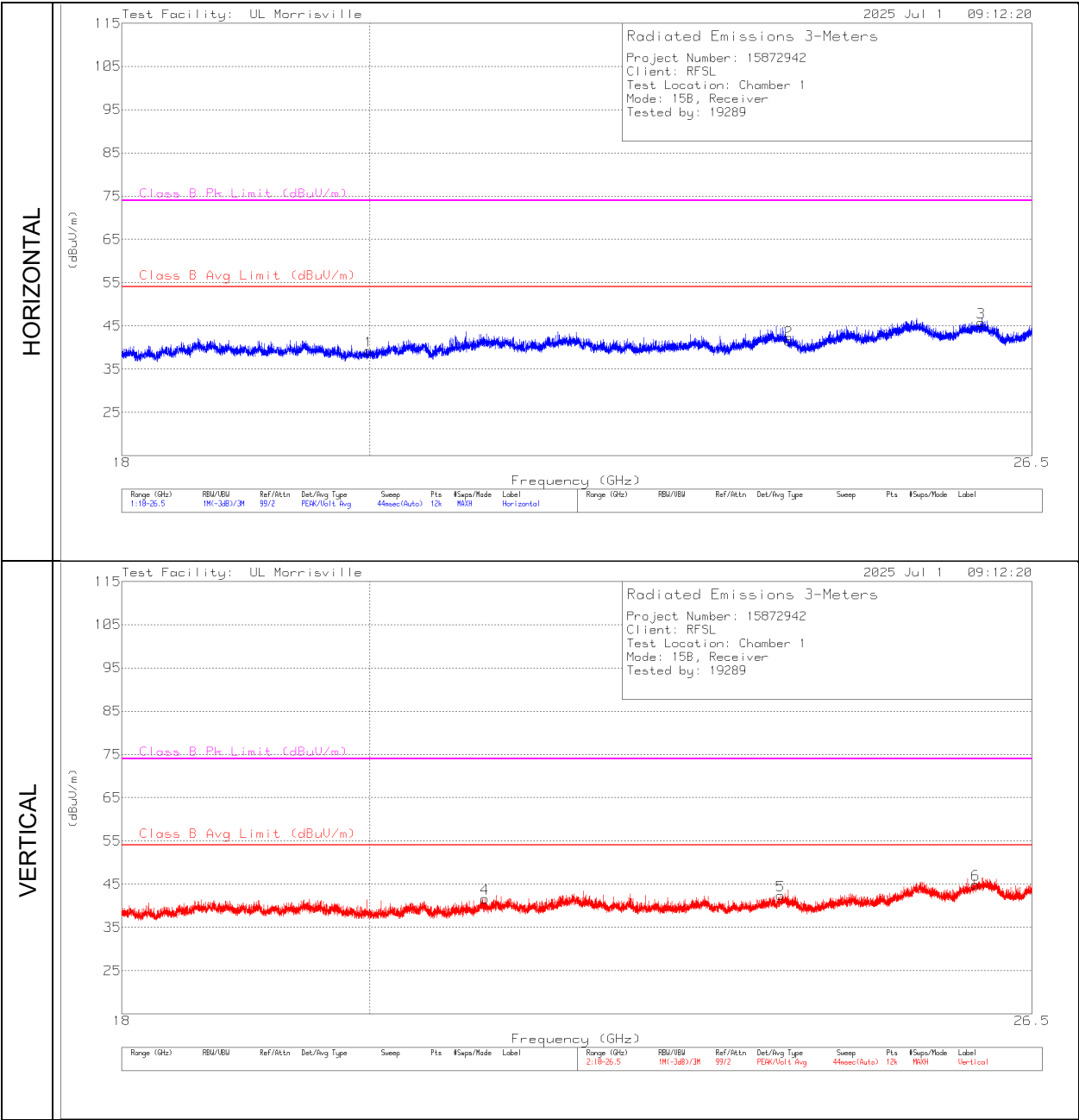
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	135143 (dB/m)	Gain/Loss (dB)	Corrected Reading dBuV/m	Avg Limit (dBuV/m)	Margin (dB)	Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	4.53978	54.92	Pk	33.9	-46.1	42.72	54	-11.28	74	-31.28	0-360	101	V
1	4.87694	53.95	Pk	34	-45.6	42.35	54	-11.65	74	-31.65	0-360	200	H
2	5.83366	52.5	Pk	34.9	-43.5	43.9	54	-10.1	74	-30.1	0-360	200	H
5	6.06978	51.67	Pk	35.2	-43.1	43.77	54	-10.23	74	-30.23	0-360	101	V
6	8.03611	52.21	Pk	35.9	-41.7	46.41	54	-7.59	74	-27.59	0-360	101	V
3	8.2675	51.16	Pk	35.9	-41	46.06	54	-7.94	74	-27.94	0-360	101	H

Pk - Peak detector

Av - Average detection

RADIATED EMISSIONS 18,000 TO 26,000 MHz – Receiver Mode

Radiated Emissions Graph



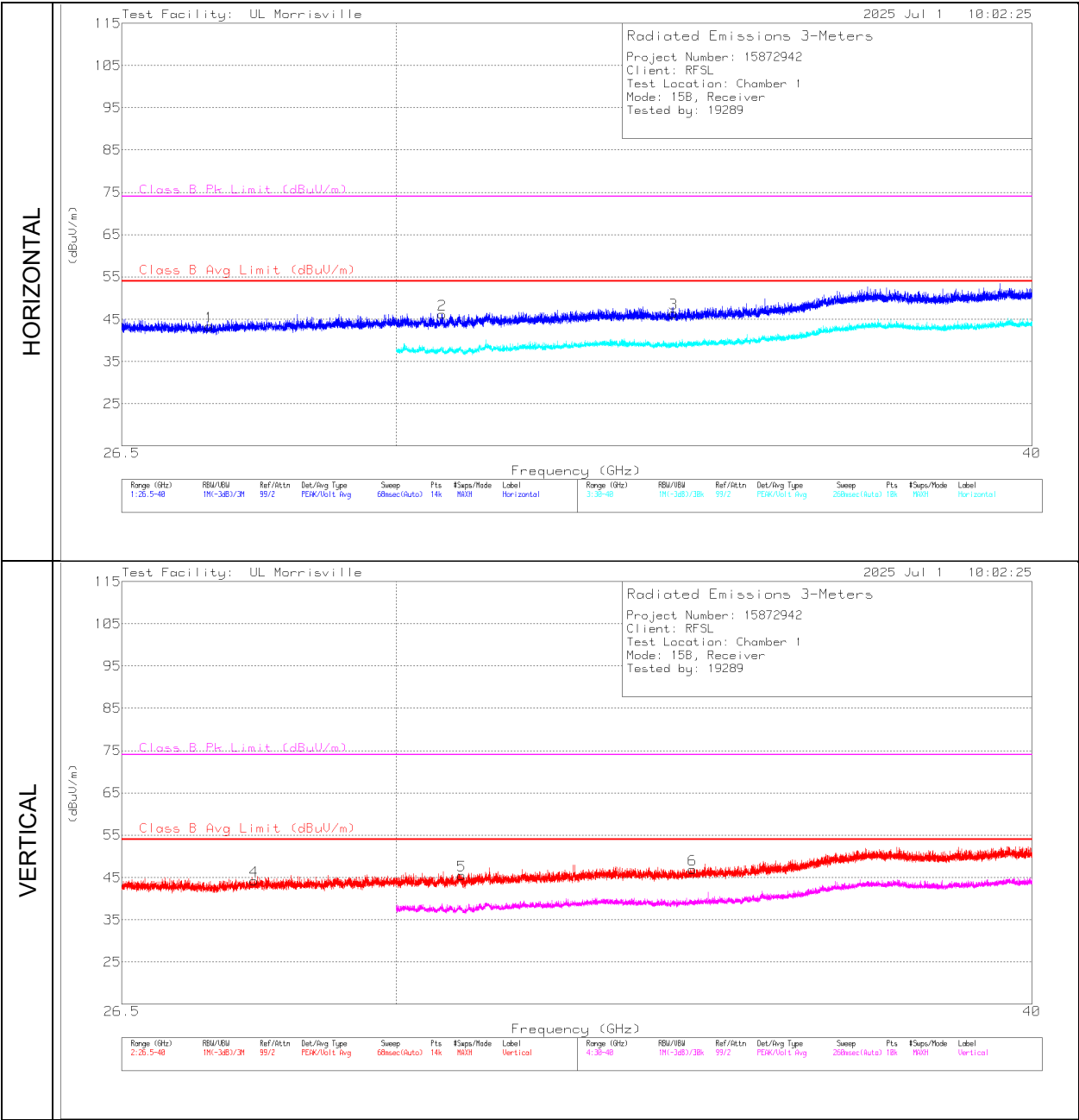
Radiated Emissions Data Points

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Horn (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	19.99025	46.72	Pk	32.7	-40.2	39.22	54	-14.78	74	-34.78	0-360	99	H
4	21.00379	48.79	Pk	32.9	-40	41.69	54	-12.31	74	-32.31	0-360	150	V
5	23.81493	48.29	Pk	34	-39.9	42.39	54	-11.61	74	-31.61	0-360	101	V
2	23.89709	47.73	Pk	33.7	-39.9	41.53	54	-12.47	74	-32.47	0-360	150	H
6	25.87459	49.46	Pk	34.2	-38.7	44.96	54	-9.04	74	-29.04	0-360	300	V
3	25.93196	50.19	Pk	34.3	-38.7	45.79	54	-8.21	74	-28.21	0-360	299	H

Pk - Peak detector

RADIATED EMISSIONS 26,000 TO 40,000 MHz – Receiver Mode

Radiated Emissions Graph



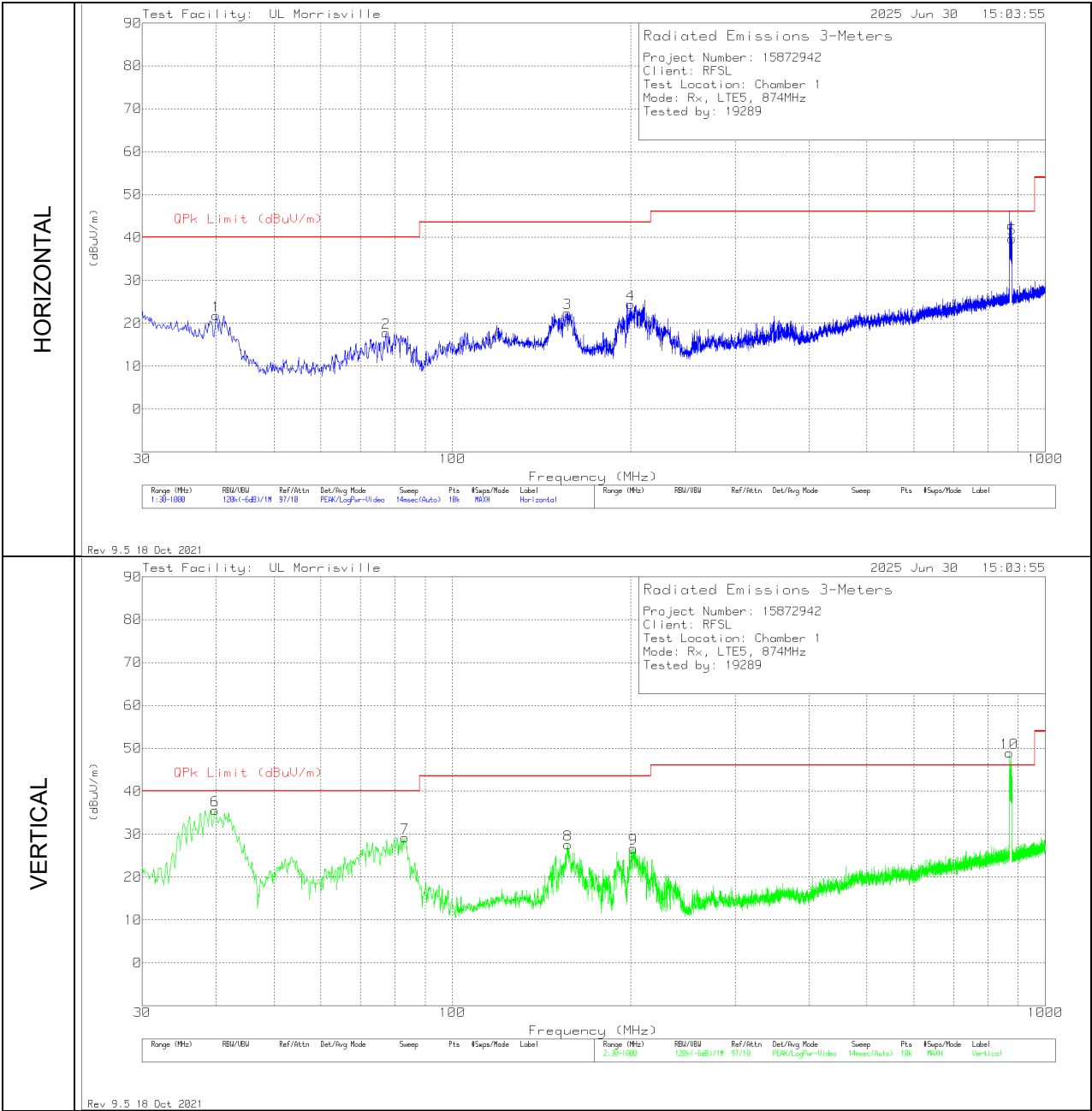
Radiated Emissions Data Points

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	27.57028	45.43	Pk	35.9	-38	43.33	54	-10.67	74	-30.67	0-360	101	H
4	28.13531	45.55	Pk	36.5	-37.8	44.25	54	-9.75	74	-29.75	0-360	200	V
2	30.63456	46.51	Pk	36.8	-37.1	46.21	54	-7.79	74	-27.79	0-360	200	H
5	30.90744	45.84	Pk	36.9	-37.2	45.54	54	-8.46	74	-28.46	0-360	250	V
3	34.01511	46.6	Pk	37.4	-37.6	46.4	54	-7.6	74	-27.6	0-360	149	H
6	34.30437	47	Pk	37.5	-37.6	46.9	54	-7.1	74	-27.1	0-360	101	V

Pk - Peak detector

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

Radiated Emissions Graph



Radiated Emissions Data Points

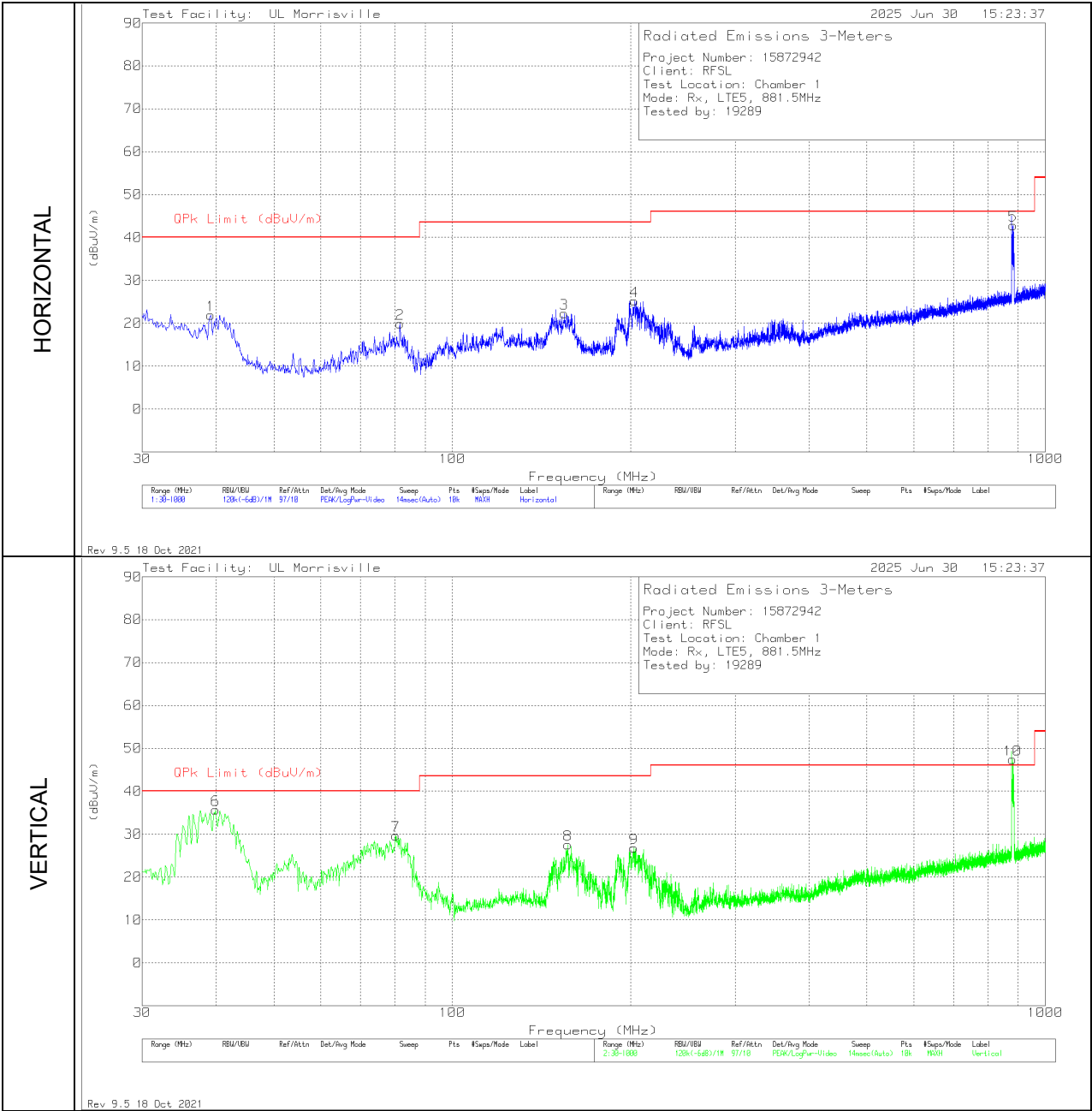
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	90629 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
6	41.695	43.21	Qp	18.6	-31.3	30.51	40	-9.49	284	105	V
1	39.991	33.73	Pk	19.8	-31.7	21.83	40	-18.17	0-360	199	H
2	77.336	34.6	Pk	14.3	-31.1	17.8	40	-22.2	0-360	399	H
7	83.156	46.59	Pk	13.6	-31	29.19	40	-10.81	0-360	100	V
3	156.391	34.3	Pk	18.5	-30.4	22.4	43.52	-21.12	0-360	199	H
8	156.585	39.51	Pk	18.4	-30.4	27.51	43.52	-16.01	0-360	100	V
4	199.847	35.16	Pk	19.2	-30	24.36	43.52	-19.16	0-360	100	H
9	201.981	38.28	Pk	18.7	-30.3	26.68	43.52	-16.84	0-360	100	V
10*	869.826	47.92	Pk	28.1	-27.1	48.92	-	-	0-360	100	V
5*	878.362	38.35	Pk	28.2	-26.9	39.65	-	-	0-360	399	H

Pk - Peak detector

*DL – Callbox downlink frequencies

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

Radiated Emissions Graph



Radiated Emissions Data Points

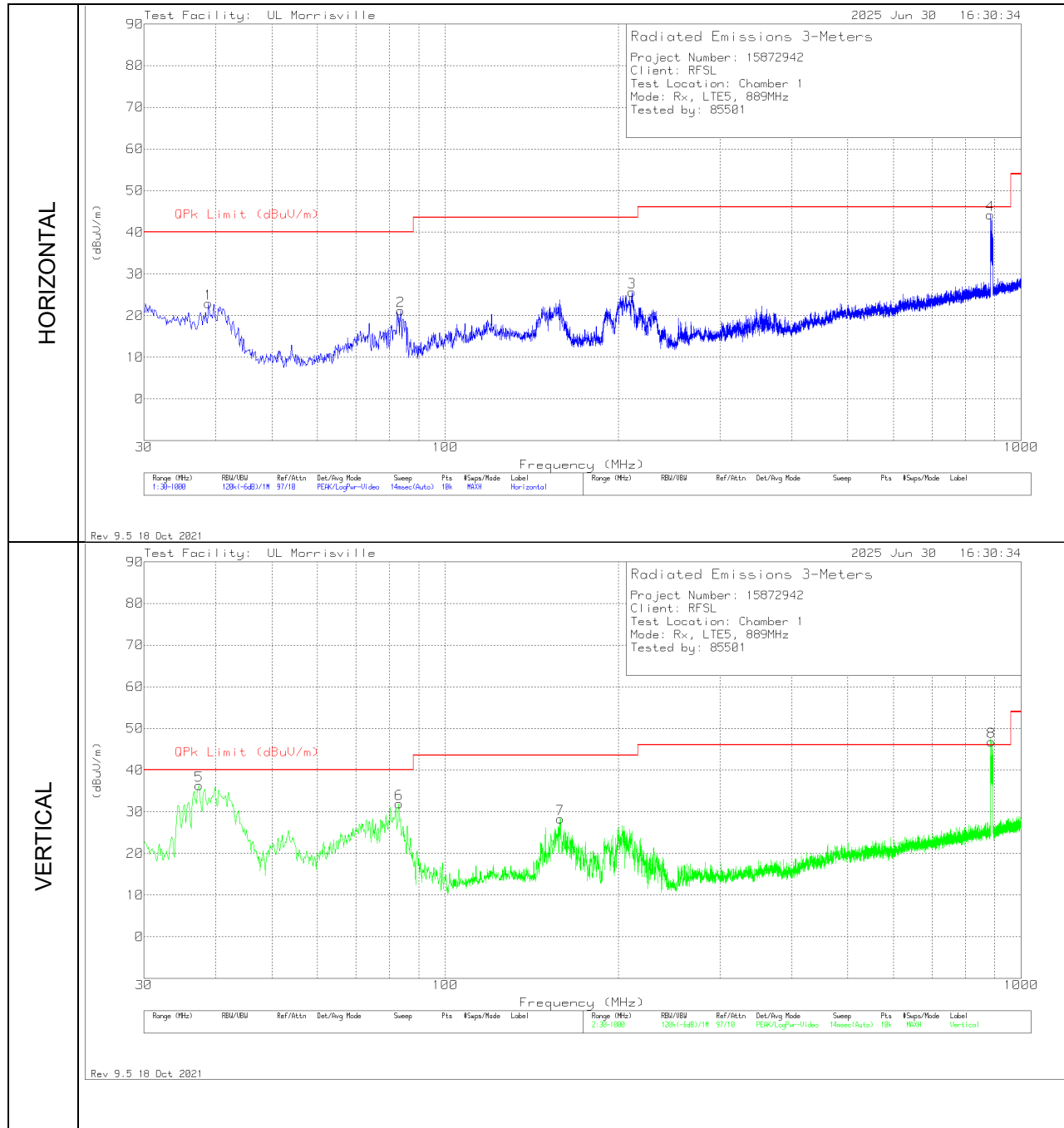
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	90629 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	39.118	33.14	Pk	20.4	-31.6	21.94	40	-18.06	0-360	100	H
6	41.892	43.44	Qp	18.4	-31.3	30.54	40	-9.46	335	102	V
7	80.343	47	Pk	13.9	-31.2	29.7	40	-10.3	0-360	100	V
2	81.604	37.25	Pk	13.8	-31.1	19.95	40	-20.05	0-360	399	H
3	154.354	34.14	Pk	18.6	-30.5	22.24	43.52	-21.28	0-360	199	H
8	156.682	39.6	Pk	18.4	-30.5	27.5	43.52	-16.02	0-360	100	V
9	202.466	38.44	Pk	18.4	-30.1	26.74	43.52	-16.78	0-360	100	V
4	202.951	37.12	Pk	18.1	-30	25.22	43.52	-18.3	0-360	100	H
10*	881.272	46.19	Pk	28.2	-27	47.39	-	-	0-360	100	V
5*	881.66	41.37	Pk	28.2	-26.8	42.77	-	-	0-360	399	H

Pk - Peak detector

DL – Callbox downlink frequencies

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

Radiated Emissions Graph



Radiated Emissions Data Points

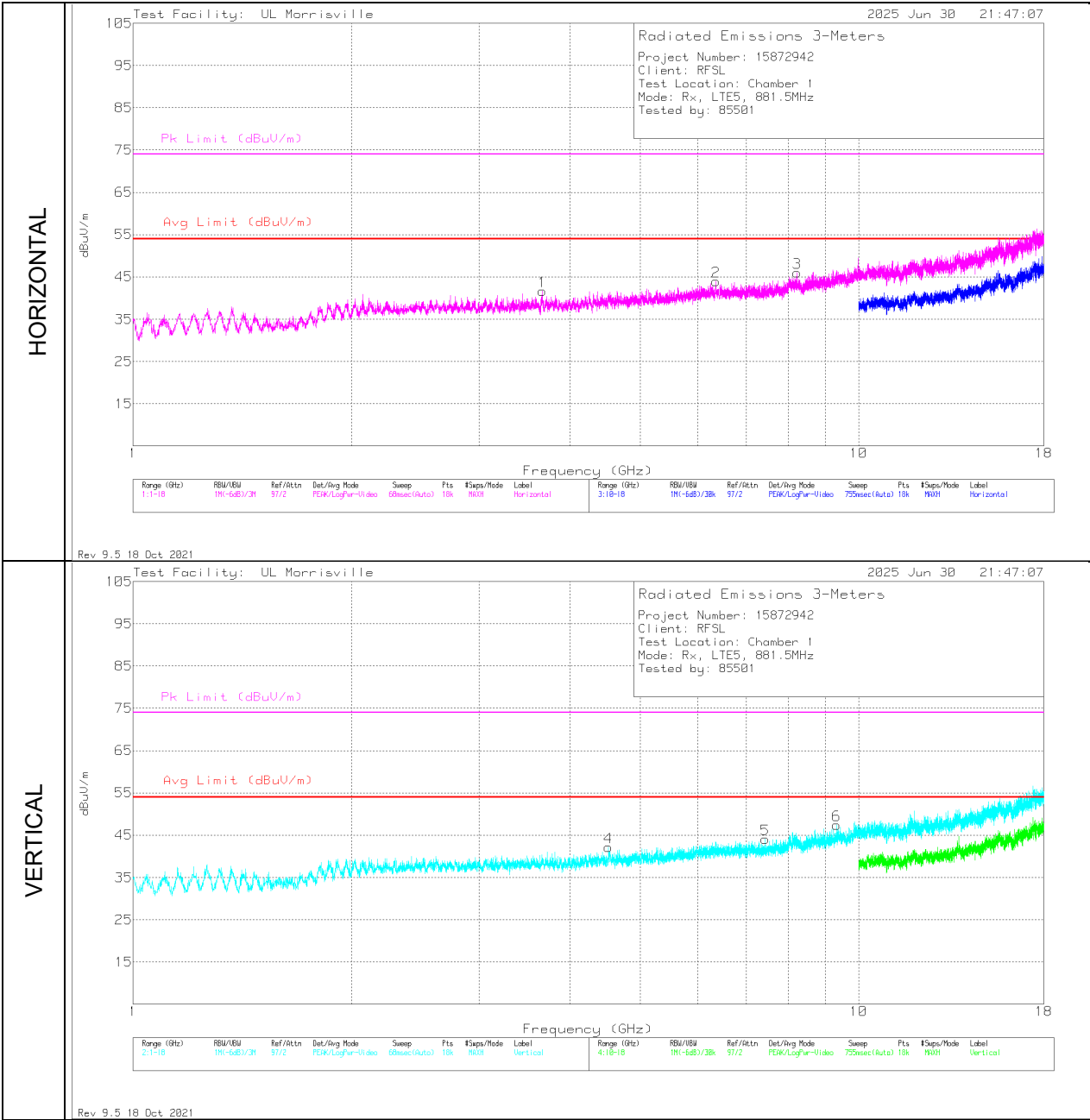
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	90629 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5	37.5437	40.77	Qp	21.6	-31.9	30.47	40	-9.53	345	104	V
1	38.827	33.88	Pk	20.6	-31.6	22.88	40	-17.12	0-360	199	H
6	83.156	49.28	Pk	13.6	-31	31.88	40	-8.12	0-360	100	V
2	83.738	38.67	Pk	13.6	-31.1	21.17	40	-18.83	0-360	199	H
7	158.4765	40.41	Pk	18.4	-30.5	28.31	43.52	-15.21	0-360	100	V
3	211.099	38.95	Pk	16.6	-29.9	25.65	43.52	-17.87	0-360	99	H
4	*884.958	42.91	Pk	28.2	-26.9	44.21	-	-	0-360	399	H
8	*888.547	45.67	Pk	28.2	-27	46.87	-	-	0-360	100	V

Pk - Peak detector

DL – Callbox downlink frequencies

RADIATED EMISSIONS 1000 TO 18,000 MHz – LTE B5 Rx 881.5MHz

Radiated Emissions Graph



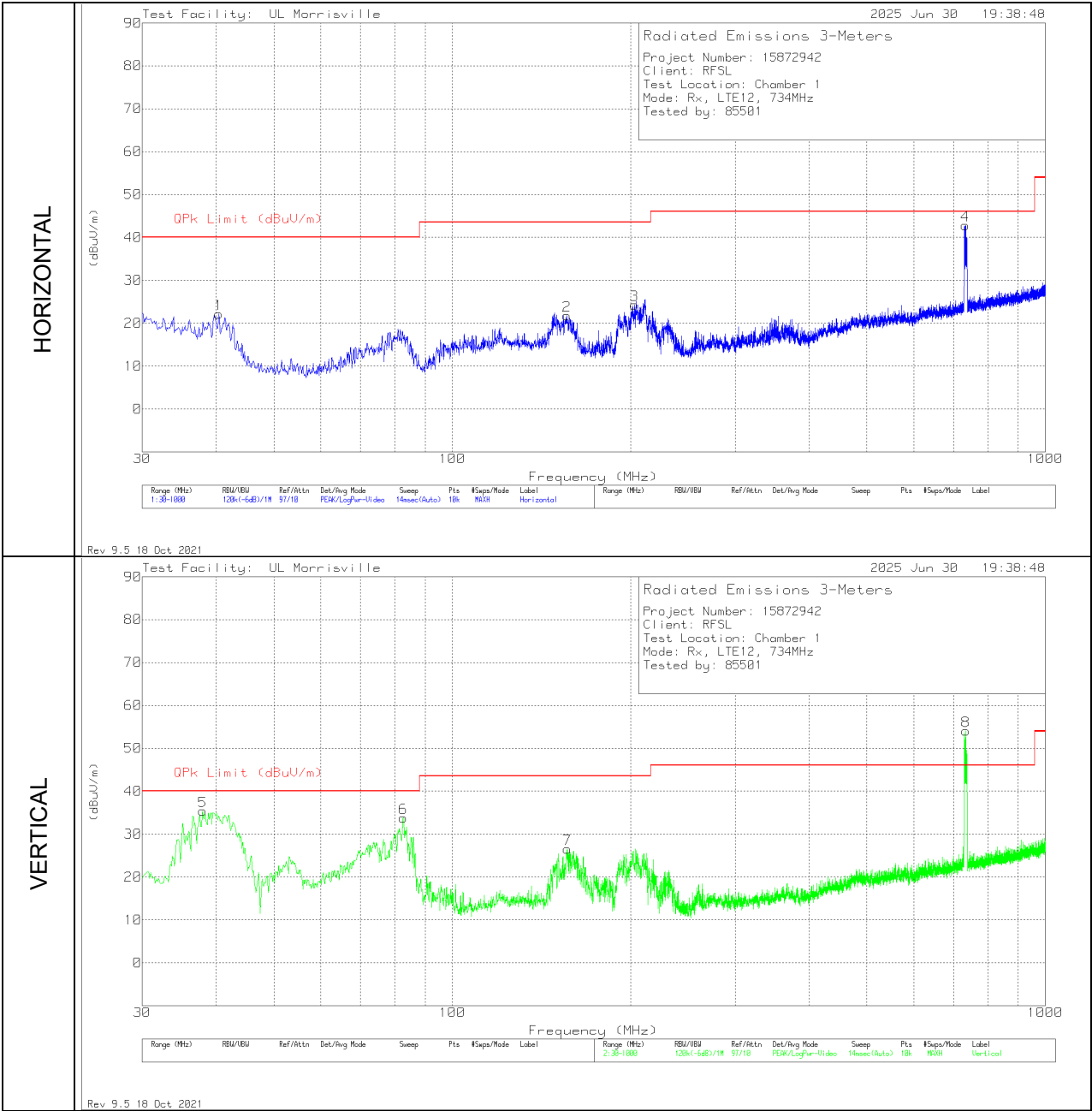
Radiated Emissions Data Points

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	135143 (dB/m)	Gain/Loss (dB)	Corrected Reading dBuV/m	Avg Limit (dBuV/m)	Margin (dB)	Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.66428	52.53	Pk	33.1	-44	41.63	54	-12.37	74	-32.37	0-360	101	H
4	4.52278	54.82	Pk	33.9	-46.5	42.22	54	-11.78	74	-31.78	0-360	101	V
2	6.36444	51.61	Pk	35.6	-43.2	44.01	54	-9.99	74	-29.99	0-360	101	H
5	7.43922	50.44	Pk	35.4	-41.8	44.04	54	-9.96	74	-29.96	0-360	101	V
3	8.22122	51.53	Pk	35.9	-41.4	46.03	54	-7.97	74	-27.97	0-360	101	H
6	9.31866	52.03	Pk	36.2	-40.8	47.43	54	-6.57	74	-26.57	0-360	101	V

Pk - Peak detector

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

Radiated Emissions Graph



Radiated Emissions Data Points

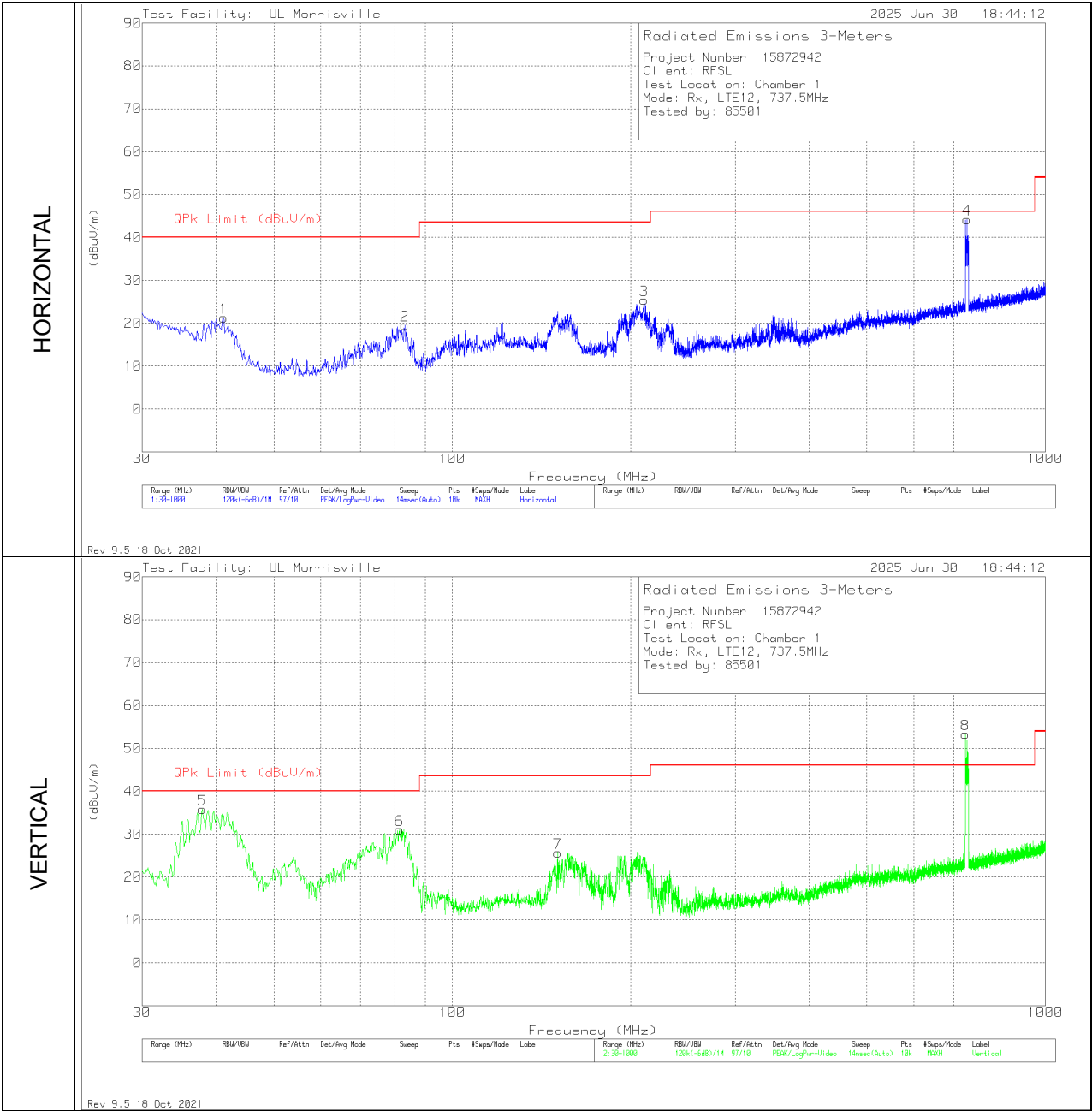
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	90629 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5	37.7828	40.38	Qp	21.4	-31.8	29.98	40	-10.02	294	104	V
1	40.379	34.33	Pk	19.5	-31.7	22.13	40	-17.87	0-360	199	H
6	82.671	51.1	Pk	13.7	-31	33.8	40	-6.2	0-360	100	V
2	156.003	33.65	Pk	18.5	-30.4	21.75	43.52	-21.77	0-360	199	H
7	156.391	38.43	Pk	18.5	-30.4	26.53	43.52	-16.99	0-360	100	V
3	202.854	36.14	Pk	18.2	-30	24.34	43.52	-19.18	0-360	100	H
4	*733.735	43.76	Pk	27	-27.9	42.86	-	-	0-360	299	H
8	*734.511	54.96	Pk	27	-27.9	54.06	-	-	0-360	100	V

Pk - Peak detector

DL – Callbox downlink frequencies

RADIATED EMISSIONS 30 TO 1000 MHz – LTE B12 Rx 737.5MHz

Radiated Emissions Graph



Radiated Emissions Data Points

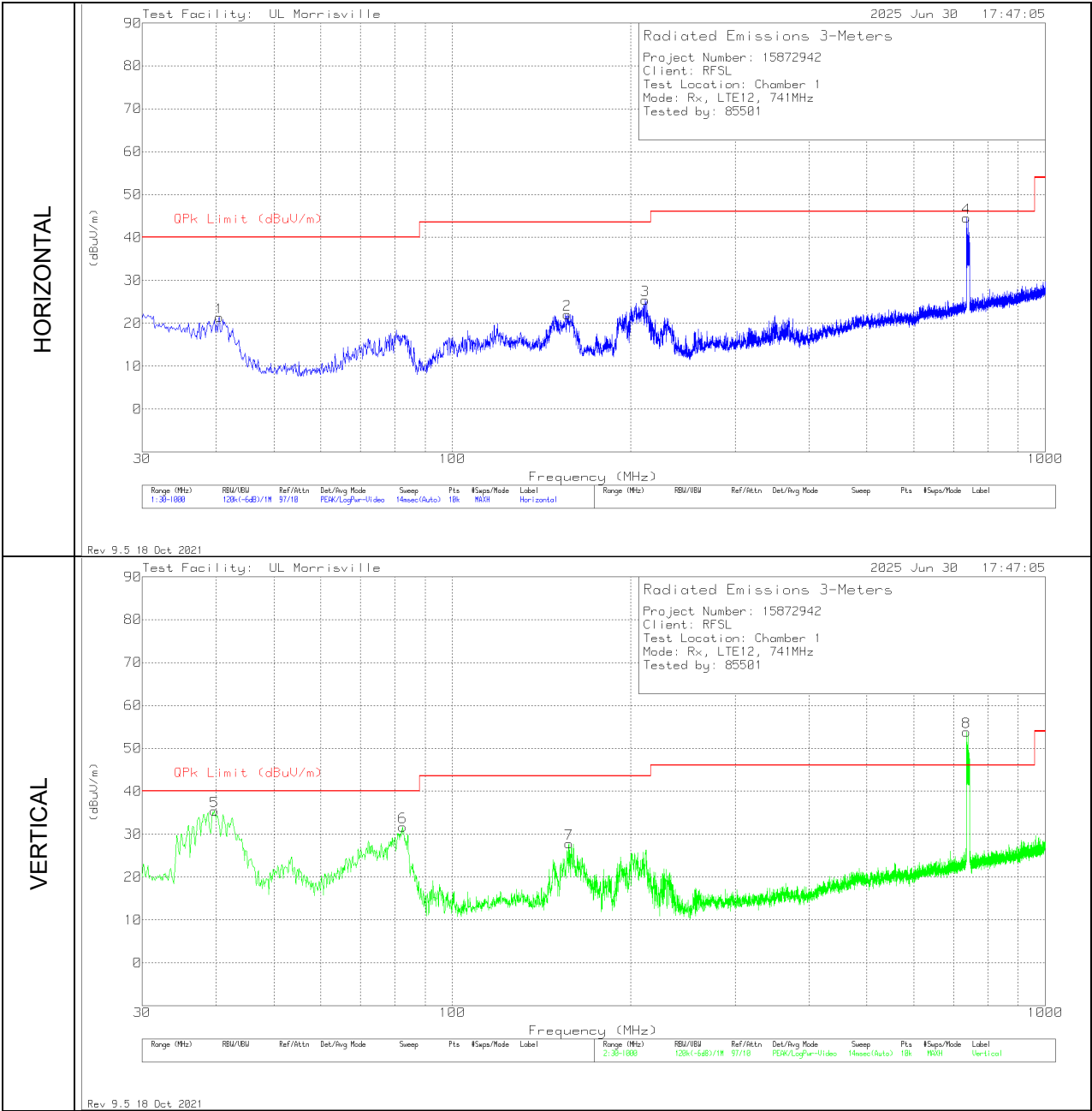
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	90629 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5	37.94	40.17	Qp	21.2	-31.8	29.57	40	-10.43	175	100	V
1	41.155	33.75	Pk	19	-31.5	21.25	40	-18.75	0-360	199	H
6	81.41	48.37	Pk	13.8	-31.1	31.07	40	-8.93	0-360	100	V
2	83.253	36.93	Pk	13.6	-31	19.53	40	-20.47	0-360	299	H
7	150.571	37.6	Pk	18.8	-30.7	25.7	43.52	-17.82	0-360	100	V
3	210.614	38.81	Pk	16.6	-30	25.41	43.52	-18.11	0-360	199	H
8	*733.541	54.1	Pk	27	-27.8	53.3	-	-	0-360	100	V
4	*737.712	45.44	Pk	27	-28.2	44.24	-	-	0-360	299	H

Pk - Peak detector

DL – Callbox downlink frequencies

RADIATED EMISSIONS 30 TO 1000 MHz – LTE B12 Rx 741MHz

Radiated Emissions Graph



Radiated Emissions Data Points

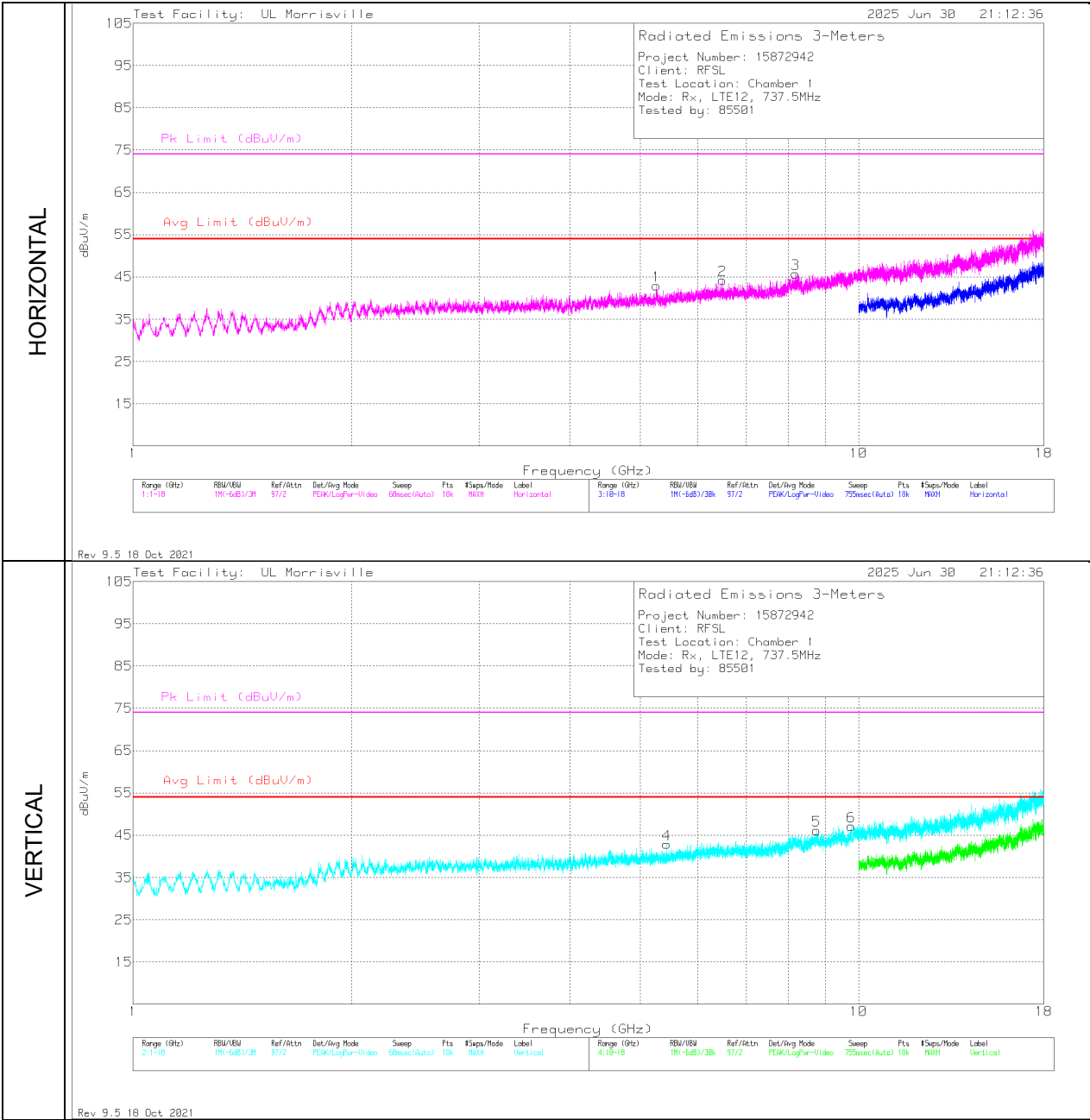
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	90629 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5	39.7273	41.84	Qp	20	-31.6	30.24	40	-9.76	345	110	V
1	40.476	33.56	Pk	19.5	-31.7	21.36	40	-18.64	0-360	199	H
6	82.477	49.03	Pk	13.7	-31.1	31.63	40	-8.37	0-360	100	V
2	156.197	33.89	Pk	18.5	-30.4	21.99	43.52	-21.53	0-360	299	H
7	157.264	40.42	Pk	18.4	-31	27.82	43.52	-15.7	0-360	100	V
3	211.39	38.67	Pk	16.6	-29.9	25.37	43.52	-18.15	0-360	99	H
8	*736.742	54.98	Pk	26.9	-28	53.88	-	-	0-360	100	V
4	*736.839	45.65	Pk	26.9	-28	44.55	-	-	0-360	299	H

Pk - Peak detector

DL – Callbox downlink frequencies

RADIATED EMISSIONS 1000 TO 18,000 MHz – LTE B12 Rx 737.5MHz

Radiated Emissions Graph



Radiated Emissions Data Points

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	135143 (dB/m)	Gain/Loss (dB)	Corrected Reading dBuV/m	Avg Limit (dBuV/m)	Margin (dB)	Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.26416	52.12	Pk	34.3	-43.5	42.92	54	-11.08	74	-31.08	0-360	199	H
4	5.44266	52.27	Pk	34.3	-43.7	42.87	54	-11.13	74	-31.13	0-360	101	V
2	6.48722	51.65	Pk	35.6	-43	44.25	54	-9.75	74	-29.75	0-360	199	H
3	8.191	51.17	Pk	35.9	-41.3	45.77	54	-8.23	74	-28.23	0-360	199	H
5	8.74727	50.94	Pk	35.7	-40.5	46.14	54	-7.86	74	-27.86	0-360	101	V
6	9.77483	50.41	Pk	37.1	-40.4	47.11	54	-6.89	74	-26.89	0-360	101	V

Pk - Peak detector

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 DURHAM, NC 27713, U.S.A	US0067	2180C	825374
☒	Building: 2800 Perimeter Park Dr. Suite B Morrisville, NC 27560, U.S.A		27265	

END OF TEST REPORT