



A2. PEAK-TO-AVERAGE RADIO

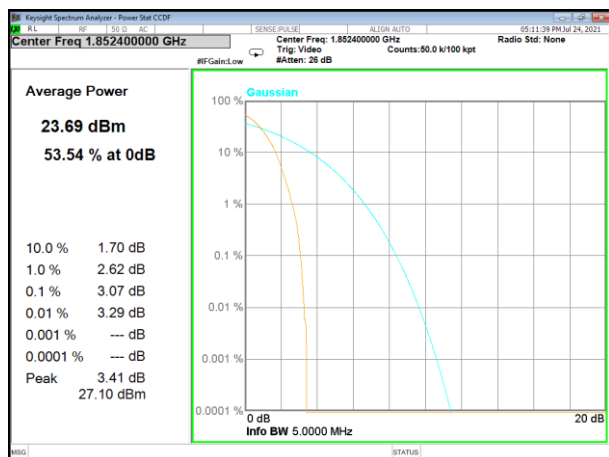
UMTS Band 2		
Mode	Frequency (MHz)	PAR
WCDMA 1900 RMC	1852.4	3.07
	1880	3.06
	1907.6	2.83
HSDPA 1900	1852.4	3.25
	1880	3.17
	1907.6	2.96
HSUPA 1900	1852.4	3.49
	1880	3.54
	1907.6	3.17

UMTS Band 5		
Mode	Frequency (MHz)	PAR
WCDMA 850 RMC	826.4	3.12
	836.6	3.09
	846.6	3.11
HSDPA 850	826.4	3.37
	836.6	3.21
	846.6	3.28
HSUPA 850	826.4	3.35
	836.6	3.31
	846.6	3.49

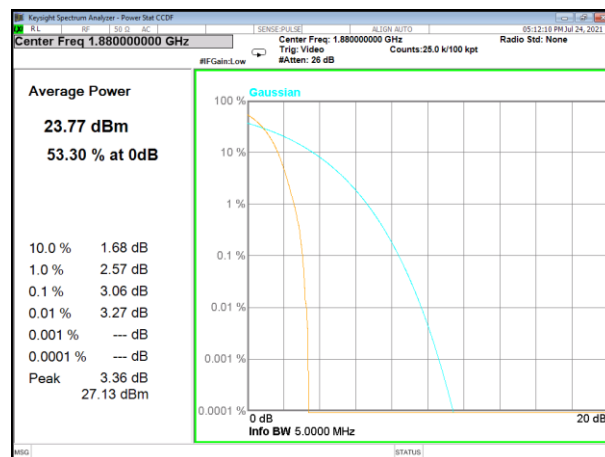


UMTS Band 4		
Mode	Frequency (MHz)	PAR
WCDMA 1700 RMC	1712.6	2.93
	1740	3.10
	1752.4	3.09
HSDPA 1700	1712.6	3.45
	1740	3.35
	1752.4	3.37
HSUPA 1700	1712.6	3.32
	1740	3.24
	1752.4	3.39

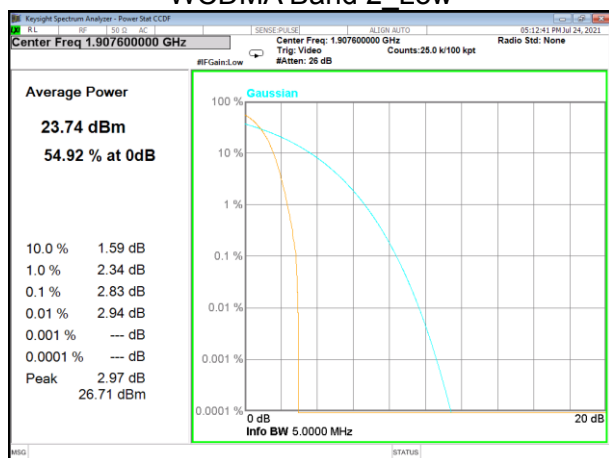




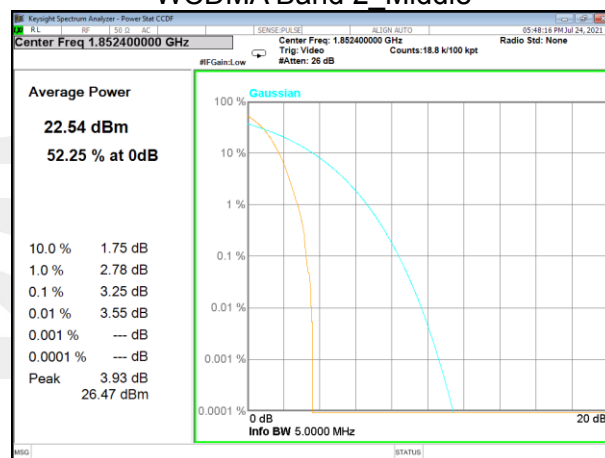
WCDMA Band 2_Low



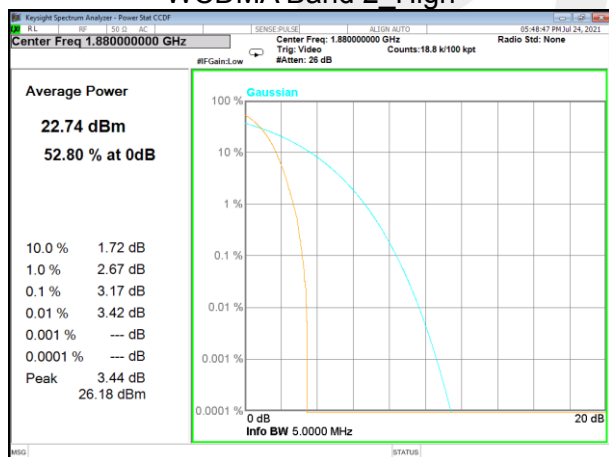
WCDMA Band 2_Middle



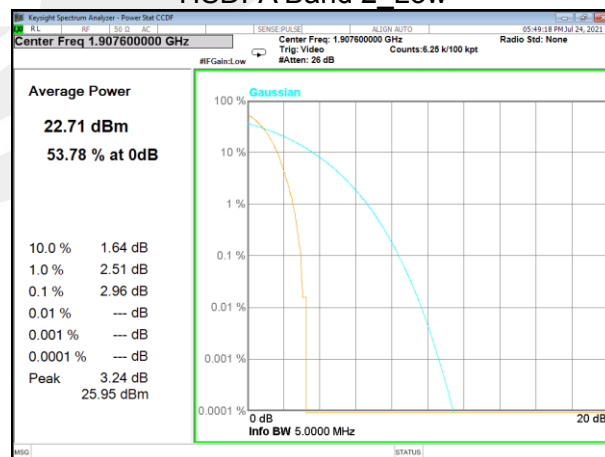
WCDMA Band 2_High



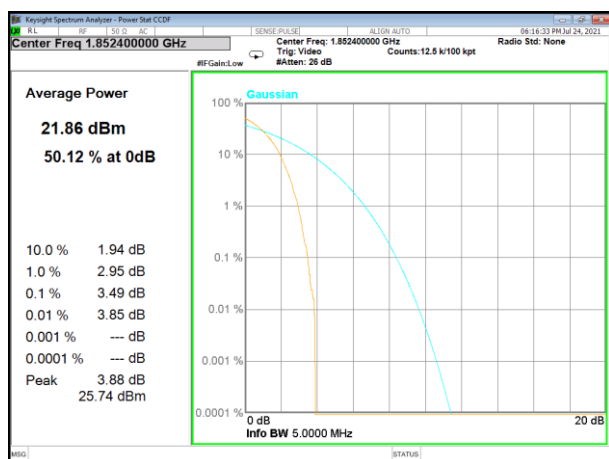
HSDPA Band 2_Low



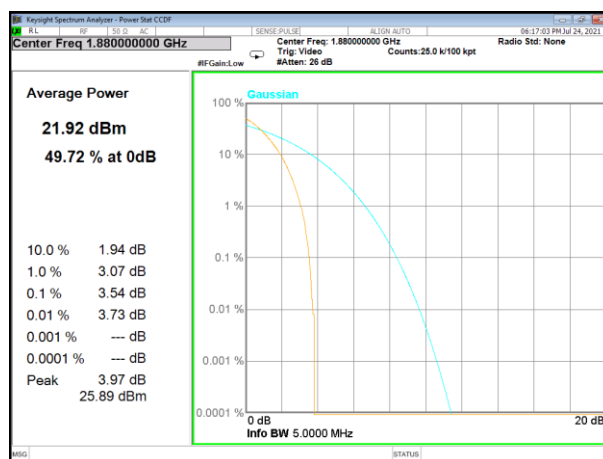
HSDPA Band 2_Middle



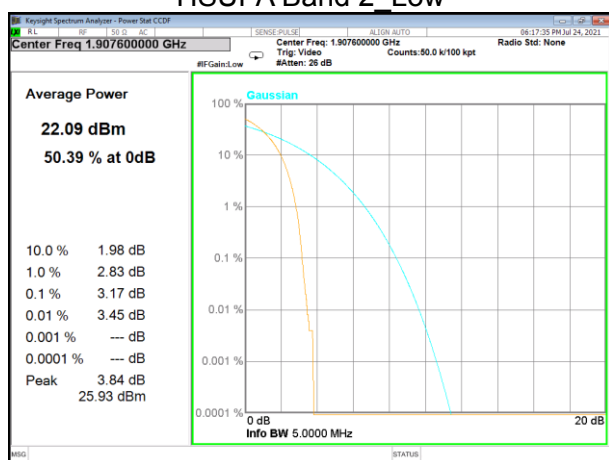
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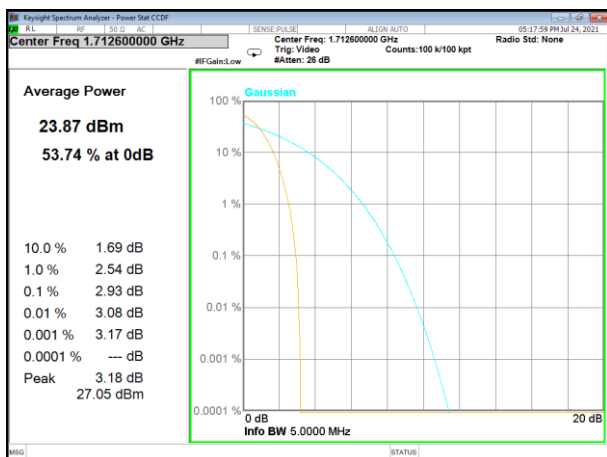
HSUPA Band 2_Low



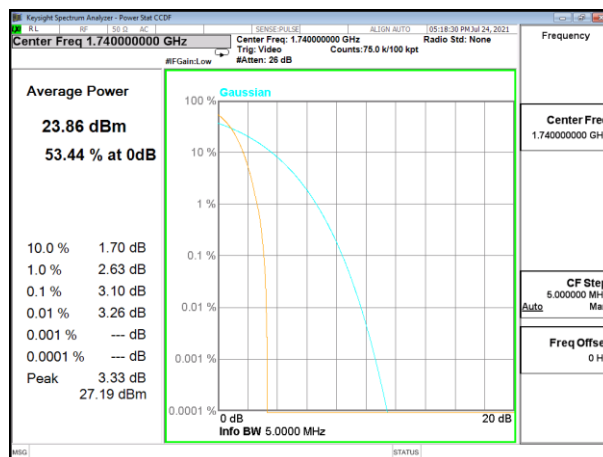
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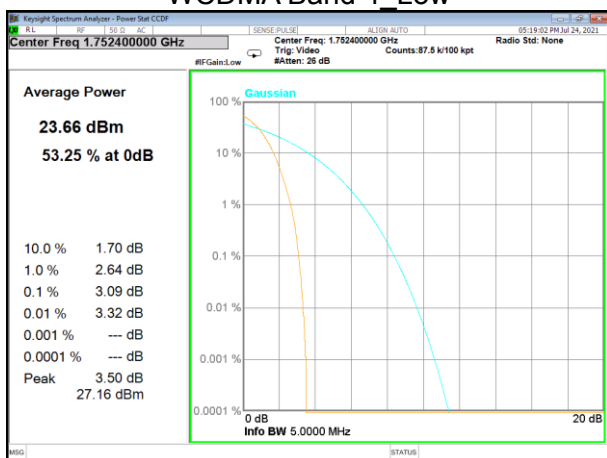
HSUPA Band 2_High



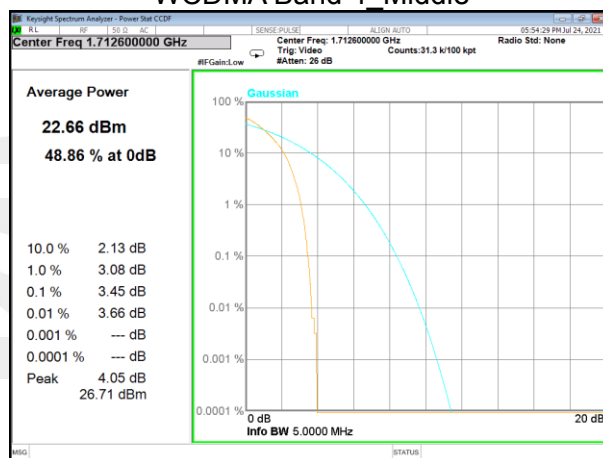
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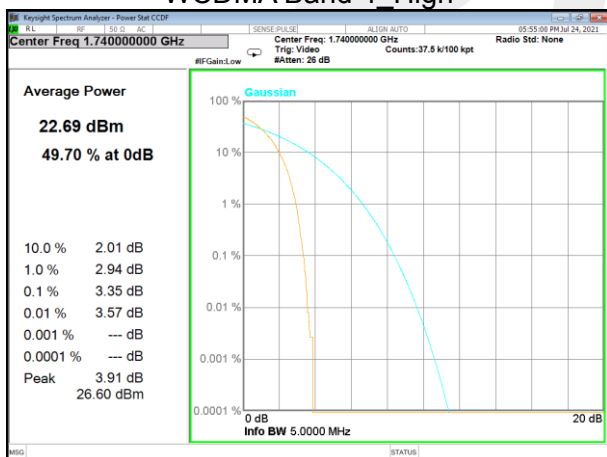
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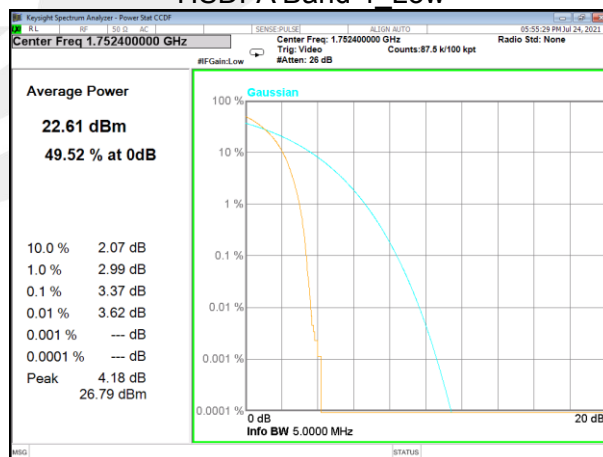
WCDMA Band 4_High



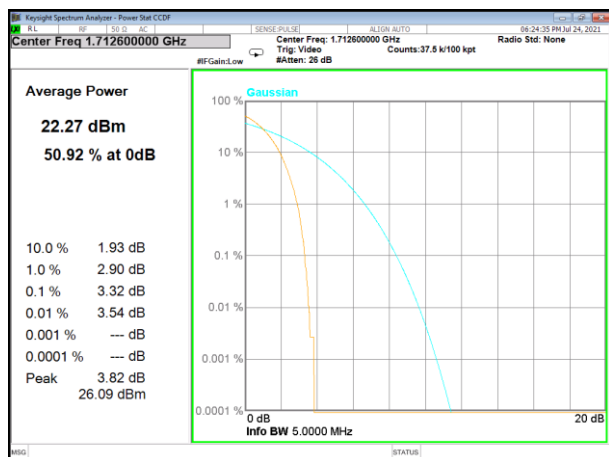
HSDPA Band 4_Low



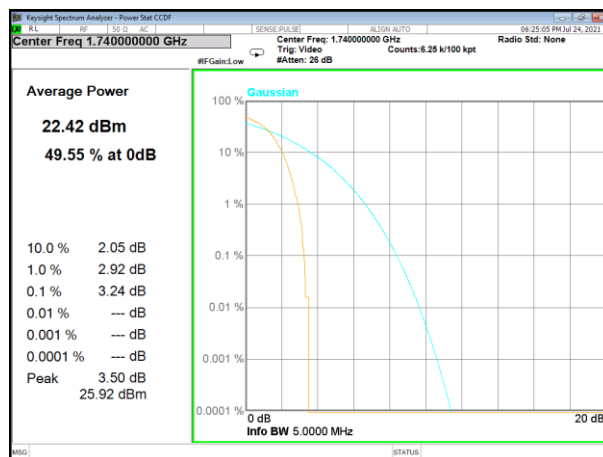
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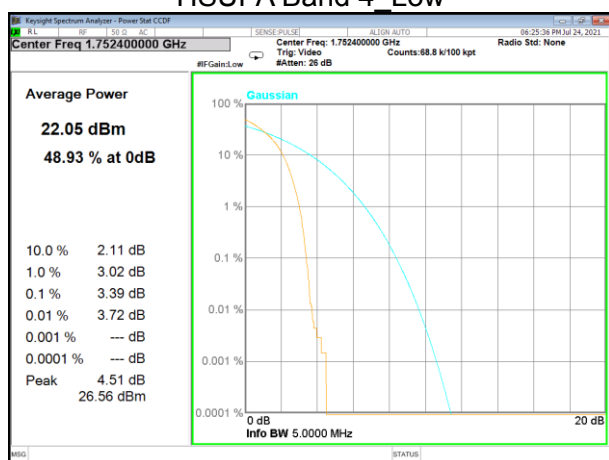
HSDPA Band 4_High



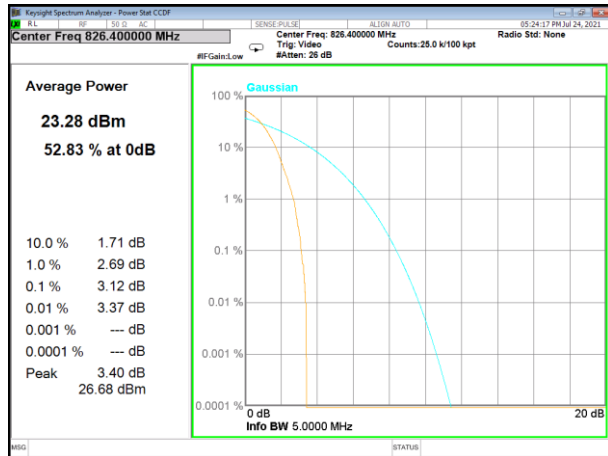
HSUPA Band 4_Low



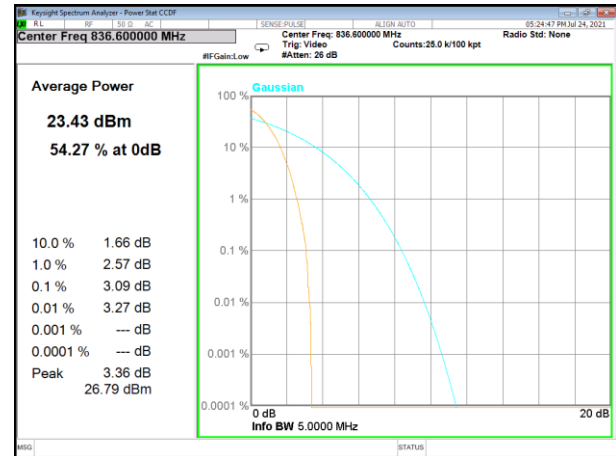
HSUPA Band 4_Middle



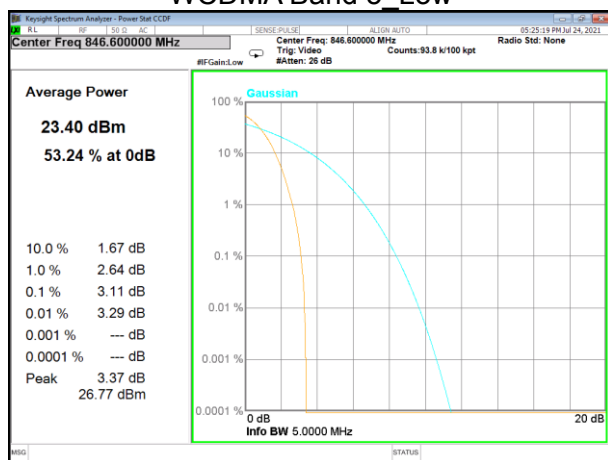
HSUPA Band 4_High



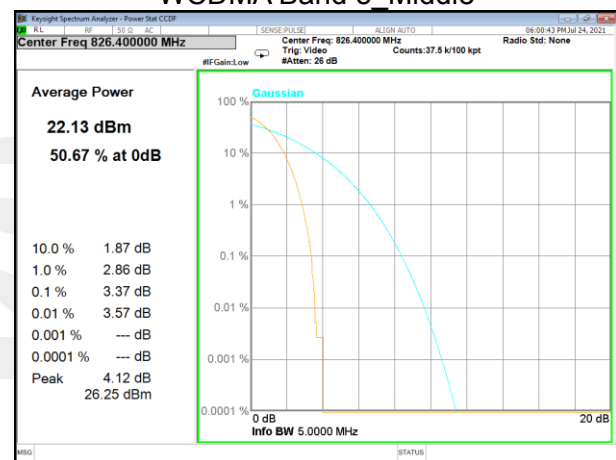
WCDMA Band 5_Low



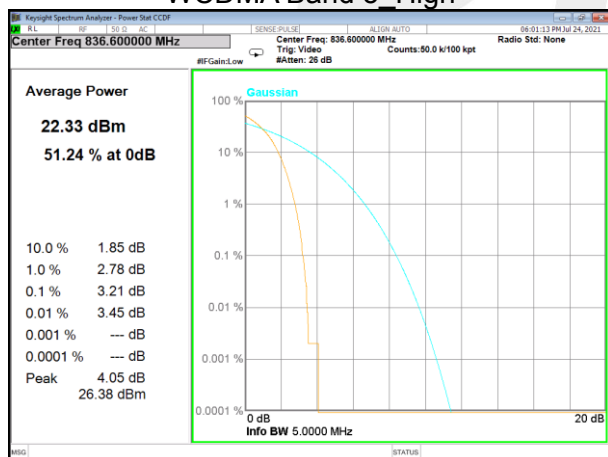
WCDMA Band 5_Middle



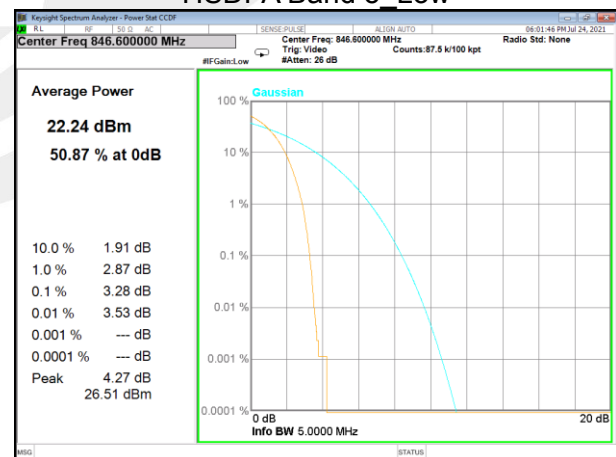
WCDMA Band 5_High



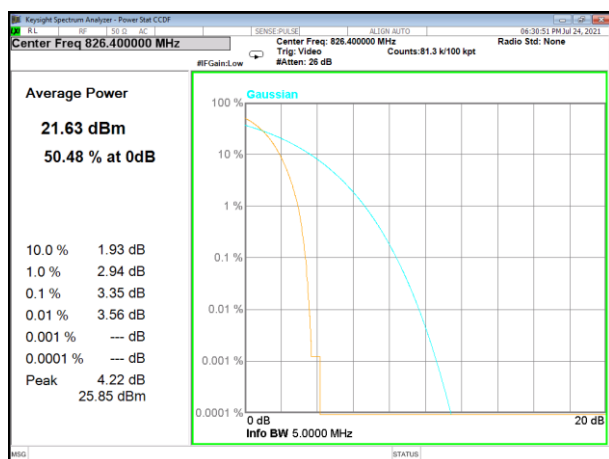
HSDPA Band 5_Low



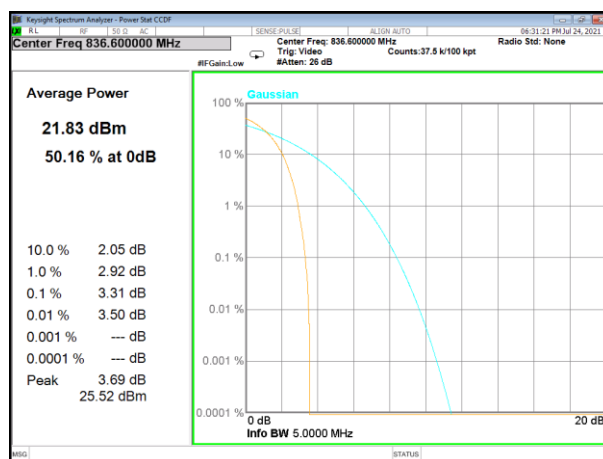
HSDPA Band 5_Middle



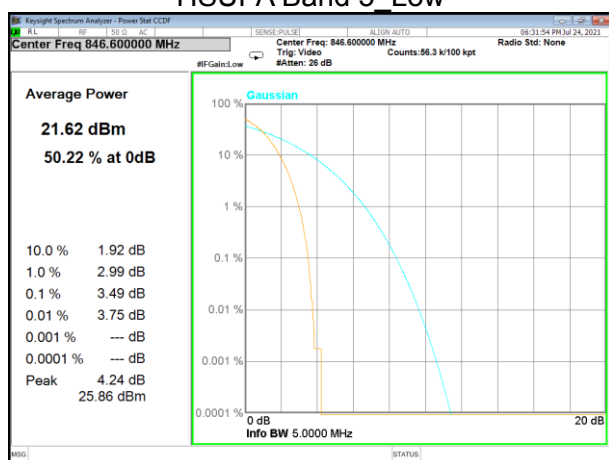
HSDPA Band 5_High



HSUPA Band 5_Low



HSUPA Band 5_Middle



HSUPA Band 5_High



A3. TRANSMITTER RADIATED POWER (EIRP/ERP)

Note: Test is divided into three directions, X/Y/Z. X pattern for the worst

Radiated Power (EIRP) for WCDMA Band 2							
Mode	Frequency	Result					Conclusion
		S G.Level (dBm)	Cable loss	Gain (dBi)	PMeas E.I.R.P.(dBm)	Polarization Of Max. EIRP	
WCDMA	1852.4	13.97	2.41	10.35	21.91	Horizontal	Pass
	1852.4	15.89	2.41	10.35	23.83	Vertical	Pass
	1880	14.01	2.42	10.35	21.94	Horizontal	Pass
	1880	16	2.42	10.35	23.93	Vertical	Pass
	1907.4	14.1	2.43	10.35	22.02	Horizontal	Pass
	1907.4	15.82	2.43	10.35	23.74	Vertical	Pass
HSUPA	1852.4	14.65	2.41	10.35	22.59	Horizontal	Pass
	1852.4	15.55	2.41	10.35	23.49	Vertical	Pass
	1880	14.65	2.42	10.35	22.58	Horizontal	Pass
	1880	15.48	2.42	10.35	23.41	Vertical	Pass
	1907.4	14.01	2.43	10.35	21.93	Horizontal	Pass
	1907.4	15.97	2.43	10.35	23.89	Vertical	Pass
HSDPA	1852.4	13.81	2.41	10.35	21.75	Horizontal	Pass
	1852.4	15.81	2.41	10.35	23.75	Vertical	Pass
	1880	14.14	2.42	10.35	22.07	Horizontal	Pass
	1880	15.99	2.42	10.35	23.92	Vertical	Pass
	1907.4	14.19	2.43	10.35	22.11	Horizontal	Pass
	1907.4	15.94	2.43	10.35	23.86	Vertical	Pass
Limit	EIRP<2W=33dBm						



Radiated Power (ERP) for WCDMA Band 5								
Mode	Frequency	Result						Conclusion
		S G.Level (dBm)	Cable loss	Gain (dBi)	correction factor(dB)	PMeas E.R.P(dBm)	Polarization	
							Of Max. ERP	
WCDMA	826.4	17.55	0.44	6.5	2.15	21.46	Horizontal	Pass
	826.4	19.54	0.44	6.5	2.15	23.45	Vertical	Pass
	836.6	18.13	0.45	6.5	2.15	22.03	Horizontal	Pass
	836.6	19.96	0.45	6.5	2.15	23.86	Vertical	Pass
	846.4	17.69	0.46	6.5	2.15	21.58	Horizontal	Pass
	846.4	19.62	0.46	6.5	2.15	23.51	Vertical	Pass
HSUPA	826.4	17.80	0.44	6.5	2.15	21.71	Horizontal	Pass
	826.4	19.52	0.44	6.5	2.15	23.43	Vertical	Pass
	836.6	18.33	0.45	6.5	2.15	22.23	Horizontal	Pass
	836.6	19.66	0.45	6.5	2.15	23.56	Vertical	Pass
	846.4	18.12	0.46	6.5	2.15	22.01	Horizontal	Pass
	846.4	19.87	0.46	6.5	2.15	23.76	Vertical	Pass
HSDPA	826.4	18.44	0.44	6.5	2.15	22.35	Horizontal	Pass
	826.4	19.21	0.44	6.5	2.15	23.12	Vertical	Pass
	836.6	18.87	0.45	6.5	2.15	22.77	Horizontal	Pass
	836.6	19.61	0.45	6.5	2.15	23.51	Vertical	Pass
	846.4	18.62	0.46	6.5	2.15	22.51	Horizontal	Pass
	846.4	19.42	0.46	6.5	2.15	23.31	Vertical	Pass
Limit	ERP<7W=38.45dBm							



Radiated Power (EIRP) for WCDMA Band 4							
Mode	Frequency	Result					Conclusion
		S G.Level (dBm)	Cable loss	Gain (dBi)	PMeas E.I.R.P.(dBm)	Polarization Of Max. EIRP	
WCDMA	1712.6	14.05	2.07	10.13	22.11	Horizontal	Pass
	1712.6	15.76	2.07	10.13	23.82	Vertical	Pass
	1740	14.3	2.08	10.13	22.35	Horizontal	Pass
	1740	16.01	2.08	10.13	24.06	Vertical	Pass
	1752.4	13.5	2.09	10.13	21.54	Horizontal	Pass
	1752.4	15.47	2.09	10.13	23.51	Vertical	Pass
HSUPA	1712.6	14.53	2.07	10.13	22.59	Horizontal	Pass
	1712.6	15.39	2.07	10.13	23.45	Vertical	Pass
	1740	14.74	2.08	10.13	22.79	Horizontal	Pass
	1740	15.64	2.08	10.13	23.69	Vertical	Pass
	1752.4	13.98	2.09	10.13	22.02	Horizontal	Pass
	1752.4	15.89	2.09	10.13	23.93	Vertical	Pass
HSDPA	1712.6	14.55	2.07	10.13	22.61	Horizontal	Pass
	1712.6	15.52	2.07	10.13	23.58	Vertical	Pass
	1740	14.76	2.08	10.13	22.81	Horizontal	Pass
	1740	15.93	2.08	10.13	23.98	Vertical	Pass
	1752.4	14.71	2.09	10.13	22.75	Horizontal	Pass
	1752.4	15.62	2.09	10.13	23.66	Vertical	Pass
Limit	EIRP<1W=30dBm						



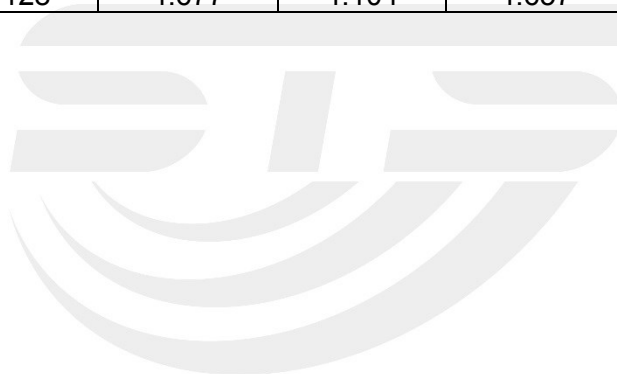


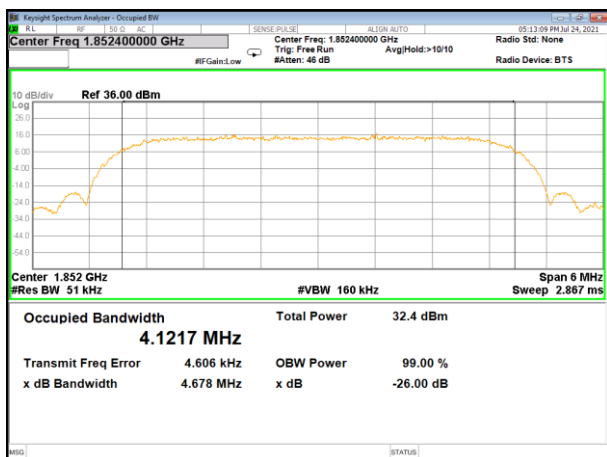
A4. OCCUPIED BANDWIDTH (99% OCCUPIED BANDWIDTH/26dB BANDWIDTH)

WCDMA Bandwidth [MHz]						
Mode	Lowest		Middle		Highest	
	99% BW	26dB BW	99% BW	26dB BW	99% BW	26dB BW
WCDMA 2	4.122	4.678	4.124	4.683	4.13	4.708
HSDPA 2	4.1086	4.675	4.128	4.687	4.118	4.673
HSUPA 2	4.12	4.678	4.122	4.679	4.107	4.697

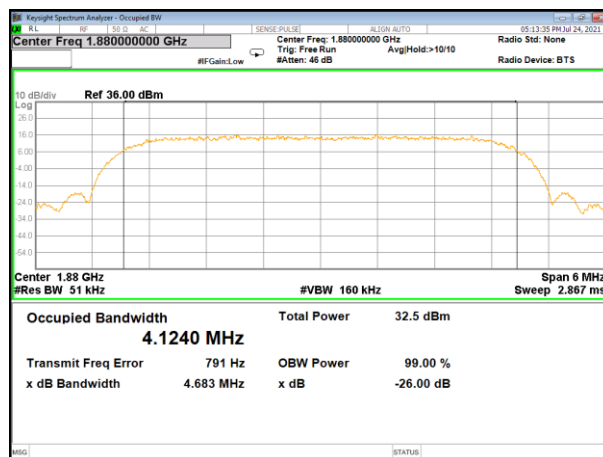
WCDMA Bandwidth [MHz]						
Mode	Lowest		Middle		Highest	
	99% BW	26dB BW	99% BW	26dB BW	99% BW	26dB BW
WCDMA 5	4.121	4.663	4.124	4.681	4.112	4.684
HSDPA 5	4.112	4.679	4.122	4.678	4.1246	4.685
HSUPA 5	4.12	4.688	4.118	4.668	4.113	4.671

WCDMA Bandwidth [MHz]						
Mode	Lowest		Middle		Highest	
	99% BW	26dB BW	99% BW	26dB BW	99% BW	26dB BW
WCDMA 4	4.128	4.686	4.111	4.668	4.11	4.672
HSDPA 4	4.123	4.675	4.107	4.679	4.118	4.674
HSUPA 4	4.128	4.677	4.104	4.657	4.108	4.677

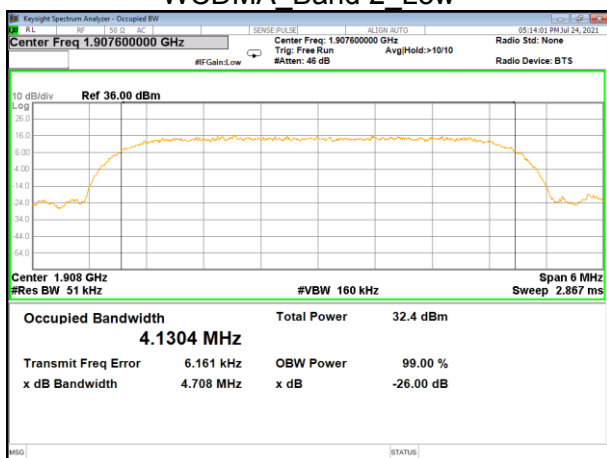




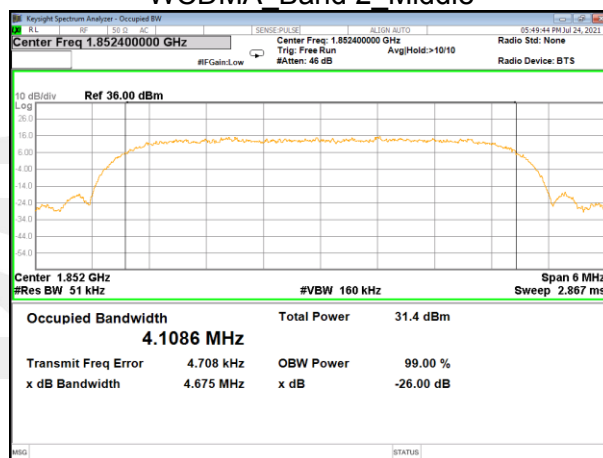
WCDMA_Band 2_Low



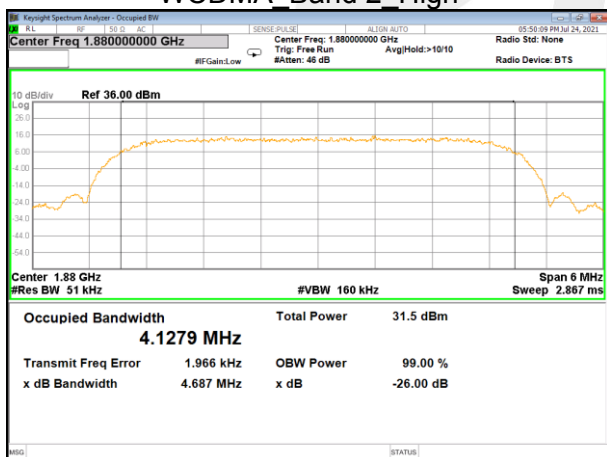
WCDMA_Band 2_Middle



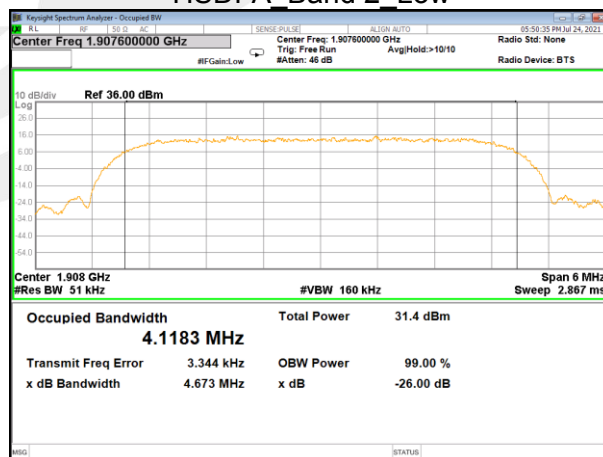
WCDMA_Band 2_High



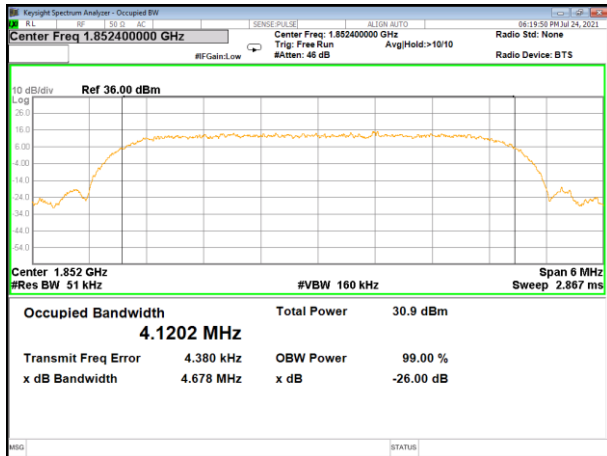
HSDPA_Band 2_Low



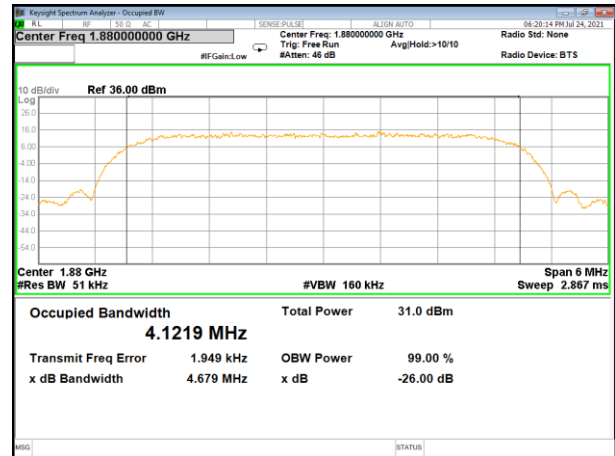
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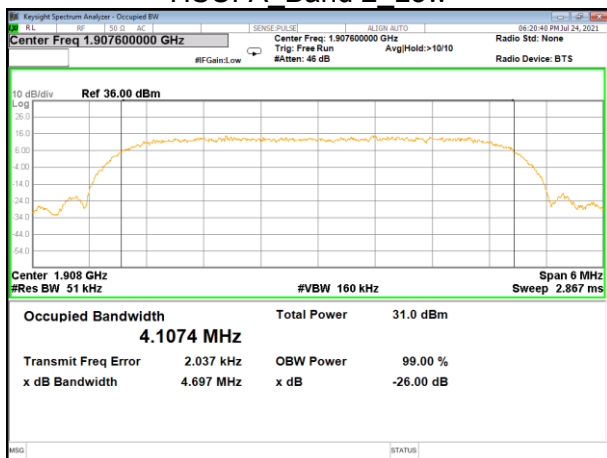
HSDPA_Band 2_High



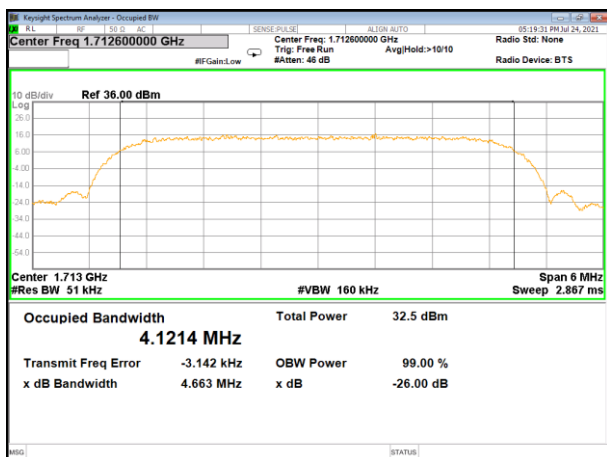
HSUPA_Band 2_Low



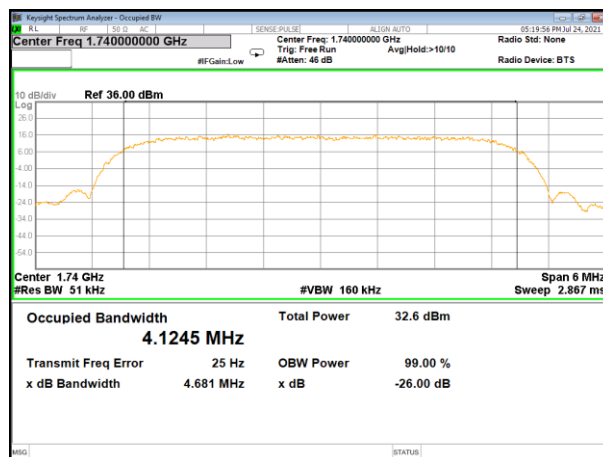
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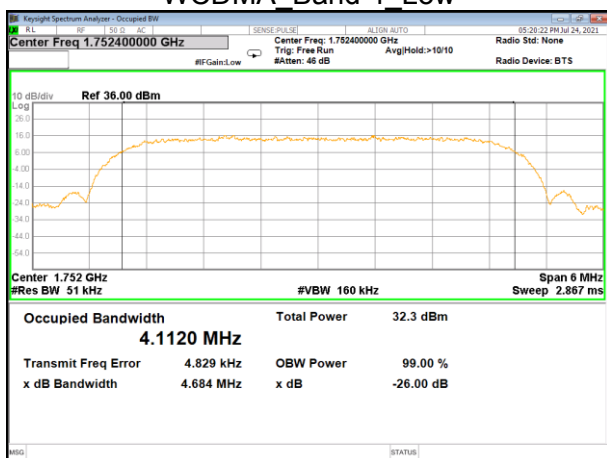
HSUPA_Band 2_High



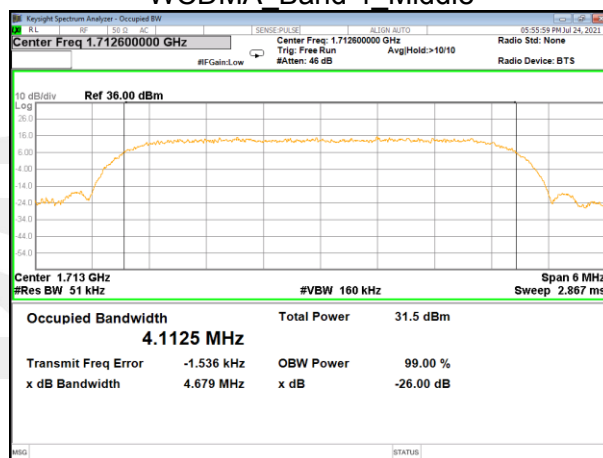
WCDMA_Band 4_Low



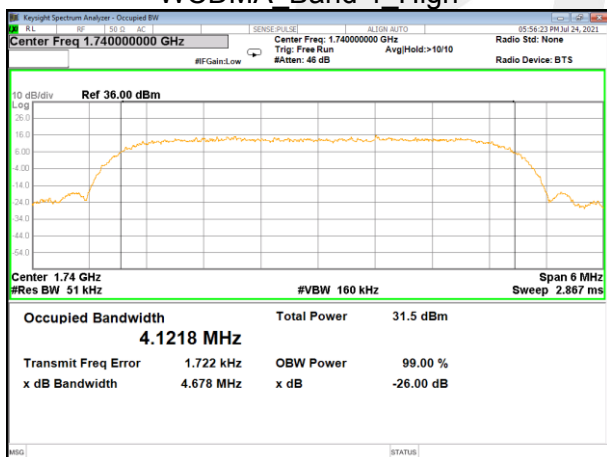
WCDMA_Band 4_Middle



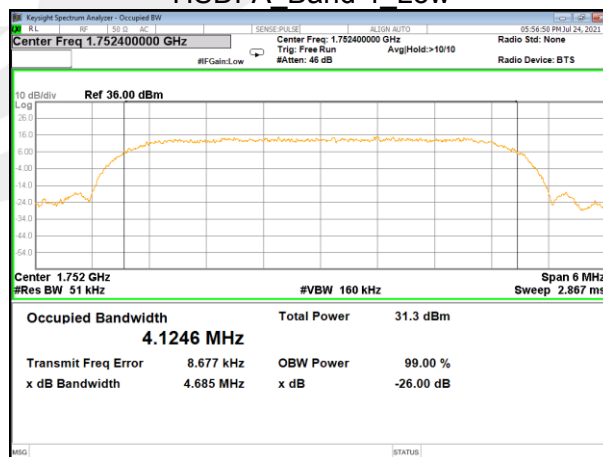
WCDMA_Band 4_High



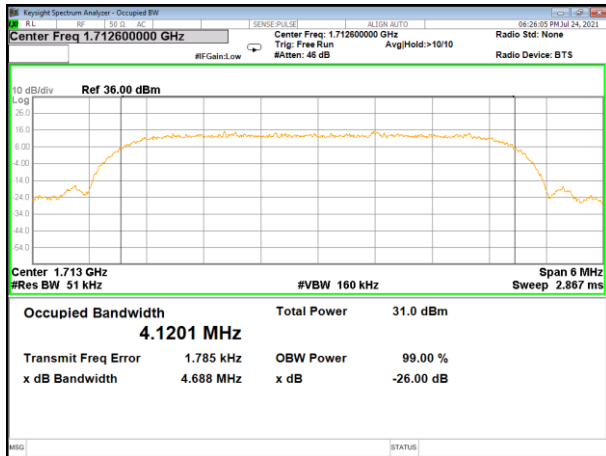
HSDPA_Band 4_Low



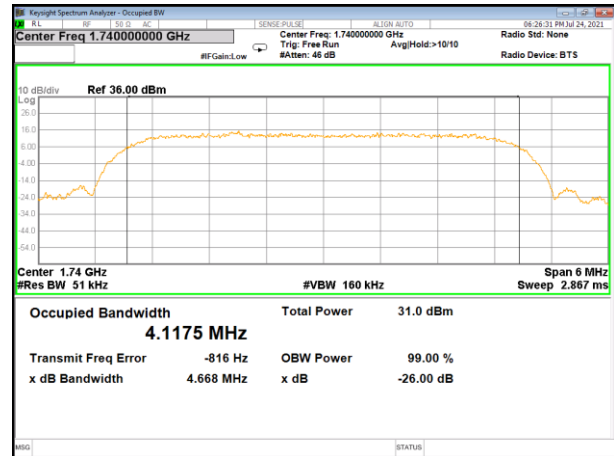
HSDPA_Band 4_Middle



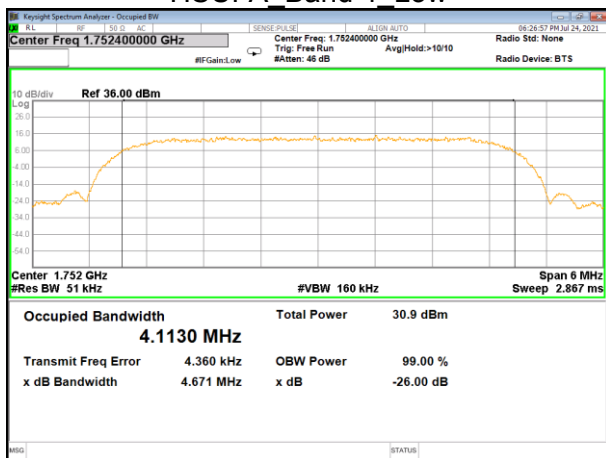
HSDPA_Band 4_High



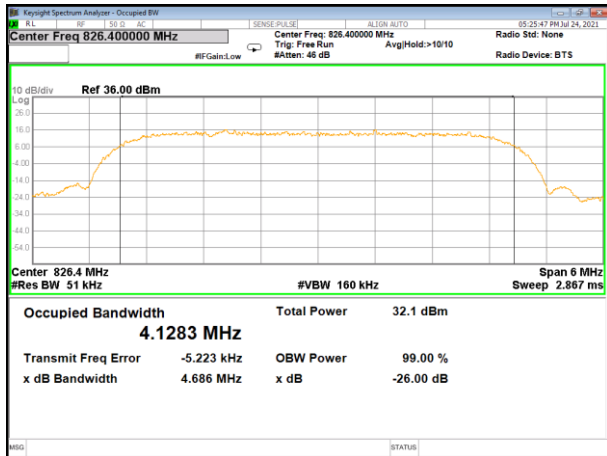
HSUPA_Band 4_Low



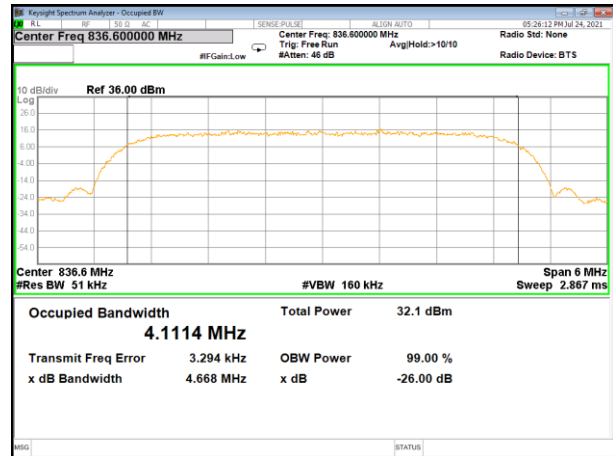
HSUPA_Band 4_Middle



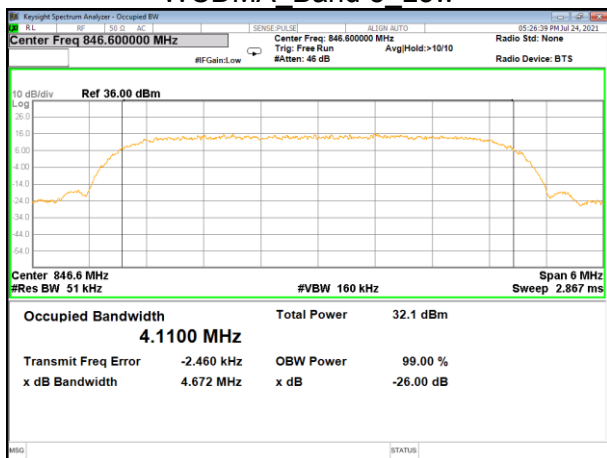
HSUPA_Band 4_High



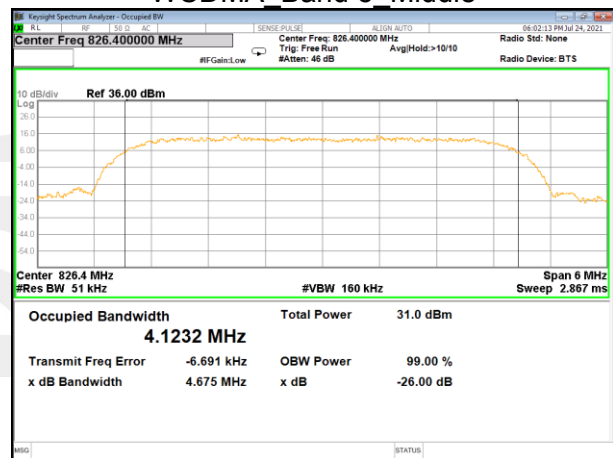
WCDMA_Band 5_Low



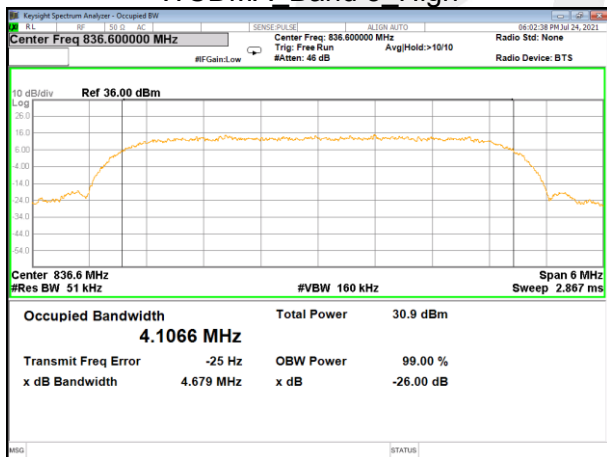
WCDMA_Band 5_Middle



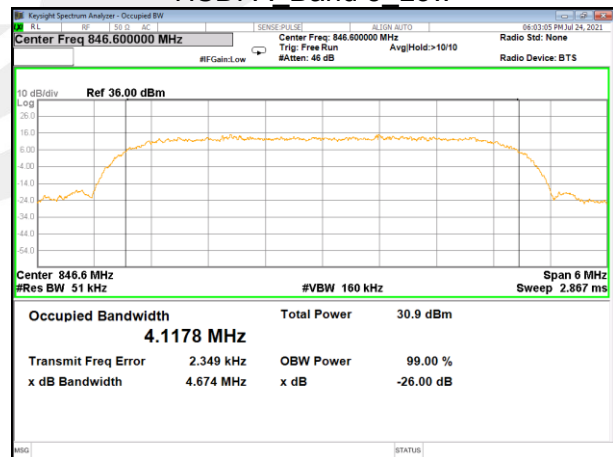
WCDMA_Band 5_High



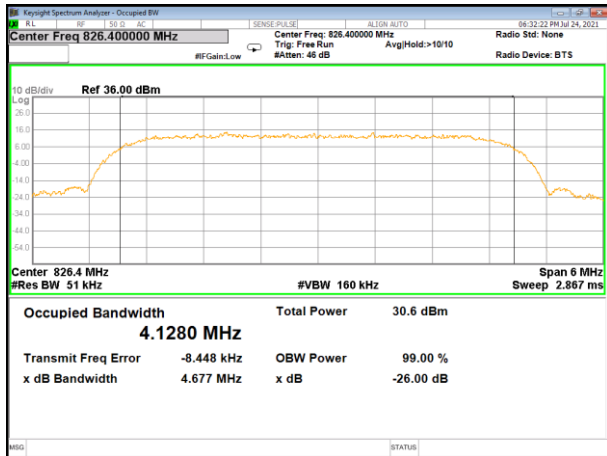
HSDPA_Band 5_Low



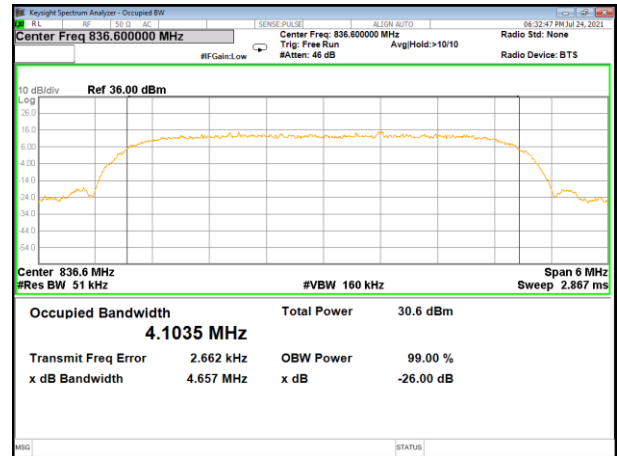
HSDPA_Band 5_Middle



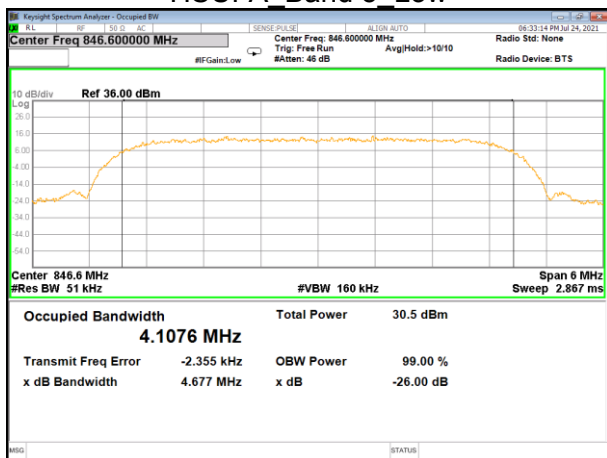
HSDPA_Band 5_High



HSUPA_Band 5_Low



HSUPA_Band 5_Middle



HSUPA_Band 5_High



A5. FREQUENCY STABILITY

UMTS Band 2 /1880MHz					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	28.67	0.015	Within Authorized Band	PASS
40		17.98	0.010		
30		18.38	0.010		
20		19.64	0.010		
10		22.22	0.012		
0		13.57	0.007		
-10		31.64	0.017		
-20		29.34	0.016		
-30		26.86	0.014		
20	Maximum Voltage	17.22	0.009		
20	BEP	13.70	0.007		

HSDPA Band 2 /1880MHz					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	12.07	0.006	Within Authorized Band	PASS
40		14.52	0.008		
30		22.76	0.012		
20		31.45	0.017		
10		25.46	0.014		
0		36.15	0.019		
-10		17.27	0.009		
-20		11.57	0.006		
-30		35.50	0.019		
20	Maximum Voltage	17.26	0.009		
20	BEP	21.72	0.012		

HSUPA Band 2 /1880MHz					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	20.16	0.011	Within Authorized Band	PASS
40		30.87	0.016		
30		14.92	0.008		
20		17.73	0.009		
10		13.45	0.007		
0		31.60	0.017		
-10		13.24	0.007		
-20		35.90	0.019		
-30		17.58	0.009		
20	Maximum Voltage	24.02	0.013		
20	BEP	12.89	0.007		



UMTS Band 5 / 836.6MHz					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	34.09	0.041	2.5ppm	PASS
40		31.54	0.038		
30		34.30	0.041		
20		19.05	0.023		
10		25.09	0.030		
0		13.78	0.016		
-10		31.56	0.038		
-20		32.91	0.039		
-30		13.88	0.017		
20	Maximum Voltage	16.34	0.020		
20	BEP	23.31	0.028		

HSDPA Band 5 / 836.6MHz					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	29.92	0.036	2.5ppm	PASS
40		32.63	0.039		
30		19.83	0.024		
20		35.73	0.043		
10		22.15	0.026		
0		16.18	0.019		
-10		26.64	0.032		
-20		21.15	0.025		
-30		29.18	0.035		
20	Maximum Voltage	22.66	0.027		
20	BEP	19.96	0.024		

HSUPA Band 5 / 836.6MHz					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	21.74	0.026	2.5ppm	PASS
40		34.34	0.041		
30		27.46	0.033		
20		29.36	0.035		
10		28.19	0.034		
0		30.05	0.036		
-10		23.01	0.028		
-20		15.59	0.019		
-30		21.38	0.026		
20	Maximum Voltage	36.34	0.043		
20	BEP	26.50	0.032		



UMTS Band 4 /1740MHz					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	16.03	0.009	Within Authorized Band	PASS
40		33.61	0.018		
30		34.58	0.018		
20		23.88	0.013		
10		21.41	0.011		
0		18.78	0.010		
-10		31.14	0.017		
-20		19.26	0.010		
-30		19.98	0.011		
20	Maximum Voltage	15.88	0.008		
20	BEP	35.44	0.019		

HSDPA Band 4 /1740MHz					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	31.59	0.017	Within Authorized Band	PASS
40		24.33	0.013		
30		25.73	0.014		
20		19.10	0.010		
10		19.57	0.010		
0		25.30	0.013		
-10		17.96	0.010		
-20		35.96	0.019		
-30		36.36	0.019		
20	Maximum Voltage	17.20	0.009		
20	BEP	32.40	0.017		

HSUPA Band 4 /1740MHz					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	21.04	0.011	Within Authorized Band	PASS
40		33.69	0.018		
30		18.89	0.010		
20		11.69	0.006		
10		15.90	0.008		
0		28.91	0.015		
-10		25.16	0.013		
-20		29.29	0.016		
-30		16.17	0.009		
20	Maximum Voltage	22.20	0.012		
20	BEP	34.55	0.018		

1. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.