



**SGS-CSTC Standards Technical Services Co., Ltd.  
Guangzhou Branch**

198 Kezhu Road, Sciencetech Park, Guangzhou Economic & Technological  
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Application No.: GZCR2103000013AT

Page: 1 of 61

FCC ID: OJFDHRU-DHPAM-7

# Appendix B

## Test Data and Result Details of GZCR2103000013AT



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Application No.: GZCR2103000013AT

Page: 2 of 61

FCC ID: OJFDHRU-DHPAM-7

## 1 Lower & Upper 700MHz (only for downlink: 728-757MHz)

### 1.1 AGC threshold level

Test Conf.	AGC Threshold level
DL_1S_M_AWGN_AWGN	0.23dBm
DL_1S_M_AWGN_GSM	-0.11dBm



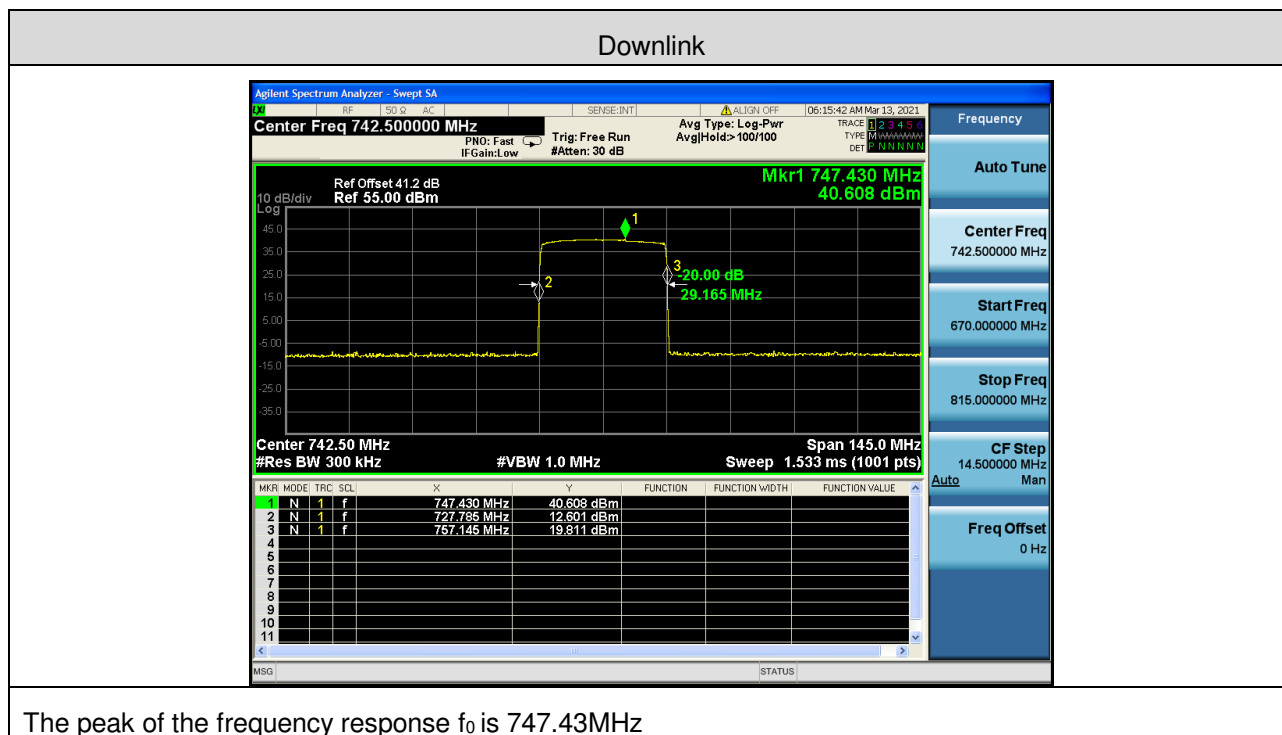
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## 1.2 Out-of-band rejection



The peak of the frequency response  $f_0$  is 747.43MHz



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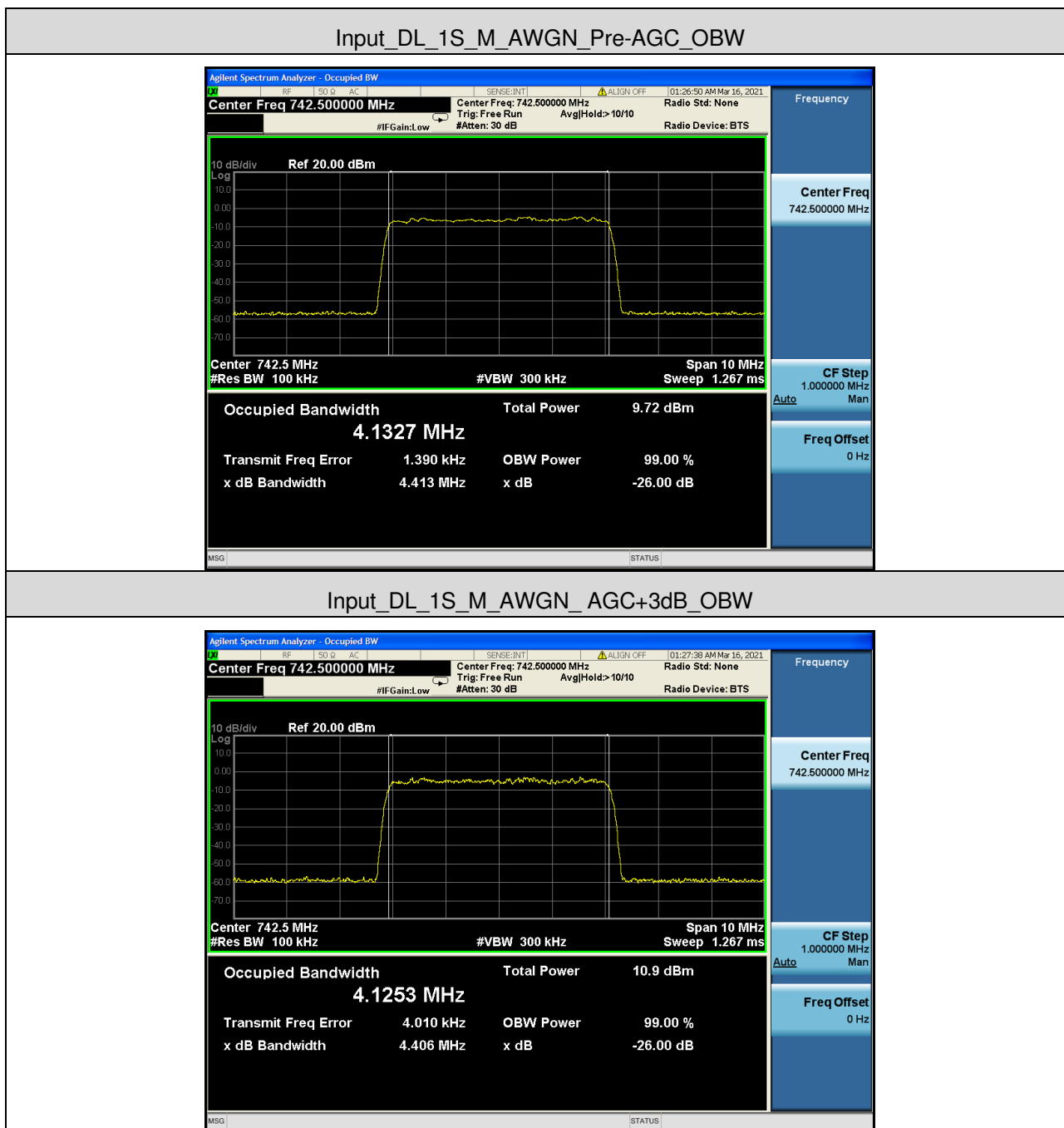
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## 1.3 Input-versus-output signal comparison

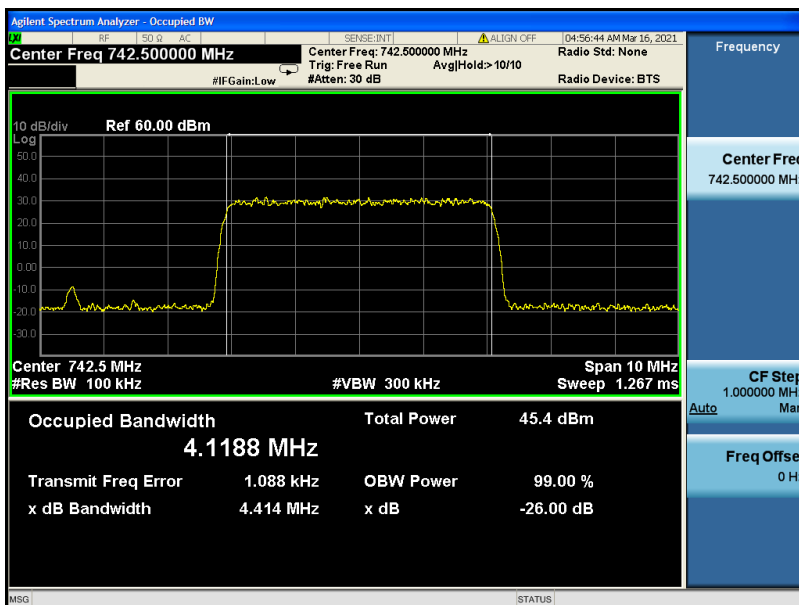


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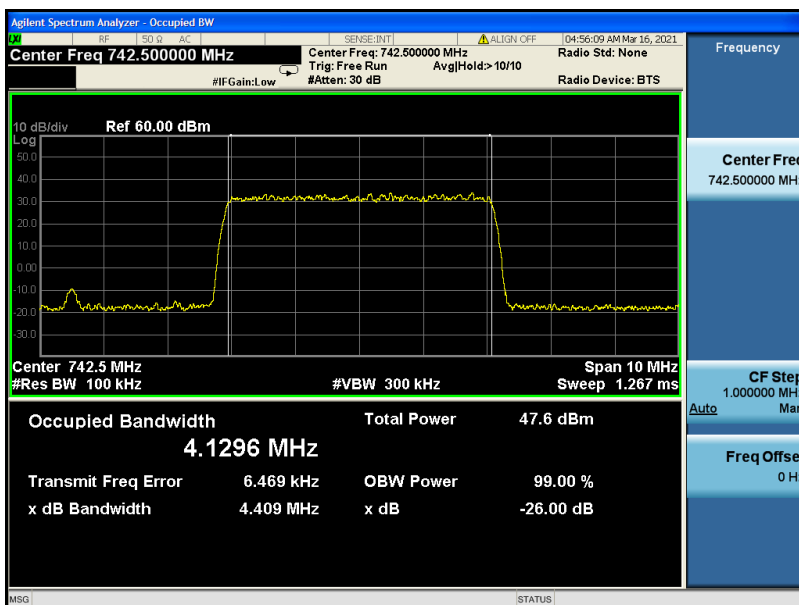
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## Output\_DL\_1S\_M\_AWGN\_Pre-AGC\_OBW



## Output\_DL\_1S\_M\_AWGN\_AGC+3dB\_OBW

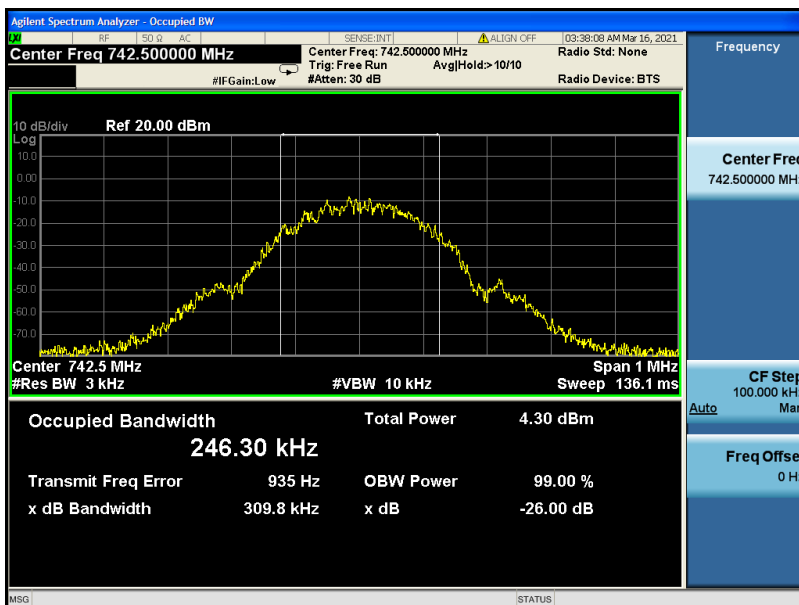


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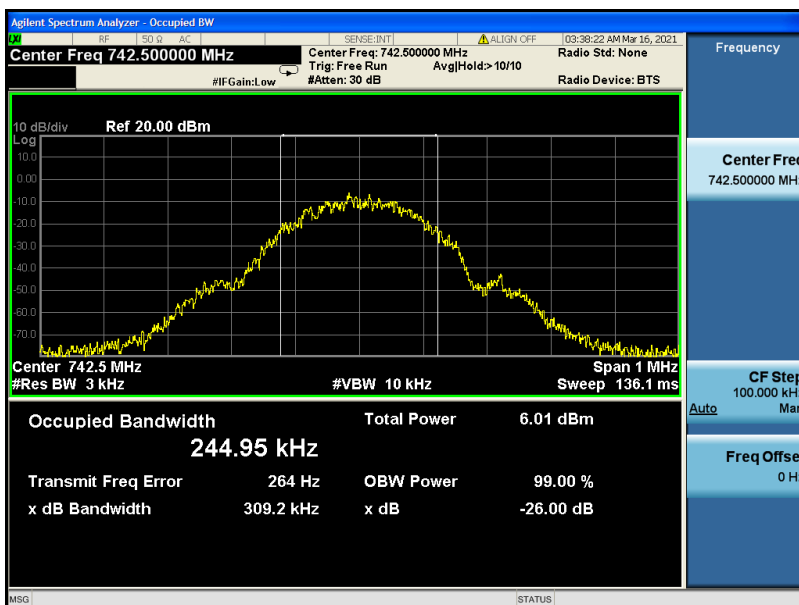
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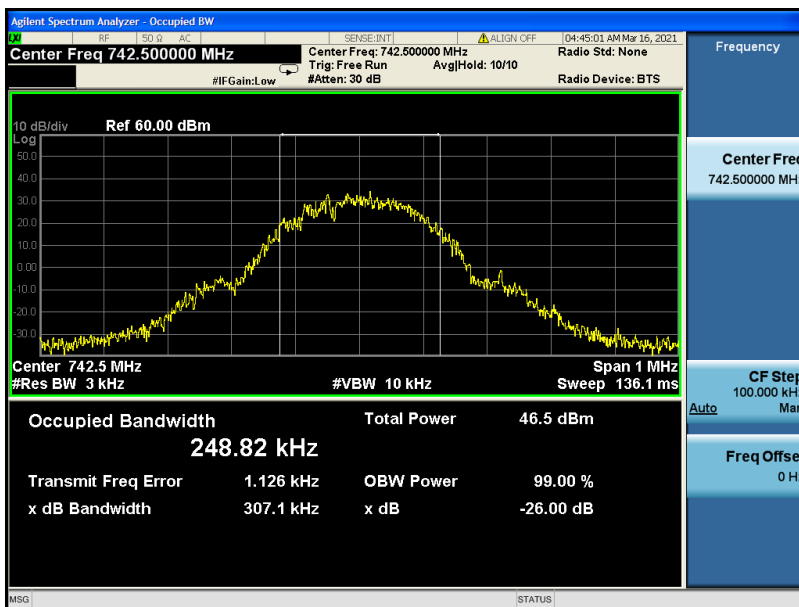
## Input\_DL\_1S\_M\_GSM\_Pre-AGC\_OBW



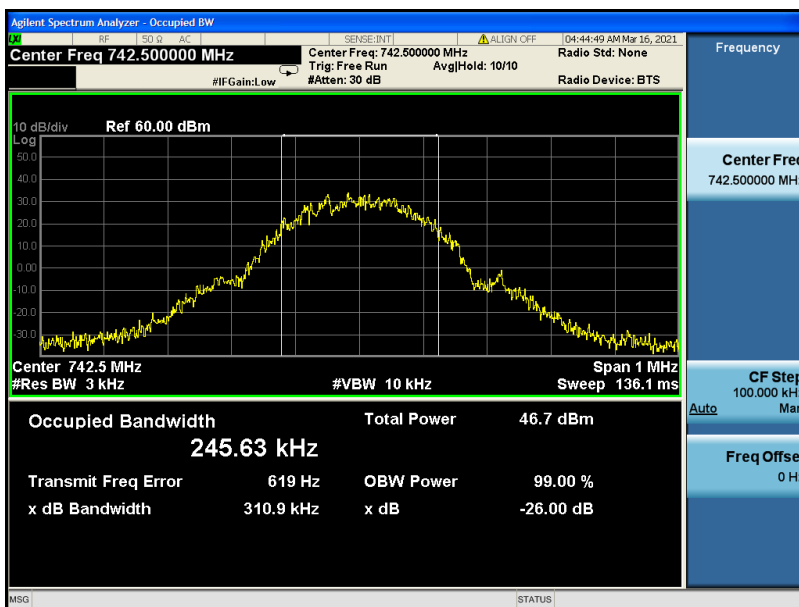
## Input\_DL\_1S\_M\_GSM\_AGC+3dB\_OBW



### Output\_DL\_1S\_M\_GSM\_Pre-AGC\_OBW



### Output\_DL\_1S\_M\_GSM\_AGC+3dB\_OBW



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Application No.: GZCR2103000013AT

Page: 8 of 61

FCC ID: OJFDHRU-DHPAM-7

**Remark:**

Compare the spectral plot of the input signal to the output signal affirm that they are similar (in passband and roll off characteristic features and relative spectral locations). The test result complies with the requirement.



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#### 1.4 Mean output power and amplifier/booster gain

Test Conf.	Test Freq. $f_0$ (MHz)	Signal Level	Input Power (dBm)	Output Power (dBm)	Gain (dB)	Verdict
DL_1S_AWGN	747.43	Pre-AGC	0.13	43.34	43.21	PASS
		AGC+3dB	3.33	43.31	/	PASS
DL_1S_GSM	747.43	Pre-AGC	-0.21	43.16	43.37	PASS
		AGC+3dB	2.79	43.21	/	PASS

**Remark:**

According to the declaration from the applicant, the single antenna gain should not exceed 12.5dBi, the Directional gain =  $G_{ANT} + 10 \log (N_{ANT})$  dBi = 12.5dBi+10log (2) dBi= 15.5dBi.

ERP= EIRP-2.15dB,

The total maximum ERP for the EUT is (43.34dBm+43.34dBm) +15.5dBi-2.15dB=59.70dBm (933.25W) which don't exceed the required ERP limit (1000W/MHz).



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## 1.5 Out-of-band/out-of-block (including intermodulation) emissions and spurious emissions

Note: The tested max conducted power for single antenna port is 43.34dBm, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least  $43 + 10 \log (P)$  dB, the limit corresponds to an absolute limit of -13 dBm.

Here,

$P=43.34\text{dBm}= 21.58\text{W}$ .

So the limit =

$P(\text{dBm})- [43 + 10 \log (21.58\text{W})] = -13\text{dBm}$

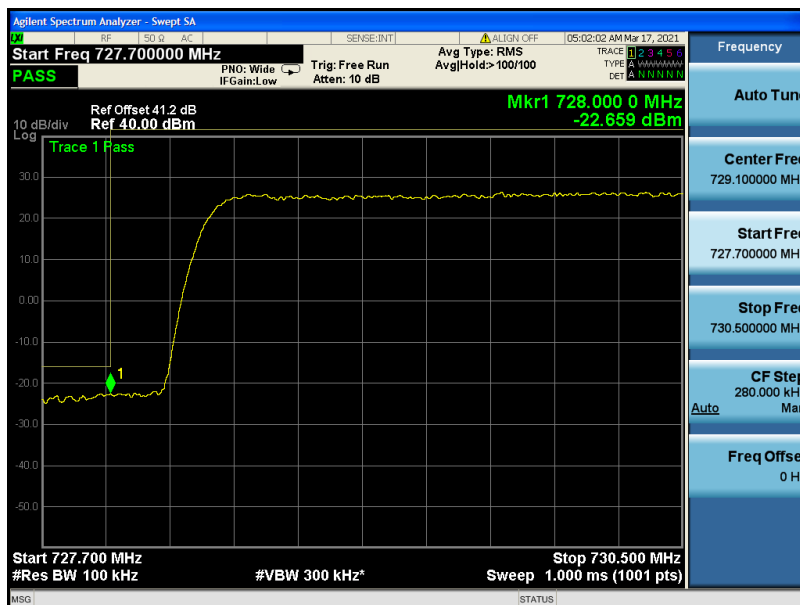
The EUT supports 2x2 MIMO and the emissions were measured at one of output port, so the limit line was set to -16.01dBm in following test plots in order to determine the test result conveniently.



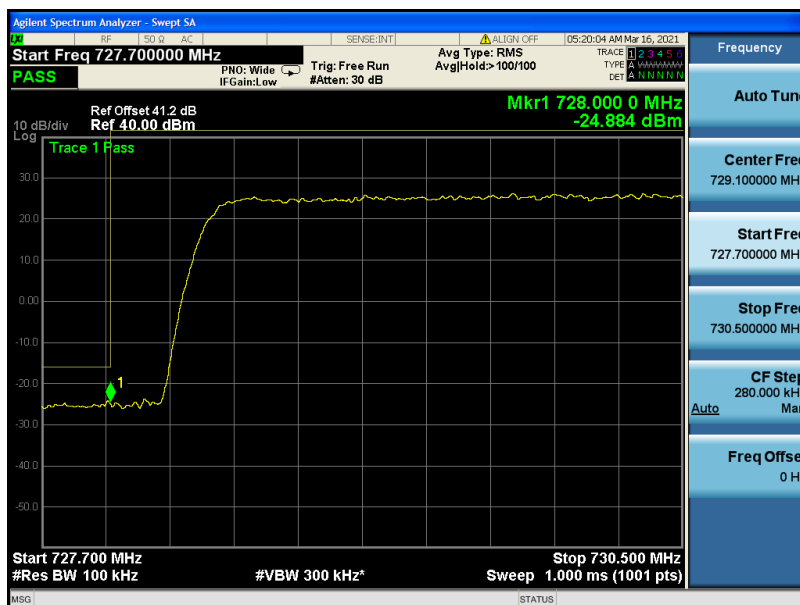
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### DL\_1S\_B\_AWGN\_Pre-AGC\_Out-of-band emission



### DL\_1S\_B\_AWGN\_AGC+3\_Out-of-band emission

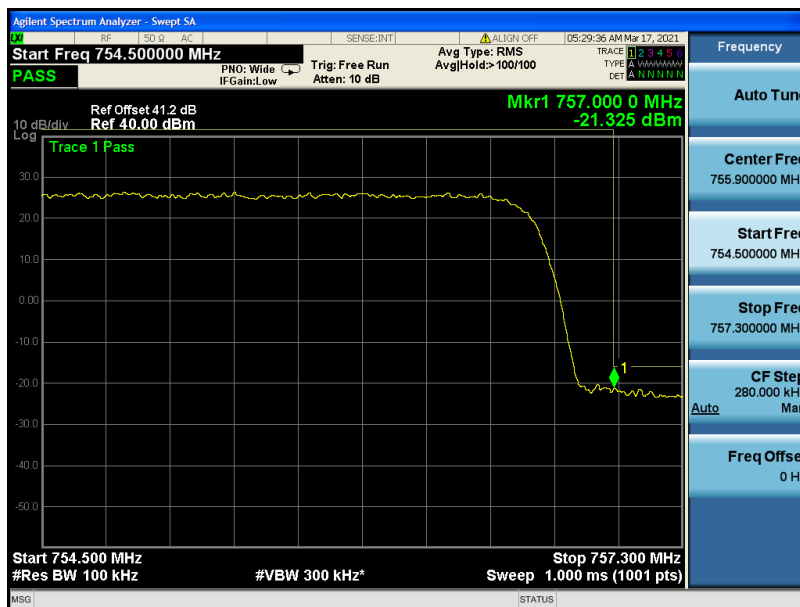


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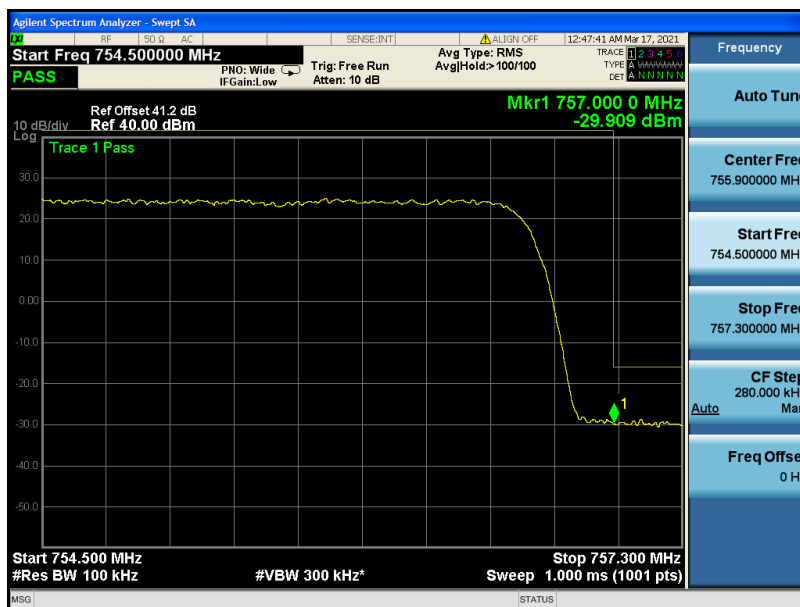
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## DL\_1S\_T\_AWGN\_Pre-AGC\_Out-of-band emission



## DL\_1S\_T\_AWGN\_AGC+3\_Out-of-band emission

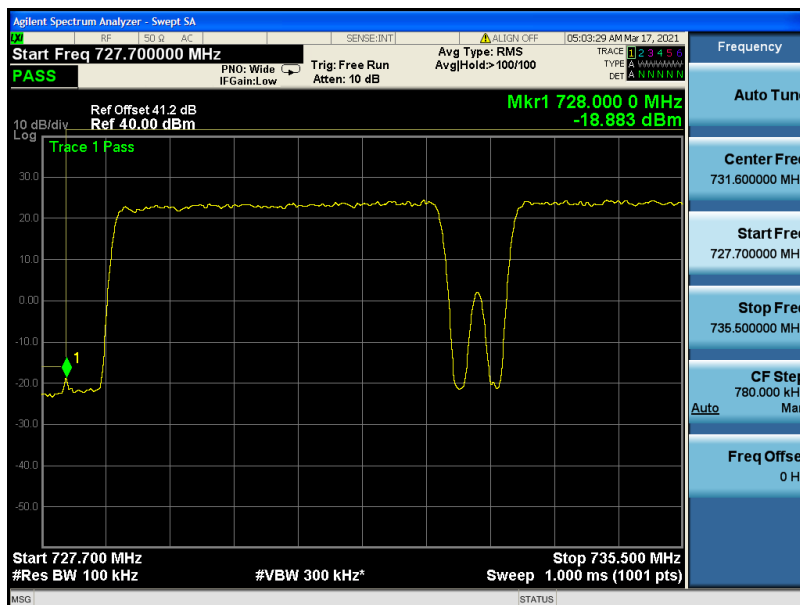


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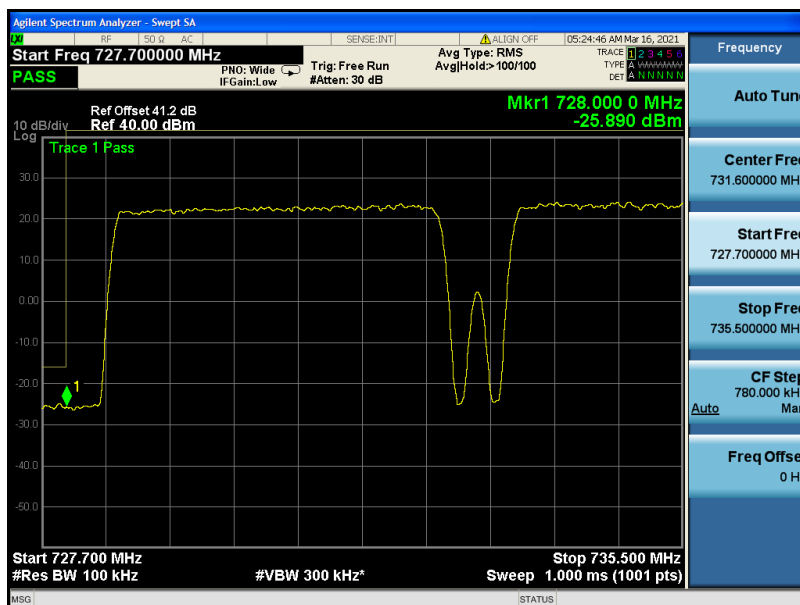
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### DL\_2S\_B\_AWGN\_Pre-AGC\_Out-of-band emission



### DL\_2S\_B\_AWGN\_AGC+3\_Out-of-band emission

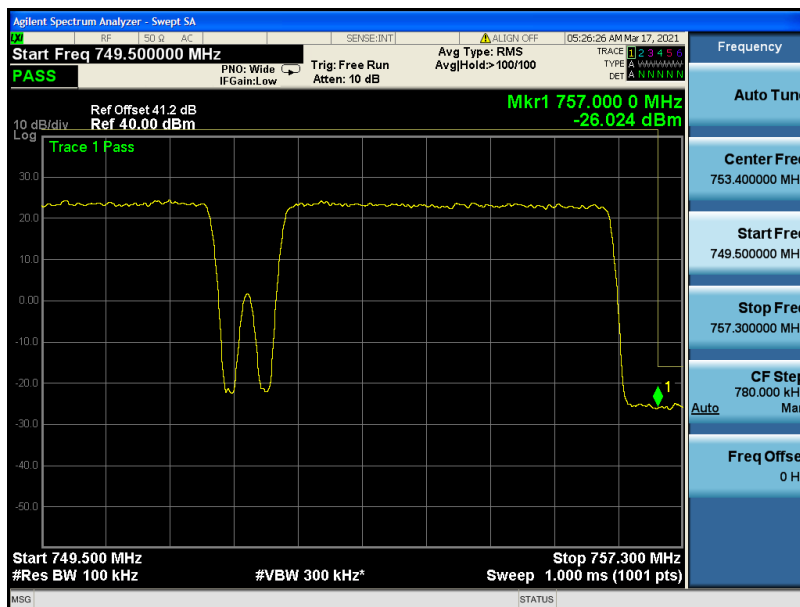


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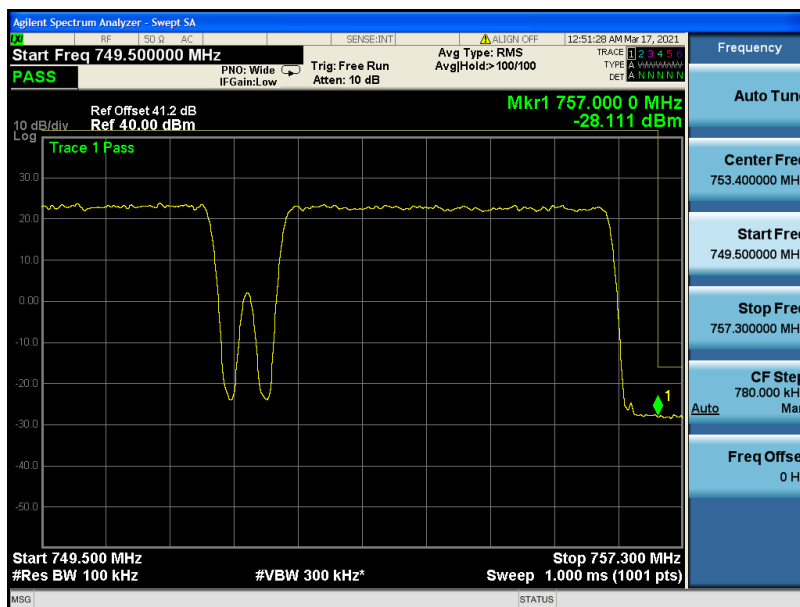
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### DL\_2S\_T\_AWGN\_Pre-AGC\_Out-of-band emission



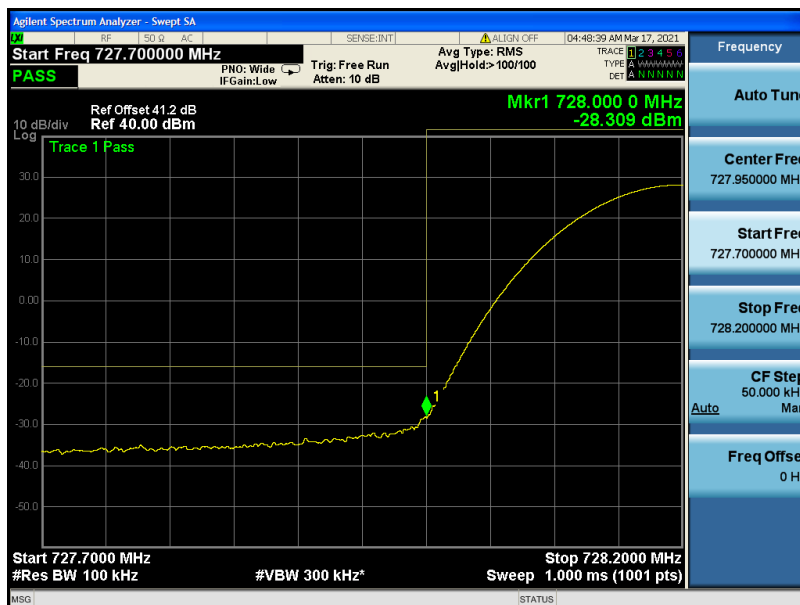
### DL\_2S\_T\_AWGN\_AGC+3\_Out-of-band emission



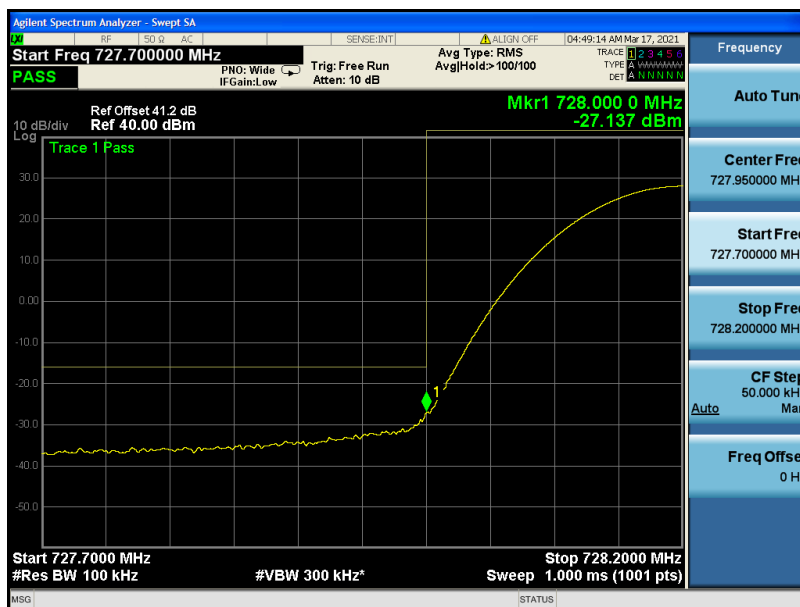
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### DL\_1S\_B\_GSM\_Pre-AGC\_Out-of-band emission



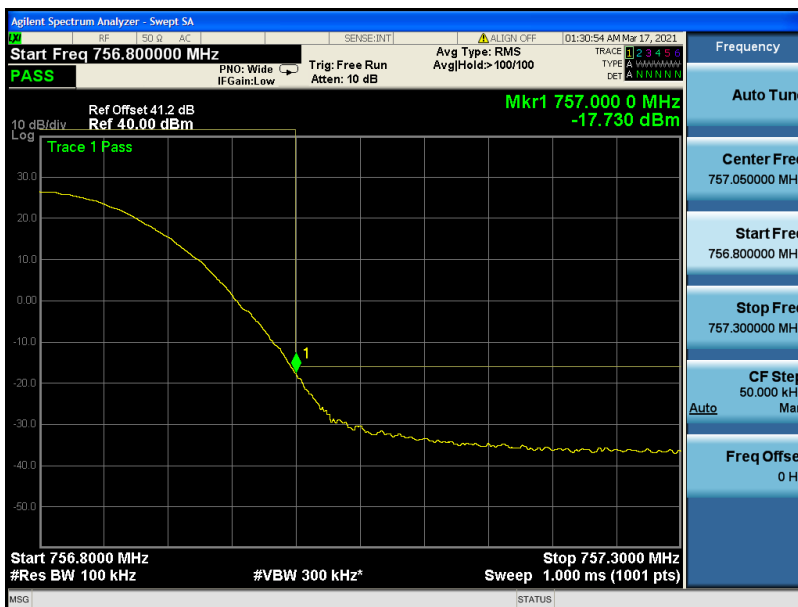
### DL\_1S\_B\_GSM\_AGC+3\_Out-of-band emission



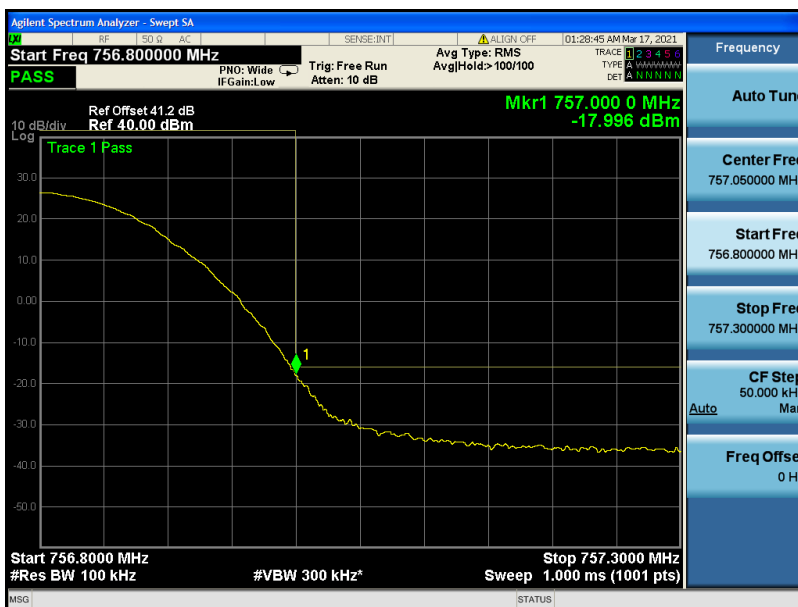
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## DL\_1S\_T\_GSM\_Pre-AGC\_Out-of-band emission



## DL\_1S\_T\_GSM\_AGC+3\_Out-of-band emission

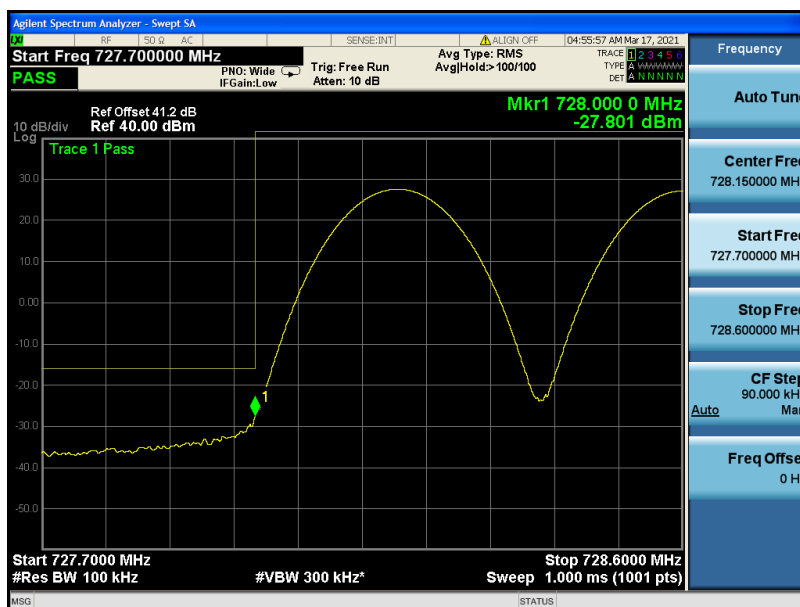


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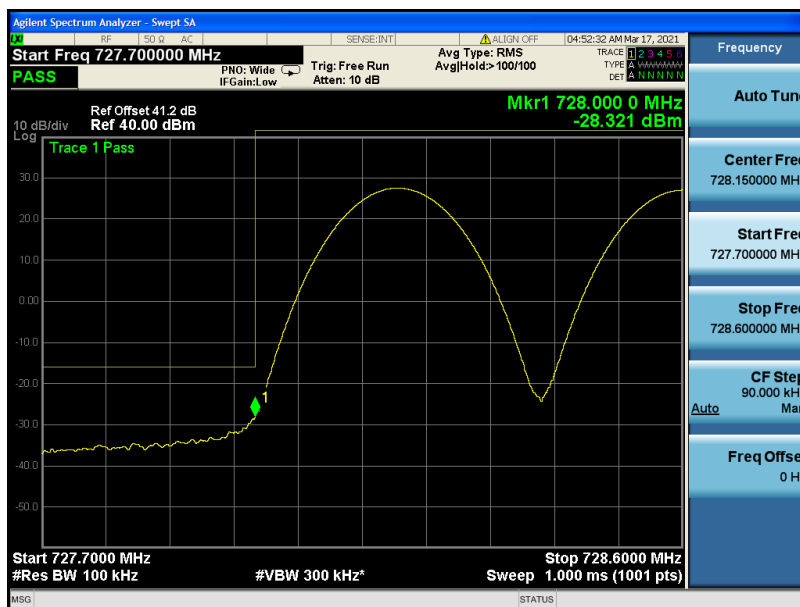
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### DL\_2S\_B\_GSM\_Pre-AGC\_Out-of-band emission



### DL\_2S\_B\_GSM\_AGC+3\_Out-of-band emission

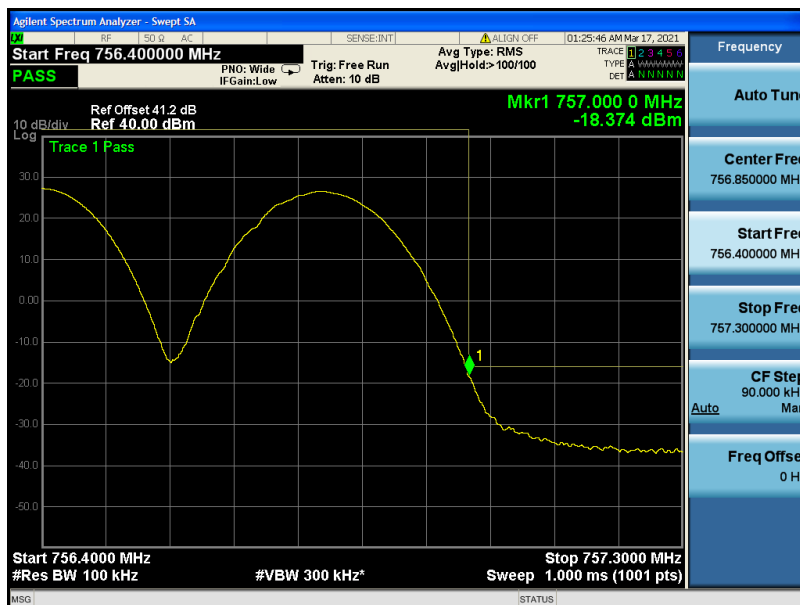


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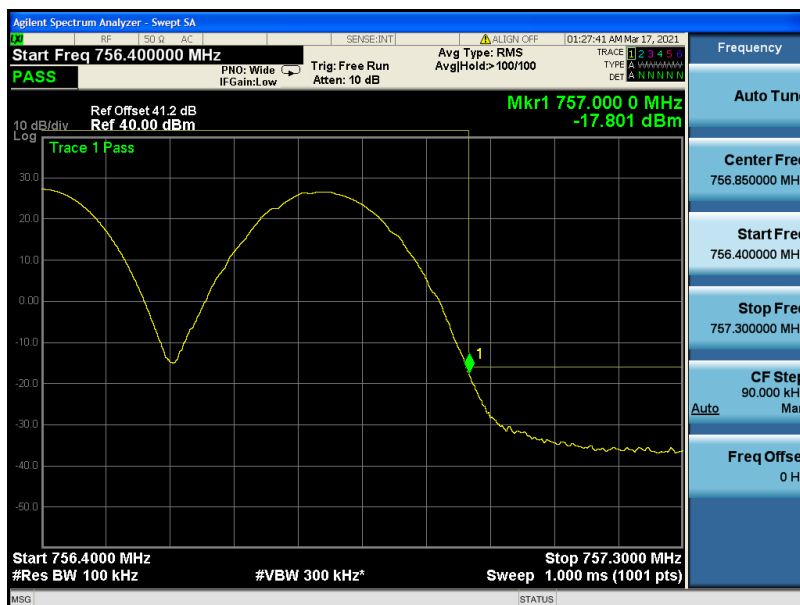
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### DL\_2S\_T\_GSM\_Pre-AGC\_Out-of-band emission



### DL\_2S\_T\_GSM\_AGC+3\_Out-of-band emission



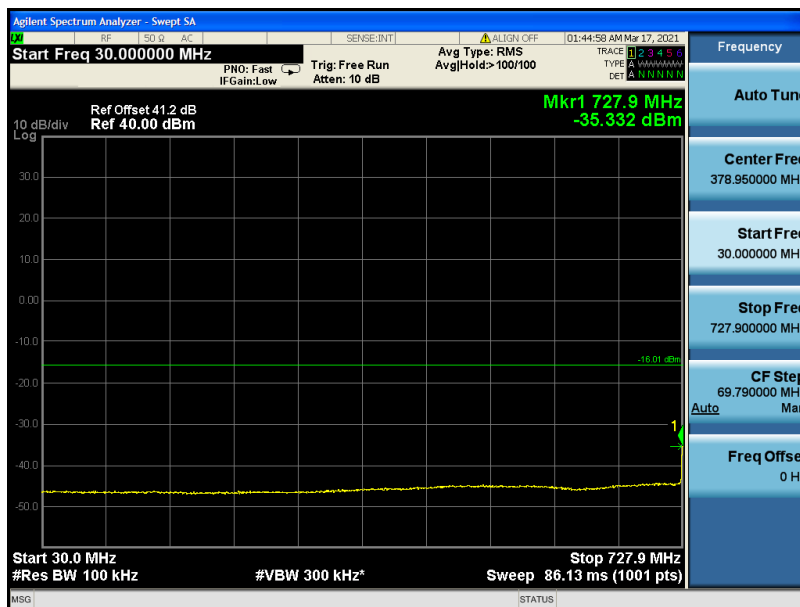
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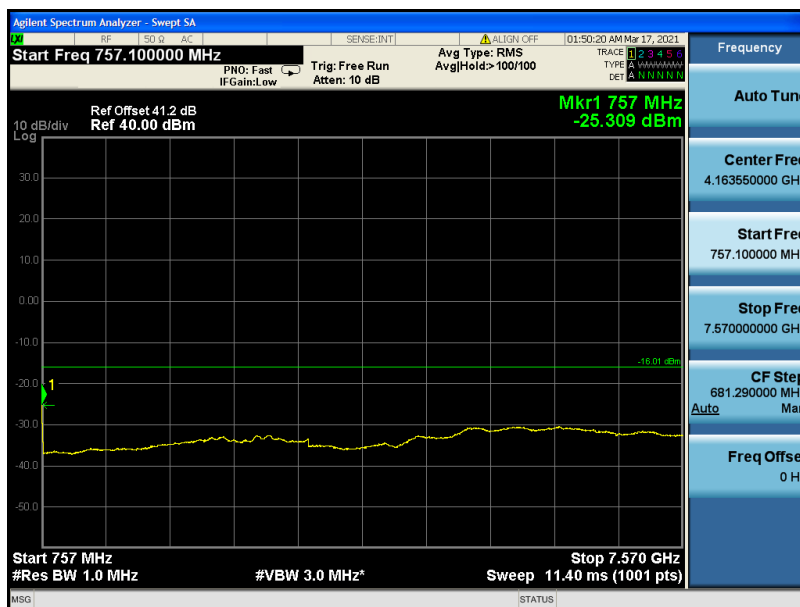
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## DL\_1S\_B\_AWGN\_Pre-AGC\_Spurious emission 1



## DL\_1S\_B\_AWGN\_Pre-AGC\_Spurious emission 2

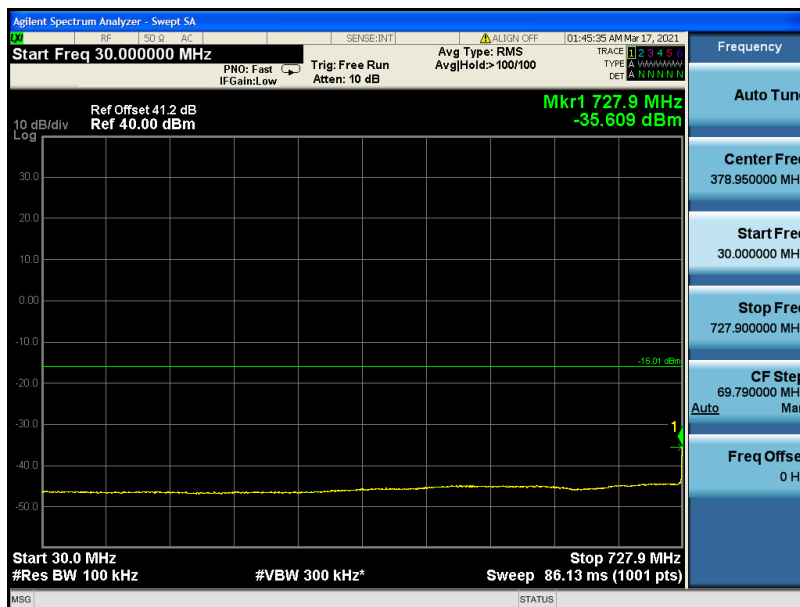


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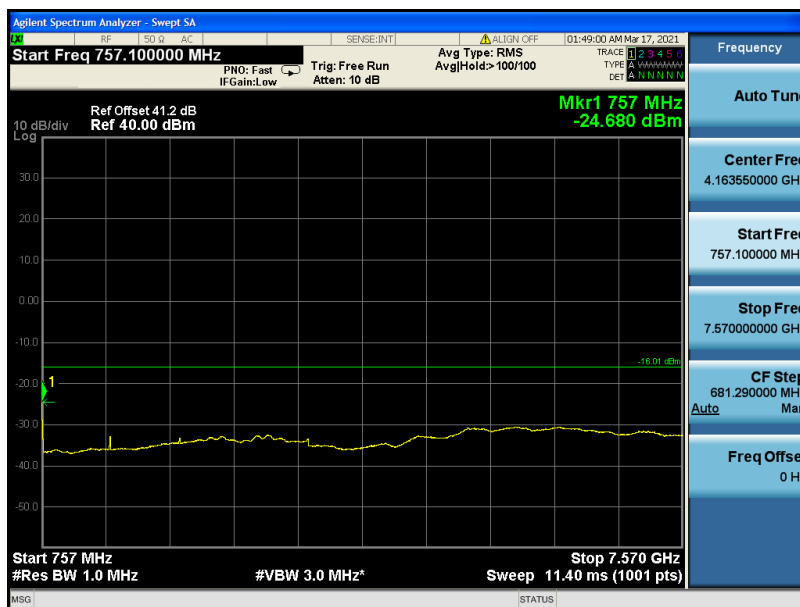
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## DL\_1S\_M\_AWGN\_Pre-AGC\_Spurious emission 1



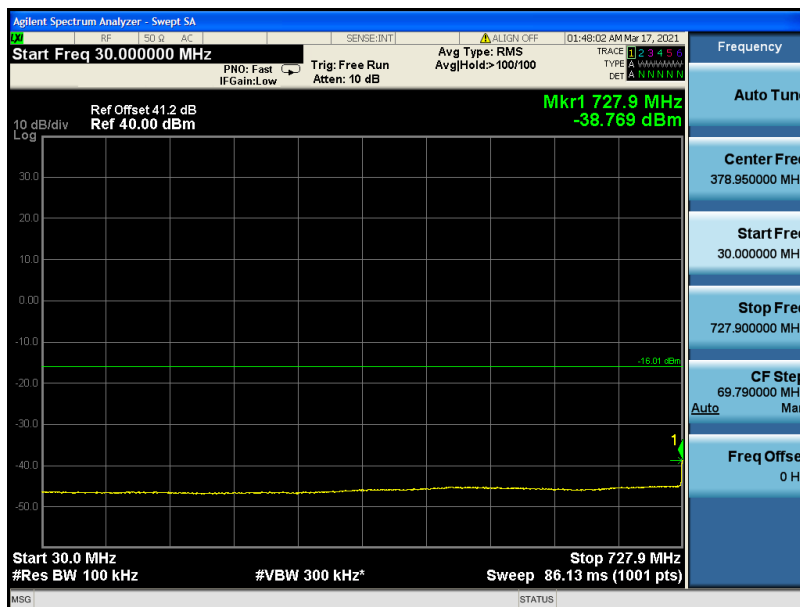
## DL\_1S\_M\_AWGN\_Pre-AGC\_Spurious emission 2



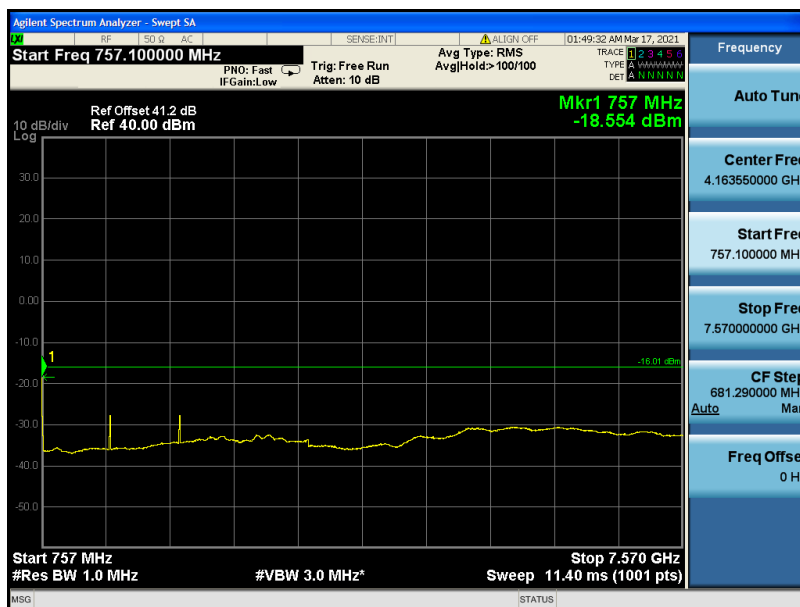
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### DL\_1S\_T\_AWGN\_Pre-AGC\_Spurious emission 1



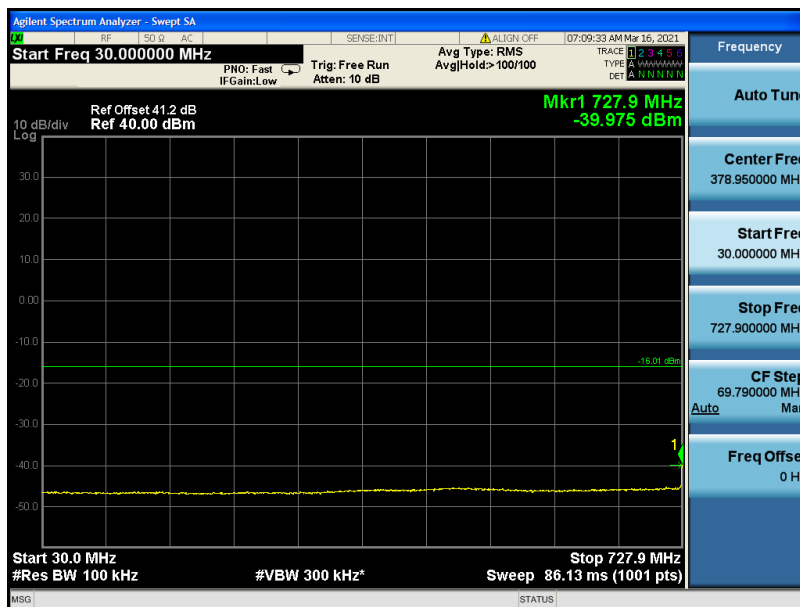
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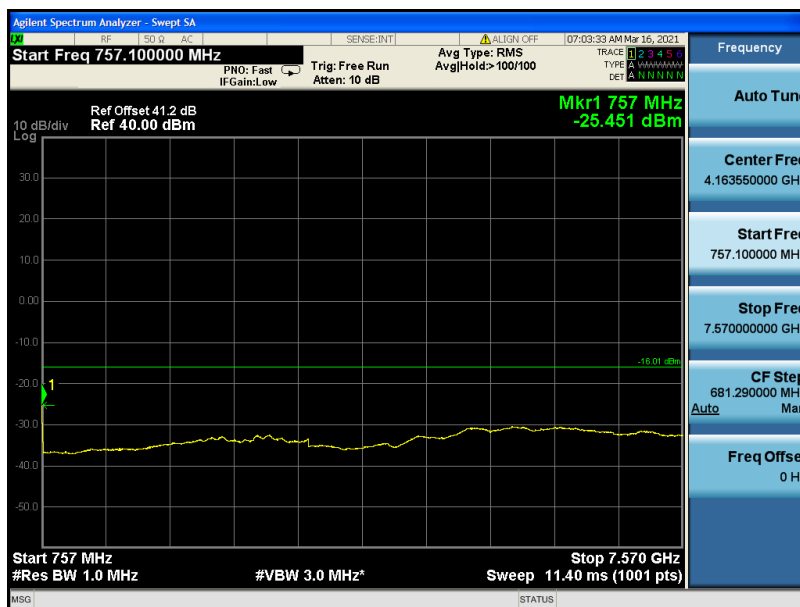
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### DL\_1S\_B\_GSM\_Pre-AGC\_Spurious emission 1



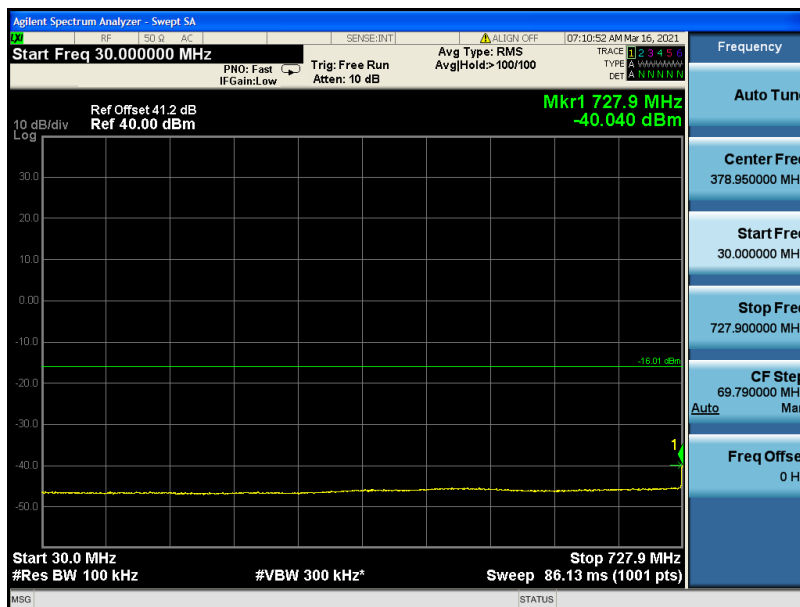
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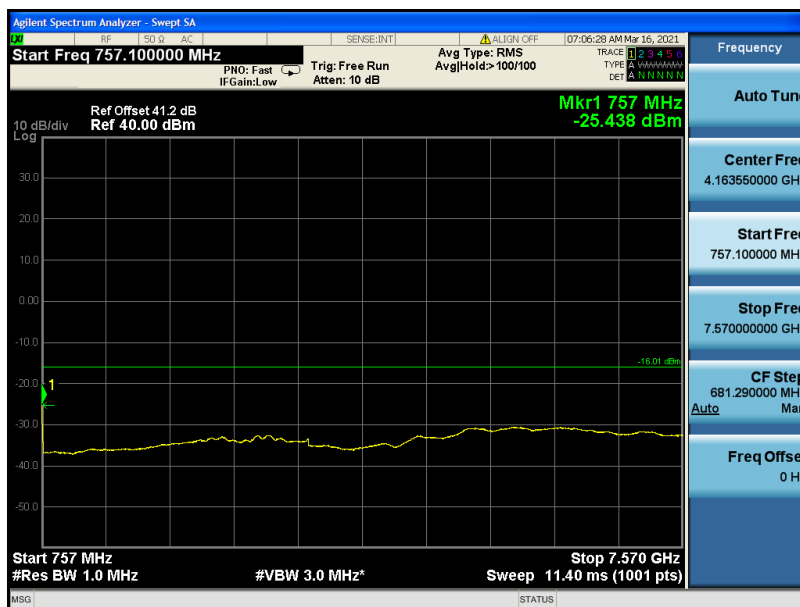
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## DL\_1S\_M\_GSM\_Pre-AGC\_Spurious emission 1



## DL\_1S\_M\_GSM\_Pre-AGC\_Spurious emission 2



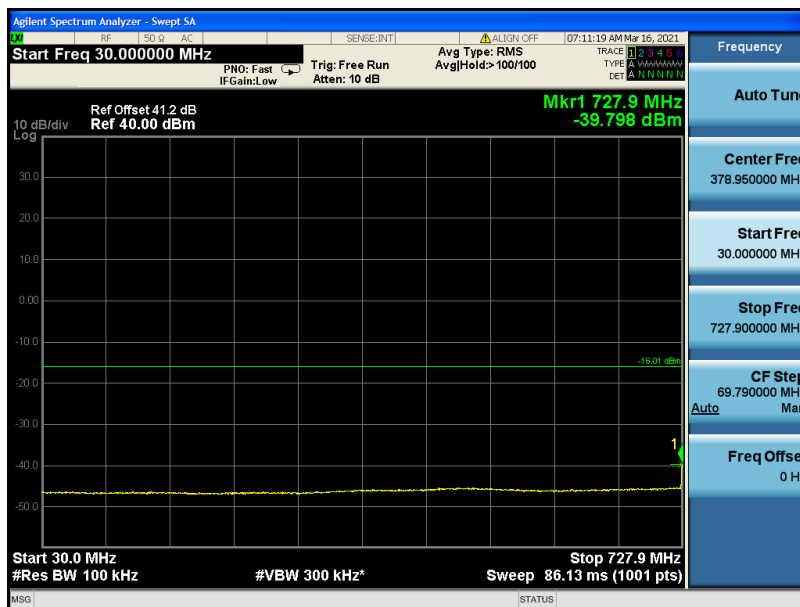
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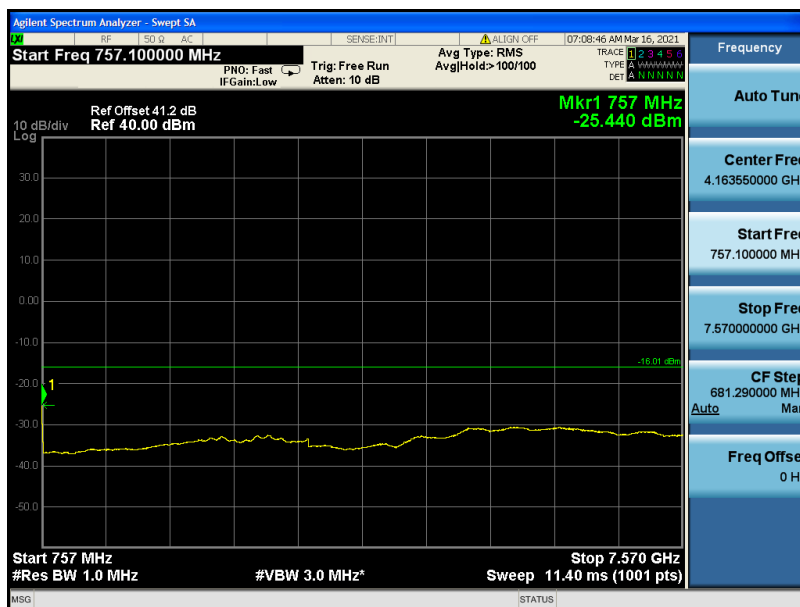
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### DL\_1S\_T\_GSM\_Pre-AGC\_Spurious emission 1



### DL\_1S\_T\_GSM\_Pre-AGC\_Spurious emission 2



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## 1.6 Frequency Stability

- Note:
1. At 10 °C intervals of temperatures between –30 °C and +50 °C at the manufacturer's rated supply voltage, here the rated supply voltage is AC 110V.
  2. At +20 °C temperature and ±15% supply voltage variations. If a product is specified to operate over a range of input voltage, then the –15% variation is applied to the lowermost voltage and the +15% is applied to the uppermost voltage.
  3. The frequency stabilities can be maintained within the authorized bands of operation. Meet the requirement.
  4. Frequency stability has been tested using an AWGN test signal and a GSM-TDMA test signal, only the worst-case was recorded in this report.



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**SGS-CSTC Standards Technical Services Co., Ltd.**  
**Guangzhou Branch**

Application No.: GZCR2103000013AT

Page: 26 of 61

FCC ID: OJFDHRU-DHPAM-7

Frequency stability vs temperature				
Temperature (°C)	Test Conf.	Test data (MHz)	Tolerance (ppm)	Verdict
50	DL_1S_M_AWGN	742.501592	0.04	PASS
40		742.502217	0.88	PASS
30		742.501684	0.16	PASS
20		742.501563	Reference	PASS
10		742.501453	-0.15	PASS
0		742.501813	0.34	PASS
-10		742.501603	0.05	PASS
-20		742.501723	0.22	PASS
-30		742.501921	0.48	PASS

Frequency stability vs voltage				
Voltage (V)	Test Conf.	Test data (MHz)	Tolerance (ppm)	Verdict
AC 93.5	DL_1S_M_AWGN	742.501452	-0.15	PASS
AC 110		742.501563	Reference	PASS
AC 126.5		742.501238	-0.44	PASS



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## 1.7 Radiated spurious emissions

Note: 1. The tested max conducted power for single antenna port is 43.34dBm, the 2x2 MIMO total power is 43.34dBm+43.34dBm= 43.16W.

The power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least  $43 + 10 \log (P)$  dB, the limit corresponds to an absolute limit of -13 dBm.

Here,

$P=43.16W$ .

So the limit =

$P(dBm)- [43 + 10 \log (43.16W)] = -13dBm$

2. The radiated test performed at bottom / middle / top channel, the data with more than 20db margin, therefore, only the worst-case middle channel test data was recorded in the report.

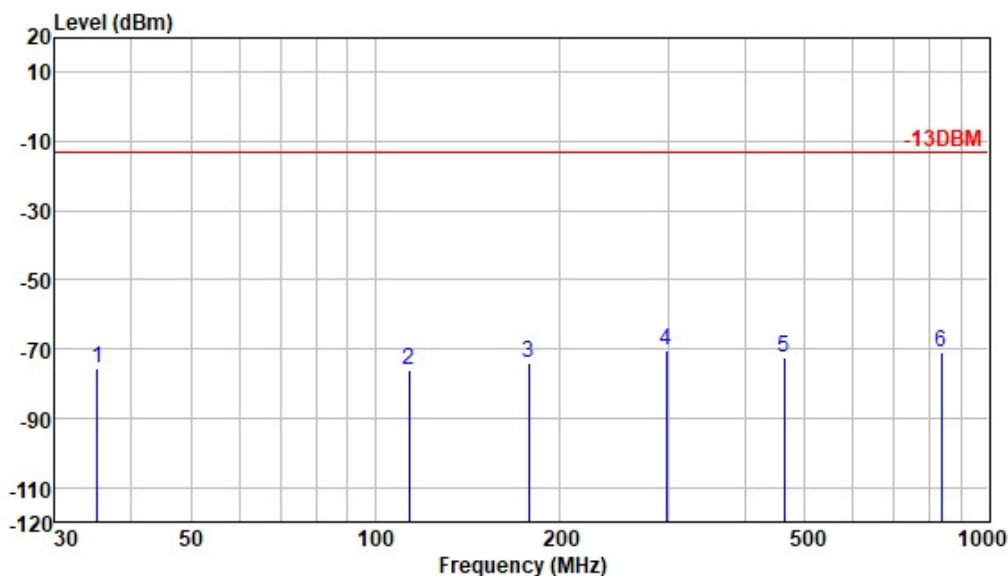
3. The disturbance from 9kHz to 30MHz was very low and 20dB below the limit, therefore, the data was not recorded in the report.



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DL\_1S\_M\_AWGN\_Horizontal\_30MHz~1GHz



	Freq	Read Level	Correction Factor	Level	Limit Line	Over Limit	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	35.13	-78.35	2.85	-75.50	-12.99	-62.51	HORIZONTAL
2	113.32	-67.45	-8.75	-76.20	-12.99	-63.21	HORIZONTAL
3	177.51	-67.79	-6.05	-73.84	-12.99	-60.85	HORIZONTAL
4	297.22	-67.10	-3.07	-70.17	-12.99	-57.18	HORIZONTAL
5	463.97	-72.92	0.31	-72.61	-12.99	-59.62	HORIZONTAL
6	836.24	-78.05	7.17	-70.88	-12.99	-57.89	HORIZONTAL

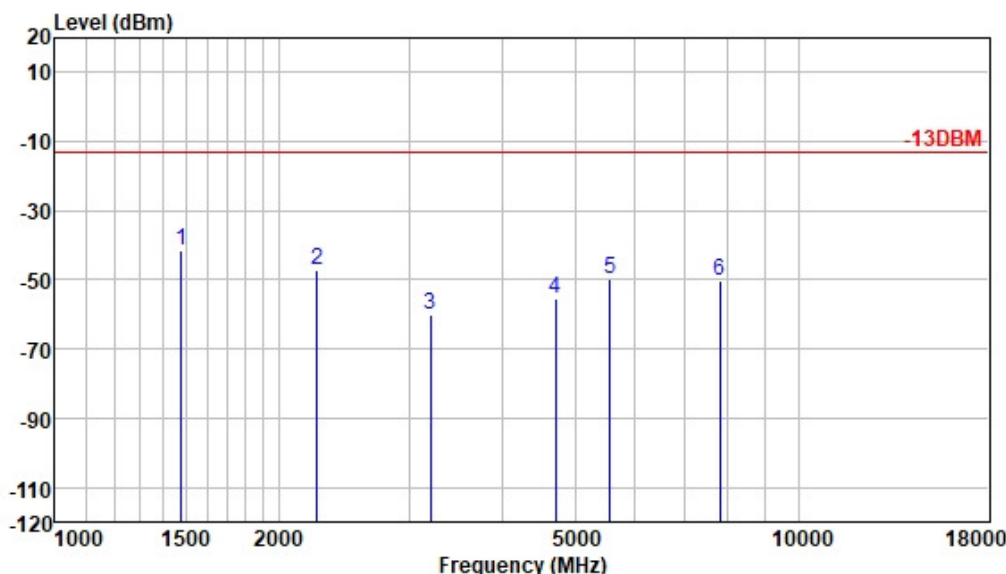


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DL\_1S\_M\_AWGN\_Horizontal\_above 1GHz



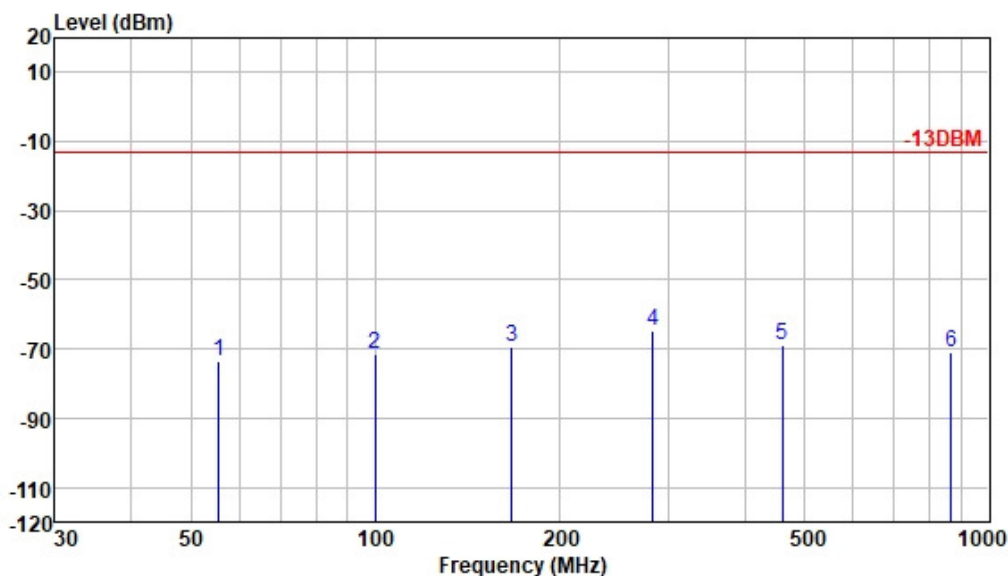
	Freq	Read Level	Correction Factor	Level	Limit	Over Limit	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1477.28	-46.25	4.70	-41.55	-12.99	-28.56	HORIZONTAL
2	2252.85	-56.78	9.44	-47.34	-12.99	-34.35	HORIZONTAL
3	3196.09	-62.47	2.23	-60.24	-12.99	-47.25	HORIZONTAL
4	4707.89	-63.16	7.81	-55.35	-12.99	-42.36	HORIZONTAL
5	5567.14	-63.46	13.68	-49.78	-12.99	-36.79	HORIZONTAL
6	7829.86	-64.13	14.12	-50.01	-12.99	-37.02	HORIZONTAL



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DL\_1S\_M\_AWGN\_Vertical\_30MHz~1GHz



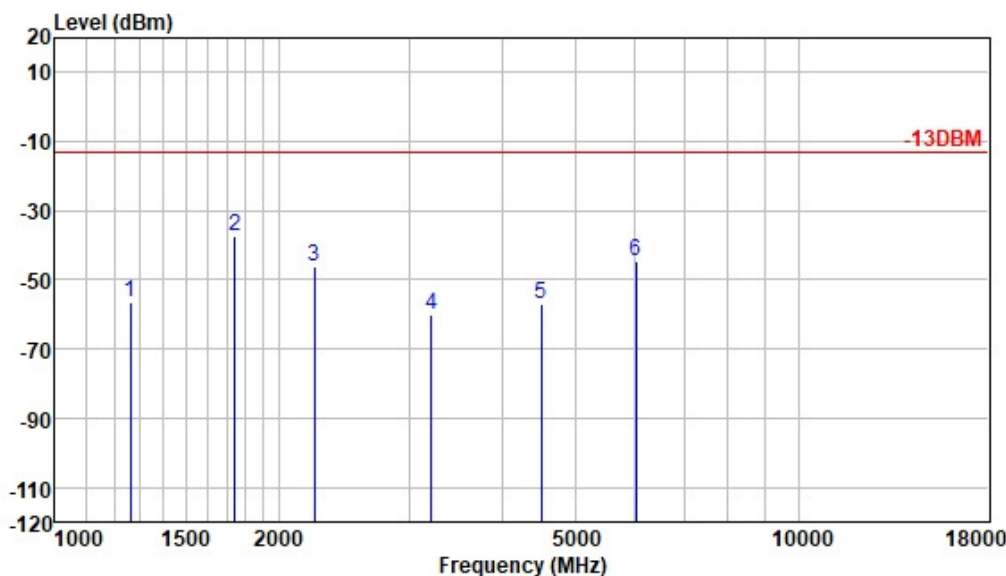
	Freq	Read Level	Correction Factor	Level	Limit	Over Limit	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	55.41	-69.76	-3.97	-73.73	-12.99	-60.74	VERTICAL
2	99.88	-66.20	-5.14	-71.34	-12.99	-58.35	VERTICAL
3	166.65	-65.58	-3.94	-69.52	-12.99	-56.53	VERTICAL
4	282.99	-62.13	-2.70	-64.83	-12.99	-51.84	VERTICAL
5	460.73	-70.32	1.67	-68.65	-12.99	-55.66	VERTICAL
6	866.09	-78.98	8.24	-70.74	-12.99	-57.75	VERTICAL



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DL\_1S\_M\_AWGN\_Vertical\_above 1GHz



	Freq	Read Level	Correction Factor	Level	Limit	Over Limit	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1263.80	-60.47	4.20	-56.27	-12.99	-43.28	VERTICAL
2	1746.90	-43.29	5.70	-37.59	-12.99	-24.60	VERTICAL
3	2233.40	-55.72	9.47	-46.25	-12.99	-33.26	VERTICAL
4	3205.35	-62.47	2.62	-59.85	-12.99	-46.86	VERTICAL
5	4508.14	-63.17	6.02	-57.15	-12.99	-44.16	VERTICAL
6	6036.42	-64.18	19.49	-44.69	-12.99	-31.70	VERTICAL



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**SGS-CSTC Standards Technical Services Co., Ltd.**  
**Guangzhou Branch**

Application No.: GZCR2103000013AT

Page: 32 of 61

FCC ID: OJFDHRU-DHPAM-7

## 2 FirstNet (only for downlink: 758-768MHz)

### 2.1 AGC threshold level

Test Conf.	AGC Threshold level
DL_1S_M_AWGN_AWGN	0.16dBm



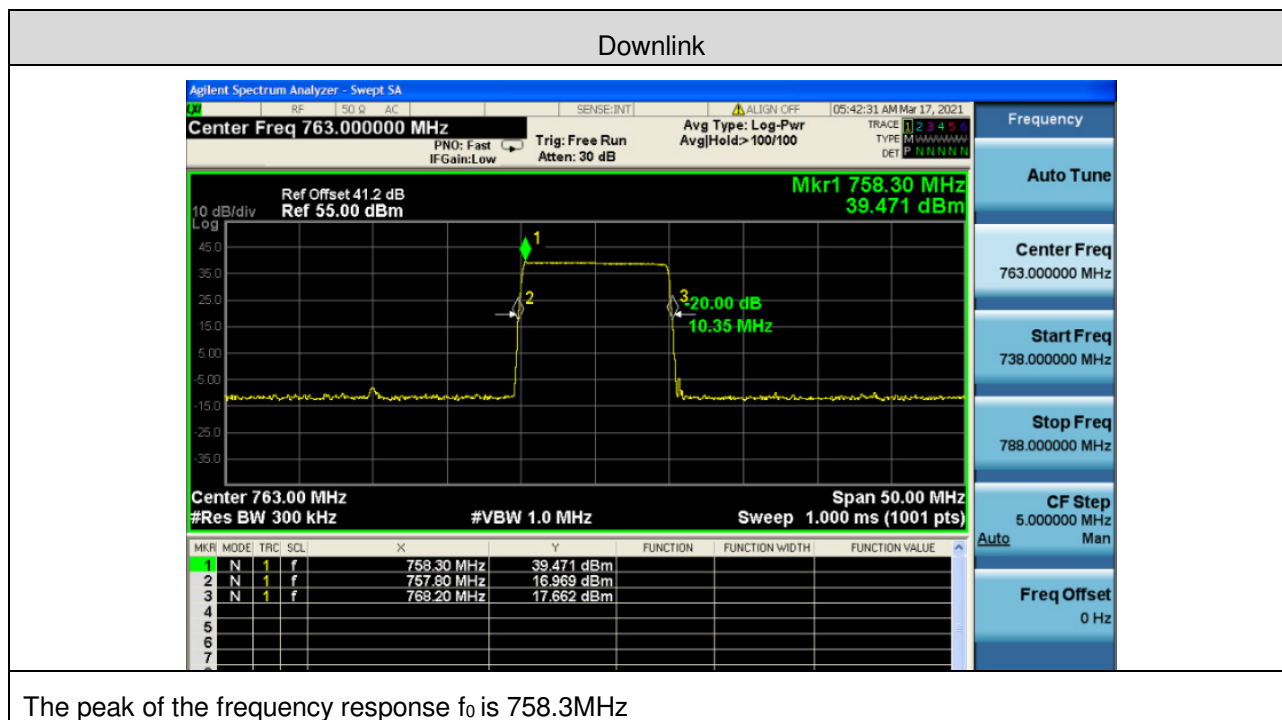
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Guangzhou Branch Testing Center EEC Laboratory

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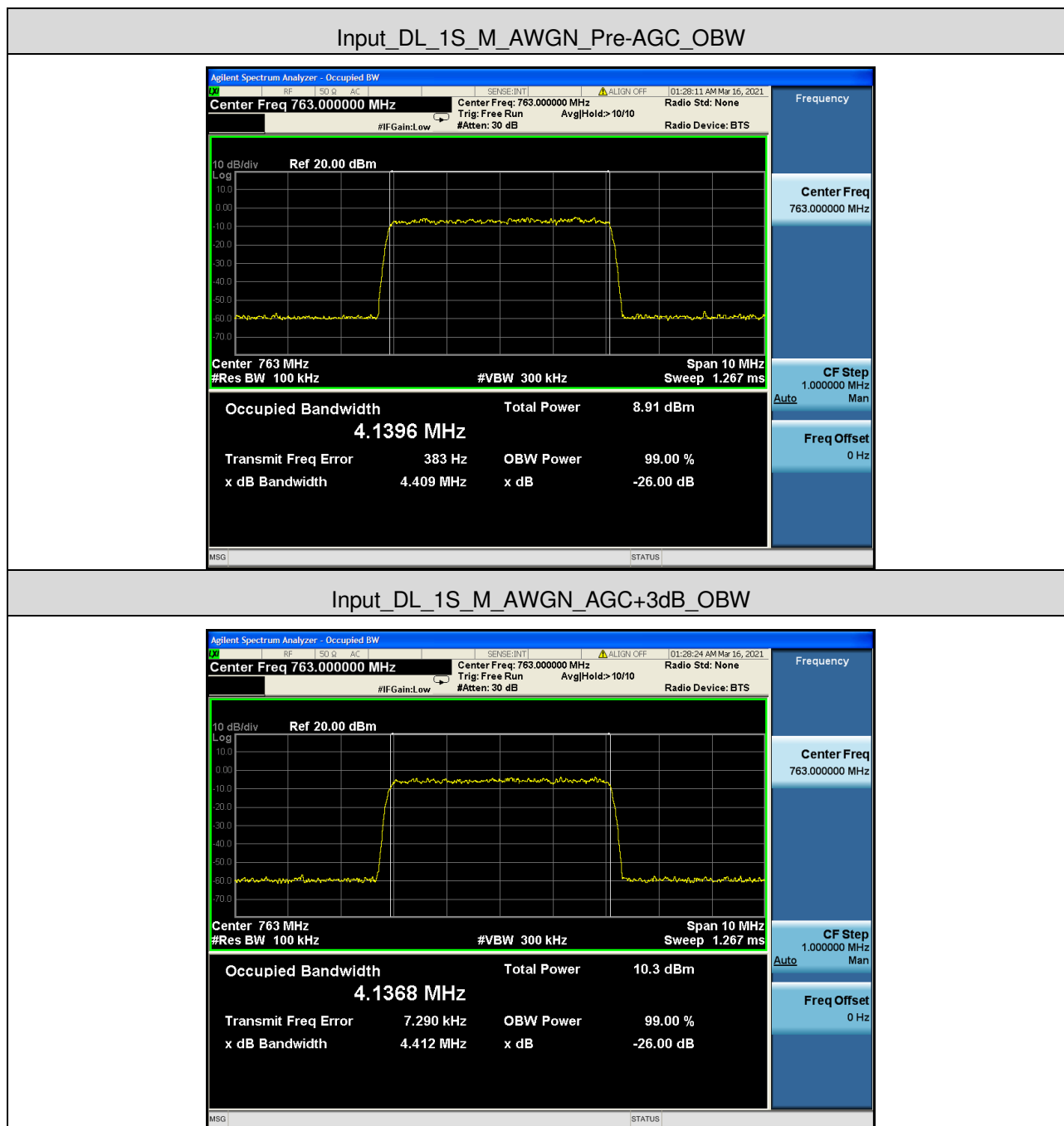


## 2.2 Out-of-band rejection

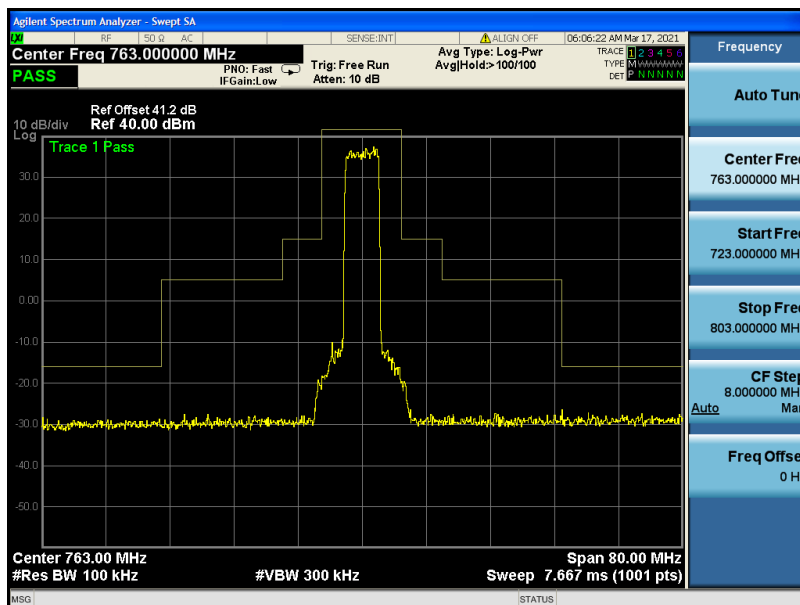




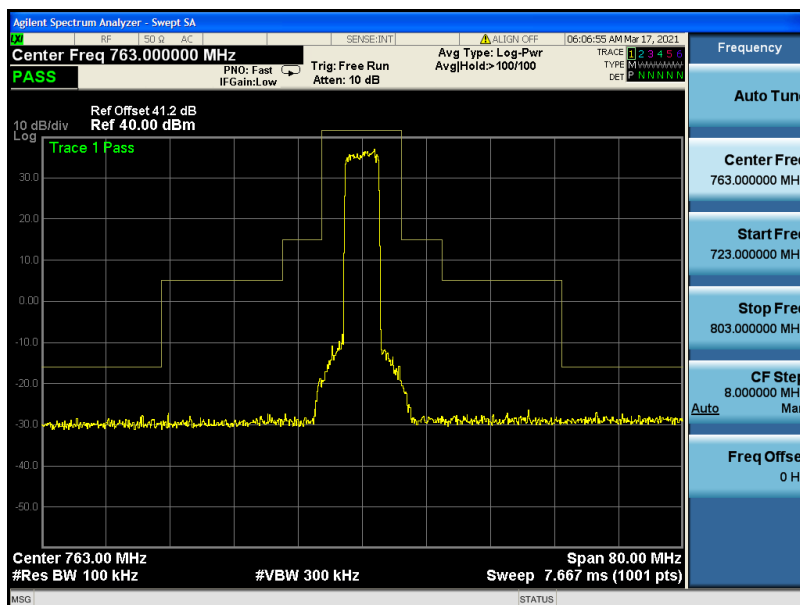
## 2.3 Input-versus-output signal comparison



### Input\_DL\_1S\_M\_AWGN\_Pre-AGC\_Emission Mask



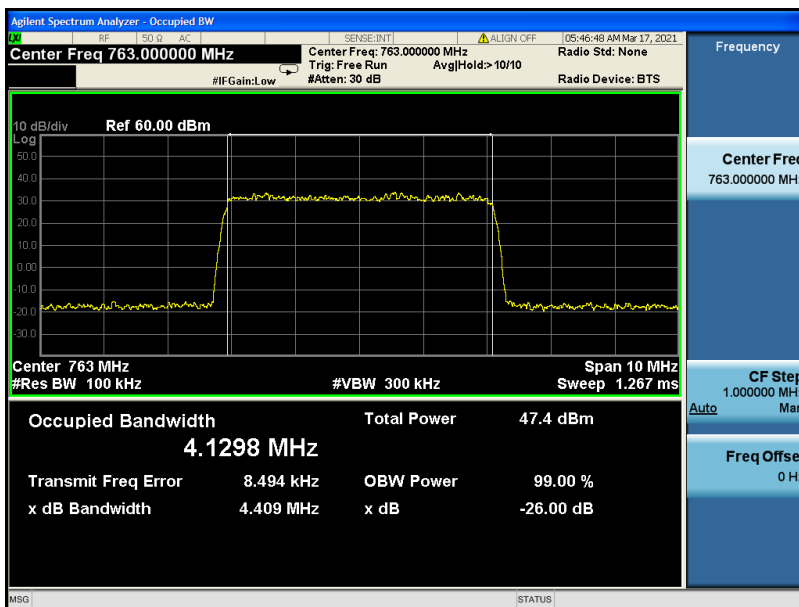
### Input\_DL\_1S\_M\_AWGN\_AGC+3dB\_Emission Mask



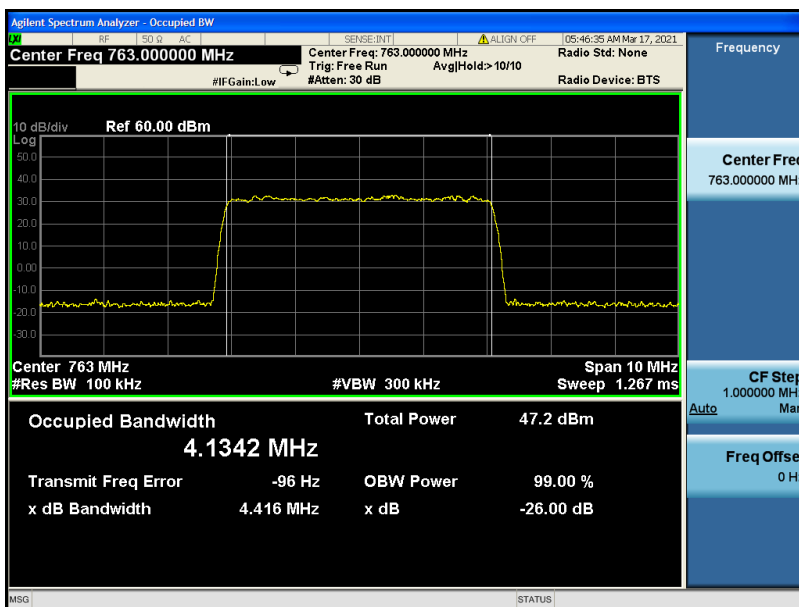
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### Output\_DL\_1S\_M\_AWGN\_Pre-AGC\_OBW



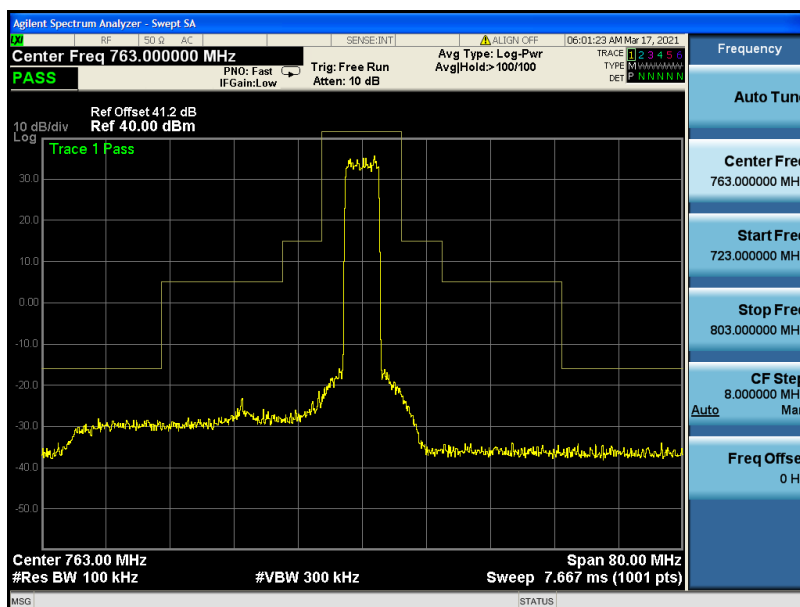
### Output\_DL\_1S\_M\_AWGN\_AGC+3dB\_OBW



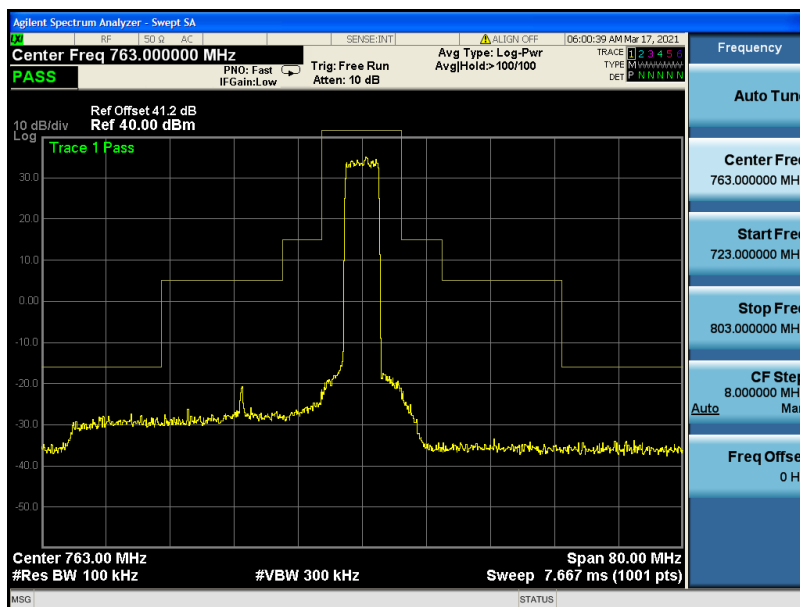
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## Output\_DL\_1S\_M\_AWGN\_Pre-AGC\_Emission Mask



## Output\_DL\_1S\_M\_AWGN\_AGC+3dB\_Emission Mask



### Remark:

Compare the spectral plot of the input signal to the output signal affirm that they are similar (in passband and roll off characteristic features and relative spectral locations). The test result complies with the requirement.



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## 2.4 Input/output power and amplifier/booster gain

Test Conf.	Test Freq. $f_0$ (MHz)	Signal Level	Input Power (dBm)	Output Power (dBm)	Gain (dB)	Verdict
DL_1S_AWGN	758.3	Pre-AGC	0.00	43.09	43.09	PASS
		AGC+3dB	3.00	43.16	/	PASS

Remark:

According to the declaration from the applicant, the single antenna gain should not exceed 12.5dBi, the Directional gain =  $G_{ANT} + 10 \log (N_{ANT})$  dBi = 12.5dBi+10log (2) dBi= 15.5dBi.

ERP= EIRP-2.15dB

The total maximum ERP for the EUT is (43.16dBm+43.16dBm) +15.5dBi-2.15dB=59.52dBm (895.36W) which don't exceed the required ERP limit (1000W).



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# SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch

Application No.: GZCR2103000013AT

Page: 39 of 61

FCC ID: OJFDHRU-DHPAM-7

## 2.5 Noise Figure

Test Conf.	Noise Figure (dB)	Limit (dB)	Verdict
DL_1S_B_AWGN	8.34	9	PASS
DL_1S_M_AWGN	8.61	9	PASS
DL_1S_T_AWGN	8.73	9	PASS



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## 2.6 Out-of-band/out-of-block (including intermodulation) emissions and spurious emissions

Note: 1. 90.543(c) Out-of-band emission limit.

the power of any emission must be reduced below the mean output power (P) by at least  $43 + 10 \log (P)$  dB, Here,

$$P=43.16\text{dBm}= 20.7\text{W}$$

$$\text{So the limit} = P(\text{dBm}) - [43 + 10 \log (20.7\text{W})] = -13\text{dBm}$$

The EUT supports 2x2 MIMO and the emissions were measured at one of output port, so the limit line was set to -16.01dBm in following test plots in order to determine the test result conveniently.

2. 90.543e (1) limit:

On all frequencies between 769-775 MHz and 799-805 MHz, by a factor not less than  $76 + 10 \log (P)$  dB in a 6.25 kHz band segment, for base and fixed stations.

$$\text{Here, } P=43.16\text{dBm}= 20.7\text{W}$$

$$\text{So the limit} = P(\text{dBm}) - [76 + 10 \log (20.7\text{W})] = -46\text{dBm}$$

The EUT supports 2x2 MIMO and the emissions were measured at one of output port, so the limit line was set to -49.01dBm in following test plots in order to determine the test result conveniently.

3. 90.543 (e)(3) limit:

On any frequency between 775-788 MHz, above 805 MHz, and below 758 MHz, by at least  $43 + 10 \log (P)$  dB

$$\text{Here, } P=43.16\text{dBm}= 20.7\text{W}$$

$$\text{So the limit} =$$

$$P(\text{dBm}) - [43 + 10 \log (20.7\text{W})] = -13\text{dBm}$$

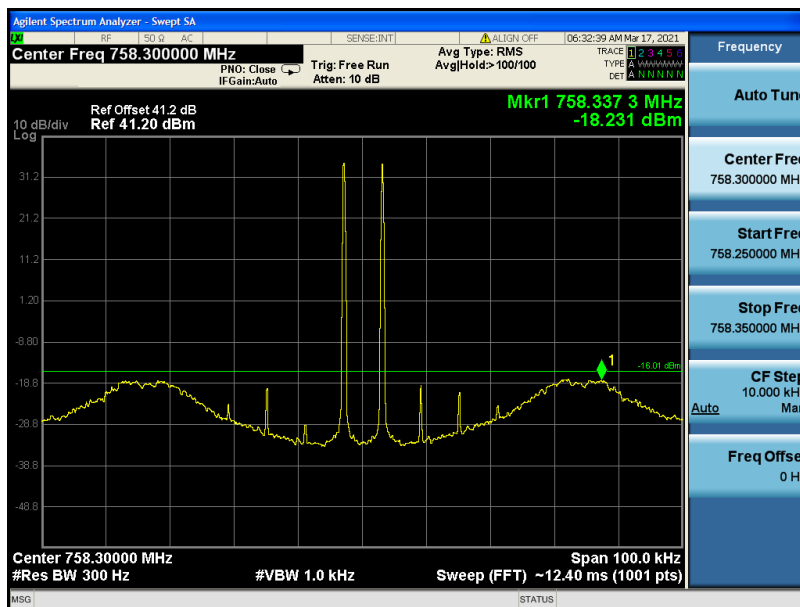
The EUT supports 2x2 MIMO and the emissions were measured at one of output port, so the limit line was set to -16.01dBm in following test plots in order to determine the test result conveniently.



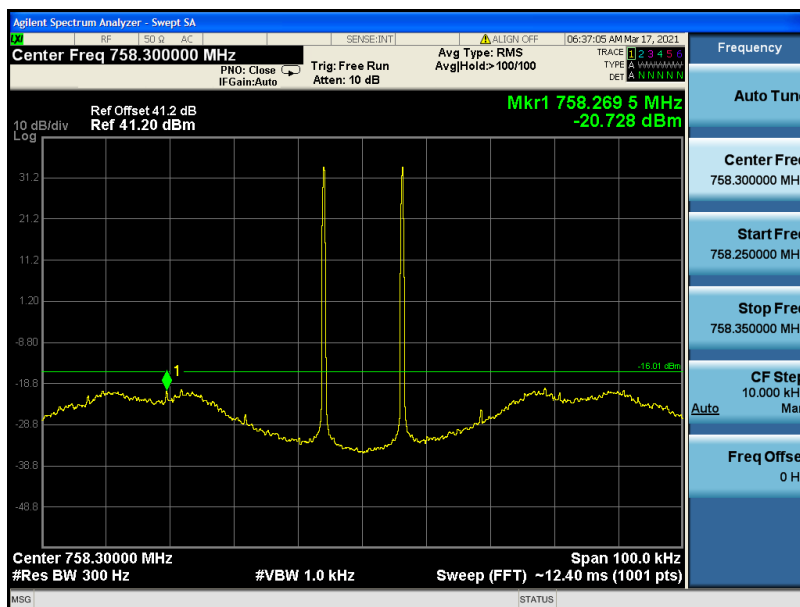
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### DL\_B\_CW\_Pre-AGC\_Intermodulation



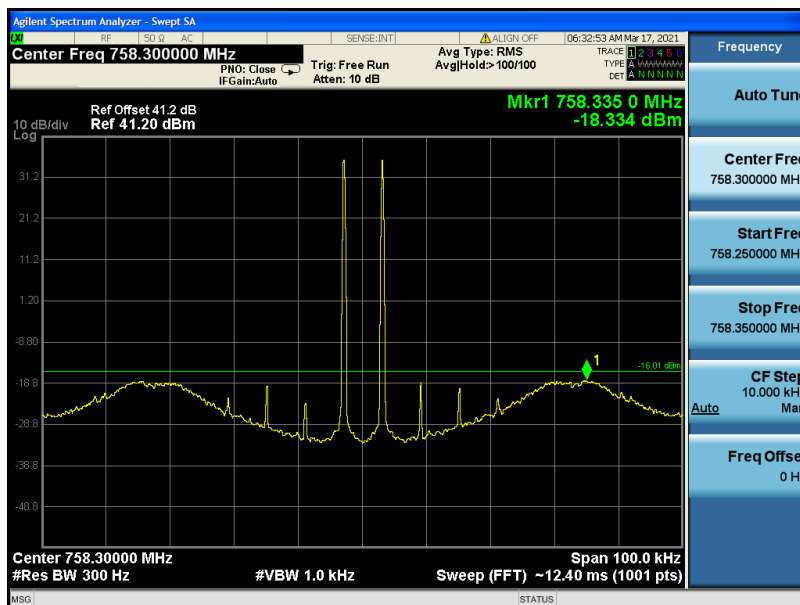
### DL\_B\_CW\_Pre-AGC\_Intermodulation



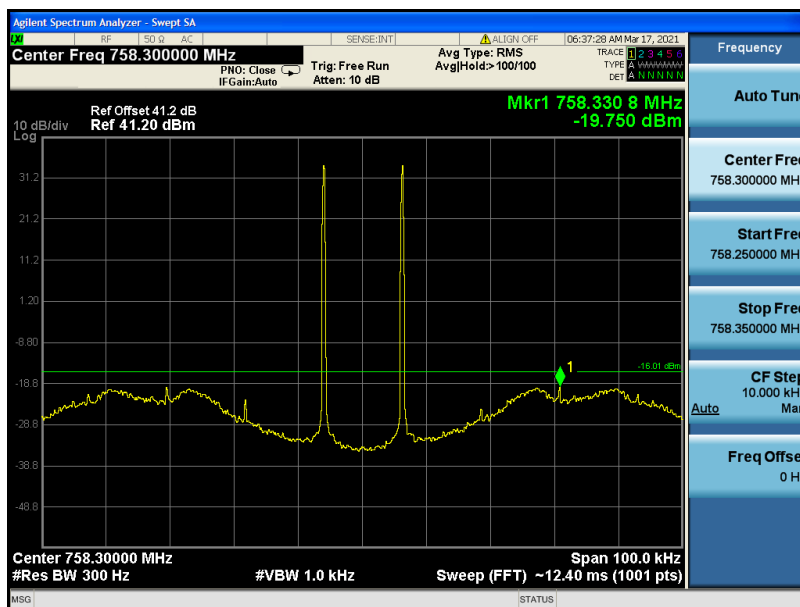
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### DL\_B\_CW\_AGC+3dB\_Intermodulation



### DL\_B\_CW\_AGC+3dB\_Intermodulation

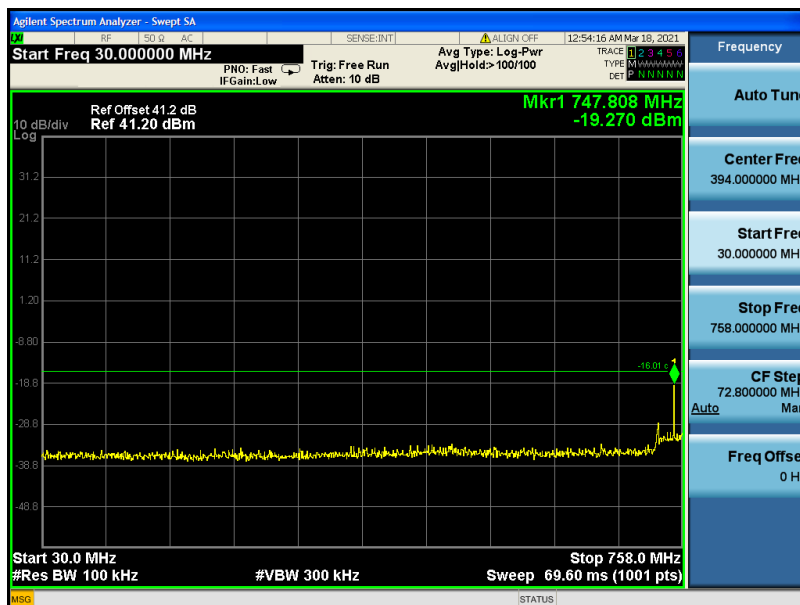


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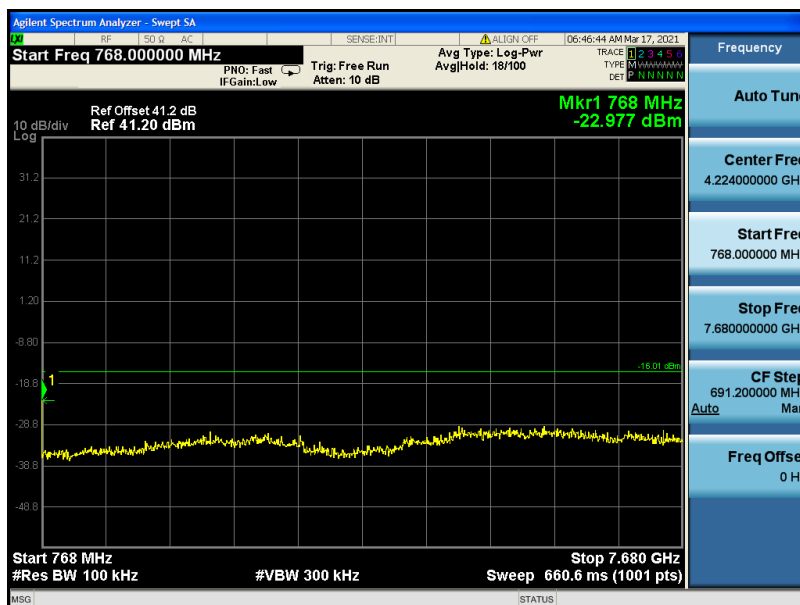
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### DL\_1S\_B\_AWGN\_Pre-AGC\_Spurious emission 1



### DL\_1S\_B\_AWGN\_Pre-AGC\_Spurious emission 2

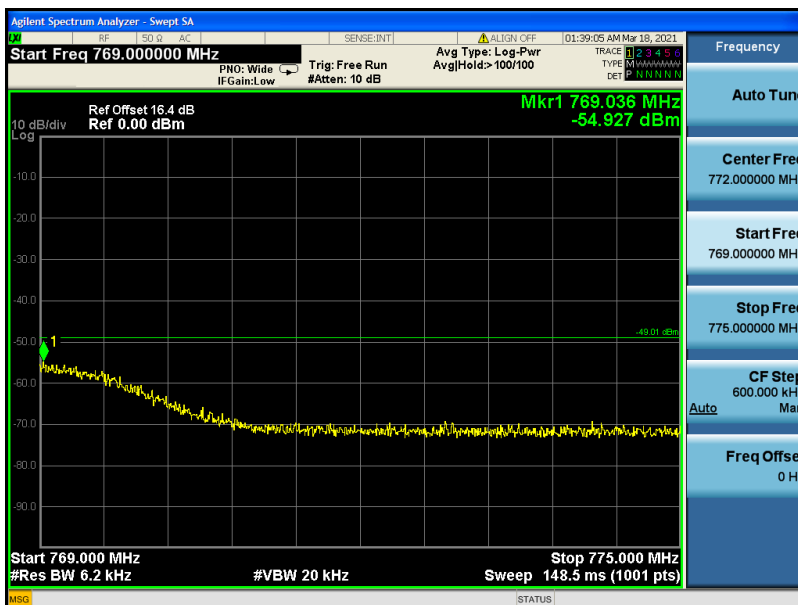


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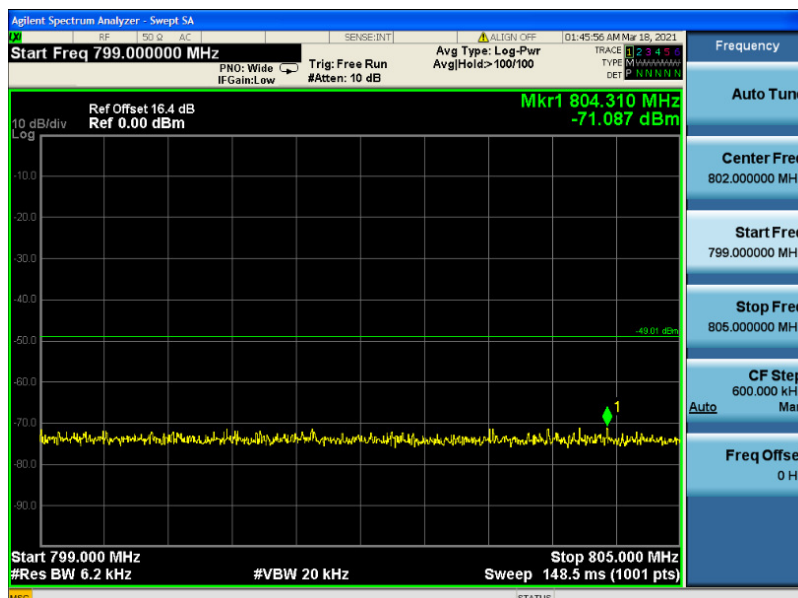
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### DL\_1S\_B\_AWGN\_Pre-AGC\_Spurious emission 3



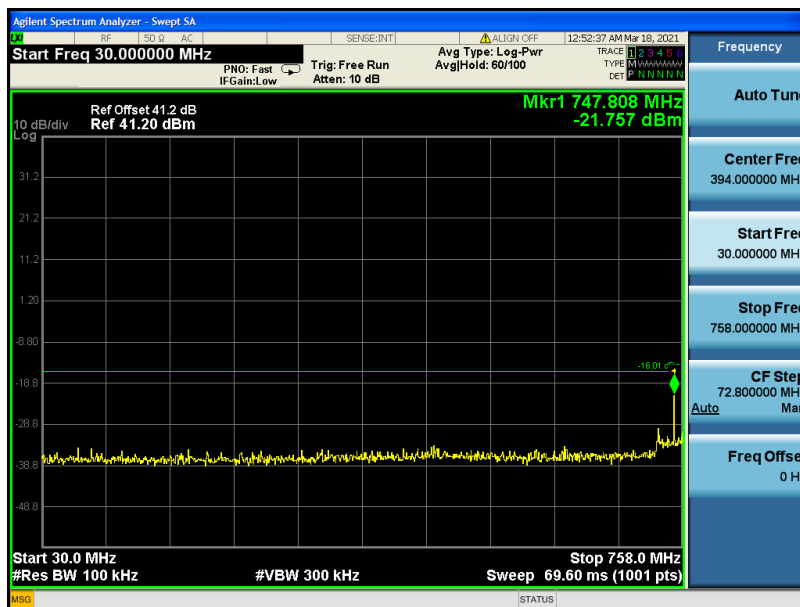
### DL\_1S\_B\_AWGN\_Pre-AGC\_Spurious emission 4



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### DL\_1S\_M\_AWGN\_Pre-AGC\_Spurious emission 1



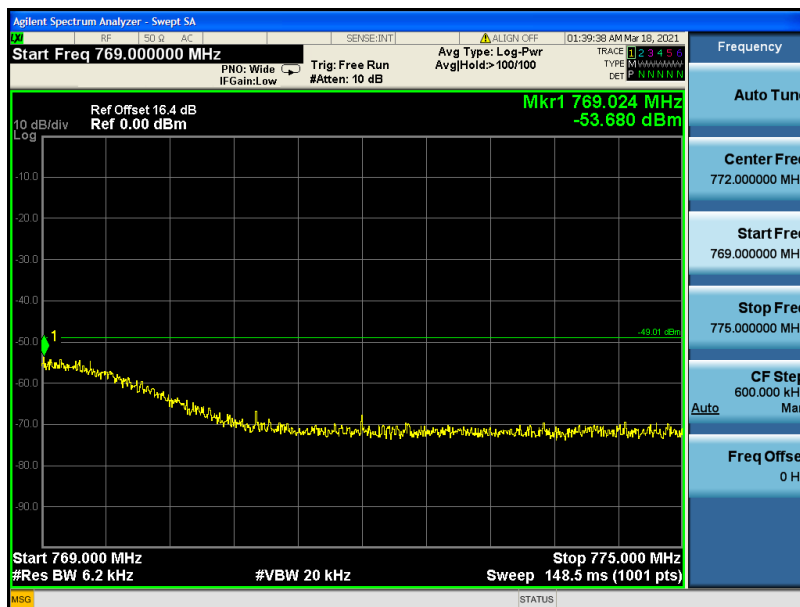
### DL\_1S\_M\_AWGN\_Pre-AGC\_Spurious emission 2



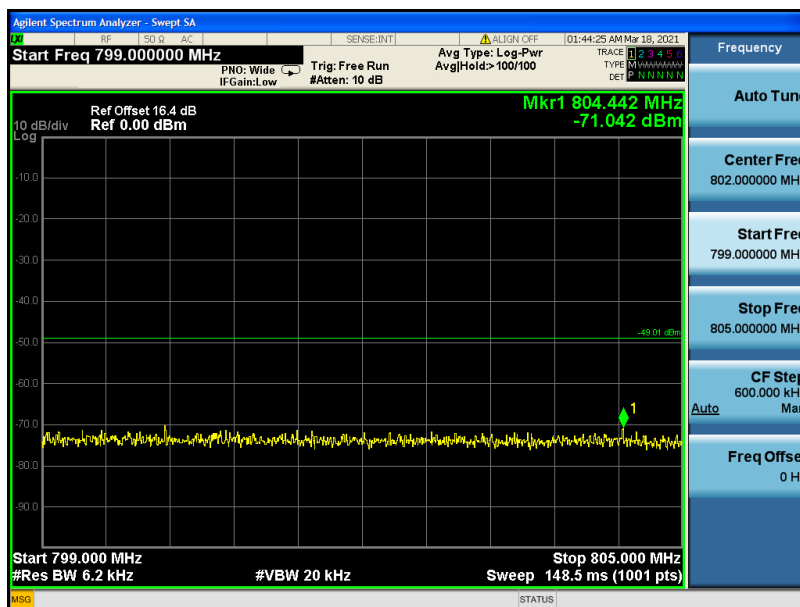
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### DL\_1S\_M\_AWGN\_Pre-AGC\_Spurious emission 3



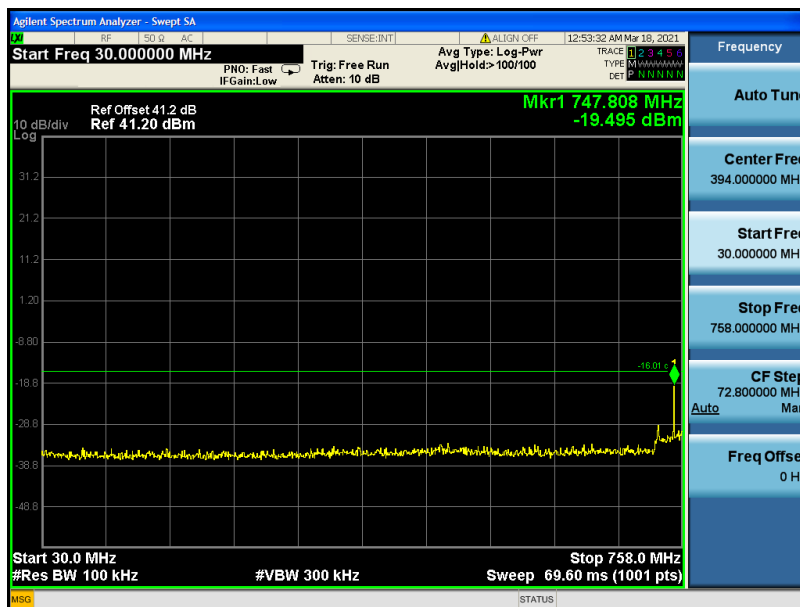
### DL\_1S\_M\_AWGN\_Pre-AGC\_Spurious emission 4



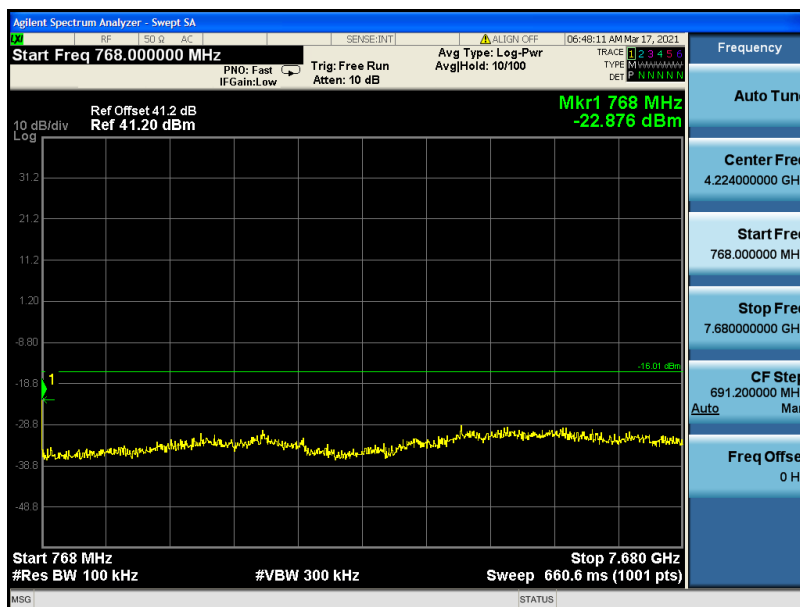
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### DL\_1S\_T\_AWGN\_Pre-AGC\_Spurious emission 1



### DL\_1S\_T\_AWGN\_Pre-AGC\_Spurious emission 2



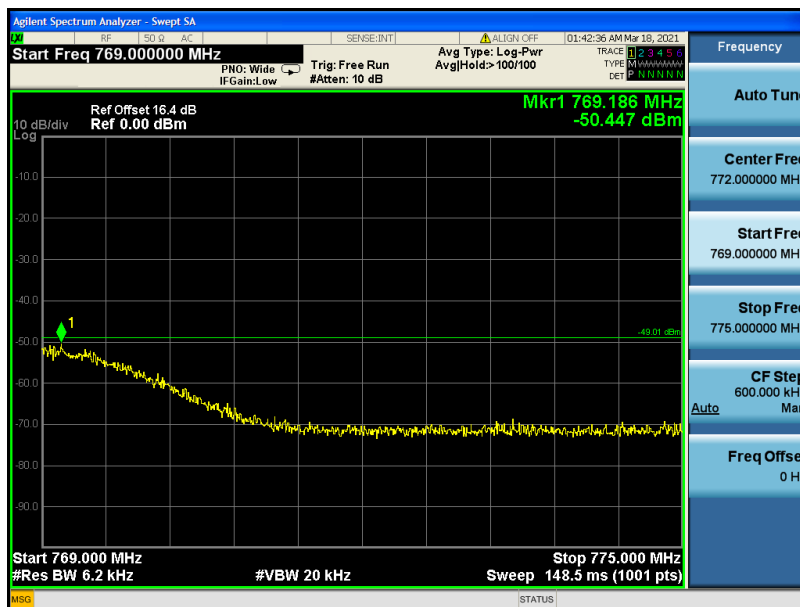
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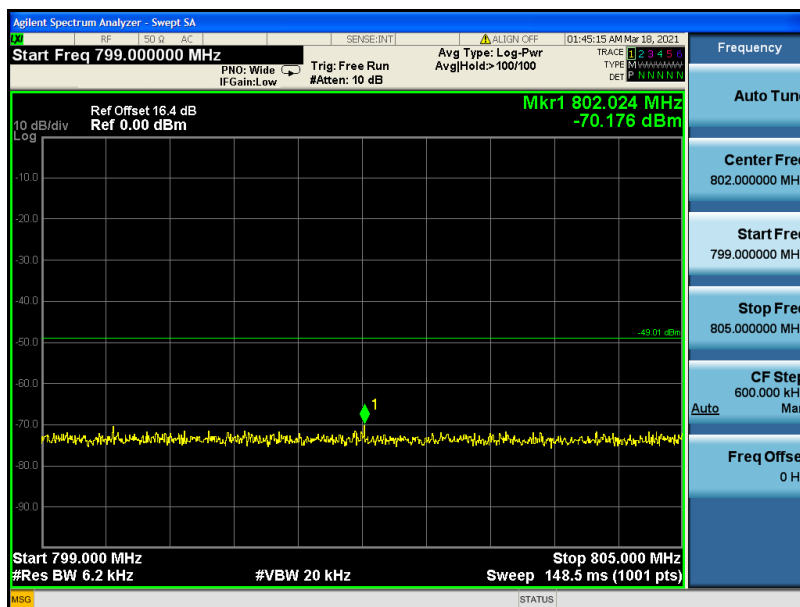
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### DL\_1S\_T\_AWGN\_Pre-AGC\_Spurious emission 3



### DL\_1S\_T\_AWGN\_Pre-AGC\_Spurious emission 4



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## 2.7 Frequency Stability

- Note:
1. At 10 °C intervals of temperatures between –30 °C and +50 °C at the manufacturer's rated supply voltage, here the rated supply voltage is AC 110V.
  2. At +20 °C temperature and ±15% supply voltage variations. If a product is specified to operate over a range of input voltage, then the –15% variation is applied to the lowermost voltage and the +15% is applied to the uppermost voltage.
  3. The frequency stabilities can be maintained within the authorized bands of operation. Meet the requirement.



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**SGS-CSTC Standards Technical Services Co., Ltd.**  
**Guangzhou Branch**

Application No.: GZCR2103000013AT

Page: 50 of 61

FCC ID: OJFDHRU-DHPAM-7

Frequency stability vs temperature				
Temperature (°C)	Test Conf.	Test data (MHz)	Tolerance (ppm)	Verdict
50	DL_1S_M_AWGN	763.000293	0.06	PASS
40		763.000532	0.37	PASS
30		763.000393	0.19	PASS
20		763.000246	Reference	PASS
10		763.000132	-0.15	PASS
0		763.000445	0.26	PASS
-10		763.000345	0.13	PASS
-20		763.000545	0.39	PASS
-30		763.000493	0.32	PASS

Frequency stability vs voltage				
Voltage (V)	Test Conf.	Test data (MHz)	Tolerance (ppm)	Verdict
AC 93.5V	DL_1S_M_AWGN	763.000383	0.18	PASS
AC 110V		763.000246	Reference	PASS
AC 126.5V		763.000335	0.12	PASS



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## 2.8 Noise/emission at antenna terminal

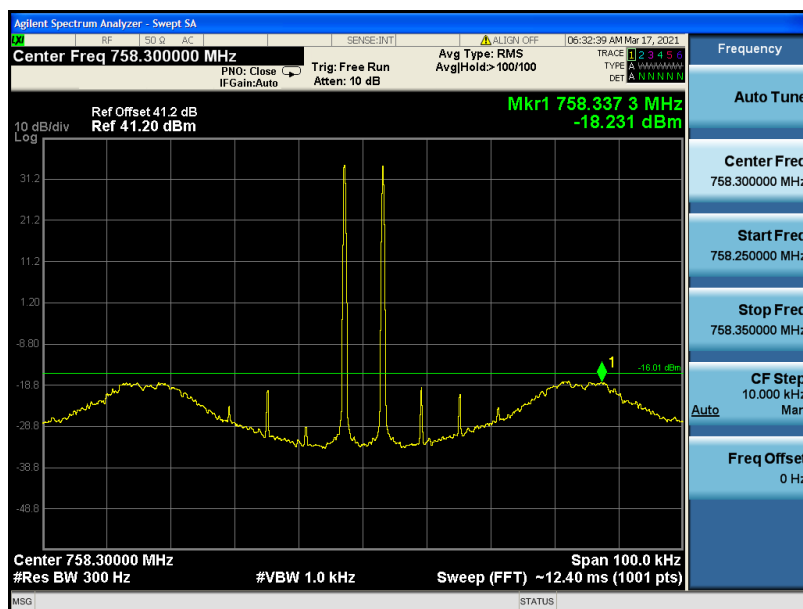
Note: Good engineering practice must be used regarding the radiation of intermodulation products and noise. Thus, the ERP of intermodulation products should not exceed the level -30dBm in 10kHz measurement bandwidth and the ERP of noise within the passband should not exceed the level -43dBm in 10kHz measurement bandwidth and the ERP of noise on spectrum more than 1MHz outside of the passband should not exceed the level -70dBm in 10kHz measurement bandwidth. In the event of harmful interference caused by any given deployment, the FCC may require additional attenuation or filtering of the emissions and/or noise from signal boosters or signal booster systems, as necessary to eliminate the interference. Detailed setting was declared by manufacturer and stated in the user manual.

Below test plots were only for recorded the case without engineering practice for refence.



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### Intermodulation Products



#### Remark:

According to the declaration from the applicant, the single antenna gain should not exceed 12.5dBi, the Directional gain =  $G(\text{ANT}) + 10 \log (\text{NANT}) \text{ dBi} = 12.5\text{dBi} + 10\log (2) \text{ dBi} = 15.5\text{dBi}$ .

ERP= EIRP-2.15dB

The conducted max intermodulation product is  $-18.231\text{dBm}/300\text{Hz} = -3\text{dBm}/10\text{kHz}$ , the conducted intermodulation product for 2X2 MIMO is  $0\text{dBm}/10\text{kHz}$ , ERP of intermodulation products is  $0\text{dBm} + 15.5\text{dBi} - 2.15\text{dB} = 13.35\text{dBm}/10\text{kHz}$ .

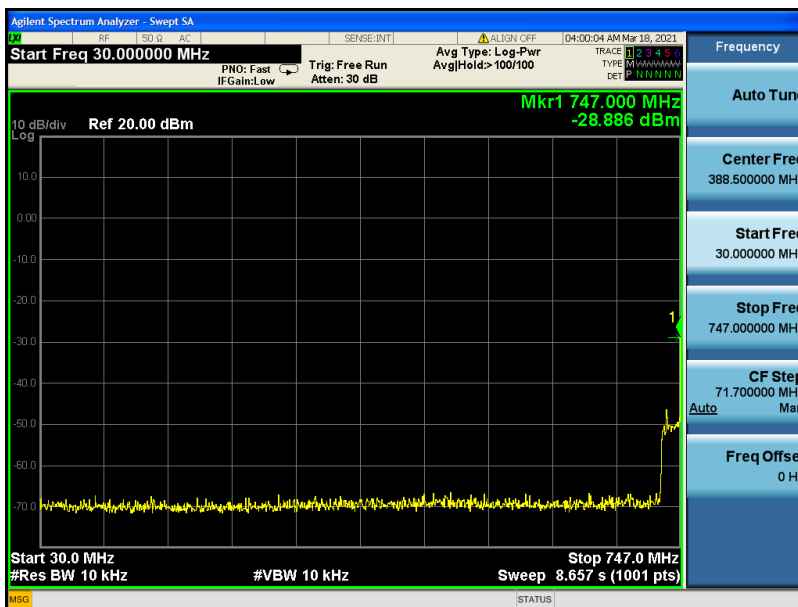
Applicant must use good engineering practice to make sure that the ERP of intermodulation products should not exceed the level  $-30\text{dBm}$  in  $10\text{kHz}$  measurement bandwidth.



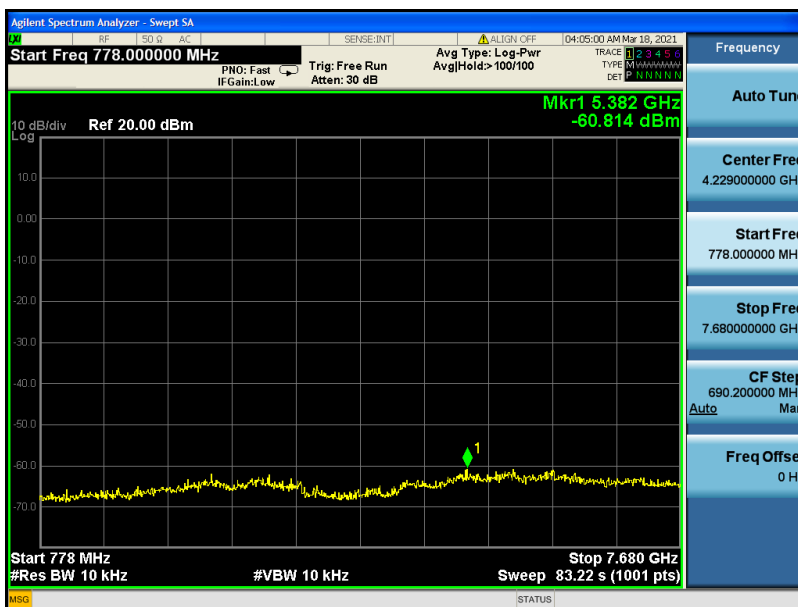
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### Noise outside of the passband



### Noise outside of the passband



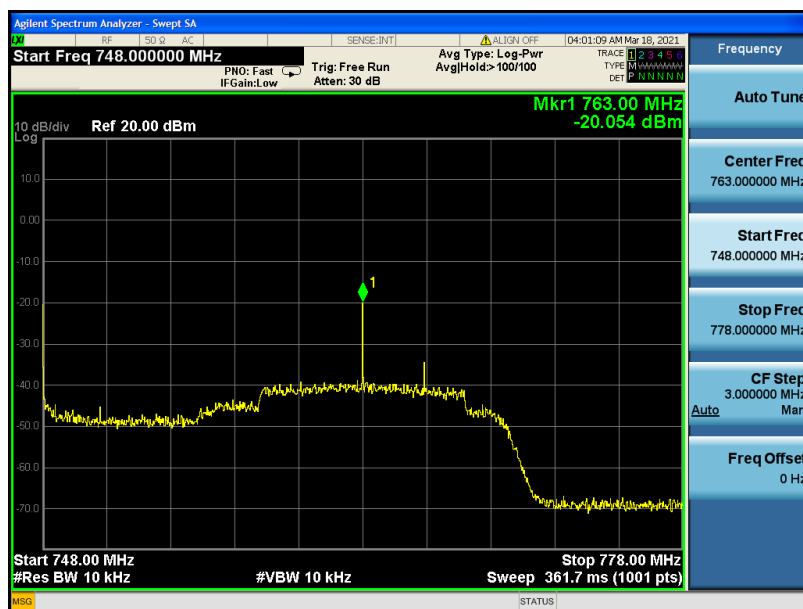
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Noise within the passband



Remark:

According to the declaration from the applicant, the single antenna gain should not exceed 12.5dBi, the Directional gain =  $G(\text{ANT}) + 10 \log (\text{NANT}) \text{ dBi} = 12.5\text{dBi} + 10\log (2) \text{ dBi} = 15.5\text{dBi}$ .

ERP= EIRP-2.15dB

The conducted max. noise on spectrum more than 1 MHz outside of the passband is -28.886dBm/10kHz, the conducted max. noise on spectrum more than 1 MHz outside of the passband for 2X2 MIMO is -25.88dBm/10kHz, ERP of noise on spectrum more than 1 MHz outside of the passband is -25.88dBm+15.5dBi-2.15dB=-12.53dBm/10kHz.

The conducted max. noise within the passband is -20.054dBm, the conducted max. noise within the passband for 2X2 MIMO is -17.21dBm/10kHz, ERP of noise within the passband is -17.21dBm+15.5dBi-2.15dB=-3.9dBm/10kHz.

Applicant must use good engineering practice to make sure that the ERP of noise within the passband should not exceed the level -43dBm in 10kHz measurement bandwidth and the ERP of noise on spectrum more than 1 MHz outside of the passband should not exceed the level -70dBm in 10 kHz measurement bandwidth.



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 中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com

## 2.9 Radiated spurious emissions

Note: 1. 47 CFR Part 90.219(e)(3)

Spurious emissions from a signal booster must not exceed -13 dBm within any 100 kHz measurement bandwidth.

The tested max conducted power for single antenna port is 43.16dBm. the 2x2 MIMO total power is 43.16dBm+43.16dBm= 41.4W.

The any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least  $43 + 10 \log (P)$  dB.

Here,

$P=41.4W$

So the limit =

$P(\text{dBm}) - [43 + 10 \log (41.4W)] = -13\text{dBm}$

2. 47 CFR Part 90.543(f)

For operations in the 758-775 MHz and 788-805 MHz bands, all emissions including harmonics in the band 1559-1610 MHz shall be limited to -70 dBW/MHz (i.e. -40dBm) equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW (i.e. -50dBm) EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

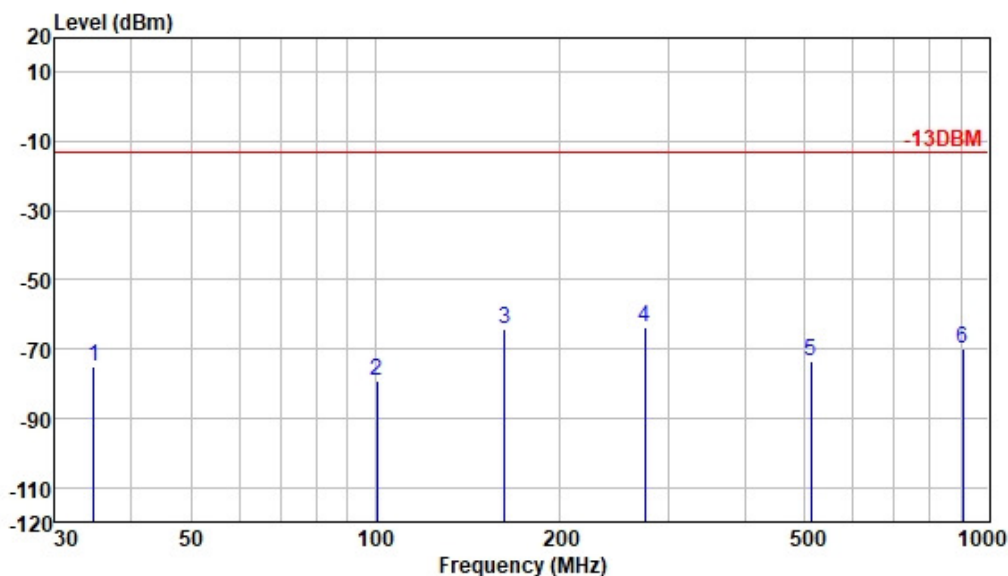
3. The radiated test performed at bottom / middle / top channel, the data with more than 20db margin, therefore, only the worst-case middle channel test data was recorded in the report.

4. The disturbance from 9kHz to 30MHz was very low and 20dB below the limit, therefore, the data was not recorded in the report.



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### DL\_1S\_M\_AWGN\_Horizontal\_30MHz~1GHz



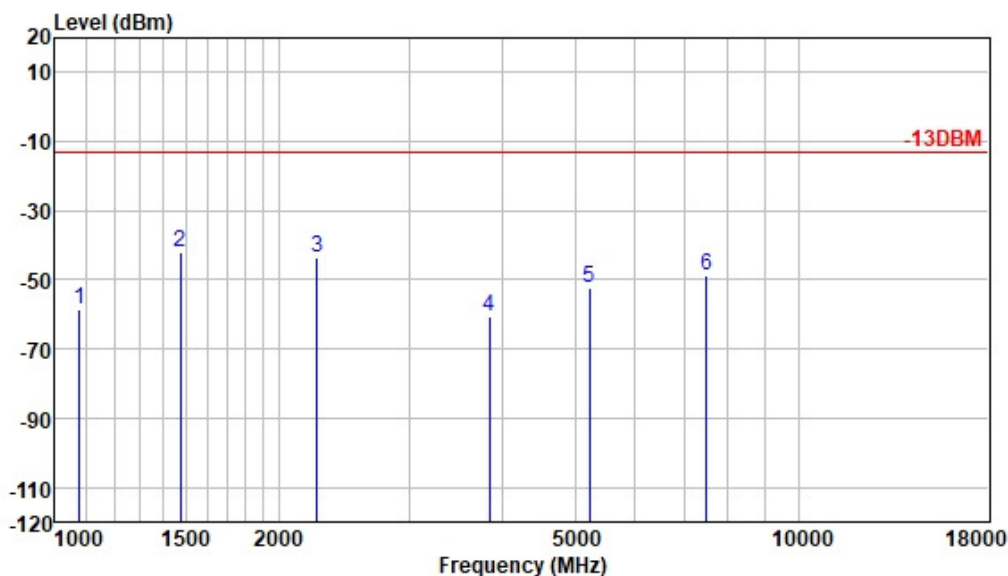
	Freq	Read Level	Correction Factor	Limit Level	Over Limit	Pol/Phase
	MHz	dBm	dB	dBm	dB	
1	34.76	-77.78	2.89	-74.89	-12.99	HORIZONTAL
2	100.58	-69.46	-9.60	-79.06	-12.99	HORIZONTAL
3	162.04	-58.07	-6.39	-64.46	-12.99	HORIZONTAL
4	274.19	-60.88	-2.75	-63.63	-12.99	HORIZONTAL
5	511.84	-73.93	0.43	-73.50	-12.99	HORIZONTAL
6	906.48	-78.98	9.04	-69.94	-12.99	HORIZONTAL



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DL\_1S\_M\_AWGN\_Horizontal\_above 1GHz



	Freq	Read Level	Correction Factor	Limit Level	Over Limit	Pol/Phase
	MHz	dBm	dB	dBm	dB	
1	1078.05	-59.95	1.62	-58.33	-12.99	HORIZONTAL
2	1473.01	-46.85	4.70	-42.15	-12.99	HORIZONTAL
3	2252.85	-52.80	9.44	-43.36	-12.99	HORIZONTAL
4	3834.44	-63.95	3.16	-60.79	-12.99	HORIZONTAL
5	5224.15	-64.59	12.41	-52.18	-12.99	HORIZONTAL
6	7497.65	-64.59	15.83	-48.76	-12.99	HORIZONTAL

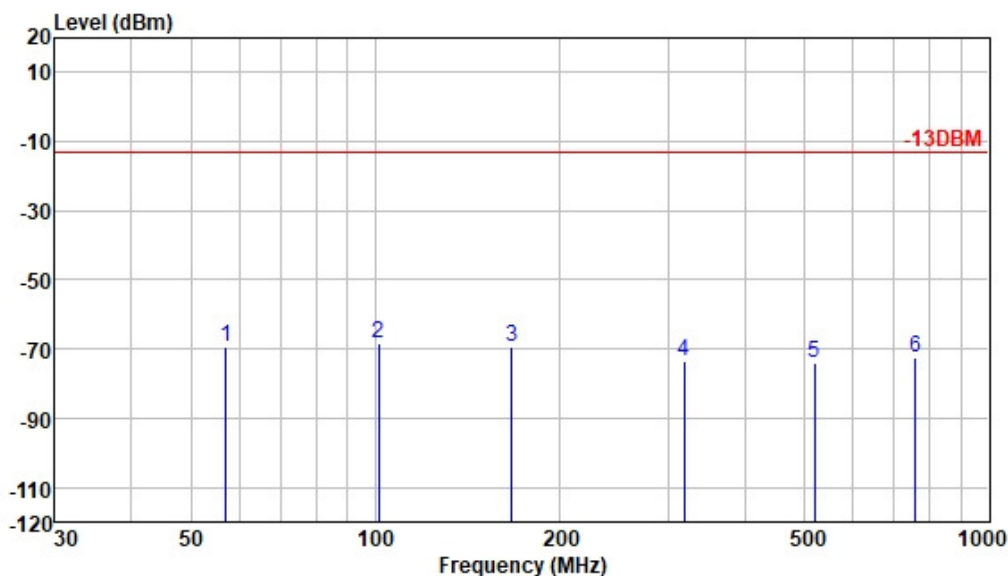


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DL\_1S\_M\_AWGN\_Vertical\_30MHz~1GHz



	Freq	Read Level	Correction Factor	Level	Limit Line	Over Limit	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	56.99	-66.31	-3.09	-69.40	-12.99	-56.41	VERTICAL
2	101.29	-63.45	-5.08	-68.53	-12.99	-55.54	VERTICAL
3	166.65	-65.58	-3.94	-69.52	-12.99	-56.53	VERTICAL
4	318.82	-70.77	-2.55	-73.32	-12.99	-60.33	VERTICAL
5	519.06	-75.38	1.16	-74.22	-12.99	-61.23	VERTICAL
6	758.04	-79.14	6.55	-72.59	-12.99	-59.60	VERTICAL

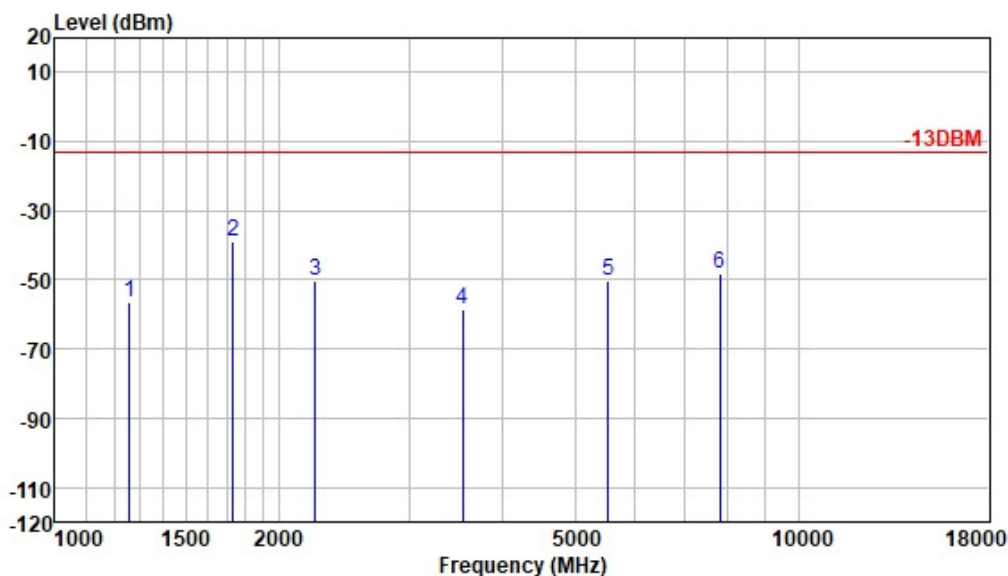


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DL\_1S\_M\_AWGN\_Vertical\_above 1GHz



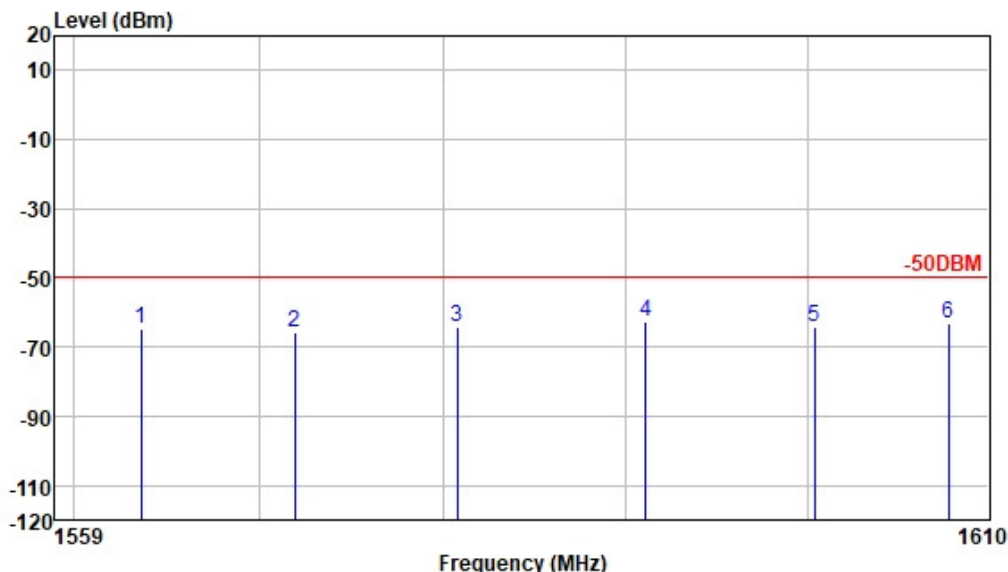
	Freq	Read Level	Correction Factor	Level	Limit Line	Over Limit	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1260.15	-60.46	4.11	-56.35	-12.99	-43.36	VERTICAL
2	1736.83	-44.64	5.68	-38.96	-12.99	-25.97	VERTICAL
3	2239.86	-59.56	9.49	-50.07	-12.99	-37.08	VERTICAL
4	3526.13	-63.06	4.31	-58.75	-12.99	-45.76	VERTICAL
5	5535.05	-64.84	14.36	-50.48	-12.99	-37.49	VERTICAL
6	7829.86	-65.10	16.69	-48.41	-12.99	-35.42	VERTICAL



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DL\_1S\_M\_AWGN\_Horizontal\_1559MHz~1610MHz



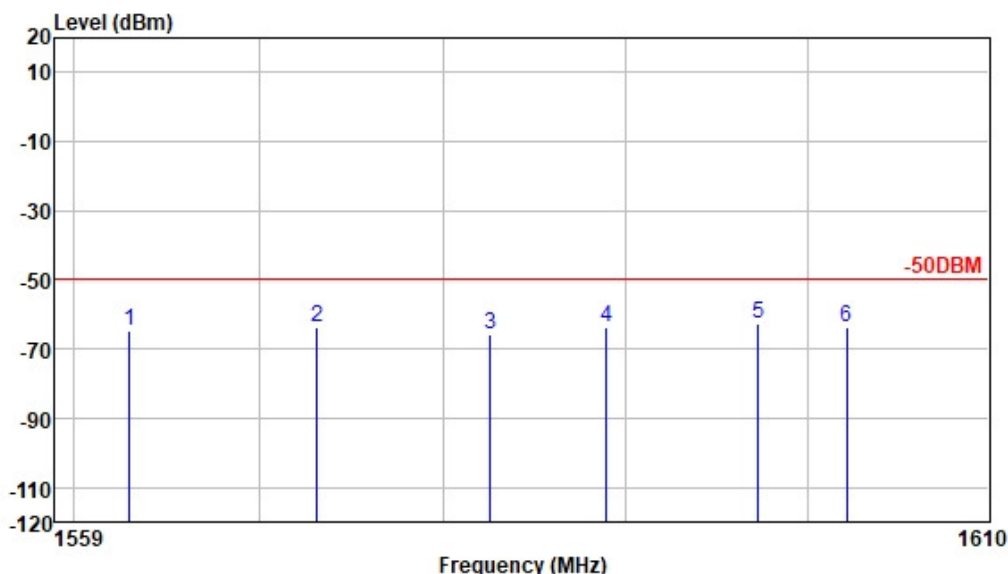
	Freq	Read Level	Correction Factor	Level	Limit	Over Limit	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1563.62	-69.58	5.07	-64.51	-49.99	-14.52	HORIZONTAL
2	1571.95	-70.81	5.10	-65.71	-49.99	-15.72	HORIZONTAL
3	1580.78	-69.59	5.14	-64.45	-49.99	-14.46	HORIZONTAL
4	1591.04	-67.71	5.20	-62.51	-49.99	-12.52	HORIZONTAL
5	1600.34	-69.32	5.24	-64.08	-49.99	-14.09	HORIZONTAL
6	1607.77	-68.59	5.28	-63.31	-49.99	-13.32	HORIZONTAL



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DL\_1S\_M\_AWGN\_Vertical\_1559MHz~1610MHz



	Freq	Read Level	Correction Factor	Level	Limit	Over Limit	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1563.02	-70.27	5.51	-64.76	-49.99	-14.77	VERTICAL
2	1573.17	-68.79	5.31	-63.48	-49.99	-13.49	VERTICAL
3	1582.56	-71.09	5.13	-65.96	-49.99	-15.97	VERTICAL
4	1588.89	-68.83	5.04	-63.79	-49.99	-13.80	VERTICAL
5	1597.25	-67.63	4.89	-62.74	-49.99	-12.75	VERTICAL
6	1602.14	-68.29	4.82	-63.47	-49.99	-13.48	VERTICAL

--End of Appendix B--



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