



TEST REPORT

Report Number: R13337971-E7

Applicant : Raspberry Pi (Trading) Ltd
Maurice Wilkes Building
Cowley Road
Cambridge
CB4 0DS
United Kingdom

Model : RPI-RM0 (Gamma)

FCC ID : 2ABCB-RPIRM0

IC : 20953-RPIRM0

EUT Description : Bluetooth and WiFi radio module

Test Standard(s) : FCC 47 CFR PART 15 SUBPART C
ISED RSS-247 ISSUE 2
ISED RSS-GEN ISSUE 5

Date Of Issue:
2020-10-23

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REPORT REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	2020-10-09	Initial Issue	Niklas Haydon
V2	2020-10-23	Added conducted emissions (mains) data	Mike Antola

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Raspberry Pi (Trading) Ltd
Maurice Wilkes Building
Cowley Road
Cambridge
CB4 0DS
United Kingdom

EUT DESCRIPTION: Bluetooth and WiFi radio module

MODEL: RPI-RM0 (Gamma)

SERIAL NUMBER: Non-serialized

SAMPLE RECEIVE DATE: 2020-07-10

DATE TESTED: 2020-09-09 to 2020-10-21

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C	Complies
ISED RSS-247 Issue 2	Complies
ISED RSS-GEN Issue 5	Complies

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.

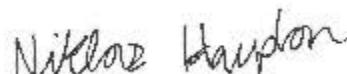
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Approved & Released For
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UL LLC

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Consumer Technology Division
UL LLC

2. TEST RESULTS SUMMARY

FCC Clause	ISED Clause	Requirement	Result	Comment
See Comment		Duty Cycle	Not performed in this report	Refer to UL VS LTD report UL-RPT-RP13337971-1016A.
See Comment	RSS-GEN 6.7	20dB BW/99% OBW		
15.247 (a)(1)	RSS-247 (5.1) (b)	Hopping Frequency Separation		
15.247 (a)(1)(iii)	RSS-247 (5.1) (d)	Number of Hopping Channels		
15.247 (a)(1)(iii)	RSS-247 (5.1) (d)	Average Time of Occupancy		
15.247 (b)(1)	RSS-247 (5.4) (b)	Output Power		
See Comment		Average Power		
15.247 (d)	RSS-247 (5.5)	Conducted Spurious Emissions		
15.209, 15.205	RSS-GEN 8.9, 8.10	Radiated Emissions	Compliant	None.
15.207	RSS-Gen 8.8	AC Mains Conducted Emissions	Compliant	None.

3. 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 v05, KDB 414788 D01 Radiated Test Site v01r01 for < 30MHz testing, RSS-GEN Issue 5, and RSS-247 Issue 2.

4. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 12 Laboratory Drive, Research Triangle Park, North Carolina, USA and 2800 Perimeter Park Dr., Suite B, Morrisville, North Carolina, USA. The following table identifies which facilities were utilized for radiated emission measurements documented in this report. Specific facilities are also identified in the test results sections.

12 Laboratory Dr.	2800 Suite Perimeter Park Dr.
<input type="checkbox"/> Chamber A RTP	<input type="checkbox"/> North Chamber
<input checked="" type="checkbox"/> Chamber C RTP	<input checked="" type="checkbox"/> South Chamber

UL LLC (RTP) is accredited by NVLAP, Laboratory Code 200246-0

5. DECISION RULES AND MEASUREMENT UNCERTAINTY

5.1. 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.

5.2. 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.)

5.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	UNCERTAINTY
Radio Frequency (Spectrum Analyzer)	141.2 Hz
Occupied Channel Bandwidth	1.82%
RF output power, conducted	1.3 dB (PK) 0.45 dB (AV)
Power Spectral Density, conducted	2.47 dB
Unwanted Emissions, conducted	1.94 dB
All emissions, radiated	4.88 dB
Conducted Emissions (0.150-30MHz) - LISN	3.40 dB
Temperature	2.26°C
Humidity	6.79%
DC Supply voltages	1.70%
Time	3.39%

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

5.4. SAMPLE CALCULATION

RADIATED EMISSIONS

Where relevant, the following sample calculation is provided:

Field Strength (dB_{uV/m}) = Measured Voltage (dB_{uV}) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)

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

MAINS CONDUCTED EMISSIONS

Where relevant, the following sample calculation is provided:

Final Voltage (dB_{uV}) = Measured Voltage (dB_{uV}) + Cable Loss (dB) + Limiter Factor (dB) + LISN Insertion Loss.

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

6. EQUIPMENT UNDER TEST

6.1. EUT DESCRIPTION

The EUT is a Bluetooth and WiFi radio module. The PMN and HVIN = Raspberry Pi RM0.

6.2. POWER SETTINGS USED FOR TESTING

The power setting for the testing in this report were set default in the test firmware. Please refer to UL VS LTD report UL-RPT-RP13337971-1016A for measured power.

6.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an integrated antenna with a maximum gain of 3.5dBi.

6.4. SOFTWARE AND FIRMWARE

The EUT hardware during testing was v1.0.

The EUT software during testing was v1.0.

6.5. WORST-CASE CONFIGURATION AND MODE

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, high channels and inner channels where required.

The fundamental of the EUT was investigated with in three orthogonal orientations X,Y,Z, it was determined that Z orientation was worst-case orientation; therefore, all final radiated testing was performed with the antenna in the Z orientation.

Worst-case data rates as declared by the client were:

BT GFSK: 1DH-5

BT 8DPSK: 3DH-5

6.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Description	Manufacturer	Model	Serial Number
AC/DC Adapter	Raspberry Pi	KSA-15E-051300HK	3037350
Raspberry Pi Board	Raspberry Pi	Raspberry Pi 4 Model B	3157590

I/O CABLES

I/O Cable List						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	AC	1	Mains	IEC	< 3M	Feeds AC/DC adapter
2	DC	1	DC plug	2-wire	< 3M	Powers EUT from AC/DC adapter

TEST SETUP

Test software exercised the radio card of the EUT.

SETUP DIAGRAM

Please refer to R13337971-EP1 for setup diagrams.

7. MEASUREMENT METHOD

Bandedge: ANSI C63.10:2013 Sections 7.8.6, 6.10.4 and 6.10.5

General Radiated Emissions: ANSI C63.10:2013 Sections 6.3 – 6.6

On Time and Duty Cycle: ANSI C63.10: 2013 Section 11.6

AC Power Line Conducted Emissions: ANSI C63.10:2013 Sections 6.2

8. TEST AND MEASUREMENT EQUIPMENT

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

Test Equipment Used - Radiated Disturbance Emissions Test Equipment (RTP – Chamber C)

Equip. ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
1-18 GHz					
AT0062	HORN Antenna	ETS-Lindgren	3117	2020-01-30	2021-01-30
Gain-Loss Chains					
C-SAC02	Gain-loss string: 1-18GHz	Various	Various	2020-03-03	2021-03-03
C-SAC02 Path 7	Gain-loss string 1-7GHz	Various	Various	2020-04-03	2021-04-03
Receiver & Software					
SA0018	Spectrum Analyzer	Agilent	PXA (N9030A)	2020-03-02	2021-03-02
SOFTEMI	EMI Software	UL	Version 9.5 (2020-07-07)	NA	NA
Additional Equipment used					
HI0085	Temp/Humid/Pressure Meter	EXTECH	SD700	2020-04-20	2021-04-30

Test Equipment Used - Radiated Disturbance Emissions Test Equipment (Morrisville - South Chamber)

Equip. ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
0.009-30MHz					
AT0079	Active Loop Antenna	ETS-Lindgren	6502	2019-08-08	2020-08-08
	30-1000 MHz				
AT0081	Hybrid Broadband Antenna	Sunol Sciences Corp.	JB3	2019-11-20	2020-11-20
18-40 GHz					
AT0076	Horn Antenna, 18-26.5GHz	ARA	MWH-1826/B	2019-11-07	2020-11-07
Gain-Loss Chains					
S-SAC01	Gain-loss string: 0.009-30MHz	Various	Various	2020-07-10	2021-07-10
S-SAC02	Gain-loss string: 25-1000MHz	Various	Various	2020-07-10	2021-07-10
S-SAC04	Gain-loss string: 18-40GHz	Various	Various	2020-07-07	2021-07-07
Receiver & Software					
SA0025	Spectrum Analyzer	Agilent	N9030A	2020-03-17	2021-03-17
SOFTEMI	EMI Software	UL	Version 9.5 (2020-07-07)	NA	NA
Additional Equipment used					
s/n 200037635	Environmental Meter	Fisher Scientific	06-662-4	2020-01-22	2022-01-22

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	2020-03-26	2021-03-26
HI0091	Environmental Meter	Fisher Scientific	14-650-118	2020-06-26	2021-06-26
LISN003	LISN, 50-ohm/50-uH, 2-conductor, 25A	Fischer Custom Com.	FCC-LISN-50-25-2-01-550V	2020-08-18	2021-08-18
75141	EMI Test Receiver 9kHz-7GHz	Rohde & Schwarz	ESCI 7	2020-08-18	2021-08-18
ATA222	Transient Limiter, 0.009-100MHz	Electro-Metrics	EM-7600	2020-03-26	2021-03-26
PS215	AC Power Source	Elgar	CW2501M (s/n 1523A02397)		
SOFTEMI	EMI Software	UL	Version 9.5 (2020-07-07)		
CDECABLE001	ANSI C63.4 1m extension cable.	UL	Per Annex B of ANSI C63.4	2020-08-08	2021-08-08

NOTES:

1. For equipment listed above that was calibrated during the testing period, please note the equipment was used for testing after calibration.
2. For equipment listed above that has a calibration due date during the testing period, the testing was completed before the equipment expiration date.

9. DUTY CYCLE

LIMITS

None, for reporting purposes only

TEST PROCEDURE

ANSI C63.10 Zero Span Method.

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Voltage Averaging Duty Cycle Correction Factor (dB)	1/B Minimum VBW (kHz)
2.4GHz Band						
BT - GFSK	2.886	3.758	0.768	76.80%	2.29	0.347
BT- 8DPSK	2.896	3.758	0.771	77.06%	2.26	0.345



10. RADIATED TEST RESULTS

LIMITS

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 in the 30-1000MHz range, 9kHz for peak and/or quasi-peak detection measurements in the 0.15-30MHz range and 200Hz for peak and/or quasi-peak detection measurements in the 9 to 150kHz range. 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 1 MHz resolution bandwidth with 1/T video bandwidth with peak detection, for average measurements.

The spectrum from 1 GHz to 18 GHz is investigated with the transmitter set to the low, middle, high channels and inner channels where required 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.

3D antenna use - For below 30MHz testing, investigation was done on three antenna orientations (parallel, perpendicular, and ground-parallel).

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.

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

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

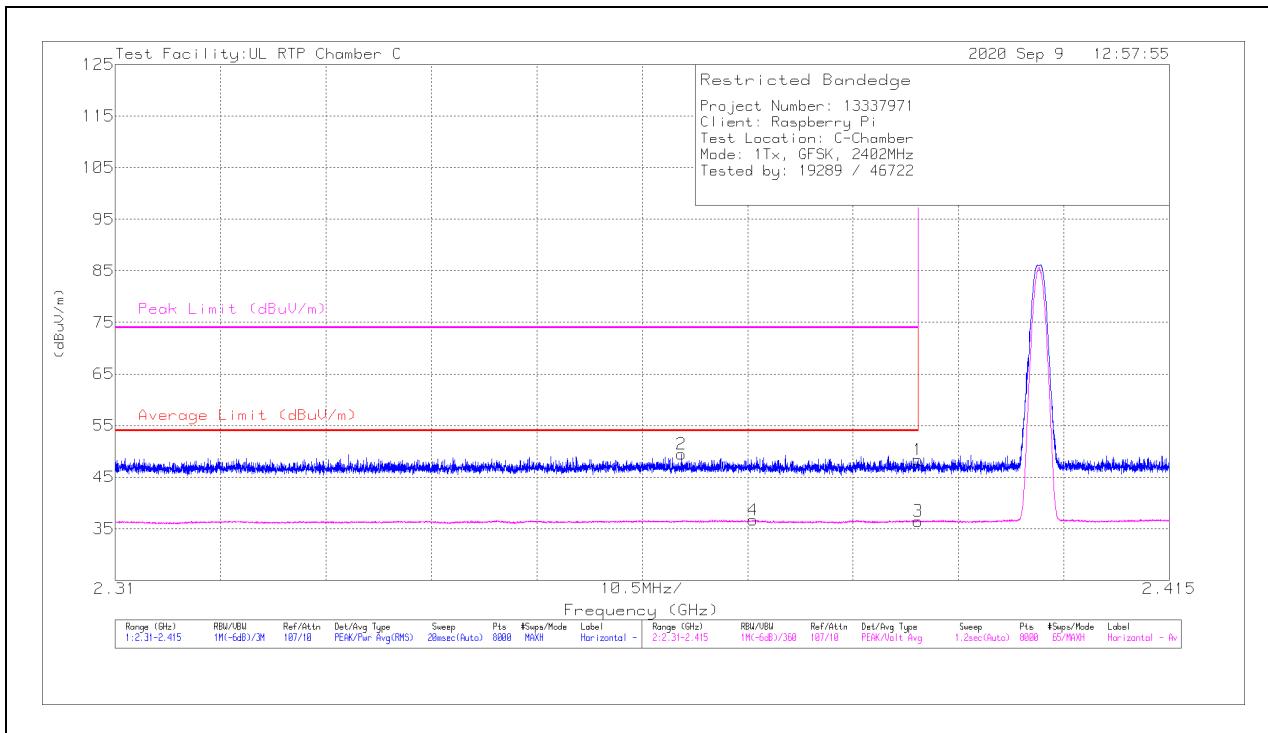
10.1. TRANSMITTER ABOVE 1 GHz

10.1.1. GFSK

1TX Antenna 1 MODE

BANDEDGE (LOW CHANNEL, 2402 MHz)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0062 (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	* ** 2.39	58.56	Pk	32.1	-42.3	48.36	-	-	74	-25.64	323	387	H
2	* ** 2.36638	59.64	Pk	32	-42.2	49.44	-	-	74	-24.56	323	387	H
3	* ** 2.39	46.64	V1TV	32.1	-42.3	36.44	54	-17.56	-	-	323	387	H
4	* ** 2.37355	46.86	V1TV	32	-42.2	36.66	54	-17.34	-	-	323	387	H

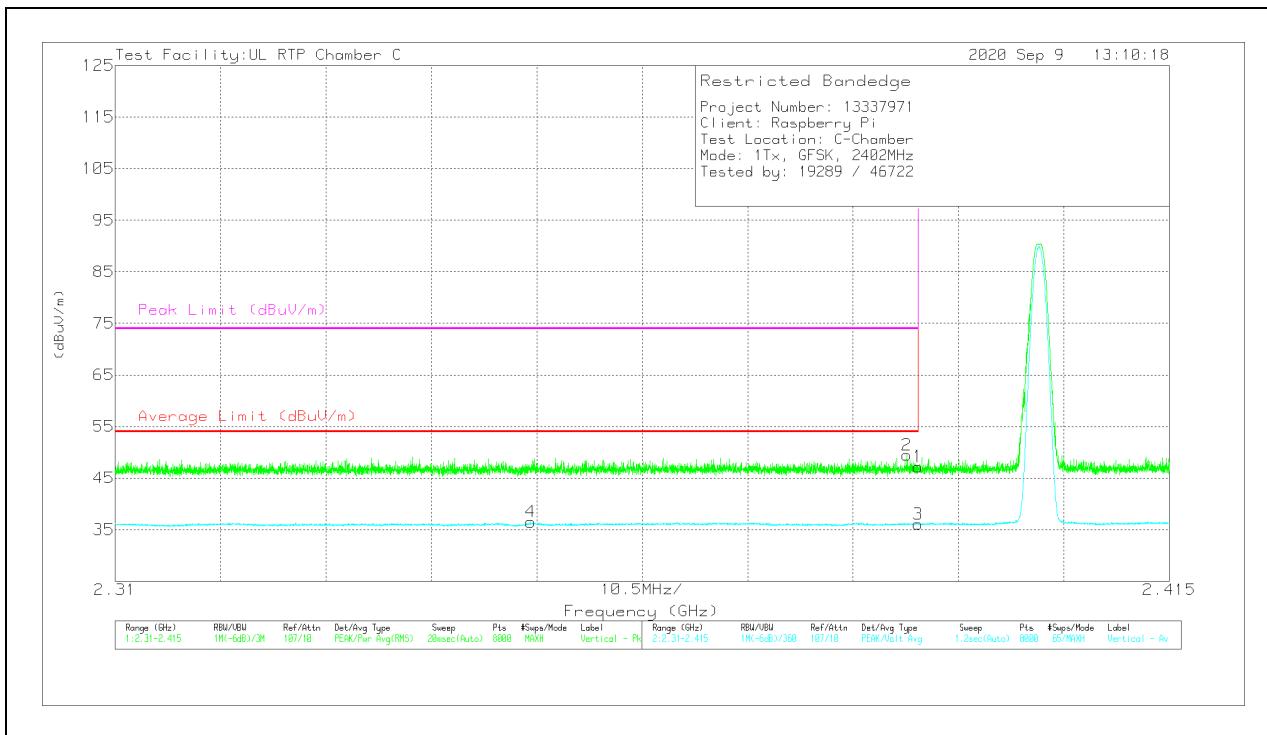
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

V1TV: VB=1/Ton, Linear Voltage Average where: Ton is packet duration

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0062 (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	* *** 2.39	57.4	Pk	32.1	-42.3	47.2	-	-	74	-26.8	257	206	V
2	* *** 2.38887	59.74	Pk	32	-42.3	49.44	-	-	74	-24.56	257	206	V
3	* *** 2.39	46.25	V1TV	32.1	-42.3	36.05	54	-17.95	-	-	257	206	V
4	* *** 2.35138	46.81	V1TV	31.9	-42.2	36.51	54	-17.49	-	-	257	206	V

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

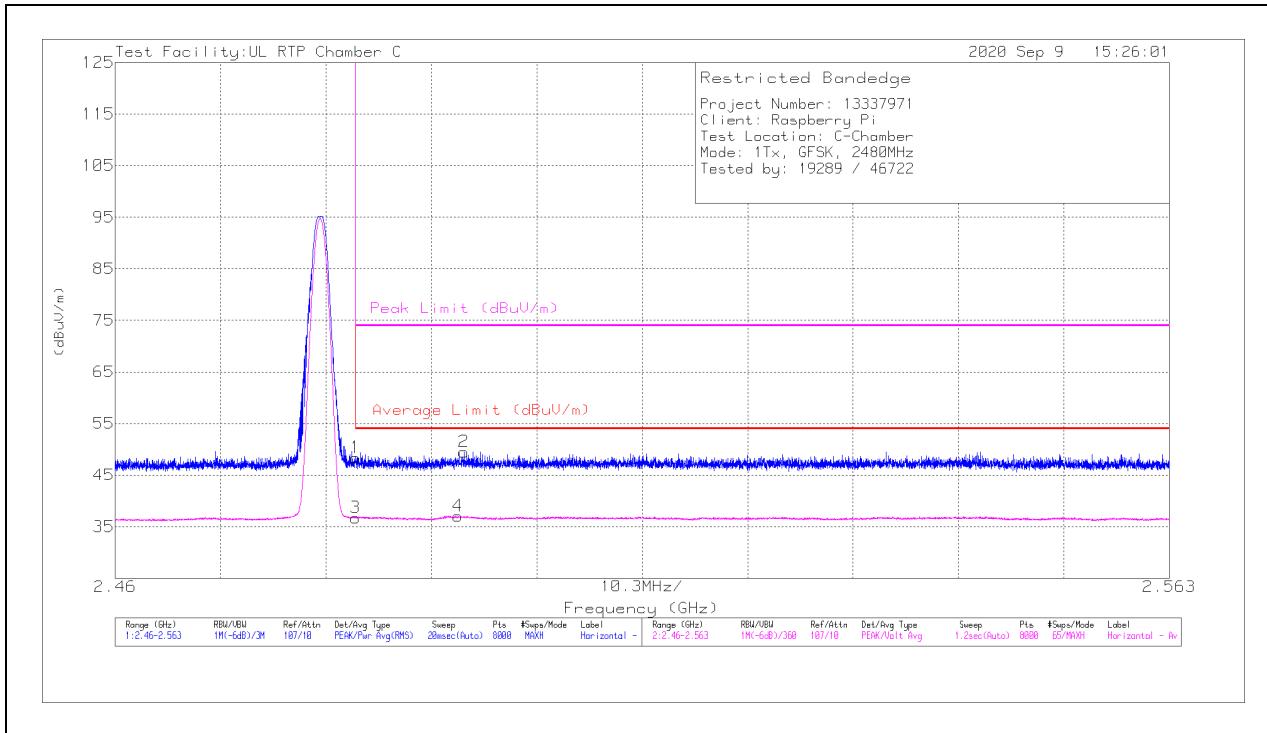
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

V1TV: VB=1/Ton, Linear Voltage Average where: Ton is packet duration

BANDEDGE (HIGH CHANNEL, 2480 MHz)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dB _U)	Det	AT0062 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dB _U /m)	Average Limit (dB _U /m)	Margin (dB)	Peak Limit (dB _U /m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* *** 2.4835	57.8	Pk	32.6	-42	48.4	-	-	74	-25.6	108	213	H
2	* *** 2.49407	58.53	Pk	32.7	-41.7	49.53	-	-	74	-24.47	108	213	H
3	* *** 2.4835	46.14	V1TV	32.6	-42	36.74	54	-17.26	-	-	108	213	H
4	* *** 2.49351	46.05	V1TV	32.7	-41.7	37.05	54	-16.95	-	-	108	213	H

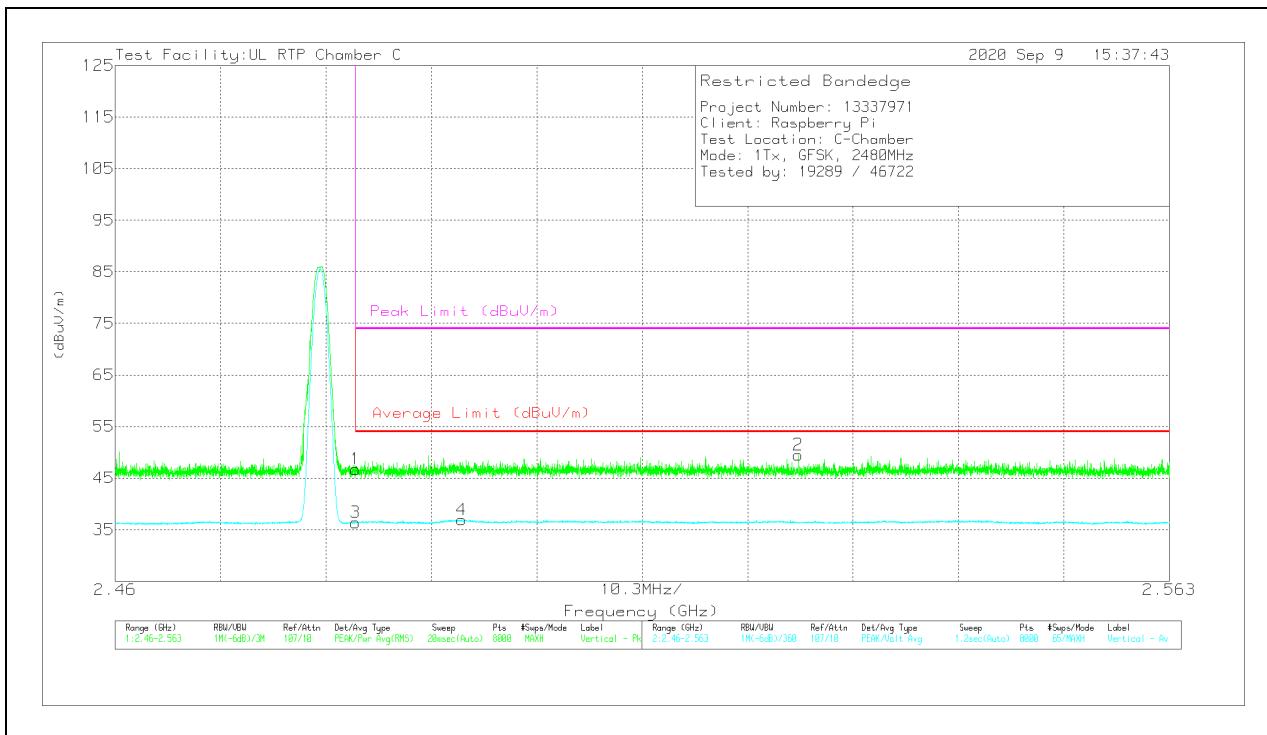
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

V1TV: VB=1/Ton, Linear Voltage Average where: Ton is packet duration

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0062 (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	* *** 2.4835	56.13	Pk	32.6	-42	46.73	-	-	74	-27.27	115	175	V
2	** 2.52673	58.58	Pk	32.6	-41.7	49.48	-	-	74	-24.52	115	175	V
3	* *** 2.4835	45.78	V1TV	32.6	-42	36.38	54	-17.62	-	-	115	175	V
4	* *** 2.49387	45.92	V1TV	32.7	-41.7	36.92	54	-17.08	-	-	115	175	V

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

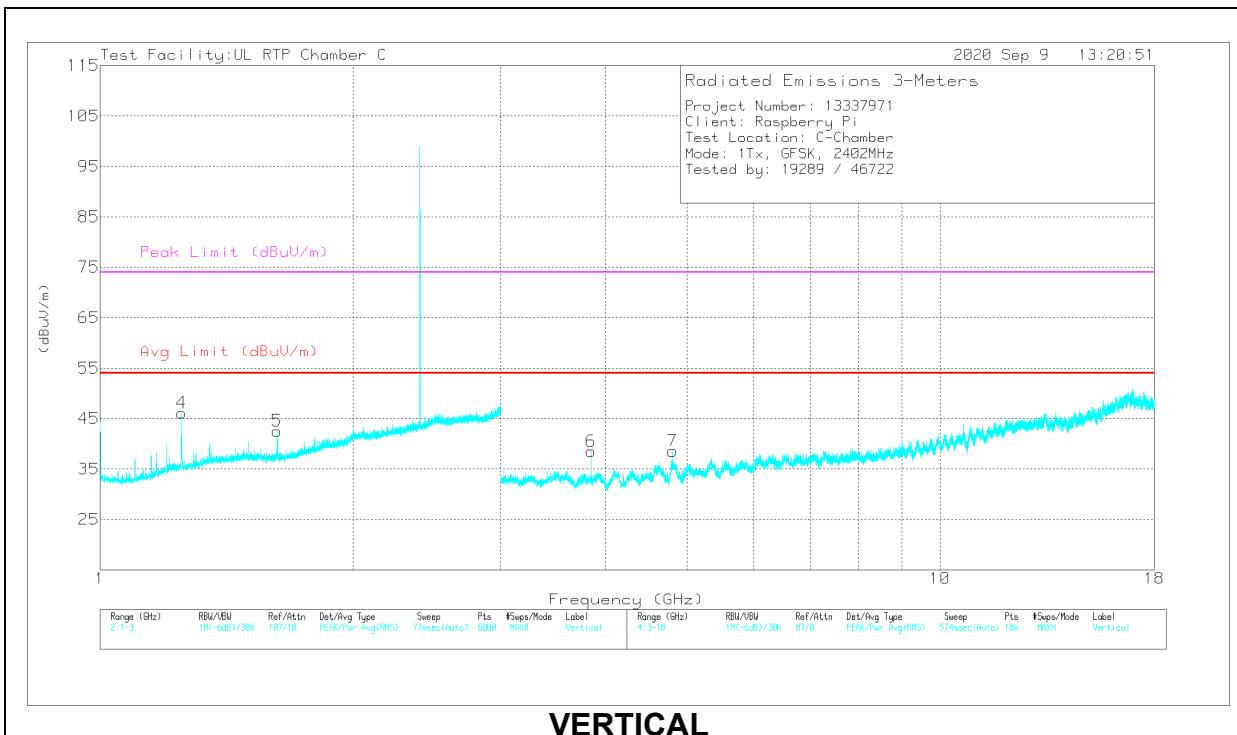
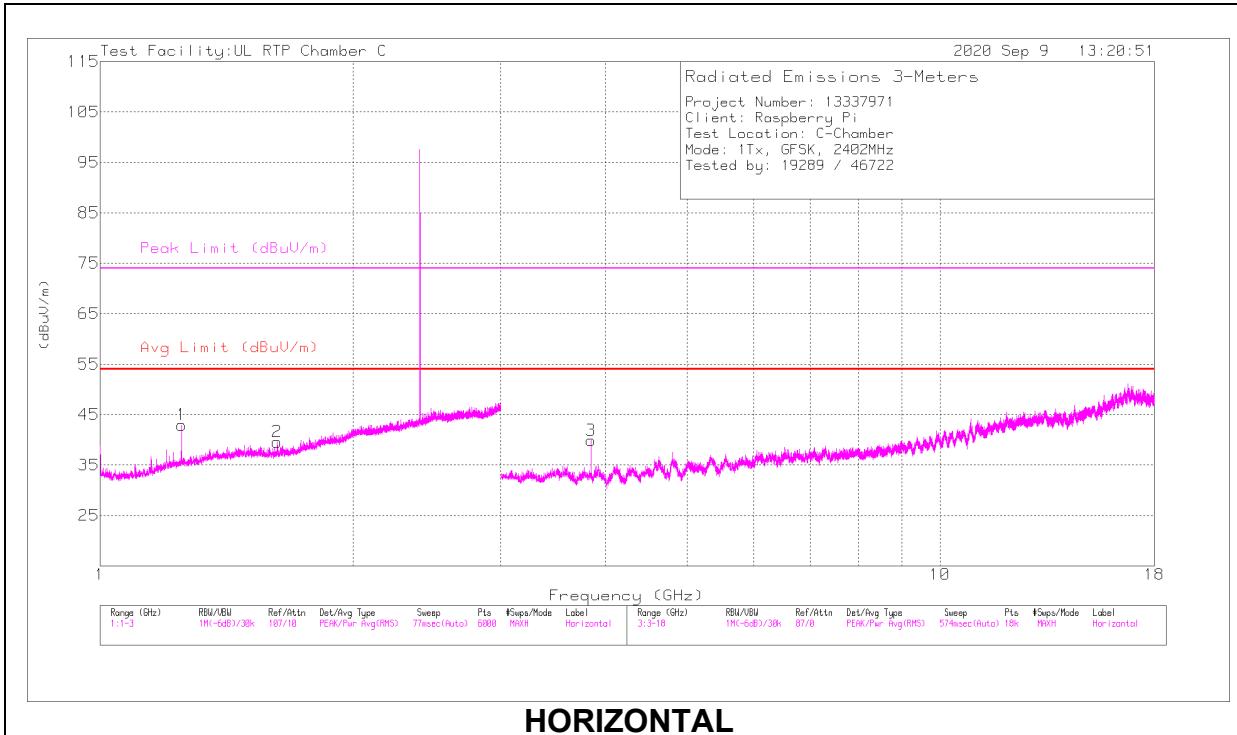
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

V1TV: VB=1/Ton, Linear Voltage Average where: Ton is packet duration

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL, 2402 MHz RESULTS



RADIATED EMISSIONS

Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0062 (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	* 1.25001	39.39	PK2	28.6	-20.4	47.59	-	-	74	-26.41	67	101	H
	* 1.25003	33.37	V1TV	28.6	-20.4	41.57	54	-12.43	-	-	67	101	H
2	* *** 1.62493	36.86	PK2	28.5	-18.8	46.56	-	-	74	-27.44	237	222	H
	* *** 1.62503	26.44	V1TV	28.5	-18.8	36.14	54	-17.86	-	-	237	222	H
4	* 1.24997	41.28	PK2	28.6	-20.4	49.48	-	-	74	-24.52	273	205	V
	* 1.24999	36.48	V1TV	28.6	-20.4	44.68	54	-9.32	-	-	273	205	V
5	* *** 1.62553	38.12	PK2	28.5	-18.9	47.72	-	-	74	-26.28	114	110	V
	* *** 1.62502	29.53	V1TV	28.5	-18.8	39.23	54	-14.77	-	-	114	110	V
3	* *** 3.84311	60.26	PK2	33.5	-49.2	44.56	-	-	74	-29.44	93	101	H
	* *** 3.84319	55.25	V1TV	33.5	-49.2	39.55	54	-14.45	-	-	93	101	H
6	* *** 3.84323	60.01	PK2	33.5	-49.2	44.31	-	-	74	-29.69	146	104	V
	* *** 3.84324	53.45	V1TV	33.5	-49.2	37.75	54	-16.25	-	-	146	104	V
7	* *** 4.80357	57.45	PK2	34.1	-47.7	43.85	-	-	74	-30.15	10	117	V
	* *** 4.80384	44.68	V1TV	34.1	-47.8	30.98	54	-23.02	-	-	10	117	V

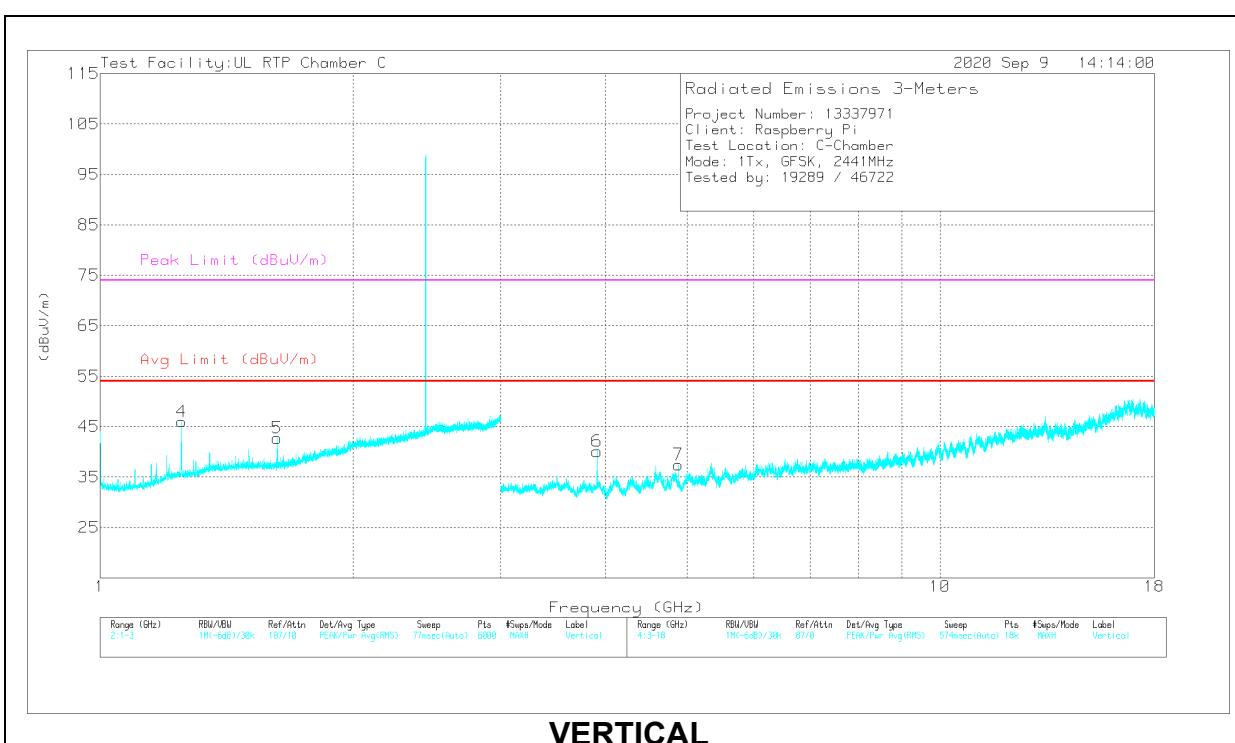
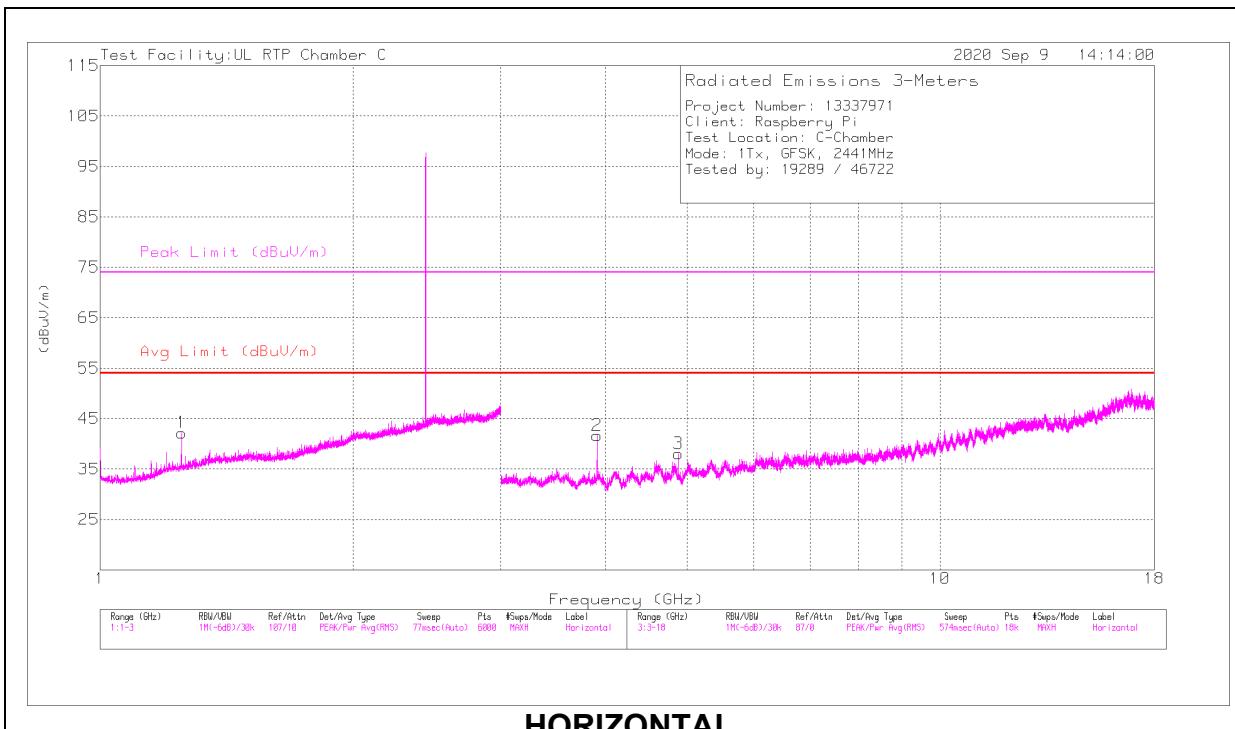
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

PK2: Maximum Peak

V1TV: VB=1/Ton, Linear Voltage Average where: Ton is packet duration

MID CHANNEL, 2440 MHz RESULTS



RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0062 (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	* 1.2499	39.28	PK2	28.6	-20.4	47.48	-	-	74	-26.52	70	116	H
	* 1.25003	32.78	V1TV	28.6	-20.4	40.98	54	-13.02	-	-	70	116	H
4	* 1.24999	41.76	PK2	28.6	-20.4	49.96	-	-	74	-24.04	145	105	V
	* 1.25003	37.1	V1TV	28.6	-20.4	45.3	54	-8.7	-	-	145	105	V
5	* *** 1.62496	38.47	PK2	28.5	-18.8	48.17	-	-	74	-25.83	134	149	V
	* *** 1.62496	30.9	V1TV	28.5	-18.8	40.6	54	-13.4	-	-	134	149	V
2	* *** 3.90554	61.73	PK2	33.5	-49	46.23	-	-	74	-27.77	90	103	H
	* *** 3.90559	56.46	V1TV	33.5	-49	40.96	54	-13.04	-	-	90	103	H
3	* *** 4.88191	57.4	PK2	34	-48.3	43.1	-	-	74	-30.9	167	103	H
	* *** 4.88204	47.28	V1TV	34	-48.3	32.98	54	-21.02	-	-	167	103	H
6	* *** 3.90569	61.06	PK2	33.5	-49	45.56	-	-	74	-28.44	167	101	V
	* *** 3.90561	55.09	V1TV	33.5	-49	39.59	54	-14.41	-	-	167	101	V
7	* *** 4.88176	57.42	PK2	34	-48.3	43.12	-	-	74	-30.88	57	101	V
	* *** 4.88197	48.55	V1TV	34	-48.3	34.25	54	-19.75	-	-	57	101	V

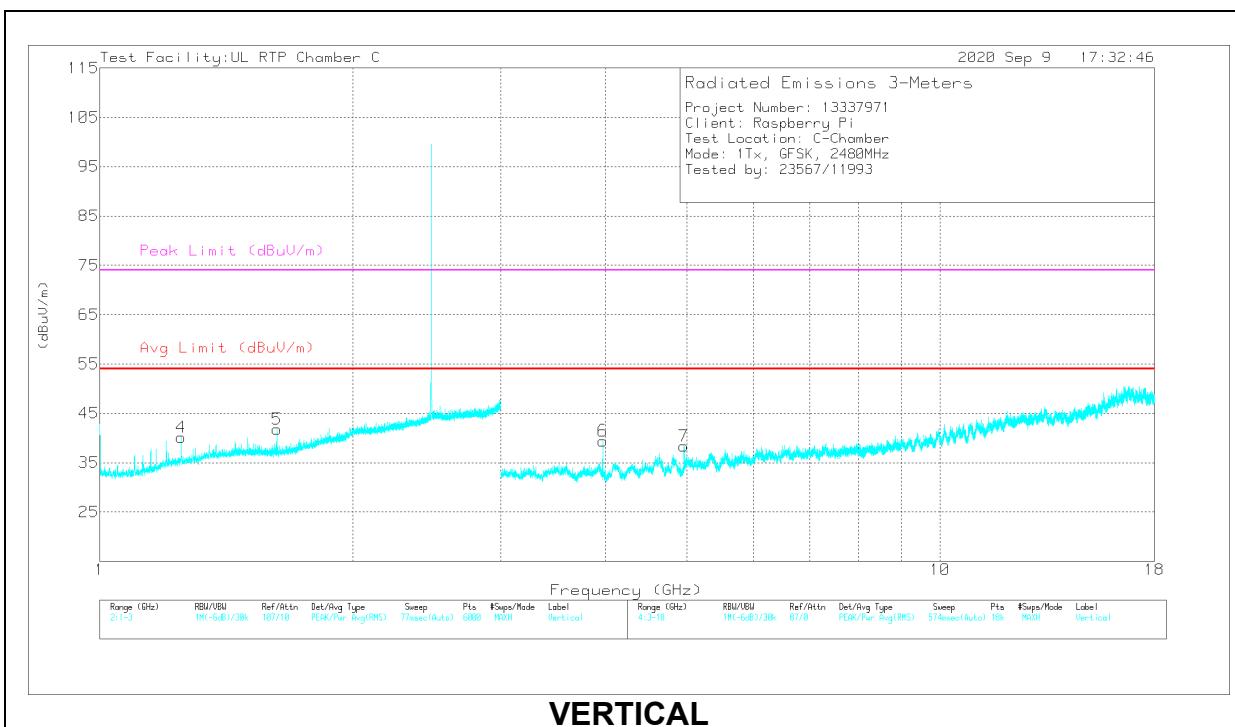
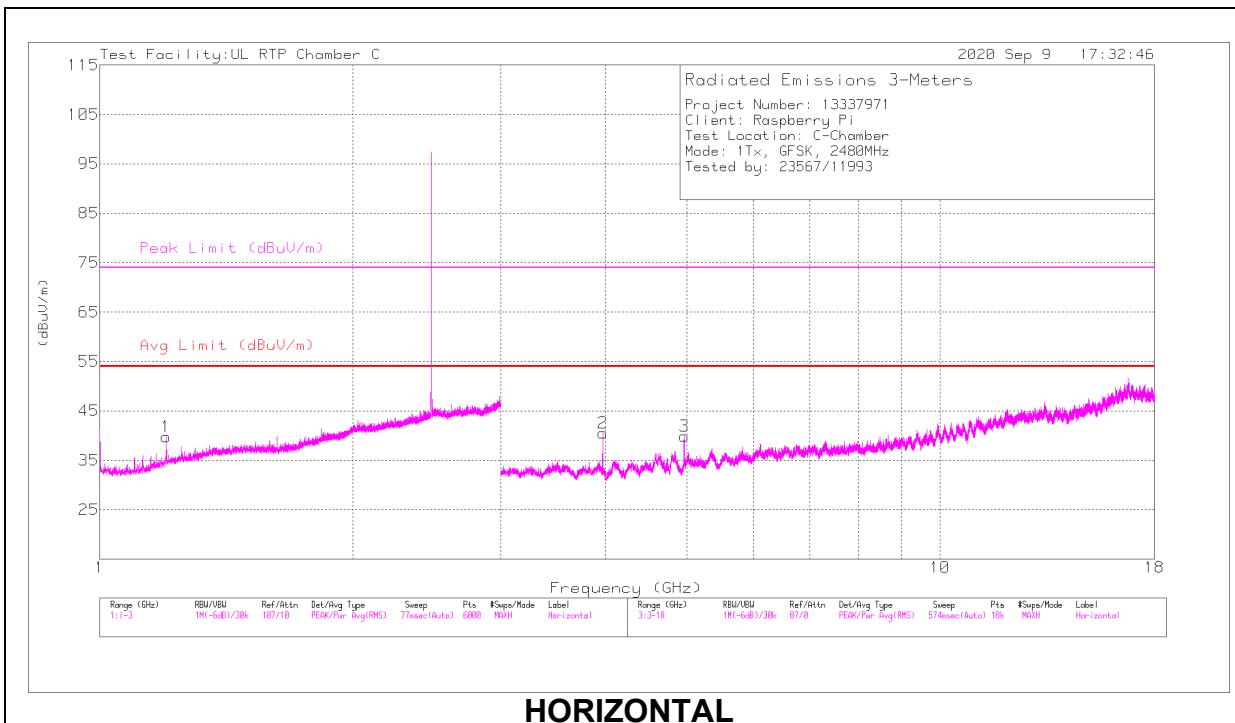
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

PK2 Maximum Peak

V1TV: VB=1/Ton, Linear Voltage Average where: Ton is packet duration

HIGH CHANNEL, 2480 MHz RESULTS



RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0062 (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	* *** 1.20012	37.38	PK2	28.1	-20.5	44.98	-	-	74	-29.02	240	184	H
	* *** 1.20009	29.23	V1TV	28.1	-20.5	36.83	54	-17.17	-	-	240	184	H
4	* 1.2499	36.91	PK2	28.6	-20.4	45.11	-	-	74	-28.89	140	145	V
	* 1.25005	29.39	V1TV	28.6	-20.4	37.59	54	-16.41	-	-	140	145	V
5	* *** 1.62488	36.96	PK2	28.5	-18.8	46.66	-	-	74	-27.34	125	109	V
	* *** 1.62488	30.17	V1TV	28.5	-18.8	39.87	54	-14.13	-	-	125	109	V
2	* *** 3.9681	60.34	PK2	33.5	-48.3	45.54	-	-	74	-28.46	89	101	H
	* *** 3.96803	54.68	V1TV	33.5	-48.3	39.88	54	-14.12	-	-	89	101	H
3	* *** 4.9603	58.99	PK2	34	-47.4	45.59	-	-	74	-28.41	103	252	H
	* *** 4.96003	50.91	V1TV	34	-47.4	37.51	54	-16.49	-	-	103	252	H
6	* *** 3.96784	59	PK2	33.5	-48.2	44.3	-	-	74	-29.7	192	101	V
	* *** 3.96801	52.72	V1TV	33.5	-48.3	37.92	54	-16.08	-	-	192	101	V
7	* *** 4.9605	57.92	PK2	34	-47.5	44.42	-	-	74	-29.58	59	101	V
	* *** 4.96001	49.75	V1TV	34	-47.4	36.35	54	-17.65	-	-	59	101	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

PK2: Maximum Peak

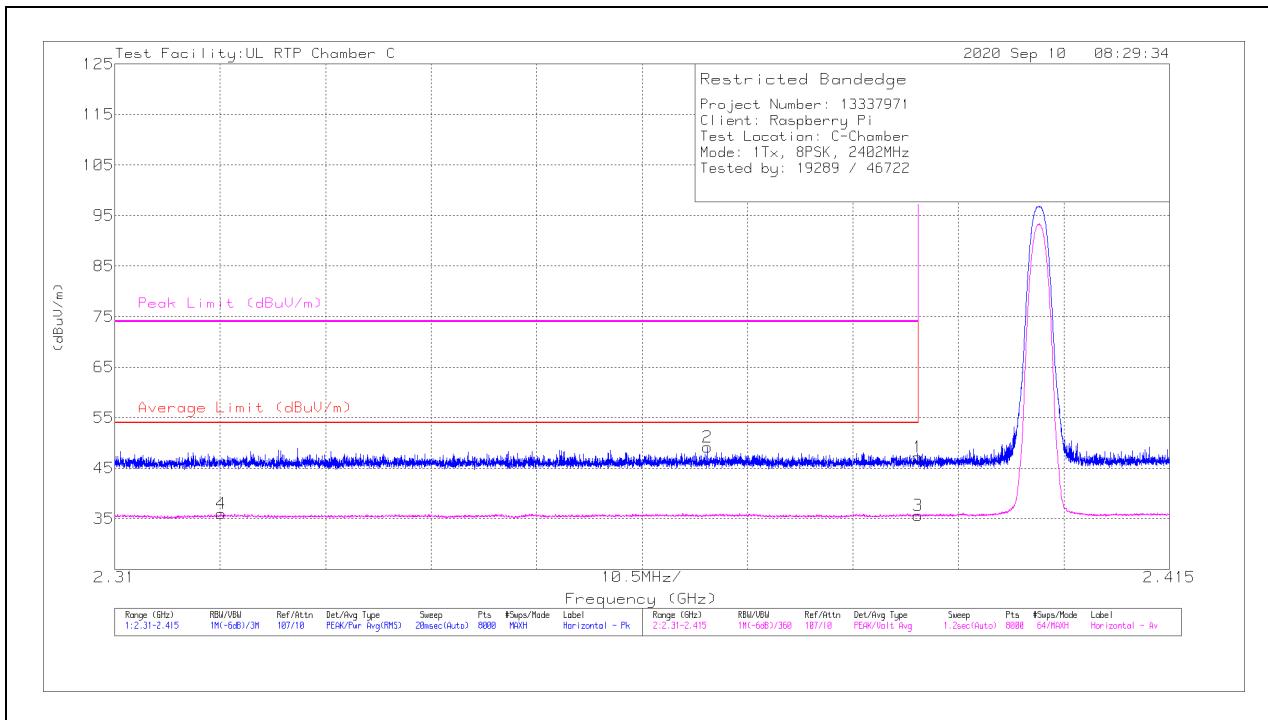
V1TV: VB=1/Ton, Linear Voltage Average where: Ton is packet duration

10.1.2. 8DPSK

1TX Antenna 1 MODE

BANDEDGE (LOW CHANNEL, 2402 MHz)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0062 (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	* *** 2.39	57.38	Pk	32.1	-42.3	47.18	-	-	74	-26.82	80	173	H
2	* *** 2.36902	59.38	Pk	32	-42.2	49.18	-	-	74	-24.82	80	173	H
3	* *** 2.39	45.88	V1TV	32.1	-42.3	35.68	54	-18.32	-	-	80	173	H
4	* *** 2.32058	46.41	V1TV	31.9	-42.3	36.01	54	-17.99	-	-	80	173	H

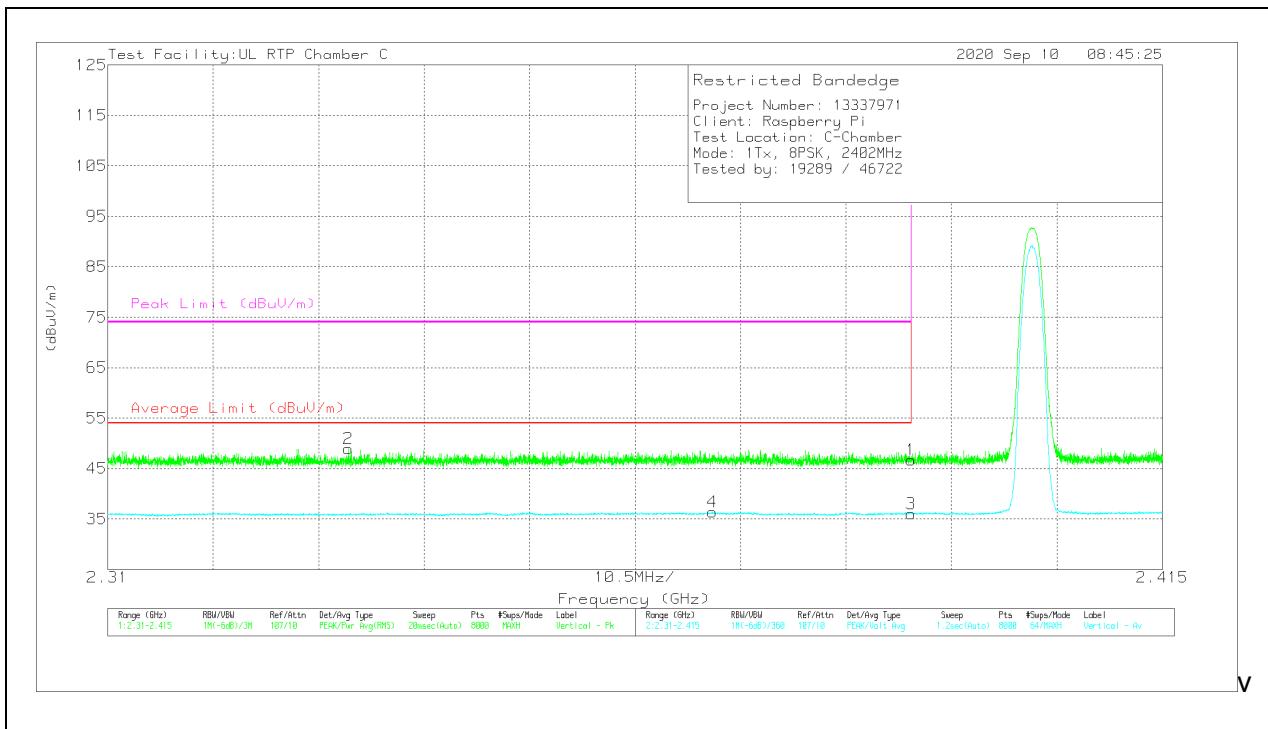
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

V1TV: VB=1/Ton, Linear Voltage Average where: Ton is packet duration

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0062 (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	* *** 2.39	56.9	Pk	32.1	-42.3	46.7	-	-	74	-27.3	232	324	V
2	* *** 2.33394	59.34	Pk	31.9	-42.3	48.94	-	-	74	-25.06	232	324	V
3	* *** 2.39	46.23	V1TV	32.1	-42.3	36.03	54	-17.97	-	-	232	324	V
4	* *** 2.3702	46.44	V1TV	32	-42.1	36.34	54	-17.66	-	-	232	324	V

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

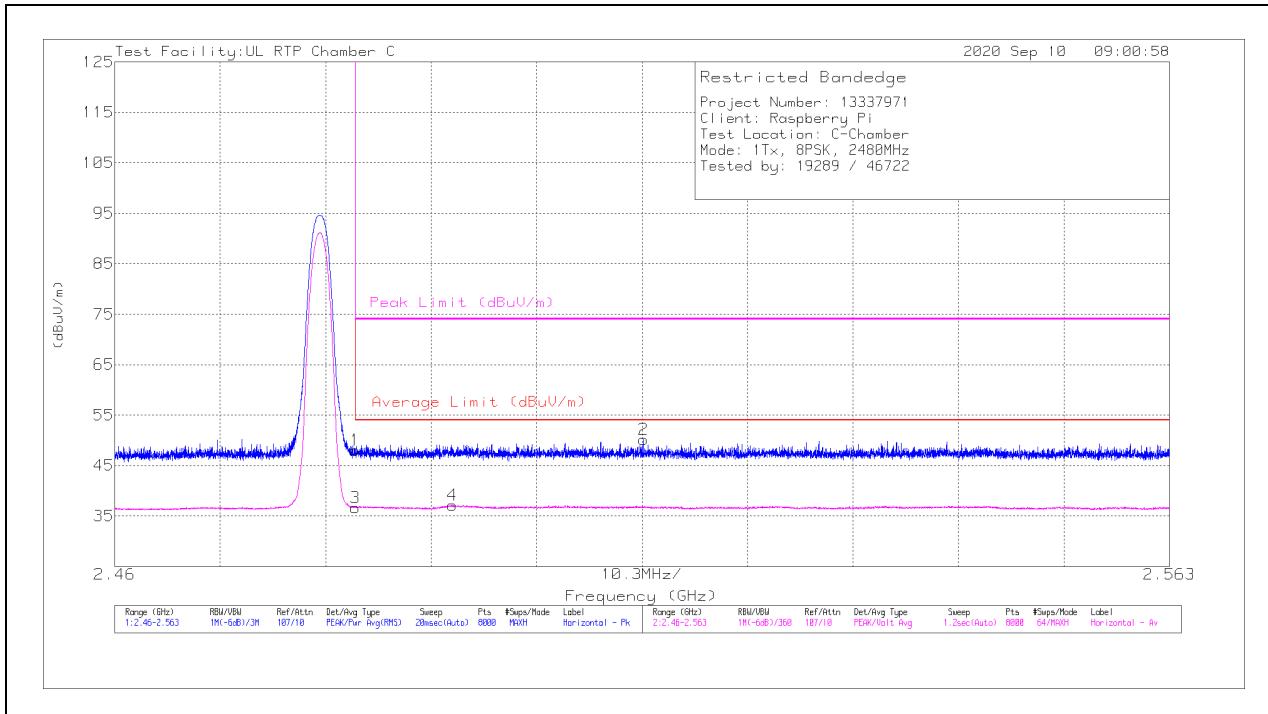
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

V1TV: VB=1/Ton, Linear Voltage Average where: Ton is packet duration

BANDEDGE (HIGH CHANNEL, 2480 MHz)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0062 (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	* *** 2.4835	57.4	Pk	32.6	-42	48	-	-	74	-26	134	287	H
2	** 2.51165	59.13	Pk	32.7	-41.7	50.13	-	-	74	-23.87	134	287	H
3	* *** 2.4835	46.03	V1TV	32.6	-42	36.63	54	-17.37	-	-	134	287	H
4	* *** 2.49297	46.11	V1TV	32.7	-41.7	37.11	54	-16.89	-	-	134	287	H

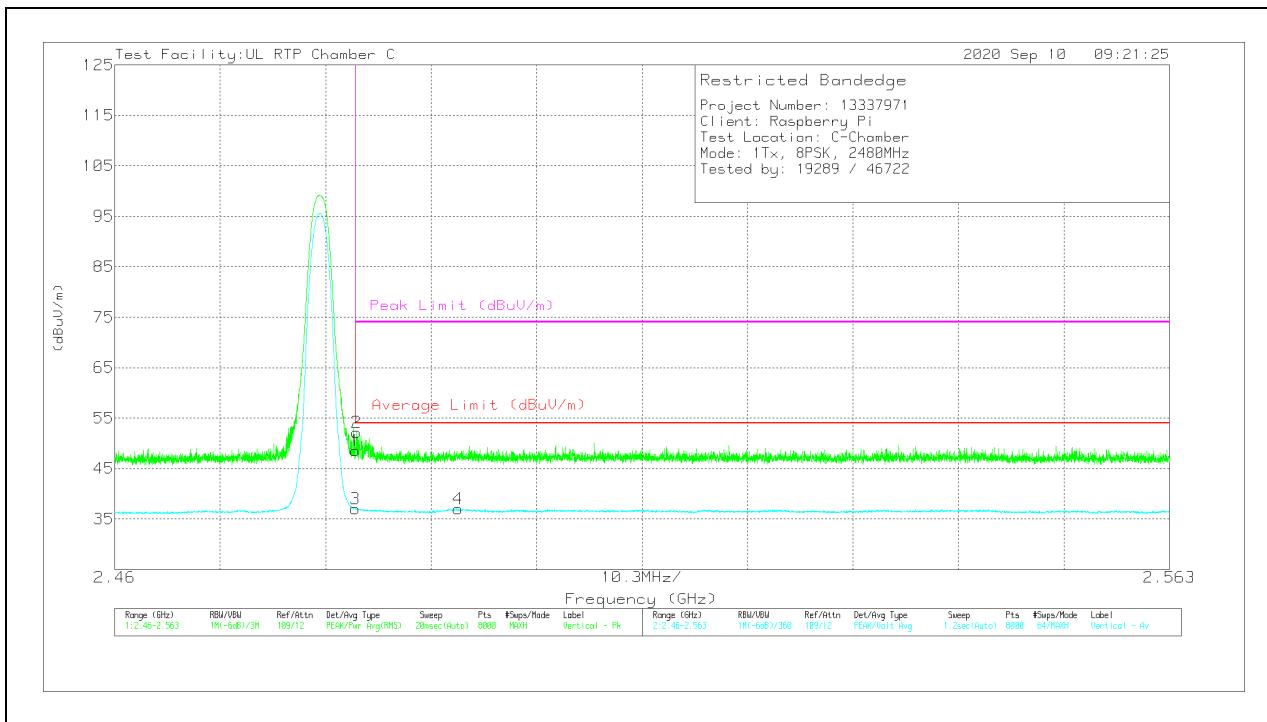
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

V1TV: VB=1/Ton, Linear Voltage Average where: Ton is packet duration

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0062 (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	* *** 2.4835	57.9	Pk	32.6	-42	48.5	-	-	74	-25.5	219	126	V
2	* *** 2.48363	61.54	Pk	32.6	-42	52.14	-	-	74	-21.86	219	126	V
3	* *** 2.4835	46.45	V1TV	32.6	-42	37.05	54	-16.95	-	-	219	126	V
4	* *** 2.49352	46.05	V1TV	32.7	-41.7	37.05	54	-16.95	-	-	219	126	V

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

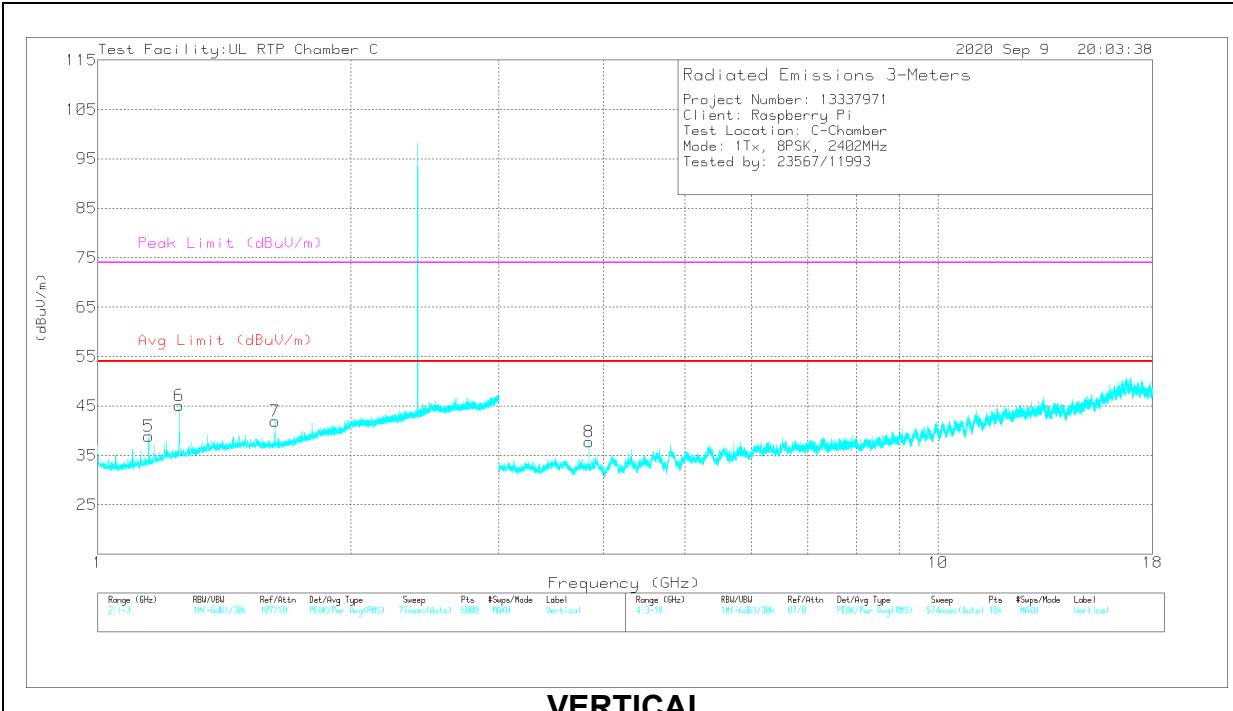
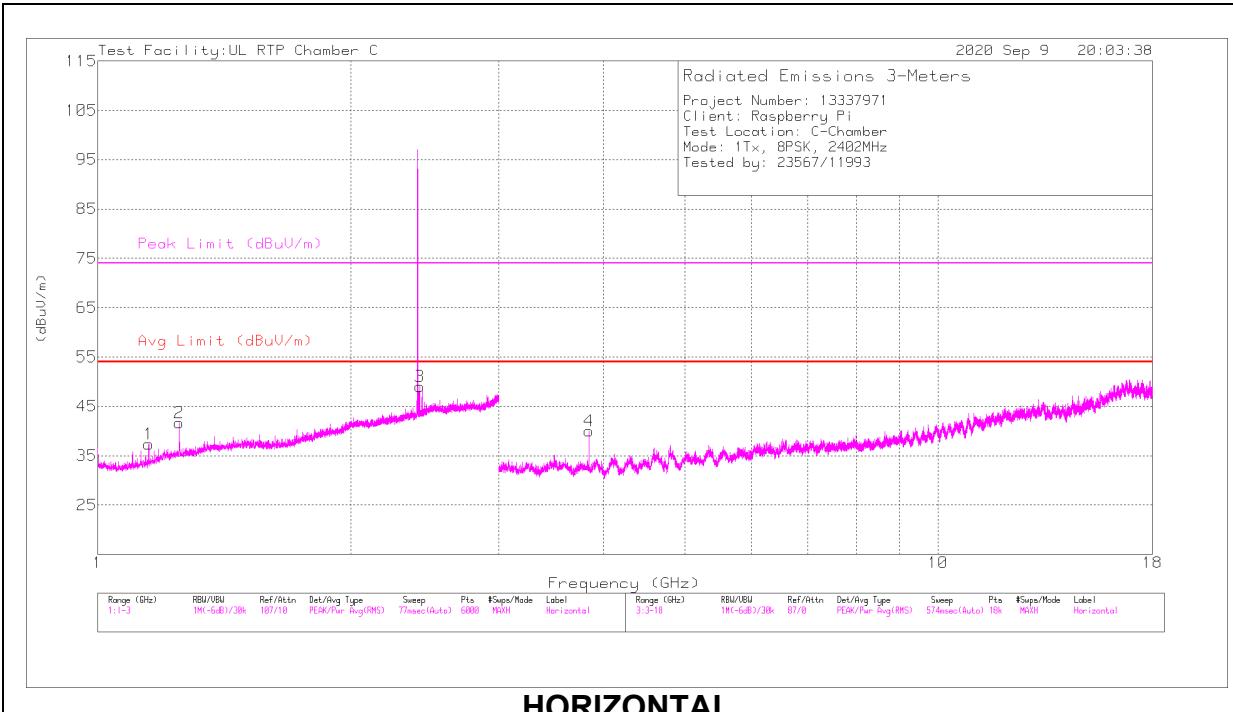
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

V1TV: VB=1/Ton, Linear Voltage Average where: Ton is packet duration

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL, 2402 MHz RESULTS



RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0062 (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	* *** 1.15007	36.98	PK2	27.4	-20.7	43.68	-	-	74	-30.32	234	262	H
	* *** 1.15001	28.74	V1TV	27.4	-20.7	35.44	54	-18.56	-	-	234	262	H
2	* 1.25012	38.35	PK2	28.6	-20.4	46.55	-	-	74	-27.45	234	238	H
	* 1.25003	31.56	V1TV	28.6	-20.4	39.76	54	-14.24	-	-	234	238	H
5	* *** 1.15036	36.31	PK2	27.4	-20.7	43.01	-	-	74	-30.99	326	106	V
	* *** 1.14999	27.83	V1TV	27.4	-20.7	34.53	54	-19.47	-	-	326	106	V
6	* 1.25012	37.76	PK2	28.6	-20.4	45.96	-	-	74	-28.04	319	260	V
	* 1.25003	30.63	V1TV	28.6	-20.4	38.83	54	-15.17	-	-	319	260	V
7	* *** 1.62491	38.56	PK2	28.5	-18.8	48.26	-	-	74	-25.74	128	101	V
	* *** 1.625	30.62	V1TV	28.5	-18.8	40.32	54	-13.68	-	-	128	101	V
4	* *** 3.84314	60.32	PK2	33.5	-49.2	44.62	-	-	74	-29.38	84	104	H
	* *** 3.8432	54.82	V1TV	33.5	-49.2	39.12	54	-14.88	-	-	84	104	H
8	* *** 3.84333	57.95	PK2	33.5	-49.1	42.35	-	-	74	-31.65	205	101	V
	* *** 3.84318	52.27	V1TV	33.5	-49.2	36.57	54	-17.43	-	-	205	101	V
3	2.41557	35.14	Pk	32.1	-18.2	49.04	-	-	-	-	0-360	200	H

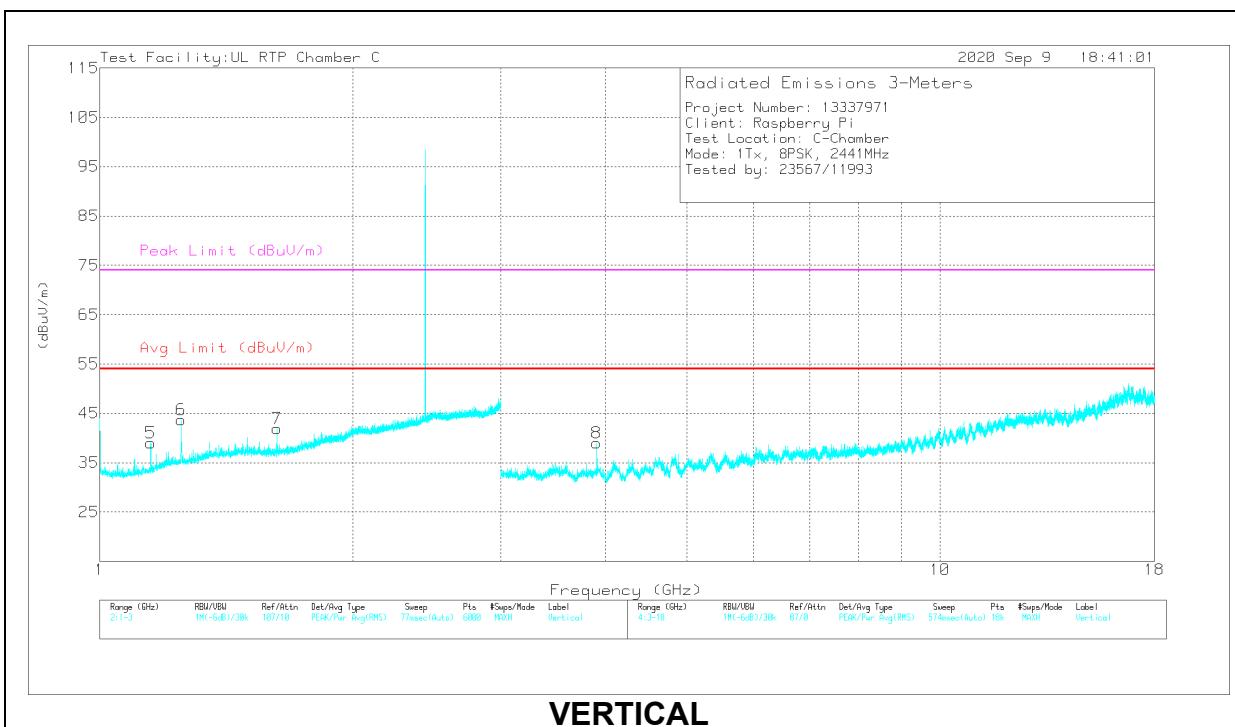
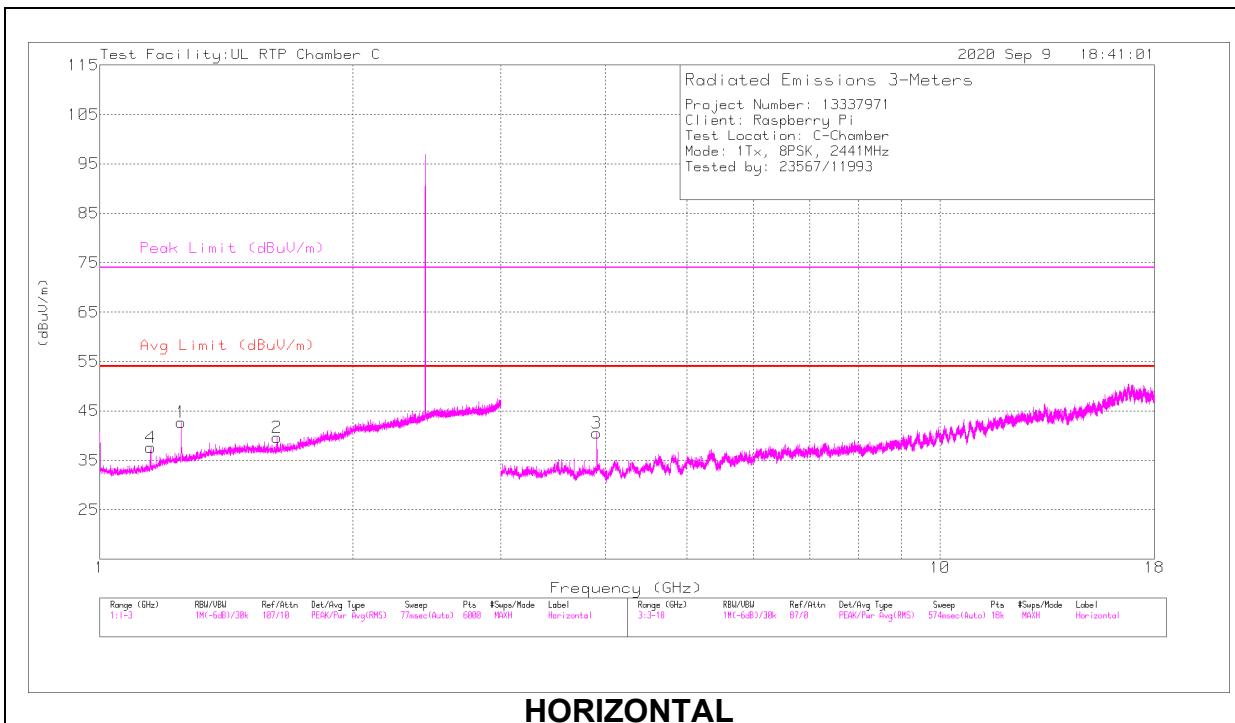
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

PK2: Maximum Peak

V1TV: VB=1/Ton, Linear Voltage Average where: Ton is packet duration

MID CHANNEL, 2441 MHz RESULTS



RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0062 (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	* 1.25021	38.33	PK2	28.6	-20.4	46.53	-	-	74	-27.47	71	103	H
	* 1.25004	31.78	V1TV	28.6	-20.4	39.98	54	-14.02	-	-	71	103	H
2	* *** 1.62525	36.38	PK2	28.5	-18.9	45.98	-	-	74	-28.02	227	256	H
	* *** 1.62525	26.44	V1TV	28.5	-18.9	36.04	54	-17.96	-	-	227	256	H
4	* *** 1.15029	36.46	PK2	27.4	-20.7	43.16	-	-	74	-30.84	239	231	H
	* *** 1.15011	28.87	V1TV	27.4	-20.7	35.57	54	-18.43	-	-	239	231	H
5	* *** 1.15003	37.44	PK2	27.4	-20.7	44.14	-	-	74	-29.86	316	201	V
	* *** 1.15002	30.34	V1TV	27.4	-20.7	37.04	54	-16.96	-	-	316	201	V
6	* 1.25023	40.78	PK2	28.6	-20.4	48.98	-	-	74	-25.02	140	101	V
	* 1.25003	36	V1TV	28.6	-20.4	44.2	54	-9.8	-	-	140	101	V
7	* *** 1.62525	37.42	PK2	28.5	-18.9	47.02	-	-	74	-26.98	128	110	V
	* *** 1.62525	30.02	V1TV	28.5	-18.9	39.62	54	-14.38	-	-	128	110	V
3	* *** 3.90553	62.02	PK2	33.5	-49	46.52	-	-	74	-27.48	89	101	H
	* *** 3.90562	56.67	V1TV	33.5	-49	41.17	54	-12.83	-	-	89	101	H
8	* *** 3.9055	61.12	PK2	33.5	-49	45.62	-	-	74	-28.38	147	332	V
	* *** 3.90563	54.75	V1TV	33.5	-49	39.25	54	-14.75	-	-	147	332	V

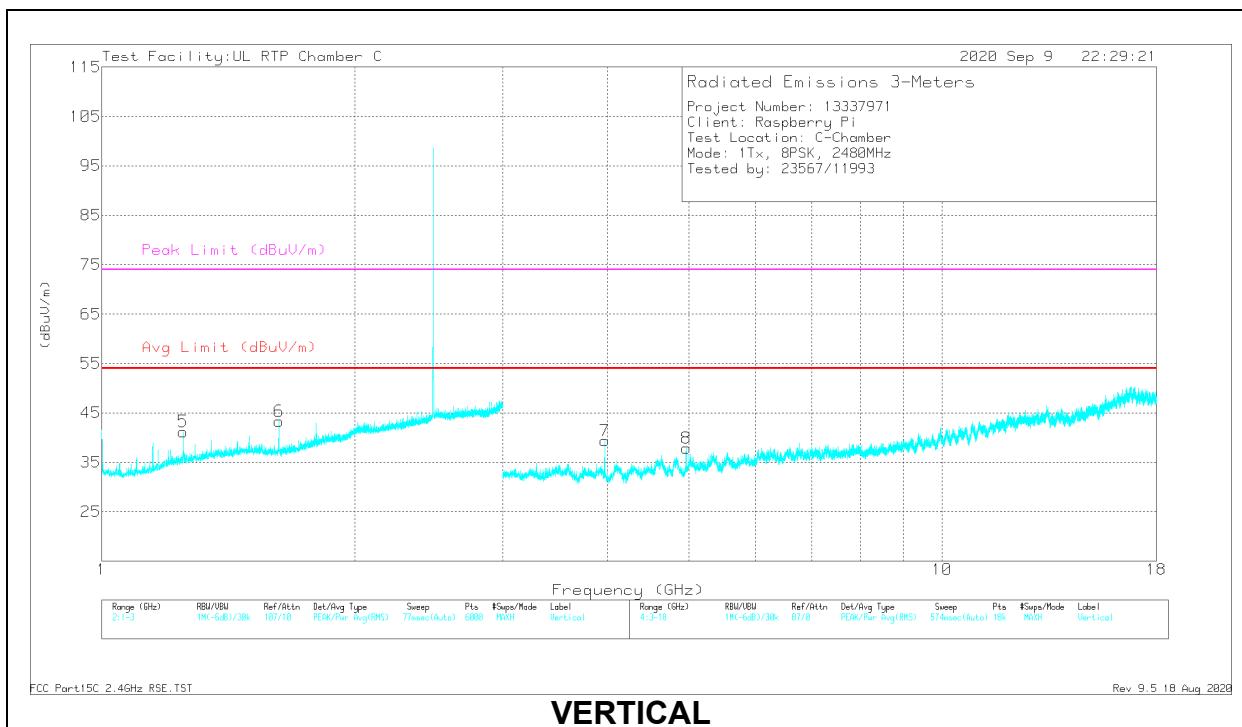
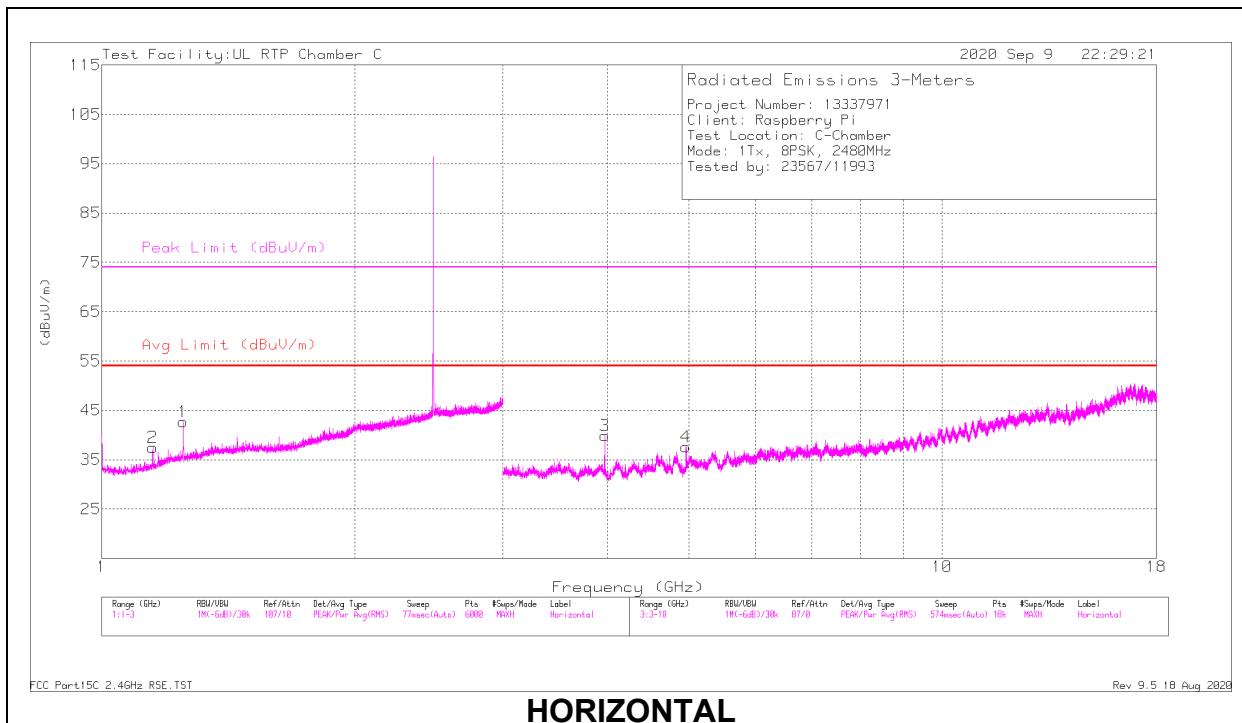
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

PK2: Maximum Peak

V1TV: VB=1/Ton, Linear Voltage Average where: Ton is packet duration

HIGH CHANNEL, 2480 MHz RESULTS



RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0062 (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	* 1.25008	38.41	PK2	28.6	-20.4	46.61	-	-	74	-27.39	241	199	H
	* 1.25009	30.98	V1TV	28.6	-20.4	39.18	54	-14.82	-	-	241	199	H
2	* *** 1.1502	36.6	PK2	27.4	-20.7	43.3	-	-	74	-30.7	239	246	H
	* *** 1.15001	28.61	V1TV	27.4	-20.7	35.31	54	-18.69	-	-	239	246	H
5	* 1.24982	37.4	PK2	28.6	-20.4	45.6	-	-	74	-28.4	279	325	V
	* 1.25003	29.65	V1TV	28.6	-20.4	37.85	54	-16.15	-	-	279	325	V
6	* *** 1.62479	38.26	PK2	28.5	-18.8	47.96	-	-	74	-26.04	104	103	V
	* *** 1.62501	30.45	V1TV	28.5	-18.8	40.15	54	-13.85	-	-	104	103	V
3	* *** 3.96801	59.69	PK2	33.5	-48.3	44.89	-	-	74	-29.11	78	101	H
	* *** 3.96802	53.4	V1TV	33.5	-48.3	38.6	54	-15.4	-	-	78	101	H
4	* *** 4.95964	58.64	PK2	34	-47.4	45.24	-	-	74	-28.76	99	245	H
	* *** 4.96001	48.88	V1TV	34	-47.4	35.48	54	-18.52	-	-	99	245	H
7	* *** 3.9681	58.44	PK2	33.5	-48.3	43.64	-	-	74	-30.36	163	331	V
	* *** 3.96809	51.61	V1TV	33.5	-48.3	36.81	54	-17.19	-	-	163	331	V
8	* *** 4.95978	58.03	PK2	34	-47.4	44.63	-	-	74	-29.37	174	213	V
	* *** 4.96001	48	V1TV	34	-47.4	34.6	54	-19.4	-	-	174	213	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

PK2: Maximum Peak

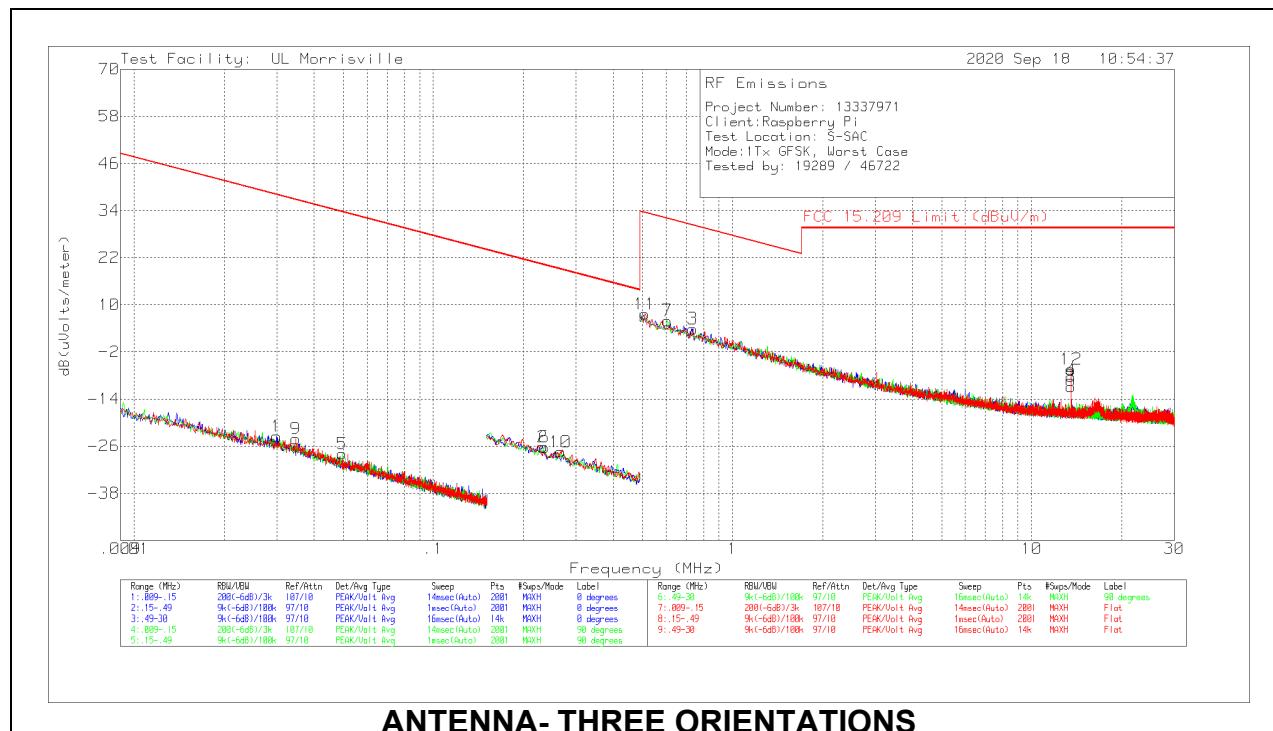
V1TV: VB=1/Ton, Linear Voltage Average where: Ton is packet duration

10.2. WORST CASE BELOW 30MHZ

Note: All measurements were made at a test distance of 3 m. The measured data was extrapolated from the test distance (3m) to the specification distance (300 m from 9-490 kHz and 30 m from 490 kHz – 30 MHz) to clearly show the relative levels of fundamental and spurious emissions and demonstrate compliance with the requirement that the level of any spurious emissions be below the level of the intentionally transmitted signal. The extrapolation factor for the limits were $40 \times \log(\text{test distance} / \text{specification distance})$.

The below 30 MHz limits in CFR 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 377Ω . For example, the measurement frequency 29.95 kHz resulted in a level of -23.57 dBuV/m, which is equivalent to $-23.57 - 51.5 = -75.07$ dBuA/m, which has the same margin, -61.65 dB, to the corresponding RSS-GEN Table 6 limit as it has to be 15.209(a) limit.

SPURIOUS EMISSIONS BELOW 30 MHZ (WORST-CASE CONFIGURATION)

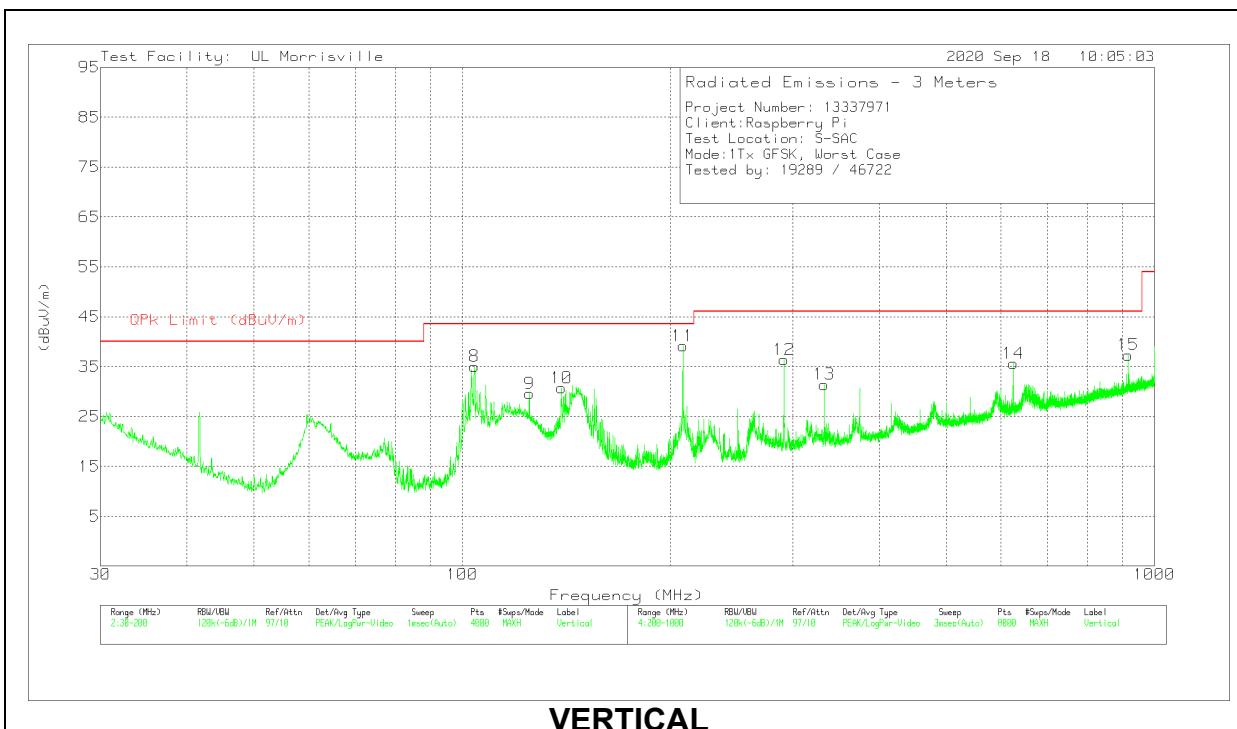
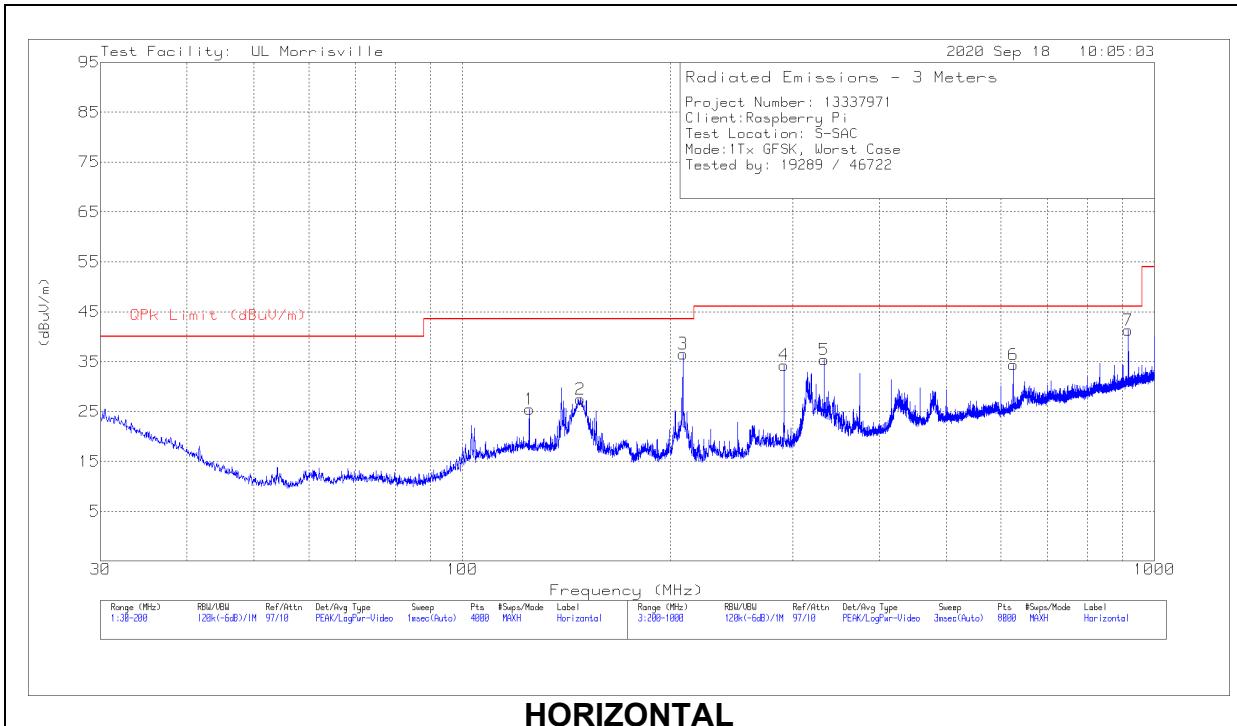


Below 30MHz Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AT0079 (dB/m)	Cbl (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uVolts/meter)	FCC 15.209 QP/Avg Limit (dBuV/m)	FCC 15.209 Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	.02995	43.03	Pk	13.3	.1	-80	-23.57	38.08	58.08	-61.65	0-360
9	.0347	42.91	Pk	12.8	.1	-80	-24.19	36.8	56.8	-60.99	0-360
5	.04961	40.41	Pk	11.5	.1	-80	-27.99	33.69	53.69	-61.68	0-360
2	.23169	42.92	Pk	10.8	.1	-80	-26.18	20.31	40.31	-46.49	0-360
6	.23509	42.81	Pk	10.8	.1	-80	-26.29	20.18	40.18	-46.47	0-360
10	.2662	41.7	Pk	10.7	.1	-80	-27.5	19.1	39.1	-46.6	0-360
11	.51003	36.74	Pk	10.8	.1	-40	7.64	33.45	-	-25.81	0-360
7	.60594	35.03	Pk	10.8	.1	-40	5.93	31.96	-	-26.03	0-360
3	.73664	32.88	Pk	10.8	.2	-40	3.88	30.26	-	-26.38	0-360
4	13.5596	19.65	Pk	10.4	.7	-40	-9.25	29.54	-	-38.79	0-360
12	13.5596	22.47	Pk	10.4	.7	-40	-6.43	29.54	-	-35.97	0-360
8	13.56171	18.07	Pk	10.4	.7	-40	-10.83	29.54	-	-40.37	0-360

Pk - Peak detector

10.3. WORST CASE BELOW 1 GHZ



Below 1GHz DATA

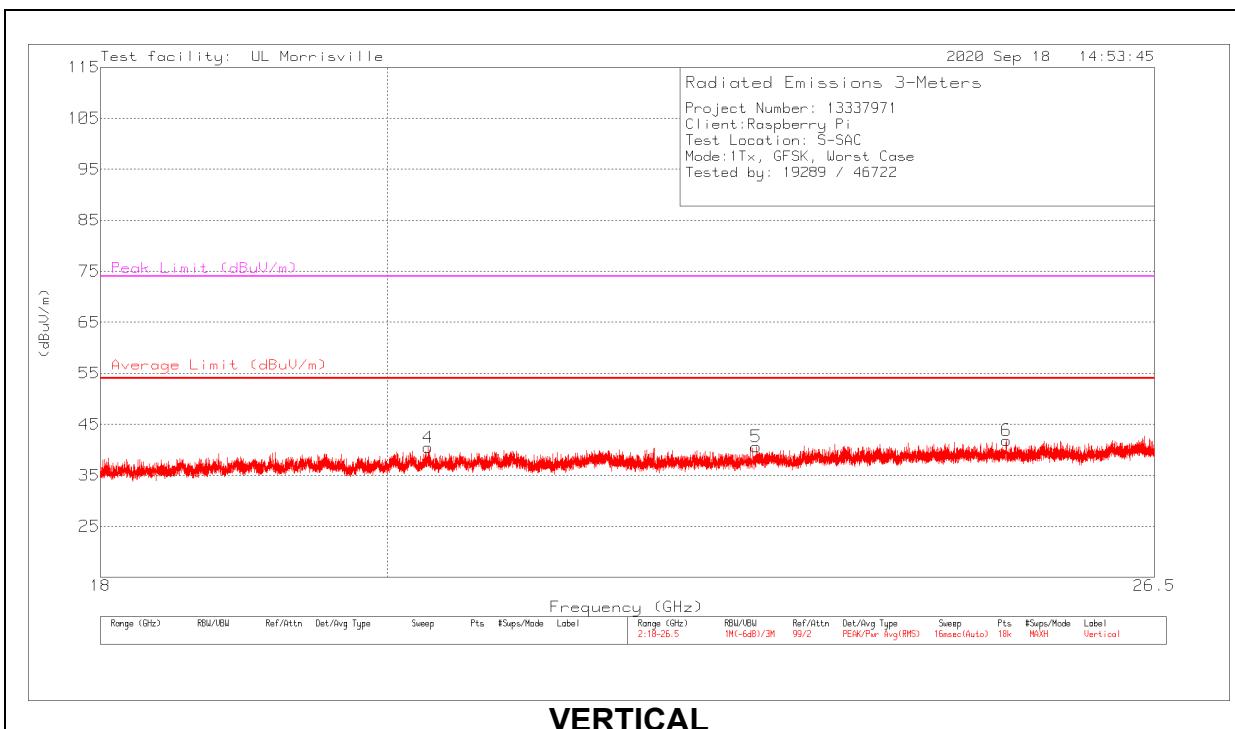
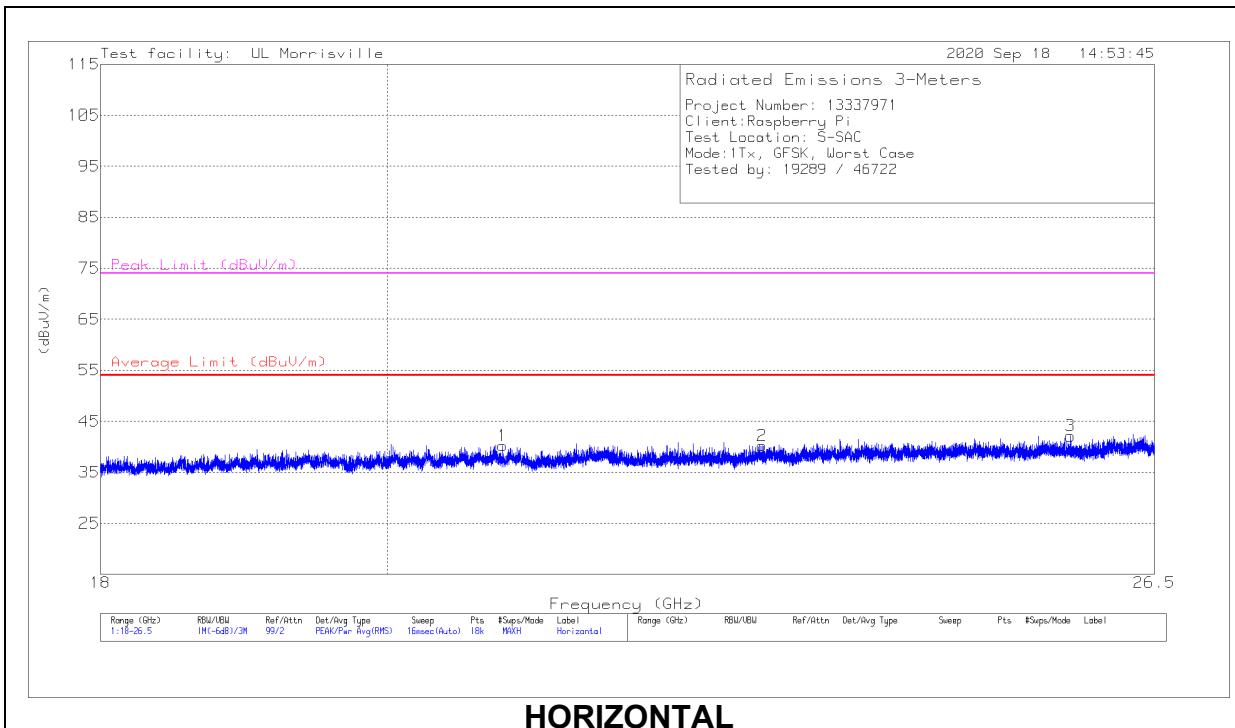
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AT0081 AF (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* *** 125.0121	35.65	Pk	20.1	-30.3	25.45	43.52	-18.07	0-360	200	H
9	* *** 125.0121	39.81	Pk	20.1	-30.3	29.61	43.52	-13.91	0-360	101	V
5	* *** 333.3173	43.95	Pk	20.1	-28.7	35.35	46.02	-10.67	0-360	101	H
13	* *** 333.3173	40.03	Pk	20.1	-28.7	31.43	46.02	-14.59	0-360	199	V
8	104.1817	47.95	Pk	17.6	-30.5	35.05	-	-	0-360	101	V
10	139.1257	41.66	Pk	19.2	-30.1	30.76	-	-	0-360	101	V
2	148.2231	38.79	Pk	18.7	-30	27.49	-	-	0-360	300	H
3	208.3011	49.35	Pk	16.6	-29.4	36.55	-	-	0-360	200	H
11	208.3011	51.92	Pk	16.6	-29.4	39.12	-	-	0-360	101	V
4	291.7119	43.82	Pk	19.3	-28.8	34.32	-	-	0-360	200	H
12	291.7119	45.85	Pk	19.3	-28.8	36.35	-	-	0-360	199	V
6	625.0553	36.18	Pk	25.4	-27.2	34.38	-	-	0-360	299	H
14	625.0553	37.42	Pk	25.4	-27.2	35.62	-	-	0-360	101	V
7	916.6932	38.16	Pk	28.5	-25.4	41.26	-	-	0-360	101	H
15	916.6932	34.23	Pk	28.5	-25.4	37.33	-	-	0-360	199	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

10.4. WORST CASE 18-26 GHZ



18 – 26GHz DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0076 AF (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* *** 20.86418	46.24	Pk	33.2	-39.2	40.24	54	-13.76	74	-33.76	0-360	149	H
2	* *** 22.94633	45.61	Pk	33.8	-39.2	40.21	54	-13.79	74	-33.79	0-360	300	H
4	* *** 20.29843	46.03	Pk	33.2	-38.8	40.43	54	-13.57	74	-33.57	0-360	250	V
5	* *** 22.89674	45.92	Pk	33.8	-39.1	40.62	54	-13.38	74	-33.38	0-360	200	V
6	25.10167	45.46	Pk	34.4	-38	41.86	54	-12.14	74	-32.14	0-360	101	V
3	25.69386	45.14	Pk	34.5	-37.5	42.14	54	-11.86	74	-31.86	0-360	300	H

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

11. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

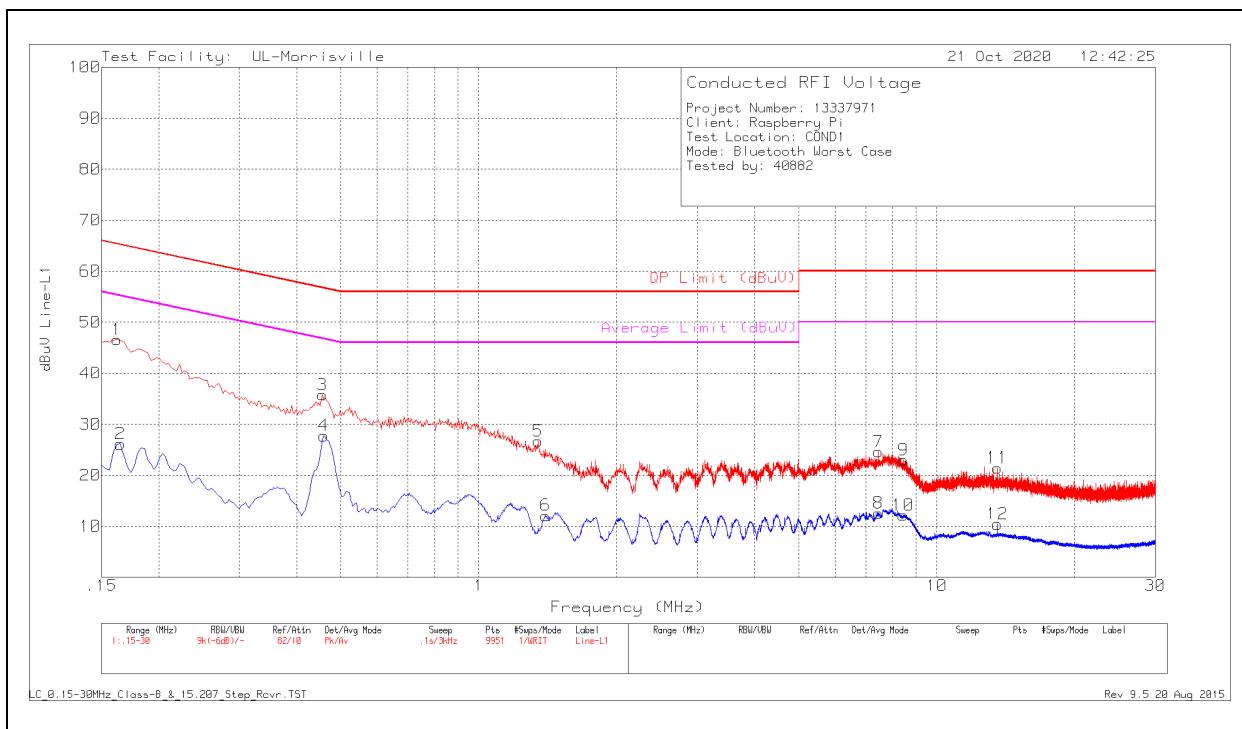
FCC §15.207 (a)
RSS-Gen 8.8

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

RESULTS

LINE 1 RESULTS

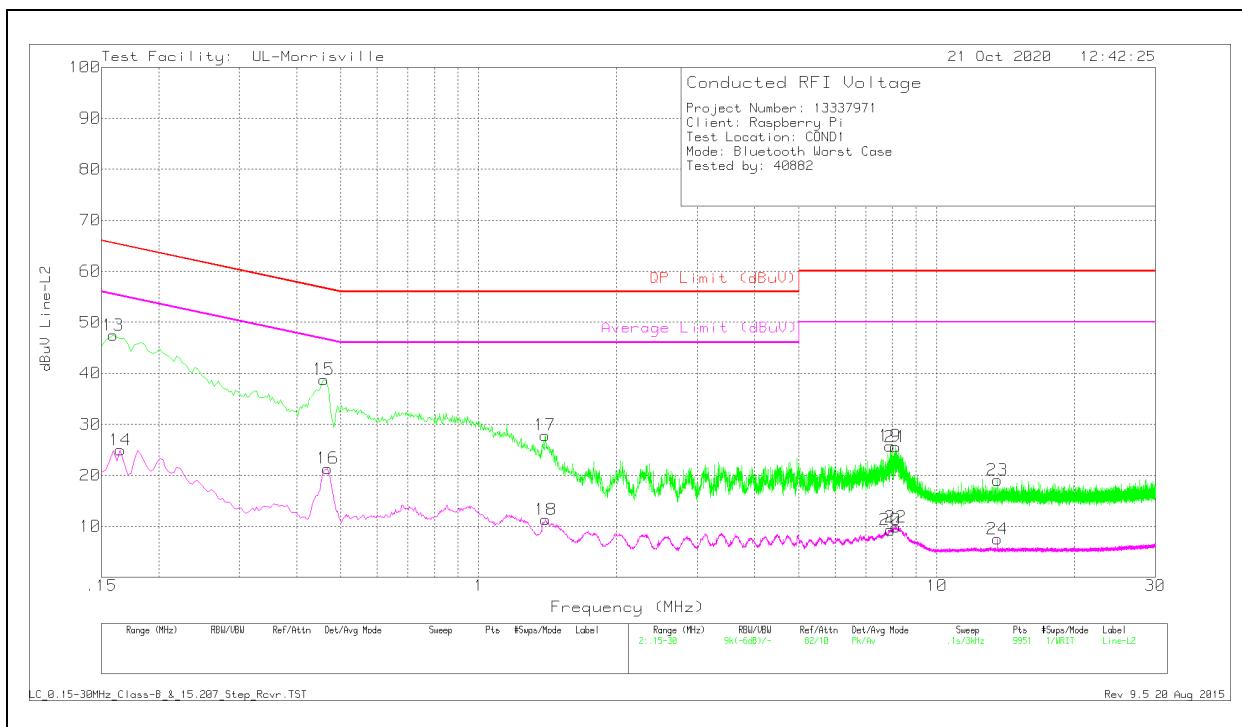


Range 1: Line-L1 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VCF (dB)	Cbl/Limiter (dB)	Corrected Reading dBuV	QP Limit (dBuV)	Margin (dB)	Average Limit (dBuV)	Margin (dB)	
1	.162	36.67	Pk	.2	9.7	46.57	65.36	-18.79	-	-	
2	.165	16.26	Av	.2	9.7	26.16	-	-	55.21	-29.05	
3	.456	25.87	Pk	.1	9.8	35.77	56.77	-21	-	-	
4	.459	17.85	Av	.1	9.8	27.75	-	-	46.71	-18.96	
5	1.347	16.86	Pk	0	9.8	26.66	56	-29.34	-	-	
6	1.401	2.33	Av	0	9.8	12.13	-	-	46	-33.87	
7	7.461	14.59	Pk	.1	9.9	24.59	60	-35.41	-	-	
8	7.458	2.6	Av	.1	9.9	12.6	-	-	50	-37.4	
9	8.445	12.92	Pk	.1	10	23.02	60	-36.98	-	-	
10	8.442	2.12	Av	.1	10	12.22	-	-	50	-37.78	
11	13.56	11.35	Pk	.1	10	21.45	60	-38.55	-	-	
12	13.56	.32	Av	.1	10	10.42	-	-	50	-39.58	

Pk - Peak detector

Av - Average detection

LINE 2 RESULTS



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)
13	.159	37.59	Pk	.2	9.7	47.49	65.52	-18.03	-	-
14	.165	15.08	Av	.2	9.7	24.98	-	-	55.21	-30.23
15	.459	28.88	Pk	.1	9.8	38.78	56.71	-17.93	-	-
16	.468	11.45	Av	.1	9.8	21.35	-	-	46.55	-25.2
17	1.395	18.06	Pk	0	9.8	27.86	56	-28.14	-	-
18	1.401	1.51	Av	0	9.8	11.31	-	-	46	-34.69
19	7.902	15.65	Pk	.1	10	25.75	60	-34.25	-	-
20	7.917	-.79	Av	.1	10	9.31	-	-	50	-40.69
21	8.127	15.47	Pk	.1	10	25.57	60	-34.43	-	-
22	8.136	-.23	Av	.1	10	9.87	-	-	50	-40.13
23	13.563	8.93	Pk	.1	10	19.03	60	-40.97	-	-
24	13.56	-2.62	Av	.1	10	7.48	-	-	50	-42.52

Pk - Peak detector

Av - Average detection

Qp – Quasi-peak detection

Ca – CISPR average detection

12. SETUP PHOTOS

Please refer to R13337971-EP1 for setup photos.

END OF TEST REPORT