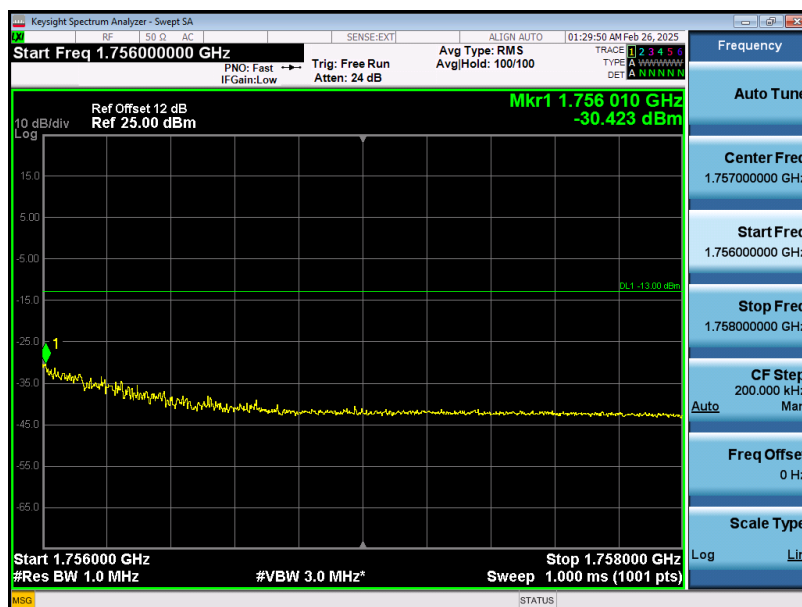
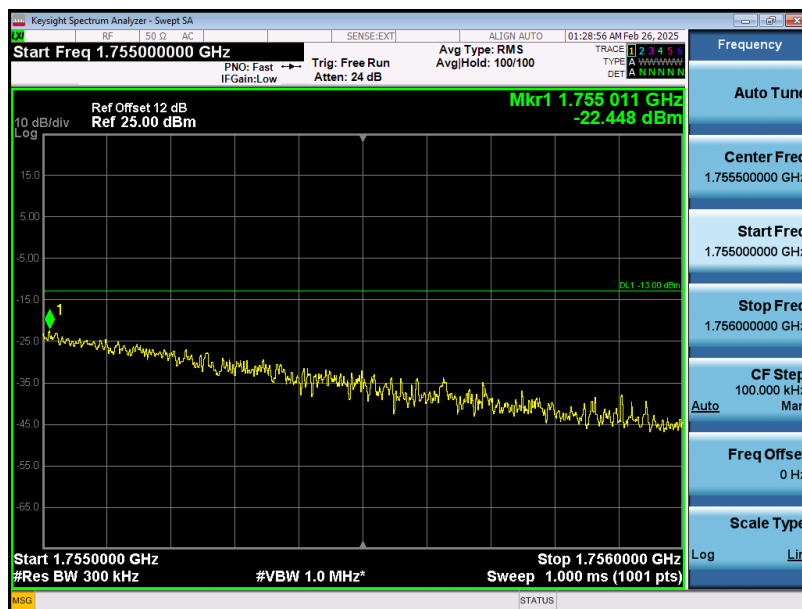


### Out-of-band emissions

UL\_1.25MHz AWGN input\_Upper band edge\_10dB above AGC

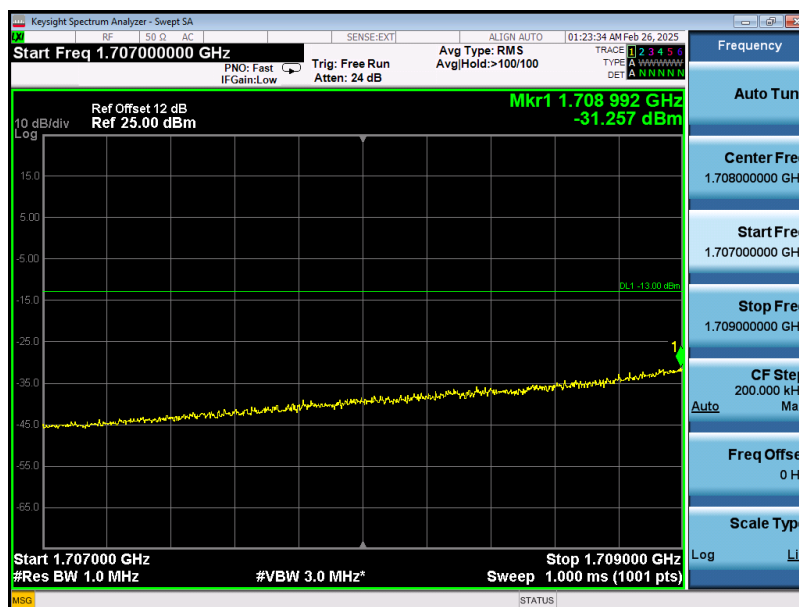
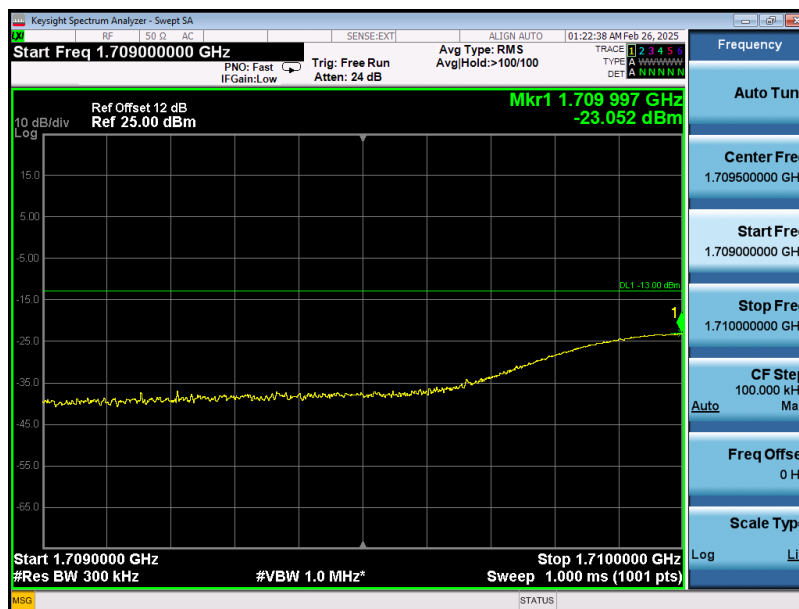


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### Out-of-band emissions

#### UL\_4.1MHz AWGN input\_Lower band edge\_pre-AGC

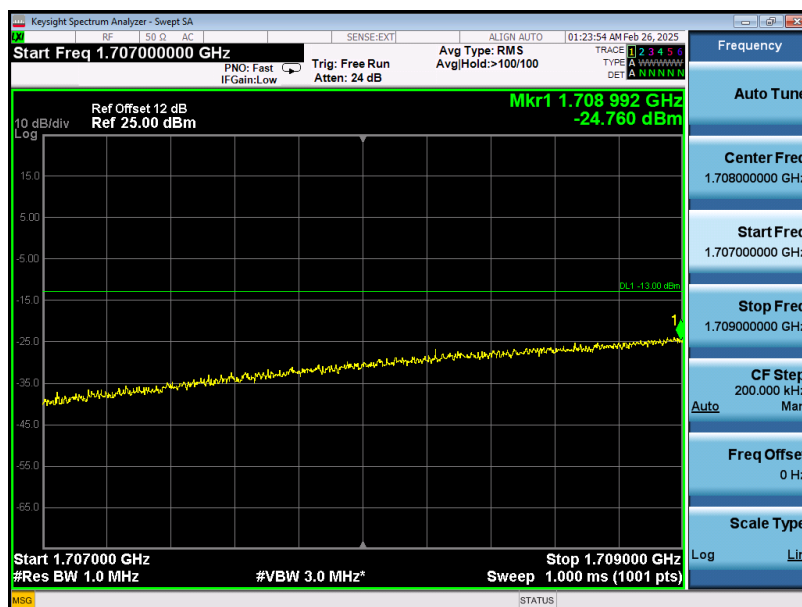
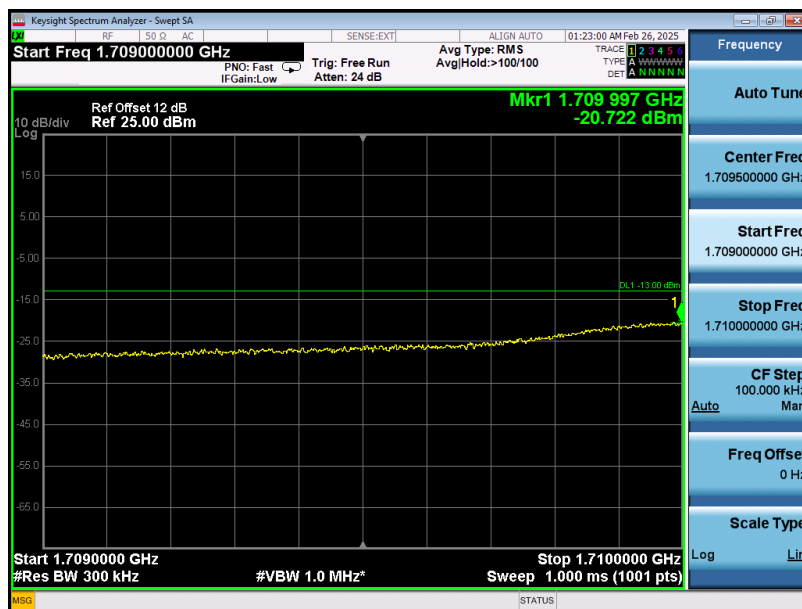


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### Out-of-band emissions

UL\_4.1MHz AWGN input\_Lower band edge\_10dB above AGC



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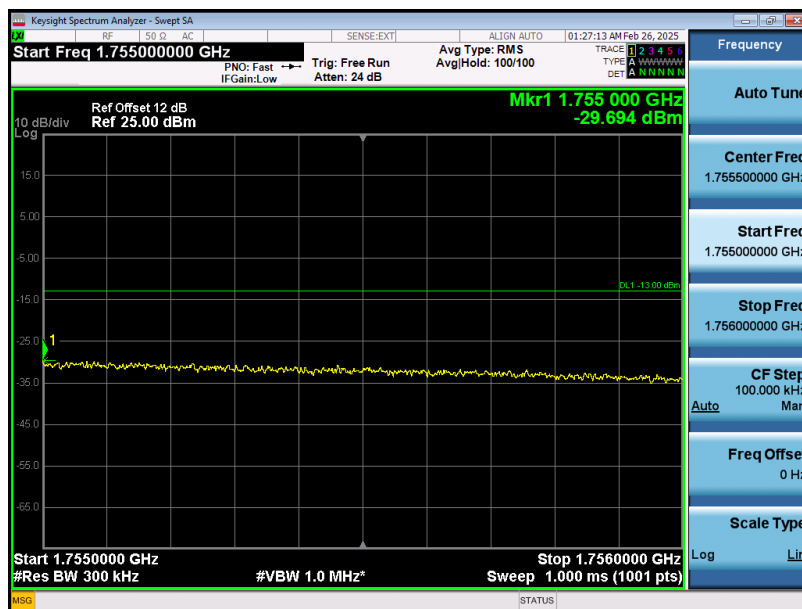
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### Out-of-band emissions

#### UL\_4.1MHz AWGN input\_Upper band edge\_pre-AGC



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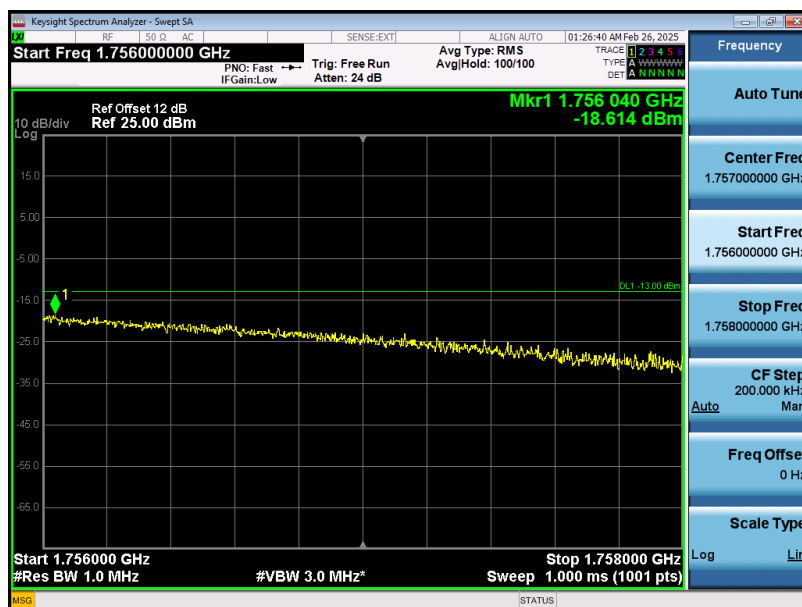
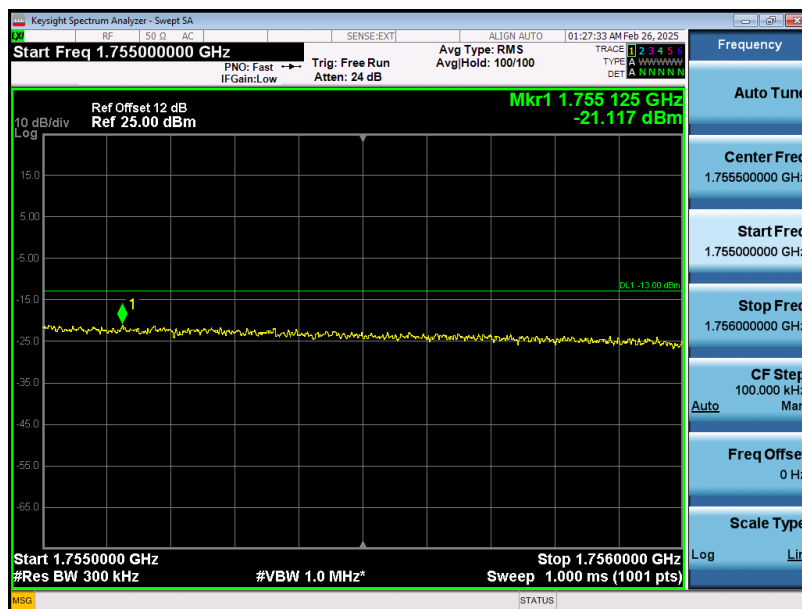
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### Out-of-band emissions

UL\_4.1MHz AWGN input\_Upper band edge\_10dB above AGC



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## 7 Conducted spurious emissions

Conducted spurious emissions							
Test Path	Test Port	Test Signal	Test Channel	Frequency Range (MHz)	Worst conducted test level (dBm)	Limit (dBm)	Verdict
DL	MT1	4.1MHz AWGN	MCH	30-2109	-42.61	≤-13	PASS
				2156-21550	-49.35	≤-13	PASS
	MT2	4.1MHz AWGN	MCH	30-2109	-42.41	≤-13	PASS
				2156-21550	-49.13	≤-13	PASS
	MT3	4.1MHz AWGN	MCH	30-2109	-42.26	≤-13	PASS
				2156-21550	-49.01	≤-13	PASS
	MT4	4.1MHz AWGN	MCH	30-2109	-42.38	≤-13	PASS
				2156-21550	-49.18	≤-13	PASS
	MT5	4.1MHz AWGN	MCH	30-2109	-42.48	≤-13	PASS
				2156-21550	-48.36	≤-13	PASS
	MT6	4.1MHz AWGN	MCH	30-2109	-42.19	≤-13	PASS
				2156-21550	-48.32	≤-13	PASS
	MT7	4.1MHz AWGN	MCH	30-2109	-42.68	≤-13	PASS
				2156-21550	-48.22	≤-13	PASS
	MT8	4.1MHz AWGN	MCH	30-2109	-42.35	≤-13	PASS
				2156-21550	-48.45	≤-13	PASS
UL	DT	4.1MHz AWGN	MCH	30-1709	-25.82	≤-13	PASS
				1756-17550	-46.80	≤-13	PASS

### Remark:

The conducted spurious emissions 9kHz to 30MHz and above 10GHz were very low and not displayed test plots in this report.



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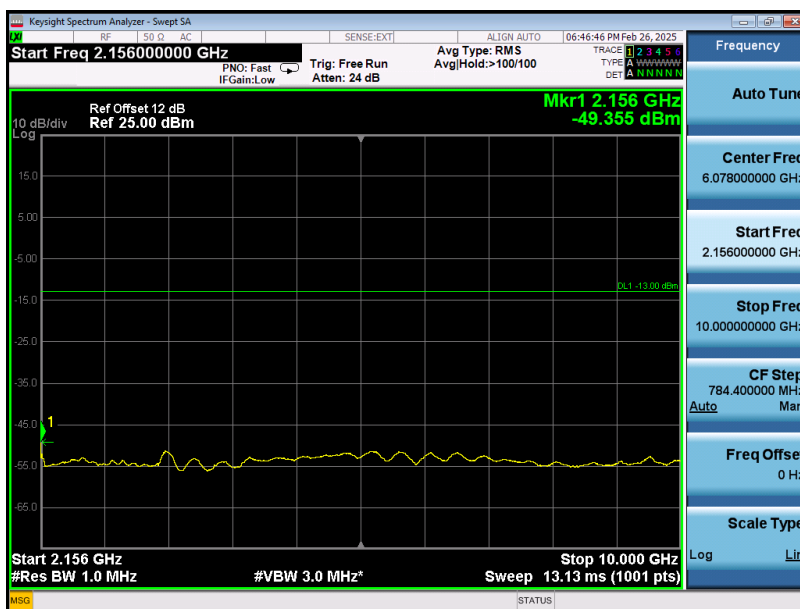
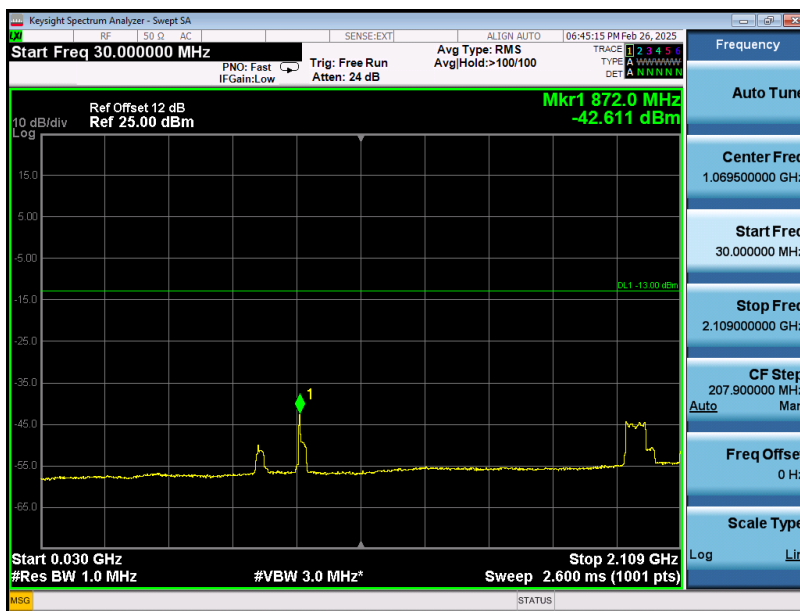
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### Conducted spurious emissions

DL\_MT1



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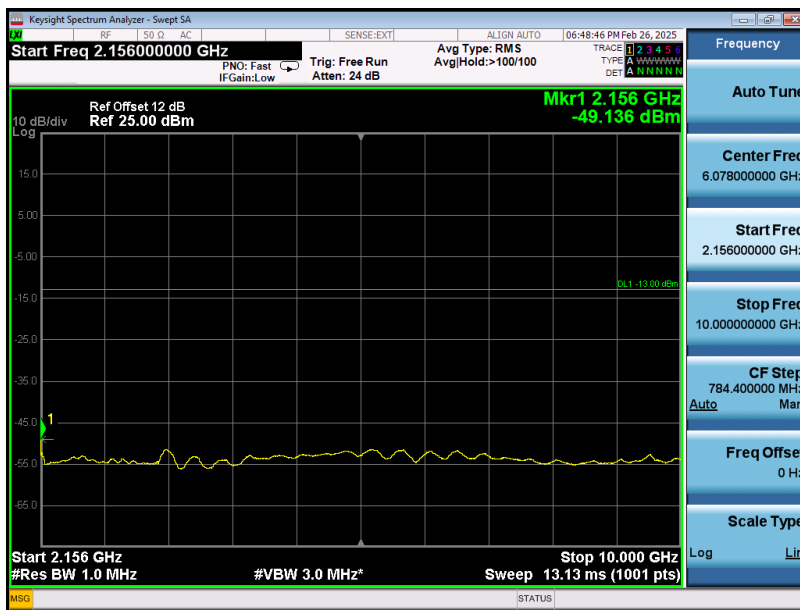
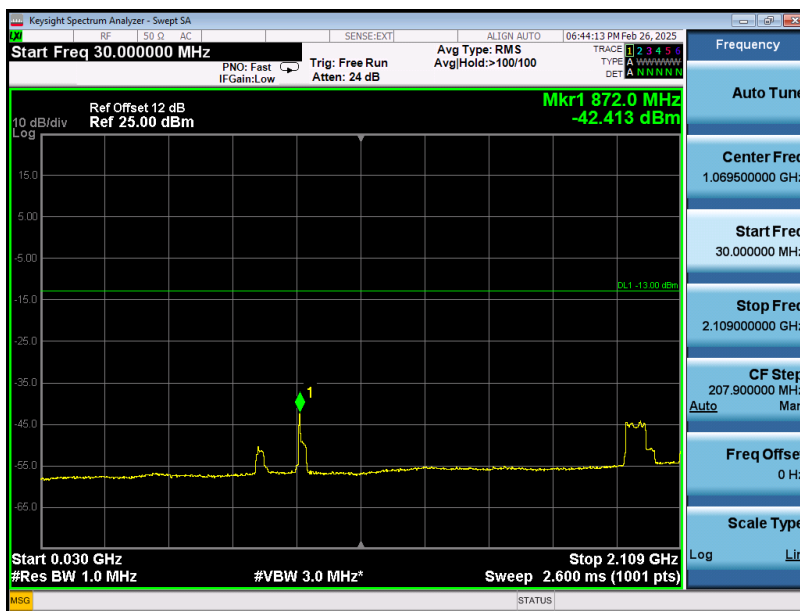
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### Conducted spurious emissions

DL\_MT2



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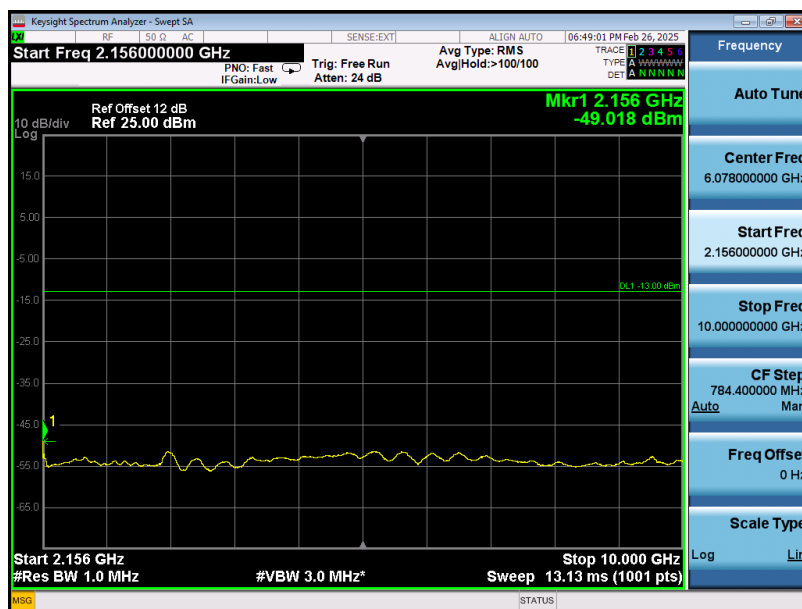
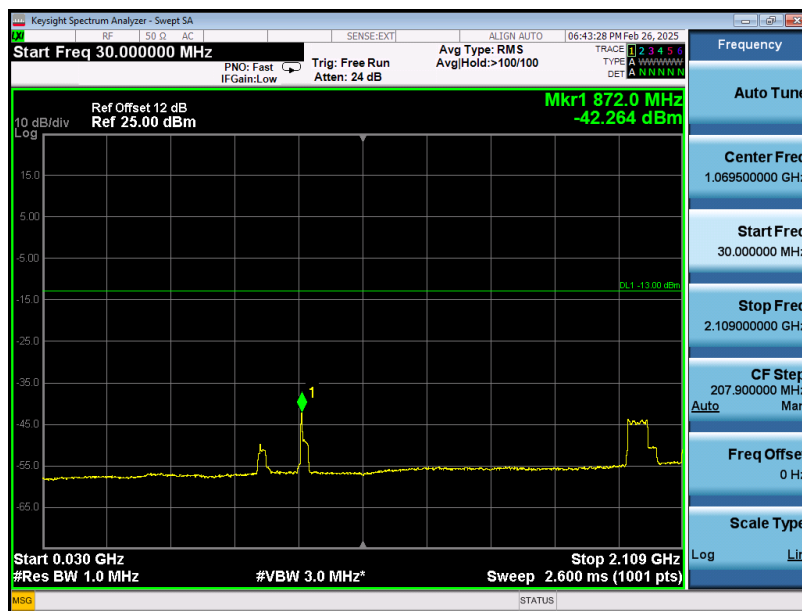
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### Conducted spurious emissions

DL\_MT3

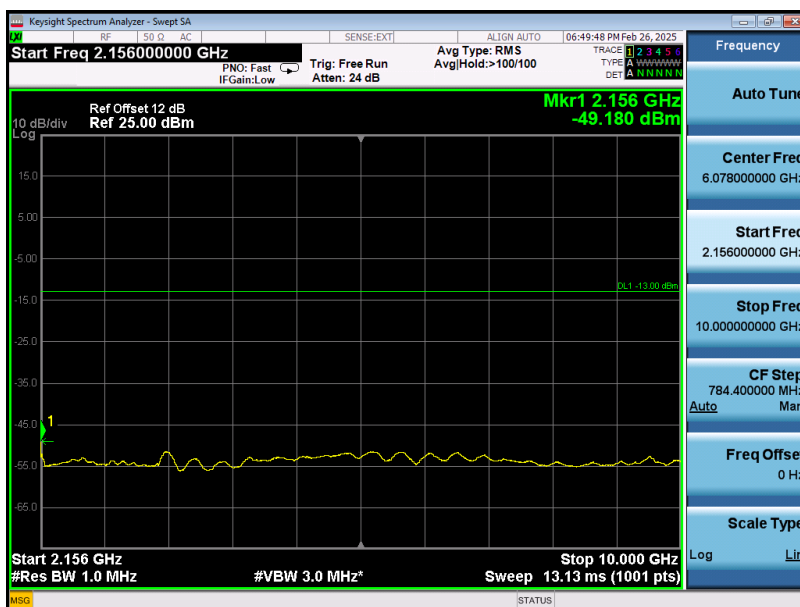
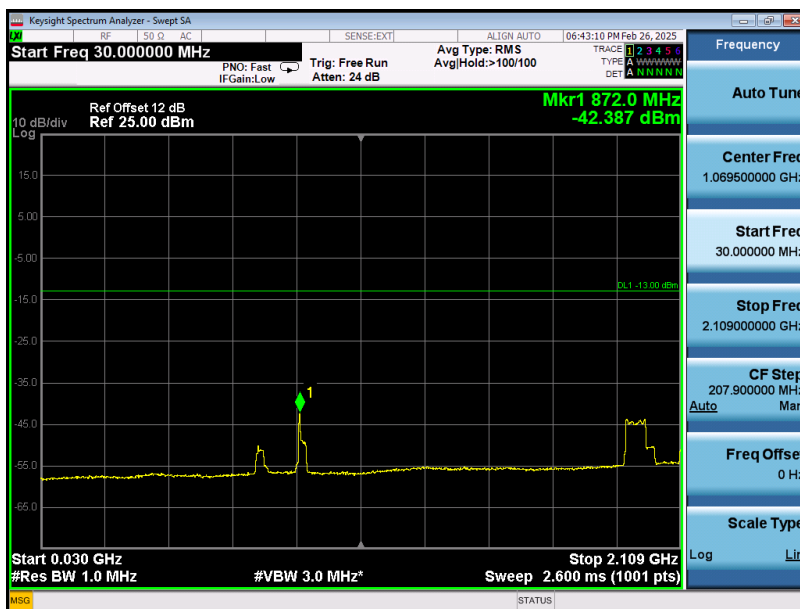


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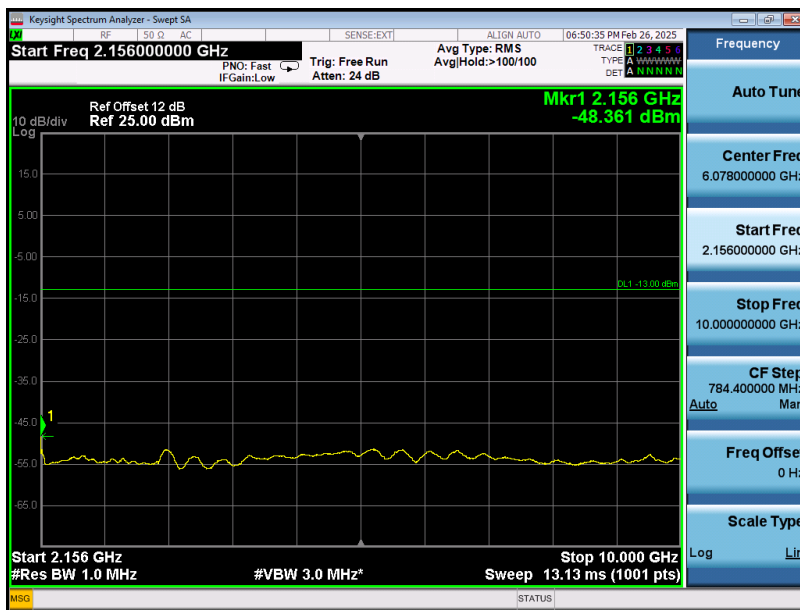
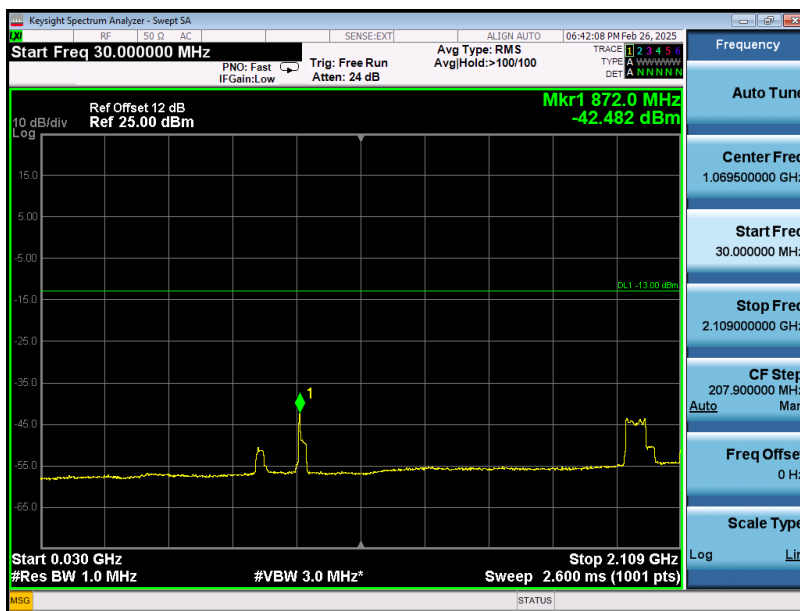
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### Conducted spurious emissions

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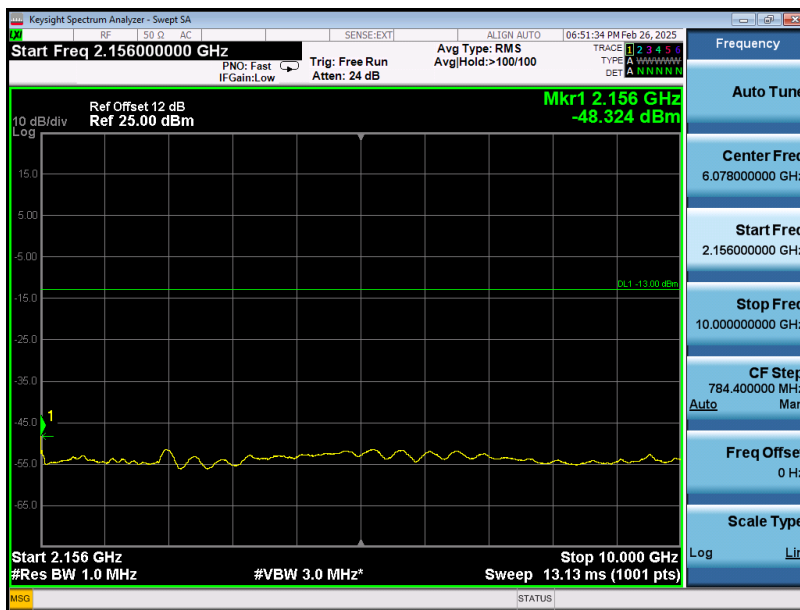
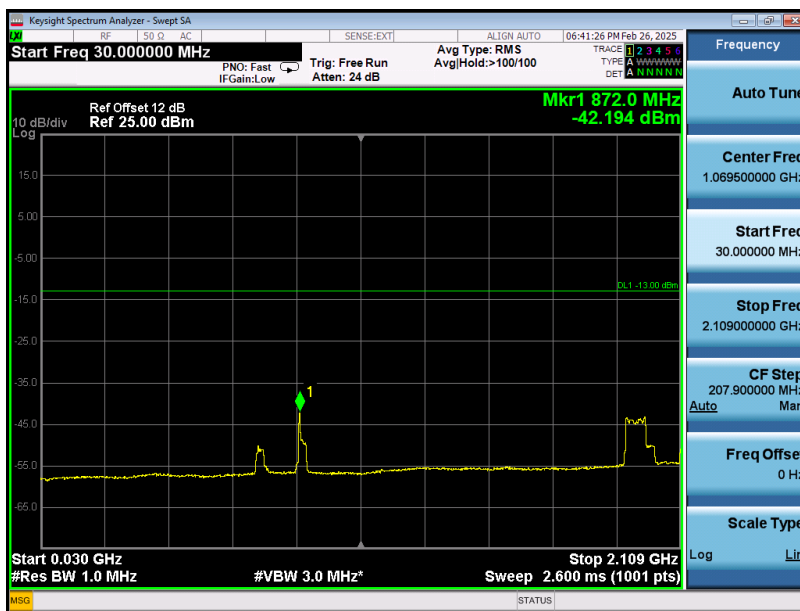


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### Conducted spurious emissions

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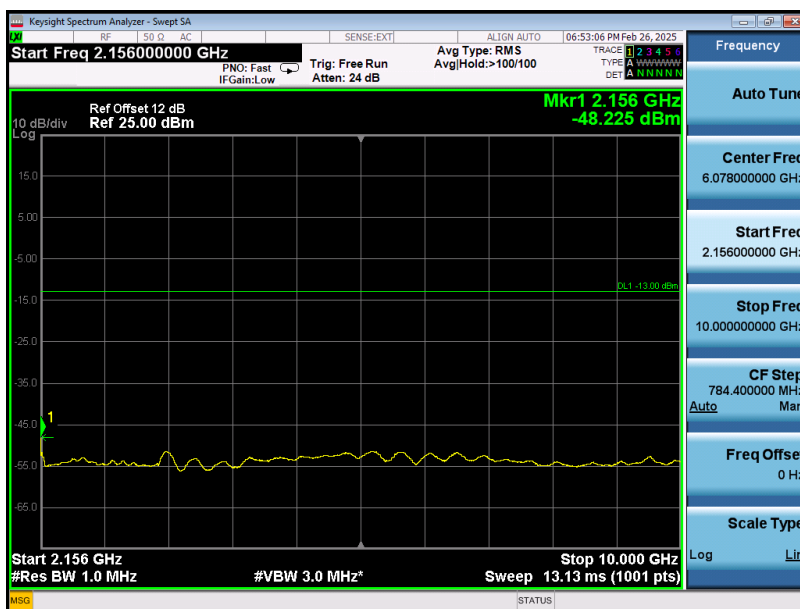
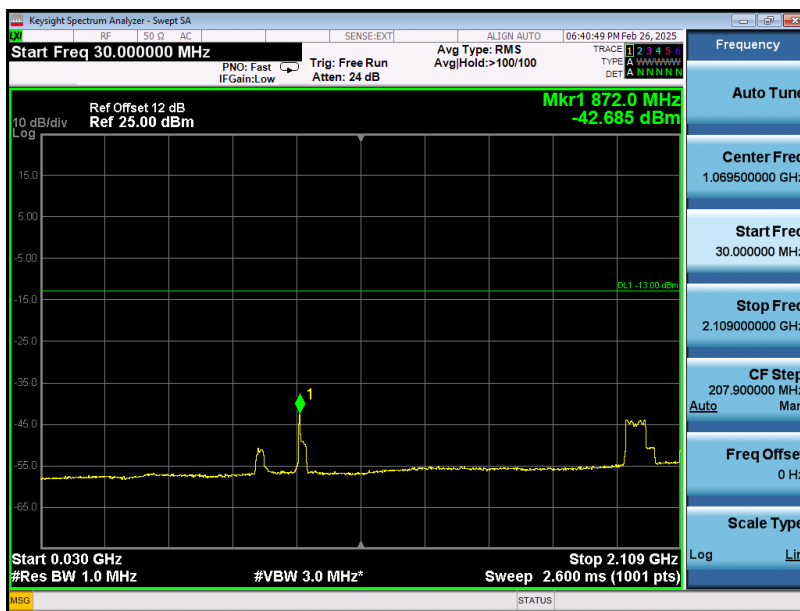
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### Conducted spurious emissions

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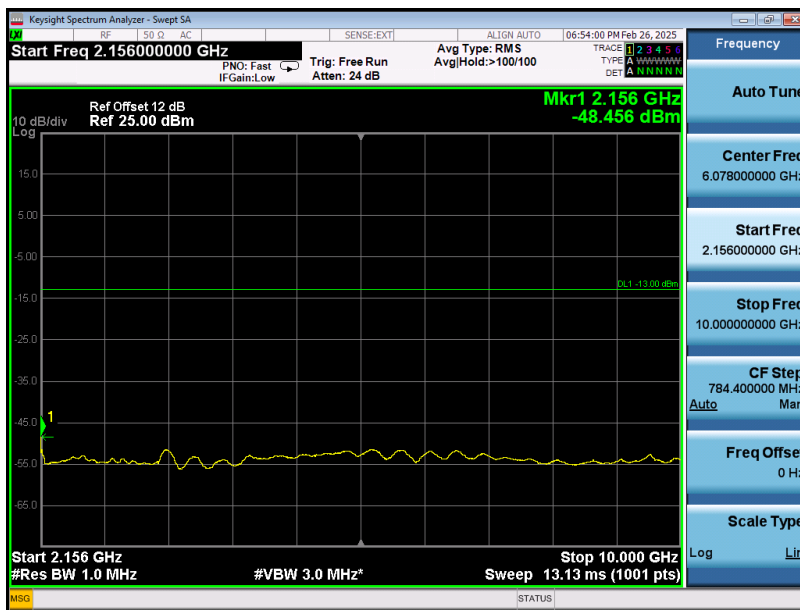
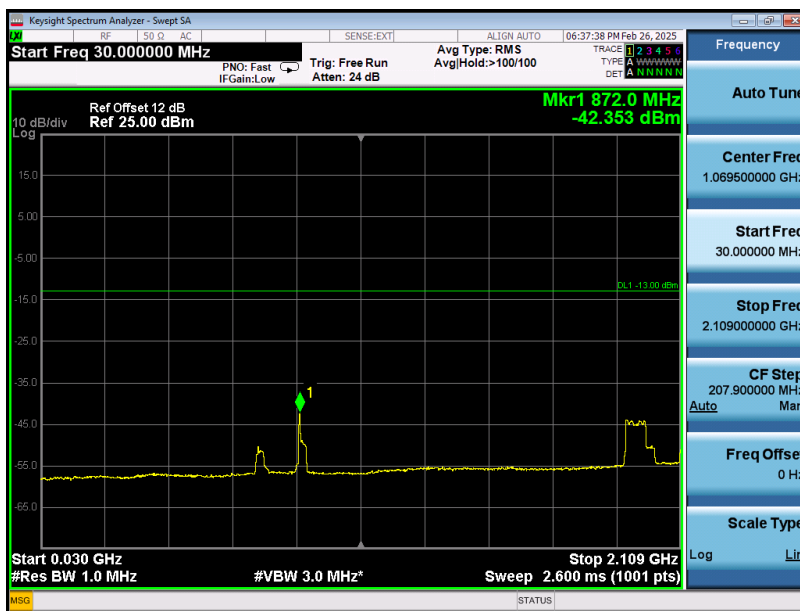


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### Conducted spurious emissions

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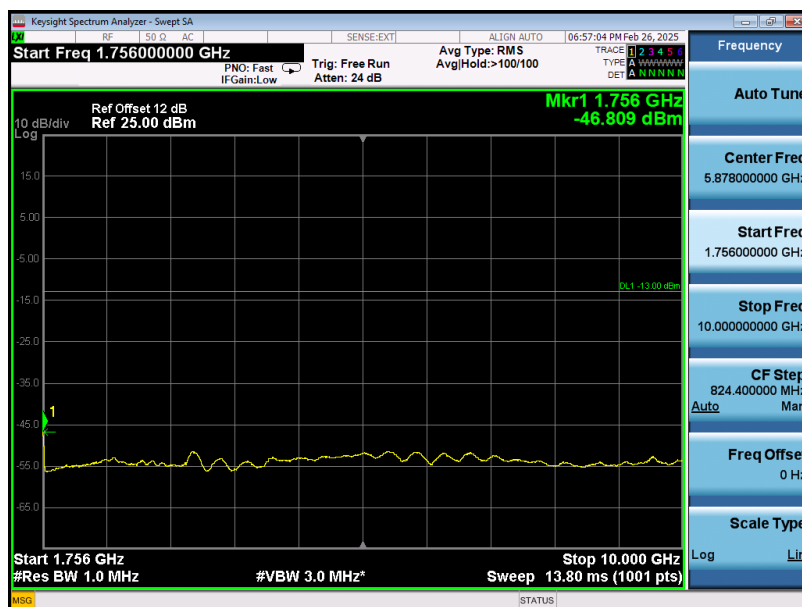
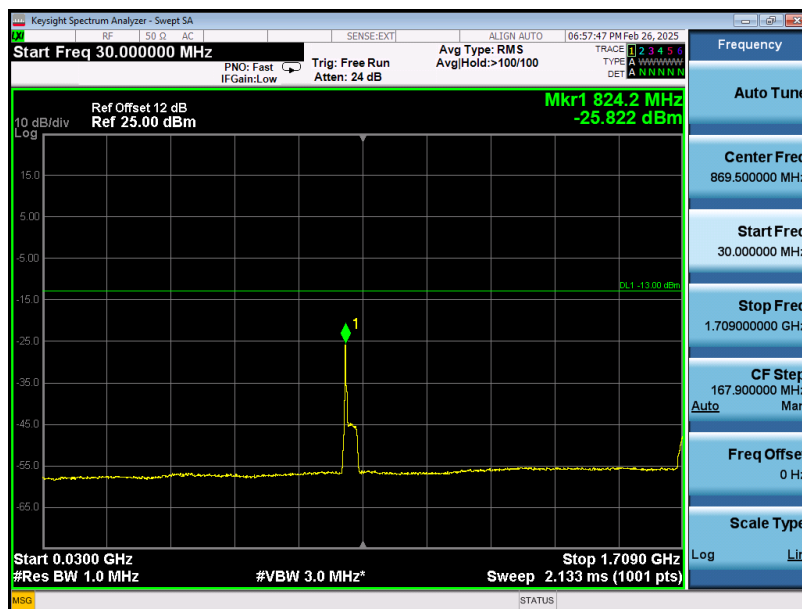


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### Conducted spurious emissions

UL\_DT



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## 8 Noise

### 8.1 Maximum transmitter noise power level

Maximum transmitter noise power level				
Test Path	Test Port	Noise Level (dBm/MHz)	Limit (dBm/MHz)	Verdict
DL	MT1	-42.73	$\leq -37.7$	PASS
	MT2	-42.90	$\leq -37.7$	PASS
	MT3	-42.48	$\leq -37.7$	PASS
	MT4	-42.88	$\leq -37.7$	PASS
	MT5	-42.63	$\leq -37.7$	PASS
	MT6	-43.62	$\leq -37.7$	PASS
	MT7	-43.26	$\leq -37.7$	PASS
	MT8	-43.53	$\leq -37.7$	PASS
Remark: The uplink mid-band frequency is 1732.5MHz for AWS-1, the maximum downlink noise limit is $-102.5\text{dBm/MHz} + 20 \text{ Log } (1732.5) = -37.7\text{dBm/MHz}$ .				



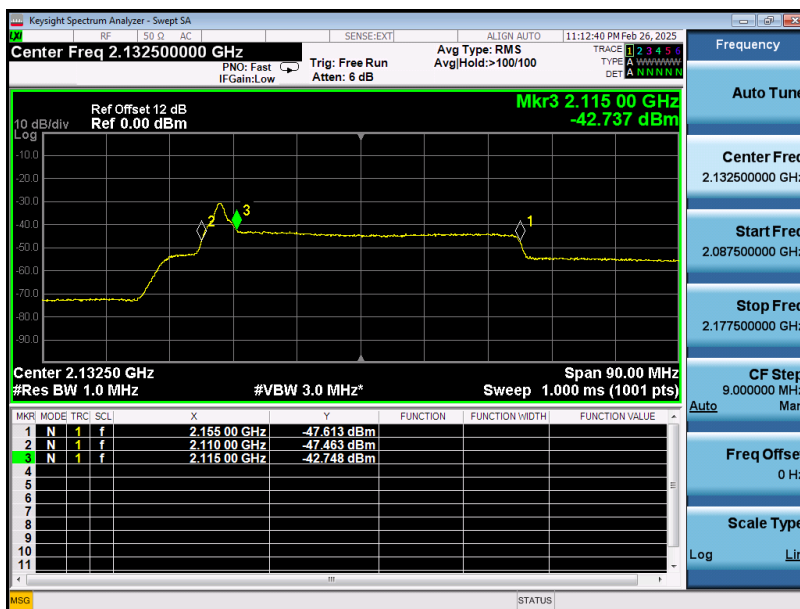
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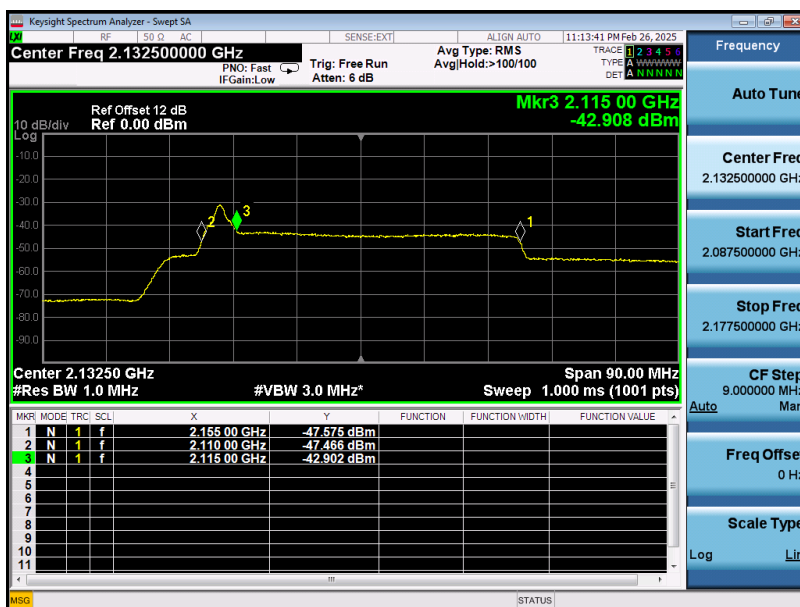


### Maximum transmitter Noise Power Level

DL\_MT1



DL\_MT2



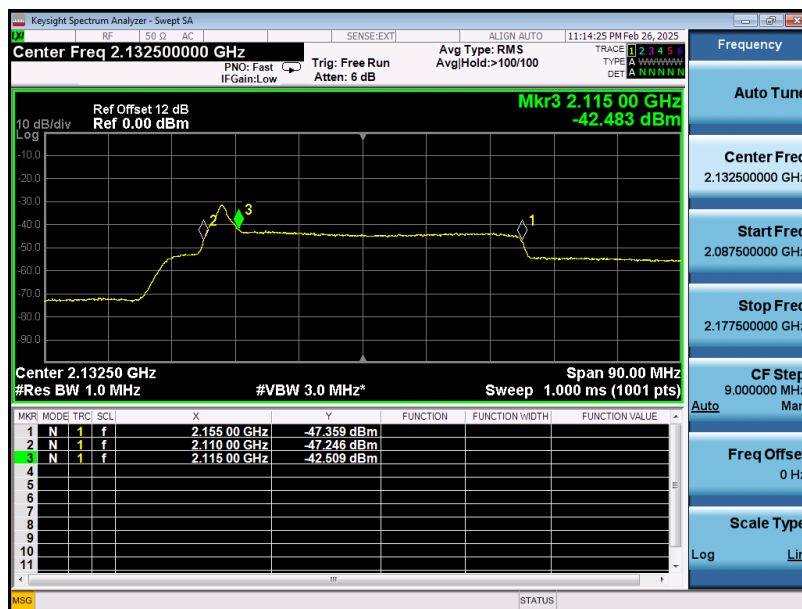
Remark:

Between Mkr 2 and Mkr 3 represents the authorized licensee spectrum block set for the EUT, the noise power within that does not need to be measured.

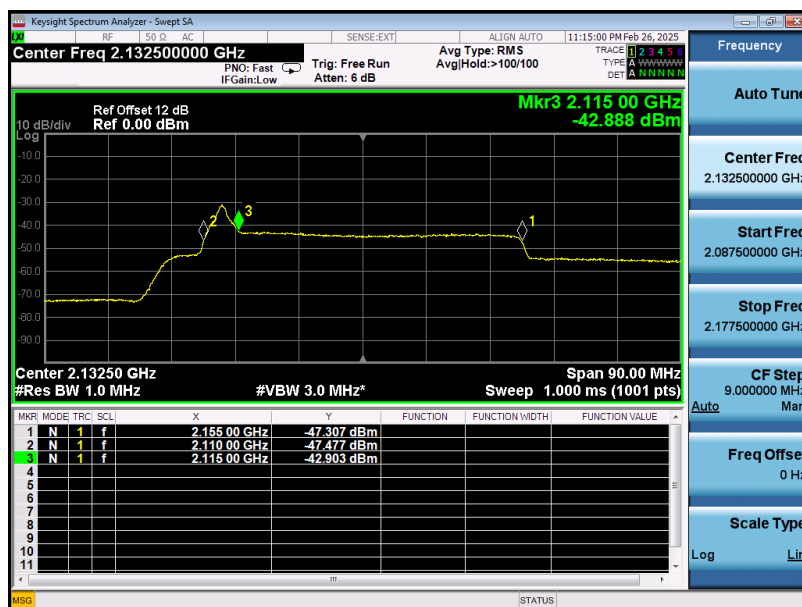


### Maximum transmitter Noise Power Level

#### DL\_MT3



#### DL\_MT4



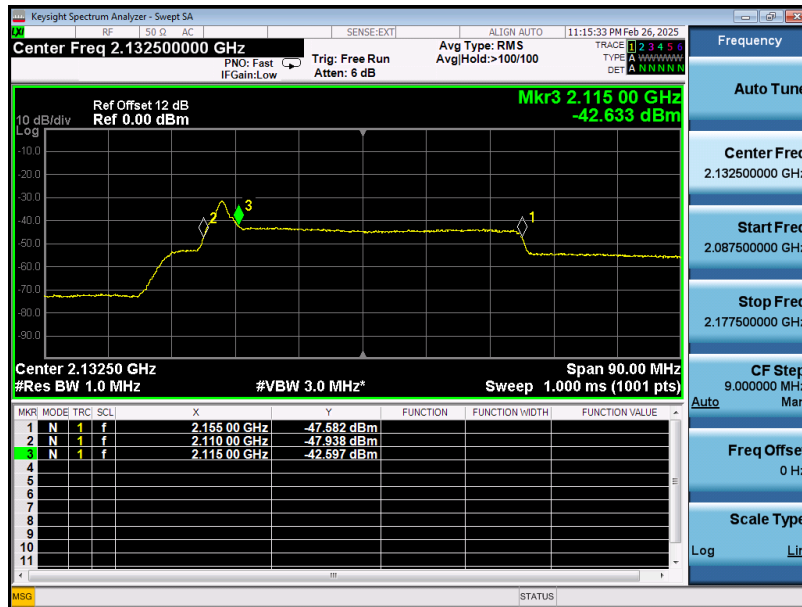
#### Remark:

Between Mkr 2 and Mkr 3 represents the authorized licensee spectrum block set for the EUT, the noise power within that does not need to be measured.

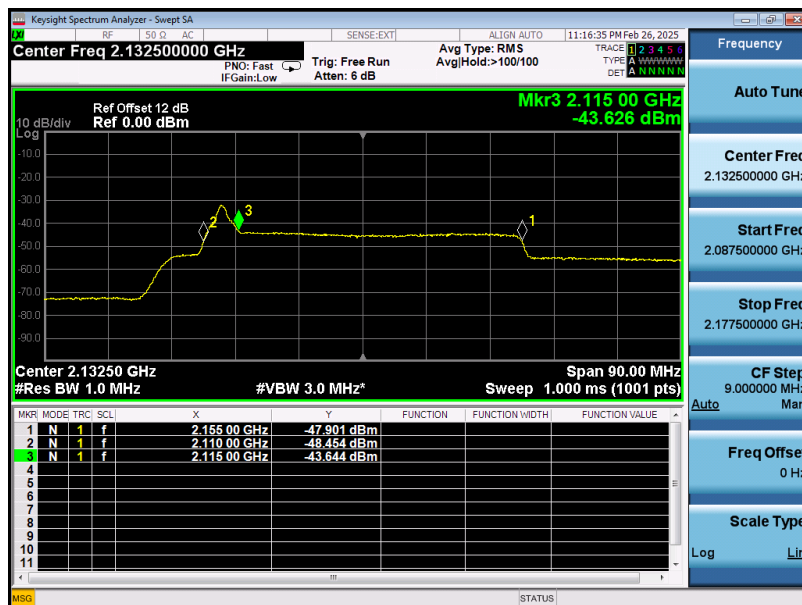


### Maximum transmitter Noise Power Level

#### DL\_MT5



#### DL\_MT6



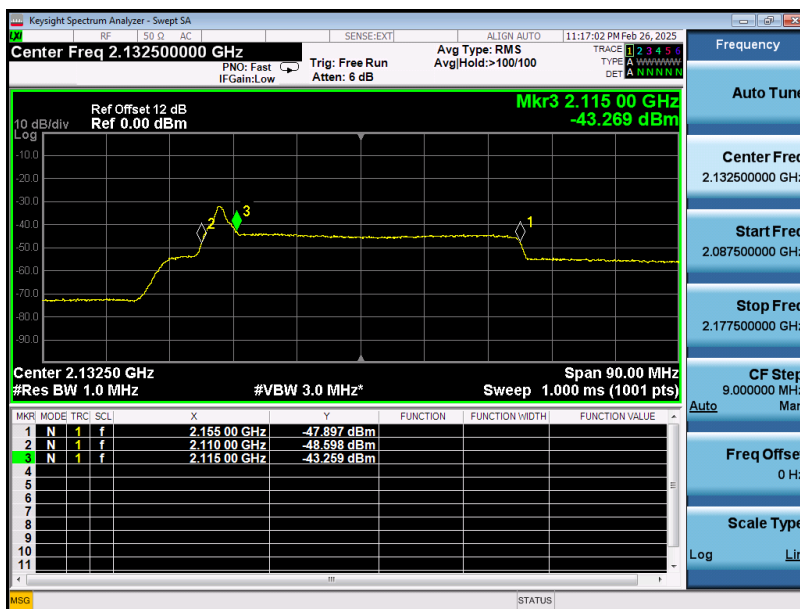
#### Remark:

Between Mkr 2 and Mkr 3 represents the authorized licensee spectrum block set for the EUT, the noise power within that does not need to be measured.

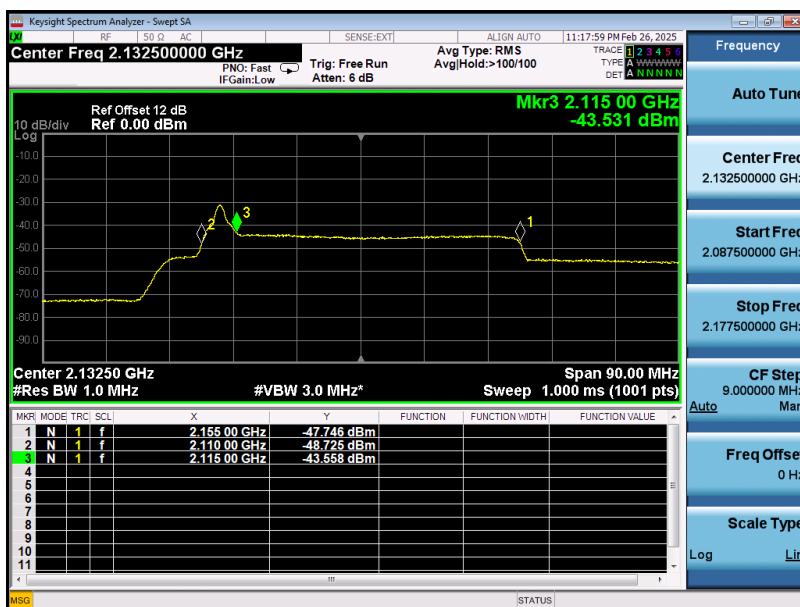


### Maximum transmitter Noise Power Level

DL\_MT7



DL\_MT8



Remark:

Between Mkr 2 and Mkr 3 represents the authorized licensee spectrum block set for the EUT, the noise power within that does not need to be measured.





### 8.2 RSSI-dependent noise power level

#### 20.21(e)(9)(i)(A) Noise Limits:

The transmitted noise power shall not exceed  $-103 \text{ dBm/MHz-RSSI}$ . Boosters with MSCL less than 40 dB, shall reduce the Noise output in (A) by 40 dB-MSCL, where MSCL is the minimum coupling loss in dB between the wireless device and booster's server port.

According to appendix B and the declaration from the manufacturer, the Lowest MSCL value can be calculated:

Band	f (MHz)	d (m)	Service ANT Gain (dBi)	Cable Loss (dB)	Min. MSCL (dB)
AWS-1	1710	1.5	9	-9	40.6

Therefore, the transmitted noise power shall not exceed  $-103 \text{ dBm/MHz-RSSI}-(40\text{-MSCL})$

#### 20.21(e)(9)(i)(I) Transmit Power Off Mode:

The uplink and downlink noise power shall not exceed  $-70 \text{ dBm/MHz}$  in "Transmit Power OFF Mode".

KDB 935210 D04 appendix D figure D1 provider-specific consumer signal booster variable noise limits:

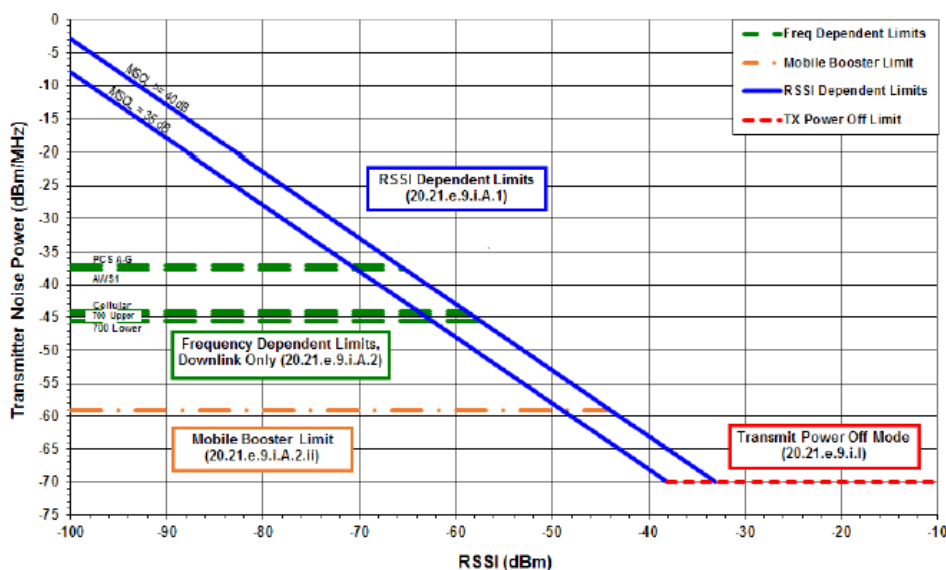


Figure D1 – Provider-specific consumer signal booster variable noise limits

Therefore, the RSSI-dependent region can be calculated as:  $-64.7 \text{ dBm}$  to  $-32.4 \text{ dBm}$

RSSI-dependent noise power level					
Test Path	Test Port	RSSI (dBm)	Noise Level (dBm/MHz)	Limit (dBm/MHz)	Verdict
DL	MT3	-90	-48.41	≤-37.7	PASS
		-80	-48.93	≤-37.7	PASS
		-70	-49.74	≤-37.7	PASS
		-61	-53.84	≤-41.4	PASS
		-51	-55.32	≤-51.4	PASS
		-45	-61.18	≤-57.4	PASS
UL	DT	-90	-43.74	≤-37.7	PASS
		-80	-44.09	≤-37.7	PASS
		-70	-45.38	≤-37.7	PASS
		-61	-49.39	≤-41.4	PASS
		-51	-53.24	≤-51.4	PASS
		-45	-60.32	≤-57.4	PASS



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## 8.3 Variable noise response time

Variable noise response time				
Test Path	Test Port	Time (s)	Limit (s)	Verdict
DL	MT2	0.05	≤3	PASS
UL	DT	0.05	≤3	PASS

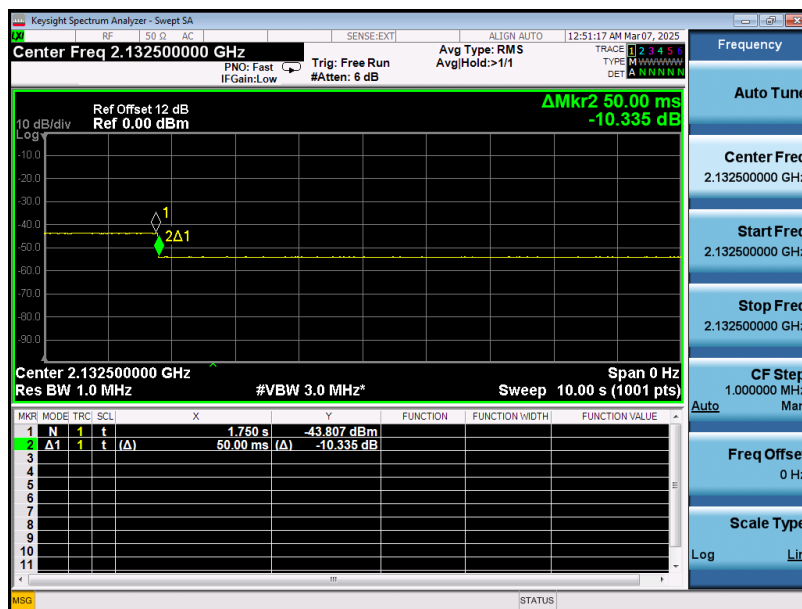


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### Variable noise response time

DL



UL



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## 9 Uplink inactivity

Uplink Inactivity						
Test Path	Test Port	Time (s)	limit (s)	Noise Level (dBm/MHz)	Limit (dBm/MHz)	Verdict
UL	DT	0.09	≤5	-74.30	≤-70	PASS

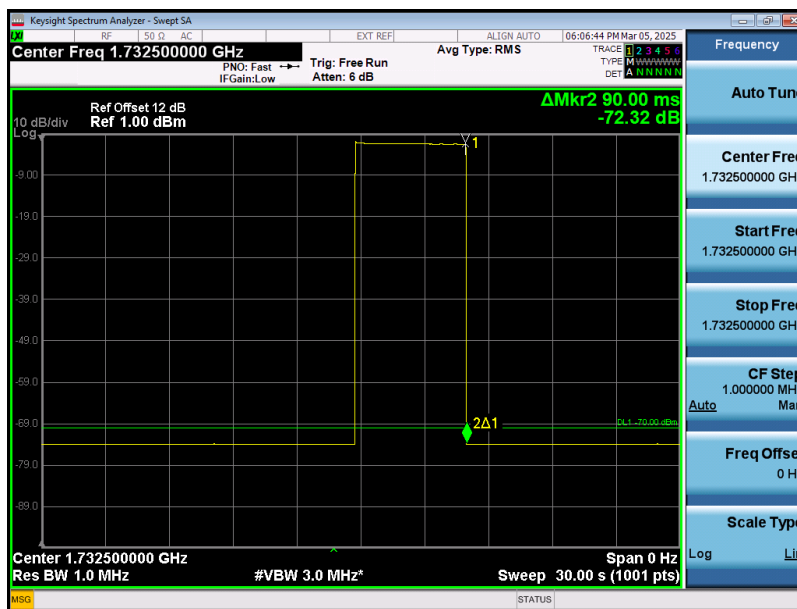


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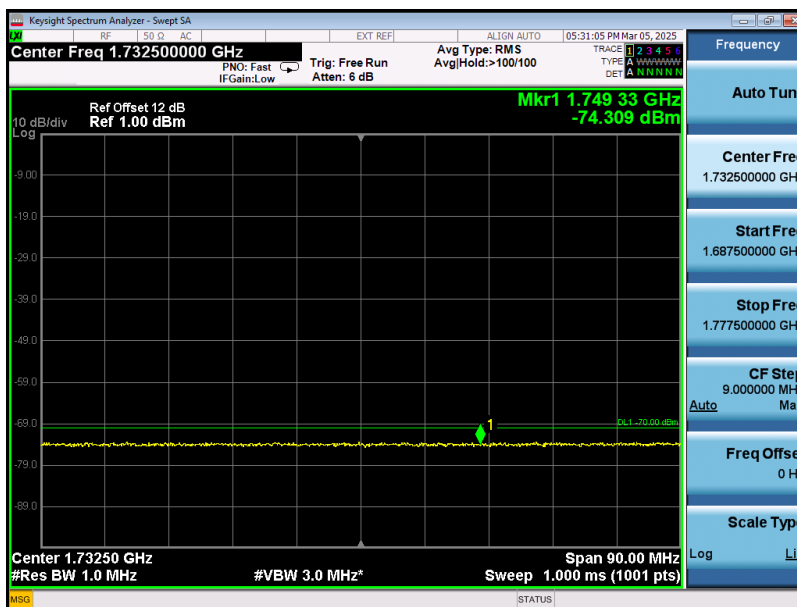
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### Uplink inactivity

#### UL\_Time



### UL\_Noise power



### 10 Variable booster gain

#### 10.1 Variable gain

20.21(e)(9)(i)(C)(1) *Booster Gain Limits:*

The uplink and downlink gain in dB of a frequency selective consumer booster referenced to its input and output ports shall not exceed BSCL-28 dB-(40 dB-MSCL).

20.21(e)(9)(i)(I) *Transmit Power Off Mode:*

The uplink gain shall not exceed the lesser of 23 dB or MSCL in "Transmit Power OFF Mode".

KDB 935210 D04 appendix D figure D2 provider-specific consumer signal booster variable gain limits:

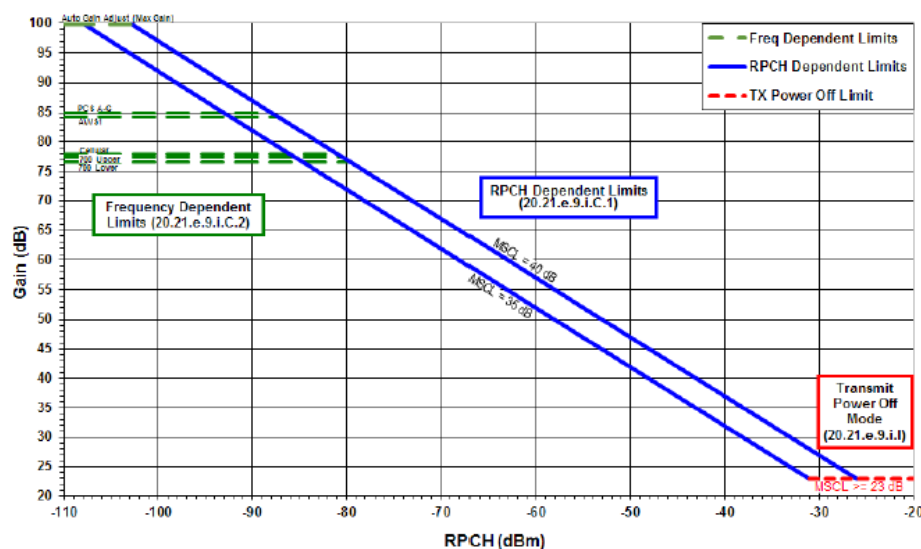


Figure D2 – Provider-specific consumer signal booster variable gain limits

According to appendix B and the declaration from the manufacturer, the Lowest MSCL value can be calculated:

Band	f (MHz)	d (m)	Service ANT Gain (dBi)	Cable Loss (dB)	Min. MSCL (dB)
AWS-1	1710	1.5	9	-9	40.6

Therefore, the RSSI-dependent region can be calculated as (RPCH): -102.4dBm to -25.4dBm

Variable Gain							
Test Path	Test Port	RPCH (dBm)	BSCL (dBm)	Pout (dBm)	Gain (dB)	Limit (dB)	Verdict
DL	MT6	-90	115	-18.9	71.10	≤88.3	PASS
		-82	107	-11.45	70.55	≤80.3	PASS
		-63	88	-2.16	60.84	≤61.3	PASS
		-48	73	-15.09	32.91	≤46.3	PASS
		-31	56	-11.37	19.63	≤29.3	PASS
		-20	45	/	/	≤23	PASS
UL	DT	-90	115	13.82	65.32	≤88.3	PASS
		-82	107	12.13	63.63	≤80.3	PASS
		-63	88	5.27	56.77	≤61.3	PASS
		-48	73	-11.02	40.48	≤46.3	PASS
		-31	56	-23.66	27.84	≤29.3	PASS
		-20	45	/	/	≤23	PASS
Remark: 1. "/" presents the EUT shut down. It can demonstrate compliance to the gain limit because the EUT lost amplification ability when it was in shutdown mode. 2. For UL, the input signal levels were set to -51.5dBm.							



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## 10.2 Variable gain timing

Variable Uplink Gain Timing				
Test Path	Test Port	Time (s)	Limit (s)	Verdict
UL	DT	0.045	≤3	PASS



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## 11 Occupied bandwidth

Occupied Bandwidth				
Path	Test Port	Test Channel	Input Signal	Verdict
DL	MT1	Middle	GSM	PASS
			1.25MHz AWGN	PASS
			4.1MHz AWGN	PASS
UL	DT	Middle	GSM	PASS
			1.25MHz AWGN	PASS
			4.1MHz AWGN	PASS
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.				



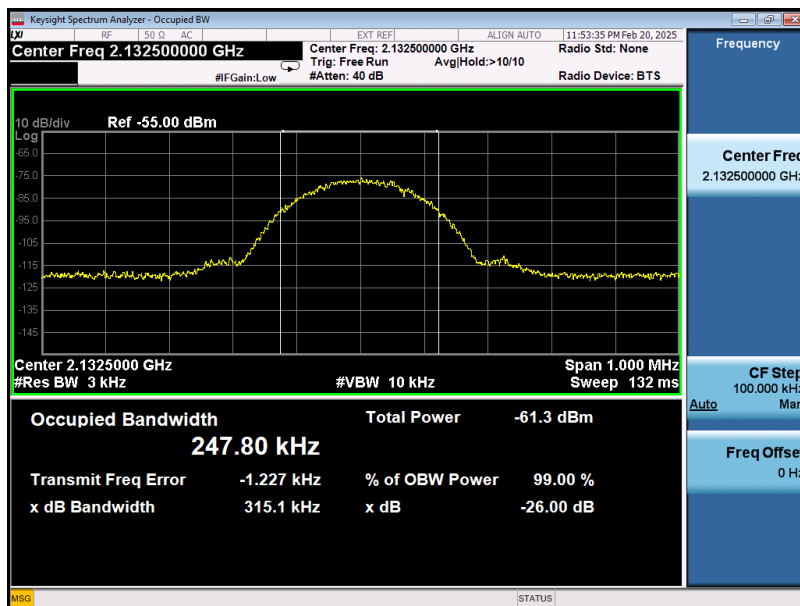
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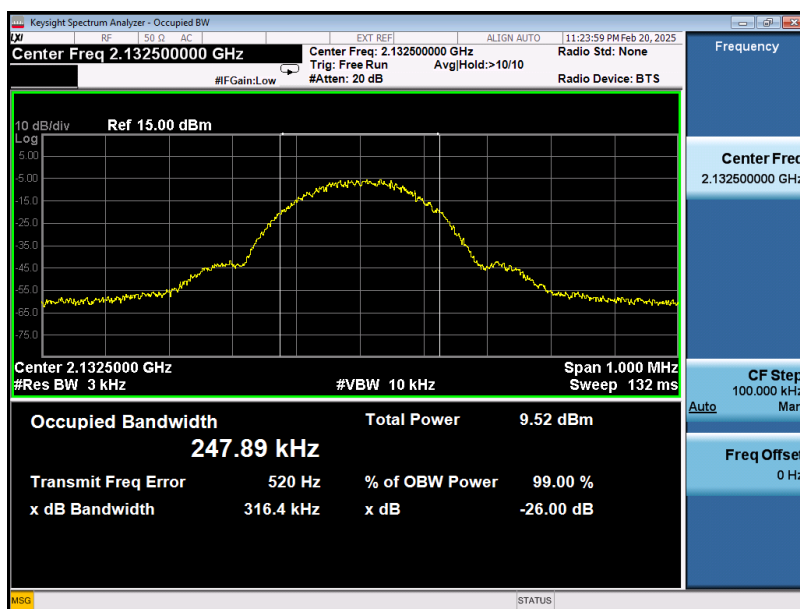
### Occupied bandwidth

#### DL\_Middle channel\_GSM signal type

#### Input



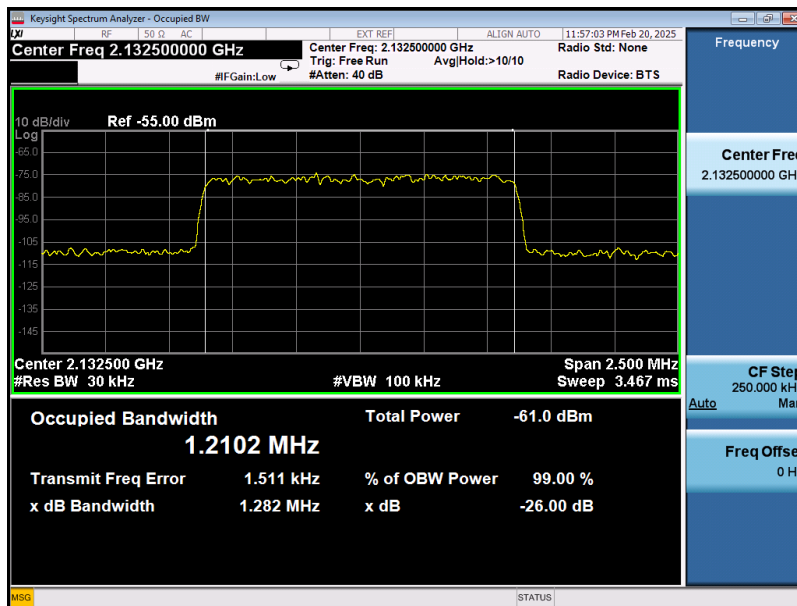
#### Output



### Occupied bandwidth

#### DL\_Middle channel\_1.25MHz AWGN signal type

#### Input



#### Output



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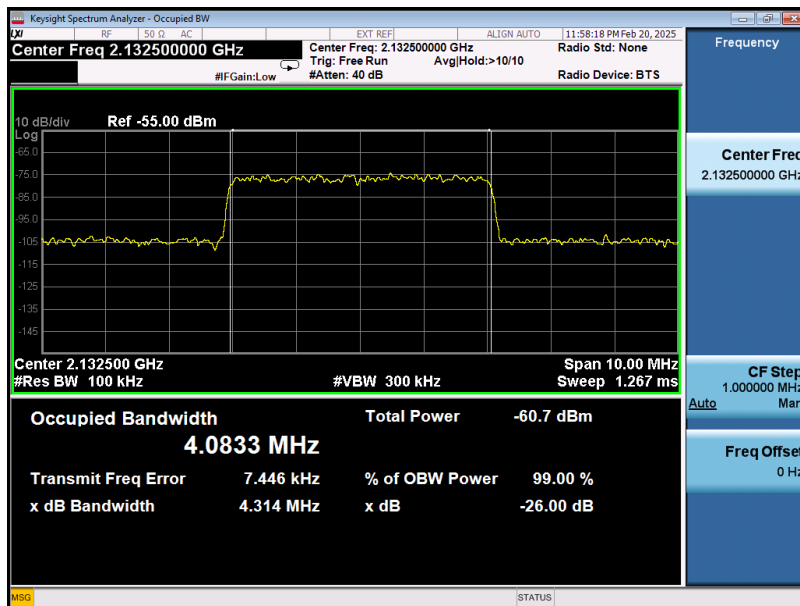
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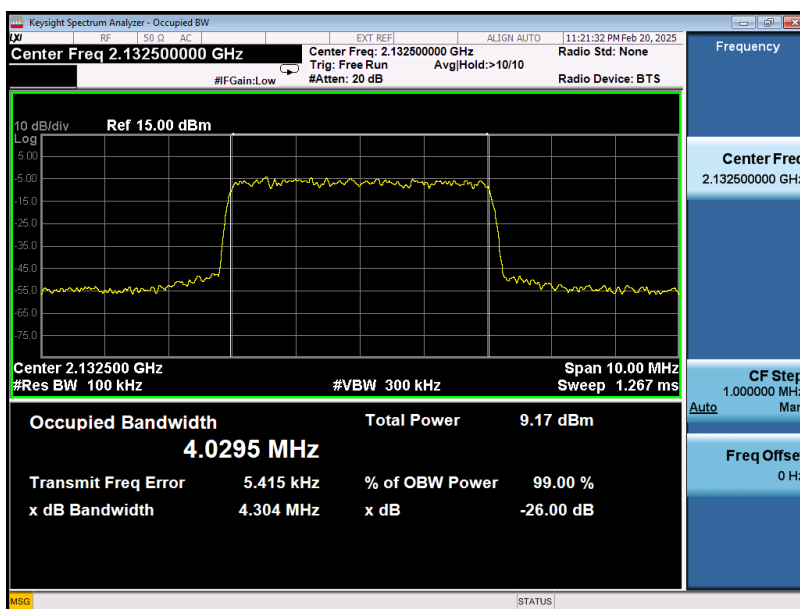
### Occupied bandwidth

#### DL\_Middle channel\_4.1MHz AWGN signal type

#### Input



#### Output



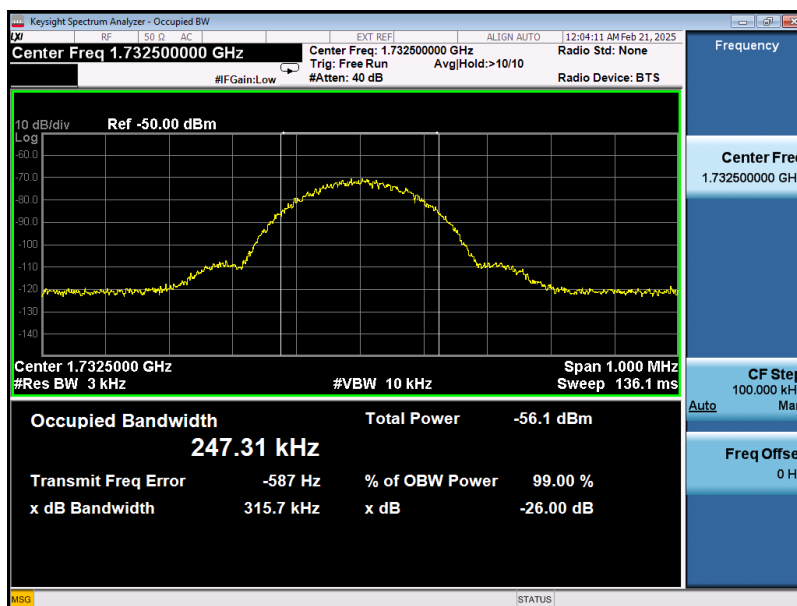
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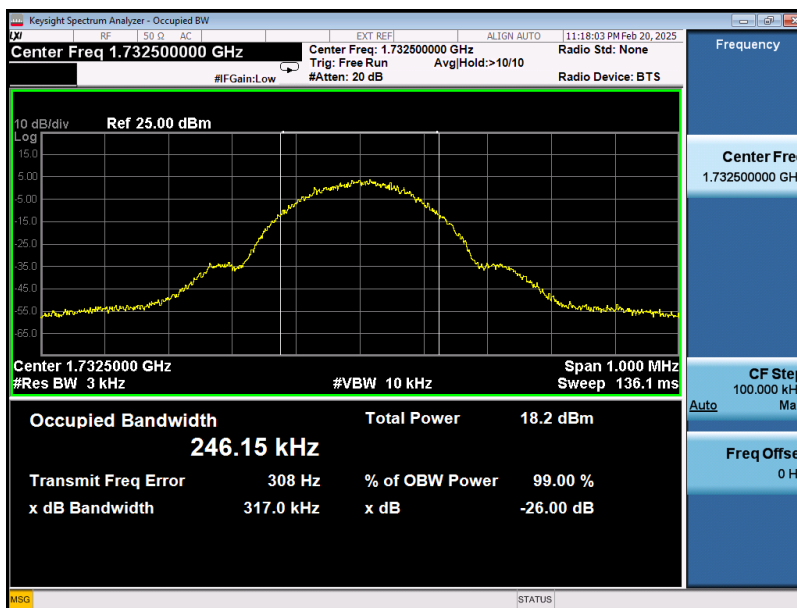
### Occupied bandwidth

### UL\_Middle channel\_GSM signal type

### Input



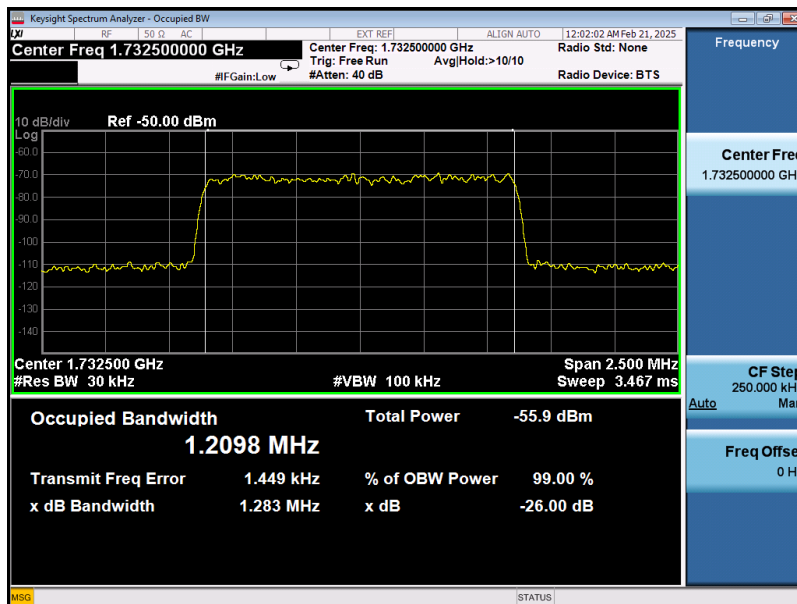
### Output



### Occupied bandwidth

#### UL\_Middle channel\_1.25MHz AWGN signal type

#### Input



#### Output



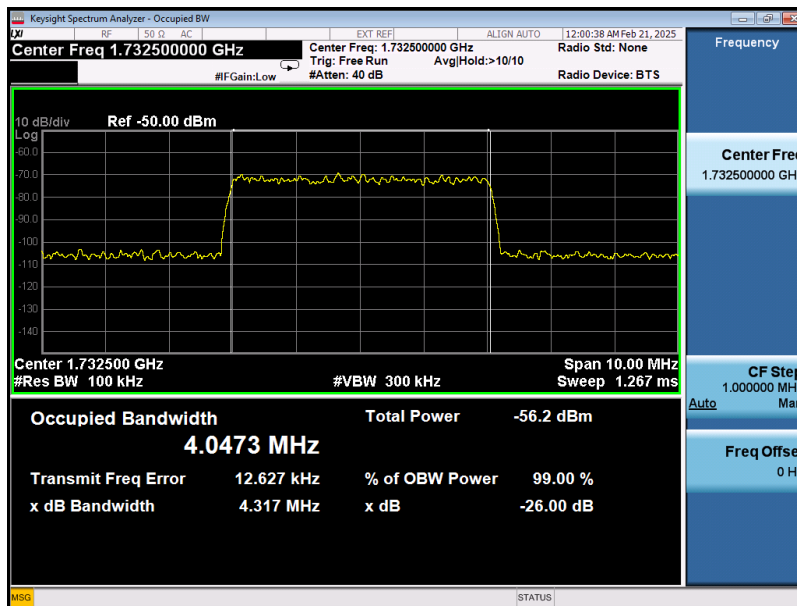
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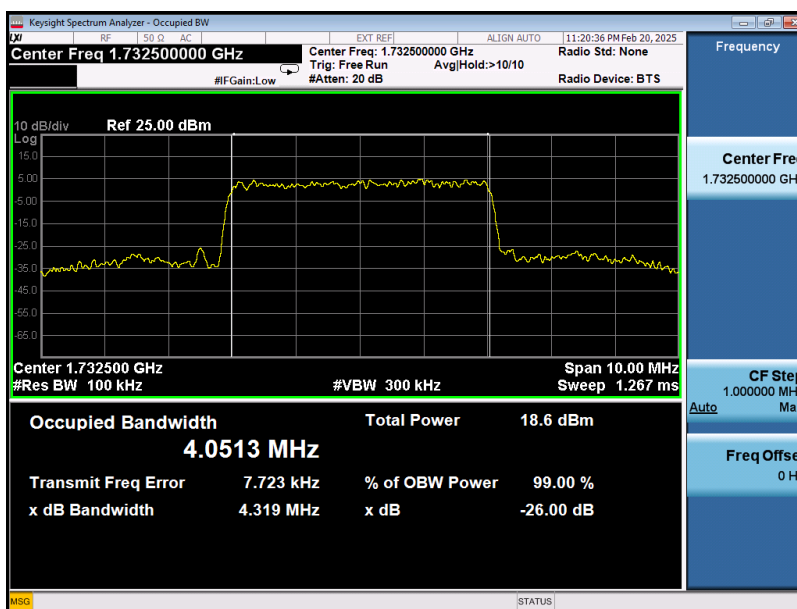
### Occupied bandwidth

#### UL\_Middle channel\_4.1MHz AWGN signal type

#### Input



#### Output





## 12 Oscillation detection

### 12.1 Oscillation detection

Oscillation Detection									
Test Path	Test Port	Mitigation Time (s)	Limit (s)	Oscillation Level (dBm)	Number of Restart	Limit	Restart time (s)	Limit (s)	Verdict
DL	MT1	0.090	≤1	6.58	0	≤5	/	≥60	PASS
	MT2	0.260		4.78	0		/		PASS
	MT3	0.155		4.99	0		/		PASS
	MT4	0.285		3.91	0		/		PASS
	MT5	0.290		-0.01	0		/		PASS
	MT6	0.0450		1.10	0		/		PASS
	MT7	0.235		0.43	0		/		PASS
	MT8	0.270		0.08	0		/		PASS
UL	DT	0.035	≤0.3	-5.35	0	≤5	/	≥60	PASS
Remark: The EUT will not restart after oscillation detection and mitigation. It can demonstrate compliance to the restart limit without restart time testing.									

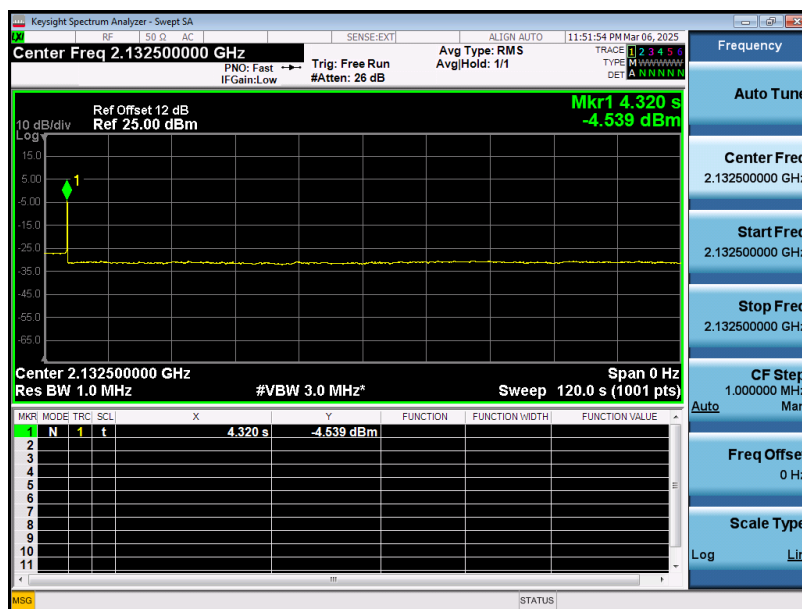
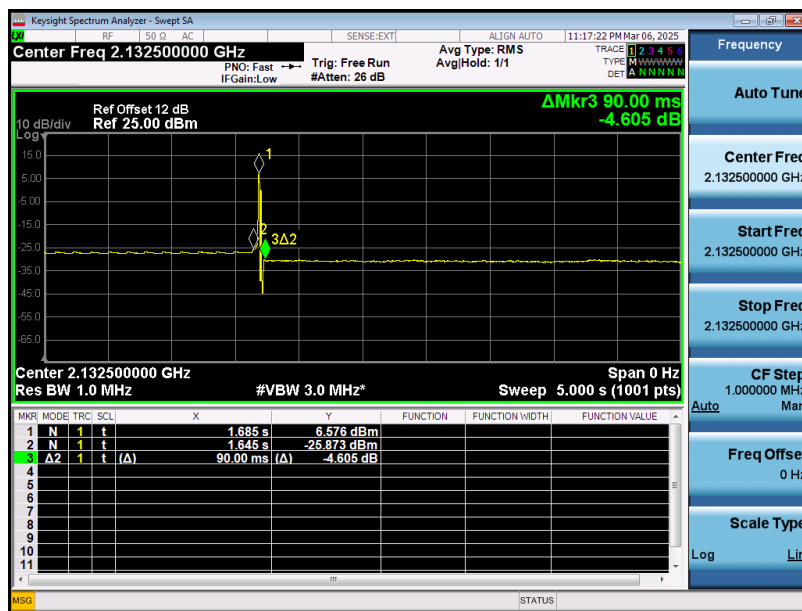


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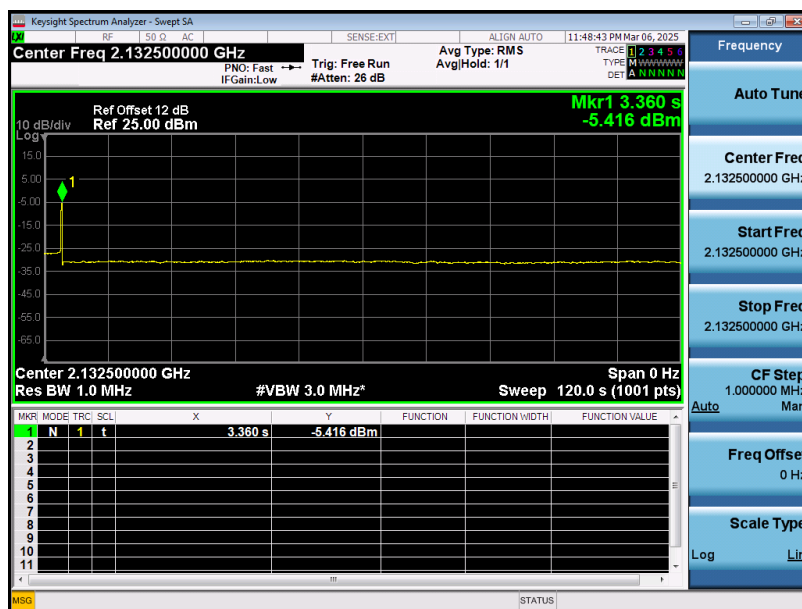
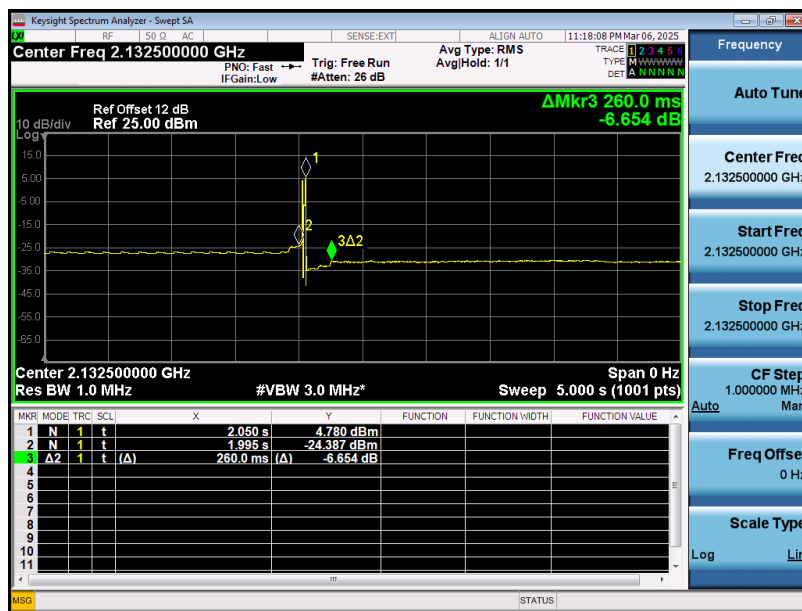
### Oscillation detection

DL\_MT1



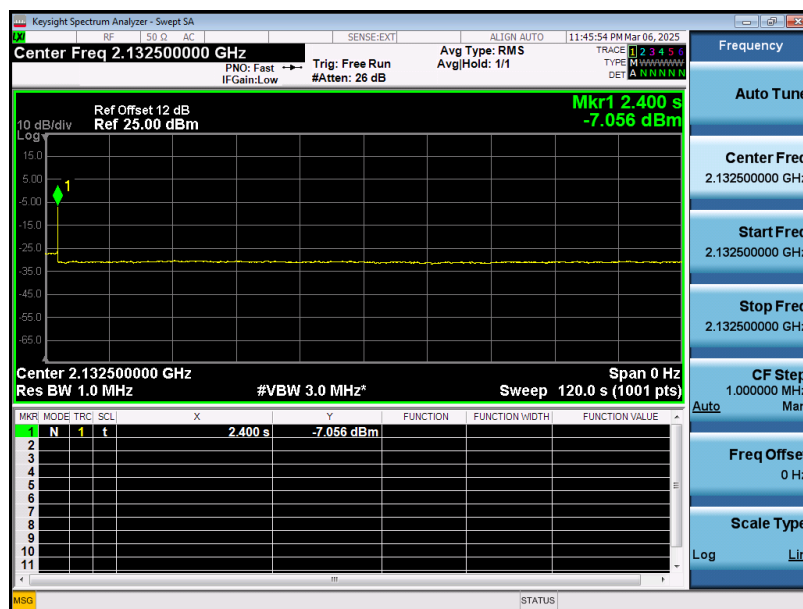
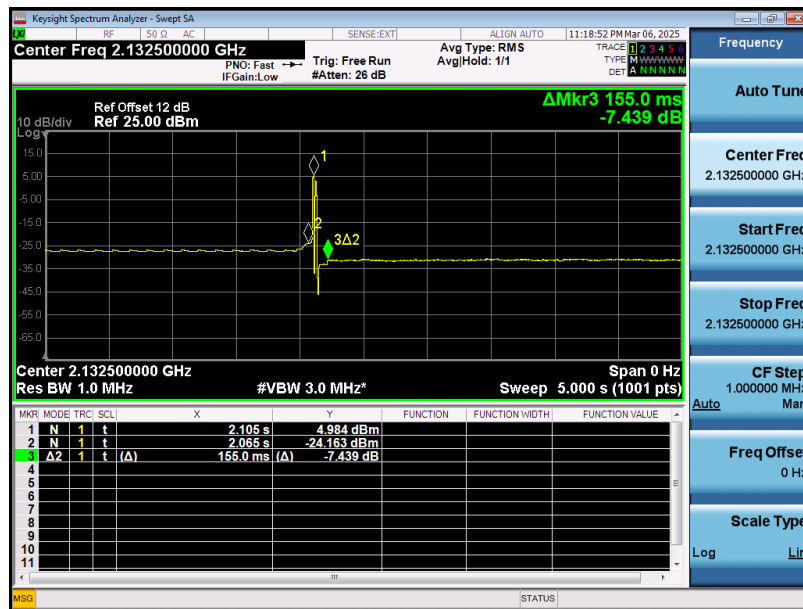
### Oscillation detection

DL\_MT2



### Oscillation detection

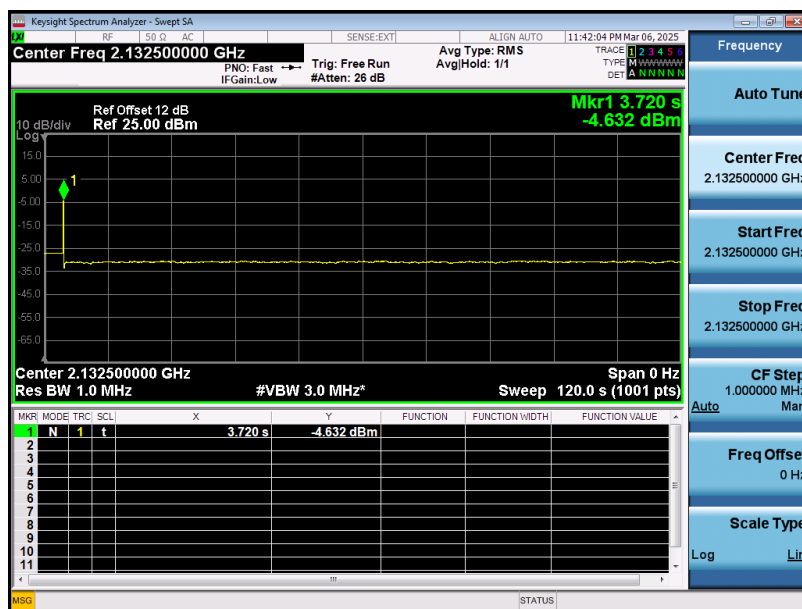
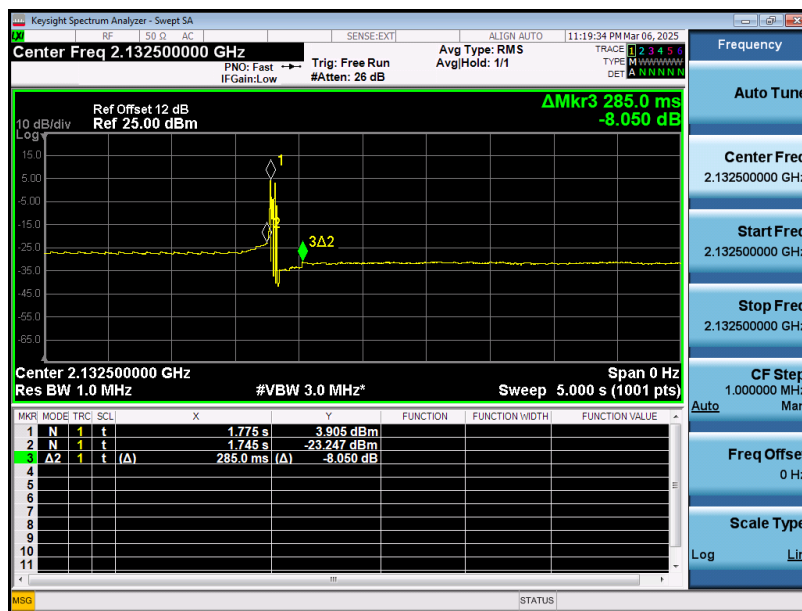
DL\_MT3





### Oscillation detection

DL\_MT4



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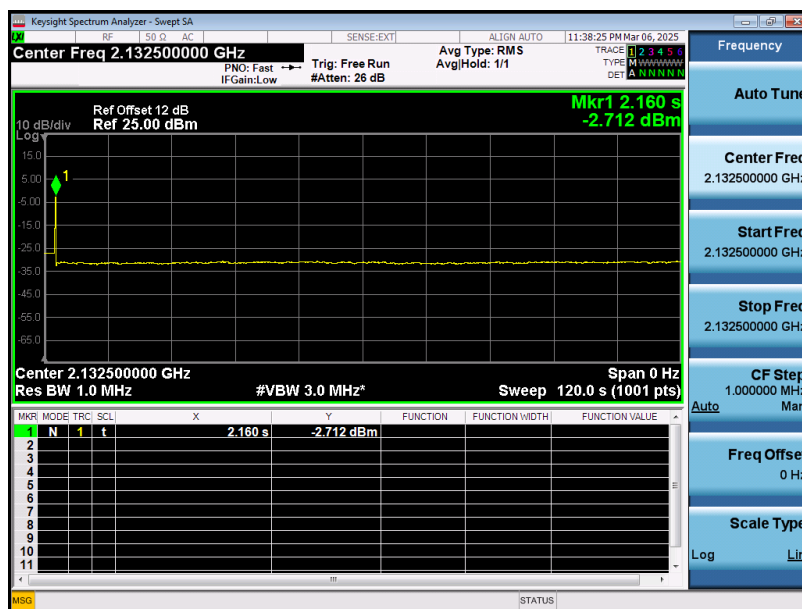
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### Oscillation detection

DL\_MT5



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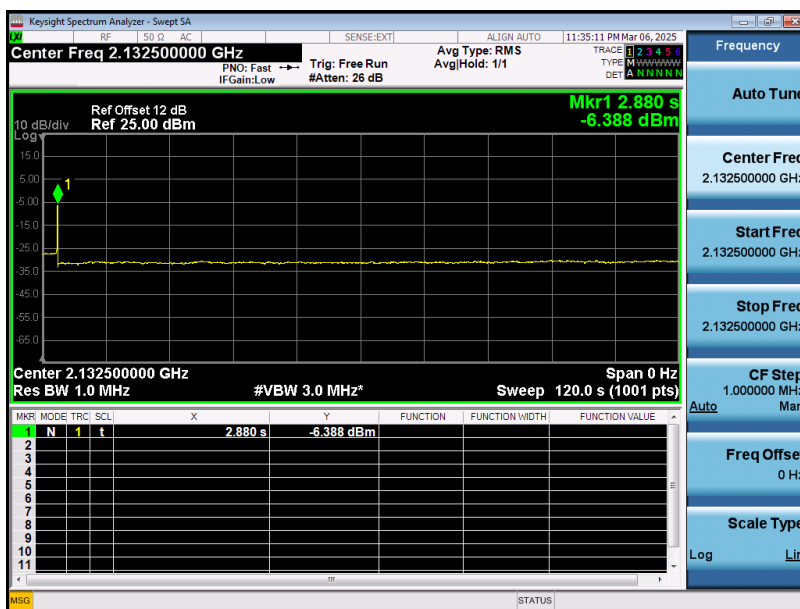
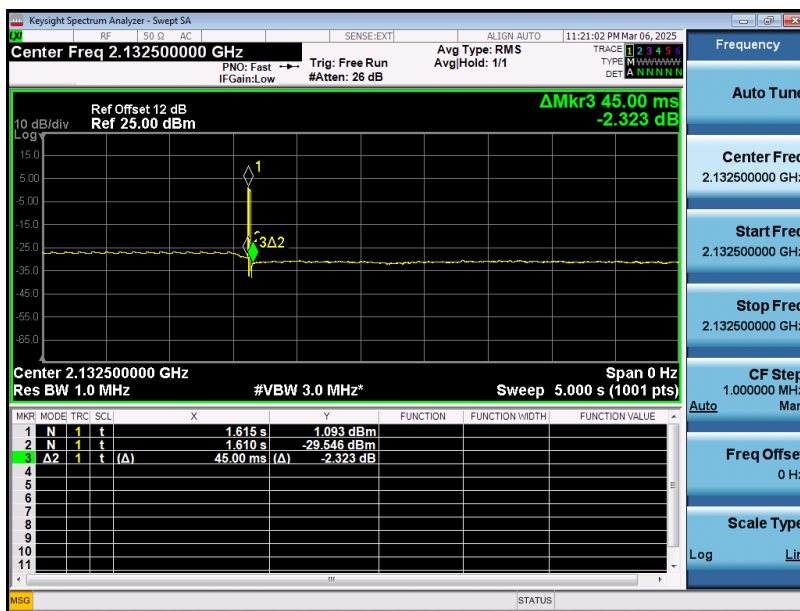
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### Oscillation detection

DL\_MT6

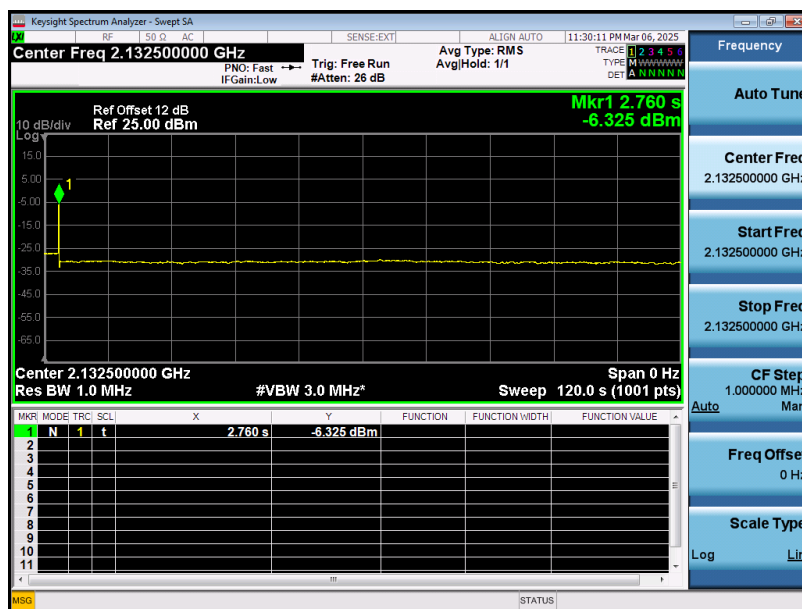
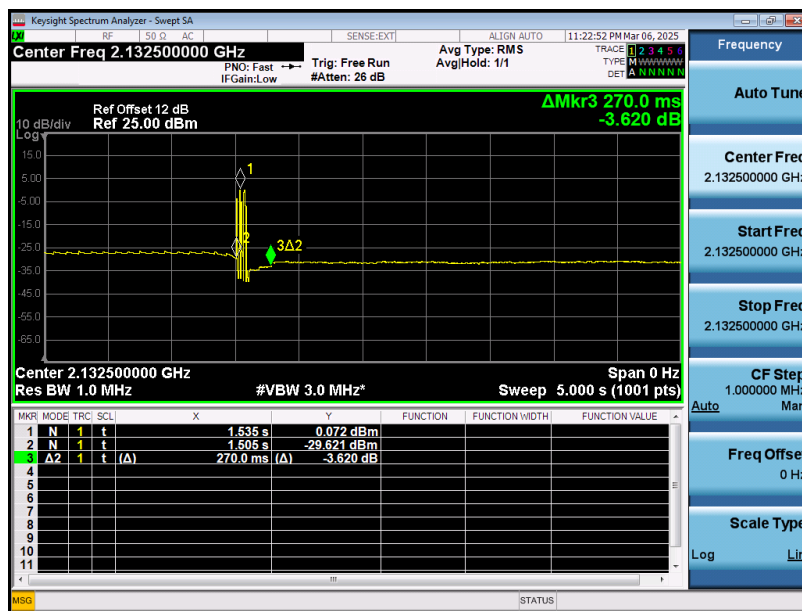






### Oscillation detection

DL\_MT8



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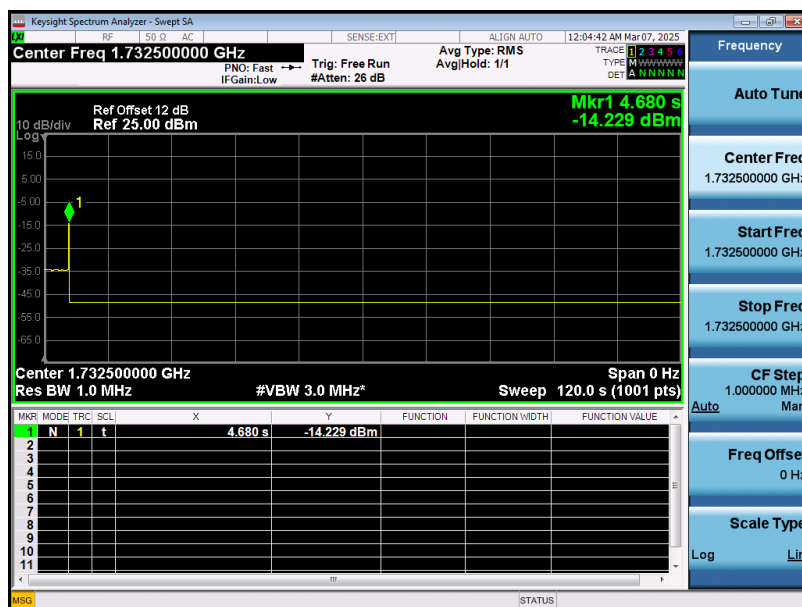
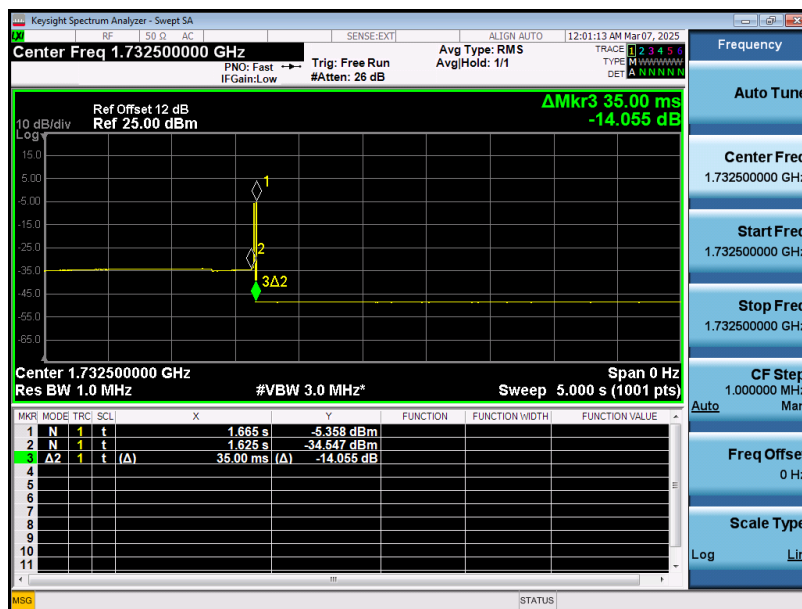
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### Oscillation detection

UL\_DT



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## 12.2 Oscillation mitigation or shutdown

Oscillation Mitigation or Shutdown							
Test Path	Test Port	Isolation (dB)	Oscillation Level				Verdict
			Highest level (dBm)	Lowest level (dBm)	Difference (dB)	Limit (dB)	
DL	MT1	75.44	1.03	-3.74	4.77	≤12	PASS
		74.44	3.28	-1.83	5.11		PASS
		73.44	5.14	-0.64	5.78		PASS
		72.44	5.99	1.27	4.72		PASS
		71.44	6.72	1.93	4.79		PASS
		70.44	8.11	3.68	4.43		PASS
		69.44	8.90	4.18	4.72		PASS
		68.44	10.73	5.73	5.00		PASS
		67.44	/	/	/		PASS
		66.44	/	/	/		PASS
		65.44	/	/	/		PASS
	MT2	75.54	-4.49	-9.39	4.90	≤12	PASS
		74.54	-2.42	-7.73	5.31		PASS
		73.54	0.14	-4.92	5.06		PASS
		72.54	2.95	-2.74	5.69		PASS
		71.54	4.07	-1.16	5.23		PASS
		70.54	4.62	0.21	4.41		PASS
		69.54	5.88	1.94	3.94		PASS
		68.54	9.29	3.99	5.30		PASS
		67.54	/	/	/		PASS
		66.54	/	/	/		PASS
		65.54	/	/	/		PASS
Remark: “/” presents the EUT shut down.							



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Oscillation Mitigation or Shutdown							
Test Path	Test Port	Isolation (dB)	Oscillation Level				Verdict
			Highest level (dBm)	Lowest level (dBm)	Difference (dB)	Limit (dB)	
DL	MT3	75.73	-4.21	-9.53	5.32	≤12	PASS
		74.73	-3.84	-8.94	5.10		PASS
		73.73	-3.32	-7.81	4.49		PASS
		72.73	-0.72	-6.70	5.98		PASS
		71.73	2.46	-3.25	5.71		PASS
		70.73	5.19	1.96	3.23		PASS
		69.73	5.95	2.08	3.87		PASS
		68.73	8.00	3.34	4.66		PASS
		67.73	/	/	/		PASS
		66.73	/	/	/		PASS
		65.73	/	/	/		PASS
	MT4	75.91	-6.93	-10.94	4.01	≤12	PASS
		74.91	-5.23	-8.54	3.31		PASS
		73.91	-3.94	-4.00	0.06		PASS
		72.91	1.72	-3.86	5.58		PASS
		71.91	3.84	-1.63	5.47		PASS
		70.91	5.92	0.72	5.20		PASS
		69.91	6.44	2.37	4.07		PASS
		68.91	6.97	2.78	4.19		PASS
		67.91	/	/	/		PASS
		66.91	/	/	/		PASS
		65.91	/	/	/		PASS

Remark:  
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Oscillation Mitigation or Shutdown							
Test Path	Test Port	Isolation (dB)	Oscillation Level				Verdict
			Highest level (dBm)	Lowest level (dBm)	Difference (dB)	Limit (dB)	
DL	MT5	75.86	-6.77	-13.85	7.08	≤12	PASS
		74.86	-5.93	-12.33	6.40		PASS
		73.86	-3.85	-10.08	6.23		PASS
		72.86	-2.32	-7.91	5.59		PASS
		71.86	-0.03	-6.22	6.19		PASS
		70.86	1.07	-5.04	6.11		PASS
		69.86	1.89	-4.72	6.61		PASS
		68.86	2.47	-2.38	4.85		PASS
		67.86	/	/	/		PASS
		66.86	/	/	/		PASS
		65.86	/	/	/		PASS
	MT6	76.27	-5.32	-11.85	6.53	≤12	PASS
		75.27	-3.71	-8.94	5.23		PASS
		74.27	-2.07	-7.28	5.21		PASS
		73.27	-0.85	-4.23	3.38		PASS
		72.27	1.13	-3.75	4.88		PASS
		71.27	1.85	-2.89	4.74		PASS
		70.27	3.82	-2.03	5.85		PASS
		69.27	4.60	-1.11	5.71		PASS
		68.27	/	/	/		PASS
		67.27	/	/	/		PASS
		66.27	/	/	/		PASS

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Oscillation Mitigation or Shutdown							
Test Path	Test Port	Isolation (dB)	Oscillation Level				Verdict
			Highest level (dBm)	Lowest level (dBm)	Difference (dB)	Limit (dB)	
DL	MT7	75.53	-6.04	-12.64	6.60	≤12	PASS
		74.53	-4.91	-10.38	5.47		PASS
		73.53	-4.32	-9.84	5.52		PASS
		72.53	-2.74	-7.79	5.05		PASS
		71.53	0.49	-6.03	6.52		PASS
		70.53	2.64	-4.32	6.96		PASS
		69.53	3.01	-2.99	6.00		PASS
		68.53	3.85	-1.03	4.88		PASS
		67.53	/	/	/		PASS
		66.53	/	/	/		PASS
		65.53	/	/	/		PASS
	MT8	75.46	-5.86	-11.02	5.16	≤12	PASS
		74.46	-3.99	-10.44	6.45		PASS
		73.46	-2.53	-9.75	7.22		PASS
		72.46	-1.83	-7.84	6.01		PASS
		71.46	0.12	-6.81	6.93		PASS
		70.46	1.28	-5.37	6.65		PASS
		69.46	2.94	-3.84	6.78		PASS
		68.46	3.71	-2.36	6.07		PASS
		67.46	/	/	/		PASS
		66.46	/	/	/		PASS
		65.46	/	/	/		PASS

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Test Path	Test Port	Isolation (dB)	Oscillation Level				Verdict
			Highest level (dBm)	Lowest level (dBm)	Difference (dB)	Limit (dB)	
UL	DT	70.50	-9.43	-16.40	6.97	≤12	PASS
		69.50	-7.92	-14.86	6.94		PASS
		68.50	-7.43	-14.23	6.80		PASS
		67.50	-6.02	-11.83	5.81		PASS
		66.50	-5.35	-10.28	4.93		PASS
		65.50	-4.12	-9.52	5.40		PASS
		64.50	-3.74	-8.88	5.14		PASS
		63.50	-1.93	-7.62	5.69		PASS
		62.50	-0.62	-5.85	5.23		PASS
		61.50	/	/	/		PASS
		60.50	/	/	/		PASS
Remark: “/” presents the EUT shut down.							



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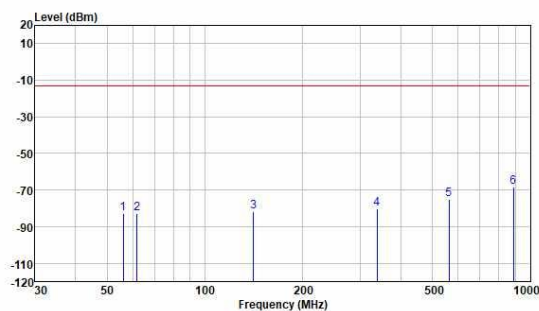
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## 13 Radiated spurious emissions

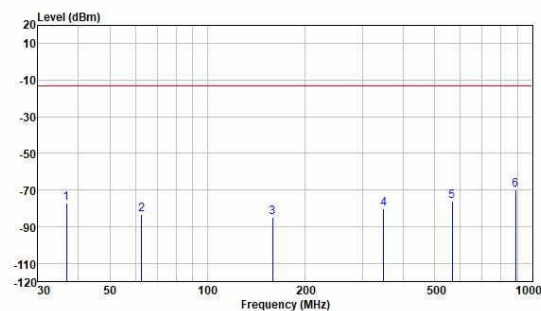
## Radiated spurious emissions

UL\_30MHz~1GHz

For model: MRU-7851719c-AC

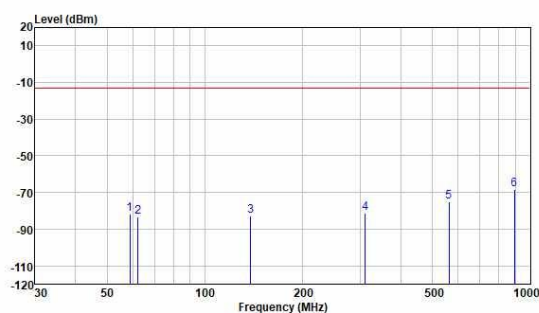


	Freq	Read Level	Correction Factor	Level	Limit Line	Over Limit	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	56.00	-79.35	-3.59	-82.94	-13.00	-69.94	VERTICAL
2	61.78	-80.16	-2.89	-83.05	-13.00	-70.05	VERTICAL
3	140.84	-78.10	-3.93	-82.03	-13.00	-69.03	VERTICAL
4	338.40	-77.93	-2.26	-80.19	-13.00	-67.19	VERTICAL
5	562.66	-77.85	2.63	-75.22	-13.00	-62.22	VERTICAL
6	887.61	-77.90	9.81	-68.09	-13.00	-55.09	VERTICAL

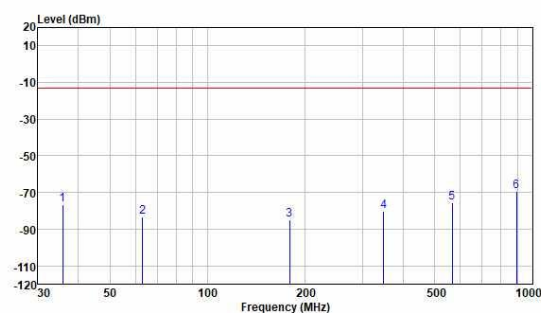


	Freq	Read Level	Correction Factor	Level	Limit Line	Over Limit	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	36.77	-79.47	2.56	-76.91	-13.00	-63.91	HORIZONTAL
2	62.65	-79.84	-3.32	-83.16	-13.00	-70.16	HORIZONTAL
3	158.67	-78.59	-6.50	-85.09	-13.00	-72.09	HORIZONTAL
4	348.03	-78.96	-1.46	-80.42	-13.00	-67.42	HORIZONTAL
5	566.62	-78.05	1.82	-76.23	-13.00	-63.23	HORIZONTAL
6	887.61	-78.62	8.80	-69.82	-13.00	-56.82	HORIZONTAL

For model: MRU-7851719c-DC



	Freq	Read Level	Correction Factor	Level	Limit Line	Over Limit	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	58.82	-79.57	-2.44	-82.01	-13.00	-69.01	VERTICAL
2	62.21	-80.12	-3.13	-83.25	-13.00	-70.25	VERTICAL
3	137.90	-78.71	-3.93	-82.64	-13.00	-69.64	VERTICAL
4	311.09	-78.60	-2.62	-81.22	-13.00	-68.22	VERTICAL
5	562.66	-77.53	2.63	-74.90	-13.00	-61.90	VERTICAL
6	893.86	-78.82	10.26	-68.56	-13.00	-55.56	VERTICAL

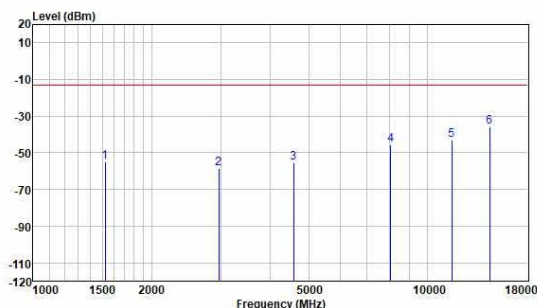


	Freq	Read Level	Correction Factor	Level	Limit Line	Over Limit	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	35.75	-79.38	2.76	-76.62	-13.00	-63.62	HORIZONTAL
2	63.09	-79.76	-3.49	-83.25	-13.00	-70.25	HORIZONTAL
3	178.76	-78.77	-6.03	-84.80	-13.00	-71.80	HORIZONTAL
4	348.03	-78.97	-1.46	-80.43	-13.00	-67.43	HORIZONTAL
5	566.62	-77.42	1.82	-75.60	-13.00	-62.60	HORIZONTAL
6	893.86	-78.54	9.15	-69.39	-13.00	-56.39	HORIZONTAL

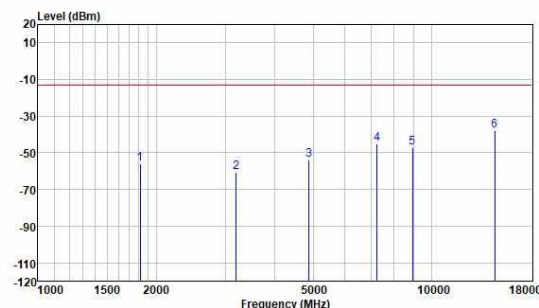
## Radiated spurious emissions

UL\_above 1GHz

For model: MRU-7851719c-AC

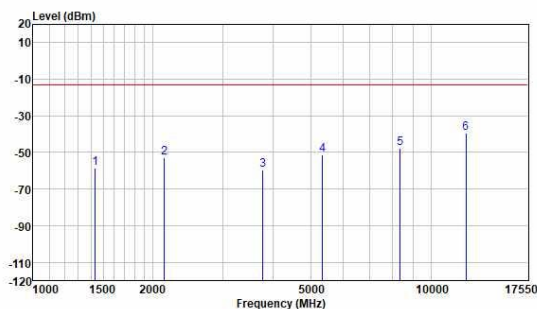


	Freq	Read Level	Correction Factor	Level	Limit Line	Over Limit	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1525.00	-61.47	6.54	-54.93	-13.00	-41.93	VERTICAL
2	2956.16	-62.30	3.73	-58.57	-13.00	-45.57	VERTICAL
3	4573.76	-62.28	6.67	-55.61	-13.00	-42.61	VERTICAL
4	8059.48	-61.37	15.91	-45.46	-13.00	-32.46	VERTICAL
5	11533.48	-65.18	22.08	-43.10	-13.00	-30.10	VERTICAL
6	14366.84	-62.25	26.31	-35.94	-13.00	-22.94	VERTICAL

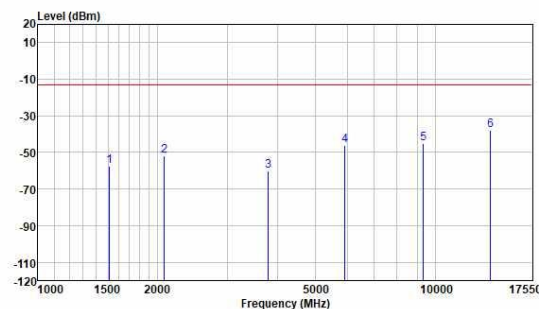


	Freq	Read Level	Correction Factor	Level	Limit Line	Over Limit	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1819.04	-61.69	5.79	-55.90	-13.00	-42.90	HORIZONTAL
2	3186.87	-62.70	2.24	-60.46	-13.00	-47.46	HORIZONTAL
3	4874.04	-63.09	9.25	-53.84	-13.00	-40.84	HORIZONTAL
4	7263.02	-62.81	17.89	-44.92	-13.00	-31.92	HORIZONTAL
5	8943.27	-62.18	15.12	-47.06	-13.00	-34.06	HORIZONTAL
6	14450.13	-62.77	24.70	-38.07	-13.00	-25.07	HORIZONTAL

For model: MRU-7851719c-DC



	Freq	Read Level	Correction Factor	Level	Limit Line	Over Limit	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1434.76	-63.37	5.02	-58.35	-13.00	-45.35	VERTICAL
2	2136.65	-61.96	9.23	-52.73	-13.00	-39.73	VERTICAL
3	3778.72	-62.78	2.98	-59.80	-13.00	-46.80	VERTICAL
4	5344.44	-64.40	13.22	-51.18	-13.00	-38.18	VERTICAL
5	8356.21	-62.20	14.33	-47.87	-13.00	-34.87	VERTICAL
6	12232.02	-62.02	22.43	-39.59	-13.00	-26.59	VERTICAL



	Freq	Read Level	Correction Factor	Level	Limit Line	Over Limit	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1515.03	-62.07	4.79	-57.28	-13.00	-44.28	HORIZONTAL
2	2082.26	-61.67	9.62	-52.05	-13.00	-39.05	HORIZONTAL
3	3800.43	-63.27	3.24	-60.03	-13.00	-47.03	HORIZONTAL
4	5925.11	-62.81	16.77	-46.04	-13.00	-33.04	HORIZONTAL
5	9344.07	-61.89	17.03	-44.86	-13.00	-31.86	HORIZONTAL
6	13756.68	-64.00	26.15	-37.85	-13.00	-24.85	HORIZONTAL

## Remark:

Pre-test was performed at uplink and downlink path, the test result always keeps more than 20dB margin, The spurious emissions 9kHz to 30MHz were very low and not displayed in this report. Therefore, only show the worst-case data in this report.



SGS-CSTC Standards Technical Services Co., Ltd.  
Guangzhou Branch Testing Center Laboratory

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## 14 Spectrum blocking filtering

Spectrum blocking filtering			
UL filter attenuation (dB)	DL filter attenuation (dB)	Limit	Verdict
53.31	52.25	UL ≥ DL	PASS
Remark: Please refer to clause 1 “Authorized frequency band verification” test plots for more details.			



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## 15 Out of band gain

Out of band gain								
Test Path	Test Port	Offset (MHz)	Gain (dB)		ATT (dB)		ATT Limit (dB)	Verdict
			Low edge	High edge	Low edge	High edge		
DL	MT6	f <sub>c</sub>	71.27		/		/	/
		0	48.32	49.03	-22.95	-22.24	≤-20	PASS
		1	36.23	33.47	-35.04	-37.80	≤-30	PASS
		5	23.41	20.93	-47.86	-50.34	≤-40	PASS
UL	DT	f <sub>c</sub>	65.50		/		/	/
		0	42.11	39.64	-23.39	-25.86	≤-20	PASS
		1	26.94	30.23	-38.56	-35.27	≤-30	PASS
		5	19.34	17.23	-46.16	-48.27	≤-40	PASS
Remark: 1. f <sub>c</sub> is the centre frequency of the pass band of the EUT. 2. ATT is the attenuation referenced to the gain in f <sub>c</sub> .								

Out of band gain						
Test Path	Test Port	Offset (MHz)	Gain (dB)		Gain Limit (dB)	Verdict
			Low edge	High edge		
DL	MT1	0.2	42.34	45.83	$\leq 60$	PASS
		1	36.23	33.47	$\leq 45$	PASS
UL	DT	0.2	37.46	35.24	$\leq 60$	PASS
		1	26.94	30.23	$\leq 45$	PASS



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## 16 Frequency Stability

Frequency stability vs temperature							
Test Path	Test Port	Test Channel	Test Voltage	Test Temp. (°C)	Freq. error (Hz)	Tolerance (ppm)	Verdict
DL	MT1	Middle	VN	+50	3.5	0.00164	PASS
				+40	3.0	0.00141	PASS
				+30	4.6	0.00216	PASS
				+20	3.6	0.00169	PASS
				+10	2.9	0.00136	PASS
				0	4.1	0.00192	PASS
				-10	3.4	0.00159	PASS
				-20	4.1	0.00192	PASS
				-30	3.5	0.00164	PASS
UL	DT	Middle	VN	+50	3.2	0.00185	PASS
				+40	3.0	0.00173	PASS
				+30	3.8	0.00219	PASS
				+20	4.6	0.00266	PASS
				+10	3.9	0.00225	PASS
				0	3.9	0.00225	PASS
				-10	3.9	0.00225	PASS
				-20	2.5	0.00144	PASS
				-30	3.3	0.00190	PASS



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Frequency stability vs voltage							
Test Path	Test Port	Test Channel	Test Temp.	Test Voltage	Freq. error (Hz)	Tolerance (ppm)	Verdict
DL	MT1	Middle	TN	VL	3.6	0.00169	PASS
				VN	3.6	0.00169	PASS
				VH	3.6	0.00169	PASS
UL	DT	Middle	TN	VL	4.6	0.00266	PASS
				VN	4.6	0.00266	PASS
				VH	4.6	0.00266	PASS

--End of Appendix--



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