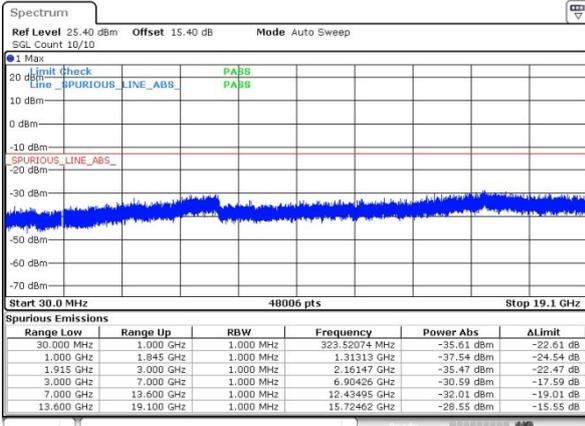




GSM1900 (GSM)

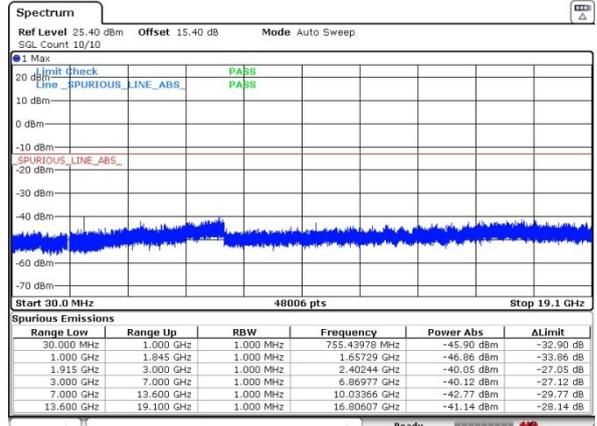
Lowest Channel



Date: 29. DEC. 2020 01:16:39

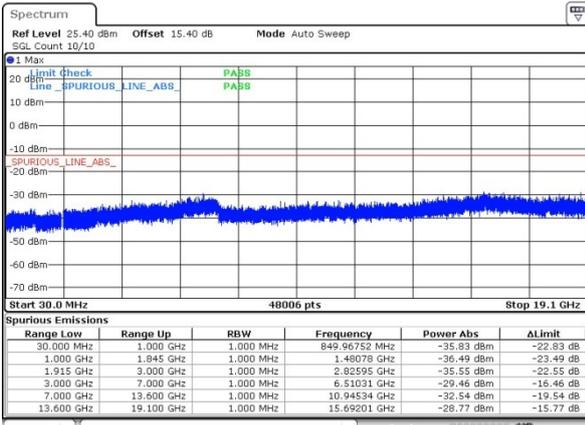
GSM1900 (EDGE class 8)

Lowest Channel



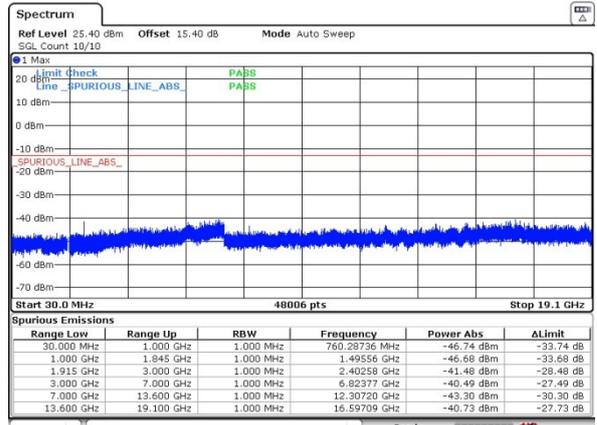
Date: 13. JAN 2021 10:36:48

Middle Channel



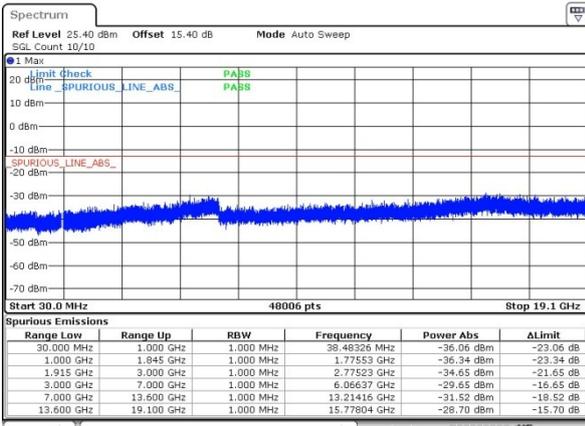
Date: 29. DEC. 2020 01:16:03

Middle Channel



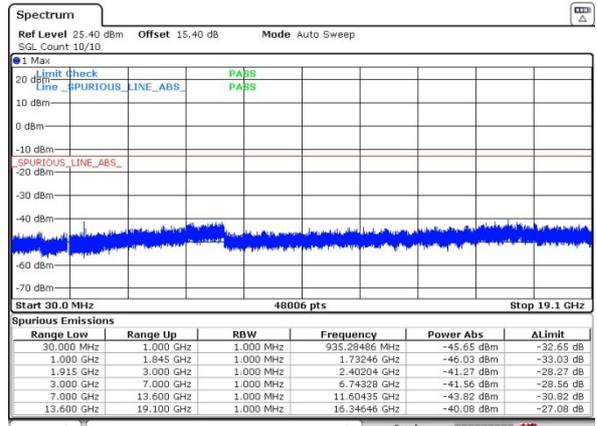
Date: 13. JAN 2021 10:36:23

Highest Channel



Date: 29. DEC. 2020 01:19:32

Highest Channel



Date: 13. JAN 2021 10:36:40



**Frequency Stability**

Test Conditions	Middle Channel	GSM850 (GSM)	GSM850 (EDGE class 8)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
50	Normal Voltage	0.0101	0.0225	PASS
40	Normal Voltage	0.0042	0.0188	
30	Normal Voltage	0.0230	0.0088	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0175	0.0155	
0	Normal Voltage	0.0078	0.0166	
-10	Normal Voltage	0.0189	0.0234	
-20	Normal Voltage	0.0149	0.0065	
-30	Normal Voltage	0.0189	0.0109	
20	Maximum Voltage	0.0096	0.0132	
20	Normal Voltage	0.0000	0.0000	
20	Battery End Point	0.0191	0.0036	

**Note:**

1. Normal Voltage = 3.87V. ; Battery End Point (BEP) =3.6V. ; Maximum Voltage = 4.4V
2. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.



Test Conditions	Middle Channel	GSM1900 (GSM)	GSM1900 (EDGE class 8)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
50	Normal Voltage	0.0058	0.0181	PASS
40	Normal Voltage	0.0015	0.0131	
30	Normal Voltage	0.0129	0.0023	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0125	0.0112	
0	Normal Voltage	0.0136	0.0135	
-10	Normal Voltage	0.0079	0.0174	
-20	Normal Voltage	0.0021	0.0127	
-30	Normal Voltage	0.0118	0.0119	
20	Maximum Voltage	0.0052	0.0018	
20	Normal Voltage	0.0000	0.0000	
20	Battery End Point	0.0124	0.0027	

**Note:**

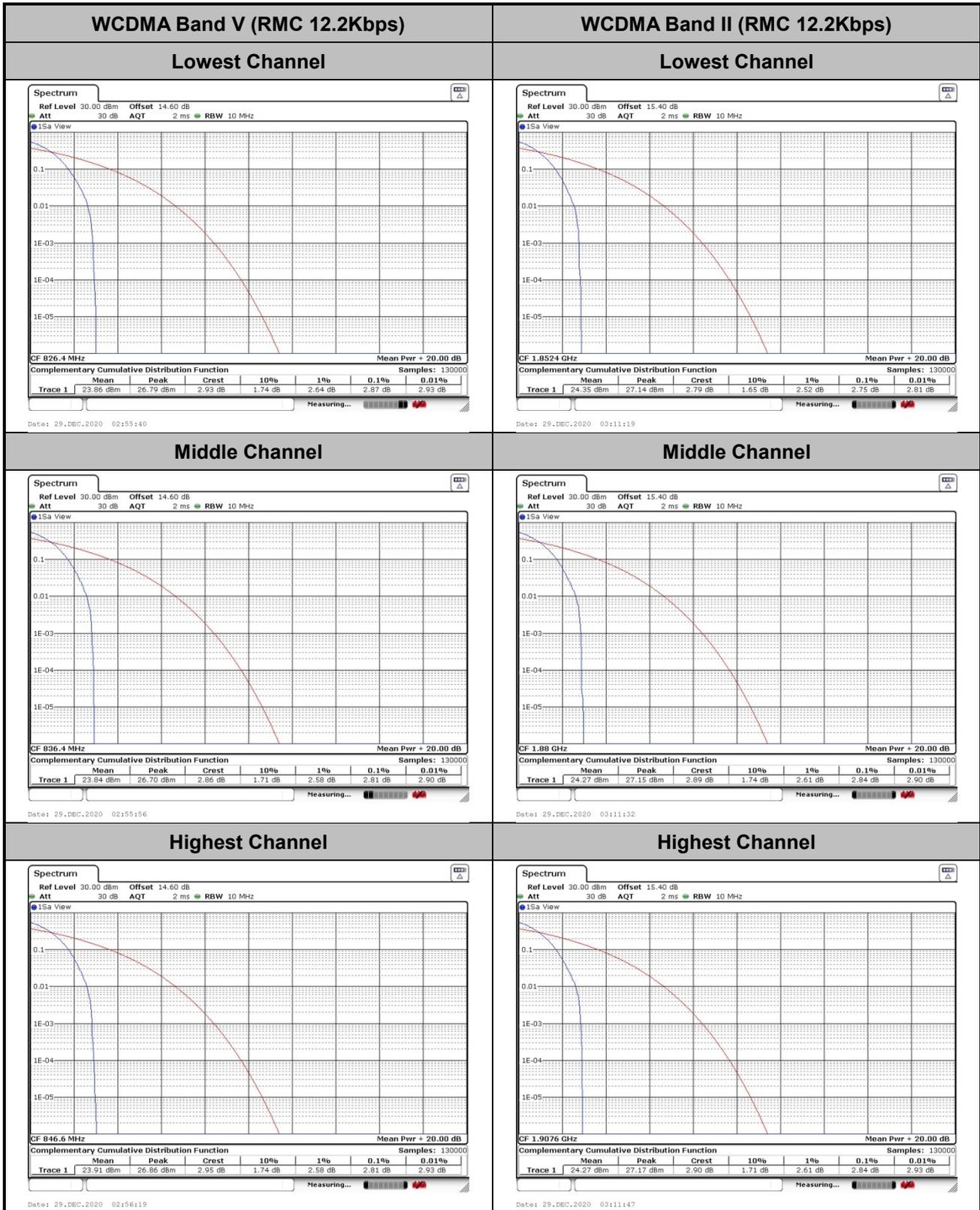
- 1. Normal Voltage = 3.87V. ; Battery End Point (BEP) =3.6V. ; Maximum Voltage = 4.4V
- 2. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.



## A2. WCDMA

### Peak-to-Average Ratio

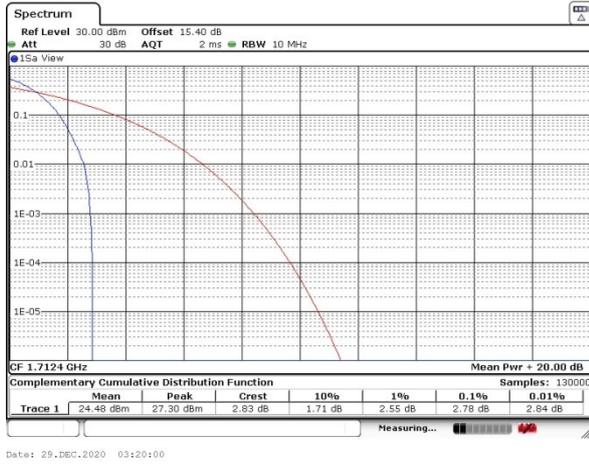
Mode	WCDMA Band V	WCDMA Band II	WCDMA Band IV	Limit: 13dB
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	RMC 12.2Kbps	Result
Lowest CH	2.87	2.75	2.78	<b>PASS</b>
Middle CH	2.81	2.84	2.78	
Highest CH	2.81	2.84	3.42	



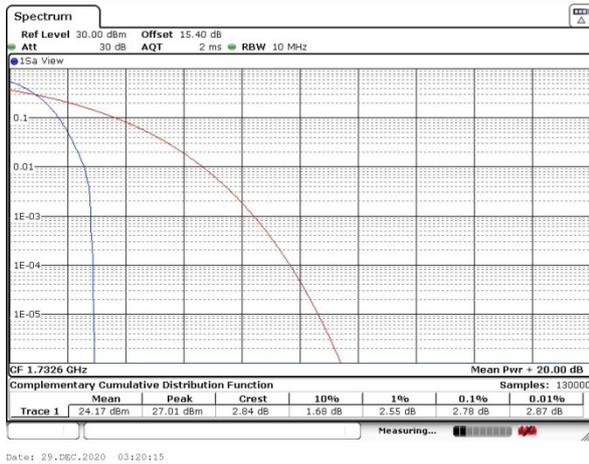


WCDMA Band IV (RMC 12.2Kbps)

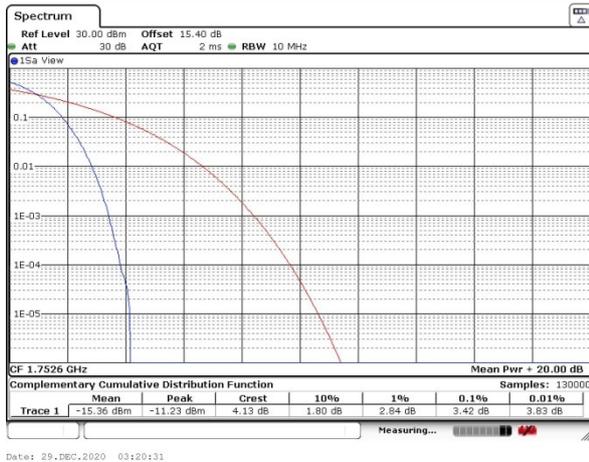
Lowest Channel



Middle Channel



Highest Channel





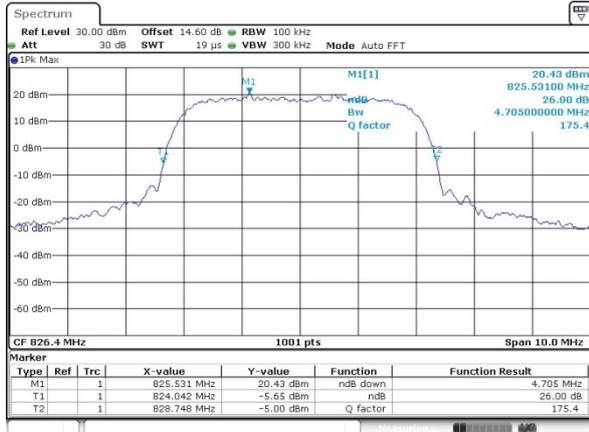
**26dB Bandwidth**

Mode	WCDMA Band V	WCDMA Band II	WCDMA Band IV
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	RMC 12.2Kbps
Lowest CH	4.705	4.725	4.725
Middle CH	4.725	4.725	4.715
Highest CH	4.715	4.715	4.725



WCDMA Band V (RMC 12.2Kbps)

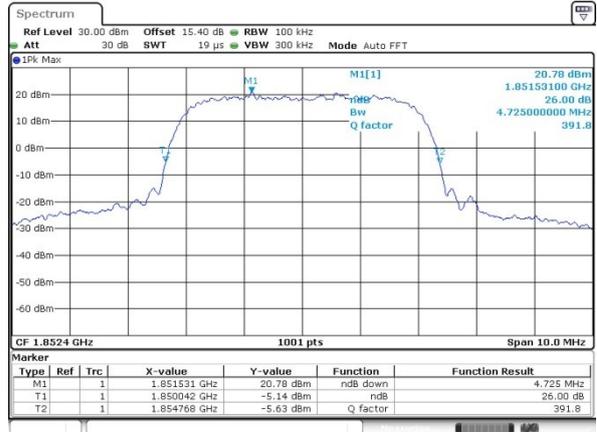
Lowest Channel



Date: 29. DEC. 2020 02:42:49

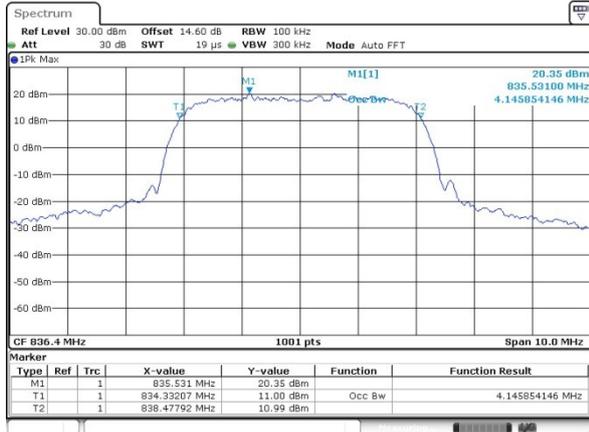
WCDMA Band II (RMC 12.2Kbps)

Lowest Channel



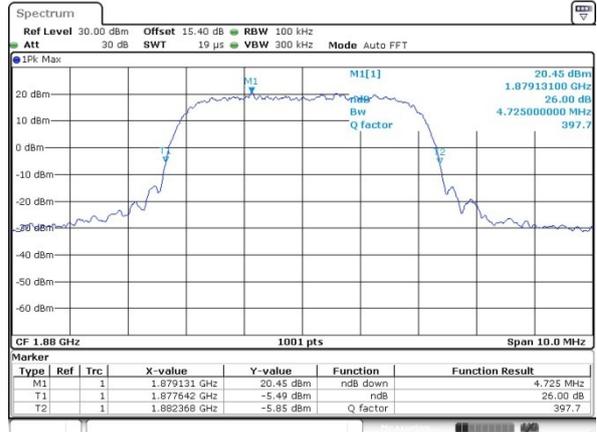
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Middle Channel



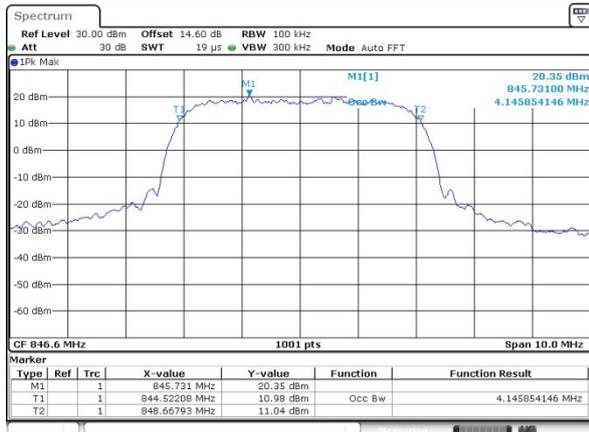
Date: 29. DEC. 2020 02:45:51

Middle Channel



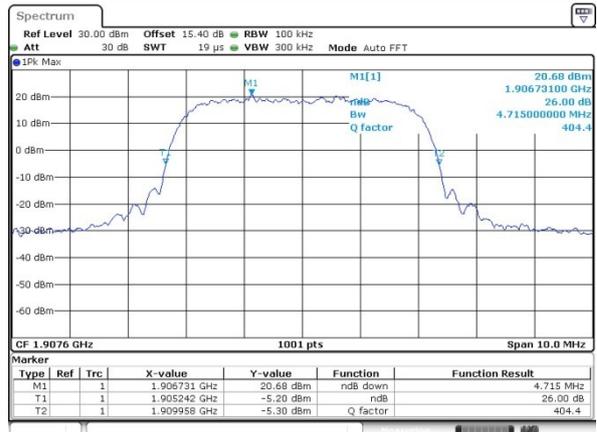
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Highest Channel



Date: 29. DEC. 2020 02:46:28

Highest Channel

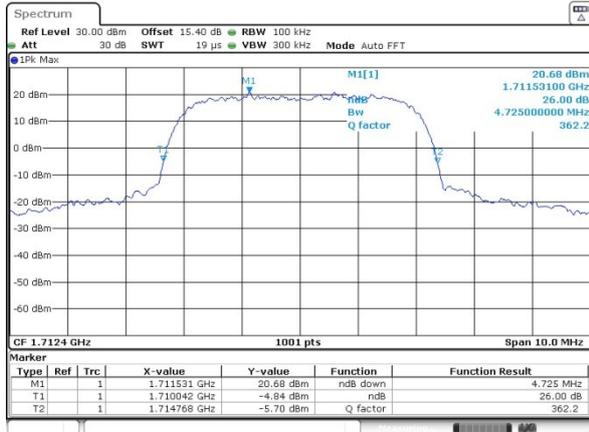


Date: 29. DEC. 2020 03:04:05



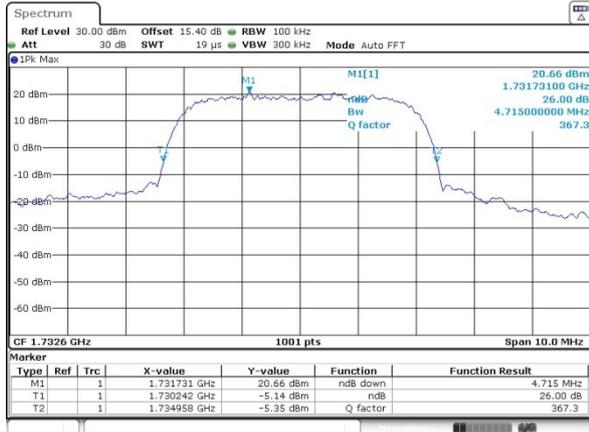
WCDMA Band IV (RMC 12.2Kbps)

Lowest Channel



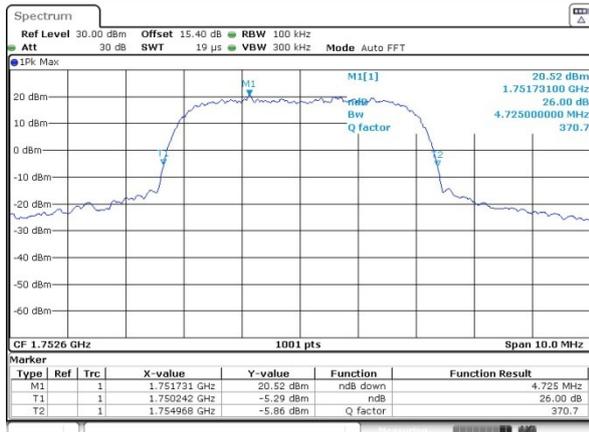
Date: 29. DEC. 2020 03:16:09

Middle Channel



Date: 29. DEC. 2020 03:16:55

Highest Channel



Date: 29. DEC. 2020 03:17:34



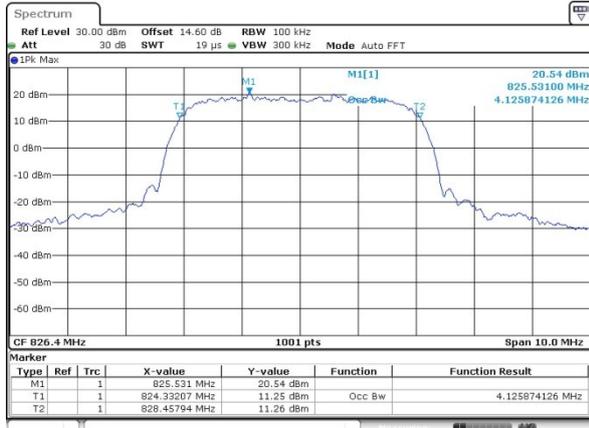
**Occupied Bandwidth**

Mode	WCDMA Band V	WCDMA Band II	WCDMA Band IV
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	RMC 12.2Kbps
Lowest CH	4.13	4.14	4.14
Middle CH	4.15	4.13	4.14
Highest CH	4.15	4.14	4.14



WCDMA Band V (RMC 12.2Kbps)

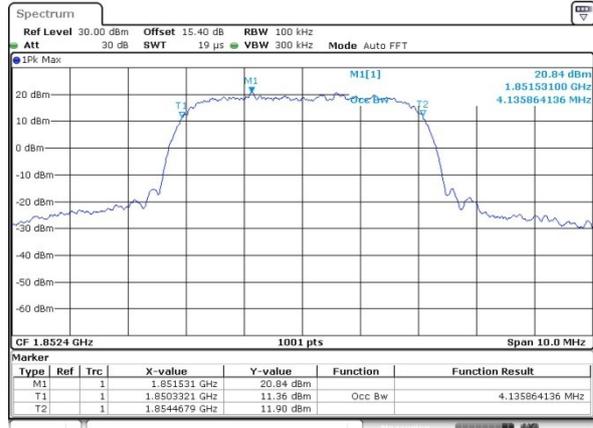
Lowest Channel



Date: 29 DEC 2020 02:45:10

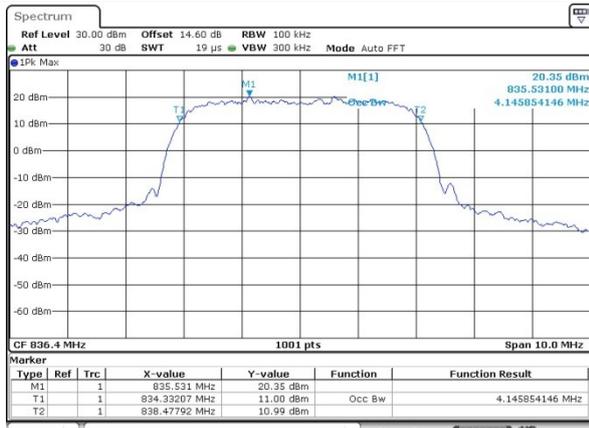
WCDMA Band II (RMC 12.2Kbps)

Lowest Channel



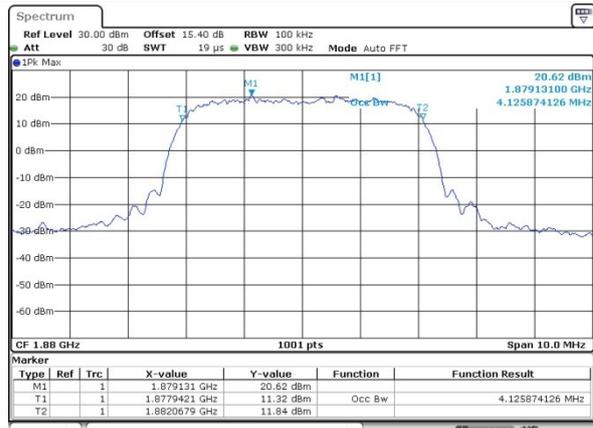
Date: 29 DEC 2020 03:05:06

Middle Channel



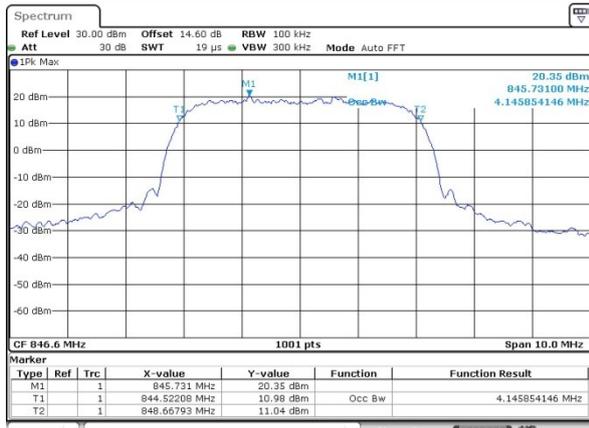
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Middle Channel



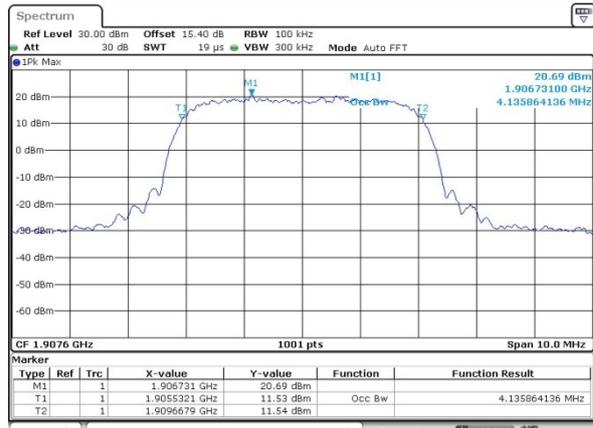
Date: 29 DEC 2020 03:05:51

Highest Channel



Date: 29 DEC 2020 02:46:28

Highest Channel

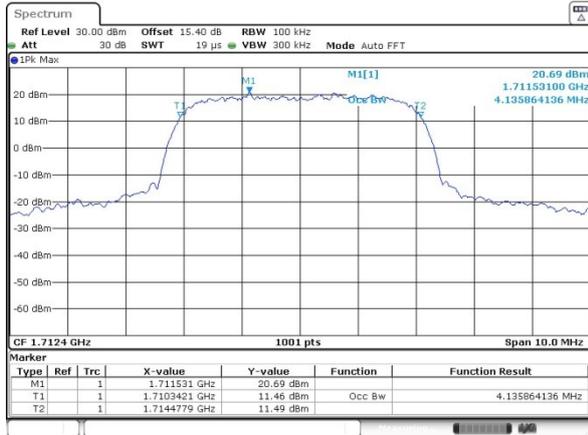


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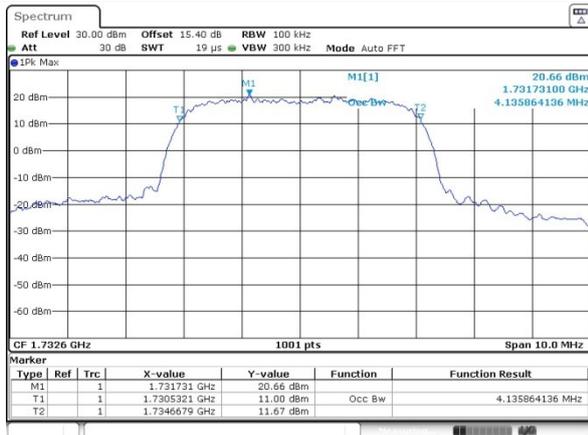


WCDMA Band IV (RMC 12.2Kbps)

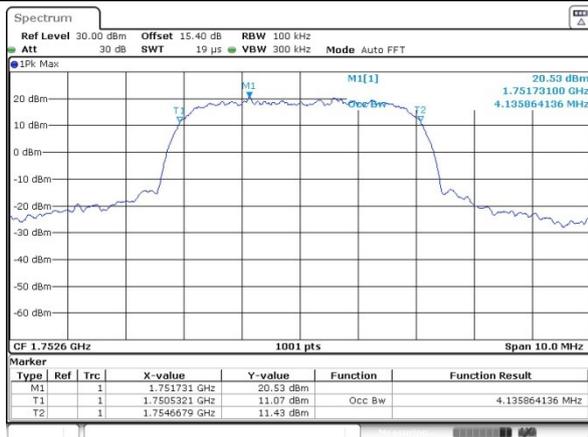
Lowest Channel



Middle Channel

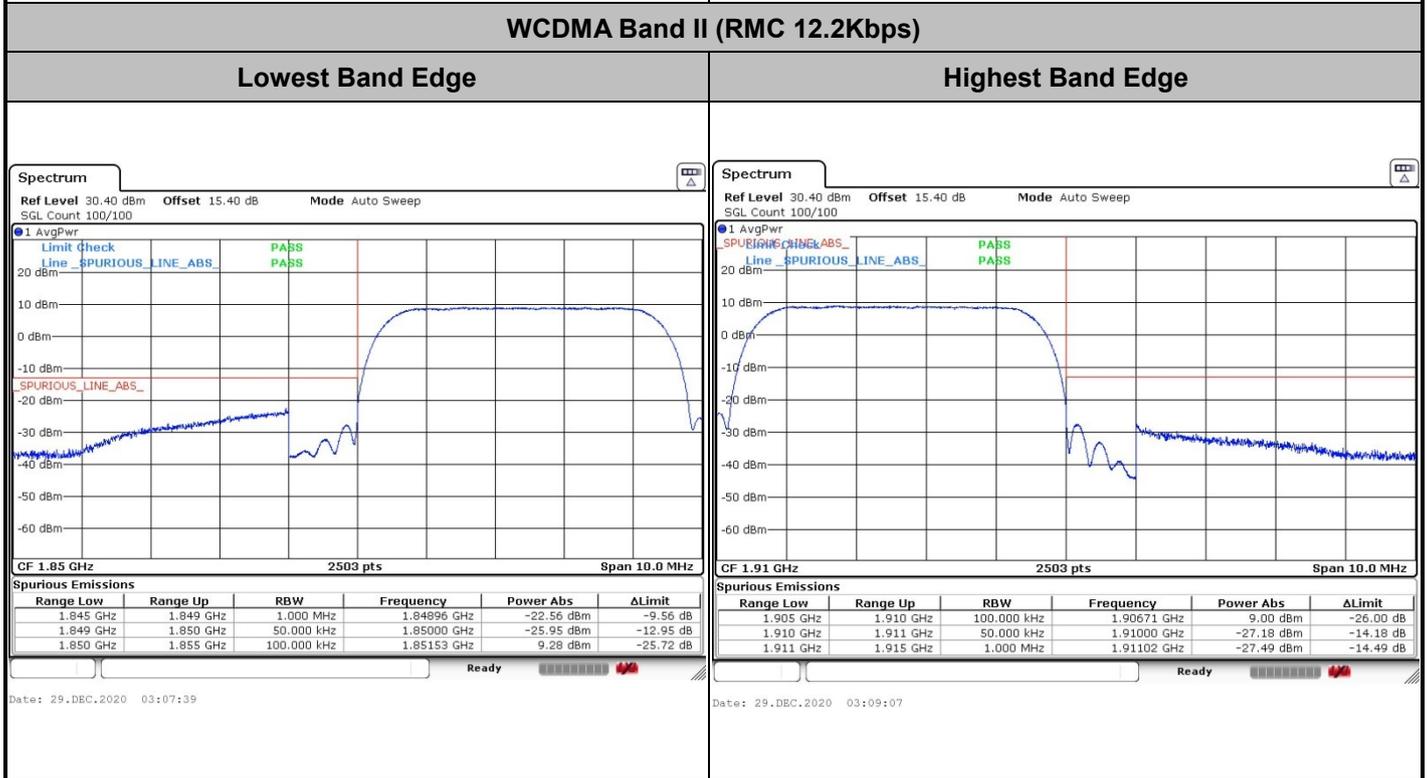
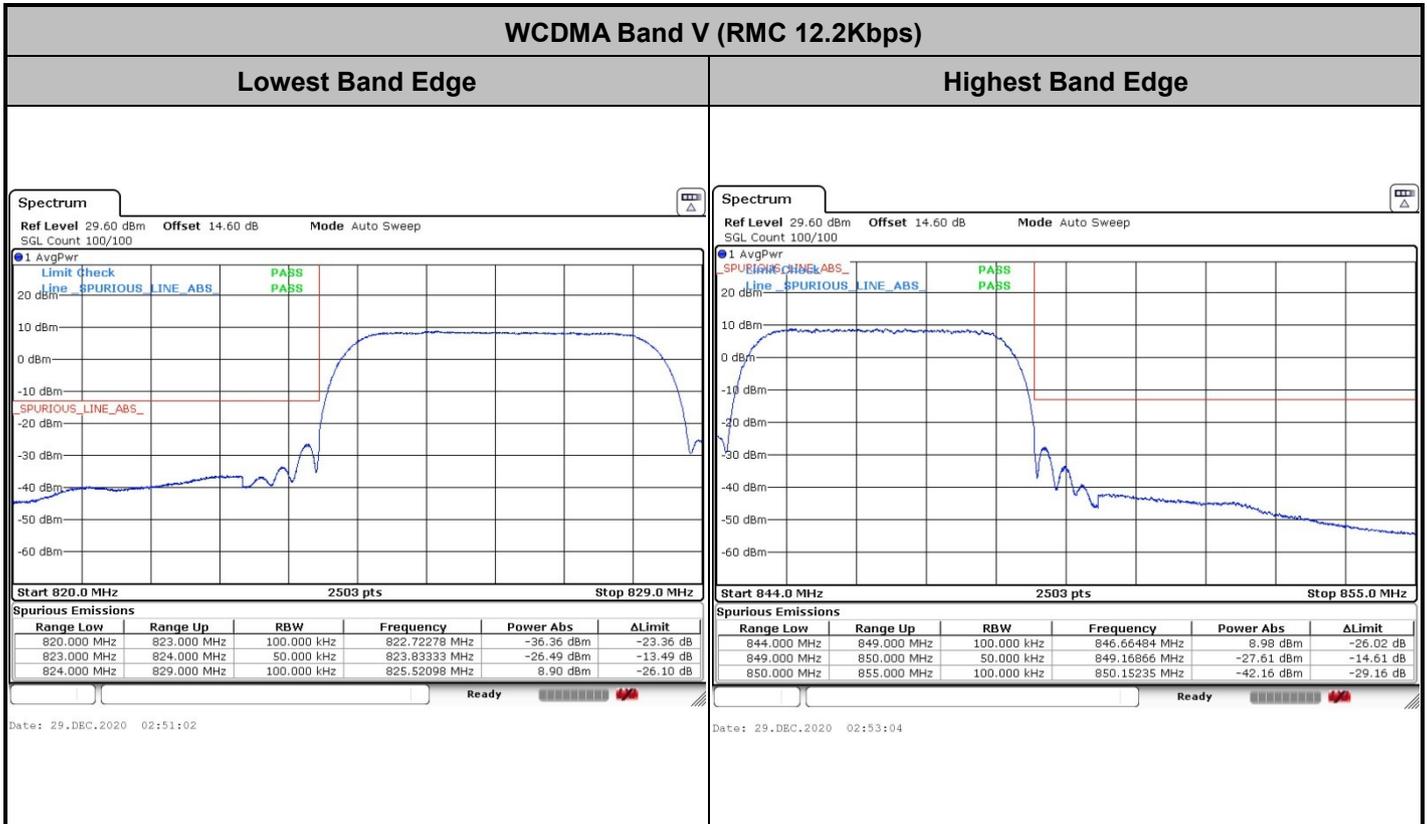


Highest Channel





# Conducted Band Edge

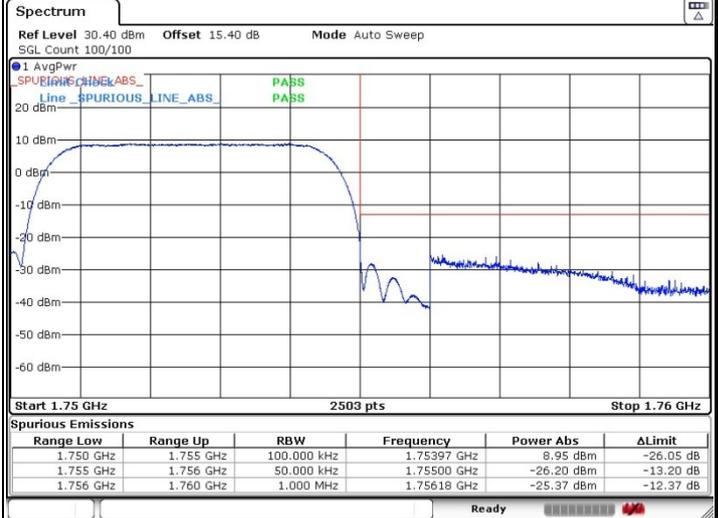
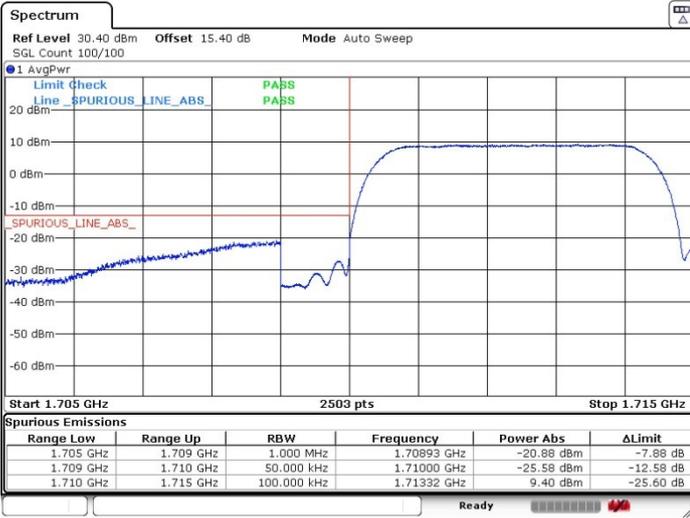




WCDMA Band IV (RMC 12.2Kbps)

Lowest Band Edge

Highest Band Edge

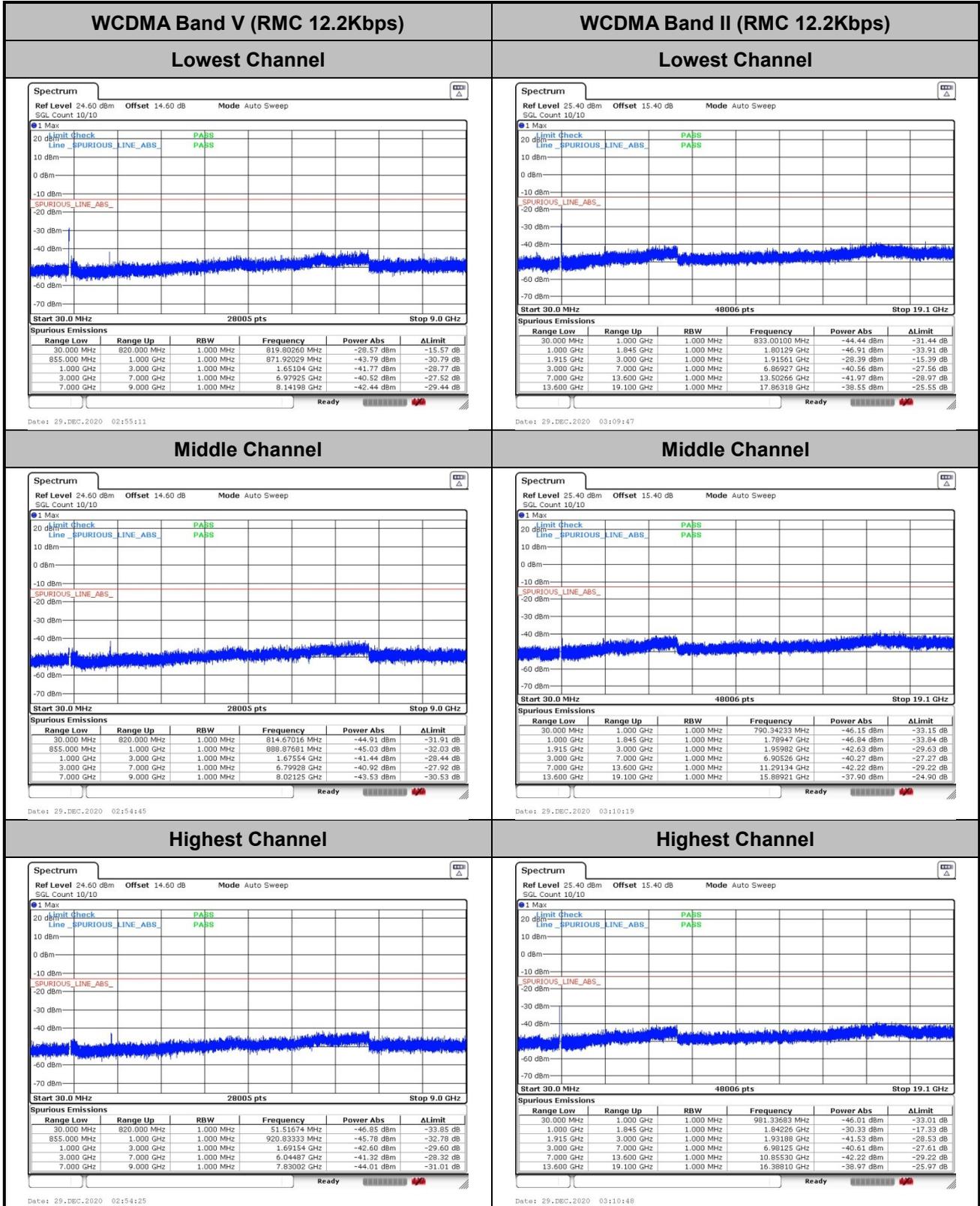


Date: 29.DEC.2020 03:21:37

Date: 29.DEC.2020 03:22:43



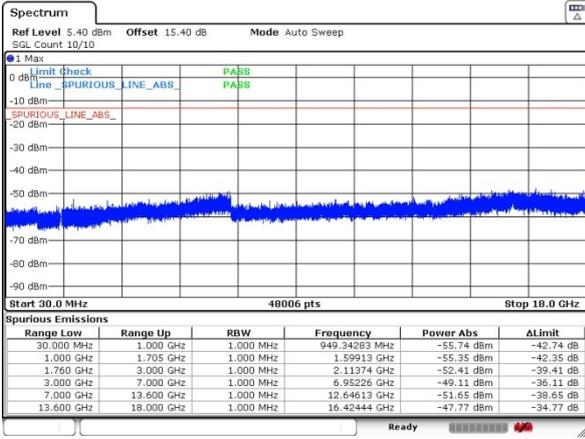
# Conducted Spurious Emission





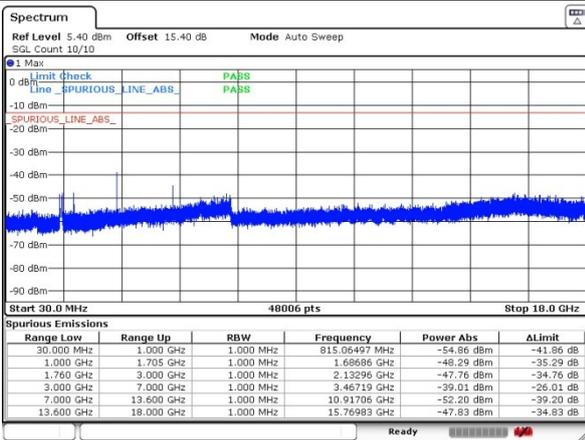
WCDMA Band IV (RMC 12.2Kbps)

Lowest Channel



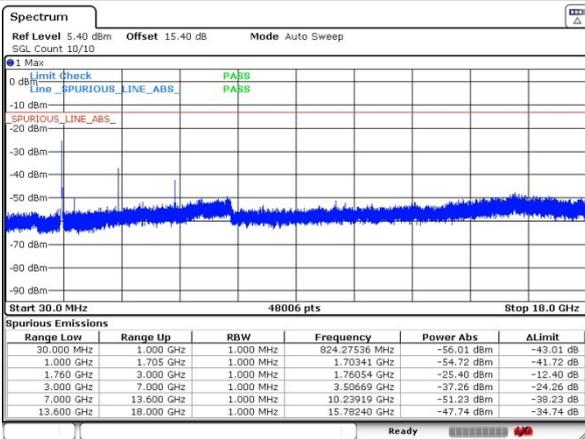
Date: 29, DEC, 2020 03:26:28

Middle Channel



Date: 29, DEC, 2020 03:25:39

Highest Channel



Date: 29, DEC, 2020 03:24:40



### Frequency Stability

Test Conditions	Middle Channel	WCDMA Band V (RMC 12.2KbpsRMC 12.2Kbps)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0089	PASS
40	Normal Voltage	0.0265	
30	Normal Voltage	0.0031	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0278	
0	Normal Voltage	0.0253	
-10	Normal Voltage	0.0078	
-20	Normal Voltage	0.0345	
-30	Normal Voltage	0.0036	
20	Maximum Voltage	0.0283	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0263	

Note: Normal Voltage =3.87 V ; Battery End Point (BEP) =3.6V ; Maximum Voltage =4.4V



Test Conditions	Middle Channel	WCDMA Band II (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0852	PASS
40	Normal Voltage	0.0122	
30	Normal Voltage	0.0118	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0174	
0	Normal Voltage	0.0048	
-10	Normal Voltage	0.0523	
-20	Normal Voltage	0.0264	
-30	Normal Voltage	0.0027	
20	Maximum Voltage	0.0366	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0032	

**Note:**

1. Normal Voltage =3.87 V ; Battery End Point (BEP) =3.6V ; Maximum Voltage =4.4V
2. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.



Test Conditions	Middle Channel	WCDMA Band IV (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0035	PASS
40	Normal Voltage	0.0029	
30	Normal Voltage	0.0150	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0023	
0	Normal Voltage	0.0127	
-10	Normal Voltage	0.0035	
-20	Normal Voltage	0.0144	
-30	Normal Voltage	0.0046	
20	Maximum Voltage	0.0017	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0035	

**Note:**

1. Normal Voltage = 3.87V. ; Battery End Point (BEP) =3.6V. ; Maximum Voltage =4.4V
2. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.



## Appendix B. Test Results of Radiated Test

### Radiated Spurious Emission

Pre-scanned harmonic for RSE testing, we choice worse case of antenna combination to full test.

GSM850 (GSM)								
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672	-61.95	-13	-48.95	-63.40	1.58	5.18	H
	2509.2	-52.88	-13	-39.88	-55.90	1.94	7.11	H
	3348	-57.84	-13	-44.84	-61.52	2.26	8.09	H
	1672.8	-61.60	-13	-48.60	-63.05	1.58	5.18	V
	2510	-53.13	-13	-40.13	-56.15	1.94	7.11	V
	3348	-56.98	-13	-43.98	-60.66	2.26	8.09	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

GSM850 (EDGE 1 Tx slots)								
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672	-62.56	-13	-49.56	-64.01	1.58	5.18	H
	2509.2	-57.01	-13	-44.01	-60.03	1.94	7.11	H
	3348	-57.55	-13	-44.55	-61.23	2.26	8.09	H
	1672.8	-62.59	-13	-49.59	-64.04	1.58	5.18	V
	2510	-57.26	-13	-44.26	-60.28	1.94	7.11	V
	3348	-57.20	-13	-44.20	-60.88	2.26	8.09	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

GSM1900 (GSM)								
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3762	-49.73	-13	-36.73	-55.68	2.39	8.34	H
	5640	-34.94	-13	-21.94	-41.37	2.97	9.40	H
	7520	-49.95	-13	-36.95	-57.89	3.40	11.34	H
	3762	-50.60	-13	-37.60	-56.55	2.39	8.34	V
	5640	-32.87	-13	-19.87	-39.30	2.97	9.40	V
	7518	-49.76	-13	-36.76	-57.70	3.40	11.34	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



GSM1900 (EDGE 1 Tx slots)								
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3762	-51.62	-13	-38.62	-57.57	2.39	8.34	H
	5640	-36.95	-13	-23.95	-43.38	2.97	9.40	H
	7520	-50.13	-13	-37.13	-58.07	3.40	11.34	H
	3762	-53.09	-13	-40.09	-59.04	2.39	8.34	V
	5640	-39.10	-13	-26.10	-45.53	2.97	9.40	V
	7518	-49.78	-13	-36.78	-57.72	3.40	11.34	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

WCDMA Band V(RMC 12.2Kbps)								
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672	-62.44	-13	-49.44	-63.89	1.58	5.18	H
	2509.2	-57.42	-13	-44.42	-60.44	1.94	7.11	H
	3348	-57.53	-13	-44.53	-61.21	2.26	8.09	H
	1672.8	-62.31	-13	-49.31	-63.76	1.58	5.18	V
	2510	-56.36	-13	-43.36	-59.38	1.94	7.11	V
	3348	-56.99	-13	-43.99	-60.67	2.26	8.09	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

WCDMA Band II(RMC 12.2Kbps)								
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3762	-54.03	-13	-41.03	-59.98	2.39	8.34	H
	5640	-50.09	-13	-37.09	-56.52	2.97	9.40	H
	7520	-49.83	-13	-36.83	-57.77	3.40	11.34	H
	3760	-54.56	-13	-41.56	-60.51	2.39	8.34	V
	5640	-49.31	-13	-36.31	-55.74	2.97	9.40	V
	7518	-49.75	-13	-36.75	-57.69	3.40	11.34	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



WCDMA Band IV(RMC 12.2Kbps)								
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3468	-53.22	-13	-40.22	-59.12	2.29	8.19	H
	5196	-51.75	-13	-38.75	-58.32	2.84	9.41	H
	6930	-51.25	-13	-38.25	-58.36	3.3	10.41	H
	3468	-54.46	-13	-41.46	-60.36	2.29	8.19	V
	5196	-52.16	-13	-39.16	-58.73	2.84	9.41	V
	6930	-51.01	-13	-38.01	-58.12	3.3	10.41	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.