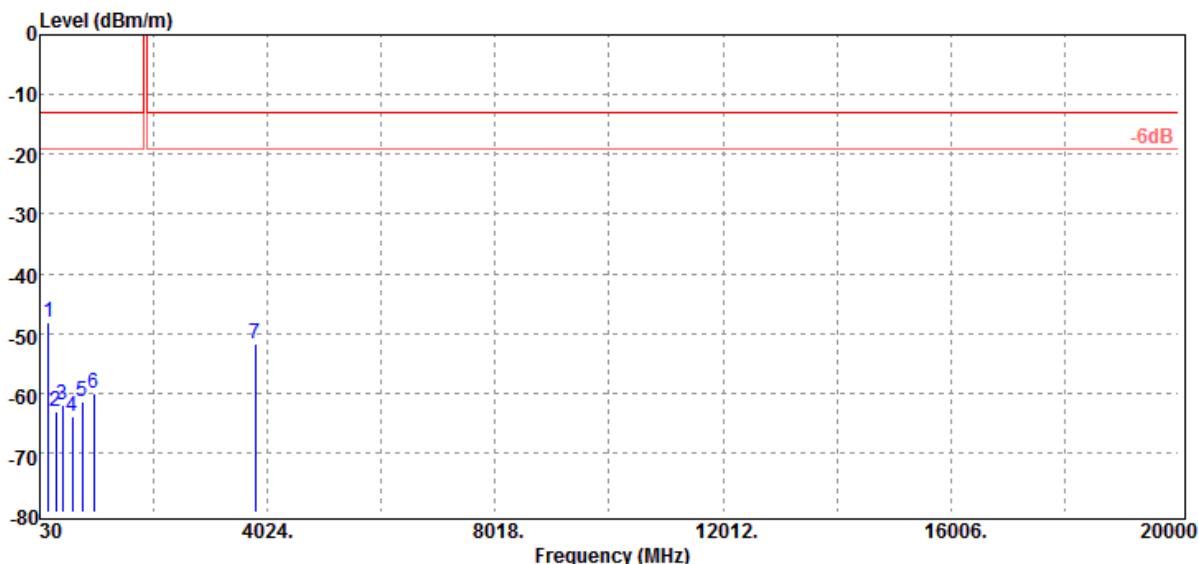


Operation Band :LTE B2  
 Fundamental Frequency :1907.5 MHz  
 Operation Mode :TX CH HIGH  
 EUT Pol. :H Plan

Test Date :2019-03-27  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :VERTICAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
178.41	-48.11	-42.40	-4.61	-1.10	-13.00	-35.11
316.15	-63.02	-59.62	-1.93	-1.47	-13.00	-50.02
422.85	-62.00	-58.44	-1.85	-1.71	-13.00	-49.00
607.15	-63.86	-60.75	-1.04	-2.07	-13.00	-50.86
769.14	-61.43	-57.75	-1.35	-2.33	-13.00	-48.43
975.75	-60.05	-56.06	-1.35	-2.64	-13.00	-47.05
3815.00	-51.69	-56.25	10.32	-5.76	-13.00	-38.69

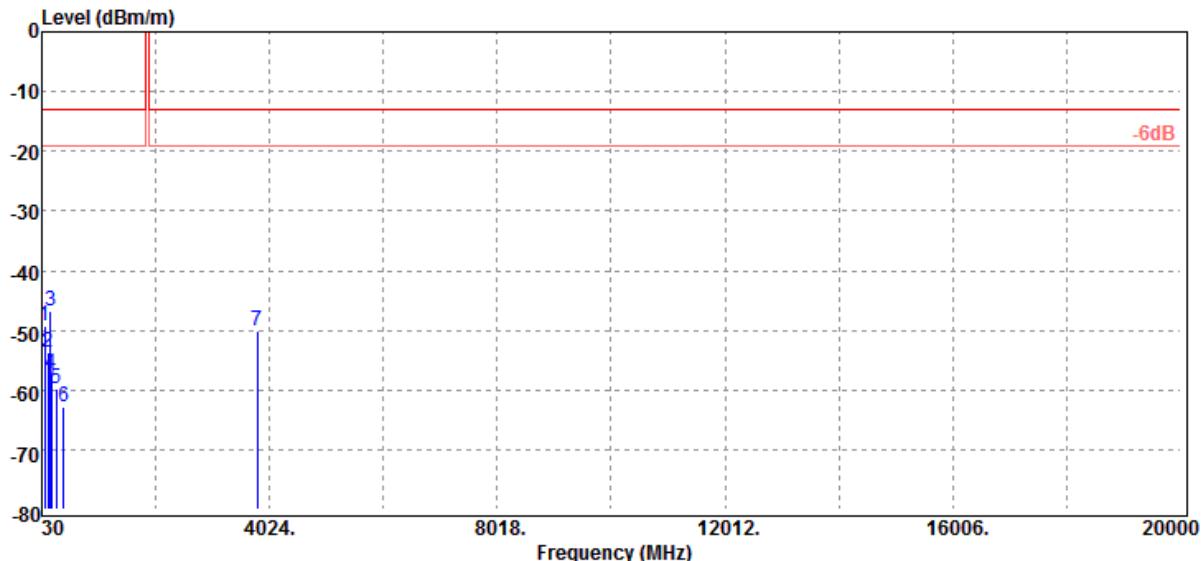
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Operation Band :LTE B2  
 Fundamental Frequency :1907.5 MHz  
 Operation Mode :TX CH HIGH  
 EUT Pol. :H Plan

Test Date :2019-03-27  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :HORIZONTAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
73.65	-49.33	-39.34	-9.28	-0.71	-13.00	-36.33
134.76	-53.64	-43.30	-9.39	-0.96	-13.00	-40.64
180.35	-46.88	-41.35	-4.42	-1.11	-13.00	-33.88
197.81	-57.25	-51.50	-4.59	-1.16	-13.00	-44.25
282.20	-59.68	-55.79	-2.51	-1.39	-13.00	-46.68
419.94	-62.87	-59.32	-1.85	-1.70	-13.00	-49.87
3815.00	-50.03	-54.60	10.32	-5.76	-13.00	-37.03

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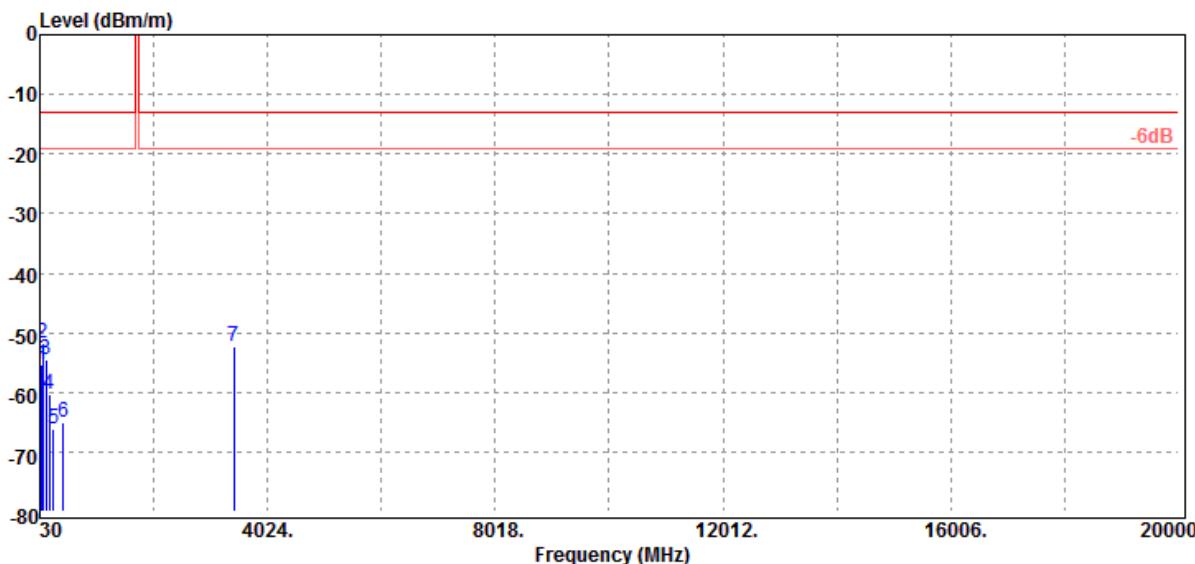
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**Radiated Spurious Emission Measurement Result: LTE-Band 4 (The Worst Case)**

Operation Band :LTE B4  
 Fundamental Frequency :1720 MHz  
 Operation Mode :TX CH LOW  
 EUT Pol. :H Plan

Test Date :2019-03-27  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :VERTICAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
64.92	-55.38	-44.55	-10.15	-0.67	-13.00	-42.38
86.26	-51.65	-43.16	-7.72	-0.77	-13.00	-38.65
143.49	-54.60	-45.69	-7.92	-0.99	-13.00	-41.60
189.08	-60.47	-55.37	-3.97	-1.13	-13.00	-47.47
275.41	-66.08	-62.07	-2.64	-1.37	-13.00	-53.08
435.46	-65.01	-61.32	-1.96	-1.73	-13.00	-52.01
3440.00	-52.45	-57.53	10.57	-5.48	-13.00	-39.45

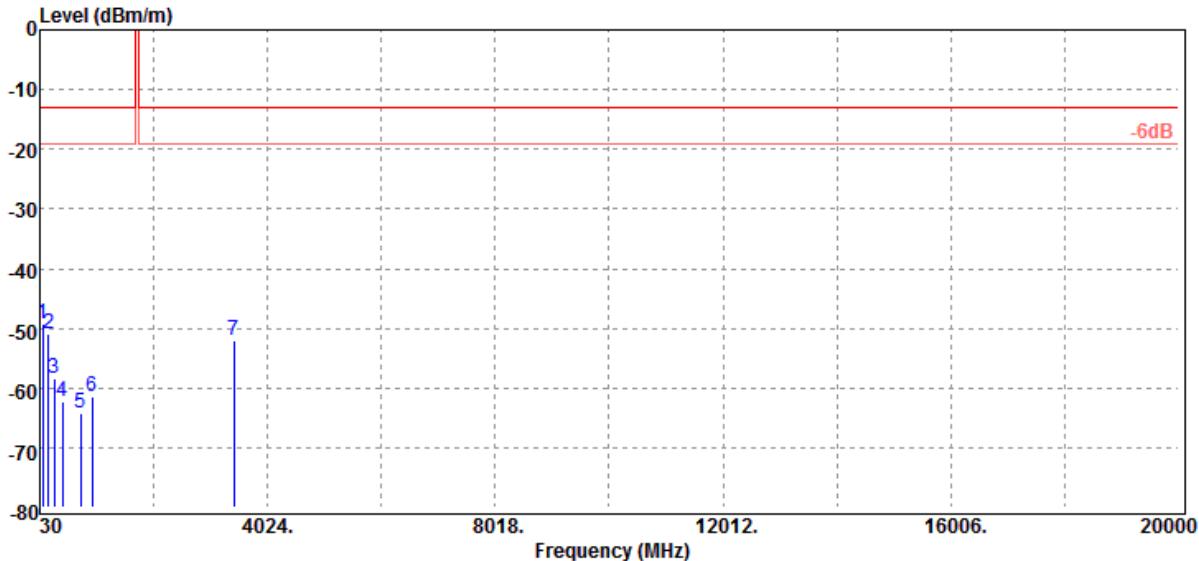
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Operation Band :LTE B4  
 Fundamental Frequency :1720 MHz  
 Operation Mode :TX CH LOW  
 EUT Pol. :H Plan

Test Date :2019-03-27  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :HORIZONTAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
73.65	-49.34	-39.35	-9.28	-0.71	-13.00	-36.34
175.50	-50.86	-44.86	-4.90	-1.09	-13.00	-37.86
280.26	-58.34	-54.41	-2.54	-1.38	-13.00	-45.34
420.91	-62.19	-58.64	-1.85	-1.70	-13.00	-49.19
745.86	-64.11	-60.44	-1.37	-2.30	-13.00	-51.11
944.71	-61.52	-57.67	-1.25	-2.61	-13.00	-48.52
3440.00	-51.99	-57.08	10.57	-5.48	-13.00	-38.99

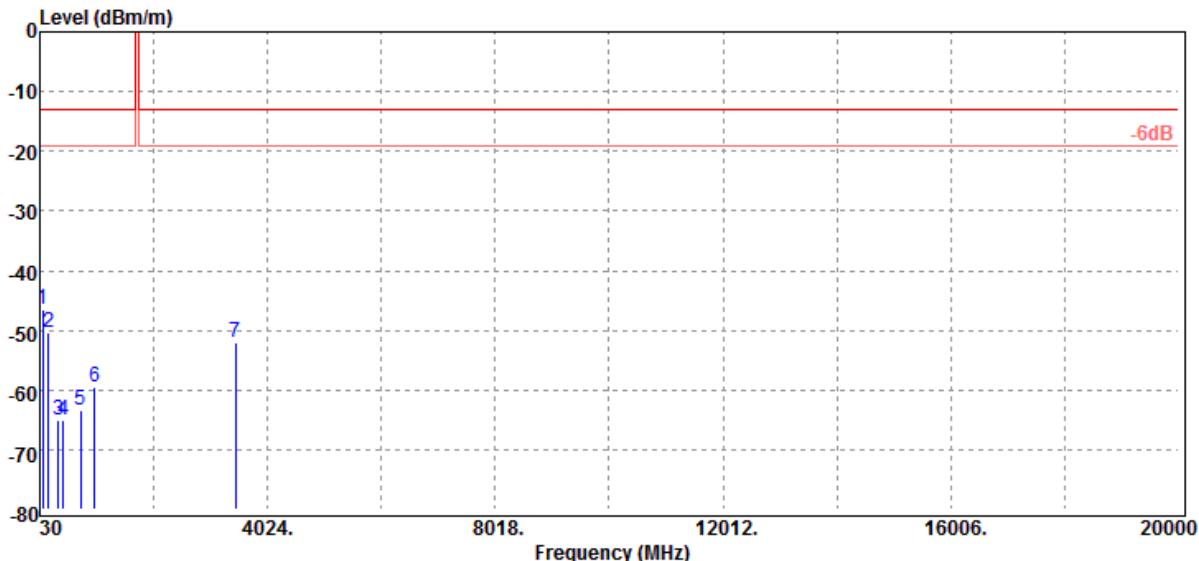
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Operation Band :LTE B4  
 Fundamental Frequency :1732.5 MHz  
 Operation Mode :TX CH MID  
 EUT Pol. :H Plan

Test Date :2019-03-27  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :VERTICAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
73.65	-46.57	-36.58	-9.28	-0.71	-13.00	-33.57
180.35	-50.30	-44.77	-4.42	-1.11	-13.00	-37.30
348.16	-65.14	-62.09	-1.51	-1.54	-13.00	-52.14
435.46	-65.01	-61.32	-1.96	-1.73	-13.00	-52.01
749.74	-63.52	-59.76	-1.44	-2.31	-13.00	-50.52
988.36	-59.57	-55.49	-1.42	-2.66	-13.00	-46.57
3465.00	-52.17	-57.18	10.49	-5.48	-13.00	-39.17

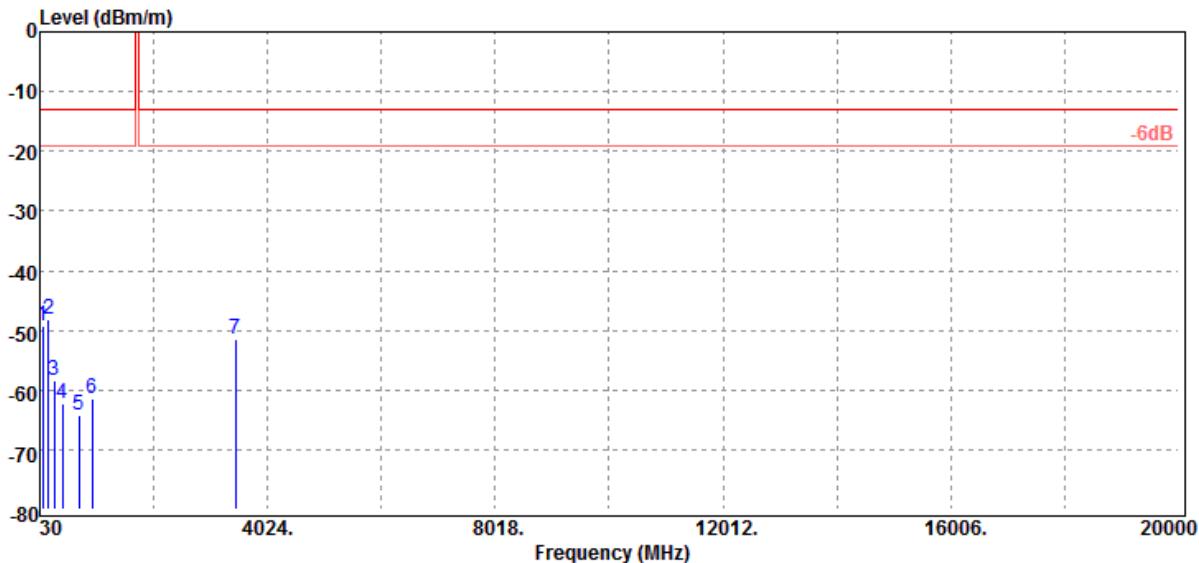
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Operation Band :LTE B4  
 Fundamental Frequency :1732.5 MHz  
 Operation Mode :TX CH MID  
 EUT Pol. :H Plan

Test Date :2019-03-27  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :HORIZONTAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
73.65	-49.34	-39.35	-9.28	-0.71	-13.00	-36.34
178.41	-48.08	-42.37	-4.61	-1.10	-13.00	-35.08
280.26	-58.34	-54.41	-2.54	-1.38	-13.00	-45.34
420.91	-62.19	-58.64	-1.85	-1.70	-13.00	-49.19
716.76	-64.12	-60.45	-1.41	-2.25	-13.00	-51.12
944.71	-61.52	-57.67	-1.25	-2.61	-13.00	-48.52
3465.00	-51.41	-56.41	10.49	-5.48	-13.00	-38.41

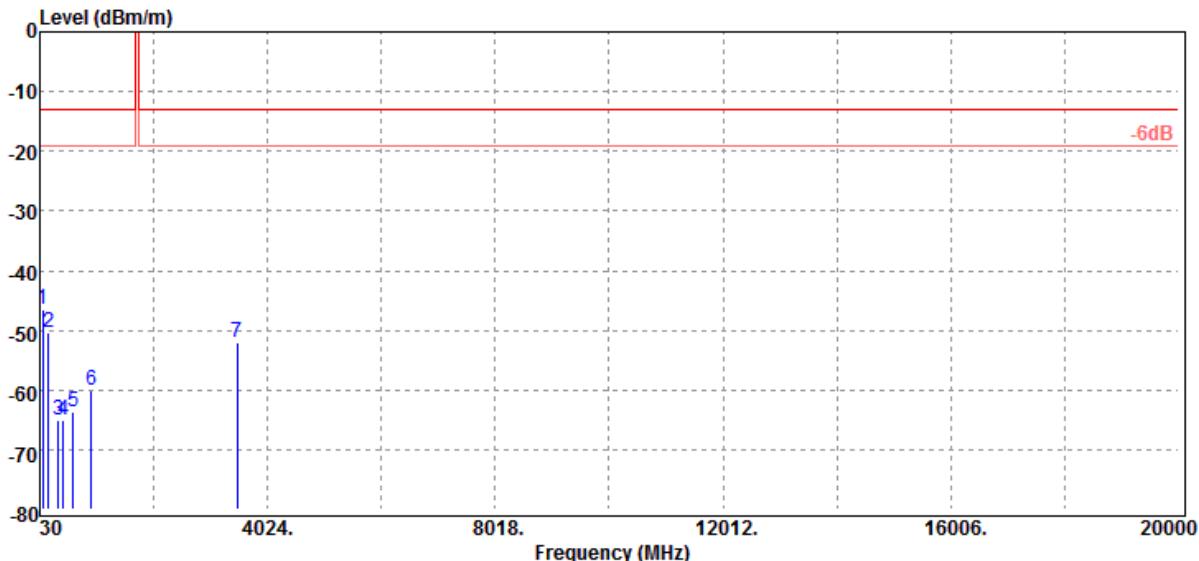
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Operation Band :LTE B4  
 Fundamental Frequency :1745 MHz  
 Operation Mode :TX CH HIGH  
 EUT Pol. :H Plan

Test Date :2019-03-27  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :VERTICAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
73.65	-46.57	-36.58	-9.28	-0.71	-13.00	-33.57
180.35	-50.30	-44.77	-4.42	-1.11	-13.00	-37.30
348.16	-65.14	-62.09	-1.51	-1.54	-13.00	-52.14
435.46	-65.01	-61.32	-1.96	-1.73	-13.00	-52.01
616.85	-63.61	-60.24	-1.29	-2.08	-13.00	-50.61
939.86	-60.06	-56.21	-1.25	-2.60	-13.00	-47.06
3490.00	-52.14	-57.01	10.39	-5.52	-13.00	-39.14

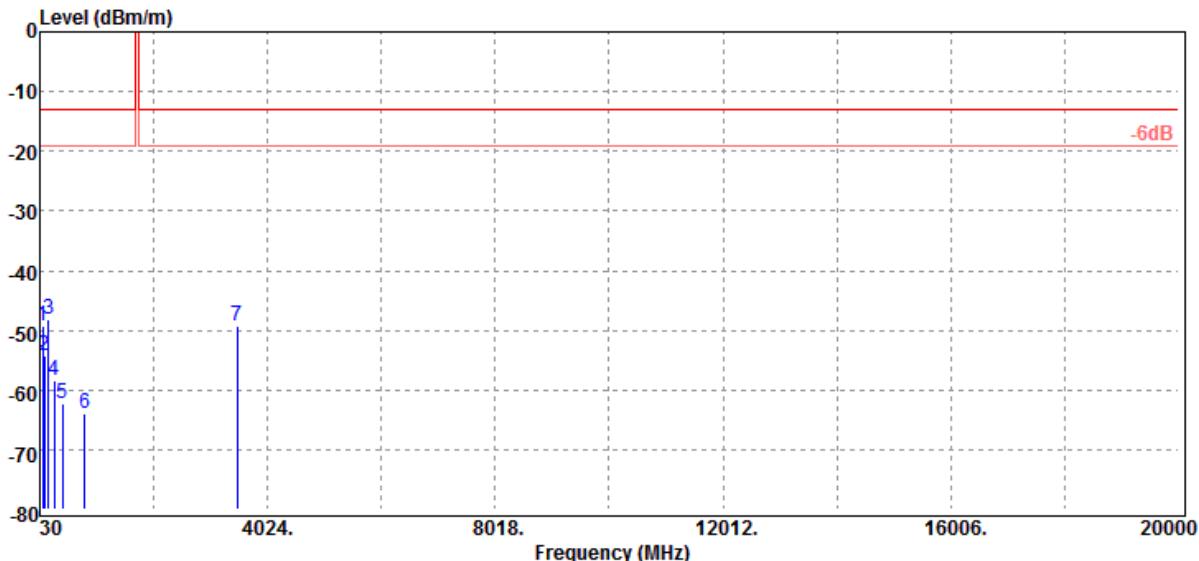
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Operation Band :LTE B4  
 Fundamental Frequency :1745 MHz  
 Operation Mode :TX CH HIGH  
 EUT Pol. :H Plan

Test Date :2019-03-27  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :HORIZONTAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
73.65	-49.34	-39.35	-9.28	-0.71	-13.00	-36.34
109.54	-54.19	-43.53	-9.80	-0.86	-13.00	-41.19
182.29	-48.25	-42.87	-4.27	-1.11	-13.00	-35.25
280.26	-58.34	-54.41	-2.54	-1.38	-13.00	-45.34
420.91	-62.19	-58.64	-1.85	-1.70	-13.00	-49.19
813.76	-64.05	-60.20	-1.45	-2.41	-13.00	-51.05
3490.00	-49.26	-54.13	10.39	-5.52	-13.00	-36.26

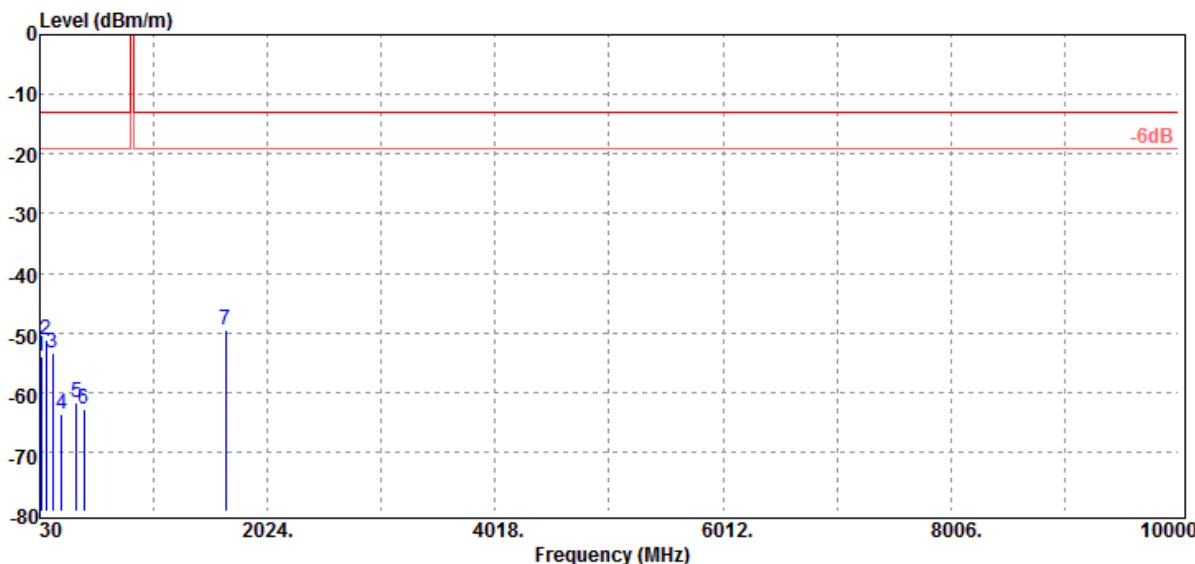
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## Radiated Spurious Emission Measurement Result: LTE-Band 5 (The Worst Case)

Operation Band :LTE B5 Test Date :2019-03-27  
 Fundamental Frequency :829 MHz Temp./Humi. :24/59  
 Operation Mode :TX CH LOW Engineer :Jerry  
 EUT Pol. :H Plan Measurement Antenna Pol. :VERTICAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
37.76	-53.88	-31.06	-22.29	-0.52	-13.00	-40.88
86.26	-51.23	-42.75	-7.72	-0.77	-13.00	-38.23
144.46	-53.43	-44.70	-7.75	-0.99	-13.00	-40.43
221.09	-63.62	-60.46	-1.93	-1.22	-13.00	-50.62
350.10	-61.67	-58.57	-1.55	-1.55	-13.00	-48.67
418.00	-62.80	-59.25	-1.85	-1.70	-13.00	-49.80
1658.00	-49.57	-53.60	7.60	-3.56	-13.00	-36.57

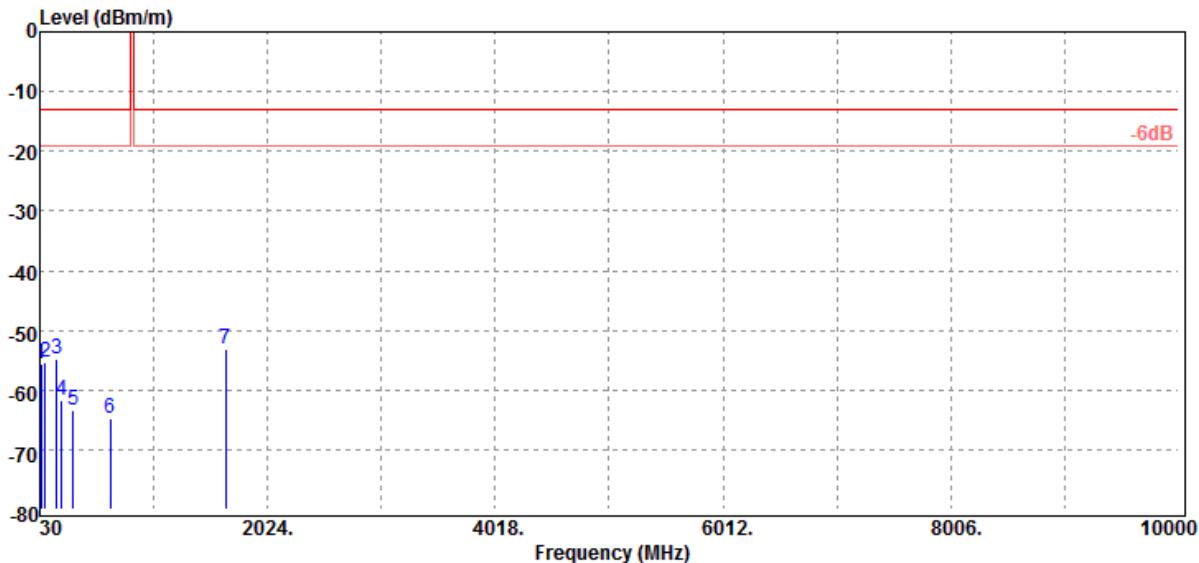
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Operation Band :LTE B5  
 Fundamental Frequency :829 MHz  
 Operation Mode :TX CH LOW  
 EUT Pol. :H Plan

Test Date :2019-03-27  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :HORIZONTAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
39.70	-55.73	-34.85	-20.34	-0.53	-13.00	-42.73
73.65	-55.37	-45.38	-9.28	-0.71	-13.00	-42.37
178.41	-54.67	-48.97	-4.61	-1.10	-13.00	-41.67
221.09	-61.77	-58.62	-1.93	-1.22	-13.00	-48.77
321.00	-63.45	-60.14	-1.83	-1.48	-13.00	-50.45
648.86	-64.88	-61.09	-1.65	-2.14	-13.00	-51.88
1658.00	-53.11	-57.15	7.60	-3.56	-13.00	-40.11

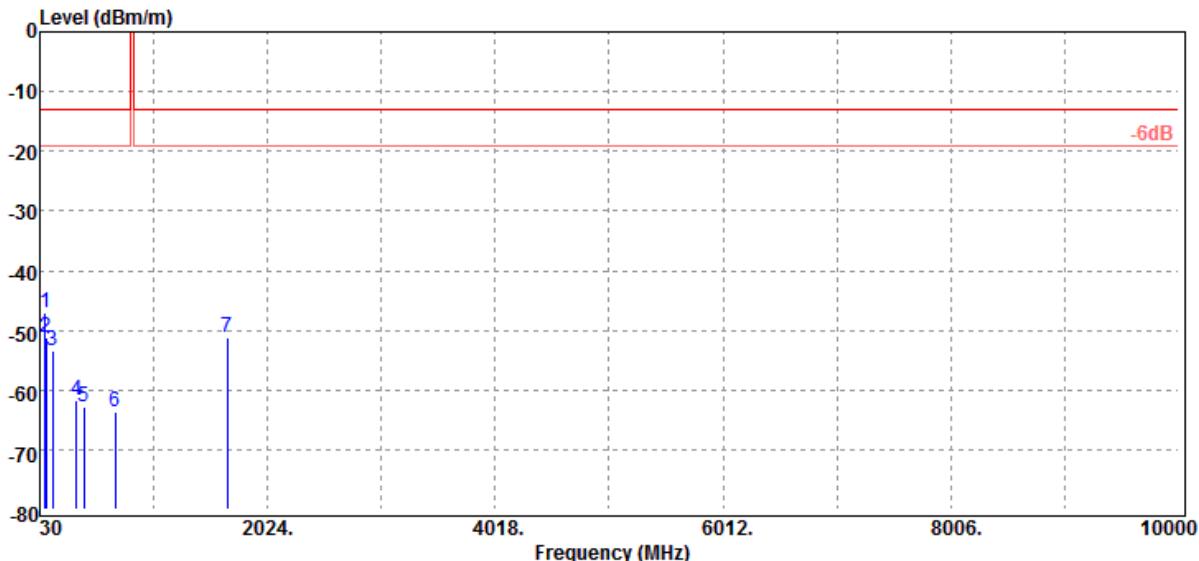
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Operation Band :LTE B5  
 Fundamental Frequency :836.5 MHz  
 Operation Mode :TX CH MID  
 EUT Pol. :H Plan

Test Date :2019-03-27  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :VERTICAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
73.65	-47.06	-37.07	-9.28	-0.71	-13.00	-34.06
86.26	-51.23	-42.75	-7.72	-0.77	-13.00	-38.23
144.46	-53.43	-44.70	-7.75	-0.99	-13.00	-40.43
350.10	-61.67	-58.57	-1.55	-1.55	-13.00	-48.67
418.00	-62.80	-59.25	-1.85	-1.70	-13.00	-49.80
691.54	-63.74	-60.17	-1.35	-2.22	-13.00	-50.74
1673.00	-51.34	-55.45	7.69	-3.58	-13.00	-38.34

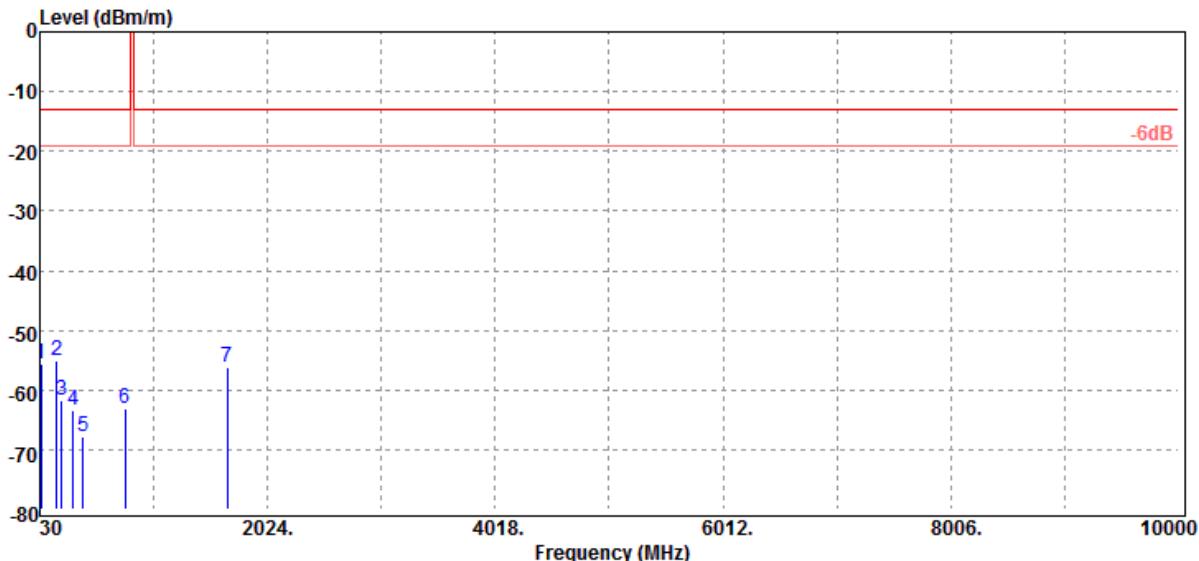
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Operation Band :LTE B5  
 Fundamental Frequency :836.5 MHz  
 Operation Mode :TX CH MID  
 EUT Pol. :H Plan

Test Date :2019-03-27  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :HORIZONTAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
39.70	-55.73	-34.85	-20.34	-0.53	-13.00	-42.73
177.44	-55.18	-49.38	-4.70	-1.10	-13.00	-42.18
221.09	-61.77	-58.62	-1.93	-1.22	-13.00	-48.77
321.00	-63.45	-60.14	-1.83	-1.48	-13.00	-50.45
408.30	-67.75	-64.32	-1.75	-1.68	-13.00	-54.75
778.84	-63.25	-59.46	-1.45	-2.34	-13.00	-50.25
1673.00	-56.12	-60.22	7.69	-3.58	-13.00	-43.12

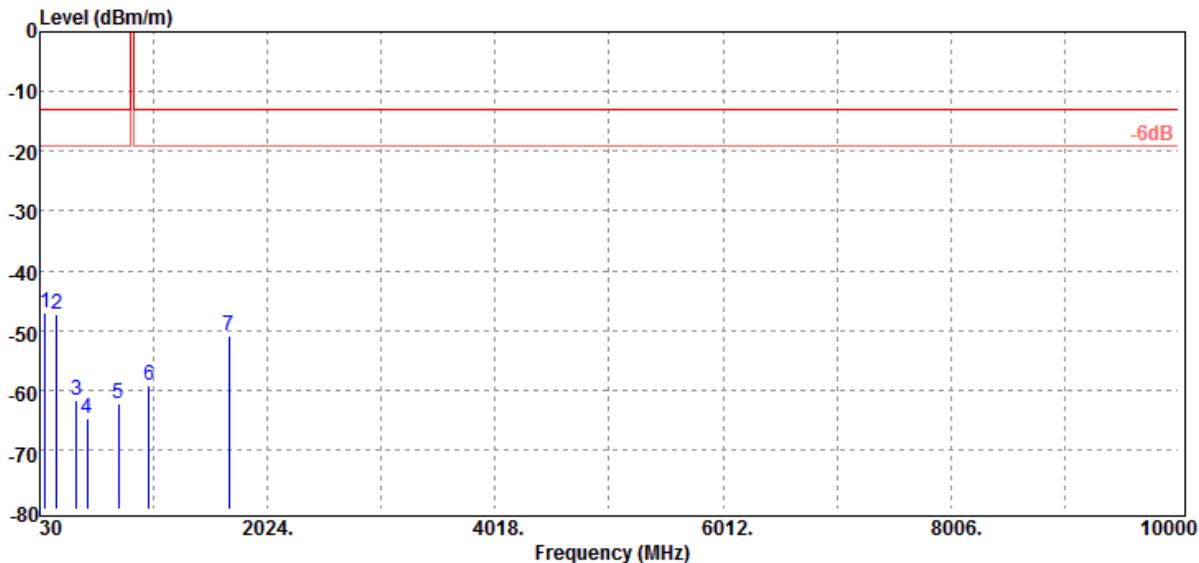
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Operation Band :LTE B5  
 Fundamental Frequency :844 MHz  
 Operation Mode :TX CH HIGH  
 EUT Pol. :H Plan

Test Date :2019-03-27  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :VERTICAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
73.65	-47.06	-37.07	-9.28	-0.71	-13.00	-34.06
178.41	-47.39	-41.68	-4.61	-1.10	-13.00	-34.39
350.10	-61.67	-58.57	-1.55	-1.55	-13.00	-48.67
442.25	-64.85	-61.06	-2.05	-1.74	-13.00	-51.85
718.70	-62.39	-58.76	-1.38	-2.26	-13.00	-49.39
988.36	-59.24	-55.16	-1.42	-2.66	-13.00	-46.24
1688.00	-50.97	-55.16	7.78	-3.59	-13.00	-37.97

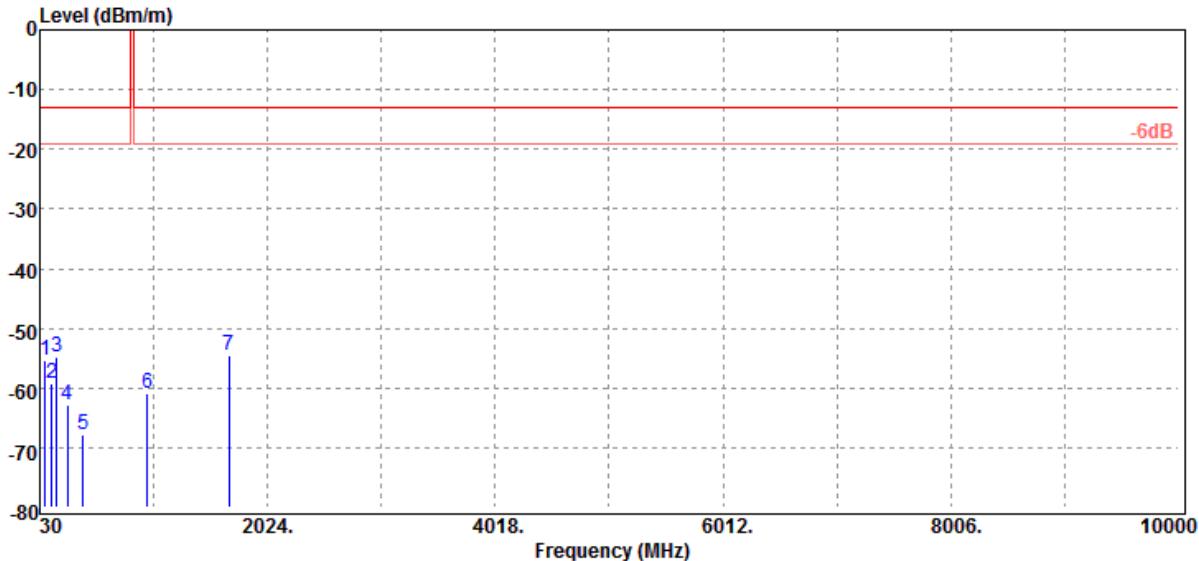
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Operation Band :LTE B5  
 Fundamental Frequency :844 MHz  
 Operation Mode :TX CH HIGH  
 EUT Pol. :H Plan

Test Date :2019-03-27  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :HORIZONTAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
73.65	-55.37	-45.38	-9.28	-0.71	-13.00	-42.37
136.70	-59.23	-49.19	-9.07	-0.96	-13.00	-46.23
178.41	-54.67	-48.97	-4.61	-1.10	-13.00	-41.67
270.56	-62.89	-58.97	-2.56	-1.36	-13.00	-49.89
408.30	-67.75	-64.32	-1.75	-1.68	-13.00	-54.75
973.81	-60.93	-56.96	-1.33	-2.64	-13.00	-47.93
1688.00	-54.65	-58.84	7.78	-3.59	-13.00	-41.65

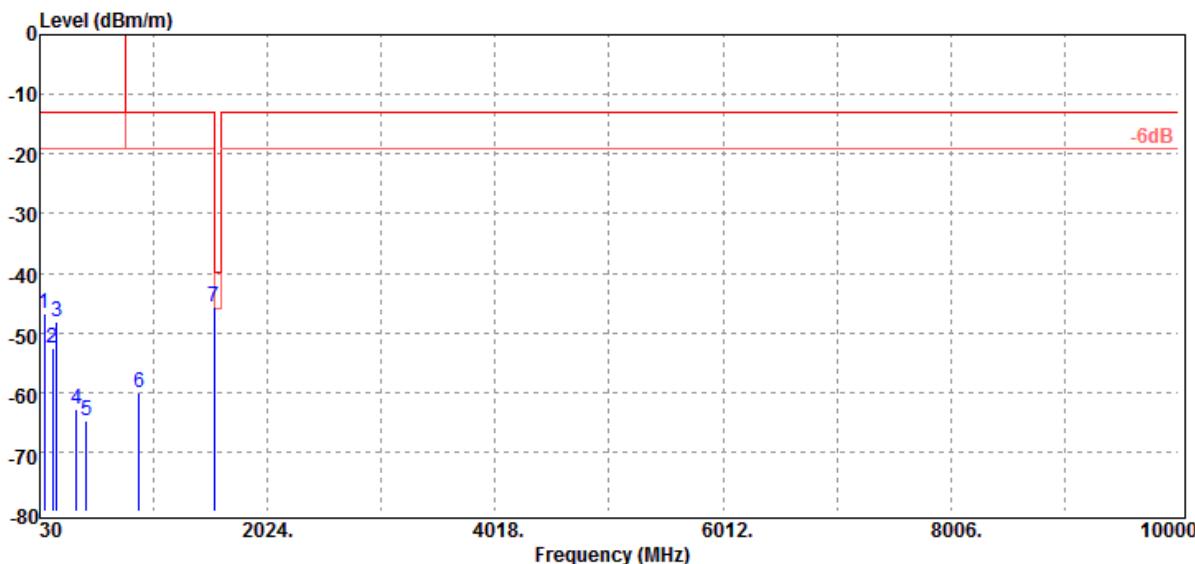
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## Radiated Spurious Emission Measurement Result: LTE-Band 13 (The Worst Case)

Operation Band :LTE B13 Test Date :2019-03-27  
Fundamental Frequency :779.5 MHz Temp./Humi. :24/59  
Operation Mode :TX CH LOW Engineer :Jerry  
EUT Pol. :H Plan Measurement Antenna Pol. :VERTICAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
71.71	-46.77	-36.59	-9.48	-0.70	-13.00	-33.77
141.55	-52.60	-43.35	-8.27	-0.98	-13.00	-39.60
177.44	-48.23	-42.43	-4.70	-1.10	-13.00	-35.23
352.04	-62.72	-59.54	-1.63	-1.55	-13.00	-49.72
440.31	-64.87	-61.08	-2.05	-1.74	-13.00	-51.87
901.06	-60.19	-56.39	-1.25	-2.55	-13.00	-47.19
1559.00	-45.75	-49.51	7.20	-3.44	-40.00	-5.75

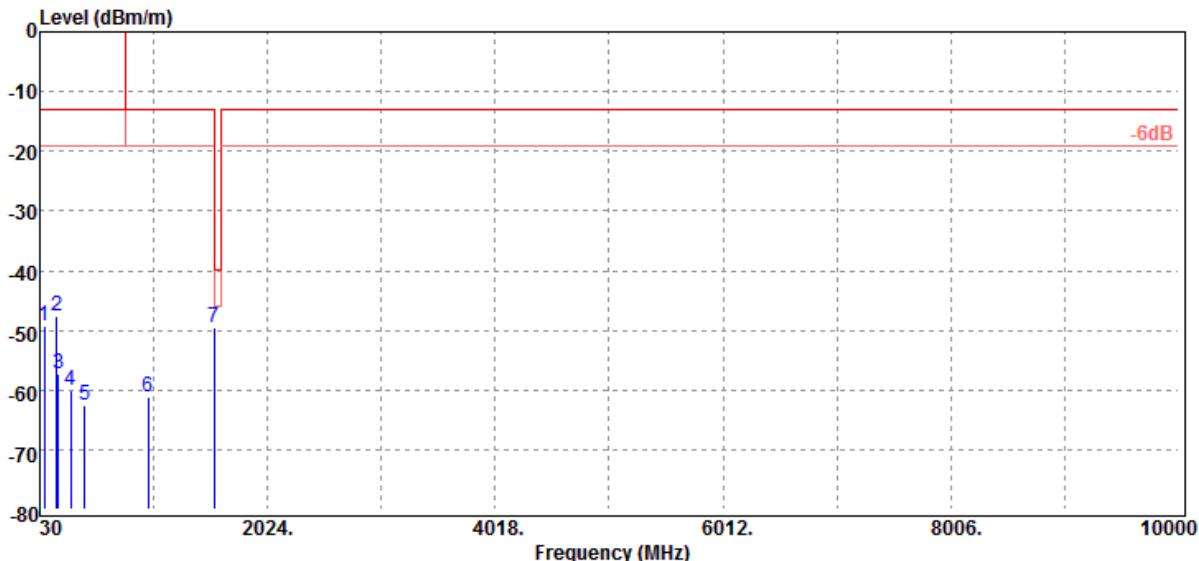
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Operation Band :LTE B13  
 Fundamental Frequency :779.5 MHz  
 Operation Mode :TX CH LOW  
 EUT Pol. :H Plan

Test Date :2019-03-27  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :HORIZONTAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
71.71	-49.19	-39.01	-9.48	-0.70	-13.00	-36.19
178.41	-47.74	-42.03	-4.61	-1.10	-13.00	-34.74
191.99	-57.23	-52.02	-4.07	-1.14	-13.00	-44.23
303.54	-60.10	-56.71	-1.95	-1.44	-13.00	-47.10
420.91	-62.69	-59.14	-1.85	-1.70	-13.00	-49.69
977.69	-61.10	-57.11	-1.35	-2.65	-13.00	-48.10
1559.00	-49.61	-53.38	7.20	-3.44	-40.00	-9.61

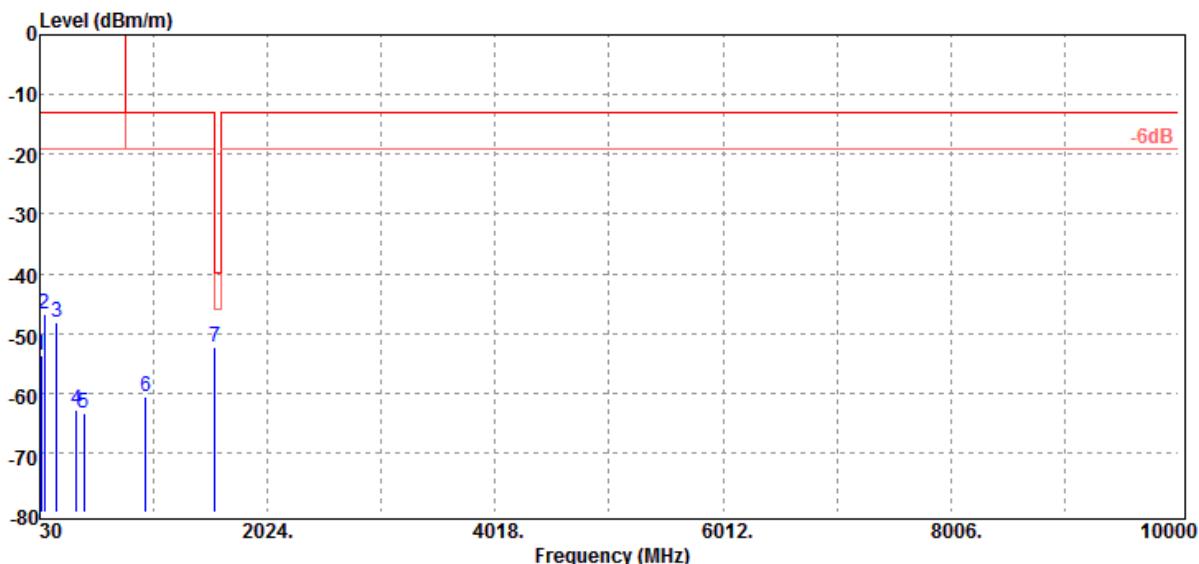
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Operation Band :LTE B13  
 Fundamental Frequency :782 MHz  
 Operation Mode :TX CH MID  
 EUT Pol. :H Plan

Test Date :2019-03-27  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :VERTICAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
37.76	-53.65	-30.84	-22.29	-0.52	-13.00	-40.65
71.71	-46.77	-36.59	-9.48	-0.70	-13.00	-33.77
177.44	-48.23	-42.43	-4.70	-1.10	-13.00	-35.23
352.04	-62.72	-59.54	-1.63	-1.55	-13.00	-49.72
413.15	-63.48	-59.98	-1.81	-1.69	-13.00	-50.48
958.29	-60.65	-56.77	-1.25	-2.62	-13.00	-47.65
1564.00	-52.32	-56.11	7.23	-3.45	-40.00	-12.32

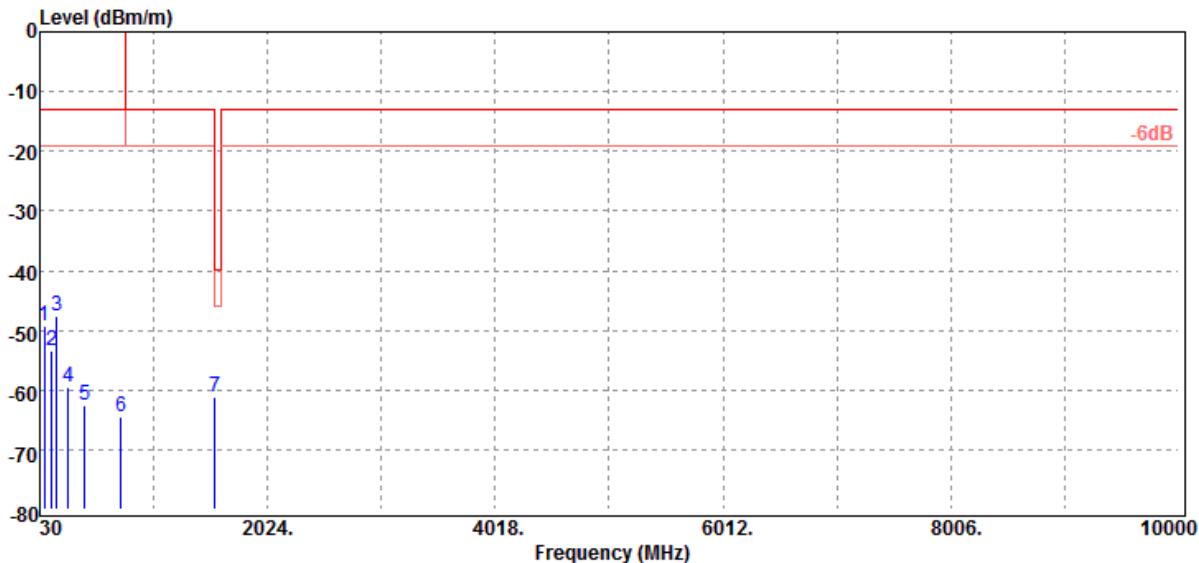
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Operation Band :LTE B13  
 Fundamental Frequency :782 MHz  
 Operation Mode :TX CH MID  
 EUT Pol. :H Plan

Test Date :2019-03-27  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :HORIZONTAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
71.71	-49.19	-39.01	-9.48	-0.70	-13.00	-36.19
136.70	-53.47	-43.44	-9.07	-0.96	-13.00	-40.47
178.41	-47.74	-42.03	-4.61	-1.10	-13.00	-34.74
280.26	-59.51	-55.59	-2.54	-1.38	-13.00	-46.51
420.91	-62.69	-59.14	-1.85	-1.70	-13.00	-49.69
740.04	-64.56	-60.91	-1.35	-2.29	-13.00	-51.56
1564.00	-61.30	-65.08	7.23	-3.45	-40.00	-21.30

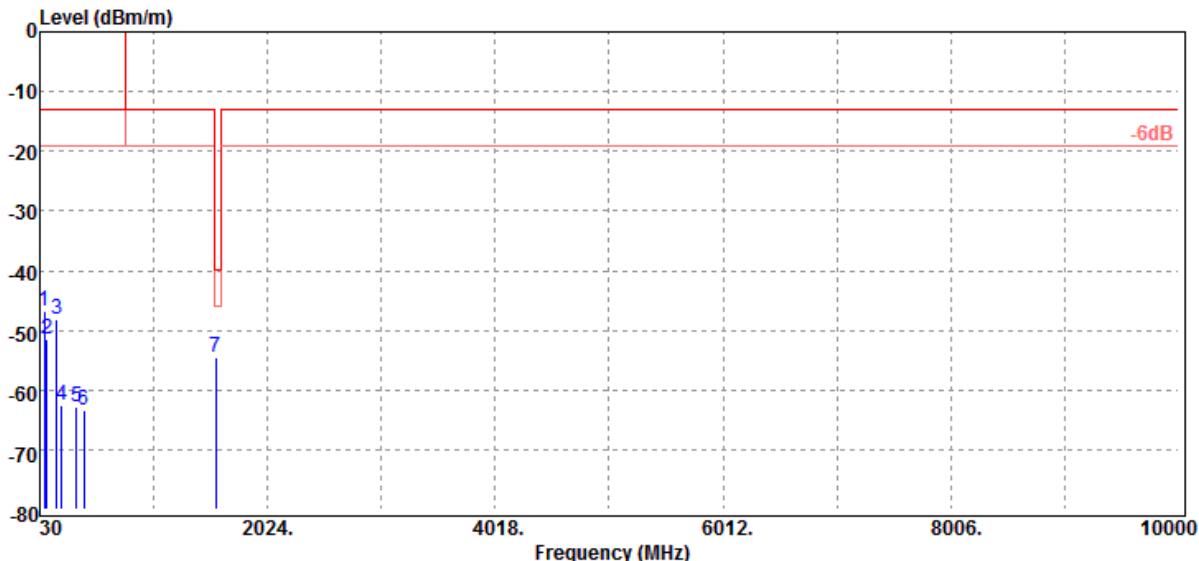
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Operation Band :LTE B13  
 Fundamental Frequency :784.5 MHz  
 Operation Mode :TX CH HIGH  
 EUT Pol. :H Plan

Test Date :2019-03-27  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :VERTICAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
71.71	-46.77	-36.59	-9.48	-0.70	-13.00	-33.77
88.20	-51.56	-43.42	-7.37	-0.78	-13.00	-38.56
177.44	-48.23	-42.43	-4.70	-1.10	-13.00	-35.23
221.09	-62.69	-59.54	-1.93	-1.22	-13.00	-49.69
352.04	-62.72	-59.54	-1.63	-1.55	-13.00	-49.72
413.15	-63.48	-59.98	-1.81	-1.69	-13.00	-50.48
1569.00	-54.54	-58.35	7.27	-3.45	-40.00	-14.54

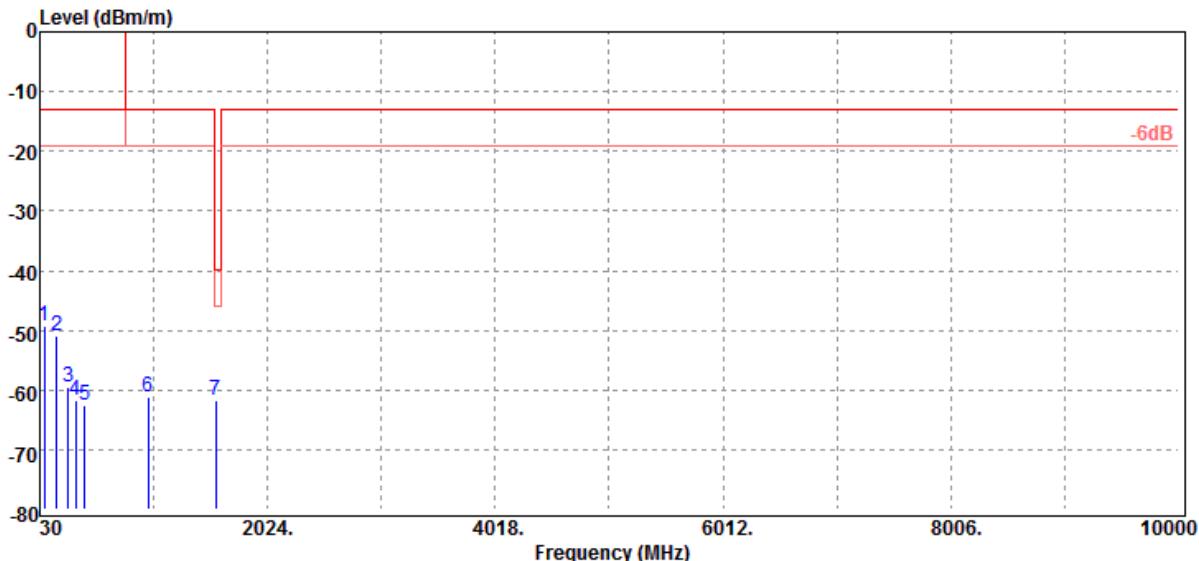
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Operation Band :LTE B13  
 Fundamental Frequency :784.5 MHz  
 Operation Mode :TX CH HIGH  
 EUT Pol. :H Plan

Test Date :2019-03-27  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :HORIZONTAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
71.71	-49.19	-39.01	-9.48	-0.70	-13.00	-36.19
174.53	-50.86	-44.78	-5.00	-1.09	-13.00	-37.86
280.26	-59.51	-55.59	-2.54	-1.38	-13.00	-46.51
345.25	-61.63	-58.63	-1.46	-1.54	-13.00	-48.63
420.91	-62.69	-59.14	-1.85	-1.70	-13.00	-49.69
977.69	-61.10	-57.11	-1.35	-2.65	-13.00	-48.10
1569.00	-61.62	-65.43	7.27	-3.45	-40.00	-21.62

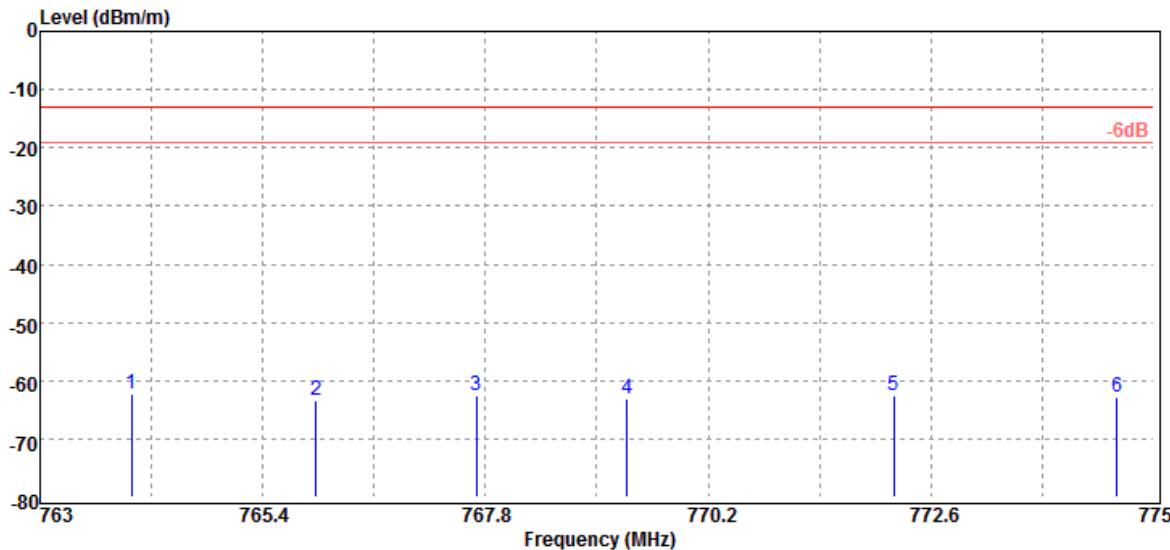
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**Radiated Spurious Emission Measurement Result: LTE-Band 13(763-775) (The Worst Case)**

Operation Band :LTE B13 Test Date :2019-03-28  
Fundamental Frequency :779.5 MHz Temp./Humi. :24/59  
Operation Mode :TX CH LOW Engineer :Jerry  
EUT Pol. :H Plan Measurement Antenna Pol. :VERTICAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
763.98	-62.37	-58.67	-1.37	-2.33	-13.00	-49.37
765.98	-63.33	-59.65	-1.35	-2.33	-13.00	-50.33
767.70	-62.60	-58.91	-1.35	-2.33	-13.00	-49.60
769.32	-63.01	-59.33	-1.35	-2.33	-13.00	-50.01
772.20	-62.67	-58.94	-1.39	-2.34	-13.00	-49.67
774.60	-62.85	-59.07	-1.44	-2.34	-13.00	-49.85

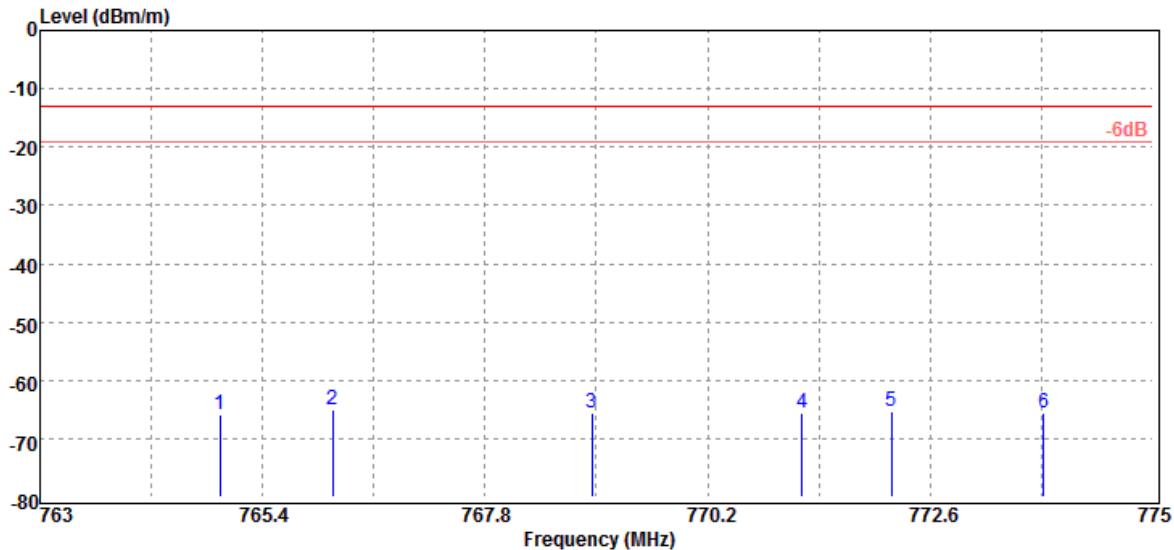
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Operation Band :LTE B13  
 Fundamental Frequency :779.5 MHz  
 Operation Mode :TX CH LOW  
 EUT Pol. :H Plan

Test Date :2019-03-28  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :HORIZONTAL



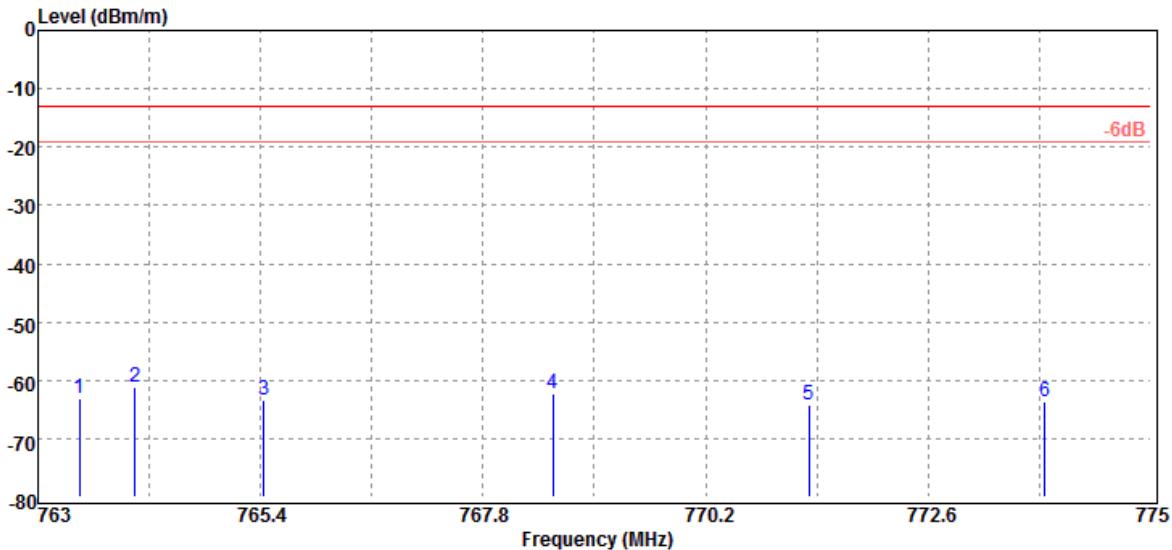
Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
764.94	-65.83	-62.15	-1.35	-2.33	-13.00	-52.83
766.16	-65.08	-61.40	-1.35	-2.33	-13.00	-52.08
768.95	-65.66	-61.98	-1.35	-2.33	-13.00	-52.66
771.22	-65.56	-61.85	-1.37	-2.33	-13.00	-52.56
772.18	-65.38	-61.65	-1.39	-2.34	-13.00	-52.38
773.82	-65.63	-61.87	-1.43	-2.34	-13.00	-52.63

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Operation Band	:LTE B13	Test Date	:2019-03-28
Fundamental Frequency	:782 MHz	Temp./Humi.	:24/59
Operation Mode	:TX CH MID	Engineer	:Jerry
EUT Pol.	:H Plan	Measurement Antenna Pol.	:VERTICAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
763.44	-63.04	-59.33	-1.38	-2.33	-13.00	-50.04
764.04	-61.31	-57.62	-1.37	-2.33	-13.00	-48.31
765.44	-63.37	-59.70	-1.35	-2.33	-13.00	-50.37
768.56	-62.30	-58.62	-1.35	-2.33	-13.00	-49.30
771.32	-64.15	-60.44	-1.38	-2.33	-13.00	-51.15
773.86	-63.55	-59.79	-1.43	-2.34	-13.00	-50.55

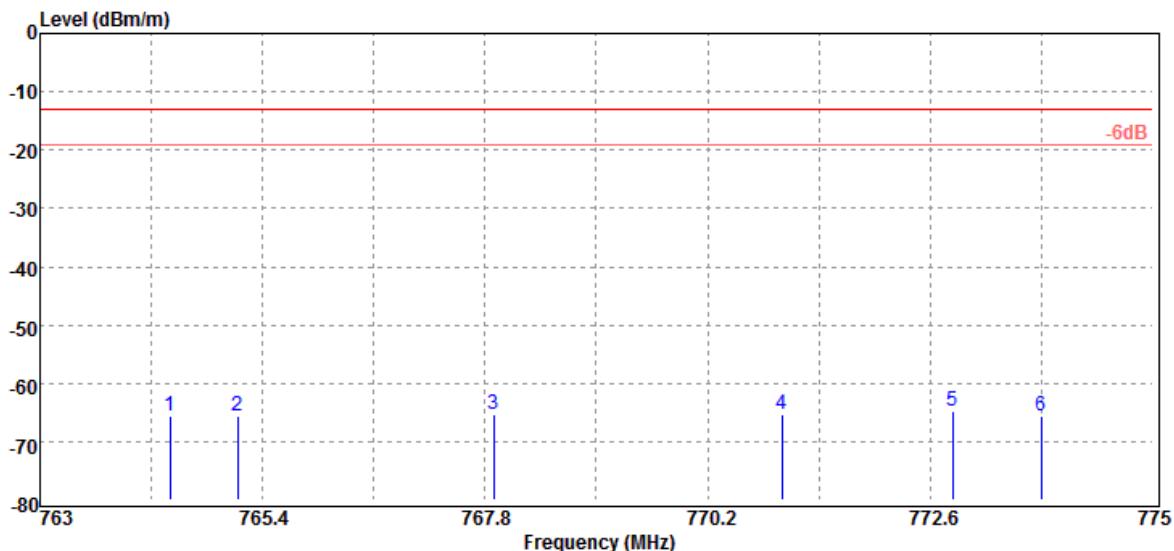
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Operation Band :LTE B13  
 Fundamental Frequency :782 MHz  
 Operation Mode :TX CH MID  
 EUT Pol. :H Plan

Test Date :2019-03-28  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :HORIZONTAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
764.40	-65.74	-62.05	-1.36	-2.33	-13.00	-52.74
765.14	-65.71	-62.03	-1.35	-2.33	-13.00	-52.71
767.90	-65.19	-61.51	-1.35	-2.33	-13.00	-52.19
771.00	-65.33	-61.62	-1.37	-2.33	-13.00	-52.33
772.84	-64.91	-61.17	-1.41	-2.34	-13.00	-51.91
773.80	-65.65	-61.88	-1.43	-2.34	-13.00	-52.65

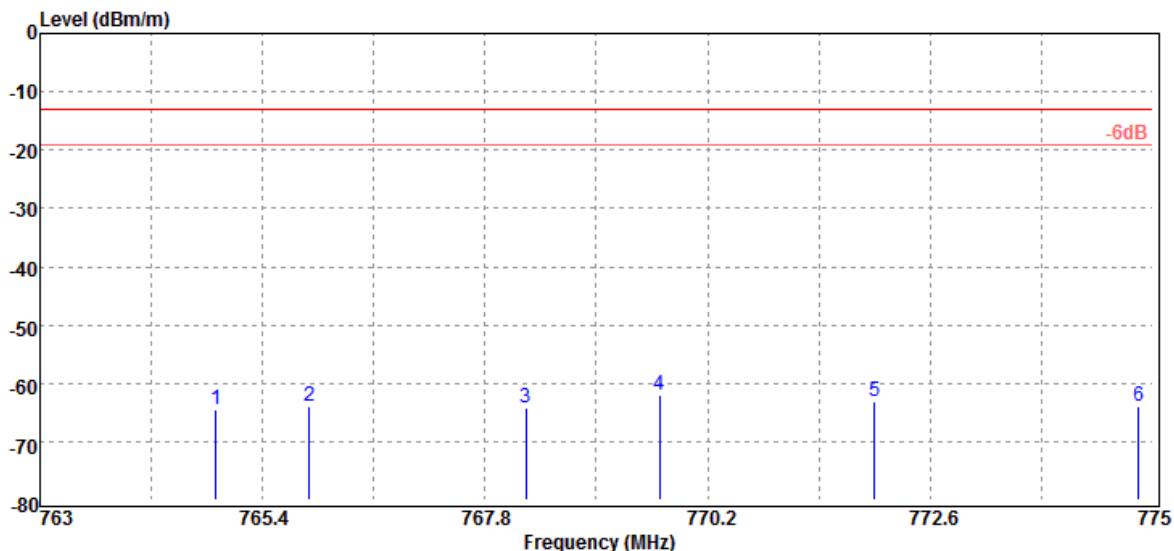
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Operation Band :LTE B13  
 Fundamental Frequency :784.5 MHz  
 Operation Mode :TX CH HIGH  
 EUT Pol. :H Plan

Test Date :2019-03-28  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :VERTICAL



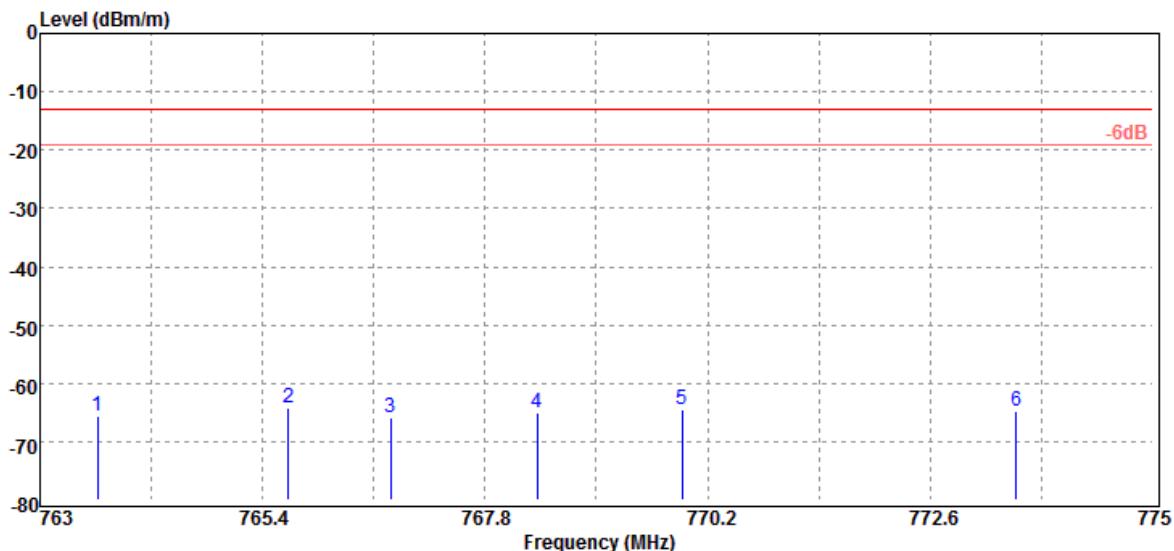
Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
764.90	-64.41	-60.74	-1.35	-2.33	-13.00	-51.41
765.90	-63.88	-60.20	-1.35	-2.33	-13.00	-50.88
768.24	-64.15	-60.47	-1.35	-2.33	-13.00	-51.15
769.68	-62.00	-58.32	-1.35	-2.33	-13.00	-49.00
772.00	-63.22	-59.49	-1.39	-2.34	-13.00	-50.22
774.84	-63.87	-60.09	-1.45	-2.34	-13.00	-50.87

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Operation Band	:LTE B13	Test Date	:2019-03-28
Fundamental Frequency	:784.5 MHz	Temp./Humi.	:24/59
Operation Mode	:TX CH HIGH	Engineer	:Jerry
EUT Pol.	:H Plan	Measurement Antenna Pol.	:HORIZONTAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
763.62	-65.47	-61.77	-1.38	-2.33	-13.00	-52.47
765.68	-64.16	-60.48	-1.35	-2.33	-13.00	-51.16
766.78	-66.00	-62.32	-1.35	-2.33	-13.00	-53.00
768.36	-65.03	-61.35	-1.35	-2.33	-13.00	-52.03
769.92	-64.46	-60.78	-1.35	-2.33	-13.00	-51.46
773.52	-64.77	-61.02	-1.42	-2.34	-13.00	-51.77

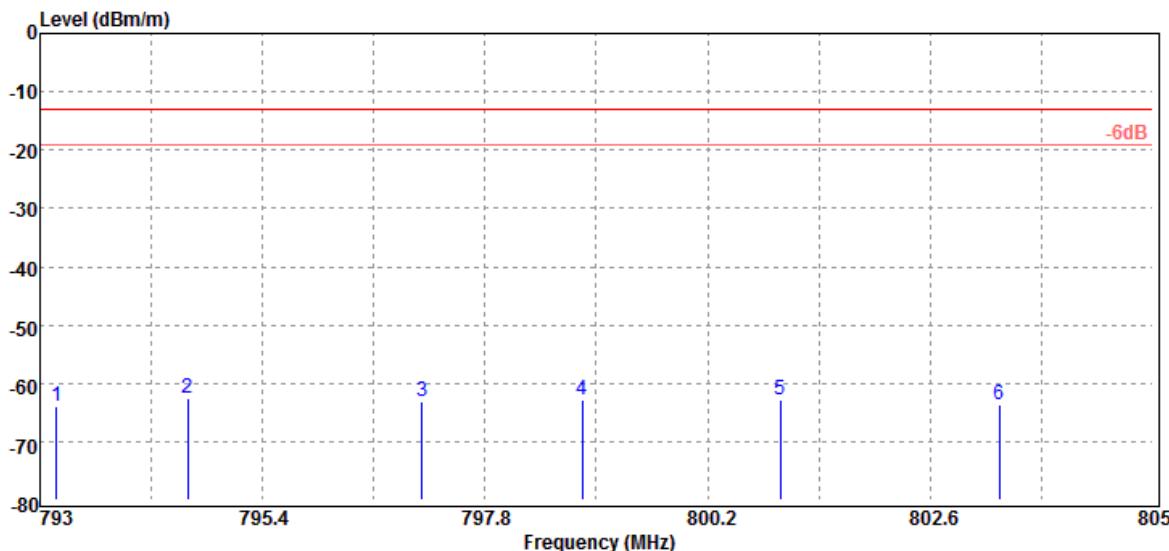
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## Radiated Spurious Emission Measurement Result: LTE-Band 13(793-805) (The Worst Case)

Operation Band :LTE B13 Test Date :2019-03-28  
 Fundamental Frequency :779.5 MHz Temp./Humi. :24/59  
 Operation Mode :TX CH LOW Engineer :Jerry  
 EUT Pol. :H Plan Measurement Antenna Pol. :VERTICAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
793.18	-64.07	-60.46	-1.25	-2.36	-13.00	-51.07
794.60	-62.49	-58.88	-1.25	-2.36	-13.00	-49.49
797.12	-62.98	-59.36	-1.25	-2.37	-13.00	-49.98
798.84	-62.91	-59.29	-1.25	-2.37	-13.00	-49.91
800.98	-62.94	-59.27	-1.29	-2.38	-13.00	-49.94
803.34	-63.66	-59.89	-1.38	-2.38	-13.00	-50.66

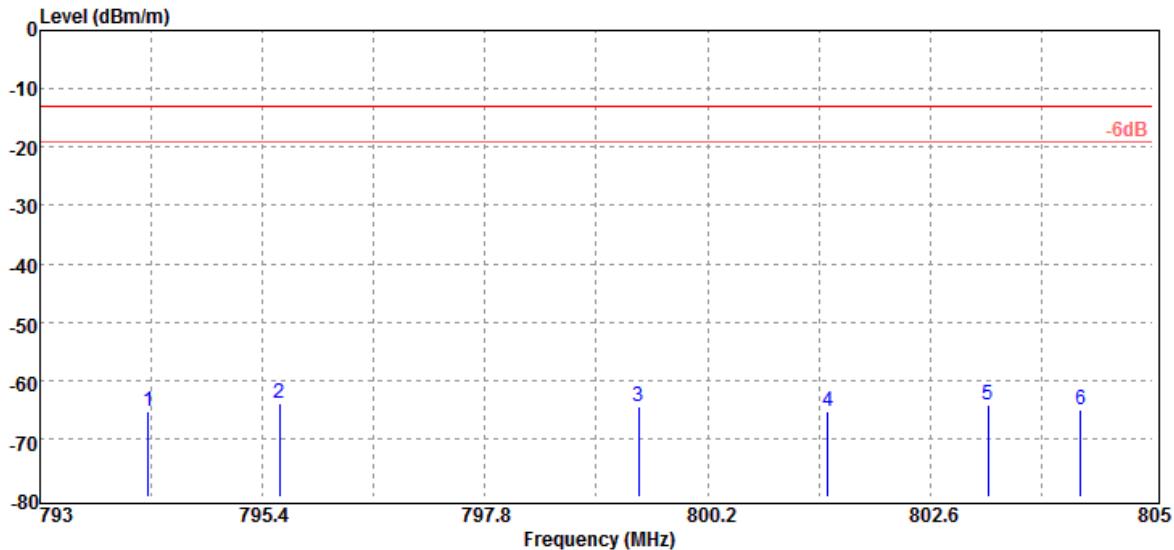
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Operation Band :LTE B13  
 Fundamental Frequency :779.5 MHz  
 Operation Mode :TX CH LOW  
 EUT Pol. :H Plan

Test Date :2019-03-28  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :HORIZONTAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
794.16	-65.22	-61.60	-1.25	-2.36	-13.00	-52.22
795.58	-64.05	-60.43	-1.25	-2.37	-13.00	-51.05
799.46	-64.58	-60.96	-1.25	-2.38	-13.00	-51.58
801.50	-65.24	-61.55	-1.31	-2.38	-13.00	-52.24
803.22	-64.30	-60.54	-1.38	-2.38	-13.00	-51.30
804.22	-64.95	-61.14	-1.42	-2.39	-13.00	-51.95

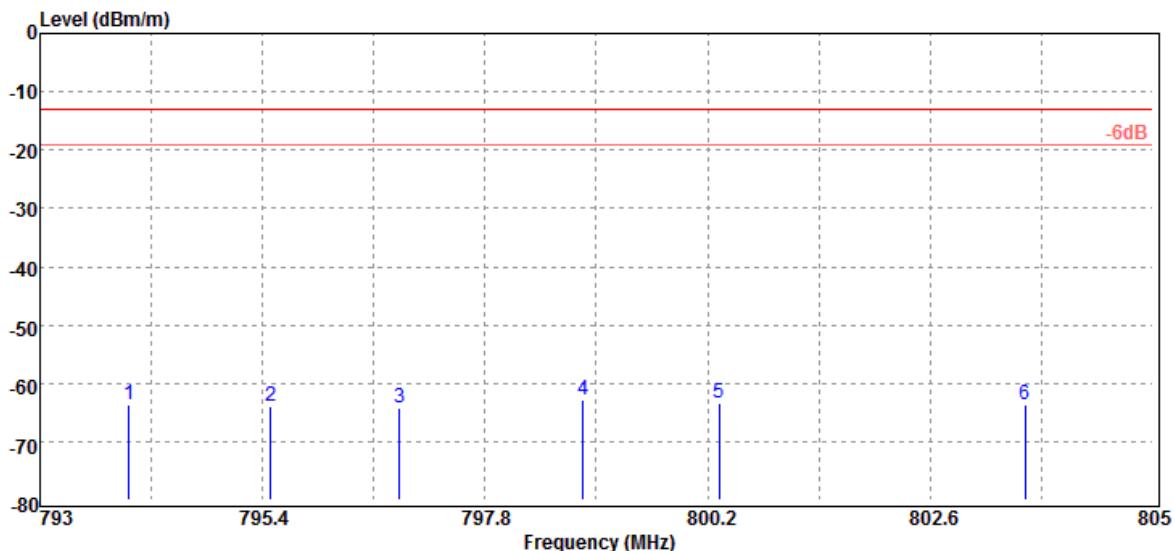
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Operation Band :LTE B13  
 Fundamental Frequency :782 MHz  
 Operation Mode :TX CH MID  
 EUT Pol. :H Plan

Test Date :2019-03-28  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :VERTICAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
793.96	-63.71	-60.10	-1.25	-2.36	-13.00	-50.71
795.48	-63.89	-60.28	-1.25	-2.37	-13.00	-50.89
796.88	-64.15	-60.53	-1.25	-2.37	-13.00	-51.15
798.86	-62.72	-59.09	-1.25	-2.37	-13.00	-49.72
800.32	-63.30	-59.66	-1.26	-2.38	-13.00	-50.30
803.62	-63.59	-59.81	-1.39	-2.38	-13.00	-50.59

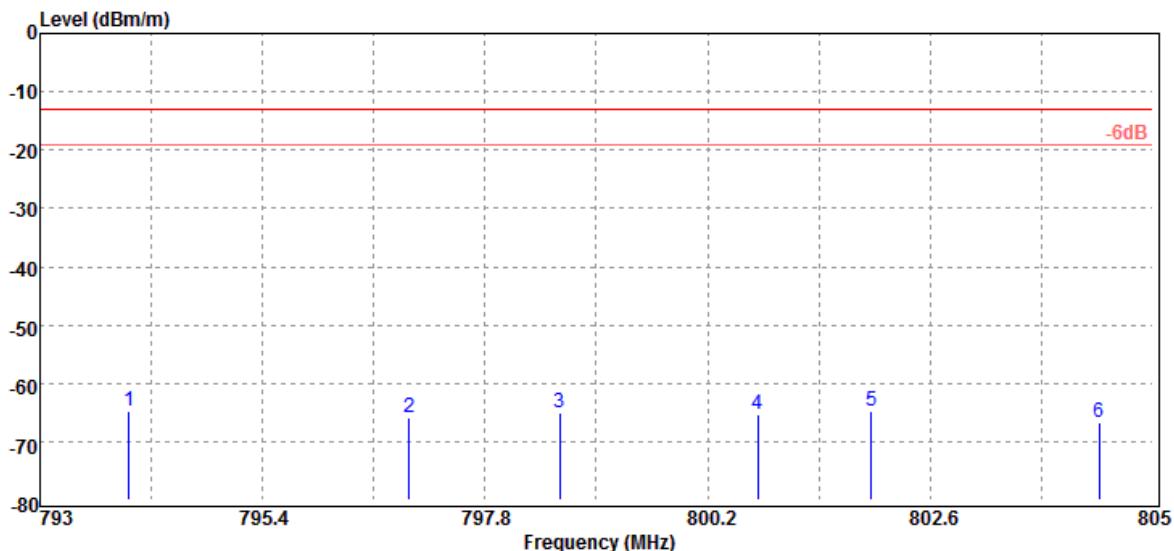
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Operation Band :LTE B13  
 Fundamental Frequency :782 MHz  
 Operation Mode :TX CH MID  
 EUT Pol. :H Plan

Test Date :2019-03-28  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :HORIZONTAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
793.96	-64.79	-61.18	-1.25	-2.36	-13.00	-51.79
796.98	-65.90	-62.28	-1.25	-2.37	-13.00	-52.90
798.60	-65.00	-61.37	-1.25	-2.37	-13.00	-52.00
800.74	-65.21	-61.55	-1.28	-2.38	-13.00	-52.21
801.96	-64.88	-61.17	-1.33	-2.38	-13.00	-51.88
804.42	-66.63	-62.81	-1.43	-2.39	-13.00	-53.63

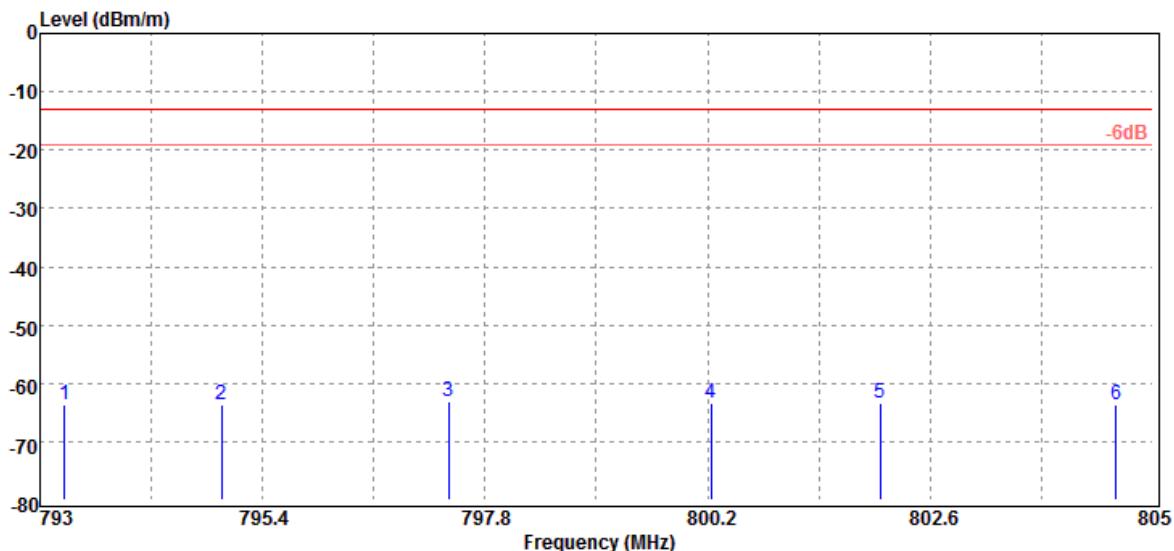
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Operation Band :LTE B13  
 Fundamental Frequency :784.5 MHz  
 Operation Mode :TX CH HIGH  
 EUT Pol. :H Plan

Test Date :2019-03-28  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :VERTICAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
793.26	-63.72	-60.11	-1.25	-2.36	-13.00	-50.72
794.96	-63.53	-59.92	-1.25	-2.37	-13.00	-50.53
797.40	-63.19	-59.57	-1.25	-2.37	-13.00	-50.19
800.24	-63.45	-59.81	-1.26	-2.38	-13.00	-50.45
802.06	-63.39	-59.67	-1.33	-2.38	-13.00	-50.39
804.60	-63.69	-59.87	-1.43	-2.39	-13.00	-50.69

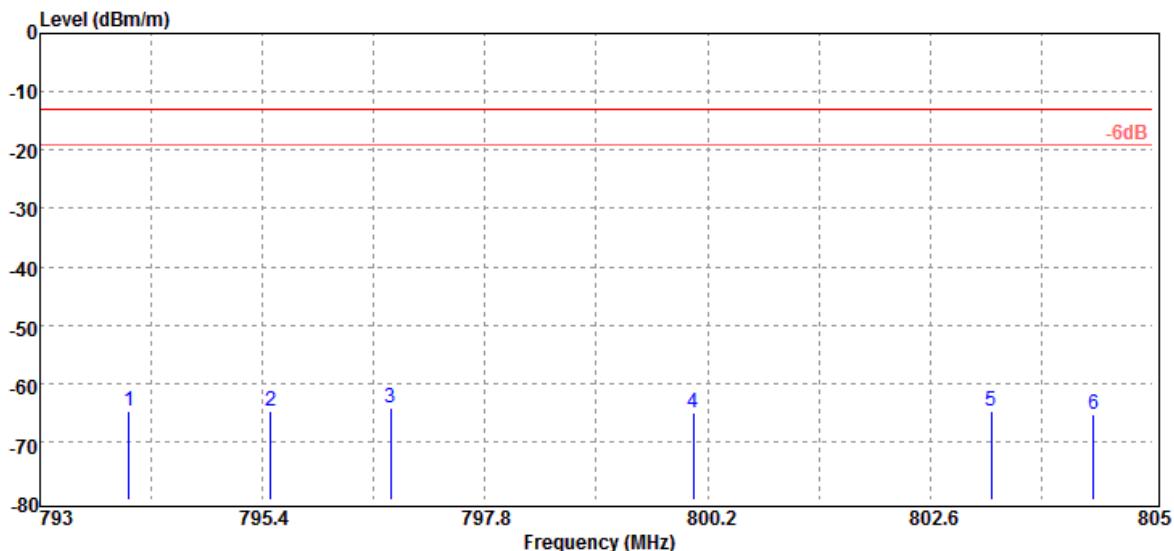
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Operation Band :LTE B13  
 Fundamental Frequency :784.5 MHz  
 Operation Mode :TX CH HIGH  
 EUT Pol. :H Plan

Test Date :2019-03-28  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :HORIZONTAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
793.96	-64.81	-61.20	-1.25	-2.36	-13.00	-51.81
795.48	-64.74	-61.12	-1.25	-2.37	-13.00	-51.74
796.78	-64.33	-60.71	-1.25	-2.37	-13.00	-51.33
800.04	-65.09	-61.47	-1.25	-2.38	-13.00	-52.09
803.26	-64.85	-61.08	-1.38	-2.38	-13.00	-51.85
804.36	-65.35	-61.54	-1.42	-2.39	-13.00	-52.35

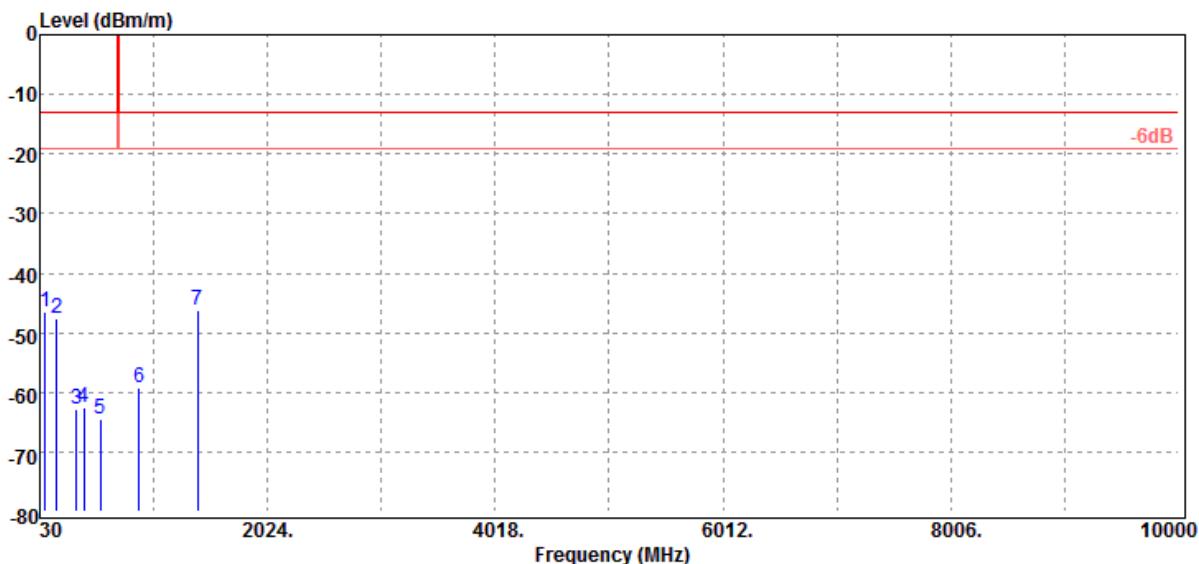
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## Radiated Spurious Emission Measurement Result: LTE-Band 17 (The Worst Case)

Operation Band :LTE B17      Test Date :2019-03-27  
 Fundamental Frequency :706.5 MHz      Temp./Humi. :24/59  
 Operation Mode :TX CH LOW      Engineer :Jerry  
 EUT Pol. :H Plan      Measurement Antenna Pol. :VERTICAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
73.65	-46.63	-36.64	-9.28	-0.71	-13.00	-33.63
178.41	-47.72	-42.01	-4.61	-1.10	-13.00	-34.72
352.04	-62.78	-59.59	-1.63	-1.55	-13.00	-49.78
418.00	-62.59	-59.04	-1.85	-1.70	-13.00	-49.59
560.59	-64.49	-61.17	-1.35	-1.98	-13.00	-51.49
901.06	-59.25	-55.45	-1.25	-2.55	-13.00	-46.25
1413.00	-46.21	-48.88	5.93	-3.26	-13.00	-33.21

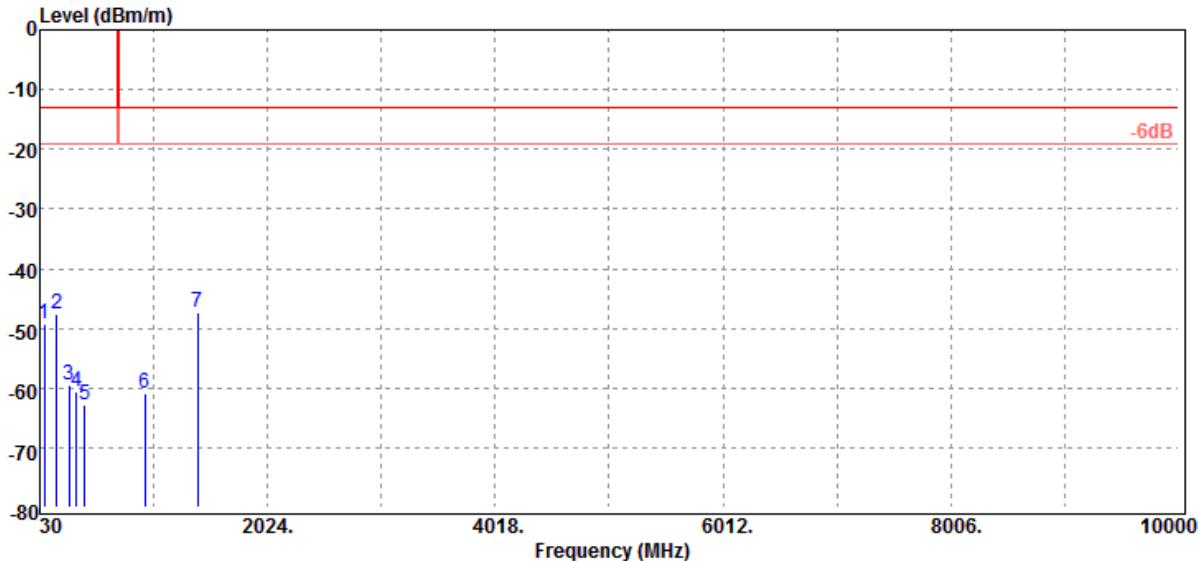
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Operation Band :LTE B17  
 Fundamental Frequency :706.5 MHz  
 Operation Mode :TX CH LOW  
 EUT Pol. :H Plan

Test Date :2019-03-27  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :HORIZONTAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
71.71	-49.14	-38.97	-9.48	-0.70	-13.00	-36.14
178.41	-47.62	-41.91	-4.61	-1.10	-13.00	-34.62
284.14	-59.53	-55.67	-2.47	-1.39	-13.00	-46.53
348.16	-60.50	-57.44	-1.51	-1.54	-13.00	-47.50
422.85	-62.83	-59.27	-1.85	-1.71	-13.00	-49.83
948.59	-60.80	-57.01	-1.18	-2.61	-13.00	-47.80
1413.00	-47.34	-50.01	5.93	-3.26	-13.00	-34.34

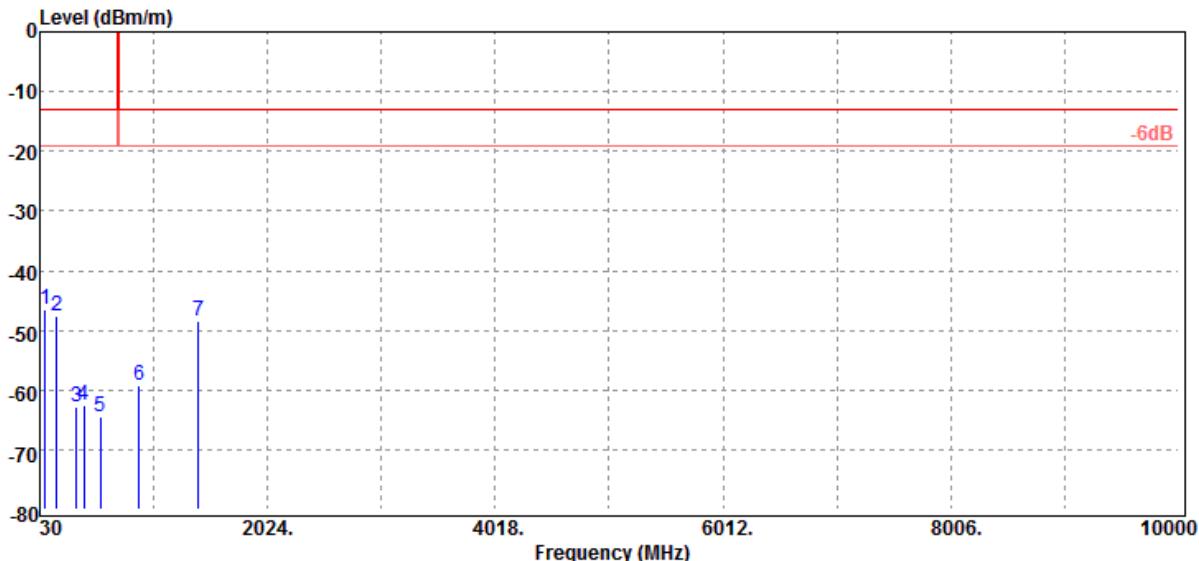
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Operation Band :LTE B17  
 Fundamental Frequency :710 MHz  
 Operation Mode :TX CH MID  
 EUT Pol. :H Plan

Test Date :2019-03-27  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :VERTICAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
73.65	-46.63	-36.64	-9.28	-0.71	-13.00	-33.63
178.41	-47.72	-42.01	-4.61	-1.10	-13.00	-34.72
352.04	-62.78	-59.59	-1.63	-1.55	-13.00	-49.78
418.00	-62.59	-59.04	-1.85	-1.70	-13.00	-49.59
560.59	-64.49	-61.17	-1.35	-1.98	-13.00	-51.49
901.06	-59.25	-55.45	-1.25	-2.55	-13.00	-46.25
1420.00	-48.58	-51.28	5.97	-3.27	-13.00	-35.58

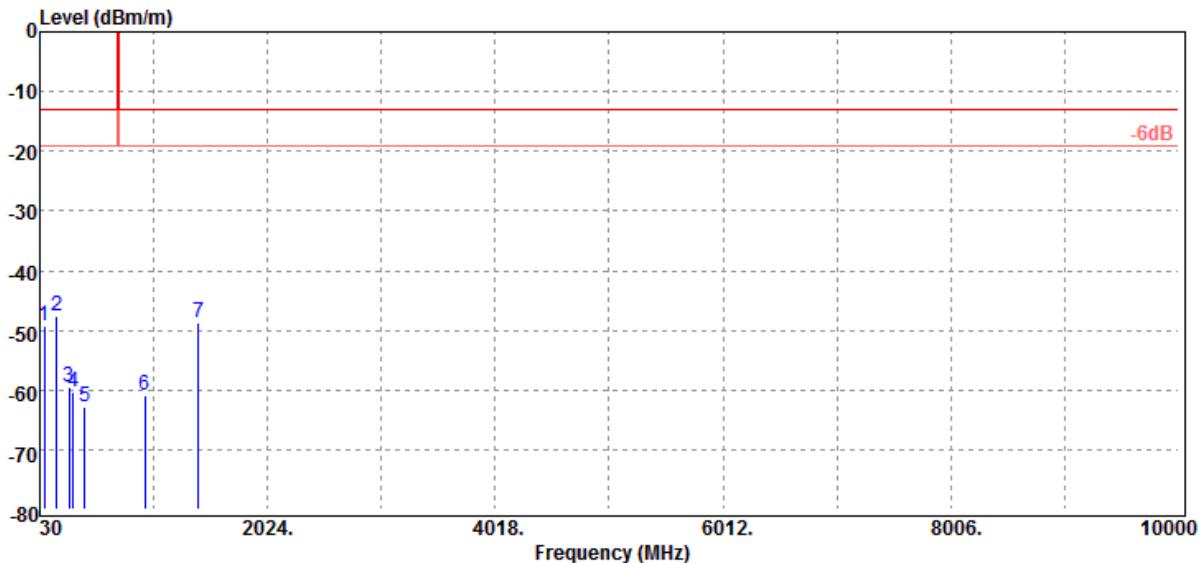
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Operation Band :LTE B17  
 Fundamental Frequency :710 MHz  
 Operation Mode :TX CH MID  
 EUT Pol. :H Plan

Test Date :2019-03-27  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :HORIZONTAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
71.71	-49.14	-38.97	-9.48	-0.70	-13.00	-36.14
178.41	-47.62	-41.91	-4.61	-1.10	-13.00	-34.62
284.14	-59.53	-55.67	-2.47	-1.39	-13.00	-46.53
323.91	-60.46	-57.20	-1.77	-1.49	-13.00	-47.46
422.85	-62.83	-59.27	-1.85	-1.71	-13.00	-49.83
948.59	-60.80	-57.01	-1.18	-2.61	-13.00	-47.80
1420.00	-48.59	-51.29	5.97	-3.27	-13.00	-35.59

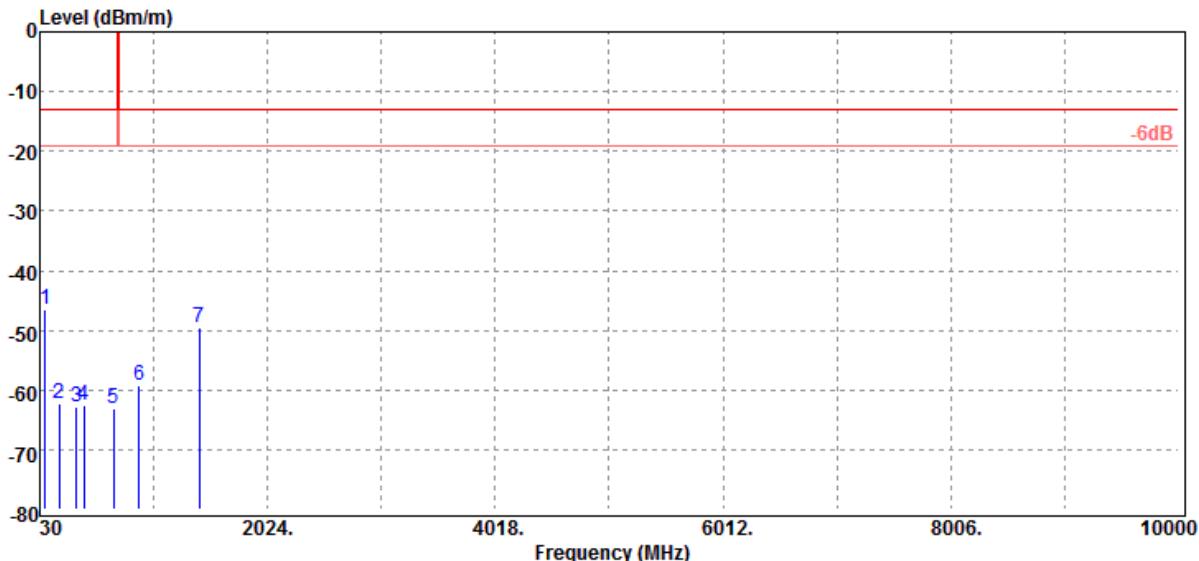
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Operation Band :LTE B17  
 Fundamental Frequency :713.5 MHz  
 Operation Mode :TX CH HIGH  
 EUT Pol. :H Plan

Test Date :2019-03-27  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :VERTICAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
73.65	-46.63	-36.64	-9.28	-0.71	-13.00	-33.63
199.75	-62.31	-56.33	-4.82	-1.16	-13.00	-49.31
352.04	-62.78	-59.59	-1.63	-1.55	-13.00	-49.78
418.00	-62.59	-59.04	-1.85	-1.70	-13.00	-49.59
675.05	-63.22	-59.68	-1.35	-2.19	-13.00	-50.22
901.06	-59.25	-55.45	-1.25	-2.55	-13.00	-46.25
1427.00	-49.52	-52.26	6.01	-3.28	-13.00	-36.52

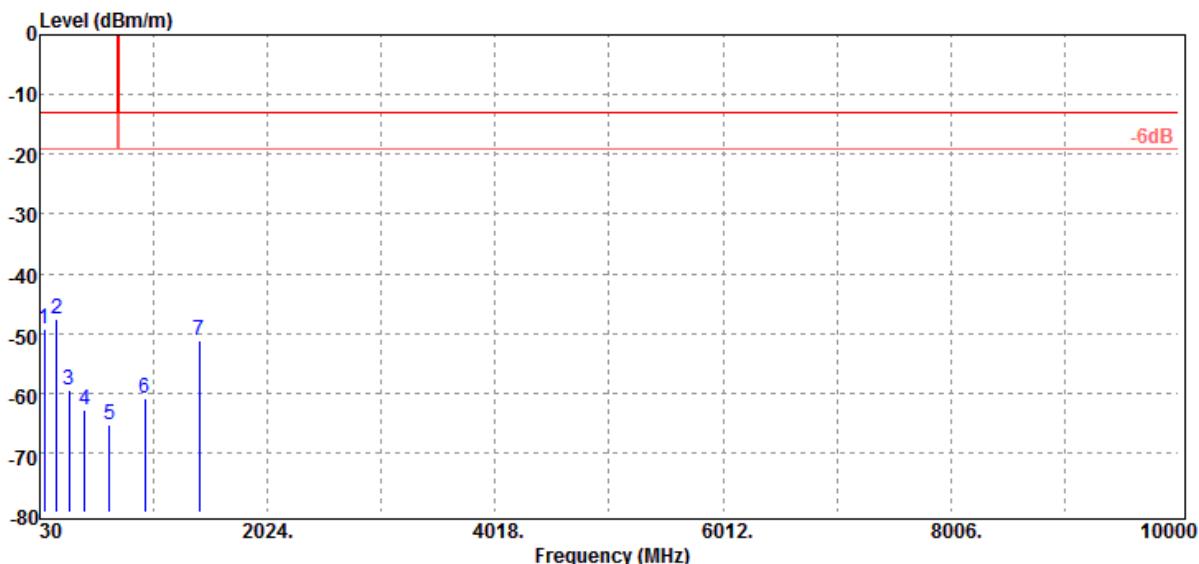
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 Fundamental Frequency :713.5 MHz  
 Operation Mode :TX CH HIGH  
 EUT Pol. :H Plan

Test Date :2019-03-27  
 Temp./Humi. :24/59  
 Engineer :Jerry  
 Measurement Antenna Pol. :HORIZONTAL



Freq. MHz	ERP/EIRP dBm	SG Output Level dBm	Antenna Gain dBd/dBi	Cable Loss dB	Limit dBm	Margin dB
71.71	-49.14	-38.97	-9.48	-0.70	-13.00	-36.14
178.41	-47.62	-41.91	-4.61	-1.10	-13.00	-34.62
284.14	-59.53	-55.67	-2.47	-1.39	-13.00	-46.53
422.85	-62.83	-59.27	-1.85	-1.71	-13.00	-49.83
636.25	-65.37	-61.59	-1.68	-2.11	-13.00	-52.37
948.59	-60.80	-57.01	-1.18	-2.61	-13.00	-47.80
1427.00	-51.16	-53.89	6.01	-3.28	-13.00	-38.16

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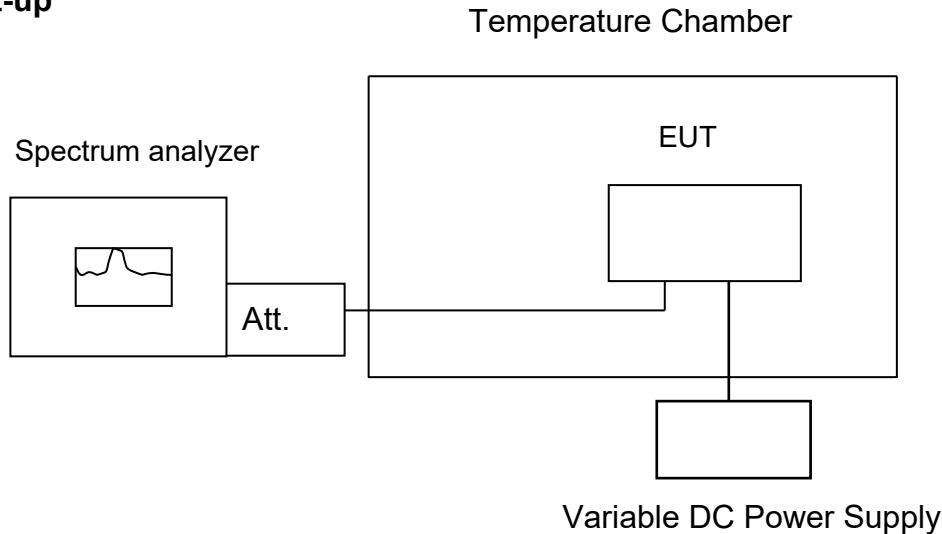
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## 10. FREQUENCY STABILITY MEASUREMENT

### 10.1. Standard Applicable

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

### 10.2. Test Set-up



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

### 10.3. 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 . 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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#### 10.4. Measurement Equipment Used

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Radio Communication Analyer	Anritsu	MT8820C	6201465316	03/31/2018	03/30/2019
Spectrum Analyzer	Agilent	N9010A	MY51440113	06/20/2018	06/19/2019
DC Block	PASTERNACK	PE8210	RF29	02/26/2019	02/25/2020
Splitter	Woken	DOM35LW1A2	RF36	02/26/2019	02/25/2020
Attenuator	Marvelous	WATT-218FS-10	RF245	02/26/2019	02/25/2020
Coaxial Cables	Woken	00100A1F1A185C	RF12	02/26/2019	02/25/2020
Coaxial Cables	Woken	00100A1F1A185C	RF202	02/26/2019	02/25/2020
DC Power Supply	Agilent	E3640A	MY40000811	12/11/2018	12/10/2019

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## 10.5. Measurement Result

WCDMA II Mid Channel 1880 MHz				
Limit: +/- 2.5 ppm				
Vdc	Temp. ( )	Freq. (MHz)	Delta (Hz)	Limit (Hz)
FREQUENCY ERROR vs. VOLTAGE				
36	20	1880.00002	19.99999995	4700
24	20	1880.000016	15.99999996	4700
12	20	1880.000008	7.99999998	4700
6.7 (End point)	20	1880.000005	5.000000101	4700
FREQUENCY ERROR vs. Temp.				
24	50	1879.999983	-17.00000007	4700
24	40	1879.999986	-13.99999996	4700
24	30	1879.999987	-13.00000008	4700
24	20	1879.999995	-5.000000101	4700
24	10	1879.999992	-7.99999998	4700
24	0	1879.999998	-1.99999995	4700
24	-10	1880.000003	3.000000106	4700
24	-20	1880.000005	5.000000101	4700
24	-30	1880.000011	11.00000009	4700

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WCDMA V Mid Channel 836.6 MHz				
Limit: +/- 2.5 ppm				
Vdc	Temp. ( )	Freq. (MHz)	Delta (Hz)	Limit (Hz)
FREQUENCY ERROR vs. VOLTAGE				
36	20	836.600018	17.99999995	2091
24	20	836.600013	12.99999997	2091
12	20	836.600005	4.999999987	2091
6.7 (End point)	20	836.600007	6.999999982	2091
FREQUENCY ERROR vs. Temp.				
24	50	836.599986	-14.00000008	2091
24	40	836.599984	-16.00000007	2091
24	30	836.599989	-10.99999997	2091
24	20	836.599992	-7.99999998	2091
24	10	836.599994	-5.999999985	2091
24	0	836.599999	-0.999999997	2091
24	-10	836.600005	4.999999987	2091
24	-20	836.600008	7.99999998	2091
24	-30	836.600016	15.99999996	2091

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LTE B2 Mid Channel				
Reference Freq.: 1880 MHz 20M QPSK CH 18900				
Power Supply Vdc Temp. ( ) Freq. (MHz) Delta (Hz) Limit = +/- 2.5 ppm (Hz)				
Freq. ERROR vs. VOLTAGE				
36	25	1880.000012	12	4700
24	25	1880.000005	5.0000001	4700
12	25	1880.000001	1.0000001	4700
6.7 (End Point)	25	1880.000002	2	4700
Freq. ERROR vs. Temp.				
24	-30	1879.999988	-12	4700
24	-20	1879.999991	-9	4700
24	-10	1879.999995	-5	4700
24	0	1879.999997	-3	4700
24	10	1880.000008	8	4700
24	20	1880.000013	13	4700
24	30	1880.000015	15	4700
24	40	1880.000015	15	4700
24	50	1880.000017	17	4700

LTE B4 Mid Channel				
Reference Freq.: 1732.5 MHz 20M QPSK CH 20175				
Power Supply Vdc Temp. ( ) Freq. (MHz) Delta (Hz) Limit = +/- 2.5 ppm (Hz)				
Freq. ERROR vs. VOLTAGE				
36	25	1732.500015	15	4331
24	25	1732.500008	8	4331
12	25	1732.500006	6	4331
6.7 (End Point)	25	1732.500007	7.0000001	4331
Freq. ERROR vs. Temp.				
24	-30	1732.499983	-17	4331
24	-20	1732.499985	-15	4331
24	-10	1732.499992	-8	4331
24	0	1732.499999	-1	4331
24	10	1732.500003	3.0000001	4331
24	20	1732.500009	9.0000001	4331
24	30	1732.500014	14	4331
24	40	1732.500019	19	4331
24	50	1732.500021	21	4331

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Reference Freq.:		LTE B5 Mid Channel		
		836.5	MHz	10M QPSK CH 20525
Power Supply Vdc Temp. ( ) Freq. (MHz) Delta (Hz) Limit = +/- 2.5 ppm (Hz)				
Freq. ERROR vs. VOLTAGE				
36	25	836.500019	19	2091
24	25	836.500017	17	2091
12	25	836.500011	11	2091
6.7 (End Point)	25	836.500006	6	2091
Freq. ERROR vs. Temp.				
24	-30	836.499981	-19	2091
24	-20	836.499989	-11	2091
24	-10	836.499981	-19	2091
24	0	836.499989	-11	2091
24	10	836.499994	-6	2091
24	20	836.499999	-1	2091
24	30	836.500003	3	2091
24	40	836.500004	4	2091
24	50	836.500008	8	2091
Reference Freq.:		LTE B13 Mid Channel		
		782	MHz	10M QPSK CH 23230
Power Supply Vdc Temp. ( ) Freq. (MHz) Delta (Hz) Limit = +/- 2.5 ppm (Hz)				
Freq. ERROR vs. VOLTAGE				
36	25	782.000015	15	1955
24	25	782.000011	11	1955
12	25	782.000008	8	1955
6.7	25	782.000004	4	1955
Freq. ERROR vs. Temp.				
24	-30	781.999986	-14	1955
24	-20	781.999982	-18	1955
24	-10	781.999988	-12	1955
24	0	781.999993	-7	1955
24	10	782.000003	3	1955
24	20	782.000004	4	1955
24	30	782.000008	8	1955
24	40	782.000010	10	1955
24	50	782.000016	16	1955

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LTE B17 Mid Channel					710 MHz 10M QPSK CH 23790
Power Supply Vdc	Temp. ( )	Freq. (MHz)	Delta (Hz)	Limit = +/- 2.5 ppm (Hz)	
Freq. ERROR vs. VOLTAGE					
36	25	710.000017	17	1775	
24	25	710.000016	16	1775	
12	25	710.000013	13	1775	
6.7 (End Point)	25	710.000012	12	1775	
Freq. ERROR vs. Temp.					
24	-30	709.999987	-13	1775	
24	-20	709.999989	-11	1775	
24	-10	709.999989	-11	1775	
24	0	709.999992	-8	1775	
24	10	709.999995	-5	1775	
24	20	709.999993	-7	1775	
24	30	709.999997	-3	1775	
24	40	710.000005	5	1775	
24	50	710.000007	7	1775	

**Note: The battery is rated 24Vdc.**

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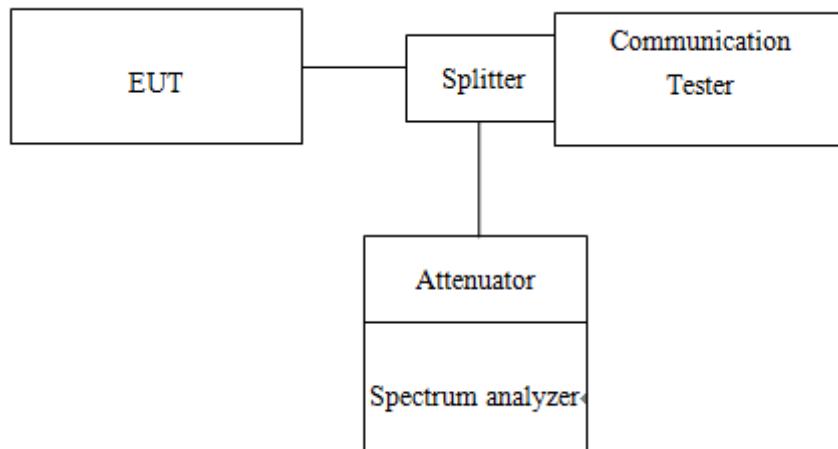
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## 11. PEAK TO AVERAGE RATIO

### 11.1. Standard Applicable

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

### 11.2. Test SET-UP



### 11.3. 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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#### 11.4. Measurement Equipment Used

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Radio Communication Analyzer	Anritsu	MT8820C	6201465316	03/31/2018	03/30/2019
Spectrum Analyzer	Agilent	N9010A	MY51440113	06/20/2018	06/19/2019
DC Block	PASTERNACK	PE8210	RF29	02/26/2019	02/25/2020
Splitter	Woken	DOM35LW1A2	RF36	02/26/2019	02/25/2020
Attenuator	Marvelous	WATT-218FS-10	RF245	02/26/2019	02/25/2020
Coaxial Cables	Woken	00100A1F1A185C	RF12	02/26/2019	02/25/2020
Coaxial Cables	Woken	00100A1F1A185C	RF202	02/26/2019	02/25/2020
DC Power Supply	Agilent	E3640A	MY40000811	12/11/2018	12/10/2019

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## 11.5. Measurement Result

### Tabular Results:

Freq. (MHz)	CH	Peak-to-Average Ratio (dB)			Freq. (MHz)	CH	Peak-to-Average Ratio (dB)		
		WCDMA II	HSDPA II	HSUPA II			WCDMA V	HSDPA V	HSUPA V
1852.4	9262	2.90	4.69	-31.83	826.4	4132	-32.41	-32.10	-31.86
1880	9400	-30.98	4.66	-31.34	836.6	4183	-32.40	-31.72	-32.17
1907.6	9538	-31.08	4.67	-31.47	846.6	4233	-31.92	-32.82	-31.67

LTE BAND 2							
Channel bandwidth: 1.4MHz				Channel bandwidth: 3MHz			
Freq. (MHz)	CH	PAPR (dB)		Freq. (MHz)	CH	PAPR (dB)	
		16QAM	Limit			16QAM	Limit
1850.7	18607	6.56	13	1851.5	18615	6.64	13
1880.0	18900	6.58	13	1880.0	18900	6.66	13
1909.3	19193	6.10	13	1908.5	19185	6.56	13

LTE BAND 2							
Channel bandwidth: 5MHz				Channel bandwidth: 10MHz			
Freq. (MHz)	CH	PAPR (dB)		Freq. (MHz)	CH	PAPR (dB)	
		16QAM	Limit			16QAM	Limit
1852.5	18625	6.42	13	1855.0	18650	6.47	13
1880.0	18900	6.46	13	1880.0	18900	6.46	13
1907.5	19175	6.40	13	1905.0	19150	6.44	13

LTE BAND 2							
Channel bandwidth: 15MHz				Channel bandwidth: 20MHz			
Freq. (MHz)	CH	PAPR (dB)		Freq. (MHz)	CH	PAPR (dB)	
		16QAM	Limit			16QAM	Limit
1857.5	18675	6.24	13	1860.0	18700	6.72	13
1880.0	18900	6.31	13	1880.0	18900	6.73	13
1902.5	19125	6.31	13	1900.0	19100	6.75	13

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LTE BAND 4							
Channel bandwidth: 1.4MHz				Channel bandwidth: 3MHz			
Freq. (MHz)	CH	PAPR (dB)		Freq. (MHz)	CH	PAPR (dB)	
		16QAM	Limit			16QAM	Limit
1710.7	19957	6.61	13	1711.5	19965	6.62	13
1732.5	20175	6.14	13	1732.5	20175	6.41	13
1754.3	20393	6.51	13	1753.5	20385	6.62	13

LTE BAND 4							
Channel bandwidth: 5MHz				Channel bandwidth: 10MHz			
Freq. (MHz)	CH	PAPR (dB)		Freq. (MHz)	CH	PAPR (dB)	
		16QAM	Limit			16QAM	Limit
1712.5	19957	6.45	13	1715.0	20000	6.43	13
1732.5	20175	6.30	13	1732.5	20175	6.41	13
1752.5	20375	6.59	13	1750.0	20350	6.51	13

LTE BAND 4							
Channel bandwidth: 15MHz				Channel bandwidth: 20MHz			
Freq. (MHz)	CH	PAPR (dB)		Freq. (MHz)	CH	PAPR (dB)	
		16QAM	Limit			16QAM	Limit
1717.5	20025	6.30	13	1720.0	20050	6.76	13
1732.5	20175	6.30	13	1732.5	20175	6.81	13
1747.5	20325	6.31	13	1745.0	20300	6.85	13

LTE BAND 5							
Channel bandwidth: 1.4MHz				Channel bandwidth: 3MHz			
Freq. (MHz)	CH	PAPR (dB)		Freq. (MHz)	CH	PAPR (dB)	
		16QAM	Limit			16QAM	Limit
824.7	20407	6.54	13	825.5	20415	6.48	13
836.5	20525	6.90	13	836.5	20525	6.86	13
848.3	20643	6.18	13	847.5	20635	6.40	13

LTE BAND 5							
Channel bandwidth: 5MHz				Channel bandwidth: 10MHz			
Freq. (MHz)	CH	PAPR (dB)		Freq. (MHz)	CH	PAPR (dB)	
		16QAM	Limit			16QAM	Limit
826.5	20425	6.24	13	829.0	20450	6.44	13
836.5	20525	6.66	13	836.5	20525	6.77	13
846.5	20625	6.42	13	844.0	20600	6.46	13

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LTE BAND 13							
Channel bandwidth: 5MHz				Channel bandwidth: 10MHz			
Freq. (MHz)	CH	PAPR (dB)		Freq. (MHz)	CH	PAPR (dB)	
		16QAM	Limit			16QAM	Limit
779.5	23205	6.40	13	782.0	23230	6.59	13
782.0	23230	6.65	13				
784.5	23255	6.39	13				

LTE BAND 17							
Channel bandwidth: 1.4MHz				Channel bandwidth: 3MHz			
Freq. (MHz)	CH	PAPR (dB)		Freq. (MHz)	CH	PAPR (dB)	
		16QAM	Limit			16QAM	Limit
706.5	23755	6.39	13	709.0	23780	6.41	13
710.0	23790	6.50	13	710.0	23790	6.47	13
713.5	23825	6.59	13	711.0	23800	6.45	13

## Measurement Results:

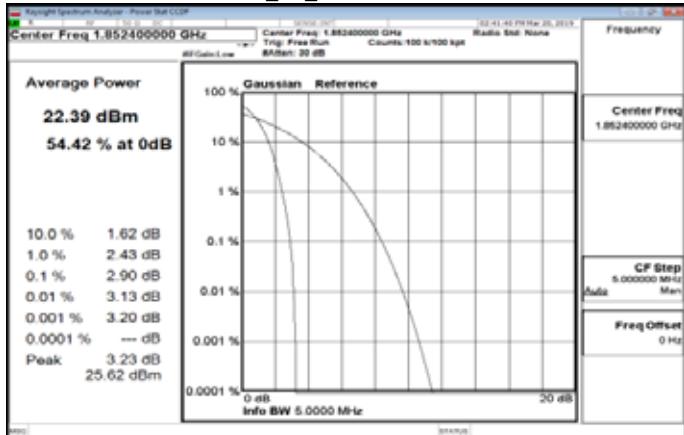
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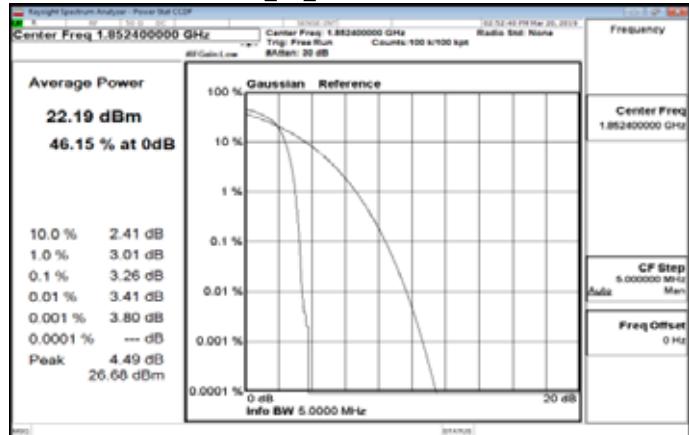
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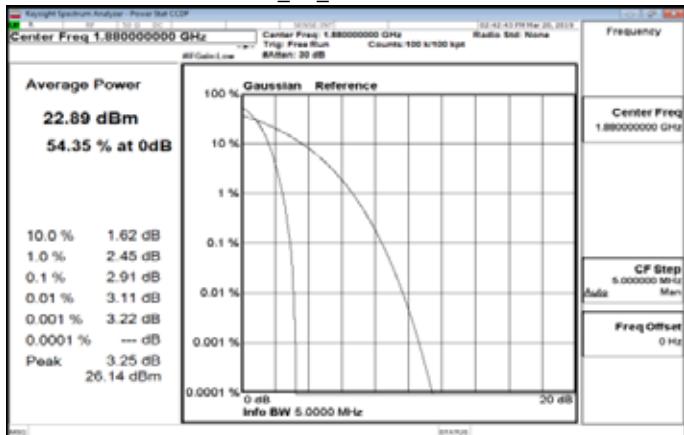
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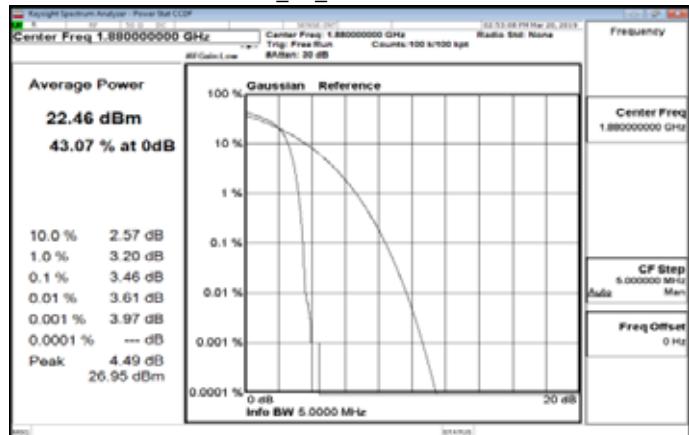
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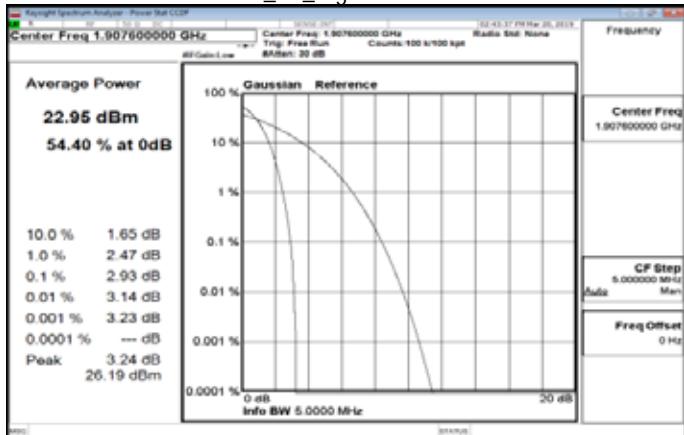
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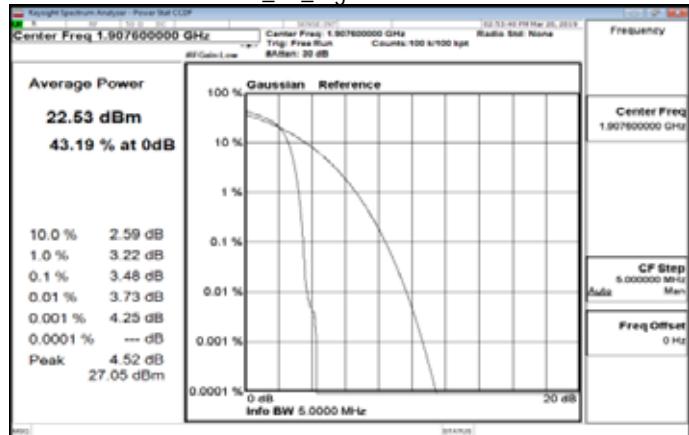
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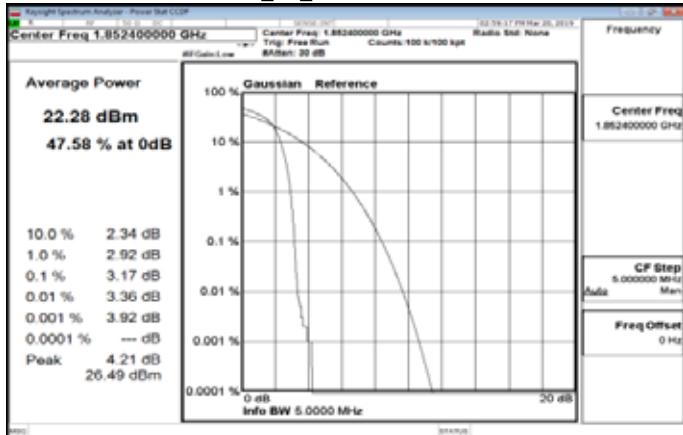


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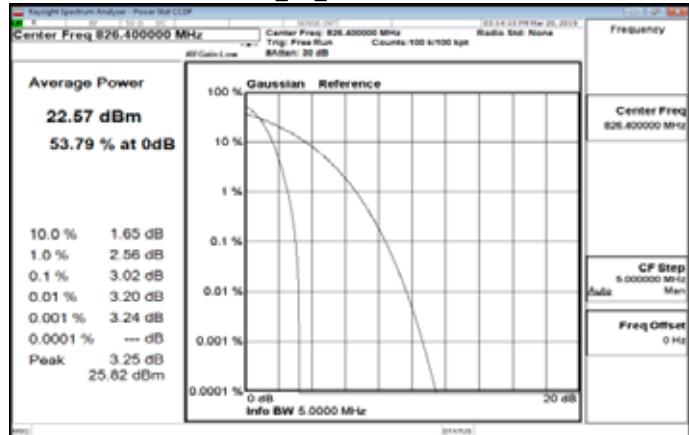
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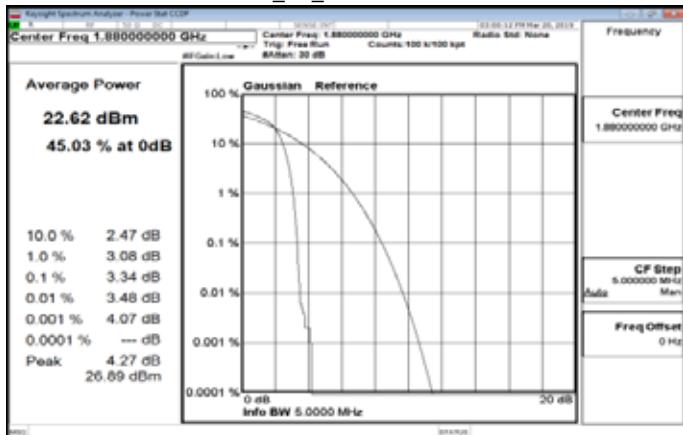
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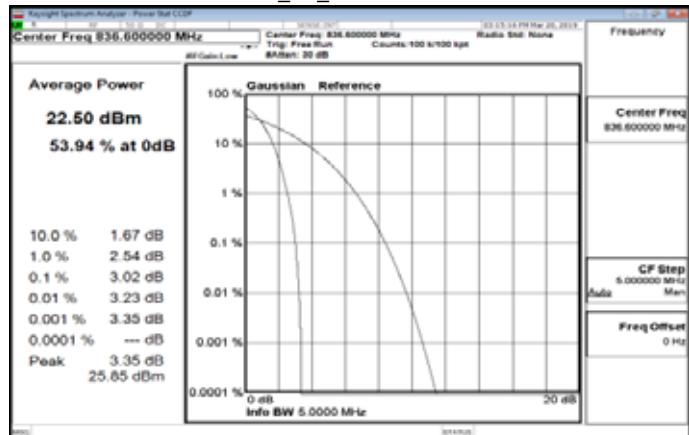
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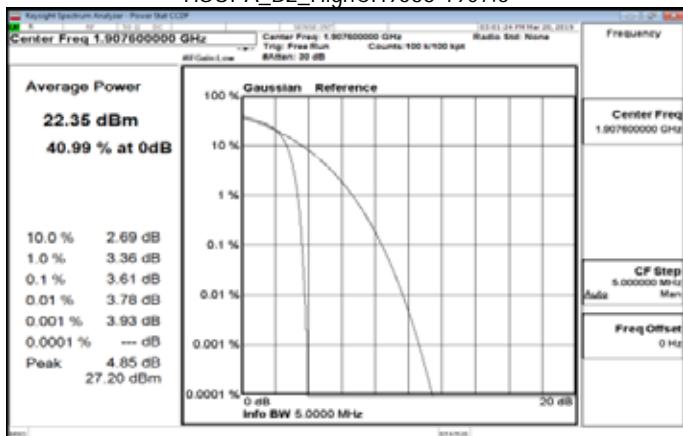
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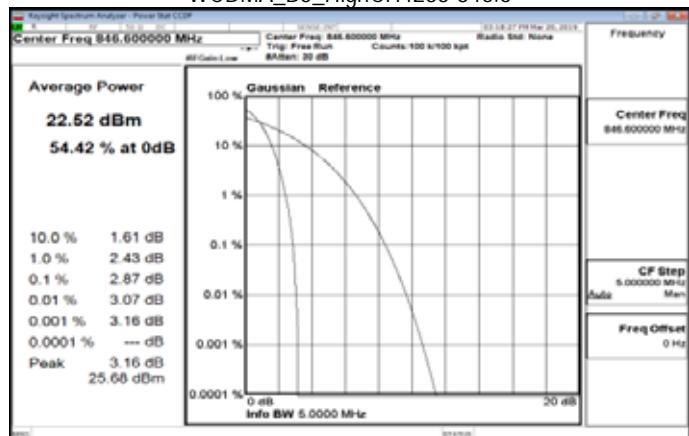
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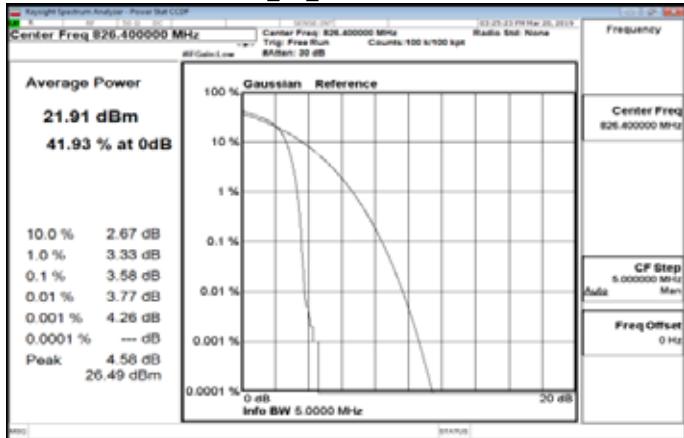


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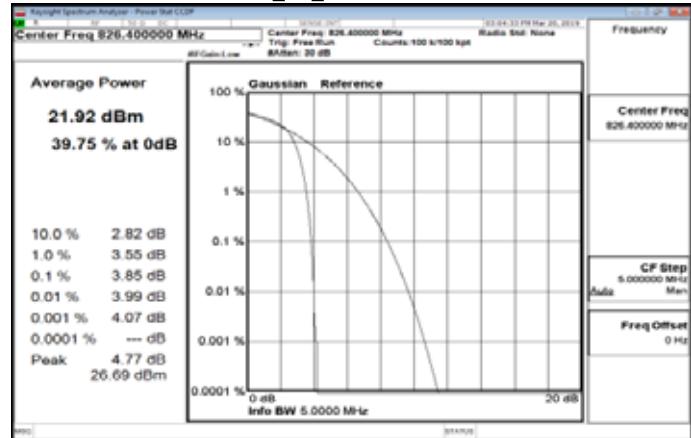
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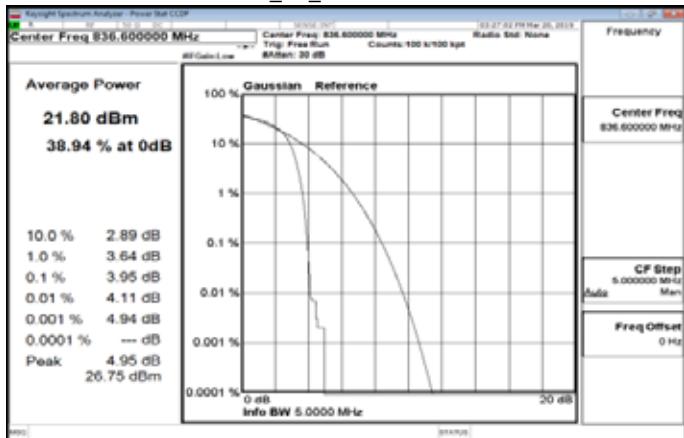
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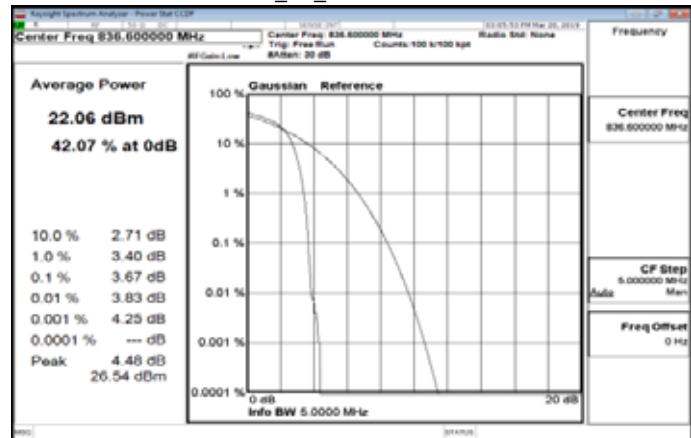
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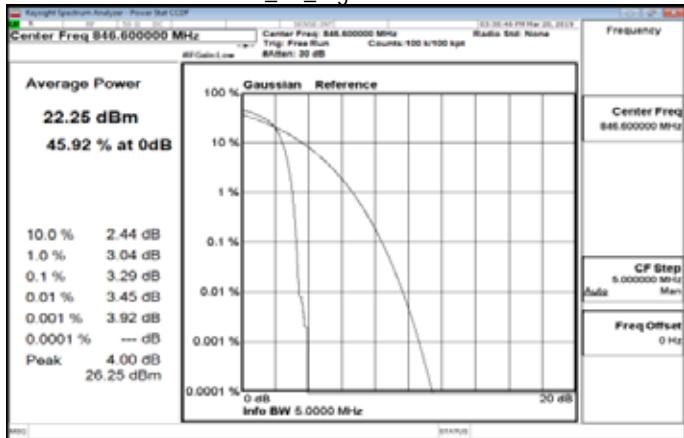
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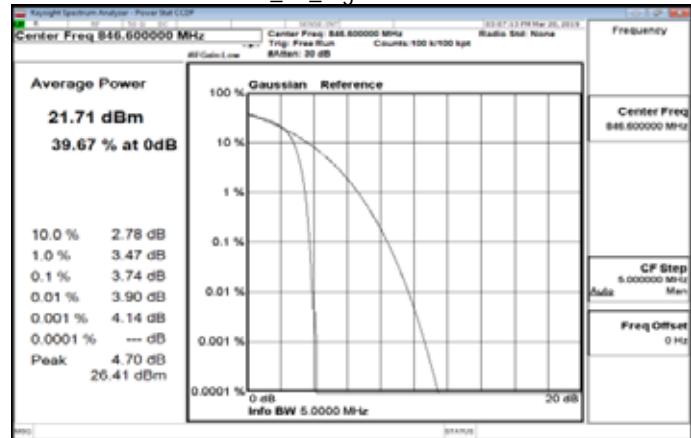
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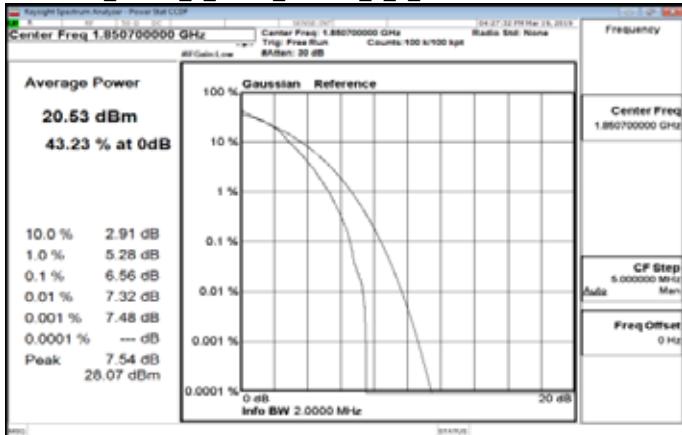
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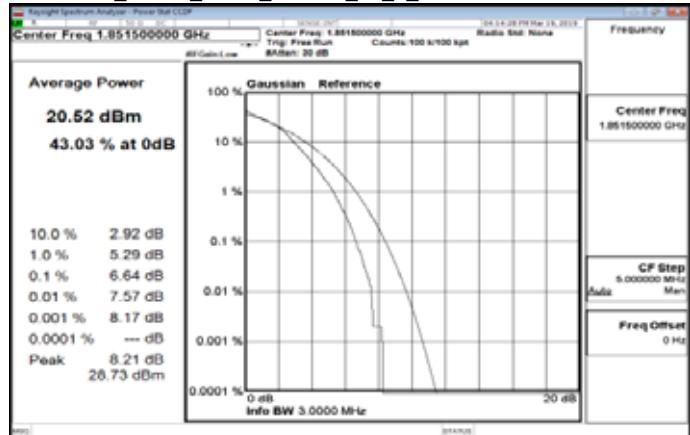
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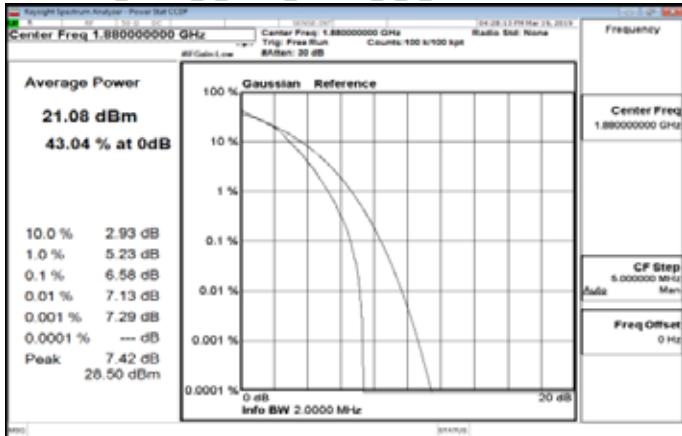
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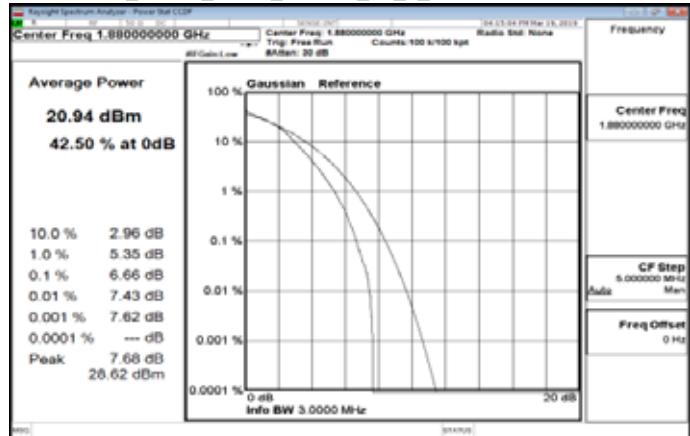
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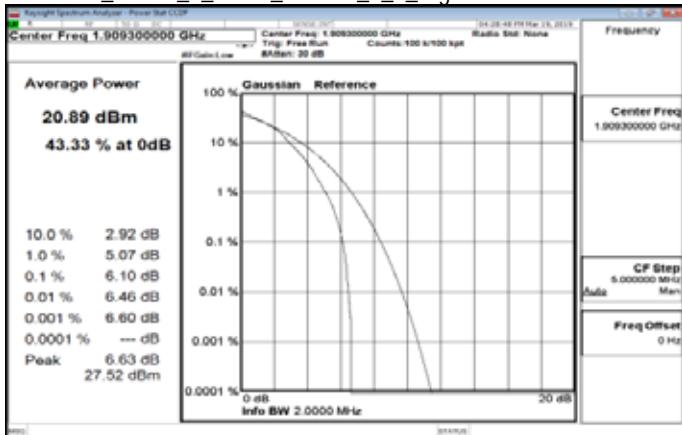
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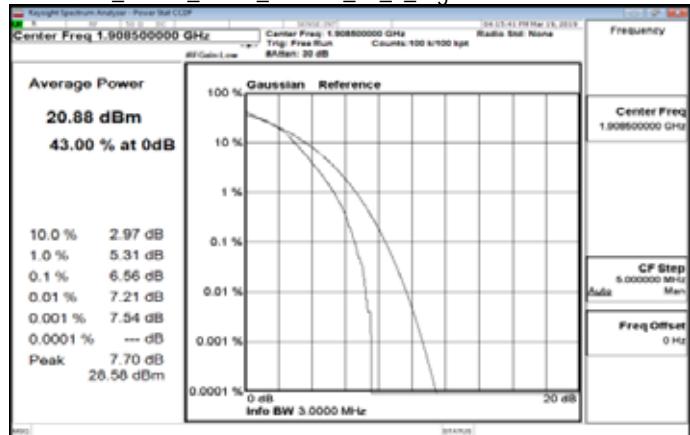
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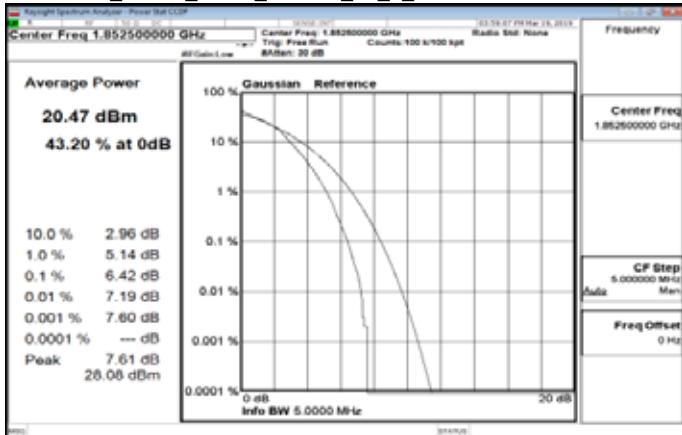


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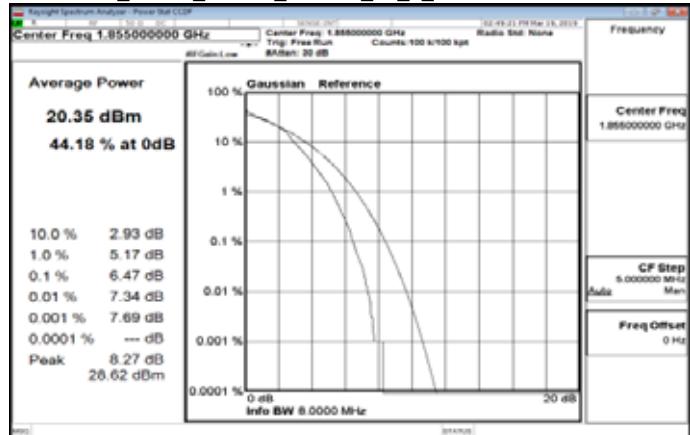
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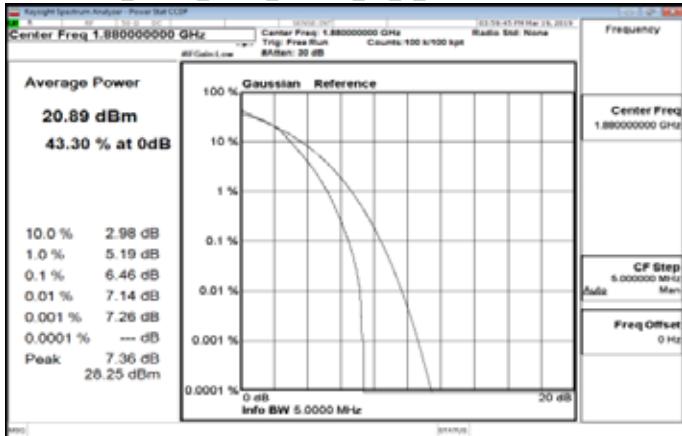
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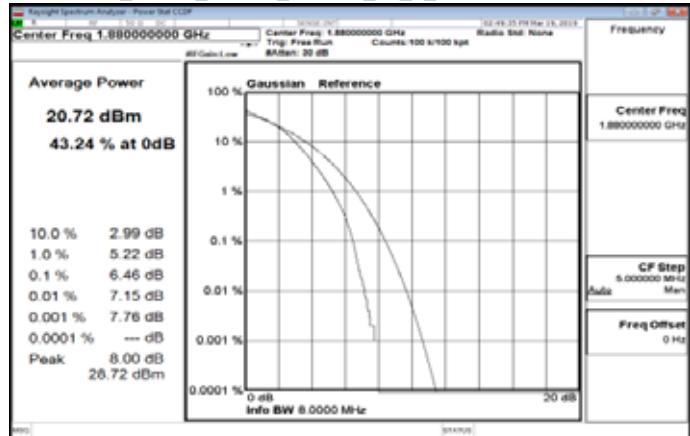
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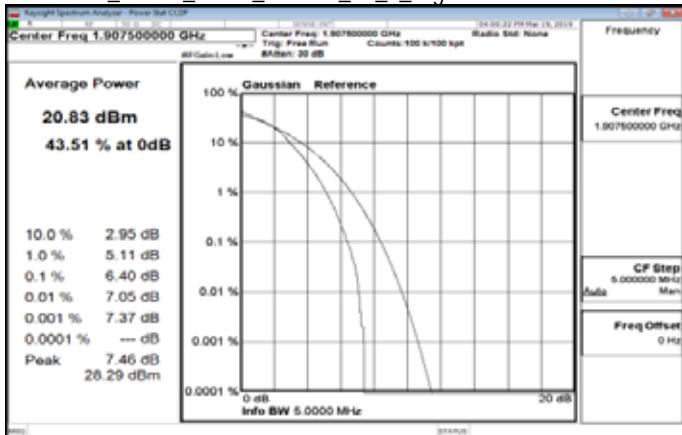
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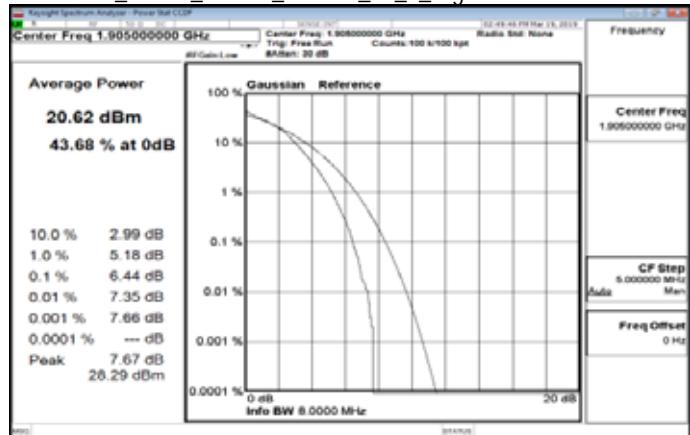
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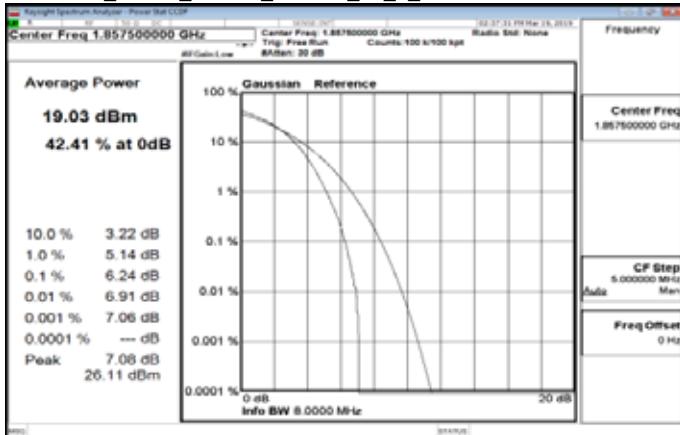


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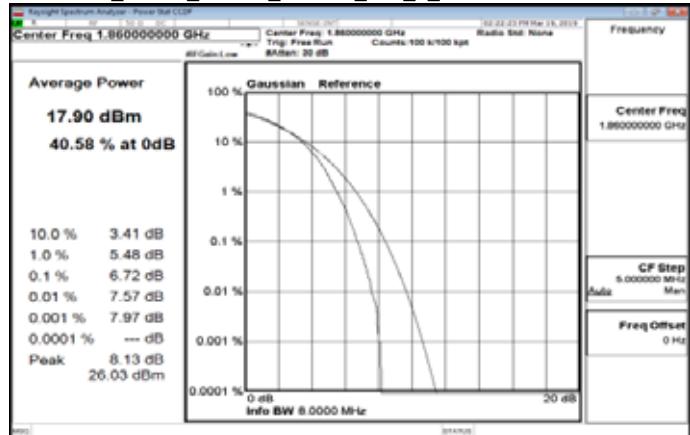
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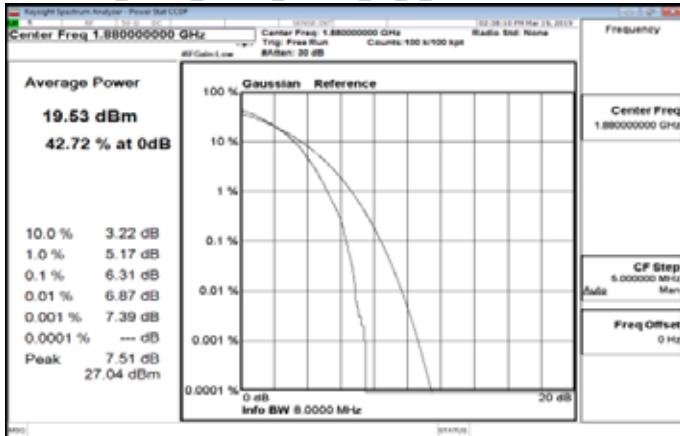
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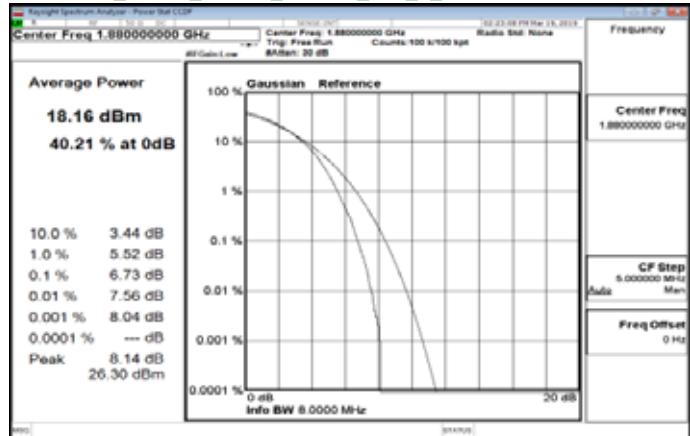
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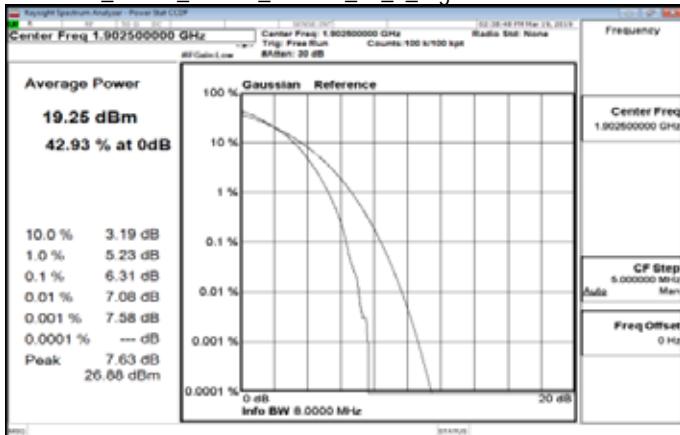
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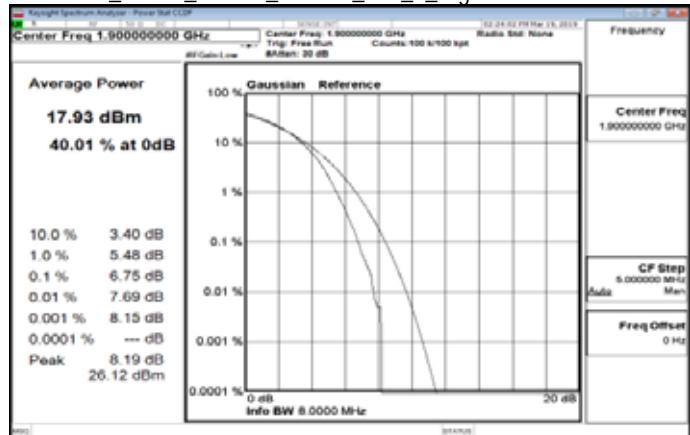
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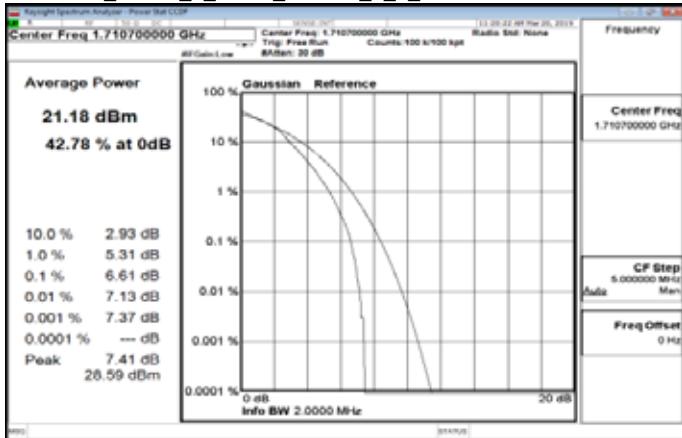


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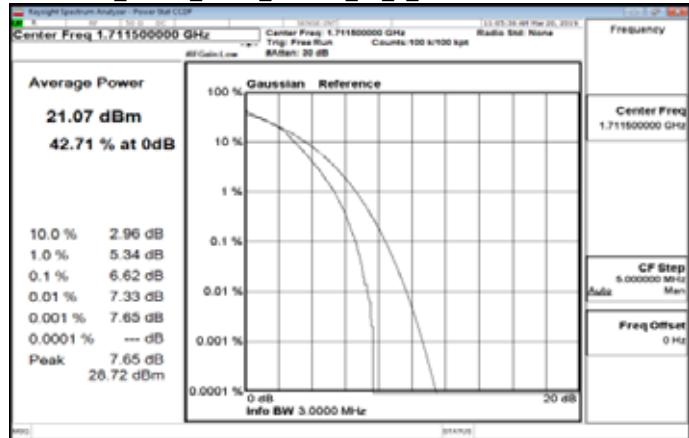
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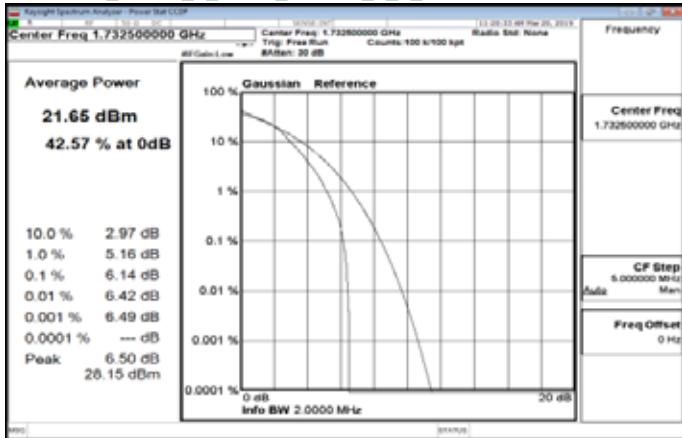
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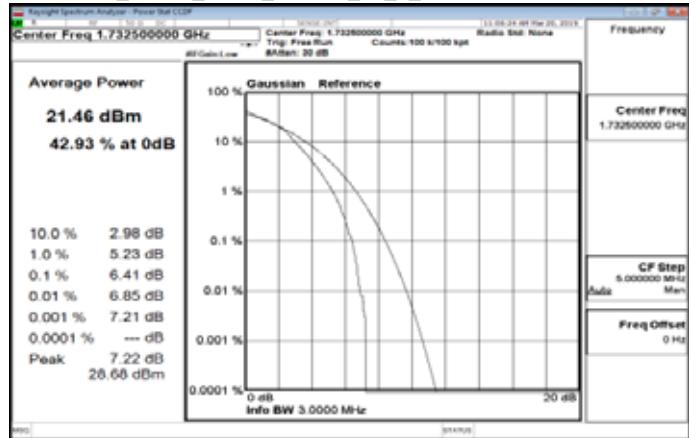
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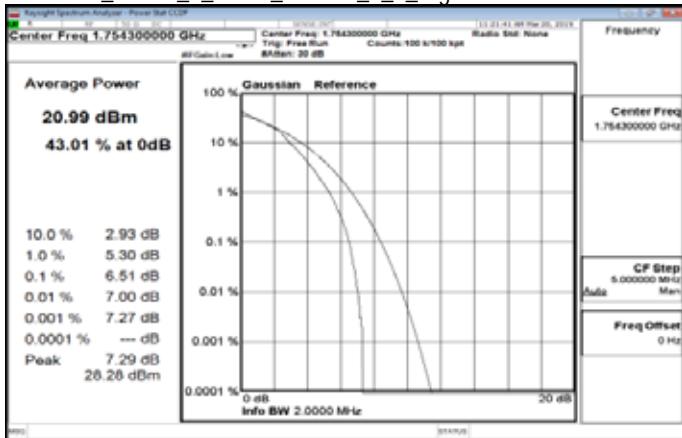
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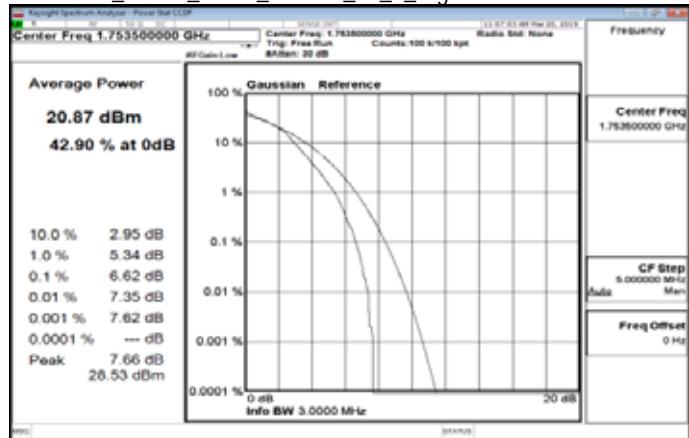
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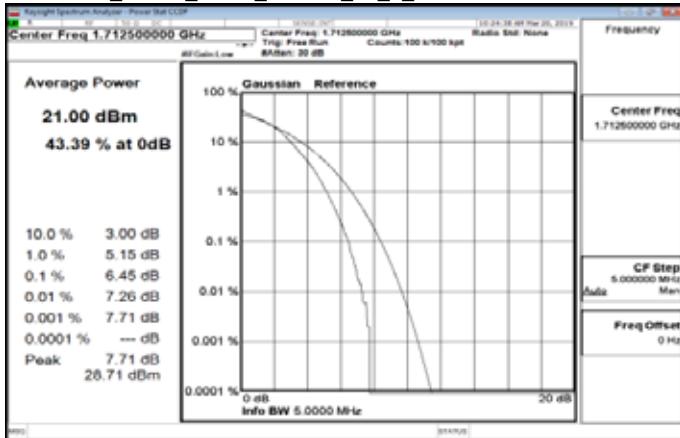


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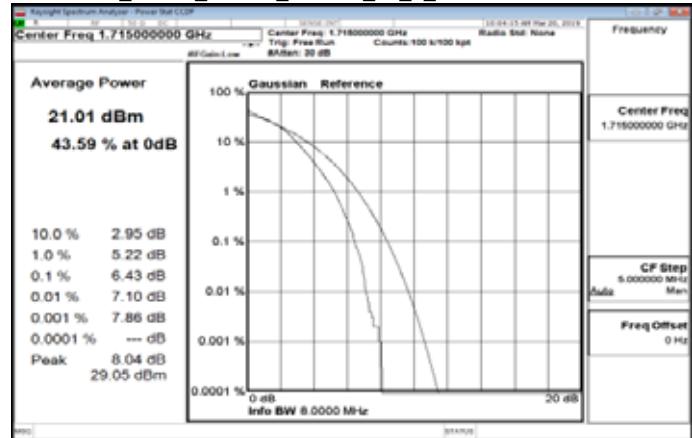
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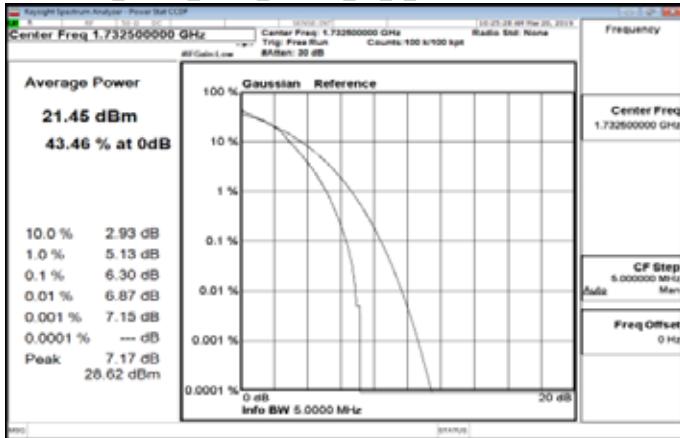
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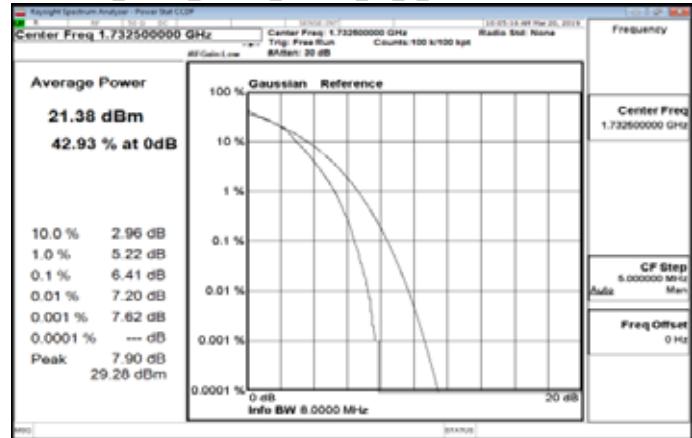
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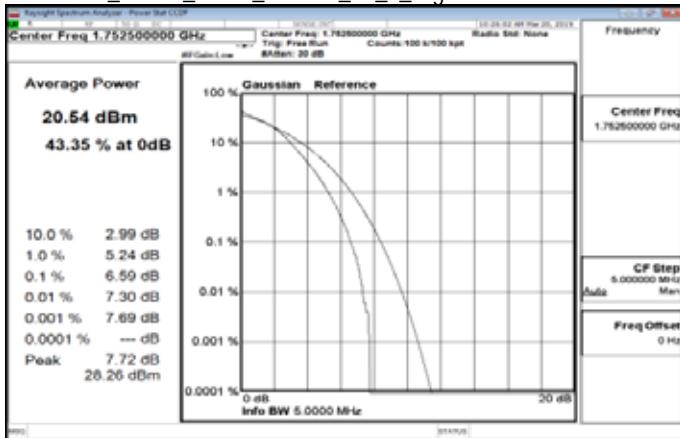
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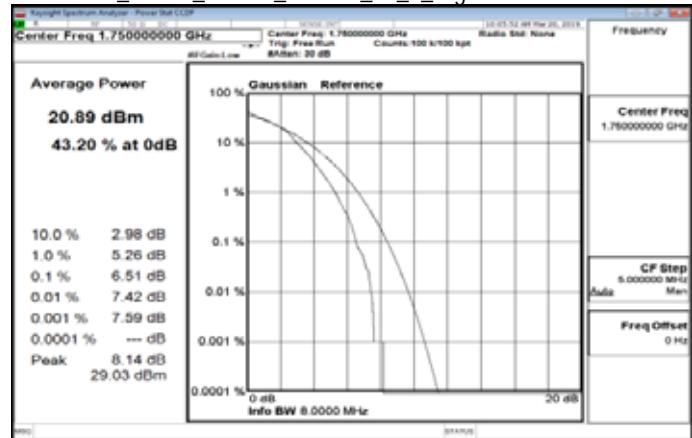
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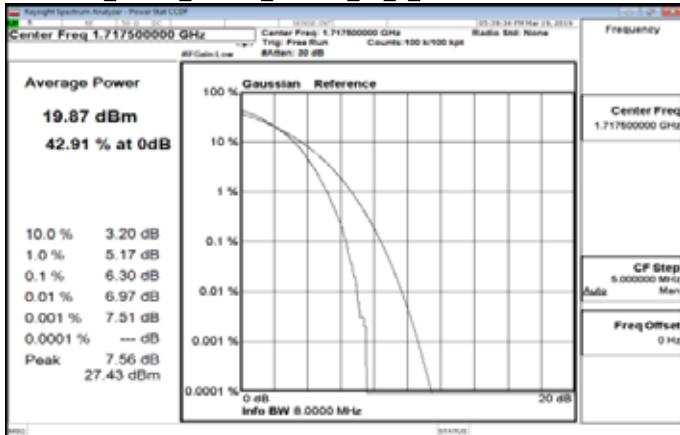


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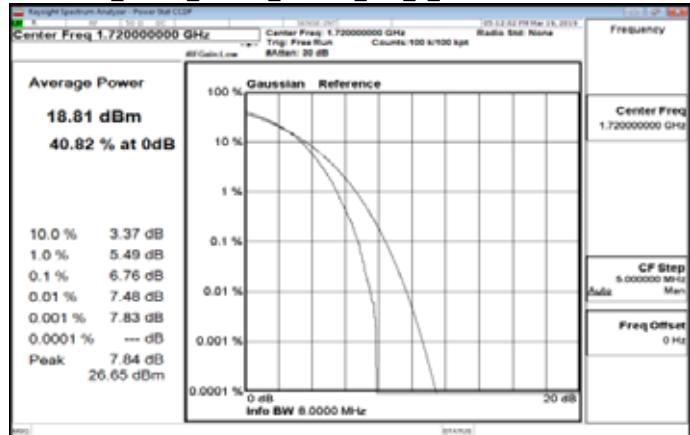
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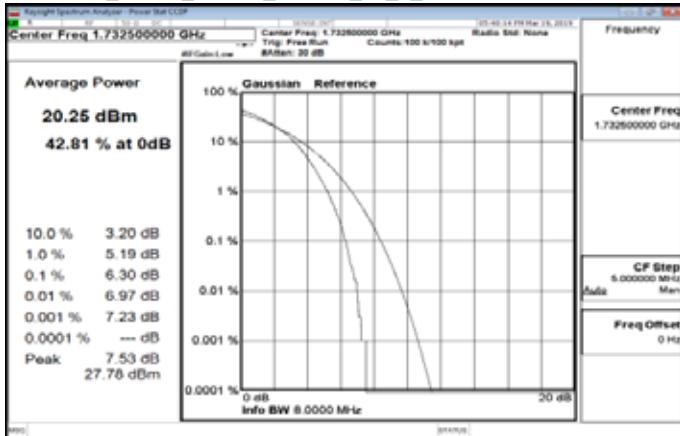
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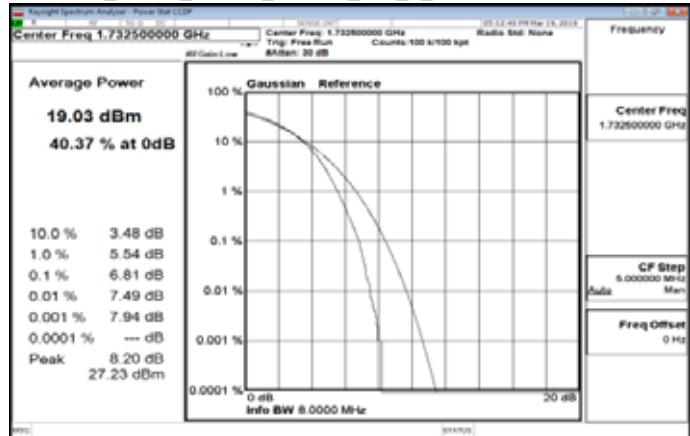
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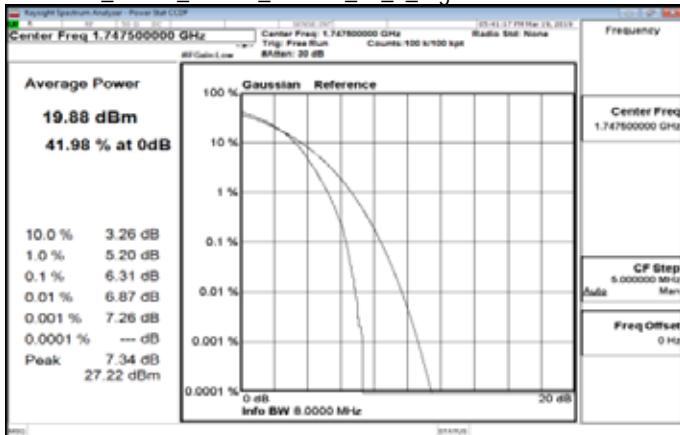
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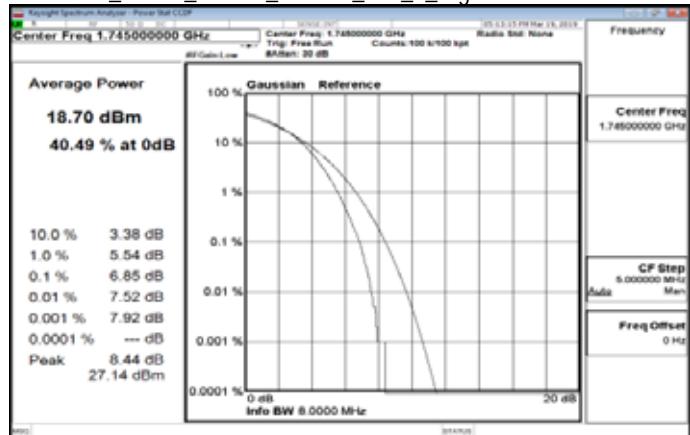
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LTE\_Band4\_20MHz\_16QAM\_100\_0\_HighCH20300-1745

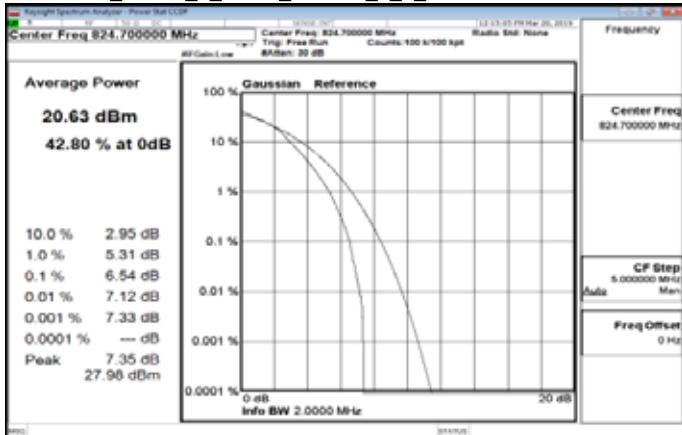


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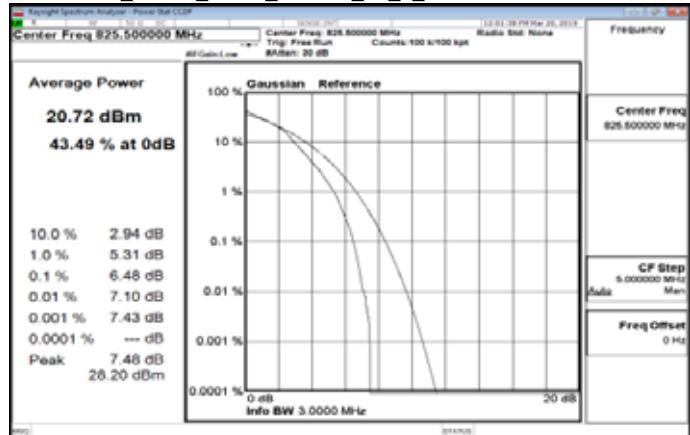
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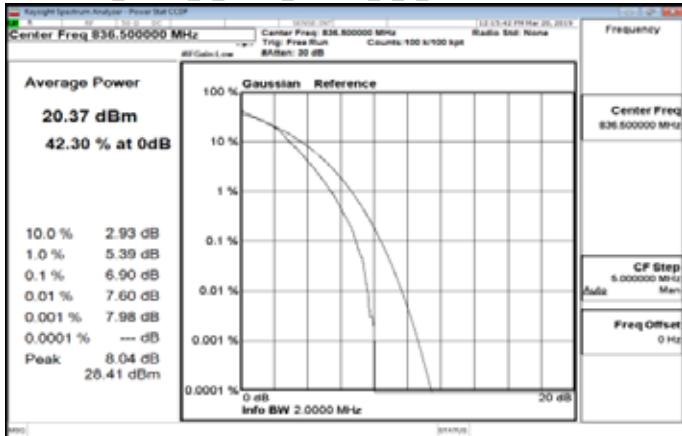
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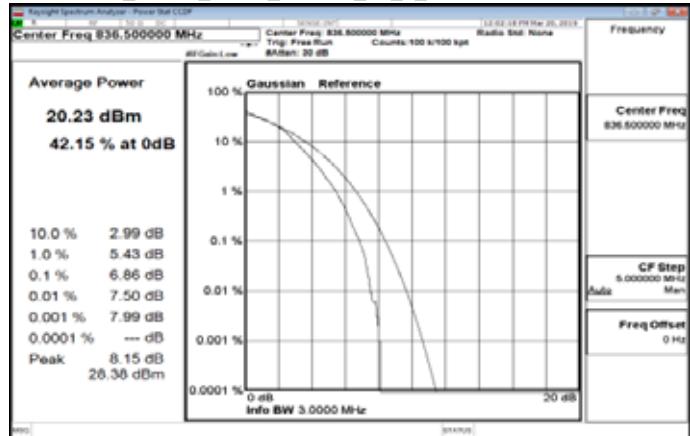
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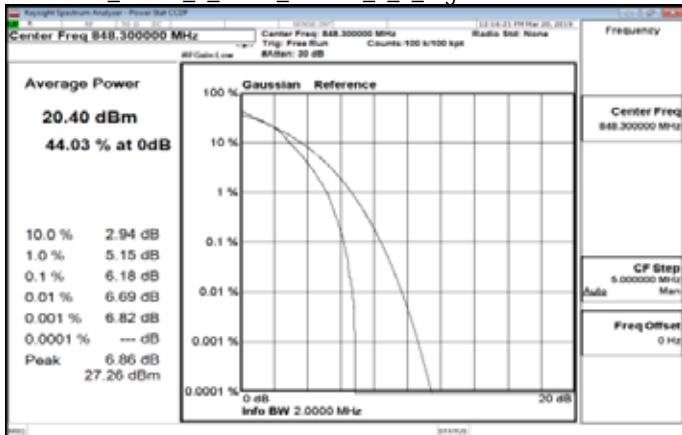
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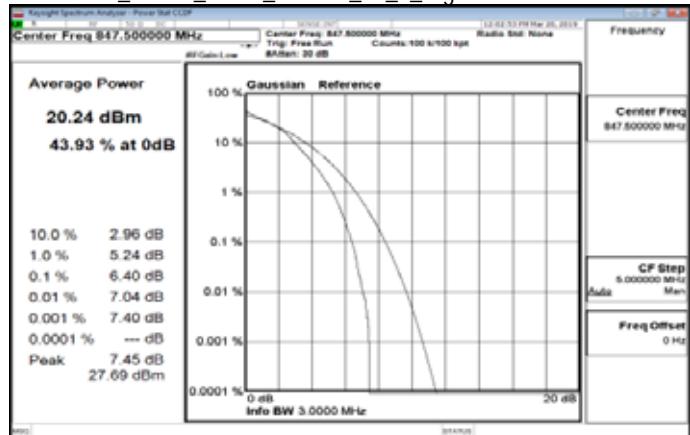
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LTE\_Band5\_3MHz\_16QAM\_15\_0\_HighCH20635-847.5

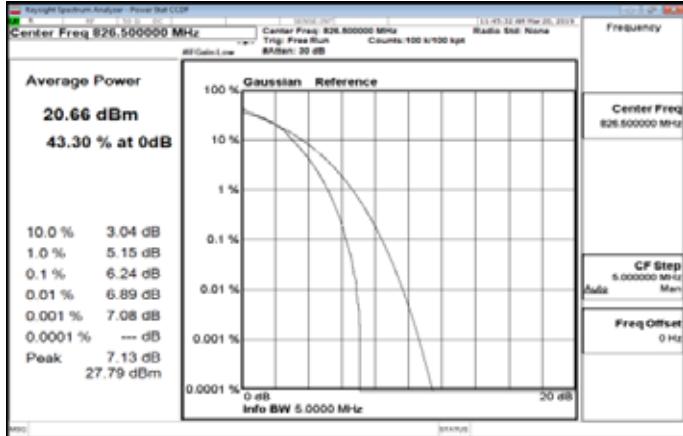


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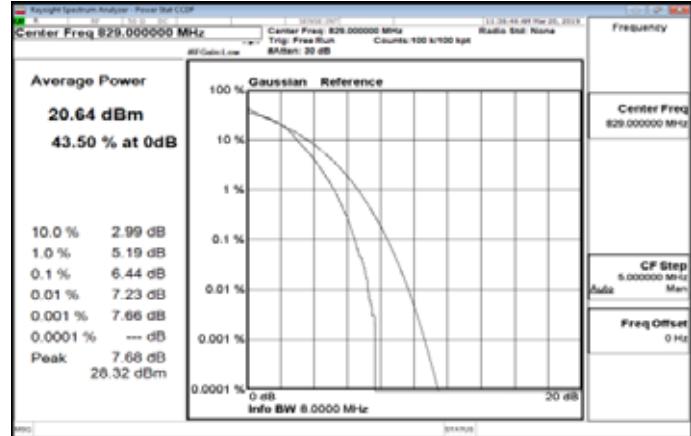
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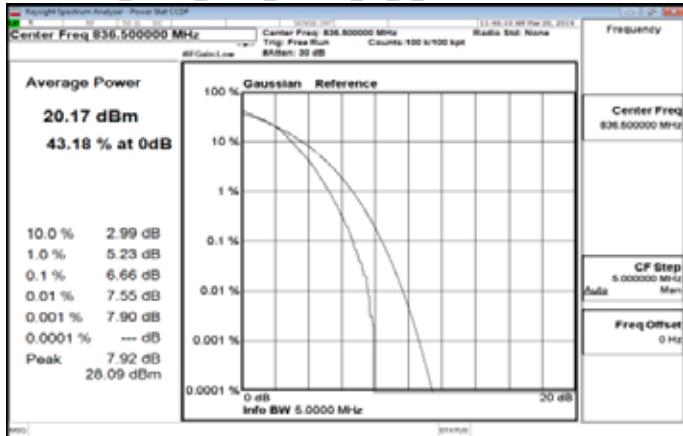
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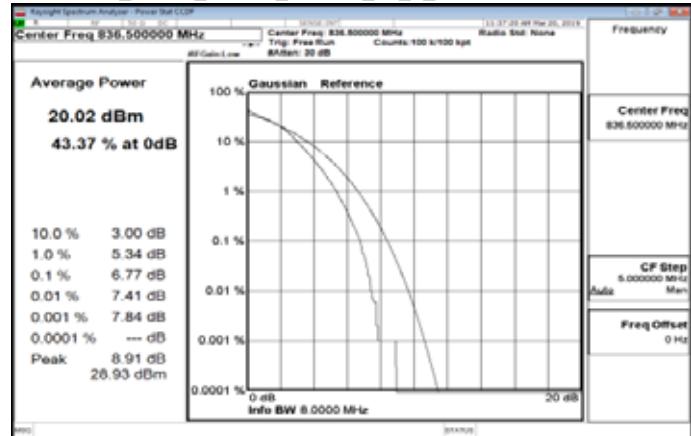
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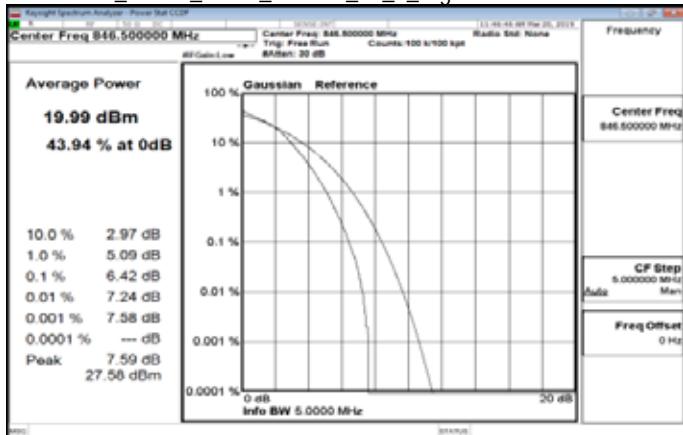
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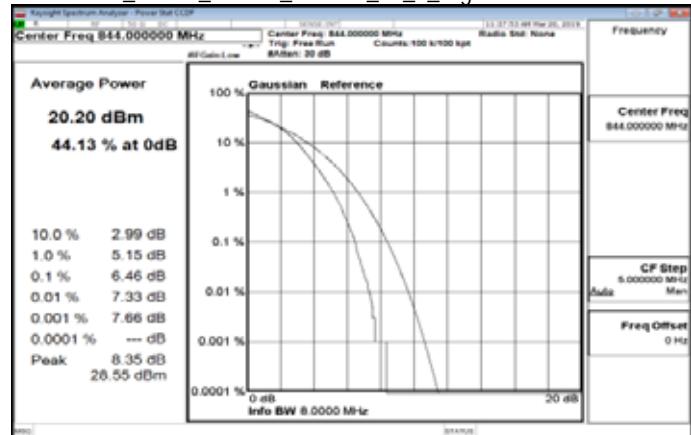
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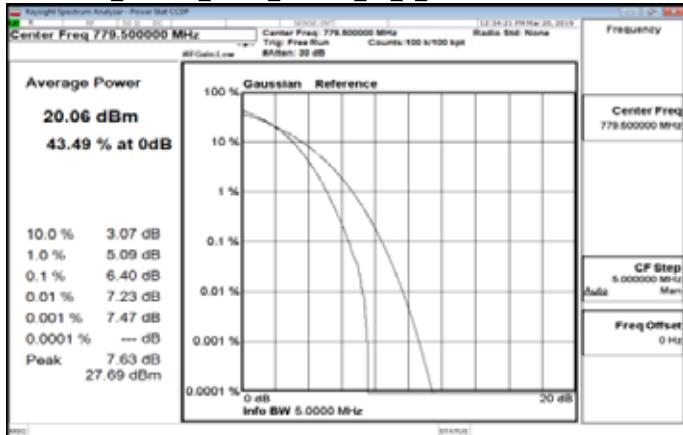


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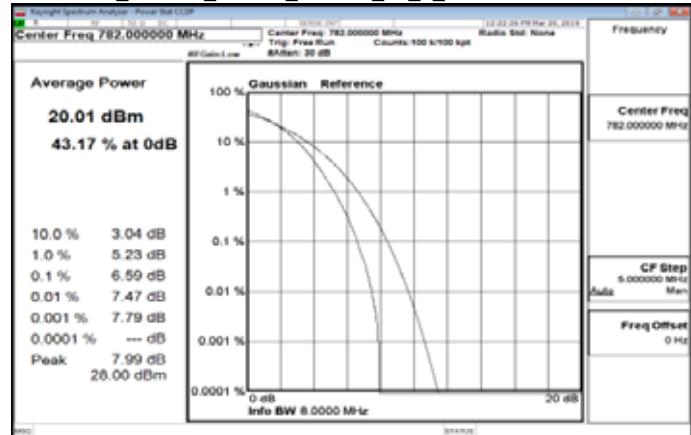
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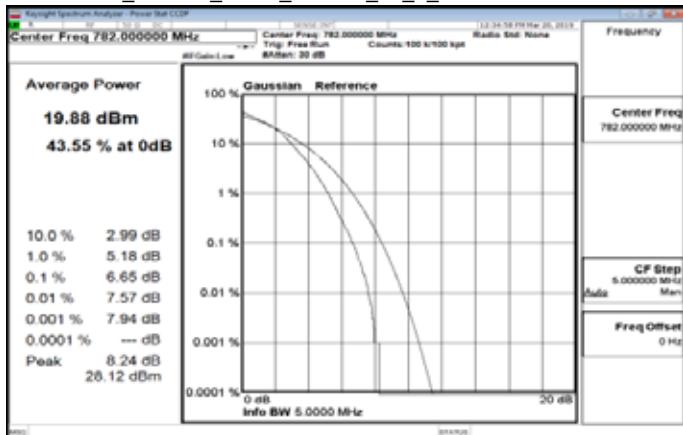
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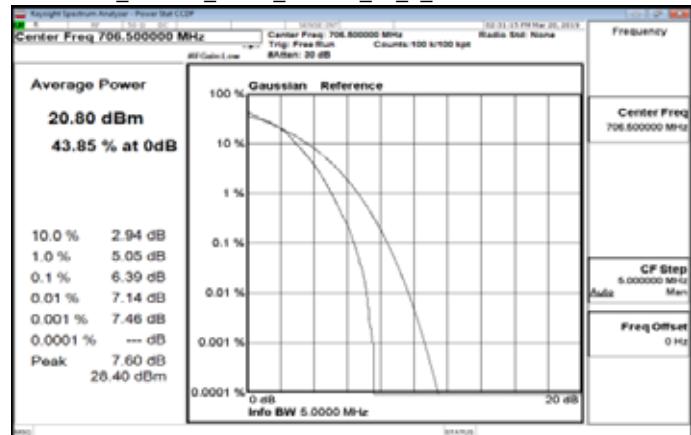
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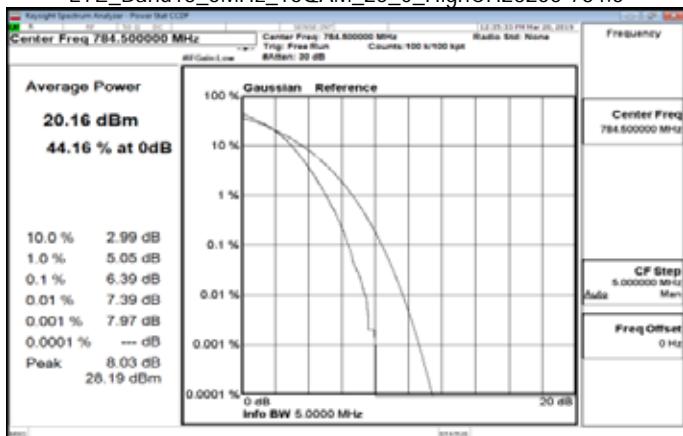
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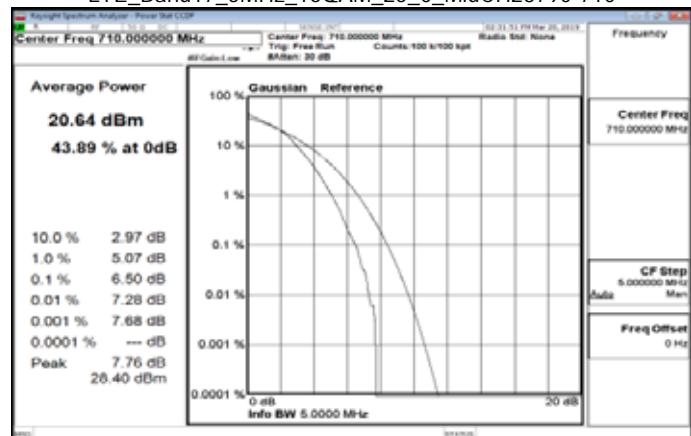
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LTE\_Band17\_5MHz\_16QAM\_25\_0\_MidCH23790-710

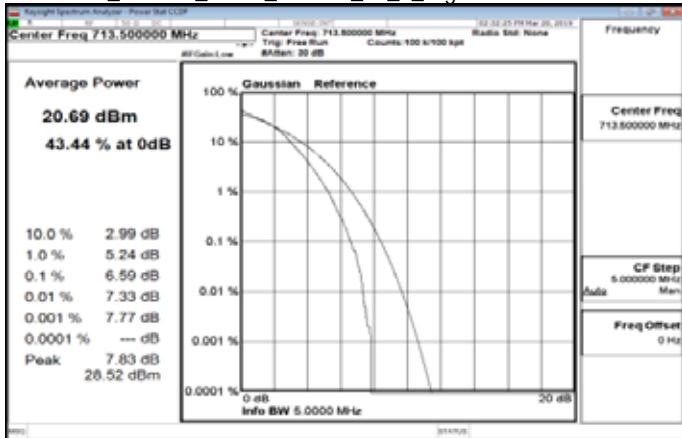


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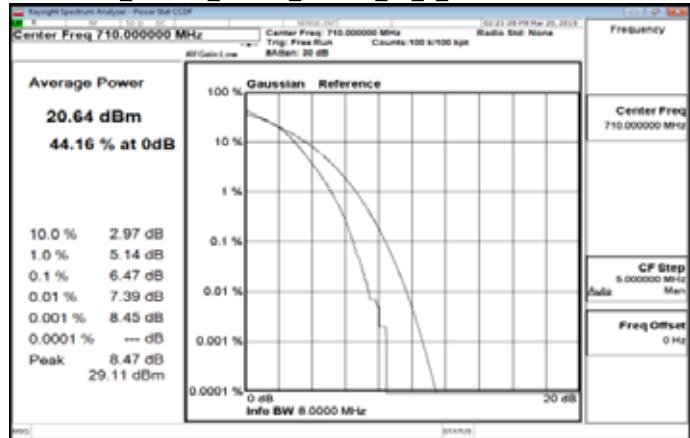
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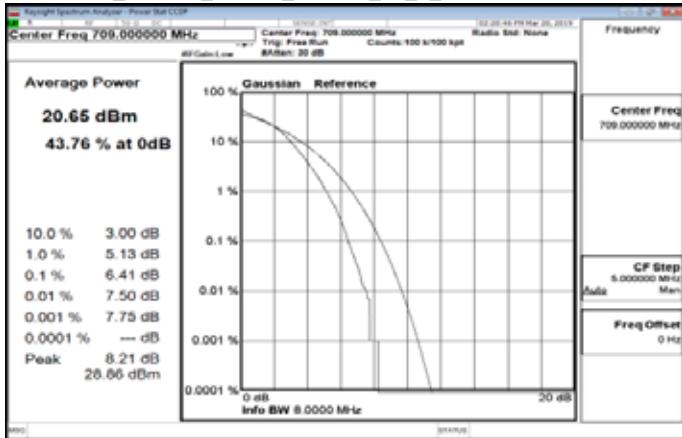
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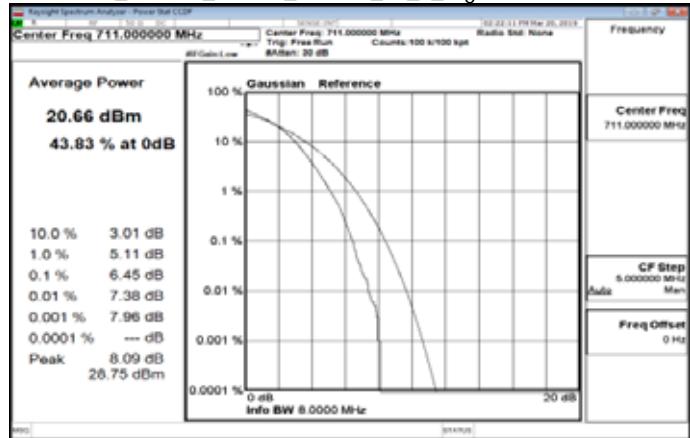
LTE\_Band17\_10MHz\_16QAM\_50\_0\_MidCH23790-710



LTE\_Band17\_10MHz\_16QAM\_50\_0\_LowCH23780-709



LTE\_Band17\_10MHz\_16QAM\_50\_0\_HighCH23800-711



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~ *End of Report* ~

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