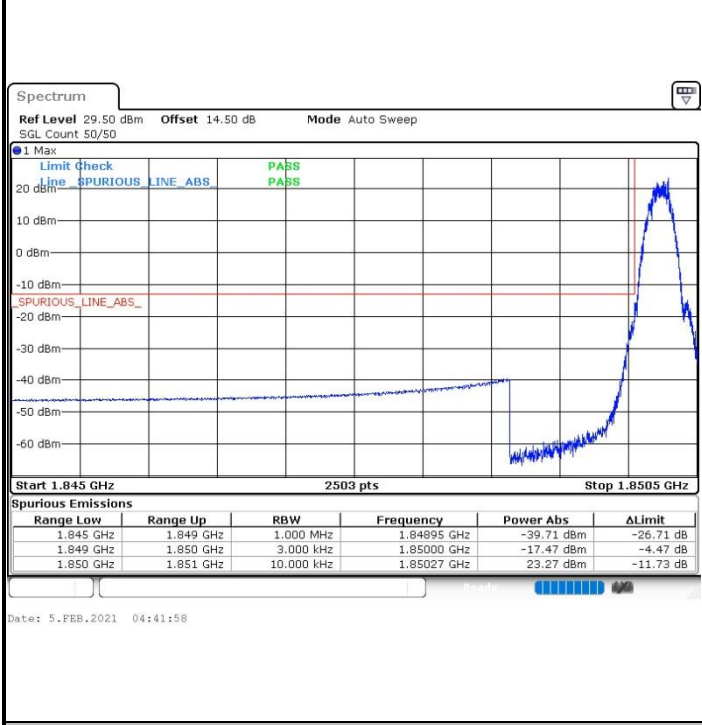


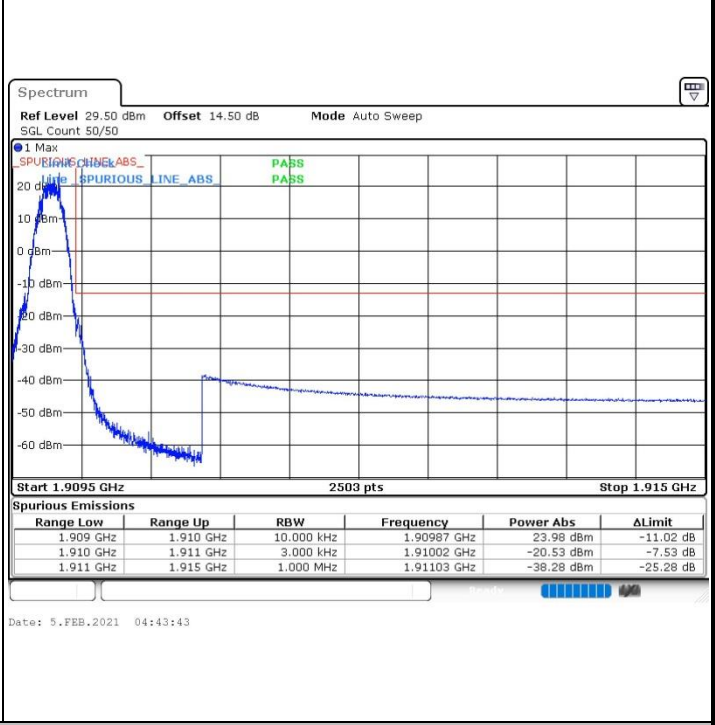


**GSM1900 (GSM)**

**Lowest Band Edge**

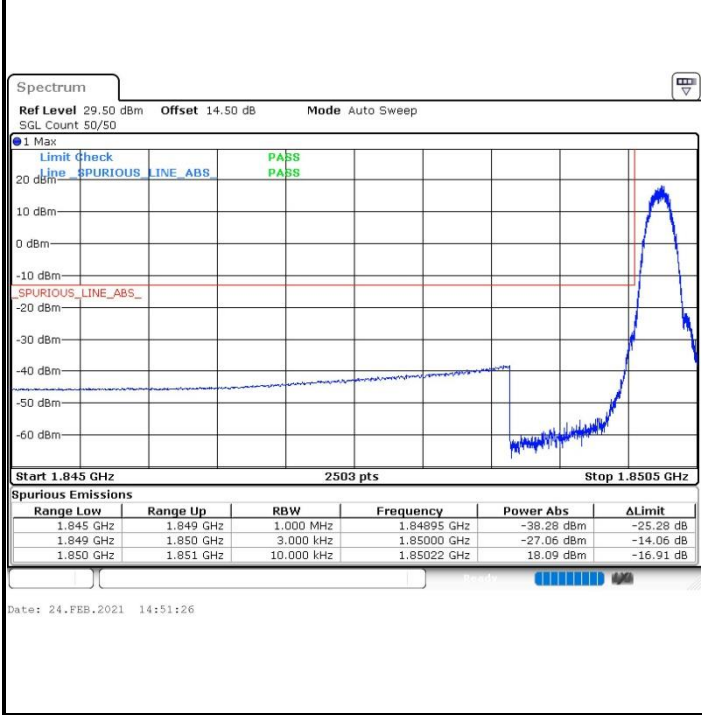


**Highest Band Edge**

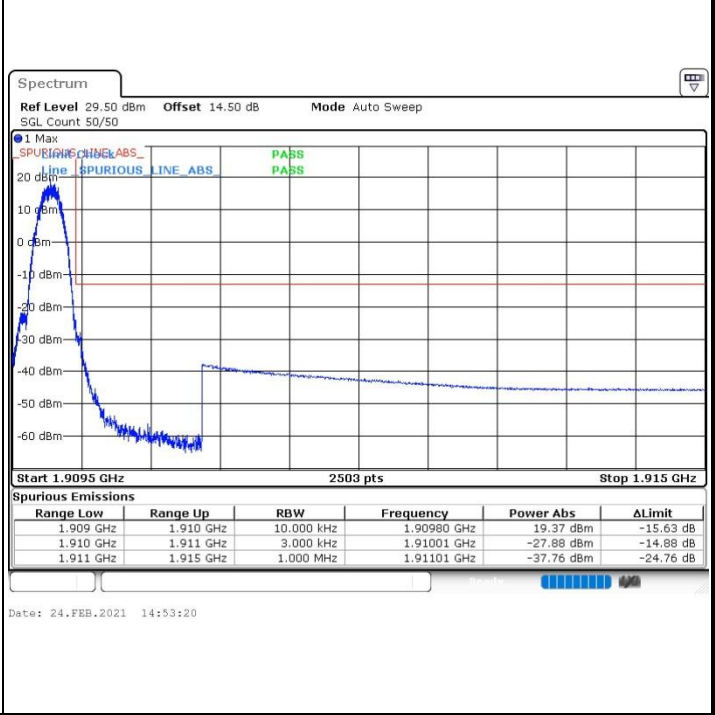


**GSM1900 (EDGE class 8)**

**Lowest Band Edge**

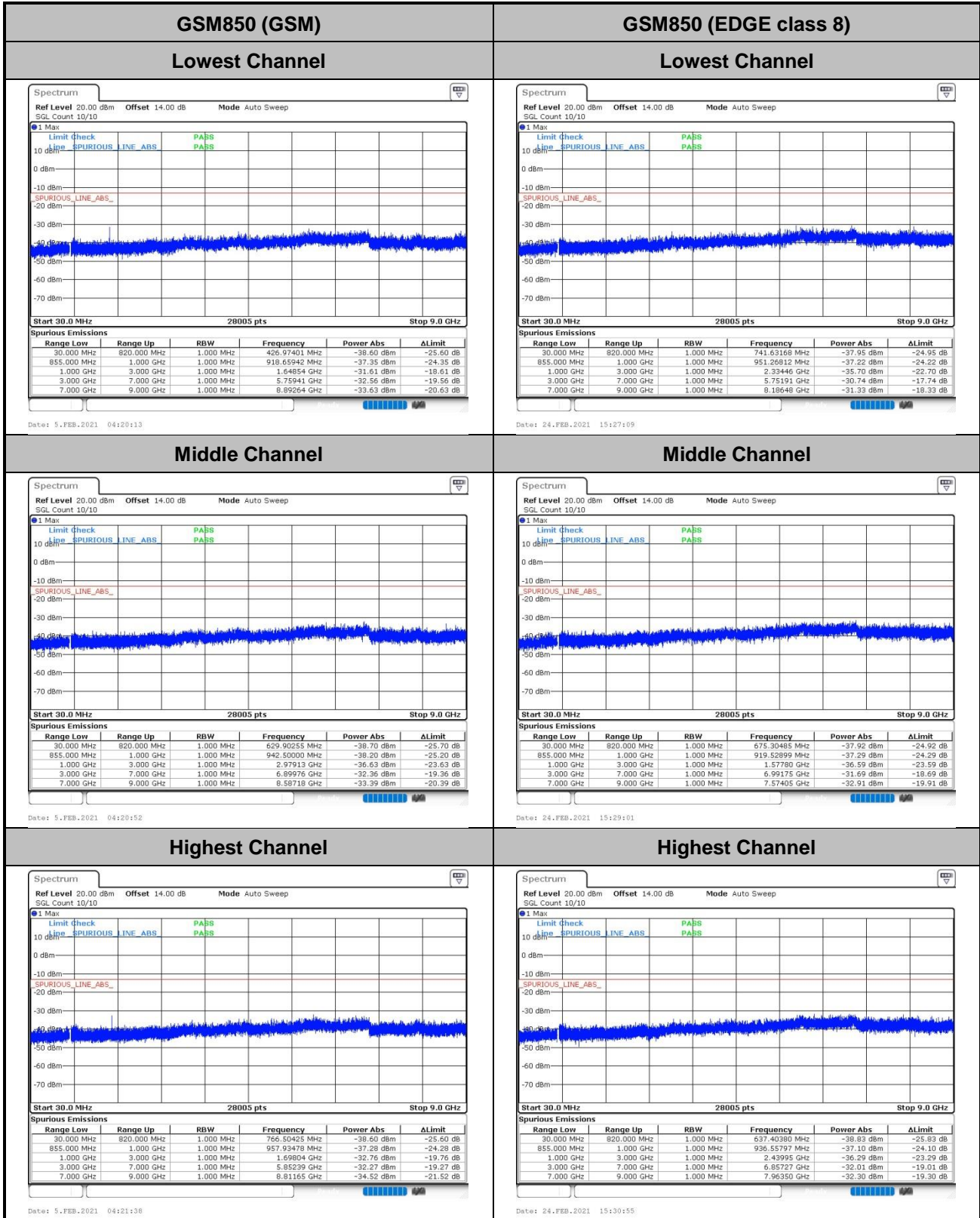


**Highest Band Edge**





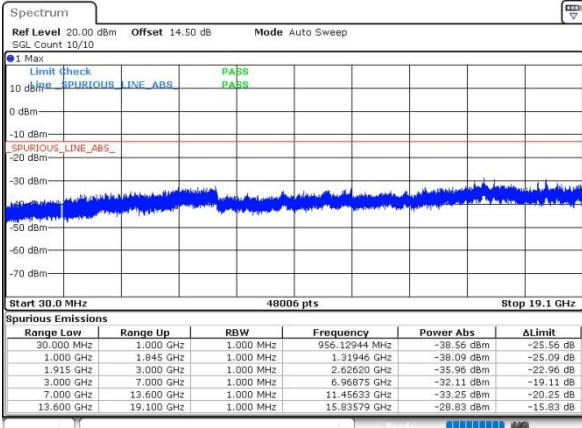
# Conducted Spurious Emission





GSM1900 (GSM)

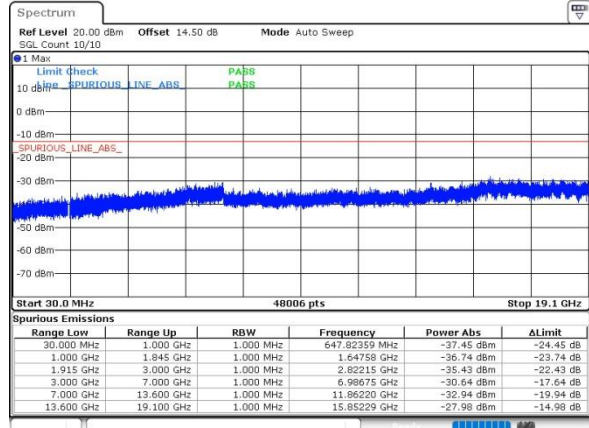
Lowest Channel



Date: 5.FEB.2021 04:45:47

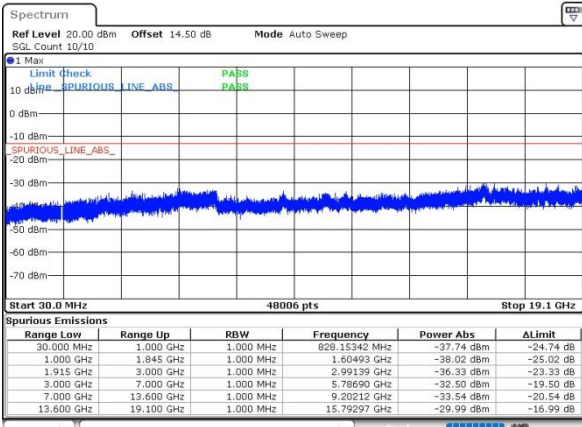
GSM1900 (EDGE class 8)

Lowest Channel



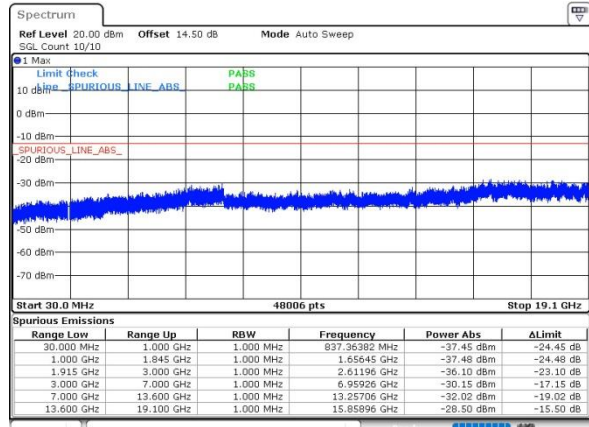
Date: 24.FEB.2021 14:56:40

Middle Channel



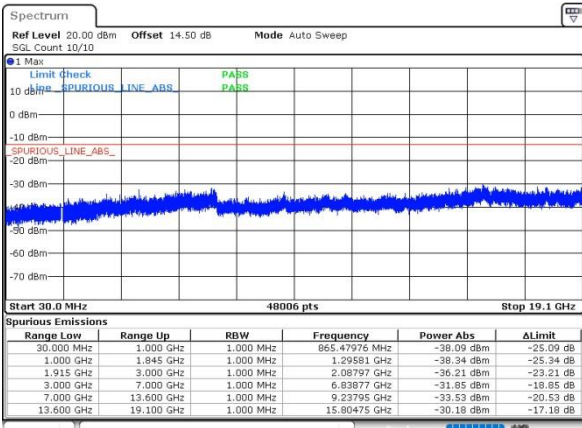
Date: 5.FEB.2021 04:49:07

Middle Channel



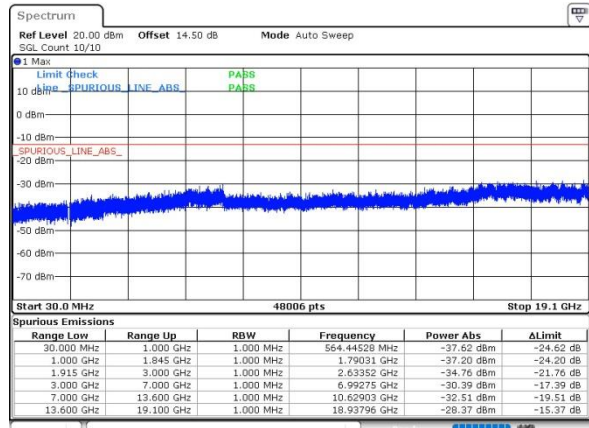
Date: 24.FEB.2021 14:58:53

Highest Channel



Date: 5.FEB.2021 04:49:40

Highest Channel



Date: 24.FEB.2021 15:01:10



**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	0.0160	0.0010	PASS
40	Normal Voltage	0.0018	0.0034	
30	Normal Voltage	0.0024	0.0010	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0021	0.0268	
0	Normal Voltage	0.0014	0.0034	
-10	Normal Voltage	0.0025	0.0008	
-20	Normal Voltage	0.0003	0.0020	
-30	Normal Voltage	0.0008	0.0260	
20	Maximum Voltage	0.0151	0.0005	
20	Normal Voltage	0.0000	0.0000	
20	Battery End Point	0.0029	0.0310	

Test Conditions	Middle Channel	GSM1900 (GSM)	GSM1900 (EDGE class 8)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
50	Normal Voltage	0.0101	0.0011	PASS
40	Normal Voltage	0.0012	0.0032	
30	Normal Voltage	0.0013	0.0013	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0163	0.0011	
0	Normal Voltage	0.0003	0.0015	
-10	Normal Voltage	0.0007	0.0008	
-20	Normal Voltage	0.0138	0.0052	
-30	Normal Voltage	0.0172	0.0007	
20	Maximum Voltage	0.0141	0.0025	
20	Normal Voltage	0.0000	0.0000	
20	Battery End Point	0.0151	0.0017	

**Note:**

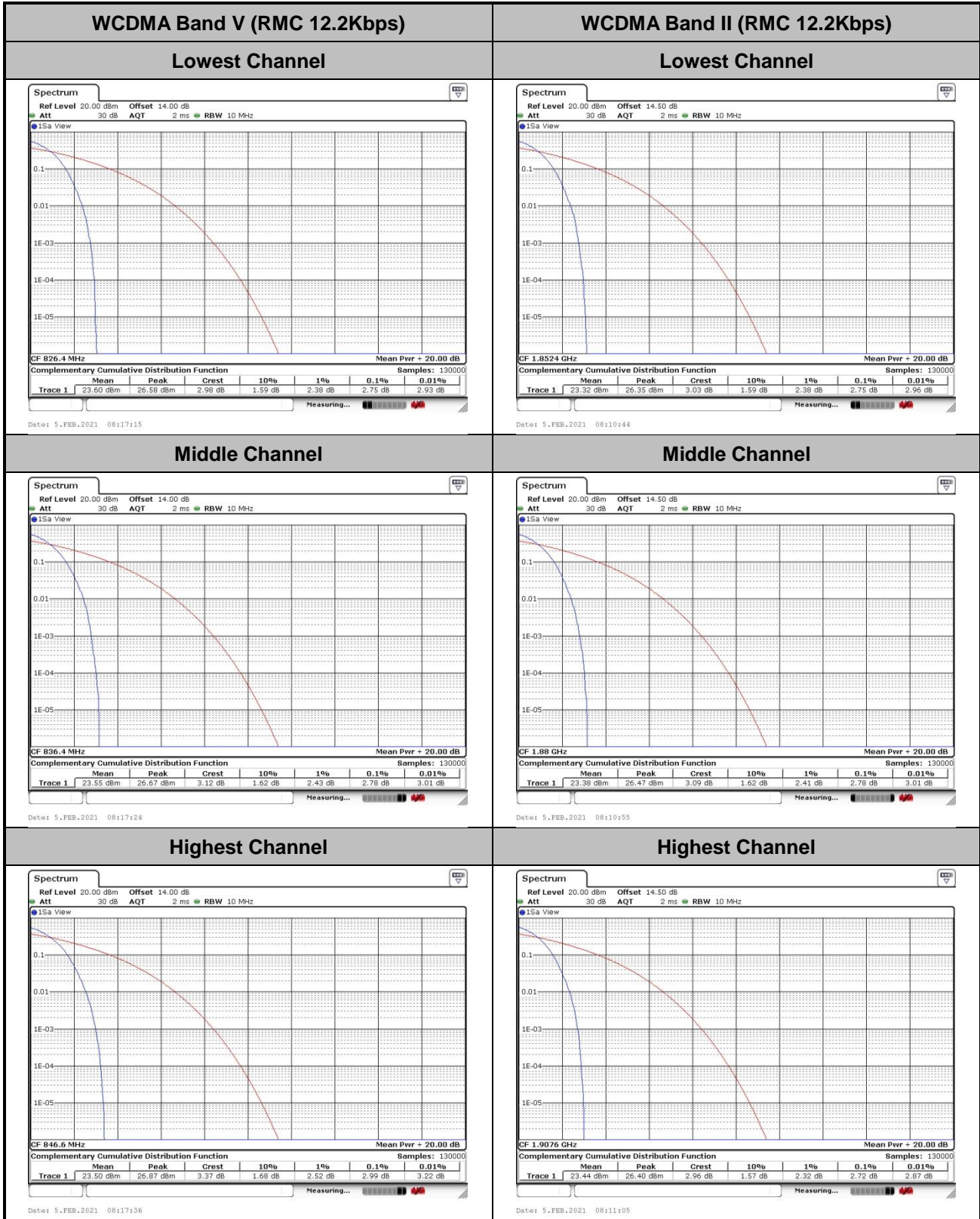
1. Normal Voltage = 3.8V. ; Battery End Point (BEP) = 3.6 V. ; Maximum Voltage =4.4 V
2. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.



## A2. WCDMA

### Peak-to-Average Ratio

Mode	WCDMA Band V(dB)	WCDMA Band II(dB)	Limit: 13dB
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	Result
Lowest CH	2.75	2.75	<b>PASS</b>
Middle CH	2.78	2.78	
Highest CH	2.99	2.72	





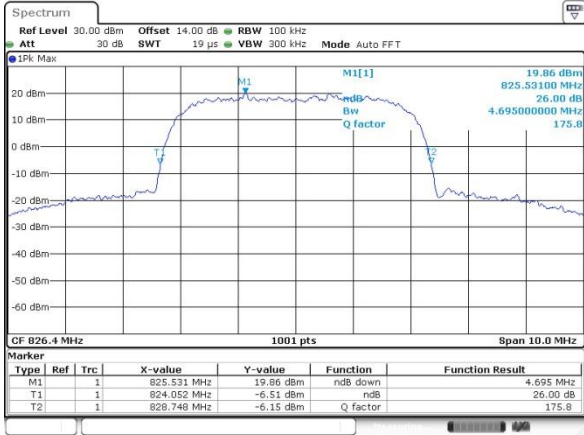
**26dB Bandwidth**

Mode	WCDMA Band V(MHz)	WCDMA Band II(MHz)
Mod.	RMC 12.2Kbps	RMC 12.2Kbps
Lowest CH	4.70	4.68
Middle CH	4.70	4.68
Highest CH	4.69	4.68



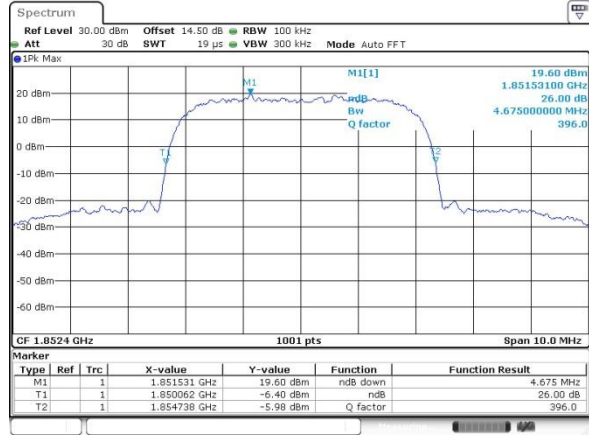
WCDMA Band V (RMC 12.2Kbps)

Lowest Channel

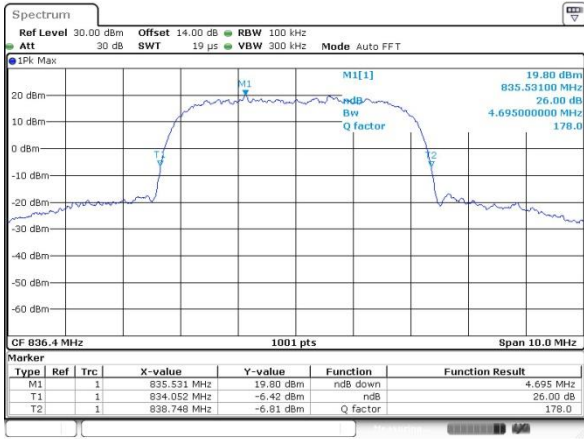


WCDMA Band II (RMC 12.2Kbps)

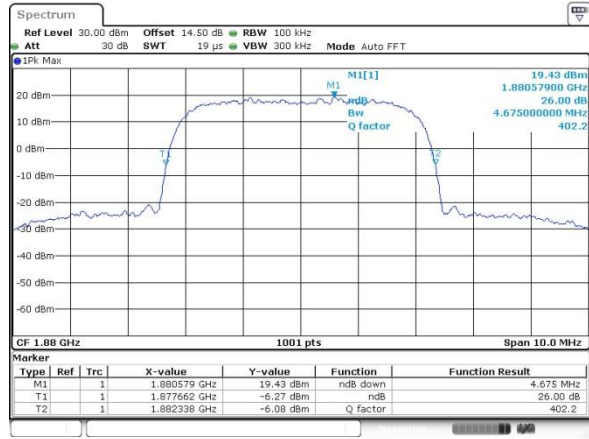
Lowest Channel



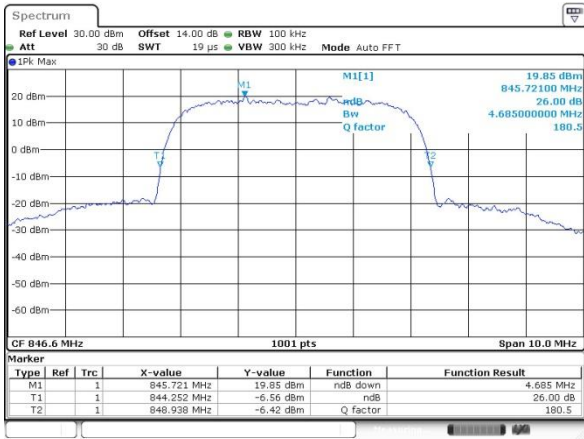
Middle Channel



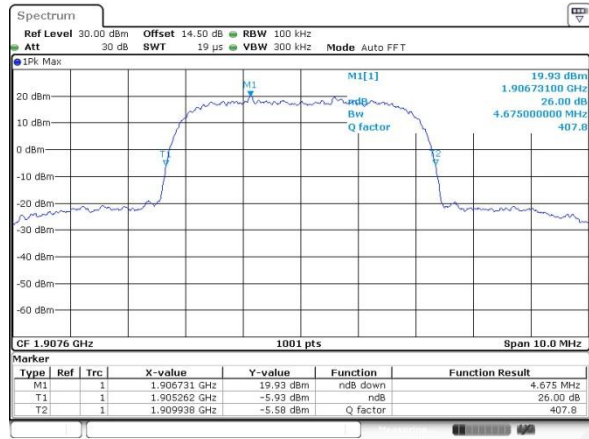
Middle Channel



Highest Channel



Highest Channel







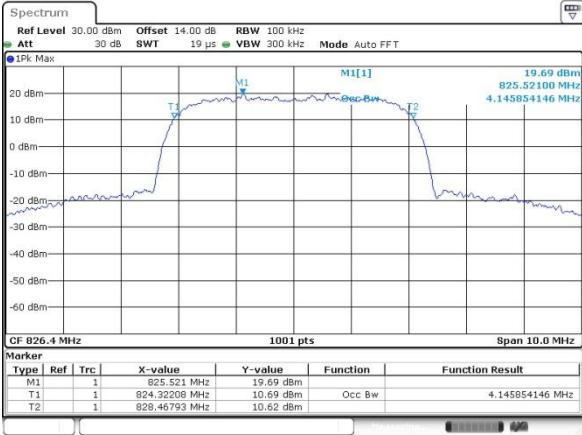
### Occupied Bandwidth

Mode	WCDMA Band V(MHz)	WCDMA Band II(MHz)
Mod.	RMC 12.2Kbps	RMC 12.2Kbps
Lowest CH	4.15	4.15
Middle CH	4.15	4.14
Highest CH	4.15	4.16



WCDMA Band V (RMC 12.2Kbps)

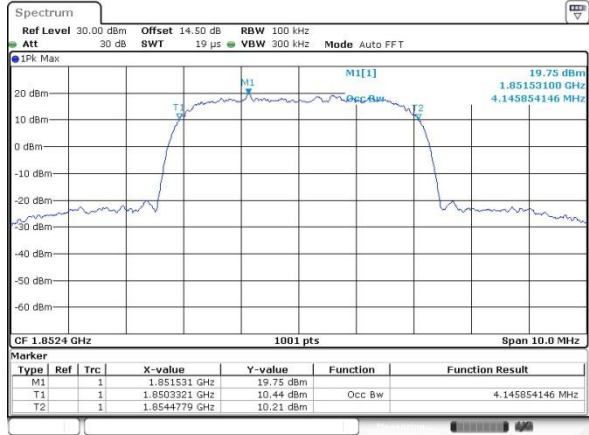
Lowest Channel



Date: 5.FEB.2021 08:14:10

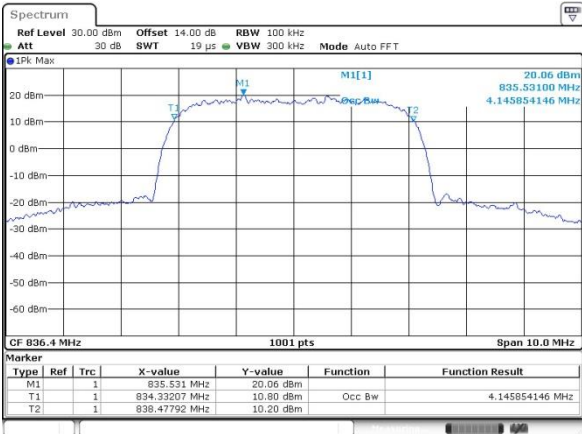
WCDMA Band II (RMC 12.2Kbps)

Lowest Channel



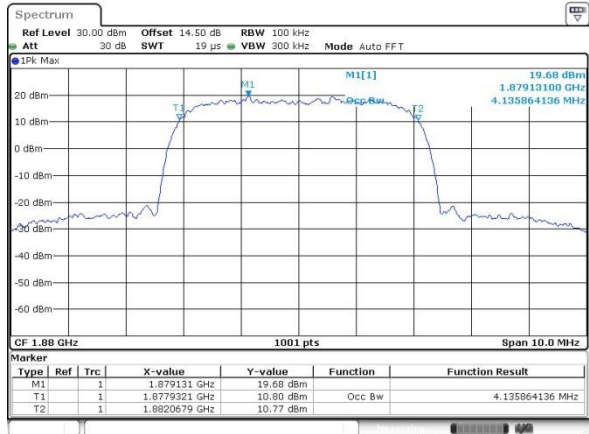
Date: 5.FEB.2021 08:05:32

Middle Channel



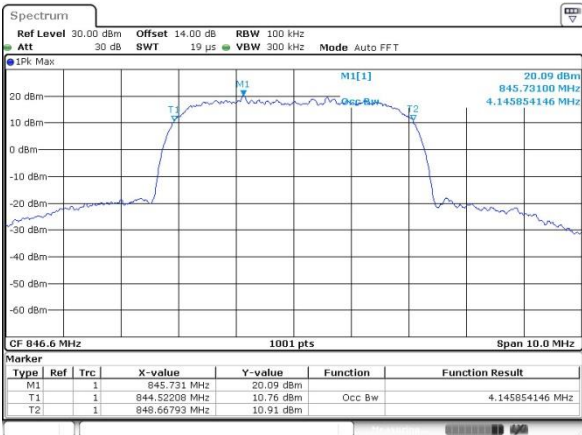
Date: 5.FEB.2021 08:14:14

Middle Channel



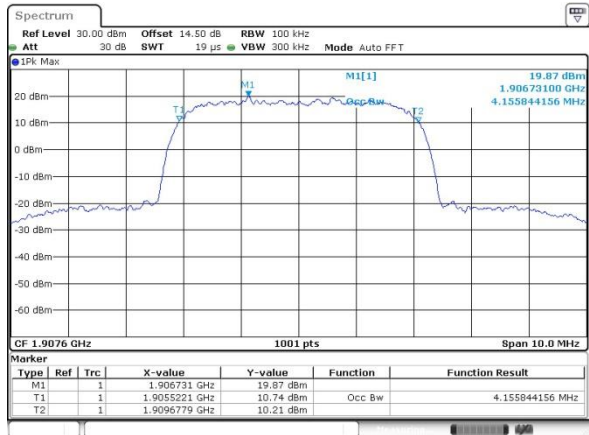
Date: 5.FEB.2021 08:06:45

Highest Channel



Date: 5.FEB.2021 08:14:55

Highest Channel



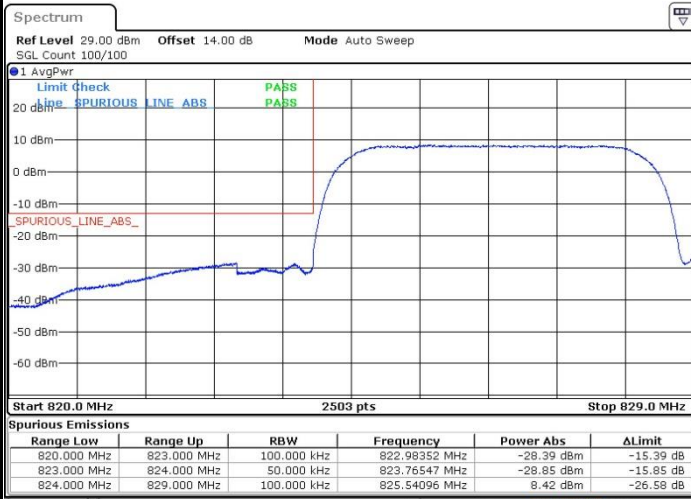
Date: 5.FEB.2021 08:07:35



# Conducted Band Edge

## WCDMA Band V (RMC 12.2Kbps)

### Lowest Band Edge



Date: 5.FEB.2021 08:15:36

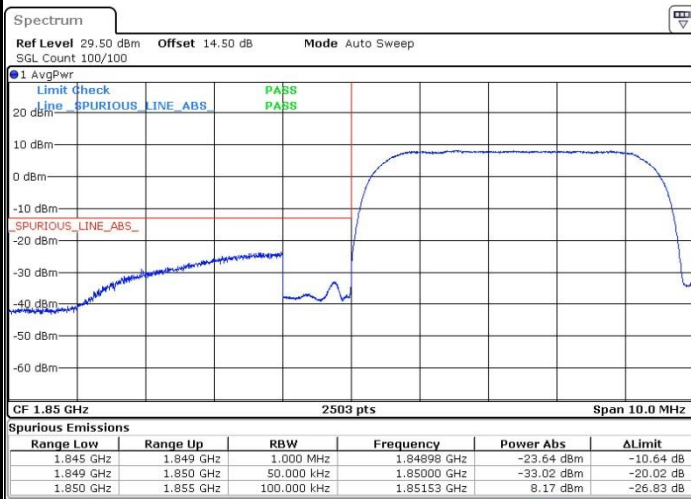
### Highest Band Edge



Date: 5.FEB.2021 08:16:17

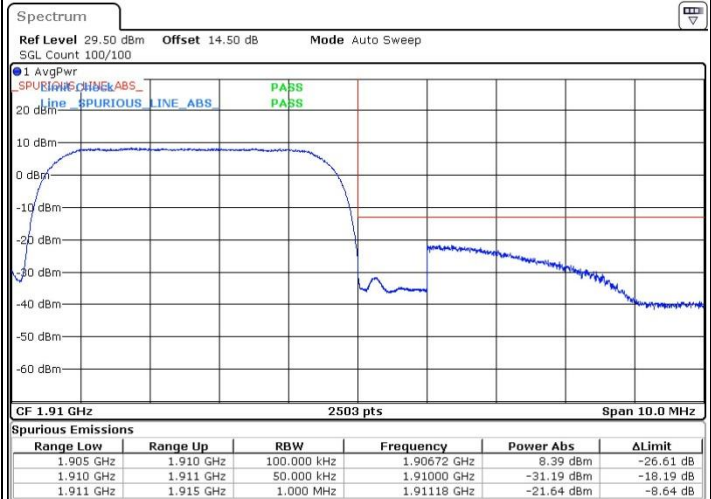
## WCDMA Band II (RMC 12.2Kbps)

### Lowest Band Edge



Date: 5.FEB.2021 08:08:11

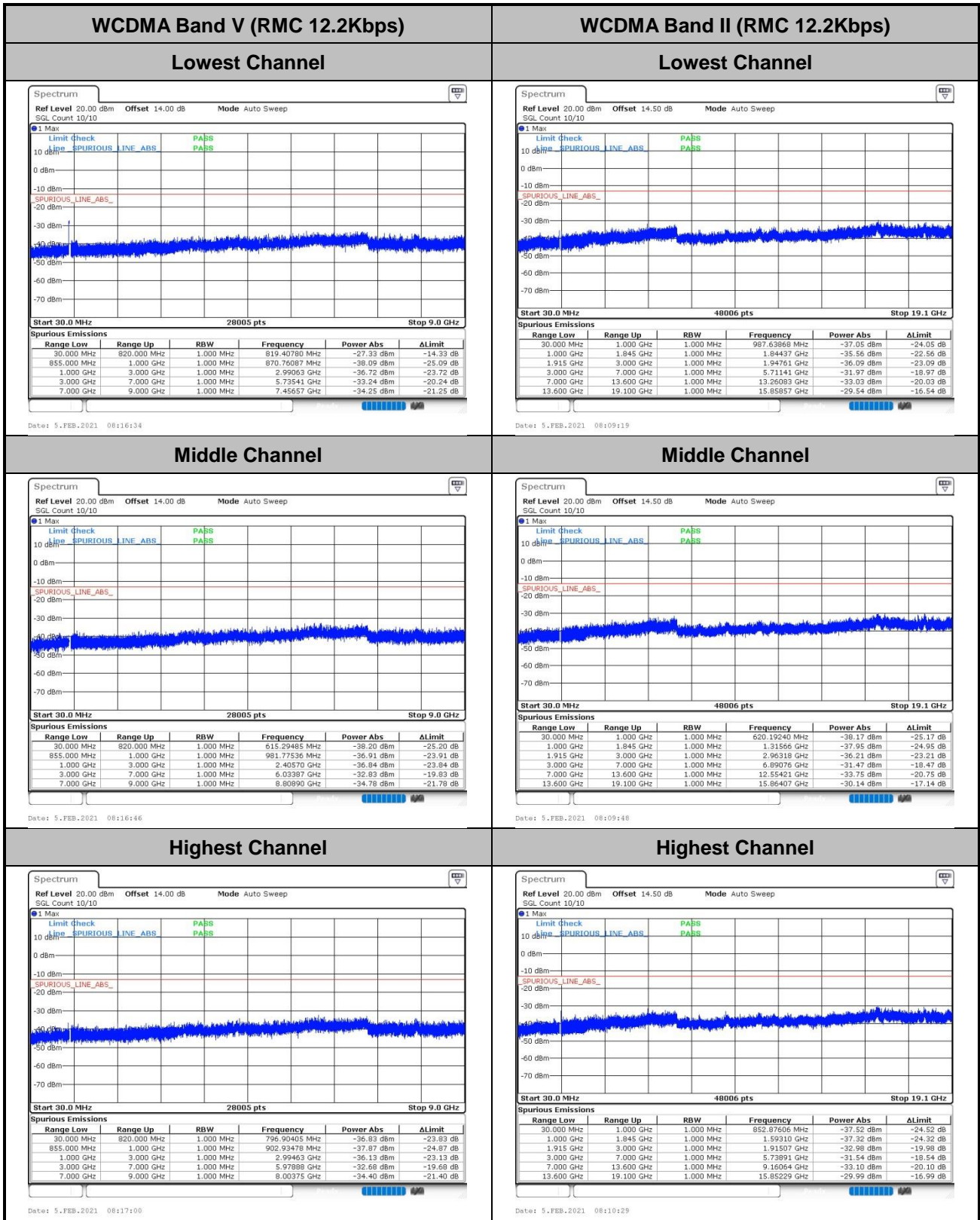
### Highest Band Edge



Date: 5.FEB.2021 08:08:41



# Conducted Spurious Emission





**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	0.0026	PASS
40	Normal Voltage	0.0013	
30	Normal Voltage	0.0022	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0027	
0	Normal Voltage	0.0029	
-10	Normal Voltage	0.0022	
-20	Normal Voltage	0.0018	
-30	Normal Voltage	0.0024	
20	Maximum Voltage	0.0022	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0019	

Test Conditions	Middle Channel	WCDMA Band II (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0002	PASS
40	Normal Voltage	0.0004	
30	Normal Voltage	0.0006	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0010	
0	Normal Voltage	0.0006	
-10	Normal Voltage	0.0005	
-20	Normal Voltage	0.0002	
-30	Normal Voltage	0.0012	
20	Maximum Voltage	0.0014	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0002	

**Note:**

1. Normal Voltage = 3.8V. ; Battery End Point (BEP) = 3.6 V. ; Maximum Voltage =4.4 V
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

GSM850 (GSM)									
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672.8	-51.52	-13	-38.52	-46.60	-54.77	4.00	9.40	H
	2509.2	-56.42	-13	-43.42	-54.98	-59.99	4.88	10.60	H
	3345.6	-61.70	-13	-48.70	-63.26	-66.63	5.52	12.60	H
	1672.8	-56.31	-13	-43.31	-51.24	-61.24	5.52	12.60	V
	2509.2	-54.05	-13	-41.05	-52.92	-58.52	6.00	12.62	V
	3345.6	-61.62	-13	-48.62	-63.54	-65.03	7.14	12.70	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 )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672.8	-52.28	-13	-39.28	-47.36	-55.53	4.00	9.40	H
	2509.2	-55.73	-13	-42.73	-54.29	-59.30	4.88	10.60	H
	3345.6	-62.22	-13	-49.22	-63.78	-67.15	5.52	12.60	H
	1672.8	-55.42	-13	-42.42	-50.35	-60.35	5.52	12.60	V
	2509.2	-56.91	-13	-43.91	-55.78	-61.38	6.00	12.62	V
	3345.6	-61.63	-13	-48.63	-63.55	-65.04	7.14	12.70	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 )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3760	-59.78	-13	-46.78	-63.69	-66.53	5.85	12.60	H
	5640	-54.60	-13	-41.60	-64.73	-60.40	7.30	13.10	H
	7520	-52.37	-13	-39.37	-66.48	-55.52	8.35	11.50	H
	3760	-59.81	-13	-46.81	-63.59	-66.56	5.85	12.60	V
	5640	-54.88	-13	-41.88	-64.71	-60.68	7.30	13.10	V
	7520	-52.19	-13	-39.19	-66.4	-55.34	8.35	11.50	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 )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3760	-60.06	-13	-47.06	-63.97	-66.81	5.85	12.60	H
	5640	-54.29	-13	-41.29	-64.42	-60.09	7.30	13.10	H
	7520	-52.50	-13	-39.50	-66.61	-55.65	8.35	11.50	H
	3760	-59.95	-13	-46.95	-63.73	-66.70	5.85	12.60	V
	5640	-54.85	-13	-41.85	-64.68	-60.65	7.30	13.10	V
	7520	-52.15	-13	-39.15	-66.36	-55.30	8.35	11.50	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 )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672.8	-66.83	-13	-53.83	-61.91	-70.08	4.00	9.40	H
	2509.2	-64.31	-13	-51.31	-62.87	-67.88	4.88	10.60	H
	3345.6	-62.05	-13	-49.05	-63.61	-66.98	5.52	12.60	H
	1672.8	-67.77	-13	-54.77	-62.70	-72.70	5.52	12.60	V
	2509.2	-64.46	-13	-51.46	-63.33	-68.93	6.00	12.62	V
	3345.6	-61.43	-13	-48.43	-63.35	-64.84	7.14	12.70	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 )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3760	-59.85	-13	-46.85	-63.76	-66.60	5.85	12.60	H
	5640	-54.46	-13	-41.46	-64.59	-60.26	7.30	13.10	H
	7520	-52.26	-13	-39.26	-66.37	-55.41	8.35	11.50	H
	3760	-59.35	-13	-46.35	-63.13	-66.10	5.85	12.60	V
	5640	-55.00	-13	-42.00	-64.83	-60.80	7.30	13.10	V
	7520	-51.96	-13	-38.96	-66.17	-55.11	8.35	11.50	V

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