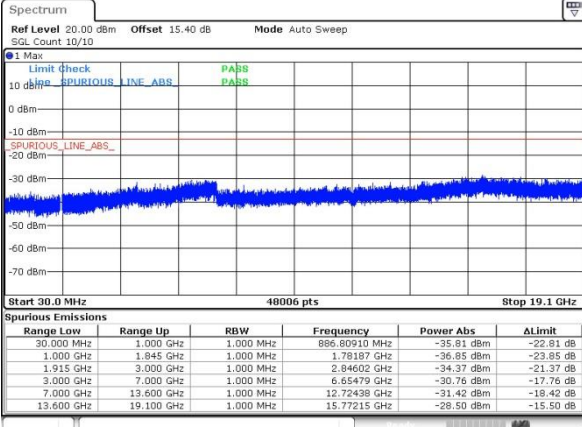




GSM1900 (GSM)

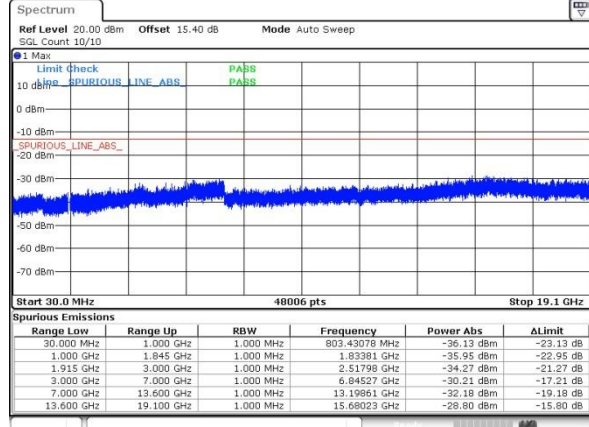
Lowest Channel



Date: 11.AUG.2022 23:23:53

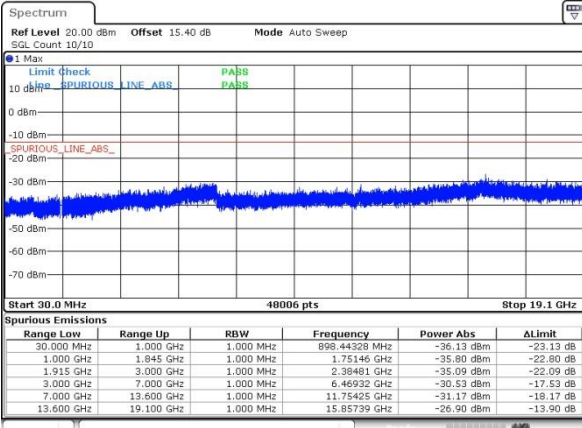
GSM1900 (EDGE class 8)

Lowest Channel



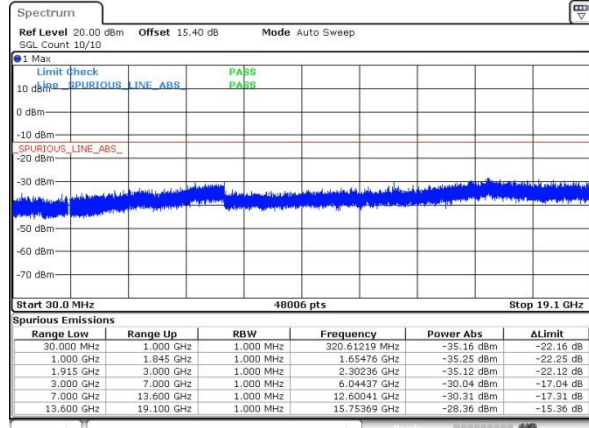
Date: 11.AUG.2022 23:52:03

Middle Channel



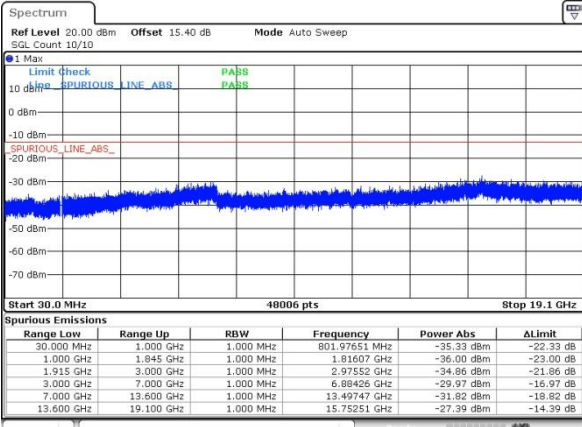
Date: 11.AUG.2022 23:24:48

Middle Channel



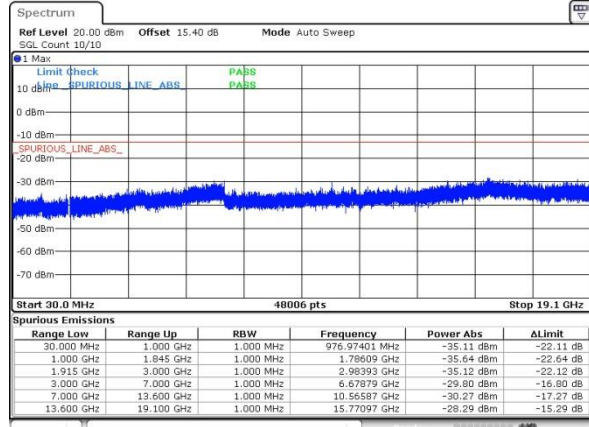
Date: 11.AUG.2022 23:53:41

Highest Channel



Date: 11.AUG.2022 23:25:23

Highest Channel



Date: 11.AUG.2022 23:55:07



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	0.0035	0.0045	PASS
40	Normal Voltage	0.0510	0.0148	
30	Normal Voltage	0.0097	0.0562	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0585	0.0421	
0	Normal Voltage	0.0185	0.0535	
-10	Normal Voltage	0.0056	0.0454	
-20	Normal Voltage	0.0132	0.0146	
-30	Normal Voltage	0.0142	0.0483	
20	Maximum Voltage	0.0455	0.0565	
20	Normal Voltage	0.0000	0.0000	
20	Battery End Point	0.0334	0.0269	



Test Conditions	Middle Channel	GSM1900 (GSM)	GSM1900 (EDGE class 8)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
50	Normal Voltage	0.0042	0.0008	PASS
40	Normal Voltage	0.0075	0.0035	
30	Normal Voltage	0.0052	0.0075	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0161	0.0274	
0	Normal Voltage	0.0042	0.0175	
-10	Normal Voltage	0.0124	0.0033	
-20	Normal Voltage	0.0232	0.0032	
-30	Normal Voltage	0.0003	0.0172	
20	Maximum Voltage	0.0045	0.0154	
20	Normal Voltage	0.0000	0.0000	
20	Battery End Point	0.0178	0.0026	

Note:

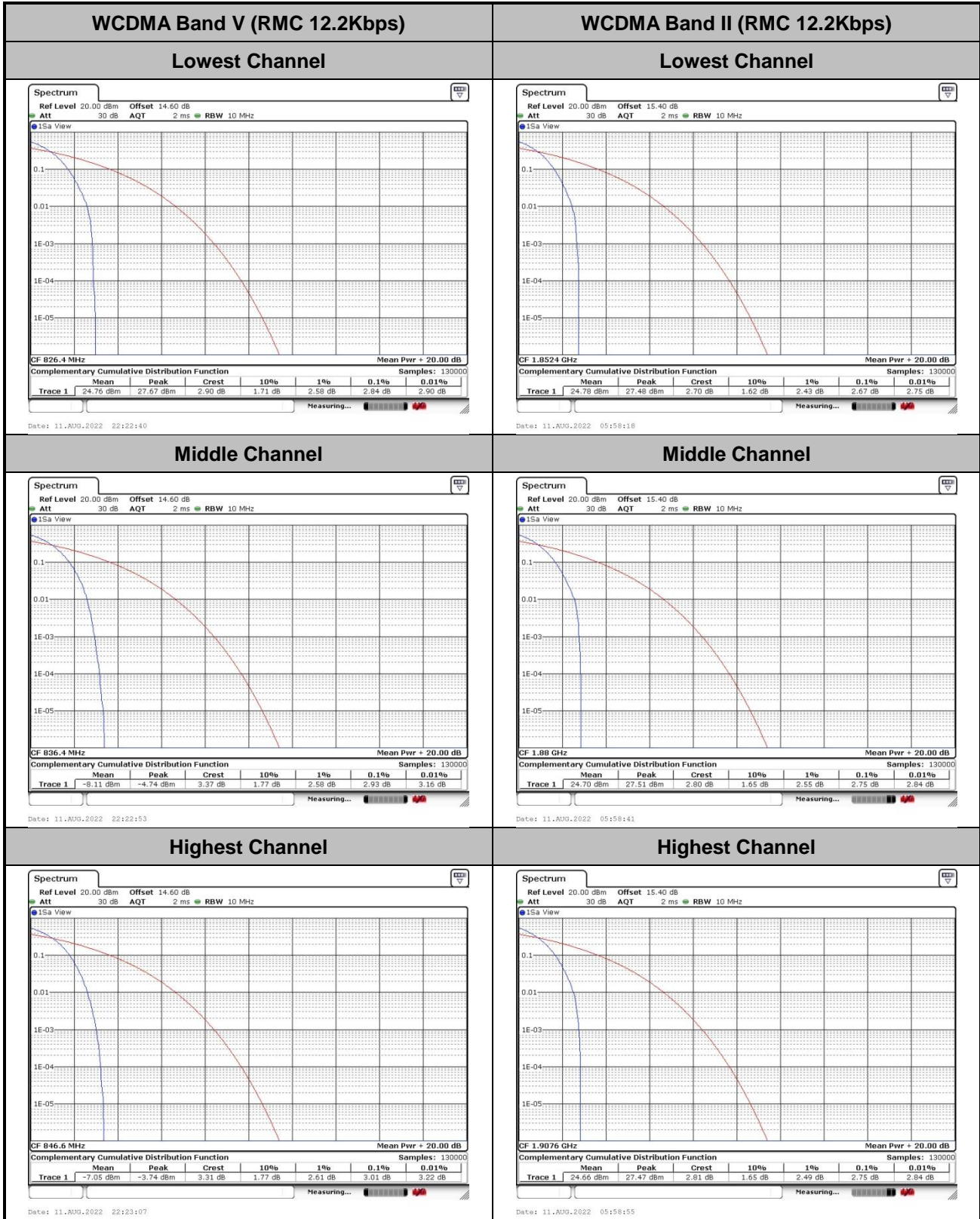
1. Normal Voltage = 3.89V ; Battery End Point (BEP) =3.4V. ; Maximum Voltage =4.52V
2. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.



A2. WCDMA

Peak-to-Average Ratio

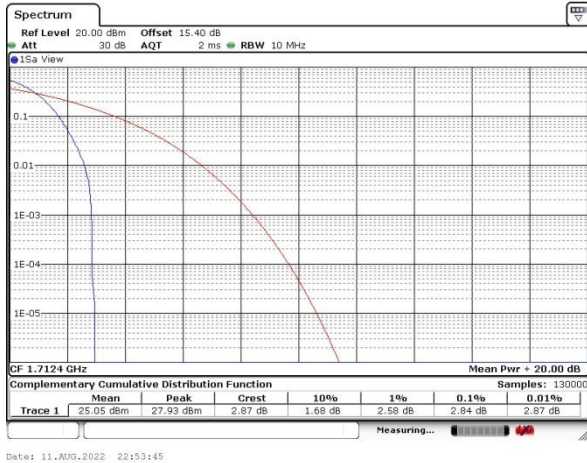
Mode	WCDMA Band V	WCDMA Band II	WCDMA Band IV	Limit: 13dB
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	RMC 12.2Kbps	Result
Lowest CH	2.84	2.67	2.84	PASS
Middle CH	2.93	2.75	2.81	
Highest CH	3.01	2.75	2.81	





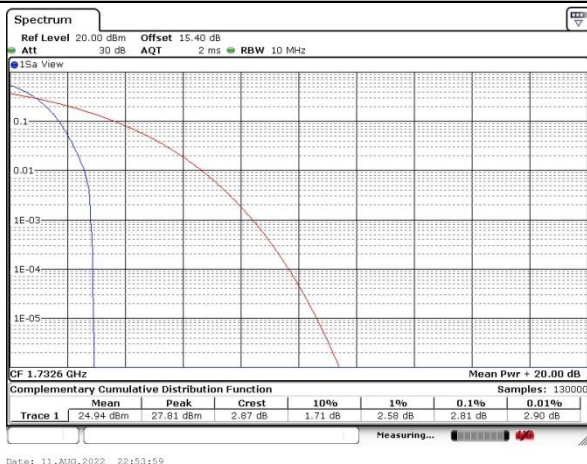
WCDMA Band IV (RMC 12.2Kbps)

Lowest Channel



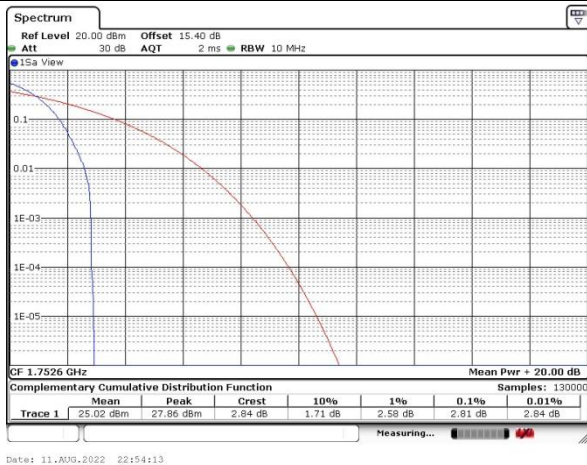
Date: 11.AUG.2022 22:53:45

Middle Channel



Date: 11.AUG.2022 22:53:59

Highest Channel



Date: 11.AUG.2022 22:54:13



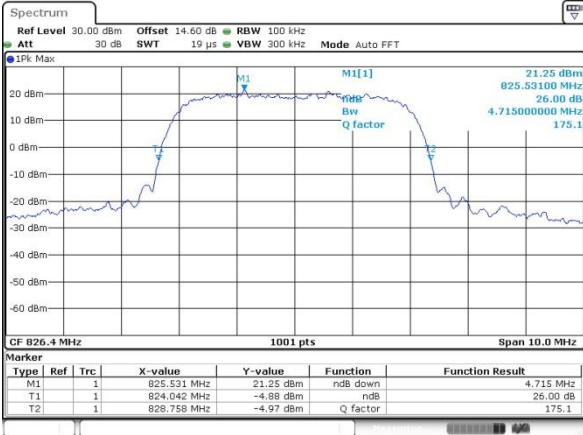
26dB Bandwidth

Mode	WCDMA Band V(MHz)	WCDMA Band II(MHz)	WCDMA Band IV(MHz)
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	RMC 12.2Kbps
Lowest CH	4.715	4.745	4.725
Middle CH	4.725	4.735	4.725
Highest CH	4.725	4.735	4.735



WCDMA Band V (RMC 12.2Kbps)

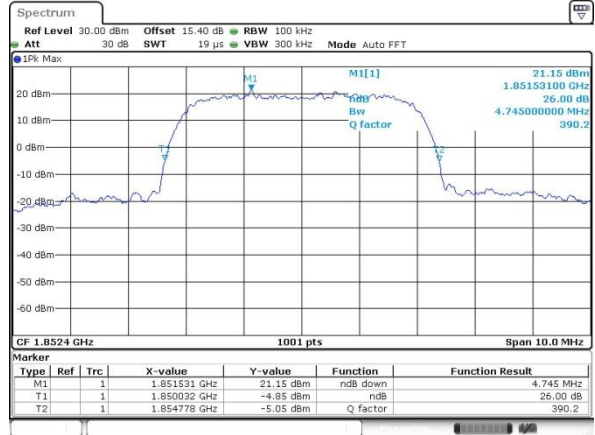
Lowest Channel



Date: 11.AUG.2022 22:10:49

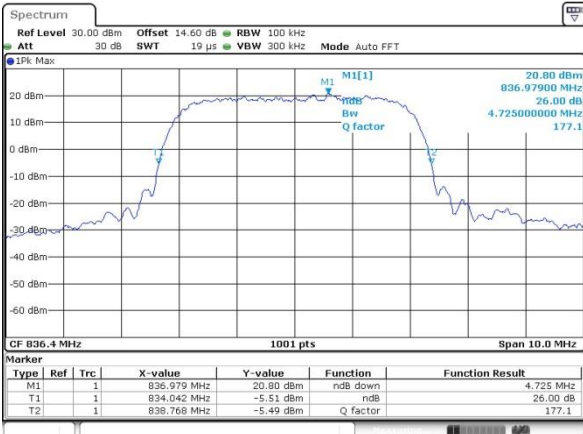
WCDMA Band II (RMC 12.2Kbps)

Lowest Channel



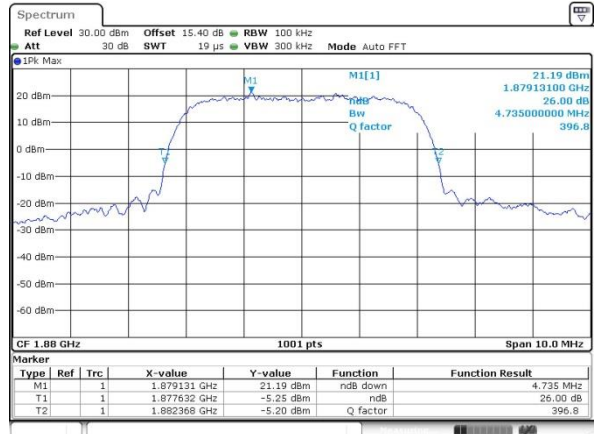
Date: 11.AUG.2022 05:48:28

Middle Channel



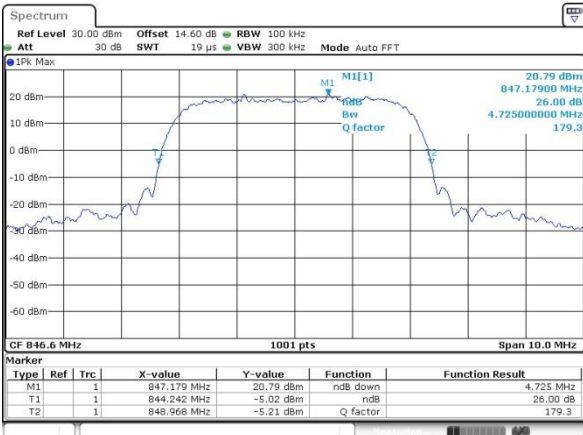
Date: 11.AUG.2022 22:11:19

Middle Channel



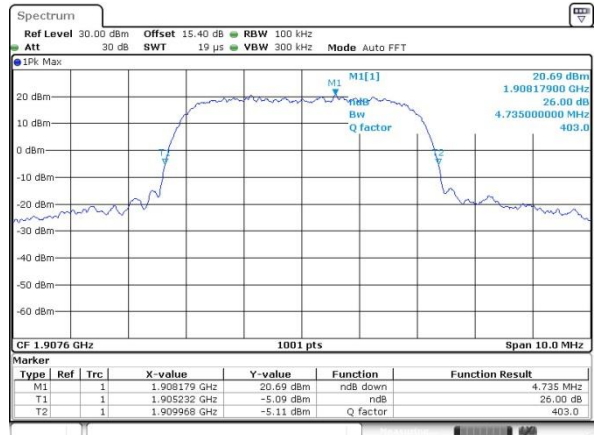
Date: 11.AUG.2022 05:48:54

Highest Channel



Date: 11.AUG.2022 22:11:42

Highest Channel

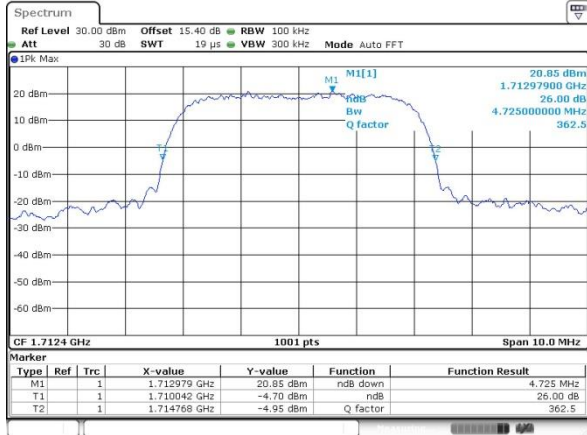


Date: 11.AUG.2022 05:49:20



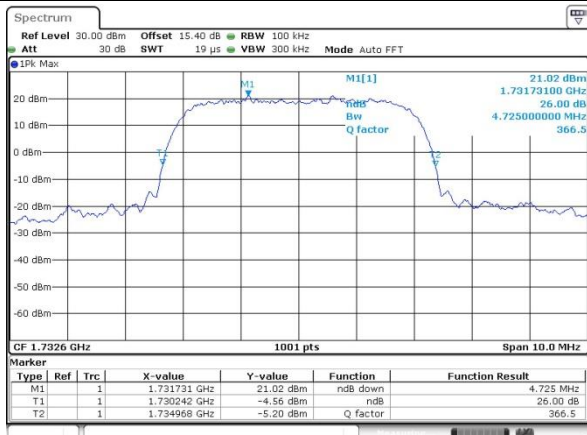
WCDMA Band IV (RMC 12.2Kbps)

Lowest Channel



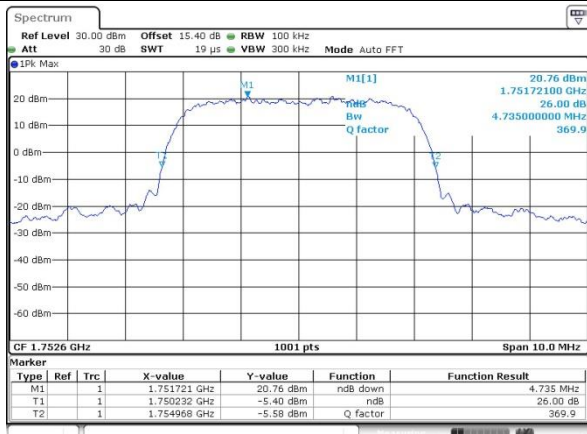
Date: 11.AUG.2022 06:08:40

Middle Channel



Date: 11.AUG.2022 06:09:30

Highest Channel



Date: 11.AUG.2022 06:11:38



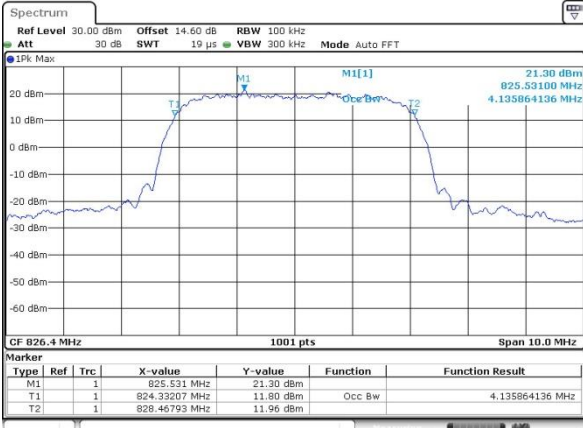
Occupied Bandwidth

Mode	WCDMA Band V(MHz)	WCDMA Band II(MHz)	WCDMA Band IV(MHz)
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	RMC 12.2Kbps
Lowest CH	4.136	4.146	4.146
Middle CH	4.136	4.136	4.136
Highest CH	4.146	4.146	4.136



WCDMA Band V (RMC 12.2Kbps)

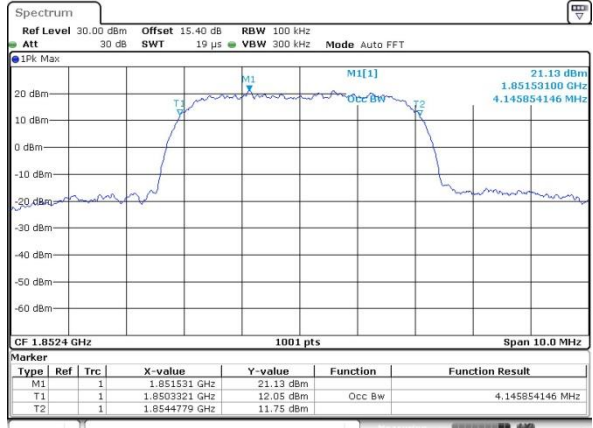
Lowest Channel



Date: 11.AUG.2022 22:15:25

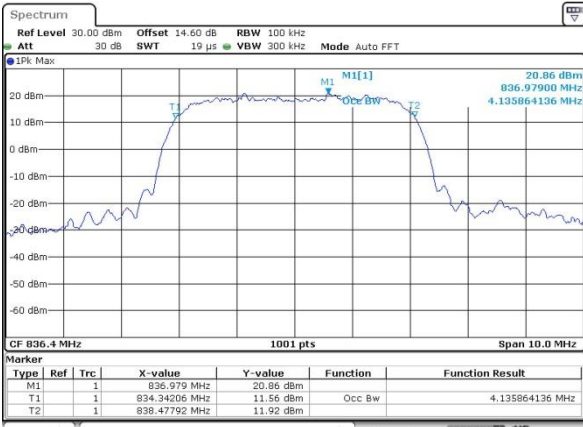
WCDMA Band II (RMC 12.2Kbps)

Lowest Channel



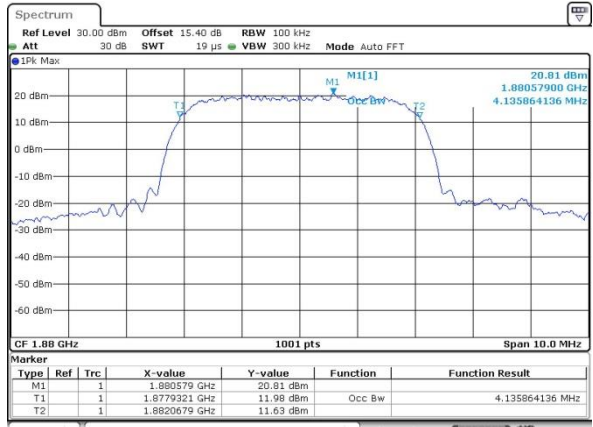
Date: 11.AUG.2022 05:59:52

Middle Channel



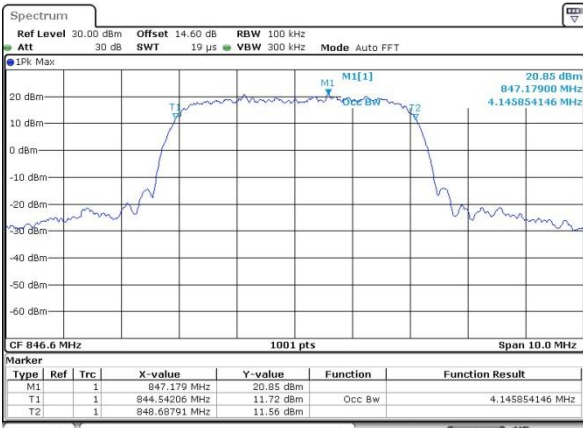
Date: 11.AUG.2022 22:15:48

Middle Channel



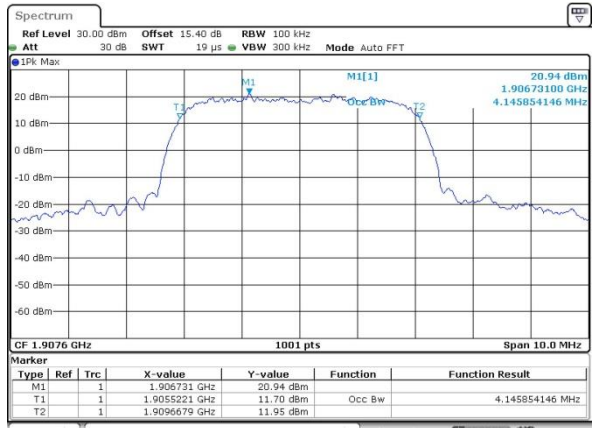
Date: 11.AUG.2022 06:00:15

Highest Channel



Date: 11.AUG.2022 22:16:19

Highest Channel

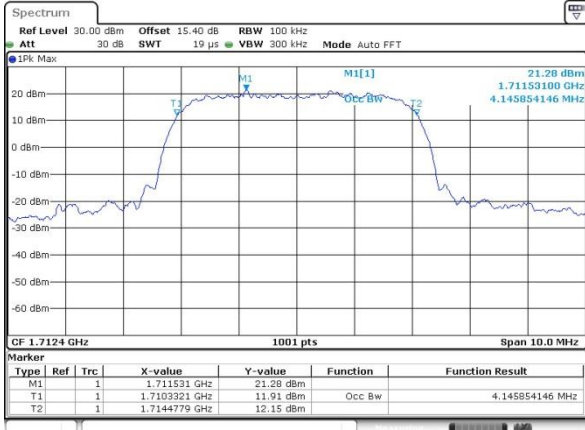


Date: 11.AUG.2022 06:00:37



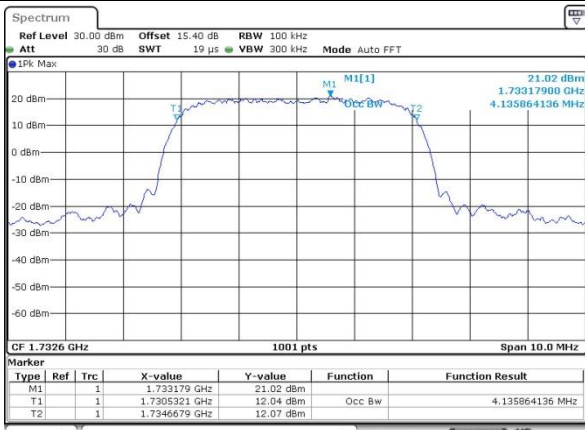
WCDMA Band IV (RMC 12.2Kbps)

Lowest Channel



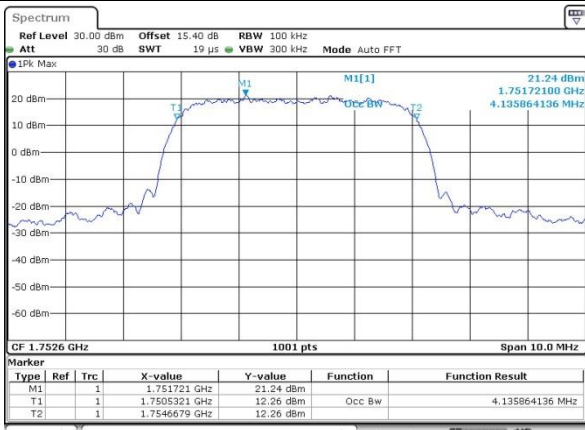
Date: 11.AUG.2022 22:49:03

Middle Channel



Date: 11.AUG.2022 22:49:03

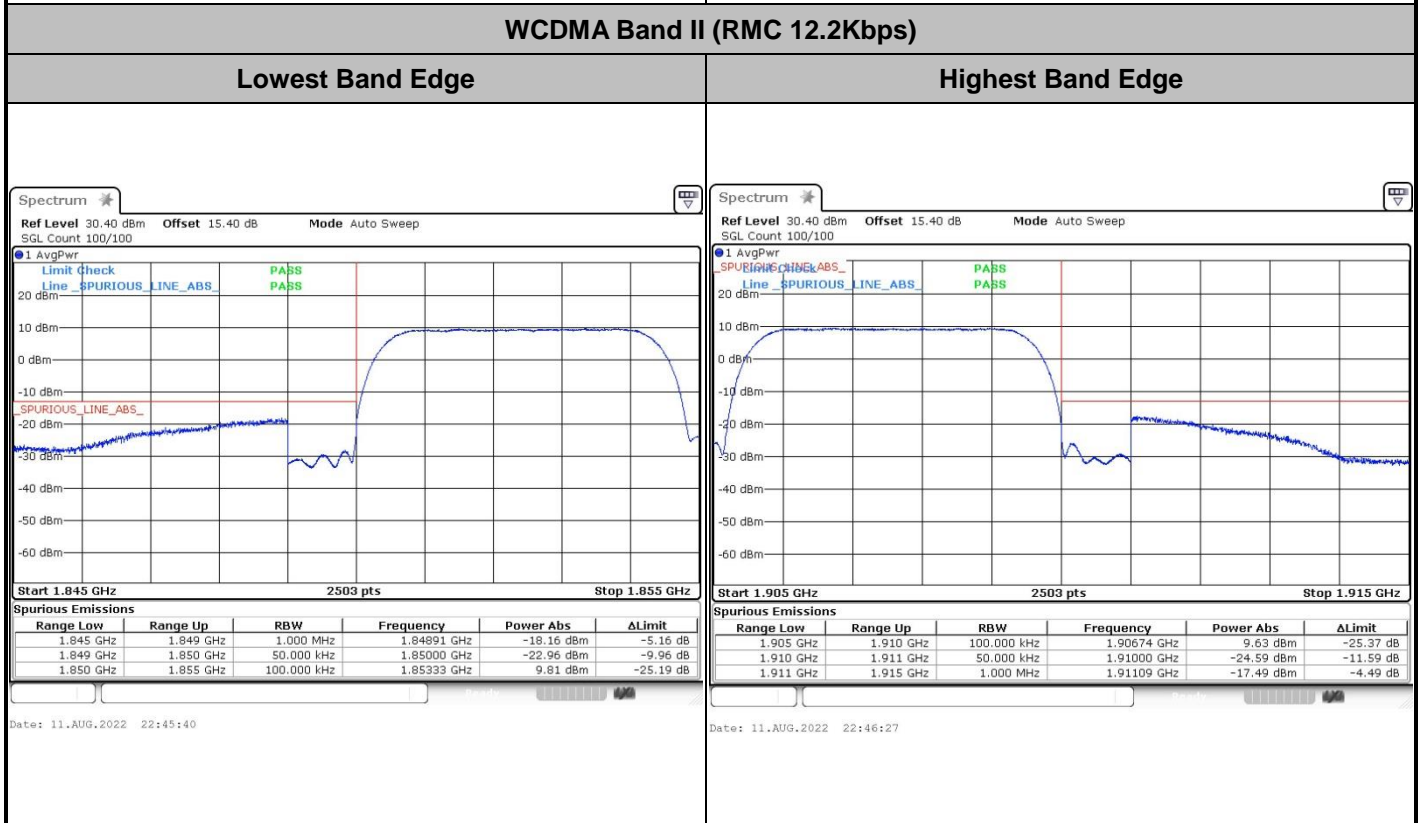
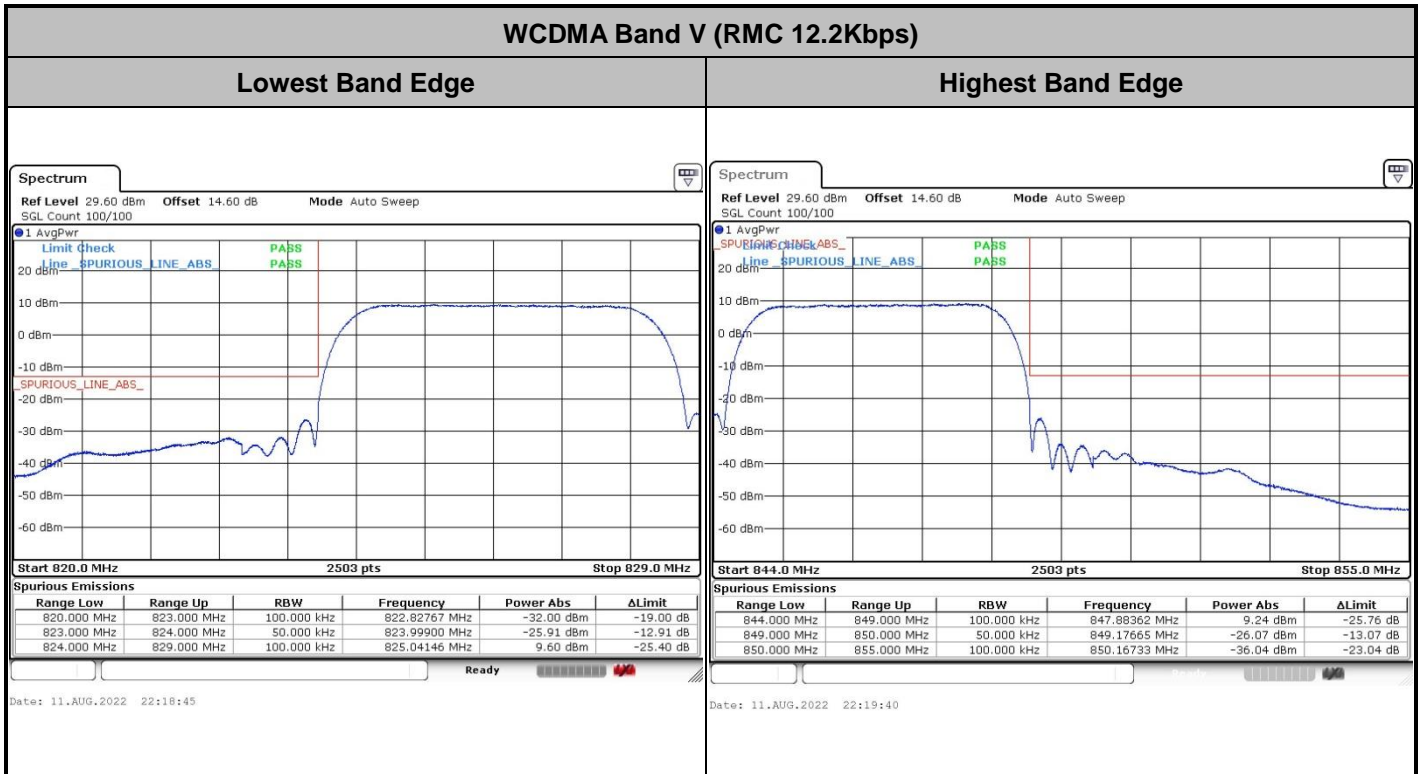
Highest Channel

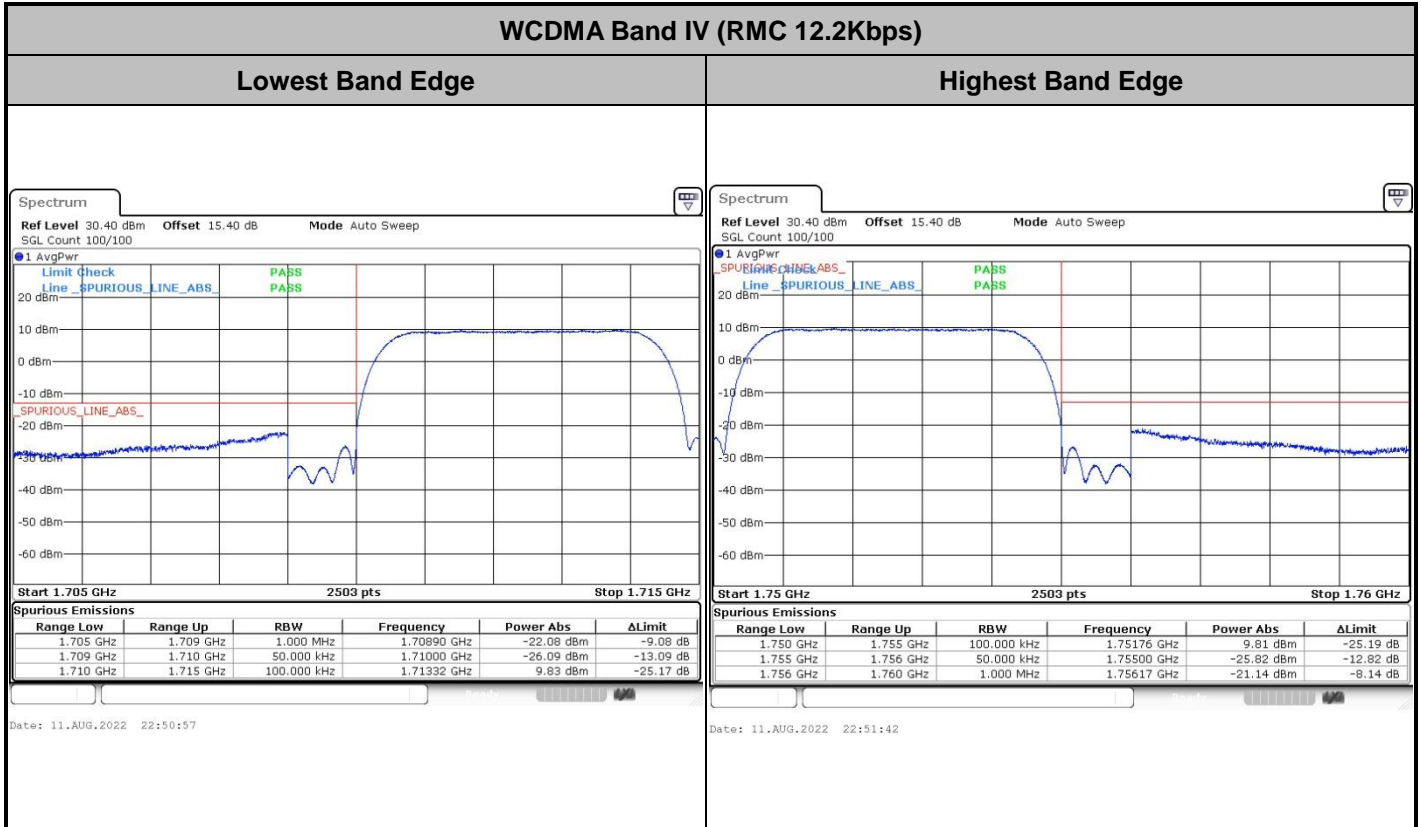


Date: 11.AUG.2022 22:49:57



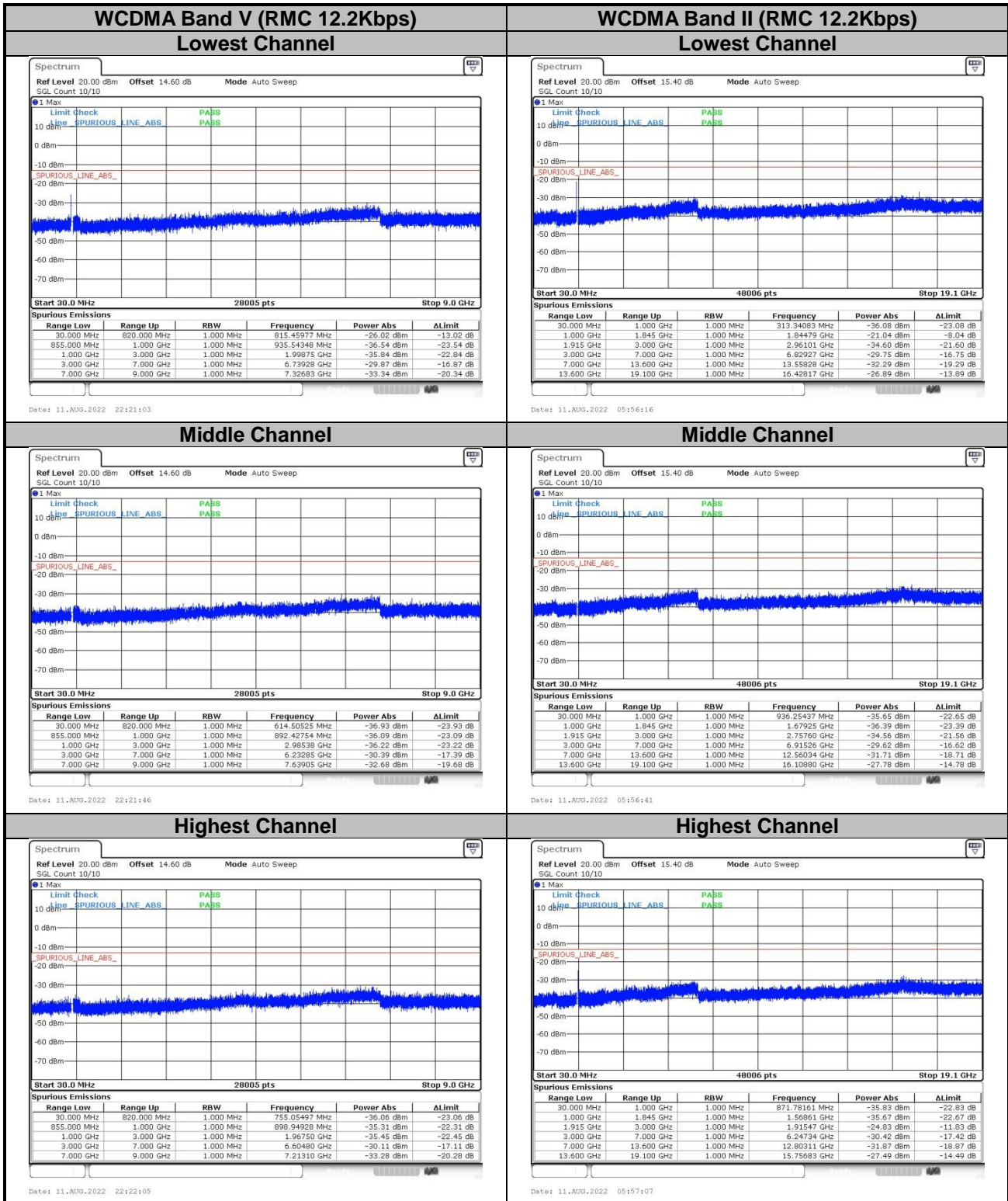
Conducted Band Edge







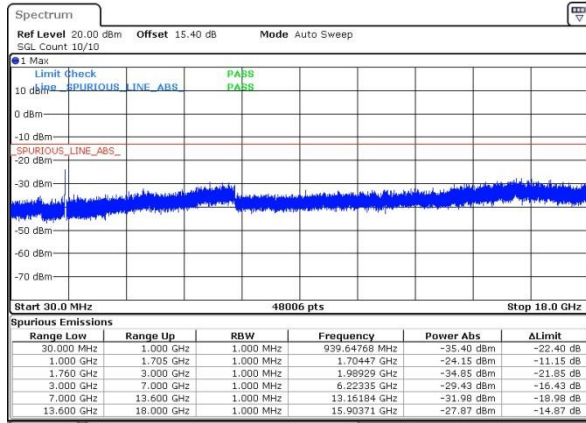
Conducted Spurious Emission





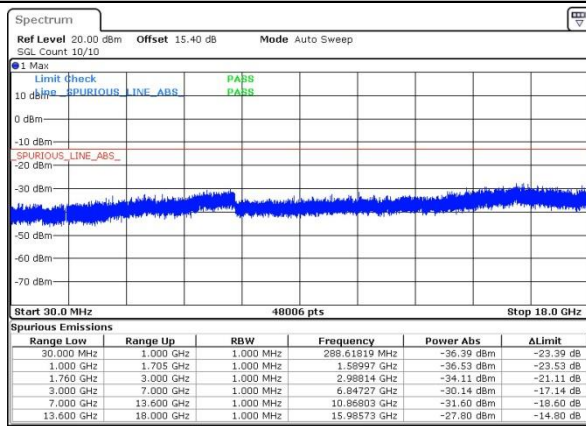
WCDMA Band IV (RMC 12.2Kbps)

Lowest Channel



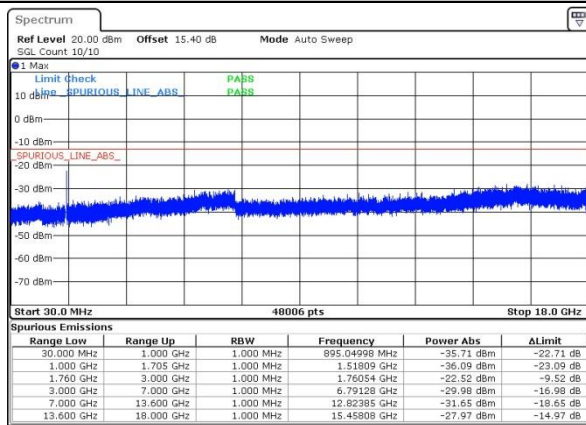
Date: 11.AUG.2022 22:52:20

Middle Channel



Date: 11.AUG.2022 22:52:46

Highest Channel



Date: 11.AUG.2022 22:53:13



Frequency Stability

Test Conditions	Middle Channel	WCDMA Band V (RMC 12.2Kbps)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0036	PASS
40	Normal Voltage	0.0285	
30	Normal Voltage	0.0428	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0036	
0	Normal Voltage	0.0425	
-10	Normal Voltage	0.0052	
-20	Normal Voltage	0.0154	
-30	Normal Voltage	0.0365	
20	Maximum Voltage	0.0393	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0055	



Test Conditions	Middle Channel	WCDMA Band II (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0195	PASS
40	Normal Voltage	0.0142	
30	Normal Voltage	0.0187	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0162	
0	Normal Voltage	0.0136	
-10	Normal Voltage	0.0225	
-20	Normal Voltage	0.0084	
-30	Normal Voltage	0.0145	
20	Maximum Voltage	0.0135	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0018	



Test Conditions	Middle Channel	WCDMA Band IV (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0032	PASS
40	Normal Voltage	0.0177	
30	Normal Voltage	0.0002	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0021	
0	Normal Voltage	0.0039	
-10	Normal Voltage	0.0186	
-20	Normal Voltage	0.0154	
-30	Normal Voltage	0.0053	
20	Maximum Voltage	0.0027	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0144	

Note:

1. Normal Voltage = 3.89V ; Battery End Point (BEP) =3.4V. ; Maximum Voltage =4.52V
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

Test Engineer :	Chris Chen	Temperature :	23~25°C
		Relative Humidity :	41~42%

Note: Pre-scanned harmonic for all the supported antennas, choose the worst antenna perform final test and record in the report.

GSM850 (GSM) for Ant.1								
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	-55.15	-13	-42.15	-62.12	1.58	10.70	H
	2510	-58.26	-13	-45.26	-66.51	2.102	12.50	H
	3348	-60.15	-13	-47.15	-69.04	2.856	13.90	H
	1672	-57.28	-13	-44.28	-64.25	1.58	10.70	V
	2510	-60.67	-13	-47.67	-68.92	2.10	12.50	V
	3348	-59.92	-13	-46.92	-68.81	2.86	13.90	V

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

GSM850 (EDGE 1 Tx slots) for Ant.0								
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	-64.80	-13	-51.80	-71.77	1.58	10.70	H
	2510	-61.29	-13	-48.29	-69.54	2.102	12.50	H
	3348	-60.18	-13	-47.18	-69.07	2.856	13.90	H
	1672	-63.84	-13	-50.84	-70.81	1.58	10.70	V
	2510	-61.68	-13	-48.68	-69.93	2.10	12.50	V
	3348	-60.15	-13	-47.15	-69.04	2.86	13.90	V

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

GSM1900 (GSM) for Ant.3								
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	3759	-60.01	-13	-47.01	-72.27	2.641	14.90	H
	5640	-53.67	-13	-40.67	-65.53	2.94	14.80	H
	7524	-47.62	-13	-34.62	-57.39	3.39	13.16	H
	3759	-59.88	-13	-46.88	-72.14	2.64	14.90	V
	5640	-53.63	-13	-40.63	-65.49	2.94	14.80	V
	7524	-48.28	-13	-35.28	-58.05	3.39	13.16	V

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



GSM1900 (EDGE 1 Tx slots) for Ant.3								
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	3759	-59.85	-13	-46.85	-72.11	2.641	14.90	H
	5640	-53.40	-13	-40.40	-65.26	2.94	14.80	H
	7524	-47.20	-13	-34.20	-56.97	3.39	13.16	H
	3759	-59.83	-13	-46.83	-72.09	2.64	14.90	V
	5640	-53.70	-13	-40.70	-65.56	2.94	14.80	V
	7524	-46.97	-13	-33.97	-56.74	3.39	13.16	V

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

WCDMA Band V(RMC 12.2Kbps) for Ant.0								
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	-66.23	-13	-53.23	-73.20	1.58	10.70	H
	2510	-61.68	-13	-48.68	-69.93	2.102	12.50	H
	3348	-60.27	-13	-47.27	-69.16	2.856	13.90	H
	1672	-65.70	-13	-52.70	-72.67	1.58	10.70	V
	2510	-61.48	-13	-48.48	-69.73	2.10	12.50	V
	3348	-60.37	-13	-47.37	-69.26	2.86	13.90	V

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

WCDMA Band II(RMC 12.2Kbps) for Ant.5								
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	3759	-59.06	-13	-46.06	-71.32	2.64	14.90	H
	5640	-53.13	-13	-40.13	-64.99	2.94	14.80	H
	7515	-47.31	-13	-34.31	-57.08	3.39	13.16	H
	3759	-59.37	-13	-46.37	-71.63	2.64	14.90	V
	5640	-53.10	-13	-40.10	-64.96	2.94	14.80	V
	7515	-47.43	-13	-34.43	-57.20	3.39	13.16	V

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



WCDMA Band IV(RMC 12.2Kbps) for Ant.3								
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	3465	-60.20	-13	-47.20	-70.94	2.604	13.34	H
	5199	-53.91	-13	-40.91	-64.42	3.011	13.52	H
	6936	-48.86	-13	-35.86	-59.06	3.271	13.47	H
	3465	-60.38	-13	-47.38	-71.12	2.604	13.34	V
	5199	-54.18	-13	-41.18	-64.69	3.011	13.52	V
	6936	-48.61	-13	-35.61	-58.81	3.271	13.47	V

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