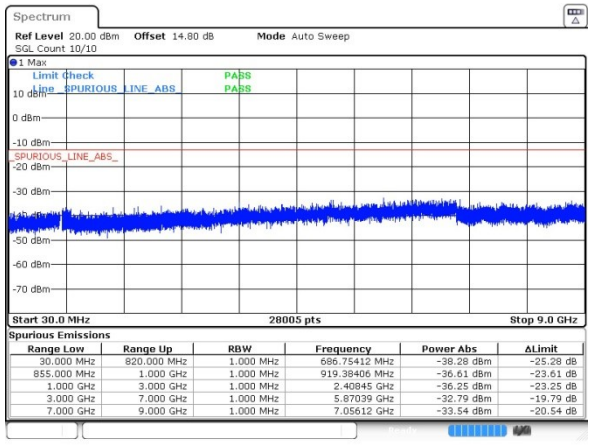
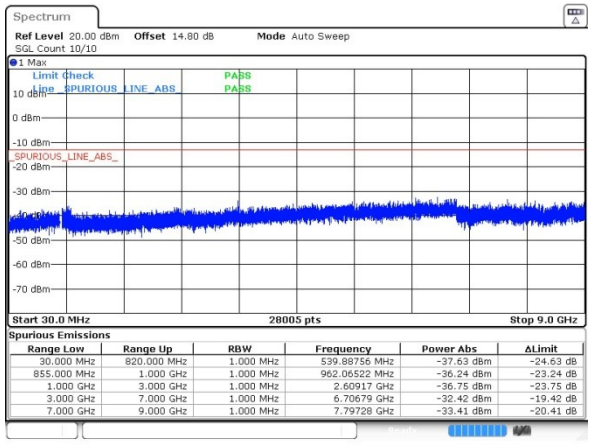
Conducted Spurious Emission

GSM850 (GSM)

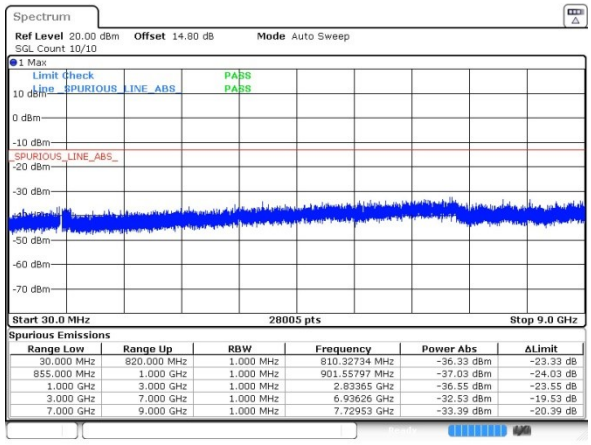
Lowest Channel



Middle Channel

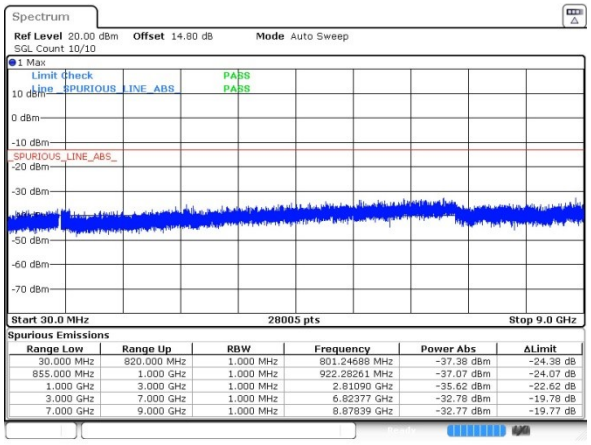


Highest Channel

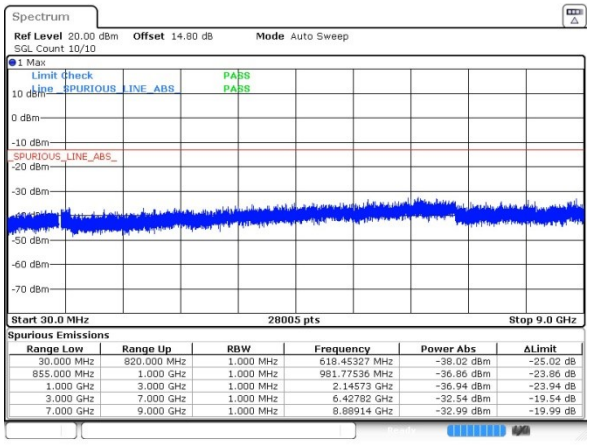


GSM850 (EDGE)

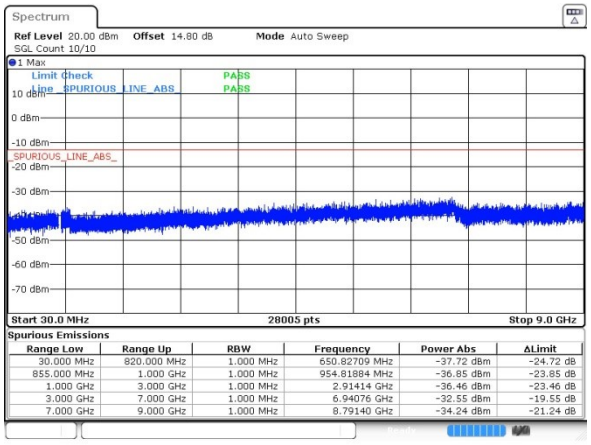
Lowest Channel

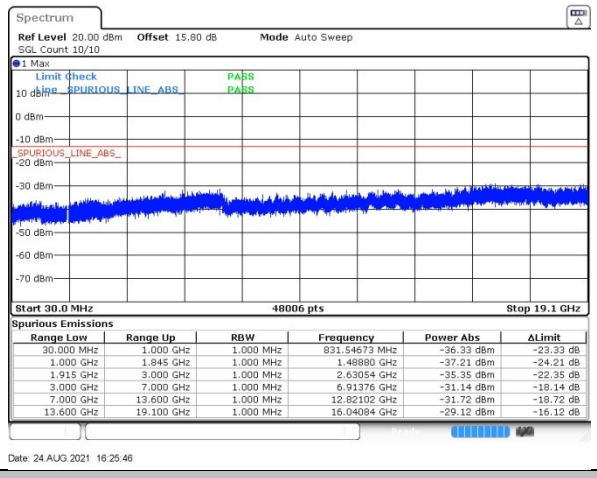
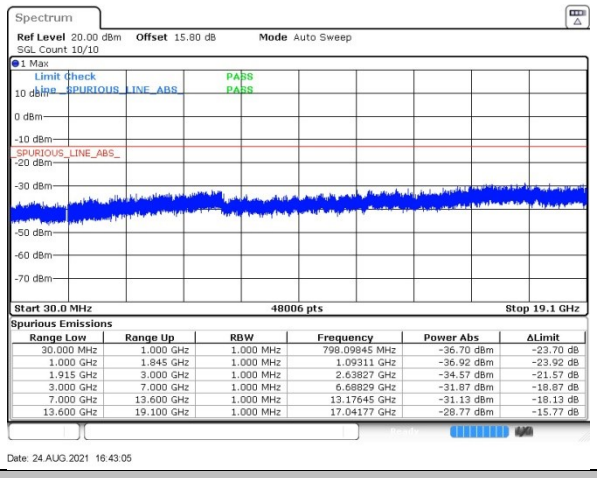
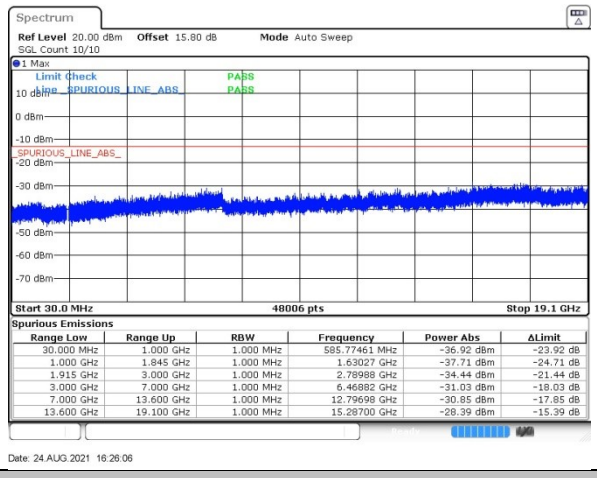
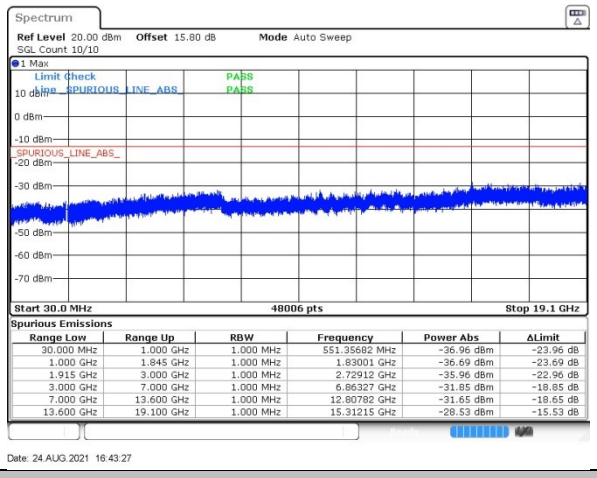
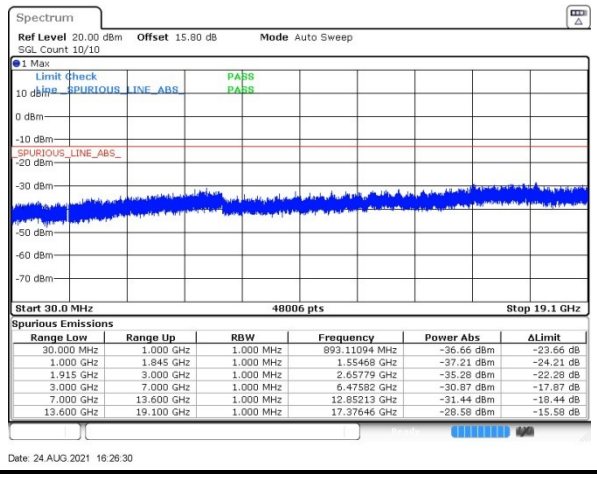
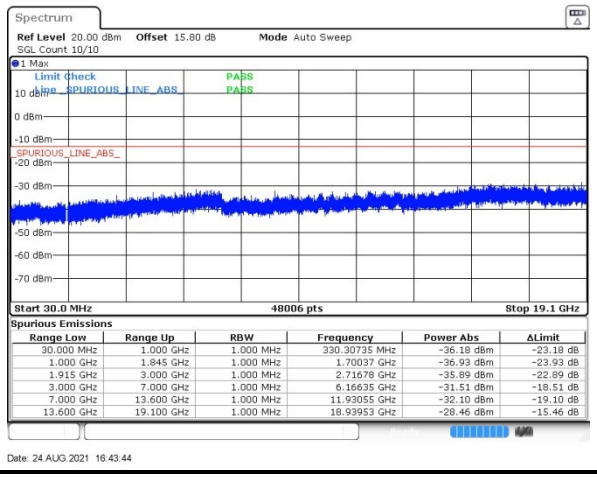


Middle Channel



Highest Channel



GSM1900 (GSM)	GSM1900 (EDGE)
Lowest Channel	**Lowest Channel**
	
Middle Channel	**Middle Channel**
	
Highest Channel	**Highest Channel**
	

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	0.0038	0.0059	PASS
40	Normal Voltage	0.0523	0.0121	
30	Normal Voltage	0.0094	0.0538	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0533	0.0434	
0	Normal Voltage	0.0165	0.0528	
-10	Normal Voltage	0.0072	0.0441	
-20	Normal Voltage	0.0145	0.0136	
-30	Normal Voltage	0.0172	0.0489	
20	Maximum Voltage	0.0462	0.0561	
20	Normal Voltage	0.0000	0.0000	
20	Battery End Point	0.0325	0.0256	

Note: Normal Voltage = 3.87V ; Battery End Point (BEP) =3.4V. ; Maximum Voltage =4.45V

Test Conditions	Middle Channel	GSM1900 (GSM)	GSM1900 (EDGE class 8)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
50	Normal Voltage	0.0046	0.0008	PASS
40	Normal Voltage	0.0052	0.0037	
30	Normal Voltage	0.0064	0.0079	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0164	0.0256	
0	Normal Voltage	0.0041	0.0154	
-10	Normal Voltage	0.0138	0.0038	
-20	Normal Voltage	0.0216	0.0047	
-30	Normal Voltage	0.0004	0.0267	
20	Maximum Voltage	0.0056	0.0176	
20	Normal Voltage	0.0000	0.0000	
20	Battery End Point	0.0149	0.0027	

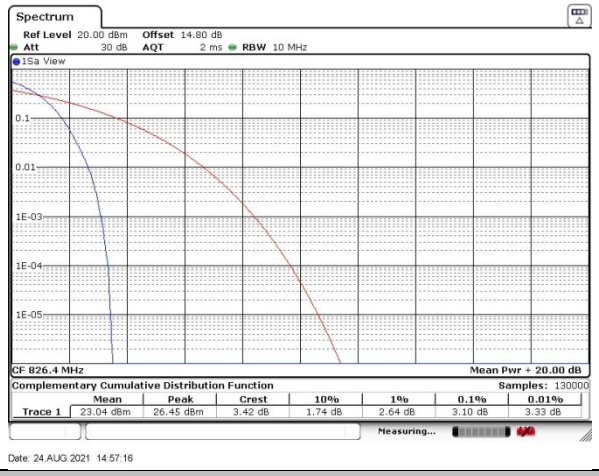
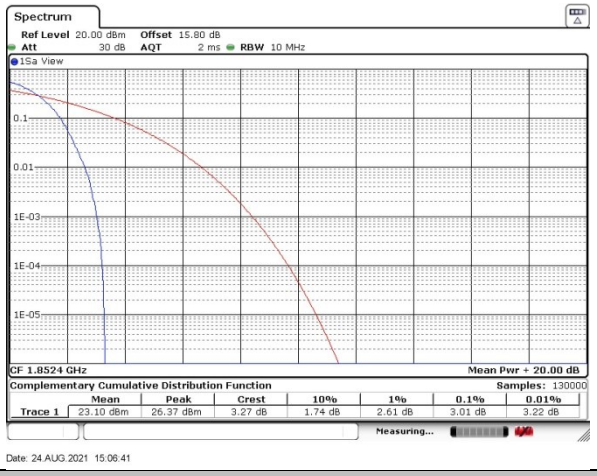
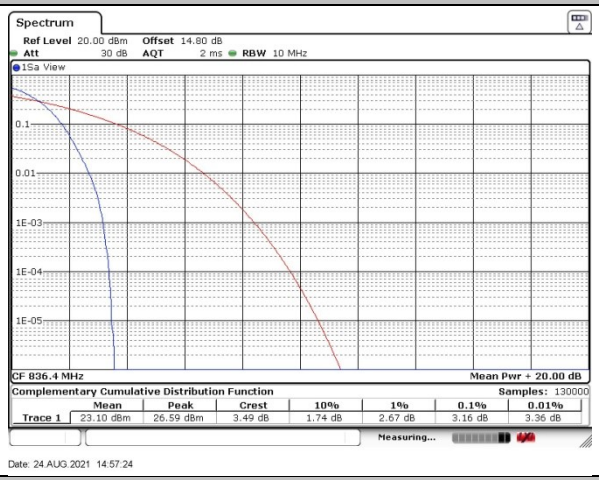
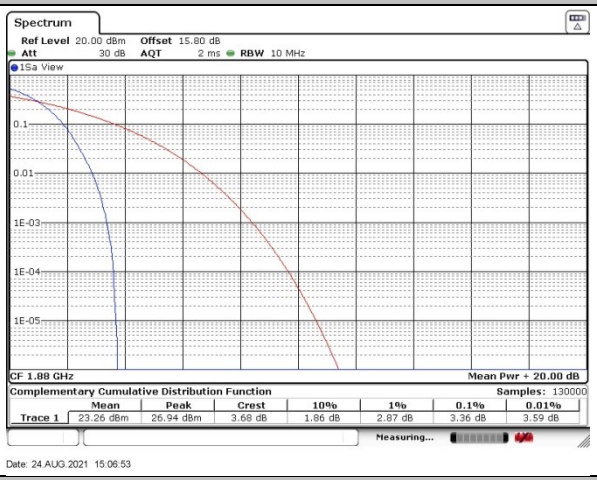
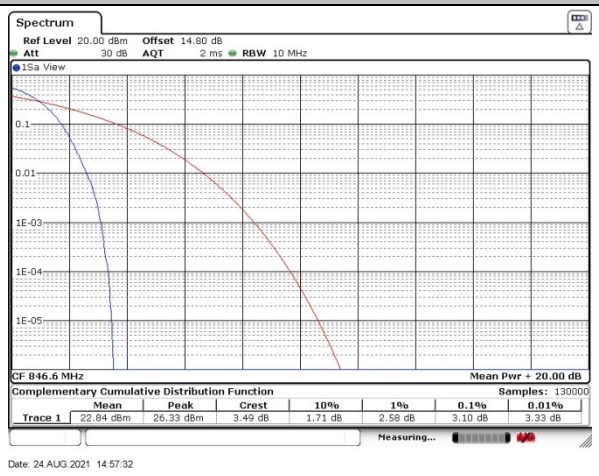
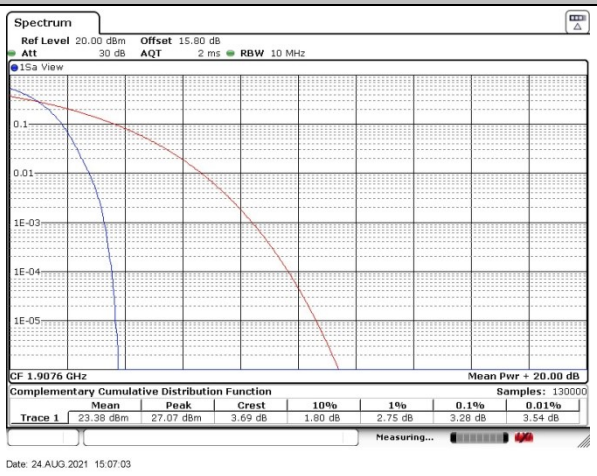
Note:

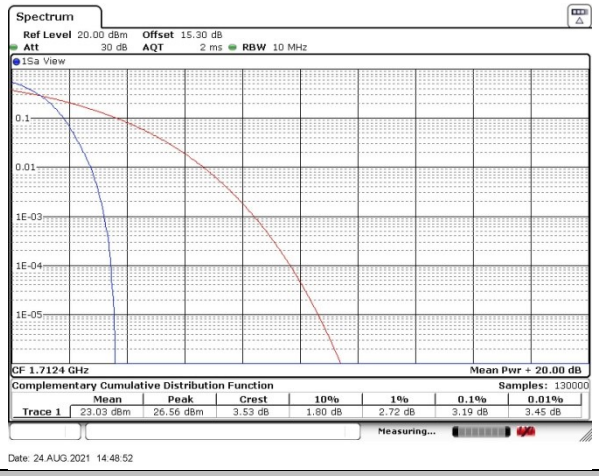
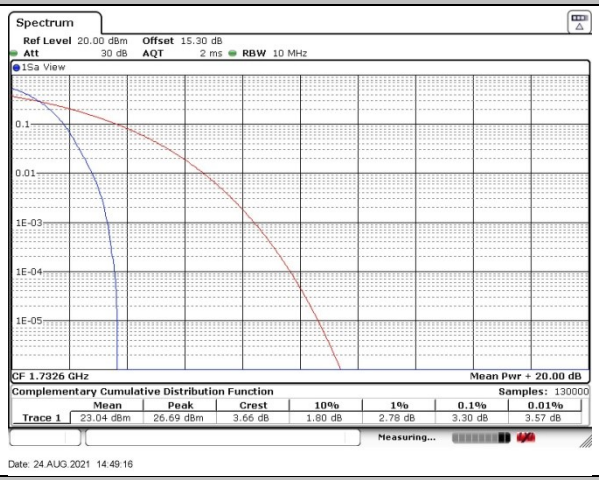
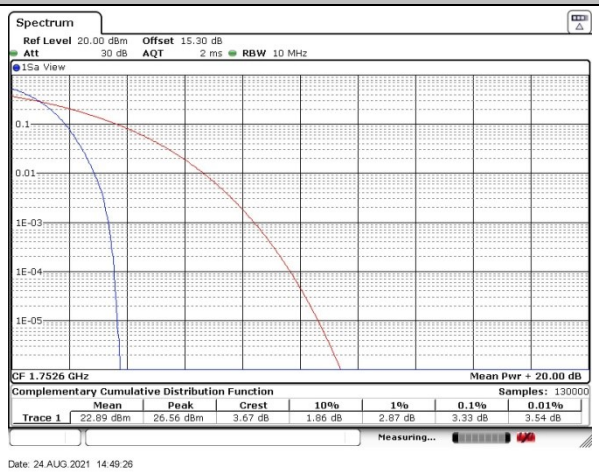
1. Normal Voltage = 3.87V ; Battery End Point (BEP) =3.4V. ; Maximum Voltage =4.45V
2. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.

A2. WCDMA

Peak-to-Average Ratio

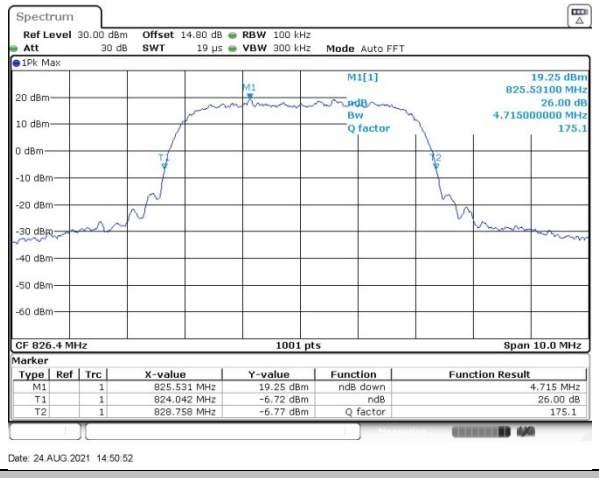
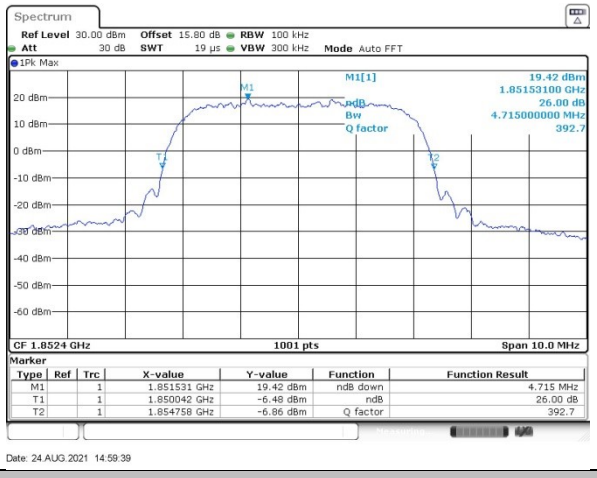
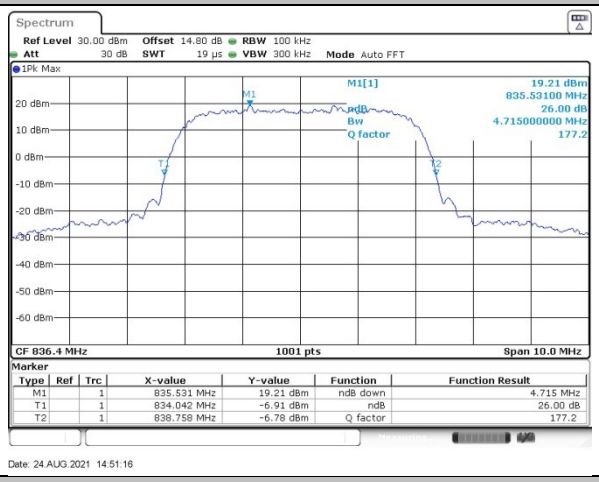
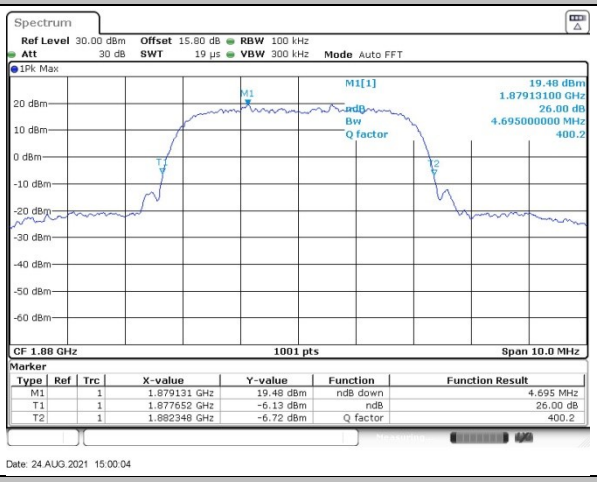
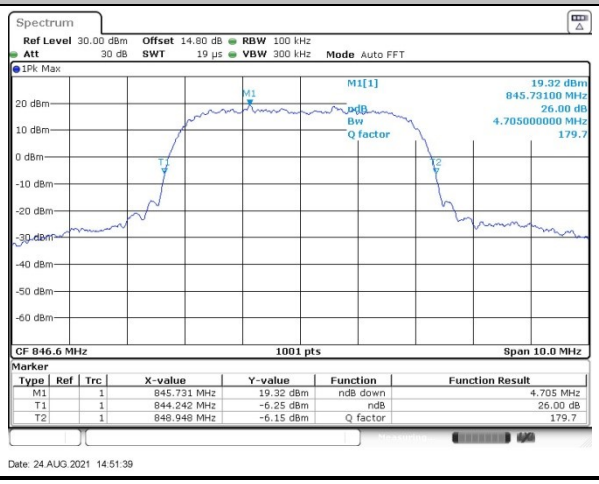
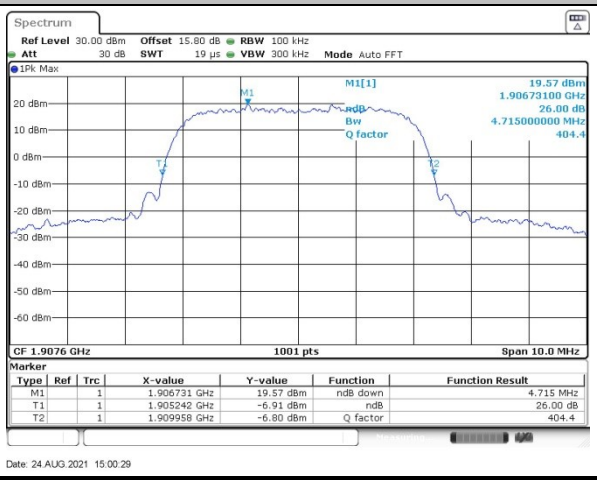
Mode	WCDMA Band V	WCDMA Band II	WCDMA Band IV	Limit: 13dB
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	RMC 12.2Kbps	Result
Lowest CH	3.10	3.01	3.19	PASS
Middle CH	3.16	3.36	3.30	
Highest CH	3.10	3.28	3.33	

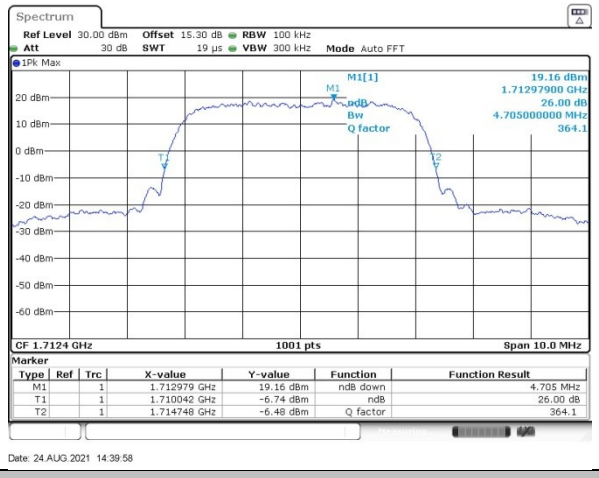
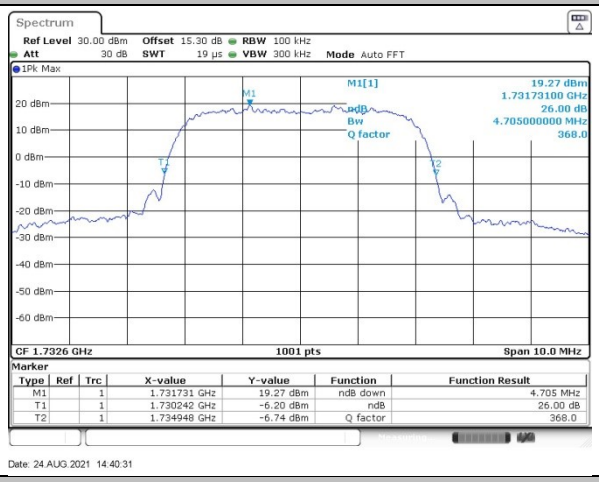
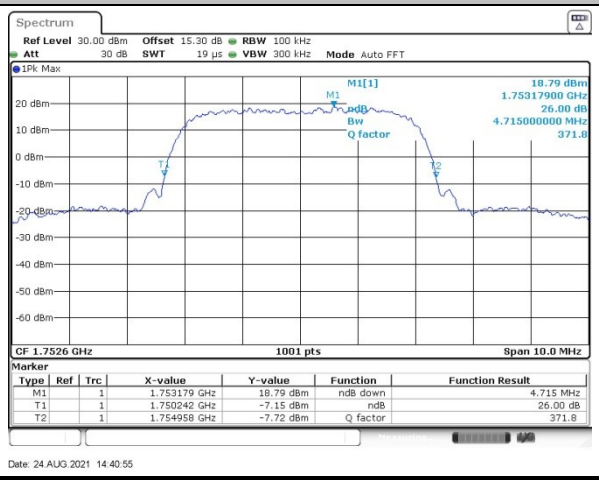
WCDMA Band V (RMC 12.2Kbps)	WCDMA Band II (RMC 12.2Kbps)
Lowest Channel	**Lowest Channel**
	
Middle Channel	**Middle Channel**
	
Highest Channel	**Highest Channel**
	

WCDMA Band IV (RMC 12.2Kbps)	
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

26dB Bandwidth

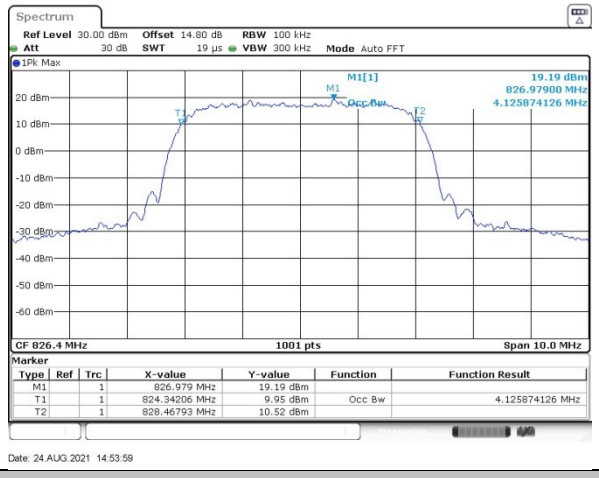
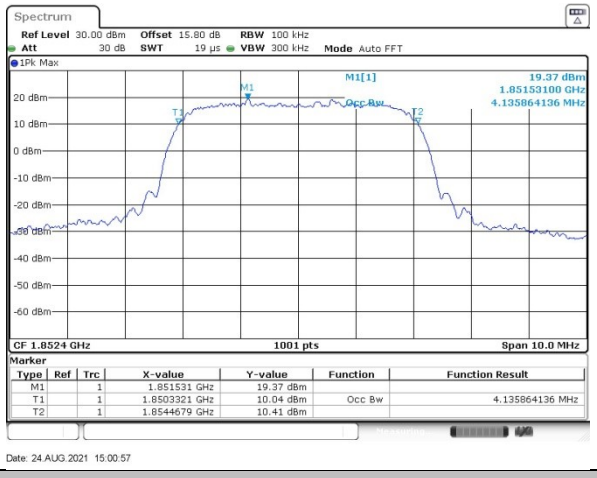
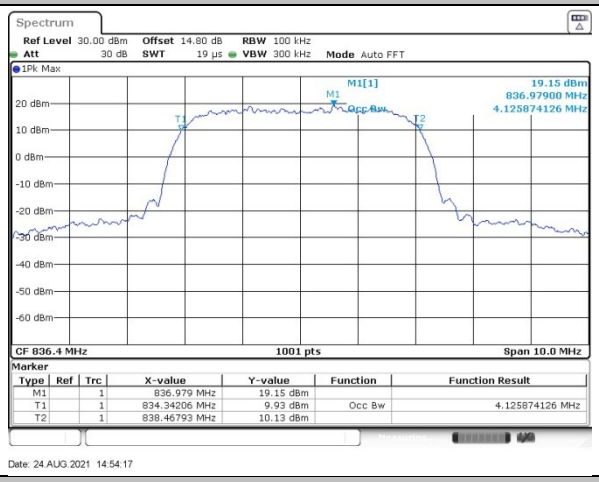
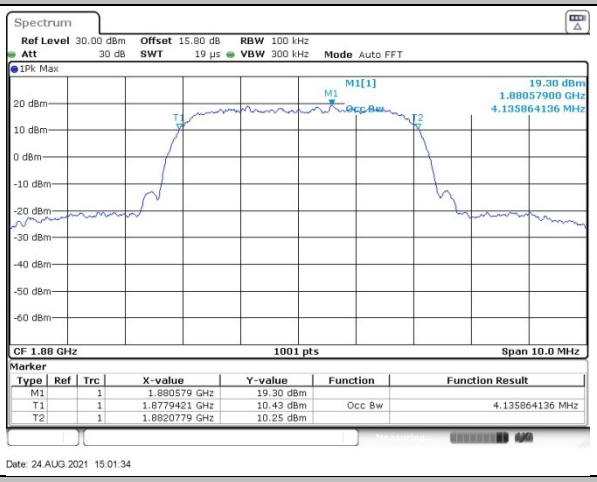
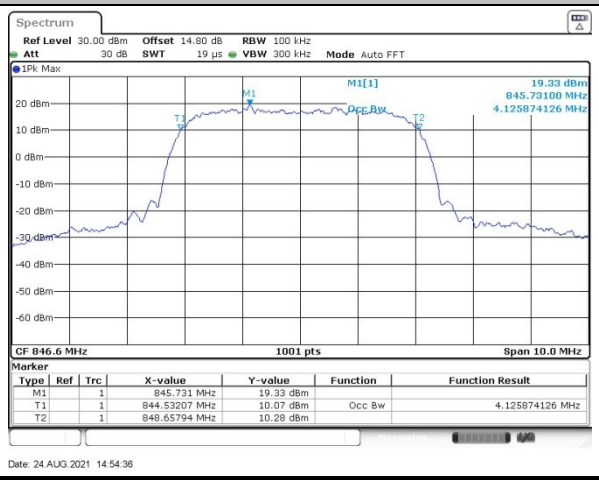
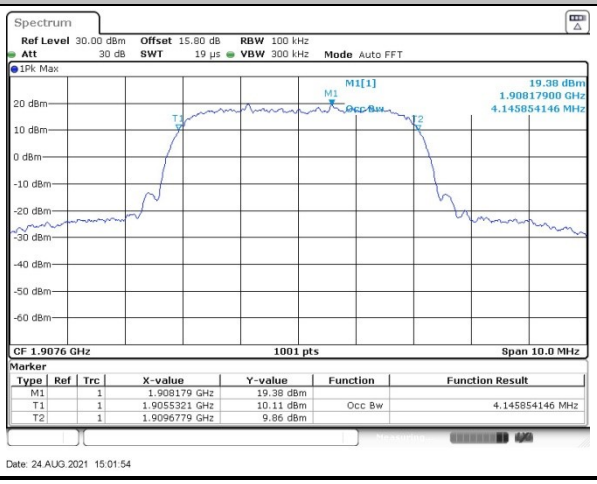
Mode	WCDMA Band V	WCDMA Band II	WCDMA Band IV
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	RMC 12.2Kbps
Lowest CH	4.72	4.72	4.71
Middle CH	4.72	4.70	4.71
Highest CH	4.71	4.72	4.72

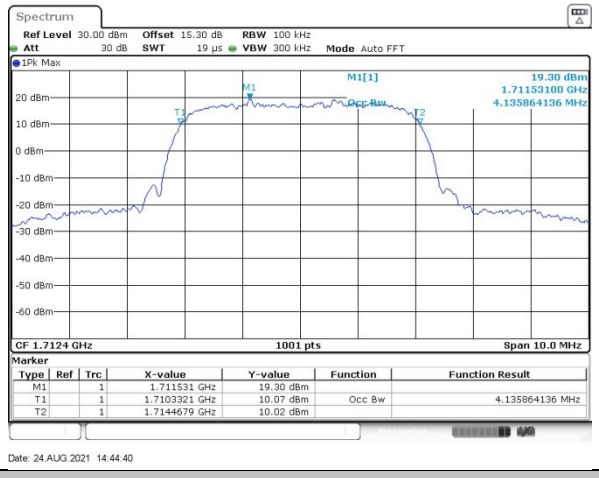
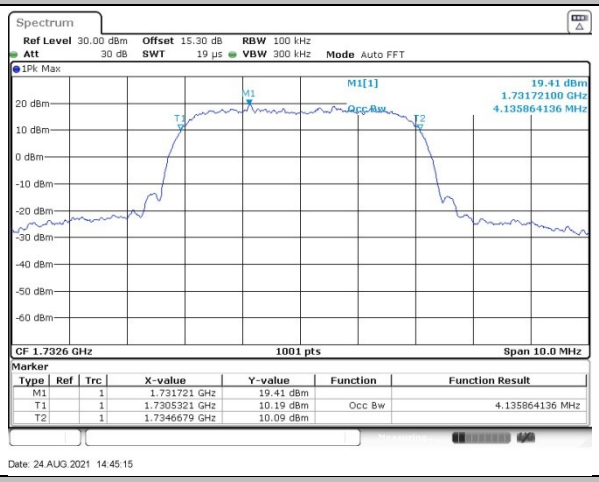
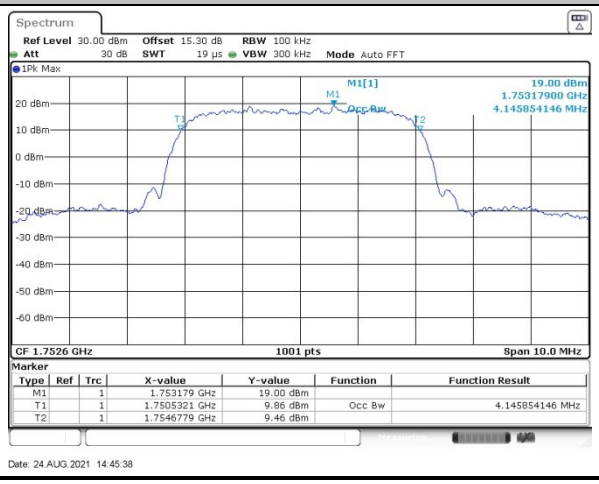
WCDMA Band V (RMC 12.2Kbps)	WCDMA Band II (RMC 12.2Kbps)
Lowest Channel	**Lowest Channel**
	
Middle Channel	**Middle Channel**
	
Highest Channel	**Highest Channel**
	

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	4.13	4.14	4.14
Middle CH	4.13	4.14	4.14
Highest CH	4.13	4.15	4.15

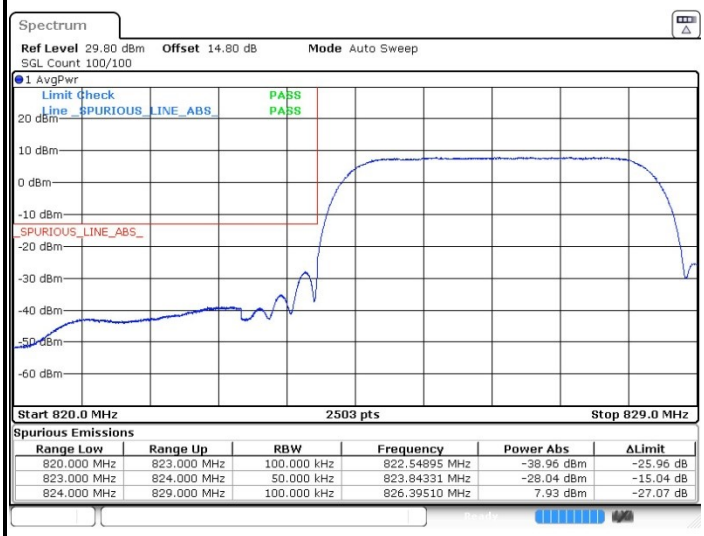
WCDMA Band V (RMC 12.2Kbps)	WCDMA Band II (RMC 12.2Kbps)
Lowest Channel	**Lowest Channel**
	
Middle Channel	**Middle Channel**
	
Highest Channel	**Highest Channel**
	

WCDMA Band IV (RMC 12.2Kbps)	
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

Conducted Band Edge

WCDMA Band V (RMC 12.2Kbps)

Lowest Band Edge

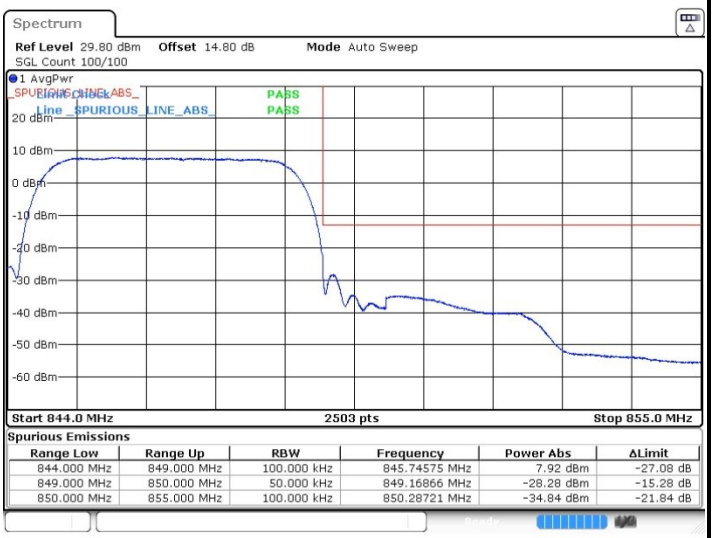


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
820.000 MHz	823.000 MHz	100.000 kHz	822.54895 MHz	-38.96 dBm	-25.96 dB
823.000 MHz	824.000 MHz	50.000 kHz	823.84331 MHz	-28.04 dBm	-15.04 dB
824.000 MHz	829.000 MHz	100.000 kHz	826.39510 MHz	7.93 dBm	-27.07 dB

Date: 24.AUG.2021 14:55:23

Highest Band Edge



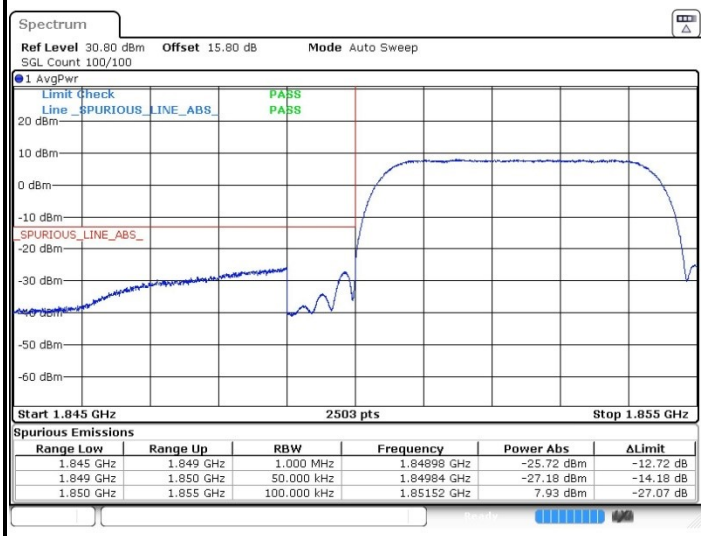
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
844.000 MHz	849.000 MHz	100.000 kHz	845.74575 MHz	7.92 dBm	-27.08 dB
849.000 MHz	850.000 MHz	50.000 kHz	849.16866 MHz	-28.28 dBm	-15.28 dB
850.000 MHz	855.000 MHz	100.000 kHz	850.28721 MHz	-34.84 dBm	-21.84 dB

Date: 24.AUG.2021 14:56:02

WCDMA Band II (RMC 12.2Kbps)

Lowest Band Edge

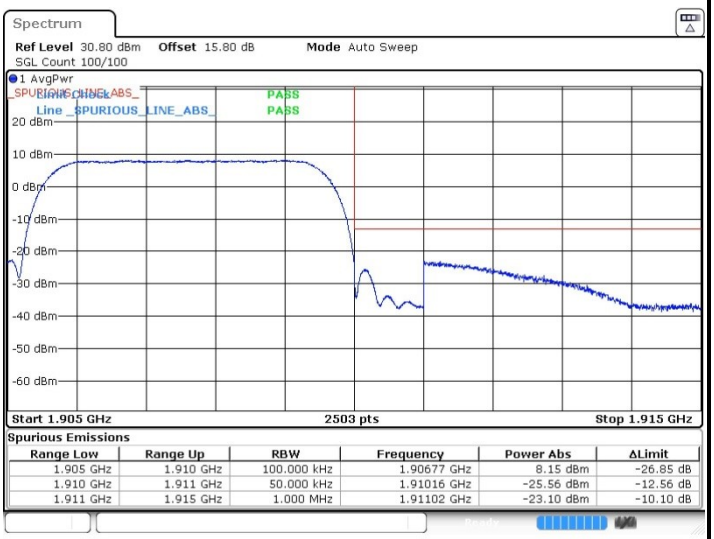


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.845 GHz	1.849 GHz	1.000 MHz	1.84898 GHz	-25.72 dBm	-12.72 dB
1.849 GHz	1.850 GHz	50.000 kHz	1.84984 GHz	-27.18 dBm	-14.18 dB
1.850 GHz	1.855 GHz	100.000 kHz	1.85152 GHz	7.93 dBm	-27.07 dB

Date: 24.AUG.2021 15:04:20

Highest Band Edge

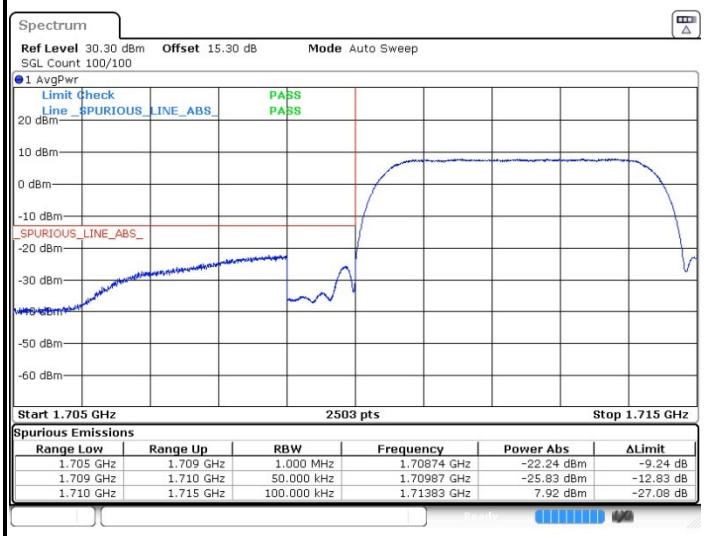


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.905 GHz	1.910 GHz	100.000 kHz	1.90677 GHz	8.15 dBm	-26.85 dB
1.910 GHz	1.911 GHz	50.000 kHz	1.91016 GHz	-25.56 dBm	-12.56 dB
1.911 GHz	1.915 GHz	1.000 MHz	1.91102 GHz	-23.10 dBm	-10.10 dB

Date: 24.AUG.2021 15:05:08

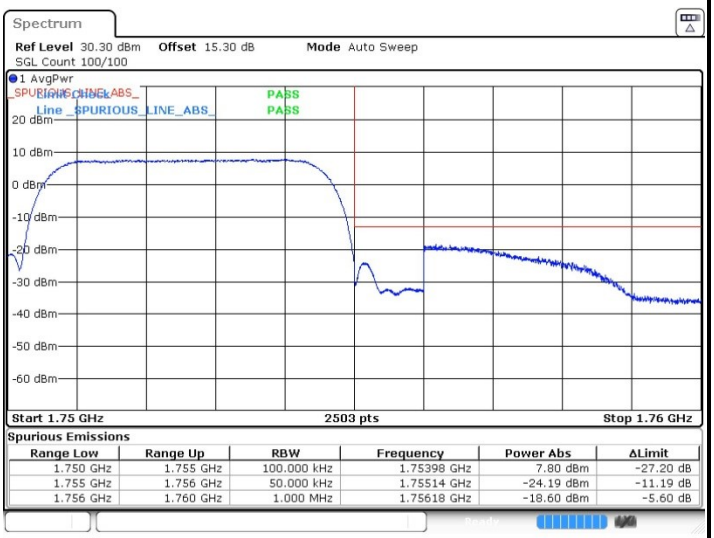
WCDMA Band IV (RMC 12.2Kbps)	
Lowest Band Edge	**Highest Band Edge**



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.705 GHz	1.709 GHz	1.000 MHz	1.70874 GHz	-22.24 dBm	-9.24 dB
1.709 GHz	1.710 GHz	50.000 kHz	1.70987 GHz	-25.83 dBm	-12.83 dB
1.710 GHz	1.715 GHz	100.000 kHz	1.71383 GHz	7.92 dBm	-27.08 dB

Date: 24.AUG.2021 14:46:25



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.750 GHz	1.755 GHz	100.000 kHz	1.75398 GHz	7.80 dBm	-27.20 dB
1.755 GHz	1.756 GHz	50.000 kHz	1.75514 GHz	-24.19 dBm	-11.19 dB
1.756 GHz	1.760 GHz	1.000 MHz	1.75618 GHz	-18.60 dBm	-5.60 dB

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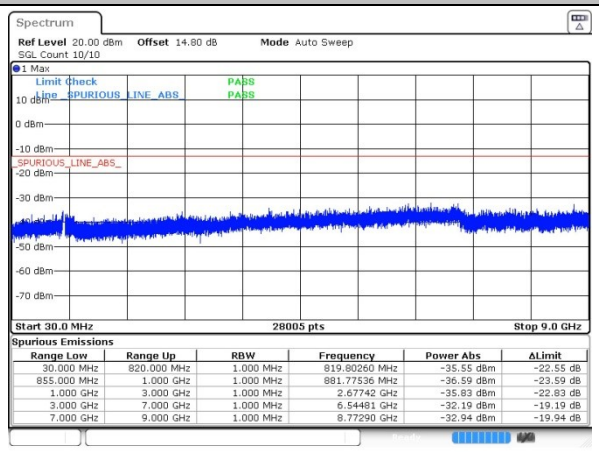
Conducted Spurious Emission

WCDMA Band V (RMC 12.2Kbps)

Lowest Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	819.80260 MHz	-35.55 dBm	-22.55 dB
855.000 MHz	1.000 GHz	1.000 MHz	881.77536 MHz	-36.59 dBm	-23.59 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.67742 GHz	-35.83 dBm	-22.83 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.54481 GHz	-32.19 dBm	-19.19 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.77290 GHz	-32.94 dBm	-19.94 dB

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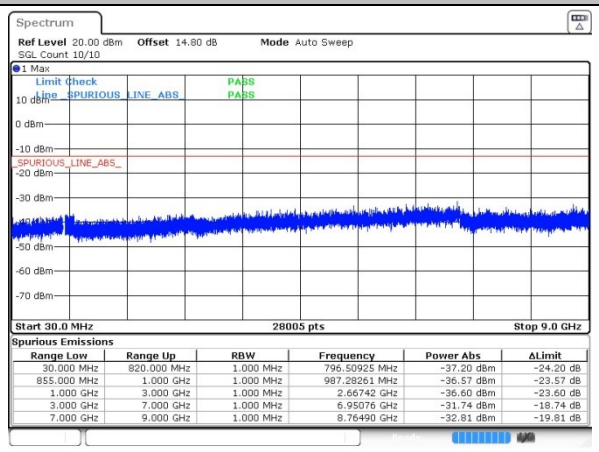
Middle Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	796.50925 MHz	-37.20 dBm	-24.20 dB
855.000 MHz	1.000 GHz	1.000 MHz	987.28261 MHz	-36.57 dBm	-23.57 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.66742 GHz	-36.60 dBm	-23.60 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.95076 GHz	-31.74 dBm	-18.74 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.76490 GHz	-32.81 dBm	-19.81 dB

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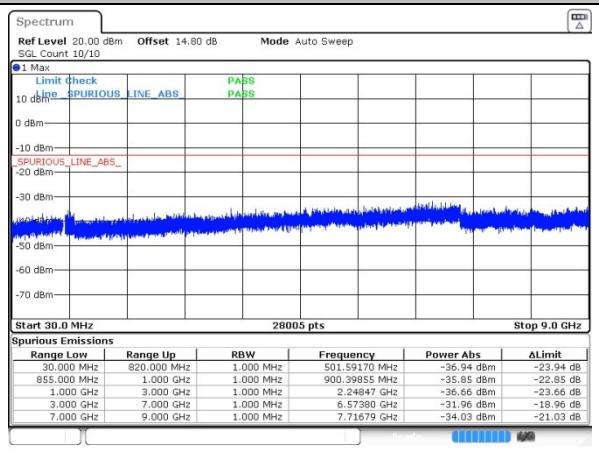
Highest Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	501.59170 MHz	-36.94 dBm	-23.94 dB
855.000 MHz	1.000 GHz	1.000 MHz	900.39855 MHz	-35.85 dBm	-22.85 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.24847 GHz	-36.66 dBm	-23.66 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.57380 GHz	-31.96 dBm	-18.96 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.71679 GHz	-34.03 dBm	-21.03 dB

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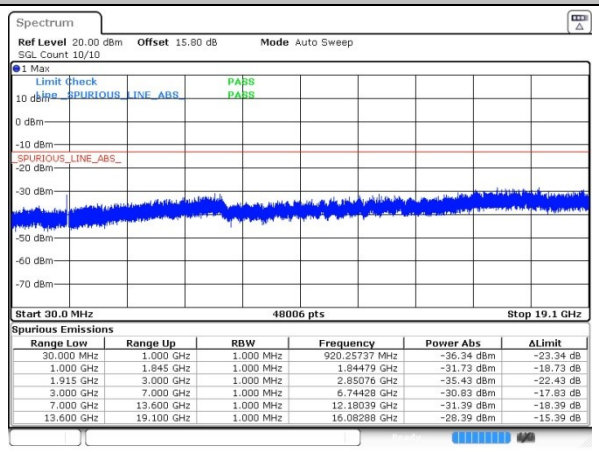
WCDMA Band II (RMC 12.2Kbps)

Lowest Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	920.25737 MHz	-36.34 dBm	-23.34 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.84479 GHz	-31.73 dBm	-18.73 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.85076 GHz	-35.43 dBm	-22.43 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.74428 GHz	-30.83 dBm	-17.83 dB
7.000 GHz	13.600 GHz	1.000 MHz	12.18039 GHz	-31.39 dBm	-18.39 dB
13.600 GHz	19.100 GHz	1.000 MHz	16.08288 GHz	-28.39 dBm	-15.39 dB

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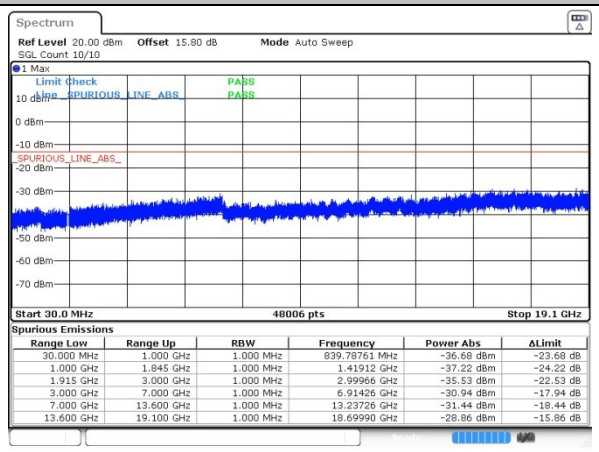
Middle Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	839.78761 MHz	-36.68 dBm	-23.68 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.41912 GHz	-37.22 dBm	-24.22 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.99966 GHz	-35.53 dBm	-22.53 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.91426 GHz	-30.94 dBm	-17.94 dB
7.000 GHz	13.600 GHz	1.000 MHz	13.23726 GHz	-31.44 dBm	-18.44 dB
13.600 GHz	19.100 GHz	1.000 MHz	18.69990 GHz	-28.86 dBm	-15.86 dB

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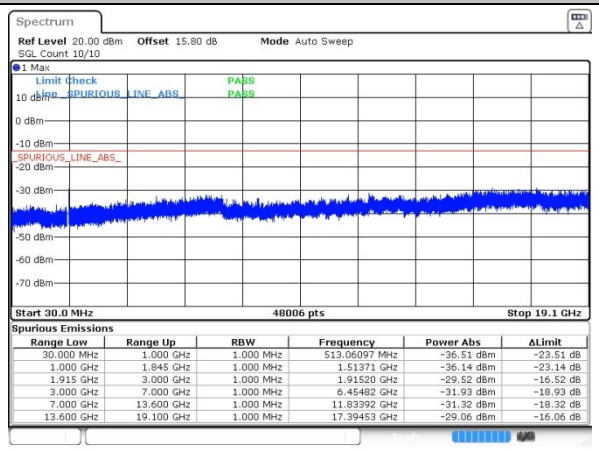
Highest Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	513.06097 MHz	-36.51 dBm	-23.51 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.51371 GHz	-36.14 dBm	-23.14 dB
1.915 GHz	3.000 GHz	1.000 MHz	1.91520 GHz	-29.52 dBm	-16.52 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.45482 GHz	-31.93 dBm	-18.93 dB
7.000 GHz	13.600 GHz	1.000 MHz	11.83392 GHz	-31.32 dBm	-18.32 dB
13.600 GHz	19.100 GHz	1.000 MHz	17.39453 GHz	-29.06 dBm	-16.06 dB

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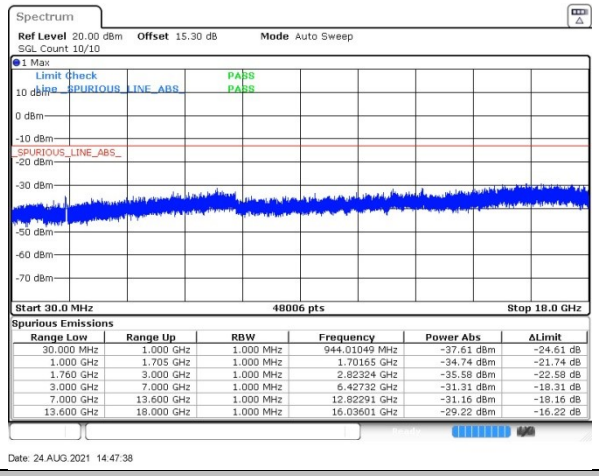
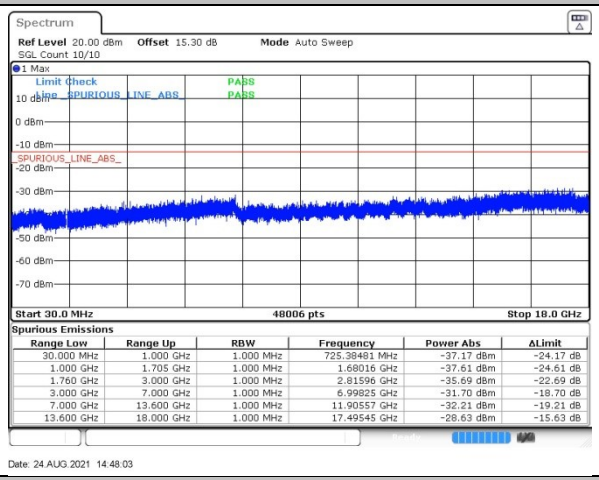
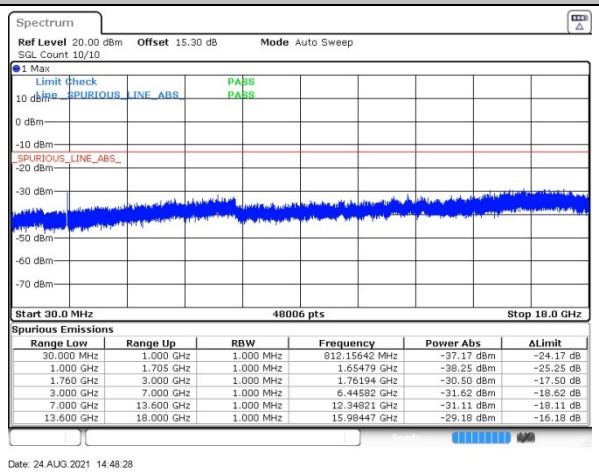
WCDMA Band IV (RMC 12.2Kbps)	
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

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	0.0059	PASS
40	Normal Voltage	0.0368	
30	Normal Voltage	0.0472	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0065	
0	Normal Voltage	0.0342	
-10	Normal Voltage	0.0067	
-20	Normal Voltage	0.0163	
-30	Normal Voltage	0.0319	
20	Maximum Voltage	0.0428	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0067	

Note: Normal Voltage = 3.87V ; Battery End Point (BEP) =3.4V. ; Maximum Voltage =4.45V

Test Conditions	Middle Channel	WCDMA Band II (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0176	PASS
40	Normal Voltage	0.0137	
30	Normal Voltage	0.0142	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0164	
0	Normal Voltage	0.0144	
-10	Normal Voltage	0.0248	
-20	Normal Voltage	0.0075	
-30	Normal Voltage	0.0169	
20	Maximum Voltage	0.0161	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0026	

Note:

1. Normal Voltage = 3.87V ; Battery End Point (BEP) =3.4V. ; Maximum Voltage =4.45V
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	0.0043	PASS
40	Normal Voltage	0.0154	
30	Normal Voltage	0.0008	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0024	
0	Normal Voltage	0.0042	
-10	Normal Voltage	0.0169	
-20	Normal Voltage	0.0158	
-30	Normal Voltage	0.0061	
20	Maximum Voltage	0.0027	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0134	

Note:

1. Normal Voltage = 3.87V ; Battery End Point (BEP) =3.4V. ; Maximum Voltage =4.45V
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)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672	-58.49	-13	-45.49	-65.46	1.58	10.70	H
	2510	-56.51	-13	-43.51	-64.76	2.102	12.50	H
	3348	-61.83	-13	-48.83	-70.72	2.856	13.90	H
	1672	-59.99	-13	-46.99	-66.96	1.58	10.70	V
	2510	-49.06	-13	-36.06	-57.31	2.10	12.50	V
	3348	-62.03	-13	-49.03	-70.92	2.86	13.90	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	-58.65	-13	-45.65	-65.62	1.58	10.70	H
	2510	-59.41	-13	-46.41	-67.66	2.102	12.50	H
	3348	-61.97	-13	-48.97	-70.86	2.856	13.90	H
	1672	-59.64	-13	-46.64	-66.61	1.58	10.70	V
	2510	-51.61	-13	-38.61	-59.86	2.10	12.50	V
	3348	-61.95	-13	-48.95	-70.84	2.86	13.90	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	3759	-59.30	-13	-46.30	-71.56	2.641	14.90	H
	5640	-57.32	-13	-44.32	-69.18	2.94	14.80	H
	7524	-54.37	-13	-41.37	-64.14	3.39	13.16	H
	3759	-59.23	-13	-46.23	-71.49	2.64	14.90	V
	5640	-57.88	-13	-44.88	-69.74	2.94	14.80	V
	7524	-54.20	-13	-41.20	-63.97	3.39	13.16	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	3759	-59.70	-13	-46.70	-71.96	2.641	14.90	H
	5640	-57.11	-13	-44.11	-68.97	2.94	14.80	H
	7524	-54.11	-13	-41.11	-63.88	3.39	13.16	H
	3759	-59.43	-13	-46.43	-71.69	2.64	14.90	V
	5640	-57.96	-13	-44.96	-69.82	2.94	14.80	V
	7524	-54.38	-13	-41.38	-64.15	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)								
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	-64.68	-13	-51.68	-71.65	1.58	10.70	H
	2510	-61.54	-13	-48.54	-69.79	2.102	12.50	H
	3348	-62.01	-13	-49.01	-70.90	2.856	13.90	H
	1672	-63.65	-13	-50.65	-70.62	1.58	10.70	V
	2510	-60.60	-13	-47.60	-68.85	2.10	12.50	V
	3348	-61.91	-13	-48.91	-70.80	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)								
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	-58.30	-13	-45.30	-70.56	2.64	14.90	H
	5640	-57.06	-13	-44.06	-68.92	2.94	14.80	H
	7524	-54.64	-13	-41.64	-64.41	3.39	13.16	H
	3759	-58.22	-13	-45.22	-70.48	2.64	14.90	V
	5640	-57.55	-13	-44.55	-69.41	2.94	14.80	V
	7524	-54.33	-13	-41.33	-64.10	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)								
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	-59.51	-13	-46.51	-70.25	2.604	13.34	H
	5199	-57.02	-13	-44.02	-67.53	3.011	13.52	H
	6936	-55.75	-13	-42.75	-65.95	3.271	13.47	H
	3465	-60.26	-13	-47.26	-71.00	2.604	13.34	V
	5199	-57.34	-13	-44.34	-67.85	3.011	13.52	V
	6936	-55.91	-13	-42.91	-66.11	3.271	13.47	V

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