

# Appendix B

## WCDMA Band II & IV & V



## CONTENT

<b>1. EFFECTIVE (ISOTROPIC) RADIATED POWER .....</b>	<b>4</b>
1.1. TEST RESULT .....	4
<b>2. PEAK-TO-AVERAGE RATIO(CCDF) .....</b>	<b>5</b>
2.1. TEST RESULT .....	5
2.2. TEST PLOTS .....	5
<b>3. MODULATION CHARACTERISTICS .....</b>	<b>14</b>
3.1. TEST BAND = WCDMA BAND II .....	14
3.1.1. TEST MODE = UMTS/TM1 .....	14
3.1.1.1. TEST CHANNEL = MCH .....	14
3.2. TEST BAND = WCDMA BAND IV .....	15
3.2.1. TEST MODE = UMTS/TM1 .....	15
3.3. TEST BAND = WCDMA BAND V .....	16
3.3.1. TEST MODE = UMTS/TM1 .....	16
3.3.1.1. TEST CHANNEL = MCH .....	16
<b>4. 26DB BANDWIDTH AND OCCUPIED BANDWIDTH .....</b>	<b>17</b>
4.1. TEST RESULT .....	17
4.2. TEST PLOTS .....	17
<b>5. BAND EDGE COMPLIANCE .....</b>	<b>22</b>
5.1. TEST PLOTS .....	22
<b>6. SPURIOUS EMISSION AT ANTENNA TERMINAL .....</b>	<b>25</b>
6.1. TEST PLOTS .....	25
<b>7. FIELD STRENGTH OF SPURIOUS RADIATION .....</b>	<b>49</b>
7.1. TEST BAND = WCDMA BAND II .....	49
7.1.1. TEST MODE = WCDMA/TM1 .....	49
7.1.1.1. TEST CHANNEL = LCH(DOWN ANTENNA) .....	49
7.1.1.2. TEST CHANNEL = MCH(DOWN ANTENNA) .....	50
7.1.1.3. TEST CHANNEL = HCH(DOWN ANTENNA) .....	50
7.2. TEST BAND = WCDMA BAND IV .....	51



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7.2.1.	TEST MODE = WCDMA/TM1 .....	51
7.2.1.1.	TEST CHANNEL = LCH(DOWN ANTENNA) .....	51
7.2.1.2.	TEST CHANNEL = MCH(DOWN ANTENNA) .....	52
7.2.1.3.	TEST CHANNEL = HCH(DOWN ANTENNA) .....	52
7.3.	TEST BAND = WCDMA BAND V .....	53
7.3.1.	TEST MODE = WCDMA/TM1 .....	53
7.3.1.1.	TEST CHANNEL = LCH(DOWN ANTENNA) .....	53
7.3.1.2.	TEST CHANNEL = MCH(DOWN ANTENNA) .....	54
7.3.1.3.	TEST CHANNEL = HCH(DOWN ANTENNA) .....	54
7.4.	TEST BAND = WCDMA BAND II .....	55
7.4.1.	TEST MODE = WCDMA/TM1 .....	55
7.4.1.1.	TEST CHANNEL = LCH(UP ANTENNA) .....	55
7.4.1.2.	TEST CHANNEL = MCH(UP ANTENNA) .....	56
7.4.1.3.	TEST CHANNEL = HCH(UP ANTENNA) .....	56
7.5.	TEST BAND = WCDMA BAND IV .....	57
7.5.1.	TEST MODE = WCDMA/TM1 .....	57
7.5.1.1.	TEST CHANNEL = LCH(UP ANTENNA) .....	57
7.5.1.2.	TEST CHANNEL = MCH(UP ANTENNA) .....	58
7.5.1.3.	TEST CHANNEL = HCH(UP ANTENNA) .....	58
7.6.	TEST BAND = WCDMA BAND V .....	59
7.6.1.	TEST MODE = WCDMA/TM1 .....	59
7.6.1.1.	TEST CHANNEL = LCH(UP ANTENNA) .....	59
7.6.1.2.	TEST CHANNEL = MCH(UP ANTENNA) .....	60
7.6.1.3.	TEST CHANNEL = HCH(UP ANTENNA) .....	60
<b>8.</b>	<b>FREQUENCY STABILITY .....</b>	<b>62</b>
8.1.	FREQUENCY VS VOLTAGE .....	62
8.2.	FREQUENCY VS TEMPERATURE .....	63





## 1. Effective (Isotropic) Radiated Power

### 1.1. Test Result

#### FOR ANT1:

Band	Channel	Conducted Power (dBm)	EIRP (dBm)	Limit(dBm)	Verdict
Band II	9262	24.12	23.74	33.00	PASS
Band II	9400	24.25	23.87	33.00	PASS
Band II	9538	24.16	23.78	33.00	PASS
Band IV	4132	23.77	23.23	30.00	PASS
Band IV	4182	23.93	23.39	30.00	PASS
Band IV	4233	23.86	23.32	30.00	PASS

Band	Channel	Conducted Power (dBm)	ERP (dBm)	Limit(dBm)	Verdict
Band V	4132	24.27	17.12	38.45	PASS
Band V	4182	24.28	17.13	38.45	PASS
Band V	4233	24.20	17.05	38.45	PASS

#### FOR ANT2:

Band	Channel	Conducted Power (dBm)	EIRP (dBm)	Limit(dBm)	Verdict
Band II	9262	23.90	23.51	33.00	PASS
Band II	9400	23.80	23.41	33.00	PASS
Band II	9538	23.83	23.44	33.00	PASS
Band IV	4132	23.85	23.29	30.00	PASS
Band IV	4182	23.82	23.26	30.00	PASS
Band IV	4233	23.86	23.3	30.00	PASS

Band	Channel	Conducted Power (dBm)	ERP (dBm)	Limit(dBm)	Verdict
Band V	4132	24.46	17.97	38.45	PASS
Band V	4182	24.48	17.99	38.45	PASS
Band V	4233	24.41	17.92	38.45	PASS

#### Remark:

a: For getting the EIRP (Efficient Isotropic Radiated Power), the following formula should be taken to calculate it,

$ERP [dBm] = \text{Conducted Power} [dBm] + \text{Gain} [dBd]$

$EIRP [dBm] = \text{Conducted Power} [dBm] + \text{Gain} [dBi]$



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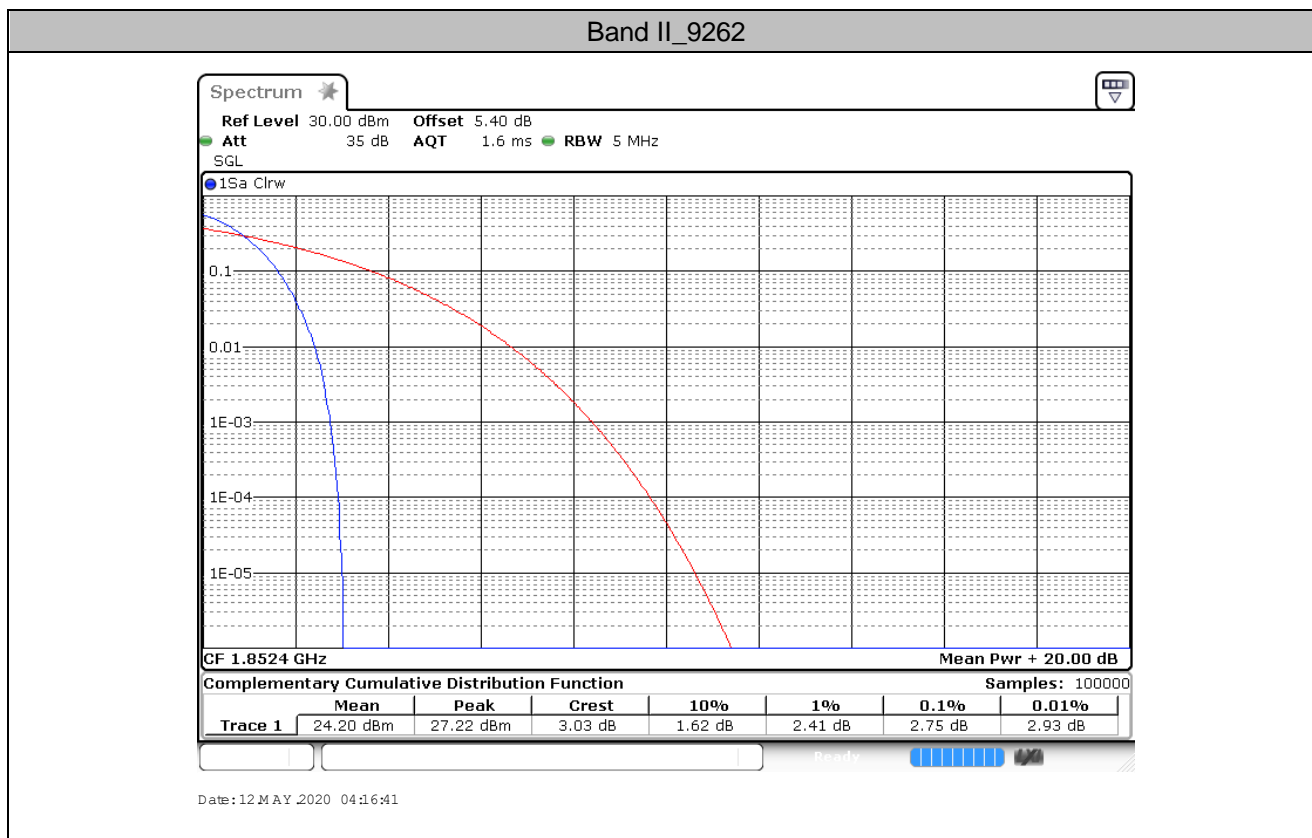
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## 2. Peak-to-Average Ratio(CCDFF)

## 2.1. Test Result

Band	Channel	Peak-to-Average Ratio(dB)	Limit(dB)	Verdict
Band II	9262	2.75	13	PASS
Band II	9400	2.55	13	PASS
Band II	9538	2.96	13	PASS
Band IV	1312	3.22	13	PASS
Band IV	1413	3.25	13	PASS
Band IV	1513	2.93	13	PASS
Band V	4132	2.84	13	PASS
Band V	4182	2.99	13	PASS
Band V	4233	2.55	13	PASS

## 2.2. Test Plots



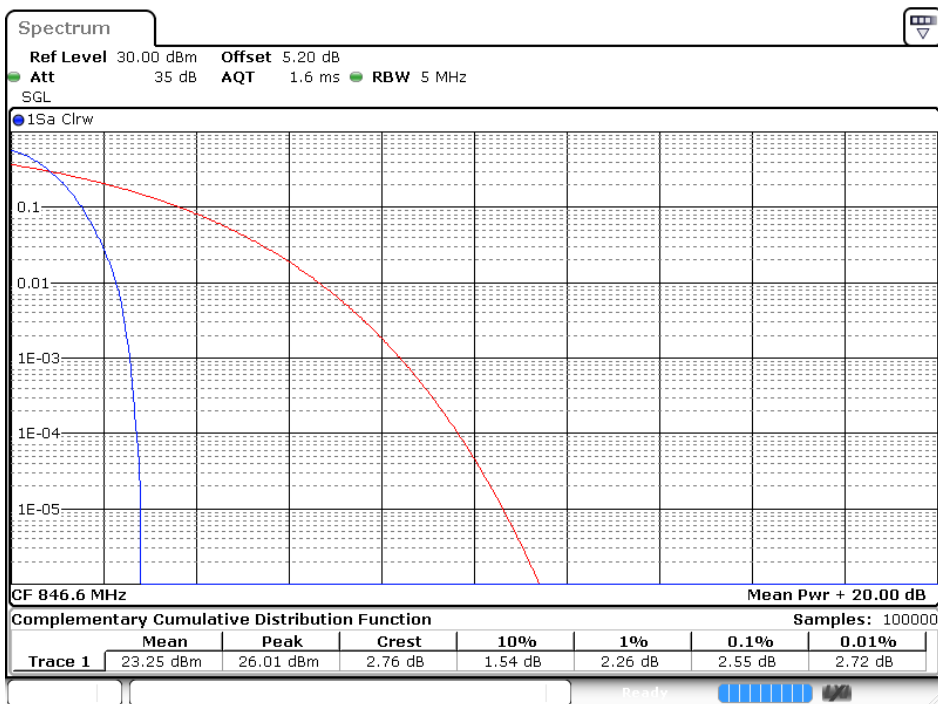
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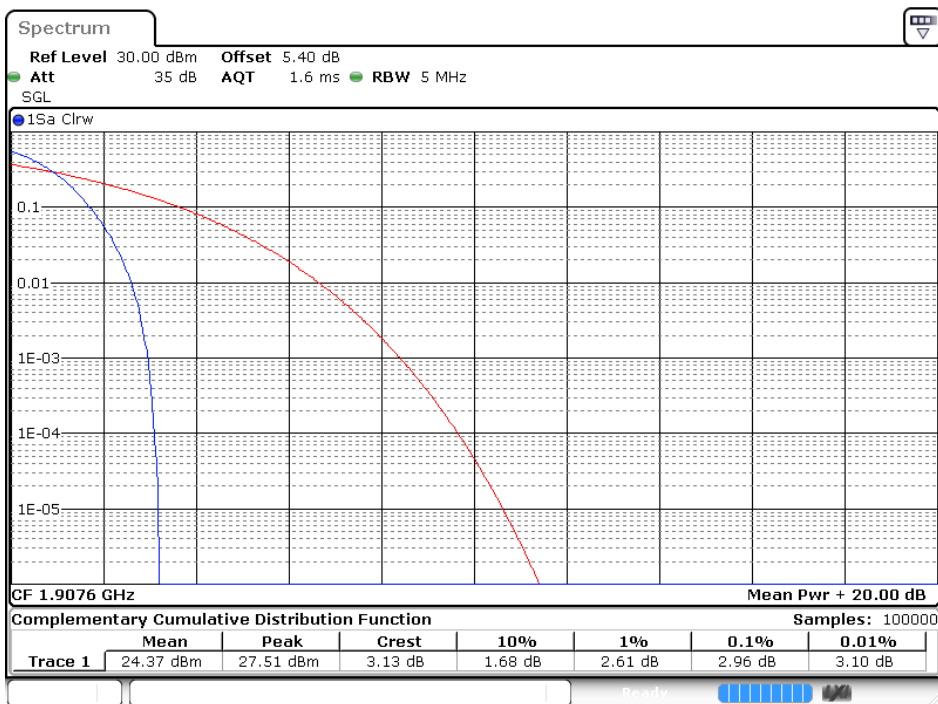
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Date: 12 MAY 2020 04:24:41



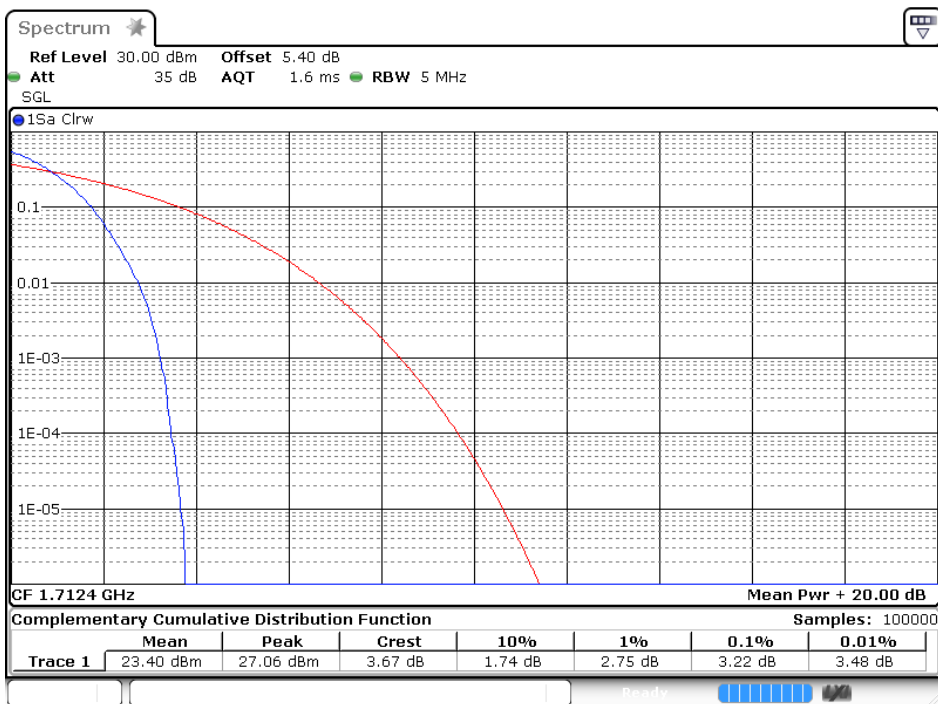
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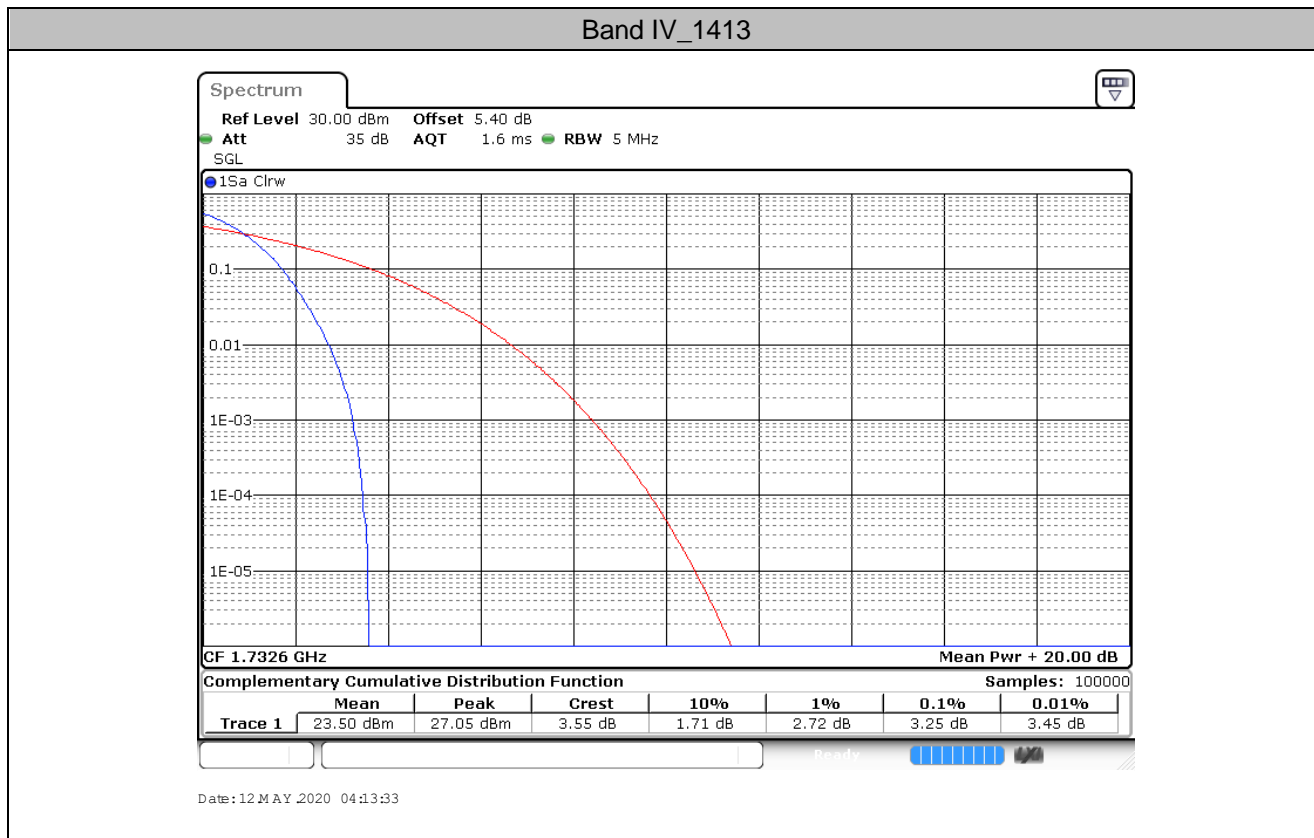
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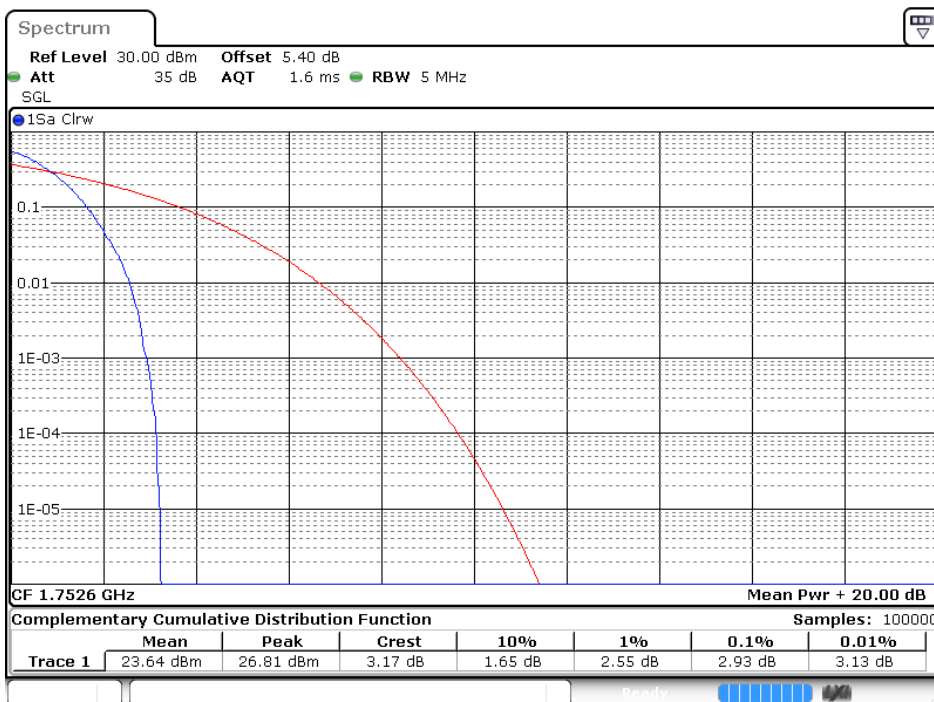




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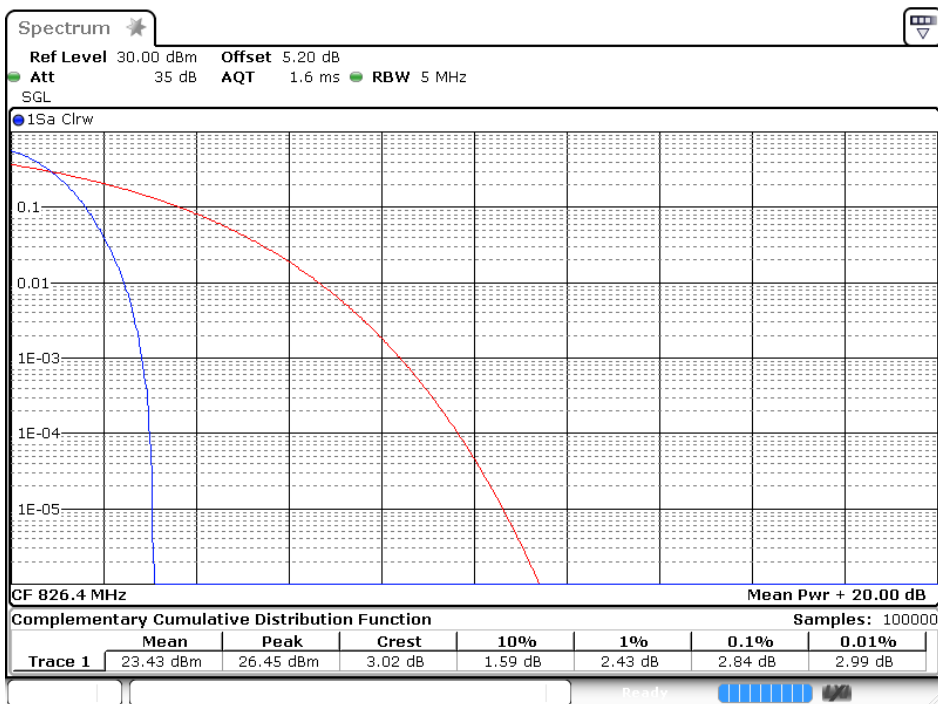
**Band IV\_1513**



Date: 12 MAY 2020 04:13:49



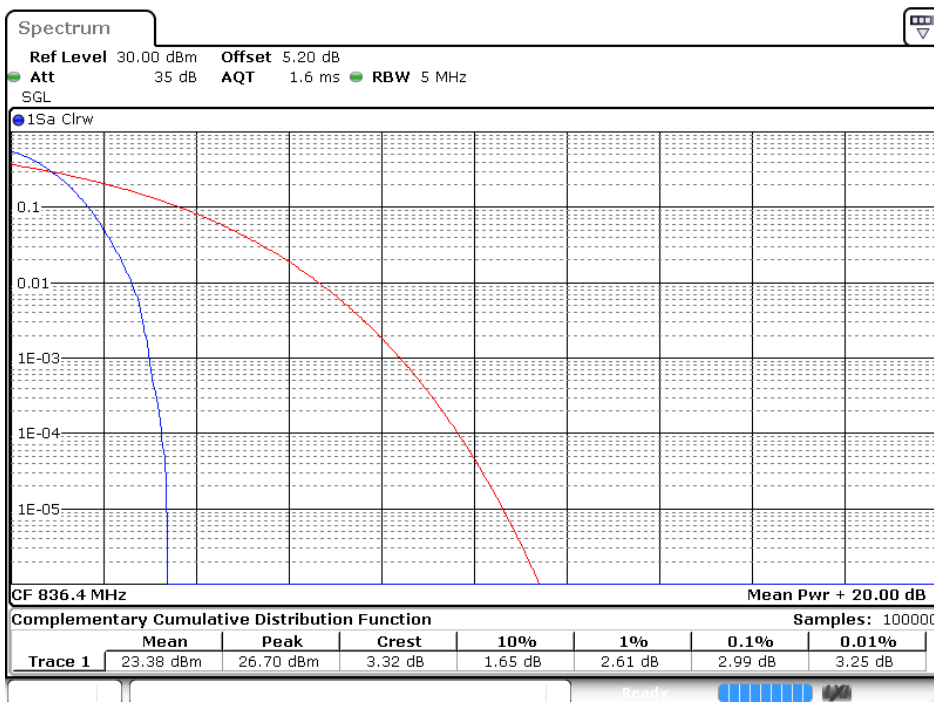
## Band V\_4132



Date: 12 MAY 2020 04:24:05



**Band V\_4182**



Date: 12 MAY 2020 04:24:25

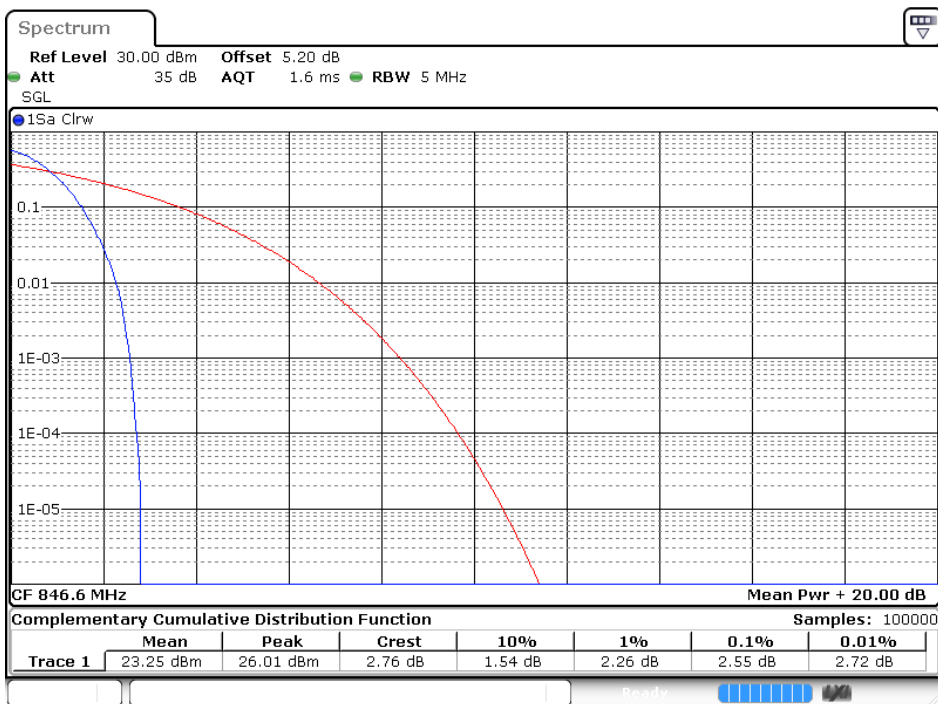


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## Band V\_4233



Date: 12 MAY 2020 04:24:41



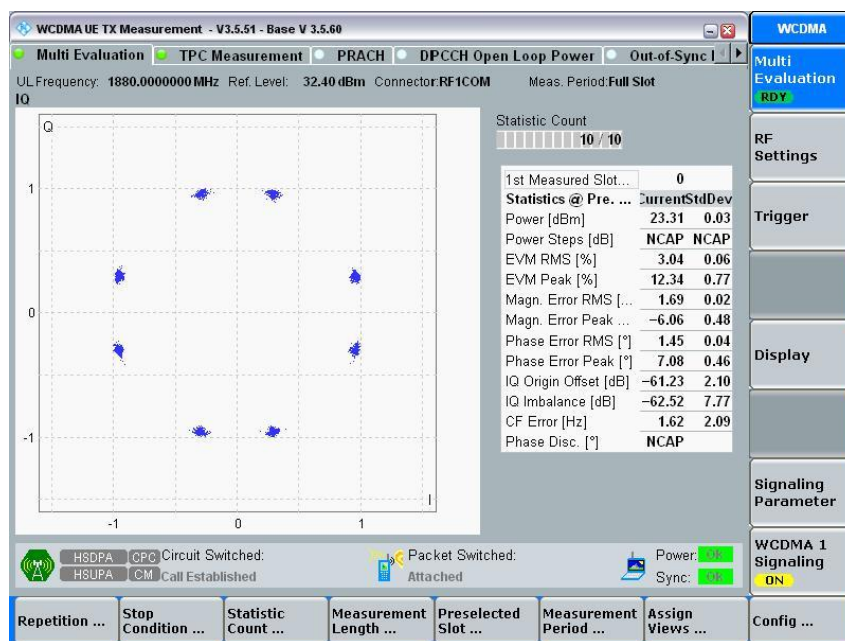


### 3. Modulation Characteristics

#### 3.1. Test Band = WCDMA Band II

##### 3.1.1. Test Mode = UMTS/TM1

##### 3.1.1.1. Test Channel = MCH

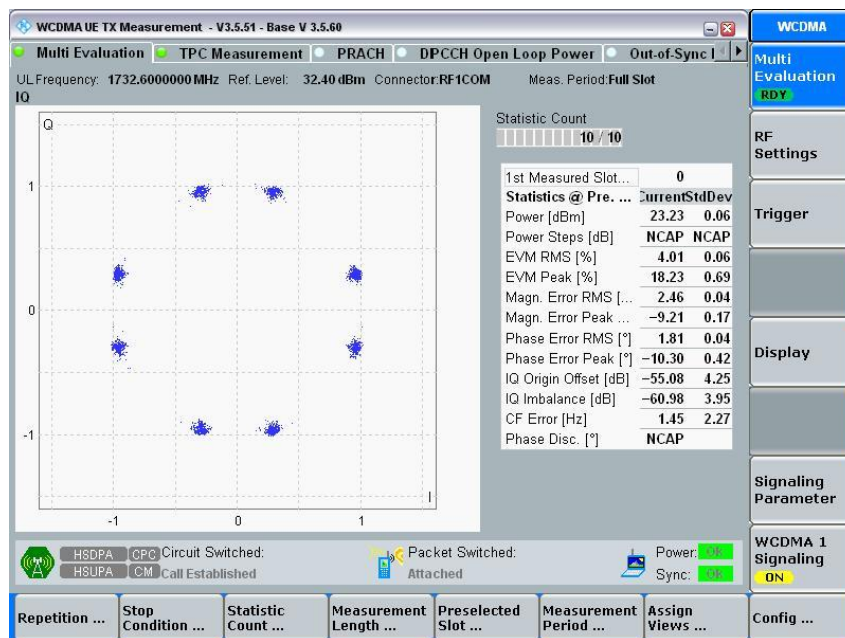


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## 3.2. Test Band = WCDMA Band IV

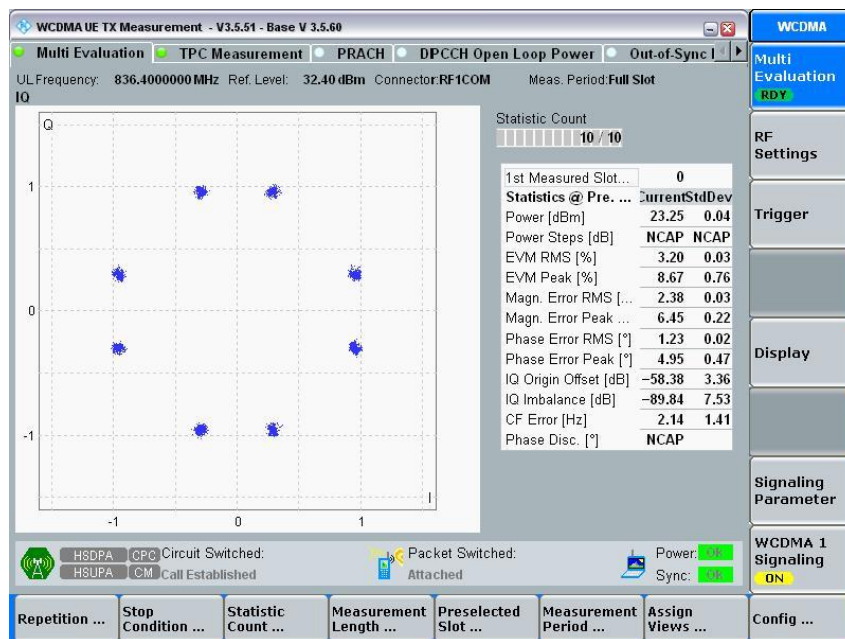
### 3.2.1. Test Mode = UMTS/TM1



### 3.3. Test Band = WCDMA Band V

#### 3.3.1. Test Mode = UMTS/TM1

##### 3.3.1.1. Test Channel = MCH

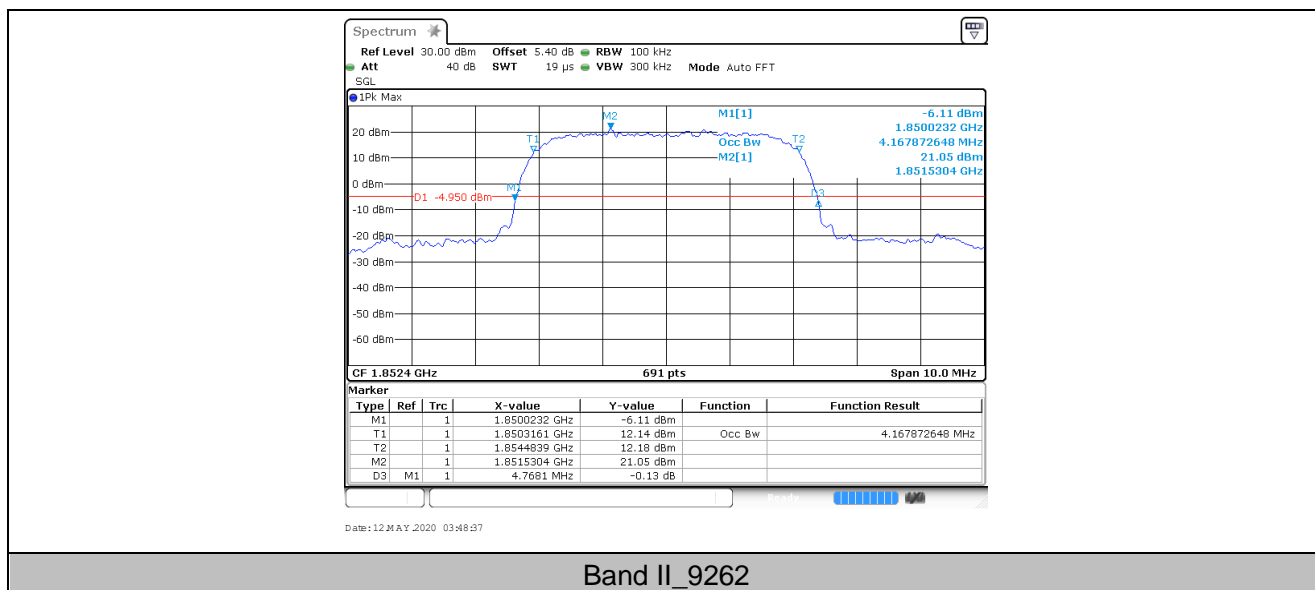


## 4. 26dB Bandwidth and Occupied Bandwidth

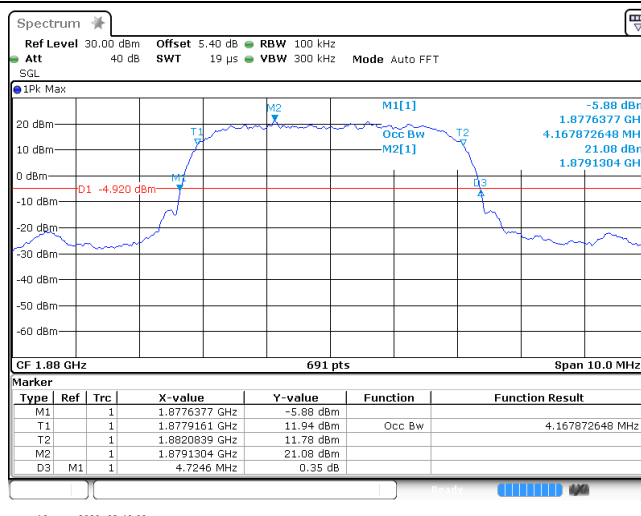
### 4.1. Test Result

Band	Channel	Occupied Bandwidth (kHz)	26dB Bandwidth (kHz)	Limit(kHz)	Verdict
Band II	9262	4167.9	4768	---	PASS
Band II	9400	4167.9	4725	---	PASS
Band II	9538	4167.9	4739	---	PASS
Band IV	1312	4167.9	4725	---	PASS
Band IV	1413	4167.9	4725	---	PASS
Band IV	1513	4167.9	4739	---	PASS
Band V	4132	4167.9	4725	---	PASS
Band V	4182	4153.4	4725	---	PASS
Band V	4233	4182.3	4754	---	PASS

### 4.2. Test Plots

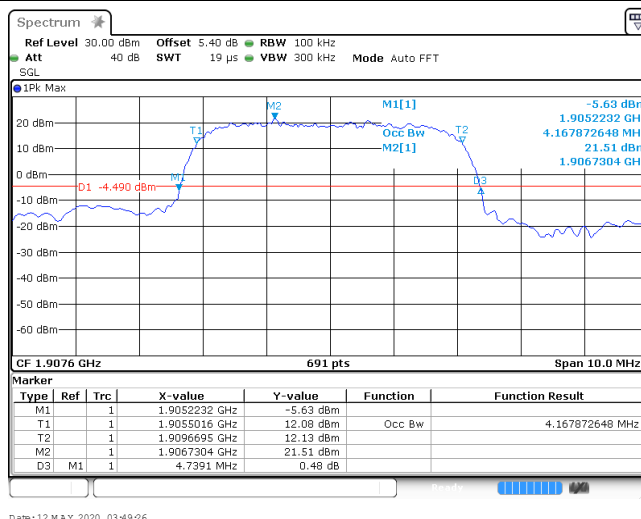






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## Band II\_9400



Date: 12 MAY 2020 03:49:26

## Band II\_9538

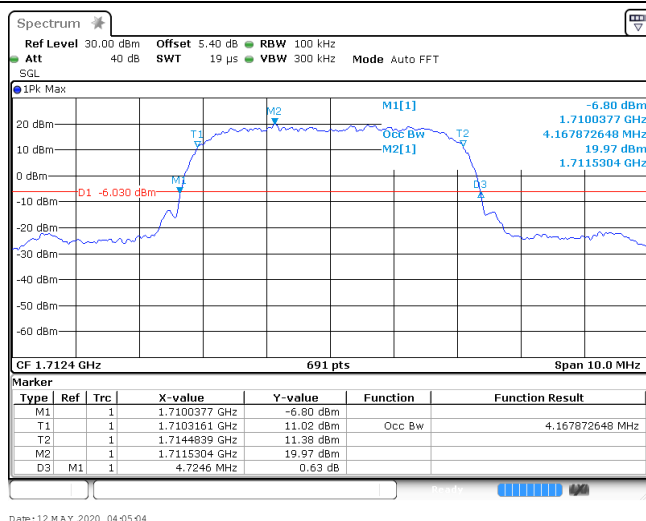


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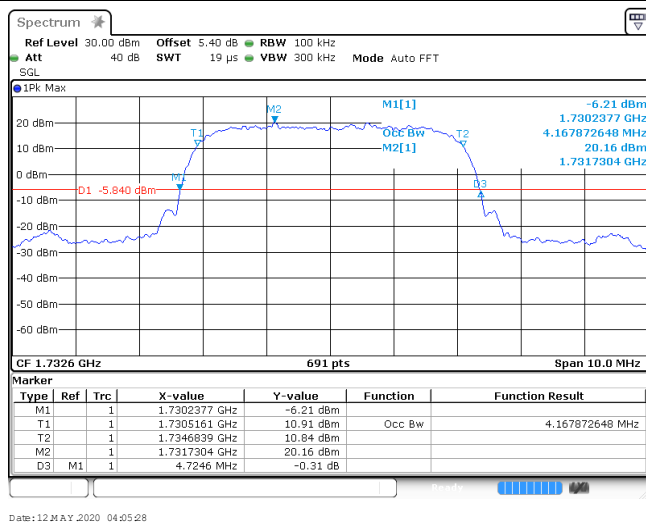
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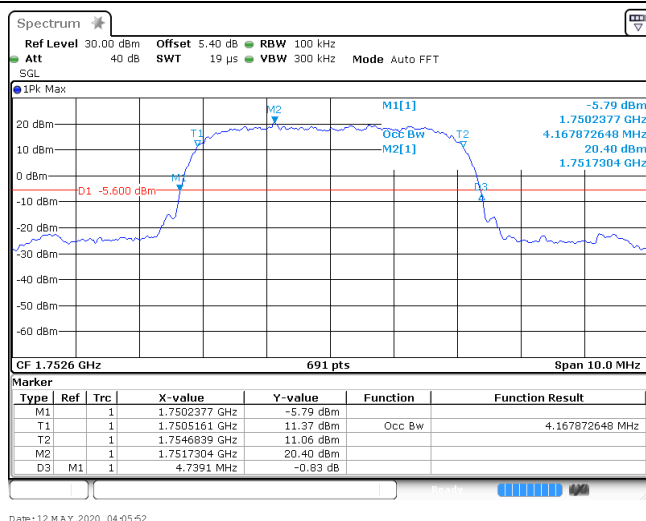


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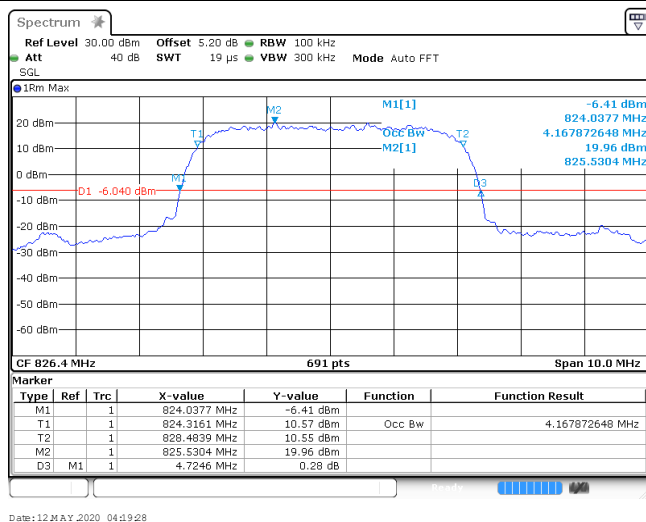


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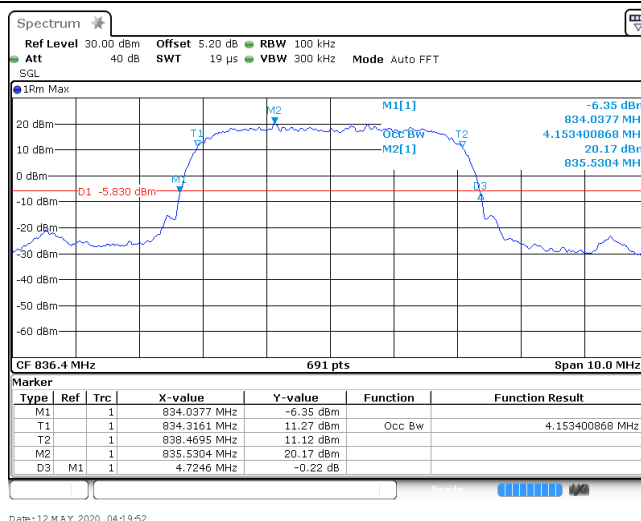


## Band IV\_1513



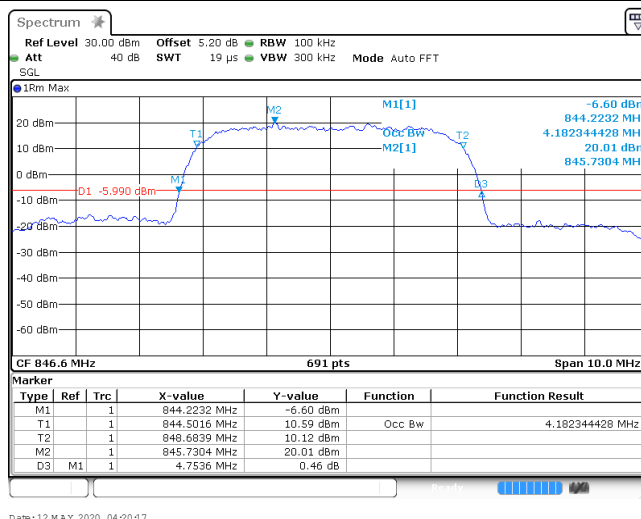
## Band V\_4132





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## Band V\_4182



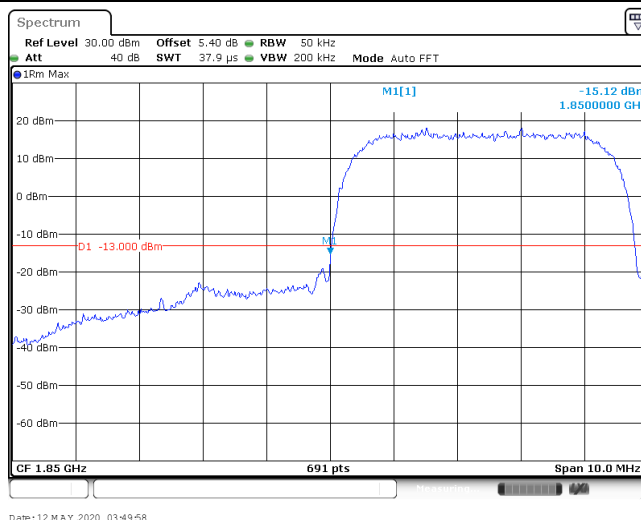
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## Band V\_4233

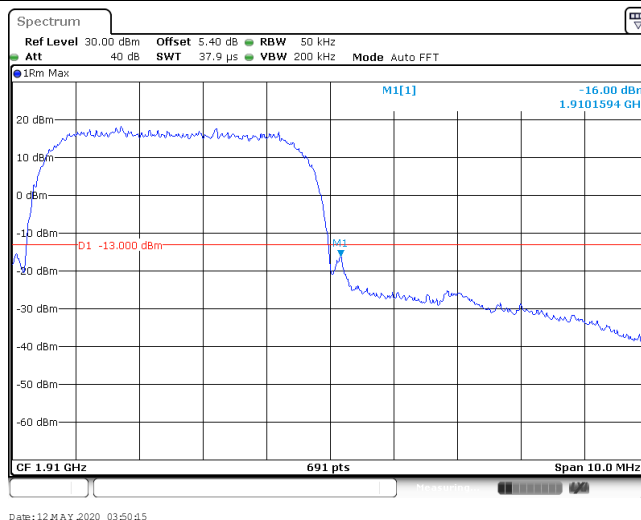


## 5. Band Edge Compliance

### 5.1. Test Plots

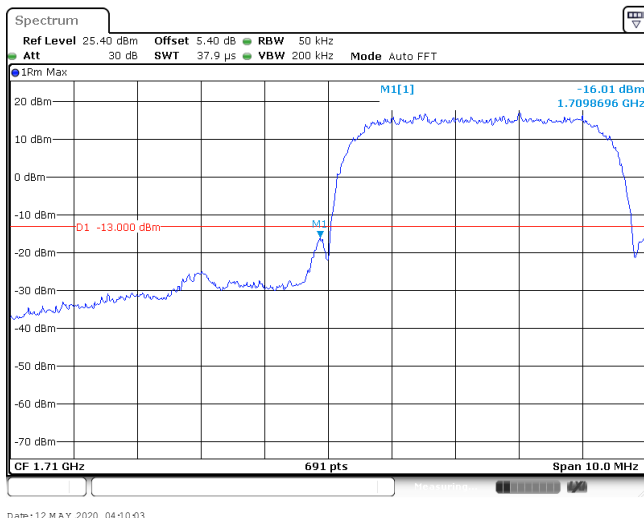


Band II\_9262

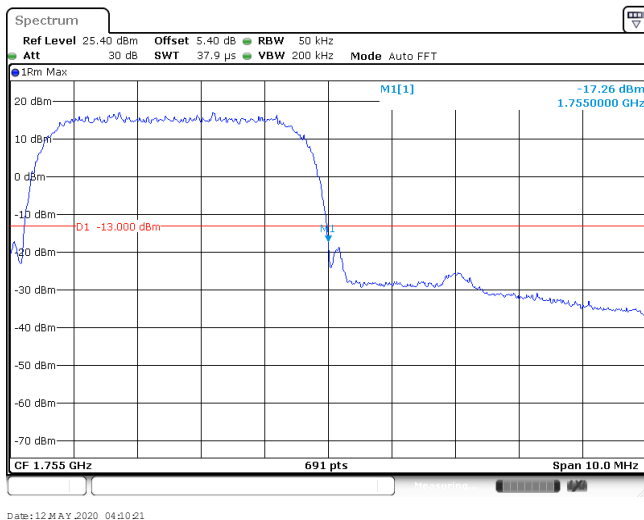


Band II\_9538





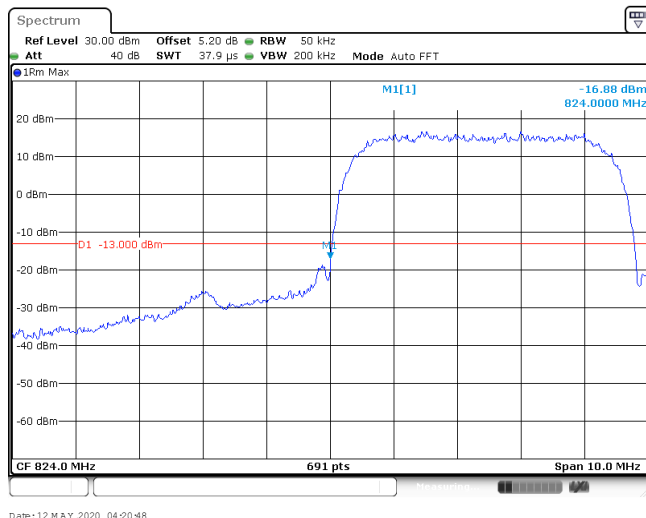
Band IV\_1312



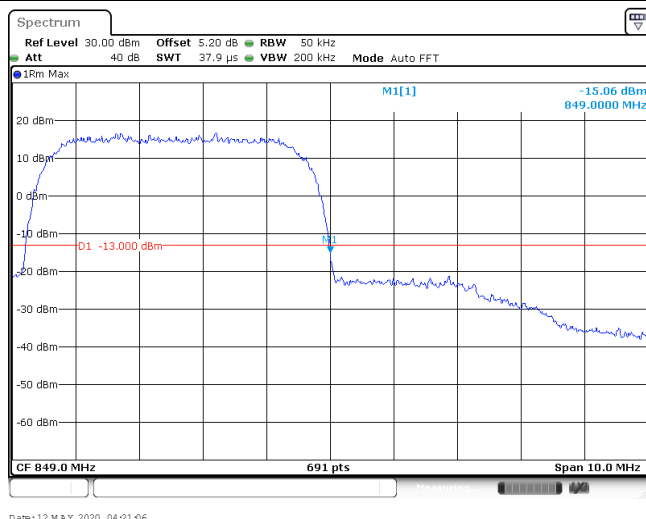
Band IV\_1513







**Band V\_4132**



**Band V\_4233**



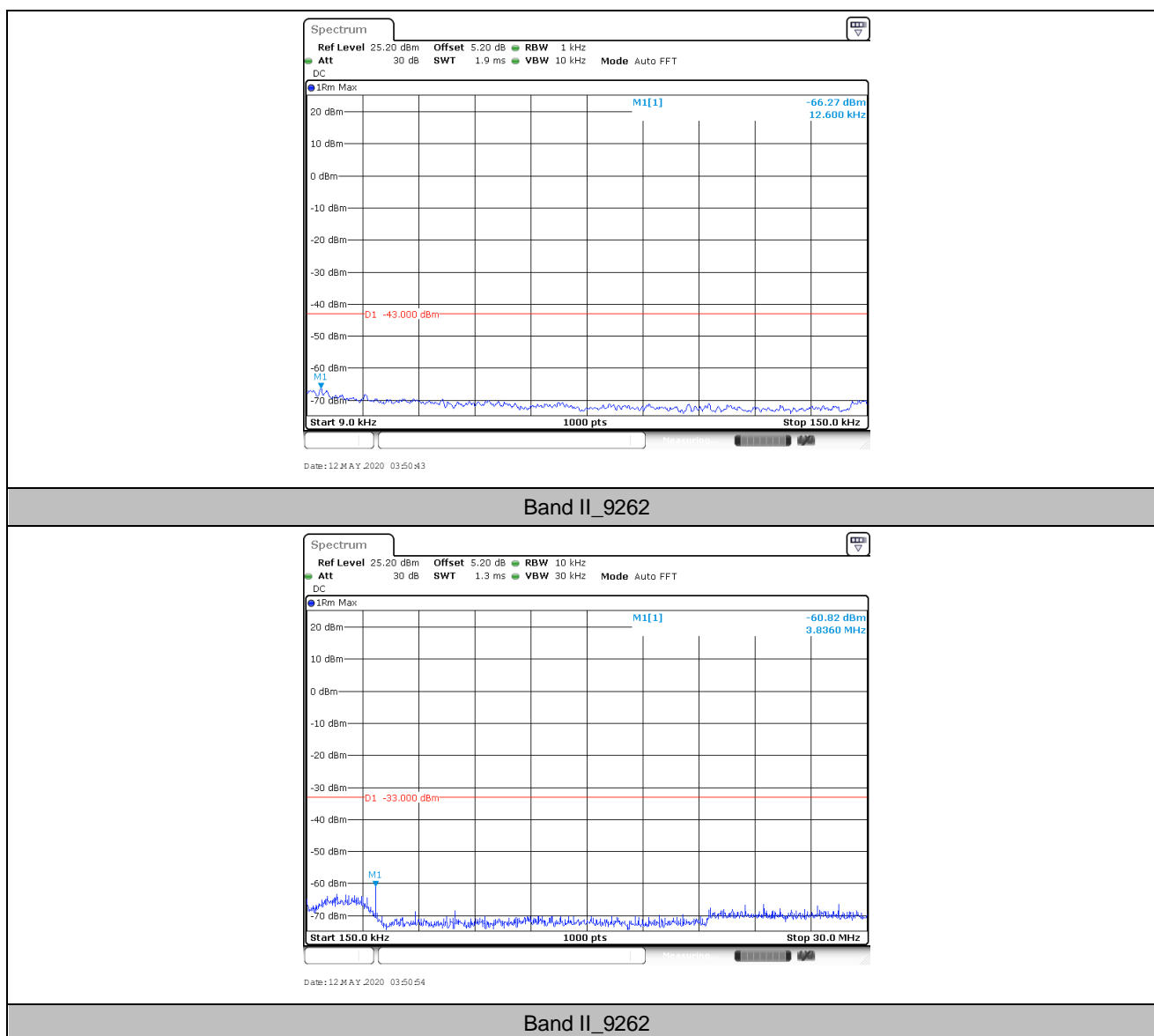
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## 6. Spurious Emission at Antenna Terminal

Remark1: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of  $< RBW/2$  so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points =  $k * (\text{Span} / RBW)$ " with  $k$  between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

Remark2: only the worst case data displayed in this report.

### 6.1. Test Plots

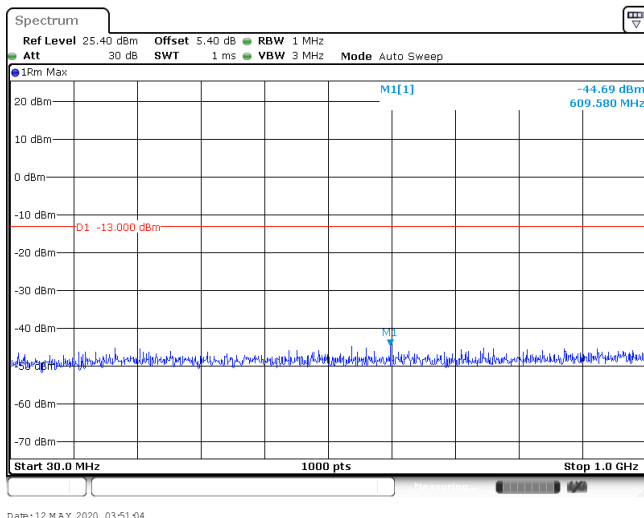


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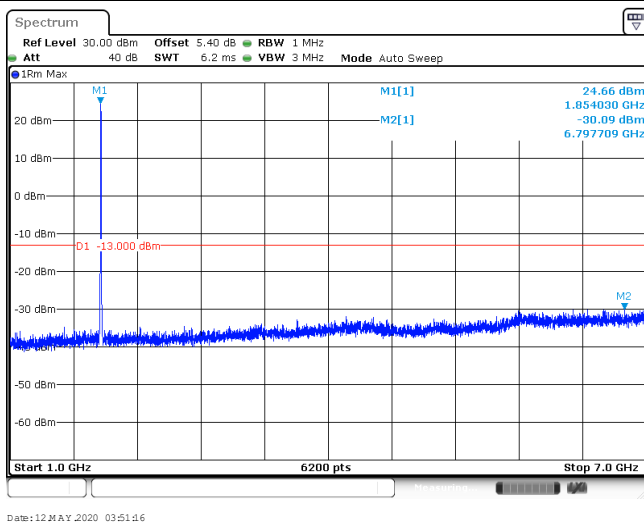
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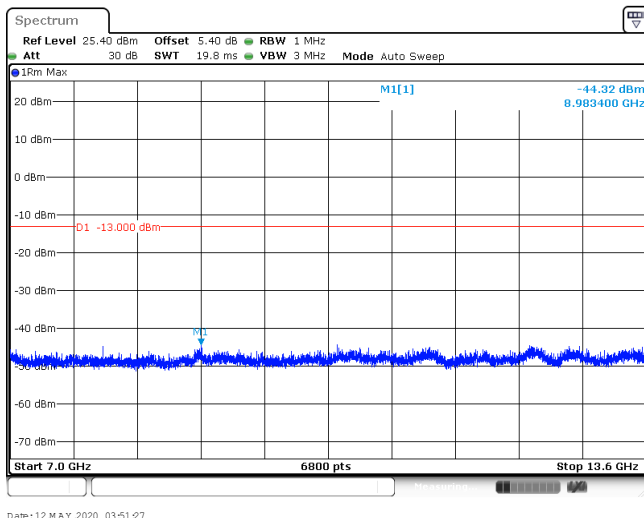


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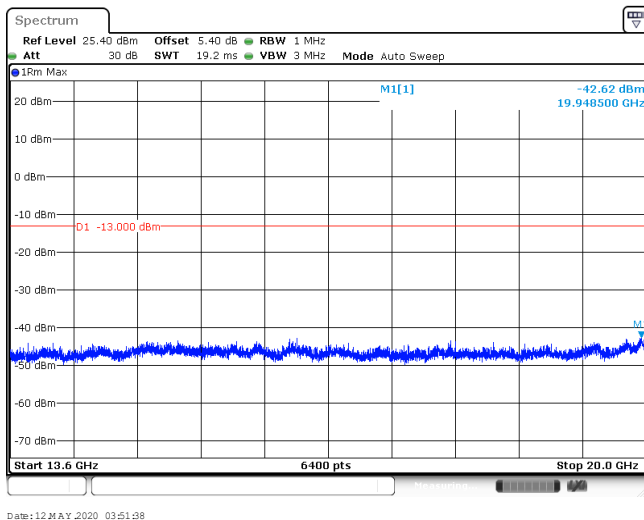


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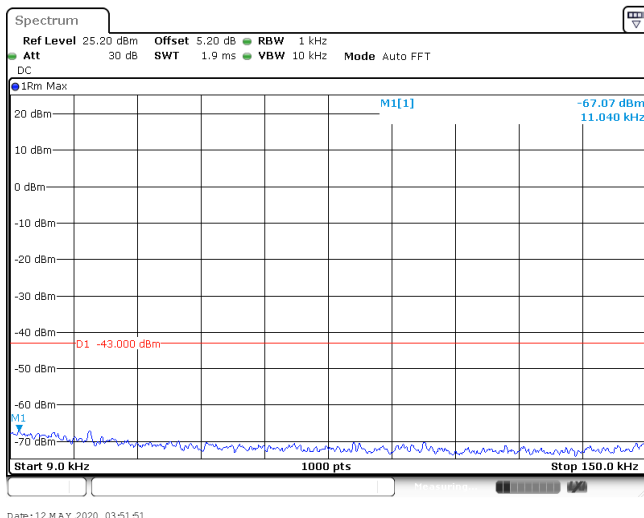
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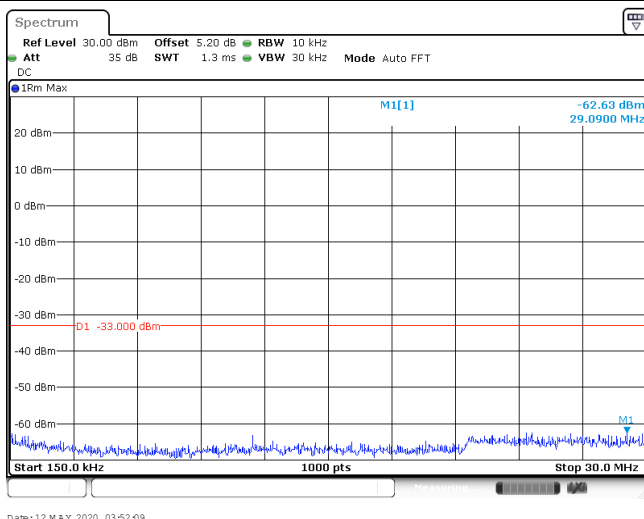
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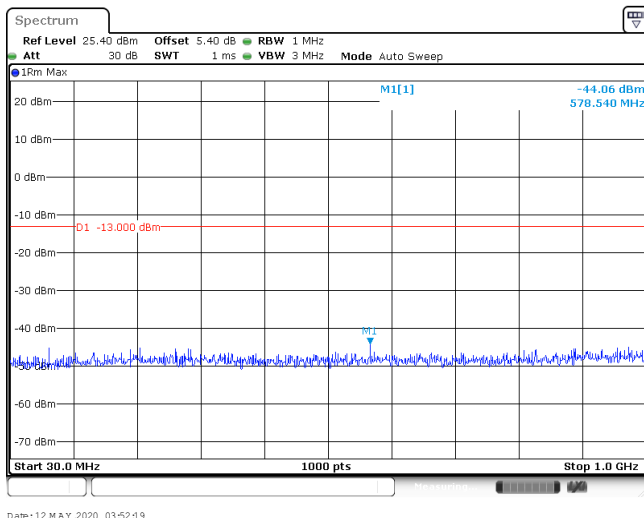
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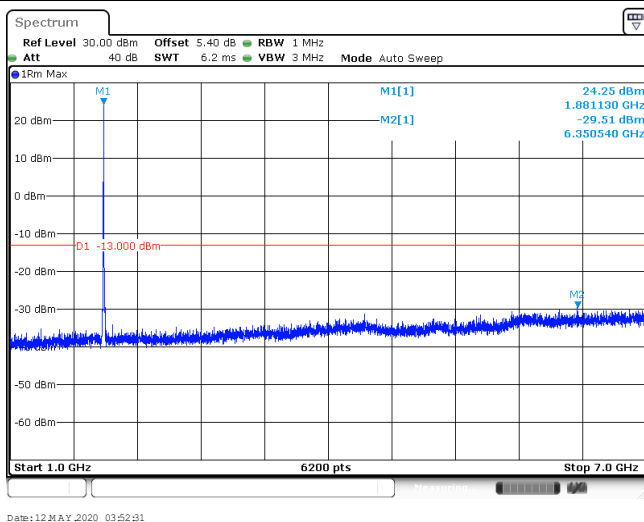
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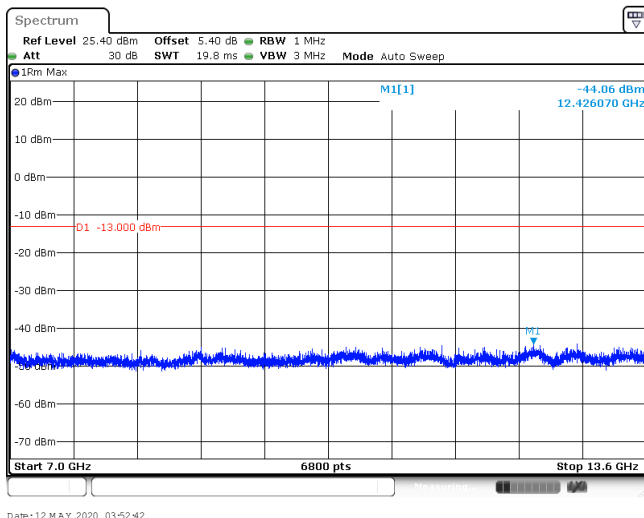


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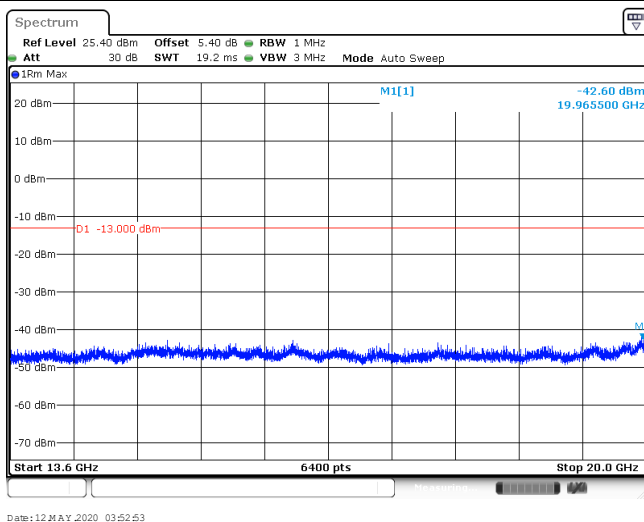


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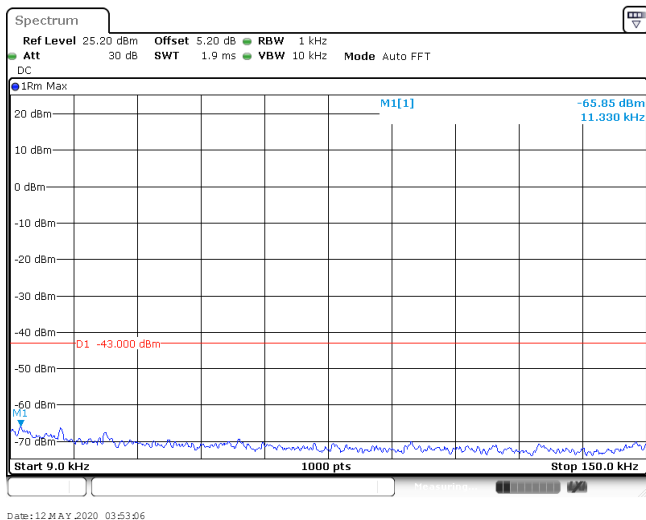


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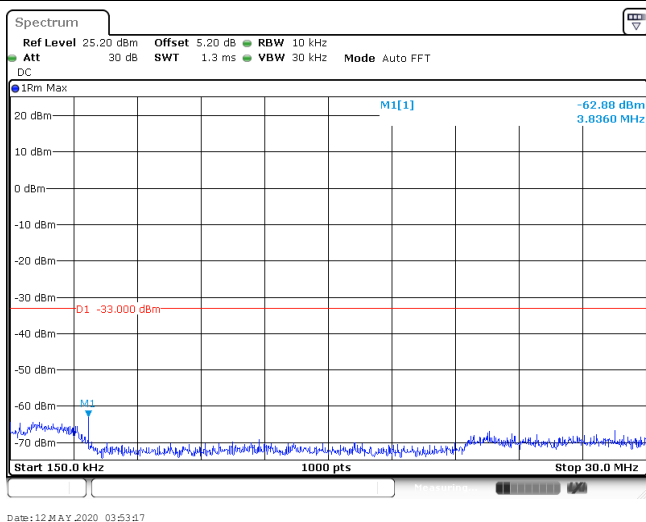


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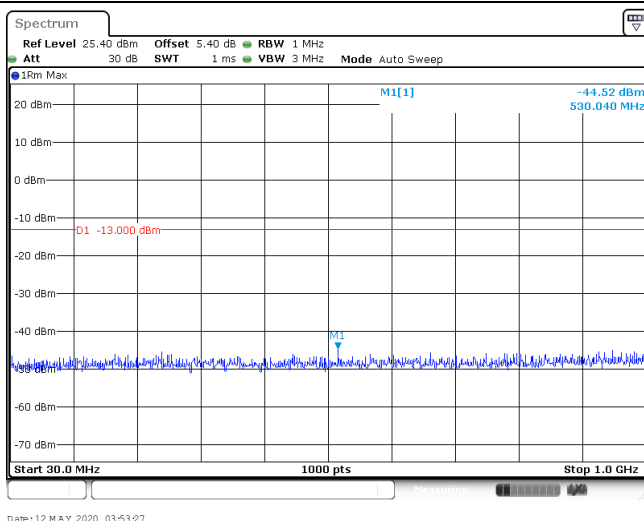


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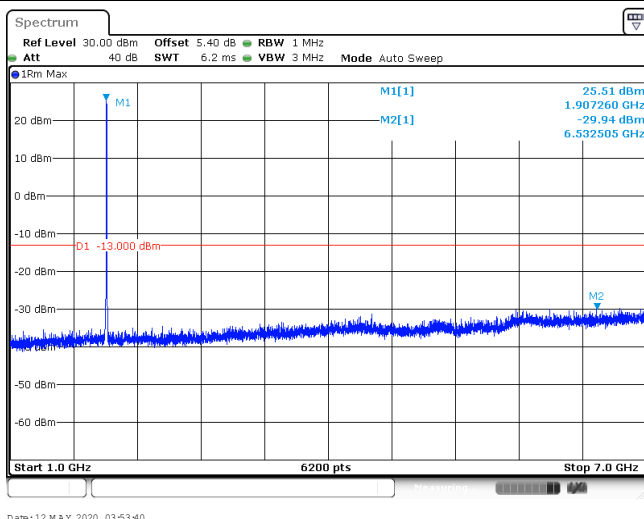


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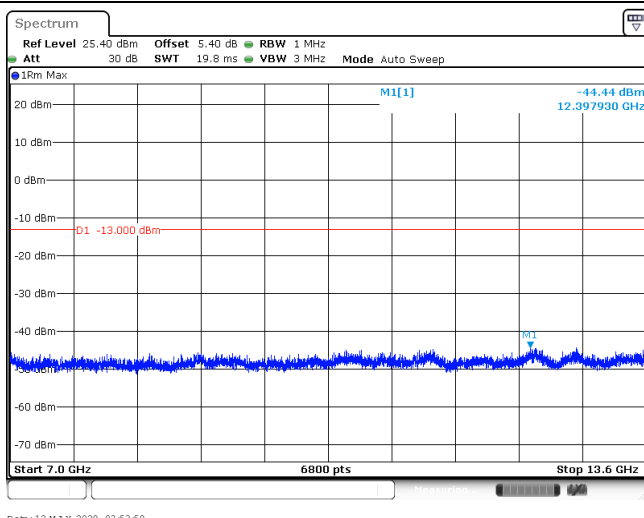


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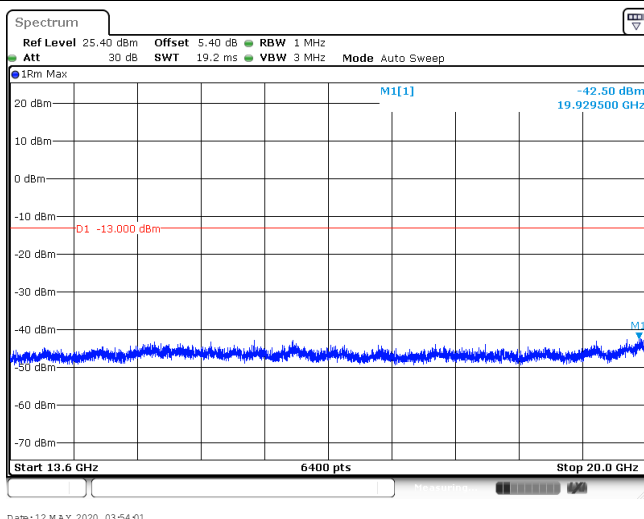


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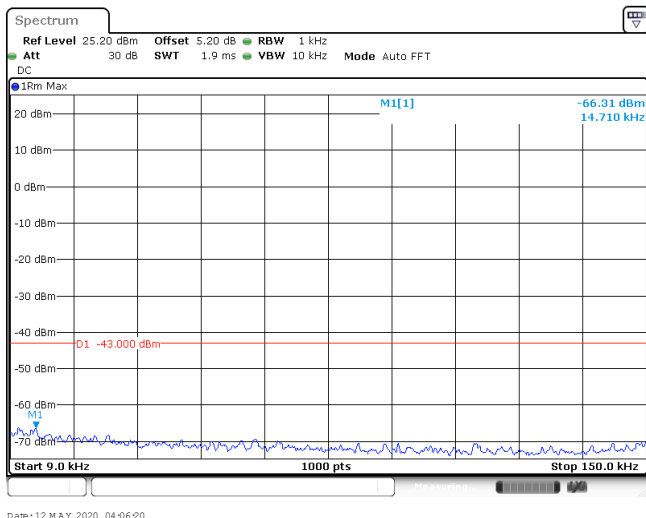
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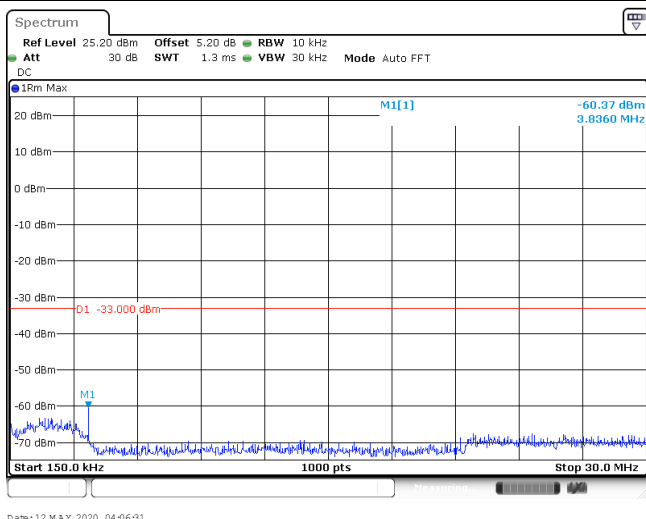
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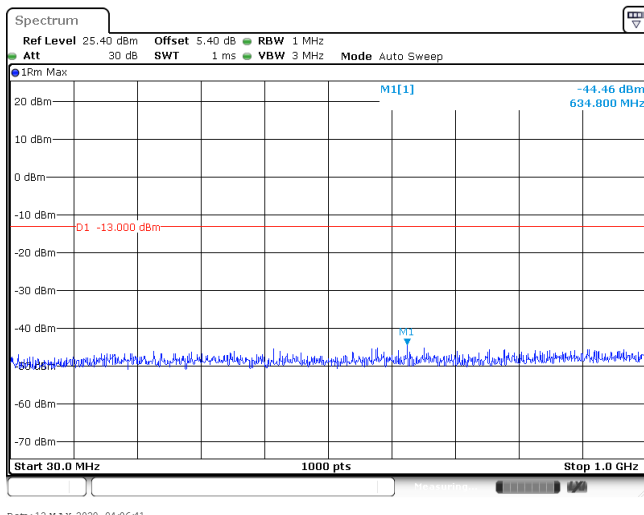


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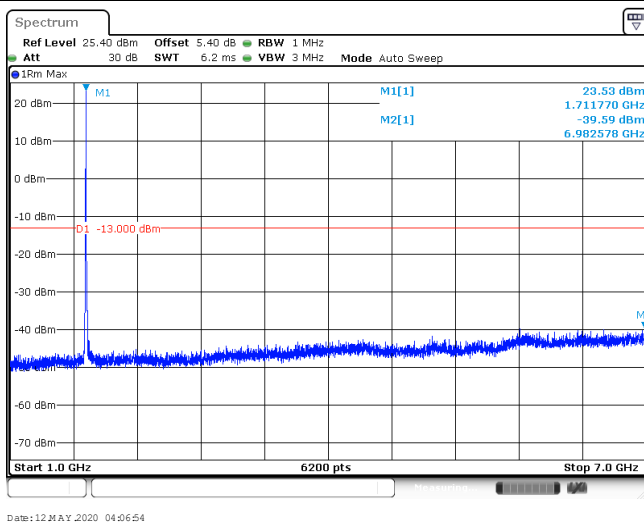


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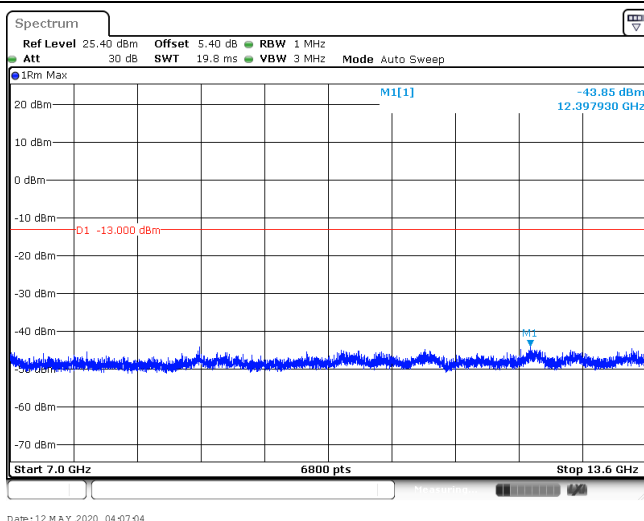
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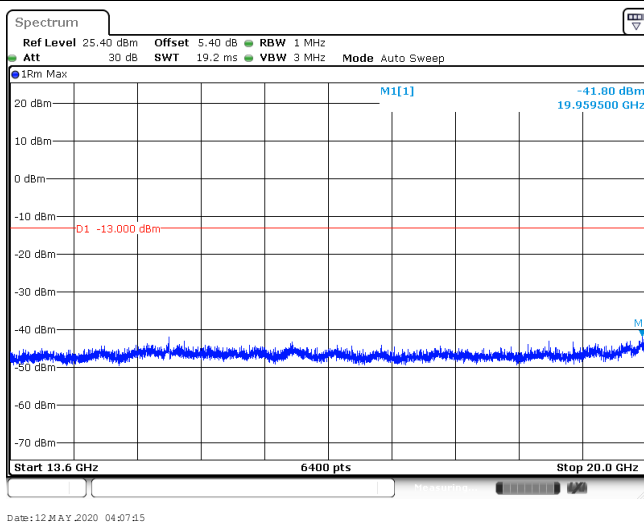
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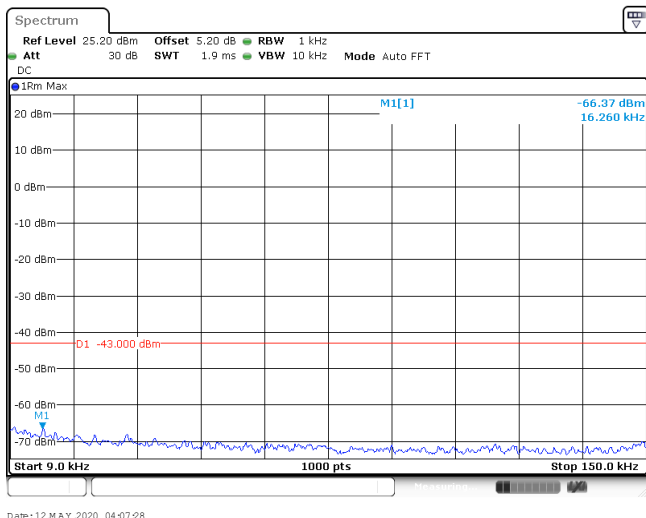
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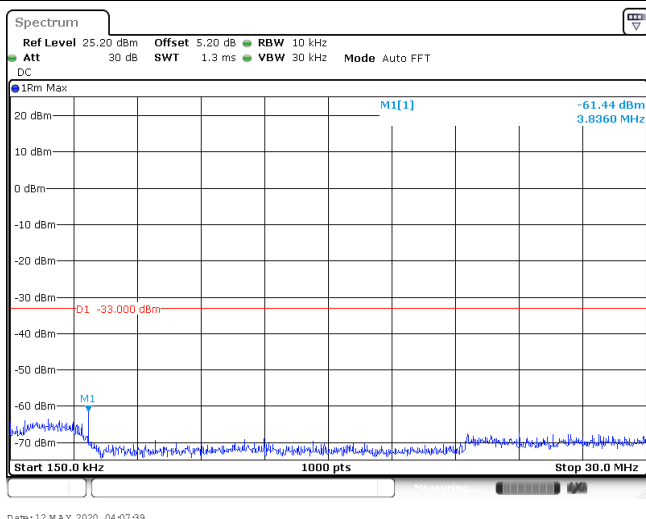
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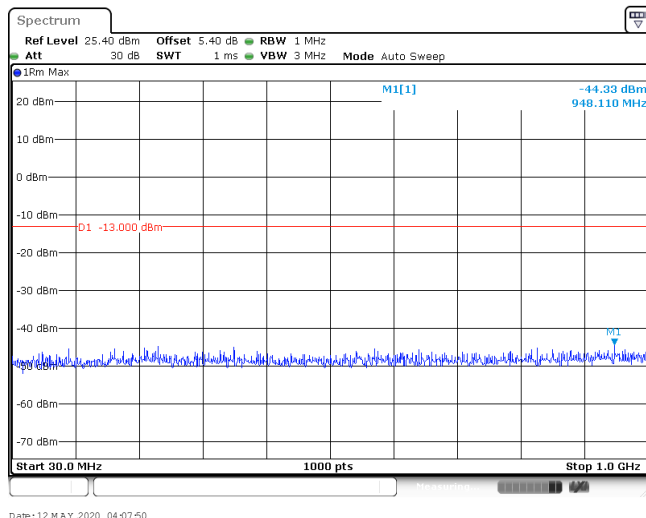


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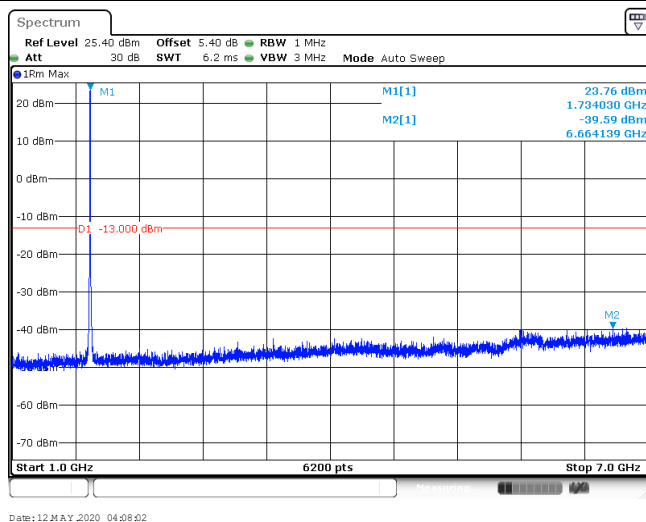


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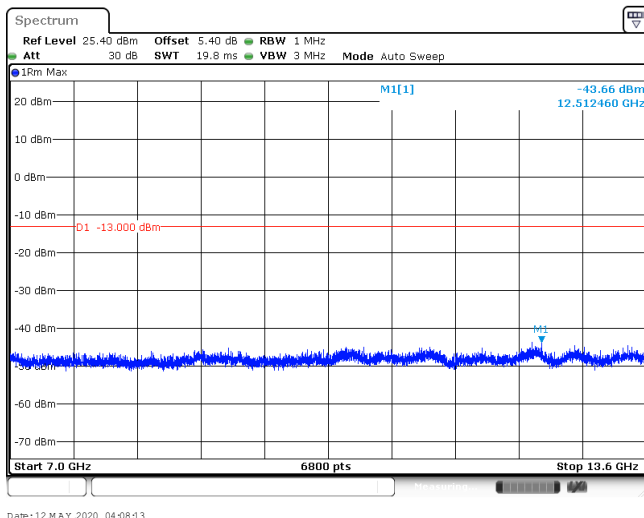


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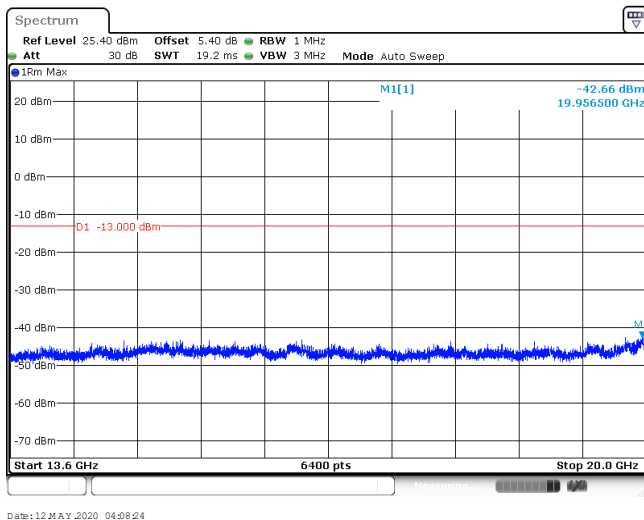


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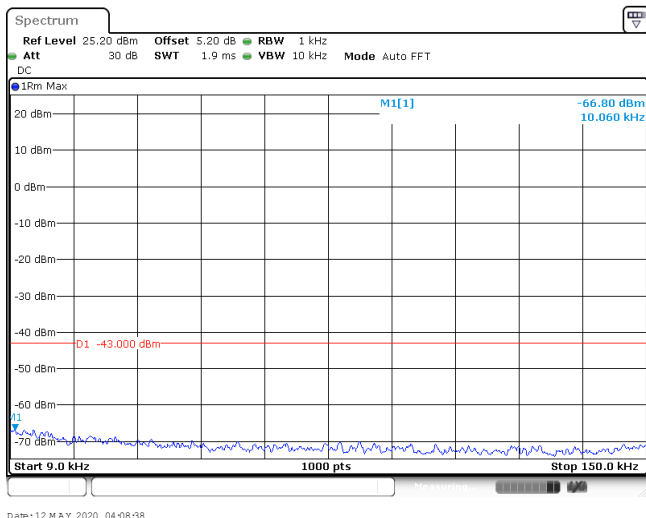


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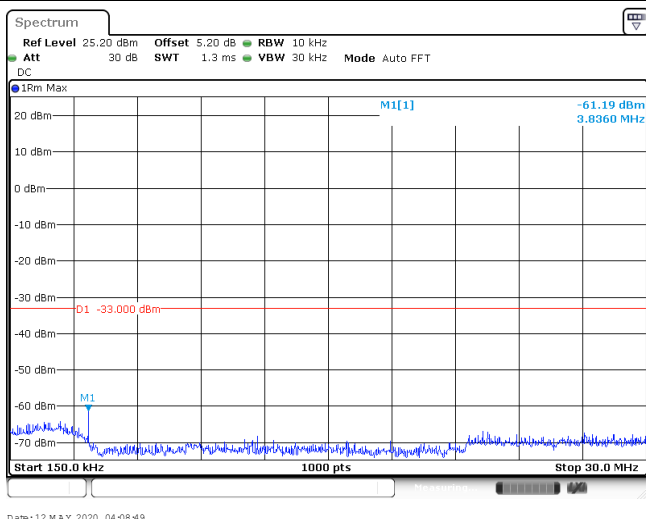


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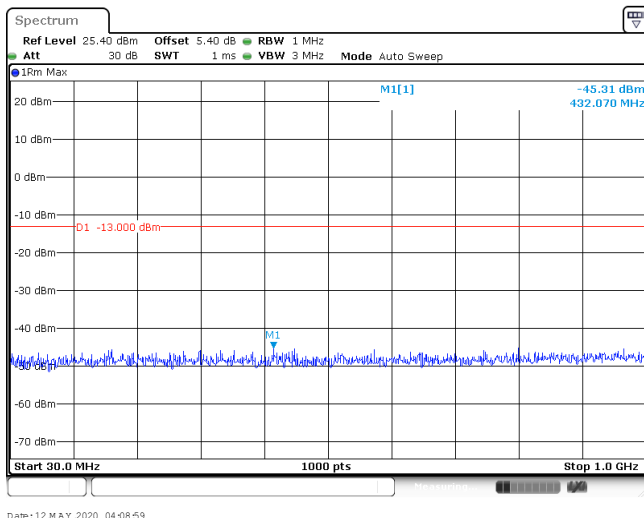
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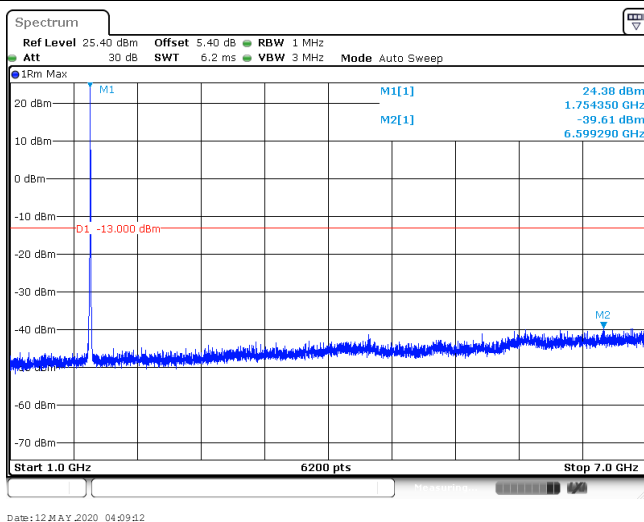
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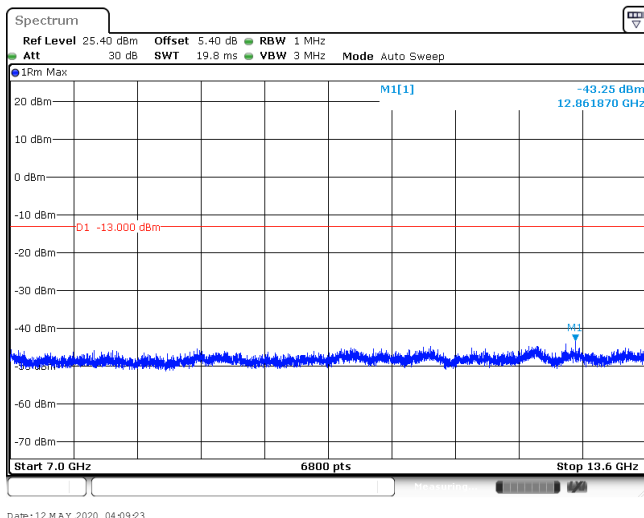
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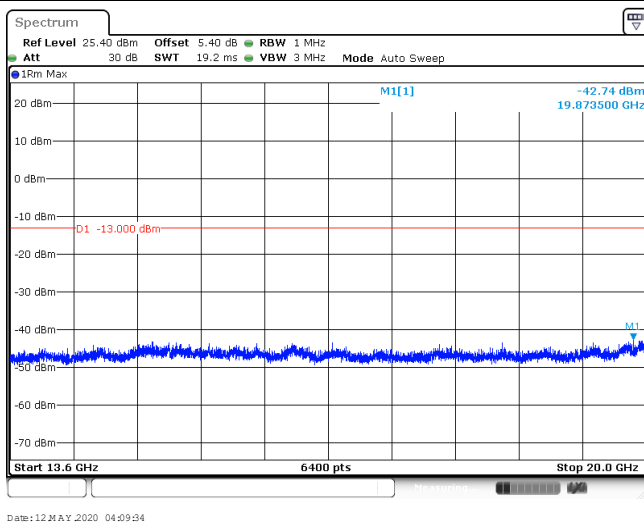
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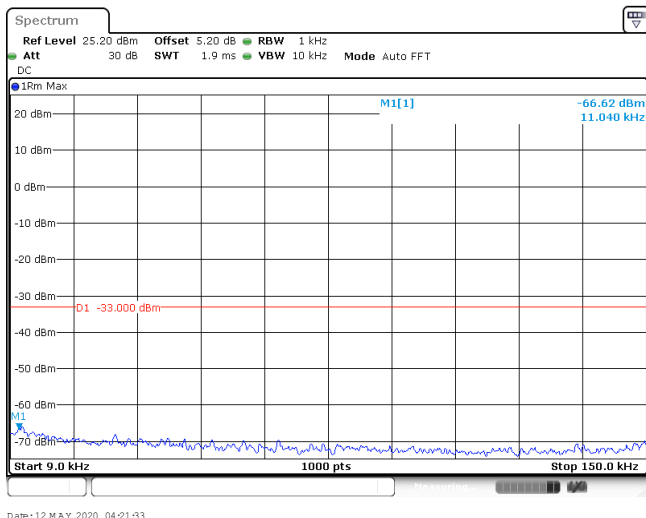


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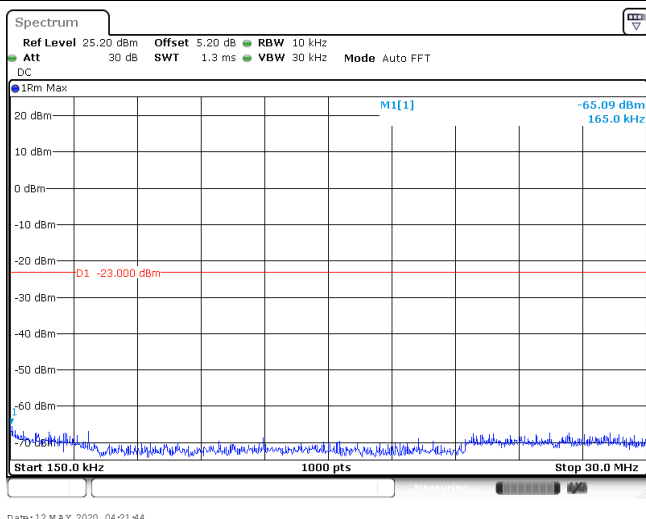


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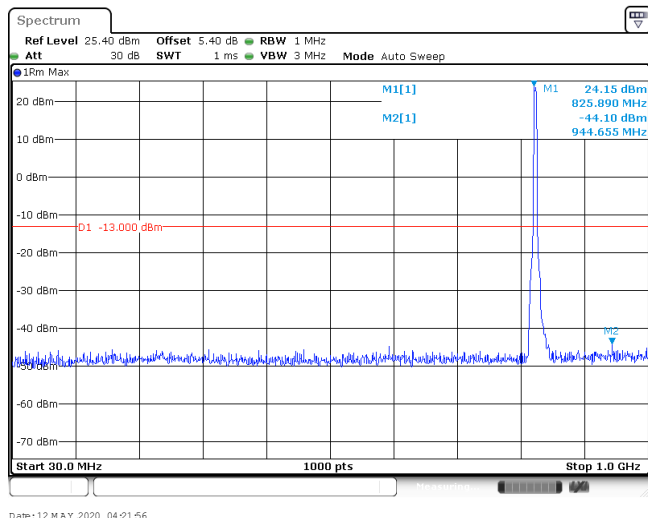
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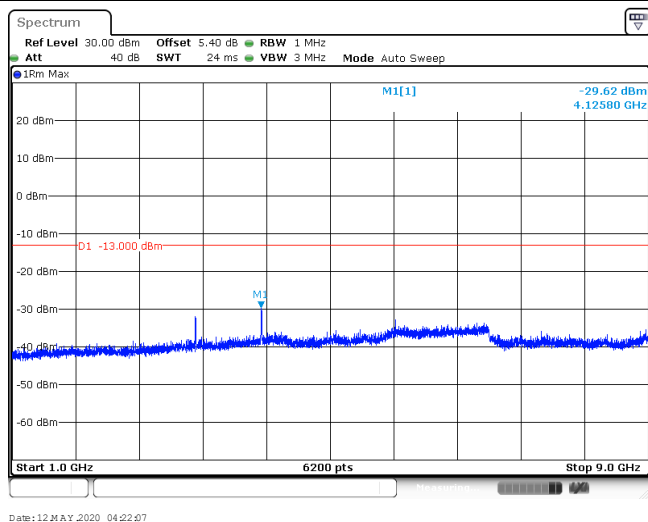
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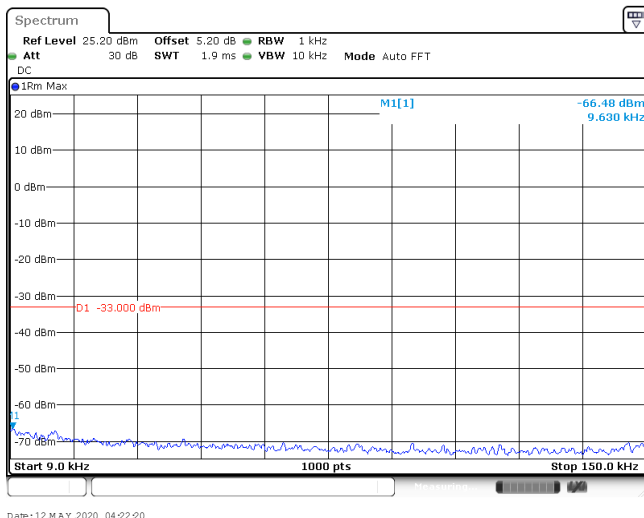


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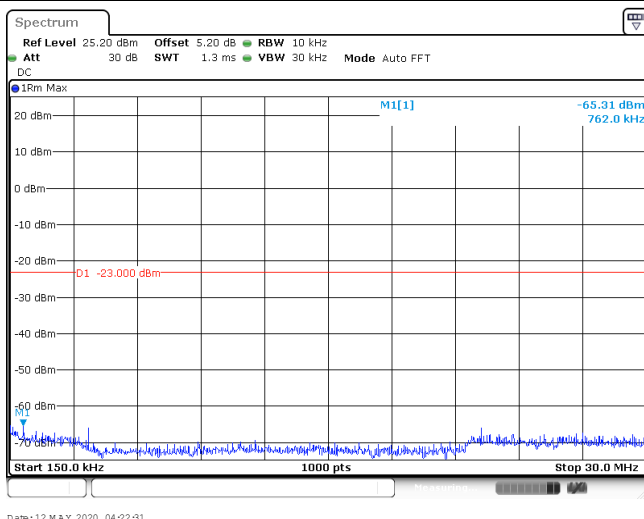


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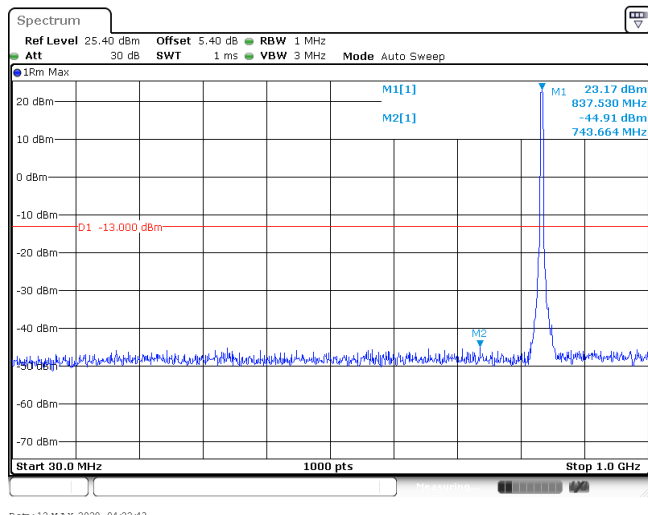


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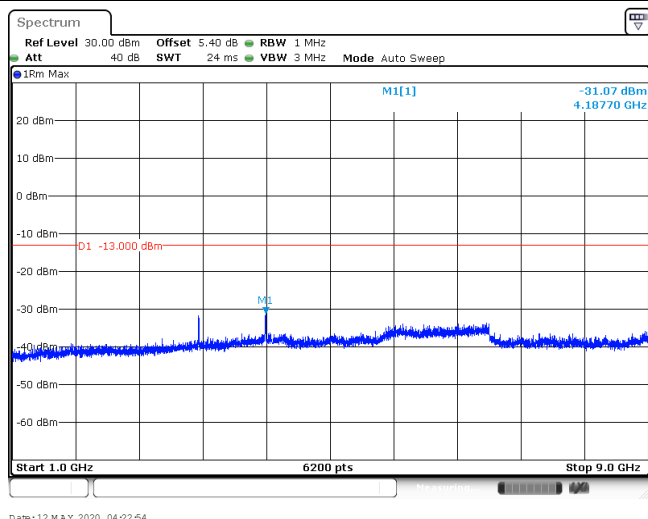


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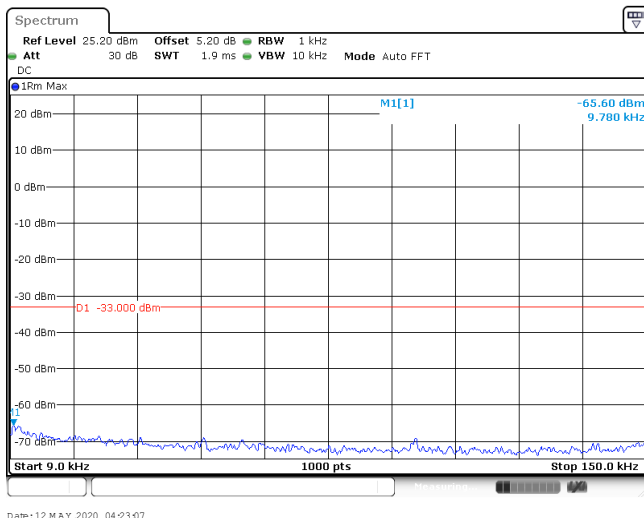


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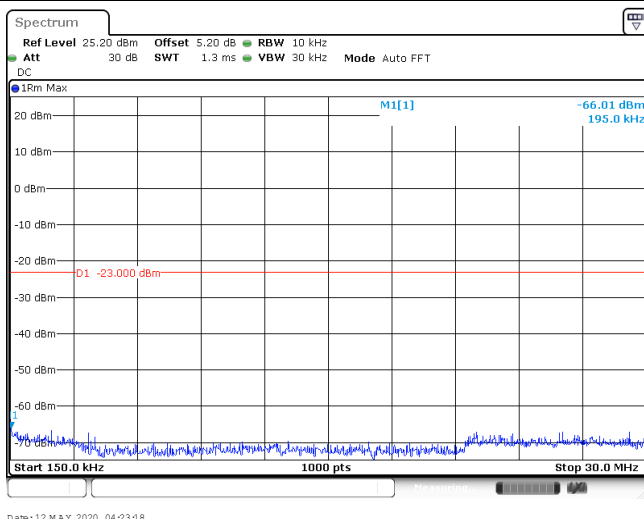


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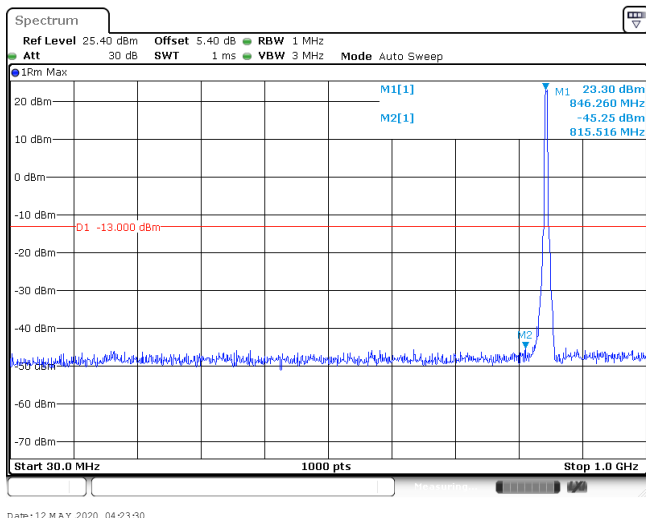


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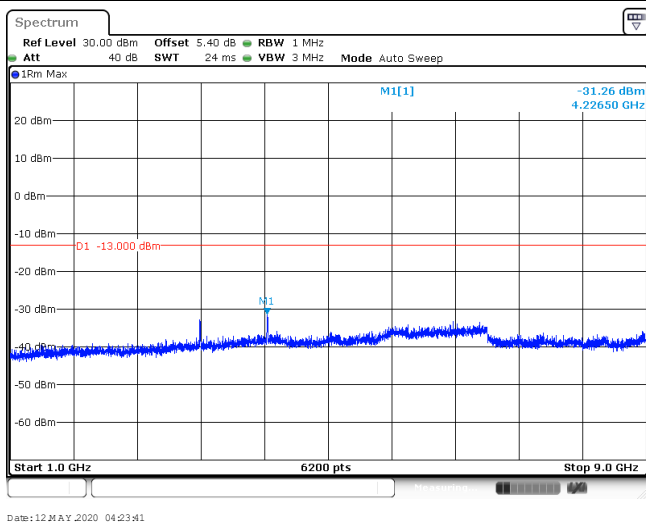


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## 7. Field Strength of Spurious Radiation

### 7.1. Test Band = WCDMA Band II

#### 7.1.1. Test Mode = WCDMA/TM1

##### 7.1.1.1. Test Channel = LCH(Down Antenna)

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Height [cm]	Angle [°]	Polarization
64.700000	-79.11	-13.00	66.11	150	51	Vertical
343.750000	-83.37	-13.00	70.37	208	302	Vertical
945.412500	-75.51	-13.00	62.51	204	301	Vertical
3706.225000	-66.23	-13.00	53.23	203	312	Vertical
6823.300000	-63.02	-13.00	50.02	215	108	Vertical
11201.050000	-61.14	-13.00	48.14	180	118	Vertical
56.300000	-75.37	-13.00	62.37	239	49	Horizontal
272.150000	-85.61	-13.00	72.61	206	238	Horizontal
965.120833	-75.19	-13.00	62.19	295	321	Horizontal
3876.200000	-66.29	-13.00	53.29	164	214	Horizontal
6052.400000	-63.53	-13.00	50.53	164	290	Horizontal
9088.225000	-61.59	-13.00	48.59	245	165	Horizontal





### 7.1.1.2. Test Channel = MCH(Down Antenna)

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Height [cm]	Angle [°]	Polarization
63.900000	-79.14	-13.00	66.14	187	68	Vertical
125.000000	-85.47	-13.00	72.47	124	198	Vertical
954.258333	-75.07	-13.00	62.07	281	159	Vertical
3757.900000	-65.47	-13.00	52.47	239	125	Vertical
5986.425000	-63.57	-13.00	50.57	174	97	Vertical
9248.125000	-61.02	-13.00	48.02	271	242	Vertical
56.900000	-75.63	-13.00	62.63	121	170	Horizontal
615.641667	-80.00	-13.00	67.00	253	224	Horizontal
955.495833	-74.84	-13.00	61.84	106	1	Horizontal
3757.575000	-65.88	-13.00	52.88	138	198	Horizontal
6018.925000	-63.17	-13.00	50.17	210	166	Horizontal
9268.925000	-60.92	-13.00	47.92	182	88	Horizontal

### 7.1.1.3. Test Channel = HCH(Down Antenna)

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Height [cm]	Angle [°]	Polarization
63.950000	-79.54	-13.00	66.54	159	217	Vertical
125.000000	-85.28	-13.00	72.28	259	320	Vertical
937.483333	-75.60	-13.00	62.60	261	1	Vertical
3817.050000	-64.48	-13.00	51.48	299	34	Vertical
6042.975000	-63.17	-13.00	50.17	258	72	Vertical
10648.225000	-60.81	-13.00	47.81	243	246	Vertical
56.700000	-75.46	-13.00	62.46	258	341	Horizontal
273.550000	-85.38	-13.00	72.38	255	261	Horizontal
955.541667	-74.70	-13.00	61.70	129	57	Horizontal
3813.475000	-63.10	-13.00	50.10	258	131	Horizontal
6126.500000	-63.58	-13.00	50.58	295	127	Horizontal
9533.800000	-61.61	-13.00	48.61	276	5	Horizontal



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## 7.2. Test Band = WCDMA Band IV

### 7.2.1. Test Mode = WCDMA/TM1

#### 7.2.1.1. Test Channel = LCH(Down Antenna)

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Height [cm]	Angle [°]	Polarization
64.500000	-79.43	-13.00	66.43	160	4	Vertical
125.000000	-84.98	-13.00	71.98	160	159	Vertical
941.287500	-75.26	-13.00	62.26	133	312	Vertical
3523.900000	-66.86	-13.00	53.86	265	336	Vertical
5133.300000	-63.37	-13.00	50.37	190	176	Vertical
9248.775000	-61.07	-13.00	48.07	225	308	Vertical
62.750000	-76.04	-13.00	63.04	179	104	Horizontal
271.650000	-84.69	-13.00	71.69	136	212	Horizontal
948.575000	-75.25	-13.00	62.25	219	120	Horizontal
3426.400000	-62.88	-13.00	49.88	267	81	Horizontal
4911.325000	-64.67	-13.00	51.67	277	244	Horizontal
7973.150000	-61.62	-13.00	48.62	295	344	Horizontal



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### 7.2.1.2. Test Channel = MCH(Down Antenna)

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Height [cm]	Angle [°]	Polarization
63.650000	-78.79	-13.00	65.79	116	121	Vertical
343.800000	-82.88	-13.00	69.88	210	215	Vertical
955.358333	-75.46	-13.00	62.46	125	12	Vertical
3493.025000	-66.87	-13.00	53.87	278	198	Vertical
5448.875000	-64.74	-13.00	51.74	196	81	Vertical
7868.500000	-61.82	-13.00	48.82	177	188	Vertical
62.200000	-75.23	-13.00	62.23	227	158	Horizontal
485.200000	-83.02	-13.00	70.02	226	226	Horizontal
955.083333	-75.04	-13.00	62.04	154	105	Horizontal
3463.775000	-62.55	-13.00	49.55	110	277	Horizontal
6027.700000	-63.57	-13.00	50.57	202	159	Horizontal
9249.425000	-60.81	-13.00	47.81	246	114	Horizontal

### 7.2.1.3. Test Channel = HCH(Down Antenna)

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Height [cm]	Angle [°]	Polarization
63.900000	-79.44	-13.00	66.44	195	71	Vertical
125.000000	-85.31	-13.00	72.31	231	212	Vertical
958.750000	-75.55	-13.00	62.55	185	114	Vertical
3728.325000	-66.62	-13.00	53.62	186	209	Vertical
5223.975000	-64.91	-13.00	51.91	118	128	Vertical
10646.925000	-60.83	-13.00	47.83	153	45	Vertical
62.350000	-75.29	-13.00	62.29	290	232	Horizontal
267.550000	-85.70	-13.00	72.70	243	254	Horizontal
962.279167	-75.09	-13.00	62.09	198	321	Horizontal
3506.675000	-66.56	-13.00	53.56	287	202	Horizontal
5091.700000	-65.00	-13.00	52.00	271	31	Horizontal
7862.650000	-61.91	-13.00	48.91	155	72	Horizontal



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### 7.3. Test Band = WCDMA Band V

#### 7.3.1. Test Mode = WCDMA/TM1

##### 7.3.1.1. Test Channel = LCH(Down Antenna)

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Height [cm]	Angle [°]	Polarization
64.113333	-79.00	-13.00	66.00	196	160	Vertical
602.304167	-76.37	-13.00	63.37	150	338	Vertical
1656.500000	-64.29	-13.00	51.29	146	0	Vertical
3308.100000	-58.49	-13.00	45.49	189	158	Vertical
4135.875000	-56.26	-13.00	43.26	190	151	Vertical
9265.837500	-61.60	-13.00	48.60	160	284	Vertical
62.480000	-74.56	-13.00	61.56	150	30	Horizontal
618.575000	-75.15	-13.00	62.15	234	194	Horizontal
1648.500000	-64.48	-13.00	51.48	190	271	Horizontal
3310.050000	-56.16	-13.00	43.16	141	253	Horizontal
4136.362500	-51.52	-13.00	38.52	171	86	Horizontal
7953.975000	-61.64	-13.00	48.64	246	229	Horizontal



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### 7.3.1.2. Test Channel = MCH(Down Antenna)

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Height [cm]	Angle [°]	Polarization
63.740000	-79.13	-13.00	66.13	186	4	Vertical
606.841667	-76.81	-13.00	63.81	274	280	Vertical
1674.000000	-64.11	-13.00	51.11	207	353	Vertical
3348.562500	-56.53	-13.00	43.53	272	108	Vertical
4186.087500	-54.64	-13.00	41.64	250	93	Vertical
6042.000000	-63.58	-13.00	50.58	143	227	Vertical
62.666667	-75.57	-13.00	62.57	253	192	Horizontal
614.587500	-76.02	-13.00	63.02	110	314	Horizontal
1694.500000	-63.85	-13.00	50.85	144	59	Horizontal
3348.075000	-55.70	-13.00	42.70	134	70	Horizontal
4186.087500	-54.13	-13.00	41.13	211	213	Horizontal
7950.562500	-61.85	-13.00	48.85	186	288	Horizontal

### 7.3.1.3. Test Channel = HCH(Down Antenna)

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Height [cm]	Angle [°]	Polarization
64.020000	-79.06	-13.00	66.06	198	80	Vertical
633.425000	-76.39	-13.00	63.39	191	52	Vertical
1693.500000	-63.75	-13.00	50.75	132	17	Vertical
3383.175000	-52.41	-13.00	39.41	239	93	Vertical
4226.550000	-55.79	-13.00	42.79	116	245	Vertical
7936.912500	-62.42	-13.00	49.42	178	44	Vertical
62.246667	-75.05	-13.00	62.05	267	174	Horizontal
606.841667	-76.03	-13.00	63.03	233	294	Horizontal
1692.500000	-63.81	-13.00	50.81	104	51	Horizontal
3381.712500	-49.61	-13.00	36.61	143	122	Horizontal
4228.500000	-52.21	-13.00	39.21	219	179	Horizontal
6058.087500	-63.50	-13.00	50.50	199	295	Horizontal



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## 7.4. Test Band = WCDMA Band II

### 7.4.1. Test Mode = WCDMA/TM1

#### 7.4.1.1. Test Channel = LCH(Up Antenna)

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Height [cm]	Angle [°]	Polarization
64.300000	-78.09	-13.00	65.09	117	254	Vertical
343.650000	-82.62	-13.00	69.62	227	89	Vertical
946.787500	-75.69	-13.00	62.69	156	16	Vertical
3755.300000	-66.28	-13.00	53.28	103	137	Vertical
6173.300000	-63.17	-13.00	50.17	253	281	Vertical
9734.650000	-61.48	-13.00	48.48	190	68	Vertical
55.950000	-75.46	-13.00	62.46	208	350	Horizontal
283.600000	-84.47	-13.00	71.47	170	348	Horizontal
958.429167	-73.00	-13.00	60.00	286	289	Horizontal
4335.100000	-64.71	-13.00	51.71	219	192	Horizontal
6261.700000	-63.52	-13.00	50.52	226	360	Horizontal
9254.300000	-60.75	-13.00	47.75	210	75	Horizontal





### 7.4.1.2. Test Channel = MCH(Up Antenna)

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Height [cm]	Angle [°]	Polarization
64.200000	-78.16	-13.00	65.16	125	61	Vertical
347.900000	-80.27	-13.00	67.27	261	302	Vertical
956.045833	-75.04	-13.00	62.04	200	272	Vertical
3761.475000	-66.57	-13.00	53.57	222	306	Vertical
6055.162500	-63.74	-13.00	50.74	201	84	Vertical
9277.537500	-61.90	-13.00	48.90	210	48	Vertical
62.150000	-75.23	-13.00	62.23	261	73	Horizontal
221.200000	-84.32	-13.00	71.32	279	330	Horizontal
948.437500	-74.46	-13.00	61.46	158	309	Horizontal
4311.862500	-64.70	-13.00	51.70	150	188	Horizontal
6023.962500	-63.69	-13.00	50.69	146	57	Horizontal
9249.262500	-61.38	-13.00	48.38	288	251	Horizontal

### 7.4.1.3. Test Channel = HCH(Up Antenna)

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Height [cm]	Angle [°]	Polarization
64.150000	-78.98	-13.00	65.98	110	84	Vertical
340.750000	-82.45	-13.00	69.45	223	47	Vertical
947.566667	-75.06	-13.00	62.06	247	105	Vertical
3813.150000	-65.88	-13.00	52.88	251	195	Vertical
6164.200000	-63.08	-13.00	50.08	136	151	Vertical
9711.575000	-61.84	-13.00	48.84	221	356	Vertical
63.850000	-75.56	-13.00	62.56	236	192	Horizontal
279.150000	-85.53	-13.00	72.53	255	273	Horizontal
949.720833	-75.15	-13.00	62.15	256	251	Horizontal
3752.050000	-66.64	-13.00	53.64	233	200	Horizontal
6040.700000	-63.57	-13.00	50.57	272	112	Horizontal
10655.700000	-60.80	-13.00	47.80	123	334	Horizontal



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## 7.5. Test Band = WCDMA Band IV

### 7.5.1. Test Mode = WCDMA/TM1

#### 7.5.1.1. Test Channel = LCH(Up Antenna)

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Height [cm]	Angle [°]	Polarization
63.800000	-79.54	-13.00	66.54	177	240	Vertical
125.000000	-84.92	-13.00	71.92	193	254	Vertical
951.416667	-75.61	-13.00	62.61	214	43	Vertical
4421.550000	-65.09	-13.00	52.09	187	223	Vertical
6165.825000	-63.09	-13.00	50.09	139	304	Vertical
10282.275000	-61.43	-13.00	48.43	201	244	Vertical
56.050000	-75.97	-13.00	62.97	273	160	Horizontal
280.900000	-84.96	-13.00	71.96	120	9	Horizontal
965.212500	-74.79	-13.00	61.79	270	167	Horizontal
3568.750000	-66.66	-13.00	53.66	283	332	Horizontal
6022.825000	-63.15	-13.00	50.15	197	72	Horizontal
10062.250000	-61.38	-13.00	48.38	180	118	Horizontal







### 7.5.1.2. Test Channel = MCH(Up Antenna)

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Height [cm]	Angle [°]	Polarization
63.800000	-79.56	-13.00	66.56	107	137	Vertical
344.300000	-82.25	-13.00	69.25	292	110	Vertical
935.695833	-75.59	-13.00	62.59	196	54	Vertical
3798.525000	-66.31	-13.00	53.31	150	307	Vertical
5940.275000	-63.89	-13.00	50.89	216	91	Vertical
8646.225000	-61.53	-13.00	48.53	171	125	Vertical
63.150000	-75.12	-13.00	62.12	153	268	Horizontal
456.645833	-83.33	-13.00	70.33	269	191	Horizontal
975.570833	-74.87	-13.00	61.87	255	146	Horizontal
3487.825000	-67.03	-13.00	54.03	135	241	Horizontal
6167.450000	-63.47	-13.00	50.47	152	53	Horizontal
10622.550000	-60.82	-13.00	47.82	226	319	Horizontal

### 7.5.1.3. Test Channel = HCH(Up Antenna)

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Height [cm]	Angle [°]	Polarization
64.400000	-79.21	-13.00	66.21	137	142	Vertical
353.200000	-82.52	-13.00	69.52	103	204	Vertical
943.441667	-75.21	-13.00	62.21	278	247	Vertical
3479.050000	-66.95	-13.00	53.95	207	314	Vertical
5813.200000	-64.19	-13.00	51.19	245	311	Vertical
9232.850000	-61.19	-13.00	48.19	218	20	Vertical
62.250000	-75.92	-13.00	62.92	108	293	Horizontal
273.450000	-85.24	-13.00	72.24	198	10	Horizontal
947.520833	-74.41	-13.00	61.41	218	302	Horizontal
3553.475000	-66.48	-13.00	53.48	205	164	Horizontal
6018.600000	-63.27	-13.00	50.27	251	273	Horizontal
9090.500000	-61.30	-13.00	48.30	174	82	Horizontal



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## 7.6. Test Band = WCDMA Band V

### 7.6.1. Test Mode = WCDMA/TM1

#### 7.6.1.1. Test Channel = LCH(Up Antenna)

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Height [cm]	Angle [°]	Polarization
63.460000	-79.13	-13.00	66.13	153	117	Vertical
613.854167	-76.72	-13.00	63.72	113	163	Vertical
1654.500000	-64.37	-13.00	51.37	135	159	Vertical
3302.737500	-53.12	-13.00	40.12	196	352	Vertical
4127.100000	-45.28	-13.00	32.28	184	260	Vertical
7821.375000	-62.42	-13.00	49.42	273	135	Vertical
62.713333	-74.91	-13.00	61.91	167	329	Horizontal
617.383333	-75.28	-13.00	62.28	130	63	Horizontal
1659.000000	-64.32	-13.00	51.32	260	244	Horizontal
3308.587500	-54.95	-13.00	41.95	284	84	Horizontal
4127.587500	-43.35	-13.00	30.35	158	171	Horizontal
6040.050000	-63.90	-13.00	50.90	180	353	Horizontal





### 7.6.1.2. Test Channel = MCH(Up Antenna)

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Height [cm]	Angle [°]	Polarization
63.320000	-79.15	-13.00	66.15	181	355	Vertical
615.550000	-76.65	-13.00	63.65	228	26	Vertical
1676.000000	-64.25	-13.00	51.25	182	304	Vertical
3350.512500	-52.91	-13.00	39.91	289	181	Vertical
4186.575000	-45.76	-13.00	32.76	147	241	Vertical
6048.337500	-63.47	-13.00	50.47	292	80	Vertical
57.393333	-74.46	-13.00	61.46	253	101	Horizontal
620.454167	-75.61	-13.00	62.61	293	159	Horizontal
1660.000000	-64.34	-13.00	51.34	170	289	Horizontal
3350.512500	-53.97	-13.00	40.97	111	358	Horizontal
4186.087500	-44.08	-13.00	31.08	133	32	Horizontal
6132.187500	-63.57	-13.00	50.57	250	7	Horizontal

### 7.6.1.3. Test Channel = HCH(Up Antenna)

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Height [cm]	Angle [°]	Polarization
63.880000	-79.07	-13.00	66.07	104	321	Vertical
627.695833	-76.77	-13.00	63.77	164	316	Vertical
1685.500000	-63.99	-13.00	50.99	146	257	Vertical
3381.225000	-53.84	-13.00	40.84	197	81	Vertical
4228.500000	-49.82	-13.00	36.82	103	258	Vertical
6062.475000	-63.59	-13.00	50.59	268	186	Vertical
62.993333	-75.45	-13.00	62.45	109	234	Horizontal
611.195833	-75.49	-13.00	62.49	103	243	Horizontal
1687.000000	-64.05	-13.00	51.05	148	16	Horizontal
3381.712500	-55.70	-13.00	42.70	194	303	Horizontal
4227.037500	-46.60	-13.00	33.60	212	94	Horizontal
6049.800000	-63.44	-13.00	50.44	195	241	Horizontal



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## 8. Frequency Stability

### 8.1. Frequency Vs Voltage

Band	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band II	9262	VL	TN	11.69	0.006309	±2.5	PASS
Band II	9262	VN	TN	11.31	0.006105	±2.5	PASS
Band II	9262	VH	TN	11.49	0.006205	±2.5	PASS
Band II	9400	VL	TN	12.16	0.006468	±2.5	PASS
Band II	9400	VN	TN	12.67	0.006742	±2.5	PASS
Band II	9400	VH	TN	11.86	0.006308	±2.5	PASS
Band II	9538	VL	TN	8.13	0.004259	±2.5	PASS
Band II	9538	VN	TN	8.95	0.004691	±2.5	PASS
Band II	9538	VH	TN	9.39	0.004923	±2.5	PASS
Band IV	1312	VL	TN	3.06	0.001788	±2.5	PASS
Band IV	1312	VN	TN	6.27	0.003659	±2.5	PASS
Band IV	1312	VH	TN	3.88	0.002264	±2.5	PASS
Band IV	1413	VL	TN	5.61	0.003241	±2.5	PASS
Band IV	1413	VN	TN	5.38	0.003104	±2.5	PASS
Band IV	1413	VH	TN	6.33	0.003653	±2.5	PASS
Band IV	1513	VL	TN	1.75	0.001000	±2.5	PASS
Band IV	1513	VN	TN	2.61	0.001490	±2.5	PASS
Band IV	1513	VH	TN	2.22	0.001265	±2.5	PASS
Band V	4132	VL	TN	-0.69	-0.000831	±2.5	PASS
Band V	4132	VN	TN	-1.58	-0.001913	±2.5	PASS
Band V	4132	VH	TN	-0.21	-0.000260	±2.5	PASS
Band V	4182	VL	TN	-0.11	-0.000128	±2.5	PASS
Band V	4182	VN	TN	-0.34	-0.000402	±2.5	PASS
Band V	4182	VH	TN	-0.21	-0.000248	±2.5	PASS
Band V	4233	VL	TN	-0.36	-0.000431	±2.5	PASS
Band V	4233	VN	TN	0.05	0.000059	±2.5	PASS
Band V	4233	VH	TN	-1.04	-0.001233	±2.5	PASS



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## 8.2. Frequency Vs Temperature

Band	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band II	9262	VN	-30	9.78	0.005282	±2.5	PASS
Band II	9262	VN	-20	11.94	0.006444	±2.5	PASS
Band II	9262	VN	-10	11.77	0.006356	±2.5	PASS
Band II	9262	VN	0	12.59	0.006796	±2.5	PASS
Band II	9262	VN	10	9.27	0.005004	±2.5	PASS
Band II	9262	VN	20	11.71	0.006321	±2.5	PASS
Band II	9262	VN	30	11.30	0.006101	±2.5	PASS
Band II	9262	VN	40	11.22	0.006058	±2.5	PASS
Band II	9262	VN	50	11.42	0.006166	±2.5	PASS
Band II	9400	VN	-30	11.54	0.006141	±2.5	PASS
Band II	9400	VN	-20	12.84	0.006829	±2.5	PASS
Band II	9400	VN	-10	11.89	0.006327	±2.5	PASS
Band II	9400	VN	0	11.17	0.005943	±2.5	PASS
Band II	9400	VN	10	11.06	0.005882	±2.5	PASS
Band II	9400	VN	20	13.04	0.006936	±2.5	PASS
Band II	9400	VN	30	12.39	0.006589	±2.5	PASS
Band II	9400	VN	40	11.82	0.006289	±2.5	PASS
Band II	9400	VN	50	11.87	0.006316	±2.5	PASS
Band II	9538	VN	-30	9.93	0.005208	±2.5	PASS
Band II	9538	VN	-20	8.03	0.004207	±2.5	PASS
Band II	9538	VN	-10	10.59	0.005553	±2.5	PASS
Band II	9538	VN	0	9.58	0.005021	±2.5	PASS
Band II	9538	VN	10	9.51	0.004987	±2.5	PASS
Band II	9538	VN	20	10.01	0.005246	±2.5	PASS
Band II	9538	VN	30	9.03	0.004732	±2.5	PASS
Band II	9538	VN	40	9.52	0.004991	±2.5	PASS
Band II	9538	VN	50	9.58	0.005021	±2.5	PASS
Band IV	1312	VN	-30	2.77	0.001616	±2.5	PASS
Band IV	1312	VN	-20	6.12	0.003571	±2.5	PASS
Band IV	1312	VN	-10	5.29	0.003091	±2.5	PASS
Band IV	1312	VN	0	5.49	0.003204	±2.5	PASS
Band IV	1312	VN	10	7.41	0.004327	±2.5	PASS
Band IV	1312	VN	20	4.49	0.002623	±2.5	PASS
Band IV	1312	VN	30	6.08	0.003550	±2.5	PASS
Band IV	1312	VN	40	4.29	0.002506	±2.5	PASS
Band IV	1312	VN	50	5.16	0.003012	±2.5	PASS
Band IV	1413	VN	-30	5.02	0.002898	±2.5	PASS
Band IV	1413	VN	-20	5.87	0.003389	±2.5	PASS
Band IV	1413	VN	-10	6.26	0.003612	±2.5	PASS
Band IV	1413	VN	0	5.14	0.002968	±2.5	PASS
Band IV	1413	VN	10	5.14	0.002964	±2.5	PASS
Band IV	1413	VN	20	6.32	0.003645	±2.5	PASS



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Band IV	1413	VN	30	6.59	0.003806	±2.5	PASS
Band IV	1413	VN	40	5.74	0.003315	±2.5	PASS
Band IV	1413	VN	50	6.07	0.003501	±2.5	PASS
Band IV	1513	VN	-30	1.30	0.000743	±2.5	PASS
Band IV	1513	VN	-20	1.55	0.000886	±2.5	PASS
Band IV	1513	VN	-10	1.42	0.000808	±2.5	PASS
Band IV	1513	VN	0	1.34	0.000767	±2.5	PASS
Band IV	1513	VN	10	2.17	0.001241	±2.5	PASS
Band IV	1513	VN	20	1.83	0.001045	±2.5	PASS
Band IV	1513	VN	30	1.26	0.000718	±2.5	PASS
Band IV	1513	VN	40	0.89	0.000510	±2.5	PASS
Band IV	1513	VN	50	1.75	0.000996	±2.5	PASS
Band V	4132	VN	-30	-0.06	-0.000078	±2.5	PASS
Band V	4132	VN	-20	-0.63	-0.000762	±2.5	PASS
Band V	4132	VN	-10	0.01	0.000009	±2.5	PASS
Band V	4132	VN	0	-0.21	-0.000251	±2.5	PASS
Band V	4132	VN	10	-1.04	-0.001255	±2.5	PASS
Band V	4132	VN	20	-0.71	-0.000857	±2.5	PASS
Band V	4132	VN	30	0.06	0.000069	±2.5	PASS
Band V	4132	VN	40	-0.19	-0.000234	±2.5	PASS
Band V	4132	VN	50	-0.11	-0.000138	±2.5	PASS
Band V	4182	VN	-30	0.84	0.001001	±2.5	PASS
Band V	4182	VN	-20	0.65	0.000778	±2.5	PASS
Band V	4182	VN	-10	-0.17	-0.000205	±2.5	PASS
Band V	4182	VN	0	0.45	0.000539	±2.5	PASS
Band V	4182	VN	10	-0.64	-0.000761	±2.5	PASS
Band V	4182	VN	20	-0.04	-0.000051	±2.5	PASS
Band V	4182	VN	30	-0.26	-0.000308	±2.5	PASS
Band V	4182	VN	40	-0.25	-0.000299	±2.5	PASS
Band V	4182	VN	50	0.27	0.000325	±2.5	PASS
Band V	4233	VN	-30	-0.73	-0.000862	±2.5	PASS
Band V	4233	VN	-20	-0.92	-0.001090	±2.5	PASS
Band V	4233	VN	-10	-1.09	-0.001284	±2.5	PASS
Band V	4233	VN	0	-0.53	-0.000625	±2.5	PASS
Band V	4233	VN	10	-0.73	-0.000862	±2.5	PASS
Band V	4233	VN	20	-0.74	-0.000870	±2.5	PASS
Band V	4233	VN	30	-0.33	-0.000389	±2.5	PASS
Band V	4233	VN	40	-0.74	-0.000879	±2.5	PASS
Band V	4233	VN	50	-1.04	-0.001225	±2.5	PASS

The End



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