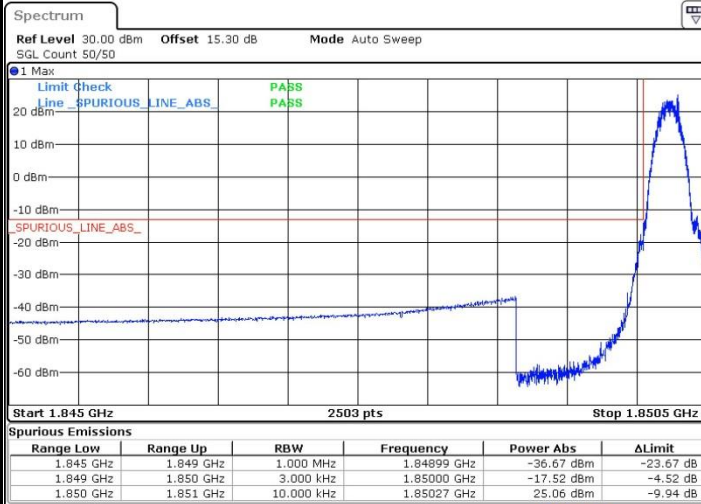


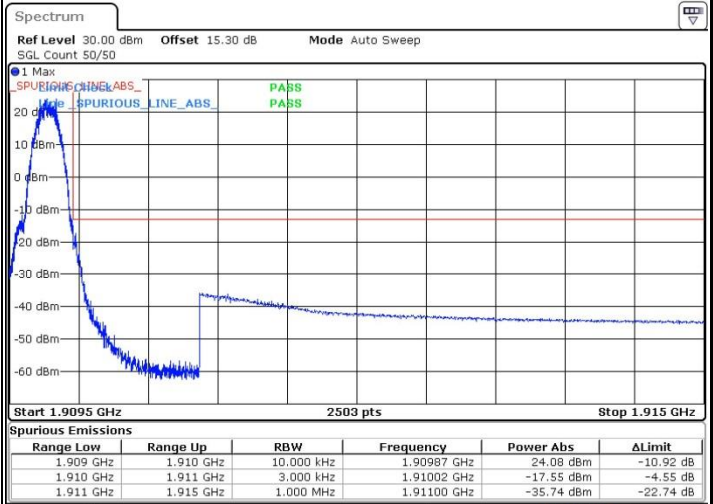


## GSM1900 (GSM)

## Lowest Band Edge

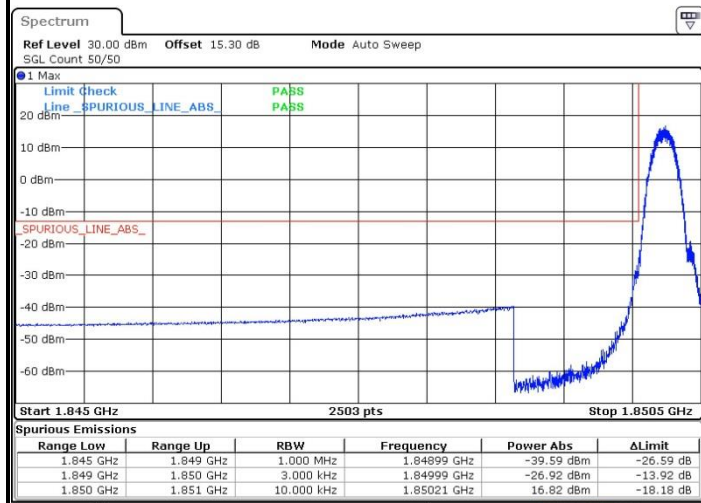


## Highest Band Edge

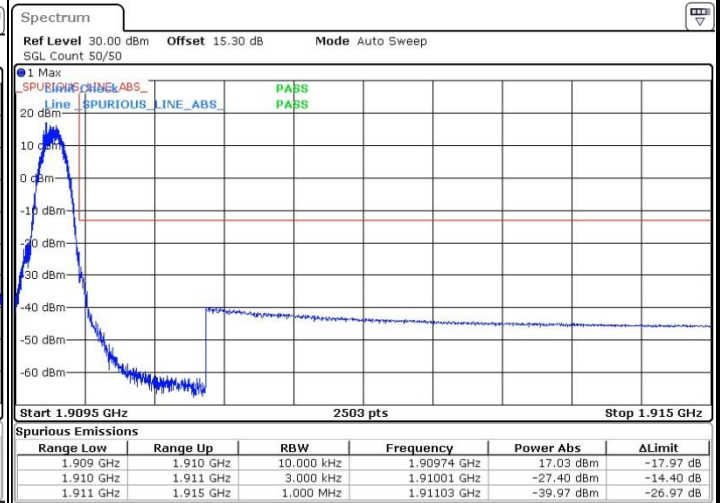


## GSM1900 (EDGE class 8)

## Lowest Band Edge



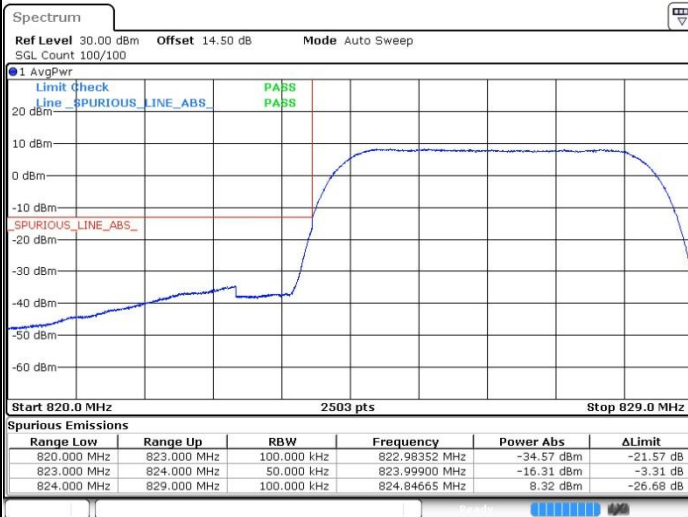
## Highest Band Edge





## WCDMA Band V (RMC 12.2Kbps)

## Lowest Band Edge

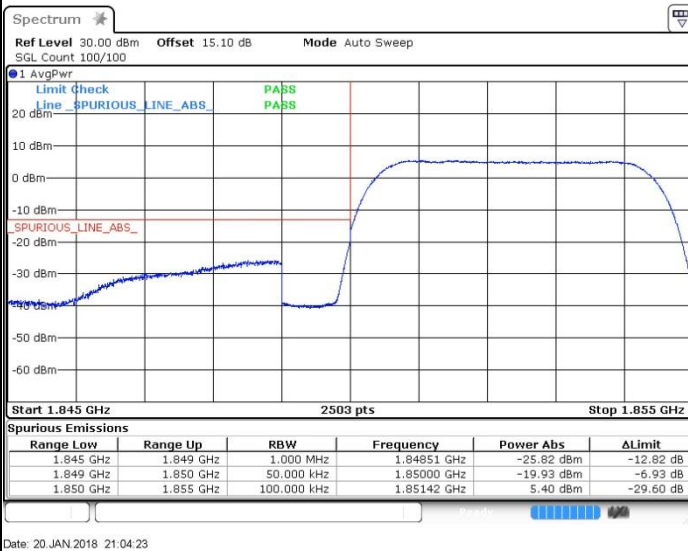


## Highest Band Edge

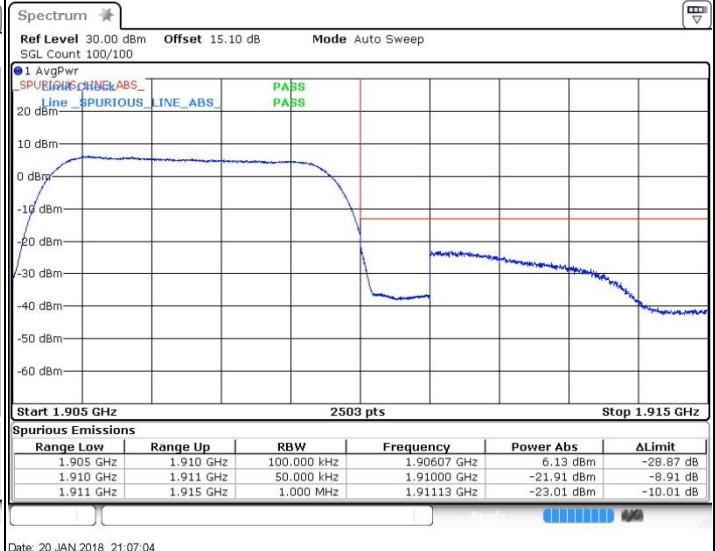


## WCDMA Band II (RMC 12.2Kbps)

## Lowest Band Edge



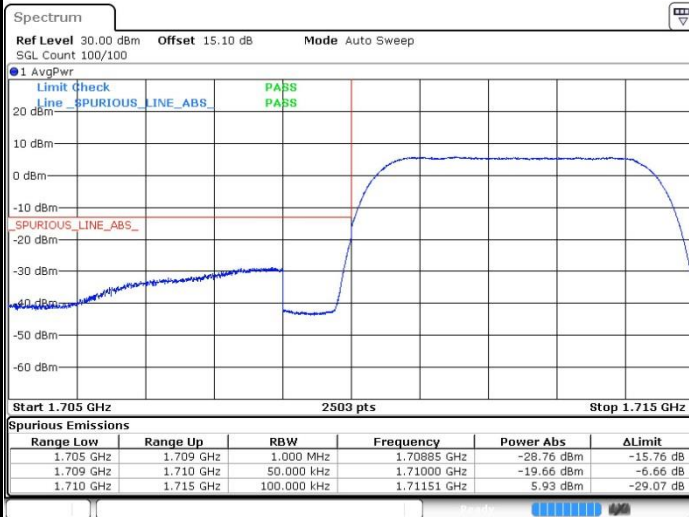
## Highest Band Edge





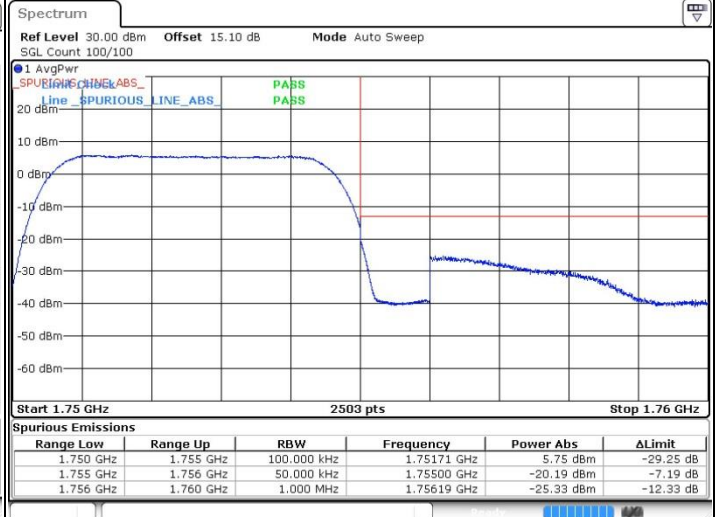
## WCDMA Band IV (RMC 12.2Kbps)

## Lowest Band Edge



Date: 20 JAN 2018 21:21:31

## Highest Band Edge



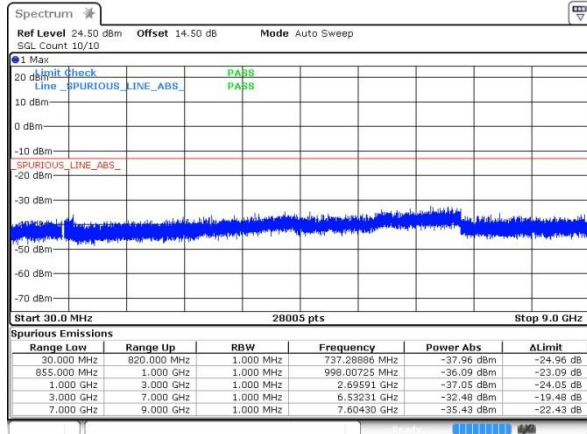
Date: 20 JAN 2018 21:24:12



# Conducted Spurious Emission

## GSM850 (GSM)

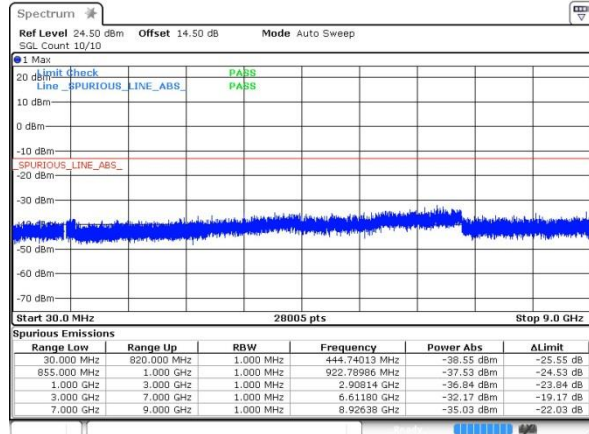
### Lowest Channel



Date: 2 NOV 2017 18:31:28

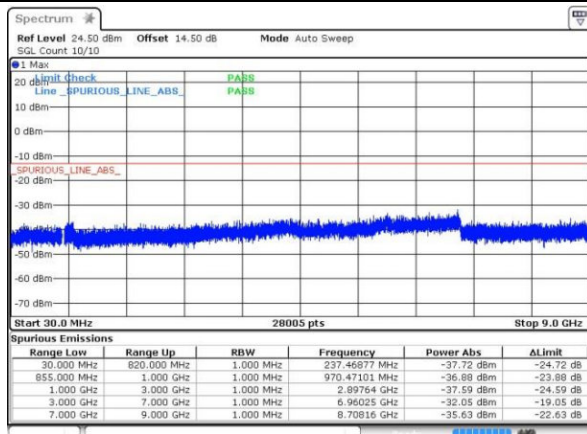
## GSM850 (EDGE class 8)

### Lowest Channel



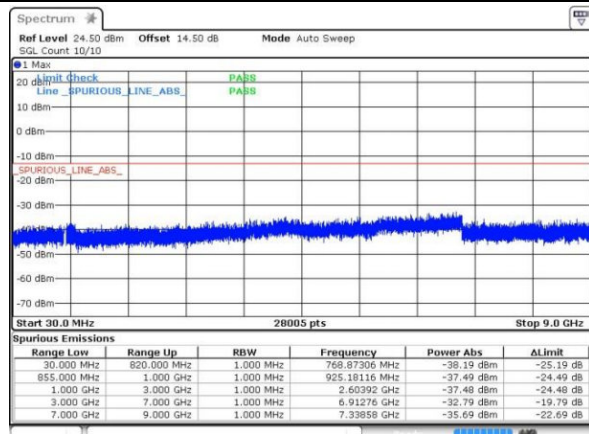
Date: 2 NOV 2017 18:56:22

### Middle Channel



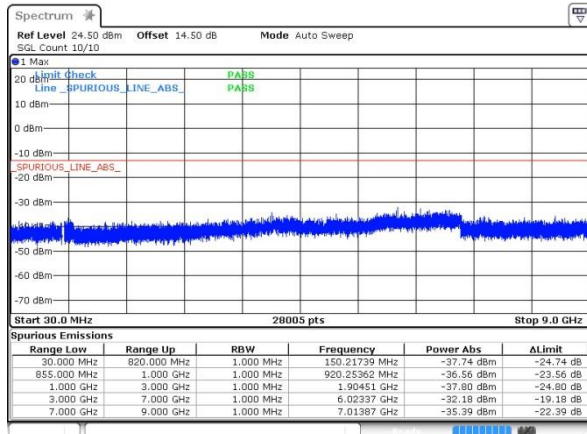
Date: 2 NOV 2017 18:32:47

### Middle Channel



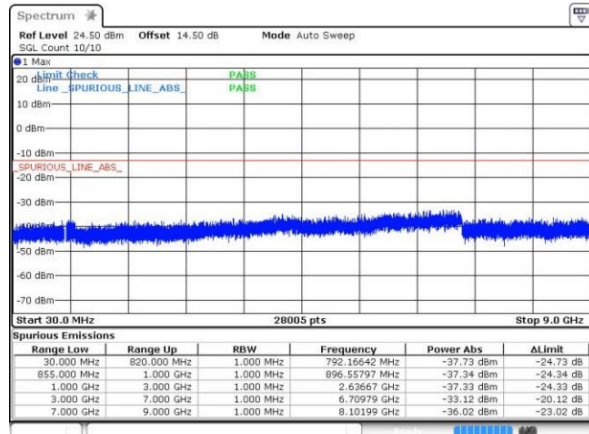
Date: 2 NOV 2017 18:58:04

### Highest Channel



Date: 2 NOV 2017 18:34:06

### Highest Channel



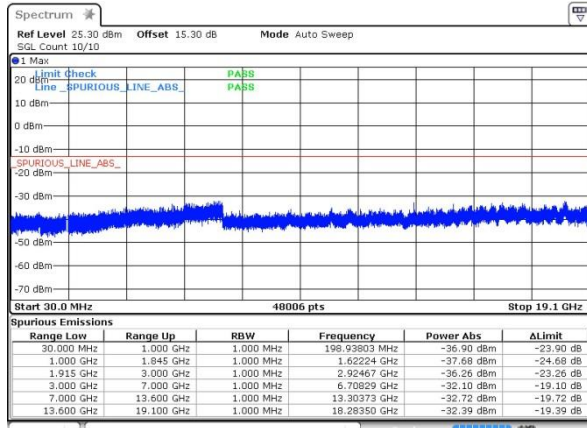
Date: 2 NOV 2017 18:59:21





## GSM1900 (GSM)

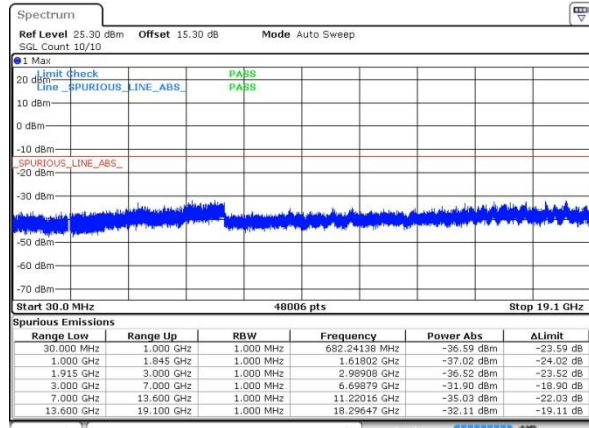
## Lowest Channel



Date: 2 NOV 2017 19:15:19

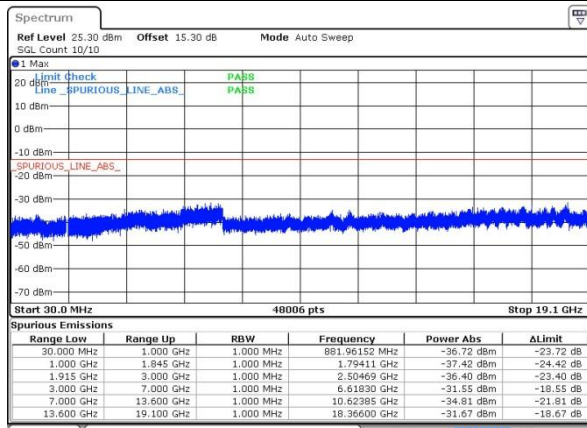
## GSM1900 (EDGE class 8)

## Lowest Channel

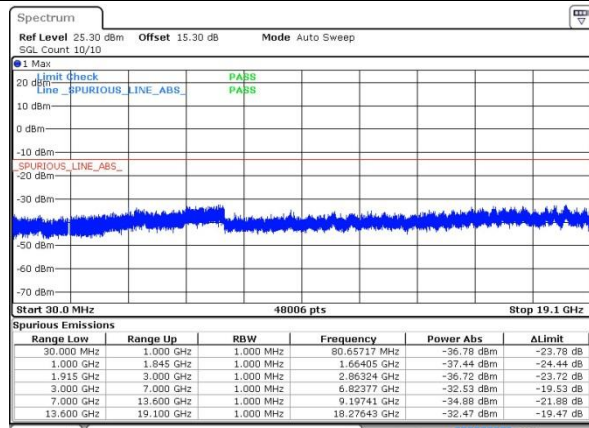


Date: 2 NOV 2017 19:36:56

## Middle Channel

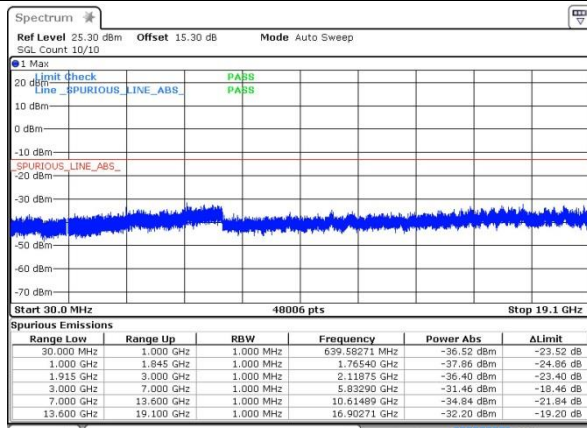


Date: 2 NOV 2017 19:16:36

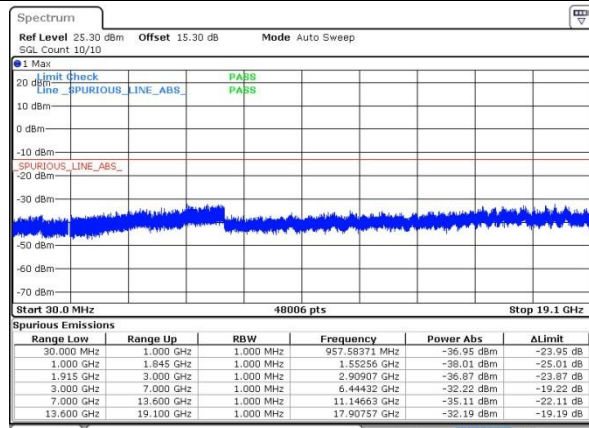


Date: 2 NOV 2017 19:38:19

## Highest Channel



Date: 2 NOV 2017 19:17:52

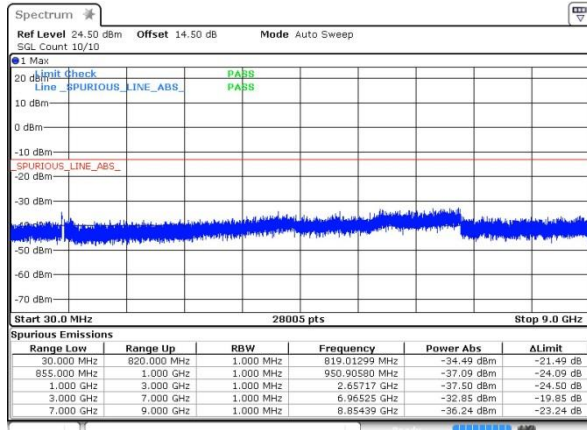


Date: 2 NOV 2017 19:39:38



## WCDMA Band V (RMC 12.2Kbps)

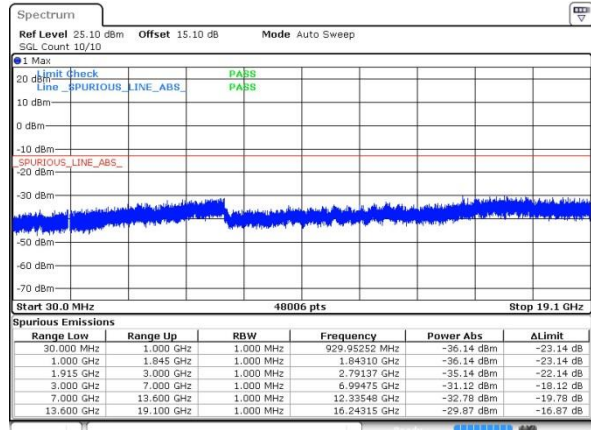
## Lowest Channel



Date: 3 NOV 2017 17:59:29

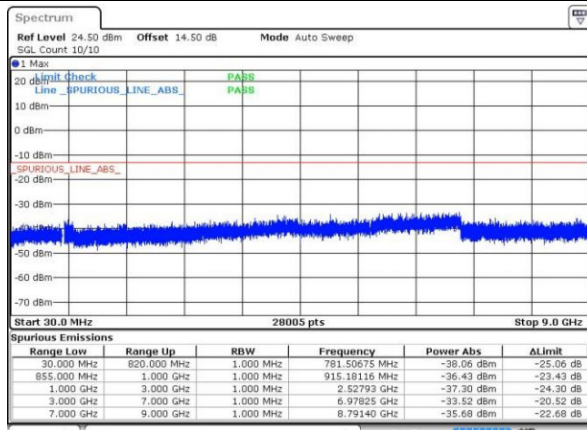
## WCDMA Band II (RMC 12.2Kbps)

## Lowest Channel



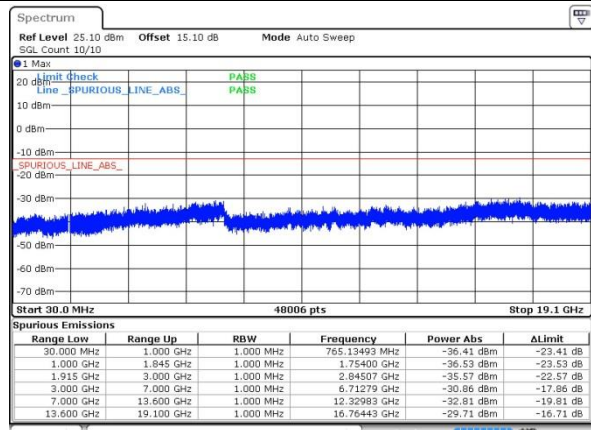
Date: 20 JAN 2018 21:08:27

## Middle Channel



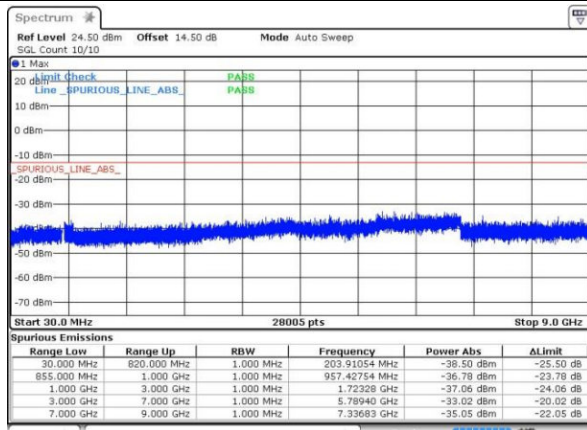
Date: 3 NOV 2017 18:05:55

## Middle Channel



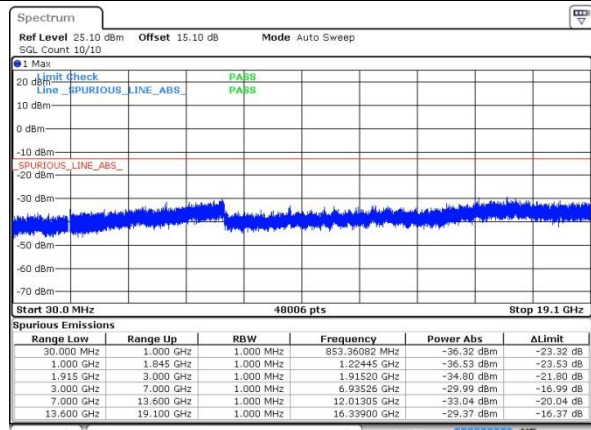
Date: 20 JAN 2018 21:09:43

## Highest Channel



Date: 3 NOV 2017 18:02:16

## Highest Channel

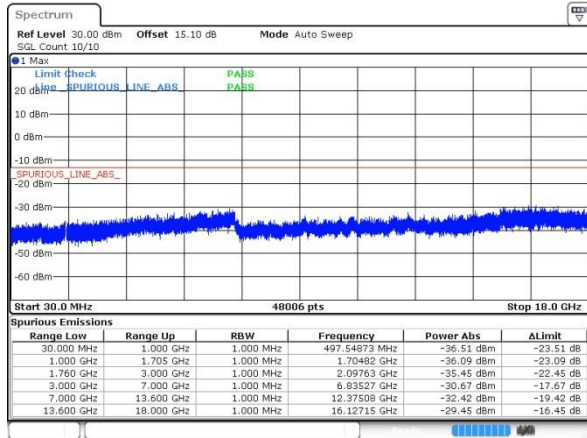


Date: 20 JAN 2018 21:11:00



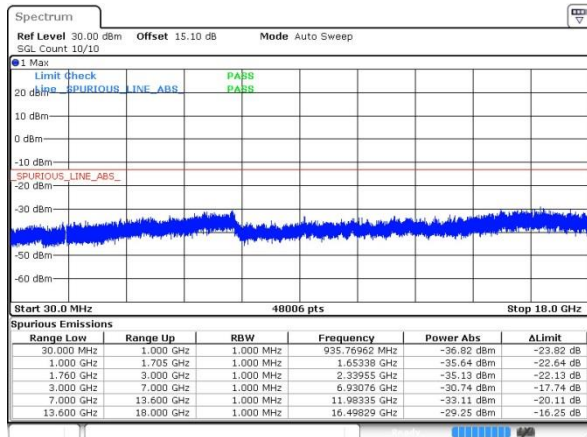
WCDMA Band IV (RMC 12.2Kbps)

Lowest Channel



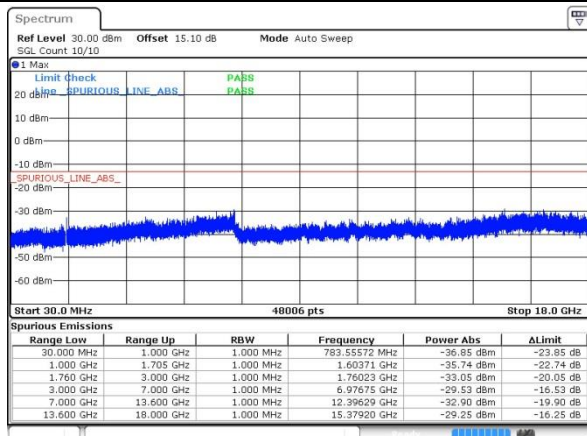
Date: 20 JAN 2018 21:32:01

Middle Channel



Date: 20 JAN 2018 21:33:18

Highest Channel



Date: 20 JAN 2018 21:34:34

**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	0.0036	0.0287	PASS
40	Normal Voltage	0.0024	0.0024	
30	Normal Voltage	0.0084	0.0359	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0048	0.0191	
0	Normal Voltage	0.0048	0.0263	
-10	Normal Voltage	0.0072	0.0347	
-20	Normal Voltage	0.0012	0.0395	
-30	Normal Voltage	0.0036	0.0323	
20	Maximum Voltage	0.0000	0.0347	
20	Normal Voltage	0.0096	0.0311	
20	Battery End Point	0.0072	0.0215	

**Note:** Normal Voltage = 3.85 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V





Test Conditions	Middle Channel	GSM1900 (GSM)	GSM1900 (EDGE class 8)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
50	Normal Voltage	0.0043	0.0181	PASS
40	Normal Voltage	0.0005	0.0191	
30	Normal Voltage	0.0191	0.0053	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0027	0.0165	
0	Normal Voltage	0.0016	0.0027	
-10	Normal Voltage	0.0154	0.0197	
-20	Normal Voltage	0.0000	0.0021	
-30	Normal Voltage	0.0149	0.0218	
20	Maximum Voltage	0.0138	0.0181	
20	Normal Voltage	0.0128	0.0122	
20	Battery End Point	0.0048	0.0186	

**Note:**

1. Normal Voltage = 3.85 V. ; 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.



Test Conditions	Middle Channel	WCDMA Band V (RMC 12.2Kbps)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0012	PASS
40	Normal Voltage	0.0191	
30	Normal Voltage	0.0179	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0060	
0	Normal Voltage	0.0239	
-10	Normal Voltage	0.0215	
-20	Normal Voltage	0.0036	
-30	Normal Voltage	0.0155	
20	Maximum Voltage	0.0048	
20	Normal Voltage	0.0203	
20	Battery End Point	0.0143	

**Note:** Normal Voltage = 3.85 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V

Test Conditions	Middle Channel	WCDMA Band II (RMC 12.2KbpsRMC 12.2Kbps)	Limit Note 2
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0053	PASS
40	Normal Voltage	0.0016	
30	Normal Voltage	0.0005	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0032	
0	Normal Voltage	0.0021	
-10	Normal Voltage	0.0011	
-20	Normal Voltage	0.0106	
-30	Normal Voltage	0.0133	
20	Maximum Voltage	0.0074	
20	Normal Voltage	0.0064	
20	Battery End Point	0.0059	

**Note:**

1. Normal Voltage =3.85V. ; 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	0.0058	PASS
40	Normal Voltage	0.0006	
30	Normal Voltage	0.0012	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0046	
0	Normal Voltage	0.0029	
-10	Normal Voltage	0.0069	
-20	Normal Voltage	0.0121	
-30	Normal Voltage	0.0023	
20	Maximum Voltage	0.0017	
20	Normal Voltage	0.0150	
20	Battery End Point	0.0115	

**Note:**

1. Normal Voltage =3.85V. ; 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

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)
High	1698	-49.63	-13	-36.63	-55.06	-51.54	1.14	5.20	H
	2546	-48.94	-13	-35.94	-60.05	-51.57	1.12	5.90	H
	3396	-60.01	-13	-47.01	-69.98	-63.22	1.34	6.70	H
	1698	-56.75	-13	-43.75	-62.08	-58.66	1.14	5.20	V
	2546	-52.78	-13	-39.78	-62.44	-55.41	1.12	5.90	V
	3396	-59.46	-13	-46.46	-69.59	-62.67	1.34	6.70	V
Middle	1674	-45.29	-13	-32.29	-48.20	-47.20	1.14	5.20	H
	2510	-55.00	-13	-42.00	-59.30	-57.63	1.12	5.90	H
	3345	-61.42	-13	-48.42	-65.54	-64.63	1.34	6.70	H
	1674	-55.45	-13	-42.45	-54.55	-57.36	1.14	5.20	V
	2508	-57.86	-13	-44.86	-60.93	-60.49	1.12	5.90	V
	3345	-60.85	-13	-47.85	-65.99	-64.06	1.34	6.70	V
Low	1648	-40.55	-13	-27.55	-47.02	-42.46	1.14	5.20	H
	2472	-51.24	-13	-38.24	-62.35	-53.87	1.12	5.90	H
	3297	-61.55	-13	-48.55	-71.52	-64.76	1.34	6.70	H
	4122	-56.65	-13	-43.65	-70.41	-60.11	1.59	7.20	H
	4944	-50.35	-13	-37.35	-67.16	-55.08	2.02	8.90	H
	1648	-51.73	-13	-38.73	-57.06	-53.64	1.14	5.20	V
	2472	-57.11	-13	-44.11	-66.77	-59.74	1.12	5.90	V
	3297	-60.73	-13	-47.73	-70.86	-63.94	1.34	6.70	V
	4122	-60.42	-13	-47.42	-70.90	-63.88	1.59	7.20	V
	4944	-56.39	-13	-43.39	-72.56	-61.12	2.02	8.90	V

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





GSM850 (EDGE class 8)									
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)
High	1698	-56.00	-13	-43.00	-61.09	-57.91	1.14	5.20	H
	2546	-56.09	-13	-43.09	-67.20	-58.72	1.12	5.90	H
	3396	-59.37	-13	-46.37	-69.34	-62.58	1.34	6.70	H
	1698	-61.11	-13	-48.11	-66.44	-63.02	1.14	5.20	V
	2546	-58.67	-13	-45.67	-68.33	-61.30	1.12	5.90	V
	3396	-60.13	-13	-47.13	-70.26	-63.34	1.34	6.70	V
Middle	1672	-59.37	-13	-46.37	-59.69	-61.28	1.14	5.20	H
	2509	-59.68	-13	-46.68	-63.98	-62.31	1.12	5.90	H
	3345	-62.52	-13	-49.52	-66.64	-65.73	1.34	6.70	H
	1672	-63.32	-13	-50.32	-62.42	-65.23	1.14	5.20	V
	2509	-60.54	-13	-47.54	-63.61	-63.17	1.12	5.90	V
	3345	-60.48	-13	-47.48	-65.62	-63.69	1.34	6.70	V
Low	1648	-60.83	-13	-47.83	-65.92	-62.74	1.14	5.20	H
	2472	-57.15	-13	-44.15	-68.26	-59.78	1.12	5.90	H
	3297	-59.82	-13	-46.82	-69.79	-63.03	1.34	6.70	H
	1648	-61.61	-13	-48.61	-66.94	-63.52	1.14	5.20	V
	2472	-58.65	-13	-45.65	-68.31	-61.28	1.12	5.90	V
	3297	-60.69	-13	-47.69	-70.82	-63.90	1.34	6.70	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)
High	3819	-49.77	-13	-36.77	-64.01	-51.48	5.08	6.80	H
	5730	-53.97	-13	-40.97	-70.77	-55.64	8.03	9.70	H
	7638	-49.95	-13	-36.95	-71.25	-52.33	9.43	11.81	H
	3819	-52.29	-13	-39.29	-64.72	-54.00	5.08	6.80	V
	5730	-53.67	-13	-40.67	-70.76	-55.34	8.03	9.70	V
	7638	-50.29	-13	-37.29	-71.43	-52.67	9.43	11.81	V
Middle	3759	-59.04	-13	-46.04	-66.42	-64.21	1.83	7.00	H
	5640	-55.95	-13	-42.95	-68.12	-63.57	2.18	9.80	H
	7521	-53.81	-13	-40.81	-71.04	-63.48	2.53	12.20	H
	3759	-56.15	-13	-43.15	-65.00	-61.32	1.83	7.00	V
	5640	-55.17	-13	-42.17	-69.34	-62.79	2.18	9.80	V
	7521	-49.09	-13	-36.09	-70.19	-58.76	2.53	12.20	V
Low	3699	-51.41	-13	-38.41	-65.65	-53.12	5.08	6.80	H
	5550	-52.66	-13	-39.66	-69.46	-54.33	8.03	9.70	H
	7401	-49.55	-13	-36.55	-70.85	-51.93	9.43	11.81	H
	3702	-53.83	-13	-40.83	-66.26	-55.54	5.08	6.80	V
	5550	-53.60	-13	-40.60	-70.69	-55.27	8.03	9.70	V
	7401	-49.99	-13	-36.99	-71.13	-52.37	9.43	11.81	V

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



GSM1900 (EDGE class 8)									
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)
High	3819	-53.15	-13	-40.15	-67.39	-54.86	5.08	6.80	H
	5730	-54.54	-13	-41.54	-71.34	-56.21	8.03	9.70	H
	7638	-49.61	-13	-36.61	-70.91	-51.99	9.43	11.81	H
	3819	-56.65	-13	-43.65	-69.08	-58.36	5.08	6.80	V
	5730	-54.66	-13	-41.66	-71.75	-56.33	8.03	9.70	V
	7638	-49.73	-13	-36.73	-70.87	-52.11	9.43	11.81	V
Middle	3759	-60.74	-13	-47.74	-68.12	-65.91	1.83	7.00	H
	5640	-57.01	-13	-44.01	-69.18	-64.63	2.18	9.80	H
	7521	-52.46	-13	-39.46	-69.69	-62.13	2.53	12.20	H
	3759	-59.27	-13	-46.27	-68.12	-64.44	1.83	7.00	V
	5640	-55.04	-13	-42.04	-69.21	-62.66	2.18	9.80	V
	7521	-49.31	-13	-36.31	-70.41	-58.98	2.53	12.20	V
Low	3699	-56.29	-13	-43.29	-70.53	-58.00	5.08	6.80	H
	5550	-53.67	-13	-40.67	-70.47	-55.34	8.03	9.70	H
	7401	-50.28	-13	-37.28	-71.58	-52.66	9.43	11.81	H
	3699	-57.09	-13	-44.09	-69.52	-58.80	5.08	6.80	V
	5550	-54.57	-13	-41.57	-71.66	-56.24	8.03	9.70	V
	7401	-49.13	-13	-36.13	-70.27	-51.51	9.43	11.81	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)
High	1694	-59.82	-13	-46.82	-64.91	-61.73	1.14	5.20	H
	2540	-56.61	-13	-43.61	-67.72	-59.24	1.12	5.90	H
	3387	-60.32	-13	-47.32	-70.29	-63.53	1.34	6.70	H
	1694	-61.60	-13	-48.60	-66.93	-63.51	1.14	5.20	V
	2540	-58.48	-13	-45.48	-68.14	-61.11	1.12	5.90	V
	3387	-60.82	-13	-47.82	-70.95	-64.03	1.34	6.70	V
Middle	1672	-60.74	-13	-47.74	-61.06	-62.65	1.14	5.20	H
	2509	-58.18	-13	-45.18	-62.48	-60.81	1.12	5.90	H
	3345	-61.36	-13	-48.36	-65.48	-64.57	1.34	6.70	H
	1672	-63.11	-13	-50.11	-62.21	-65.02	1.14	5.20	V
	2508	-60.74	-13	-47.74	-63.81	-63.37	1.12	5.90	V
	3345	-60.21	-13	-47.21	-65.35	-63.42	1.34	6.70	V
Low	1652	-58.61	-13	-45.61	-63.70	-60.52	1.14	5.20	H
	2480	-56.41	-13	-43.41	-67.52	-59.04	1.12	5.90	H
	3306	-59.77	-13	-46.77	-69.74	-62.98	1.34	6.70	H
	1652	-61.68	-13	-48.68	-67.01	-63.59	1.14	5.20	V
	2480	-58.15	-13	-45.15	-67.81	-60.78	1.12	5.90	V
	3306	-60.48	-13	-47.48	-70.61	-63.69	1.34	6.70	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)
High	3819	-41.68	-13	-28.68	-56.33	-43.40	5.08	6.80	H
	5721	-30.73	-13	-17.73	-50.36	-32.40	8.03	9.70	H
	7626	-45.44	-13	-32.44	-66.74	-47.82	9.43	11.81	H
	3819	-50.27	-13	-37.27	-62.7	-51.98	5.08	6.80	V
	5727	-39.05	-13	-26.05	-56.78	-40.72	8.03	9.70	V
	7635	-46.22	-13	-33.22	-67.36	-48.60	9.43	11.81	V
Middle	3759	-43.86	-13	-30.86	-58.13	-45.58	5.08	6.80	H
	5637	-35.17	-13	-22.17	-54.03	-36.84	8.03	9.70	H
	7524	-46.91	-13	-33.91	-68.21	-49.29	9.43	11.81	H
	3759	-51.46	-13	-38.46	-63.89	-53.17	5.08	6.80	V
	5637	-43.41	-13	-30.41	-60.50	-45.08	8.03	9.70	V
	7515	-46.58	-13	-33.58	-67.72	-48.96	9.43	11.81	V
Low	3702	-44.32	-13	-31.32	-58.56	-46.03	5.08	6.80	H
	5553	-36.82	-13	-23.82	-55.49	-38.49	8.03	9.70	H
	7410	-49.54	-13	-36.54	-70.84	-51.92	9.43	11.81	H
	3708	-51.31	-13	-38.31	-63.74	-53.02	5.08	6.80	V
	5556	-44.28	-13	-31.28	-61.37	-45.95	8.03	9.70	V
	7410	-49.37	-13	-36.37	-70.51	-51.75	9.43	11.81	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 )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
High	3504	-54.40	-13	-41.40	-62.68	-59.54	1.81	6.95	H
	5259	-47.59	-13	-34.59	-62.15	-54.66	2.23	9.30	H
	7011	-50.53	-13	-37.53	-69.88	-58.81	2.60	10.88	H
	3504	-56.35	-13	-43.35	-62.15	-61.49	1.81	6.95	V
	5259	-50.11	-13	-37.11	-64.41	-57.18	2.23	9.30	V
	7011	-51.84	-13	-38.84	-70.38	-60.12	2.6	10.88	V
Middle	3465	-48.18	-13	-35.18	-56.46	-53.32	1.81	6.95	H
	5199	-41.74	-13	-28.74	-56.65	-48.81	2.23	9.30	H
	6930	-51.46	-13	-38.46	-70.81	-59.74	2.60	10.88	H
	3465	-54.37	-13	-41.37	-60.17	-59.51	1.81	6.95	V
	5199	-46.26	-13	-33.26	-60.56	-53.33	2.23	9.30	V
	6930	-51.73	-13	-38.73	-70.27	-60.01	2.60	10.88	V
Low	3426	-53.68	-13	-40.68	-61.96	-58.82	1.81	6.95	H
	5136	-44.09	-13	-31.09	-58.65	-51.16	2.23	9.30	H
	6849	-50.87	-13	-37.87	-70.22	-59.15	2.60	10.88	H
	3426	-57.16	-13	-44.16	-62.96	-62.30	1.81	6.95	V
	5136	-48.66	-13	-35.66	-62.96	-55.73	2.23	9.30	V
	6849	-50.84	-13	-37.84	-69.38	-59.12	2.6	10.88	V

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