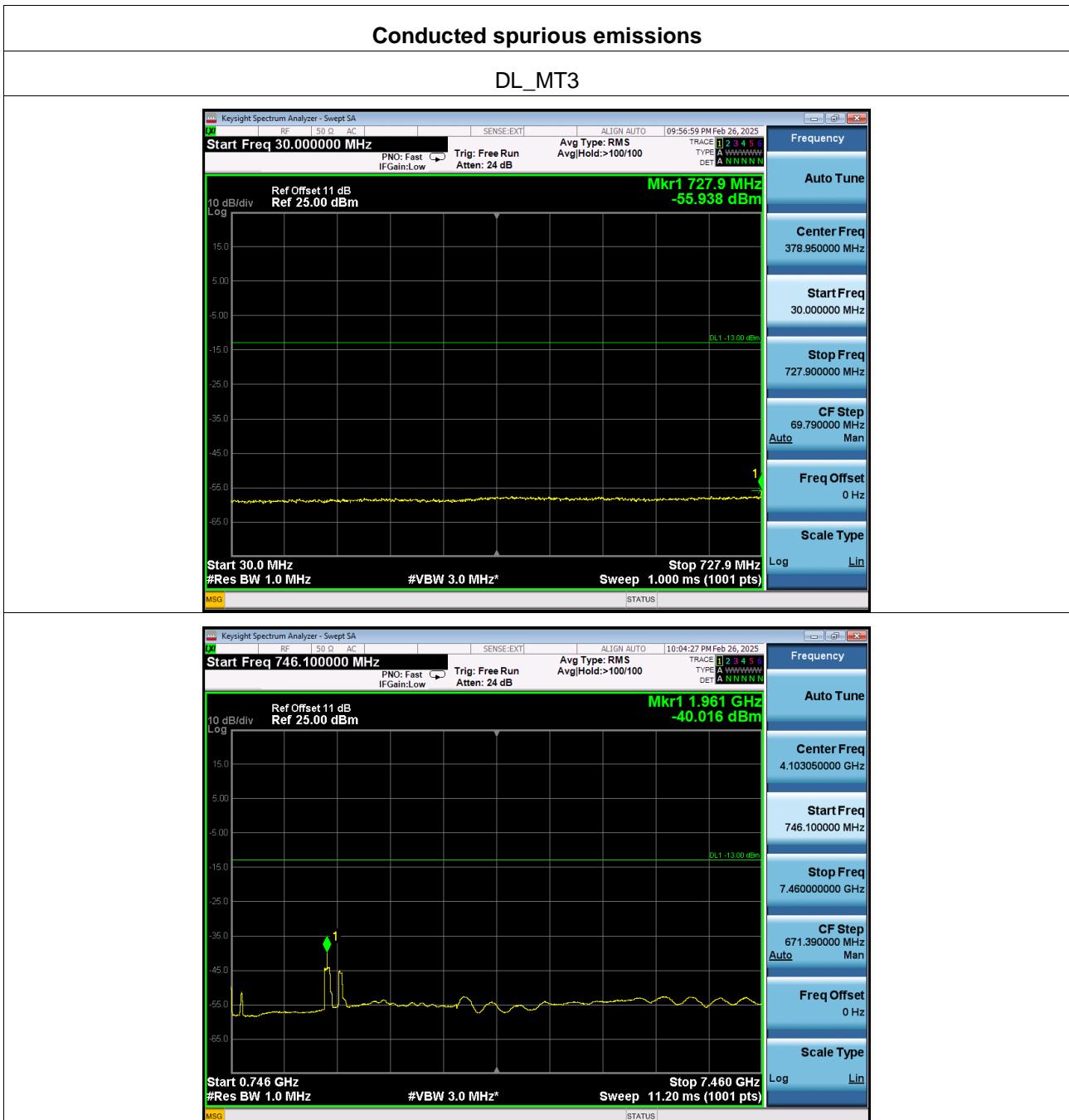


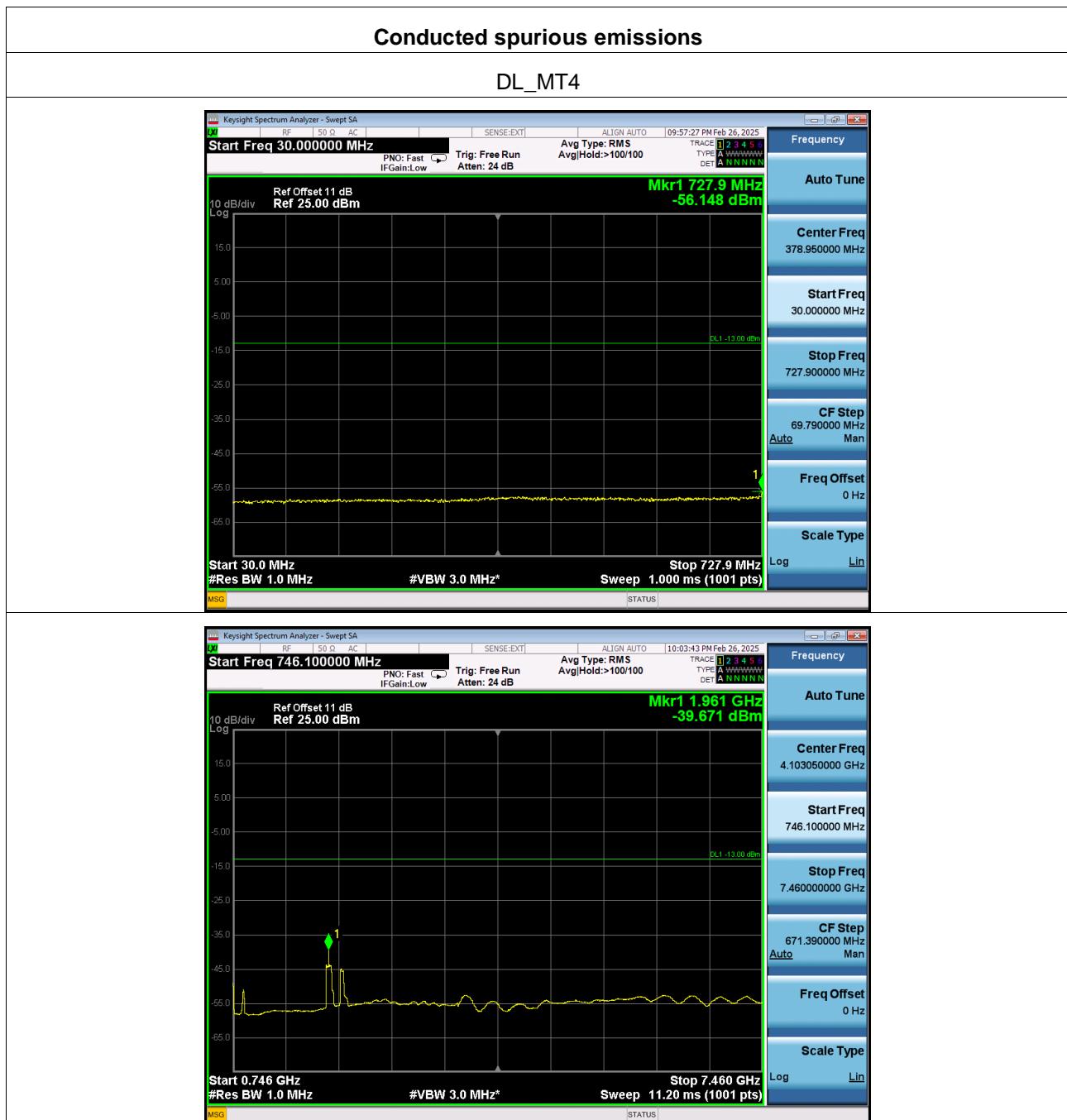
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)



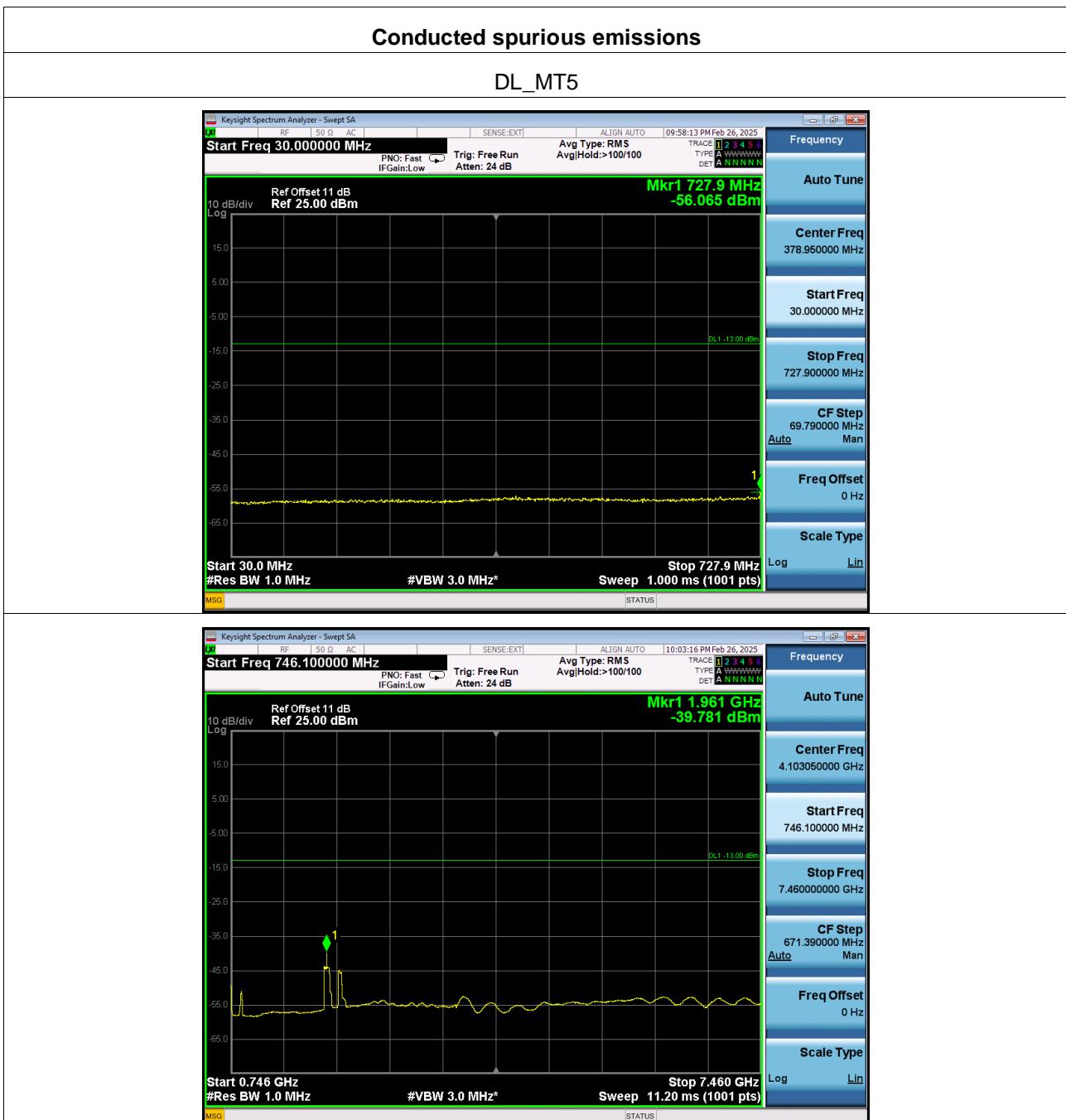
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)



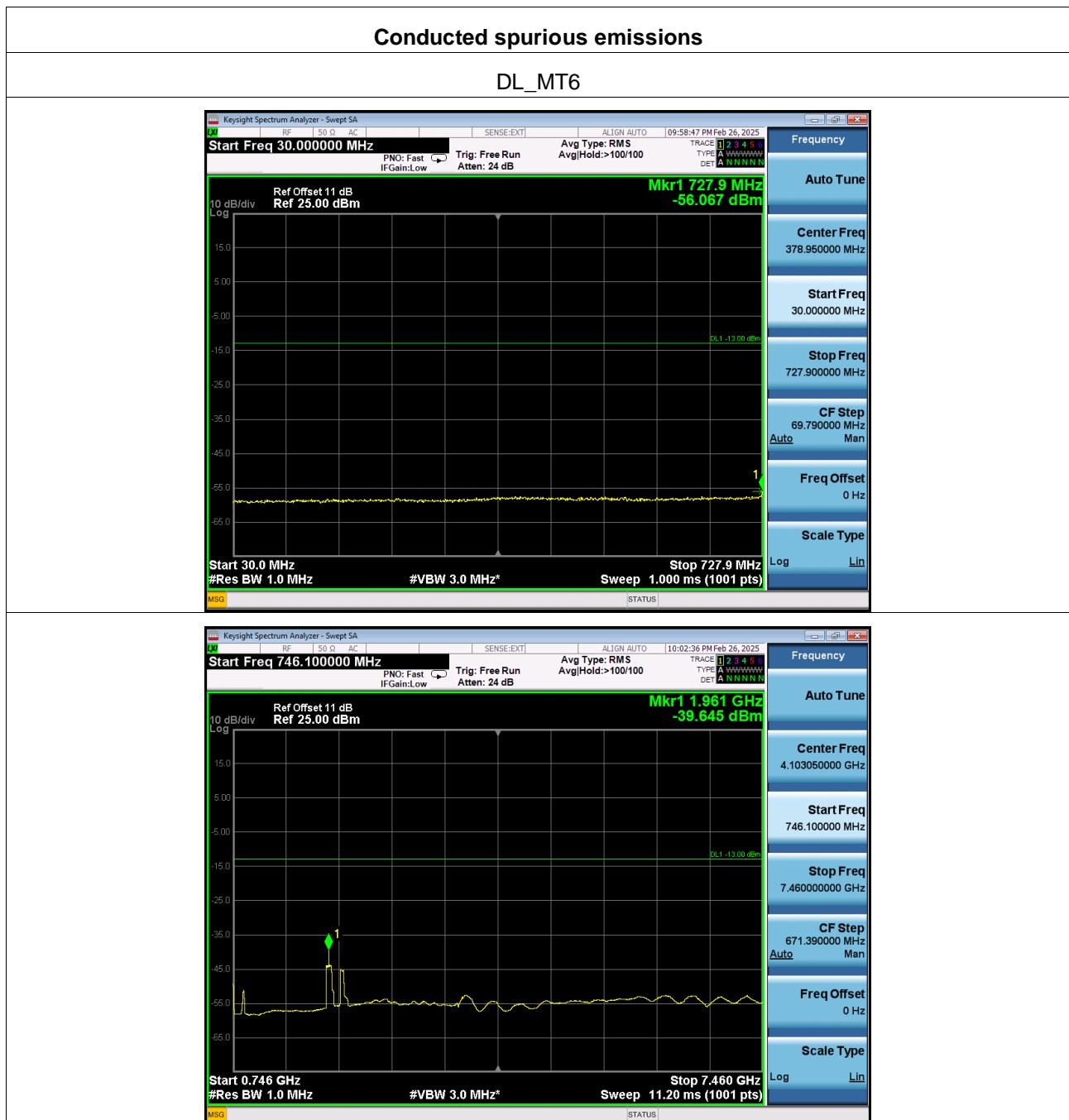
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)



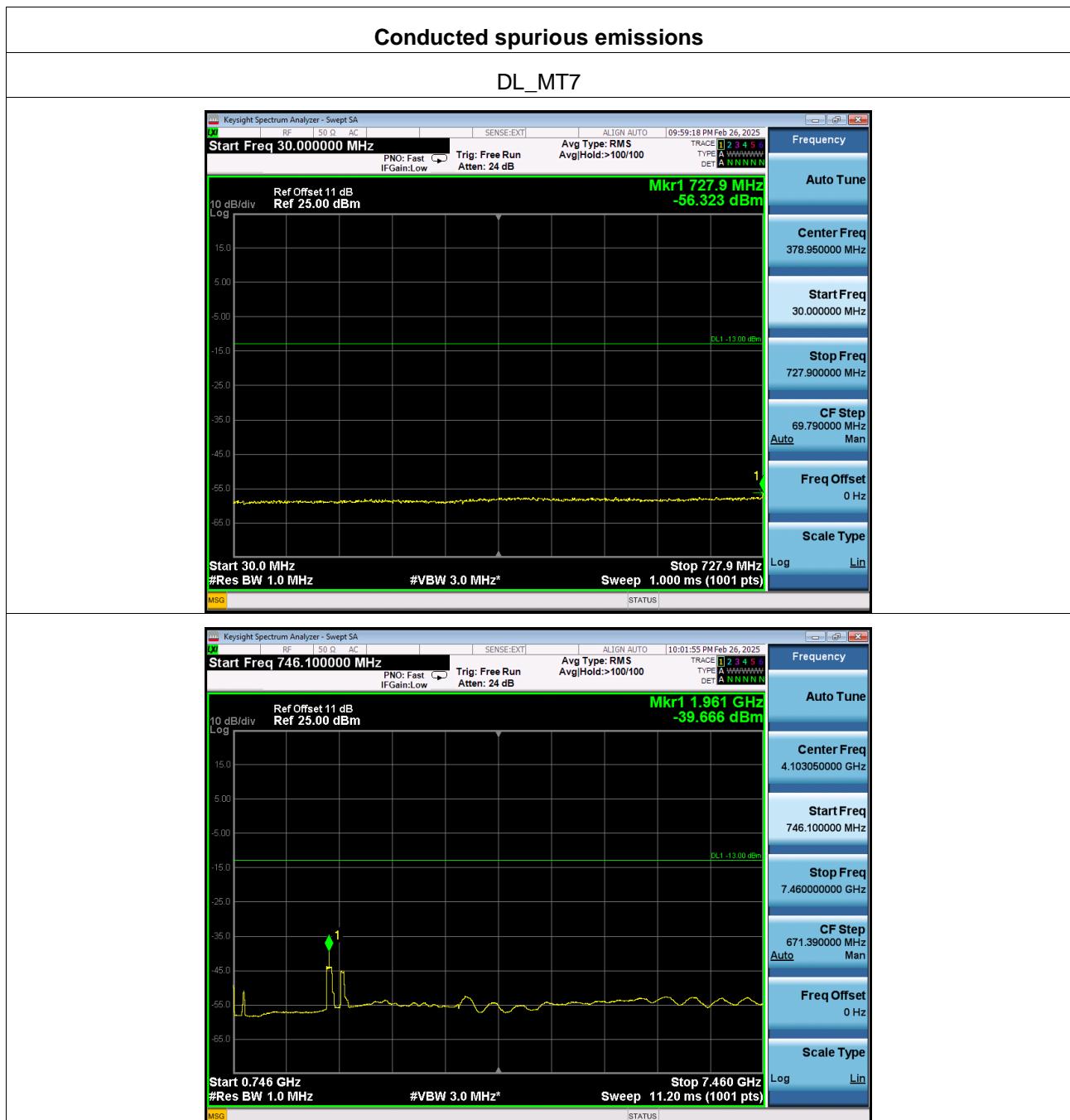
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)



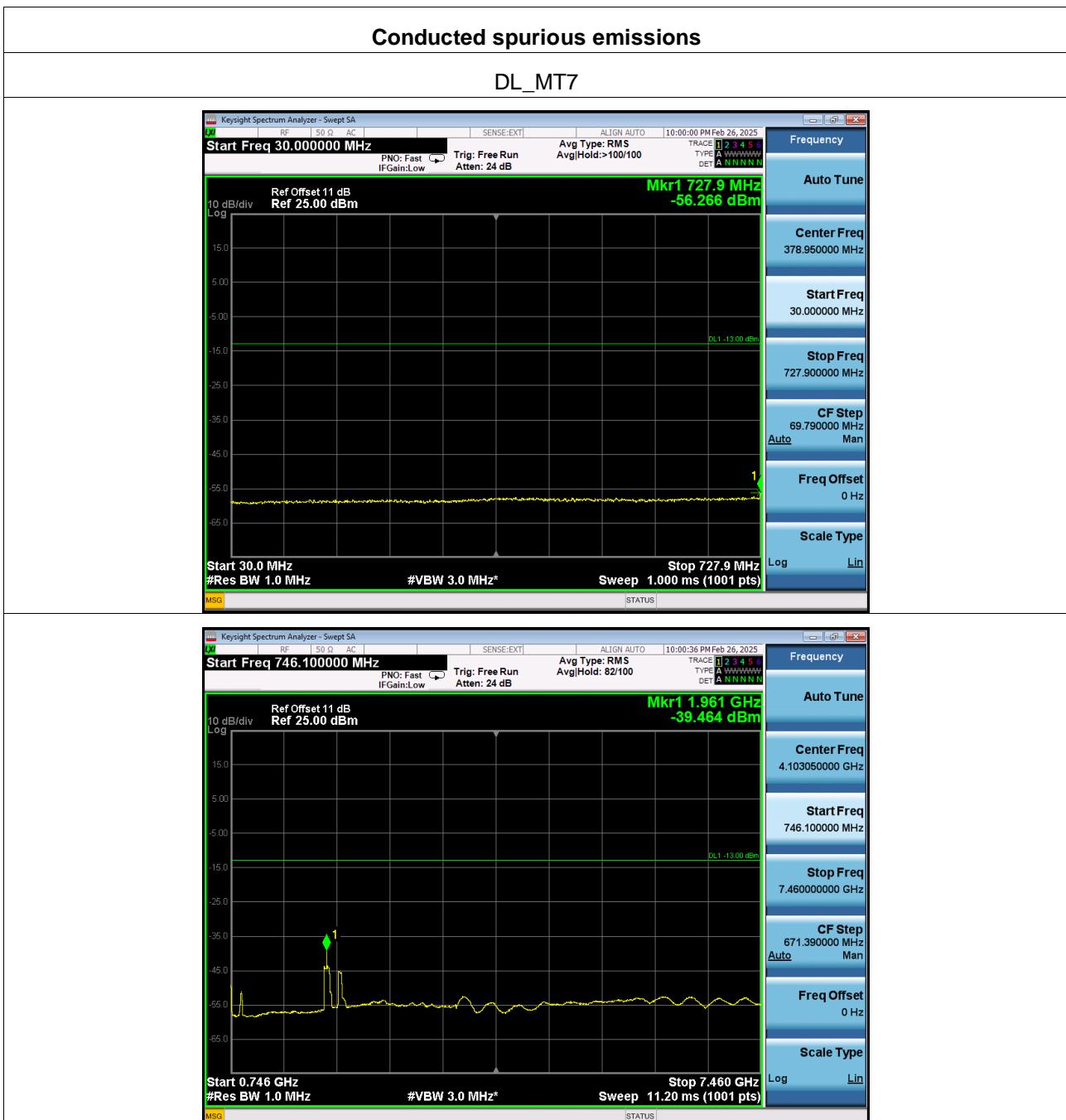
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)



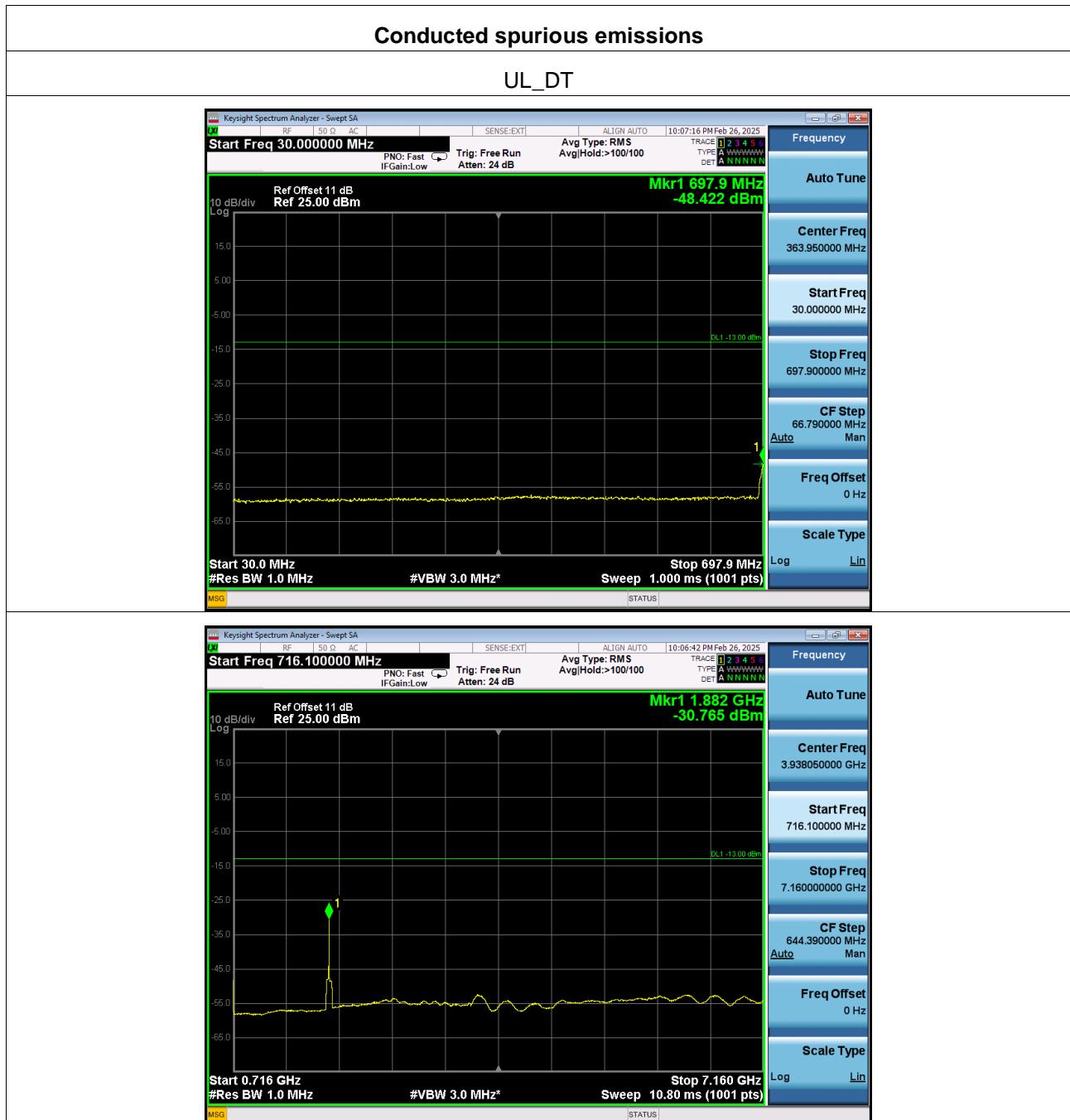
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

**Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, e-mail: CNQmark@scronom.com**

SGS-CSI Standards Technical Services Co.,Ltd  
Guangzhou Branch, Testiml. Enter EEC Laboratory.

or email: [CN.Doccheck@sgs.com](mailto:CN.Doccheck@sgs.com) No. 198, Kezhi Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663  
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555  
www.sgsgroup.com.cn t (86-20) 82155555 [sgs.china@sgs.com](mailto:sgs.china@sgs.com)

## 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	-49.73	≤-45.5	PASS
	MT2	-48.24	≤-45.5	PASS
	MT3	-48.98	≤-45.5	PASS
	MT4	-48.29	≤-45.5	PASS
	MT5	-49.04	≤-45.5	PASS
	MT6	-48.75	≤-45.5	PASS
	MT7	-49.40	≤-45.5	PASS
	MT8	-49.22	≤-45.5	PASS

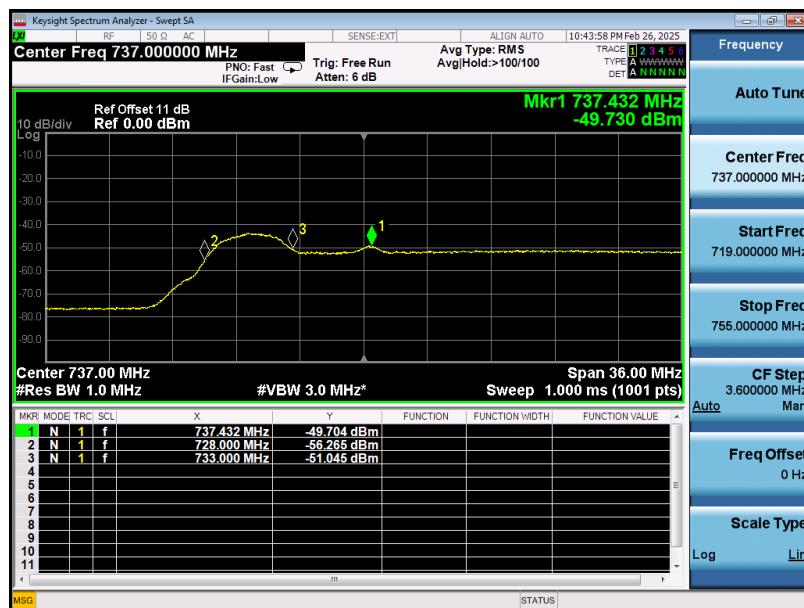
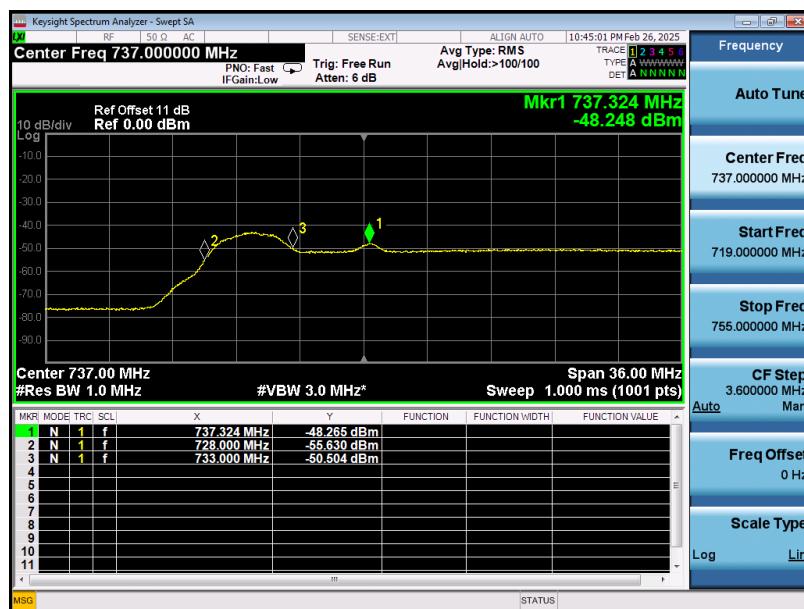
**Remark:**

The uplink mid-band frequency is 707MHz for Lower 700MHz, the maximum downlink noise limit is -102.5dBm/MHz+ 20 Log (707)= -45.5dBm/MHz.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)

**Maximum transmitter Noise Power Level**
**DL\_MT1**

**DL\_MT2**

**Remark:**

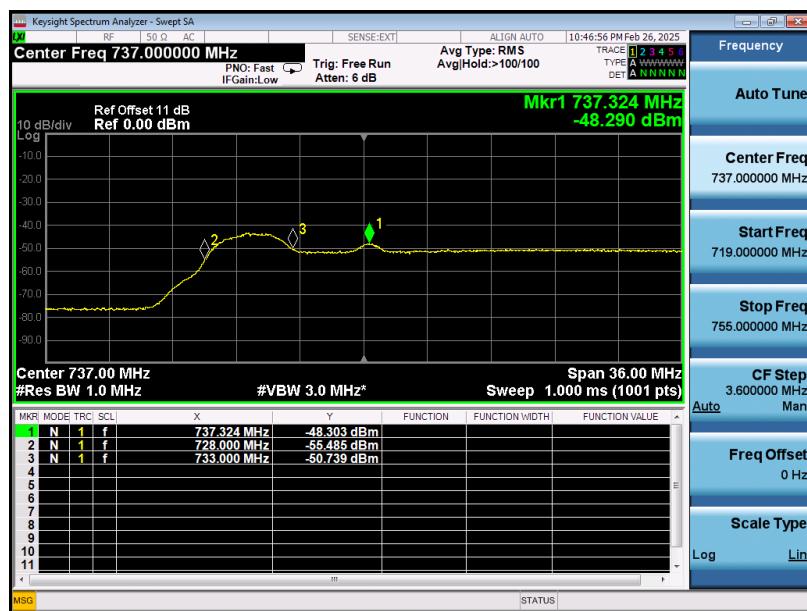
Between Mkr 2 and Mkr 3 represents the authorized licensee spectrum block set for the EUT, the noise power within that does not need to be measured.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)

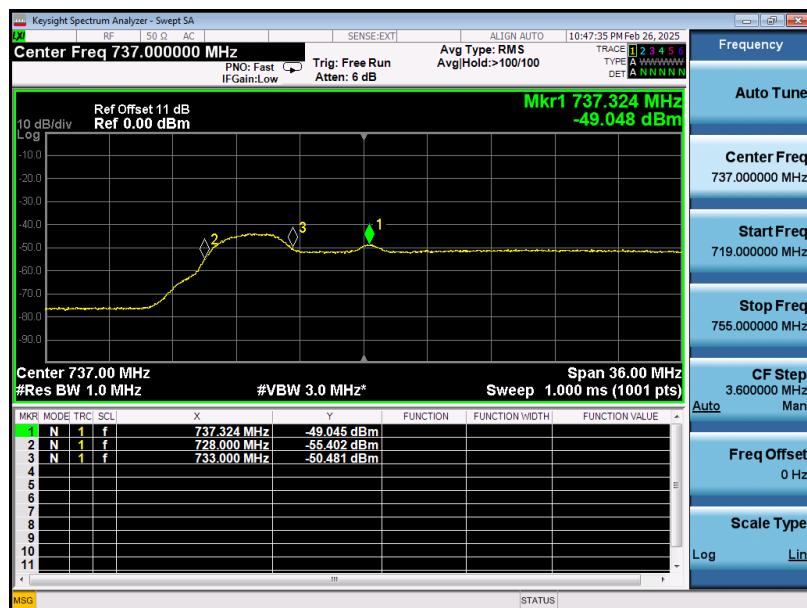
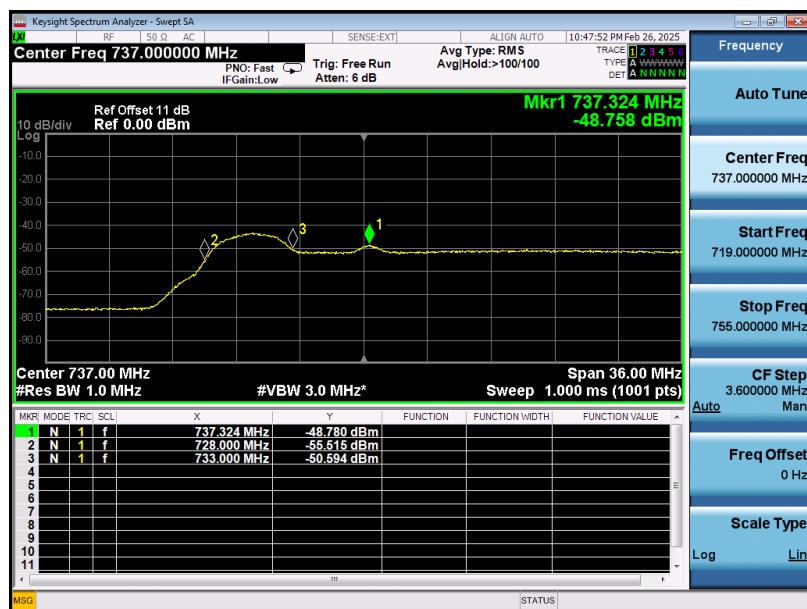
**Maximum transmitter Noise Power Level**
**DL\_MT3**

**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.

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

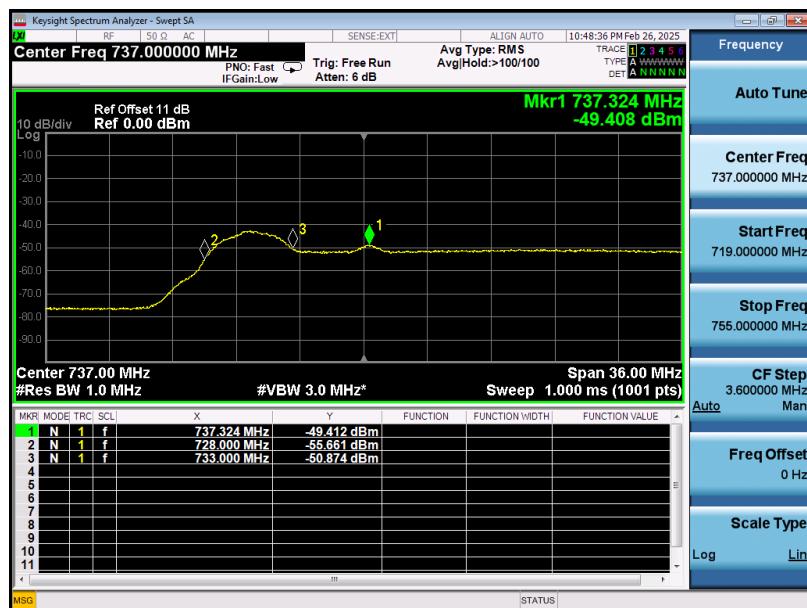
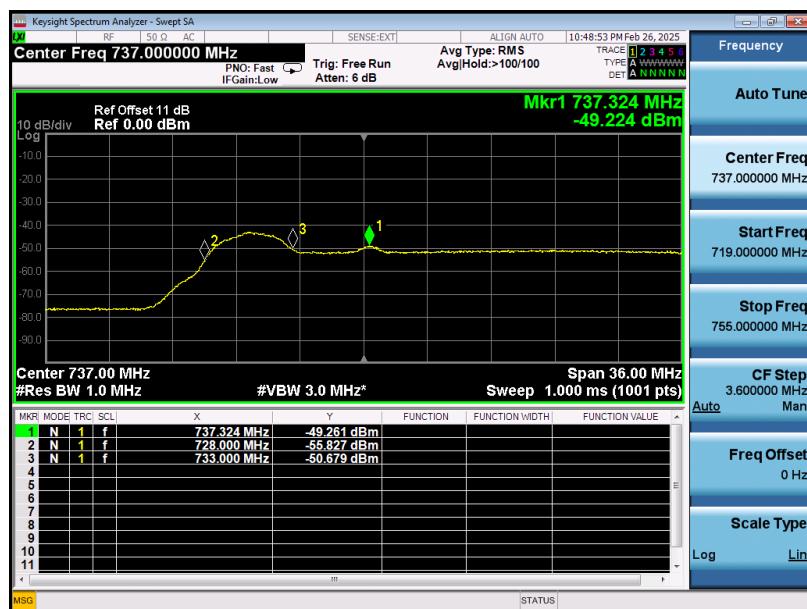
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)

**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.

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)

**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.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)

## 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)
Lower 700MHz	698	1.5	9	-9	32.8

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

### 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:*

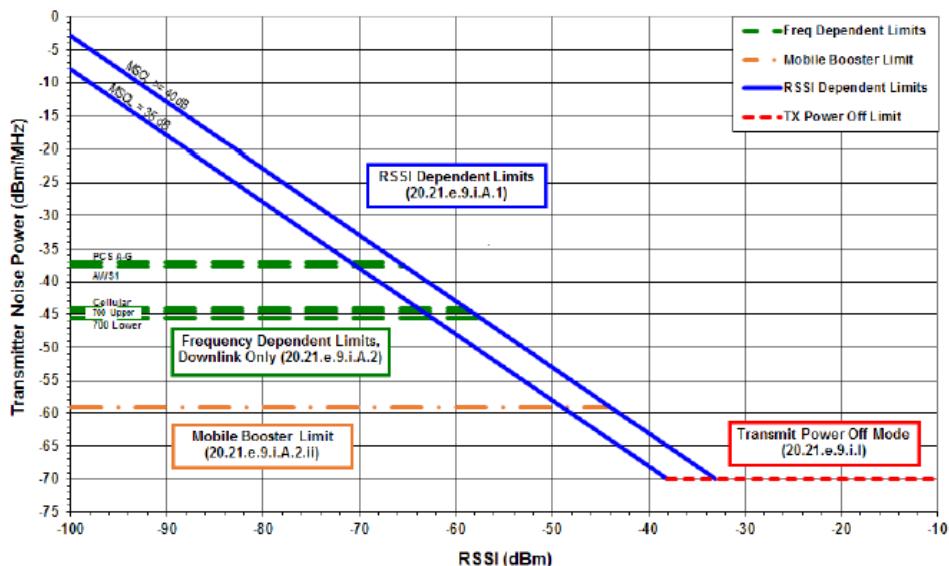


Figure D1 – Provider-specific consumer signal booster variable noise limits

Therefore, the RSSI-dependent region can be calculated as:  $-64.7 \text{ dBm}$  to  $-40.2 \text{ dBm}$

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)



SGS-CSTC Standards Technical Services Co., Ltd.  
Guangzhou Branch Inspection & Testing Services Co., Ltd.

t (86-20) 82155555 [www.sgsgroup.com.cn](http://www.sgsgroup.com.cn)  
t (86-20) 82155555 [sgs.china@sgs.com](mailto:sgs.china@sgs.com)

RSSI-dependent noise power level					
Test Path	Test Port	RSSI (dBm)	Noise Level (dBm/MHz)	Limit (dBm/MHz)	Verdict
DL	MT2	-90	-48.24	≤-45.5	PASS
		-80	-49.21	≤-45.5	PASS
		-70	-50.05	≤-45.5	PASS
		-60	-54.32	≤-50.2	PASS
		-54	-56.91	≤-56.2	PASS
		-42	-70.75	≤-68.2	PASS
UL	DT	-90	-47.53	≤-45.5	PASS
		-80	-48.03	≤-45.5	PASS
		-70	-48.63	≤-45.5	PASS
		-60	-51.33	≤-50.2	PASS
		-54	-57.75	≤-56.2	PASS
		-42	-70.05	≤-68.2	PASS



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-20) 8307 1443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)

SGS-CSTC Standards Technical Services Co., Ltd.  
Guangzhou Branch Testing Center EEC Laboratory  
No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663  
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 www.sgsgroup.com.cn  
t (86-20) 82155555 sgs.china@sgs.com

**8.3 Variable noise response time**

<b>Variable noise response time</b>				
Test Path	Test Port	Time (s)	Limit (s)	Verdict
DL	MT2	0.03	≤3	PASS
UL	DT	0.04	≤3	PASS



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)

SGS-CSTC Standards Technical Services Co., Ltd.  
Guangzhou Branch Testing Center EEC Laboratory  
No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663  
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 www.sgsgroup.com.cn  
t (86-20) 82155555 sgs.china@sgs.com



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)

## 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	-76.09	≤-70	PASS



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)

SGS-CSTC Standards Technical Services Co., Ltd.  
Guangzhou Branch Testing Center EEC Laboratory  
No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663  
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 www.sgsgroup.com.cn  
t (86-20) 82155555 sgs.china@sgs.com



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)

## 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:*

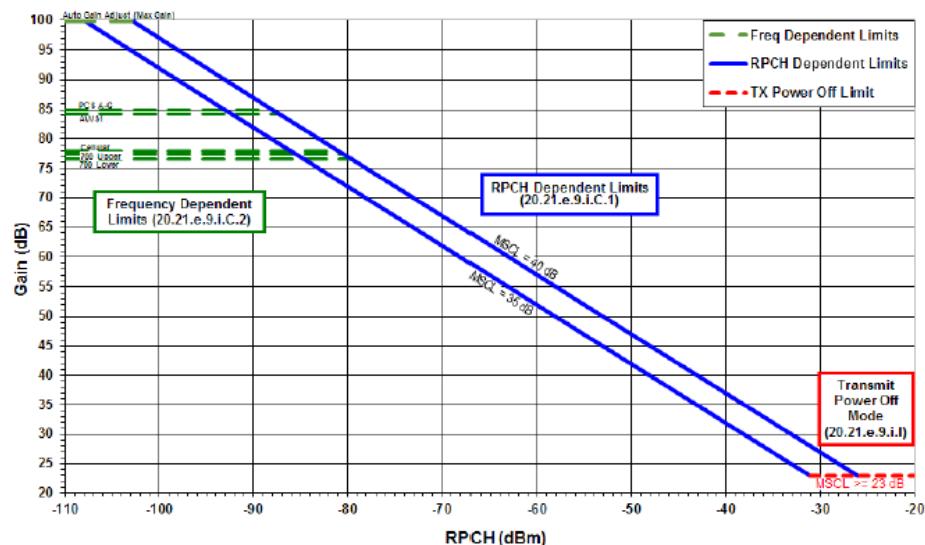


Figure D2 – Provider-specific consumer signal booster variable gain limits

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)
Lower 700MHz	698	1.5	9	-9	32.8

Therefore, the RSSI-dependent region can be calculated as (RPCH): -110.2dBm to -33.2dBm



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)

Variable Gain							
Test Path	Test Port	RPCH (dBm)	BSCL (dBm)	Pout (dBm)	Gain (dB)	Limit (dB)	Verdict
DL	MT6	-90	115	-20.12	69.88	$\leq 79.8$	PASS
		-82	107	-12.12	69.88	$\leq 71.8$	PASS
		-50	75	-11.78	38.22	$\leq 39.8$	PASS
		-42	67	-5.36	36.64	$\leq 31.8$	PASS
		-30	55	/	/	$\leq 23$	PASS
		-20	45	/	/	$\leq 23$	PASS
UL	DT	-90	115	13.00	64.50	$\leq 79.8$	PASS
		-82	107	13.00	64.50	$\leq 71.8$	PASS
		-50	75	-19.05	32.45	$\leq 39.8$	PASS
		-42	67	-21.76	29.74	$\leq 31.8$	PASS
		-30	55	/	/	$\leq 23$	PASS
		-20	45	/	/	$\leq 23$	PASS

**Remark:**

- "/" 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.
- For UL, the input signal levels were set to -51.5dBm.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)

**10.2 Variable gain timing**

<b>Variable Uplink Gain Timing</b>				
Test Path	Test Port	Time (s)	Limit (s)	Verdict
UL	DT	0.050	≤3	PASS



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)

SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch Testing Center EEC Laboratory | No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663 | t (86-20) 82155555 | [www.sgsgroup.com.cn](http://www.sgsgroup.com.cn)  
中国·广东·广州高新技术产业开发区科学城科珠路198号 | 邮编: 510663 | t (86-20) 82155555 | [sgs.china@sgs.com](mailto:sgs.china@sgs.com)

**11 Occupied bandwidth**

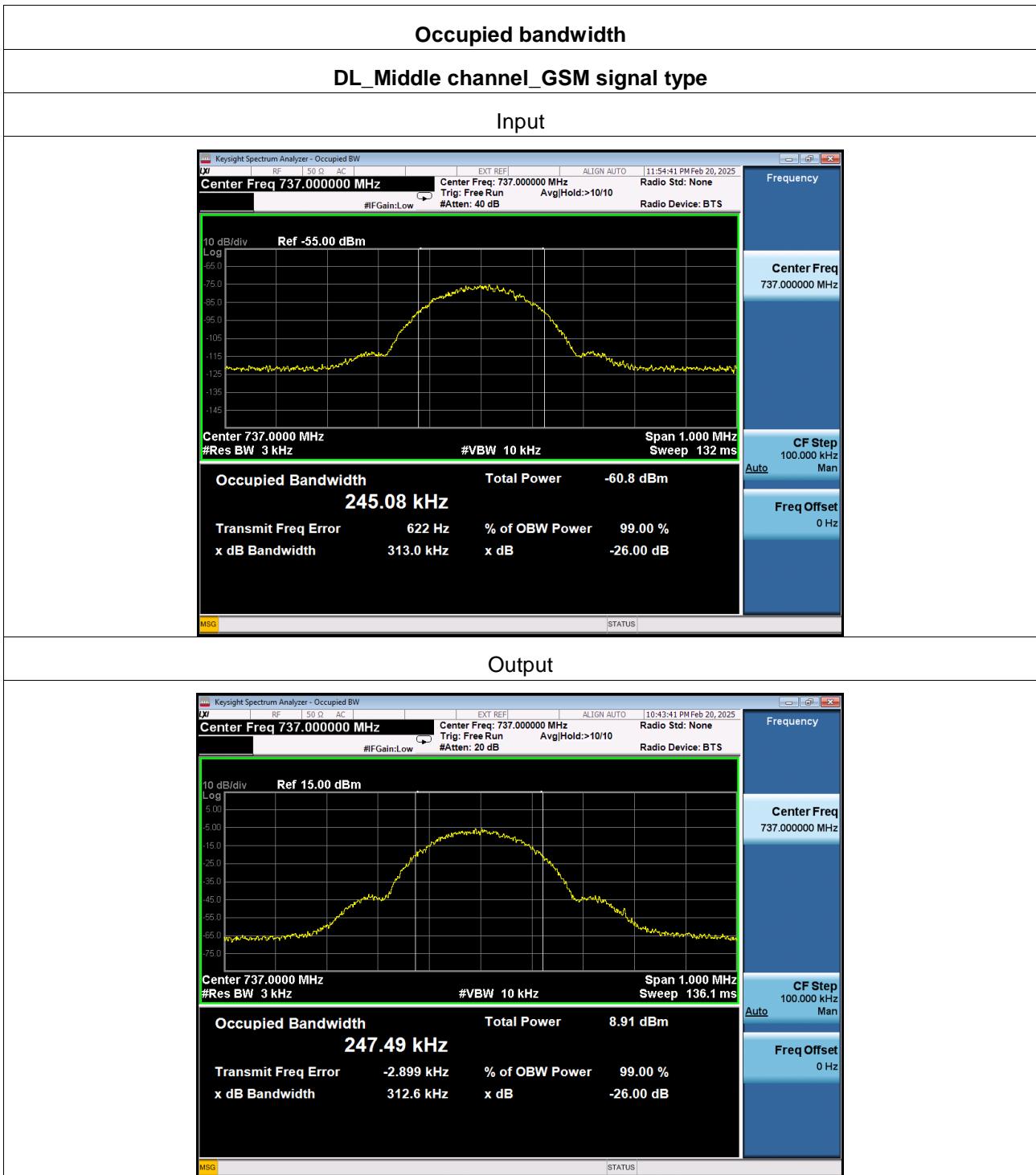
Occupied Bandwidth				
Path	Test Port	Test Channel	Input Signal	Verdict
DL	MT1	Middle	GSM	PASS
			1.25MHz AWGN	PASS
			4.1MHz AWGN	PASS
UL	DT	Middle	GSM	PASS
			1.25MHz AWGN	PASS
			4.1MHz AWGN	PASS

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.



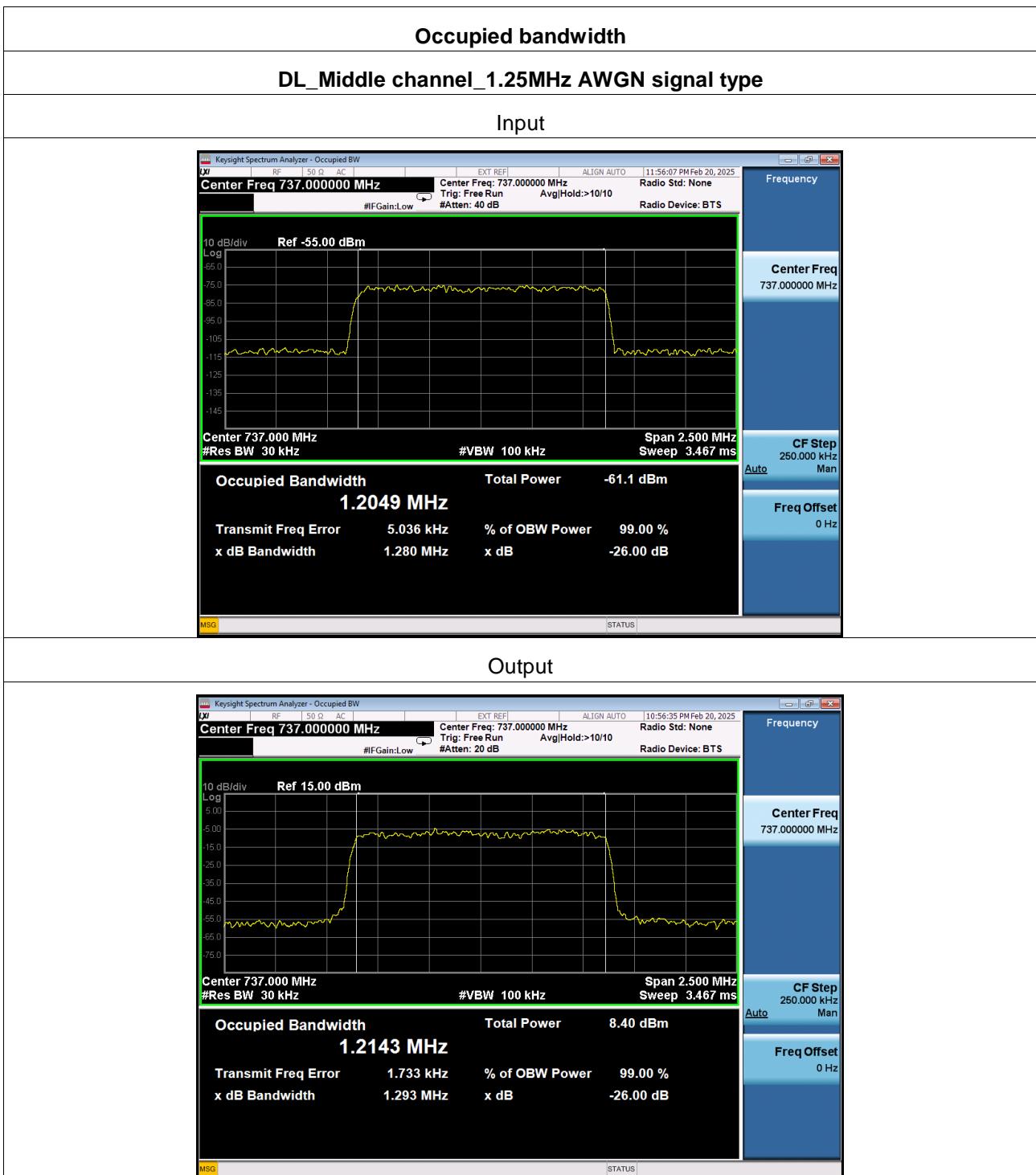
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

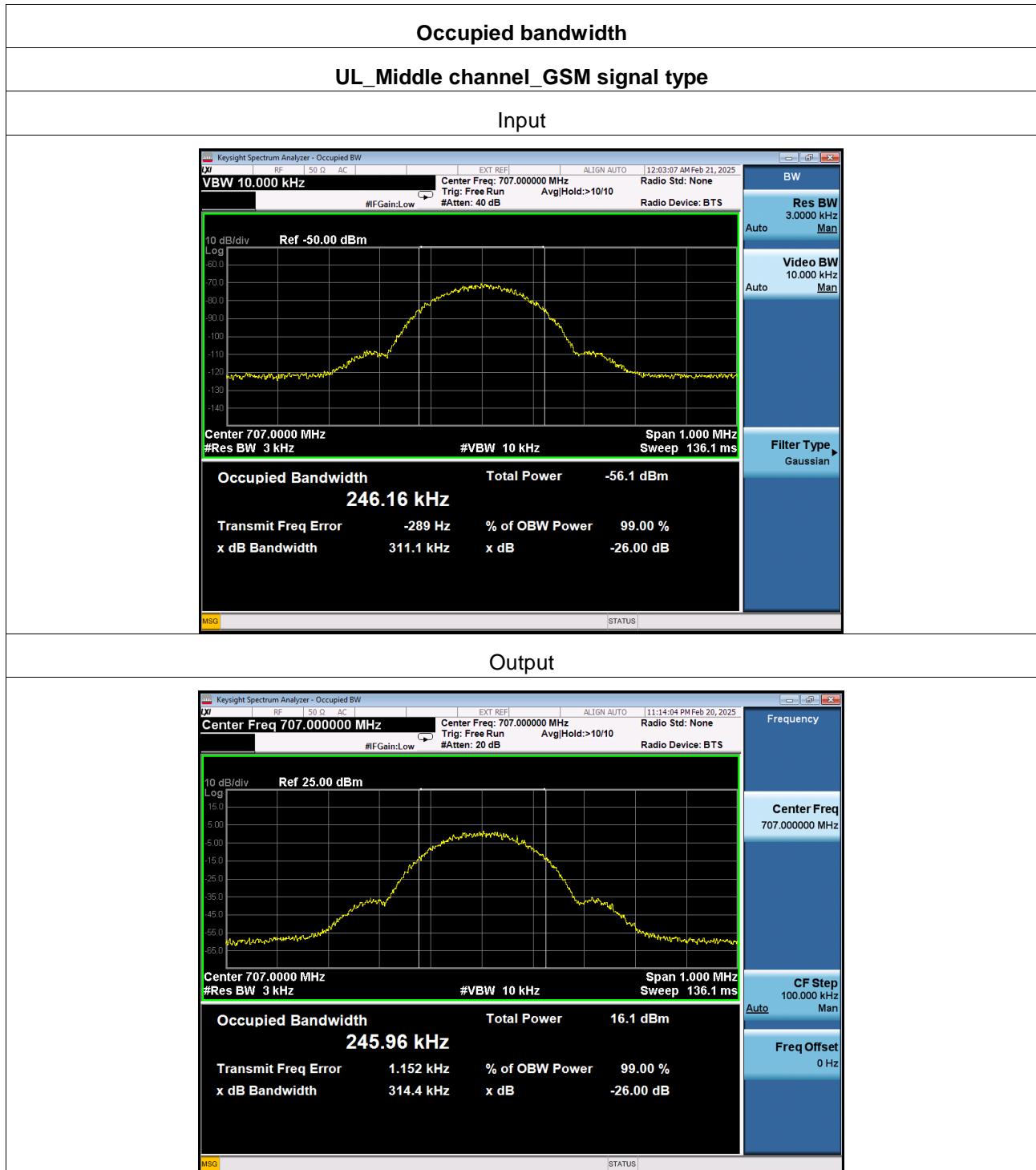
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)





Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)





Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)

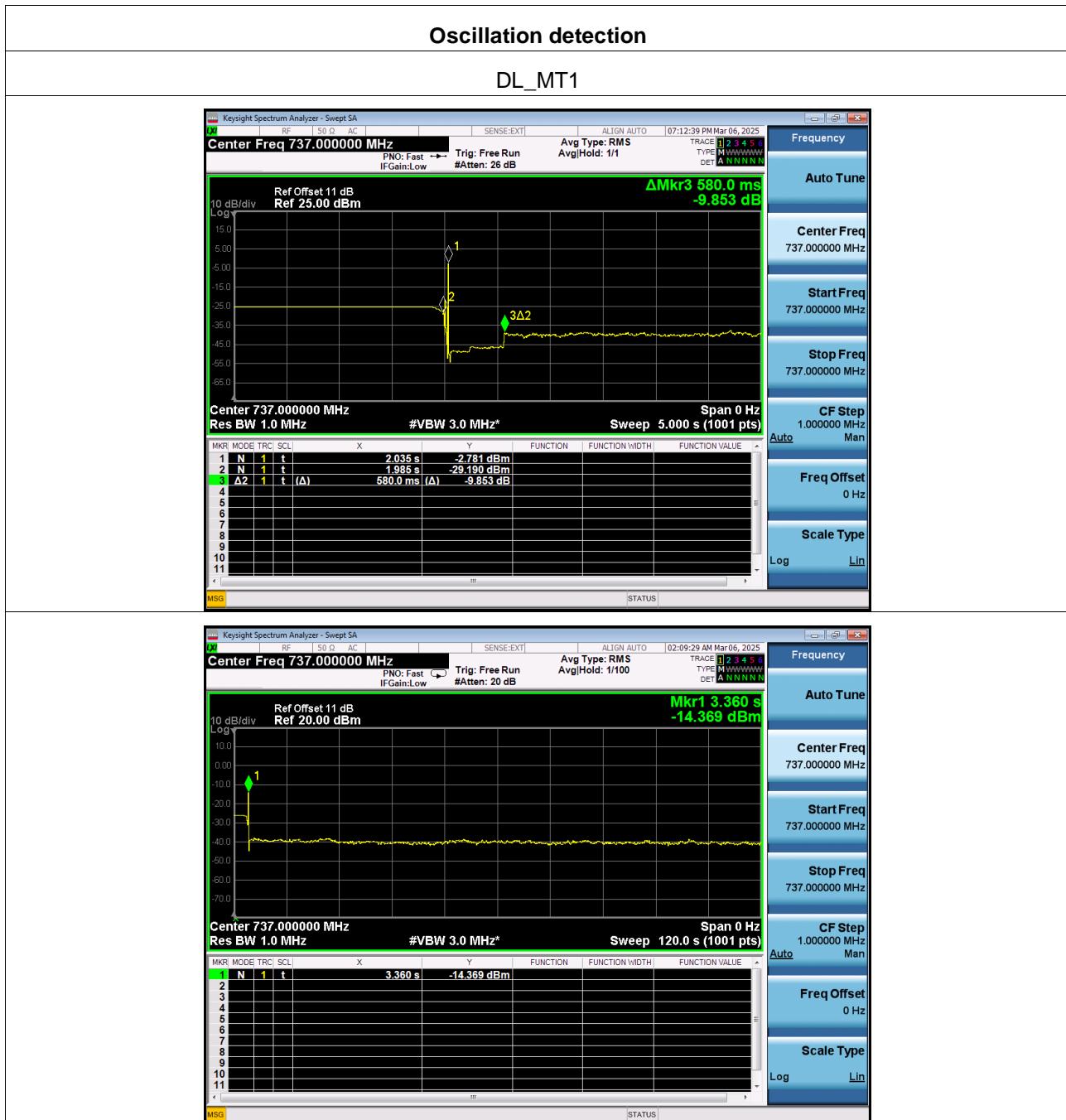


**12 Oscillation detection****12.1 Oscillation detection**

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	0.580	≤1	-2.78	0	≤5	/	≥60	PASS
	MT2	0.235		-5.98	0		/		PASS
	MT3	0.225		-0.08	0		/		PASS
	MT4	0.240		-2.54	0		/		PASS
	MT5	0.295		-7.93	0		/		PASS
	MT6	0.230		-0.71	0		/		PASS
	MT7	0.270		-0.59	0		/		PASS
	MT8	0.295		-2.90	0		/		PASS
UL	DT	0.035	≤0.3	-1.22	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.									

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

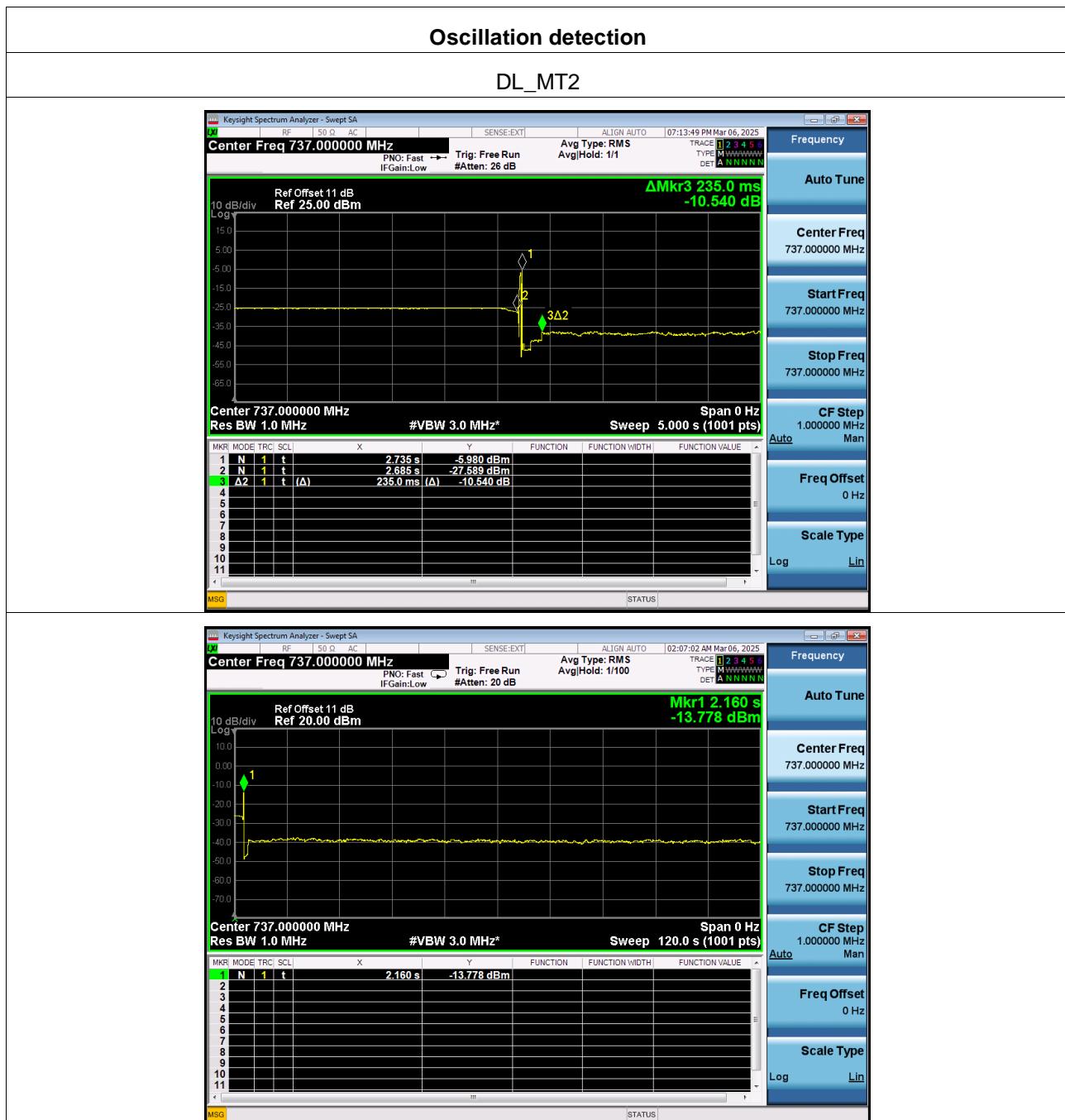
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)



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

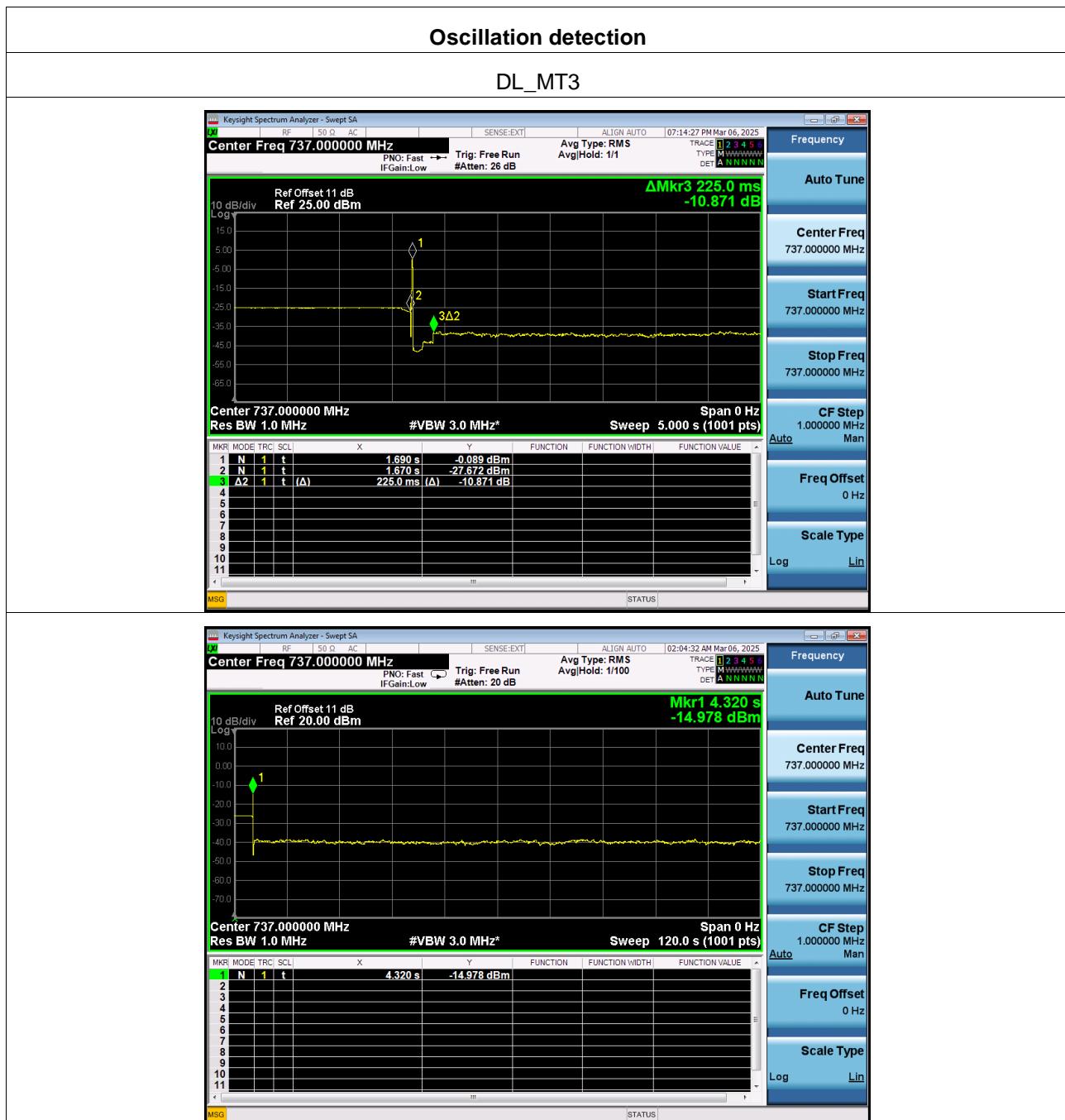
No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663

t (86-20) 82155555 [www.sgsgroup.com.cn](http://www.sgsgroup.com.cn)  
t (86-20) 82155555 [sgs.china@sgs.com](mailto:sgs.china@sgs.com)



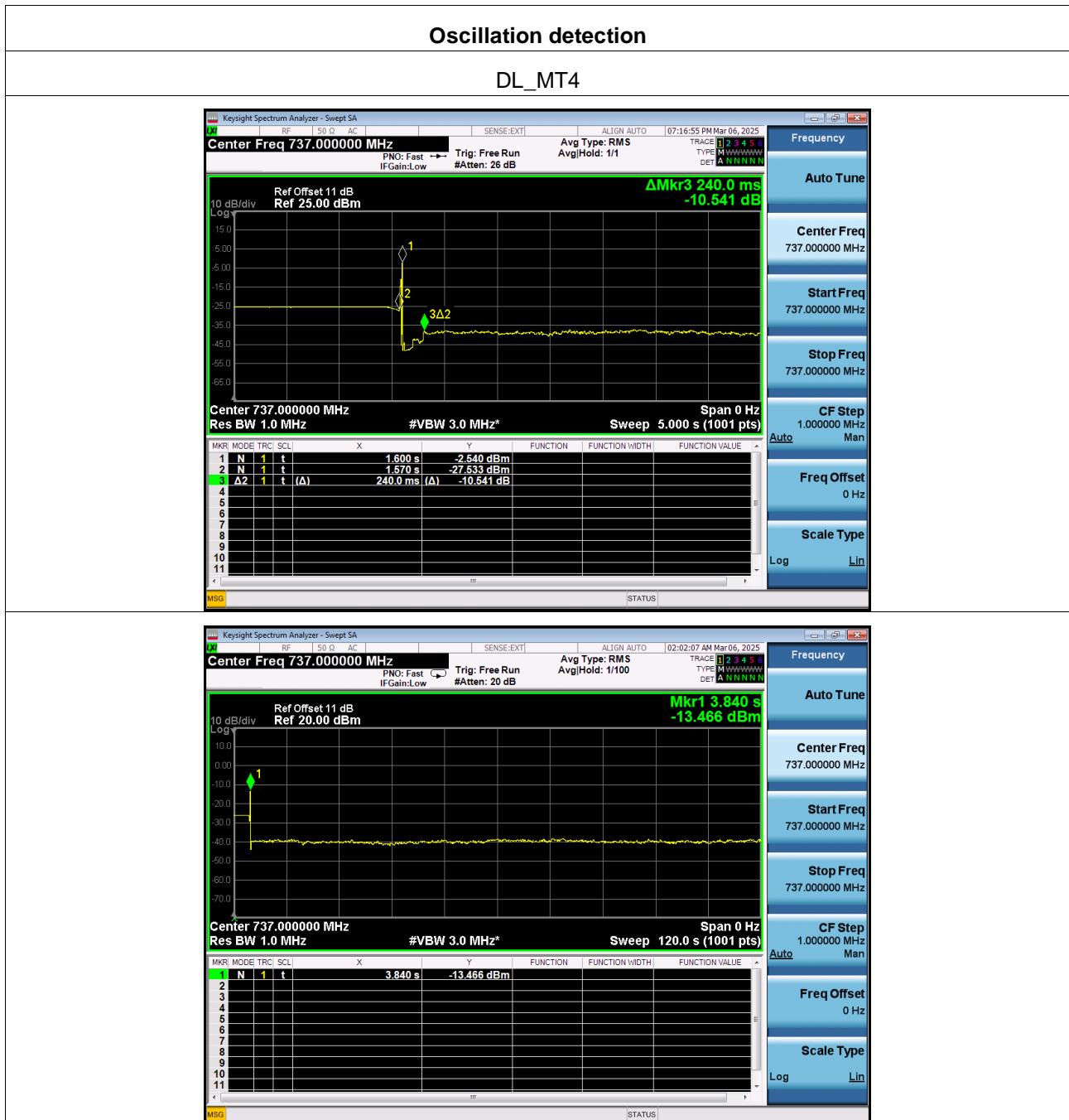
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)



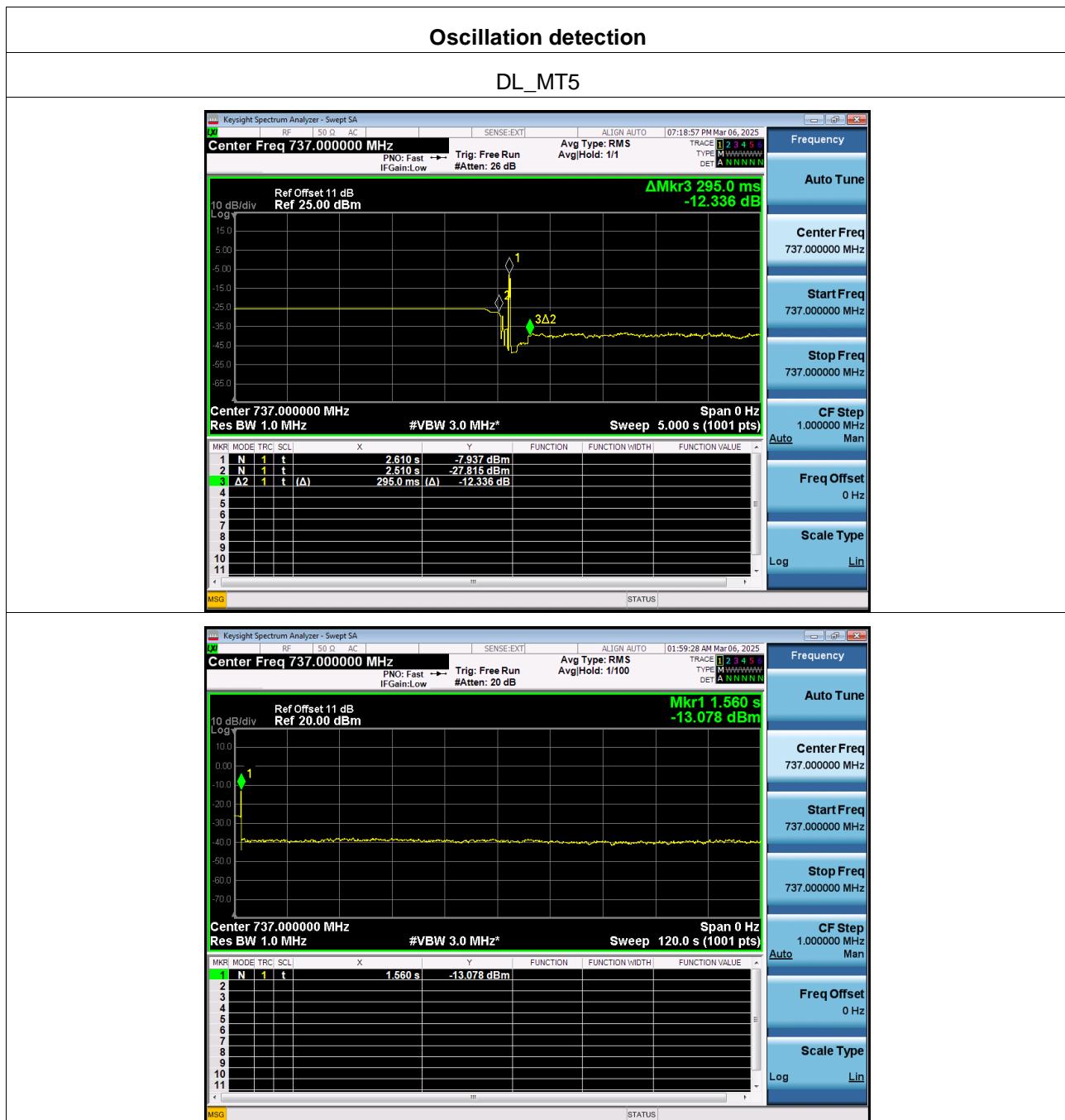
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)



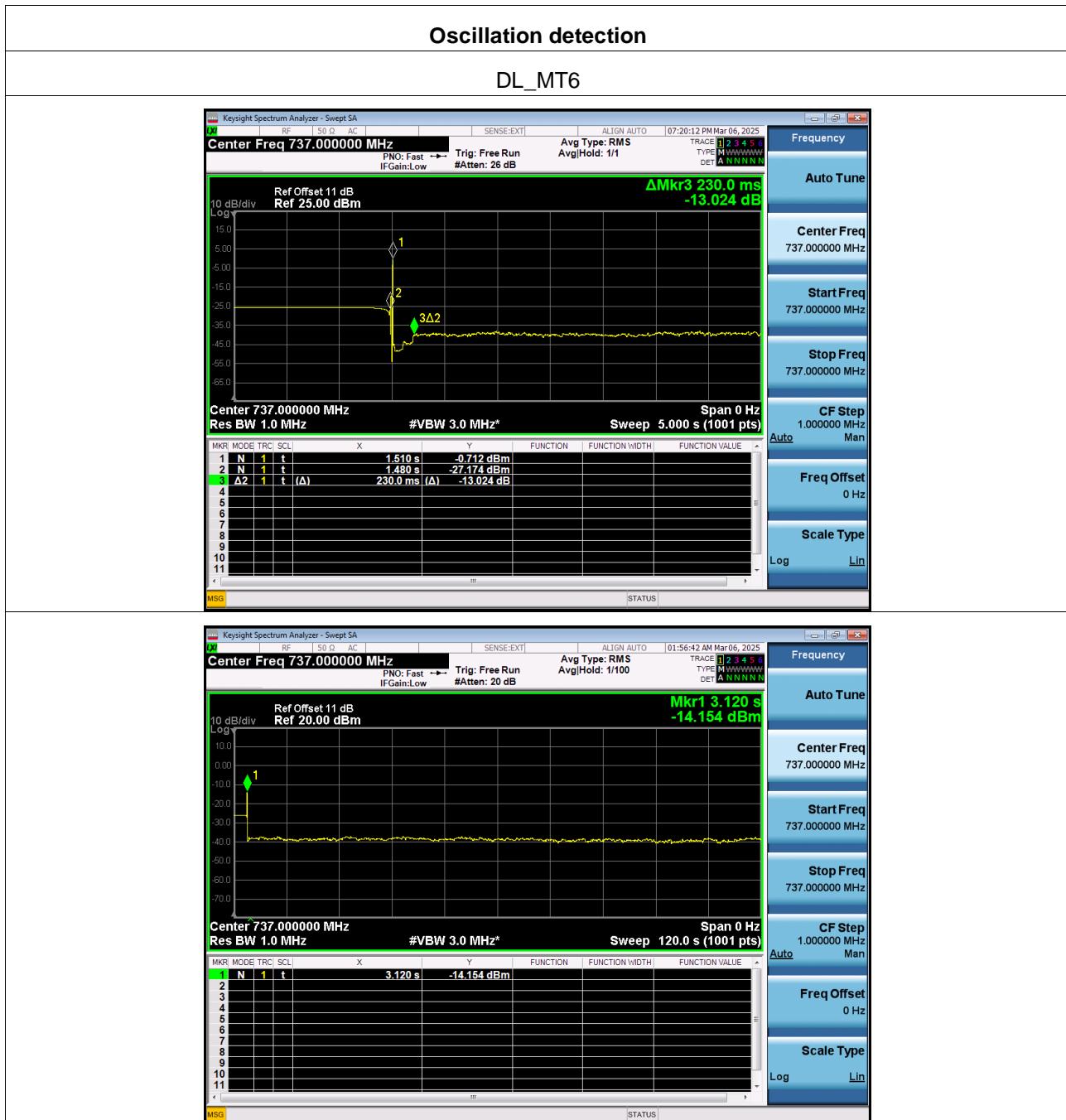
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

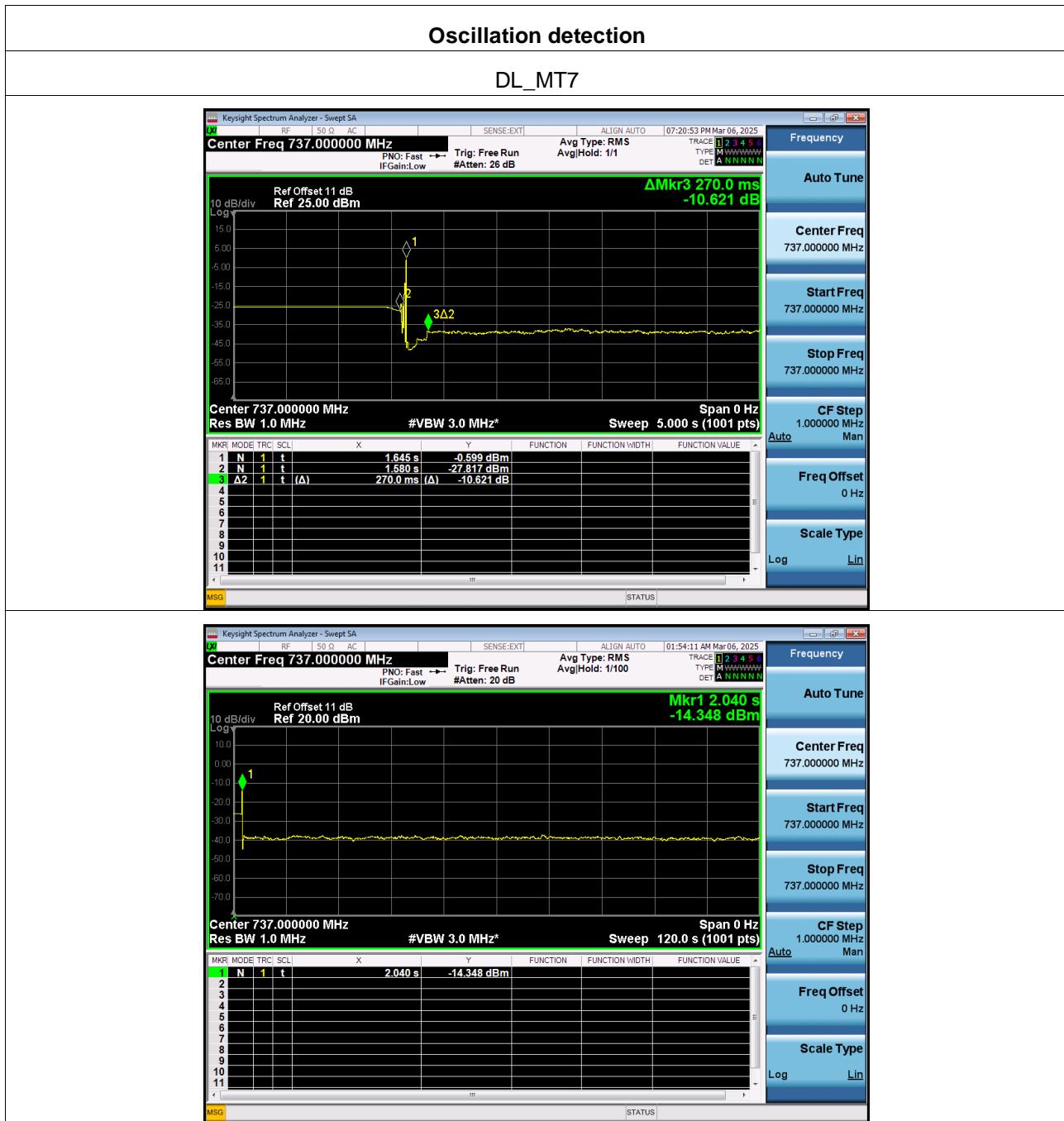
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

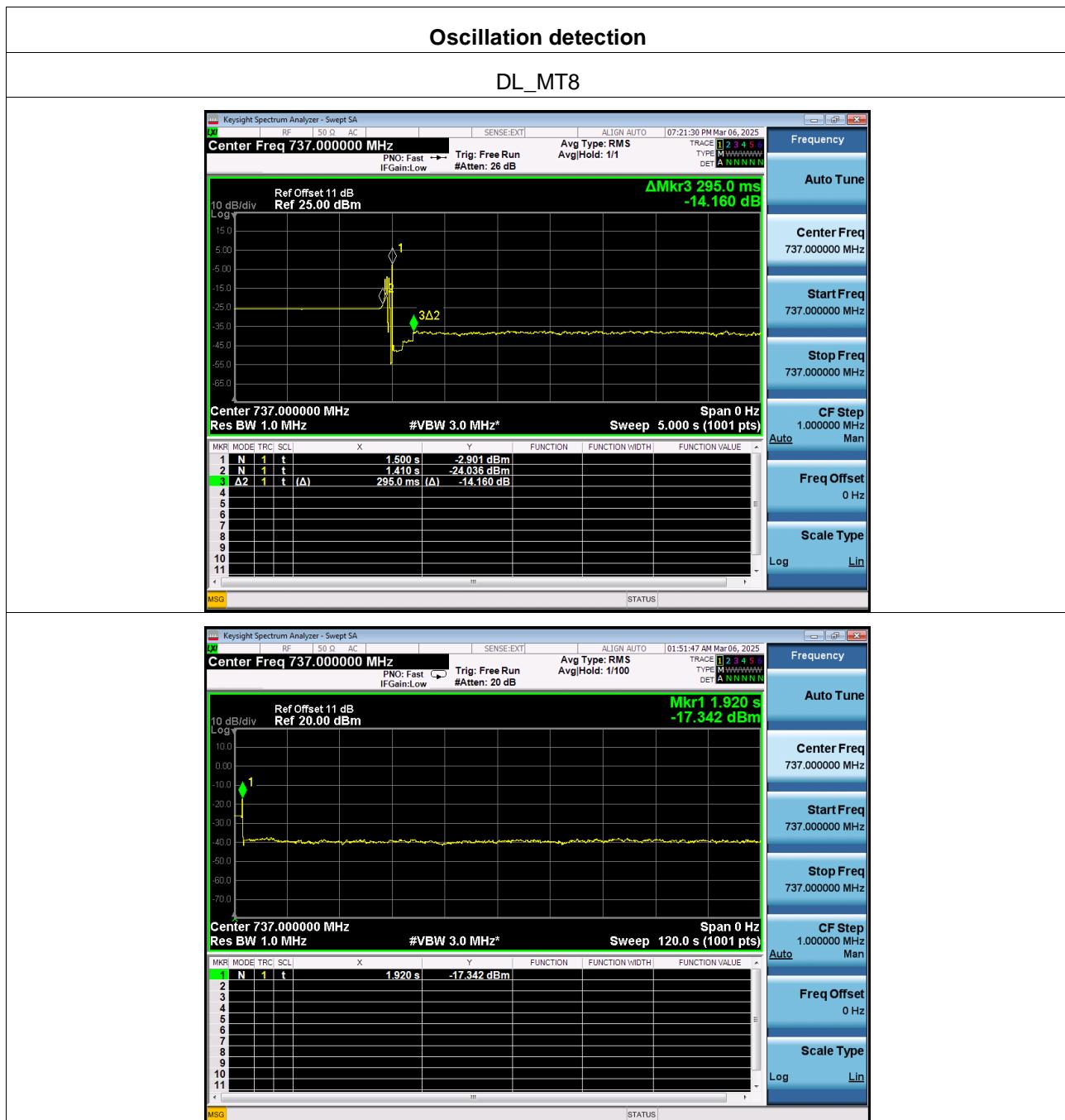
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)





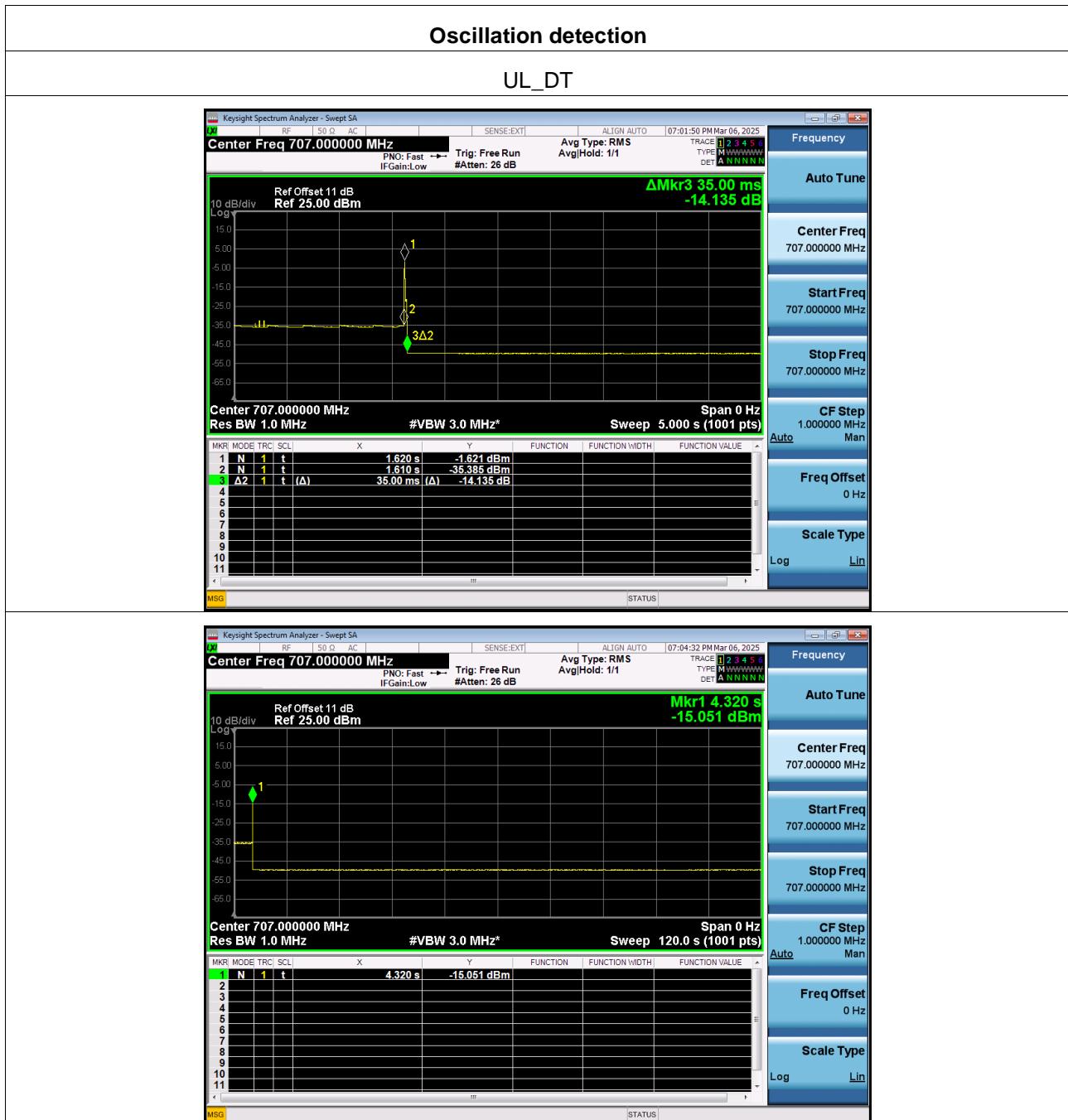
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)

## 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	75.75	-4.34	-8.34	4.00	≤12	PASS
		74.75	-2.24	-8.02	5.78		PASS
		73.75	-2.03	-7.43	5.40		PASS
		72.75	-0.84	-4.58	3.74		PASS
		71.75	1.43	-1.24	2.67		PASS
		70.75	3.74	-0.73	4.47		PASS
		69.75	4.44	-1.23	5.67		PASS
		68.75	/	/	/		PASS
		67.75	/	/	/		PASS
		66.75	/	/	/		PASS
		65.75	/	/	/		PASS
	MT2	75.36	-7.65	-11.34	3.69	≤12	PASS
		74.36	-4.58	-9.32	4.74		PASS
		73.36	-3.12	-7.32	4.20		PASS
		72.36	-0.74	-6.32	5.58		PASS
		71.36	1.43	-4.37	5.80		PASS
		70.36	3.32	-1.43	4.75		PASS
		69.36	5.84	-0.47	6.31		PASS
		68.36	/	/	/		PASS
		67.36	/	/	/		PASS
		66.36	/	/	/		PASS
		65.36	/	/	/		PASS
Remark: "/" presents the EUT shut down.							

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)



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

No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663 t (86-20) 82155555 www.sgsgroup.com.cn  
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 sgs.china@sgs.com

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	75.55	-0.84	-4.32	3.48	≤12	PASS
		74.55	1.32	-3.32	4.64		PASS
		73.55	3.57	0.23	3.34		PASS
		72.55	5.63	0.54	5.09		PASS
		71.55	8.75	3.29	5.46		PASS
		70.55	8.54	4.08	4.46		PASS
		69.55	10.03	5.42	4.61		PASS
		68.55	/	/	/		PASS
		67.55	/	/	/		PASS
		66.55	/	/	/		PASS
		65.55	/	/	/		PASS
DL	MT4	75.49	-3.26	-6.54	3.28	≤12	PASS
		74.49	-1.83	-6.10	4.27		PASS
		73.49	2.34	-4.32	6.66		PASS
		72.49	2.83	0.84	1.99		PASS
		71.49	4.08	1.43	2.65		PASS
		70.49	5.55	1.97	3.58		PASS
		69.49	6.89	3.29	3.60		PASS
		68.49	/	/	/		PASS
		67.49	/	/	/		PASS
		66.49	/	/	/		PASS
		65.49	/	/	/		PASS

Remark:  
"/" presents the EUT shut down.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)

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	75.61	-7.93	-11.23	3.30	≤12	PASS
		74.61	-4.38	-8.34	3.96		PASS
		73.61	-2.94	-7.21	4.27		PASS
		72.61	-2.12	-5.48	3.36		PASS
		71.61	-1.04	-4.32	3.28		PASS
		70.61	-0.22	-2.35	2.13		PASS
		69.61	2.03	-1.32	3.35		PASS
		68.61	4.11	0.32	3.79		PASS
		67.61	6.32	2.93	3.39		PASS
		66.61	/	/	/		PASS
		65.61	/	/	/		PASS
DL	MT6	75.70	0.27	-4.76	5.03	≤12	PASS
		74.70	2.32	-3.21	5.53		PASS
		73.70	4.83	0.11	4.72		PASS
		72.70	6.43	2.23	4.20		PASS
		71.70	9.47	3.65	5.82		PASS
		70.70	/	/	/		PASS
		69.70	/	/	/		PASS
		68.70	/	/	/		PASS
		67.70	/	/	/		PASS
		66.70	/	/	/		PASS
		65.70	/	/	/		PASS

Remark:

"/" presents the EUT shut down.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)

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

No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663 t (86-20) 82155555 www.sgsgroup.com.cn  
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 sgs.china@sgs.com

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	75.57	-0.32	-4.32	4.00	≤12	PASS
		74.57	2.35	-1.25	3.60		PASS
		73.57	3.94	-0.36	4.30		PASS
		72.57	5.22	1.11	4.11		PASS
		71.57	5.98	2.34	3.64		PASS
		70.57	7.12	3.92	3.20		PASS
		69.57	10.34	5.42	4.92		PASS
		68.57	/	/	/		PASS
		67.57	/	/	/		PASS
		66.57	/	/	/		PASS
		65.57	/	/	/		PASS
	MT8	75.40	-3.74	-7.65	3.91	≤12	PASS
		74.40	-2.19	-5.94	3.75		PASS
		73.40	-0.43	-4.21	3.78		PASS
		72.40	1.34	-2.49	3.83		PASS
		71.40	3.29	-1.04	4.33		PASS
		70.40	5.49	2.47	3.02		PASS
		69.40	8.75	4.08	4.67		PASS
		68.40	/	/	/		PASS
		67.40	/	/	/		PASS
		66.40	/	/	/		PASS
		65.40	/	/	/		PASS

Remark:

"/" presents the EUT shut down.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)

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

No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663 t (86-20) 82155555 www.sgsgroup.com.cn  
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 sgs.china@sgs.com

Oscillation Mitigation or Shutdown							
Test Path	Test Port	Isolation (dB)	Oscillation Level				Verdict
			Highest level (dBm)	Lowest level (dBm)	Difference (dB)	Limit (dB)	
UL	DT	70.21	-2.00	-5.43	3.43	≤12	PASS
		69.21	-0.99	-2.37	1.38		PASS
		68.21	2.32	-1.83	4.15		PASS
		67.21	4.75	1.12	3.63		PASS
		66.21	6.85	2.02	4.83		PASS
		65.21	/	/	/		PASS
		64.21	/	/	/		PASS
		63.21	/	/	/		PASS
		62.21	/	/	/		PASS
		61.21	/	/	/		PASS
		60.21	/	/	/		PASS

Remark:

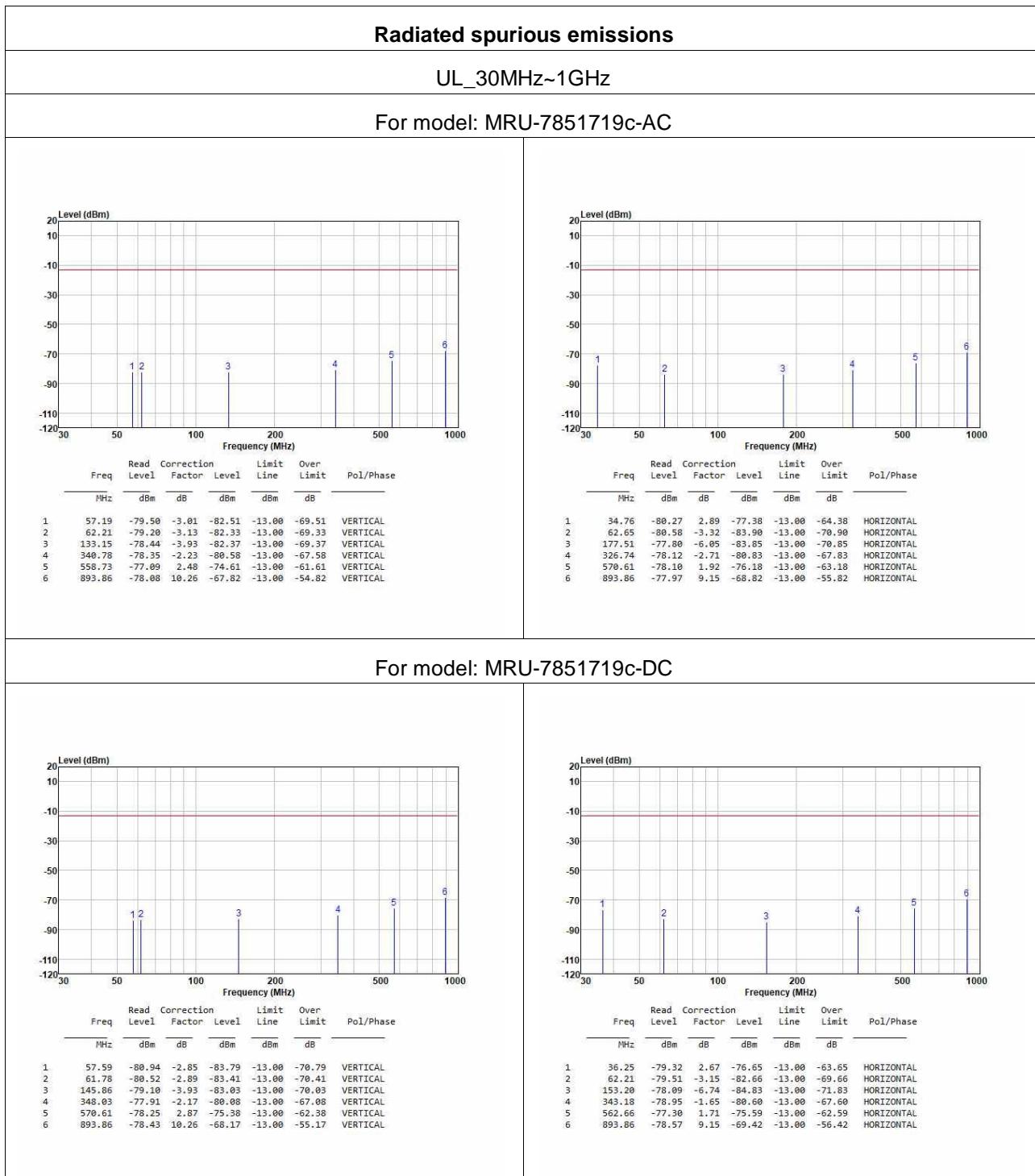
"/" presents the EUT shut down.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)

## 13 Radiated spurious emissions



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_DocCheck@sgs.com](mailto:CN_DocCheck@sgs.com)

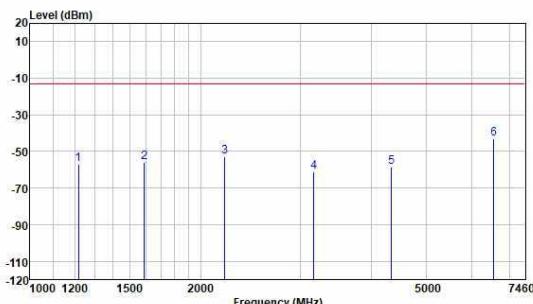


SGS-CSTC Standards Technical Services Co., Ltd.  
Guangzhou Branch, Testing Center, EEC Laboratory  
No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663  
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 www.sgsgroup.com.cn  
t (86-20) 82155555 sgs.china@sgs.com

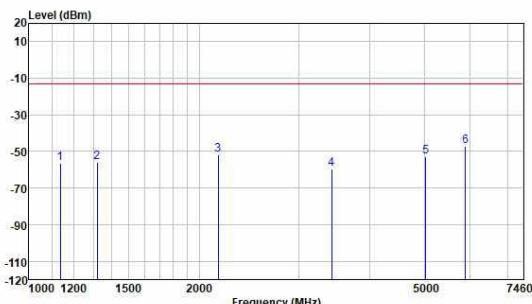
**Radiated spurious emissions**

UL\_above 1GHz

For model: MRU-7851719c-AC

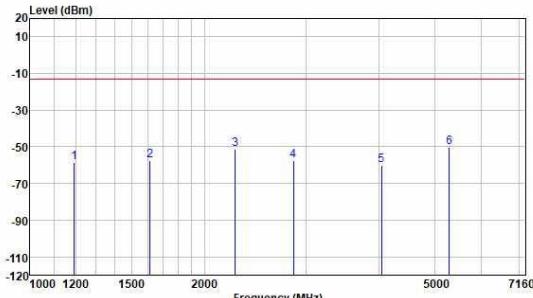


	Freq	Read Level	Correction Factor	Limit Level	Over Line	Over Limit	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1217.67	-60.42	3.35	-57.07	-13.00	-44.07	VERTICAL
2	1598.75	-61.02	4.97	-56.05	-13.00	-43.05	VERTICAL
3	2202.86	-62.41	9.42	-52.99	-13.00	-39.99	VERTICAL
4	3162.86	-63.54	2.65	-60.89	-13.00	-47.89	VERTICAL
5	4336.10	-63.35	4.67	-58.68	-13.00	-45.68	VERTICAL
6	6559.69	-63.38	20.31	-43.07	-13.00	-30.07	VERTICAL

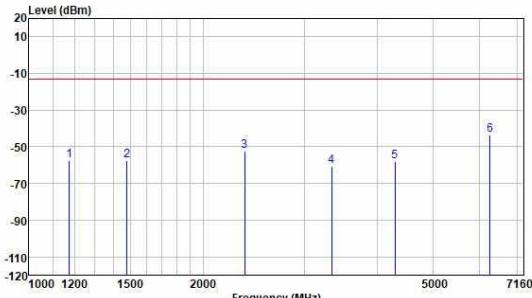


	Freq	Read Level	Correction Factor	Limit Level	Over Line	Over Limit	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1137.25	-60.56	3.92	-56.64	-13.00	-43.64	HORIZONTAL
2	1319.59	-60.21	4.01	-56.20	-13.00	-43.20	HORIZONTAL
3	2159.03	-60.95	9.33	-51.62	-13.00	-38.62	HORIZONTAL
4	3420.71	-61.95	2.38	-59.57	-13.00	-46.57	HORIZONTAL
5	5021.22	-64.11	11.31	-52.80	-13.00	-39.80	HORIZONTAL
6	5896.96	-62.66	15.65	-47.01	-13.00	-34.01	HORIZONTAL

For model: MRU-7851719c-DC



	Freq	Read Level	Correction Factor	Limit Level	Over Line	Over Limit	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1191.48	-61.86	3.09	-58.77	-13.00	-45.77	VERTICAL
2	1610.23	-62.29	4.88	-57.41	-13.00	-44.41	VERTICAL
3	2259.09	-60.72	9.52	-51.20	-13.00	-38.20	VERTICAL
4	2849.80	-61.94	4.49	-57.45	-13.00	-44.45	VERTICAL
5	4045.65	-63.47	3.65	-59.82	-13.00	-46.82	VERTICAL
6	5297.99	-63.71	13.20	-50.51	-13.00	-37.51	VERTICAL



	Freq	Read Level	Correction Factor	Limit Level	Over Line	Over Limit	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1175.18	-60.71	3.07	-57.64	-13.00	-44.64	HORIZONTAL
2	1476.63	-62.27	4.70	-57.57	-13.00	-44.57	HORIZONTAL
3	2359.08	-61.86	9.54	-52.32	-13.00	-39.32	HORIZONTAL
4	3335.85	-62.68	2.21	-60.47	-13.00	-47.47	HORIZONTAL
5	4291.76	-62.46	4.28	-58.18	-13.00	-45.18	HORIZONTAL
6	6275.29	-62.86	19.17	-43.69	-13.00	-30.69	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.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)

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

No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663

中国·广东·广州高新技术产业开发区科学城科珠路198号

t (86-20) 82155555 www.sgsgroup.com.cn

t (86-20) 82155555 sgs.china@sgs.com

**14 Spectrum blocking filtering**

<b>Spectrum blocking filtering</b>			
UL filter attenuation (dB)	DL filter attenuation (dB)	Limit	Verdict
60.68	60.12	UL ≥ DL	PASS

Remark:  
Please refer to clause 1 "Authorized frequency band verification" test plots for more details.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)

SGS-CSTC Standards Technical Services Co., Ltd.  
Guangzhou Branch Testing Center EEC Laboratory  
No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663  
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 www.sgsgroup.com.cn  
t (86-20) 82155555 sgs.china@sgs.com

## 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	$f_c$	70.52		/		/	/
		0	46.34	49.19	-24.18	-21.33	$\leq -20$	PASS
		1	32.43	37.94	-38.09	-32.58	$\leq -30$	PASS
		5	19.83	16.43	-50.69	-54.09	$\leq -40$	PASS
UL	DT	$f_c$	65.14		/		/	/
		0	40.23	38.43	-24.91	-26.71	$\leq -20$	PASS
		1	28.64	31.23	-36.50	-33.91	$\leq -30$	PASS
		5	17.92	20.32	-47.22	-44.82	$\leq -40$	PASS

Remark:

1.  $f_c$  is the centre frequency of the pass band of the EUT.
2. ATT is the attenuation referenced to the gain in  $f_c$ .

Out of band gain							
Test Path	Test Port	Offset (MHz)	Gain (dB)		Gain Limit (dB)	Verdict	
			Low edge	High edge			
DL	MT6	0.2	40.23		$\leq 60$	PASS	
		1	32.43		$\leq 45$	PASS	
UL	DT	0.2	36.42		$\leq 60$	PASS	
		1	28.64		$\leq 45$	PASS	



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)

SGS-CSTC Standards Technical Services Co., Ltd.  
Guangzhou Branch Testing Center EEC Laboratory  
No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663  
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 www.sgsgroup.com.cn  
t (86-20) 82155555 sgs.china@sgs.com

**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	3.7	0.00502	PASS
				+40	3.5	0.00475	PASS
				+30	4.4	0.00597	PASS
				+20	3.1	0.00421	PASS
				+10	2.5	0.00339	PASS
				0	3.7	0.00502	PASS
				-10	3.0	0.00407	PASS
				-20	2.8	0.00380	PASS
				-30	2.9	0.00393	PASS
UL	DT	Middle	VN	+50	3.2	0.00453	PASS
				+40	2.9	0.00410	PASS
				+30	3.0	0.00424	PASS
				+20	4.2	0.00594	PASS
				+10	3.8	0.00537	PASS
				0	4.0	0.00566	PASS
				-10	3.0	0.00424	PASS
				-20	3.2	0.00453	PASS
				-30	3.7	0.00523	PASS

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)



SGS-CSTC Standards Technical Services Co., Ltd.  
Guangzhou Branch Testing Center EEC Laboratory  
No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663  
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 www.sgsgroup.com.cn  
t (86-20) 82155555 sgs.china@sgs.com

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	3.1	0.00421	PASS
				VN	3.1	0.00421	PASS
				VH	3.1	0.00421	PASS
UL	DT	Middle	TN	VL	4.2	0.00594	PASS
				VN	4.2	0.00594	PASS
				VH	4.2	0.00594	PASS

--End of Appendix--



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)