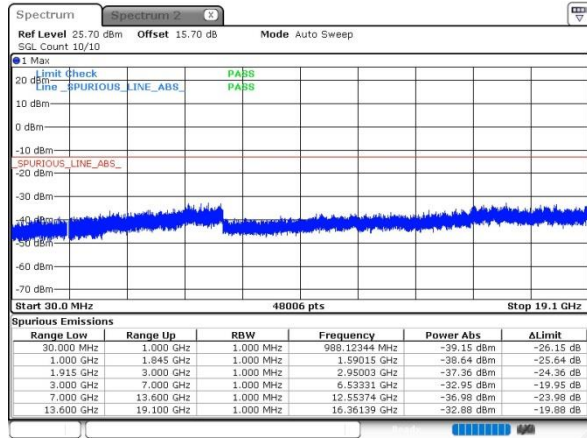




GSM1900 (GSM)

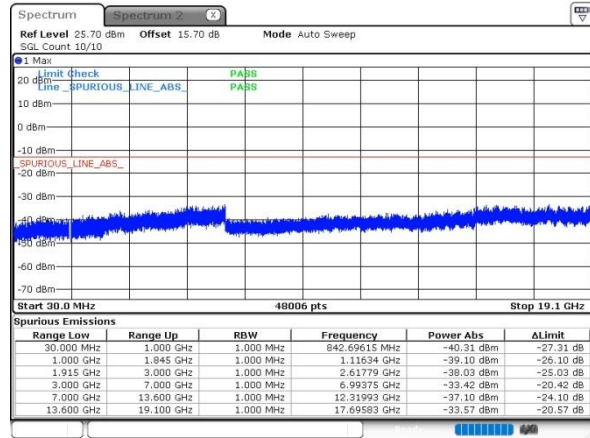
Lowest Channel



Date: 27_JUL_2024 03:31:00

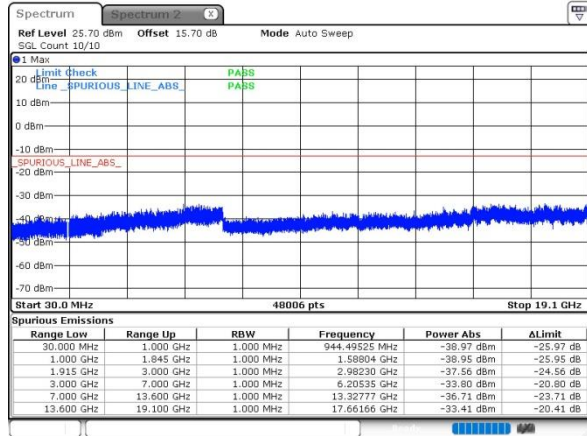
GSM1900 (EDGE class 8)

Lowest Channel



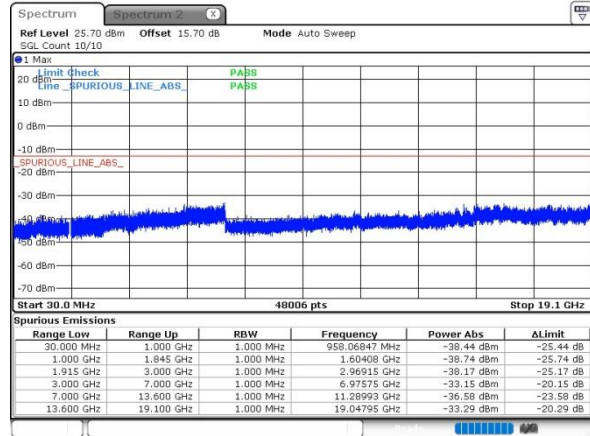
Date: 27_JUL_2024 03:09:34

Middle Channel



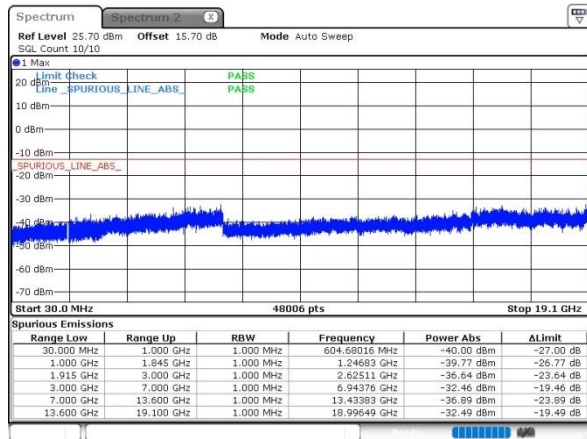
Date: 27_JUL_2024 03:31:16

Middle Channel



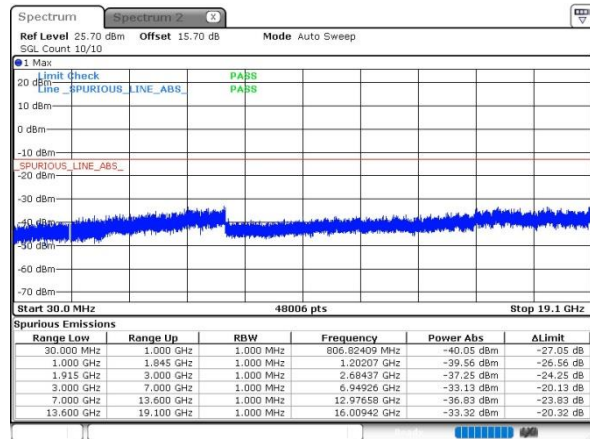
Date: 27_JUL_2024 03:11:55

Highest Channel



Date: 27_JUL_2024 03:32:16

Highest Channel



Date: 27_JUL_2024 03:13:04

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	0.0171	0.0228	PASS
40	Normal Voltage	0.0223	0.0067	
30	Normal Voltage	0.0065	0.0194	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0154	0.0531	
0	Normal Voltage	0.0313	0.0114	
-10	Normal Voltage	0.0124	0.0256	
-20	Normal Voltage	0.0175	0.0114	
-30	Normal Voltage	0.0191	0.0351	
20	Maximum Voltage	0.0345	0.0127	
20	Normal Voltage	0.0175	0.0174	
20	Battery End Point	0.0317	0.0292	

Test Conditions	Middle Channel	GSM1900 (GSM)	GSM1900 (EDGE class 8)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
50	Normal Voltage	0.0156	0.0317	PASS
40	Normal Voltage	0.0321	0.0214	
30	Normal Voltage	0.0581	0.0062	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0127	0.0173	
0	Normal Voltage	0.0159	0.0182	
-10	Normal Voltage	0.0135	0.0044	
-20	Normal Voltage	0.0521	0.0016	
-30	Normal Voltage	0.0055	0.0425	
20	Maximum Voltage	0.0428	0.0417	
20	Normal Voltage	0.0417	0.0025	
20	Battery End Point	0.0142	0.0159	

Note:

1. Normal Voltage = 3.91V ; Battery End Point (BEP) =3.6V. ; Maximum Voltage =4.3V
2. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.



WCDMA

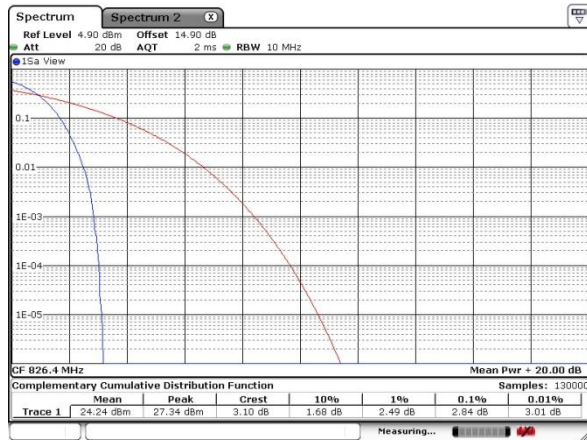
Peak-to-Average Ratio

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	2.49	2.78	PASS
Middle CH	2.78	2.72	2.09	
Highest CH	2.84	2.26	2.78	



WCDMA Band V (RMC 12.2Kbps)

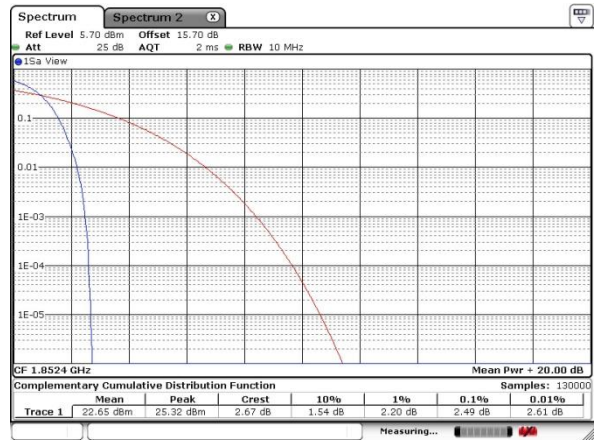
Lowest Channel



Date: 27_JUL_2024 04:50:39

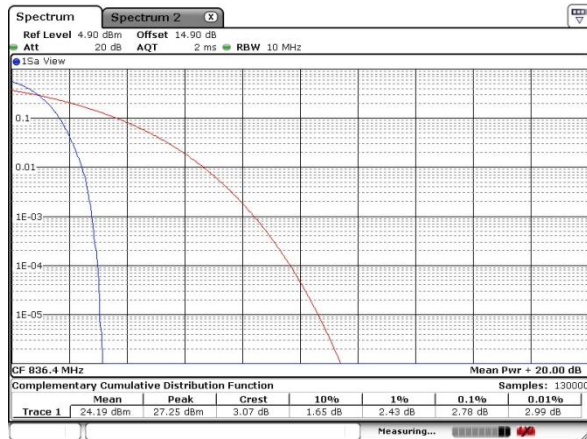
WCDMA Band II (RMC 12.2Kbps)

Lowest Channel



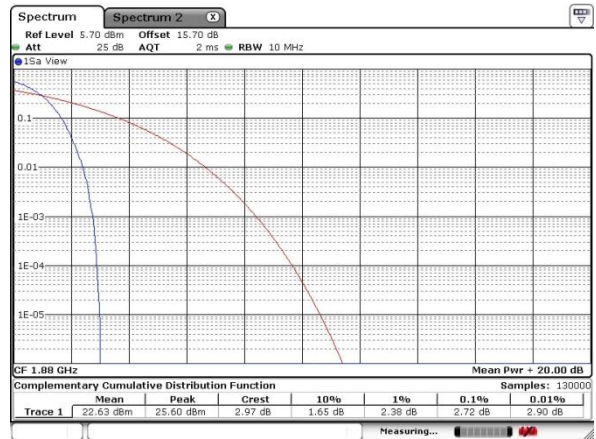
Date: 27_JUL_2024 04:22:45

Middle Channel



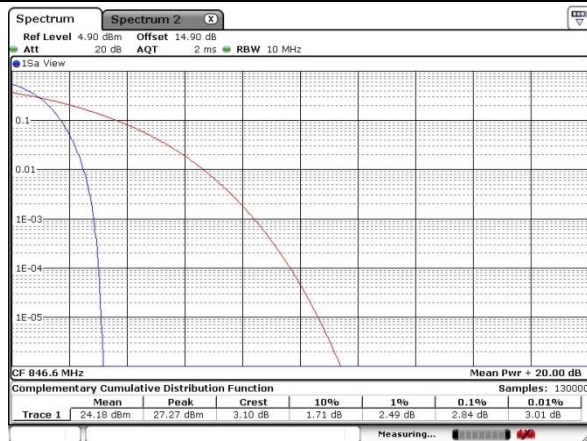
Date: 27_JUL_2024 04:50:49

Middle Channel



Date: 27_JUL_2024 04:22:52

Highest Channel



Date: 27_JUL_2024 04:50:56

Highest Channel

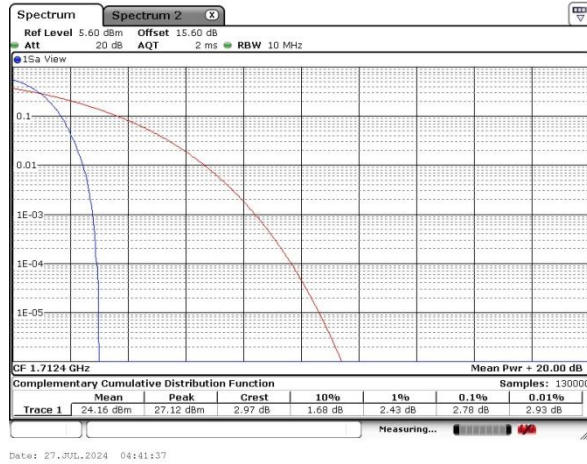


Date: 27_JUL_2024 04:23:03

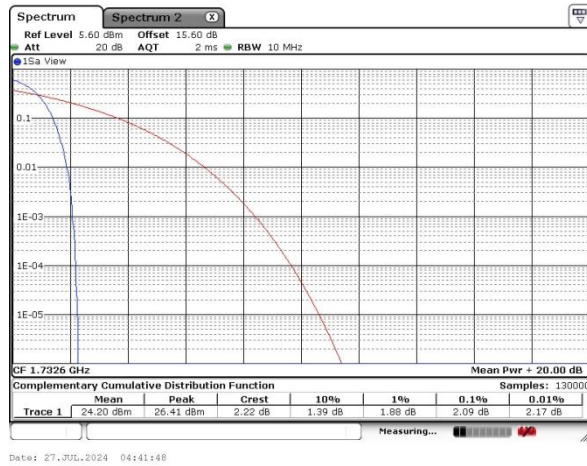


WCDMA Band IV (RMC 12.2Kbps)

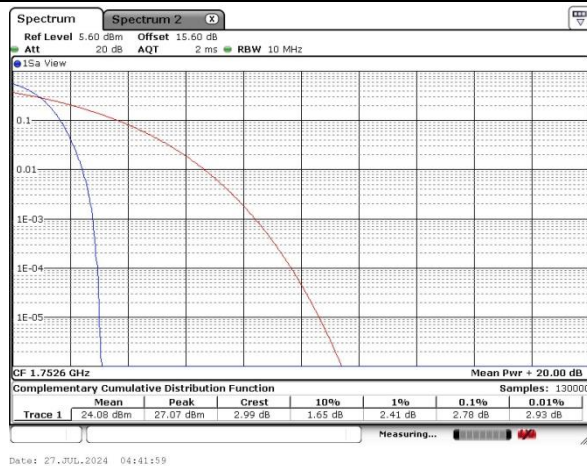
Lowest Channel



Middle Channel



Highest Channel





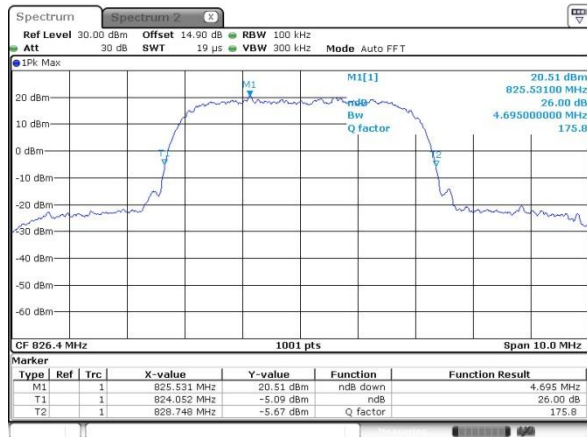
26dB Bandwidth

Mode	WCDMA Band V	WCDMA Band II	WCDMA Band IV
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	RMC 12.2Kbps
Lowest CH	4.695	4.725	4.695
Middle CH	4.705	4.695	4.765
Highest CH	4.695	4.735	4.695



WCDMA Band V (RMC 12.2Kbps)

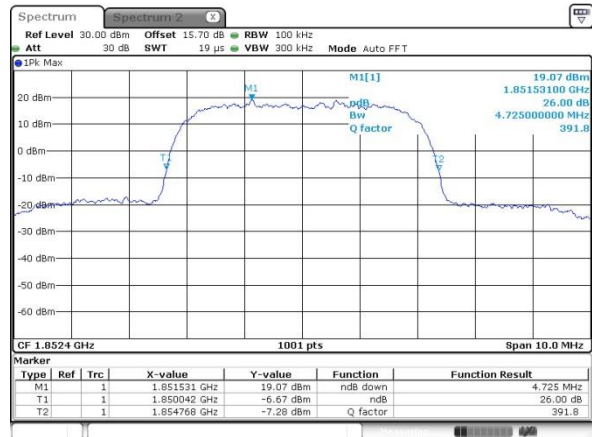
Lowest Channel



Date: 27_JUL_2024 04:43:22

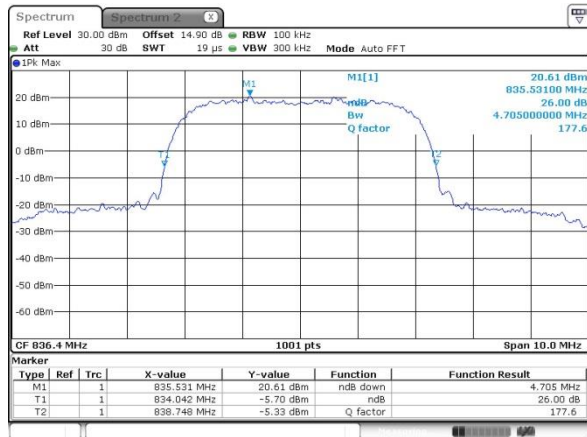
WCDMA Band II (RMC 12.2Kbps)

Lowest Channel



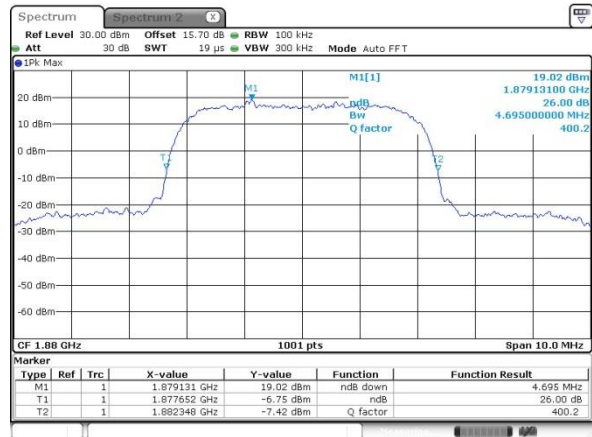
Date: 27_JUL_2024 04:15:04

Middle Channel



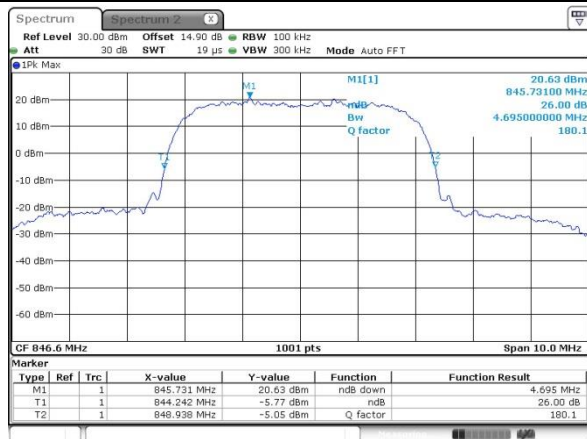
Date: 27_JUL_2024 04:43:46

Middle Channel



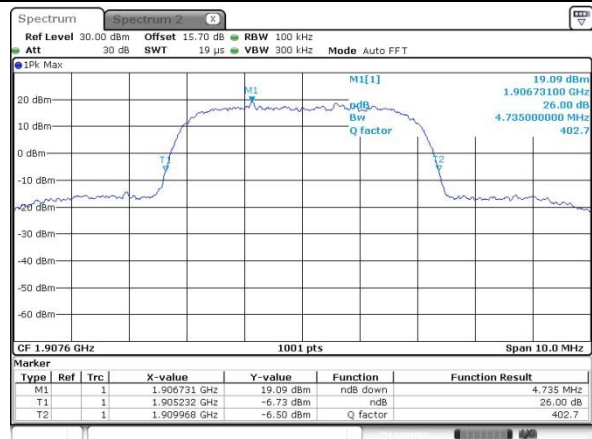
Date: 27_JUL_2024 04:15:25

Highest Channel



Date: 27_JUL_2024 04:44:10

Highest Channel

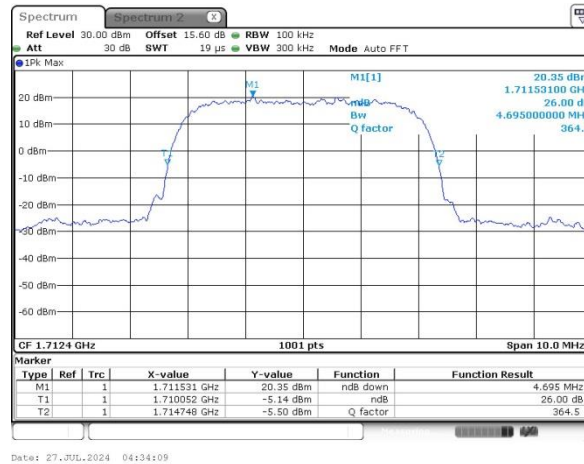


Date: 27_JUL_2024 04:15:45

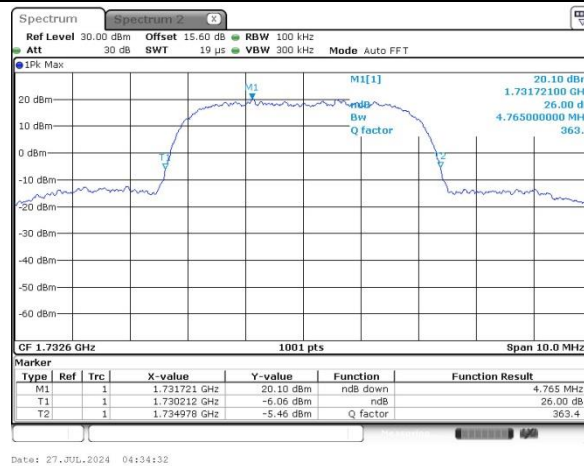


WCDMA Band IV (RMC 12.2Kbps)

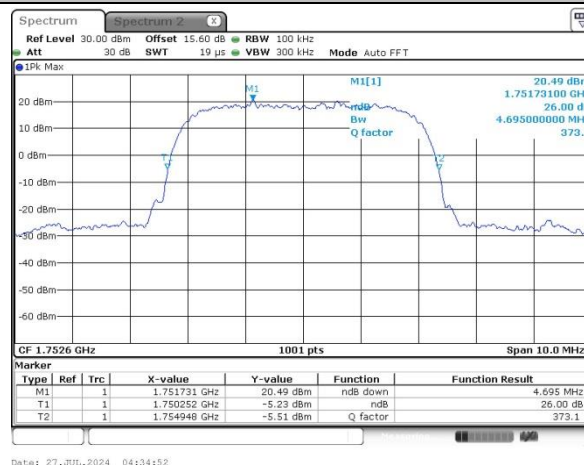
Lowest Channel



Middle Channel



Highest Channel





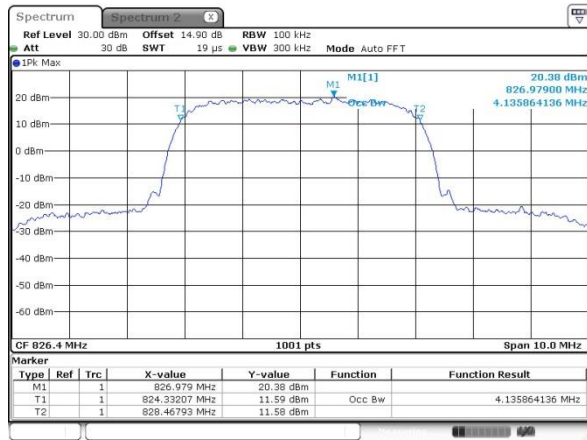
Occupied Bandwidth

Mode	WCDMA Band V	WCDMA Band II	WCDMA Band IV
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	RMC 12.2Kbps
Lowest CH	4.136	4.146	4.146
Middle CH	4.146	4.146	4.156
Highest CH	4.146	4.156	4.146



WCDMA Band V (RMC 12.2Kbps)

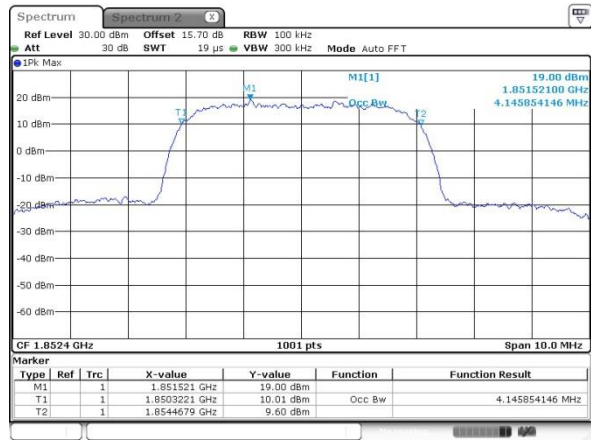
Lowest Channel



Date: 27_JUL_2024 04:46:14

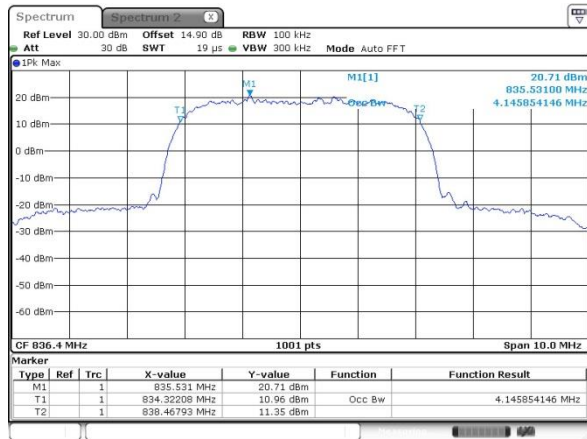
WCDMA Band II (RMC 12.2Kbps)

Lowest Channel



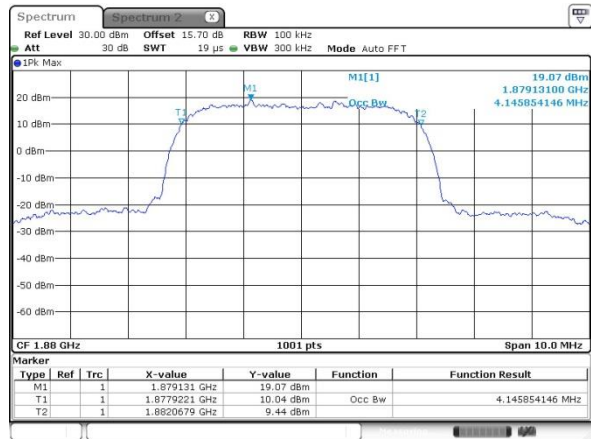
Date: 27_JUL_2024 04:17:59

Middle Channel



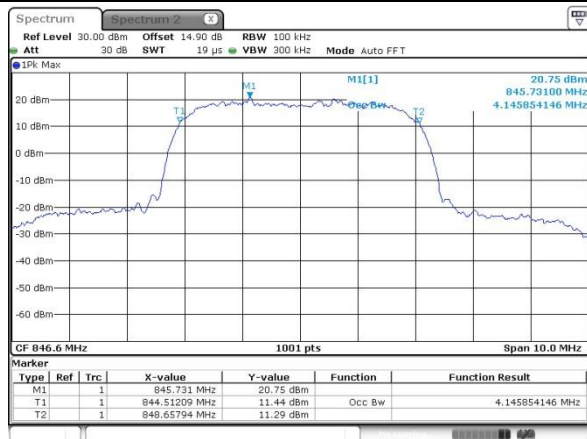
Date: 27_JUL_2024 04:46:33

Middle Channel



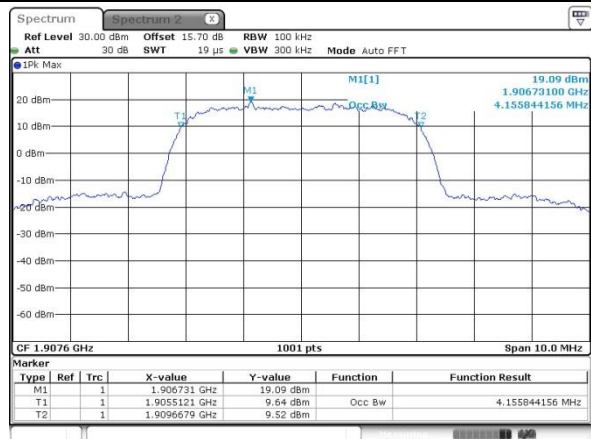
Date: 27_JUL_2024 04:18:22

Highest Channel



Date: 27_JUL_2024 04:46:53

Highest Channel

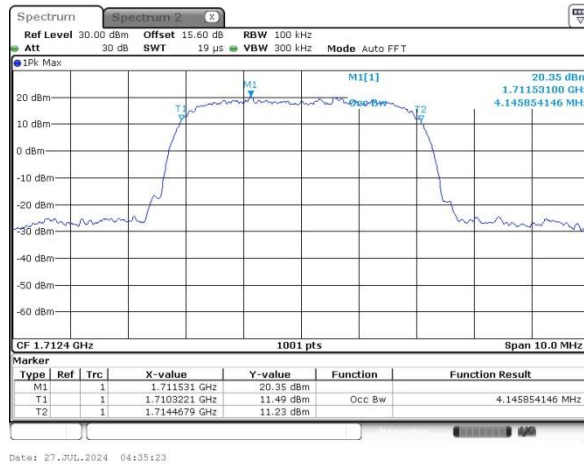


Date: 27_JUL_2024 04:18:43

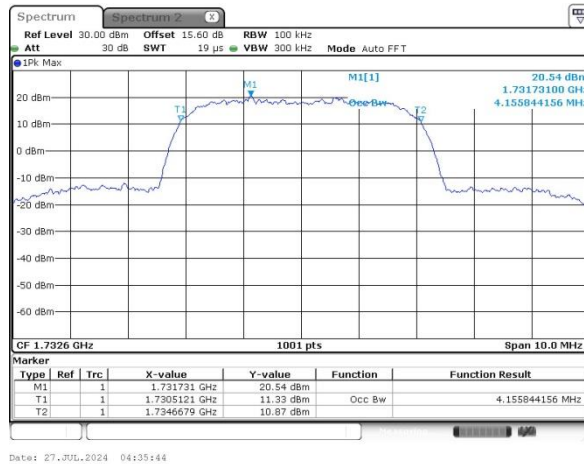


WCDMA Band IV (RMC 12.2Kbps)

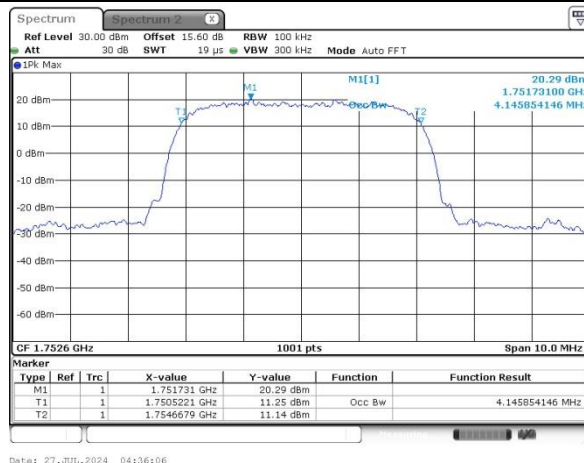
Lowest Channel



Middle Channel



Highest Channel

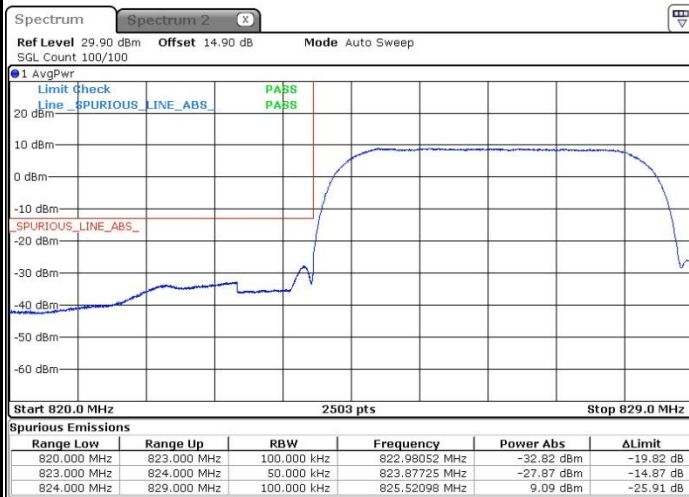




Conducted Band Edge

WCDMA Band V (RMC 12.2Kbps)

Lowest Band Edge

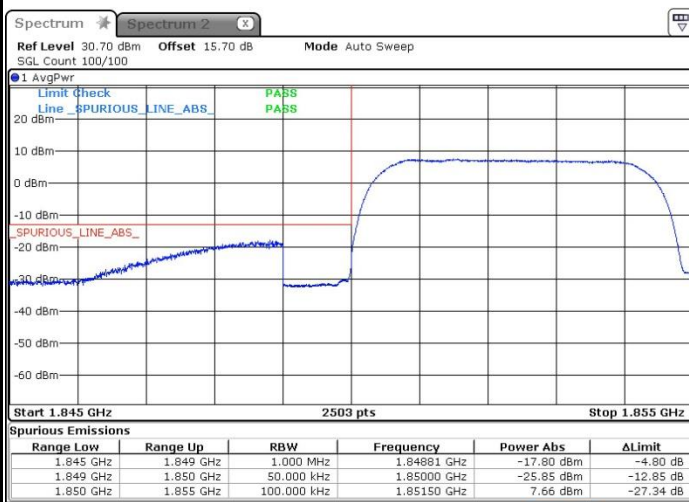


Highest Band Edge



WCDMA Band II (RMC 12.2Kbps)

Lowest Band Edge



Highest Band Edge

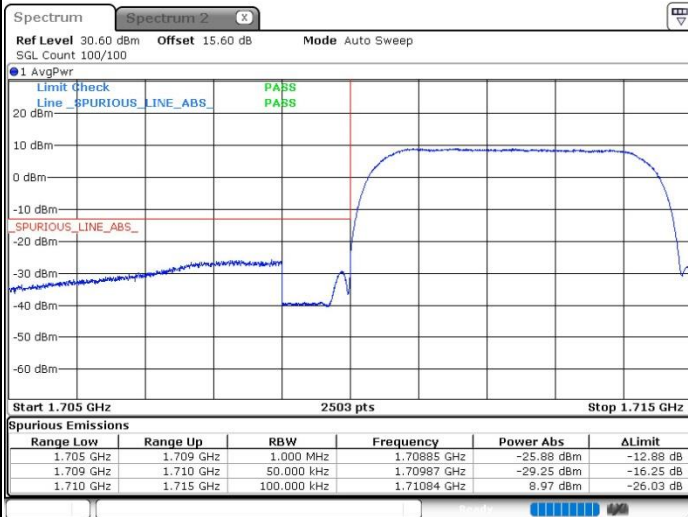




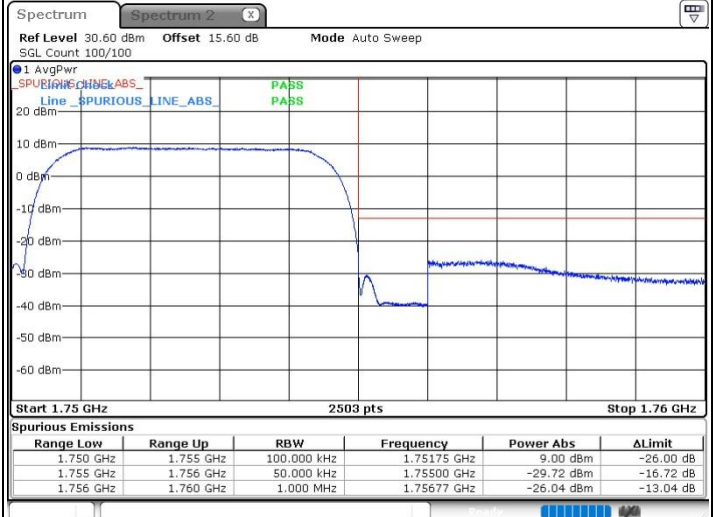
WCDMA Band IV (RMC 12.2Kbps)

Lowest Band Edge

Highest Band Edge



Date: 27.JUL.2024 04:38:51



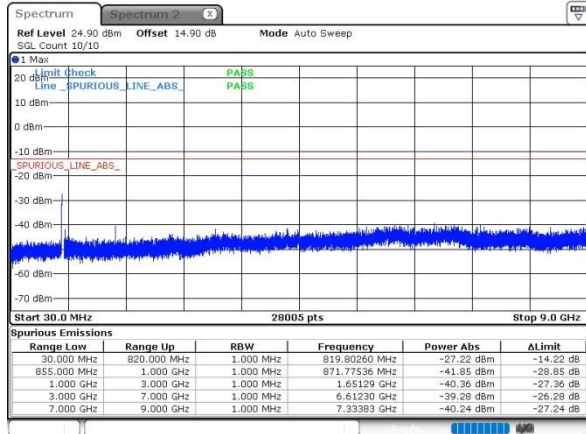
Date: 27.JUL.2024 04:39:33



Conducted Spurious Emission

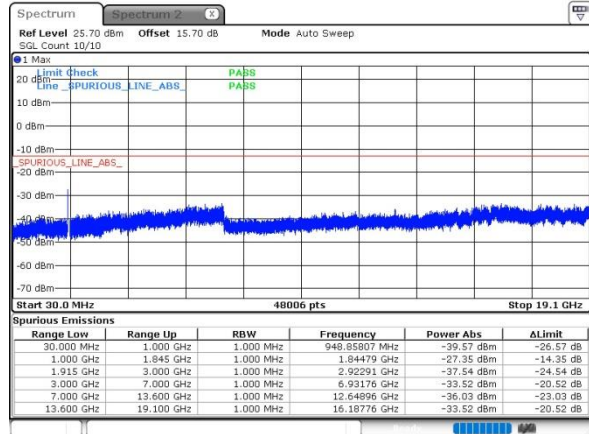
WCDMA Band V (RMC 12.2Kbps)

Lowest Channel

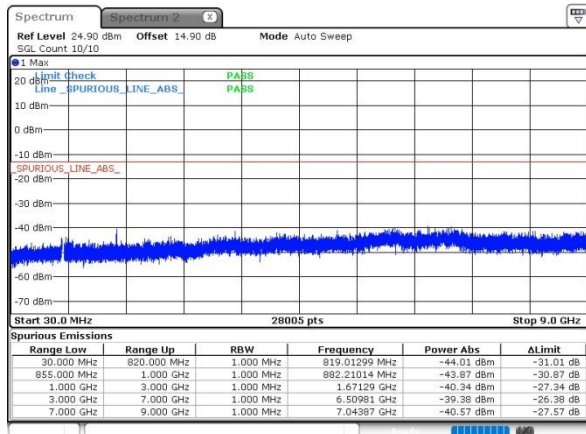


WCDMA Band II (RMC 12.2Kbps)

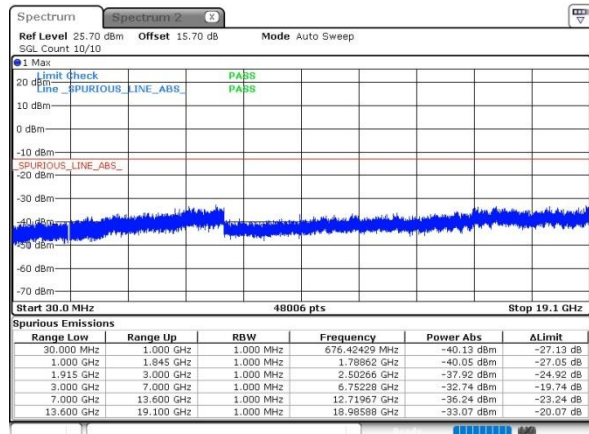
Lowest Channel



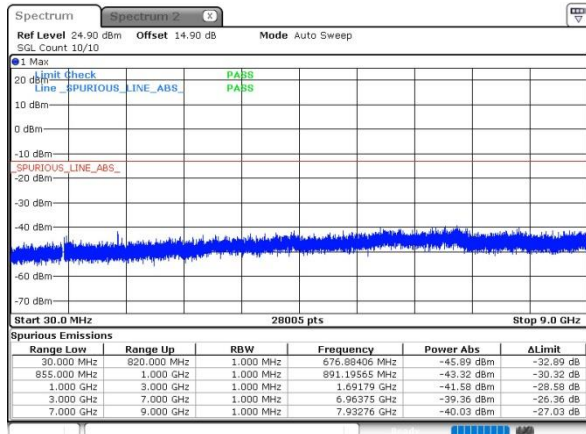
Middle Channel



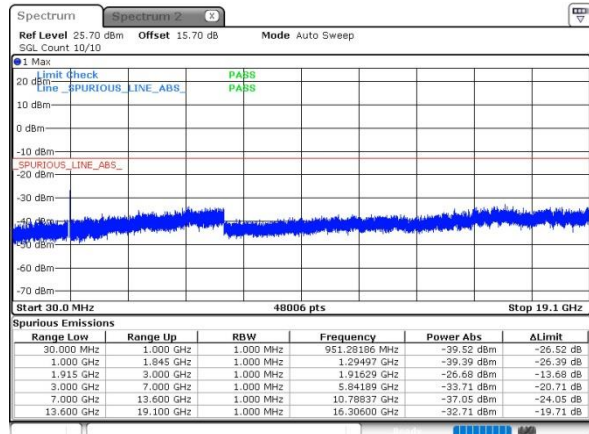
Middle Channel



Highest Channel



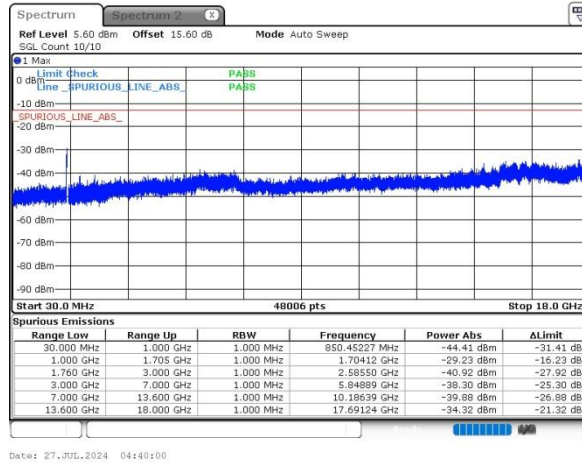
Highest Channel



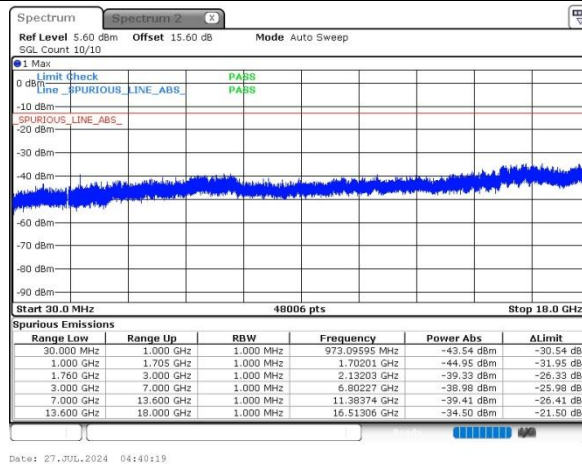


WCDMA Band IV (RMC 12.2Kbps)

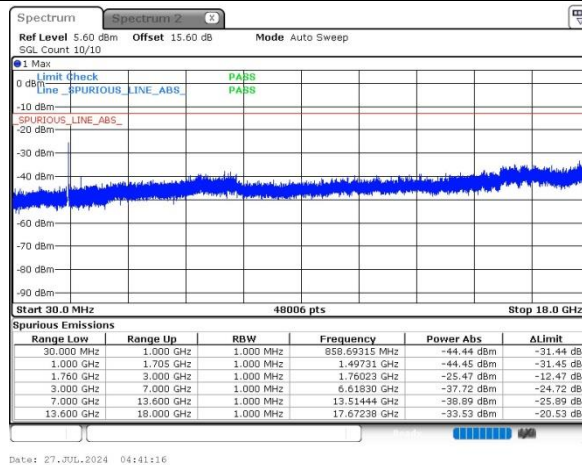
Lowest Channel



Middle Channel



Highest Channel



**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	0.0091	PASS
40	Normal Voltage	0.0174	
30	Normal Voltage	0.0226	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0193	
0	Normal Voltage	0.0155	
-10	Normal Voltage	0.0127	
-20	Normal Voltage	0.0314	
-30	Normal Voltage	0.0327	
20	Maximum Voltage	0.0343	
20	Normal Voltage	0.0275	
20	Battery End Point	0.0118	

Test Conditions	Middle Channel	WCDMA Band II (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0072	PASS
40	Normal Voltage	0.0116	
30	Normal Voltage	0.0094	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0141	
0	Normal Voltage	0.0219	
-10	Normal Voltage	0.0256	
-20	Normal Voltage	0.0137	
-30	Normal Voltage	0.0092	
20	Maximum Voltage	0.0054	
20	Normal Voltage	0.0174	
20	Battery End Point	0.0114	



Test Conditions	Middle Channel	WCDMA Band IV (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0159	PASS
40	Normal Voltage	0.0247	
30	Normal Voltage	0.0011	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0075	
0	Normal Voltage	0.0091	
-10	Normal Voltage	0.0134	
-20	Normal Voltage	0.0121	
-30	Normal Voltage	0.0077	
20	Maximum Voltage	0.0045	
20	Normal Voltage	0.0091	
20	Battery End Point	0.0154	

Note:

1. Normal Voltage = 3.91V ; Battery End Point (BEP) =3.6V. ; Maximum Voltage =4.3V
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 :	Bruce	Temperature :	23~25°C
		Relative Humidity :	41~42%

RSE pretest all the supported Antennas, only the worst results are shown in the report.

GSM850 (GSM) / ANT 4								
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	-63.49	-13	-50.49	-70.46	1.58	10.70	H
	2512	-49.39	-13	-36.39	-57.64	2.102	12.50	H
	3344	-61.29	-13	-48.29	-70.18	2.856	13.90	H
	1672	-60.18	-13	-47.18	-67.15	1.58	10.70	V
	2512	-51.41	-13	-38.41	-59.66	2.10	12.50	V
	3344	-61.02	-13	-48.02	-69.91	2.86	13.90	V

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

GSM850 (EDGE 1 Tx slots) / ANT 4								
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	-63.63	-13	-50.63	-70.60	1.58	10.70	H
	2512	-46.69	-13	-33.69	-54.94	2.102	12.50	H
	3344	-60.89	-13	-47.89	-69.78	2.856	13.90	H
	1672	-60.33	-13	-47.33	-67.30	1.58	10.70	V
	2512	-59.40	-13	-46.40	-67.65	2.10	12.50	V
	3344	-60.85	-13	-47.85	-69.74	2.86	13.90	V

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

GSM1900 (GSM) / ANT 1								
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	3765	-56.14	-13	-43.14	-68.40	2.64	14.90	H
	5640	-55.39	-13	-42.39	-67.25	2.94	14.80	H
	7515	-54.42	-13	-41.42	-64.19	3.39	13.16	H
	3765	-55.63	-13	-42.63	-67.89	2.64	14.90	V
	5640	-55.64	-13	-42.64	-67.50	2.94	14.80	V
	7515	-54.29	-13	-41.29	-64.06	3.39	13.16	V

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



GSM1900 (EDGE 1 Tx slots) / ANT 1								
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	3765	-53.87	-13	-40.87	-66.13	2.64	14.90	H
	5640	-55.21	-13	-42.21	-67.07	2.94	14.80	H
	7515	-54.40	-13	-41.40	-64.17	3.39	13.16	H
	3765	-55.50	-13	-42.50	-67.76	2.64	14.90	V
	5640	-55.66	-13	-42.66	-67.52	2.94	14.80	V
	7515	-54.10	-13	-41.10	-63.87	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) / ANT 4								
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	-64.59	-13	-51.59	-71.56	1.58	10.70	H
	2512	-58.77	-13	-45.77	-67.02	2.102	12.50	H
	3344	-61.19	-13	-48.19	-70.08	2.856	13.90	H
	1672	-63.65	-13	-50.65	-70.62	1.58	10.70	V
	2512	-59.26	-13	-46.26	-67.51	2.10	12.50	V
	3344	-61.14	-13	-48.14	-70.03	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) / ANT 1								
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	3765	-56.21	-13	-43.21	-68.47	2.64	14.90	H
	5640	-55.01	-13	-42.01	-66.87	2.94	14.80	H
	7515	-54.32	-13	-41.32	-64.09	3.39	13.16	H
	3765	-55.78	-13	-42.78	-68.04	2.64	14.90	V
	5640	-55.87	-13	-42.87	-67.73	2.94	14.80	V
	7515	-53.97	-13	-40.97	-63.74	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) / ANT 1								
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	-56.99	-13	-43.99	-67.73	2.604	13.34	H
	5205	-54.08	-13	-41.08	-64.59	3.011	13.52	H
	6930	-55.81	-13	-42.81	-66.01	3.271	13.47	H
	3465	-57.76	-13	-44.76	-68.50	2.604	13.34	V
	5205	-54.81	-13	-41.81	-65.32	3.011	13.52	V
	6930	-55.66	-13	-42.66	-65.86	3.271	13.47	V

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