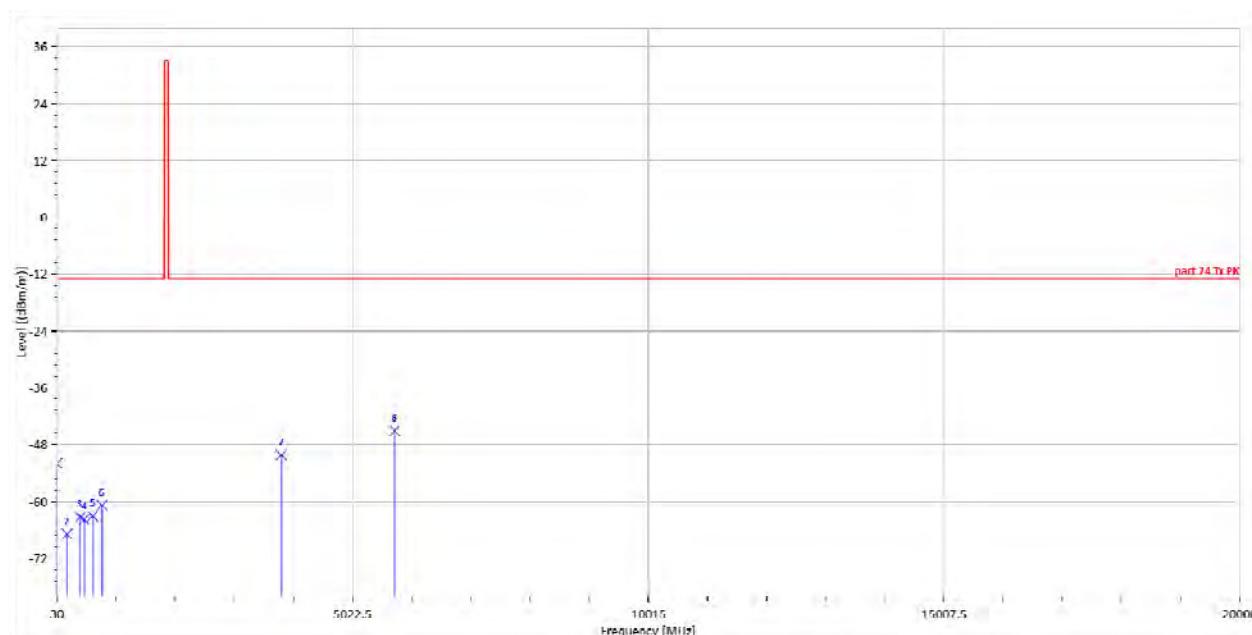


Operation Mode :	2G1900	Test Date :	2016/12/22
Fundamental Frequency :	1909.8 MHz	Temp. / Humi. :	22.3deg_C/64 RH
Operation Band :	Tx CH High	Test Engineer :	Ashton
EUT Pol. :	E1	Measurement Antenna Pol. :	Horizontal



Freq.	Note	EIRP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
30.97	S	-52.04	-31.99	-19.41	-0.65	-13.01	-39.03
199.75	S	-66.95	-71.14	5.84	-1.65	-13.01	-53.94
422.85	S	-63.34	-67.08	5.99	-2.26	-13.01	-50.33
490.75	S	-63.77	-67.38	6.37	-2.76	-13.01	-50.76
634.31	S	-63.08	-66.94	7.01	-3.16	-13.01	-50.07
793.39	S	-60.82	-65.25	7.66	-3.23	-13.01	-47.81
3819.60	H	-50.26	-55.28	12.30	-7.27	-13.01	-37.25
5732.00	H	-45.07	-48.86	12.69	-8.90	-13.01	-32.06

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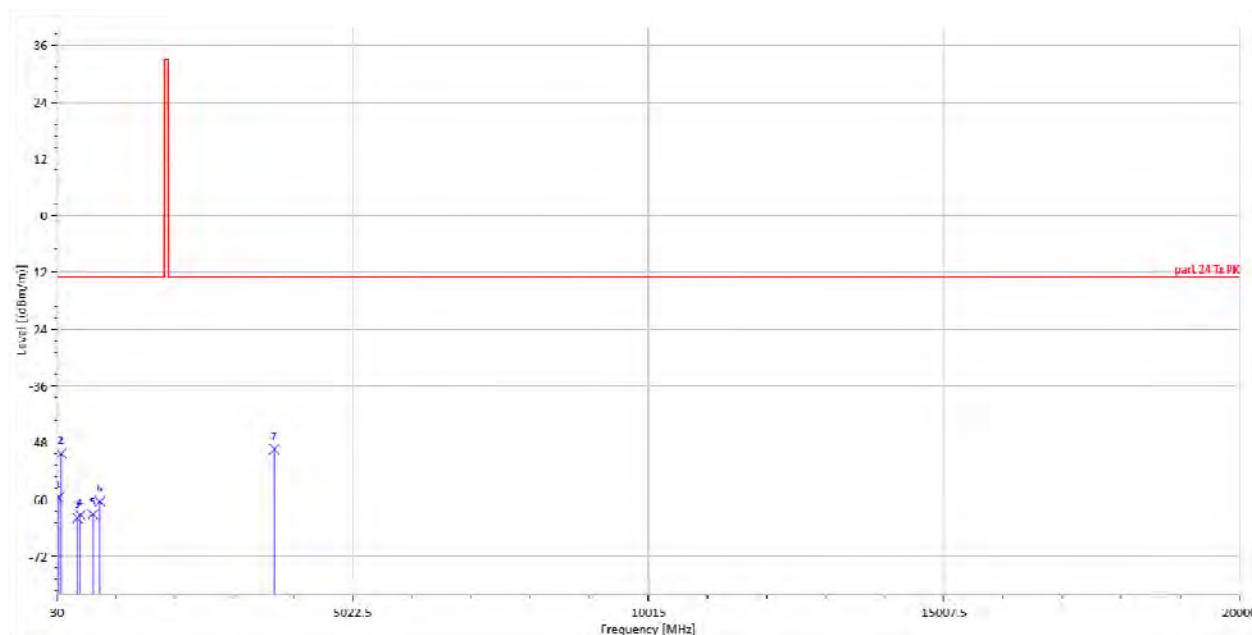
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## Radiated Spurious Emission Measurement Result: WCDMA Band 2 Mode

Operation Mode :	3GB2	Test Date :	2016/12/22
Fundamental Frequency :	1852.4 MHz	Temp. / Humi. :	22.3deg_C/64 RH
Operation Band :	Tx CH Low	Test Engineer :	Ashton
EUT Pol. :	E1	Measurement Antenna Pol. :	Vertical



Freq.	Note	EIRP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
59.10	S	-59.49	-57.34	-1.29	-0.87	-13.01	-46.48
98.87	S	-50.29	-48.33	-0.79	-1.16	-13.01	-37.28
373.38	S	-63.89	-67.45	5.83	-2.26	-13.01	-50.88
423.82	S	-63.20	-67.04	6.00	-2.16	-13.01	-50.19
637.22	S	-63.08	-67.10	7.02	-3.00	-13.01	-50.07
754.59	S	-60.38	-65.03	7.62	-2.96	-13.01	-47.37
3702.00	H	-49.39	-54.54	12.30	-7.15	-13.01	-36.38

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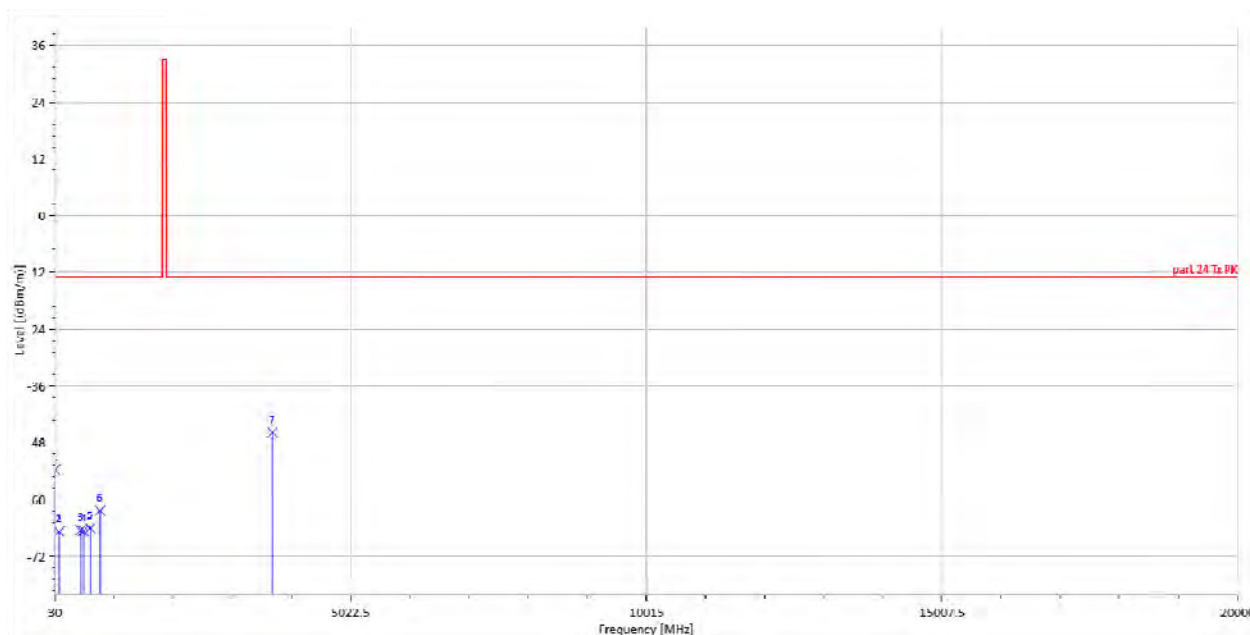
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Operation Mode :	3GB2	Test Date :	2016/12/22
Fundamental Frequency :	1852.4 MHz	Temp. / Humi. :	22.3deg_C/64 RH
Operation Band :	Tx CH Low	Test Engineer :	Ashton
EUT Pol. :	E1	Measurement Antenna Pol. :	Horizontal



Freq.	Note	EIRP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
31.94	S	-53.70	-34.47	-18.56	-0.67	-13.01	-40.69
100.81	S	-66.79	-64.70	-0.92	-1.17	-13.01	-53.78
465.53	S	-66.47	-70.39	6.31	-2.39	-13.01	-53.46
515.97	S	-66.58	-70.62	6.40	-2.35	-13.01	-53.57
625.58	S	-66.00	-69.88	6.97	-3.09	-13.01	-52.99
792.42	S	-62.29	-66.67	7.66	-3.29	-13.01	-49.28
3702.00	H	-45.78	-50.94	12.30	-7.15	-13.01	-32.77

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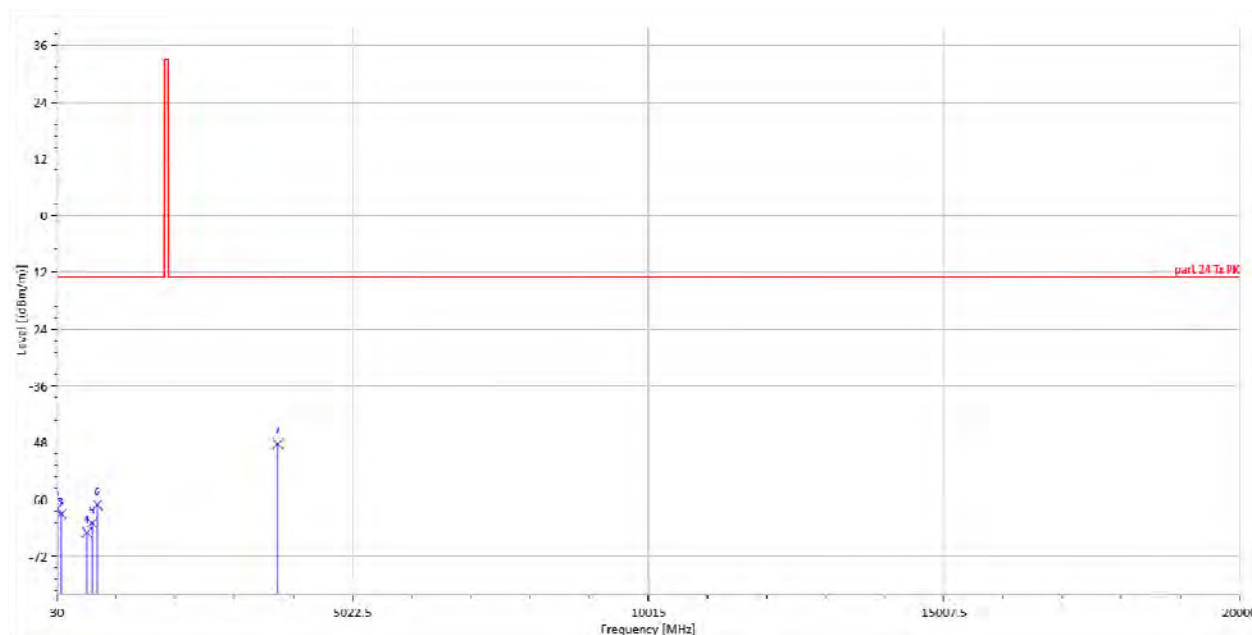
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Operation Mode : 3GB2 Test Date : 2016/12/22  
Fundamental Frequency : 1880 MHz Temp. / Humi. : 22.3deg\_C/64RH  
Operation Band : Tx CH Mid Test Engineer : Ashton  
EUT Pol. : E1 Measurement Antenna Pol. : Vertical



Freq.	Note	EIRP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
30.00	S	-58.54	-37.66	-20.25	-0.63	-13.01	-45.53
41.64	S	-61.86	-50.52	-10.59	-0.75	-13.01	-48.85
100.81	S	-63.04	-60.95	-0.92	-1.17	-13.01	-50.03
537.31	S	-66.96	-70.75	6.41	-2.62	-13.01	-53.95
624.61	S	-64.93	-68.75	6.97	-3.16	-13.01	-51.92
711.91	S	-61.05	-65.59	7.61	-3.07	-13.01	-48.04
3758.00	H	-48.24	-53.34	12.30	-7.20	-13.01	-35.23

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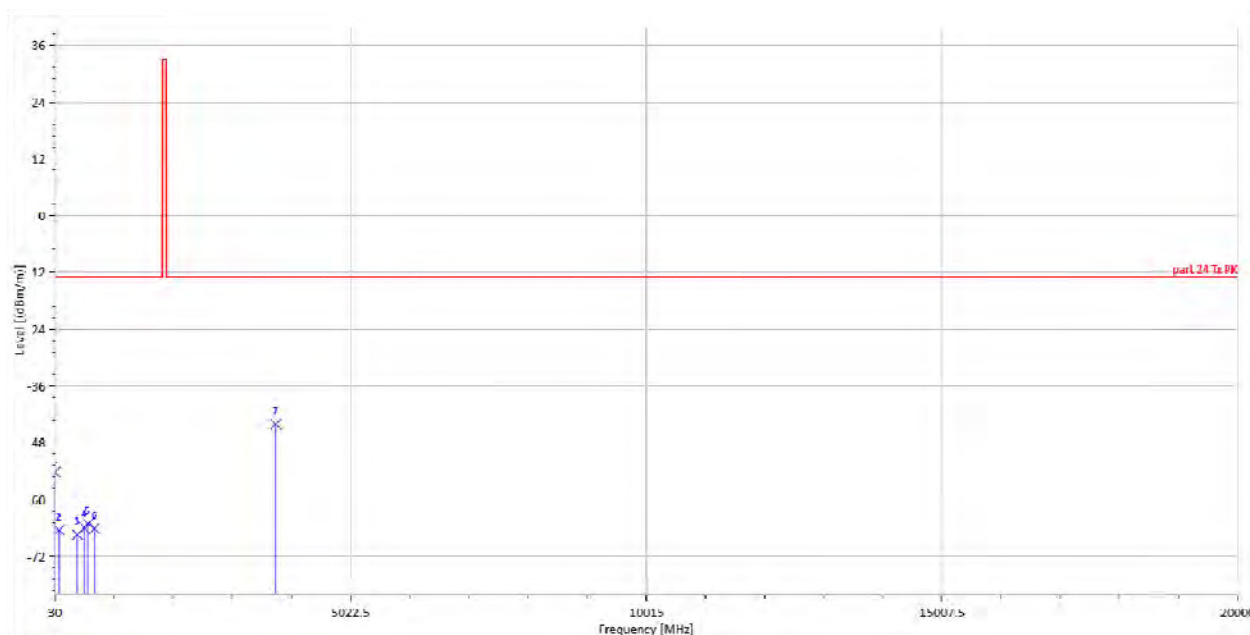
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Operation Mode : 3GB2      Test Date : 2016/12/22  
Fundamental Frequency : 1880 MHz      Temp. / Humi. : 22.3deg\_C/64RH  
Operation Band : Tx CH Mid      Test Engineer : Ashton  
EUT Pol. : E1      Measurement Antenna Pol. : Horizontal



Freq.	Note	EIRP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
30.97	S	-54.18	-34.13	-19.41	-0.65	-13.01	-41.17
100.81	S	-66.43	-64.34	-0.92	-1.17	-13.01	-53.42
409.27	S	-67.40	-70.78	5.85	-2.47	-13.01	-54.39
526.64	S	-65.87	-69.81	6.40	-2.46	-13.01	-52.86
586.78	S	-65.04	-69.02	6.75	-2.77	-13.01	-52.03
700.27	S	-66.05	-70.65	7.61	-3.01	-13.01	-53.04
3758.00	H	-44.03	-49.13	12.30	-7.20	-13.01	-31.02

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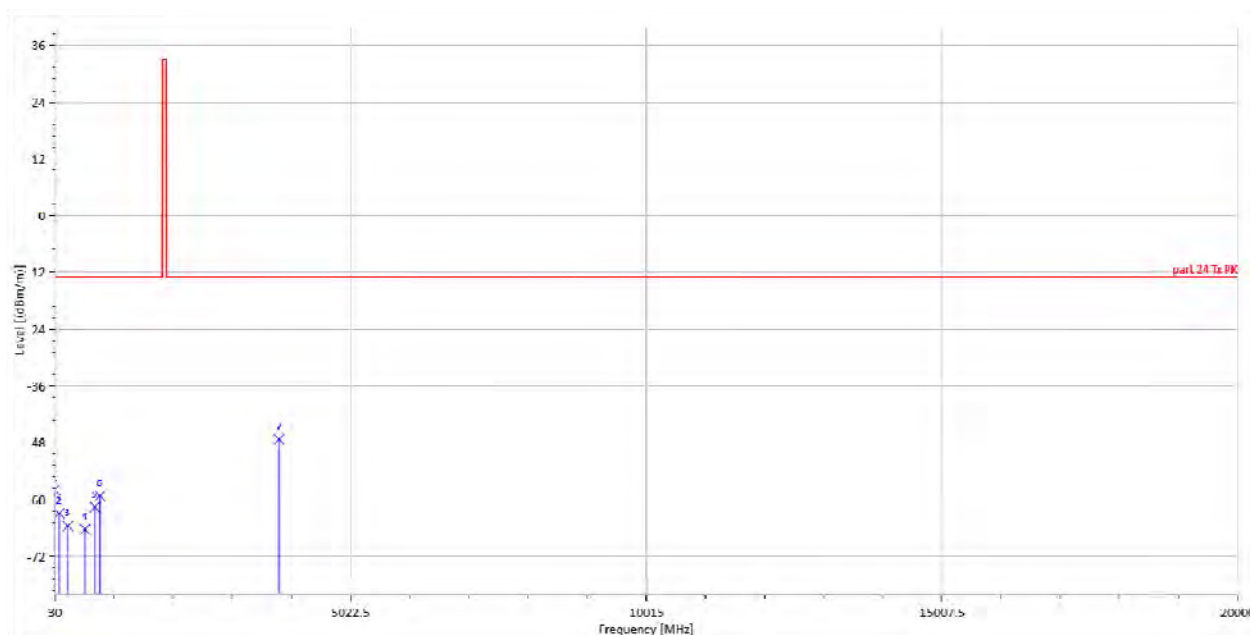
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Operation Mode :	3GB2	Test Date :	2016/12/22
Fundamental Frequency :	1907.6 MHz	Temp. / Humi. :	22.3deg_C/64 RH
Operation Band :	Tx CH High	Test Engineer :	Ashton
EUT Pol. :	E1	Measurement Antenna Pol. :	Vertical



Freq.	Note	EIRP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
30.97	S	-57.91	-37.85	-19.41	-0.65	-13.01	-44.90
100.81	S	-62.88	-60.79	-0.92	-1.17	-13.01	-49.87
248.25	S	-65.56	-69.06	5.35	-1.85	-13.01	-52.55
537.31	S	-66.29	-70.07	6.41	-2.62	-13.01	-53.28
704.15	S	-61.55	-66.18	7.61	-2.99	-13.01	-48.54
791.45	S	-59.15	-63.39	7.66	-3.42	-13.01	-46.14
3814.00	H	-47.25	-52.31	12.30	-7.25	-13.01	-34.24

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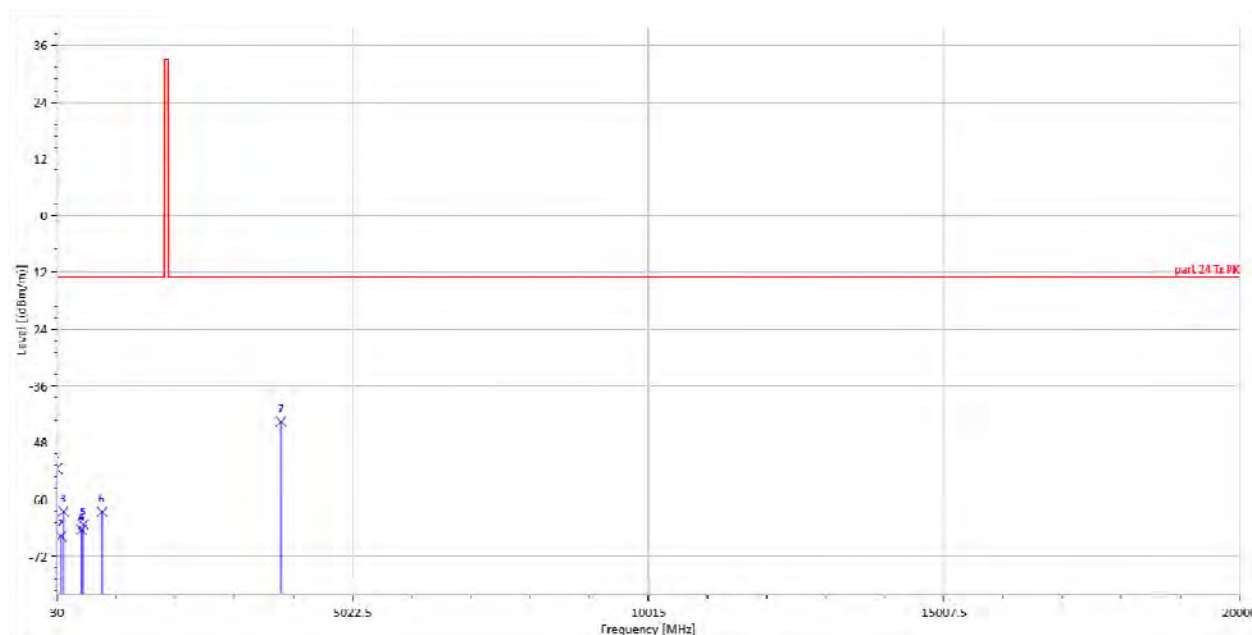
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Operation Mode :	3GB2	Test Date :	2016/12/22
Fundamental Frequency :	1907.6 MHz	Temp. / Humi. :	22.3deg_C/64 RH
Operation Band :	Tx CH High	Test Engineer :	Ashton
EUT Pol. :	E1	Measurement Antenna Pol. :	Horizontal



Freq.	Note	EIRP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
30.97	S	-53.43	-33.38	-19.41	-0.65	-13.01	-40.42
100.81	S	-67.72	-65.63	-0.92	-1.17	-13.01	-54.71
139.61	S	-62.51	-62.22	1.08	-1.38	-13.01	-49.50
445.16	S	-66.33	-70.09	6.22	-2.47	-13.01	-53.32
474.26	S	-65.27	-69.20	6.33	-2.39	-13.01	-52.26
792.42	S	-62.59	-66.97	7.66	-3.29	-13.01	-49.58
3814.00	H	-43.48	-48.54	12.30	-7.25	-13.01	-30.47

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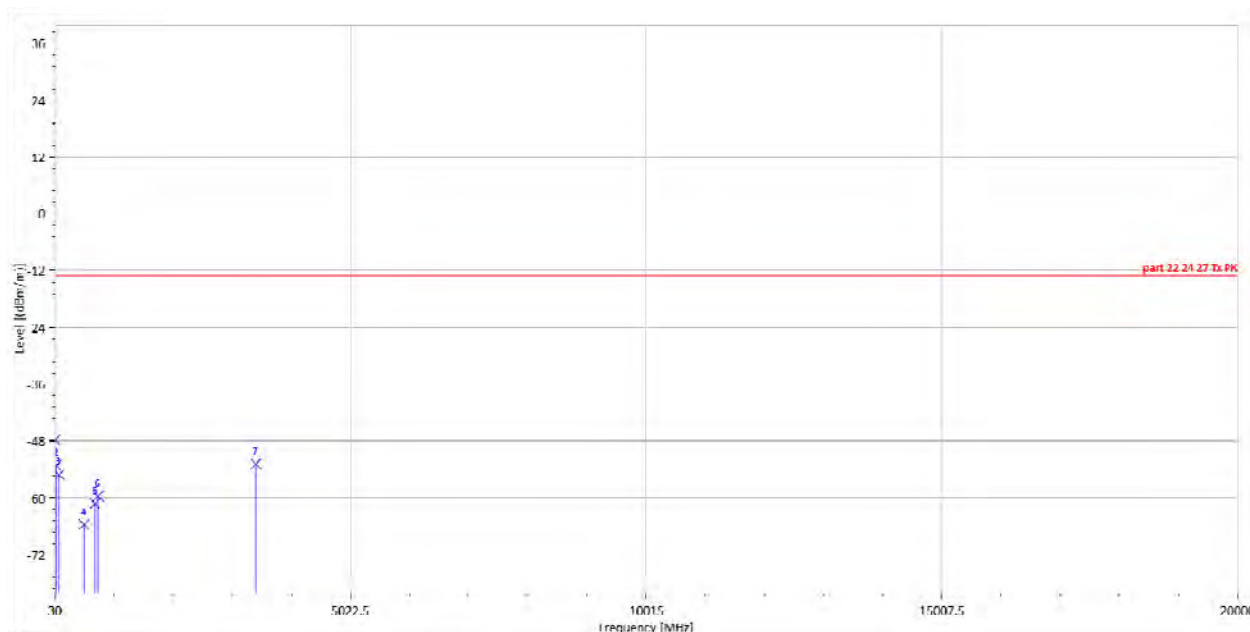
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## Radiated Spurious Emission Measurement Result: WCDMA Band 4 Mode

Operation Mode :	3GB4	Test Date :	2016/12/22
Fundamental Frequency :	1712.4 MHz	Temp. / Humi. :	22.3deg_C/64RH
Operation Band :	Tx CH Low	Test Engineer :	Ashton
EUT Pol. :	E1	Measurement Antenna Pol. :	Vertical



Freq.	Note	EIRP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
38.73	S	-47.70	-34.12	-12.88	-0.70	-13.01	-34.69
53.28	S	-53.11	-48.59	-3.60	-0.92	-13.01	-40.10
100.81	S	-55.07	-52.98	-0.92	-1.17	-13.01	-42.06
523.73	S	-65.62	-69.32	6.40	-2.70	-13.01	-52.61
707.06	S	-61.21	-65.59	7.61	-3.22	-13.01	-48.20
759.44	S	-59.60	-63.89	7.62	-3.33	-13.01	-46.59
3424.80	H	-52.84	-58.06	12.15	-6.93	-13.01	-39.83

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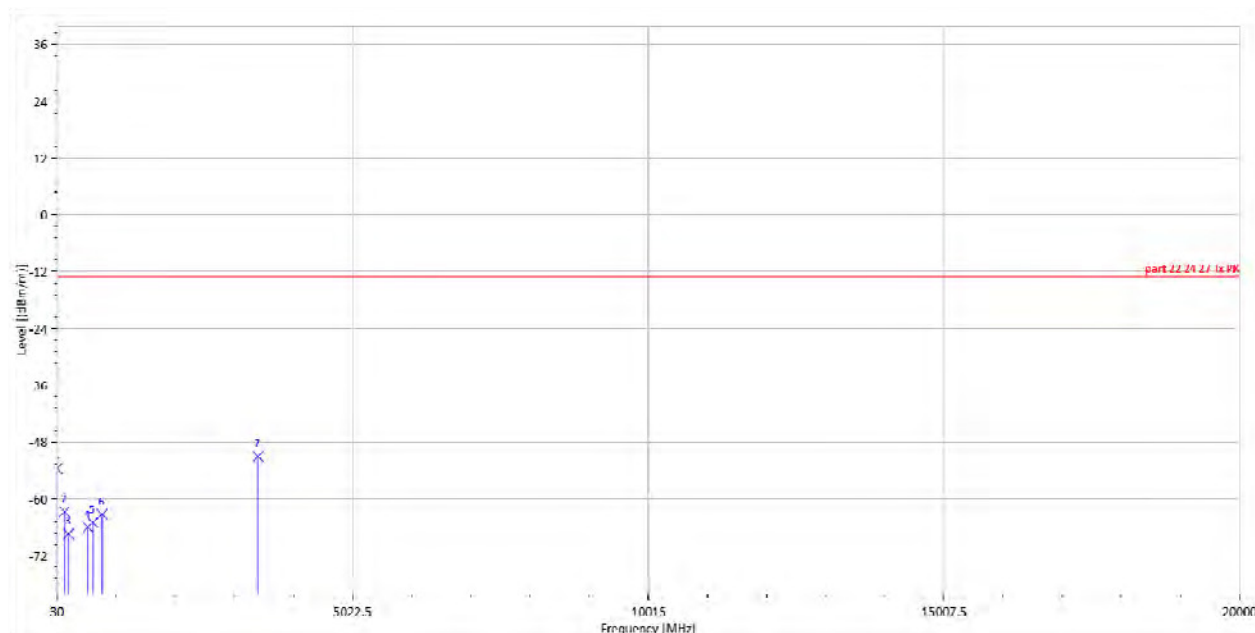
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Operation Mode :	3GB4	Test Date :	2016/12/22
Fundamental Frequency :	1712.4 MHz	Temp. / Humi. :	22.3deg_C/64 RH
Operation Band :	Tx CH Low	Test Engineer :	Ashton
EUT Pol. :	E1	Measurement Antenna Pol. :	Horizontal



Freq.	Note	EIRP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
32.91	S	-53.58	-35.18	-17.72	-0.67	-13.01	-40.57
158.04	S	-62.70	-64.57	3.38	-1.52	-13.01	-49.69
224.00	S	-67.37	-72.05	6.43	-1.75	-13.01	-54.36
552.83	S	-65.94	-69.55	6.44	-2.83	-13.01	-52.93
633.34	S	-64.96	-68.93	7.00	-3.03	-13.01	-51.95
792.42	S	-63.24	-67.62	7.66	-3.29	-13.01	-50.23
3424.80	H	-51.01	-56.23	12.15	-6.93	-13.01	-38.00

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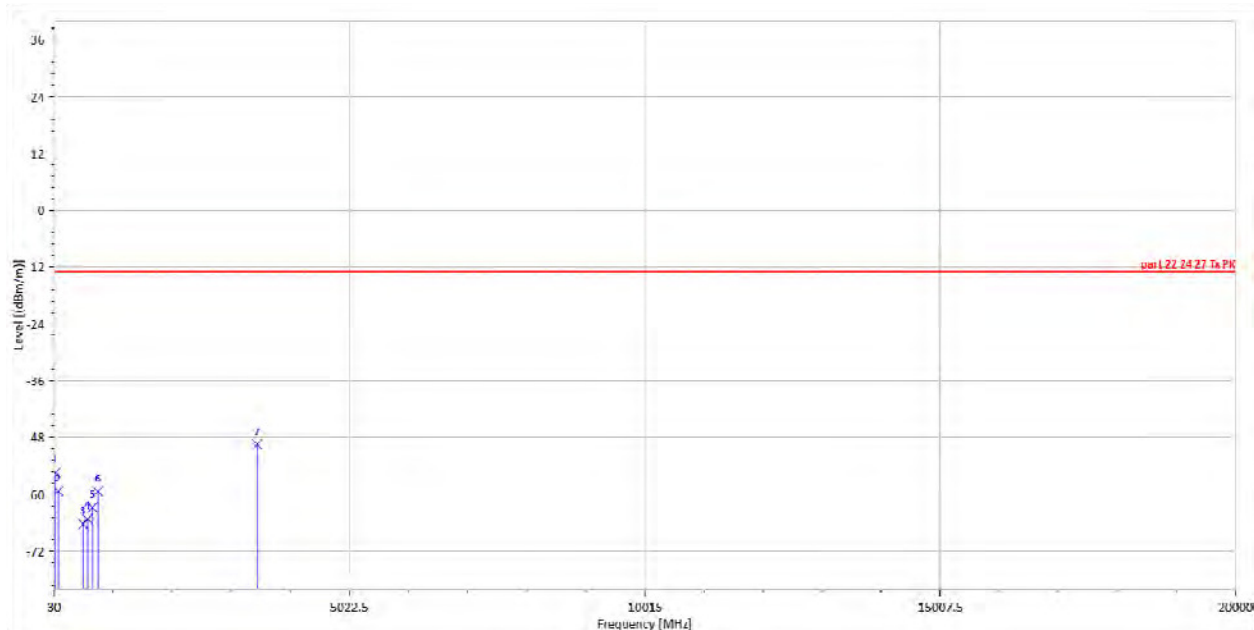
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Operation Mode : 3GB4 Test Date : 2016/12/22  
Fundamental Frequency : 1732.6 MHz Temp. / Humi. : 22.3deg\_C/64RH  
Operation Band : Tx CH Mid Test Engineer : Ashton  
EUT Pol. : E1 Measurement Antenna Pol. : Vertical



Freq. MHz	Note F/H/E/S	EIRP dBm	SG Output Level dBm	Antenna Gain dBi	Cable Loss dB	Limit @3m dBm/m	Margin dB
56.19	S	-55.43	-52.14	-2.44	-0.85	-13.01	-42.42
100.81	S	-59.33	-57.24	-0.92	-1.17	-13.01	-46.32
522.76	S	-66.28	-69.88	6.40	-2.80	-13.01	-53.27
593.57	S	-65.17	-69.02	6.81	-2.97	-13.01	-52.16
678.93	S	-62.79	-67.06	7.38	-3.11	-13.01	-49.78
770.11	S	-59.41	-63.75	7.64	-3.30	-13.01	-46.40
3464.00	H	-49.44	-54.80	12.23	-6.86	-13.01	-36.43

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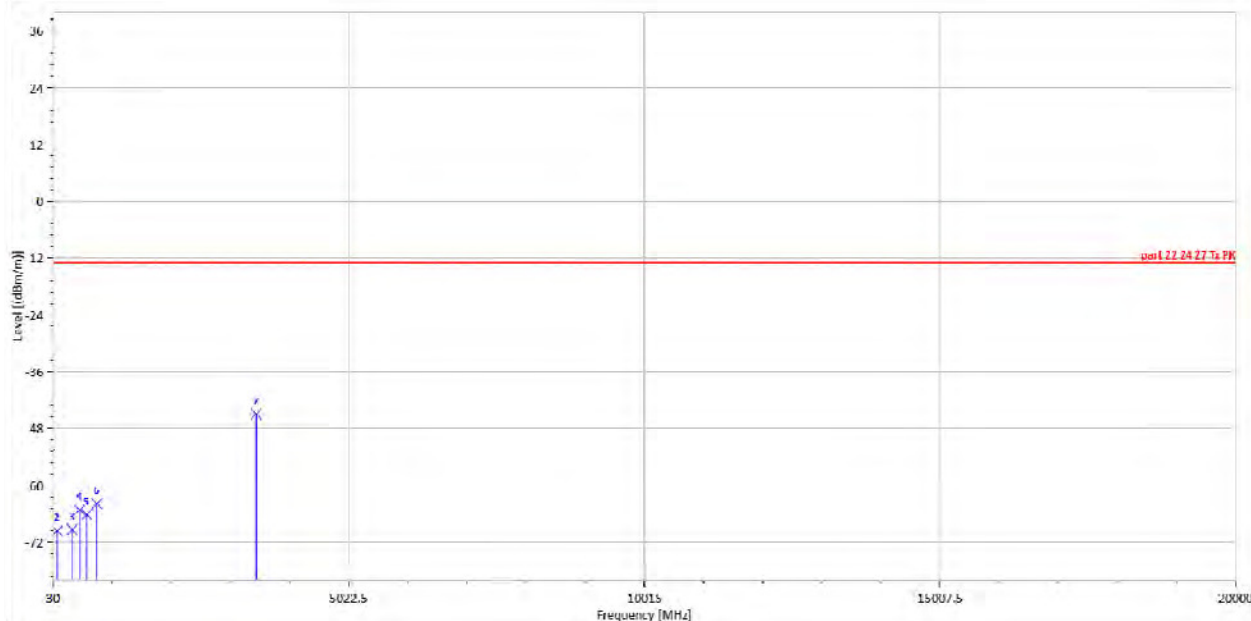
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Operation Mode :	3GB4	Test Date :	2016/12/22
Fundamental Frequency :	1732.6 MHz	Temp. / Humi. :	22.3deg_C/64 RH
Operation Band :	Tx CH Mid	Test Engineer :	Ashton
EUT Pol. :	E1	Measurement Antenna Pol. :	Horizontal



Freq.	Note	EIRP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
30.00	S	-54.60	-33.73	-20.25	-0.63	-13.01	-41.59
100.81	S	-69.62	-67.52	-0.92	-1.17	-13.01	-56.61
355.92	S	-69.39	-73.01	5.87	-2.25	-13.01	-56.38
482.02	S	-65.18	-68.91	6.35	-2.62	-13.01	-52.17
600.36	S	-66.20	-70.35	6.87	-2.73	-13.01	-53.19
772.05	S	-63.85	-68.16	7.64	-3.33	-13.01	-50.84
3464.00	H	-44.91	-50.28	12.23	-6.86	-13.01	-31.90

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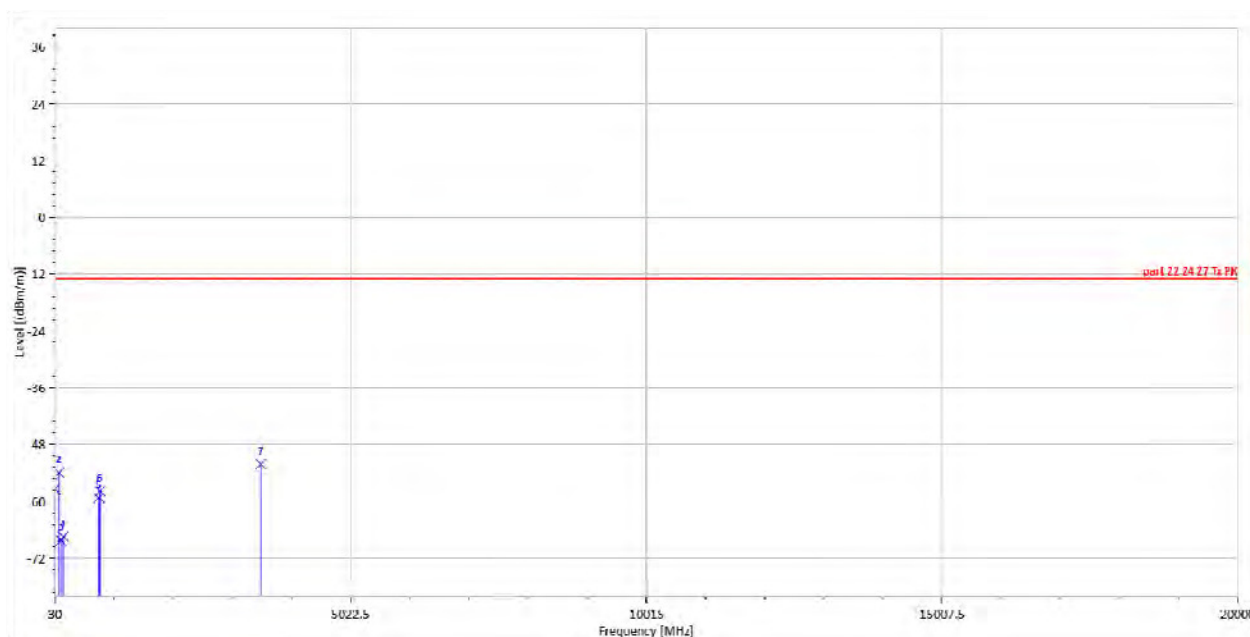
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Operation Mode :	3GB4	Test Date :	2016/12/22
Fundamental Frequency :	1752.6 MHz	Temp. / Humi. :	22.3deg_C/64 RH
Operation Band :	Tx CH High	Test Engineer :	Ashton
EUT Pol. :	E1	Measurement Antenna Pol. :	Vertical



Freq.	Note	EIRP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
30.97	S	-57.38	-37.32	-19.41	-0.65	-13.01	-44.37
99.84	S	-53.97	-51.92	-0.88	-1.17	-13.01	-40.96
134.76	S	-68.22	-67.33	0.48	-1.38	-13.01	-55.21
170.65	S	-67.44	-70.74	4.78	-1.49	-13.01	-54.43
773.99	S	-59.22	-63.93	7.64	-2.93	-13.01	-46.21
791.45	S	-57.82	-62.06	7.66	-3.42	-13.01	-44.81
3506.00	H	-52.13	-57.40	12.30	-7.03	-13.01	-39.12

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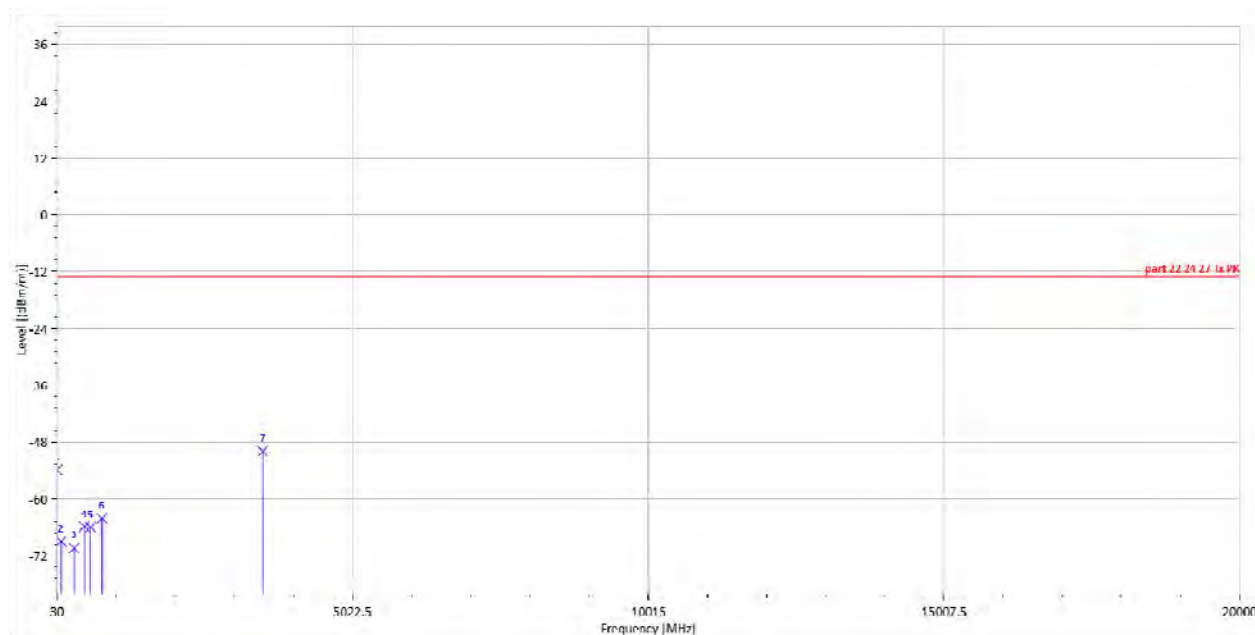
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Operation Mode :	3GB4	Test Date :	2016/12/22
Fundamental Frequency :	1752.6 MHz	Temp. / Humi. :	22.3deg_C/64 RH
Operation Band :	Tx CH High	Test Engineer :	Ashton
EUT Pol. :	E1	Measurement Antenna Pol. :	Horizontal



Freq.	Note	EIRP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
32.91	S	-53.81	-35.41	-17.72	-0.67	-13.01	-40.80
100.81	S	-68.92	-66.83	-0.92	-1.17	-13.01	-55.91
321.00	S	-70.35	-74.21	5.93	-2.06	-13.01	-57.34
494.63	S	-65.78	-69.67	6.38	-2.49	-13.01	-52.77
596.48	S	-65.95	-69.89	6.84	-2.90	-13.01	-52.94
791.45	S	-64.10	-68.35	7.66	-3.42	-13.01	-51.09
3506.00	H	-49.88	-55.16	12.30	-7.03	-13.01	-36.87

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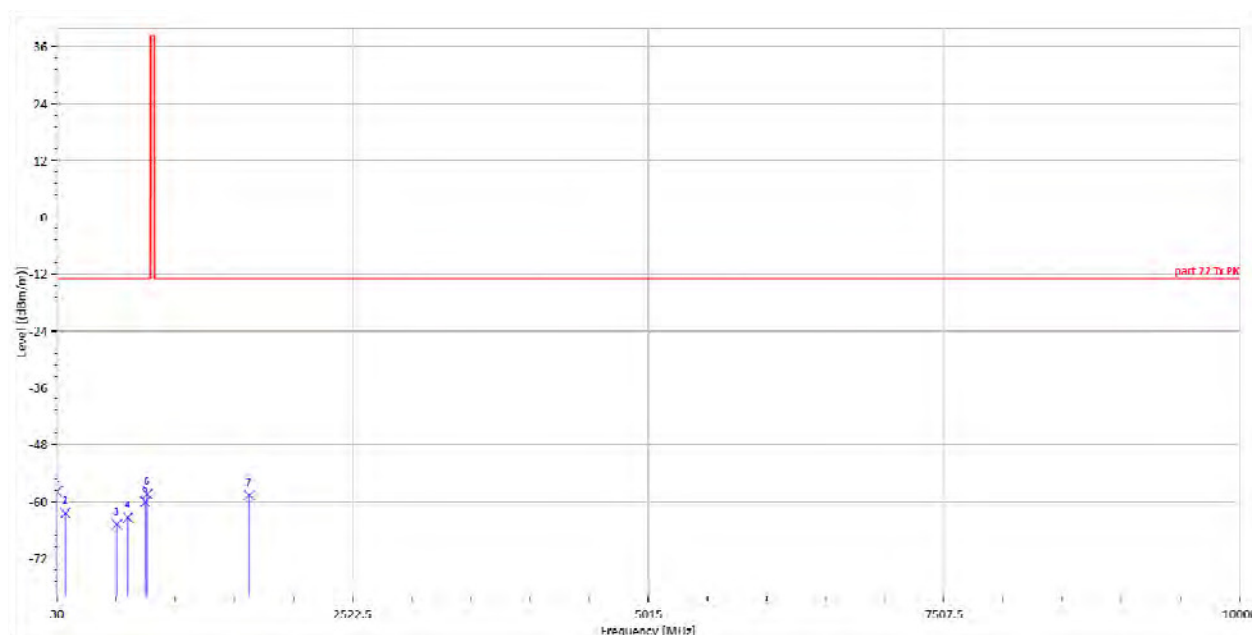
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## Radiated Spurious Emission Measurement Result: WCDMA Band 5 Mode

Operation Mode :	3GB5	Test Date :	2016/12/22
Fundamental Frequency :	826.4 MHz	Temp. / Humi. :	22.3deg_C/64RH
Operation Band :	Tx CH Low	Test Engineer :	Ashton
EUT Pol. :	E1	Measurement Antenna Pol. :	Vertical



Freq.	Note	ERP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
30.97	S	-57.96	-35.76	-21.56	-0.65	-13	-44.96
101.78	S	-62.51	-58.22	-3.11	-1.18	-13	-49.51
535.37	S	-64.87	-66.64	4.26	-2.49	-13	-51.87
628.49	S	-63.43	-65.33	4.83	-2.93	-13	-50.43
773.99	S	-60.11	-62.67	5.49	-2.93	-13	-47.11
791.45	S	-58.47	-60.57	5.51	-3.42	-13	-45.47
1652.80	H	-58.74	-60.78	6.77	-4.73	-13	-45.74

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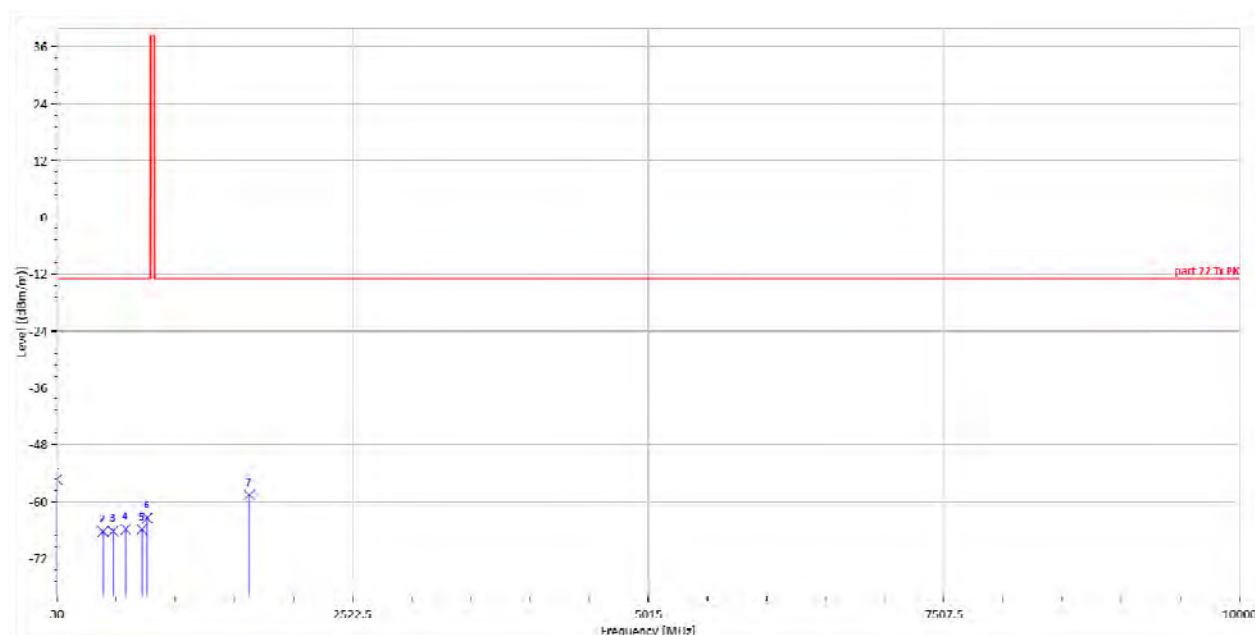
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Operation Mode : 3GB5 Test Date : 2016/12/22  
Fundamental Frequency : 826.4 MHz Temp. / Humi. : 22.3deg\_C/64RH  
Operation Band : Tx CH Low Test Engineer : Ashton  
EUT Pol. : E1 Measurement Antenna Pol. : Horizontal



Freq.	Note	ERP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
30.97	S	-55.37	-33.16	-21.56	-0.65	-13	-42.37
418.97	S	-66.41	-67.76	3.80	-2.45	-13	-53.41
503.36	S	-66.31	-67.99	4.24	-2.55	-13	-53.31
610.06	S	-65.90	-67.87	4.76	-2.80	-13	-52.90
746.83	S	-65.95	-68.40	5.46	-3.01	-13	-52.95
791.45	S	-63.50	-65.59	5.51	-3.42	-13	-50.50
1652.80	H	-58.62	-60.66	6.77	-4.73	-13	-45.62

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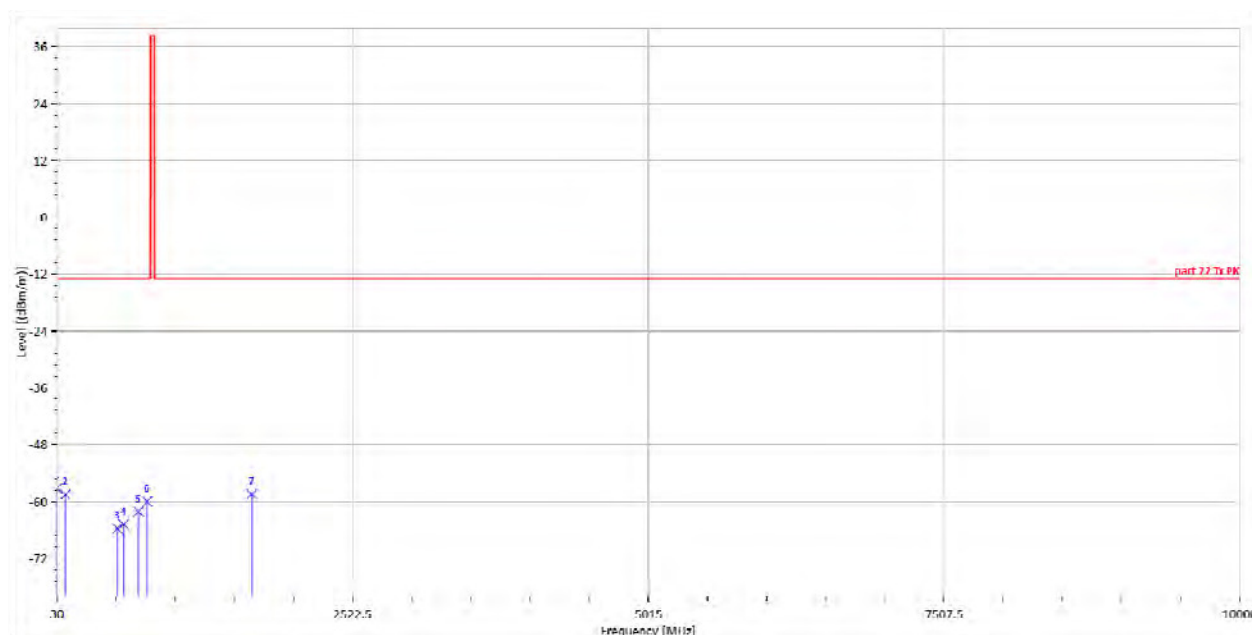
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Operation Mode : 3GB5 Test Date : 2016/12/22  
Fundamental Frequency : 836.6 MHz Temp. / Humi. : 22.3deg\_C/64RH  
Operation Band : Tx CH Mid Test Engineer : Ashton  
EUT Pol. : E1 Measurement Antenna Pol. : Vertical



Freq. MHz	Note F/H/E/S	ERP dBm	SG Output Level dBm	Antenna Gain dBi	Cable Loss dB	Limit @3m dBm/m	Margin dB
30.97	S	-57.27	-35.06	-21.56	-0.65	-13	-44.27
100.81	S	-58.54	-54.30	-3.07	-1.17	-13	-45.54
539.25	S	-65.75	-67.45	4.26	-2.56	-13	-52.75
591.63	S	-64.86	-66.58	4.65	-2.92	-13	-51.86
717.73	S	-62.18	-64.40	5.46	-3.24	-13	-49.18
791.45	S	-60.03	-62.12	5.51	-3.42	-13	-47.03
1673.20	H	-58.48	-60.54	6.84	-4.78	-13	-45.48

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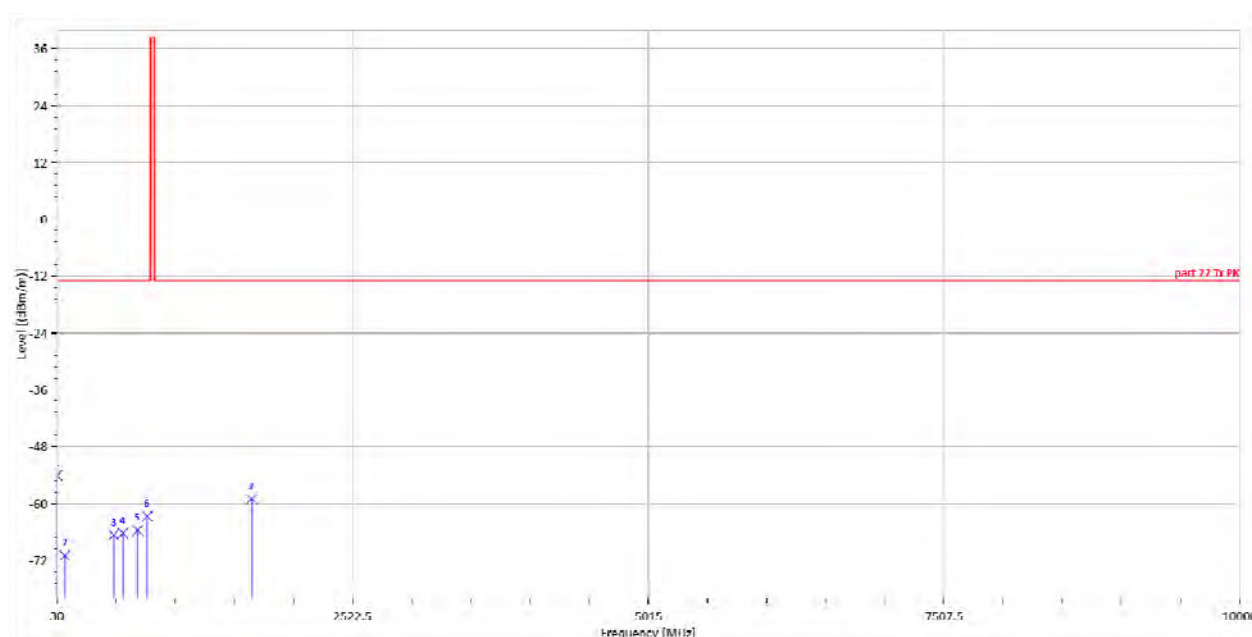
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Operation Mode :	3GB5	Test Date :	2016/12/22
Fundamental Frequency :	836.6 MHz	Temp. / Humi. :	22.3deg_C/64RH
Operation Band :	Tx CH Mid	Test Engineer :	Ashton
EUT Pol. :	E1	Measurement Antenna Pol. :	Horizontal



Freq.	Note	ERP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
30.97	S	-54.16	-31.96	-21.56	-0.65	-13	-41.16
96.93	S	-71.05	-67.13	-2.77	-1.15	-13	-58.05
508.21	S	-66.68	-68.33	4.24	-2.60	-13	-53.68
585.81	S	-66.33	-68.15	4.59	-2.77	-13	-53.33
709.97	S	-65.74	-68.13	5.46	-3.08	-13	-52.74
791.45	S	-62.72	-64.81	5.51	-3.42	-13	-49.72
1673.20	H	-59.07	-61.13	6.84	-4.78	-13	-46.07

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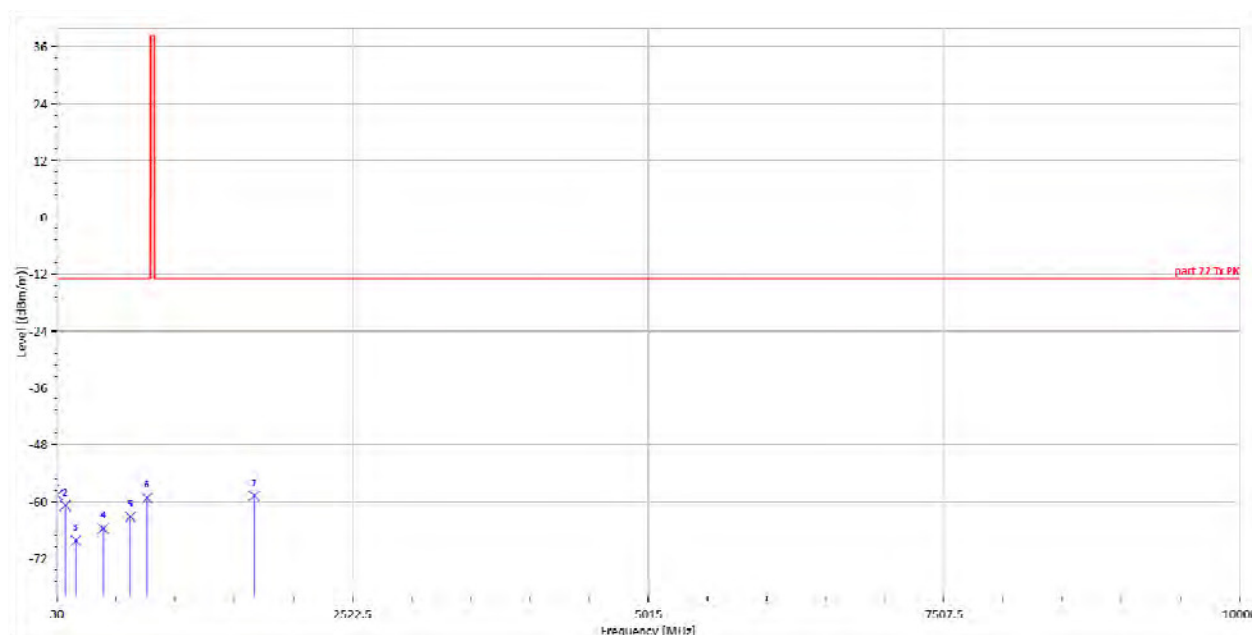
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Operation Mode :	3GB5	Test Date :	2016/12/22
Fundamental Frequency :	846.6 MHz	Temp. / Humi. :	22.3deg_C/64RH
Operation Band :	Tx CH High	Test Engineer :	Ashton
EUT Pol. :	E1	Measurement Antenna Pol. :	Vertical



Freq.	Note	ERP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
31.94	S	-58.63	-37.25	-20.71	-0.67	-13	-45.63
101.78	S	-60.85	-56.57	-3.11	-1.18	-13	-47.85
190.05	S	-68.30	-70.72	4.03	-1.61	-13	-55.30
419.94	S	-65.75	-67.25	3.81	-2.30	-13	-52.75
648.86	S	-63.25	-65.24	4.91	-2.93	-13	-50.25
791.45	S	-59.30	-61.40	5.51	-3.42	-13	-46.30
1693.20	H	-58.80	-60.91	6.91	-4.80	-13	-45.80

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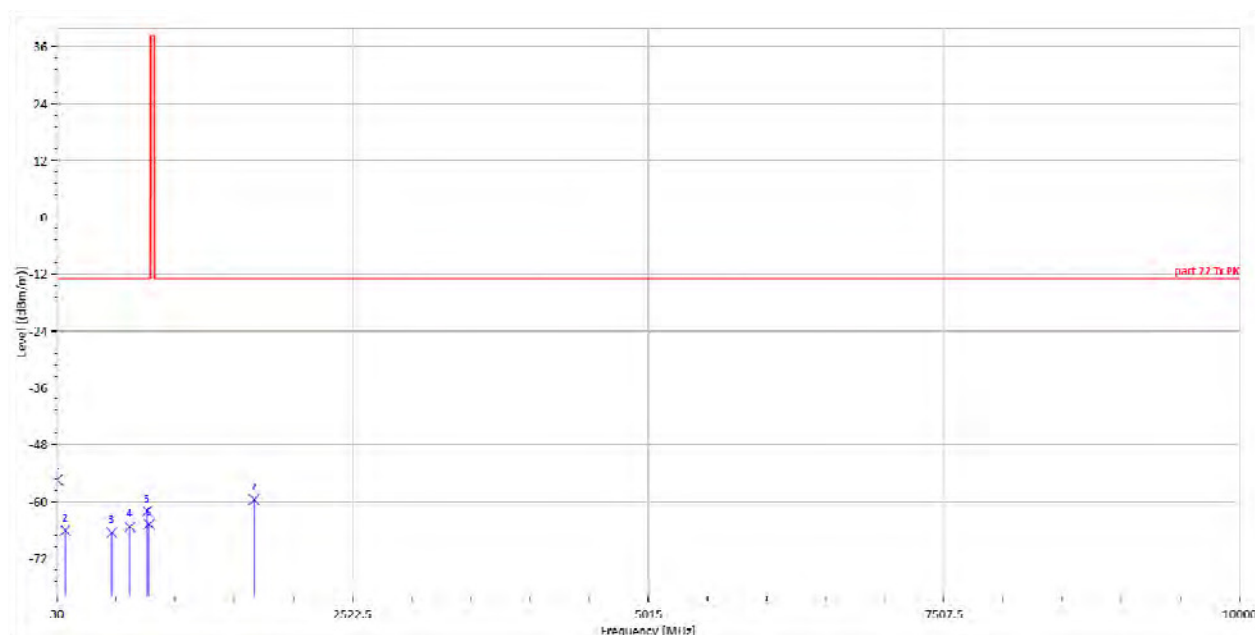
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Operation Mode : 3GB5 Test Date : 2016/12/22  
Fundamental Frequency : 846.6 MHz Temp. / Humi. : 22.3deg\_C/64RH  
Operation Band : Tx CH High Test Engineer : Ashton  
EUT Pol. : E1 Measurement Antenna Pol. : Horizontal



Freq. MHz	Note F/H/E/S	ERP dBm	SG Output Level dBm	Antenna Gain dBi	Cable Loss dB	Limit @3m dBm/m	Margin dB
32.91	S	-55.46	-34.91	-19.87	-0.67	-13	-42.46
100.81	S	-66.17	-61.92	-3.07	-1.17	-13	-53.17
492.69	S	-66.61	-68.34	4.22	-2.49	-13	-53.61
644.98	S	-65.39	-67.30	4.90	-2.99	-13	-52.39
791.45	S	-62.09	-64.18	5.51	-3.42	-13	-49.09
806.00	S	-64.84	-67.21	5.51	-3.15	-13	-51.84
1693.20	H	-59.64	-61.75	6.91	-4.80	-13	-46.64

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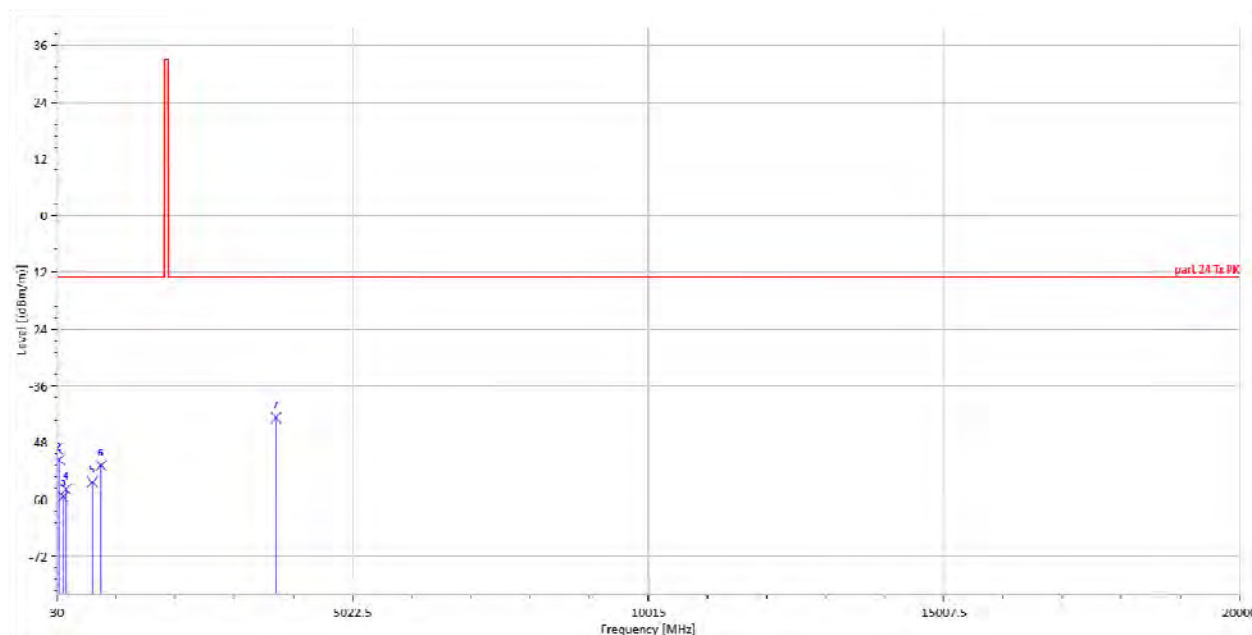
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## Radiated Spurious Emission Measurement Result: LTE-Band 2 (The Worst Case)

Operation Mode :	LTEB2 15M 16QAM RB 1,74	Test Date :	2016/12/22
Fundamental Frequency :	1857.5 MHz	Temp. / Humi. :	22.3deg_C/64RH
Operation Band :	Tx CH Low	Test Engineer :	Ashton
EUT Pol. :	E1	Measurement Antenna Pol. :	Vertical



Freq.	Note	EIRP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
31.94	S	-49.20	-29.97	-18.56	-0.67	-13.01	-36.19
70.74	S	-51.60	-51.00	0.43	-1.03	-13.01	-38.59
134.76	S	-59.29	-58.39	0.48	-1.38	-13.01	-46.28
183.26	S	-57.79	-62.05	5.87	-1.60	-13.01	-44.78
627.52	S	-56.31	-60.40	6.98	-2.89	-13.01	-43.30
773.99	S	-52.76	-57.47	7.64	-2.93	-13.01	-39.75
3730.00	H	-42.64	-47.77	12.30	-7.17	-13.01	-29.63

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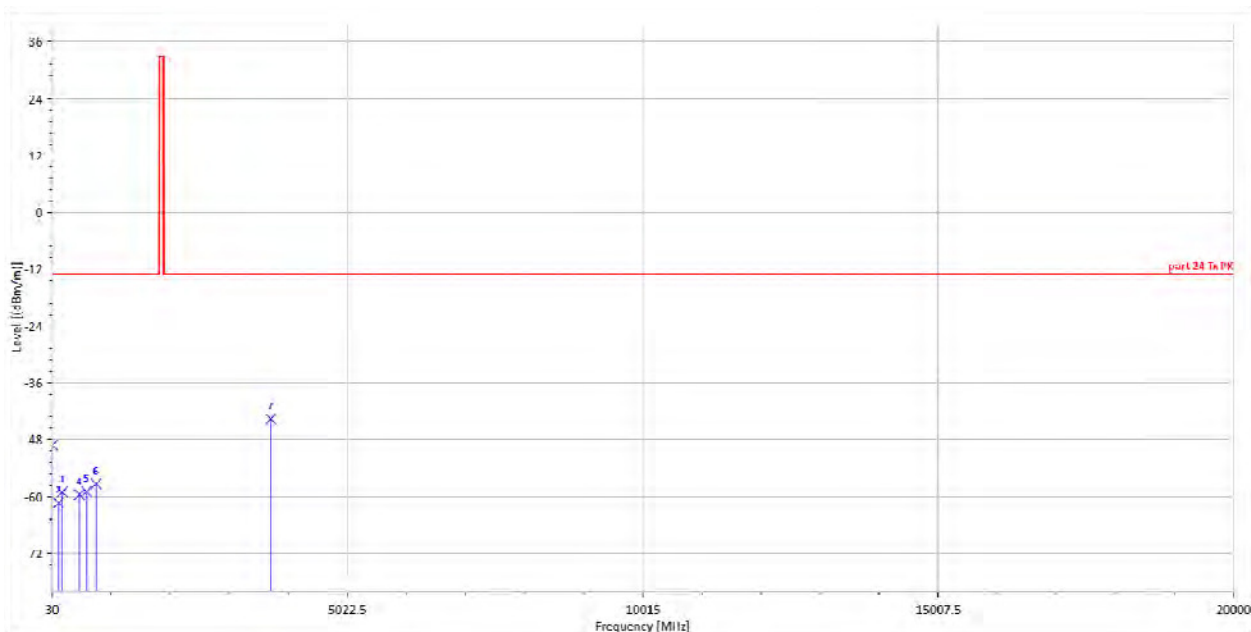
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Operation Mode :	LTEB2 15M 16QAM RB 1,74	Test Date :	2016/12/22
Fundamental Frequency :	1857.5 MHz	Temp. / Humi. :	22.3deg_C/64RH
Operation Band :	Tx CH Low	Test Engineer :	Ashton
EUT Pol. :	E1	Measurement Antenna Pol. :	Horizontal



Freq.	Note	EIRP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
32.91	S	-49.17	-30.78	-17.72	-0.67	-13.01	-36.16
140.58	S	-61.34	-61.16	1.21	-1.40	-13.01	-48.33
200.72	S	-59.05	-63.24	5.85	-1.65	-13.01	-46.04
491.72	S	-59.57	-63.27	6.37	-2.67	-13.01	-46.56
612.97	S	-58.96	-62.98	6.92	-2.90	-13.01	-45.95
773.99	S	-57.33	-62.03	7.64	-2.93	-13.01	-44.32
3730.00	H	-43.63	-48.75	12.30	-7.17	-13.01	-30.62

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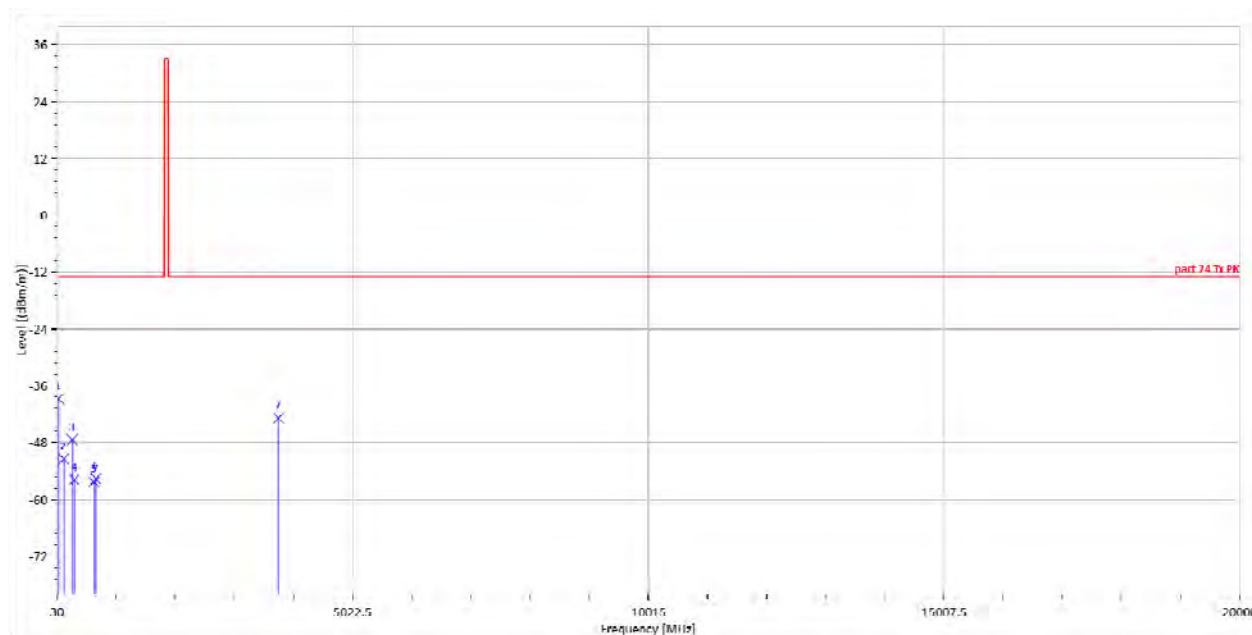
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Operation Mode : LTEB2 15M 16QAM RB 1,74  
Fundamental Frequency : 1880 MHz  
Operation Band : Tx CH Mid  
EUT Pol. : E1

Test Date : 2016/12/22  
Temp. / Humi. : 22.3deg\_C/64RH  
Test Engineer : Ashton  
Measurement Antenna Pol. : Vertical



Freq. MHz	Note F/H/E/S	EIRP dBm	SG Output Level dBm	Antenna Gain dBi	Cable Loss dB	Limit @3m dBm/m	Margin dB
59.10	S	-38.76	-36.60	-1.29	-0.87	-13.01	-25.75
146.40	S	-51.48	-52.04	2.03	-1.47	-13.01	-38.47
288.02	S	-47.47	-51.30	5.84	-2.00	-13.01	-34.46
324.88	S	-55.84	-59.54	5.92	-2.22	-13.01	-42.83
656.62	S	-56.37	-60.18	7.14	-3.34	-13.01	-43.36
687.66	S	-55.64	-59.94	7.48	-3.18	-13.01	-42.63
3772.00	H	-42.83	-47.90	12.30	-7.23	-13.01	-29.82

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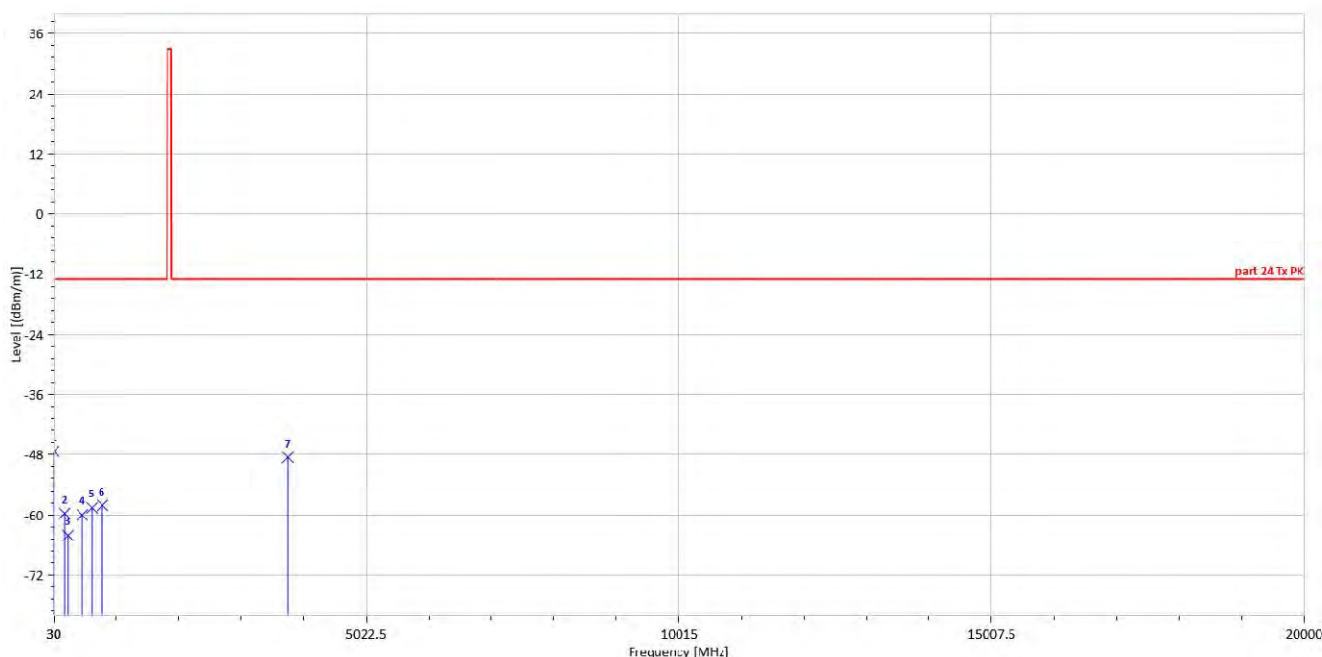
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Operation Mode :	LTEB2 15M 16QAM RB 1,74	Test Date :	2016/12/22
Fundamental Frequency :	1880 MHz	Temp. / Humi. :	22.3deg_C/64RH
Operation Band :	Tx CH Mid	Test Engineer :	Ashton
EUT Pol. :	E1	Measurement Antenna Pol. :	Horizontal



Freq.	Note	EIRP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
31.94	S	-47.34	-28.11	-18.56	-0.67	-13.01	-34.33
207.51	S	-59.70	-64.02	6.00	-1.67	-13.01	-46.69
260.86	S	-64.10	-66.90	4.68	-1.88	-13.01	-51.09
487.84	S	-60.01	-63.83	6.36	-2.54	-13.01	-47.00
643.04	S	-58.59	-62.69	7.04	-2.94	-13.01	-45.58
809.88	S	-58.11	-62.45	7.66	-3.31	-13.01	-45.10
3772.00	H	-48.54	-53.61	12.30	-7.23	-13.01	-35.53

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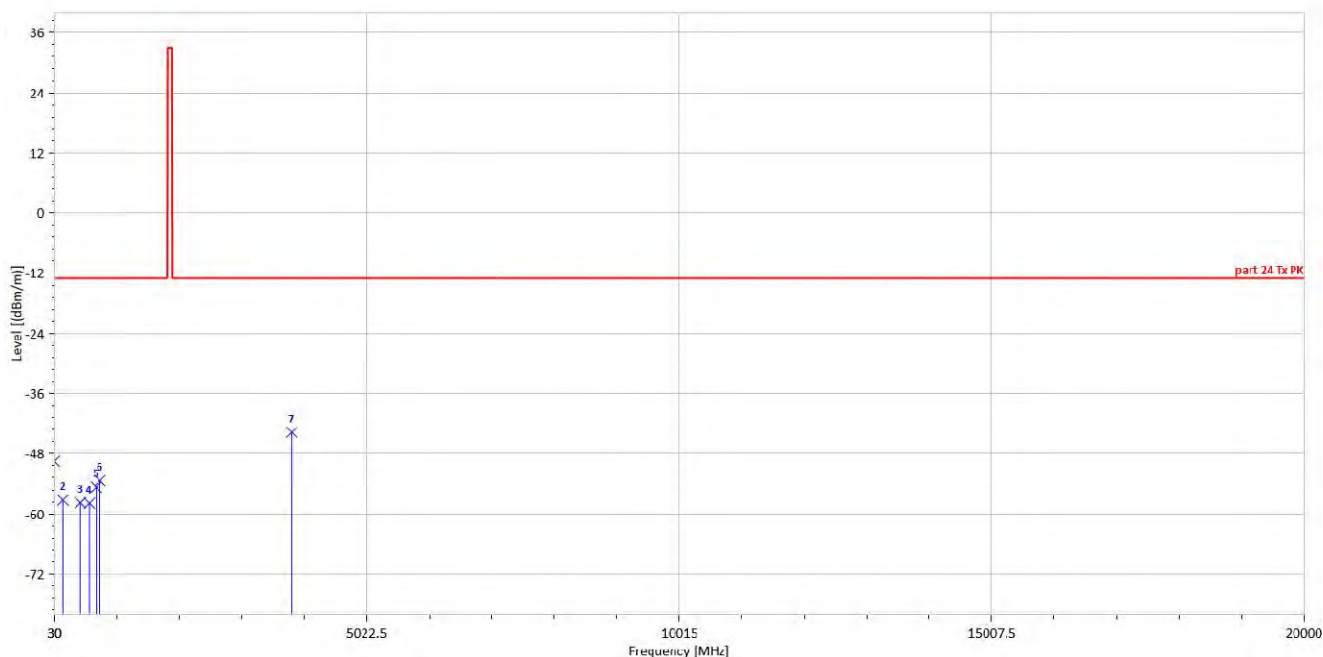
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Operation Mode : LTEB2 15M 16QAM RB 1,74  
Fundamental Frequency : 1902.5 MHz  
Operation Band : Tx CH High  
EUT Pol. : E1

Test Date : 2016/12/22  
Temp. / Humi. : 22.3deg\_C/64RH  
Test Engineer : Ashton  
Measurement Antenna Pol. : Vertical



Freq.	Note	EIRP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
31.94	S	-49.52	-30.29	-18.56	-0.67	-13.01	-36.51
166.77	S	-57.26	-60.05	4.36	-1.56	-13.01	-44.25
446.13	S	-57.80	-61.56	6.23	-2.47	-13.01	-44.79
588.72	S	-57.89	-62.02	6.77	-2.63	-13.01	-44.88
699.30	S	-54.65	-59.12	7.60	-3.14	-13.01	-41.64
757.50	S	-53.39	-57.83	7.62	-3.19	-13.01	-40.38
3821.00	H	-43.73	-48.76	12.30	-7.28	-13.01	-30.72

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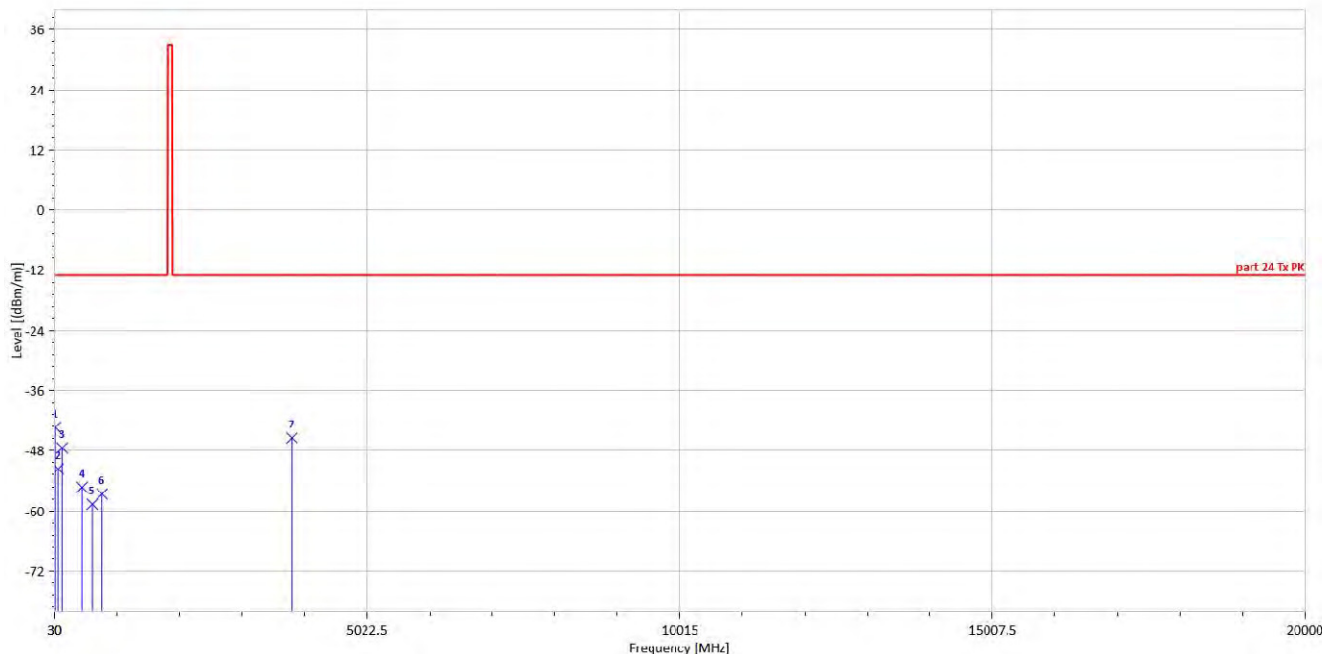
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Operation Mode :	LTEB2 15M 16QAM RB 1,74	Test Date :	2016/12/22
Fundamental Frequency :	1902.5 MHz	Temp. / Humi. :	22.3deg_C/64RH
Operation Band :	Tx CH High	Test Engineer :	Ashton
EUT Pol. :	E1	Measurement Antenna Pol. :	Horizontal



Freq.	Note	EIRP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
45.52	S	-43.34	-34.83	-7.70	-0.80	-13.01	-30.33
91.11	S	-51.64	-50.41	-0.10	-1.12	-13.01	-38.63
153.19	S	-47.44	-48.80	2.87	-1.50	-13.01	-34.43
472.32	S	-55.29	-59.04	6.33	-2.58	-13.01	-42.28
632.37	S	-58.67	-62.89	7.00	-2.78	-13.01	-45.66
791.45	S	-56.61	-60.85	7.66	-3.42	-13.01	-43.60
3821.00	H	-45.45	-50.47	12.30	-7.28	-13.01	-32.44

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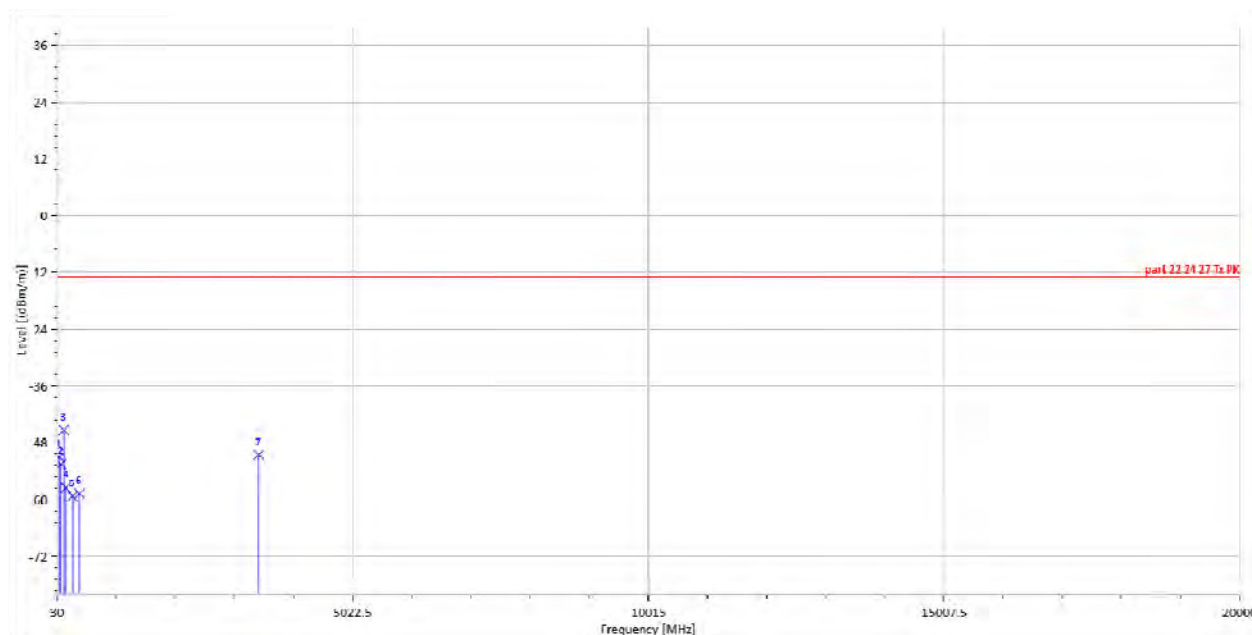
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## Radiated Spurious Emission Measurement Result: LTE-Band 4 (The Worst Case)

Operation Mode :	LTEB4 10M 16QAM RB 1,49	Test Date :	2016/12/22
Fundamental Frequency :	1715 MHz	Temp. / Humi. :	22.3deg_C/64RH
Operation Band :	Tx CH Low	Test Engineer :	Ashton
EUT Pol. :	E1	Measurement Antenna Pol. :	Vertical



Freq.	Note	EIRP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
72.68	S	-51.04	-50.51	0.48	-1.01	-13.01	-38.03
96.93	S	-52.49	-50.72	-0.62	-1.15	-13.01	-39.48
146.40	S	-45.31	-45.87	2.03	-1.47	-13.01	-32.30
179.38	S	-57.48	-61.61	5.65	-1.52	-13.01	-44.47
293.84	S	-59.21	-63.12	5.89	-1.99	-13.01	-46.20
410.24	S	-58.73	-62.31	5.86	-2.28	-13.01	-45.72
3436.00	H	-50.53	-55.77	12.17	-6.94	-13.01	-37.52

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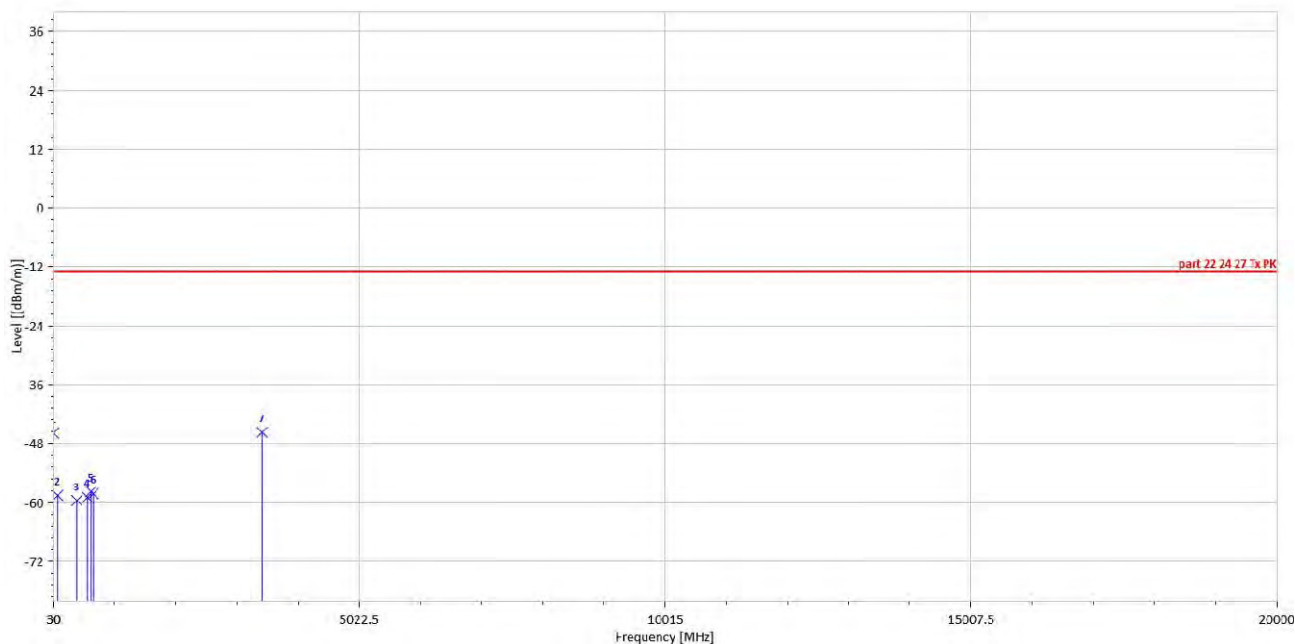
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Operation Mode :	LTEB4 10M 16QAM RB 1,49	Test Date :	2016/12/22
Fundamental Frequency :	1715 MHz	Temp. / Humi. :	22.3deg_C/64RH
Operation Band :	Tx CH Low	Test Engineer :	Ashton
EUT Pol. :	E1	Measurement Antenna Pol. :	Horizontal



Freq.	Note	EIRP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
31.94	S	-45.85	-26.62	-18.56	-0.67	-13.01	-32.84
98.87	S	-58.59	-56.63	-0.79	-1.16	-13.01	-45.58
411.21	S	-59.61	-63.29	5.87	-2.19	-13.01	-46.60
584.84	S	-58.95	-62.80	6.73	-2.89	-13.01	-45.94
642.07	S	-57.78	-62.08	7.04	-2.74	-13.01	-44.77
679.90	S	-58.22	-62.60	7.39	-3.01	-13.01	-45.21
3436.00	H	-45.70	-50.93	12.17	-6.94	-13.01	-32.69

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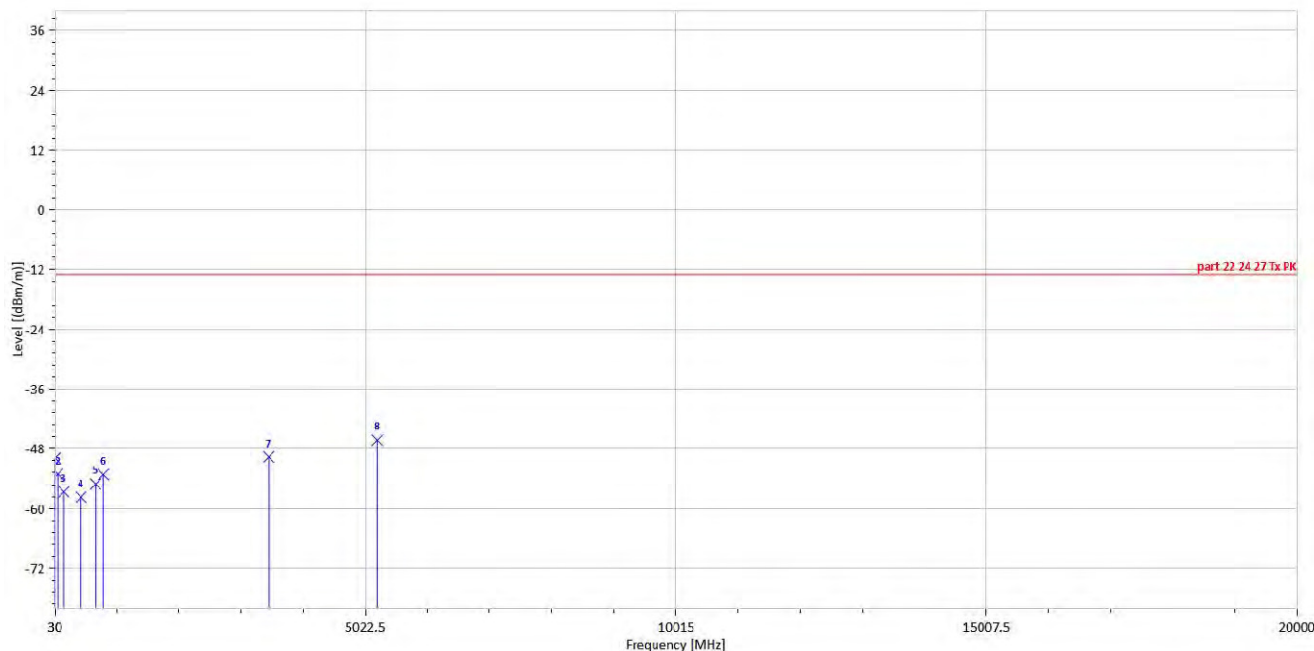
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Operation Mode :	LTEB4 10M 16QAM RB 1,49	Test Date :	2016/12/22
Fundamental Frequency :	1732.5 MHz	Temp. / Humi. :	22.3deg_C/64RH
Operation Band :	Tx CH Mid	Test Engineer :	Ashton
EUT Pol. :	E1	Measurement Antenna Pol. :	Vertical



Freq.	Note	EIRP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
31.94	S	-49.86	-30.63	-18.56	-0.67	-13.01	-36.85
75.59	S	-53.09	-52.63	0.56	-1.02	-13.01	-40.08
176.47	S	-56.63	-60.40	5.36	-1.59	-13.01	-43.62
451.95	S	-57.70	-61.63	6.28	-2.35	-13.01	-44.69
686.69	S	-55.08	-59.43	7.47	-3.11	-13.01	-42.07
810.85	S	-53.18	-57.50	7.66	-3.35	-13.01	-40.17
3471.00	H	-49.62	-55.01	12.24	-6.85	-13.01	-36.61
5214.00	H	-46.26	-50.16	12.43	-8.53	-13.01	-33.25

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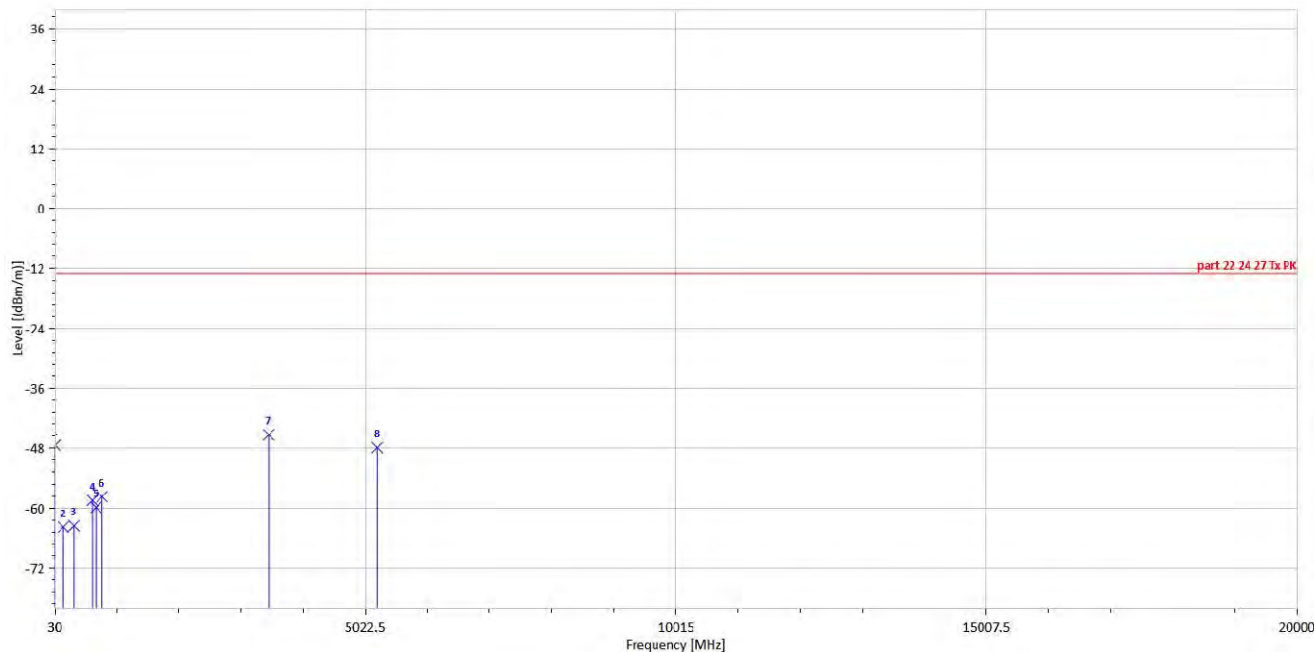
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Operation Mode :	LTEB4 10M 16QAM RB 1,49	Test Date :	2016/12/22
Fundamental Frequency :	1732.5 MHz	Temp. / Humi. :	22.3deg_C/64RH
Operation Band :	Tx CH Mid	Test Engineer :	Ashton
EUT Pol. :	E1	Measurement Antenna Pol. :	Horizontal



Freq.	Note	EIRP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
31.94	S	-47.40	-28.17	-18.56	-0.67	-13.01	-34.39
166.77	S	-63.78	-66.57	4.36	-1.56	-13.01	-50.77
337.49	S	-63.54	-67.39	5.91	-2.05	-13.01	-50.53
635.28	S	-58.45	-62.38	7.01	-3.08	-13.01	-45.44
694.45	S	-59.87	-64.39	7.55	-3.03	-13.01	-46.86
790.48	S	-57.72	-61.86	7.66	-3.52	-13.01	-44.71
3471.00	H	-45.33	-50.72	12.24	-6.85	-13.01	-32.32
5214.00	H	-47.86	-51.76	12.43	-8.53	-13.01	-34.85

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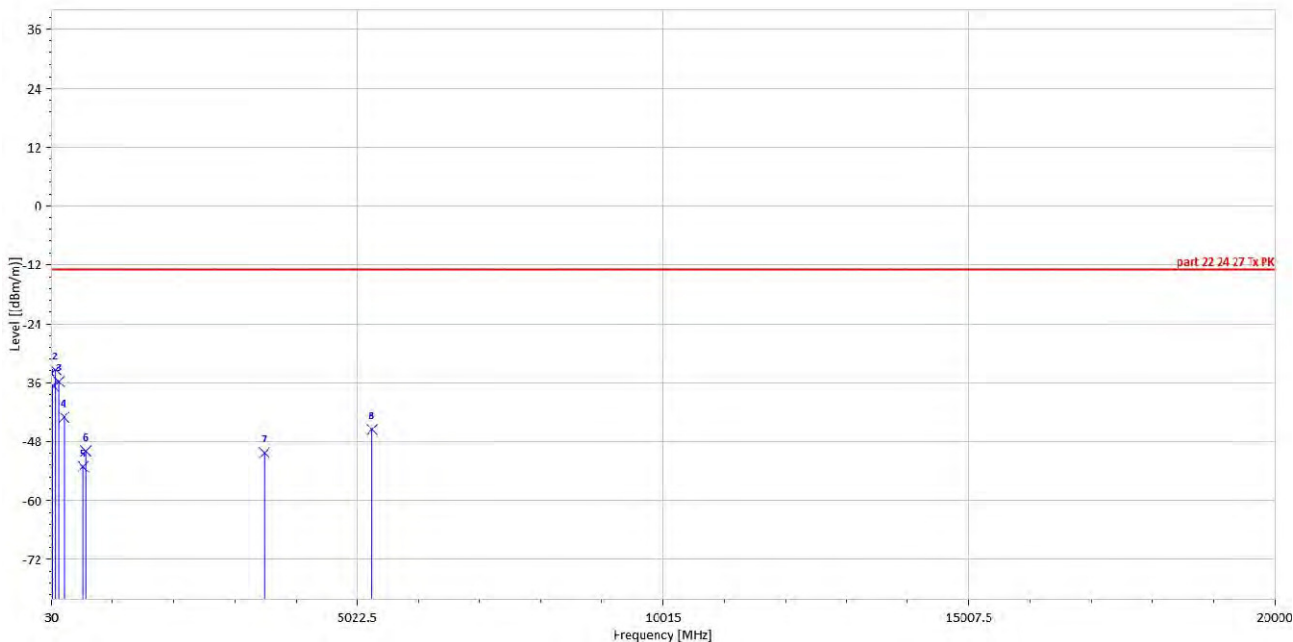
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Operation Mode :	LTEB4 10M 16QAM RB 1,49	Test Date :	2016/12/22
Fundamental Frequency :	1750 MHz	Temp. / Humi. :	22.3deg_C/64RH
Operation Band :	Tx CH High	Test Engineer :	Ashton
EUT Pol. :	E1	Measurement Antenna Pol. :	Vertical



Freq.	Note	EIRP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
51.34	S	-36.55	-31.34	-4.38	-0.83	-13.01	-23.54
97.90	S	-33.38	-31.51	-0.70	-1.16	-13.01	-20.37
148.34	S	-35.78	-36.67	2.30	-1.41	-13.01	-22.77
235.64	S	-43.02	-47.22	5.95	-1.74	-13.01	-30.01
546.04	S	-53.09	-56.89	6.42	-2.62	-13.01	-40.08
591.63	S	-49.92	-53.79	6.80	-2.92	-13.01	-36.91
3506.00	H	-50.29	-55.56	12.30	-7.03	-13.01	-37.28
5263.00	H	-45.53	-49.43	12.46	-8.56	-13.01	-32.52

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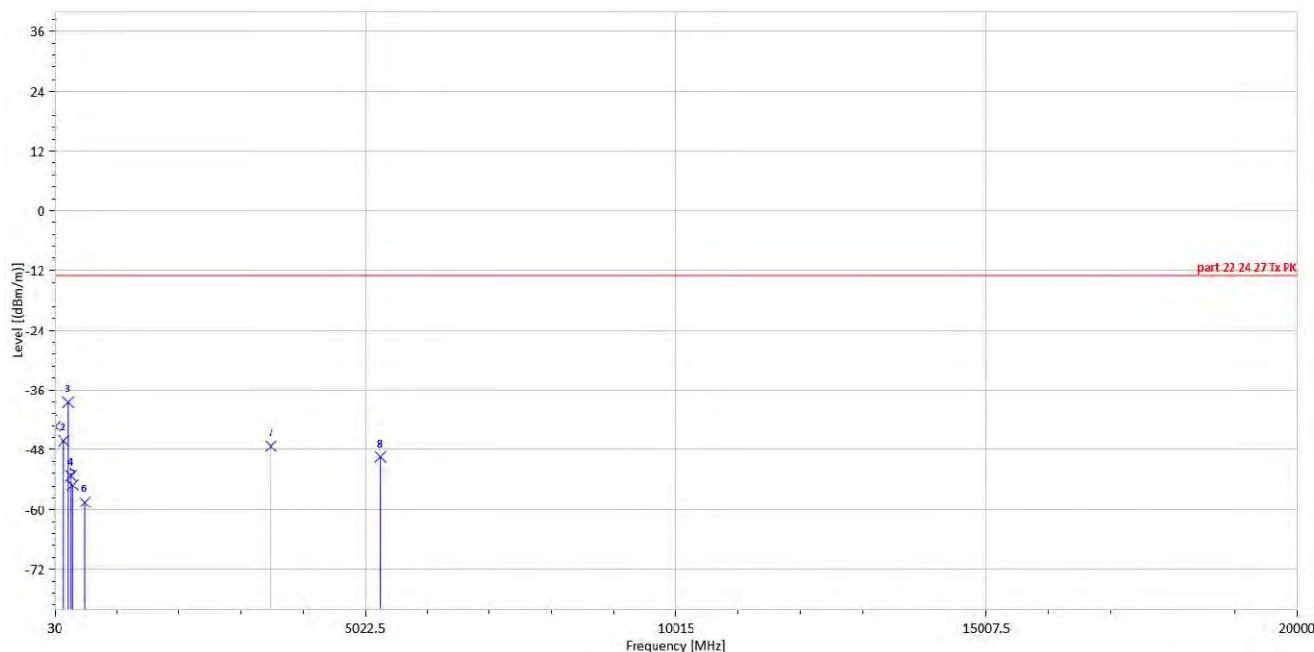
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Operation Mode :	LTEB4 10M 16QAM RB 1,49	Test Date :	2016/12/22
Fundamental Frequency :	1750 MHz	Temp. / Humi. :	22.3deg_C/64RH
Operation Band :	Tx CH High	Test Engineer :	Ashton
EUT Pol. :	E1	Measurement Antenna Pol. :	Horizontal



Freq.	Note	EIRP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
34.85	S	-43.27	-26.52	-16.04	-0.71	-13.01	-30.26
172.59	S	-46.19	-49.59	4.98	-1.58	-13.01	-33.18
246.31	S	-38.44	-42.01	5.43	-1.86	-13.01	-25.43
289.96	S	-53.23	-57.10	5.86	-1.99	-13.01	-40.22
314.21	S	-55.09	-58.94	5.94	-2.09	-13.01	-42.08
515.00	S	-58.56	-62.43	6.40	-2.53	-13.01	-45.55
3506.00	H	-47.27	-52.54	12.30	-7.03	-13.01	-34.26
5263.00	H	-49.42	-53.32	12.46	-8.56	-13.01	-36.41

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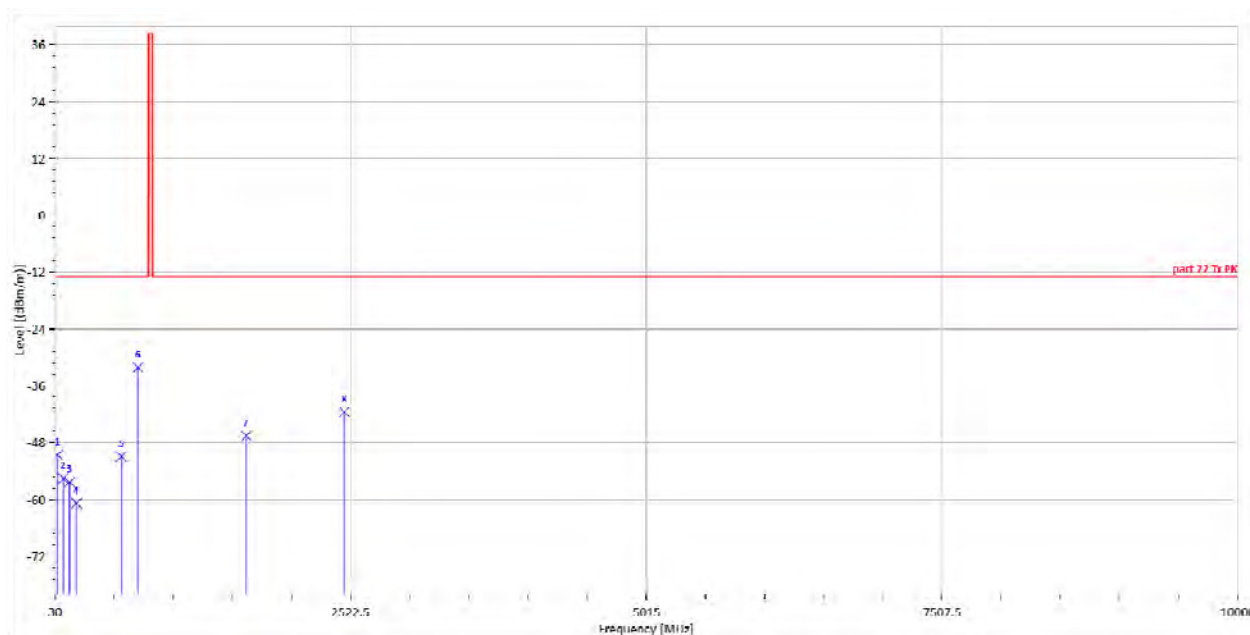
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## Radiated Spurious Emission Measurement Result: LTE-Band 5 (The Worst Case)

Operation Mode :	LTE B5 1.4M QPSK RB1.0	Test Date :	2016/12/22
Fundamental Frequency :	824.7 MHz	Temp. / Humi. :	22.3deg_C/64RH
Operation Band :	Tx CH Low	Test Engineer :	Ashton
EUT Pol. :	H	Measurement Antenna Pol. :	Vertical



Freq.	Note	ERP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
52.31	S	-50.64	-43.61	-6.14	-0.88	-13	-37.64
100.81	S	-55.62	-51.38	-3.07	-1.17	-13	-42.62
153.19	S	-56.36	-55.58	0.72	-1.50	-13	-43.36
211.39	S	-60.81	-63.07	3.97	-1.71	-13	-47.81
590.66	S	-50.93	-52.87	4.64	-2.70	-13	-37.93
730.34	S	-32.16	-34.31	5.46	-3.31	-13	-19.16
1644.00	H	-46.60	-48.63	6.74	-4.71	-13	-33.60
2470.00	H	-41.57	-43.96	8.23	-5.84	-13	-28.57

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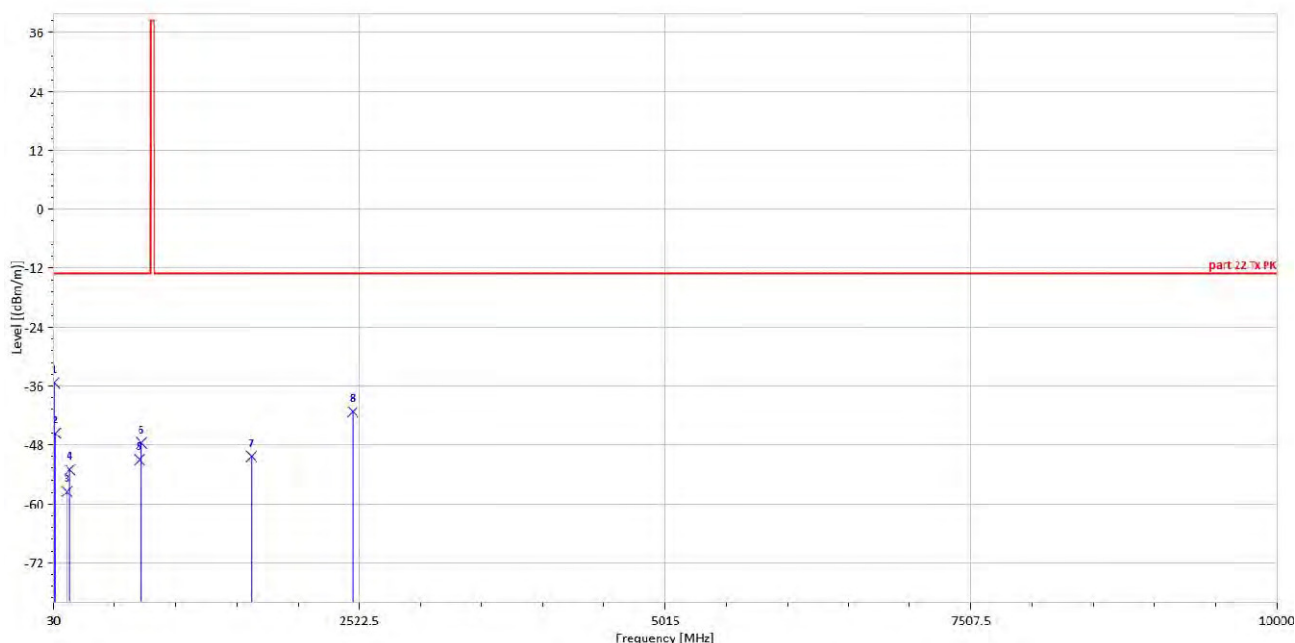
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Operation Mode : LTE B5 1.4M QPSK RB1.0      Test Date : 2016/12/22  
Fundamental Frequency : 824.7 MHz      Temp. / Humi. : 22.3deg\_C/64RH  
Operation Band : Tx CH Low      Test Engineer : Ashton  
EUT Pol. : H      Measurement Antenna Pol. : Horizontal



Freq.	Note	ERP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
38.73	S	-35.34	-19.61	-15.03	-0.70	-13	-22.34
46.49	S	-45.64	-35.62	-9.25	-0.77	-13	-32.64
140.58	S	-57.51	-55.17	-0.94	-1.40	-13	-44.51
162.89	S	-53.05	-53.22	1.77	-1.60	-13	-40.05
731.31	S	-50.98	-53.29	5.46	-3.15	-13	-37.98
746.83	S	-47.58	-50.03	5.46	-3.01	-13	-34.58
1644.00	H	-50.36	-52.39	6.74	-4.71	-13	-37.36
2470.00	H	-41.24	-43.63	8.23	-5.84	-13	-28.24

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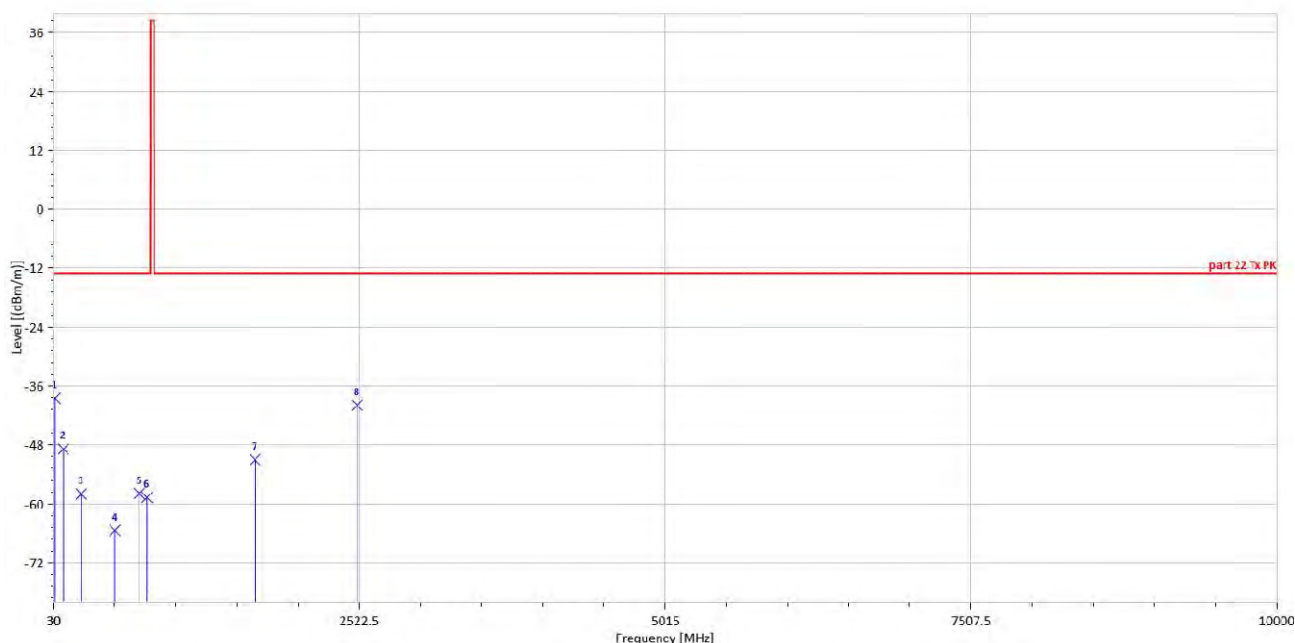
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Operation Mode : LTE B5 1.4M QPSK RB1.0      Test Date : 2016/12/22  
Fundamental Frequency : 836.5 MHz      Temp. / Humi. : 22.3deg\_C/64RH  
Operation Band : Tx CH Mid      Test Engineer : Ashton  
EUT Pol. : H      Measurement Antenna Pol. : Vertical



Freq.	Note	ERP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
43.58	S	-38.53	-26.46	-11.26	-0.80	-13	-25.53
110.51	S	-48.84	-44.21	-3.39	-1.24	-13	-35.84
256.01	S	-58.01	-58.86	2.72	-1.87	-13	-45.01
530.52	S	-65.40	-66.94	4.26	-2.72	-13	-52.40
729.37	S	-57.90	-60.07	5.46	-3.29	-13	-44.90
792.42	S	-58.71	-60.94	5.51	-3.29	-13	-45.71
1672.00	H	-51.00	-53.06	6.83	-4.78	-13	-38.00
2505.00	H	-39.91	-42.28	8.26	-5.89	-13	-26.91

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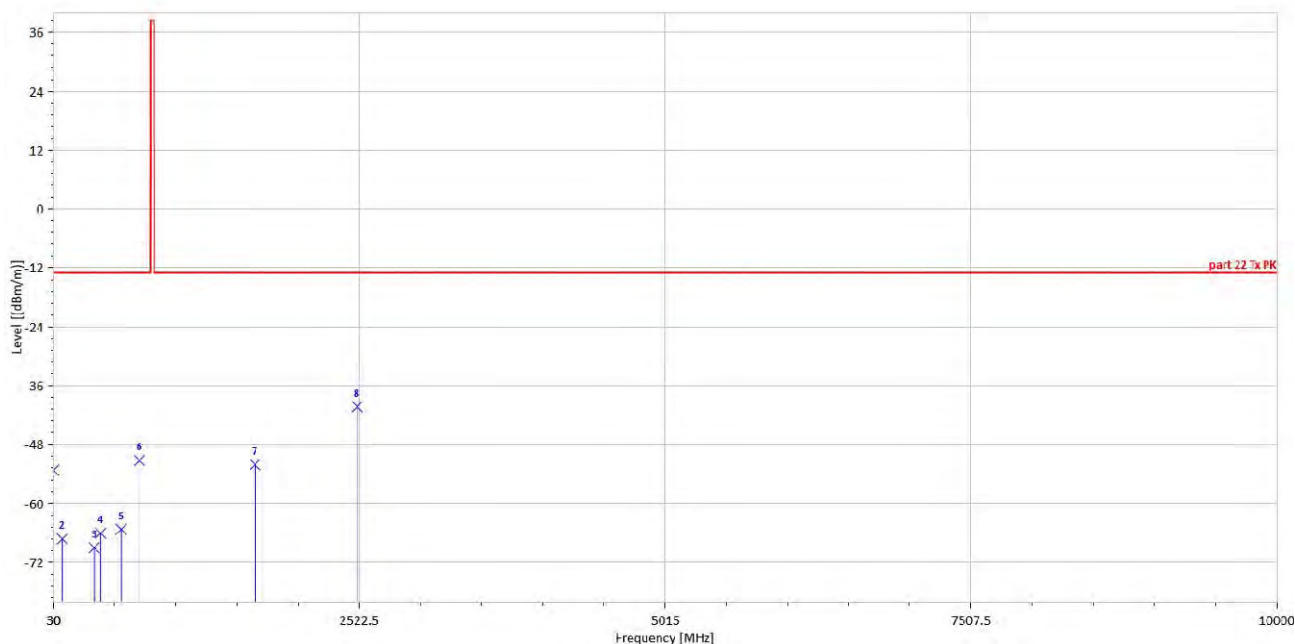
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Operation Mode :	LTE B5 1.4M QPSK RB1.0	Test Date :	2016/12/22
Fundamental Frequency :	836.5 MHz	Temp. / Humi. :	22.3deg_C/64RH
Operation Band :	Tx CH Mid	Test Engineer :	Ashton
EUT Pol. :	H	Measurement Antenna Pol. :	Horizontal



Freq.	Note	ERP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
31.94	S	-53.22	-31.84	-20.71	-0.67	-13	-40.22
100.81	S	-67.20	-62.96	-3.07	-1.17	-13	-54.20
361.74	S	-69.00	-70.47	3.71	-2.24	-13	-56.00
414.12	S	-66.06	-67.57	3.75	-2.24	-13	-53.06
581.93	S	-65.24	-66.84	4.56	-2.95	-13	-52.24
730.34	S	-51.22	-53.37	5.46	-3.31	-13	-38.22
1672.00	H	-52.08	-54.14	6.83	-4.78	-13	-39.08
2505.00	H	-40.27	-42.65	8.26	-5.89	-13	-27.27

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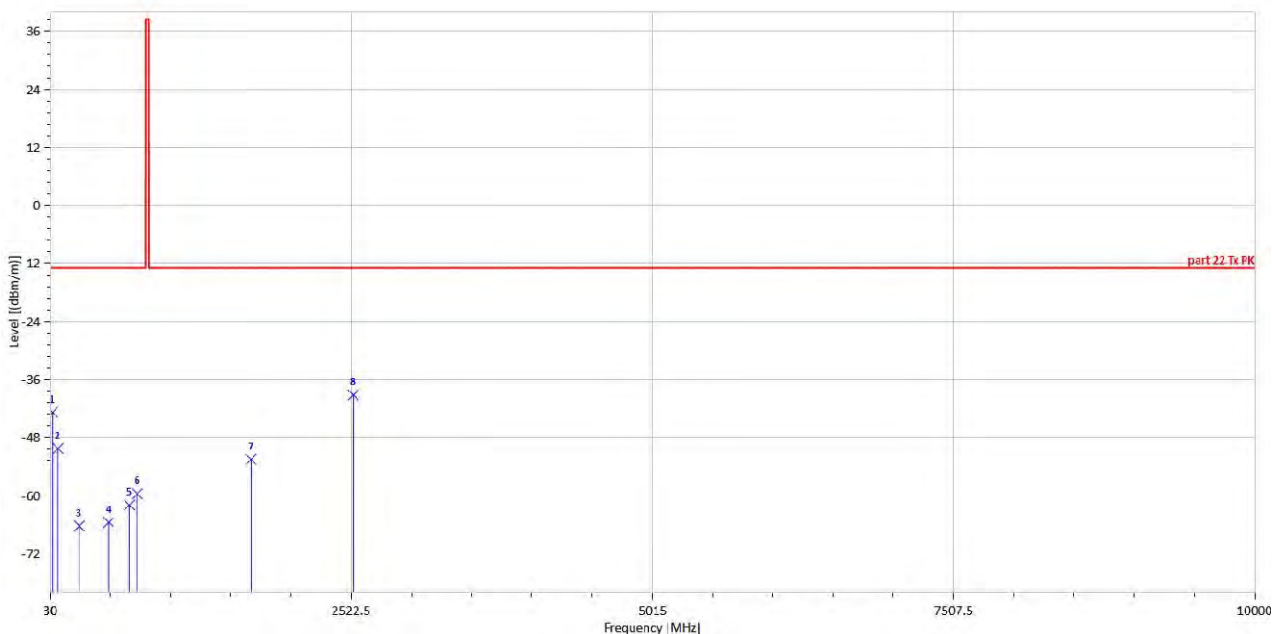
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Operation Mode :	LTE B5 1.4M QPSK RB1.0	Test Date :	2016/12/22
Fundamental Frequency :	848.3 MHz	Temp. / Humi. :	22.3deg_C/64RH
Operation Band :	Tx CH High	Test Engineer :	Ashton
EUT Pol. :	H	Measurement Antenna Pol. :	Vertical



Freq.	Note	ERP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
50.37	S	-42.83	-35.10	-6.91	-0.82	-13	-29.83
94.99	S	-50.33	-46.59	-2.60	-1.14	-13	-37.33
271.53	S	-66.35	-67.77	3.34	-1.91	-13	-53.35
515.00	S	-65.58	-67.30	4.25	-2.53	-13	-52.58
686.69	S	-62.02	-64.23	5.32	-3.11	-13	-49.02
751.68	S	-59.69	-62.03	5.46	-3.12	-13	-46.69
1693.00	H	-52.56	-54.67	6.91	-4.80	-13	-39.56
2540.00	H	-39.25	-41.67	8.32	-5.91	-13	-26.25

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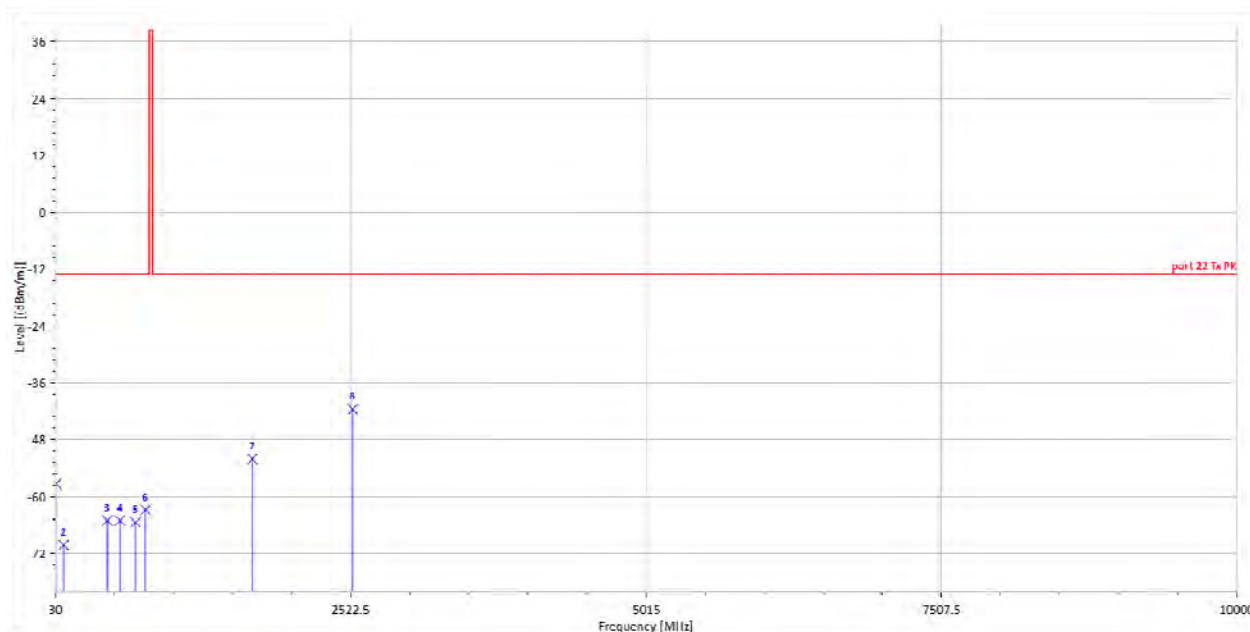
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Operation Mode :	LTE B5 1.4M QPSK RB1.0	Test Date :	2016/12/22
Fundamental Frequency :	848.3 MHz	Temp. / Humi. :	22.3deg_C/64RH
Operation Band :	Tx CH High	Test Engineer :	Ashton
EUT Pol. :	H	Measurement Antenna Pol. :	Horizontal



Freq.	Note	ERP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
34.85	S	-57.32	-38.42	-18.19	-0.71	-13	-44.32
99.84	S	-70.20	-66.00	-3.03	-1.17	-13	-57.20
469.41	S	-65.09	-66.65	4.17	-2.61	-13	-52.09
575.14	S	-65.08	-66.70	4.50	-2.88	-13	-52.08
707.06	S	-65.48	-67.72	5.46	-3.22	-13	-52.48
791.45	S	-62.82	-64.92	5.51	-3.42	-13	-49.82
1693.00	H	-52.07	-54.18	6.91	-4.80	-13	-39.07
2540.00	H	-41.57	-43.99	8.32	-5.91	-13	-28.57

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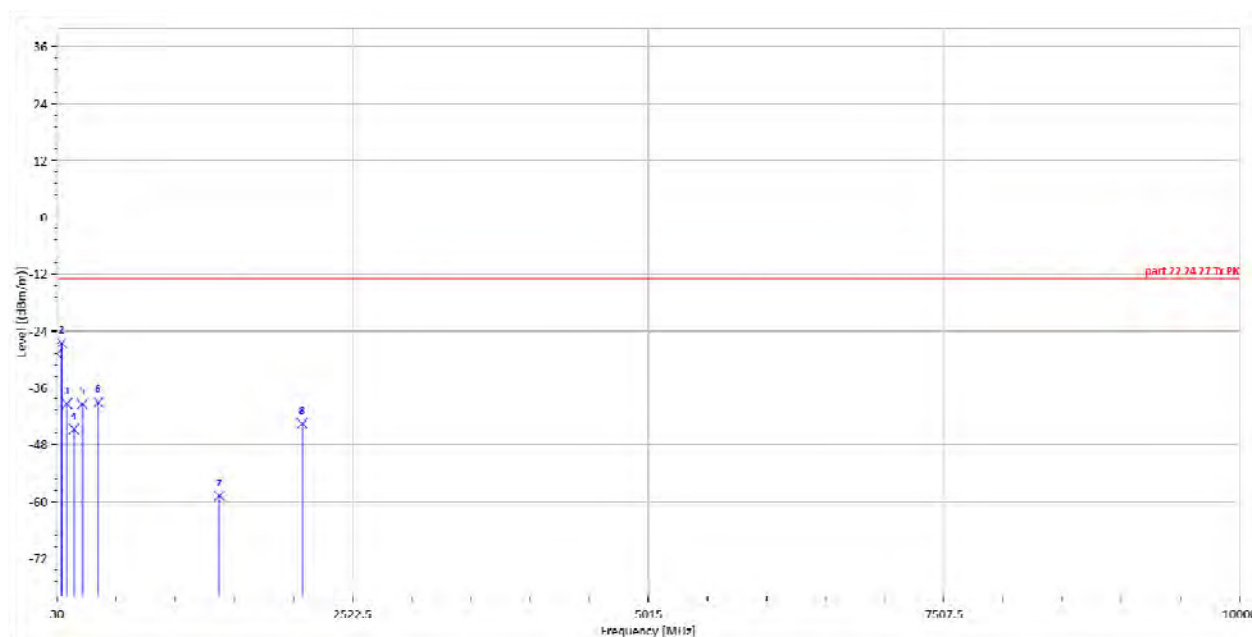
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## Radiated Spurious Emission Measurement Result: LTE-Band 12 (The Worst Case)

Operation Mode :	LTEB12 1.4M QPSK RB1.5	Test Date :	2017/1/9
Fundamental Frequency :	699.7 MHz	Temp. / Humi. :	22.3deg_C/64RH
Operation Band :	Tx CH Low	Test Engineer :	Ashton
EUT Pol. :	H	Measurement Antenna Pol. :	Vertical



Freq.	Note	ERP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
33.88	S	-28.81	-9.10	-19.03	-0.68	-13.01	-15.80
69.77	S	-26.59	-23.83	-1.77	-0.98	-13.01	-13.58
112.45	S	-39.39	-34.86	-3.30	-1.23	-13.01	-26.38
173.56	S	-44.75	-46.11	2.92	-1.56	-13.01	-31.74
244.37	S	-39.47	-41.08	3.37	-1.76	-13.01	-26.46
379.20	S	-39.10	-40.50	3.66	-2.26	-13.01	-26.09
1399.00	H	-58.85	-60.36	5.87	-4.35	-13.01	-45.84
2099.00	H	-43.57	-46.21	8.01	-5.37	-13.01	-30.56

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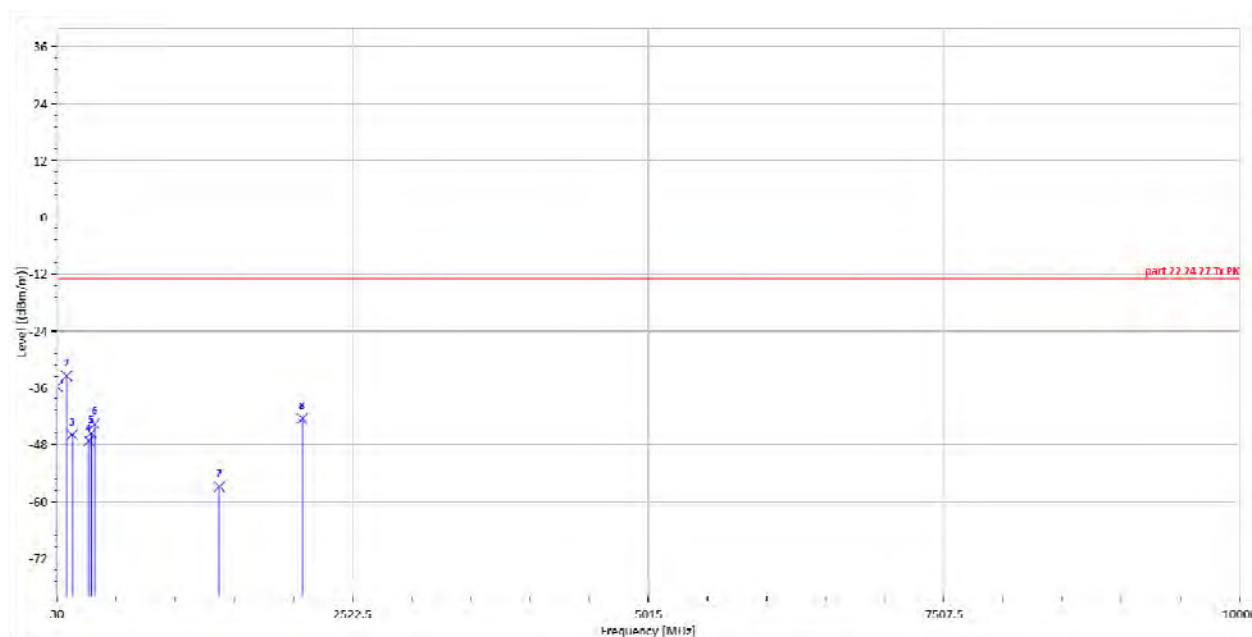
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Operation Mode :	LTEB12 1.4M QPSK RB1.5	Test Date :	2017/1/9
Fundamental Frequency :	699.7 MHz	Temp. / Humi. :	22.3deg_C/64RH
Operation Band :	Tx CH Low	Test Engineer :	Ashton
EUT Pol. :	H	Measurement Antenna Pol. :	Horizontal



Freq.	Note	ERP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
30.97	S	-35.77	-13.57	-21.56	-0.65	-13.01	-22.76
111.48	S	-33.53	-28.95	-3.34	-1.23	-13.01	-20.52
159.01	S	-45.92	-45.80	1.34	-1.45	-13.01	-32.91
297.72	S	-47.26	-49.03	3.78	-2.01	-13.01	-34.25
319.06	S	-45.53	-47.36	3.78	-1.96	-13.01	-32.52
347.19	S	-43.64	-45.21	3.74	-2.18	-13.01	-30.63
1399.00	H	-56.89	-58.40	5.87	-4.35	-13.01	-43.88
2099.00	H	-42.49	-45.13	8.01	-5.37	-13.01	-29.48

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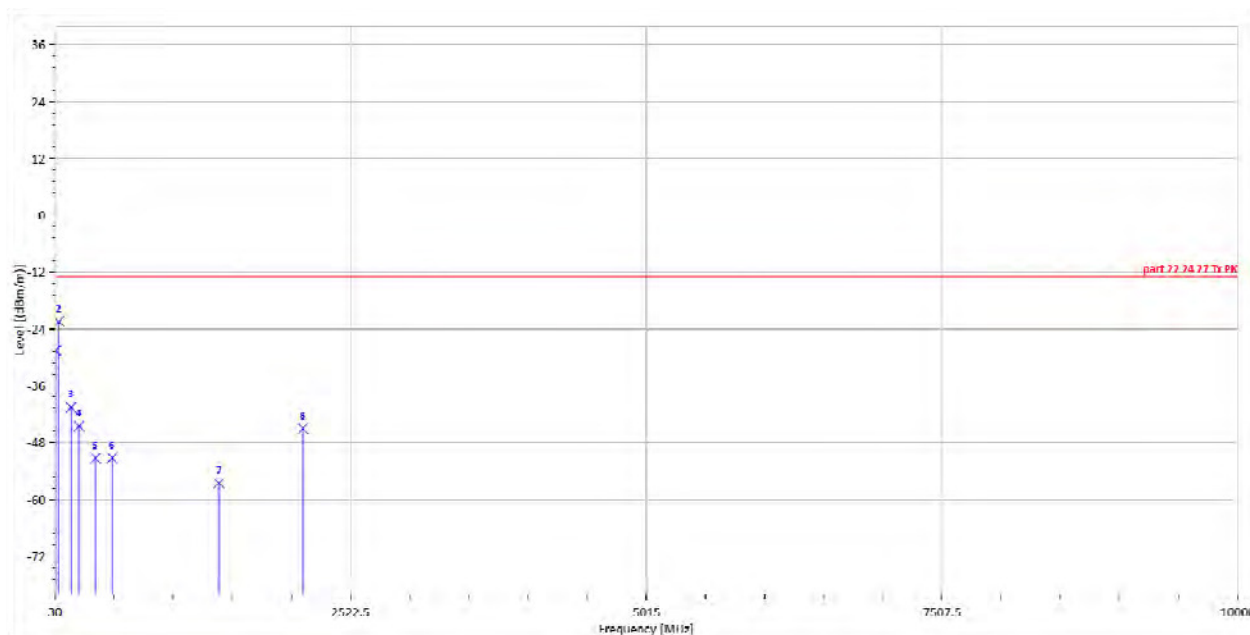
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Operation Mode :	LTEB12 1.4M QPSK RB1.5	Test Date :	2017/1/9
Fundamental Frequency :	707.5 MHz	Temp. / Humi. :	22.3deg_C/64RH
Operation Band :	Tx CH Mid	Test Engineer :	Ashton
EUT Pol. :	H	Measurement Antenna Pol. :	Vertical



Freq.	Note	ERP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
36.79	S	-28.60	-11.28	-16.61	-0.71	-13.01	-15.59
62.01	S	-22.45	-18.65	-2.81	-1.00	-13.01	-9.44
165.80	S	-40.58	-41.14	2.10	-1.54	-13.01	-27.57
233.70	S	-44.54	-46.68	3.90	-1.76	-13.01	-31.53
372.41	S	-51.31	-52.75	3.68	-2.24	-13.01	-38.30
513.06	S	-51.26	-52.79	4.25	-2.72	-13.01	-38.25
1413.00	H	-56.58	-58.13	5.92	-4.37	-13.01	-43.57
2120.00	H	-45.01	-47.62	8.02	-5.42	-13.01	-32.00

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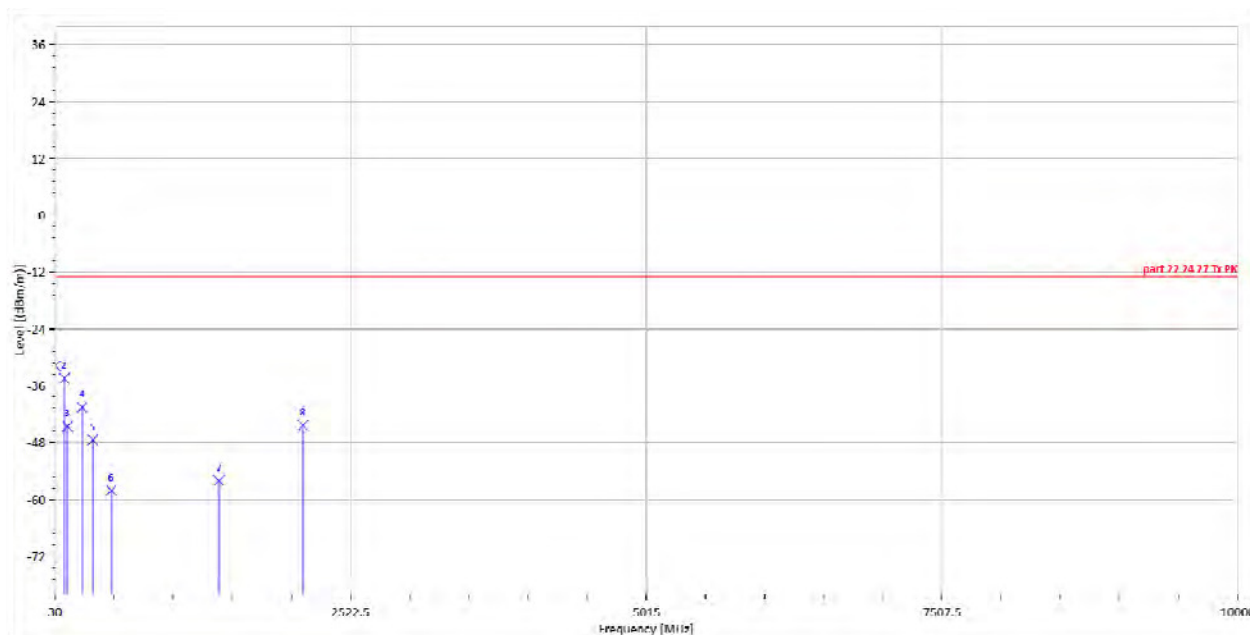
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Operation Mode :	LTEB12 1.4M QPSK RB1.5	Test Date :	2017/1/9
Fundamental Frequency :	707.5 MHz	Temp. / Humi. :	22.3deg_C/64RH
Operation Band :	Tx CH Mid	Test Engineer :	Ashton
EUT Pol. :	H	Measurement Antenna Pol. :	Horizontal



Freq.	Note	ERP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
33.88	S	-31.81	-12.09	-19.03	-0.68	-13.01	-18.80
109.54	S	-34.46	-29.83	-3.40	-1.24	-13.01	-21.45
134.76	S	-44.57	-41.52	-1.67	-1.38	-13.01	-31.56
258.92	S	-40.57	-41.16	2.53	-1.94	-13.01	-27.56
349.13	S	-47.48	-49.14	3.74	-2.08	-13.01	-34.47
506.27	S	-58.11	-59.96	4.24	-2.40	-13.01	-45.10
1413.00	H	-56.07	-57.62	5.92	-4.37	-13.01	-43.06
2120.00	H	-44.38	-46.99	8.02	-5.42	-13.01	-31.37

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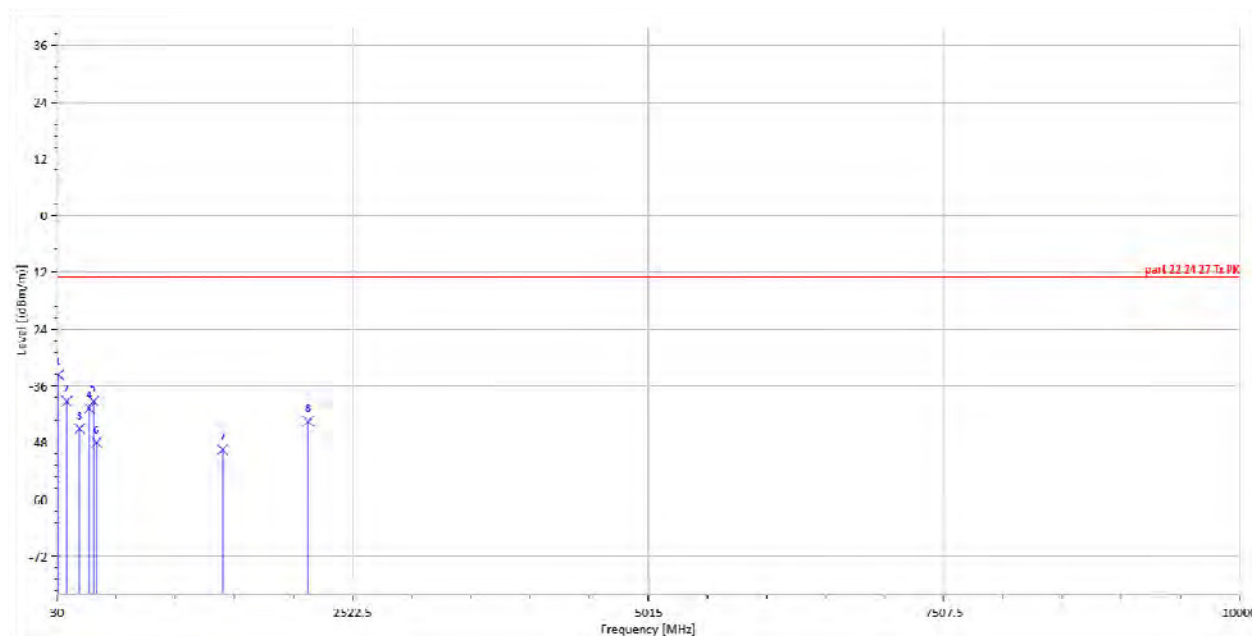
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Operation Mode :	LTEB12 1.4M QPSK RB1.5	Test Date :	2017/1/9
Fundamental Frequency :	715.3 MHz	Temp. / Humi. :	22.3deg_C/64RH
Operation Band :	Tx CH High	Test Engineer :	Ashton
EUT Pol. :	H	Measurement Antenna Pol. :	Vertical



Freq.	Note	ERP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
42.61	S	-33.59	-20.82	-12.00	-0.76	-13.01	-20.58
113.42	S	-39.24	-34.75	-3.26	-1.24	-13.01	-26.23
221.09	S	-45.00	-47.63	4.37	-1.75	-13.01	-31.99
302.57	S	-40.68	-42.44	3.80	-2.04	-13.01	-27.67
338.46	S	-39.23	-40.90	3.76	-2.08	-13.01	-26.22
364.65	S	-47.93	-49.36	3.70	-2.27	-13.01	-34.92
1427.00	H	-49.48	-51.06	5.97	-4.39	-13.01	-36.47
2148.00	H	-43.45	-46.03	8.04	-5.46	-13.01	-30.44

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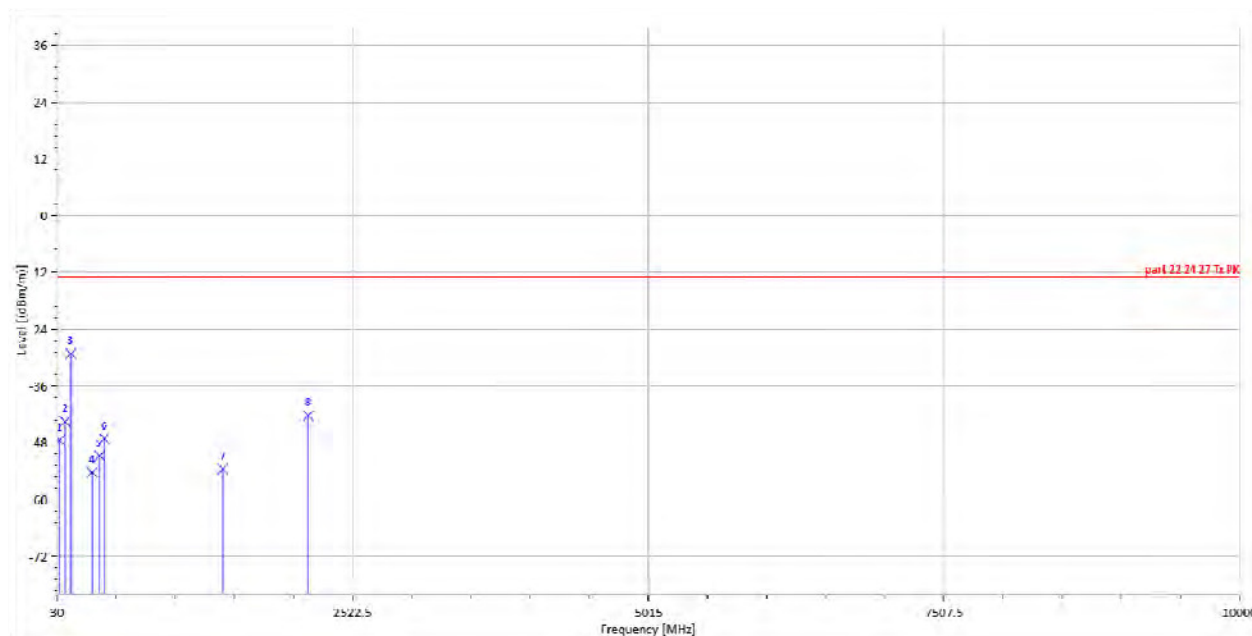
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Operation Mode :	LTEB12 1.4M QPSK RB1.5	Test Date :	2017/1/9
Fundamental Frequency :	715.3 MHz	Temp. / Humi. :	22.3deg_C/64RH
Operation Band :	Tx CH High	Test Engineer :	Ashton
EUT Pol. :	H	Measurement Antenna Pol. :	Horizontal



Freq.	Note	ERP	SG Output	Antenna	Cable	Limit	Margin
MHz	F/H/E/S	dBm	Level dBm	Gain dBi	Loss dB	@3m dBm/m	dB
52.31	S	-47.45	-40.43	-6.14	-0.88	-13.01	-34.44
97.90	S	-43.49	-39.48	-2.85	-1.16	-13.01	-30.48
147.37	S	-29.17	-27.79	0.01	-1.40	-13.01	-16.16
326.82	S	-54.23	-55.90	3.77	-2.10	-13.01	-41.22
389.87	S	-50.75	-52.04	3.63	-2.34	-13.01	-37.74
428.67	S	-47.06	-48.53	3.90	-2.43	-13.01	-34.05
1427.00	H	-53.54	-55.12	5.97	-4.39	-13.01	-40.53
2148.00	H	-42.19	-44.77	8.04	-5.46	-13.01	-29.18

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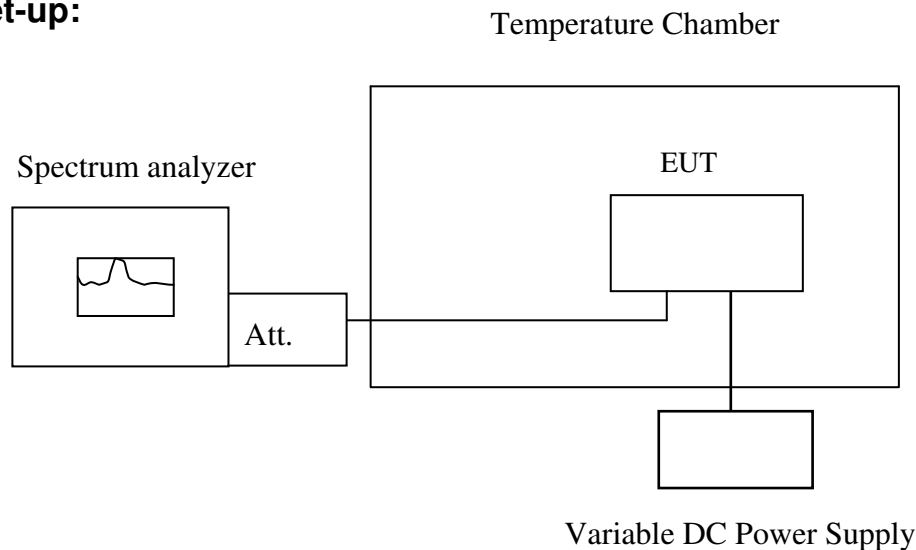
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## 11. FREQUENCY STABILITY MEASUREMENT

### 11.1. Standard Applicable:

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

### 11.2. Test Set-up:



**Note:** Measurement setup for testing on Antenna connector

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### 11.3. Measurement Procedure:

The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 25°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to -30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached.

Set chamber temperature to 25°C. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation (+/- 15%) and endpoint as declared by the manufacturer, record the maximum frequency change.

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#### 11.4. Measurement Equipment Used:

Conducted Emission (measured at antenna port) Test Site					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Spectrum Analyzer	KEYSIGHT	N9010A	MY54510568	04/14/2016	04/13/2017
Communication Tester	Anritsu	MT8820C	6201107337	05/25/2016	05/24/2017
Coaxial Cable 30cm	WOKEN	00100A1F1 A195C	RF01	12/12/2016	12/11/2017
Temperature Chamber	TERCHY	MHK-120LK	1020582	06/16/2016	06/15/2017
DC Block	PASTERNAK	PE8210	RF29	12/12/2016	12/11/2017
Splitter	RF-LAMBAD	RFLT2W1G 18G	RF35	12/12/2016	12/11/2017
Attenuator	WOKEN	218FS-10	RF23	12/12/2016	12/11/2017
DC Power Supply	Agilent	E3640A	MY53140006	05/04/2016	05/03/2017
Communication Tester	Anritsu	MT8820C	6201107337	05/25/2016	05/24/2017

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## 11.5. Measurement Result:

### FREQUENCY ERROR vs. VOLTAGE

Reference Frequency: GPRS 850 Mid Channel 836.6 MHz				
Limit: +/- 2.5 ppm				
Power Supply	Environment	Frequency	Delta	Limit (Hz)
Vdc	Temperature (°C)	(MHz)	(Hz)	
4.4	20	836599996	5	2091
3.85	20	836599991	0	2091
3.4	20	836600005	14	2091
3.4 (End point)	20	836600009	14	2091

### FREQUENCY ERROR vs. TEMPERATURE

Reference Frequency: GPRS 850 Mid Channel 836.6 MHz				
Limit: +/- 2.5 ppm				
Power Supply	Environment	Frequency	Delta	Limit (Hz)
Vdc	Temperature (°C)	(MHz)	(Hz)	
3.85	50	836599987	-4	2091
3.85	40	836599990	-1	2091
3.85	30	836600007	16	2091
3.85	20	836599991	0	2091
3.85	10	836599997	6	2091
3.85	0	836599995	4	2091
3.85	-10	836600008	17	2091
3.85	-20	836599997	6	2091
3.85	-30	836600004	13	2091

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### FREQUENCY ERROR vs. VOLTAGE

Reference Frequency: GPRS 1900 Mid Channel 1880				
Limit: +/- 2.5 ppm				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature (°C)	(MHz)	(Hz)	(Hz)
4.4	20	1.88E+09	5	4700
3.85	20	1.88E+09	0	4700
3.4	20	1.88E+09	16	4700
3.4 (End point)	20	1.88E+09	16	4700

### FREQUENCY ERROR vs. TEMPERATURE

Reference Frequency: GPRS 1900 Mid Channel 1880				
Limit: +/- 2.5 ppm				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature (°C)	(MHz)	(Hz)	(Hz)
3.85	50	1.88E+09	-7	4700
3.85	40	1.88E+09	2	4700
3.85	30	1.88E+09	14	4700
3.85	20	1.88E+09	0	4700
3.85	10	1.88E+09	6	4700
3.85	0	1.88E+09	3	4700
3.85	-10	1.88E+09	17	4700
3.85	-20	1.88E+09	1	4700
3.85	-30	1.88E+09	3	4700

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### FREQUENCY ERROR vs. VOLTAGE

Reference Frequency: WCDMA II Mid Channel 1880 MHz				
Limit: +/- 2.5 ppm				
Power Supply	Environment	Frequency	Delta	Limit (Hz)
Vdc	Temperature (°C)	(MHz)	(Hz)	
4.4	20	1.88E+09	-6	4700
3.85	20	1.88E+09	0	4700
3.4	20	1.88E+09	-21	4700
3.4 (End point)	20	1.88E+09	-21	4700

### FREQUENCY ERROR vs. TEMPERATURE

Reference Frequency: WCDMA II Mid Channel 1880				
Limit: +/- 2.5 ppm				
Power Supply	Environment	Frequency	Delta	Limit (Hz)
Vdc	Temperature (°C)	(MHz)	(Hz)	
3.85	50	1.88E+09	-27	4700
3.85	40	1.88E+09	-19	4700
3.85	30	1.88E+09	-22	4700
3.85	20	1.88E+09	0	4700
3.85	10	1.88E+09	-9	4700
3.85	0	1.88E+09	-5	4700
3.85	-10	1.88E+09	-19	4700
3.85	-20	1.88E+09	-6	4700
3.85	-30	1.88E+09	-29	4700

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### FREQUENCY ERROR vs. VOLTAGE

Reference Frequency: WCDMA IV Mid Channel 1732.6				
Limit: +/- 2.5 ppm				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature (°C)	(MHz)	(Hz)	(Hz)
4.4	20	173259993	5	4331
3.85	20	173259988	0	4331
3.4	20	173260004	16	4331
3.4 (End point)	20	173260006	16	4331

### FREQUENCY ERROR vs. TEMPERATURE

Reference Frequency: WCDMA IV Mid Channel 1732.6				
Limit: +/- 2.5 ppm				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature (°C)	(MHz)	(Hz)	(Hz)
3.85	50	173260004	16	4331
3.85	40	173259994	6	4331
3.85	30	173259992	4	4331
3.85	20	173259988	0	4331
3.85	10	173259996	8	4331
3.85	0	173259988	0	4331
3.85	-10	173260001	13	4331
3.85	-20	173259997	9	4331
3.85	-30	173259993	5	4331

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### FREQUENCY ERROR vs. VOLTAGE

Reference Frequency: WCDMA V Mid Channel 836.6 MHz				
Limit: +/- 2.5 ppm				
Power Supply	Environment	Frequency	Delta	Limit (Hz)
Vdc	Temperature (°C)	(MHz)	(Hz)	
4.4	20	836599995	7	2091
3.85	20	836599988	0	2091
3.4	20	836599994	6	2091
3.4 (End point)	20	836599997	6	2091

### FREQUENCY ERROR vs. TEMPERATURE

Reference Frequency: WCDMA V Mid Channel 836.6 MHz				
Limit: +/- 2.5 ppm				
Power Supply	Environment	Frequency	Delta	Limit (Hz)
Vdc	Temperature (°C)	(MHz)	(Hz)	
3.85	50	836600010	22	2091
3.85	40	836599991	3	2091
3.85	30	836600005	17	2091
3.85	20	836599988	0	2091
3.85	10	836599988	0	2091
3.85	0	836599998	10	2091
3.85	-10	836600004	16	2091
3.85	-20	836600006	18	2091
3.85	-30	836599997	9	2091

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Reference Freq.:		LTE B2 Mid Channel	1880 MHz	20M QPSK CH 18900
Power Supply Vdc	Temp. (°C)	Freq. (MHz)	Delta (Hz)	Limit = +/- 2.5 ppm (Hz)
Freq. ERROR vs. VOLTAGE				
4.4	25	1879.999997	0.8	4700
3.85	25	1879.999996	0	4700
3.4	25	1879.999996	-0.1	4700
3.4 (End Point)	25	1879.999996	-0.1	4700
Freq. ERROR vs. Temp.				
3.85	-30	1879.999994	-3.2	4700
3.85	-20	1879.999998	1	4700
3.85	-10	1879.999994	-3.3	4700
3.85	0	1879.999997	0	4700
3.85	10	1879.999999	1.8	4700
3.85	20	1879.999997	0	4700
3.85	30	1879.999998	1	4700
3.85	40	1879.999997	-0.1	4700
3.85	50	1879.999996	-0.6	4700

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Reference Freq.:	LTE B4 Mid Channel		1732.5	MHz	20M QPSK CH 20175
Power Supply Vdc	Temp. (°C)	Freq. (MHz)	Delta (Hz)	Limit = +/- 2.5 ppm (Hz)	
Freq. ERROR vs. VOLTAGE					
4.4	25	1732.5	-6.2	4331	
3.85	25	1732.5	0	4331	
3.4	25	1732.5	-3.3	4331	
3.4 (End Point)	25	1732.5	-3.3	4331	
Freq. ERROR vs. Temp.					
3.85	-30	1732.5	3.5	4331	
3.85	-20	1732.5	1.4	4331	
3.85	-10	1732.5	-1.8	4331	
3.85	0	1732.5	2.9	4331	
3.85	10	1732.5	0.3	4331	
3.85	20	1732.5	0	4331	
3.85	30	1732.5	3.1	4331	
3.85	40	1732.5	-1	4331	
3.85	50	1732.5	3.2	4331	

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Reference Freq.:		LTE B5 Mid Channel	836.5	MHz 10M QPSK CH 20525
Power Supply Vdc	Temp. (°C)	Freq. (MHz)	Delta (Hz)	Limit = +/- 2.5 ppm (Hz)
Freq. ERROR vs. VOLTAGE				
4.4	25	836.4999988	-2.4	2091
3.85	25	836.5000012	0	2091
3.4	25	836.4999979	-3.3	2091
3.4 (End Point)	25	836.4999979	-3.3	2091
Freq. ERROR vs. Temp.				
3.85	-30	836.4999996	1	2091
3.85	-20	836.5000014	2.8	2091
3.85	-10	836.4999992	0.6	2091
3.85	0	836.5000022	3.6	2091
3.85	10	836.4999982	-0.4	2091
3.85	20	836.4999986	0	2091
3.85	30	836.5000029	4.3	2091
3.85	40	836.4999984	-0.2	2091
3.85	50	836.4999971	-1.5	2091

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Reference Freq.:	LTE B12 Mid Channel	707.5 MHz	10M QPSK CH 23095	
Power Supply Vdc	Temp. (°C)	Freq. (MHz)	Delta (Hz)	Limit = +/- 2.5 ppm (Hz)
Freq. ERROR vs. VOLTAGE				
4.4	25	707.5000011	2.4	1769
3.85	25	707.4999987	0	1769
3.4	25	707.4999996	0.9	1769
3.4 (End Point)	25	707.4999996	0.9	1769
Freq. ERROR vs. Temp.				
3.85	-30	707.4999988	-1	1769
3.85	-20	707.4999973	-2.5	1769
3.85	-10	707.4999964	-3.4	1769
3.85	0	707.5000003	0.5	1769
3.85	10	707.5000013	1.5	1769
3.85	20	707.4999998	0	1769
3.85	30	707.4999991	-0.7	1769
3.85	40	707.5000022	2.4	1769
3.85	50	707.4999995	-0.3	1769

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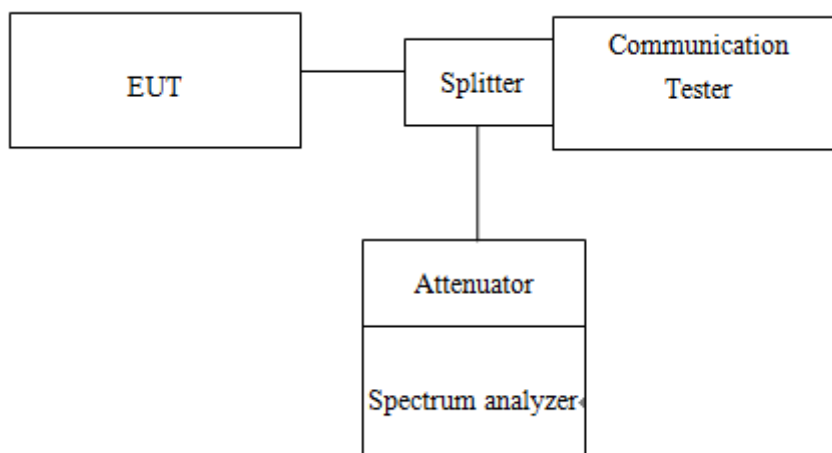
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## 12. PEAK TO AVERAGE RATIO

### 12.1. Standard Applicable

The peak-to-average ratio (PAR) of the transmission may not exceed 13dB.

### 12.2. Test SET-UP



### 12.3. Measurement Procedure

1. KDB 971168 D01 is employed as the following procedure is proper adjusted accordingly:
2. Set resolution/measurement bandwidth  $\geq$  signal's occupied bandwidth; & internal = 1ms
3. Set the number of counts to a value that stabilizes the measured CCDF curve.

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## 12.4. Measurement Equipment Used

Conducted Emission (measured at antenna port) Test Site					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Spectrum Analyzer	KEYSIGHT	N9010A	MY54510568	04/14/2016	04/13/2017
Communication Tester	Anritsu	MT8820C	6201107337	05/25/2016	05/24/2017
Coaxial Cable 30cm	WOKEN	00100A1F1A 195C	RF01	12/12/2016	12/11/2017
Temperature Chamber	TERCHY	MHK-120LK	1020582	06/16/2016	06/15/2017
DC Block	PASTERNAK	PE8210	RF29	12/12/2016	12/11/2017
Splitter	RF-LAMBAD	RFLT2W1G1 8G	RF35	12/12/2016	12/11/2017
Attenuator	WOKEN	218FS-10	RF23	12/12/2016	12/11/2017
DC Power Supply	Agilent	E3640A	MY53140006	05/04/2016	05/03/2017
Communication Tester	Anritsu	MT8820C	6201107337	05/25/2016	05/24/2017
Spectrum Analyzer	KEYSIGHT	N9010A	MY54510568	04/14/2016	04/13/2017
Communication Tester	Anritsu	MT8820C	6201107337	05/25/2016	05/24/2017
Coaxial Cable 30cm	WOKEN	00100A1F1A 195C	RF01	12/12/2016	12/11/2017

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## 12.5. Measurement Result

### Tabular Results:

Frequency (MHz)	CH	Peak-to-Average Ratio (dB)		
		GSM 1900	GPRS 1900	EDGE 1900
1850.2	512	9.97	10.03	12.21
1880	661	9.52	9.97	12.06
1909.8	810	9.59	9.65	12.03

Frequency (MHz)	CH	Peak-to-Average Ratio (dB)		
		WCDMA II	HSDPA II	HSUPA II
1852.4	9262	2.73	2.74	2.79
1880	9400	2.62	2.61	2.6
1907.6	9538	2.66	2.64	2.64

Frequency (MHz)	CH	Peak-to-Average Ratio (dB)		
		WCDMA IV	HSDPA IV	HSUPA IV
1712.4	1312	2.67	2.66	2.63
1732.6	1413	2.77	2.79	2.76
1752.6	1513	2.73	2.73	2.7

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LTE BAND 2							
Channel bandwidth: 1.4MHz				Channel bandwidth: 3MHz			
Freq. (MHz)	CH	Peak-to-Average		Freq. (MHz)	CH	Peak-to-Average	
		16QAM	Limit			16QAM	Limit
1850.7	18607	5.53	13	1851.5	18615	5.9	13
1880.0	18900	5.65	13	1880.0	18900	5.81	13
1909.3	19193	5.47	13	1908.5	19185	5.67	13

LTE BAND 2							
Channel bandwidth: 5MHz				Channel bandwidth: 10MHz			
Freq. (MHz)	CH	Peak-to-Average		Freq. (MHz)	CH	Peak-to-Average	
		16QAM	Limit			16QAM	Limit
1852.5	18625	5.85	13	1855.0	18650	5.93	13
1880.0	18900	5.8	13	1880.0	18900	5.87	13
1907.5	19175	5.77	13	1905.0	19150	5.96	13

LTE BAND 2							
Channel bandwidth: 15MHz				Channel bandwidth: 20MHz			
Freq. (MHz)	CH	Peak-to-Average		Freq. (MHz)	CH	Peak-to-Average	
		16QAM	Limit			16QAM	Limit
1857.5	18675	6.79	13	1860.0	18700	7.11	13
1880.0	18900	6.66	13	1880.0	18900	7.15	13
1902.5	19125	6.87	13	1900.0	19100	7.13	13

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LTE BAND 4							
Channel bandwidth: 1.4MHz				Channel bandwidth: 3MHz			
Freq. (MHz)	CH	Peak-to-Average		Freq. (MHz)	CH	Peak-to-Average	
		16QAM	Limit			16QAM	Limit
1710.7	19957	5.65	13	1711.5	19965	5.78	13
1732.5	20175	5.91	13	1732.5	20175	6.03	13
1754.3	20393	5.83	13	1753.5	20385	5.9	13

LTE BAND 4							
Channel bandwidth: 5MHz				Channel bandwidth: 10MHz			
Freq. (MHz)	CH	Peak-to-Average		Freq. (MHz)	CH	Peak-to-Average	
		16QAM	Limit			16QAM	Limit
1712.5	19957	5.64	13	1715.0	20000	5.78	13
1732.5	20175	5.9	13	1732.5	20175	5.84	13
1752.5	20375	5.83	13	1750.0	20350	5.83	13

LTE BAND 4							
Channel bandwidth: 15MHz				Channel bandwidth: 20MHz			
Freq. (MHz)	CH	Peak-to-Average		Freq. (MHz)	CH	Peak-to-Average	
		16QAM	Limit			16QAM	Limit
1717.5	20025	6.66	13	1720.0	20050	7.16	13
1732.5	20175	6.71	13	1732.5	20175	7.11	13
1747.5	20325	6.6	13	1745.0	20300	7.07	13

## Measurement Results:

Please refer to next page.

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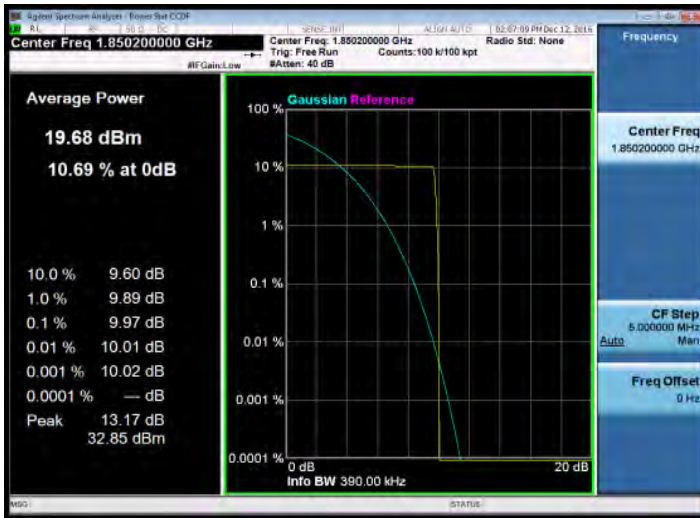
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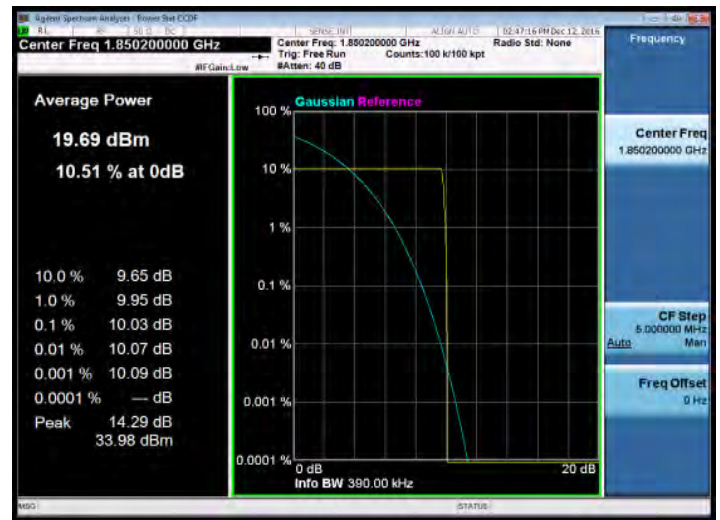
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GSM 1900 Channel Low



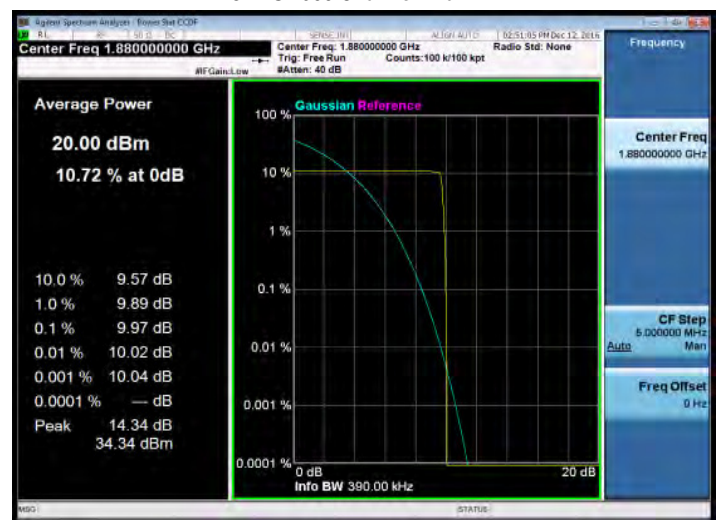
GPMS 1900 Channel Low



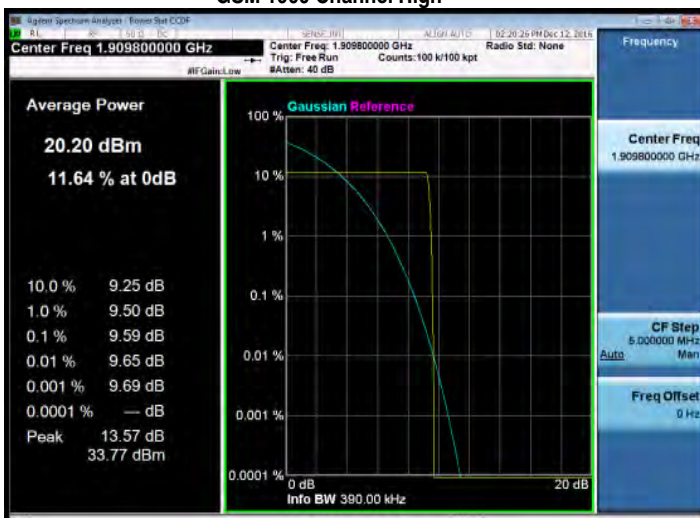
GSM 1900 Channel Mid



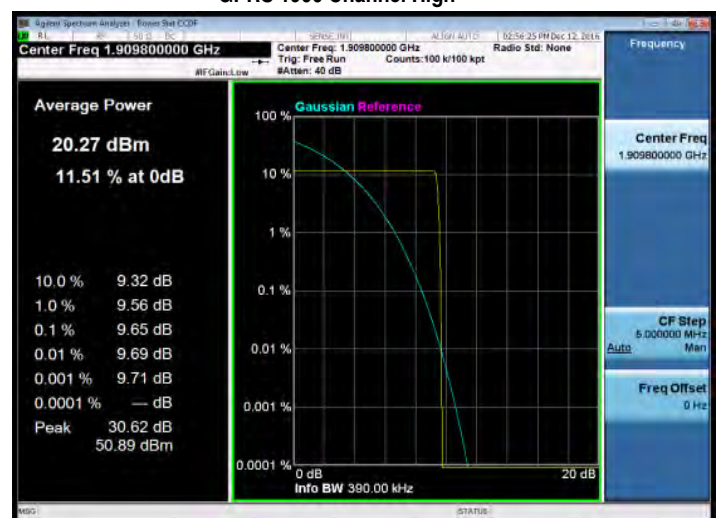
GPMS 1900 Channel Mid



GSM 1900 Channel High



GPMS 1900 Channel High



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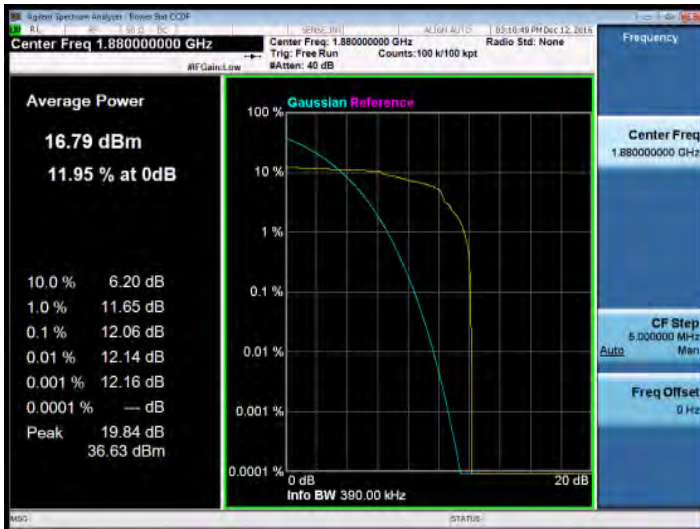
EDGE 1900 Channel Low



WCDMA Band II Channel Low



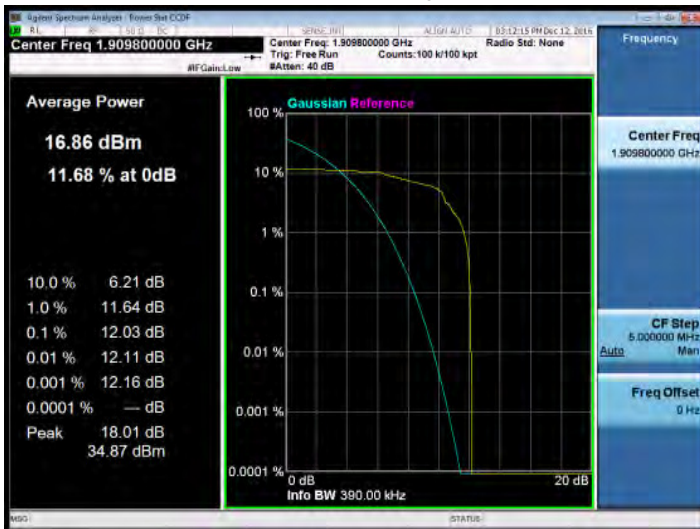
EDGE 1900 Channel Mid



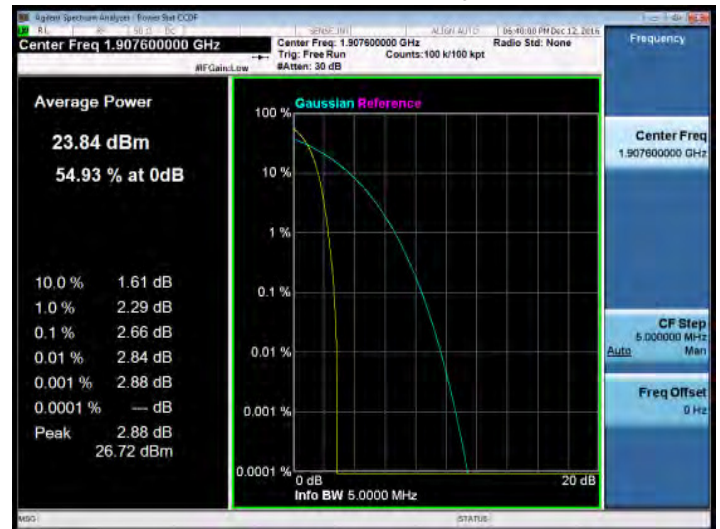
WCDMA Band II Channel Mid



EDGE 1900 Channel High



WCDMA Band II Channel High



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WCDMA Band IV Channel Low



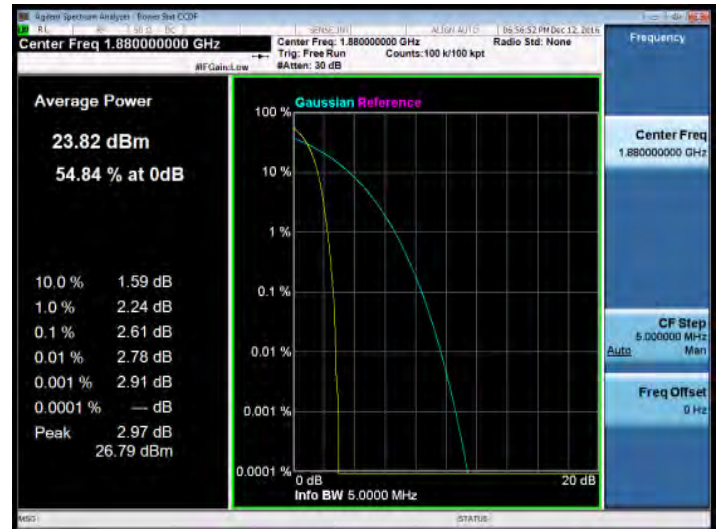
HSDPA Band II Channel Low



WCDMA Band IV Channel Mid



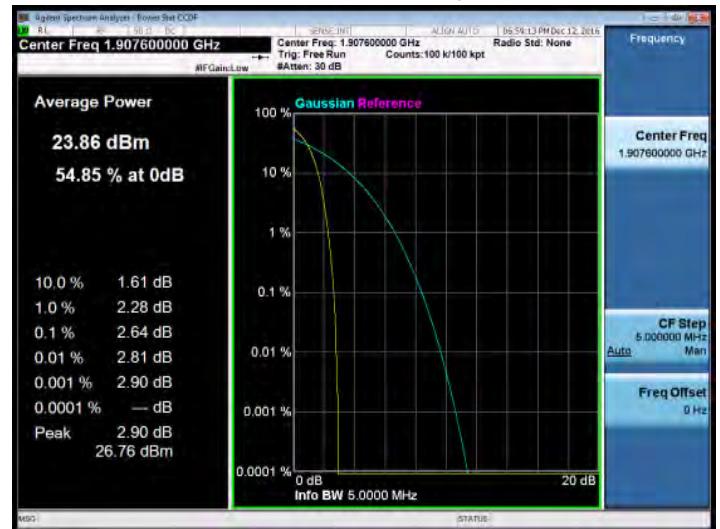
HSDPA Band II Channel Mid



WCDMA Band IV Channel High



HSDPA Band II Channel High



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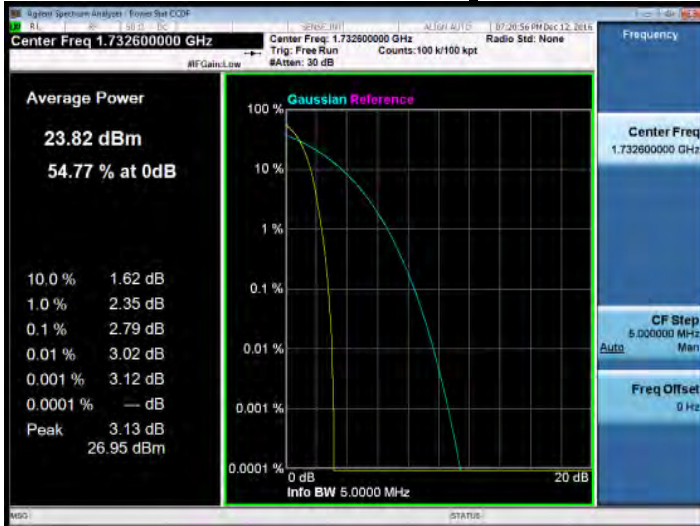
HSDPA Band IV Channel Low



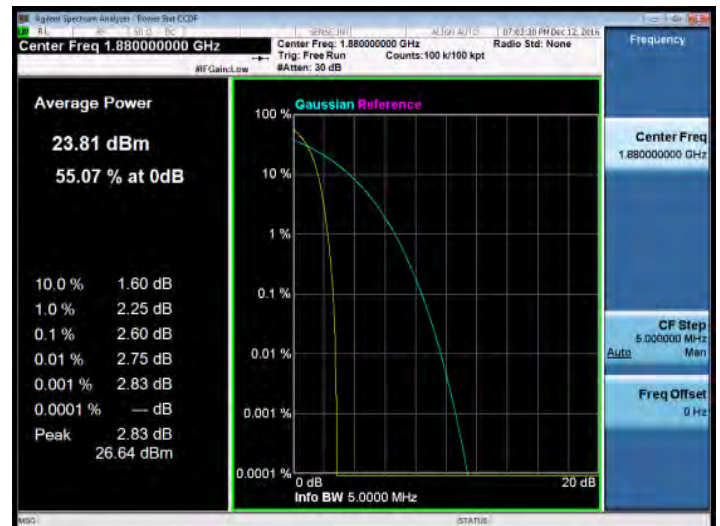
HSUPA Band II Channel Low



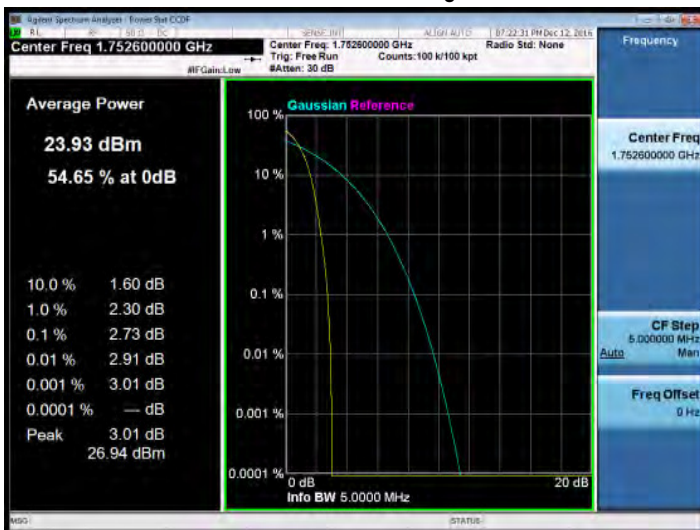
HSDPA Band IV Channel Mid



HSUPA Band II Channel Mid



HSDPA Band IV Channel High



HSUPA Band II Channel High



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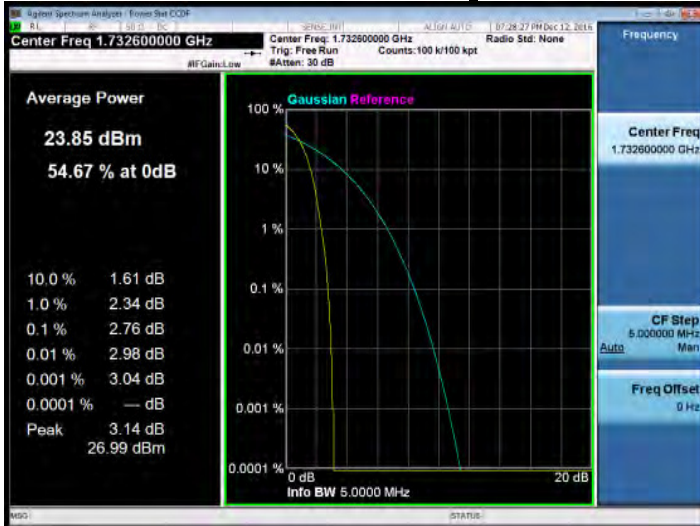
HSUPA Band IV Channel Low



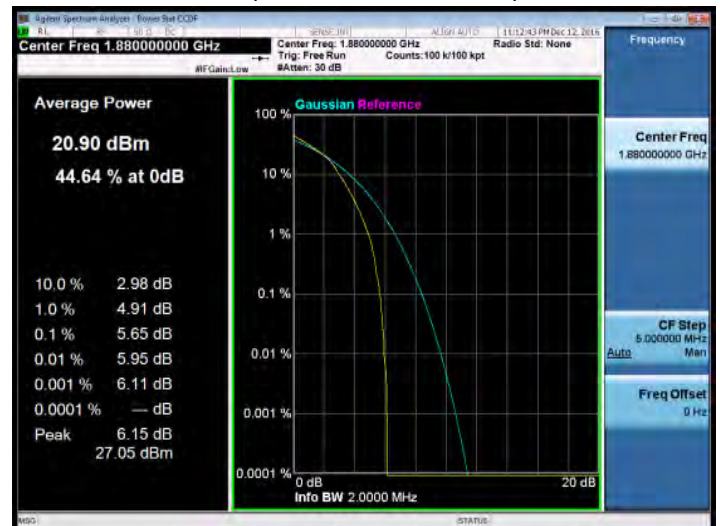
1.4MHz BW LTE-Band 2(16QAM Number: 6 Offset: 0) Channel Low



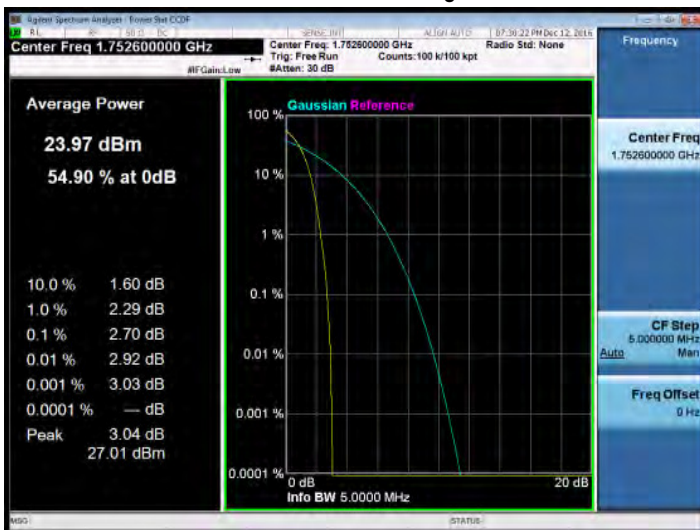
HSUPA Band IV Channel Mid



1.4MHz BW LTE-Band 2(16QAM Number: 6 Offset: 0) Channel Mid



HSUPA Band IV Channel High



1.4MHz BW LTE-Band 2(16QAM Number: 6 Offset: 0) Channel High



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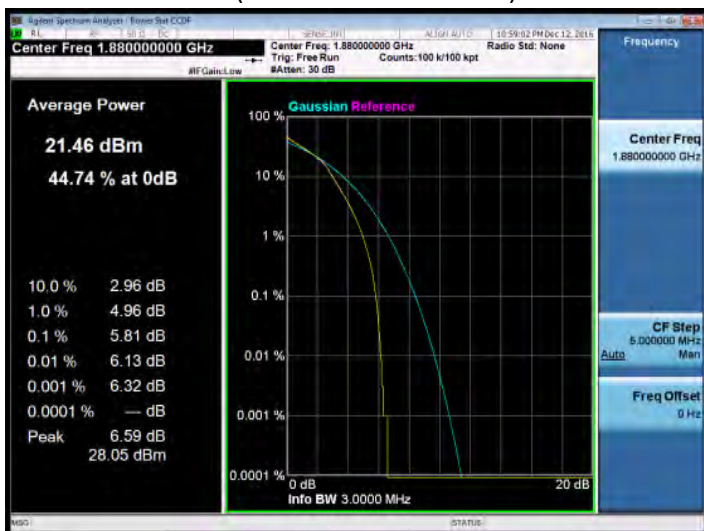
3MHz BW LTE-Band 2(16QAM Number: 15 Offset: 0) Channel Low



5MHz BW LTE-Band 2(16QAM Number: 25 Offset: 0) Channel Low



3MHz BW LTE-Band 2(16QAM Number: 15 Offset: 0) Channel Mid



5MHz BW LTE-Band 2(16QAM Number: 25 Offset: 0) Channel Mid



3MHz BW LTE-Band 2(16QAM Number: 15 Offset: 0) Channel High



5MHz BW LTE-Band 2(16QAM Number: 25 Offset: 0) Channel High



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10MHz BW LTE-Band 2(16QAM Number: 50 Offset: 0) Channel Low



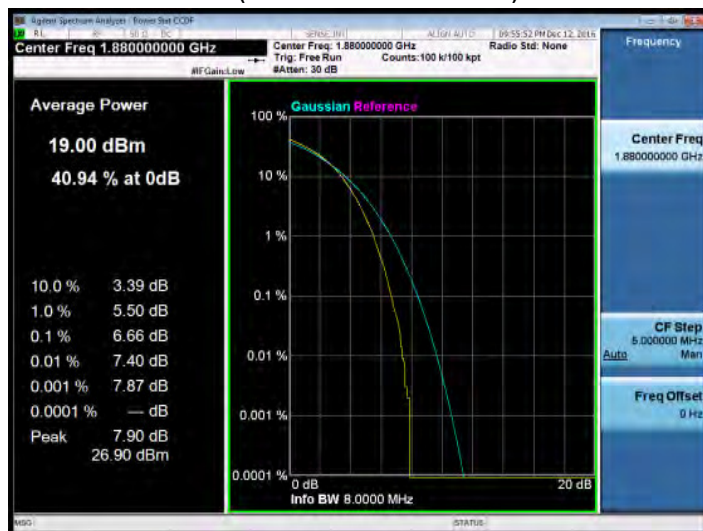
15MHz BW LTE-Band 2(16QAM Number: 75 Offset: 0) Channel Low



10MHz BW LTE-Band 2(16QAM Number: 50 Offset: 0) Channel Mid



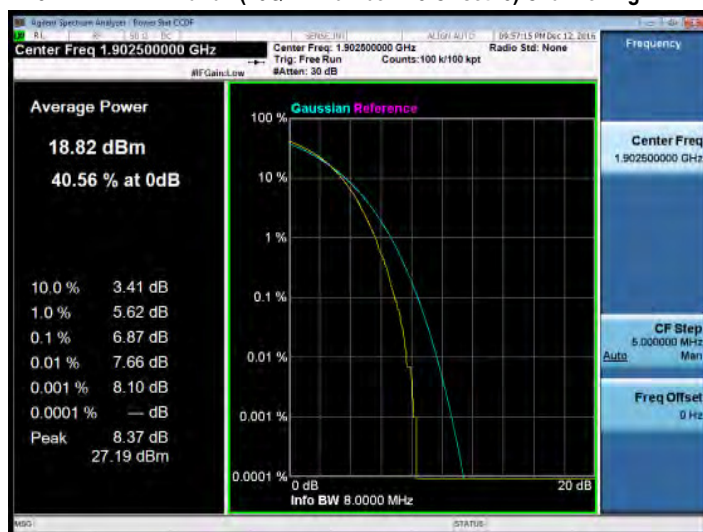
15MHz BW LTE-Band 2(16QAM Number: 75 Offset: 0) Channel Mid



10MHz BW LTE-Band 2(16QAM Number: 50 Offset: 0) Channel High



15MHz BW LTE-Band 2(16QAM Number: 75 Offset: 0) Channel High



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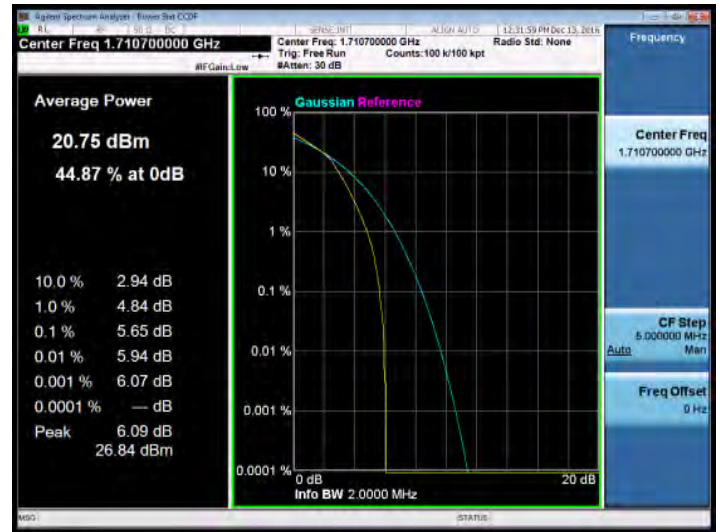
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20MHz BW LTE-Band 2(16QAM Number: 100 Offset: 0) Channel Low



1.4MHz BW LTE-Band 4(16QAM Number: 6 Offset: 0) Channel Low



20MHz BW LTE-Band 2(16QAM Number: 100 Offset: 0) Channel Mid



1.4MHz BW LTE-Band 4(16QAM Number: 6 Offset: 0) Channel Mid



20MHz BW LTE-Band 2(16QAM Number: 100 Offset: 0) Channel High



1.4MHz BW LTE-Band 4(16QAM Number: 6 Offset: 0) Channel High



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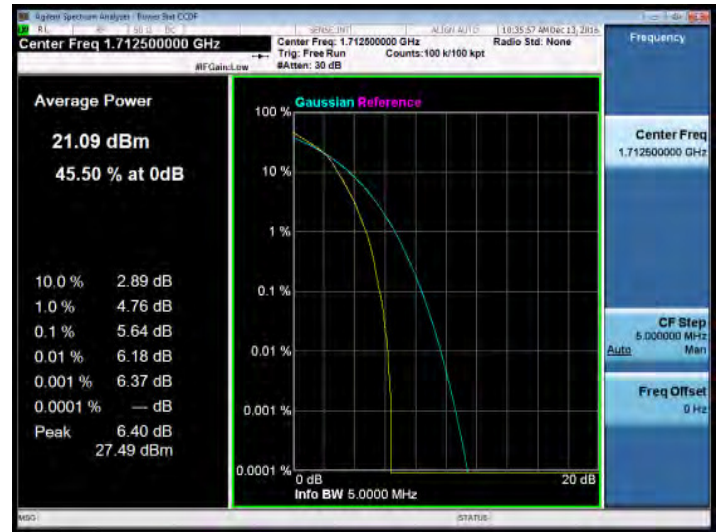
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3MHz BW LTE-Band 4(16QAM Number: 15 Offset: 0) Channel Low



5MHz BW LTE-Band 4(16QAM Number: 25 Offset: 0) Channel Low



3MHz BW LTE-Band 4(16QAM Number: 15 Offset: 0) Channel Mid



5MHz BW LTE-Band 4(16QAM Number: 25 Offset: 0) Channel Mid



3MHz BW LTE-Band 4(16QAM Number: 15 Offset: 0) Channel High



5MHz BW LTE-Band 4(16QAM Number: 25 Offset: 0) Channel High



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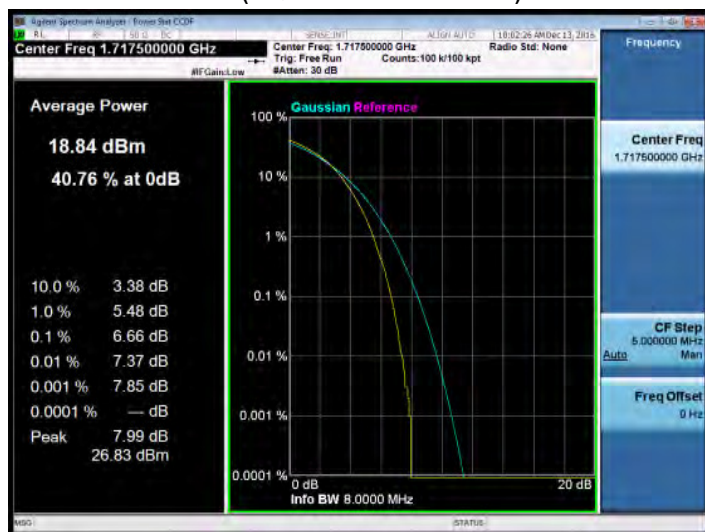
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10MHz BW LTE-Band 4(16QAM Number: 50 Offset: 0) Channel Low



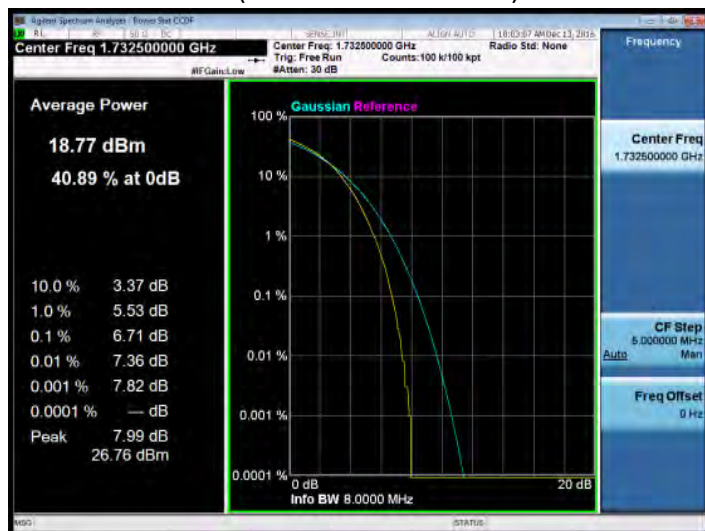
15MHz BW LTE-Band 4(16QAM Number: 75 Offset: 0) Channel Low



10MHz BW LTE-Band 4(16QAM Number: 50 Offset: 0) Channel Mid



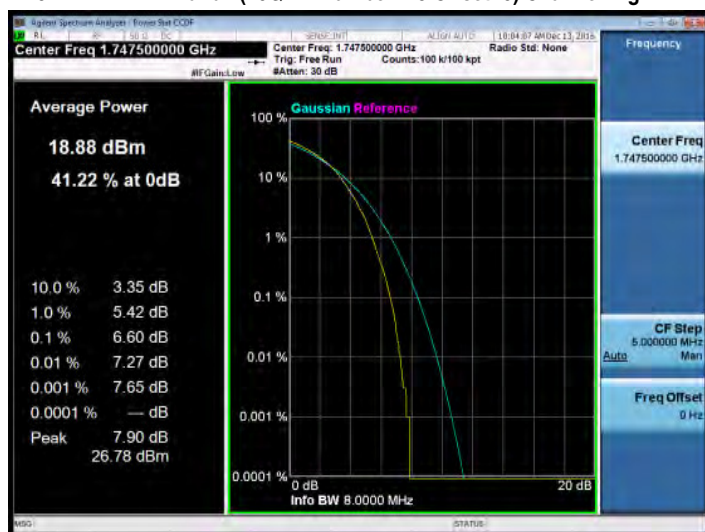
15MHz BW LTE-Band 4(16QAM Number: 75 Offset: 0) Channel Mid



10MHz BW LTE-Band 4(16QAM Number: 50 Offset: 0) Channel High



15MHz BW LTE-Band 4(16QAM Number: 75 Offset: 0) Channel High



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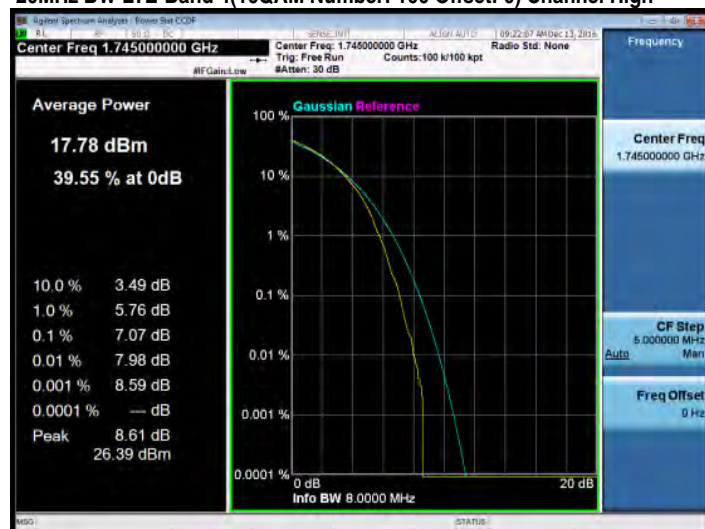
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20MHz BW LTE-Band 4(16QAM Number: 100 Offset: 0) Channel Low



20MHz BW LTE-Band 4(16QAM Number: 100 Offset: 0) Channel High



20MHz BW LTE-Band 4(16QAM Number: 100 Offset: 0) Channel Mid



~ End of Report ~

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