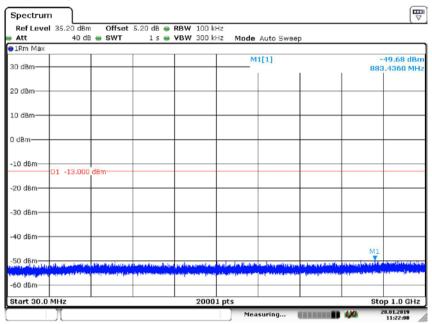
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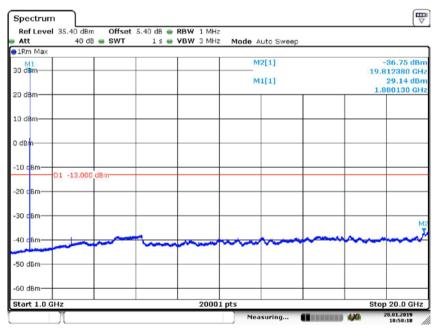
Report No.: HR/2019/1001201

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#### 6.1.2.1.2 Test Channel = MCH



Date: 28.JAN.2019 11:22:08



Date: 28.JAN.2019 10:58:18



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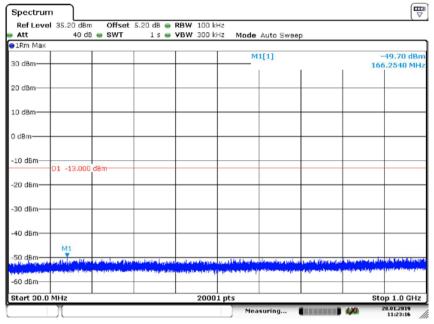
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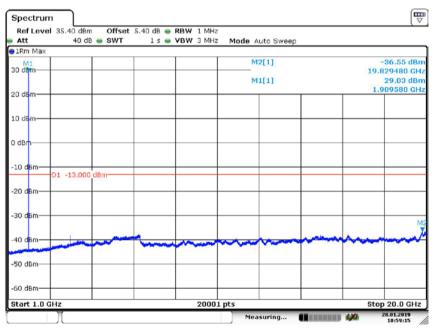
Report No.: HR/2019/1001201

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#### 6.1.2.1.3 Test Channel = HCH



Date: 28.JAN.2019 11:23:17



Date: 28.JAN.2019 10:59:14



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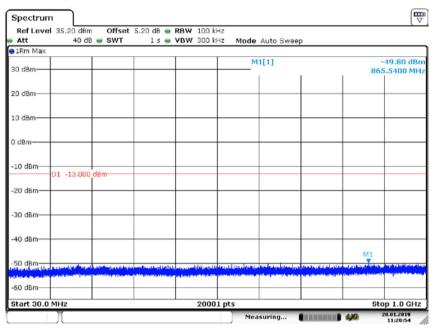
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Report No.: HR/2019/1001201

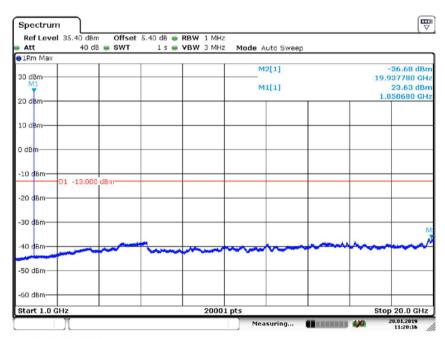
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#### 6.1.2.2 Test Mode = GSM/TM2

#### 6.1.2.2.1 Test Channel = LCH



Date: 28.JAN.2019 11:20:53



Date: 28.JAN.2019 11:20:16



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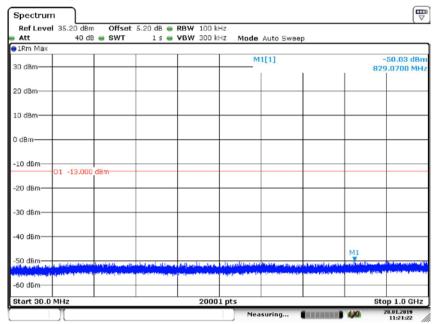
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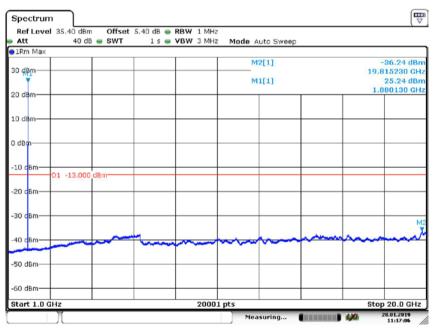
Report No.: HR/2019/1001201

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#### 6.1.2.2.2 Test Channel = MCH



Date: 28.JAN.2019 11:21:22



Date: 28.JAN.2019 11:17:06



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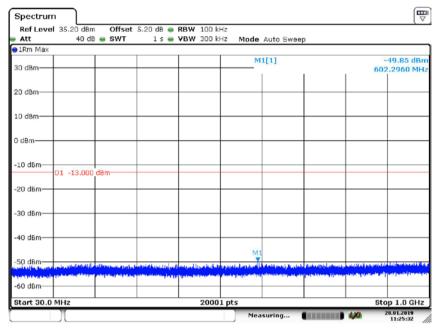
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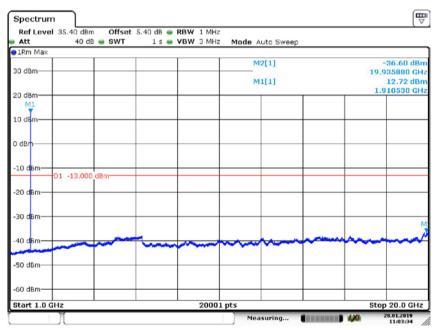
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#### 6.1.2.2.3 Test Channel = HCH



Date: 28.JAN.2019 11:25:33



Date: 28.JAN.2019 11:03:34



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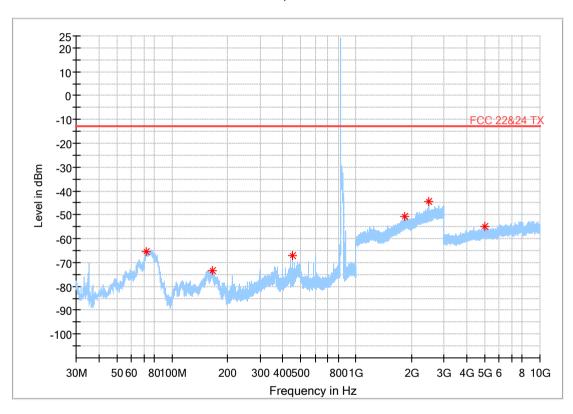
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## 7 Field Strength of Spurious Radiation

Part I - Test Plots

- 7.1 For GSM
- 7.1.1 Main Antenna
- 7.1.1.1 Test Band=GSM 850
- 7.1.1.1.1 LCH-Vertical

Full Spectrum



## Critical\_Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
72.098000	-65.27	-13.00	52.27			200.0	V	113.0	-115.7
164.975500	-73.43	-13.00	60.43			200.0	V	51.0	-121.8
450.010000	-66.90	-13.00	53.90			200.0	V	0.0	-112.5
1828.575000	-50.71	-13.00	37.71			200.0	V	282.0	-95.7
2472.600000	-44.24	-13.00	31.24			200.0	V	299.0	-91.6
5009.000000	-54.76	-13.00	41.76			200.0	V	10.0	-101.5



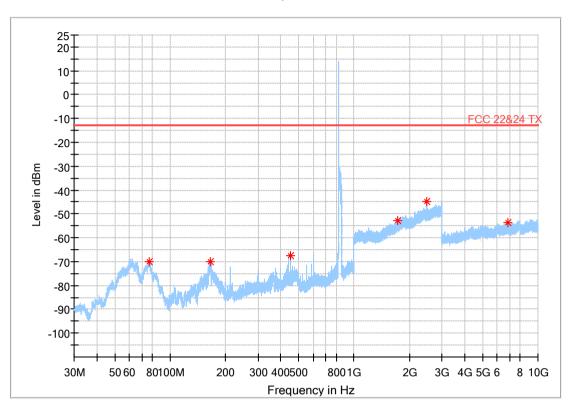
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#### 7.1.1.1.2 LCH -Horizontal

#### Full Spectrum



### Critical\_Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
76.511500	-69.86	-13.00	56.86			200.0	Н	312.0	-120.4
165.800000	-70.18	-13.00	57.18			200.0	Н	194.0	-120.6
449.961500	-67.71	-13.00	54.71			200.0	Н	237.0	-111.5
1719.150000	-52.67	-13.00	39.67			200.0	Н	197.0	-97.0
2472.600000	-44.87	-13.00	31.87			200.0	Н	28.0	-91.7
6839.150000	-53.60	-13.00	40.60			200.0	Н	160.0	-99.4



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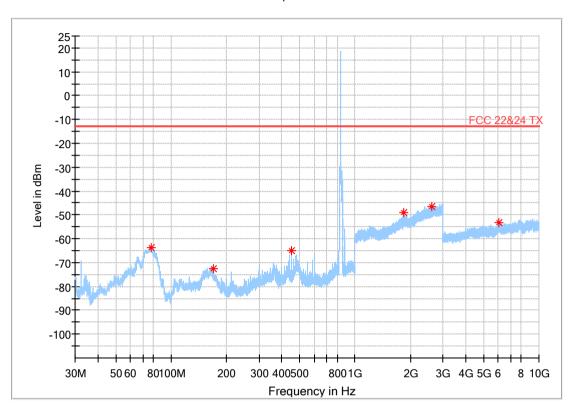
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#### 7.1.1.1.3 MCH-Vertical

Full Spectrum



**Critical Freqs** 

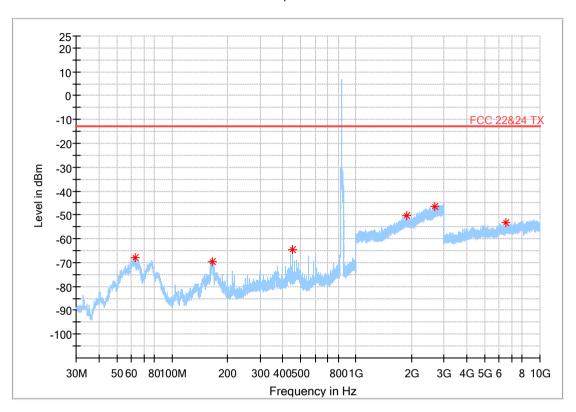
Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
77.530000	-63.72	-13.00	50.72			200.0	V	287.0	-122.0
168.516000	-72.73	-13.00	59.73			200.0	V	50.0	-121.8
450.010000	-65.08	-13.00	52.08			200.0	V	316.0	-112.5
1828.425000	-48.94	-13.00	35.94			200.0	V	95.0	-95.7
2608.575000	-46.38	-13.00	33.38			200.0	V	231.0	-90.9
6021.900000	-53.14	-13.00	40.14			200.0	V	196.0	-100.1



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#### 7.1.1.1.4 MCH -Horizontal

Full Spectrum



**Critical Freqs** 

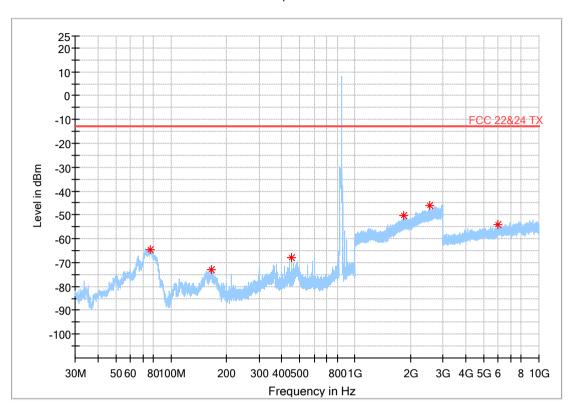
Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
62.834500	-67.87	-13.00	54.87			200.0	Η	203.0	-107.8
164.975500	-69.62	-13.00	56.62			200.0	Η	201.0	-120.8
449.961500	-64.76	-13.00	51.76			200.0	Η	162.0	-111.5
1879.500000	-50.48	-13.00	37.48			200.0	Η	268.0	-95.3
2662.350000	-46.56	-13.00	33.56			200.0	Η	194.0	-91.0
6495.450000	-53.08	-13.00	40.08			200.0	Н	198.0	-99.3



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#### 7.1.1.1.5 HCH-Vertical

Full Spectrum



Critical\_Freqs

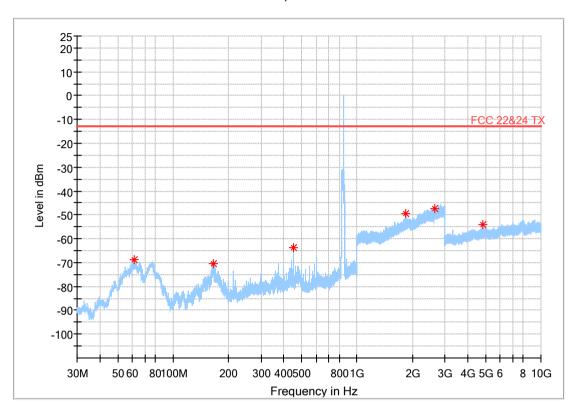
Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
76.560000	-64.48	-13.00	51.48			200.0	V	334.0	-121.2
164.296500	-72.88	-13.00	59.88			200.0	V	19.0	-121.9
449.961500	-67.81	-13.00	54.81			200.0	<b>V</b>	216.0	-112.5
1829.025000	-50.16	-13.00	37.16			200.0	V	206.0	-95.7
2546.775000	-46.27	-13.00	33.27			200.0	V	283.0	-91.6
5947.700000	-54.10	-13.00	41.10			200.0	V	215.0	-100.6



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#### 7.1.1.1.6 HCH -Horizontal

Full Spectrum



Critical Fregs

Orrandar_r	<del> </del>								
Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
61.185500	-68.78	-13.00	55.78			200.0	Н	0.0	-107.1
164.636000	-70.29	-13.00	57.29			200.0	Н	209.0	-120.9
449.961500	-63.76	-13.00	50.76			200.0	Н	318.0	-111.5
1828.725000	-49.23	-13.00	36.23			200.0	Н	293.0	-95.7
2637.225000	-47.42	-13.00	34.42			200.0	Н	293.0	-91.2
4851.850000	-54.12	-13.00	41.12			200.0	Н	265.0	-101.8



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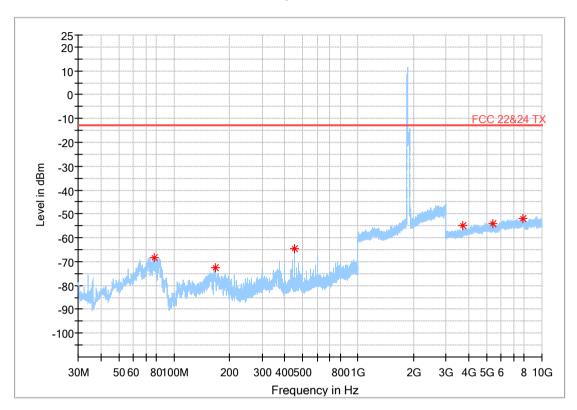
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#### 7.1.1.2 Test Band = GSM 1900

#### 7.1.1.2.1 LCH-Vertical

Full Spectrum



### **Critical Freqs**

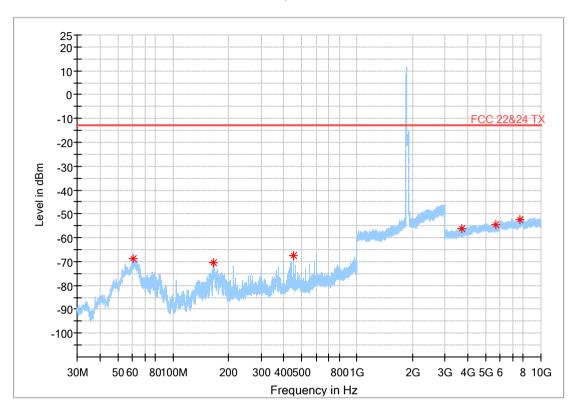
Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
77.627000	-68.28	-13.00	55.28			200.0	V	306.0	-121.9
166.479000	-72.68	-13.00	59.68			200.0	V	39.0	-121.6
450.010000	-64.61	-13.00	51.61			200.0	V	224.0	-112.4
3700.000000	-55.01	-13.00	42.01			200.0	V	214.0	-104.7
5412.200000	-53.95	-13.00	40.95			200.0	V	0.0	-101.4
7833.850000	-51.79	-13.00	38.79			200.0	V	2.0	-97.9



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#### 7.1.1.2.2 LCH -Horizontal

Full Spectrum



Critical\_Freqs

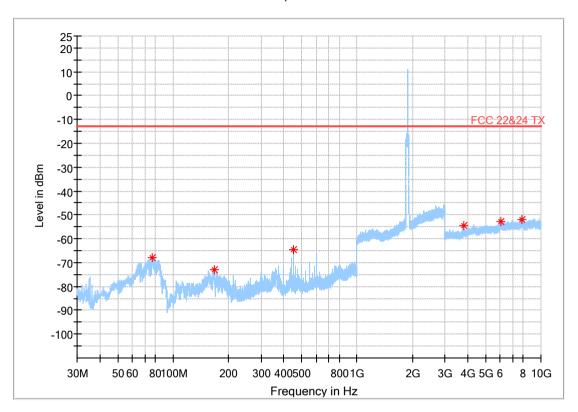
Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
60.555000	-68.88	-13.00	55.88			200.0	Н	318.0	-106.8
165.800000	-70.59	-13.00	57.59			200.0	Н	193.0	-120.4
449.961500	-67.32	-13.00	54.32			200.0	Н	329.0	-111.4
3700.000000	-56.31	-13.00	43.31			200.0	Н	147.0	-104.8
5684.500000	-54.36	-13.00	41.36			200.0	Н	40.0	-101.4
7703.650000	-52.46	-13.00	39.46			200.0	Н	254.0	-98.2



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#### 7.1.1.2.3 MCH-Vertical

Full Spectrum



Critical\_Freqs

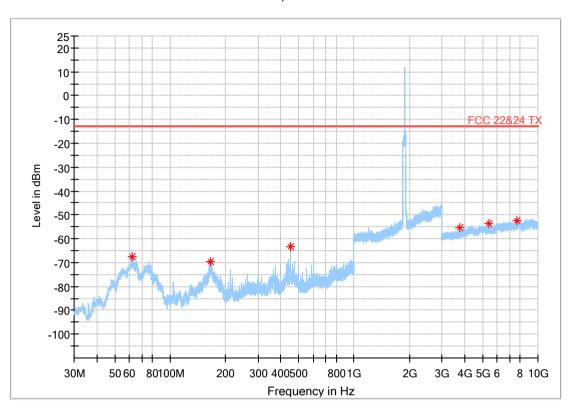
Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
77.093500	-68.03	-13.00	55.03			200.0	V	308.0	-121.5
167.109500	-73.02	-13.00	60.02			200.0	V	75.0	-121.6
450.010000	-64.77	-13.00	51.77			200.0	V	174.0	-112.4
3827.750000	-54.49	-13.00	41.49			200.0	V	145.0	-104.1
6089.450000	-52.75	-13.00	39.75			200.0	V	0.0	-99.8
7858.000000	-51.80	-13.00	38.80			200.0	V	0.0	-97.9



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#### 7.1.1.2.4 MCH -Horizontal

Full Spectrum



Critical\_Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
62.204000	-67.49	-13.00	54.49			200.0	Н	159.0	-107.1
164.781500	-69.81	-13.00	56.81			200.0	Н	209.0	-120.6
450.010000	-63.16	-13.00	50.16			200.0	Н	116.0	-111.4
3760.200000	-55.15	-13.00	42.15			200.0	Н	1.0	-104.5
5400.650000	-53.85	-13.00	40.85			200.0	Н	107.0	-101.6
7711.350000	-52.41	-13.00	39.41			200.0	Н	319.0	-98.1



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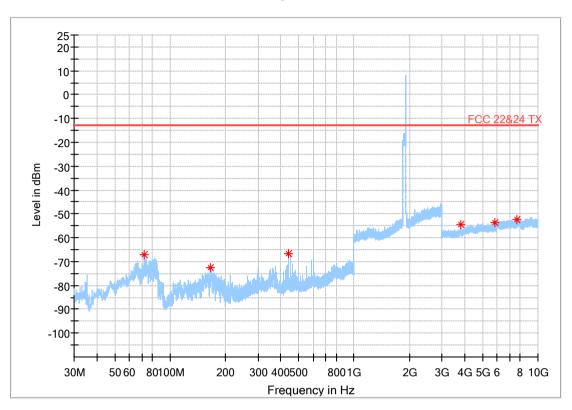
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#### 7.1.1.2.5 HCH-Vertical

Full Spectrum



Critical Fregs

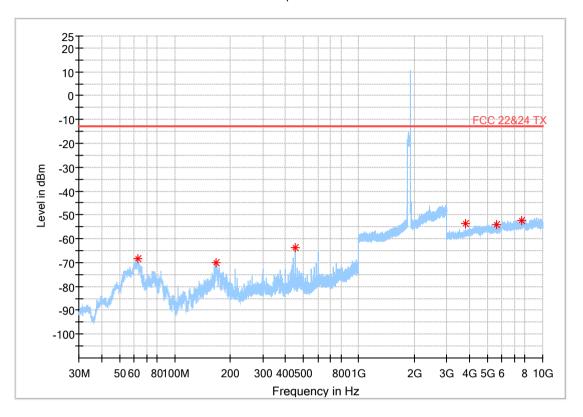
(MHz)         (dBm)         (dBm)         (dB)         Time (ms)         (kHz)         (cm)           72.292000         -67.13         -13.00         54.13           200.0           164.684500         -72.72         -13.00         59.72           200.0           437.497000         -66.77         -13.00         53.77           200.0           3819.700000         -54.28         -13.00         41.28           200.0           5830.100000         -53.80         -13.00         40.80           200.0	_	Officious_fi	<del>0</del> 40							
164.684500     -72.72     -13.00     59.72       200.0       437.497000     -66.77     -13.00     53.77       200.0       3819.700000     -54.28     -13.00     41.28       200.0       5830.100000     -53.80     -13.00     40.80       200.0						Time	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
437.497000     -66.77     -13.00     53.77       200.0       3819.700000     -54.28     -13.00     41.28       200.0       5830.100000     -53.80     -13.00     40.80       200.0		72.292000	-67.13	-13.00	54.13		 200.0	V	136.0	-115.7
3819.700000     -54.28     -13.00     41.28       200.0       5830.100000     -53.80     -13.00     40.80       200.0		164.684500	-72.72	-13.00	59.72		 200.0	V	56.0	-121.6
5830.100000 -53.80 -13.00 40.80 200.0		437.497000	-66.77	-13.00	53.77		 200.0	<b>V</b>	96.0	-112.7
		3819.700000	-54.28	-13.00	41.28		 200.0	V	0.0	-104.2
7691 050000   -52 19   -13 00   39 19     200 0		5830.100000	-53.80	-13.00	40.80		 200.0	<b>V</b>	0.0	-101.0
7031.000000 02.10 10.00 03.10		7691.050000	-52.19	-13.00	39.19		 200.0	٧	0.0	-98.2



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#### 7.1.1.2.6 HCH -Horizontal

Full Spectrum



Critical Fregs

Ollinaa	<del> </del>								
Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
62.834500	-68.32	-13.00	55.32			200.0	Н	63.0	-107.6
167.158000	-70.06	-13.00	57.06			200.0	Н	195.0	-120.3
449.961500	-63.91	-13.00	50.91			200.0	Н	291.0	-111.4
3819.350000	-53.69	-13.00	40.69			200.0	Н	0.0	-104.2
5627.100000	-54.26	-13.00	41.26			200.0	Н	106.0	-101.4
7691.400000	-52.21	-13.00	39.21			200.0	Н	1.0	-98.3



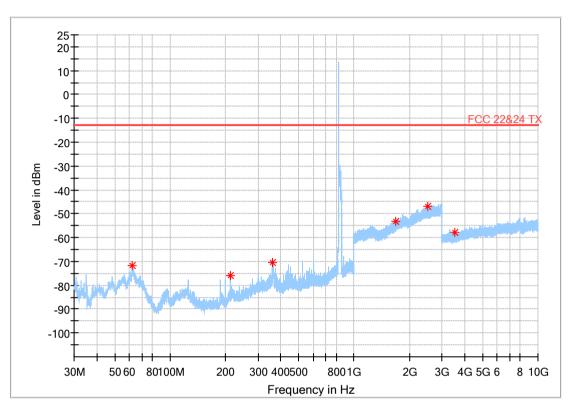
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### 7.1.2 Secondary Antenna

#### 7.1.2.1 Test Band=GSM 850

#### 7.1.2.1.1 LCH-Vertical

#### Full Spectrum



### **Critical Freqs**

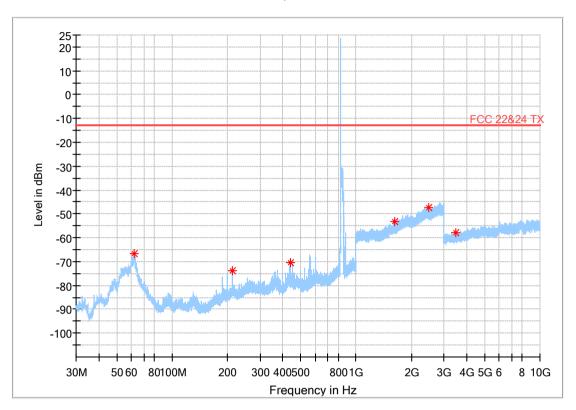
Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
62.058500	-71.76	-13.00	58.76			200.0	V	158.0	-112.7
212.505500	-75.77	-13.00	62.77			200.0	V	38.0	-119.1
359.994000	-70.46	-13.00	57.46			200.0	V	93.0	-111.9
1678.425000	-53.15	-13.00	40.15			200.0	V	179.0	-97.4
2525.850000	-47.08	-13.00	34.08			200.0	٧	342.0	-91.6
3523.600000	-58.03	-13.00	45.03			200.0	V	331.0	-105.3



Page: 56 of 71

#### 7.1.2.1.2 LCH -Horizontal

Full Spectrum



**Critical Freqs** 

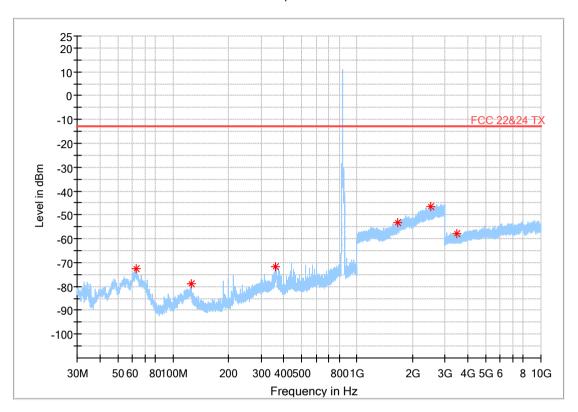
Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
61.767500	-66.84	-13.00	53.84			200.0	Ι	323.0	-107.2
212.457000	-73.71	-13.00	60.71			200.0	Н	76.0	-117.6
437.448500	-70.56	-13.00	57.56			200.0	Η	315.0	-111.7
1626.975000	-53.22	-13.00	40.22			200.0	Н	147.0	-98.0
2472.675000	-47.21	-13.00	34.21			200.0	Н	53.0	-91.7
3477.750000	-57.86	-13.00	44.86			200.0	Η	40.0	-105.5



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#### 7.1.2.1.3 MCH-Vertical

Full Spectrum



Critical\_Freqs

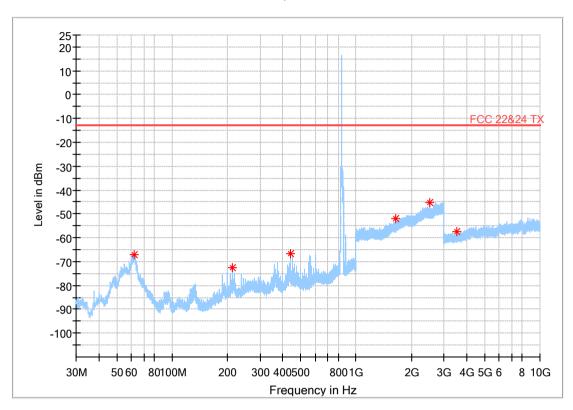
Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
62.689000	-72.51	-13.00	59.51			200.0	V	339.0	-112.6
124.963000	-78.79	-13.00	65.79			200.0	V	236.0	-117.2
359.848500	-71.64	-13.00	58.64			200.0	V	65.0	-111.9
1670.325000	-53.07	-13.00	40.07			200.0	٧	100.0	-97.6
2499.975000	-46.43	-13.00	33.43			200.0	<b>V</b>	164.0	-91.8
3475.650000	-58.00	-13.00	45.00			200.0	V	189.0	-105.4



Page: 58 of 71

#### 7.1.2.1.4 MCH -Horizontal

Full Spectrum



Critical Fregs

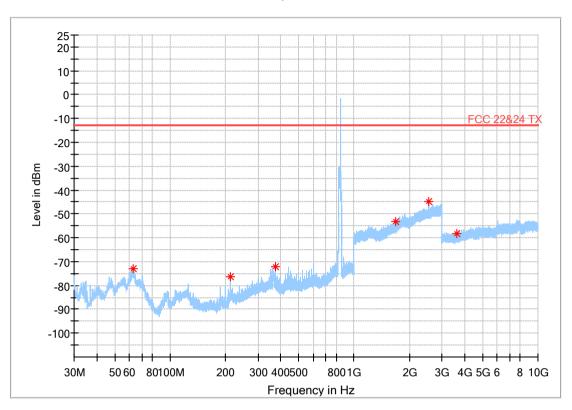
Officion_i	040								
Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
62.301000	-66.95	-13.00	53.95			200.0	Н	13.0	-107.2
212.457000	-72.40	-13.00	59.40			200.0	Н	258.0	-117.6
437.497000	-66.56	-13.00	53.56			200.0	Н	120.0	-111.7
1648.425000	-52.10	-13.00	39.10			200.0	Н	257.0	-97.9
2509.800000	-45.22	-13.00	32.22			200.0	Н	315.0	-92.0
3510.650000	-57.62	-13.00	44.62			200.0	Н	156.0	-105.3



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#### 7.1.2.1.5 HCH-Vertical

#### Full Spectrum



## Critical Fregs

	<u> </u>								
Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
62.689000	-72.81	-13.00	59.81			200.0	V	144.0	-112.6
212.457000	-76.40	-13.00	63.40			200.0	V	177.0	-119.1
375.029000	-72.18	-13.00	59.18			200.0	V	66.0	-112.8
1692.300000	-53.18	-13.00	40.18			200.0	V	270.0	-97.3
2546.700000	-44.61	-13.00	31.61			200.0	V	325.0	-91.6
3635.250000	-58.19	-13.00	45.19			200.0	V	234.0	-104.8



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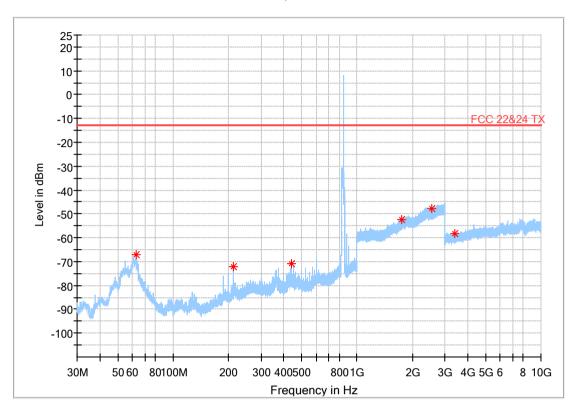
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#### 7.1.2.1.6 HCH -Horizontal

Full Spectrum



Critical\_Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
62.737500	-67.26	-13.00	54.26			200.0	Н	301.0	-107.7
212.505500	-72.16	-13.00	59.16			200.0	Н	243.0	-117.6
437.497000	-70.88	-13.00	57.88			200.0	Н	143.0	-111.7
1756.800000	-52.59	-13.00	39.59			200.0	Н	36.0	-96.6
2537.100000	-47.77	-13.00	34.77			200.0	Н	242.0	-92.0
3393.400000	-58.40	-13.00	45.40			200.0	Н	80.0	-105.9

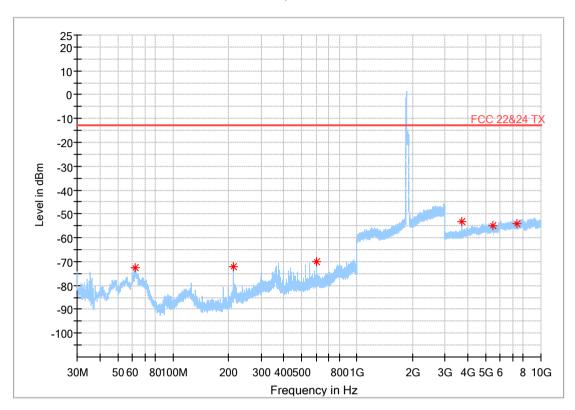


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#### 7.1.2.2 Test Band = GSM 1900

#### 7.1.2.2.1 LCH-Vertical

Full Spectrum



### **Critical Freqs**

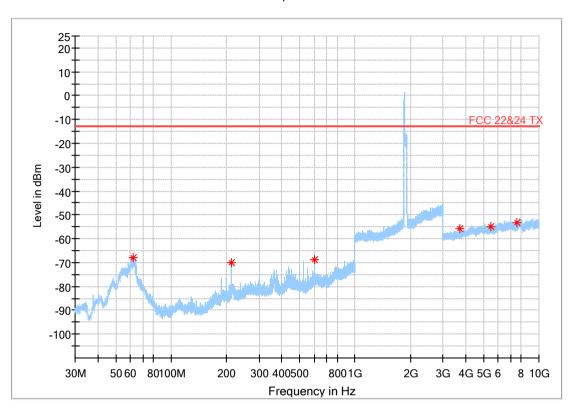
Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
62.495000	-72.41	-13.00	59.41			200.0	V	296.0	-112.5
212.457000	-71.94	-13.00	58.94			200.0	V	100.0	-118.9
599.972000	-70.23	-13.00	57.23			200.0	V	299.0	-109.7
3700.000000	-53.15	-13.00	40.15			200.0	V	275.0	-104.7
5500.050000	-54.70	-13.00	41.70			200.0	V	190.0	-101.3
7399.150000	-54.05	-13.00	41.05			200.0	V	0.0	-99.5



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#### 7.1.2.2.2 LCH -Horizontal

Full Spectrum



**Critical Freqs** 

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
62.010000	-67.99	-13.00	54.99			200.0	Τ	185.0	-107.1
212.457000	-69.89	-13.00	56.89			200.0	Η	352.0	-117.4
600.020500	-68.70	-13.00	55.70			200.0	Η	89.0	-109.1
3700.350000	-55.80	-13.00	42.80			200.0	Η	0.0	-104.8
5473.800000	-54.79	-13.00	41.79			200.0	Η	338.0	-101.4
7614.050000	-53.14	-13.00	40.14			200.0	Н	0.0	-98.6



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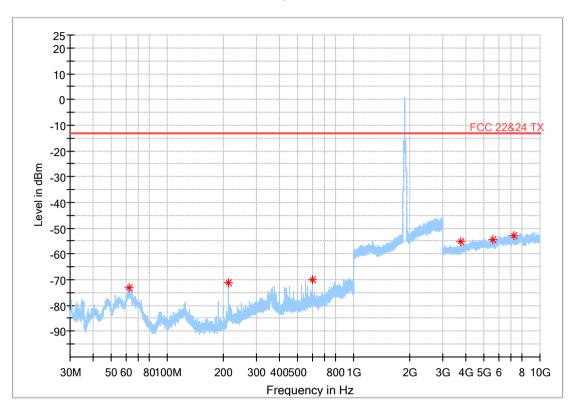
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#### 7.1.2.2.3 MCH-Vertical

Full Spectrum



**Critical Freqs** 

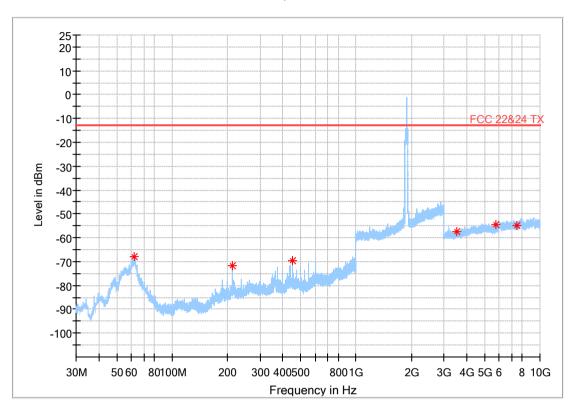
Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
62.107000	-73.29	-13.00	60.29			200.0	V	0.0	-112.6
212.505500	-71.36	-13.00	58.36			200.0	V	44.0	-118.9
599.972000	-69.84	-13.00	56.84			200.0	V	181.0	-109.7
3760.200000	-55.12	-13.00	42.12			200.0	V	254.0	-104.4
5564.100000	-54.53	-13.00	41.53			200.0	V	0.0	-101.2
7282.250000	-52.78	-13.00	39.78			200.0	V	86.0	-99.4



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#### 7.1.2.2.4 MCH -Horizontal

Full Spectrum



Critical\_Freqs

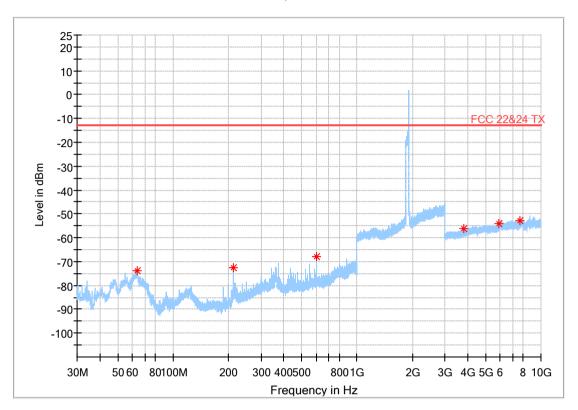
Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
61.961500	-68.00	-13.00	55.00			200.0	Н	207.0	-107.1
212.505500	-71.79	-13.00	58.79			200.0	Н	188.0	-117.4
450.010000	-69.50	-13.00	56.50			200.0	Н	323.0	-111.4
3541.800000	-57.22	-13.00	44.22			200.0	Н	0.0	-105.2
5754.850000	-54.41	-13.00	41.41			200.0	Н	272.0	-101.4
7509.400000	-54.84	-13.00	41.84			200.0	Н	358.0	-99.1



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#### 7.1.2.2.5 HCH-Vertical

#### Full Spectrum



Critical Fregs

Omition_i	<u> </u>								
Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
63.465000	-73.67	-13.00	60.67			200.0	V	267.0	-112.4
212.457000	-72.50	-13.00	59.50			200.0	V	224.0	-118.9
599.972000	-67.93	-13.00	54.93			200.0	V	22.0	-109.7
3819.000000	-56.06	-13.00	43.06			200.0	V	254.0	-104.2
5927.400000	-53.94	-13.00	40.94			200.0	<b>V</b>	254.0	-100.7
7714.500000	-52.64	-13.00	39.64			200.0	V	1.0	-98.1



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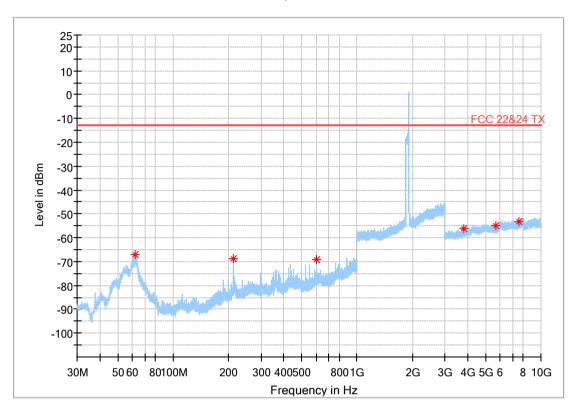
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#### 7.1.2.2.6 HCH -Horizontal

#### Full Spectrum



Critical\_Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
62.301000	-67.21	-13.00	54.21			200.0	Н	49.0	-107.1
212.505500	-68.89	-13.00	55.89			200.0	Н	40.0	-117.4
600.020500	-69.35	-13.00	56.35			200.0	Н	276.0	-109.1
3814.100000	-56.19	-13.00	43.19			200.0	Н	272.0	-104.3
5661.050000	-54.98	-13.00	41.98			200.0	Н	0.0	-101.4
7591.300000	-53.16	-13.00	40.16			200.0	Н	0.0	-98.8

#### REMARK:

- 1) The disturbance above 12.75GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the worst case data had been displayed.
- 2) We have tested all modulation and all Bandwidth, but only the worst case data presented in this report.



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## 8 Frequency Stability

### 8.1 Frequency Error VS. Voltage

Voltage							
BAND	Channe I	Voltage (Vdc)	Temperatur e (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm	Verdict
GSM850	128	VL	TN	0.30	0.00036	±2.5	PASS
GSM850	128	VN	TN	7.53	0.00914	±2.5	PASS
GSM850	128	VH	TN	0.97	0.00117	±2.5	PASS
GSM850	190	VL	TN	8.02	0.00958	±2.5	PASS
GSM850	190	VN	TN	-9.56	-0.01143	±2.5	PASS
GSM850	190	VH	TN	-5.57	-0.00666	±2.5	PASS
GSM850	251	VL	TN	0.98	0.00116	±2.5	PASS
GSM850	251	VN	TN	-2.24	-0.00264	±2.5	PASS
GSM850	251	VH	TN	6.04	0.00712	±2.5	PASS
EGPRS850	128	VL	TN	8.00	0.00970	±2.5	PASS
EGPRS850	128	VN	TN	-9.66	-0.01172	±2.5	PASS
EGPRS850	128	VH	TN	-3.98	-0.00482	±2.5	PASS
EGPRS850	190	VL	TN	4.50	0.00538	±2.5	PASS
EGPRS850	190	VN	TN	7.69	0.00920	±2.5	PASS
EGPRS850	190	VH	TN	-4.89	-0.00585	±2.5	PASS
EGPRS850	251	VL	TN	1.29	0.00152	±2.5	PASS
EGPRS850	251	VN	TN	-8.27	-0.00974	±2.5	PASS
EGPRS850	251	VH	TN	6.80	0.00802	±2.5	PASS
GSM1900	512	VL	TN	4.86	0.00263	±2.5	PASS
GSM1900	512	VN	TN	-9.19	-0.00497	±2.5	PASS
GSM1900	512	VH	TN	-5.28	-0.00285	±2.5	PASS
GSM1900	661	VL	TN	-8.52	-0.00453	±2.5	PASS
GSM1900	661	VN	TN	-9.50	-0.00505	±2.5	PASS
GSM1900	661	VH	TN	7.24	0.00385	±2.5	PASS
GSM1900	810	VL	TN	-8.04	-0.00421	±2.5	PASS
GSM1900	810	VN	TN	8.94	0.00468	±2.5	PASS
GSM1900	810	VH	TN	-3.61	-0.00189	±2.5	PASS
EGPRS190 0	512	VL	TN	-8.84	-0.00478	±2.5	PASS
EGPRS190 0	512	VN	TN	8.33	0.00450	±2.5	PASS
EGPRS190 0	512	VH	TN	-0.85	-0.00046	±2.5	PASS
EGPRS190 0	661	VL	TN	1.03	0.00055	±2.5	PASS
EGPRS190 0	661	VN	TN	-1.50	-0.00080	±2.5	PASS
EGPRS190 0	661	VH	TN	7.27	0.00387	±2.5	PASS
EGPRS190 0	810	VL	TN	-2.02	-0.00106	±2.5	PASS
EGPRS190 0	810	VN	TN	-0.02	-0.00001	±2.5	PASS
EGPRS190 0	810	VH	TN	-4.11	-0.00215	±2.5	PASS



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### 8.2 Frequency Error VS. Temperature

Temperature							
BAND	Channe I	Voltage (Vdc)	Temperatur e (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm )	Verdict
GSM850	128	VN	-30	3.07	0.00372	±2.5	PASS
GSM850	128	VN	-20	-1.93	-0.00234	±2.5	PASS
GSM850	128	VN	-10	-2.13	-0.00258	±2.5	PASS
GSM850	128	VN	0	-9.22	-0.01119	±2.5	PASS
GSM850	128	VN	10	-0.48	-0.00058	±2.5	PASS
GSM850	128	VN	20	1.90	0.00231	±2.5	PASS
GSM850	128	VN	30	-4.76	-0.00577	±2.5	PASS
GSM850	128	VN	40	-7.33	-0.00890	±2.5	PASS
GSM850	128	VN	50	2.88	0.00350	±2.5	PASS
GSM850	190	VN	-30	8.92	0.01066	±2.5	PASS
GSM850	190	VN	-20	-7.47	-0.00893	±2.5	PASS
GSM850	190	VN	-10	-0.82	-0.00098	±2.5	PASS
GSM850	190	VN	0	-1.02	-0.00122	±2.5	PASS
GSM850	190	VN	10	3.25	0.00388	±2.5	PASS
GSM850	190	VN	20	5.48	0.00655	±2.5	PASS
GSM850	190	VN	30	-7.57	-0.00905	±2.5	PASS
GSM850	190	VN	40	2.51	0.00300	±2.5	PASS
GSM850	190	VN	50	-0.21	-0.00025	±2.5	PASS
GSM850	251	VN	-30	-0.22	-0.00026	±2.5	PASS
GSM850	251	VN	-20	-6.91	-0.00814	±2.5	PASS
GSM850	251	VN	-10	-7.34	-0.00865	±2.5	PASS
GSM850	251	VN	0	-4.26	-0.00502	±2.5	PASS
GSM850	251	VN	10	9.25	0.01090	±2.5	PASS
GSM850	251	VN	20	2.51	0.00295	±2.5	PASS
GSM850	251	VN	30	-8.31	-0.00979	±2.5	PASS
GSM850	251	VN	40	-0.79	-0.00093	±2.5	PASS
GSM850	251	VN	50	-9.09	-0.01071	±2.5	PASS
EGPRS850	128	VN	-30	-6.48	-0.00786	±2.5	PASS
EGPRS850	128	VN	-20	-9.66	-0.01172	±2.5	PASS
EGPRS850	128	VN	-10	-0.28	-0.00034	±2.5	PASS
EGPRS850	128	VN	0	8.94	0.01085	±2.5	PASS
EGPRS850	128	VN	10	-7.56	-0.00917	±2.5	PASS
EGPRS850	128	VN	20	-1.03	-0.00125	±2.5	PASS
EGPRS850	128	VN	30	-3.00	-0.00364	±2.5	PASS
EGPRS850	128	VN	40	-6.00	-0.00728	±2.5	PASS
EGPRS850	128	VN	50	2.28	0.00277	±2.5	PASS
EGPRS850	190	VN	-30	9.60	0.01148	±2.5	PASS
EGPRS850	190	VN	-20	8.25	0.00986	±2.5	PASS
EGPRS850	190	VN	-10	-0.26	-0.00031	±2.5	PASS
EGPRS850	190	VN	0	1.72	0.00206	±2.5	PASS
EGPRS850	190	VN	10	-7.68	-0.00917	±2.5	PASS



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EGPRS850	190	VN	20	2.56	0.00306	±2.5	PASS
EGPRS850	190	VN	30	6.83	0.00817	±2.5	PASS
EGPRS850	190	VN	40	-3.11	-0.00372	±2.5	PASS
EGPRS850	190	VN	50	0.91	0.00109	±2.5	PASS
EGPRS850	251	VN	-30	2.66	0.00313	±2.5	PASS
EGPRS850	251	VN	-20	3.03	0.00357	±2.5	PASS
EGPRS850	251	VN	-10	-1.40	-0.00165	±2.5	PASS
EGPRS850	251	VN	0	2.86	0.00336	±2.5	PASS
EGPRS850	251	VN	10	6.95	0.00819	±2.5	PASS
EGPRS850	251	VN	20	-8.64	-0.01018	±2.5	PASS
EGPRS850	251	VN	30	5.12	0.00603	±2.5	PASS
EGPRS850	251	VN	40	4.92	0.00580	±2.5	PASS
EGPRS850	251	VN	50	-1.19	-0.00141	±2.5	PASS
GSM1900	512	VN	-30	6.48	0.00350	±2.5	PASS
GSM1900	512	VN	-20	4.15	0.00224	±2.5	PASS
GSM1900	512	VN	-10	4.99	0.00270	±2.5	PASS
GSM1900	512	VN	0	-8.81	-0.00476	±2.5	PASS
GSM1900	512	VN	10	-2.60	-0.00141	±2.5	PASS
GSM1900	512	VN	20	-7.58	-0.00410	±2.5	PASS
GSM1900	512	VN	30	4.79	0.00259	±2.5	PASS
GSM1900	512	VN	40	4.74	0.00256	±2.5	PASS
GSM1900	512	VN	50	3.67	0.00198	±2.5	PASS
GSM1900	661	VN	-30	-7.70	-0.00410	±2.5	PASS
GSM1900	661	VN	-20	1.25	0.00067	±2.5	PASS
GSM1900	661	VN	-10	-5.16	-0.00275	±2.5	PASS
GSM1900	661	VN	0	0.45	0.00024	±2.5	PASS
GSM1900	661	VN	10	3.92	0.00208	±2.5	PASS
GSM1900	661	VN	20	-6.85	-0.00365	±2.5	PASS
GSM1900	661	VN	30	4.58	0.00244	±2.5	PASS
GSM1900	661	VN	40	-2.85	-0.00152	±2.5	PASS
GSM1900	661	VN	50	8.85	0.00471	±2.5	PASS
GSM1900	810	VN	-30	-3.50	-0.00183	±2.5	PASS
GSM1900	810	VN	-20	-7.24	-0.00379	±2.5	PASS
GSM1900	810	VN	-10	-0.52	-0.00027	±2.5	PASS
GSM1900	810	VN	0	7.58	0.00397	±2.5	PASS
GSM1900	810	VN	10	-1.10	-0.00057	±2.5	PASS
GSM1900	810	VN	20	9.53	0.00499	±2.5	PASS
GSM1900	810	VN	30	-1.98	-0.00104	±2.5	PASS
GSM1900	810	VN	40	7.71	0.00404	±2.5	PASS
GSM1900	810	VN	50	-7.91	-0.00414	±2.5	PASS
EGPRS190							
0	512	VN	-30	7.08	0.00383	±2.5	PASS
EGPRS190 0	512	VN	-20	4.01	0.00217	±2.5	PASS
EGPRS190 0	512	VN	-10	-0.45	-0.00025	±2.5	PASS
EGPRS190 0	512	VN	0	3.04	0.00164	±2.5	PASS
EGPRS190	512	VN	10	-8.95	-0.00484	±2.5	PASS



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0							
EGPRS190 0	512	VN	20	4.55	0.00246	±2.5	PASS
EGPRS190 0	512	VN	30	-2.83	-0.00153	±2.5	PASS
0 EGPRS190 0	512	VN	40	2.98	0.00161	±2.5	PASS
0 EGPRS190 0	512	VN	50	0.44	0.00024	±2.5	PASS
EGPRS190 0	661	VN	-30	-6.94	-0.00369	±2.5	PASS
0 EGPRS190 0	661	VN	-20	-0.65	-0.00034	±2.5	PASS
0 EGPRS190 0	661	VN	-10	-9.09	-0.00483	±2.5	PASS
0 EGPRS190 0	661	VN	0	-9.00	-0.00479	±2.5	PASS
0 EGPRS190 0	661	VN	10	-6.78	-0.00361	±2.5	PASS
EGPRS190 0	661	VN	20	-2.73	-0.00145	±2.5	PASS
0 EGPRS190 0	661	VN	30	-3.87	-0.00206	±2.5	PASS
EGPRS190 0	661	VN	40	2.99	0.00159	±2.5	PASS
0 EGPRS190 0	661	VN	50	0.34	0.00018	±2.5	PASS
0 EGPRS190 0	810	VN	-30	-8.05	-0.00422	±2.5	PASS
EGPRS190 0	810	VN	-20	4.79	0.00251	±2.5	PASS
0 EGPRS190 0	810	VN	-10	9.93	0.00520	±2.5	PASS
EGPRS190 0	810	VN	0	8.10	0.00424	±2.5	PASS
0 EGPRS190 0	810	VN	10	-0.21	-0.00011	±2.5	PASS
EGPRS190 0	810	VN	20	-4.36	-0.00228	±2.5	PASS
EGPRS190 0	810	VN	30	8.26	0.00432	±2.5	PASS
0 EGPRS190 0	810	VN	40	-7.42	-0.00389	±2.5	PASS
0 EGPRS190 0	810	VN	50	5.17	0.00271	±2.5	PASS

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