



TEST REPORT

Report Number. : R13999443-E1

Applicant : INFOBIONIC
400 TOTTEN POND RD STE 315
WALTHAM, MA 02451, USA

Model : 01854 REV B

FCC ID : 2AHLC01855

EUT Description : WIRELESS AMBULATORY ECG MONITORING AND DETECTION
SYSTEM

Test Standard(s) : FCC CFR47 PART 22H, PART 24,
PART 27, AND PART 90R

Date Of Issue:
2021-12-22

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Revision History

Rev.	Issue Date	Revisions	Revised By
V1	2021-11-23	Initial Review	Niklas Haydon
V2	2021-12-06	Revised power note in Section 5.1 and 5.2 to reference SAR report. Removed setup photos. Added worst-case configuration note to Section 5.5	Brian Kiewra
V3	2021-12-14	Added EIRP/ERP section	Brian Kiewra
V4	2021-12-16	Revisions to ERP/EIRP section to include ERP/EIRP in dBm	Brian Kiewra
V5	2021-12-17	Revisions to ERP/EIRP section to include LTE 14 and additional decimal places	Brian Kiewra
V6	2021-12-22	Revisions to ERP/EIRP section to revise ERP calculation so gain matches section 5.4. Added sample calculation to section 7. Additional power for Bands 4, 5, and 71.	Brian Kiewra
V7	2021-12-30	Revisions LTE B12 and B71 in ERP/EIRP section	Brian Kiewra
V8	2021-12-31	Additional revisions to LTE B12 and B71 in ERP/EIRP section	Brian Kiewra

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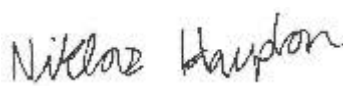
1. ATTESTATION OF TEST RESULTS

Applicant Name and Address	INFOBIONIC 400 TOTTEN POND RD STE 315 WALTHAM, MA 02451, USA
Model	01854 REV B
FCC ID	2AHL01855
EUT Description	WIRELESS AMBULATORY ECG MONITORING AND DETECTION SYSTEM
Serial Number	MIB1002
Sample Receipt Date	2021-09-13
Date Tested	2021-09-13 to 2021-12-21
Applicable Standards	FCC CFR47 PART 22H, PART 24, PART 27, AND PART 90R
Test Results	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.

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, any agency of the Federal Government, or any agency of the U.S. government.

Approved & Released By: 	Reviewed By: 	Prepared By: 
Dan Corona Operations Leader UL Verification Services Inc.	Kiya Kedida Project Engineer UL Verification Services Inc.	Niklas Haydon Operations Leader UL LLC.

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with the following:

- ANSI C63.26:2015
- FCC CFR 47 Part 2, Part 22, Part 24, Part 27, and Part 90
- [FCC KDB 971168 D01 v03r01](#): Power Meas License Digital Systems
- [FCC KDB 971168 D02 v02r01](#): Misc Rev Approv License Devices

3. FACILITIES AND ACCREDITATION

UL LLC is accredited by A2LA, Certificate Number 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	

4. DECISION RULES AND MEASUREMENT UNCERTAINTY

4.1. METROLOGICAL TRACEABILITY

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

4.2. DECISION RULES

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

4.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	UNCERTAINTY
Radio Frequency (Spectrum Analyzer)	141.2 Hz
Occupied Channel Bandwidth	1.22%
All emissions, radiated	6.01 dB
Temperature	0.57°C
Humidity	3.39%
DC Supply voltages	1.70%
Time	3.39%

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

4.4. SAMPLE CALCULATION

RADIATED EMISSIONS

Where relevant, the following sample calculation is provided:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)
 $36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} = 28.9 \text{ dBuV/m}$

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a Wireless Ambulatory ECG Monitoring and Detection System that contains a 3G/4G radio. This report contains the radiated emissions data for 4G radio. For all antenna port conducted data please refer to radio reports under FCC ID: R17LE910CXNF. Output power taken from SAR test report R13999443-S1.

5.2. MAXIMUM ERP/EIRP

LTE Band	EIRP (dBm)	EIRP (W)
2	25.120	0.325
4	28.140	0.652
5	22.940	0.197
12	22.860	0.193
13	13.130	0.206
14	22.850	22.193
66	28.350	0.684
71	19.620	0.099

Maximum output power taken from SAR test report R13999443-S1.

5.3. SOFTWARE AND FIRMWARE

The EUT firmware installed during testing was V00.55.

5.4. MAXIMUM ANTENNA GAIN

The antenna(s) gain and type, as provided by the manufacturer' are as follows:
Please see table below:

LTE Bands	Antenna Gain (dBi)
LTE2, 1850 - 1910 MHz	0.62
LTE4, 1710 - 1755 MHz	3.22
LTE5, 824 - 849 MHz	0.39
LTE12, 699 - 716 MHz	0.37
LTE13, 777 - 787 MHz	0.37
LTE14, 788 - 798 MHz	0.12
LTE66, 1710 - 1780 MHz	3.40
LTE71, 663 - 698 MHz	-2.56

5.5. WORST-CASE CONFIGURATION AND MODE

The EUT supports LTE Bands of:

Band 2, Band 4, Band 5, Band 12, Band 13, Band 14, Band 66 and Band 71.

The EUT supports QPSK and 16QAM. All radiated spurious emissions testing was performed using QPSK and 16QAM modulations. The EUT supports only one transmit antenna, therefore all testing was performed with this antenna.

The EUT was investigated in three orthogonal orientations X/Y/Z. For bands 5, 12, 13, 14, and 71, it was determined that X orientation was worst-case orientation. For bands 2, 4, and 66, it was determined that Y orientation was worst-case orientation.

Radiated spurious emissions were investigated from 9kHz to 30MHz, 30-1000MHz, and above 1GHz. There were no emissions found with less than 20dB of margin from 9kHz to 1GHz.

The EUT is battery operated and the battery is removed from the EUT for charging, therefore the EUT was tested on battery only.

Radiated testing performed on maximum supported bandwidth in each band as worst-case.

5.6. DESCRIPTION OF TEST SETUP

SUPPORT TEST EQUIPMENT						
Description		Manufacturer	Model	Serial Number		
Load Simulating Patient		N/A	N/A	Non-serialized		
I/O CABLES (RF RADIATED TEST)						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	Patient Coupling Port	1	Samtec	shielded	0.61	Samtec connector on one end (DUT) and three standard Electrocardiogram connectors on the other end (Patient)

RADIATED SETUP

Refer to exhibit R13999443-EP1 for setup diagram.

6. TEST AND MEASUREMENT EQUIPMENT

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

Test Equipment Used – Conducted Output Power Test Equipment

Equipment ID	Description	Manufacturer/Brand	Model Number	Last Cal.	Next Cal.
MY55136012	Power Meter	Keysight	N1912A	2021-07-16	2022-07-16
MY55090030	Power Sensor	Agilent	N1921A	2021-05-27	2022-05-27

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				
206210	Hybrid Broadband Antenna	Sunol Sciences Corp.	JB3	2021-03-11	2022-03-11
	1-18 GHz				
206211	Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz	ETS Lindgren	3117	2021-03-11	2022-03-11
	Gain-Loss Chains				
C4-SAC02	Gain-loss string: 25-1000MHz	Various	Various	2021-05-07	2022-05-07
C4-SAC03	Gain-loss string: 1-18GHz	Various	Various	2021-05-07	2022-05-07
	Receiver & Software				
206496	Spectrum Analyzer	Rohde & Schwarz	ESW44	2021-03-09	2022-03-09
SOFTEMI	EMI Software	UL	Version 9.5 (27 May 2021)		
	Additional Equipment used				
s/n 200037635	Environmental Meter	Fisher Scientific	06-662-4	2020-01-21	2022-01-21
NA	Wideband Radio Communications Tester	Rohde and Schwartz	CMW500	2021-04-26	2022-04-26
BRF008	1710-1785MHz notch filter, 2W, $F_{high} = 9\text{GHz}$	Micro-Tronics	BRM50713-01	2021-02-16	2022-02-16
BRF001	900MHz notch filter, 2W, $F_{high} = 6\text{GHz}$	Micro-Tronics	BRM50706	2021-07-22	2022-07-22
BRF010	1.85-1.97GHz notch filter, 2W, $F_{high} = 9\text{GHz}$	Micro-Tronics	BRM50714-01	2021-02-16	2022-02-16
LPF008	DC-1000MHz low-pass filter	Pasternack	PE8720	2021-07-31	2022-07-31
HPF012	1GHz high-pass filter, 2W, $F_{high} = 18\text{GHz}$	Micro-Tronics	HPM18129	2021-02-15	2022-02-15

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

Equipment ID	Description	Manufacturer/Brand	Model Number	Last Cal.	Next Cal.
	0.009-30MHz				
AT0079	Active Loop Antenna	ETS-Lindgren	6502	2021-08-19	2022-08-19
	30-1000 MHz				
AT0066	Hybrid Broadband Antenna	Sunol Sciences Corp.	JB1	2021-02-19	2022-02-19
	18-40 GHz				
AT0063	Horn Antenna, 18-26.5GHz	ARA	MWH-1826/B	2020-10-30	2021-10-30
	Gain-Loss Chains				
N-SAC01	Gain-loss string: 0.009-30MHz	Various	Various	2021-07-20	2022-07-20
N-SAC02	Gain-loss string: 25-1000MHz	Various	Various	2021-07-20	2022-07-20
N-SAC04	Gain-loss string: 18-40GHz	Various	Various	2021-07-20	2022-07-20
	Receiver & Software				
197954	Spectrum Analyzer	Rohde & Schwarz	ESW44	2021-03-30	2022-03-30
SOFTEMI	EMI Software	UL	Version 9.5 (24 Jun 2021)		
	Additional Equipment used				
s/n 200037635	Environmental Meter	Fisher Scientific	06-662-4	2020-01-21	2022-01-21
NA	Wideband Radio Communications Tester	Rohde and Schwartz	CMW500	2021-04-26	2022-04-26

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

Equipment ID	Description	Manufacturer/Brand	Model Number	Last Cal.	Next Cal.
	30-1000 MHz				
AT0075	Hybrid Broadband Antenna	Sunol Sciences Corp.	JB3	2020-10-27	2021-10-27
	1-18 GHz				
AT0072	Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz	ETS Lindgren	3117	2021-05-03	2022-05-03
	Gain-Loss Chains				
S-SAC02	Gain-loss string: 25-1000MHz	Various	Various	2021-07-09	2022-07-09
S-SAC03	Gain-loss string: 1-18GHz	Various	Various	2021-07-09	2022-07-09
	Receiver & Software				
197955	Spectrum Analyzer	Rohde & Schwarz	ESW44	2021-03-10	2022-03-10
SOFTEMI	EMI Software	UL	Version 9.5 (24 Jun 2021)		
	Additional Equipment used				
s/n 200037635	Environmental Meter	Fisher Scientific	06-662-4	2020-01-22	2022-01-22
NA	Wideband Radio Communications Tester	Rohde and Schwartz	CMW500	2021-04-26	2022-04-26

NOTES:

- * Testing is completed before equipment expiration date.
- Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.

7. ERP/EIRP

RULE PART(S)

FCC: §2.1053, §22.913, §24.232, and §27.50

LIMITS

§22.913(a)(5)

The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

§24.232(c),

Mobile and portable stations are limited to 2 watts EIRP

§27.50 (d)(4)

Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP

§27.50 (c)(10)

Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP.

§27.50 (b)(10)

Portable stations (hand-held devices) transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP.

TEST PROCEDURE

KDB 971168 D01 v03r01

RESULTS

ANSI C63.26 Clause 5.2.5.5

Conducted power taken from SAR report R13999443-S1.

Maximum Output Power (Tune-up Limit) for LTE

RF Air interface	Mode	Tune-up Power Limit (dBm)
		Maximum
LTE Band 2	QPSK	24.5
LTE Band 4	QPSK	25.0
LTE Band 5	QPSK	25.0
LTE Band 12	QPSK	25.0
LTE Band 13	QPSK	25.0
LTE Band 14	QPSK	25.0
LTE Band 66	QPSK	25.0
LTE Band 71	QPSK	25.0

Power taken on 2021-11-01 by 85502/40882

Note in tables below EIRP = Average power + Antenna Gain

ERP = Average power + Antenna Gain - 2.15

7.1. LTE 2

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Antenna Gain (dbi)	EIRP (dBm)			EIRP (W)			
				18700	18900	19100	Tune- up Limit		18700	18900	19100	18700	18900	19100	EIRP Limit (W)
				1860 MHz	1880 MHz	1900 MHz			1860 MHz	1880 MHz	1900 MHz	1860 MHz	1880 MHz	1900 MHz	
20 MHz	QPSK	1	0	24.28	24.03	23.95	24.5	0.62	24.900	24.650	24.570	0.309	0.292	0.286	2
		1	49	24.14	24.10	24.22	24.5		24.760	24.720	24.840	0.299	0.296	0.305	2
		1	99	23.96	24.01	24.13	24.5		24.580	24.630	24.750	0.287	0.290	0.299	2
		50	0	23.15	23.30	23.35	23.5		23.770	23.920	23.970	0.238	0.247	0.249	2
		50	24	23.20	23.36	23.42	23.5		23.820	23.980	24.040	0.241	0.250	0.254	2
		50	50	23.19	23.25	23.23	23.5		23.810	23.870	23.850	0.240	0.244	0.243	2
		100	0	23.25	23.28	23.24	23.5		23.870	23.900	23.860	0.244	0.245	0.243	2
	16QAM	1	0	23.00	23.24	23.34	23.5	0.62	23.620	23.860	23.960	0.230	0.243	0.249	2
		1	49	23.26	23.31	23.27	23.5		23.880	23.930	23.890	0.244	0.247	0.245	2
		1	99	23.20	23.04	22.97	23.5		23.820	23.660	23.590	0.241	0.232	0.229	2
		12	0	22.39	22.43	22.31	22.5		23.010	23.050	22.930	0.200	0.202	0.196	2
		12	44	22.50	22.45	22.26	22.5		23.120	23.070	22.880	0.205	0.203	0.194	2
		12	88	22.40	22.47	21.96	22.5		23.020	23.090	22.580	0.200	0.204	0.181	2
		27	0	21.50	21.74	21.66	22.5		22.120	22.360	22.280	0.163	0.172	0.169	2
BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Antenna Gain (dbi)	EIRP (dBm)			EIRP (W)			
				18675	18900	19125	Tune- up Limit		18675	18900	19125	18675	18900	19125	EIRP Limit (W)
				1857.5 MHz	1880 MHz	1902.5 MHz			1857.5 MHz	1880 MHz	1902.5 MHz	1857.5 MHz	1880 MHz	1902.5 MHz	
15 MHz	QPSK	1	0	24.21	24.22	24.29	24.5	0.62	24.830	24.840	24.910	0.304	0.305	0.310	2
		1	37	24.21	24.38	24.33	24.5		24.830	25.000	24.950	0.304	0.316	0.313	2
		1	74	24.21	24.20	24.22	24.5		24.830	24.820	24.840	0.304	0.303	0.305	2
		36	0	23.04	23.24	23.26	23.5		23.660	23.860	23.880	0.232	0.243	0.244	2
		36	20	23.11	23.28	23.20	23.5		23.730	23.900	23.820	0.236	0.245	0.241	2
		36	39	23.19	23.22	23.24	23.5		23.810	23.840	23.860	0.240	0.242	0.243	2
		75	0	23.04	23.18	23.18	23.5		23.660	23.800	23.800	0.232	0.240	0.240	2
	16QAM	1	0	23.18	23.39	23.42	23.5	0.62	23.800	24.010	24.040	0.240	0.252	0.254	2
		1	37	23.36	23.42	23.48	23.5		23.980	24.040	24.100	0.250	0.254	0.257	2
		1	74	23.32	23.04	22.81	23.5		23.940	23.660	23.430	0.248	0.232	0.220	2
		12	0	22.35	22.48	22.47	22.5		22.970	23.100	23.090	0.198	0.204	0.204	2
		12	31	22.32	22.48	22.31	22.5		22.940	23.100	22.930	0.197	0.204	0.196	2
		12	63	22.32	22.08	21.72	22.5		22.940	22.700	22.340	0.197	0.186	0.171	2
		27	0	21.51	21.64	21.35	22.5		22.130	22.260	21.970	0.163	0.168	0.157	2
BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Antenna Gain (dbi)	EIRP (dBm)			EIRP (W)			
				18650	18900	19150	Tune- up Limit		18650	18900	19150	18650	18900	19150	EIRP Limit (W)
				1855 MHz	1880 MHz	1905 MHz			1855 MHz	1880 MHz	1905 MHz	1855 MHz	1880 MHz	1905 MHz	
10 MHz	QPSK	1	0	24.35	24.43	24.43	24.5	0.62	24.970	25.050	25.050	0.314	0.320	0.320	2
		1	25	24.50	24.39	24.20	24.5		25.120	25.010	24.820	0.325	0.317	0.303	2
		1	49	24.20	24.44	24.04	24.5		24.820	25.060	24.660	0.303	0.321	0.292	2
		25	0	23.07	23.26	23.23	23.5		23.690	23.880	23.850	0.234	0.244	0.243	2
		25	12	23.21	23.22	23.26	23.5		23.830	23.840	23.880	0.242	0.242	0.244	2
		25	25	23.15	23.16	23.14	23.5		23.770	23.780	23.760	0.238	0.239	0.238	2
		50	0	23.06	23.14	23.19	23.5		23.680	23.760	23.810	0.233	0.238	0.240	2
	16QAM	1	0	23.06	23.15	23.07	23.5	0.62	23.680	23.770	23.690	0.233	0.238	0.234	2
		1	25	23.09	23.14	23.38	23.5		23.710	23.760	24.000	0.235	0.238	0.251	2
		1	49	22.82	22.56	23.08	23.5		23.440	23.180	23.700	0.221	0.208	0.234	2
		12	0	22.38	22.51	22.31	22.5		23.000	23.130	22.930	0.200	0.206	0.196	2
		12	19	22.46	22.44	22.45	22.5		23.080	23.060	23.070	0.203	0.202	0.203	2
		12	38	22.43	22.17	22.35	22.5		23.050	22.790	22.970	0.202	0.190	0.198	2
		27	0	21.56	21.93	21.83	22.5		22.180	22.550	22.450	0.165	0.180	0.176	2

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Antenna Gain (dbi)	EIRP (dBm)			EIRP (W)			
				18625 MHz	18900 MHz	19175 MHz	Tune- up Limit		18625 MHz	18900 MHz	19175 MHz	18625 MHz	18900 MHz	19175 MHz	EIRP Limit (W)
				1852.5 MHz	1880 MHz	1907.5 MHz			1852.5 MHz	1880 MHz	1907.5 MHz	1852.5 MHz	1880 MHz	1907.5 MHz	
5 MHz	QPSK	1	0	23.63	23.90	23.50	24.5	0.62	24.250	24.520	24.120	0.266	0.283	0.258	2
		1	12	23.82	24.14	23.71	24.5		24.440	24.760	24.330	0.278	0.299	0.271	2
		1	24	23.69	23.91	23.40	24.5		24.310	24.530	24.020	0.270	0.284	0.252	2
		12	0	22.71	23.10	22.97	23.5		23.330	23.720	23.590	0.215	0.236	0.229	2
		12	7	22.75	23.16	23.00	23.5		23.370	23.780	23.620	0.217	0.239	0.230	2
		12	13	22.72	23.10	22.98	23.5		23.340	23.720	23.600	0.216	0.236	0.229	2
		25	0	22.71	23.14	22.96	23.5		23.330	23.760	23.580	0.215	0.238	0.228	2
	16QAM	1	0	22.61	22.91	22.97	23.5	0.62	23.230	23.530	23.590	0.210	0.225	0.229	2
		1	12	22.65	22.74	22.49	23.5		23.270	23.360	23.110	0.212	0.217	0.205	2
		1	24	22.12	22.54	22.52	23.5		22.740	23.160	23.140	0.188	0.207	0.206	2
		12	0	21.54	22.14	21.93	22.5		22.160	22.760	22.550	0.164	0.189	0.180	2
		12	7	21.57	22.05	21.90	22.5		22.190	22.670	22.520	0.166	0.185	0.179	2
		12	13	21.51	22.02	21.92	22.5		22.130	22.640	22.540	0.163	0.184	0.179	2
		25	0	21.70	22.28	21.96	22.5		22.320	22.900	22.580	0.171	0.195	0.181	2
BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Antenna Gain (dbi)	EIRP (dBm)			EIRP (W)			
				18615 MHz	18900 MHz	19185 MHz	Tune- up Limit		18615 MHz	18900 MHz	19185 MHz	18615 MHz	18900 MHz	19185 MHz	EIRP Limit (W)
				1851.5 MHz	1880 MHz	1908.5 MHz			1851.5 MHz	1880 MHz	1908.5 MHz	1851.5 MHz	1880 MHz	1908.5 MHz	
3 MHz	QPSK	1	0	23.98	24.50	24.22	24.5	0.62	24.600	25.120	24.840	0.288	0.325	0.305	2
		1	8	23.82	24.50	24.18	24.5		24.440	25.120	24.800	0.278	0.325	0.302	2
		1	14	23.68	23.66	24.27	24.5		24.300	24.280	24.890	0.269	0.268	0.308	2
		8	0	22.99	23.14	23.22	23.5		23.610	23.760	23.840	0.230	0.238	0.242	2
		8	4	22.96	23.16	23.17	23.5		23.580	23.780	23.790	0.228	0.239	0.239	2
		8	7	22.89	23.19	23.13	23.5		23.510	23.810	23.750	0.224	0.240	0.237	2
		15	0	22.87	23.26	23.17	23.5		23.490	23.880	23.790	0.223	0.244	0.239	2
	16QAM	1	0	22.86	23.44	23.32	23.5	0.62	23.480	24.060	23.940	0.223	0.255	0.248	2
		1	8	22.85	22.67	23.43	23.5		23.470	23.290	24.050	0.222	0.213	0.254	2
		1	14	23.08	23.50	23.09	23.5		23.700	24.120	23.710	0.234	0.258	0.235	2
		8	0	21.80	22.01	22.22	22.5		22.420	22.630	22.840	0.175	0.183	0.192	2
		8	4	21.87	22.24	22.17	22.5		22.490	22.860	22.790	0.177	0.193	0.190	2
		8	7	21.70	22.09	22.30	22.5		22.320	22.710	22.920	0.171	0.187	0.196	2
		15	0	21.67	22.17	22.28	22.5		22.290	22.790	22.900	0.169	0.190	0.195	2
BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Antenna Gain (dbi)	EIRP (dBm)			EIRP (W)			
				18607 MHz	18900 MHz	19193 MHz	Tune- up Limit		18607 MHz	18900 MHz	19193 MHz	18607 MHz	18900 MHz	19193 MHz	EIRP Limit (W)
				1850.7 MHz	1880 MHz	1909.3 MHz			1850.7 MHz	1880 MHz	1909.3 MHz	1850.7 MHz	1880 MHz	1909.3 MHz	
1.4 MHz	QPSK	1	0	23.88	24.00	23.74	24.5	0.62	24.500	24.620	24.360	0.282	0.290	0.273	2
		1	3	23.79	24.24	23.94	24.5		24.410	24.860	24.560	0.276	0.306	0.286	2
		1	5	23.77	24.15	23.84	24.5		24.390	24.770	24.460	0.275	0.300	0.279	2
		3	0	23.79	24.15	23.87	24.5		24.410	24.770	24.490	0.276	0.300	0.281	2
		3	1	23.82	24.15	23.78	24.5		24.440	24.770	24.400	0.278	0.300	0.275	2
		3	3	23.78	24.27	23.87	24.5		24.400	24.890	24.490	0.275	0.308	0.281	2
		6	0	22.81	23.07	22.87	23.5		23.430	23.690	23.490	0.220	0.234	0.223	2
	16QAM	1	0	22.93	23.19	22.99	23.5	0.62	23.550	23.810	23.610	0.226	0.240	0.230	2
		1	3	22.98	23.20	23.19	23.5		23.600	23.820	23.810	0.229	0.241	0.240	2
		1	5	22.74	23.09	22.93	23.5		23.360	23.710	23.550	0.217	0.235	0.226	2
		3	0	22.50	22.81	23.10	23.5		23.120	23.430	23.720	0.205	0.220	0.236	2
		3	1	22.74	22.79	23.13	23.5		23.360	23.410	23.750	0.217	0.219	0.237	2
		3	3	22.72	22.99	23.10	23.5		23.340	23.610	23.720	0.216	0.230	0.236	2
		6	0	21.86	22.01	22.01	22.5		22.480	22.630	22.630	0.177	0.183	0.183	2

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BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Antenna Gain (dBi)	EIRP (dBm)			EIRP(W)			
				20050	20175	20300	Tune-up Limit		20050	20175	20300	20050	20175	20300	EIRP Limit (W)
				1720 MHz	1732.5 MHz	1745 MHz			1720 MHz	1732.5 MHz	1745 MHz				
20 MHz	QPSK	1	0	22.91	24.37	22.84	25	3.22	26.130	27.590	26.060	0.410	0.574	0.404	1
		1	49	23.33	24.69	23.25	25		26.550	27.910	26.470	0.452	0.618	0.444	1
		1	99	22.85	24.57	22.77	25		26.070	27.790	25.990	0.405	0.601	0.397	1
		50	0	22.17	23.23	22.13	24		25.390	26.450	25.350	0.346	0.442	0.343	1
		50	24	22.17	23.35	22.19	24		25.390	26.570	25.410	0.346	0.454	0.348	1
		50	50	22.11	23.17	22.01	24		25.330	26.390	25.230	0.341	0.436	0.333	1
	16QAM	100	0	22.07	23.24	22.09	24	25.290	26.460	25.310	0.338	0.443	0.340	1	
		1	0	21.88	23.10	22.18	24	25.100	26.320	25.400	0.324	0.429	0.347	1	
		1	49	22.40	23.35	22.13	24	25.620	26.570	25.350	0.365	0.454	0.343	1	
		1	99	21.60	22.98	21.71	24	24.820	26.200	24.930	0.303	0.417	0.311	1	
		12	0	21.85	21.72	22.12	23	25.070	24.940	25.340	0.321	0.312	0.342	1	
		12	44	22.17	22.06	21.96	23	25.390	25.280	25.180	0.346	0.337	0.330	1	
		12	88	21.93	21.76	21.79	23	25.150	24.980	25.010	0.327	0.315	0.317	1	
		27	0	20.90	21.03	21.09	23	24.120	24.250	24.310	0.258	0.266	0.270	1	
BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Antenna Gain (dBi) <th colspan="3">EIRP (dBm)</th> <th colspan="4">EIRP(W)</th>	EIRP (dBm)			EIRP(W)			
				20025	20175	20325	Tune-up Limit		20025	20175	20325	20025	20175	20325	EIRP Limit (W)
				1717.5 MHz	1732.5 MHz	1747.5 MHz			1717.5 MHz	1732.5 MHz	1747.5 MHz				
15 MHz	QPSK	1	0	24.44	24.82	24.92	25	3.22	27.660	28.040	28.140	0.583	0.637	0.652	1
		1	37	24.60	24.82	24.79	25		27.820	28.040	28.010	0.605	0.637	0.632	1
		1	74	24.48	24.65	24.71	25		27.700	27.870	27.930	0.589	0.612	0.621	1
		36	0	22.90	23.20	23.16	24		26.120	26.420	26.380	0.409	0.439	0.435	1
		36	20	22.80	22.84	22.96	24		26.020	26.060	26.180	0.400	0.404	0.415	1
		36	39	23.03	23.08	23.01	24		26.250	26.300	26.230	0.422	0.427	0.420	1
	16QAM	75	0	22.86	22.93	22.99	24	26.080	26.150	26.210	0.406	0.412	0.418	1	
		1	0	23.08	23.42	23.67	24	26.300	26.640	26.890	0.427	0.461	0.489	1	
		1	37	23.28	23.37	23.69	24	26.500	26.590	26.910	0.447	0.456	0.491	1	
		1	74	22.73	22.96	23.07	24	25.950	26.180	26.290	0.394	0.415	0.426	1	
		12	0	21.77	21.68	21.87	23	24.990	24.900	25.090	0.316	0.309	0.323	1	
		12	35	22.63	21.97	22.01	23	25.850	25.190	25.230	0.385	0.330	0.333	1	
		12	63	21.62	21.87	21.58	23	24.840	25.090	24.800	0.305	0.323	0.302	1	
		27	0	20.76	20.72	20.88	23	23.980	23.940	24.100	0.250	0.248	0.257	1	
BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Antenna Gain (dBi) <th colspan="3">EIRP (dBm)</th> <th colspan="4">EIRP(W)</th>	EIRP (dBm)			EIRP(W)			
				20000	20175	20350	Tune-up Limit		20000	20175	20350	20000	20175	20350	EIRP Limit (W)
				1715 MHz	1732.5 MHz	1750 MHz			1715 MHz	1732.5 MHz	1750 MHz				
10 MHz	QPSK	1	0	24.46	24.52	24.23	25	3.22	27.680	27.740	27.450	0.586	0.594	0.556	1
		1	25	24.55	24.59	24.36	25		27.770	27.810	27.580	0.598	0.604	0.573	1
		1	49	24.49	24.41	24.31	25		27.710	27.630	27.530	0.590	0.579	0.566	1
		25	0	23.43	23.25	23.12	24		26.650	26.470	26.340	0.462	0.444	0.431	1
		25	12	23.43	23.32	23.22	24		26.650	26.540	26.440	0.462	0.451	0.441	1
		25	25	23.43	23.31	23.10	24		26.650	26.530	26.320	0.462	0.450	0.429	1
	16QAM	50	0	23.34	23.24	23.04	24	26.560	26.460	26.260	0.453	0.443	0.423	1	
		1	0	23.32	22.76	23.36	24	26.540	25.980	26.580	0.451	0.396	0.455	1	
		1	25	23.26	23.23	23.41	24	26.480	26.450	26.630	0.445	0.442	0.460	1	
		1	49	22.77	22.98	23.24	24	25.990	26.200	26.460	0.397	0.417	0.443	1	
		12	0	21.84	21.97	21.94	23	25.060	25.190	25.160	0.321	0.330	0.328	1	
		12	19	22.08	21.97	22.31	23	25.300	25.190	25.530	0.339	0.330	0.357	1	
		12	38	21.74	21.97	21.82	23	24.960	25.190	25.040	0.313	0.330	0.319	1	
		27	0	20.68	20.86	20.82	23	23.900	24.080	24.040	0.245	0.256	0.254	1	

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Antenna Gain (dBi)	EIRP (dBm)			EIRP(W)			
				19975	20175	20375	Tune-up Limit		19975	20175	20375	19975	20175	20375	EIRP Limit (W)
				1712.5 MHz	1732.5 MHz	1752.5 MHz			1712.5 MHz	1732.5 MHz	1752.5 MHz	1712.5 MHz	1732.5 MHz	1752.5 MHz	
5 MHz	QPSK	1	0	24.06	23.64	24.00	25	3.22	27.280	26.860	27.220	0.535	0.485	0.527	1
		1	12	24.08	23.96	23.80	25		27.300	27.180	27.020	0.537	0.522	0.504	1
		1	24	23.86	23.91	23.75	25		27.080	27.130	26.970	0.511	0.516	0.498	1
		12	0	22.99	22.77	23.18	24		26.210	25.990	26.400	0.418	0.397	0.437	1
		12	7	22.90	22.91	23.17	24		26.120	26.130	26.390	0.409	0.410	0.436	1
		12	13	22.80	22.94	23.13	24		26.020	26.160	26.350	0.400	0.413	0.432	1
		25	0	22.84	22.91	23.15	24		26.060	26.130	26.370	0.404	0.410	0.434	1
	16QAM	1	0	22.96	22.74	23.27	24	3.22	26.180	25.960	26.490	0.415	0.394	0.446	1
		1	12	23.09	23.06	23.34	24		26.310	26.280	26.560	0.428	0.425	0.453	1
		1	24	22.73	22.73	23.20	24		25.950	25.950	26.420	0.394	0.394	0.439	1
		12	0	21.82	21.72	22.16	23		25.040	24.940	25.380	0.319	0.312	0.345	1
		12	7	21.85	21.82	22.13	23		25.070	25.040	25.350	0.321	0.319	0.343	1
		12	13	21.93	21.83	22.10	23		25.150	25.050	25.320	0.327	0.320	0.340	1
		25	0	21.90	21.95	22.02	23		25.120	25.170	25.240	0.325	0.329	0.334	1
BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Antenna Gain (dBi) <th colspan="3">EIRP (dBm)</th> <th colspan="4">EIRP(W)</th>	EIRP (dBm)			EIRP(W)			
				19965	20175	20385	Tune-up Limit		19965	20175	20385	19965	20175	20385	EIRP Limit (W)
				1711.5 MHz	1732.5 MHz	1753.5 MHz			1711.5 MHz	1732.5 MHz	1753.5 MHz	1711.5 MHz	1732.5 MHz	1753.5 MHz	
3 MHz	QPSK	1	0	24.30	24.22	24.01	25	3.22	27.520	27.440	27.230	0.565	0.555	0.528	1
		1	8	24.34	24.13	23.97	25		27.560	27.350	27.190	0.570	0.543	0.524	1
		1	14	23.94	23.96	23.96	25		27.160	27.180	27.180	0.520	0.522	0.522	1
		8	0	22.52	22.46	22.60	24		25.740	25.680	25.820	0.375	0.370	0.382	1
		8	4	22.48	22.62	22.45	24		25.700	25.840	25.670	0.372	0.384	0.369	1
		8	7	22.43	22.51	22.53	24		25.650	25.730	25.750	0.367	0.374	0.376	1
		15	0	23.02	22.97	22.96	24		26.240	26.190	26.180	0.421	0.416	0.415	1
	16QAM	1	0	23.05	23.09	23.11	24	3.22	26.270	26.310	26.330	0.424	0.428	0.430	1
		1	8	23.01	23.36	23.21	24		26.230	26.580	26.430	0.420	0.455	0.440	1
		1	14	22.19	22.32	22.15	24		25.410	25.540	25.370	0.348	0.358	0.344	1
		8	0	22.21	22.17	22.31	23		25.430	25.390	25.530	0.349	0.346	0.357	1
		8	4	22.26	22.23	22.23	23		25.480	25.450	25.450	0.353	0.351	0.351	1
		8	7	22.06	22.15	22.19	23		25.280	25.370	25.410	0.337	0.344	0.348	1
		15	0	22.07	22.10	22.11	23		25.290	25.320	25.330	0.338	0.340	0.341	1
BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Antenna Gain (dBi) <th colspan="3">EIRP (dBm)</th> <th colspan="4">EIRP(W)</th>	EIRP (dBm)			EIRP(W)			
				19957	20175	20393	Tune-up Limit		19957	20175	20393	19957	20175	20393	EIRP Limit (W)
				1710.7 MHz	1732.5 MHz	1754.3 MHz			1710.7 MHz	1732.5 MHz	1754.3 MHz	1710.7 MHz	1732.5 MHz	1754.3 MHz	
1.4 MHz	QPSK	1	0	24.44	24.16	24.48	25	3.22	27.660	27.380	27.700	0.583	0.547	0.589	1
		1	3	24.74	24.43	24.44	25		27.960	27.650	27.660	0.625	0.582	0.583	1
		1	5	24.48	24.17	24.26	25		27.700	27.390	27.480	0.589	0.548	0.560	1
		3	0	24.43	23.98	24.14	25		27.650	27.200	27.360	0.582	0.525	0.545	1
		3	1	24.46	24.20	24.35	25		27.680	27.420	27.570	0.586	0.552	0.571	1
		3	3	24.36	24.36	24.29	25		27.580	27.580	27.510	0.573	0.573	0.564	1
		6	0	23.35	23.15	23.26	24		26.570	26.370	26.480	0.454	0.434	0.445	1
	16QAM	1	0	23.43	23.28	23.26	24	3.22	26.650	26.500	26.480	0.462	0.447	0.445	1
		1	3	23.38	23.30	23.22	24		26.600	26.520	26.440	0.457	0.449	0.441	1
		1	5	23.31	23.31	23.28	24		26.530	26.530	26.500	0.450	0.450	0.447	1
		3	0	23.09	23.42	22.93	24		26.310	26.640	26.150	0.428	0.461	0.412	1
		3	1	23.36	23.65	23.13	24		26.580	26.870	26.350	0.455	0.486	0.432	1
		3	3	23.32	23.62	22.94	24		26.540	26.840	26.160	0.451	0.483	0.413	1
		6	0	22.13	22.17	22.12	23		25.350	25.390	25.340	0.343	0.346	0.342	1

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BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Antenna Gain (dBi)	EIRP (dBm)			ERP (W)			
				20450	20525	20600	Tune- up Limit		20450	20525	20600	20450	20525	20600	ERP Limit (W)
				829 MHz	836.5 MHz	844 MHz			829 MHz	836.5 MHz	844 MHz	829 MHz	836.5 MHz	844 MHz	
10 MHz	QPSK	1	0	22.80	24.36	22.81	25	0.39	21.040	22.600	21.050	0.127	0.182	0.127	7
		1	25	23.19	23.89	23.22	25		21.430	22.130	21.460	0.139	0.163	0.140	7
		1	49	22.97	23.80	23.45	25		21.210	22.040	21.690	0.132	0.160	0.148	7
		25	0	22.56	22.77	22.52	24		20.800	21.010	20.760	0.120	0.126	0.119	7
		25	12	22.43	22.80	22.77	24		20.670	21.040	21.010	0.117	0.127	0.126	7
		25	25	22.30	22.81	22.73	24		20.540	21.050	20.970	0.113	0.127	0.125	7
		50	0	22.37	22.72	22.64	24		20.610	20.960	20.880	0.115	0.125	0.122	7
	16QAM	1	0	22.22	23.32	21.91	24	0.39	20.460	21.560	20.150	0.111	0.143	0.104	7
		1	25	22.88	22.82	22.89	24		21.120	21.060	21.130	0.129	0.128	0.130	7
		1	49	22.06	22.83	22.64	24		20.300	21.070	20.880	0.107	0.128	0.122	7
		25	0	22.20	21.98	22.02	23		20.440	20.220	20.260	0.111	0.105	0.106	7
		25	19	22.09	22.12	22.21	23		20.330	20.360	20.450	0.108	0.109	0.111	7
		25	38	22.12	22.00	22.37	23		20.360	20.240	20.610	0.109	0.106	0.115	7
		27	0	21.19	21.62	21.42	23		19.430	19.860	19.660	0.088	0.097	0.092	7
5 MHz	QPSK	1	0	23.45	23.82	23.89	25	0.39	21.690	22.060	22.130	0.148	0.161	0.163	7
		1	12	23.96	23.91	24.46	25		22.200	22.150	22.700	0.166	0.164	0.186	7
		1	24	23.67	23.79	24.11	25		21.910	22.030	22.350	0.155	0.160	0.172	7
		12	0	22.97	22.76	23.37	24		21.210	21.000	21.610	0.132	0.126	0.145	7
		12	7	23.11	22.84	23.39	24		21.350	21.080	21.630	0.136	0.128	0.146	7
		12	13	22.98	22.77	23.30	24		21.220	21.010	21.540	0.132	0.126	0.143	7
		25	0	22.92	22.85	23.32	24		21.160	21.090	21.560	0.131	0.129	0.143	7
	16QAM	1	0	22.59	22.57	23.14	24	0.39	20.830	20.810	21.380	0.121	0.121	0.137	7
		1	12	23.35	22.39	23.40	24		21.590	20.630	21.640	0.144	0.116	0.146	7
		1	24	22.84	22.28	22.92	24		21.080	20.520	21.160	0.128	0.113	0.131	7
		12	0	21.84	21.70	22.21	23		20.080	19.940	20.450	0.102	0.099	0.111	7
		12	7	22.04	21.61	22.23	23		20.280	19.850	20.470	0.107	0.097	0.111	7
		12	13	22.03	21.85	22.12	23		20.270	20.090	20.360	0.106	0.102	0.109	7
		25	0	22.07	21.81	22.12	23		20.310	20.050	20.360	0.107	0.101	0.109	7
3 MHz	QPSK	1	0	23.90	24.10	24.47	25	0.39	22.140	22.340	22.710	0.164	0.171	0.187	7
		1	8	24.06	24.16	24.46	25		22.300	22.400	22.700	0.170	0.174	0.186	7
		1	14	24.15	24.05	24.31	25		22.390	22.290	22.550	0.173	0.169	0.180	7
		8	0	23.04	22.97	23.39	24		21.280	21.210	21.630	0.134	0.132	0.146	7
		8	4	23.09	22.92	23.34	24		21.330	21.160	21.580	0.136	0.131	0.144	7
		8	7	23.19	22.95	23.52	24		21.430	21.190	21.760	0.139	0.132	0.150	7
		15	0	23.04	22.99	23.42	24		21.280	21.230	21.660	0.134	0.133	0.147	7
	16QAM	1	0	22.96	22.81	23.49	24	0.39	21.200	21.050	21.730	0.132	0.127	0.149	7
		1	8	23.20	22.65	23.34	24		21.440	20.890	21.580	0.139	0.123	0.144	7
		1	14	23.13	22.74	23.32	24		21.370	20.980	21.560	0.137	0.125	0.143	7
		8	0	21.98	22.15	22.44	23		20.220	20.390	20.680	0.105	0.109	0.117	7
		8	4	22.25	21.87	22.41	23		20.490	20.110	20.650	0.112	0.103	0.116	7
		8	7	22.19	21.93	22.34	23		20.430	20.170	20.580	0.110	0.104	0.114	7
		15	0	22.07	21.88	22.35	23		20.310	20.120	20.590	0.107	0.103	0.115	7

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Antenna Gain (dBi)	EIRP (dBm)			ERP (W)			
				20407	20525	20643	Tune- up Limit		20407	20525	20643	20407	20525	20643	ERP Limit (W)
				824.7 MHz	836.5 MHz	848.3 MHz			824.7 MHz	836.5 MHz	848.3 MHz				
1.4 MHz	QPSK	1	0	24.13	24.30	24.64	25	0.39	22.370	22.540	22.880	0.173	0.179	0.194	7
		1	3	24.32	24.22	24.70	25		22.560	22.460	22.940	0.180	0.176	0.197	7
		1	5	24.22	24.28	24.49	25		22.460	22.520	22.730	0.176	0.179	0.187	7
		3	0	24.17	24.25	24.76	25		22.410	22.490	23.000	0.174	0.177	0.200	7
		3	1	24.41	24.34	24.59	25		22.650	22.580	22.830	0.184	0.181	0.192	7
		3	3	24.39	24.21	24.49	25		22.630	22.450	22.730	0.183	0.176	0.187	7
		6	0	23.27	23.14	23.63	24		21.510	21.380	21.870	0.142	0.137	0.154	7
	16QAM	1	0	23.25	23.21	23.65	24	0.39	21.490	21.450	21.890	0.141	0.140	0.155	7
		1	3	23.21	23.27	23.81	24		21.450	21.510	22.050	0.140	0.142	0.160	7
		1	5	23.32	23.08	23.71	24		21.560	21.320	21.950	0.143	0.136	0.157	7
		3	0	22.83	23.04	22.80	24		21.070	21.280	21.040	0.128	0.134	0.127	7
		3	1	22.85	23.13	23.95	24		21.090	21.370	22.190	0.129	0.137	0.166	7
		3	3	22.87	23.27	23.88	24		21.110	21.510	22.120	0.129	0.142	0.163	7
		6	0	21.79	22.01	22.82	23		20.030	20.250	21.060	0.101	0.106	0.128	7

7.4. LTE 12

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Antenna Gain (dBi)	ERP (dBm)			ERP (W)			
					23095		Tune-up Limit			23095			23095		ERP Limit (W)
					707.5 MHz					707.5 MHz					
10 MHz	QPSK	1	0		23.76		25	0.37		21.980			0.158		3
		1	25		23.79		25			22.010			0.159		3
		1	49		23.37		25			21.590			0.144		3
		25	0		22.55		24			20.770			0.119		3
		25	12		22.26		24			20.480			0.112		3
		25	25		22.42		24			20.640			0.116		3
		50	0		22.60		24			20.820			0.121		3
	16QAM	1	0	22.60	24	20.820	0.121	3							
		1	25	22.38	24	20.600	0.115	3							
		1	49	22.20	24	20.420	0.110	3							
		12	0	22.22	23	20.440	0.111	3							
		12	19	22.11	23	20.330	0.108	3							
		12	38	22.11	23	20.330	0.108	3							
		27	0	21.24	23	19.460	0.088	3							
BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Antenna Gain (dBi)	ERP (dBm)			ERP (W)			
				23035	23095	23155	Tune-up Limit		23035	23095	23155	23035	23095	23155	ERP Limit (W)
				701.5 MHz	707.5 MHz	713.5 MHz			701.5 MHz	707.5 MHz	713.5 MHz	701.5 MHz	707.5 MHz	713.5 MHz	
5 MHz	QPSK	1	0	22.49	22.41	22.40	25	0.37	20.710	20.630	20.620	0.118	0.116	0.115	3
		1	12	22.63	22.51	22.90	25		20.850	20.730	21.120	0.122	0.118	0.129	3
		1	24	22.45	22.47	22.58	25		20.670	20.690	20.800	0.117	0.117	0.120	3
		12	0	22.63	22.37	22.12	24		20.850	20.590	20.340	0.122	0.115	0.108	3
		12	7	22.52	22.43	22.25	24		20.740	20.650	20.470	0.119	0.116	0.111	3
		12	13	22.55	22.48	22.24	24		20.770	20.700	20.460	0.119	0.117	0.111	3
		25	0	22.64	22.36	22.57	24		20.860	20.580	20.790	0.122	0.114	0.120	3
	16QAM	1	0	21.66	22.17	22.01	24	0.37	19.880	20.390	20.230	0.097	0.109	0.105	3
		1	12	21.84	21.92	22.36	24		20.060	20.140	20.580	0.101	0.103	0.114	3
		1	24	21.87	21.92	22.43	24		20.090	20.140	20.650	0.102	0.103	0.116	3
		12	0	21.22	21.15	21.35	23		19.440	19.370	19.570	0.088	0.086	0.091	3
		12	7	20.98	21.15	21.57	23		19.200	19.370	19.790	0.083	0.086	0.095	3
		12	13	21.06	21.10	21.59	23		19.280	19.320	19.810	0.085	0.086	0.096	3
		25	0	21.12	21.39	21.47	23		19.340	19.610	19.690	0.086	0.091	0.093	3
BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Antenna Gain (dBi)	ERP (dBm)			ERP (W)			
				23025	23095	23165	Tune-up Limit		23025	23095	23165	23025	23095	23165	ERP Limit (W)
				700.5 MHz	707.5 MHz	714.5 MHz			700.5 MHz	707.5 MHz	714.5 MHz	700.5 MHz	707.5 MHz	714.5 MHz	
3 MHz	QPSK	1	0	22.02	22.35	22.51	25	0.37	20.240	20.570	20.730	0.106	0.114	0.118	3
		1	8	22.26	22.48	22.72	25		20.480	20.700	20.940	0.112	0.117	0.124	3
		1	14	22.56	22.57	22.89	25		20.780	20.790	21.110	0.120	0.120	0.129	3
		8	0	22.26	22.33	22.64	24		20.480	20.550	20.860	0.112	0.114	0.122	3
		8	4	22.28	22.44	22.61	24		20.500	20.660	20.830	0.112	0.116	0.121	3
		8	7	22.30	22.52	22.65	24		20.520	20.740	20.870	0.113	0.119	0.122	3
		15	0	22.12	22.50	22.72	24		20.340	20.720	20.940	0.108	0.118	0.124	3
	16QAM	1	0	21.69	22.28	22.41	24	0.37	19.910	20.500	20.630	0.098	0.112	0.116	3
		1	8	21.78	22.29	22.56	24		20.000	20.510	20.780	0.100	0.112	0.120	3
		1	14	21.90	22.17	23.09	24		20.120	20.390	21.310	0.103	0.109	0.135	3
		8	0	20.93	21.23	21.85	23		19.150	19.450	20.070	0.082	0.088	0.102	3
		8	4	20.73	21.02	21.96	23		18.950	19.240	20.180	0.079	0.084	0.104	3
		8	7	21.01	21.03	21.90	23		19.230	19.250	20.120	0.084	0.084	0.103	3
		15	0	20.78	21.40	21.71	23		19.000	19.620	19.930	0.079	0.092	0.098	3

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Antenna Gain (dBi)	ERP (dBm)			ERP (W)			
				23017	23095	23173	Tune-up Limit		23017	23095	23173	ERP Limit (W)	23017	23095	23173
				699.7 MHz	707.5 MHz	715.3 MHz			699.7 MHz	707.5 MHz	715.3 MHz				
1.4 MHz	QPSK	1	0	22.58	22.52	22.93	25	0.37	20.800	20.740	21.150	0.120	0.119	0.130	3
		1	3	22.23	22.36	22.92	25		20.450	20.580	21.140	0.111	0.114	0.130	3
		1	5	22.15	22.37	22.92	25		20.370	20.590	21.140	0.109	0.115	0.130	3
		3	0	22.51	22.29	22.80	25		20.730	20.510	21.020	0.118	0.112	0.126	3
		3	1	22.51	22.38	22.94	25		20.730	20.600	21.160	0.118	0.115	0.131	3
		3	3	22.46	22.25	22.69	25		20.680	20.470	20.910	0.117	0.111	0.123	3
		6	0	22.23	22.46	22.80	24		20.450	20.680	21.020	0.111	0.117	0.126	3
	16QAM	1	0	21.84	21.75	22.09	24	0.37	20.060	19.970	20.310	0.101	0.099	0.107	3
		1	3	21.91	21.70	22.38	24		20.130	19.920	20.600	0.103	0.098	0.115	3
		1	5	21.88	21.83	22.39	24		20.100	20.050	20.610	0.102	0.101	0.115	3
		3	0	21.67	21.83	22.23	24		19.890	20.050	20.450	0.097	0.101	0.111	3
		3	1	21.72	22.10	22.81	24		19.940	20.320	21.030	0.099	0.108	0.127	3
		3	3	21.65	21.88	22.90	24		19.870	20.100	21.120	0.097	0.102	0.129	3
		6	0	20.56	20.73	21.27	23		18.780	18.950	19.490	0.076	0.079	0.089	3

7.5. LTE 13

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Antenna Gain (dBi)	ERP (dBm)			ERP (W)		
					23230 782 MHz		Tune- up Limit			23230 782 MHz			23230 782 MHz	ERP Limit (W)
10 MHz	QPSK	1	0		23.53		25	0.37		21.750			0.150	3
		1	25		24.66		25			22.880			0.194	3
		1	49		24.70		25			22.920			0.196	3
		25	0		22.87		24			21.090			0.129	3
		25	12		23.29		24			21.510			0.142	3
		25	25		23.41		24			21.630			0.146	3
		50	0		22.29		24			20.510			0.112	3
	16QAM	1	0		22.89		24	0.37		21.110			0.129	3
		1	25		22.88		24			21.100			0.129	3
		1	49		23.50		24			21.720			0.149	3
		12	0		22.51		23			20.730			0.118	3
		12	19		22.75		23			20.970			0.125	3
		12	38		22.92		23			21.140			0.130	3
		27	0		21.65		23			19.870			0.097	3
BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Antenna Gain (dBi)	ERP (dBm)			ERP (W)		
					23230 782 MHz		Tune- up Limit			23230 782 MHz			23230 782 MHz	ERP Limit (W)
5 MHz	QPSK	1	0		24.35		25	0.37		22.570			0.181	3
		1	12		24.91		25			23.130			0.206	3
		1	24		24.78		25			23.000			0.200	3
		12	0		23.80		24			22.020			0.159	3
		12	7		24.00		24			22.220			0.167	3
		12	13		24.00		24			22.220			0.167	3
		25	0		23.93		24			22.150			0.164	3
	16QAM	1	0		23.08		24	0.37		21.300			0.135	3
		1	12		23.40		24			21.620			0.145	3
		1	24		23.92		24			22.140			0.164	3
		12	0		22.66		23			20.880			0.122	3
		12	7		22.82		23			21.040			0.127	3
		12	13		22.94		23			21.160			0.131	3
		25	0		22.87		23			21.090			0.129	3

7.6. LTE 14

BW (MHz)	Mode	RB Allocatio n	RB offset	Maximum Average Power (dBm)				Antenna Gain (dBi)	ERP (dBm)		ERP (W)					
					23330					23330			23330			ERP Limit (W)
					793 MHz		Tune- up Limit			793 MHz			793 MHz			
10 MHz	QPSK	1	0		24.45		25	0.12		22.420			0.175		3	
		1	25		24.48		25			22.450			0.176		3	
		1	49		24.41		25			22.380			0.173		3	
		25	0		23.19		24			21.160			0.131		3	
		25	12		23.16		24			21.130			0.130		3	
		25	25		23.01		24			20.980			0.125		3	
		50	0		23.21		24			21.180			0.131		3	
	16QAM	1	0		23.04		24	0.12		21.010			0.126		3	
		1	25		23.06		24			21.030			0.127		3	
		1	49		23.03		24			21.000			0.126		3	
		12	0		21.64		23			19.610			0.091		3	
		12	19		21.80		23			19.770			0.095		3	
		12	38		21.82		23			19.790			0.095		3	
		27	0		21.17		23			19.140			0.082		3	
BW (MHz)	Mode	RB Allocatio n	RB offset	Maximum Average Power (dBm)				Antenna Gain (dBi)	ERP (dBm)		ERP (W)					
					23330					23330			23330			ERP Limit (W)
					793 MHz		Tune- up Limit			793 MHz			793 MHz			
5 MHz	QPSK	1	0		24.65		25	0.12		22.620			0.183		3	
		1	12		24.88		25			22.850			0.193		3	
		1	24		24.75		25			22.720			0.187		3	
		12	0		23.78		24			21.750			0.150		3	
		12	7		23.85		24			21.820			0.152		3	
		12	13		23.85		24			21.820			0.152		3	
		25	0		23.73		24			21.700			0.148		3	
	16QAM	1	0		23.26		24	0.12		21.230			0.133		3	
		1	12		23.79		24			21.760			0.150		3	
		1	24		23.20		24			21.170			0.131		3	
		12	0		22.75		23			20.720			0.118		3	
		12	7		22.95		23			20.920			0.124		3	
		12	13		22.67		23			20.640			0.116		3	
		25	0		22.91		23			20.880			0.122		3	

7.7. LTE 66

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Antenna Gain (dbi)	EIRP (dBm)			EIRP (W)			
				132072	132322	132572	Tune- up Limit		132072	132322	132572	132072	132322	132572	EIRP Limit (W)
				1720 MHz	1745 MHz	1770 MHz			1720 MHz	1745 MHz	1770 MHz	1720 MHz	1745 MHz	1770 MHz	
20 MHz	QPSK	1	0	24.22	24.72	24.22	25	3.4	27.620	28.120	27.620	0.578	0.649	0.578	1
		1	49	24.32	24.73	24.22	25		27.720	28.130	27.620	0.592	0.650	0.578	1
		1	99	24.20	24.18	23.80	25		27.600	27.580	27.200	0.575	0.573	0.525	1
		50	0	23.09	23.42	23.26	24		26.490	26.820	26.660	0.446	0.481	0.463	1
		50	24	23.29	23.38	23.34	24		26.690	26.780	26.740	0.467	0.476	0.472	1
		50	50	22.68	23.30	23.31	24		26.080	26.700	26.710	0.406	0.468	0.469	1
		100	0	23.22	23.51	23.62	24		26.620	26.910	27.020	0.459	0.491	0.504	1
	16QAM	1	0	22.91	23.65	23.72	24	3.4	26.310	27.050	27.120	0.428	0.507	0.515	1
		1	49	23.05	23.32	23.26	24		26.450	26.720	26.660	0.442	0.470	0.463	1
		1	99	22.67	23.01	23.02	24		26.070	26.410	26.420	0.405	0.438	0.439	1
		12	0	21.60	21.83	22.18	23		25.000	25.230	25.580	0.316	0.333	0.361	1
		12	44	21.77	22.15	21.94	23		25.170	25.550	25.340	0.329	0.359	0.342	1
		12	88	21.47	21.71	22.08	23		24.870	25.110	25.480	0.307	0.324	0.353	1
		27	0	20.93	21.25	21.12	23		24.330	24.650	24.520	0.271	0.292	0.283	1
BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Antenna Gain (dbi)	EIRP (dBm)			EIRP (W)			
				132047	132322	132597	Tune- up Limit		132047	132322	132597	132047	132322	132597	EIRP Limit (W)
				1717.5 MHz	1745 MHz	1772.5 MHz			1717.5 MHz	1745 MHz	1772.5 MHz	1717.5 MHz	1745 MHz	1772.5 MHz	
15 MHz	QPSK	1	0	23.78	24.56	24.19	25	3.4	27.180	27.960	27.590	0.522	0.625	0.574	1
		1	37	23.90	24.43	24.01	25		27.300	27.830	27.410	0.537	0.607	0.551	1
		1	74	23.61	24.15	23.76	25		27.010	27.550	27.160	0.502	0.569	0.520	1
		36	0	22.63	22.74	22.81	24		26.030	26.140	26.210	0.401	0.411	0.418	1
		36	20	23.07	23.04	22.92	24		26.470	26.440	26.320	0.444	0.441	0.429	1
		36	39	22.81	22.79	22.74	24		26.210	26.190	26.140	0.418	0.416	0.411	1
		75	0	22.68	22.88	22.89	24		26.080	26.280	26.290	0.406	0.425	0.426	1
	16QAM	1	0	23.22	22.88	22.78	24	3.4	26.620	26.280	26.180	0.459	0.425	0.415	1
		1	37	23.14	23.46	23.01	24		26.540	26.860	26.410	0.451	0.485	0.438	1
		1	74	22.82	22.74	22.43	24		26.220	26.140	25.830	0.419	0.411	0.383	1
		12	0	21.84	21.98	21.78	23		25.240	25.380	25.180	0.334	0.345	0.330	1
		12	35	21.84	22.05	21.93	23		25.240	25.450	25.330	0.334	0.351	0.341	1
		12	63	21.76	21.64	21.60	23		25.160	25.040	25.000	0.328	0.319	0.316	1
		27	0	20.79	21.09	21.08	23		24.190	24.490	24.480	0.262	0.281	0.281	1
BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Antenna Gain (dbi)	EIRP (dBm)			EIRP (W)			
				132022	132322	132622	Tune- up Limit		132022	132322	132622	132022	132322	132622	EIRP Limit (W)
				1715 MHz	1745 MHz	1775 MHz			1715 MHz	1745 MHz	1775 MHz	1715 MHz	1745 MHz	1775 MHz	
10 MHz	QPSK	1	0	24.00	24.88	24.43	25	3.4	27.400	28.280	27.830	0.550	0.673	0.607	1
		1	25	24.29	24.95	24.49	25		27.690	28.350	27.890	0.587	0.684	0.615	1
		1	49	23.67	24.59	24.22	25		27.070	27.990	27.620	0.509	0.630	0.578	1
		25	0	22.74	23.53	23.17	24		26.140	26.930	26.570	0.411	0.493	0.454	1
		25	12	22.78	23.50	23.15	24		26.180	26.900	26.550	0.415	0.490	0.452	1
		25	25	22.67	23.42	23.10	24		26.070	26.820	26.500	0.405	0.481	0.447	1
		50	0	23.16	23.54	23.18	24		26.560	26.940	26.580	0.453	0.494	0.455	1
	16QAM	1	0	22.79	23.57	22.87	24	3.4	26.190	26.970	26.270	0.416	0.498	0.424	1
		1	25	23.75	23.58	22.79	24		27.150	26.980	26.190	0.519	0.499	0.416	1
		1	49	22.71	23.32	22.45	24		26.110	26.720	25.850	0.408	0.470	0.385	1
		12	0	21.78	21.84	22.14	23		25.180	25.240	25.540	0.330	0.334	0.358	1
		12	12	21.74	22.05	22.29	23		25.140	25.450	25.690	0.327	0.351	0.371	1
		12	25	21.69	21.98	21.87	23		25.090	25.380	25.270	0.323	0.345	0.337	1
		27	0	20.90	21.15	20.91	23		24.300	24.550	24.310	0.269	0.285	0.270	1

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Antenna Gain (dbi)	EIRP (W)						
				131997 1712.5 MHz	132322 1745 MHz	132647 1777.5 MHz	Tune-up Limit		131997 1712.5 MHz	132322 1745 MHz	132647 1777.5 MHz	131997 1712.5 MHz	132322 1745 MHz	132647 1777.5 MHz	EIRP Limit (W)
5 MHz	QPSK	1	0	23.83	23.74	23.61	25	3.4	27.230	27.140	27.010	0.528	0.518	0.502	1
		1	12	24.10	23.93	23.94	25		27.500	27.330	27.340	0.562	0.541	0.542	1
		1	24	23.87	23.75	23.46	25		27.270	27.150	26.860	0.533	0.519	0.485	1
		12	0	22.81	22.94	22.74	24		26.210	26.340	26.140	0.418	0.431	0.411	1
		12	7	22.79	23.02	22.75	24		26.190	26.420	26.150	0.416	0.439	0.412	1
		12	13	22.81	23.11	22.75	24		26.210	26.510	26.150	0.418	0.448	0.412	1
		25	0	22.74	23.02	22.68	24		26.140	26.420	26.080	0.411	0.439	0.406	1
	16QAM	1	0	22.71	22.74	22.80	24	3.4	26.110	26.140	26.200	0.408	0.411	0.417	1
		1	12	22.71	22.88	22.71	24		26.110	26.280	26.110	0.408	0.425	0.408	1
		1	24	22.65	22.73	22.61	24		26.050	26.130	26.010	0.403	0.410	0.399	1
		12	0	21.54	21.93	21.78	23		24.940	25.330	25.180	0.312	0.341	0.330	1
		12	7	21.70	21.86	21.79	23		25.100	25.260	25.190	0.324	0.336	0.330	1
		12	13	21.69	22.01	21.82	23		25.090	25.410	25.220	0.323	0.348	0.333	1
		25	0	21.74	22.27	21.75	23		25.140	25.670	25.150	0.327	0.369	0.327	1
BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Antenna Gain (dbi)	EIRP (dBm)						
				131987 1711.5 MHz	132322 1745 MHz	132657 1778.5 MHz	Tune-up Limit		131987 1711.5 MHz	132322 1745 MHz	132657 1778.5 MHz	131987 1711.5 MHz	132322 1745 MHz	132657 1778.5 MHz	EIRP Limit (W)
3 MHz	QPSK	1	0	24.04	23.84	23.80	25	3.4	27.440	27.240	27.200	0.555	0.530	0.525	1
		1	8	23.95	23.95	23.77	25		27.350	27.350	27.170	0.543	0.543	0.521	1
		1	14	23.69	23.89	23.65	25		27.090	27.290	27.050	0.512	0.536	0.507	1
		8	0	22.72	23.12	22.71	24		26.120	26.520	26.110	0.409	0.449	0.408	1
		8	4	22.78	23.22	22.74	24		26.180	26.620	26.140	0.415	0.459	0.411	1
		8	7	22.69	23.08	22.56	24		26.090	26.480	25.960	0.406	0.445	0.394	1
		15	0	22.77	23.07	22.68	24		26.170	26.470	26.080	0.414	0.444	0.406	1
	16QAM	1	0	22.89	23.08	22.76	24	3.4	26.290	26.480	26.160	0.426	0.445	0.413	1
		1	8	23.26	23.15	22.85	24		26.660	26.550	26.250	0.463	0.452	0.422	1
		1	14	23.19	23.17	22.60	24		26.590	26.570	26.000	0.456	0.454	0.398	1
		8	0	22.25	21.97	21.80	23		25.650	25.370	25.200	0.367	0.344	0.331	1
		8	4	21.93	22.10	21.77	23		25.330	25.500	25.170	0.341	0.355	0.329	1
		8	7	22.19	22.17	21.71	23		25.590	25.570	25.110	0.362	0.361	0.324	1
		15	0	21.65	22.07	21.64	23		25.050	25.470	25.040	0.320	0.352	0.319	1
BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Antenna Gain (dbi)	EIRP (dBm)						
				131979 1710.7 MHz	132322 1745 MHz	132665 1779.3 MHz	Tune-up Limit		131979 1710.7 MHz	132322 1745 MHz	132665 1779.3 MHz	131979 1710.7 MHz	132322 1745 MHz	132665 1779.3 MHz	EIRP Limit (W)
1.4 MHz	QPSK	1	0	24.62	24.03	23.78	25	3.4	28.020	27.430	27.180	0.634	0.553	0.522	1
		1	3	24.62	24.31	23.77	25		28.020	27.710	27.170	0.634	0.590	0.521	1
		1	5	24.41	24.12	23.64	25		27.810	27.520	27.040	0.604	0.565	0.506	1
		3	0	24.08	24.16	23.72	25		27.480	27.560	27.120	0.560	0.570	0.515	1
		3	1	24.12	24.19	23.77	25		27.520	27.590	27.170	0.565	0.574	0.521	1
		3	3	24.21	24.32	23.64	25		27.610	27.720	27.040	0.577	0.592	0.506	1
		6	0	22.98	23.07	22.78	24		26.380	26.470	26.180	0.435	0.444	0.415	1
	16QAM	1	0	23.07	23.23	22.80	24	3.4	26.470	26.630	26.200	0.444	0.460	0.417	1
		1	3	23.13	23.15	22.84	24		26.530	26.550	26.240	0.450	0.452	0.421	1
		1	5	23.13	23.13	22.67	24		26.530	26.530	26.070	0.450	0.450	0.405	1
		3	0	23.21	22.84	22.98	24		26.610	26.240	26.380	0.458	0.421	0.435	1
		3	1	23.05	22.84	23.00	24		26.450	26.240	26.400	0.442	0.421	0.437	1
		3	3	23.32	22.83	22.94	24		26.720	26.230	26.340	0.470	0.420	0.431	1
		6	0	22.20	21.98	21.79	23		25.600	25.380	25.190	0.363	0.345	0.330	1

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BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Antenna Gain (dbi)	ERP (dBm)			ERP (W)			ERP Limit
				133222	133297	133372	Tune- up Limit		133222	133297	133372	133222	133297	133372	
				673 MHz	680.5 MHz	688 MHz			673 MHz	680.5 MHz	688 MHz	673 MHz	680.5 MHz	688 MHz	
20 MHz	QPSK	1	0	22.13	24.12	22.24	25	-2.56	17.420	19.410	17.530	0.055	0.087	0.057	3
		1	49	22.59	24.14	22.07	25		17.880	19.430	17.360	0.061	0.088	0.054	3
		1	99	22.17	23.77	22.11	25		17.460	19.060	17.400	0.056	0.081	0.055	3
		50	0	22.16	22.61	22.27	24		17.450	17.900	17.560	0.056	0.062	0.057	3
		50	24	22.40	22.68	22.27	24		17.690	17.970	17.560	0.059	0.063	0.057	3
		50	50	22.44	22.43	22.28	24		17.730	17.720	17.570	0.059	0.059	0.057	3
		100	0	22.45	22.65	22.27	24		17.740	17.940	17.560	0.059	0.062	0.057	3
	16QAM	1	0	21.86	21.16	21.71	24	-2.56	17.150	16.450	17.000	0.052	0.044	0.050	3
		1	49	21.68	22.01	21.62	24		16.970	17.300	16.910	0.050	0.054	0.049	3
		1	99	21.50	21.36	21.48	24		16.790	16.650	16.770	0.048	0.046	0.048	3
		12	0	21.70	22.03	21.75	23		16.990	17.320	17.040	0.050	0.054	0.051	3
		12	44	21.92	22.06	21.59	23		17.210	17.350	16.880	0.053	0.054	0.049	3
		12	88	21.86	21.54	21.59	23		17.150	16.830	16.880	0.052	0.048	0.049	3
		27	0	20.70	21.02	20.96	23		15.990	16.310	16.250	0.040	0.043	0.042	3
BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Antenna Gain (dbi)	ERP (dBm)			ERP (W)			ERP Limit
				133197	133297	133397	Tune- up Limit		133197	133297	133397	133197	133297	133397	
				670.5 MHz	680.5 MHz	690.5 MHz			670.5 MHz	680.5 MHz	690.5 MHz	670.5 MHz	680.5 MHz	690.5 MHz	
15 MHz	QPSK	1	0	22.67	22.45	22.27	25	-2.56	17.960	17.740	17.560	0.063	0.059	0.057	3
		1	37	22.71	22.83	22.52	25		18.000	18.120	17.810	0.063	0.065	0.060	3
		1	74	22.78	22.44	22.55	25		18.070	17.730	17.840	0.064	0.059	0.061	3
		36	0	22.17	22.66	22.90	24		17.460	17.950	18.190	0.056	0.062	0.066	3
		36	20	22.17	22.68	22.30	24		17.460	17.970	17.590	0.056	0.063	0.057	3
		36	39	22.35	22.47	22.38	24		17.640	17.760	17.670	0.058	0.060	0.058	3
		75	0	22.40	22.52	22.36	24		17.690	17.810	17.650	0.059	0.060	0.058	3
	16QAM	1	0	22.29	22.21	22.65	24	-2.56	17.580	17.500	17.940	0.057	0.056	0.062	3
		1	37	22.31	22.76	22.34	24		17.600	18.050	17.630	0.058	0.064	0.058	3
		1	74	23.06	22.20	22.25	24		18.350	17.490	17.540	0.068	0.056	0.057	3
		12	0	22.26	22.67	22.32	23		17.550	17.960	17.610	0.057	0.063	0.058	3
		12	35	22.29	22.77	22.49	23		17.580	18.060	17.780	0.057	0.064	0.060	3
		12	63	22.30	22.12	22.48	23		17.590	17.410	17.770	0.057	0.055	0.060	3
		27	0	21.36	21.48	21.43	23		16.650	16.770	16.720	0.046	0.048	0.047	3
BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Antenna Gain (dbi)	ERP (dBm)			ERP (W)			ERP Limit
				133172	133297	133422	Tune- up Limit		133172	133297	133422	133172	133297	133422	
				668 MHz	680.5 MHz	693 MHz			668 MHz	680.5 MHz	693 MHz	668 MHz	680.5 MHz	693 MHz	
10 MHz	QPSK	1	0	22.52	22.49	22.21	25	-2.56	17.810	17.780	17.500	0.060	0.060	0.056	3
		1	25	22.48	22.75	22.72	25		17.770	18.040	18.010	0.060	0.064	0.063	3
		1	49	22.09	22.37	22.75	25		17.380	17.660	18.040	0.055	0.058	0.064	3
		25	0	22.30	22.35	22.25	24		17.590	17.640	17.540	0.057	0.058	0.057	3
		25	12	22.23	22.37	22.41	24		17.520	17.660	17.700	0.056	0.058	0.059	3
		25	25	22.19	22.32	22.45	24		17.480	17.610	17.740	0.056	0.058	0.059	3
		50	0	22.58	22.53	22.55	24		17.870	17.820	17.840	0.061	0.061	0.061	3
	16QAM	1	0	22.21	22.06	22.11	24	-2.56	17.500	17.350	17.400	0.056	0.054	0.055	3
		1	25	22.44	22.37	22.88	24		17.730	17.660	18.170	0.059	0.058	0.066	3
		1	49	22.00	22.33	22.30	24		17.290	17.620	17.590	0.054	0.058	0.057	3
		12	0	22.60	22.61	22.29	23		17.890	17.900	17.580	0.062	0.062	0.057	3
		12	12	22.62	22.52	22.44	23		17.910	17.810	17.730	0.062	0.060	0.059	3
		12	25	22.16	22.35	22.34	23		17.450	17.640	17.630	0.056	0.058	0.058	3
		27	0	21.30	21.56	21.08	23		16.590	16.850	16.370	0.046	0.048	0.043	3

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				Antenna Gain (dbi)	ERP (dBm)			ERP (W)			
				133147	133297	133447	Tune- up Limit		133147	133297	133447	133147	133297	133447	ERP Limit
				665.5 MHz	680.5 MHz	695.5 MHz			665.5 MHz	680.5 MHz	695.5 MHz	665.5 MHz	680.5 MHz	695.5 MHz	
5 MHz	QPSK	1	0	22.42	22.39	22.33	25	-2.56	17.710	17.680	17.620	0.059	0.059	0.058	3
		1	12	22.48	22.53	22.82	25		17.770	17.820	18.110	0.060	0.061	0.065	3
		1	24	22.30	22.31	22.22	25		17.590	17.600	17.510	0.057	0.058	0.056	3
		12	0	22.30	22.35	22.53	24		17.590	17.640	17.820	0.057	0.058	0.061	3
		12	7	22.34	22.39	22.45	24		17.630	17.680	17.740	0.058	0.059	0.059	3
		12	13	22.28	22.35	22.51	24		17.570	17.640	17.800	0.057	0.058	0.060	3
		25	0	22.37	22.40	22.39	24		17.660	17.690	17.680	0.058	0.059	0.059	3
	16QAM	1	0	22.21	22.29	22.13	24	-2.56	17.500	17.580	17.420	0.056	0.057	0.055	3
		1	12	22.58	22.56	22.55	24		17.870	17.850	17.840	0.061	0.061	0.061	3
		1	24	22.02	21.98	22.04	24		17.310	17.270	17.330	0.054	0.053	0.054	3
		12	0	21.36	21.28	21.27	23		16.650	16.570	16.560	0.046	0.045	0.045	3
		12	7	21.31	21.33	21.39	23		16.600	16.620	16.680	0.046	0.046	0.047	3
		12	13	21.13	21.34	21.35	23		16.420	16.630	16.640	0.044	0.046	0.046	3
		25	0	21.33	21.49	21.46	23		16.620	16.780	16.750	0.046	0.048	0.047	3

8. RADIATED TEST RESULTS

8.1. FIELD STRENGTH OF SPURIOUS RADIATION ABOVE 1GHz

TEST PROCEDURE

KDB 971168 D01 v03r01/D02 v02/r01

All tests above 1GHz were done with a Resolution Bandwidth of 1MHz, and a Video Bandwidth of 3MHz.

RESULTS

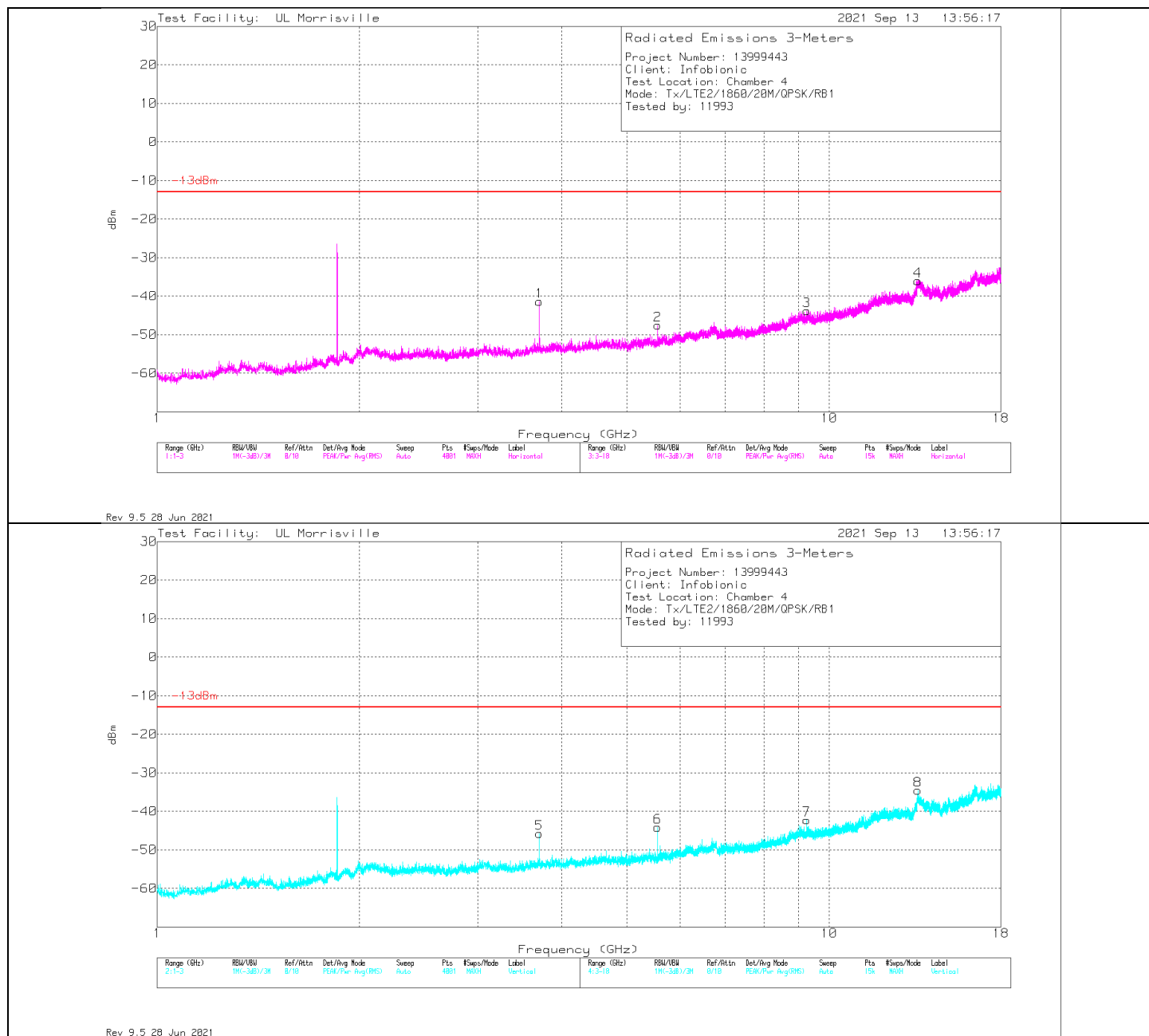
8.1.1. LTE2

LIMITS

FCC: §24.238(a)

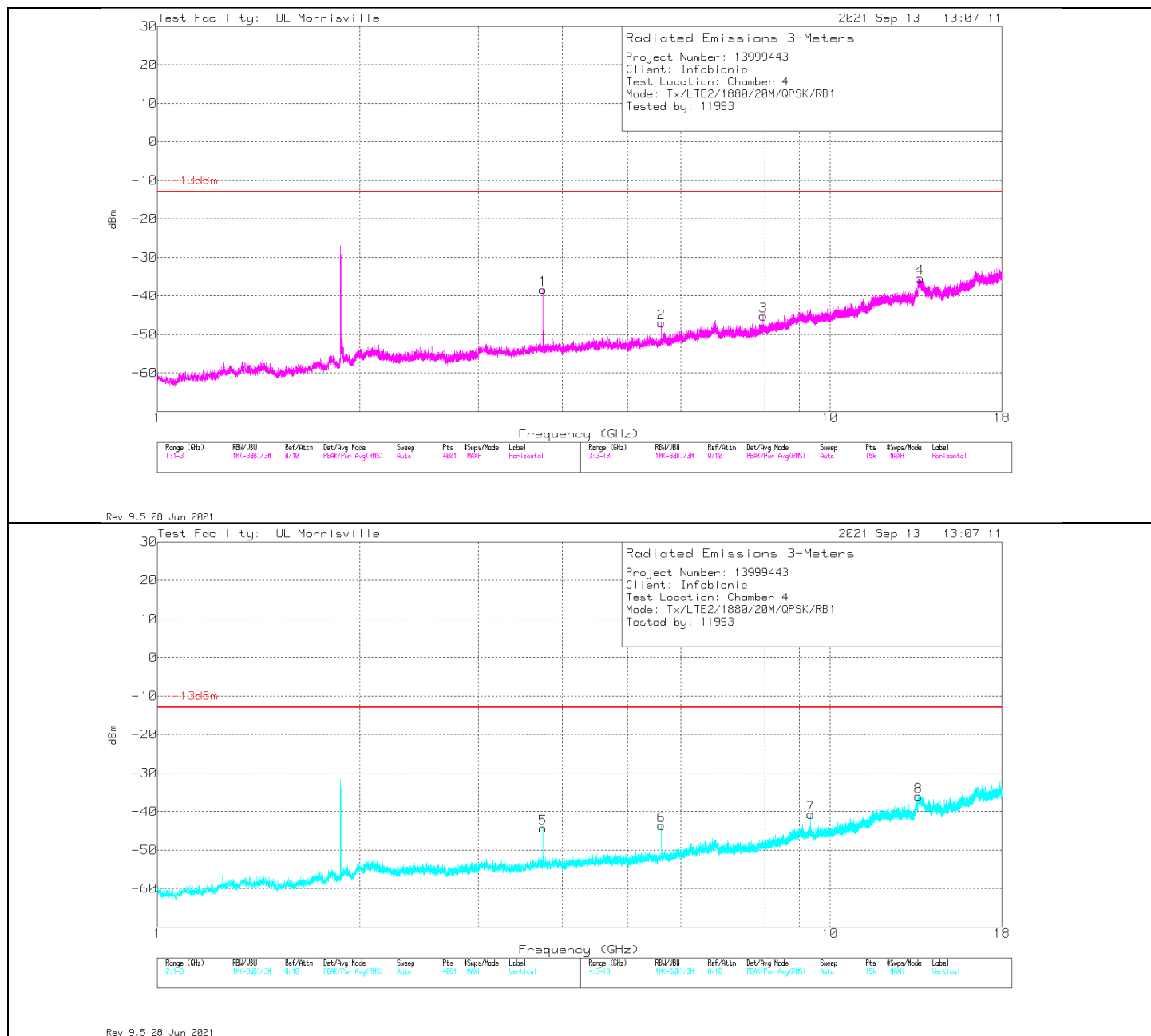
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log (P)$ dB.

QPSK LTE2 (20MHz)



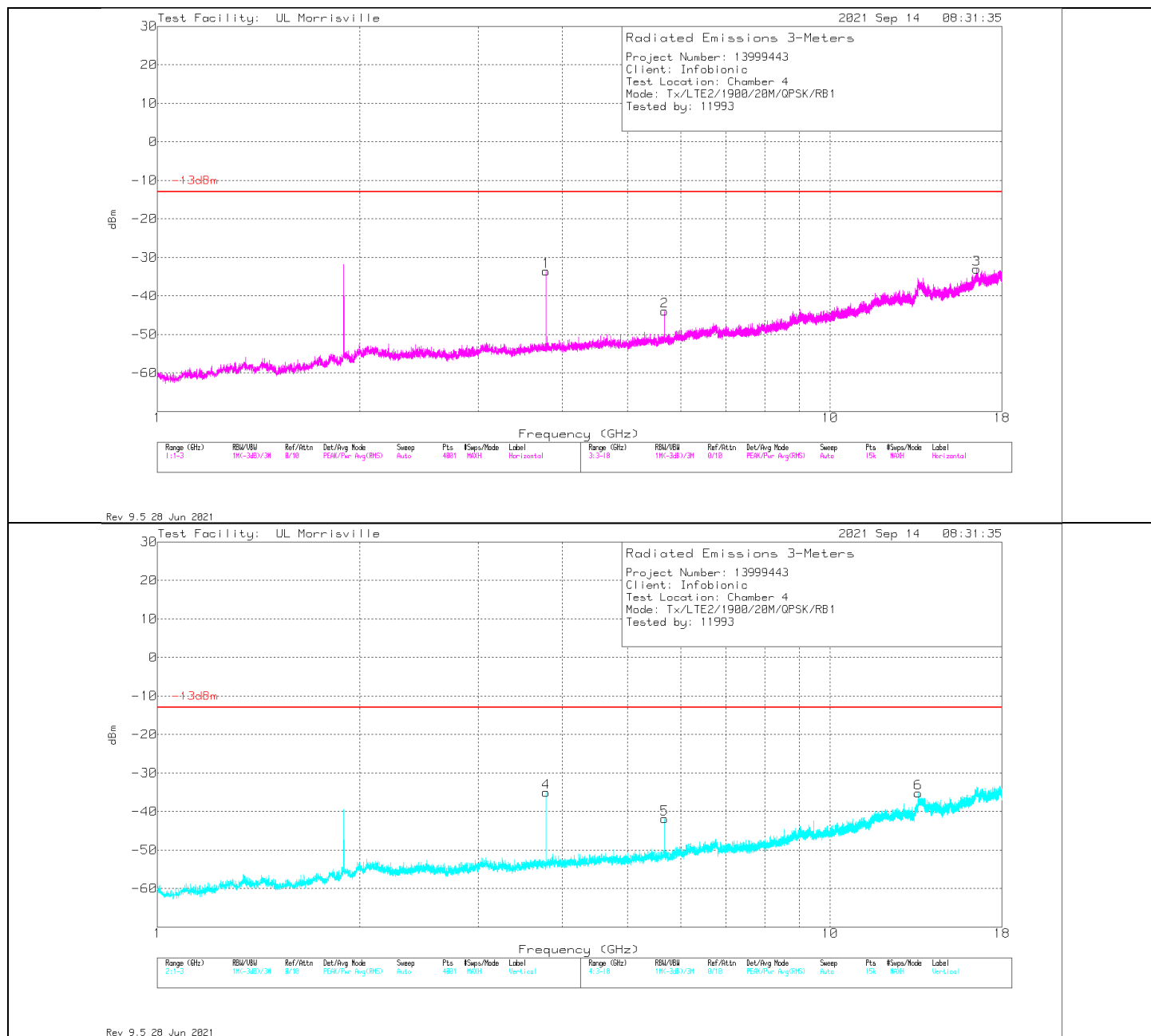
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.702	-52.62	Pk	33.1	-33.7	11.8	0	-41.42	-13	-28.42	0-360	100	H
5	3.702	-56.99	Pk	33.1	-33.7	11.8	0	-45.79	-13	-32.79	0-360	200	V
6	5.553	-58.05	Pk	34.4	-32.3	11.8	0	-44.15	-13	-31.15	0-360	200	V
2	5.554	-61.45	Pk	34.4	-32.3	11.8	0	-47.55	-13	-34.55	0-360	100	H
3	9.255	-65.41	Pk	36.3	-26.5	11.8	0	-43.81	-13	-30.81	0-360	200	H
7	9.255	-63.88	Pk	36.3	-26.5	11.8	0	-42.28	-13	-29.28	0-360	200	V
4	13.54	-63.98	Pk	38.7	-22.6	11.8	0	-36.08	-13	-23.08	0-360	200	H
8	13.543	-62.46	Pk	38.7	-22.6	11.8	0	-34.56	-13	-21.56	0-360	200	V

Pk - Peak detector



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.742	-49.98	Pk	33.3	-33.5	11.8	0	-38.38	-13	-25.38	0-360	100	H
5	3.742	-55.96	Pk	33.3	-33.5	11.8	0	-44.36	-13	-31.36	0-360	300	V
2	5.613	-61.72	Pk	34.4	-31.5	11.8	0	-47.02	-13	-34.02	0-360	100	H
6	5.613	-58.36	Pk	34.4	-31.5	11.8	0	-43.66	-13	-30.66	0-360	200	V
3	7.949	-64.43	Pk	35.7	-28.3	11.8	0	-45.23	-13	-32.23	0-360	200	H
7	9.3555	-63.16	Pk	36.4	-25.8	11.8	0	-40.76	-13	-27.76	0-360	300	V
8	13.52	-63.97	Pk	38.7	-22.6	11.8	0	-36.07	-13	-23.07	0-360	300	V
4	13.596	-62.8	Pk	38.7	-23.1	11.8	0	-35.4	-13	-22.4	0-360	100	H

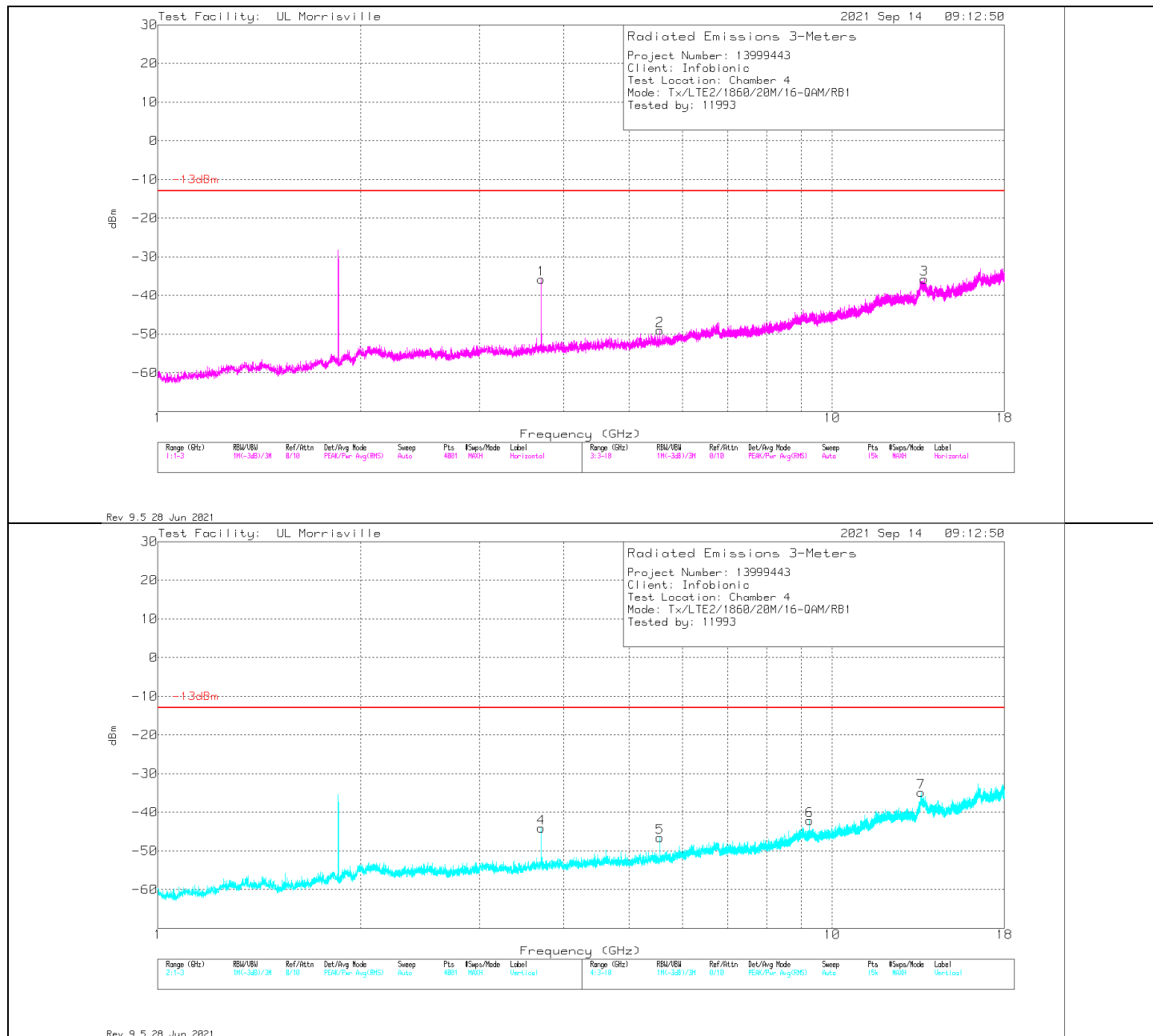
Pk - Peak detector



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.781	-45.13	Pk	33.3	-33.6	11.8	0	-33.63	-13	-20.63	0-360	100	H
4	3.782	-46.58	Pk	33.3	-33.6	11.8	0	-35.08	-13	-22.08	0-360	300	V
2	5.673	-59.99	Pk	34.5	-30.3	11.8	0	-43.99	-13	-30.99	0-360	200	H
5	5.673	-57.95	Pk	34.5	-30.3	11.8	0	-41.95	-13	-28.95	0-360	300	V
6	13.519	-63.13	Pk	38.7	-22.6	11.8	0	-35.23	-13	-22.23	0-360	300	V
3	16.5	-64.97	Pk	41.3	-21.2	11.8	0	-33.07	-13	-20.07	0-360	100	H

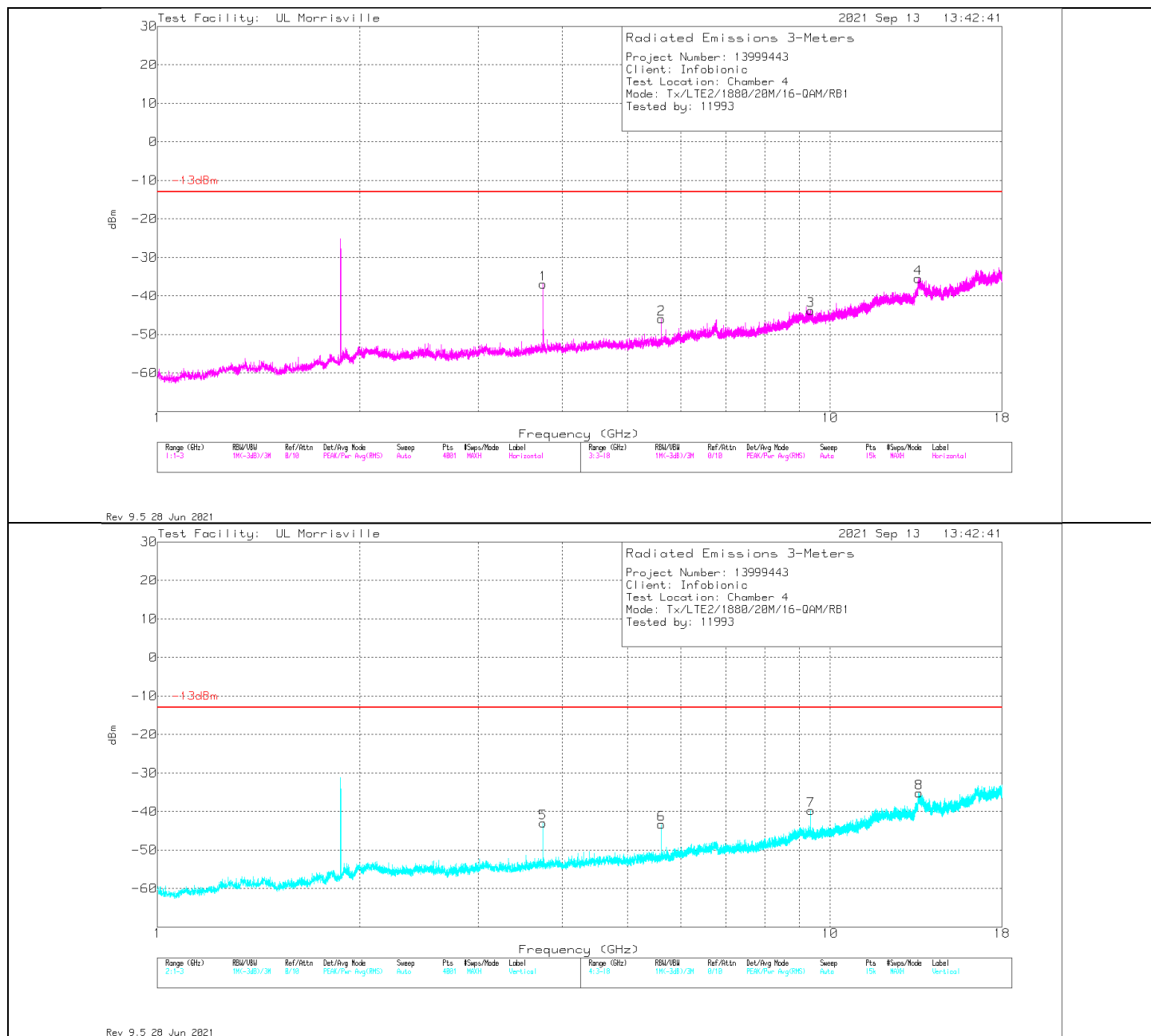
Pk - Peak detector

16QAM LTE2 (20MHz)



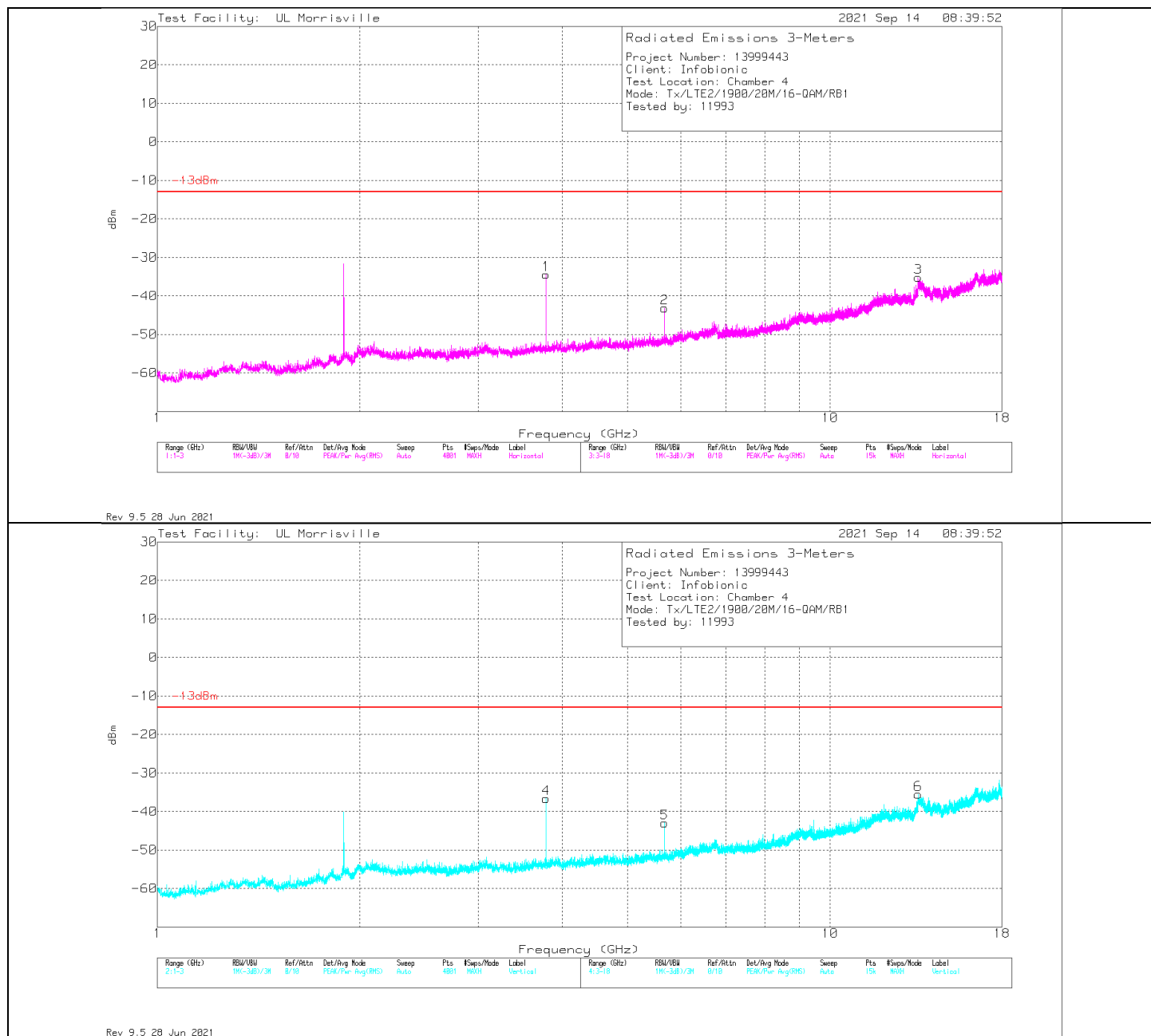
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.702	-47.06	Pk	33.1	-33.7	11.8	0	-35.86	-13	-22.86	0-360	100	H
4	3.702	-55.29	Pk	33.1	-33.7	11.8	0	-44.09	-13	-31.09	0-360	200	V
2	5.553	-62.98	Pk	34.4	-32.3	11.8	0	-49.08	-13	-36.08	0-360	200	H
5	5.553	-60.42	Pk	34.4	-32.3	11.8	0	-46.52	-13	-33.52	0-360	300	V
6	9.255	-63.75	Pk	36.3	-26.5	11.8	0	-42.15	-13	-29.15	0-360	300	V
7	13.548	-62.68	Pk	38.7	-22.7	11.8	0	-34.88	-13	-21.88	0-360	300	V
3	13.688	-63.82	Pk	38.6	-22.4	11.8	0	-35.82	-13	-22.82	0-360	100	H

Pk - Peak detector



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.742	-48.57	Pk	33.3	-33.5	11.8	0	-36.97	-13	-23.97	0-360	100	H
5	3.742	-54.61	Pk	33.3	-33.5	11.8	0	-43.01	-13	-30.01	0-360	300	V
2	5.613	-60.68	Pk	34.4	-31.5	11.8	0	-45.98	-13	-32.98	0-360	100	H
6	5.613	-58.07	Pk	34.4	-31.5	11.8	0	-43.37	-13	-30.37	0-360	300	V
3	9.355	-66.21	Pk	36.4	-25.8	11.8	0	-43.81	-13	-30.81	0-360	100	H
7	9.356	-62.15	Pk	36.4	-25.8	11.8	0	-39.75	-13	-26.75	0-360	200	V
4	13.518	-63.41	Pk	38.7	-22.6	11.8	0	-35.51	-13	-22.51	0-360	100	H
8	13.554	-62.89	Pk	38.7	-22.8	11.8	0	-35.19	-13	-22.19	0-360	200	V

Pk - Peak detector



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.782	-45.97	Pk	33.3	-33.6	11.8	0	-34.47	-13	-21.47	0-360	100	H
4	3.782	-48.13	Pk	33.3	-33.6	11.8	0	-36.63	-13	-23.63	0-360	300	V
2	5.673	-59.17	Pk	34.5	-30.3	11.8	0	-43.17	-13	-30.17	0-360	200	H
5	5.673	-58.98	Pk	34.5	-30.3	11.8	0	-42.98	-13	-29.98	0-360	300	V
3	13.505	-63.22	Pk	38.7	-22.5	11.8	0	-35.22	-13	-22.22	0-360	100	H
6	13.516	-63.47	Pk	38.7	-22.6	11.8	0	-35.57	-13	-22.57	0-360	300	V

Pk - Peak detector

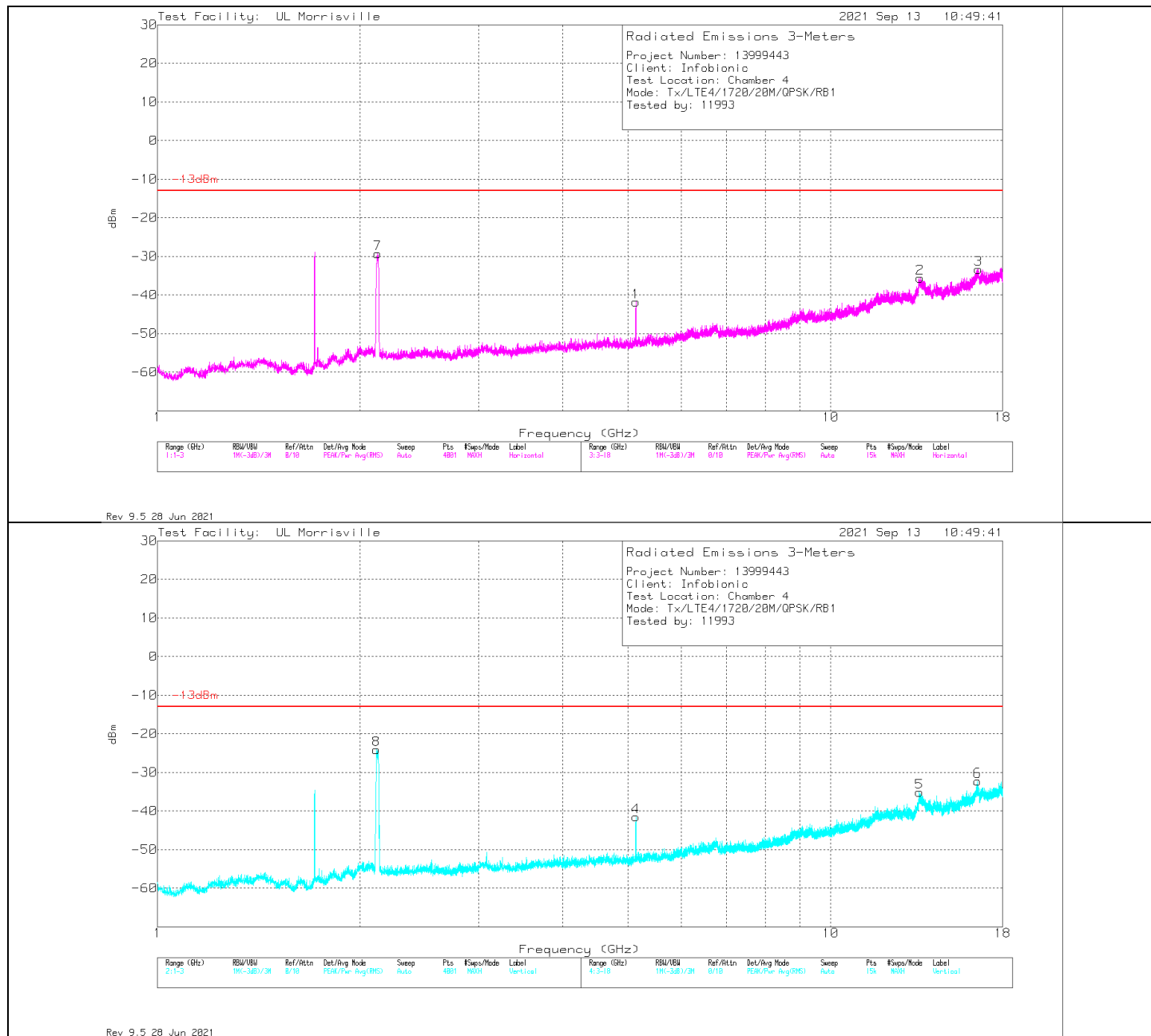
8.1.2. LTE4

LIMITS

FCC: §27.53(h)

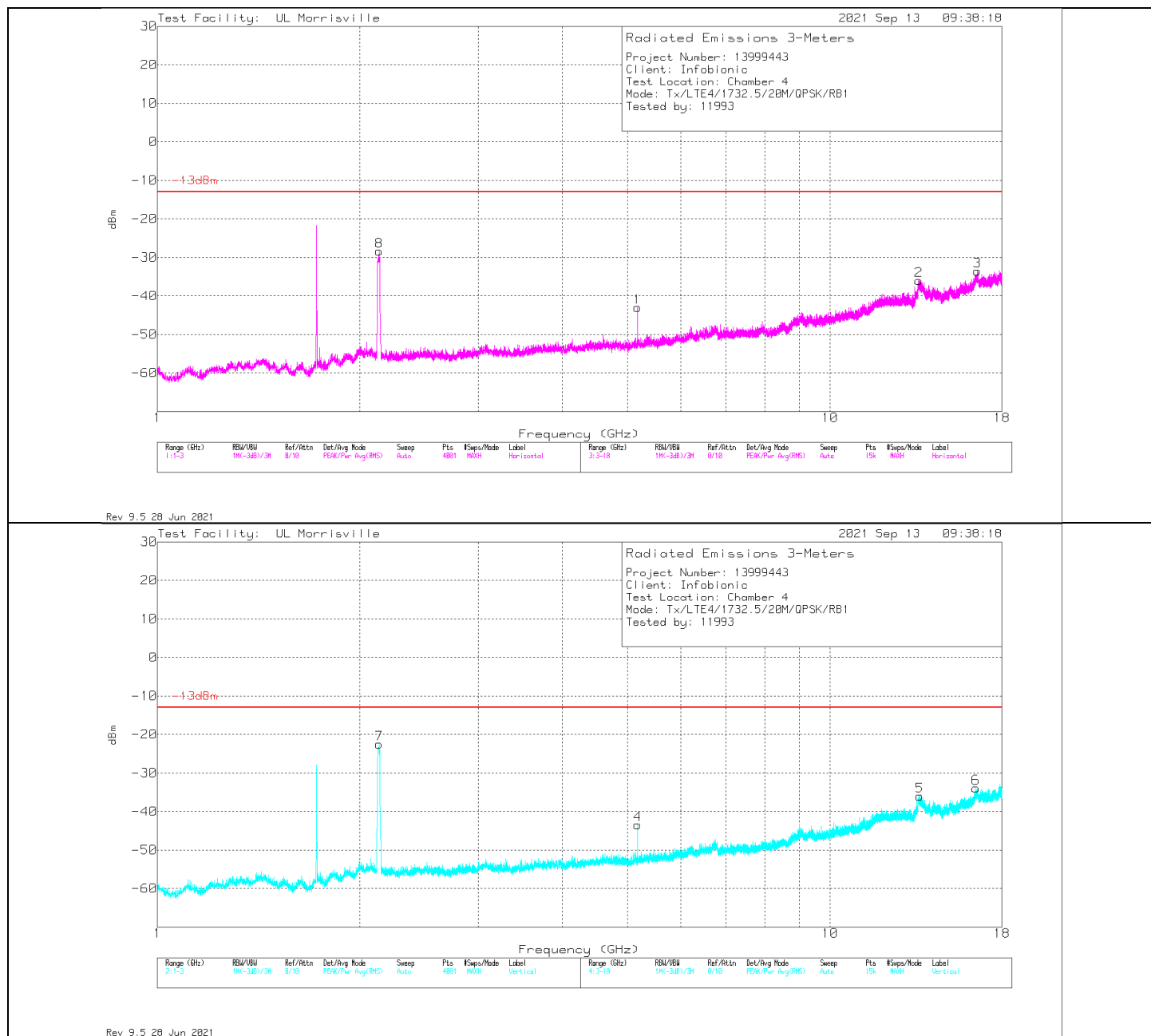
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log (P)$ dB.

QPSK LTE4 (20MHz)



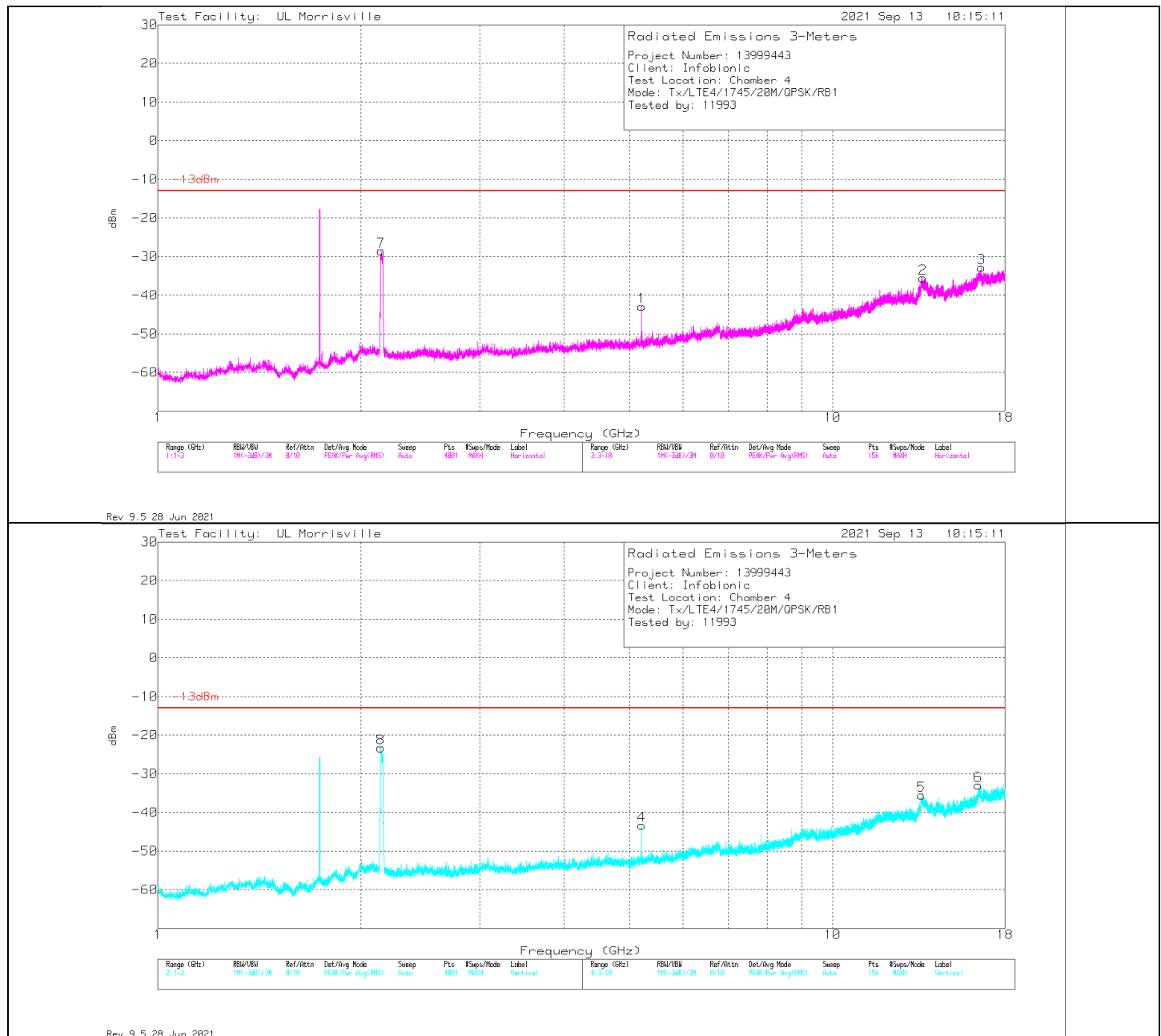
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
8	2.113 (DL)	-31.99	Pk	31.4	-36.7	11.8	1.4	-24.09	-	-	0-360	100	V
7	2.123 (DL)	-37.23	Pk	31.5	-36.7	11.8	1.3	-29.33	-	-	0-360	300	H
1	5.133	-55.91	Pk	34.2	-31.9	11.8	0	-41.81	-13	-28.81	0-360	100	H
4	5.133	-55.66	Pk	34.2	-31.9	11.8	0	-41.56	-13	-28.56	0-360	300	V
5	13.536	-63.17	Pk	38.7	-22.5	11.8	0	-35.17	-13	-22.17	0-360	200	V
2	13.575	-63.12	Pk	38.7	-23	11.8	0	-35.62	-13	-22.62	0-360	200	H
6	16.522	-64.32	Pk	41.4	-21.2	11.8	0	-32.32	-13	-19.32	0-360	300	V
3	16.562	-65.48	Pk	41.5	-21.2	11.8	0	-33.38	-13	-20.38	0-360	200	H

Pk - Peak detector



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
8	2.1355 (DL)	-36.31	Pk	31.6	-36.7	11.8	1.2	-28.41	-	-	0-360	200	H
7	2.1355 (DL)	-30.4	Pk	31.6	-36.7	11.8	1.2	-22.5	-	-	0-360	300	V
1	5.17	-57.21	Pk	34.2	-31.8	11.8	0	-43.01	-13	-30.01	0-360	200	H
4	5.171	-57.65	Pk	34.2	-31.8	11.8	0	-43.45	-13	-30.45	0-360	300	V
2	13.546	-63.84	Pk	38.7	-22.7	11.8	0	-36.04	-13	-23.04	0-360	200	H
5	13.582	-63.42	Pk	38.7	-23.1	11.8	0	-36.02	-13	-23.02	0-360	200	V
6	16.452	-65.75	Pk	41.2	-21.2	11.8	0	-33.95	-13	-20.95	0-360	200	V
3	16.554	-65.65	Pk	41.5	-21.2	11.8	0	-33.55	-13	-20.55	0-360	100	H

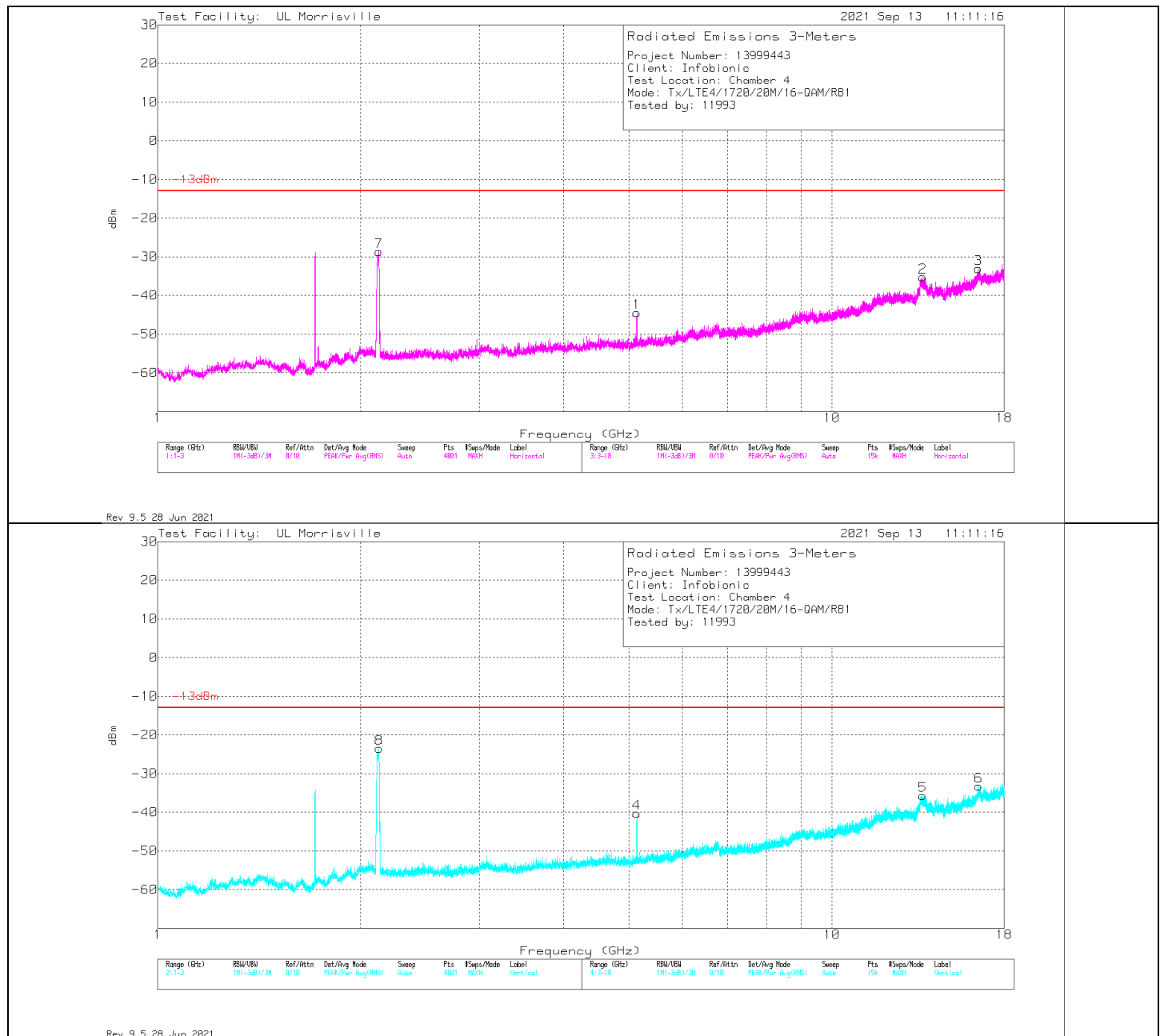
Pk - Peak detector



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
8	2.1375 (DL)	-31.78	Pk	31.6	-36.7	11.8	1.8	-23.28	-	-	0-360	300	V
7	2.1415 (DL)	-37.01	Pk	31.6	-36.7	11.8	1.7	-28.61	-	-	0-360	200	H
1	5.208	-57.13	Pk	34.3	-31.9	11.8	0	-42.93	-13	-29.93	0-360	100	H
4	5.208	-57.55	Pk	34.3	-31.9	11.8	0	-43.35	-13	-30.35	0-360	200	V
5	13.532	-63.58	Pk	38.7	-22.5	11.8	0	-35.58	-13	-22.58	0-360	300	V
2	13.596	-63	Pk	38.7	-23.1	11.8	0	-35.6	-13	-22.6	0-360	100	H
6	16.428	-64.48	Pk	41.1	-21.4	11.8	0	-32.98	-13	-19.98	0-360	200	V
3	16.597	-64.91	Pk	41.6	-21.3	11.8	0	-32.81	-13	-19.81	0-360	100	H

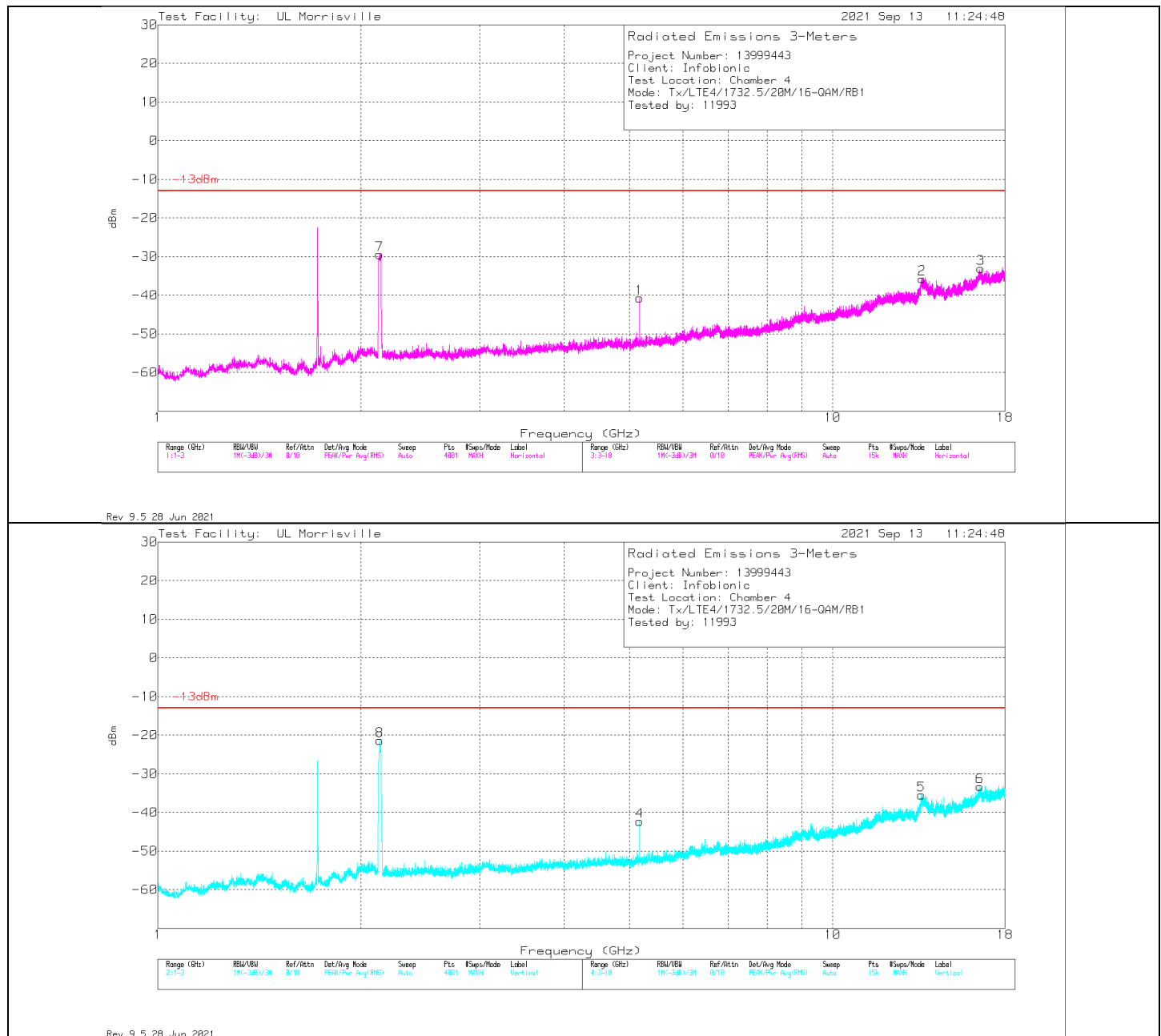
Pk - Peak detector

16QAM LTE4 (20MHz)



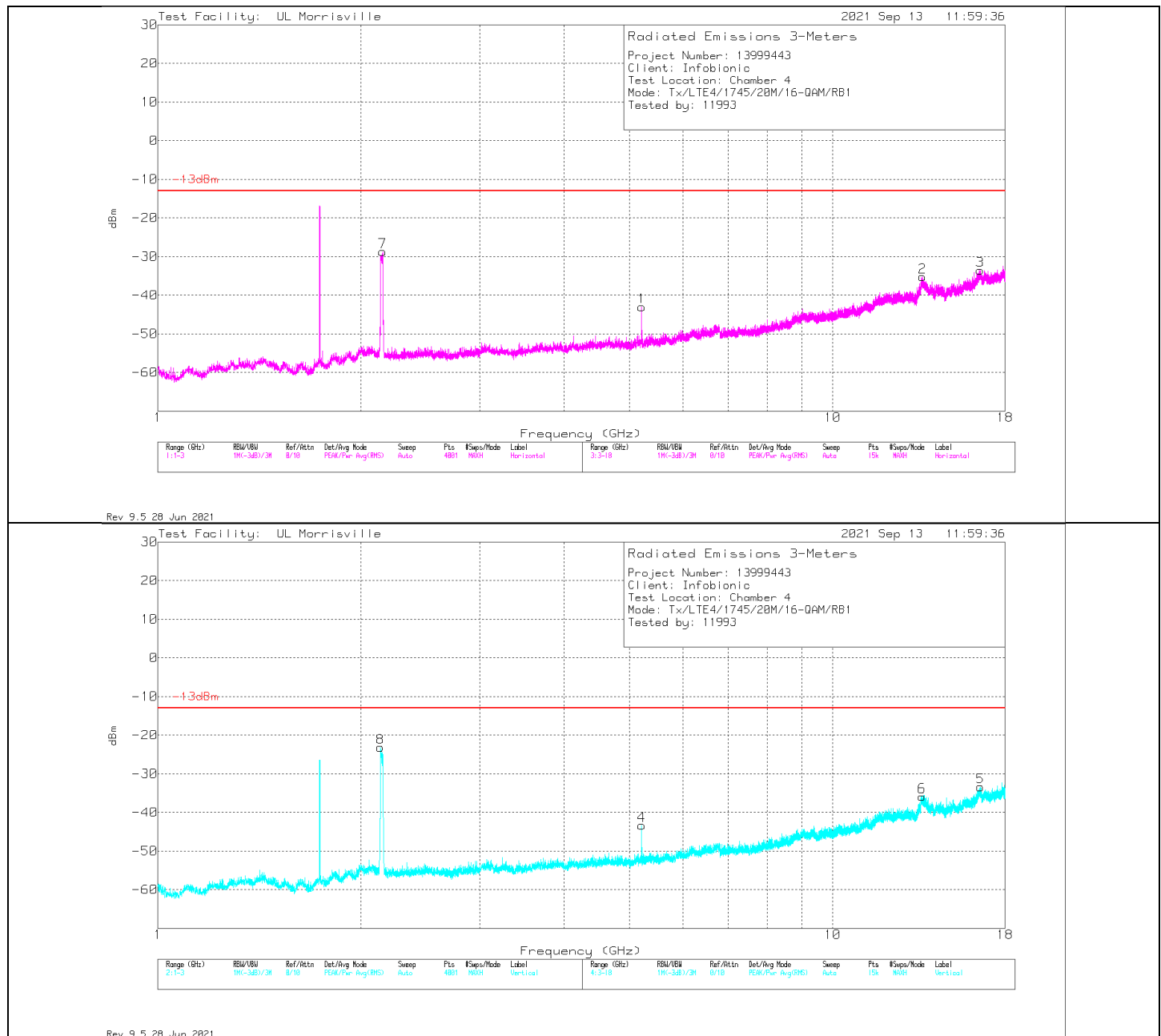
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
7	2.127 (DL)	-36.56	Pk	31.5	-36.7	11.8	1.3	-28.66	-	-	0-360	200	H
8	2.1285 (DL)	-31.39	Pk	31.5	-36.7	11.8	1.3	-23.49	-	-	0-360	300	V
1	5.133	-58.61	Pk	34.2	-31.9	11.8	0	-44.51	-13	-31.51	0-360	100	H
4	5.133	-54.38	Pk	34.2	-31.9	11.8	0	-40.28	-13	-27.28	0-360	300	V
5	13.623	-63.33	Pk	38.7	-22.9	11.8	0	-35.73	-13	-22.73	0-360	300	V
2	13.633	-62.87	Pk	38.7	-22.9	11.8	0	-35.27	-13	-22.27	0-360	100	H
3	16.477	-64.99	Pk	41.2	-21.1	11.8	0	-33.09	-13	-20.09	0-360	100	H
6	16.495	-65.16	Pk	41.3	-21.2	11.8	0	-33.26	-13	-20.26	0-360	200	V

Pk - Peak detector



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
7	2.13 (DL)	-37.28	Pk	31.5	-36.7	11.8	1.2	-29.48	-	-	0-360	200	H
8	2.1315 (DL)	-29.23	Pk	31.5	-36.7	11.8	1.2	-21.43	-	-	0-360	300	V
4	5.17	-56.5	Pk	34.2	-31.8	11.8	0	-42.3	-13	-29.3	0-360	300	V
1	5.171	-54.96	Pk	34.2	-31.8	11.8	0	-40.76	-13	-27.76	0-360	200	H
5	13.523	-63.49	Pk	38.7	-22.5	11.8	0	-35.49	-13	-22.49	0-360	200	V
2	13.56	-63.37	Pk	38.7	-22.9	11.8	0	-35.77	-13	-22.77	0-360	100	H
6	16.509	-65.24	Pk	41.3	-21.2	11.8	0	-33.34	-13	-20.34	0-360	200	V
3	16.575	-65.2	Pk	41.5	-21.2	11.8	0	-33.1	-13	-20.1	0-360	100	H

Pk - Peak detector



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
8	2.137 (DL)	-31.08	Pk	31.6	-36.7	11.8	1.2	-23.18	-	-	0-360	300	V
7	2.1535 (DL)	-36.54	Pk	31.6	-36.7	11.8	1.1	-28.74	-	-	0-360	200	H
1	5.208	-57.24	Pk	34.3	-31.9	11.8	0	-43.04	-13	-30.04	0-360	100	H
4	5.208	-57.58	Pk	34.3	-31.9	11.8	0	-43.38	-13	-30.38	0-360	300	V
6	13.555	-63.64	Pk	38.7	-22.8	11.8	0	-35.94	-13	-22.94	0-360	300	V
2	13.579	-62.66	Pk	38.7	-23.1	11.8	0	-35.26	-13	-22.26	0-360	100	H
3	16.53	-65.59	Pk	41.4	-21.2	11.8	0	-33.59	-13	-20.59	0-360	100	H
5	16.548	-65.44	Pk	41.4	-21.2	11.8	0	-33.44	-13	-20.44	0-360	300	V

Pk - Peak detector

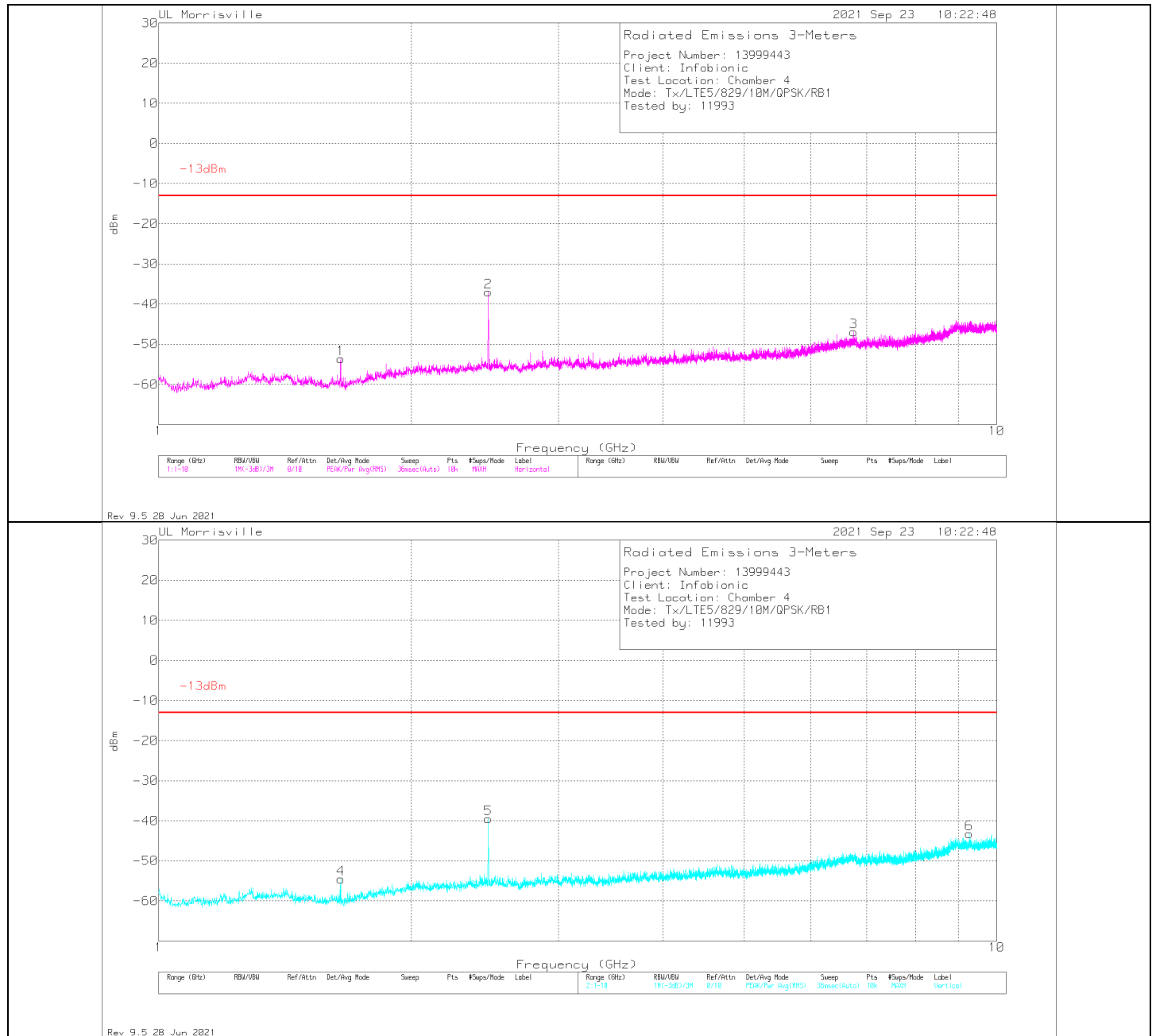
8.1.3. LTE5

LIMITS

FCC: §22.917 (a)

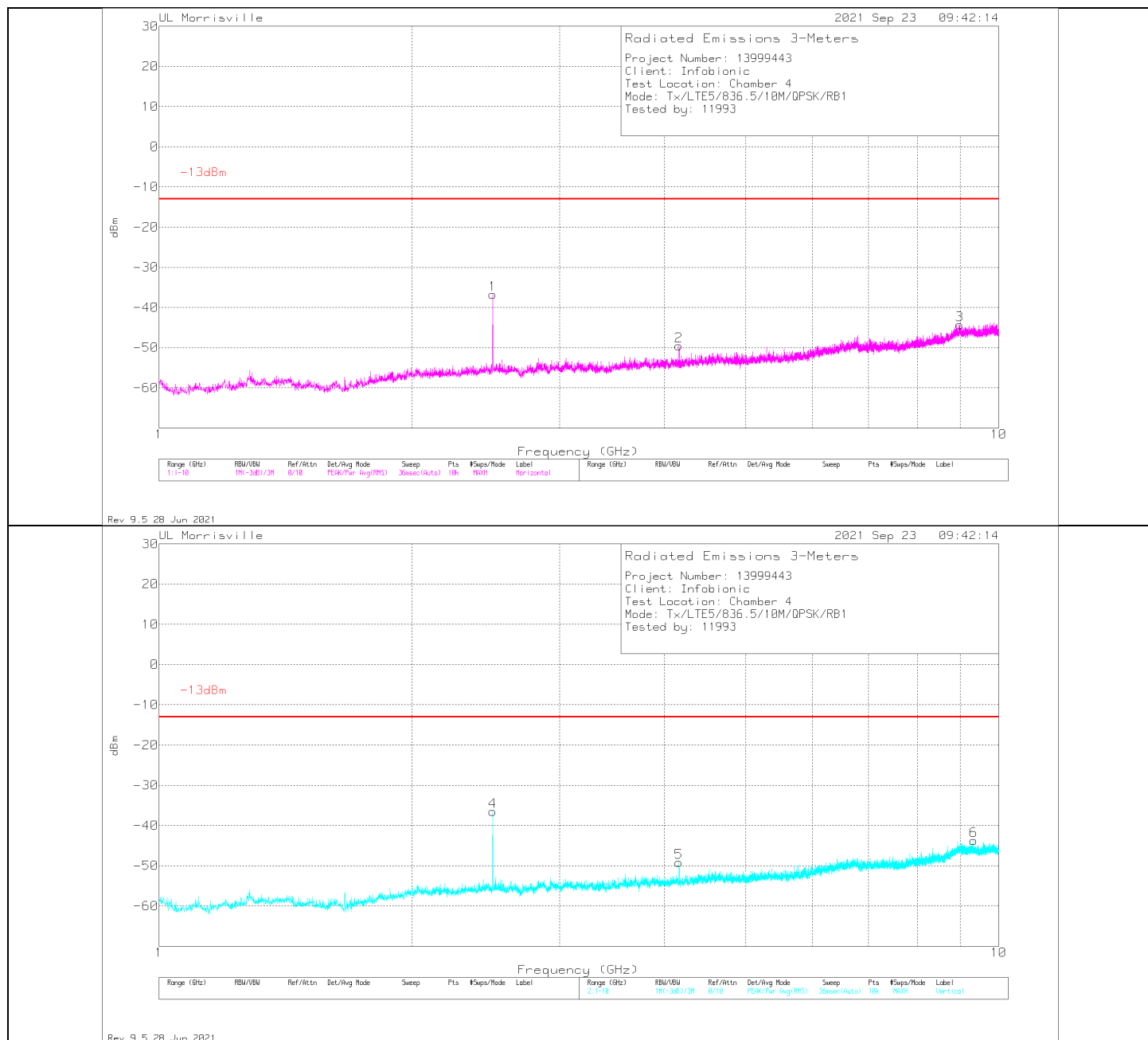
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log (P)$ dB.

QPSK LTE5 (10MHz)



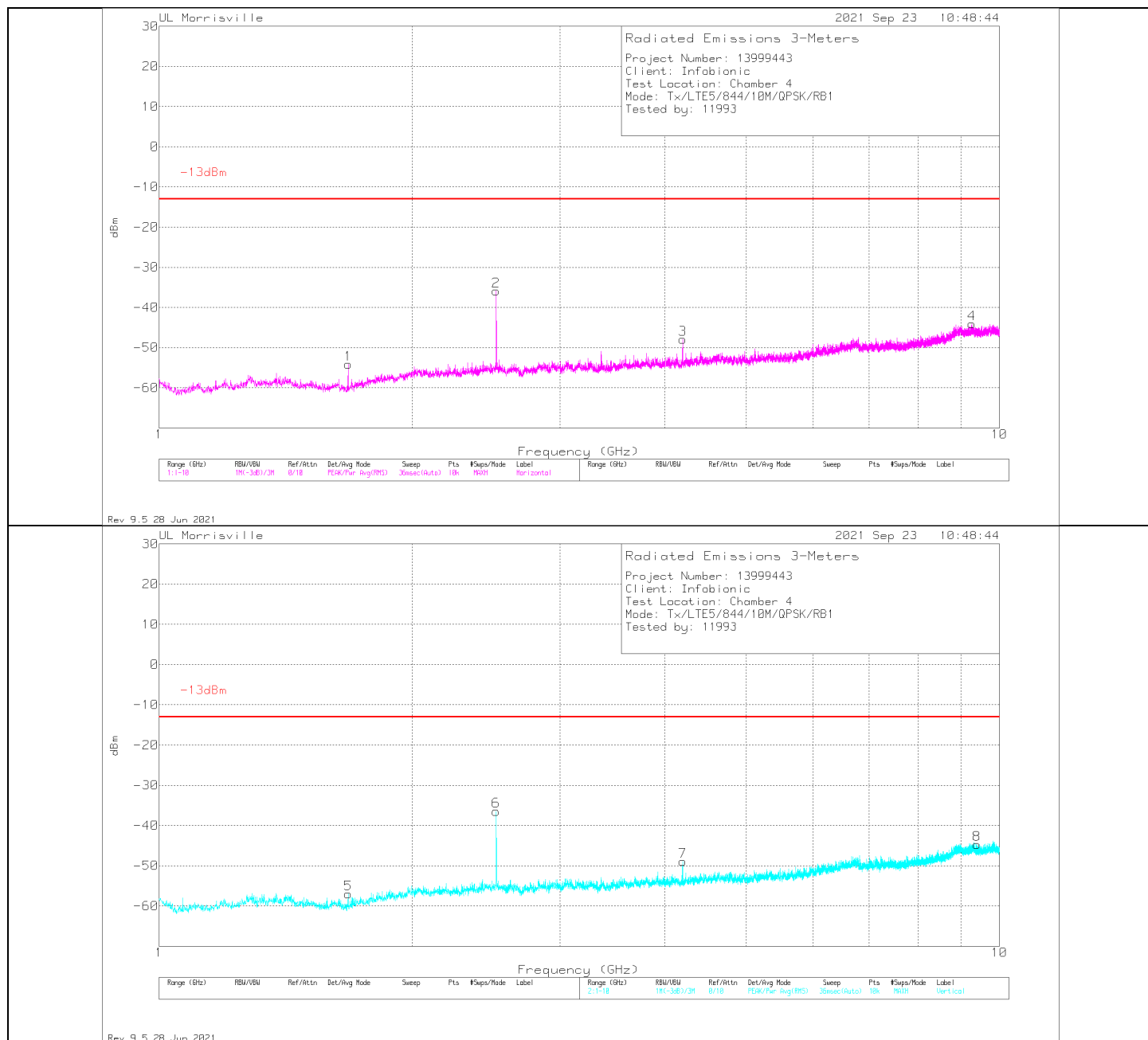
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.6489	-57.34	Pk	27.9	-36.6	.6	11.8	-53.64	-13	-40.64	0-360	100	H
4	1.6489	-58.25	Pk	27.9	-36.6	.6	11.8	-54.55	-13	-41.55	0-360	200	V
2	2.4733	-45.13	Pk	32.6	-36.7	.4	11.8	-37.03	-13	-24.03	0-360	100	H
5	2.4733	-47.6	Pk	32.6	-36.7	.4	11.8	-39.5	-13	-26.5	0-360	300	V
3	6.7555	-65.04	Pk	35.5	-29.9	.7	11.8	-46.94	-13	-33.94	0-360	100	H
6	9.2719	-65.03	Pk	36.3	-26.9	.6	11.8	-43.23	-13	-30.23	0-360	300	V

Pk - Peak detector



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	2.4967	-44.69	Pk	32.6	-36.7	.5	11.8	-36.49	-13	-23.49	0-360	300	V
1	2.4976	-44.98	Pk	32.6	-36.7	.5	11.8	-36.78	-13	-23.78	0-360	100	H
2	4.1617	-61.84	Pk	33.3	-33.1	.3	11.8	-49.54	-13	-36.54	0-360	200	H
5	4.1626	-61.45	Pk	33.3	-33.1	.3	11.8	-49.15	-13	-36.15	0-360	300	V
3	8.9875	-66.28	Pk	35.9	-26.5	.7	11.8	-44.38	-13	-31.38	0-360	100	H
6	9.334	-66.02	Pk	36.4	-26.5	.6	11.8	-43.72	-13	-30.72	0-360	300	V

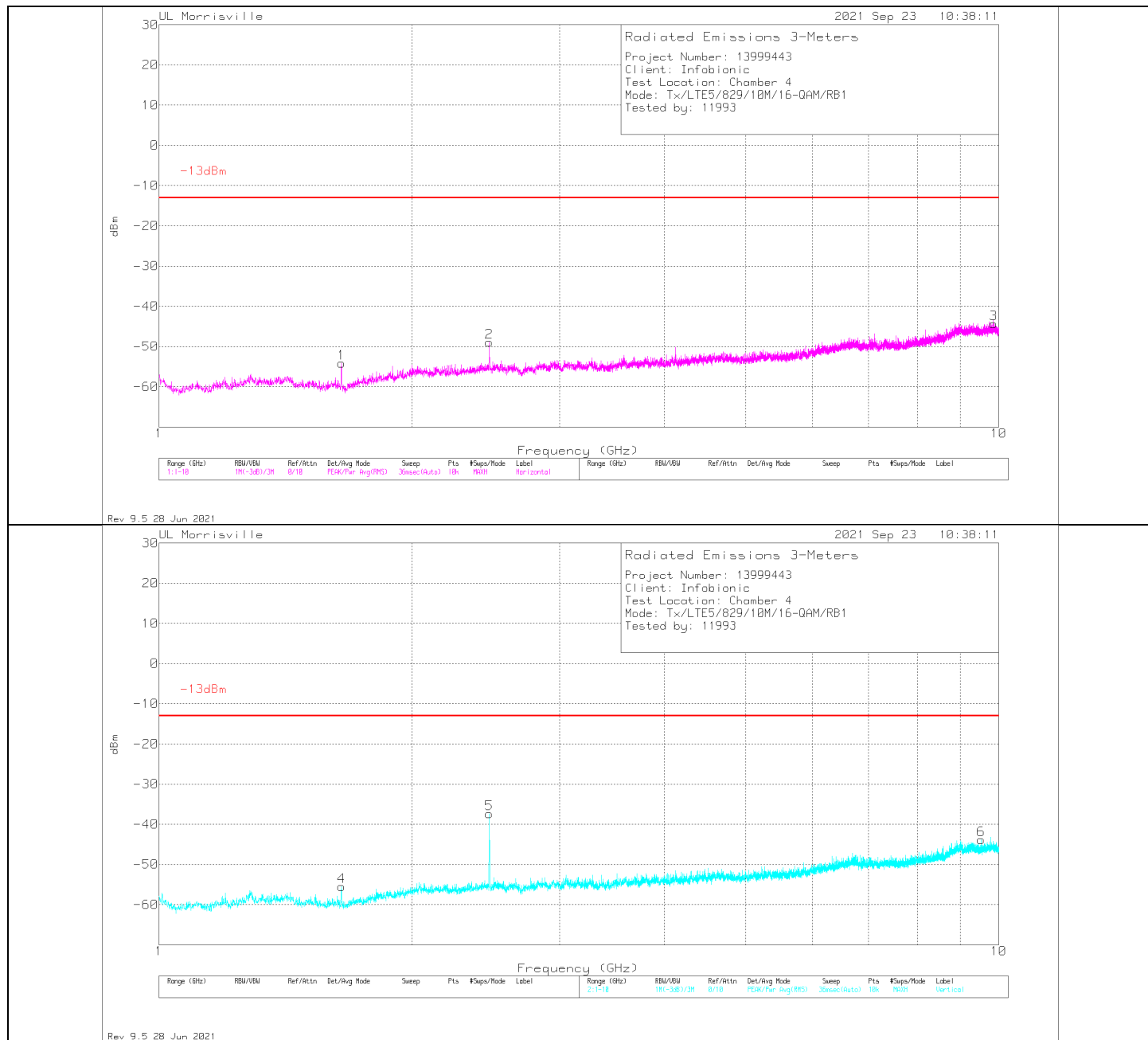
Pk - Peak detector



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.6786	-57.82	Pk	28.1	-36.6	.4	11.8	-54.12	-13	-41.12	0-360	200	H
5	1.6786	-60.74	Pk	28.1	-36.6	.4	11.8	-57.04	-13	-44.04	0-360	200	V
2	2.5183	-44.09	Pk	32.6	-36.7	.5	11.8	-35.89	-13	-22.89	0-360	100	H
6	2.5183	-44.65	Pk	32.6	-36.7	.5	11.8	-36.45	-13	-23.45	0-360	200	V
3	4.1977	-60.15	Pk	33.2	-33.2	.4	11.8	-47.95	-13	-34.95	0-360	200	H
7	4.1977	-61.09	Pk	33.2	-33.2	.4	11.8	-48.89	-13	-35.89	0-360	300	V
4	9.2701	-65.82	Pk	36.3	-27	.6	11.8	-44.12	-13	-31.12	0-360	200	H
8	9.3988	-66.92	Pk	36.4	-26.7	.7	11.8	-44.72	-13	-31.72	0-360	200	V

Pk - Peak detector

16QAM LTE5 (10MHz)



UL Morrisville

2021 Sep 23 10:38:11

Radiated Emissions 3-Meters

Project Number: 13999443

Client: Infabionic

Test Location: Chamber 4

Mode: Tx/LTE5/829/10M/16-QAM/RB1

Tested by: 11993

dBm

-13dBm

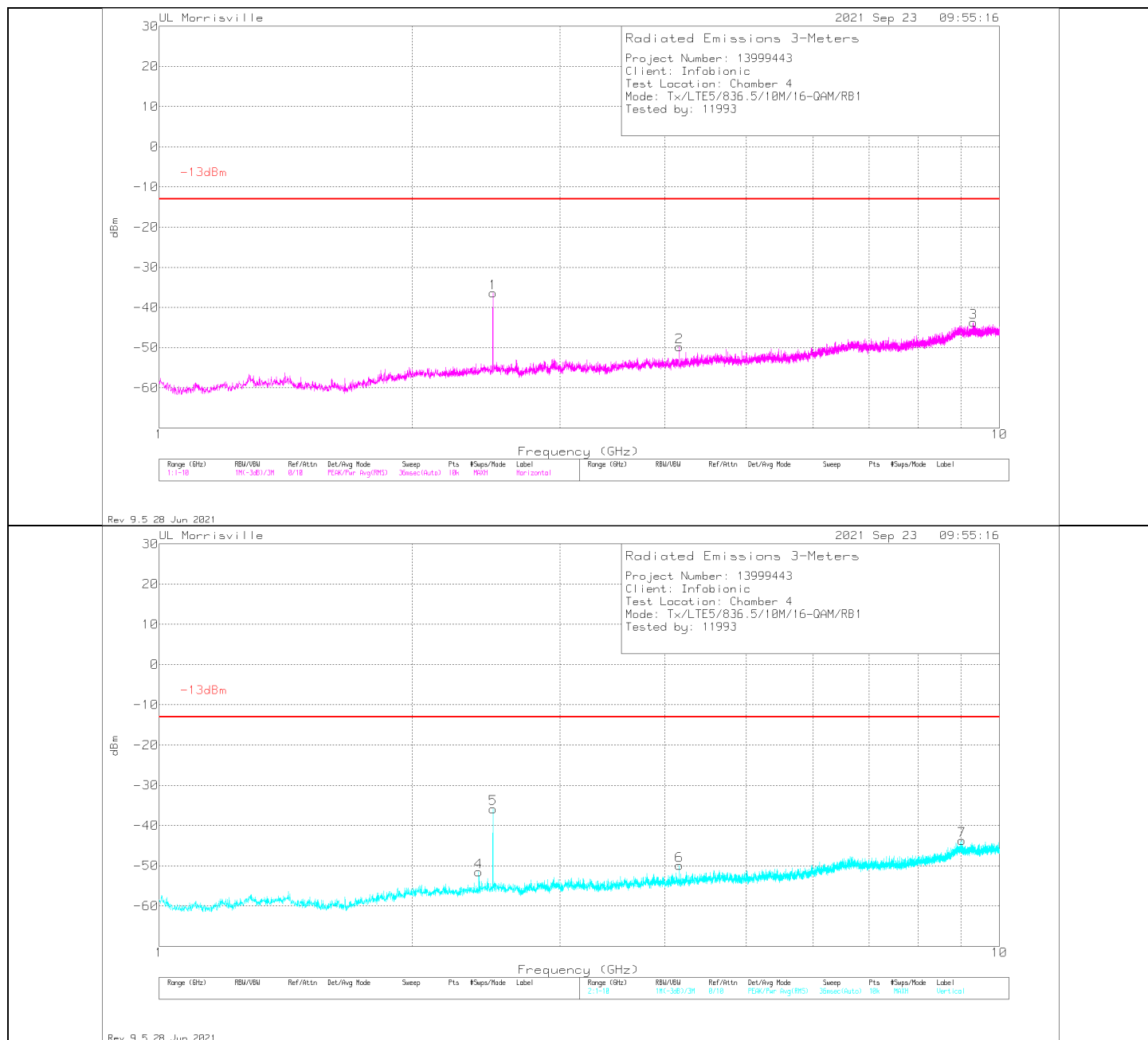
Frequency (GHz)

Range (GHz)	RBW/VBW	Ref/Att'n	Det/Avg Mode	Sweep	Pls	#Saps/Mode	Label
2:1-10	1M(-3dB)/3M	0/10	PEAK/Par Avg(RMS)	30sec(AutoLo)	10k	RBW1	Vertical

Rev 9.5 28 Jun 2021

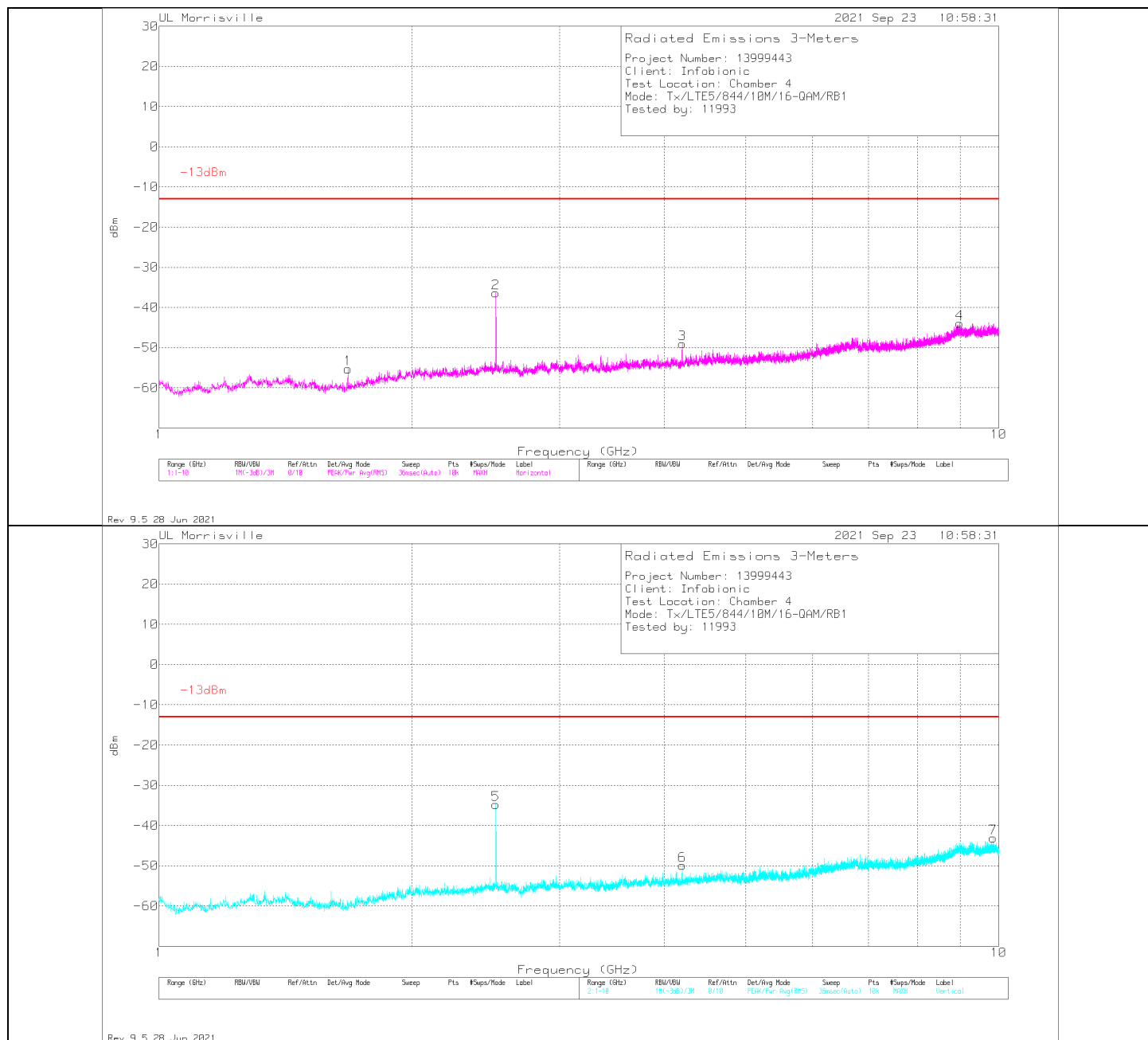
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.6489	-57.82	Pk	27.9	-36.6	.6	11.8	-54.12	-13	-41.12	0-360	200	H
4	1.6498	-59.24	Pk	27.9	-36.6	.6	11.8	-55.54	-13	-42.54	0-360	200	V
2	2.4733	-57.04	Pk	32.6	-36.7	.4	11.8	-48.94	-13	-35.94	0-360	100	H
5	2.4733	-45.54	Pk	32.6	-36.7	.4	11.8	-37.44	-13	-24.44	0-360	300	V
6	9.5365	-65.9	Pk	36.5	-26.9	.7	11.8	-43.8	-13	-30.8	0-360	300	V
3	9.8623	-66.54	Pk	36.9	-27.1	.6	11.8	-44.34	-13	-31.34	0-360	100	H

Pk - Peak detector



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	2.4013	-59.29	Pk	32.1	-36.7	.5	11.8	-51.59	-13	-38.59	0-360	300	V
1	2.4958	-44.62	Pk	32.6	-36.7	.5	11.8	-36.42	-13	-23.42	0-360	100	H
5	2.4967	-44.03	Pk	32.6	-36.7	.5	11.8	-35.83	-13	-22.83	0-360	300	V
6	4.1608	-62.27	Pk	33.3	-33.1	.3	11.8	-49.97	-13	-36.97	0-360	300	V
2	4.1617	-62.05	Pk	33.3	-33.1	.3	11.8	-49.75	-13	-36.75	0-360	100	H
7	9.0253	-65.53	Pk	35.9	-26.6	.7	11.8	-43.73	-13	-30.73	0-360	200	V
3	9.307	-65.57	Pk	36.4	-26.9	.6	11.8	-43.67	-13	-30.67	0-360	100	H

Pk - Peak detector



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.6786	-59.02	Pk	28.1	-36.6	.4	11.8	-55.32	-13	-42.32	0-360	200	H
2	2.5183	-44.55	Pk	32.6	-36.7	.5	11.8	-36.35	-13	-23.35	0-360	100	H
5	2.5183	-42.98	Pk	32.6	-36.7	.5	11.8	-34.78	-13	-21.78	0-360	300	V
3	4.1977	-61.22	Pk	33.2	-33.2	.4	11.8	-49.02	-13	-36.02	0-360	100	H
6	4.1977	-62.07	Pk	33.2	-33.2	.4	11.8	-49.87	-13	-36.87	0-360	300	V
4	8.9839	-65.79	Pk	35.9	-26.6	.7	11.8	-43.99	-13	-30.99	0-360	100	H
7	9.8524	-65.28	Pk	36.9	-27.1	.6	11.8	-43.08	-13	-30.08	0-360	200	V

Pk - Peak detector

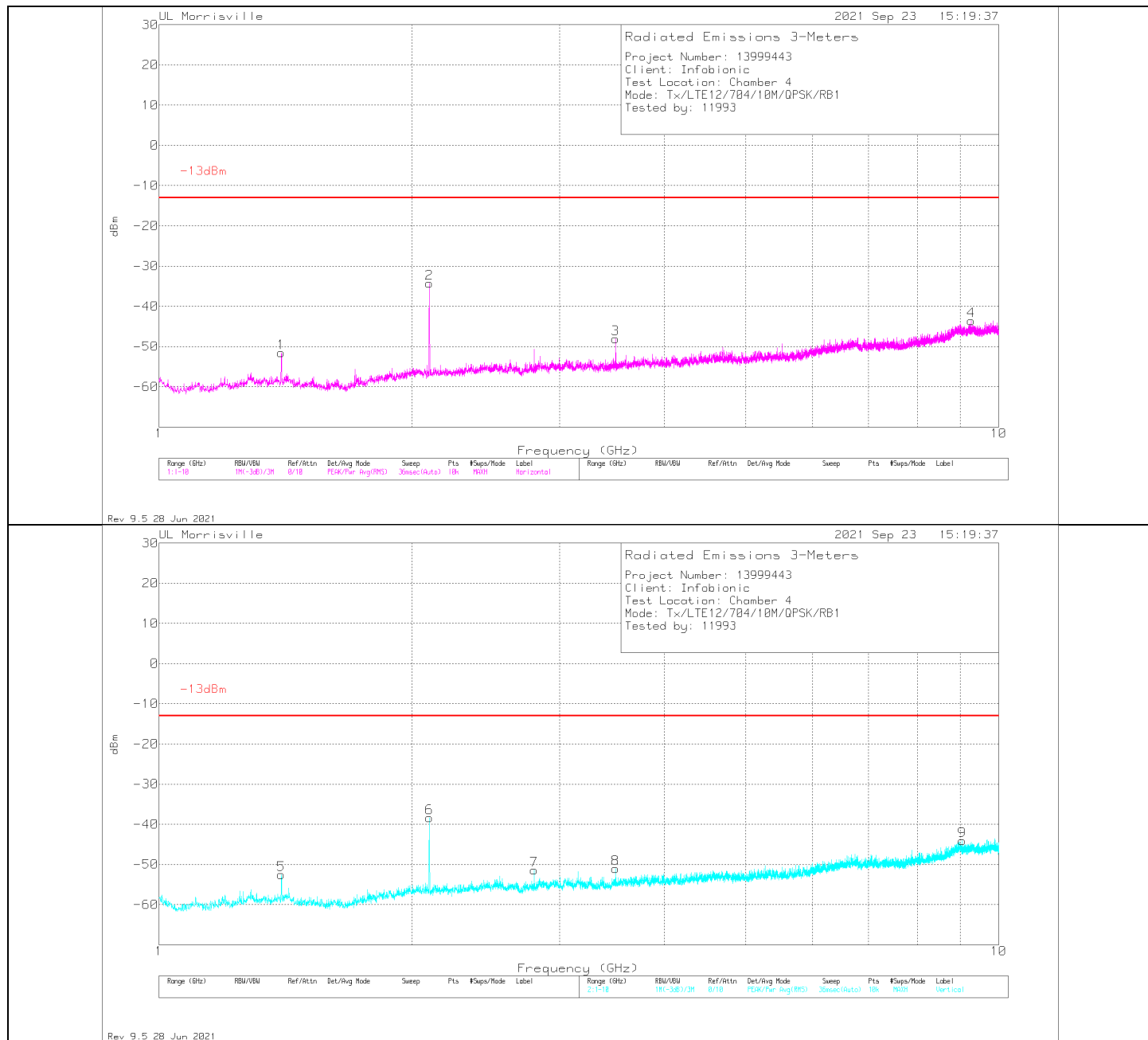
8.1.4. LTE12

LIMITS

FCC: §27.53 (g)

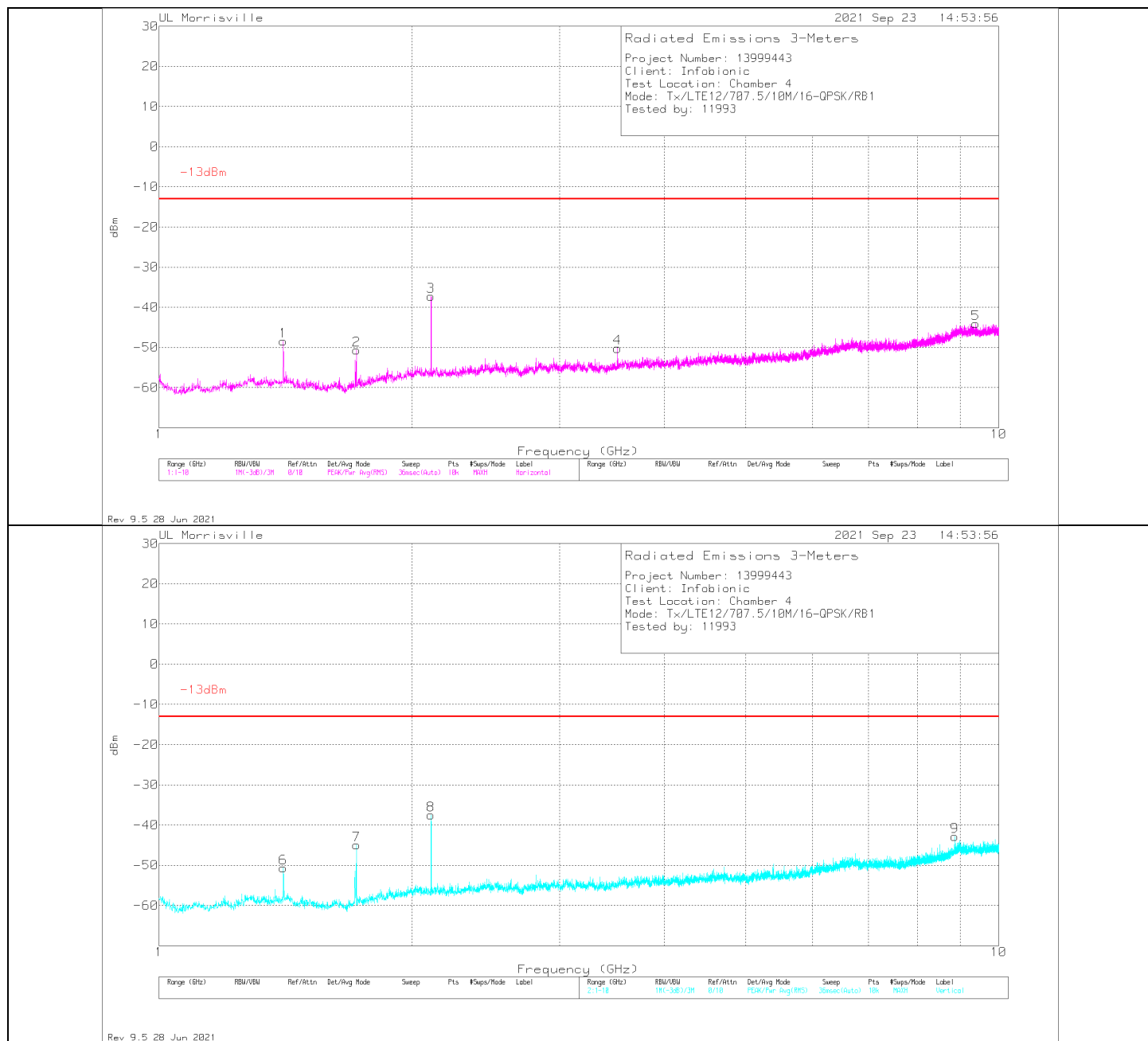
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log (P)$ dB.

QPSK LTE12 (10MHz)



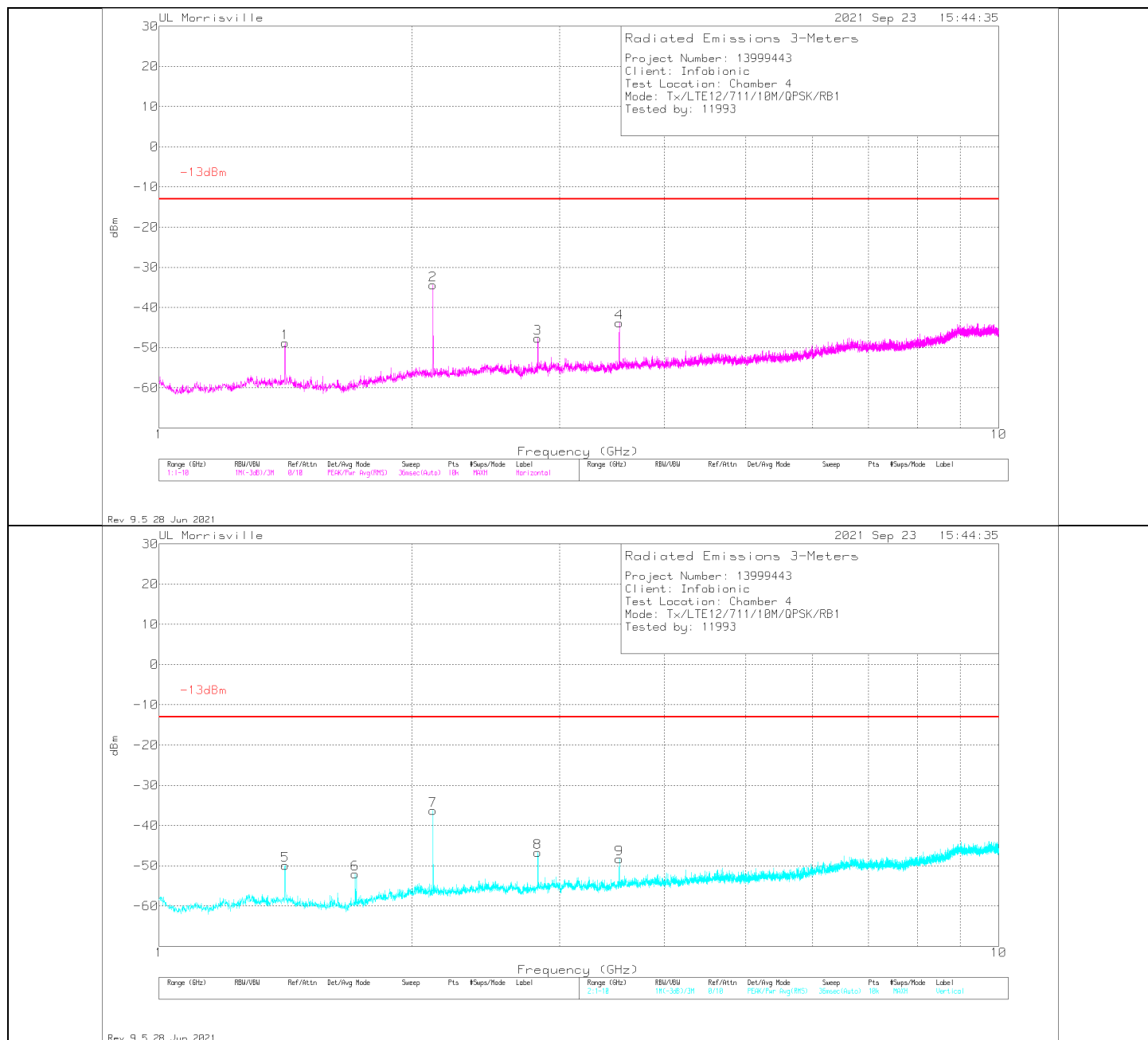
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.3987	-56.97	Pk	29	-36.6	1.2	11.8	-51.57	-13	-38.57	0-360	100	H
5	1.3987	-57.93	Pk	29	-36.6	1.2	11.8	-52.53	-13	-39.53	0-360	200	V
2	2.098	-41.24	Pk	31.5	-36.7	.4	11.8	-34.24	-13	-21.24	0-360	100	H
6	2.098	-45.41	Pk	31.5	-36.7	.4	11.8	-38.41	-13	-25.41	0-360	200	V
7	2.7982	-59.72	Pk	32.2	-36.3	.6	11.8	-51.42	-13	-38.42	0-360	300	V
3	3.4975	-57.69	Pk	32.6	-35.3	.5	11.8	-48.09	-13	-35.09	0-360	100	H
8	3.4975	-60.65	Pk	32.6	-35.3	.5	11.8	-51.05	-13	-38.05	0-360	300	V
9	9.0433	-65.6	Pk	35.9	-26.8	.6	11.8	-44.1	-13	-31.1	0-360	300	V
4	9.2737	-65.44	Pk	36.3	-26.9	.6	11.8	-43.64	-13	-30.64	0-360	200	H

Pk - Peak detector



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.4059	-53.87	Pk	29.1	-36.6	1.1	11.8	-48.47	-13	-35.47	0-360	100	H
6	1.4059	-56.1	Pk	29.1	-36.6	1.1	11.8	-50.7	-13	-37.7	0-360	300	V
2	1.7182	-55.1	Pk	28.8	-36.6	.4	11.8	-50.7	-13	-37.7	0-360	200	H
7	1.7191	-49.3	Pk	28.8	-36.6	.4	11.8	-44.9	-13	-31.9	0-360	300	V
3	2.1088	-44.21	Pk	31.5	-36.7	.4	11.8	-37.21	-13	-24.21	0-360	200	H
8	2.1088	-44.48	Pk	31.5	-36.7	.4	11.8	-37.48	-13	-24.48	0-360	200	V
4	3.5146	-60.13	Pk	32.7	-35.1	.5	11.8	-50.23	-13	-37.23	0-360	100	H
9	8.8606	-64.23	Pk	36	-27.1	.7	11.8	-42.83	-13	-29.83	0-360	200	V
5	9.3889	-66.23	Pk	36.4	-26.7	.6	11.8	-44.13	-13	-31.13	0-360	200	H

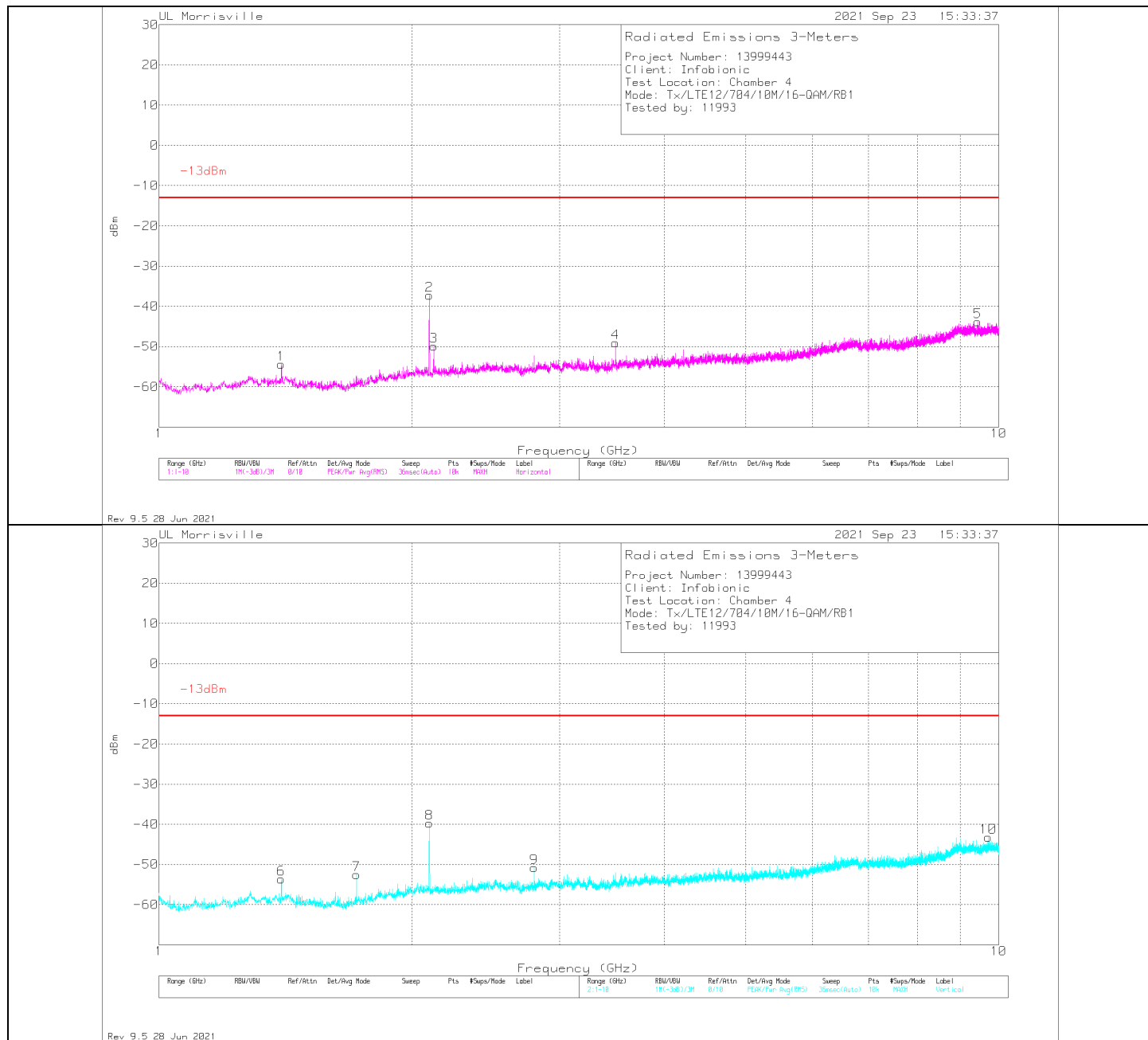
Pk - Peak detector



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.4131	-54.36	Pk	29.3	-36.6	1	11.8	-48.86	-13	-35.86	0-360	100	H
5	1.4131	-55.42	Pk	29.3	-36.6	1	11.8	-49.92	-13	-36.92	0-360	300	V
6	1.7128	-56.39	Pk	28.7	-36.6	.4	11.8	-52.09	-13	-39.09	0-360	200	V
2	2.1196	-41.29	Pk	31.4	-36.7	.4	11.8	-34.39	-13	-21.39	0-360	200	H
7	2.1196	-43.19	Pk	31.4	-36.7	.4	11.8	-36.29	-13	-23.29	0-360	200	V
3	2.8261	-56.07	Pk	32.4	-36.4	.6	11.8	-47.67	-13	-34.67	0-360	100	H
8	2.8261	-55.07	Pk	32.4	-36.4	.6	11.8	-46.67	-13	-33.67	0-360	300	V
4	3.5326	-53.84	Pk	32.8	-35.1	.5	11.8	-43.84	-13	-30.84	0-360	100	H
9	3.5326	-58.34	Pk	32.8	-35.1	.5	11.8	-48.34	-13	-35.34	0-360	100	V

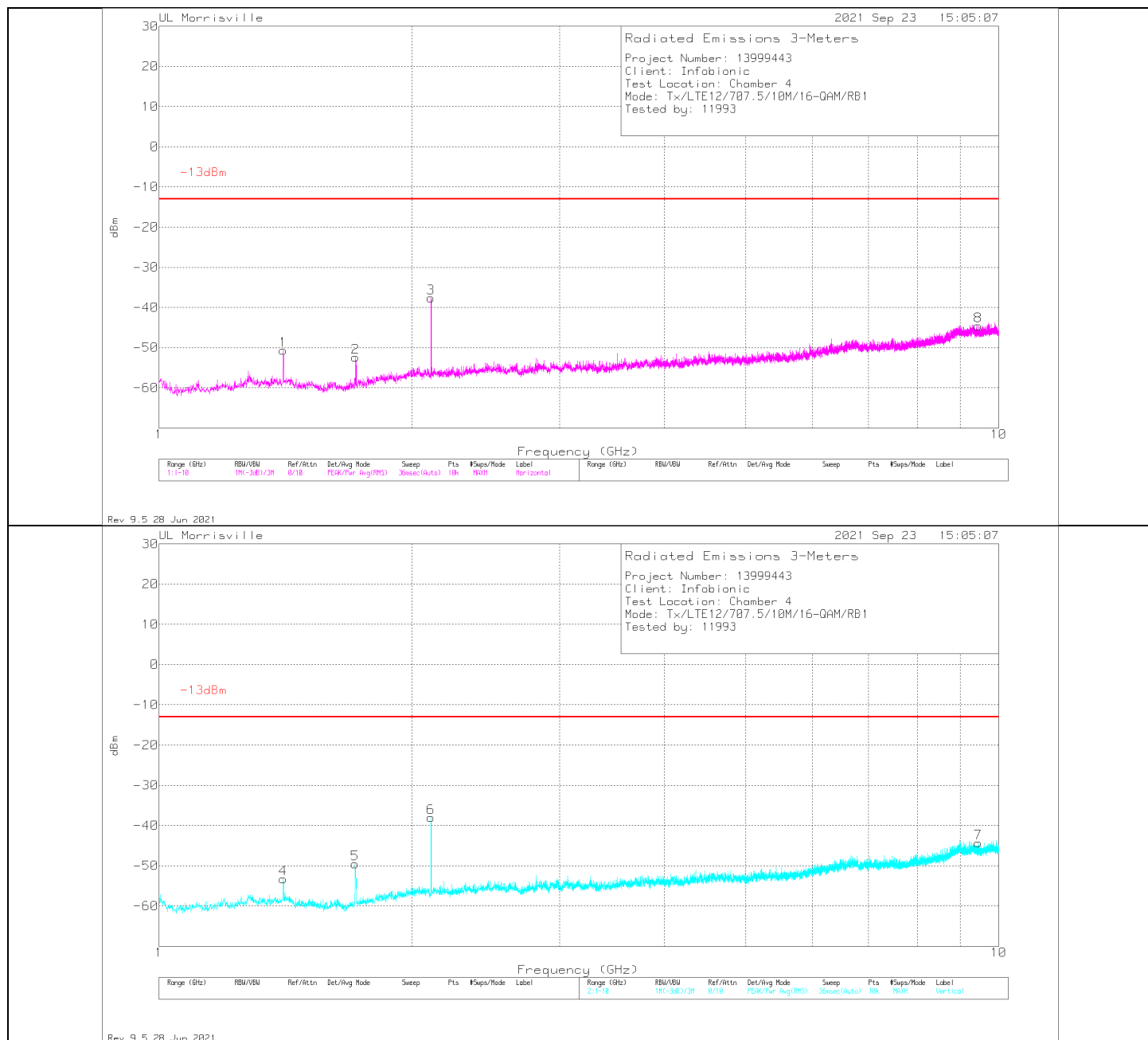
Pk - Peak detector

16QAM LTE12 (10MHz)



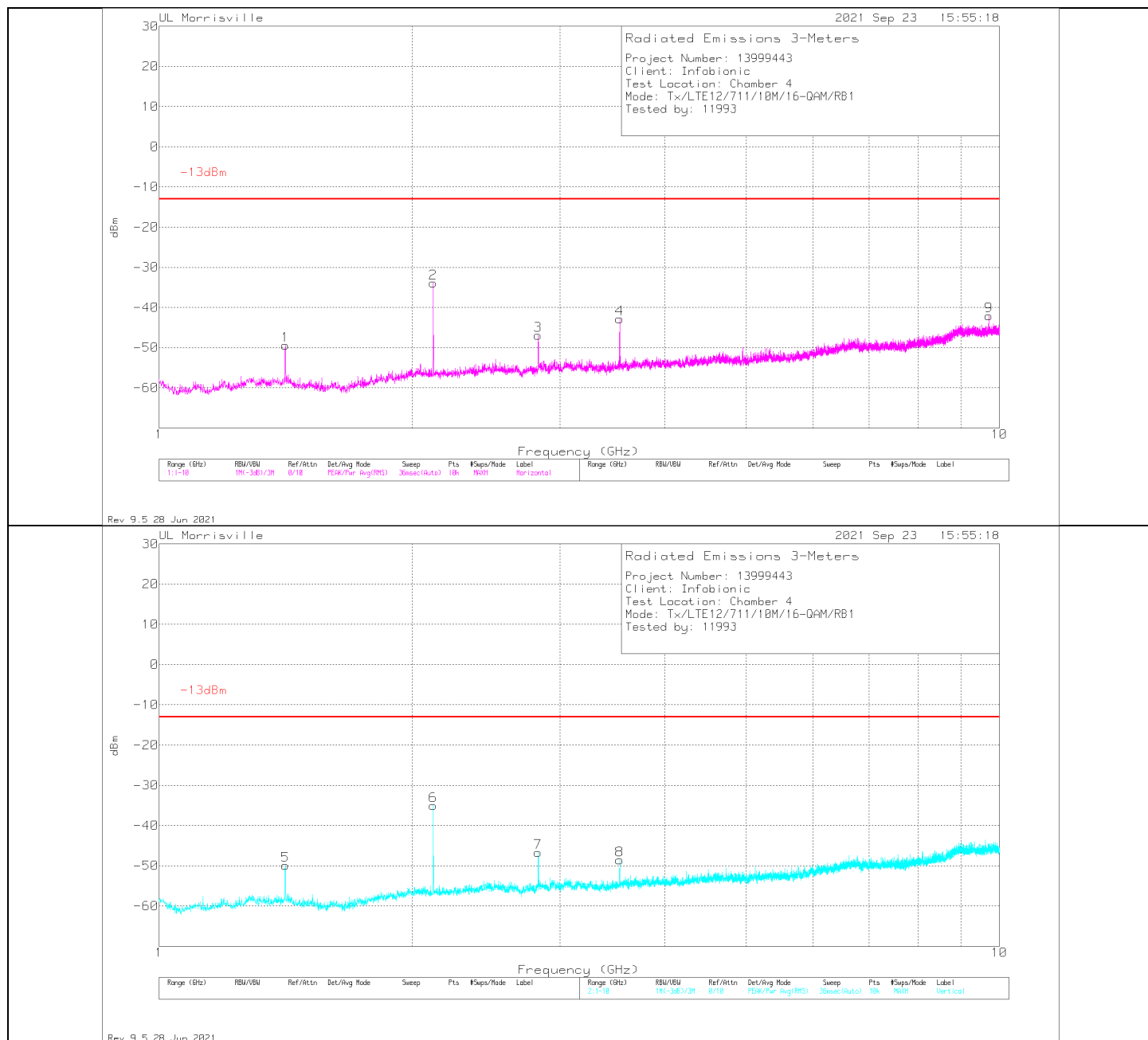
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.3987	-59.77	Pk	29	-36.6	1.2	11.8	-54.37	-13	-41.37	0-360	100	H
6	1.3987	-59.03	Pk	29	-36.6	1.2	11.8	-53.63	-13	-40.63	0-360	300	V
7	1.7191	-56.89	Pk	28.8	-36.6	.4	11.8	-52.49	-13	-39.49	0-360	200	V
2	2.098	-44.21	Pk	31.5	-36.7	.4	11.8	-37.21	-13	-24.21	0-360	100	H
8	2.098	-46.69	Pk	31.5	-36.7	.4	11.8	-39.69	-13	-26.69	0-360	200	V
3	2.1241	-56.94	Pk	31.5	-36.7	.4	11.8	-49.94	-13	-36.94	0-360	100	H
9	2.7982	-59.14	Pk	32.2	-36.3	.6	11.8	-50.84	-13	-37.84	0-360	200	V
4	3.4975	-58.65	Pk	32.6	-35.3	.5	11.8	-49.05	-13	-36.05	0-360	100	H
5	9.4375	-65.8	Pk	36.4	-26.9	.7	11.8	-43.8	-13	-30.8	0-360	200	H
10	9.7138	-65.53	Pk	36.7	-27	.8	11.8	-43.23	-13	-30.23	0-360	300	V

Pk - Peak detector



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.4059	-56.04	Pk	29.1	-36.6	1.1	11.8	-50.64	-13	-37.64	0-360	100	H
4	1.4059	-58.68	Pk	29.1	-36.6	1.1	11.8	-53.28	-13	-40.28	0-360	300	V
5	1.7119	-53.8	Pk	28.7	-36.6	.4	11.8	-49.5	-13	-36.5	0-360	300	V
2	1.7146	-56.69	Pk	28.7	-36.6	.4	11.8	-52.39	-13	-39.39	0-360	100	H
3	2.1088	-44.61	Pk	31.5	-36.7	.4	11.8	-37.61	-13	-24.61	0-360	200	H
6	2.1088	-44.96	Pk	31.5	-36.7	.4	11.8	-37.96	-13	-24.96	0-360	200	V
7	9.4519	-66.63	Pk	36.5	-26.7	.7	11.8	-44.33	-13	-31.33	0-360	300	V
8	9.4537	-66.89	Pk	36.5	-26.7	.7	11.8	-44.59	-13	-31.59	0-360	200	H

Pk - Peak detector



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.4131	-54.97	Pk	29.3	-36.6	1	11.8	-49.47	-13	-36.47	0-360	100	H
5	1.4131	-55.39	Pk	29.3	-36.6	1	11.8	-49.89	-13	-36.89	0-360	300	V
2	2.1196	-40.81	Pk	31.4	-36.7	.4	11.8	-33.91	-13	-20.91	0-360	200	H
6	2.1196	-41.89	Pk	31.4	-36.7	.4	11.8	-34.99	-13	-21.99	0-360	200	V
3	2.8261	-55.4	Pk	32.4	-36.4	.6	11.8	-47	-13	-34	0-360	100	H
7	2.8261	-55.09	Pk	32.4	-36.4	.6	11.8	-46.69	-13	-33.69	0-360	200	V
4	3.5326	-52.83	Pk	32.8	-35.1	.5	11.8	-42.83	-13	-29.83	0-360	100	H
8	3.5326	-58.51	Pk	32.8	-35.1	.5	11.8	-48.51	-13	-35.51	0-360	300	V
9	9.7165	-64.37	Pk	36.7	-27	.8	11.8	-42.07	-13	-29.07	0-360	100	H

Pk - Peak detector

8.1.5. LTE13

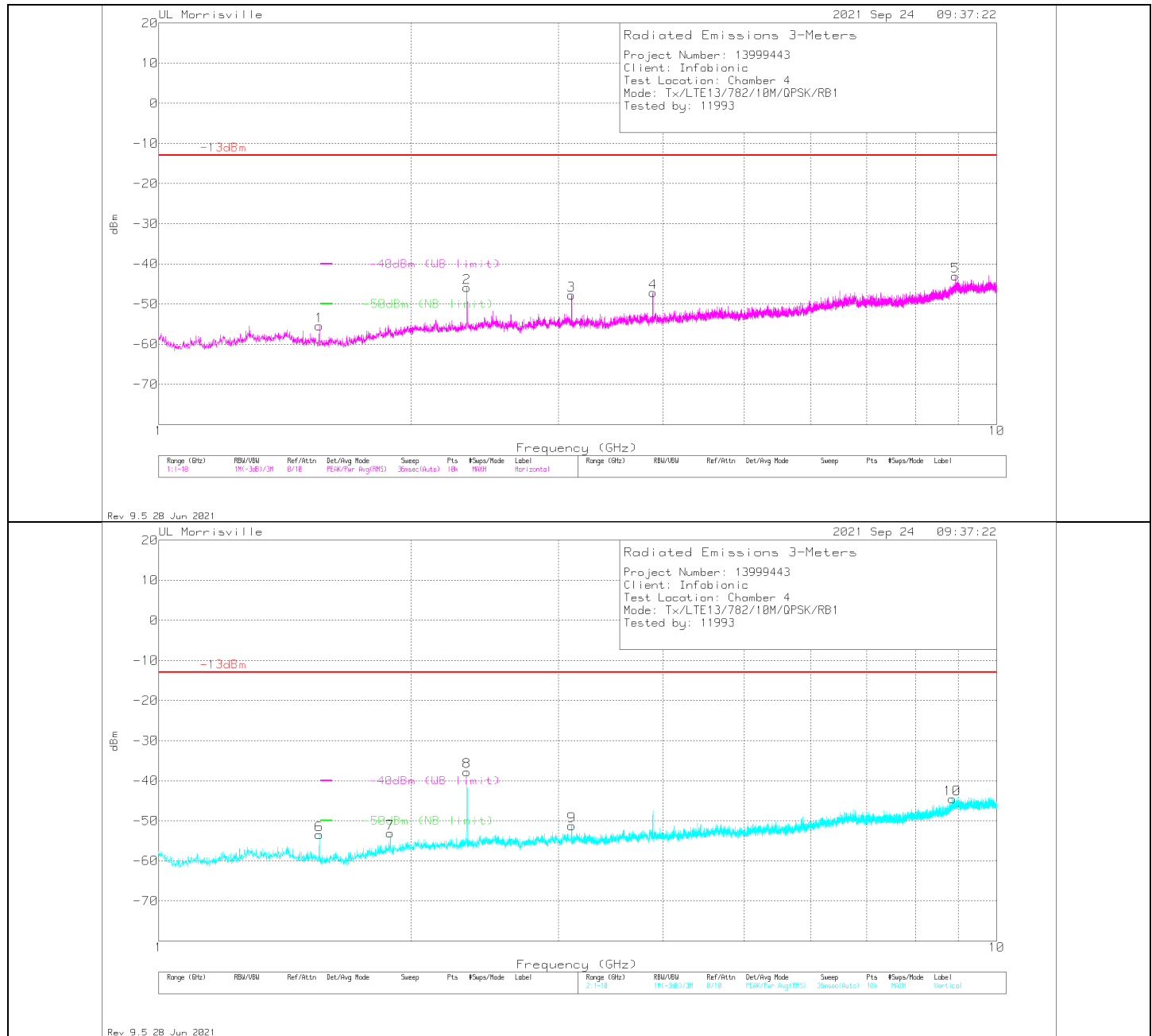
LIMITS

FCC: §27.53

(c) The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log (P)$ dB.

(f) Emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotopically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth.

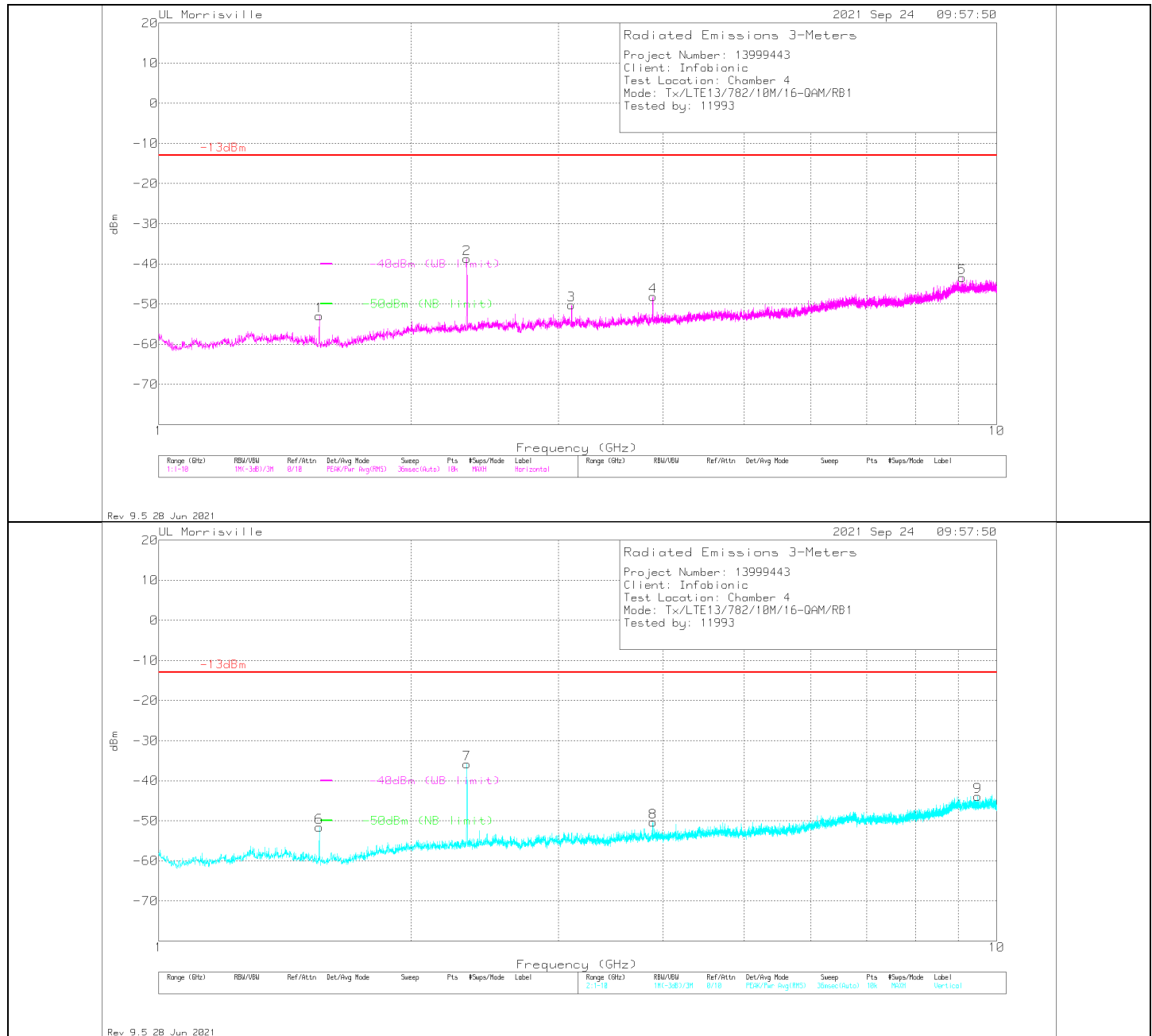
QPSK LTE13 (10MHz)



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	- 13dBm	Margin (dB)	- 40dBm (WB limit)	Margin (dB)	- 50dBm (NB limit)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.5544	-59.4	Pk	28.1	-36.6	.6	11.8	-55.5	-13	-42.5	-	-	-	-	0-360	200	H
6	1.5544	-57.41	Pk	28.1	-36.6	.6	11.8	-53.51	-13	-40.51	-	-	-	-	0-360	200	V
7	1.8892	-59.24	Pk	30.6	-36.6	.4	11.8	-53.04	-13	-40.04	-	-	-	-	0-360	200	V
2	2.332	-53.28	Pk	31.9	-36.7	.4	11.8	-45.88	-13	-32.88	-	-	-	-	0-360	100	H
8	2.332	-45.16	Pk	31.9	-36.7	.4	11.8	-37.76	-13	-24.76	-	-	-	-	0-360	200	V
3	3.1096	-57.07	Pk	32.9	-36	.6	11.8	-47.77	-13	-34.77	-	-	-	-	0-360	100	H
9	3.1105	-60.56	Pk	32.9	-36	.6	11.8	-51.26	-13	-38.26	-	-	-	-	0-360	300	V
4	3.8881	-58.61	Pk	33.3	-34	.4	11.8	-47.11	-13	-34.11	-	-	-	-	0-360	100	H
10	8.8579	-65.85	Pk	36	-27.2	.7	11.8	-44.55	-13	-31.55	-	-	-	-	0-360	300	V
5	8.9263	-64.72	Pk	36	-26.8	.7	11.8	-43.02	-13	-30.02	-	-	-	-	0-360	200	H

Pk - Peak detector

16QAM LTE13 (10MHz)


UL Morrisville
2021 Sep 24 09:57:50

Radiated Emissions 3-Meters
Project Number: 13999443
Client: Infabionic
Test Location: Chamber 4
Mode: Tx/LTE13/782/10M/16-QAM/RB1
Tested by: 11993

Rev 9.5 28 Jun 2021

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	- 13dBm	Margin (dB)	- 40dBm (WB limit)	Margin (dB)	- 50dBm (NB limit)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.5544	-56.92	Pk	28.1	-36.6	.6	11.8	-53.02	-13	-40.02	-	-	-	-	0-360	100	H
6	1.5544	-55.56	Pk	28.1	-36.6	.6	11.8	-51.66	-13	-38.66	-	-	-	-	0-360	200	V
2	2.3329	-46.09	Pk	31.9	-36.7	.4	11.8	-38.69	-13	-25.69	-	-	-	-	0-360	100	H
7	2.3329	-43.2	Pk	31.9	-36.7	.4	11.8	-35.8	-13	-22.8	-	-	-	-	0-360	300	V
3	3.1096	-59.57	Pk	32.9	-36	.6	11.8	-50.27	-13	-37.27	-	-	-	-	0-360	100	H
4	3.8881	-59.62	Pk	33.3	-34	.4	11.8	-48.12	-13	-35.12	-	-	-	-	0-360	100	H
8	3.8881	-61.83	Pk	33.3	-34	.4	11.8	-50.33	-13	-37.33	-	-	-	-	0-360	300	V
5	9.1	-64.92	Pk	36.1	-27	.6	11.8	-43.42	-13	-30.42	-	-	-	-	0-360	100	H
9	9.4897	-66	Pk	36.5	-26.9	.7	11.8	-43.9	-13	-30.9	-	-	-	-	0-360	200	V

Pk - Peak detector

8.1.6. LTE14

LIMITS

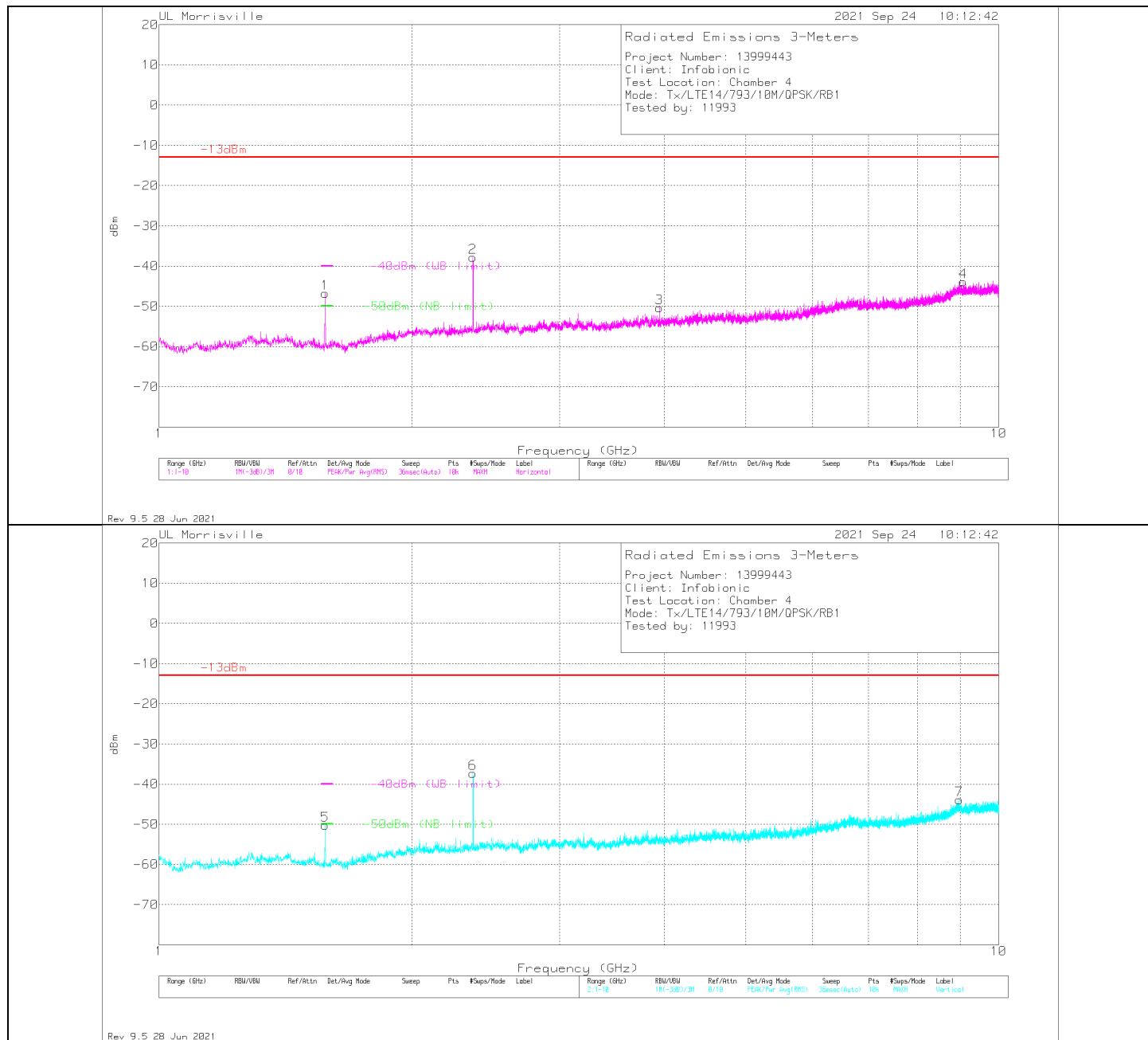
FCC: §90.543 Emission Limitations. (Band 14)

(e) For operations in the 758-768 MHz and the 788-798 MHz bands, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

(3) On any frequency between 775-788 MHz, above 805 MHz, and below 758 MHz, by at least $43 + 10 \log (P)$ dB.

(f) For operations in the 758-775 MHz and 788-805 MHz bands, all emissions including harmonics in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation

QPSK LTE14 (10MHz)

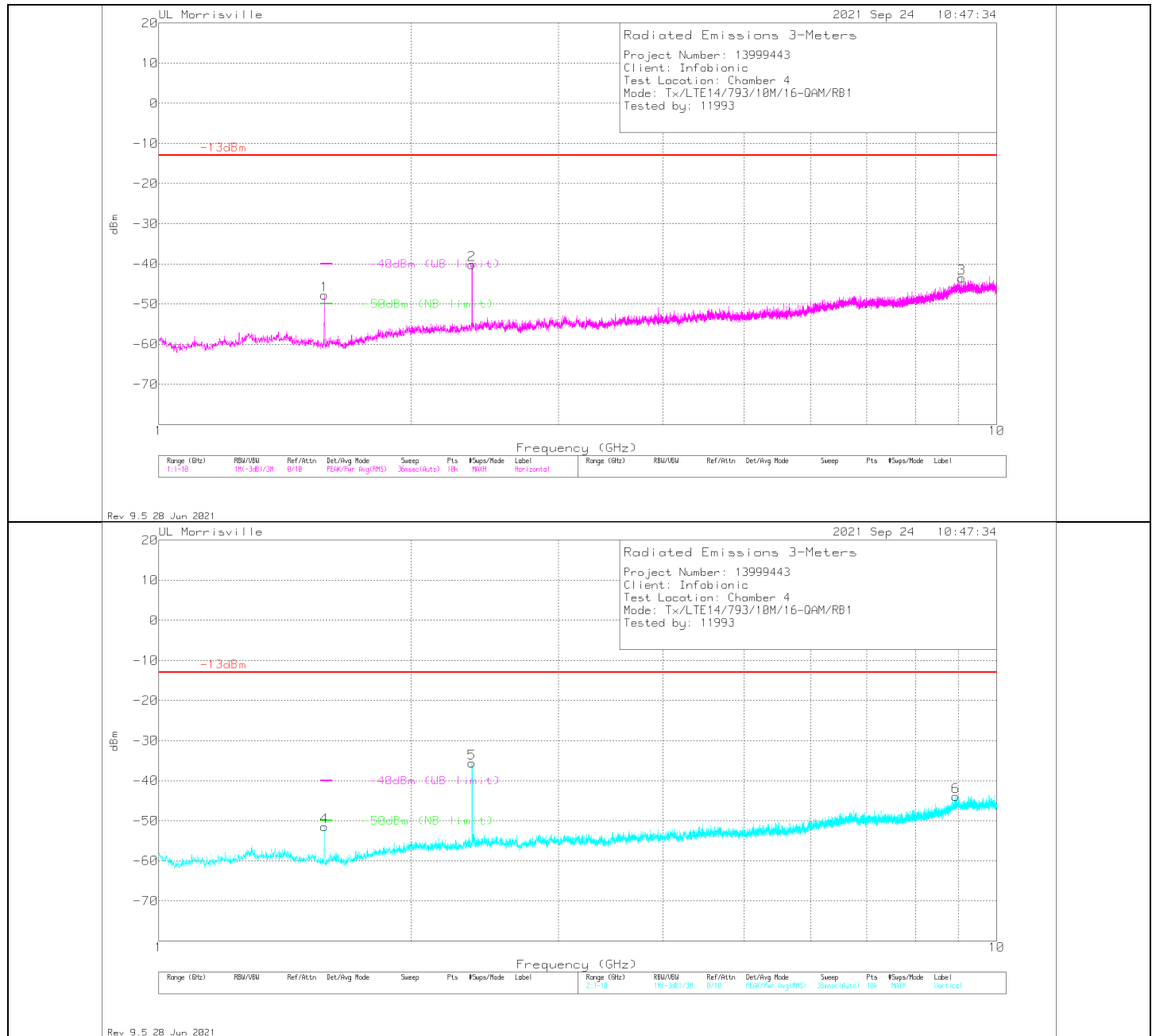


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	- 13dBm	Margin (dB)	- 40dBm (WB limit)	Margin (dB)	- 50dBm (NB limit)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.5769	-50.23	Pk	27.9	-36.6	.4	11.8	-46.73	-13	-33.73	-40	-6.73	-	-	0-360	100	H
5	1.5769	-53.72	Pk	27.9	-36.6	.4	11.8	-50.22	-13	-37.22	-40	-10.22	-	-	0-360	300	V
2	2.3653	-45.44	Pk	32	-36.7	.5	11.8	-37.84	-13	-24.84	-	-	-	-	0-360	100	H
6	2.3653	-44.93	Pk	32	-36.7	.5	11.8	-37.33	-13	-24.33	-	-	-	-	0-360	300	V
3	3.943	-62.2	Pk	33.3	-33.7	.4	11.8	-50.4	-13	-37.4	-	-	-	-	0-360	100	H
7	8.9794	-65.66	Pk	35.9	-26.7	.7	11.8	-43.96	-13	-30.96	-	-	-	-	0-360	300	V
4	9.0775	-65.28	Pk	36	-27	.6	11.8	-43.88	-13	-30.88	-	-	-	-	0-360	100	H

Pk - Peak detector

Note – Marker 1 and 5 determined to be wideband signal

16QAM LTE14 (10MHz)



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	- 13dBm	Margin (dB)	- 40dBm (WB limit)	Margin (dB)	- 50dBm (NB limit)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.5769	-51.21	Pk	27.9	-36.6	.4	11.8	-47.71	-13	-34.71	-40	-7.71	-	-	0-360	100	H
4	1.5769	-54.99	Pk	27.9	-36.6	.4	11.8	-51.49	-13	-38.49	-40	-11.49	-	-	0-360	300	V
2	2.3653	-47.73	Pk	32	-36.7	.5	11.8	-40.13	-13	-27.13	-	-	-	-	0-360	200	H
5	2.3653	-43.23	Pk	32	-36.7	.5	11.8	-35.63	-13	-22.63	-	-	-	-	0-360	300	V
6	8.938	-65.46	Pk	35.9	-26.8	.7	11.8	-43.86	-13	-30.86	-	-	-	-	0-360	200	V
3	9.0865	-65.02	Pk	36.1	-27	.6	11.8	-43.52	-13	-30.52	-	-	-	-	0-360	100	H

Pk - Peak detector

Note – Marker 1 and 5 determined to be wideband signal

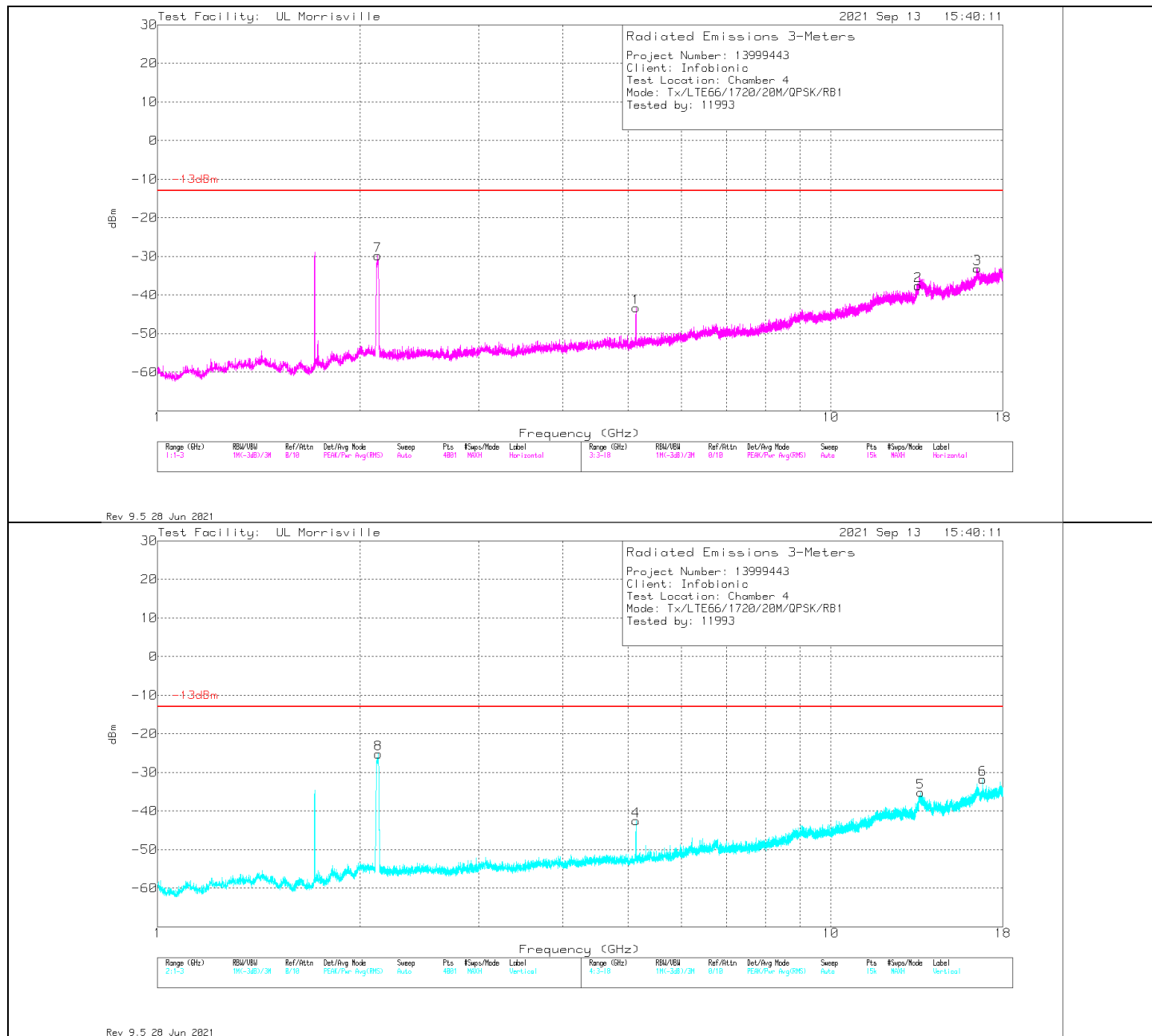
8.1.7. LTE66

LIMITS

FCC: §27.53(h)

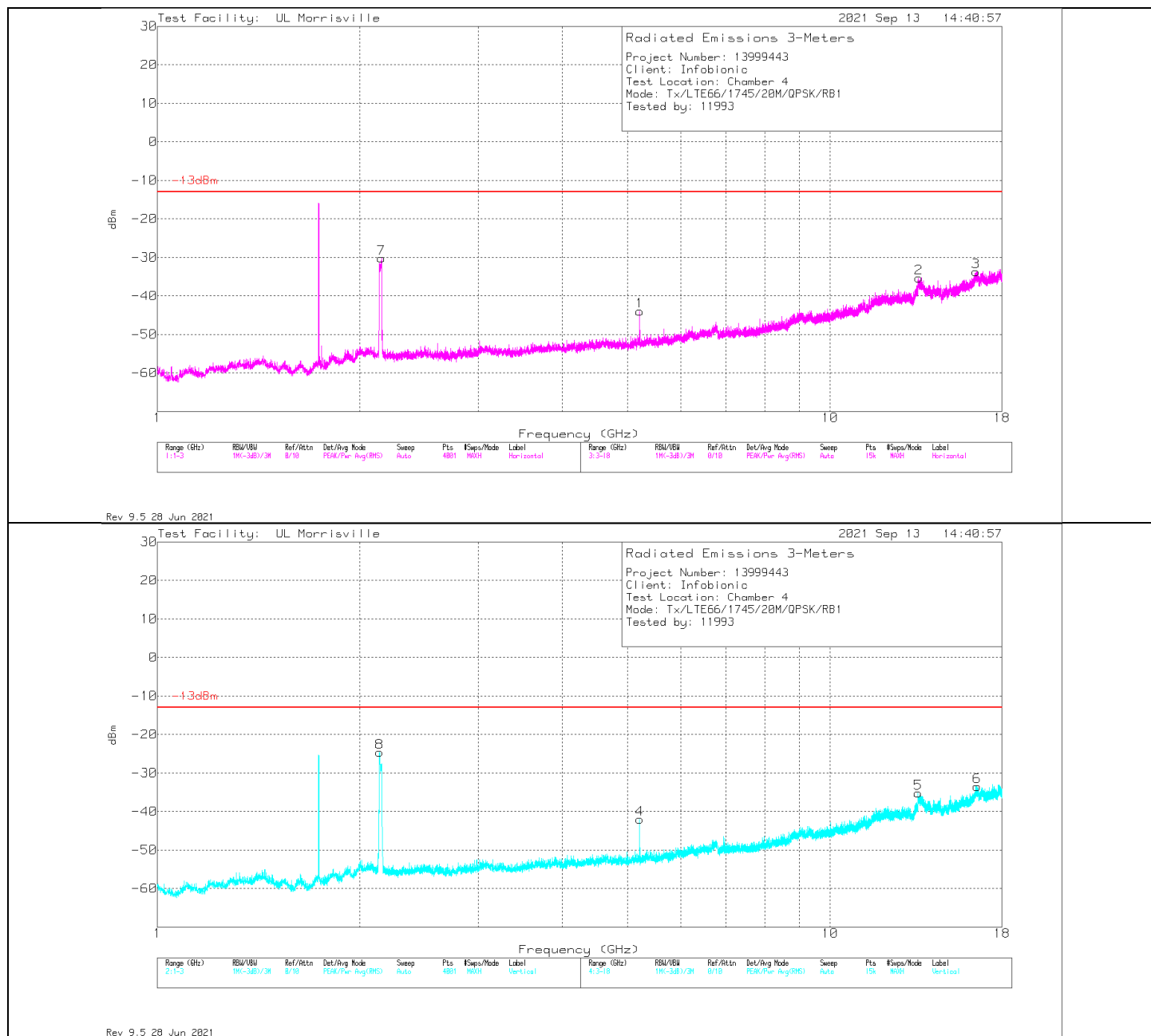
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log (P)$ dB.

QPSK LTE66 (20MHz)



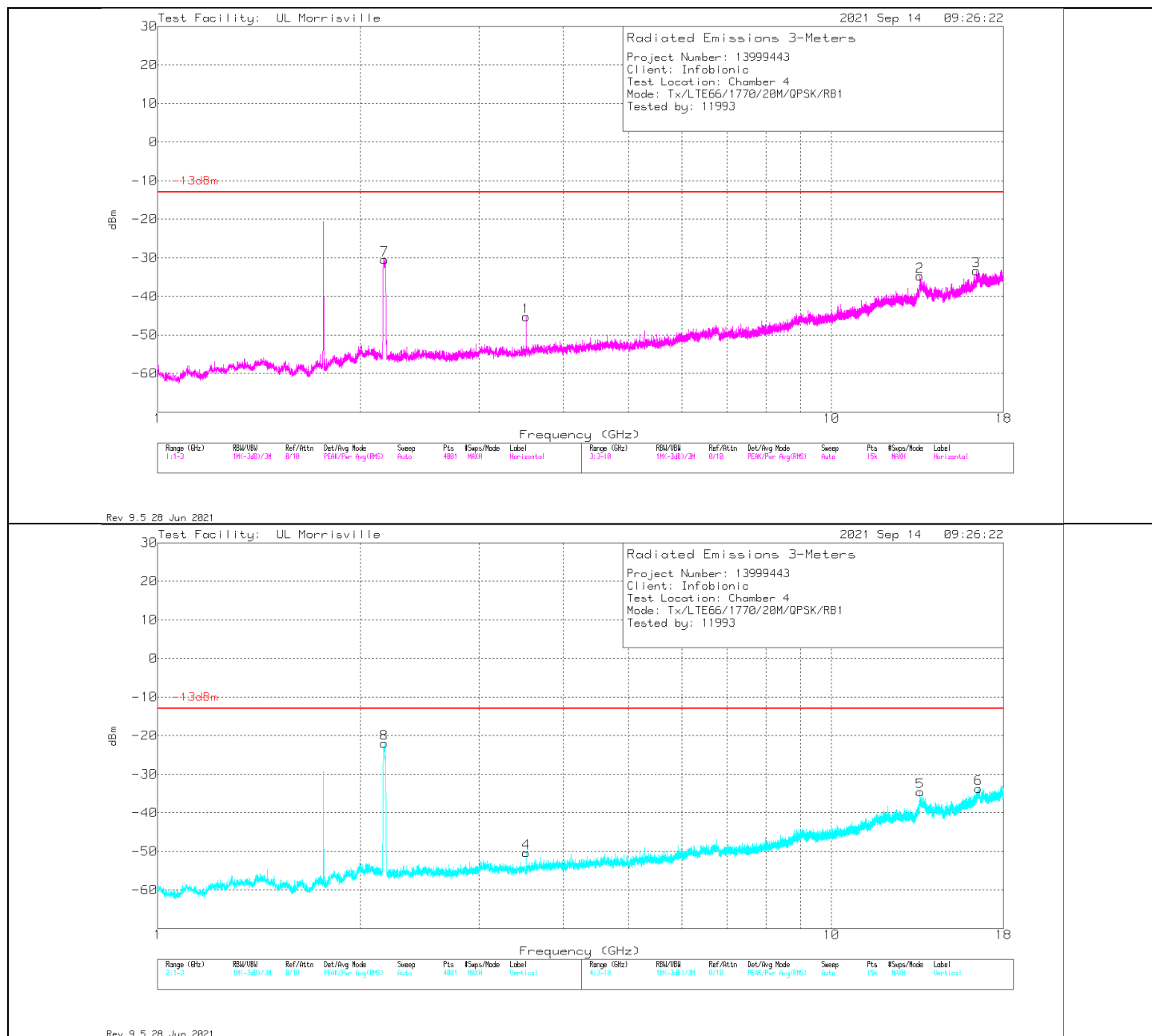
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
7	2.1225 (DL)	-37.68	Pk	31.5	-36.7	11.8	1.3	-29.78	-	-	0-360	300	H
8	2.1265 (DL)	-33.11	Pk	31.5	-36.7	11.8	1.3	-25.21	-	-	0-360	200	V
1	5.133	-57.45	Pk	34.2	-31.9	11.8	0	-43.35	-13	-30.35	0-360	100	H
4	5.133	-56.67	Pk	34.2	-31.9	11.8	0	-42.57	-13	-29.57	0-360	200	V
2	13.472	-65.8	Pk	38.8	-22.4	11.8	0	-37.6	-13	-24.6	0-360	100	H
5	13.591	-62.61	Pk	38.7	-23.1	11.8	0	-35.21	-13	-22.21	0-360	200	V
3	16.489	-65.17	Pk	41.3	-21.1	11.8	0	-33.17	-13	-20.17	0-360	100	H
6	16.804	-65.01	Pk	41.8	-20.4	11.8	0	-31.81	-13	-18.81	0-360	300	V

Pk - Peak detector



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
8	2.1385 (DL)	-32.53	Pk	31.6	-36.7	11.8	1.2	-24.63	-	-	0-360	300	V
7	2.1525 (DL)	-38.05	Pk	31.6	-36.7	11.8	1.1	-30.25	-	-	0-360	200	H
1	5.208	-58.21	Pk	34.3	-31.9	11.8	0	-44.01	-13	-31.01	0-360	100	H
4	5.208	-56.25	Pk	34.3	-31.9	11.8	0	-42.05	-13	-29.05	0-360	300	V
5	13.507	-63.28	Pk	38.7	-22.5	11.8	0	-35.28	-13	-22.28	0-360	300	V
2	13.536	-63.37	Pk	38.7	-22.5	11.8	0	-35.37	-13	-22.37	0-360	100	H
3	16.467	-65.65	Pk	41.2	-21.1	11.8	0	-33.75	-13	-20.75	0-360	200	H
6	16.527	-65.54	Pk	41.4	-21.2	11.8	0	-33.54	-13	-20.54	0-360	300	V

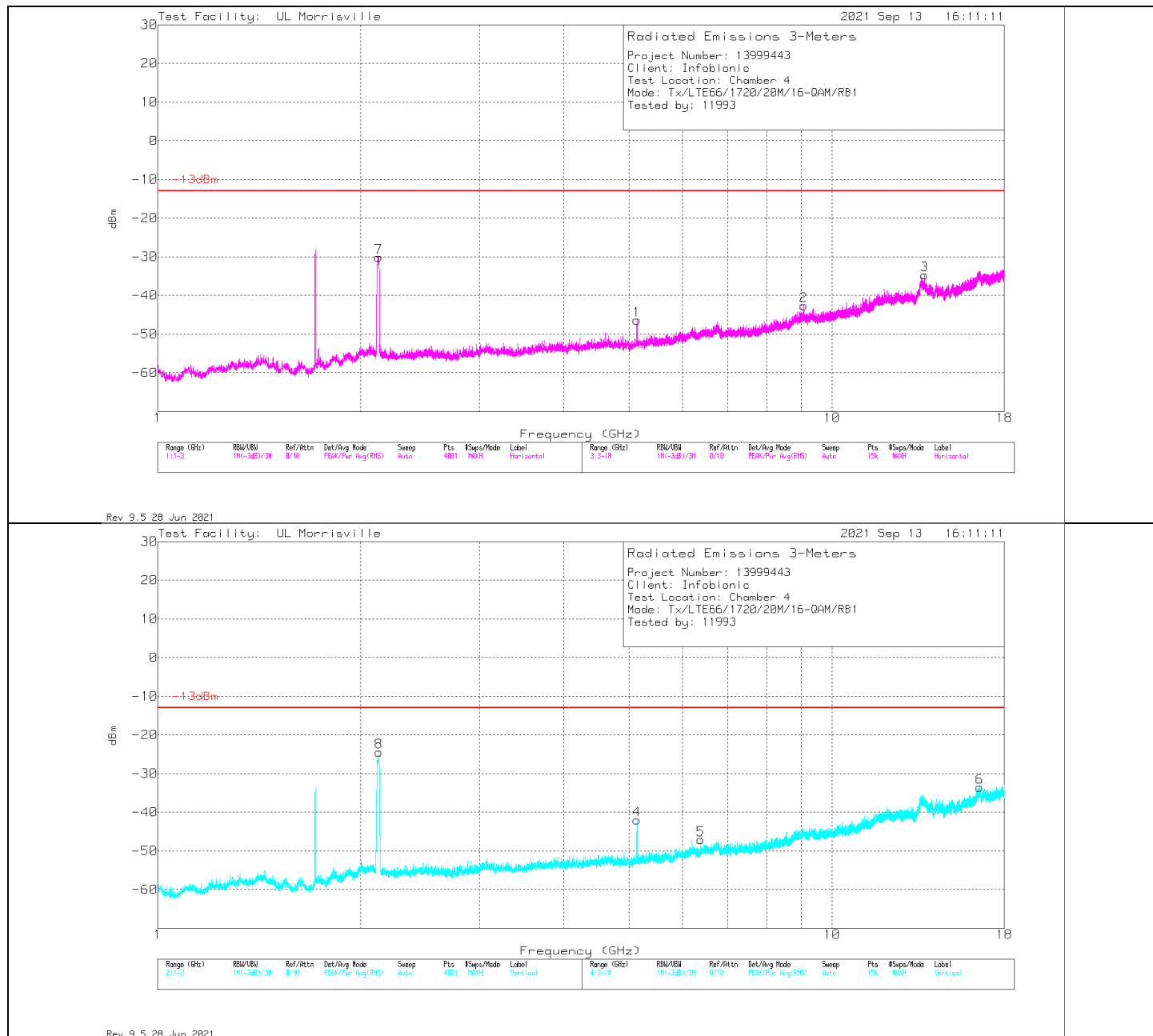
Pk - Peak detector



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
8	2.168 (DL)	-29.71	Pk	31.6	-36.7	11.8	1	-22.01	-	-	0-360	300	V
7	2.171 (DL)	-38.23	Pk	31.6	-36.7	11.8	1	-30.53	-	-	0-360	100	H
1	3.522	-55.5	Pk	32.8	-34.4	11.8	0	-45.3	-13	-32.3	0-360	200	H
4	3.522	-60.61	Pk	32.8	-34.4	11.8	0	-50.41	-13	-37.41	0-360	300	V
2	13.527	-62.78	Pk	38.7	-22.5	11.8	0	-34.78	-13	-21.78	0-360	100	H
5	13.535	-62.59	Pk	38.7	-22.5	11.8	0	-34.59	-13	-21.59	0-360	200	V
3	16.407	-65.15	Pk	41.1	-21.2	11.8	0	-33.45	-13	-20.45	0-360	100	H
6	16.52	-65.75	Pk	41.4	-21.2	11.8	0	-33.75	-13	-20.75	0-360	300	V

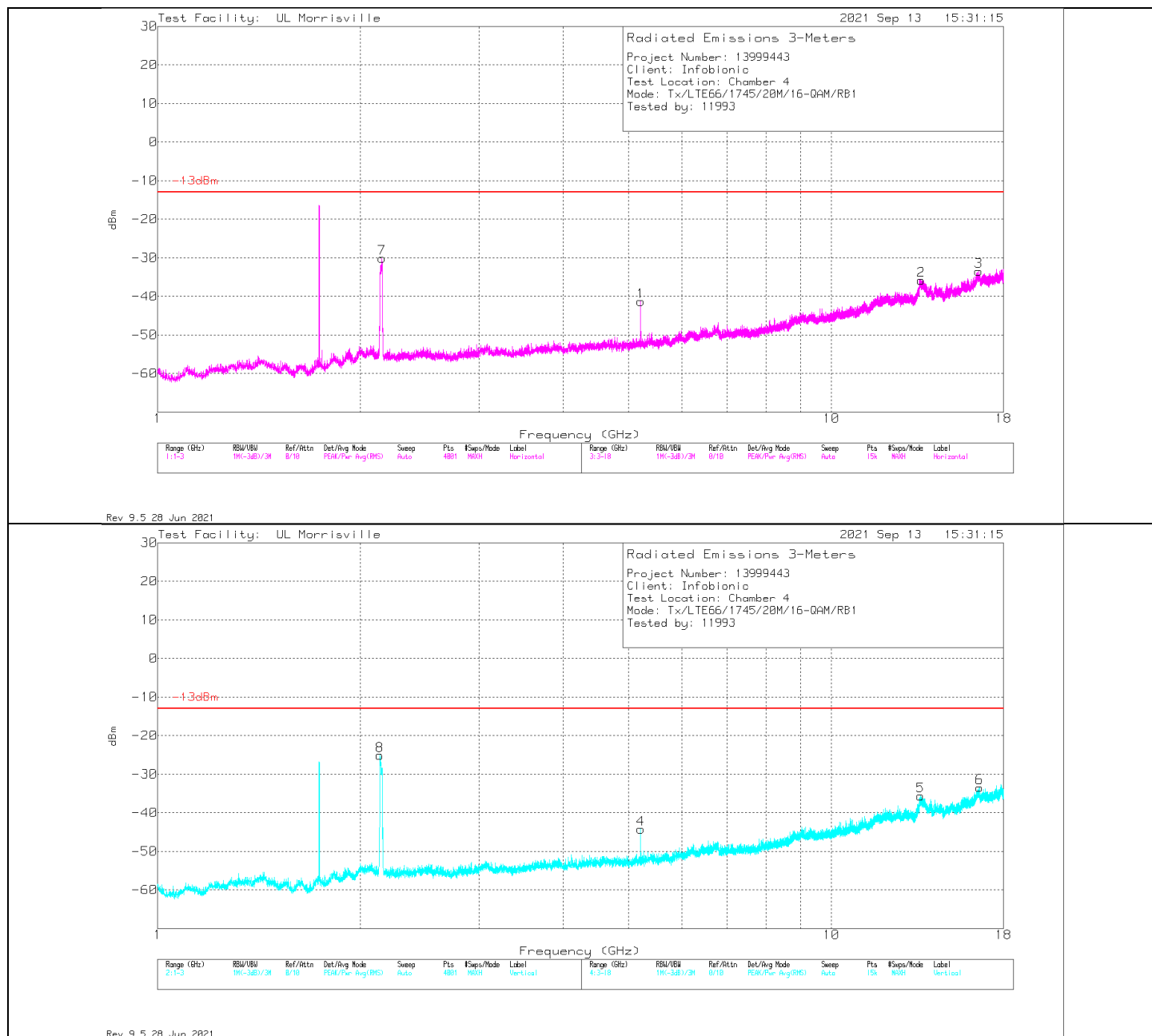
Pk - Peak detector

16QAM LTE66 (20MHz)



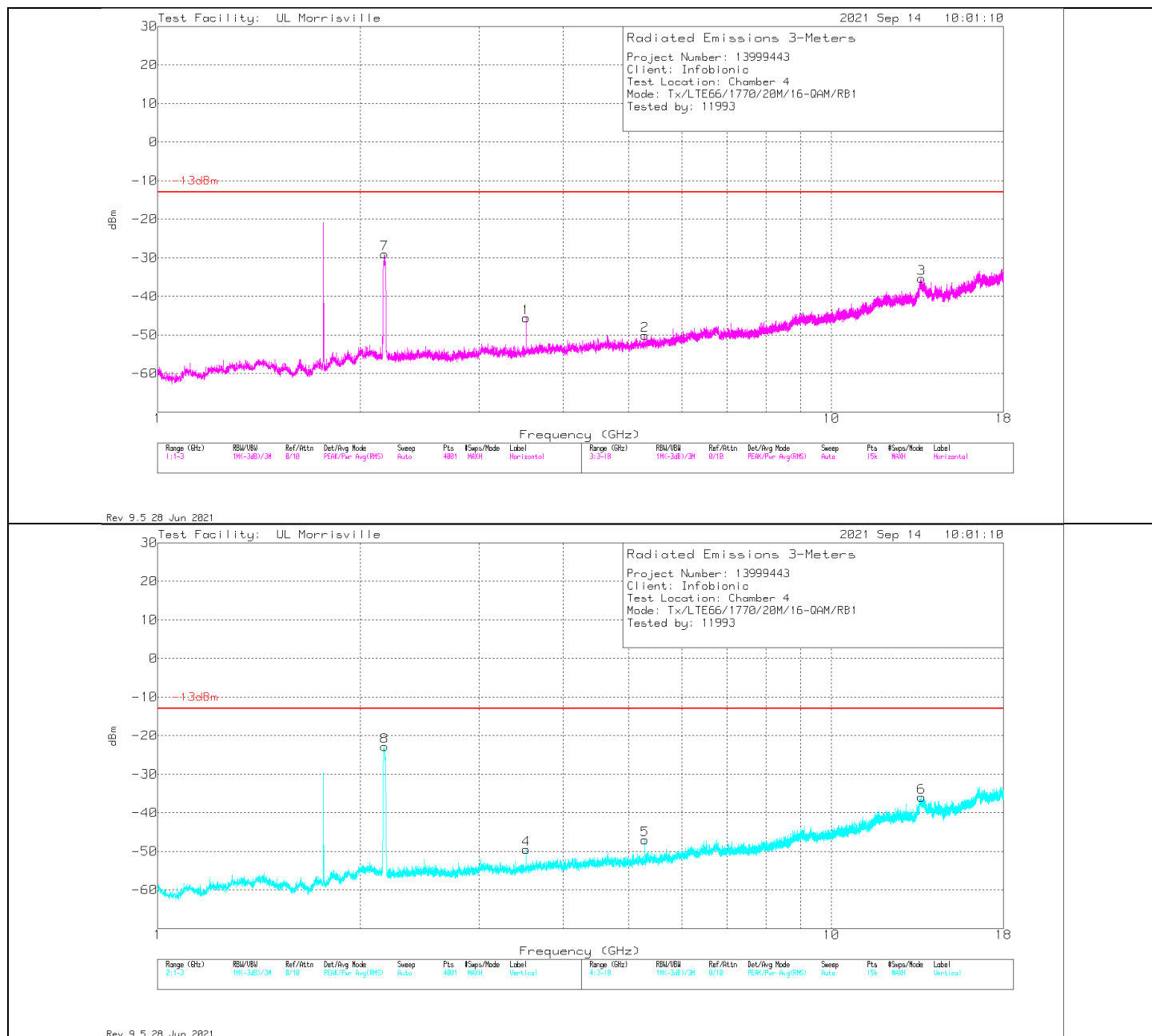
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
7	2.126 (DL)	-38.03	Pk	31.5	-36.7	11.8	1.3	-30.13	-	-	0-360	200	H
8	2.1275 (DL)	-32.34	Pk	31.5	-36.7	11.8	1.3	-24.44	-	-	0-360	300	V
1	5.133	-60.5	Pk	34.2	-31.9	11.8	0	-46.4	-13	-33.4	0-360	200	H
4	5.133	-56.12	Pk	34.2	-31.9	11.8	0	-42.02	-13	-29.02	0-360	200	V
5	6.383	-64.43	Pk	35.3	-29.8	11.8	0	-47.13	-13	-34.13	0-360	300	V
2	9.071	-64.92	Pk	36	-25.5	11.8	0	-42.62	-13	-29.62	0-360	100	H
3	13.707	-62.94	Pk	38.5	-22.1	11.8	0	-34.74	-13	-21.74	0-360	100	H
6	16.542	-65.55	Pk	41.4	-21.2	11.8	0	-33.55	-13	-20.55	0-360	300	V

Pk - Peak detector



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
8	2.137 (DL)	-33.09	Pk	31.6	-36.7	11.8	1.2	-25.19	-	-	0-360	300	V
7	2.152 (DL)	-37.95	Pk	31.6	-36.7	11.8	1.1	-30.15	-	-	0-360	200	H
1	5.208	-55.55	Pk	34.3	-31.9	11.8	0	-41.35	-13	-28.35	0-360	100	H
4	5.208	-58.48	Pk	34.3	-31.9	11.8	0	-44.28	-13	-31.28	0-360	300	V
5	13.558	-63.24	Pk	38.7	-22.9	11.8	0	-35.64	-13	-22.64	0-360	300	V
2	13.581	-63.29	Pk	38.7	-23.1	11.8	0	-35.89	-13	-22.89	0-360	100	H
3	16.532	-65.53	Pk	41.4	-21.2	11.8	0	-33.53	-13	-20.53	0-360	100	H
6	16.579	-65.6	Pk	41.5	-21.2	11.8	0	-33.5	-13	-20.5	0-360	200	V

Pk - Peak detector



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
7	2.1705 (DL)	-36.72	Pk	31.6	-36.7	11.8	1	-29.02	-	-	0-360	100	H
8	2.1705 (DL)	-30.55	Pk	31.6	-36.7	11.8	1	-22.85	-	-	0-360	300	V
1	3.522	-55.76	Pk	32.8	-34.4	11.8	0	-45.56	-13	-32.56	0-360	100	H
4	3.522	-59.75	Pk	32.8	-34.4	11.8	0	-49.55	-13	-36.55	0-360	200	V
2	5.283	-63.73	Pk	34.4	-32.6	11.8	0	-50.13	-13	-37.13	0-360	200	H
5	5.283	-60.61	Pk	34.4	-32.6	11.8	0	-47.01	-13	-34.01	0-360	200	V
6	13.593	-63.36	Pk	38.7	-23.1	11.8	0	-35.96	-13	-22.96	0-360	300	V
3	13.603	-62.86	Pk	38.7	-23	11.8	0	-35.36	-13	-22.36	0-360	100	H

Pk - Peak detector

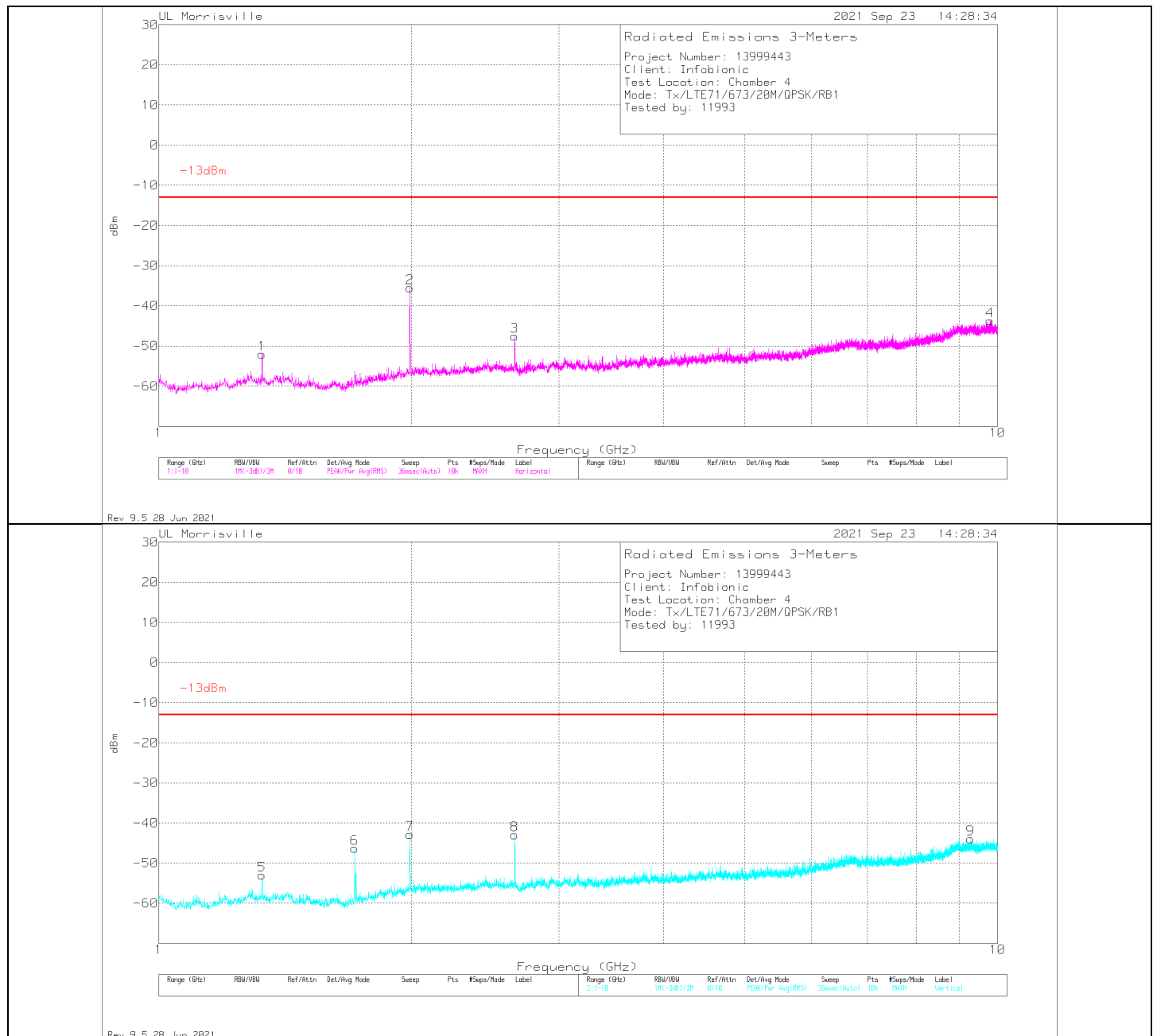
8.1.8. LTE71

LIMITS

FCC: §27.53 (g)

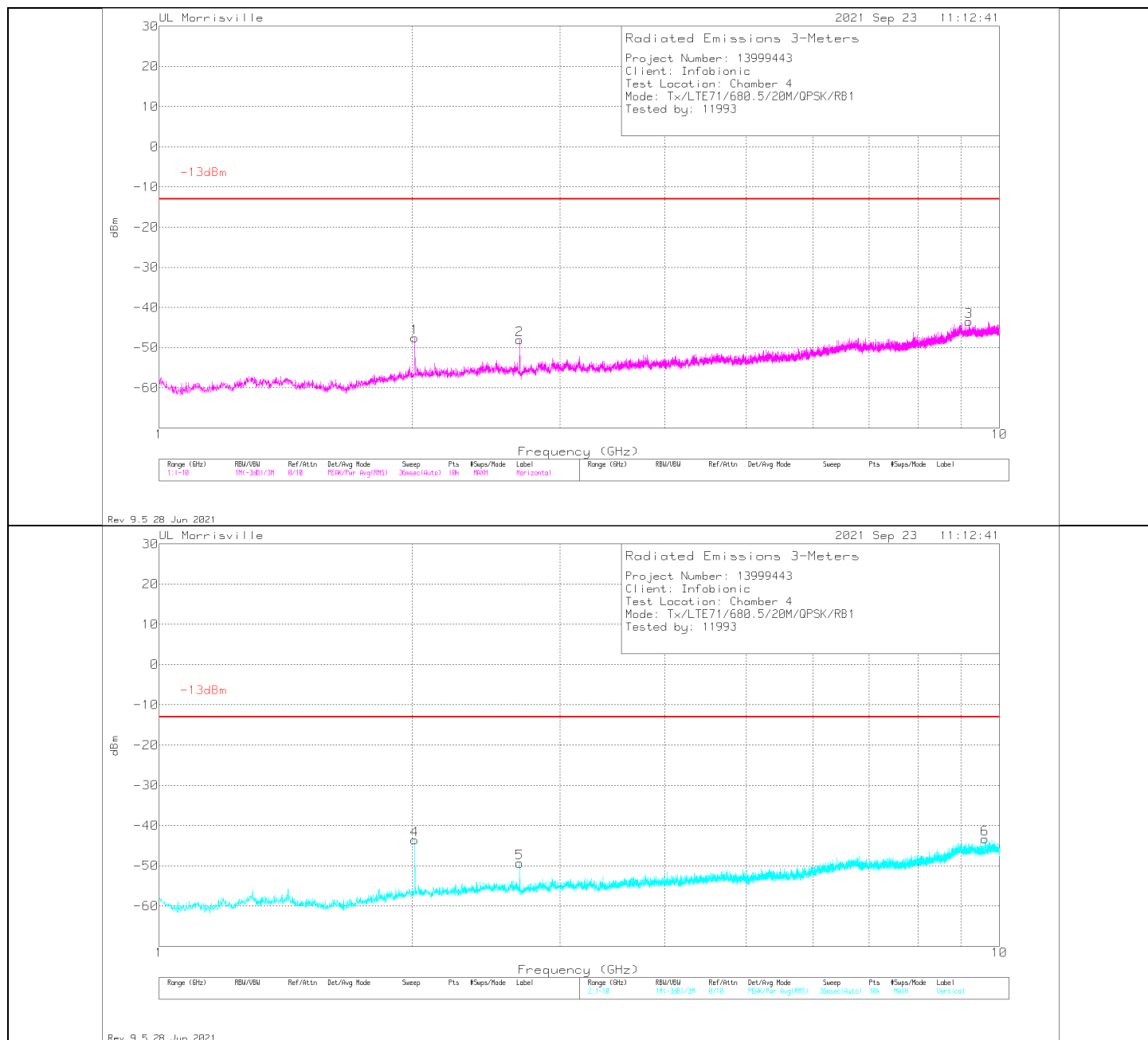
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log (P)$ dB.

QPSK LTE71 (20MHz)



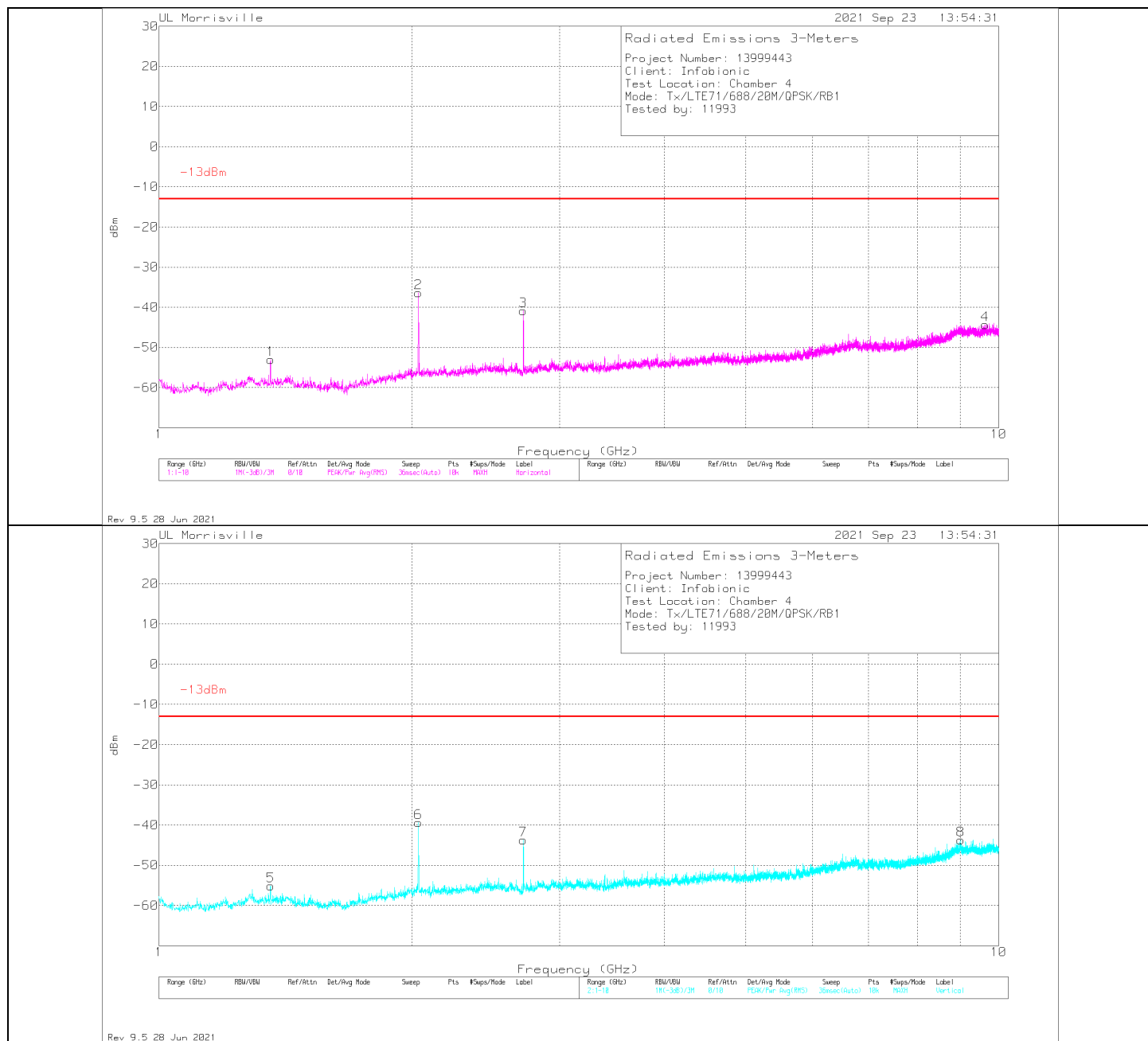
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.3276	-57.18	Pk	29.1	-36.5	.8	11.8	-51.98	-13	-38.98	0-360	100	H
5	1.3276	-58.23	Pk	29.1	-36.5	.8	11.8	-53.03	-13	-40.03	0-360	300	V
6	1.7119	-50.63	Pk	28.7	-36.6	.4	11.8	-46.33	-13	-33.33	0-360	300	V
2	1.9918	-42.45	Pk	31.5	-36.7	.3	11.8	-35.55	-13	-22.55	0-360	100	H
7	1.9927	-49.71	Pk	31.5	-36.7	.3	11.8	-42.81	-13	-29.81	0-360	200	V
3	2.6569	-55.58	Pk	32.2	-36.5	.5	11.8	-47.58	-13	-34.58	0-360	100	H
8	2.6569	-50.94	Pk	32.2	-36.5	.5	11.8	-42.94	-13	-29.94	0-360	200	V
9	9.2872	-65.94	Pk	36.4	-26.8	.6	11.8	-43.94	-13	-30.94	0-360	200	V
4	9.7948	-66.17	Pk	36.8	-26.9	.7	11.8	-43.77	-13	-30.77	0-360	100	H

Pk - Peak detector



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.0143	-54.63	Pk	31.7	-36.8	.4	11.8	-47.53	-13	-34.53	0-360	100	H
4	2.0143	-50.71	Pk	31.7	-36.8	.4	11.8	-43.61	-13	-30.61	0-360	200	V
5	2.6857	-56.86	Pk	31.8	-36.5	.4	11.8	-49.36	-13	-36.36	0-360	200	V
2	2.6866	-55.6	Pk	31.8	-36.5	.4	11.8	-48.1	-13	-35.1	0-360	100	H
3	9.2017	-65.06	Pk	36.2	-27	.6	11.8	-43.46	-13	-30.46	0-360	100	H
6	9.6058	-65.56	Pk	36.6	-26.9	.7	11.8	-43.36	-13	-30.36	0-360	200	V

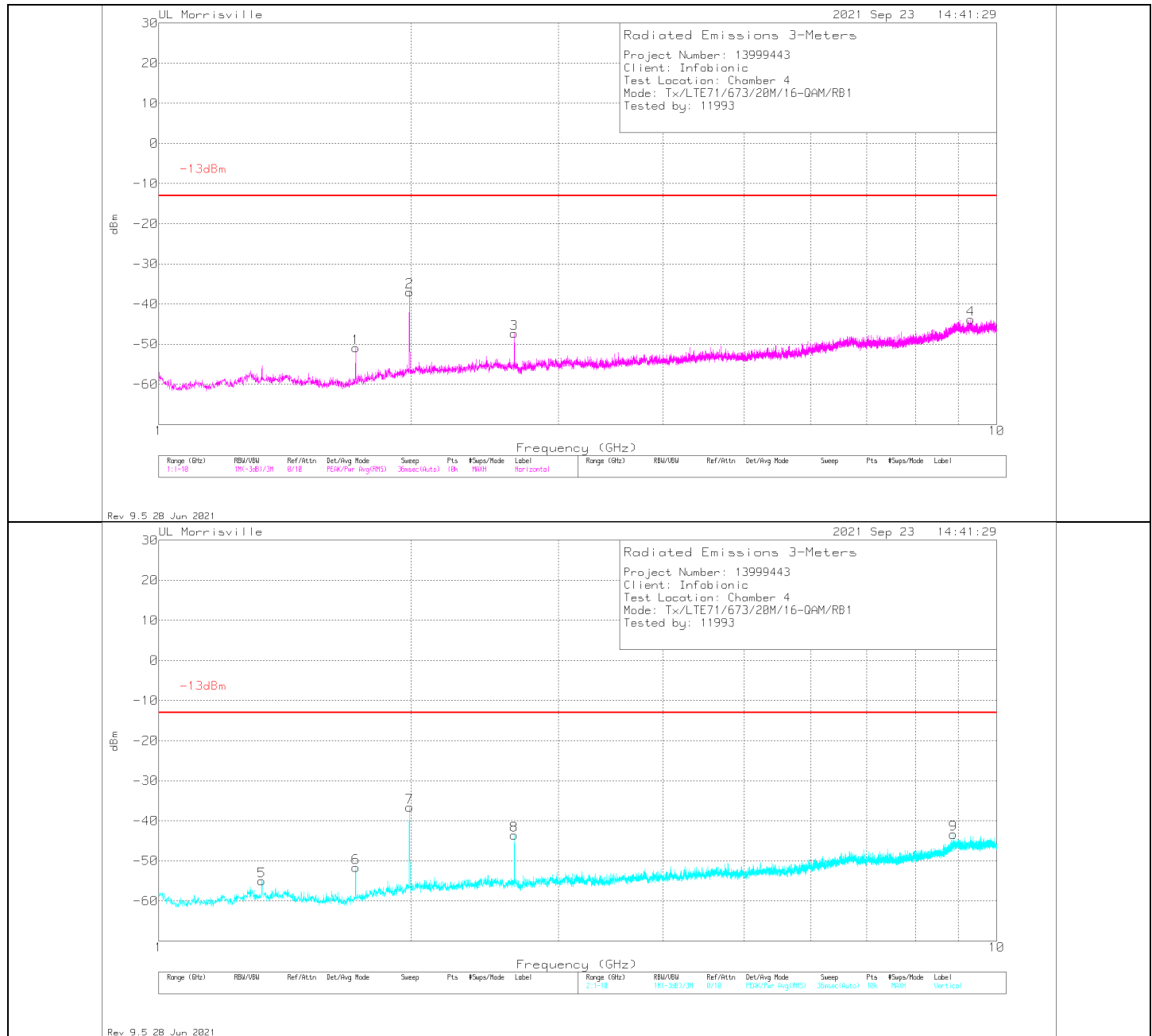
Pk - Peak detector



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.3582	-58.37	Pk	29.3	-36.6	.8	11.8	-53.07	-13	-40.07	0-360	100	H
5	1.3582	-60.42	Pk	29.3	-36.6	.8	11.8	-55.12	-13	-42.12	0-360	200	V
2	2.0368	-43.67	Pk	31.8	-36.7	.4	11.8	-36.37	-13	-23.37	0-360	100	H
6	2.0368	-46.63	Pk	31.8	-36.7	.4	11.8	-39.33	-13	-26.33	0-360	200	V
3	2.7163	-48.21	Pk	31.7	-36.5	.4	11.8	-40.81	-13	-27.81	0-360	100	H
7	2.7163	-51.15	Pk	31.7	-36.5	.4	11.8	-43.75	-13	-30.75	0-360	300	V
8	9.0073	-65.62	Pk	35.9	-26.5	.7	11.8	-43.72	-13	-30.72	0-360	200	V
4	9.631	-66.63	Pk	36.6	-26.9	.8	11.8	-44.33	-13	-31.33	0-360	100	H

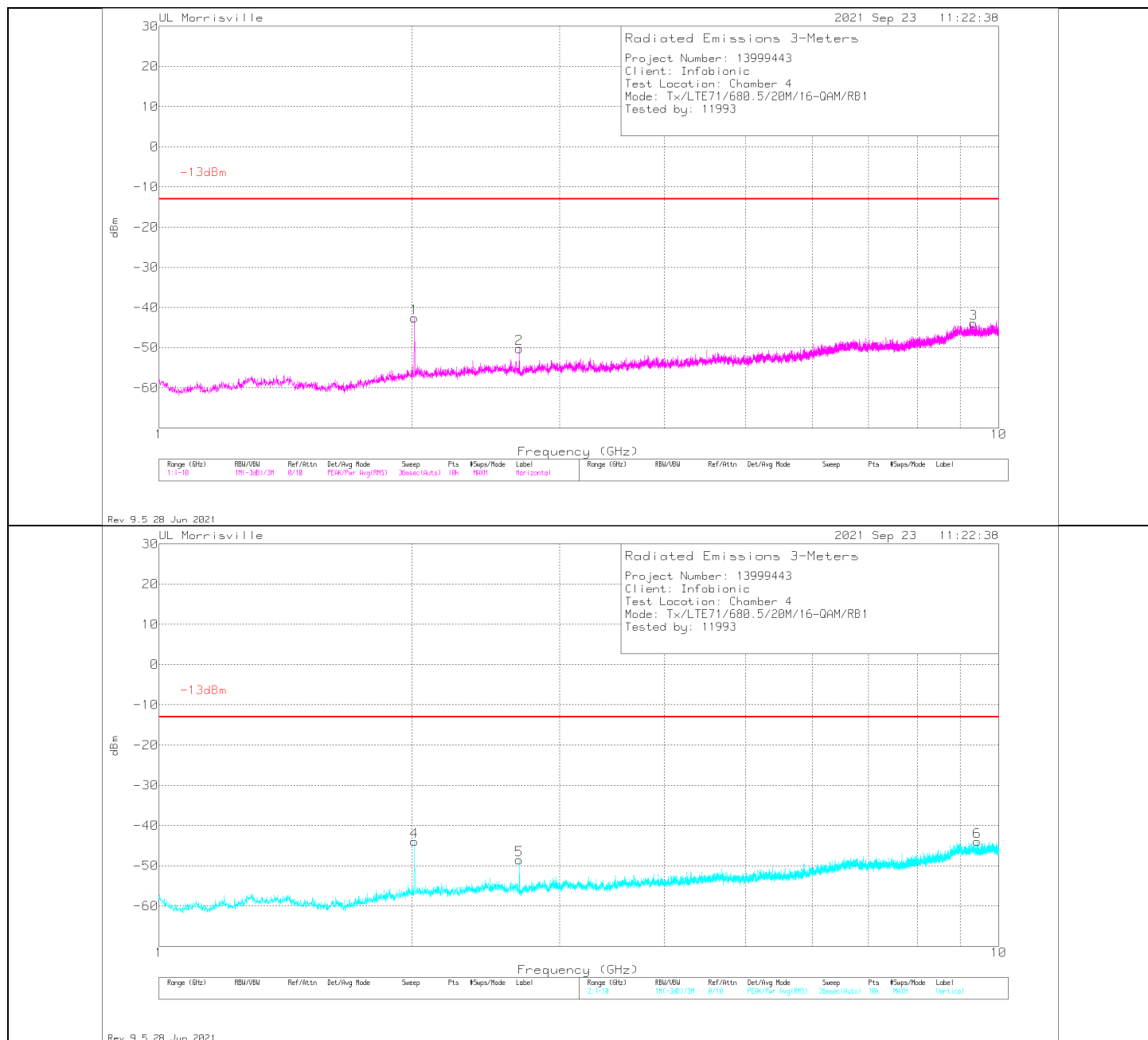
Pk - Peak detector

16QAM LTE71 (20MHz)



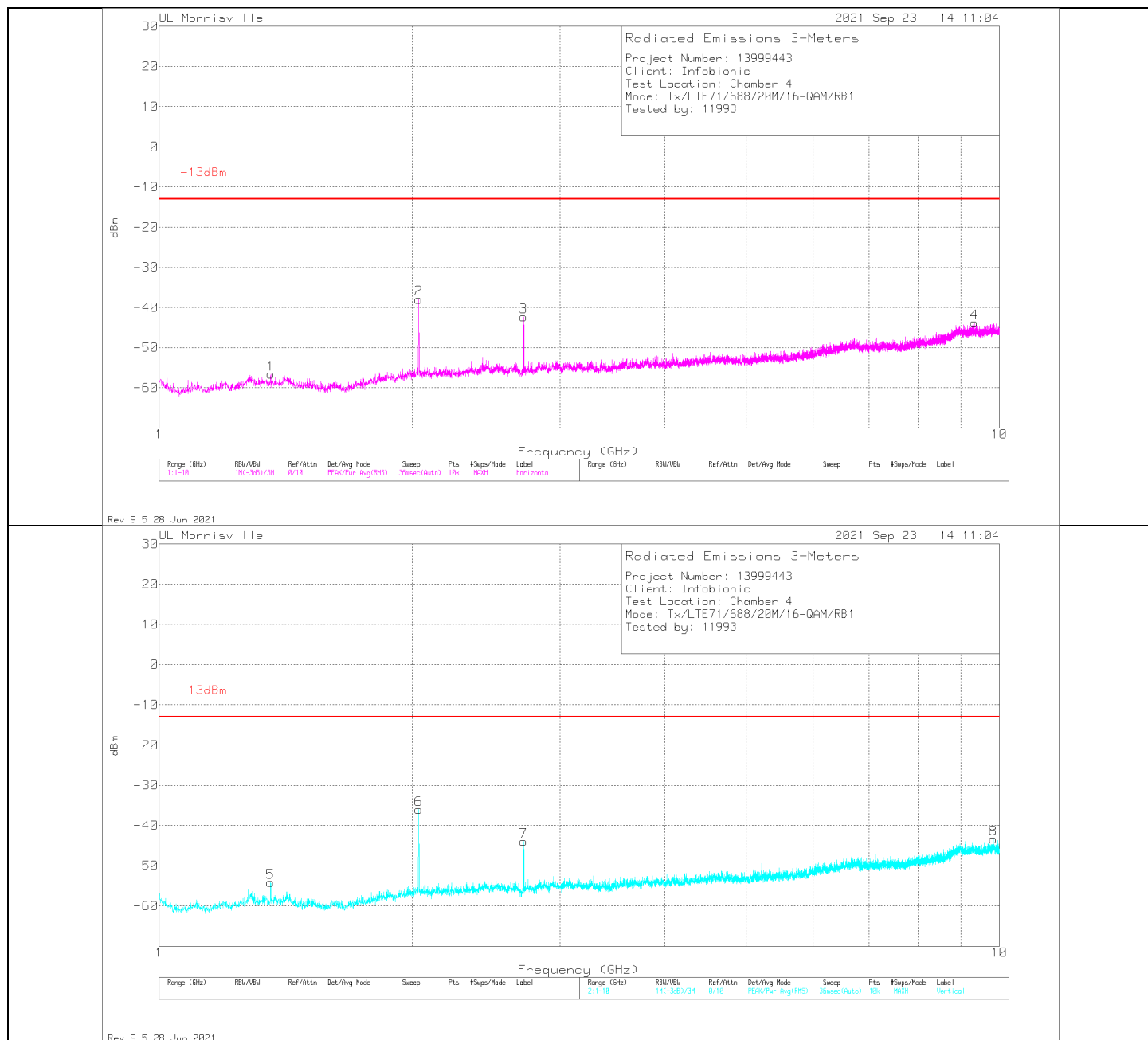
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5	1.3276	-60.2	Pk	29.1	-36.5	.8	11.8	-55	-13	-42	0-360	200	V
1	1.7182	-55.33	Pk	28.8	-36.6	.4	11.8	-50.93	-13	-37.93	0-360	200	H
6	1.7182	-56.09	Pk	28.8	-36.6	.4	11.8	-51.69	-13	-38.69	0-360	200	V
2	1.9927	-43.85	Pk	31.5	-36.7	.3	11.8	-36.95	-13	-23.95	0-360	200	H
7	1.9927	-43.55	Pk	31.5	-36.7	.3	11.8	-36.65	-13	-23.65	0-360	200	V
3	2.6569	-55.3	Pk	32.2	-36.5	.5	11.8	-47.3	-13	-34.3	0-360	100	H
8	2.6569	-51.61	Pk	32.2	-36.5	.5	11.8	-43.61	-13	-30.61	0-360	200	V
9	8.8786	-64.9	Pk	36	-27	.7	11.8	-43.4	-13	-30.4	0-360	200	V
4	9.3142	-65.88	Pk	36.4	-26.8	.6	11.8	-43.88	-13	-30.88	0-360	100	H

Pk - Peak detector



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.0143	-49.7	Pk	31.7	-36.8	.4	11.8	-42.6	-13	-29.6	0-360	200	H
4	2.0143	-51.06	Pk	31.7	-36.8	.4	11.8	-43.96	-13	-30.96	0-360	200	V
2	2.6866	-57.73	Pk	31.8	-36.5	.4	11.8	-50.23	-13	-37.23	0-360	100	H
5	2.6866	-56	Pk	31.8	-36.5	.4	11.8	-48.5	-13	-35.5	0-360	200	V
3	9.343	-66.22	Pk	36.4	-26.6	.6	11.8	-44.02	-13	-31.02	0-360	200	H
6	9.424	-65.93	Pk	36.4	-26.9	.7	11.8	-43.93	-13	-30.93	0-360	300	V

Pk - Peak detector



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5	1.3573	-59.43	Pk	29.3	-36.6	.8	11.8	-54.13	-13	-41.13	0-360	300	V
1	1.3582	-61.88	Pk	29.3	-36.6	.8	11.8	-56.58	-13	-43.58	0-360	100	H
2	2.0368	-45.24	Pk	31.8	-36.7	.4	11.8	-37.94	-13	-24.94	0-360	200	H
6	2.0368	-43.36	Pk	31.8	-36.7	.4	11.8	-36.06	-13	-23.06	0-360	200	V
3	2.7163	-49.79	Pk	31.7	-36.5	.4	11.8	-42.39	-13	-29.39	0-360	100	H
7	2.7163	-51.38	Pk	31.7	-36.5	.4	11.8	-43.98	-13	-30.98	0-360	300	V
4	9.3322	-66.11	Pk	36.4	-26.5	.6	11.8	-43.81	-13	-30.81	0-360	100	H
8	9.8317	-65.63	Pk	36.9	-27.1	.7	11.8	-43.33	-13	-30.33	0-360	200	V

Pk - Peak detector

9. SETUP PHOTOS

Refer to exhibit R13999443-EP1 for setup photos.

END OF REPORT