1 of 73 Page:

# Appendix B

**GSM 850 & 1900** 



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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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) served 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: CND pocchecked.

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn 中国·深圳·科技园中区M-10栋一号厂房

邮编: 518057 t (86-755) 26012053 f (86-755) 26710594

Page: 2 of 73

### **CONTENT**

		Page
1.	EFFECTIVE (ISOTROPIC) RADIATED POWER OUTPUT DATA	4
	1.1. Test Result	4
2.	Peak-to-Average Ratio	<i>6</i>
	2.1. Test Result	6
	2.2. Part II - Test Plots	7
3.	MODULATION CHARACTERISTICS	19
	3.1. For GSM	19
	3.1.1. Test Band = GSM 850	19
	3.1.1.1. Test Mode = GSM/TM1	19
	3.1.1.1.1. Test Channel = MCH	19
	3.1.1.2. Test Mode = GSM/TM2	20
	3.1.1.2.1. Test Channel = MCH	20
	3.1.2. Test Band = GSM 1900	21
	3.1.2.1. Test Mode = GSM/TM1	21
	3.1.2.1.1. Test Channel = MCH	21
	3.1.2.2. Test Mode = GSM/TM2	22
	3.1.2.2.1. Test Channel = MCH	22
4.	26dB Bandwidth and Occupied Bandwidth	23
	4.1. Test Result	23
	4.2. Test Plots	23
5.	BAND EDGE COMPLIANCE	30
	5.1. Test Plots	30
6.	Spurious Emission at Antenna Terminal	34
	6.1. Test Plots	34
7.	FIELD STRENGTH OF SPURIOUS RADIATION	64
	7.1. Test Band = GSM 1900(Down Antenna)	64
	7.1.1. Test Channel = LCH	64
	7.1.2. Test Channel = MCH	64
	7.1.3. Test Channel = HCH	65
	7.2. Test Band = GSM 850(Down Antenna)	65
	7.2.1. Test Channel = LCH	65
	7.2.2. Test Channel = MCH	66



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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. 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, \*\*Certificate, please contact us at telephone: (86-755) 8307 1443, \*\*Certificate, please contact us at telephone: (86-755) 8307 1443, \*\*Certificate, please contact us at telephone: (86-755) 8307 1443, \*\*Certificate, please contact us at telephone: (86-755) 8307 1443, \*\*Certificate, please contact us at telephone: (86-755) 8307 1443, \*\*Certificate, please contact us at telephone: (86-755) 8307 1443, \*\*Certificate, please contact us at telephone: (86-755)

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 tt (86-755) 26012053 ft (86-755) 26710594 www.sgsgroup.com.cn 中国 ·深圳 · 科技园中区M-10栋一号厂房 邮编: 518057 tt (86-755) 26012053 ft (86-755) 26710594 sgs.china@sgs.com



Report No.: ZR/2020/4000206

3 of 73 Page:

	7.2.3.	. Test Channel = HCH	66
	7.3.	Test Band = GSM 1900(Up Antenna)	67
	7.3.1.	. Test Channel = LCH	67
	7.3.2.	. Test Channel = MCH	67
	7.3.3.	. Test Channel = HCH	68
	7.4.	Test Band = GSM 850(Up Antenna)	68
	7.4.1.	. Test Channel = LCH	68
	7.4.2.	. Test Channel = MCH	69
	7.4.3.	. Test Channel = HCH	69
8.	FRE	QUENCY STABILITY	70
	8.1.	Frequency Error Vs Voltage	70
	8.2.	Frequency Error Vs Temperature	71



Page: 4 of 73

### 1. Effective (Isotropic) Radiated Power Output Data

### 1.1. Test Result

### FOR ANT1:

Band	Channel	Slot	Conducted Power (dBm)	ERP (dBm)	Limit(dBm)	Verdict
GSM850	128		32.71	25.56	38.45	PASS
GSM850	190		32.83	25.68	38.45	PASS
GSM850	251		32.80	25.65	38.45	PASS
EGPRS850	128	1	27.55	20.40	38.45	PASS
EGPRS850	128	2	26.34	19.19	38.45	PASS
EGPRS850	128	3	24.20	17.05	38.45	PASS
EGPRS850	128	4	23.10	15.95	38.45	PASS
EGPRS850	190	1	27.66	20.51	38.45	PASS
EGPRS850	190	2	26.50	19.35	38.45	PASS
EGPRS850	190	3	24.35	17.20	38.45	PASS
EGPRS850	190	4	23.25	16.10	38.45	PASS
EGPRS850	251	1	27.70	20.55	38.45	PASS
EGPRS850	251	2	26.60	19.45	38.45	PASS
EGPRS850	251	3	24.42	17.27	38.45	PASS
EGPRS850	251	4	23.38	16.23	38.45	PASS

Band	Channel	Slot	Conducted Power (dBm)	EIRP (dBm)	Limit(dBm)	Verdict
GSM1900	512		29.87	29.49	33.00	PASS
GSM1900	661		29.95	29.57	33.00	PASS
GSM1900	810		30.00	29.62	33.00	PASS
EGPRS1900	512	1	27.10	26.72	33.00	PASS
EGPRS1900	512	2	26.09	25.71	33.00	PASS
EGPRS1900	512	3	24.00	23.62	33.00	PASS
EGPRS1900	512	4	23.00	22.62	33.00	PASS
EGPRS1900	661	1	27.18	26.8	33.00	PASS
EGPRS1900	661	2	26.17	25.79	33.00	PASS
EGPRS1900	661	3	24.01	23.63	33.00	PASS
EGPRS1900	661	4	23.01	22.63	33.00	PASS
EGPRS1900	810	1	27.33	26.95	33.00	PASS
EGPRS1900	810	2	26.30	25.92	33.00	PASS
EGPRS1900	810	3	24.21	23.83	33.00	PASS
EGPRS1900	810	4	23.12	22.74	33.00	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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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, \*\*Certificate\*\*.

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn 中国·深圳•科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

Report No.: ZR/2020/4000206

Page: 5 of 73

### FOR ANT2:

Band	Channel	Slot	Conducted Power (dBm)	ERP (dBm)	Limit(dBm)	Verdict
GSM850	128		32.29	25.80	38.45	PASS
GSM850	190		32.45	25.96	38.45	PASS
GSM850	251		32.58	26.09	38.45	PASS
EGPRS850	128	1	27.56	21.07	38.45	PASS
EGPRS850	128	2	26.42	19.93	38.45	PASS
EGPRS850	128	3	24.35	17.86	38.45	PASS
EGPRS850	128	4	23.03	16.54	38.45	PASS
EGPRS850	190	1	27.67	21.18	38.45	PASS
EGPRS850	190	2	26.53	20.04	38.45	PASS
EGPRS850	190	3	24.44	17.95	38.45	PASS
EGPRS850	190	4	23.20	16.71	38.45	PASS
EGPRS850	251	1	27.64	21.15	38.45	PASS
EGPRS850	251	2	26.55	20.06	38.45	PASS
EGPRS850	251	3	24.31	17.82	38.45	PASS
EGPRS850	251	4	23.40	16.91	38.45	PASS

Band	Channel	Slot	Conducted Power (dBm) EIRP (dB		Limit(dBm)	Verdict
GSM1900	512		30.63	30.24	33.00	PASS
GSM1900	661		30.92	30.53	33.00	PASS
GSM1900	810		31.11	30.72	33.00	PASS
EGPRS1900	512	1	25.61	25.22	33.00	PASS
EGPRS1900	512	2	25.52	25.13	33.00	PASS
EGPRS1900	512	3	24.37	23.98	33.00	PASS
EGPRS1900	512	4	23.24	22.85	33.00	PASS
EGPRS1900	661	1	25.77	25.38	33.00	PASS
EGPRS1900	661	2	25.60	25.21	33.00	PASS
EGPRS1900	661	3	24.51	24.12	33.00	PASS
EGPRS1900	661	4	23.51	23.12	33.00	PASS
EGPRS1900	810	1	25.82	25.43	33.00	PASS
EGPRS1900	810	2	25.64	25.25	33.00	PASS
EGPRS1900	810	3	24.39	24.00	33.00	PASS
EGPRS1900	810	4	23.43	23.04	33.00	PASS

### Remark:

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

ERP [dBm] = Conducted Power [dBm] + Gain [dBd]

EIRP [dBm] = Conducted Power [dBm] + Gain [dBi]



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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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,

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn 中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

Page: 6 of 73

### 2. Peak-to-Average Ratio

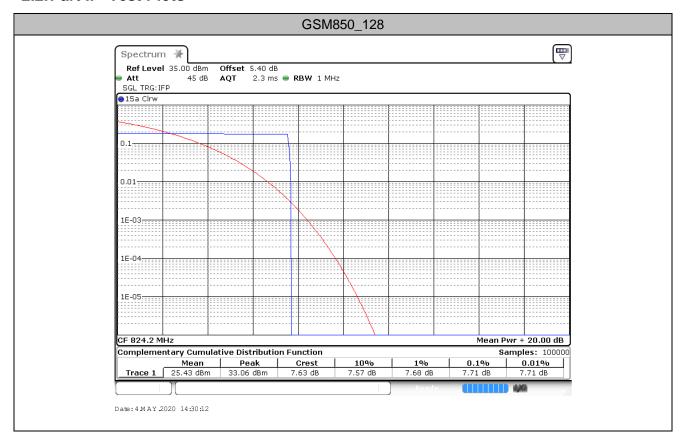
### 2.1. Test Result

Band	Channel	Peak-to-Average Ratio(dB)	Limit(dB)	Verdict
GSM850	128	7.71	13	PASS
GSM850	190	7.71	13	PASS
GSM850	251	7.71	13	PASS
EGPRS850	128	10.81	13	PASS
EGPRS850	190	10.17	13	PASS
EGPRS850	251	10.61	13	PASS
GSM1900	512	10.93	13	PASS
GSM1900	661	7.71	13	PASS
GSM1900	810	7.68	13	PASS
EGPRS1900	512	10.81	13	PASS
EGPRS1900	661	10.93	13	PASS
EGPRS1900	810	10.93	13	PASS



Page: 7 of 73

### 2.2. Part II - Test Plots

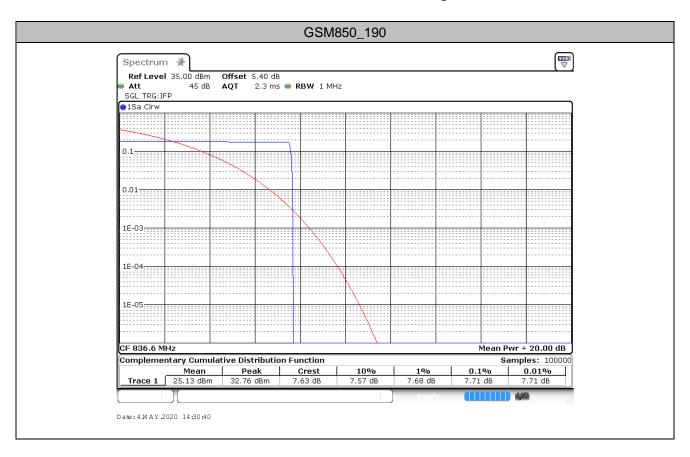






Report No.: ZR/2020/4000206

8 of 73 Page:

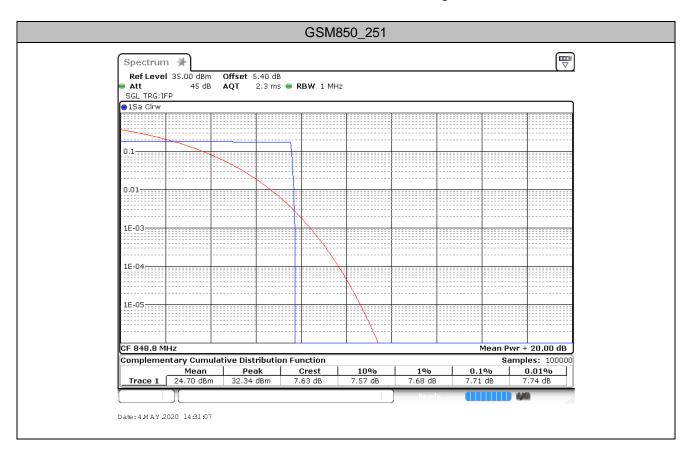






Report No.: ZR/2020/4000206

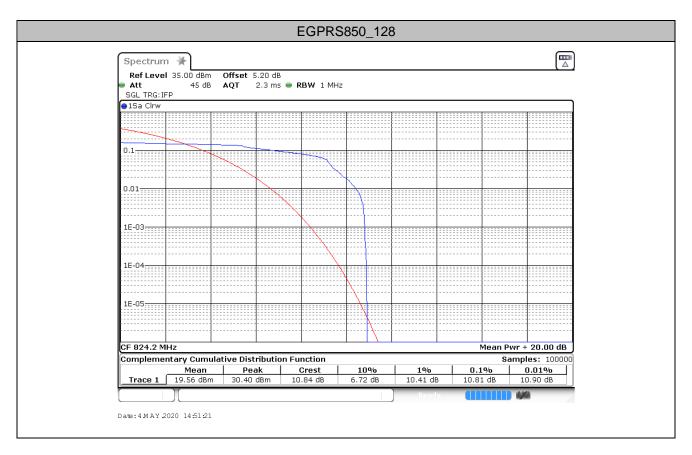
9 of 73 Page:





Report No.: ZR/2020/4000206

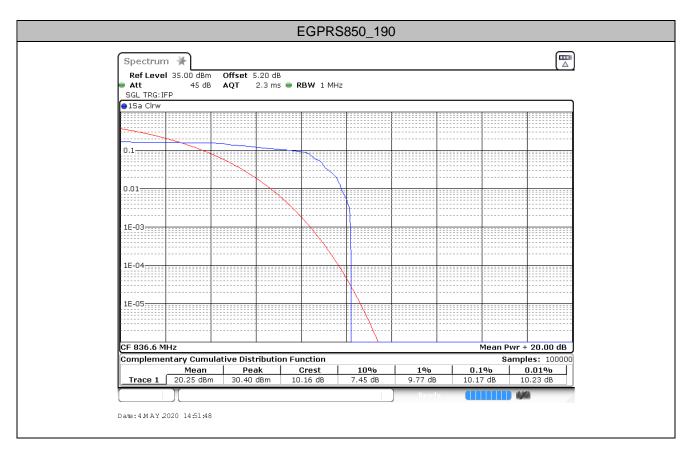
Page: 10 of 73





Report No.: ZR/2020/4000206

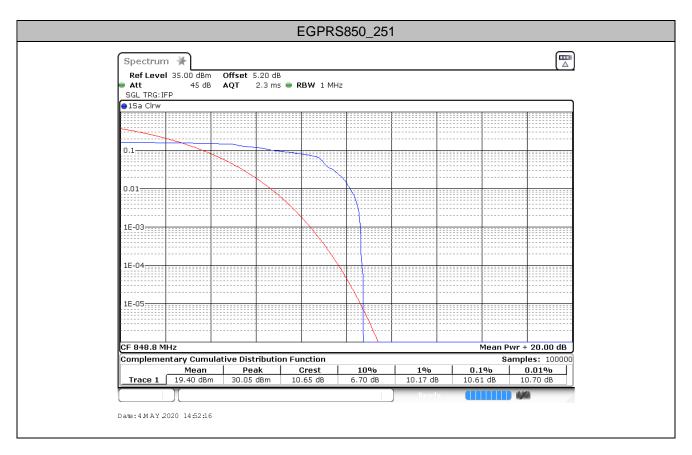
11 of 73 Page:





Report No.: ZR/2020/4000206

Page: 12 of 73

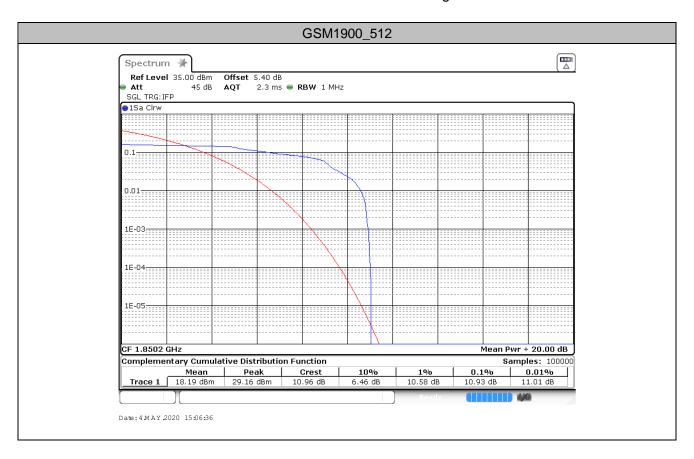






Report No.: ZR/2020/4000206

Page: 13 of 73

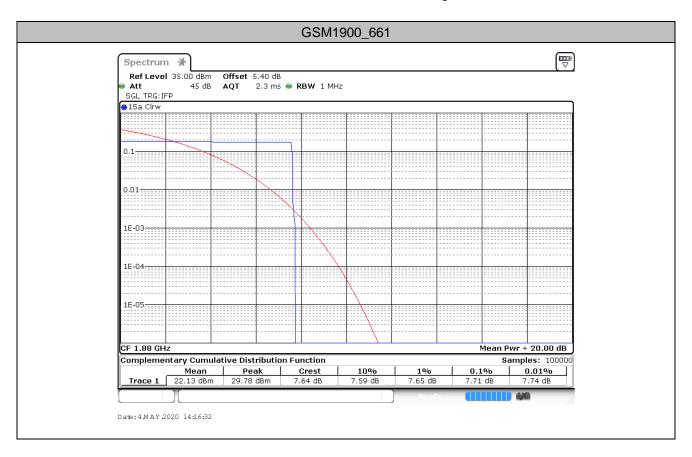






Report No.: ZR/2020/4000206

Page: 14 of 73

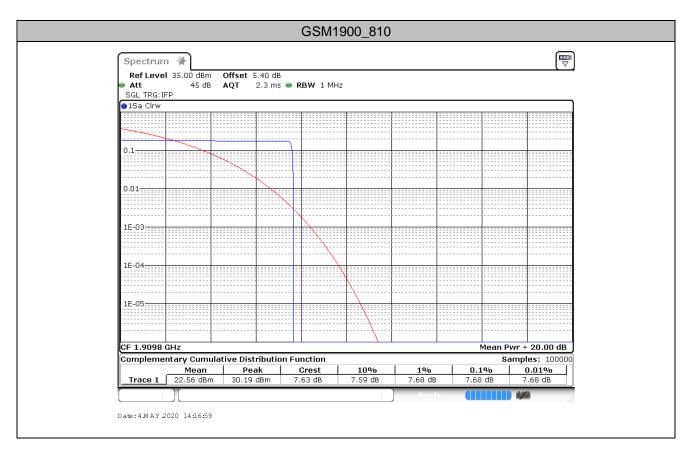






Report No.: ZR/2020/4000206

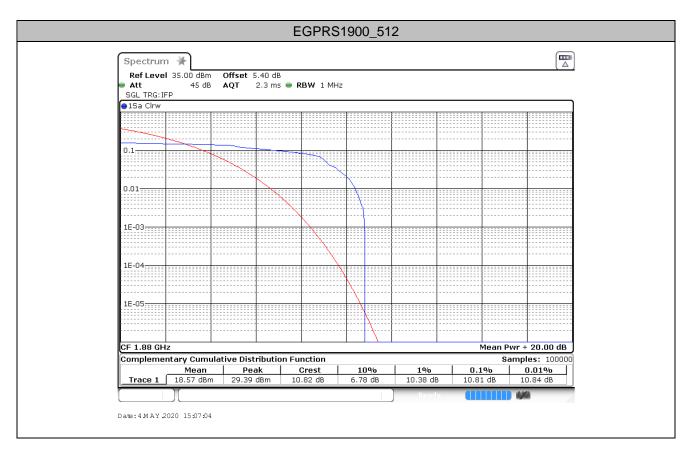
Page: 15 of 73





Report No.: ZR/2020/4000206

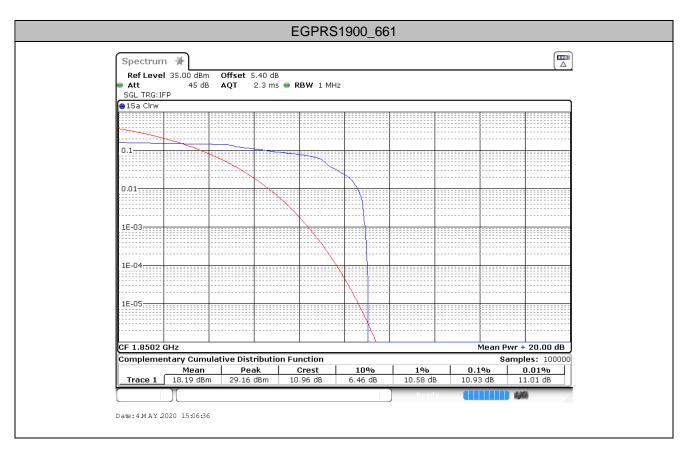
Page: 16 of 73





Report No.: ZR/2020/4000206

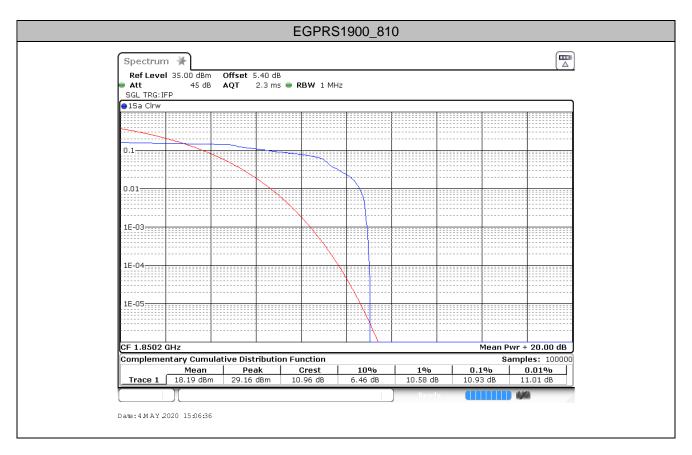
Page: 17 of 73





Report No.: ZR/2020/4000206

Page: 18 of 73





Page: 19 of 73

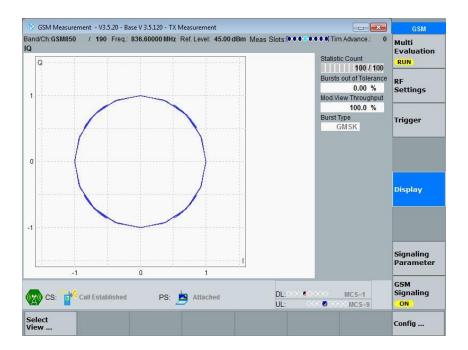
### 3. Modulation Characteristics

**3.1. For GSM** 

3.1.1. Test Band = GSM 850

3.1.1.1. Test Mode = GSM/TM1

### 3.1.1.1.1. Test Channel = MCH

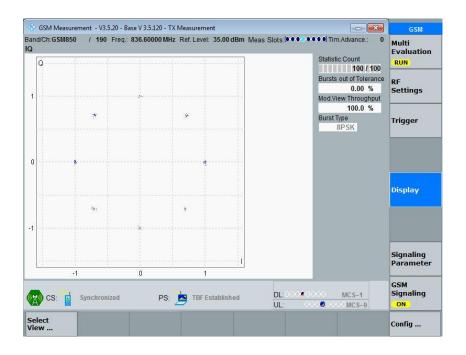




20 of 73 Page:

### 3.1.1.2. Test Mode = GSM/TM2

#### 3.1.1.2.1. Test Channel = MCH



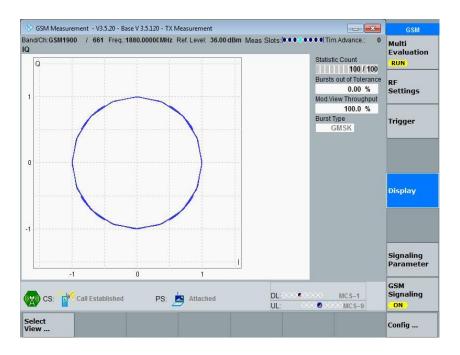


Page: 21 of 73

### 3.1.2. Test Band = GSM 1900

### 3.1.2.1. Test Mode = GSM/TM1

### 3.1.2.1.1. Test Channel = MCH

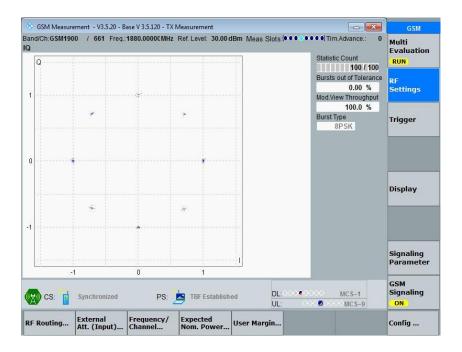




Page: 22 of 73

### 3.1.2.2. Test Mode = GSM/TM2

#### 3.1.2.2.1. Test Channel = MCH





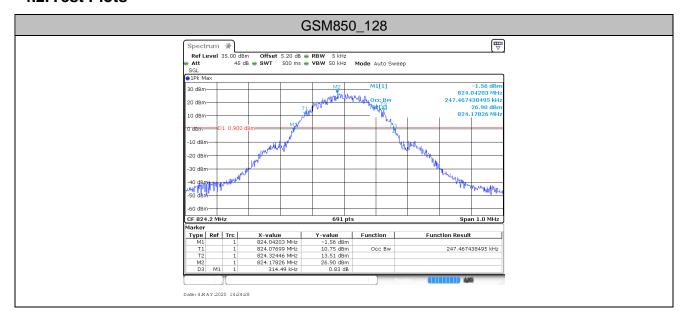
Page: 23 of 73

### 4. 26dB Bandwidth and Occupied Bandwidth

### 4.1. Test Result

Band	Channel	Occupied Bandwidth (kHz)	26dB Bandwidth (kHz)	Limit(kHz)	Verdict
GSM850	128	247.47	314.49		PASS
GSM850	190	247.47	310.14		PASS
GSM850	251	246.02	302.90		PASS
EGPRS850	128	250.36	297.10		PASS
EGPRS850	190	247.47	302.90		PASS
EGPRS850	251	250.36	294.20		PASS
GSM1900	512	246.02	310.14		PASS
GSM1900	661	243.13	307.25		PASS
GSM1900	810	246.02	310.14		PASS
EGPRS1900	512	244.57	301.45		PASS
EGPRS1900	661	247.47	298.55		PASS
EGPRS1900	810	247.47	301.45		PASS

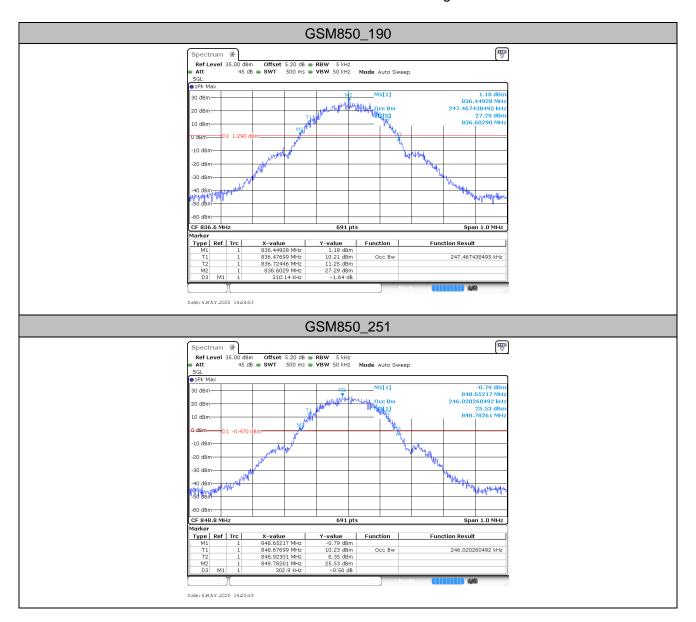
### 4.2. Test Plots





Report No.: ZR/2020/4000206

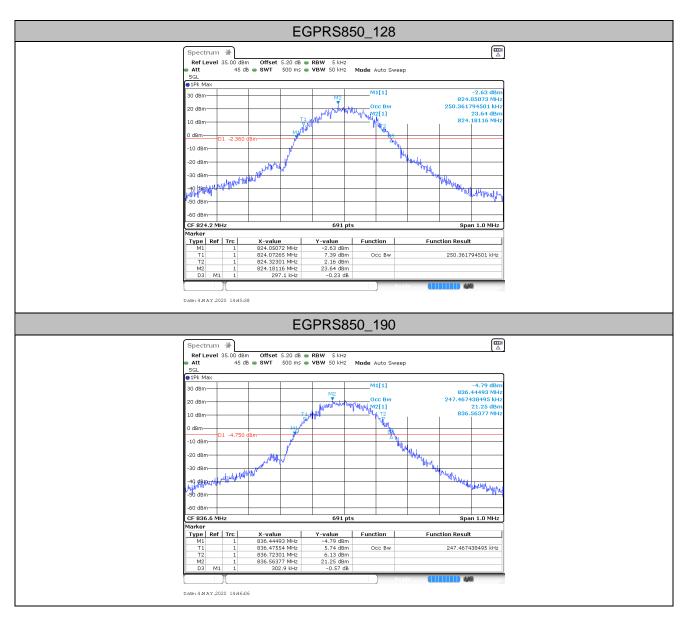
Page: 24 of 73





Report No.: ZR/2020/4000206

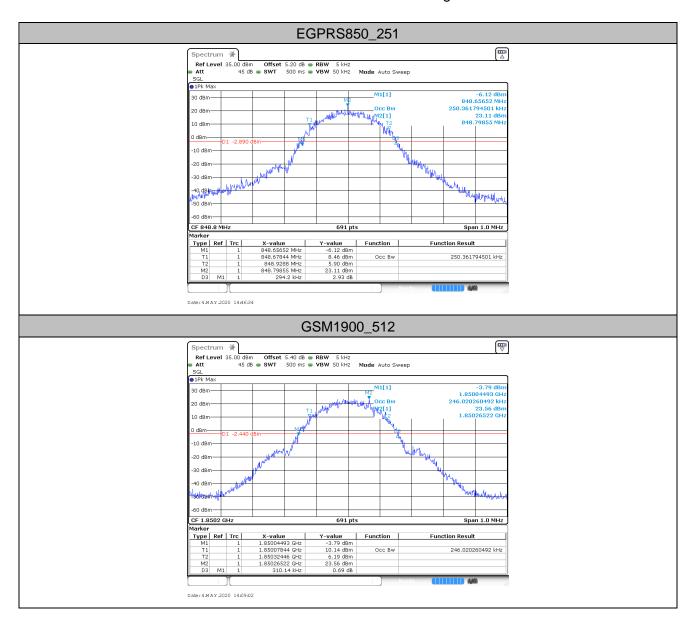
Page: 25 of 73





Report No.: ZR/2020/4000206

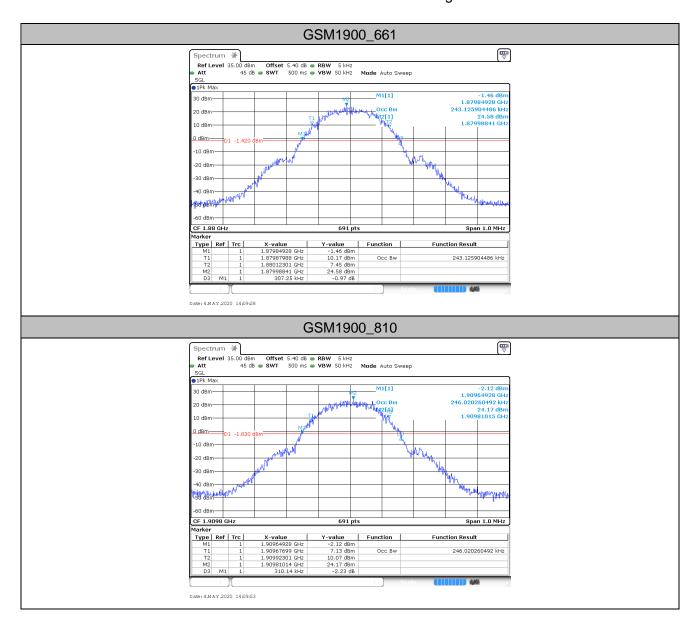
Page: 26 of 73





Report No.: ZR/2020/4000206

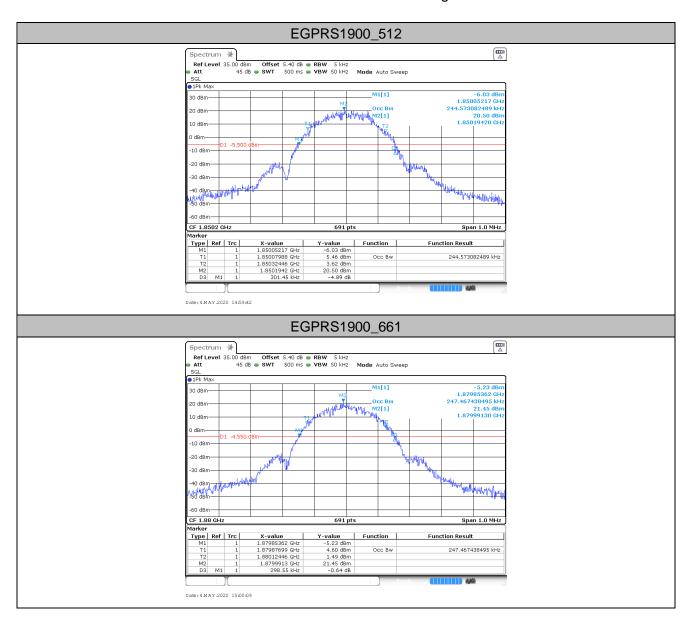
Page: 27 of 73





Report No.: ZR/2020/4000206

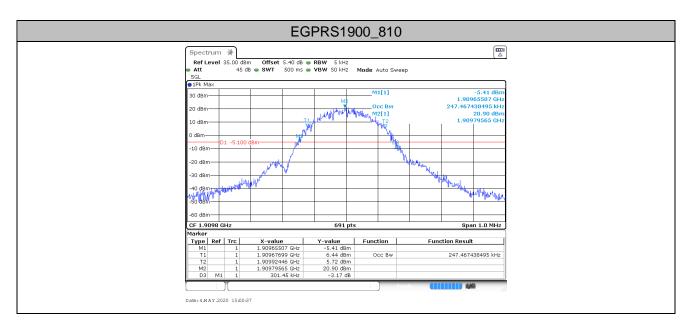
Page: 28 of 73





Report No.: ZR/2020/4000206

Page: 29 of 73

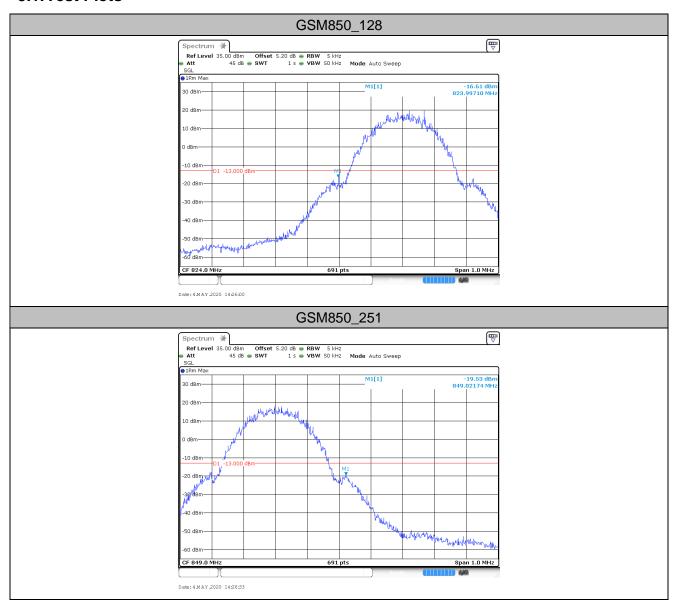




Page: 30 of 73

### 5. Band Edge Compliance

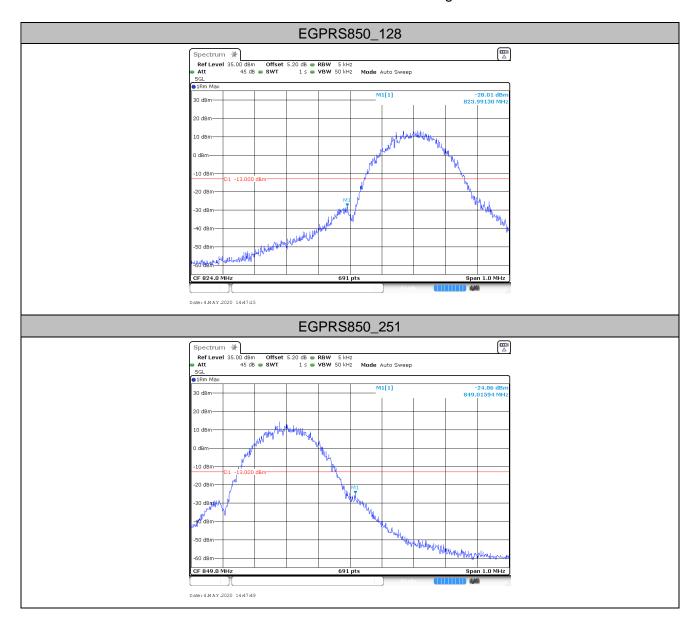
### 5.1. Test Plots





Report No.: ZR/2020/4000206

Page: 31 of 73





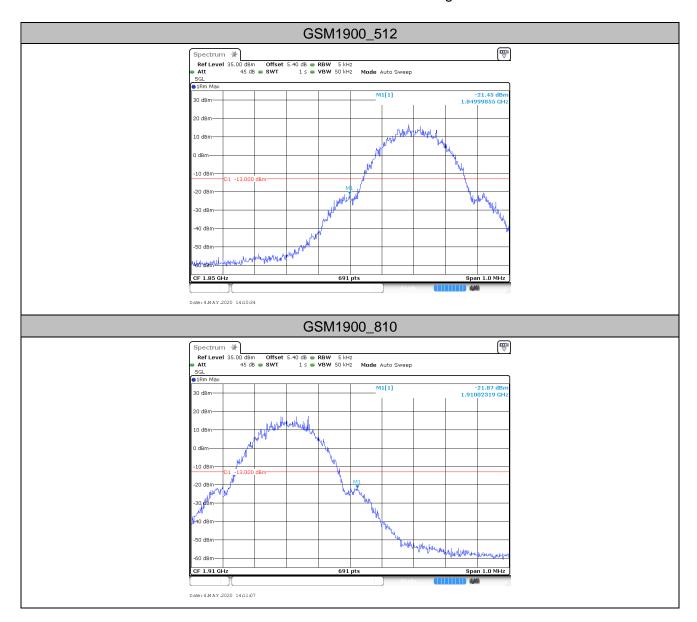
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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, \*\*Certificate\*\*.

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn 中国·深圳·科技园中区M-10栋一号厂房

邮编: 518057 t (86-755) 26012053 f (86-755) 26710594

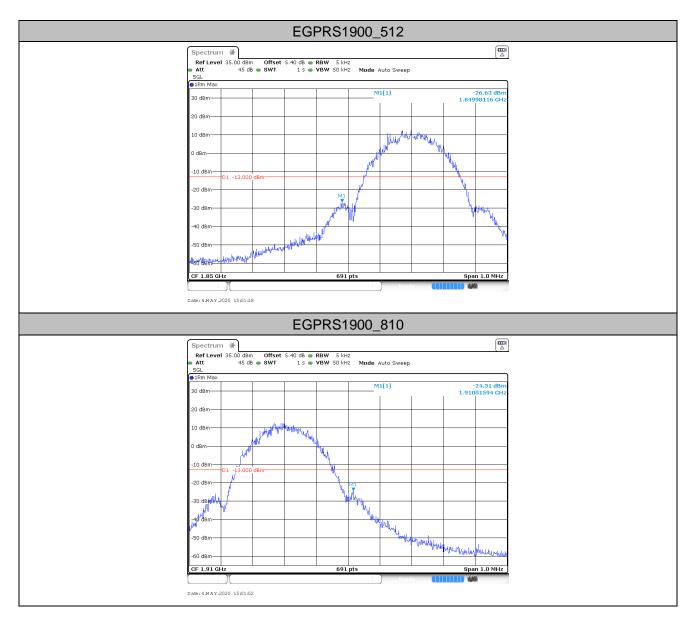
Page: 32 of 73





Report No.: ZR/2020/4000206

Page: 33 of 73





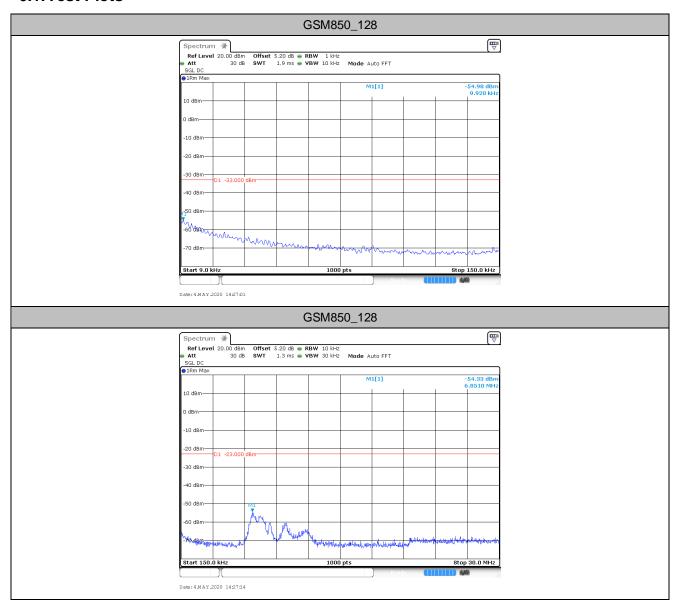
Page: 34 of 73

### 6. Spurious Emission at Antenna Terminal

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

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

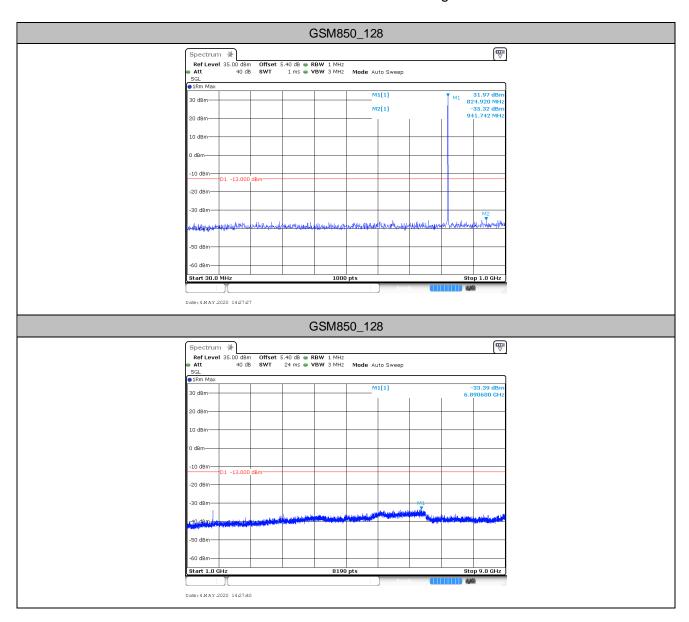
### 6.1. Test Plots





Report No.: ZR/2020/4000206

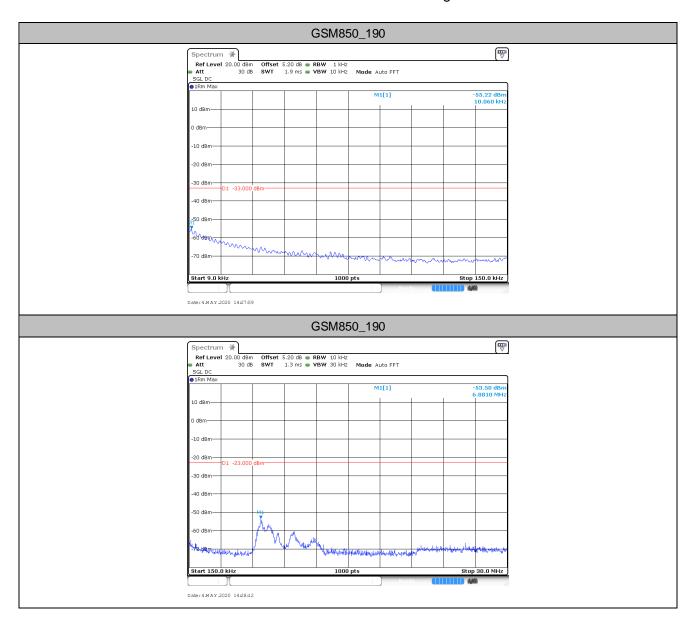
Page: 35 of 73





Report No.: ZR/2020/4000206

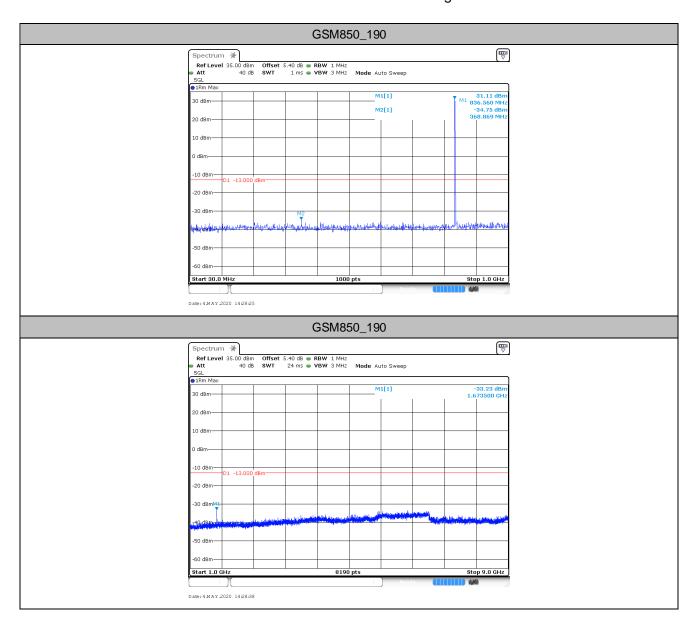
Page: 36 of 73





Report No.: ZR/2020/4000206

Page: 37 of 73



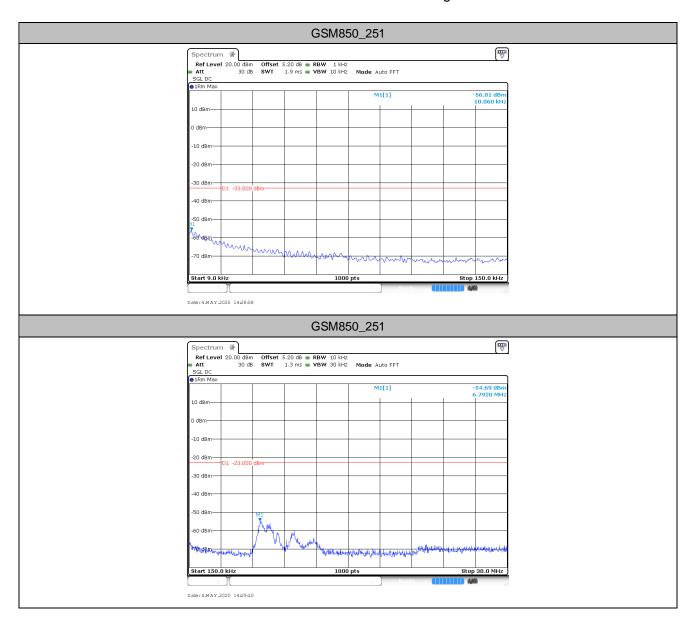


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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, \*\*Certificate\*\*.

Report No.: ZR/2020/4000206

Page: 38 of 73

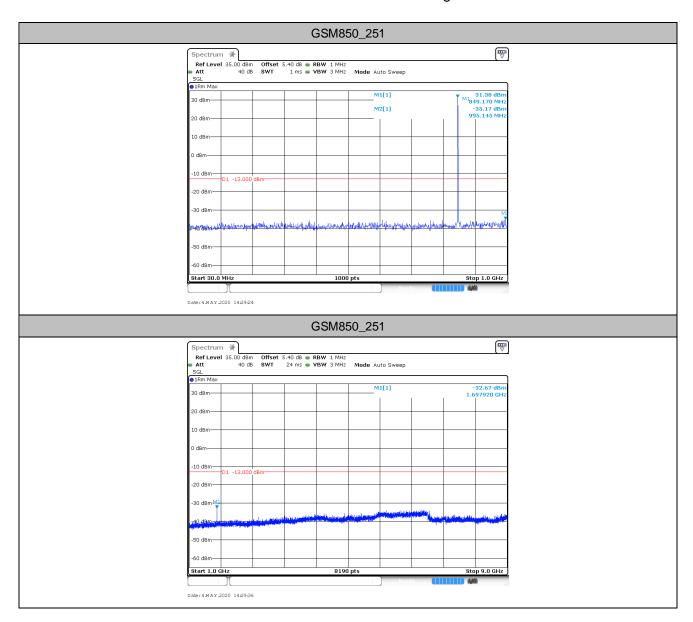






Report No.: ZR/2020/4000206

Page: 39 of 73



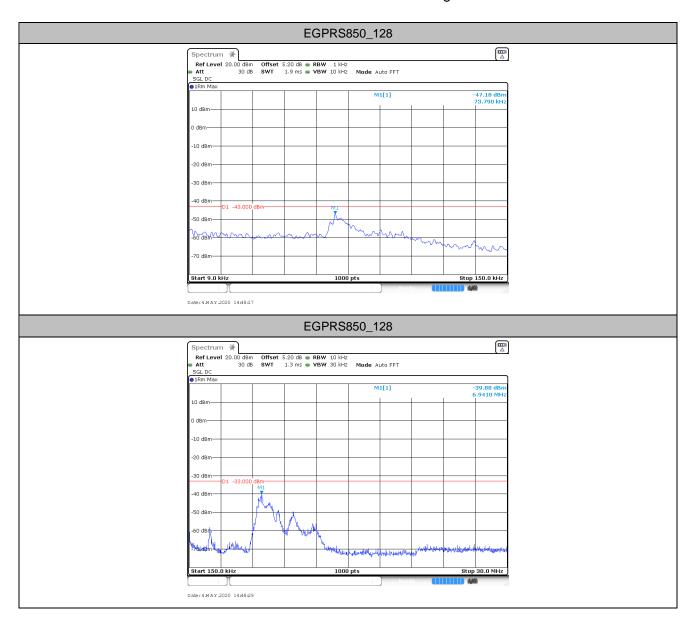


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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, \*\*Certificate\*\*.

Report No.: ZR/2020/4000206

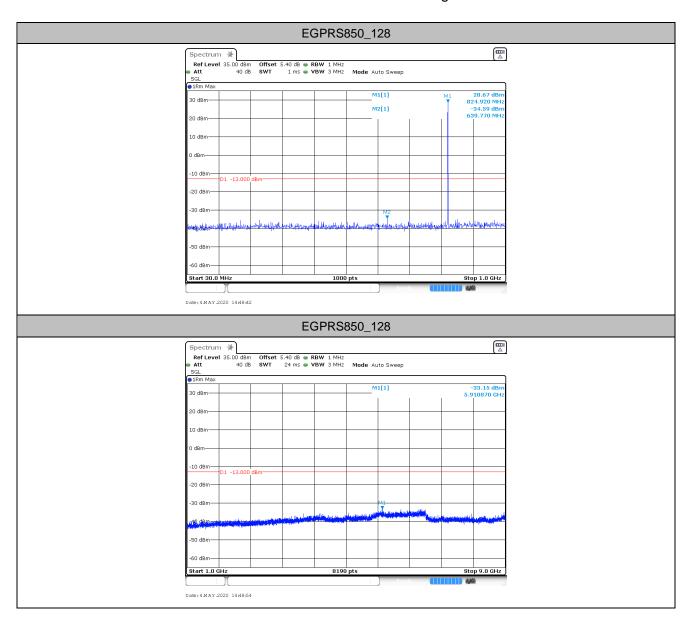
Page: 40 of 73





Report No.: ZR/2020/4000206

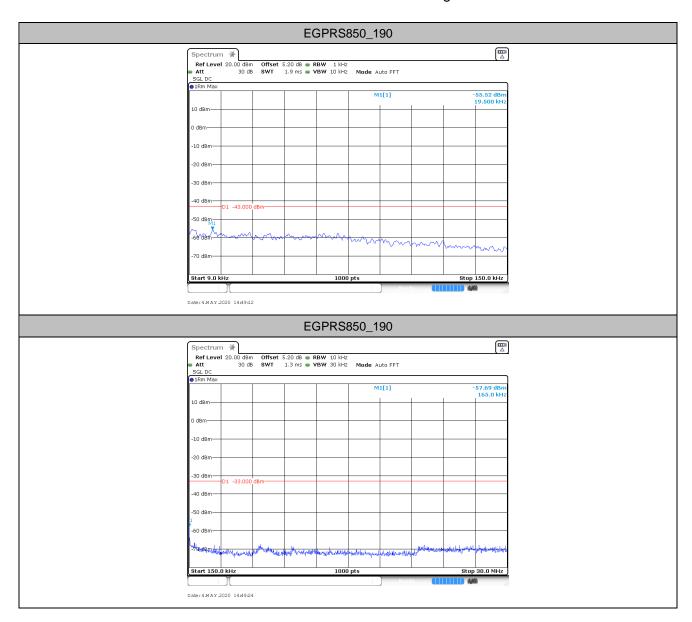
Page: 41 of 73





Report No.: ZR/2020/4000206

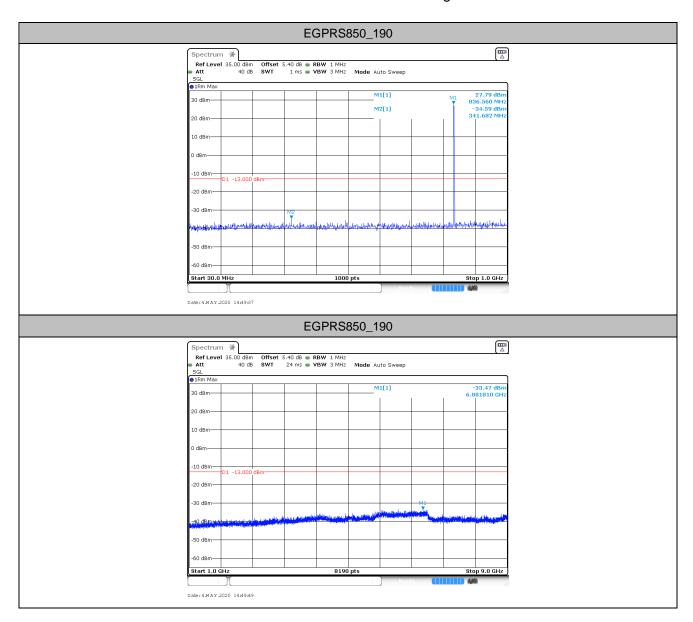
Page: 42 of 73





Report No.: ZR/2020/4000206

Page: 43 of 73





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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, \*\*Certificate\*\*.

Report No.: ZR/2020/4000206

Page: 44 of 73

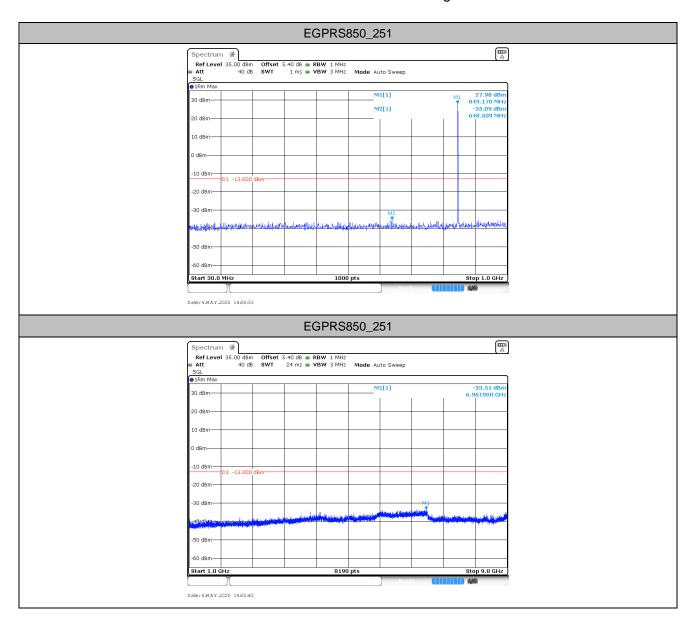






Report No.: ZR/2020/4000206

Page: 45 of 73





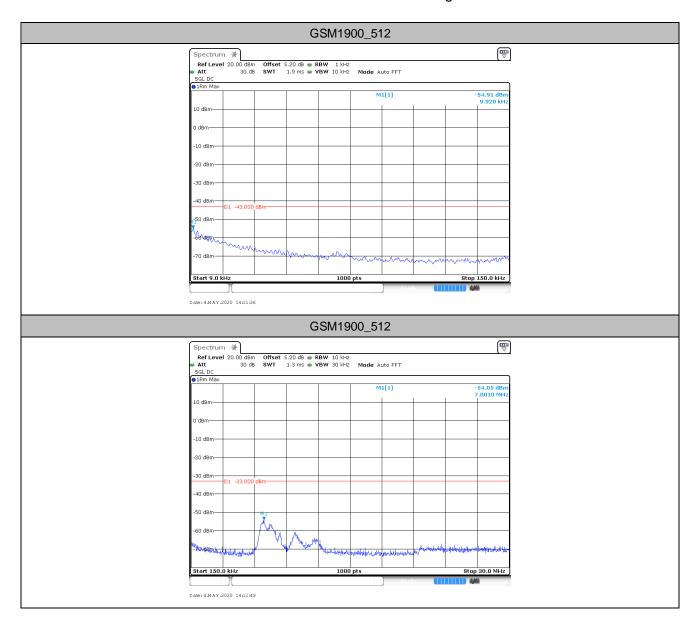
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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, \*\*Certificate\*\*.

Member of the SGS Group (SGS SA)

Report No.: ZR/2020/4000206

Page: 46 of 73

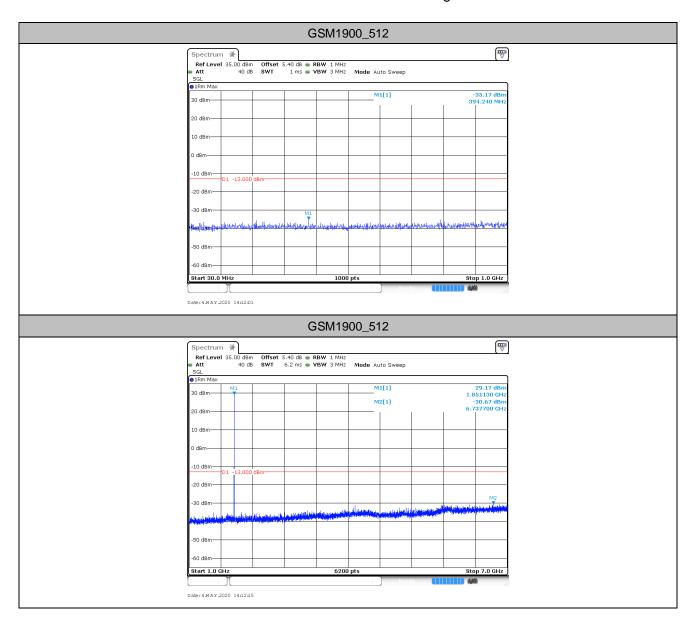






Report No.: ZR/2020/4000206

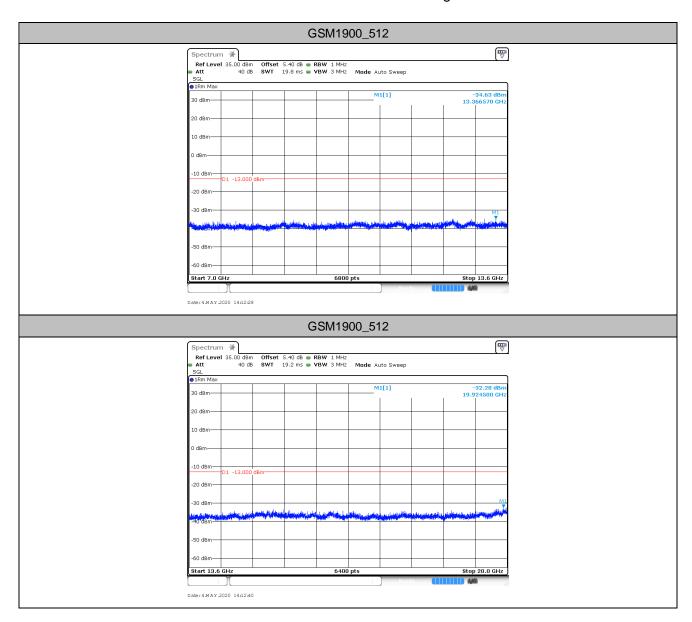
Page: 47 of 73





Report No.: ZR/2020/4000206

Page: 48 of 73



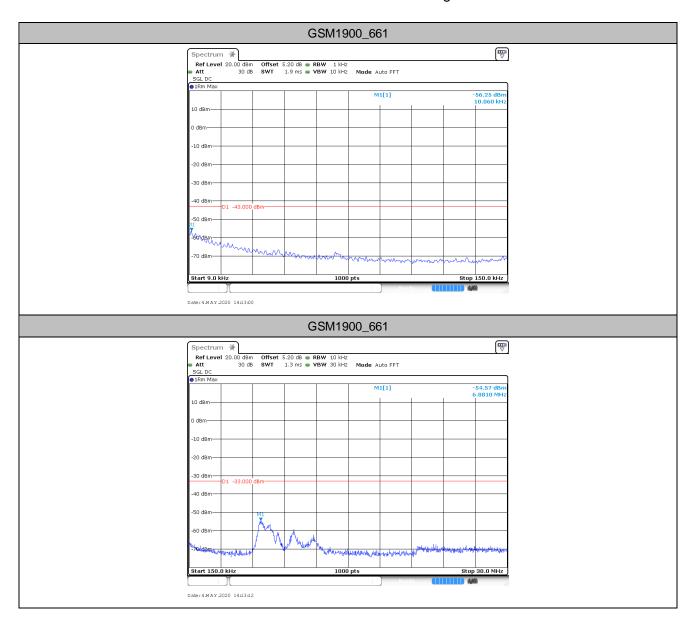


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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, \*\*Certificate\*\*.

Report No.: ZR/2020/4000206

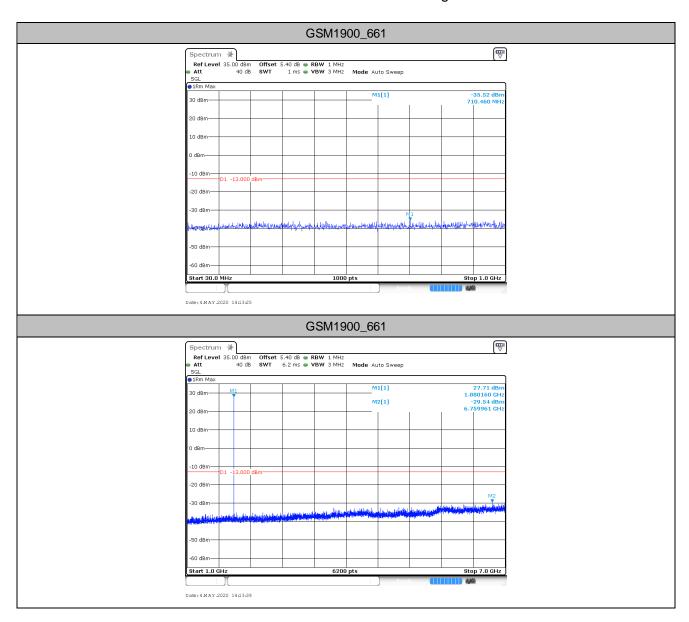
Page: 49 of 73





Report No.: ZR/2020/4000206

Page: 50 of 73

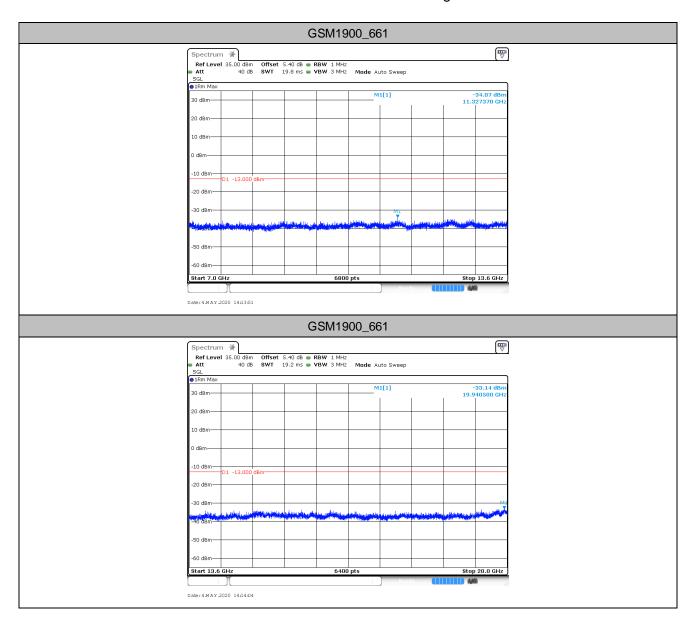






Report No.: ZR/2020/4000206

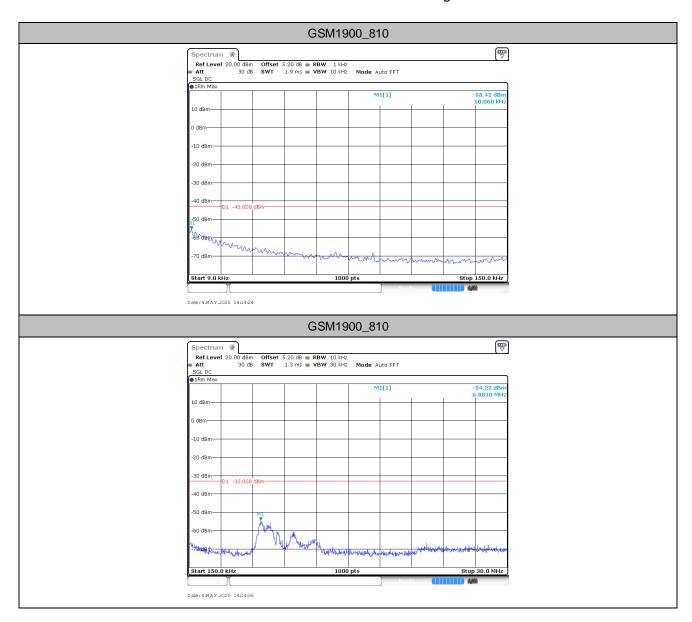
Page: 51 of 73





Report No.: ZR/2020/4000206

Page: 52 of 73





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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.

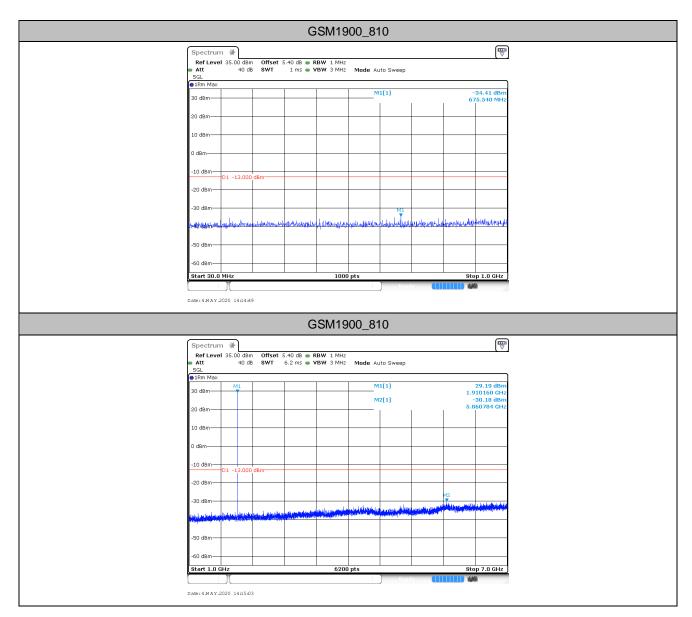
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, \*\*Certificate\*\*.

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn 中国·深圳·科技园中区M-10栋一号厂房

邮编: 518057 t (86-755) 26012053 f (86-755) 26710594

Report No.: ZR/2020/4000206

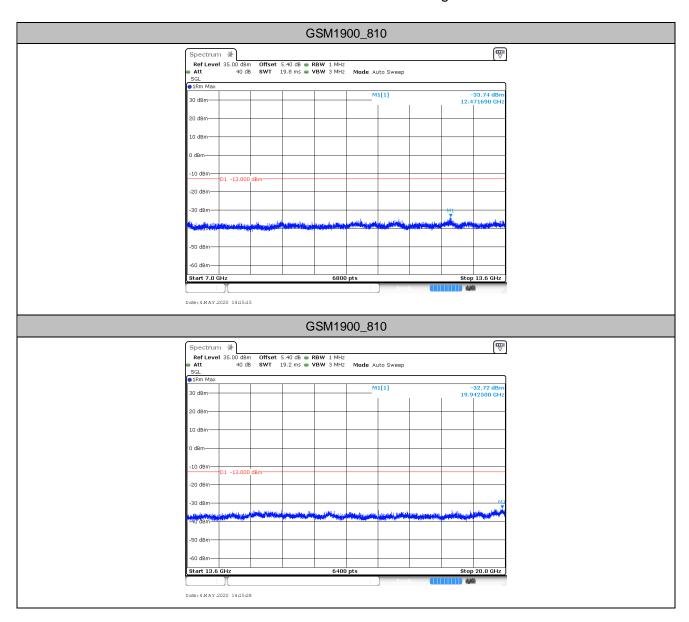
Page: 53 of 73





Report No.: ZR/2020/4000206

Page: 54 of 73



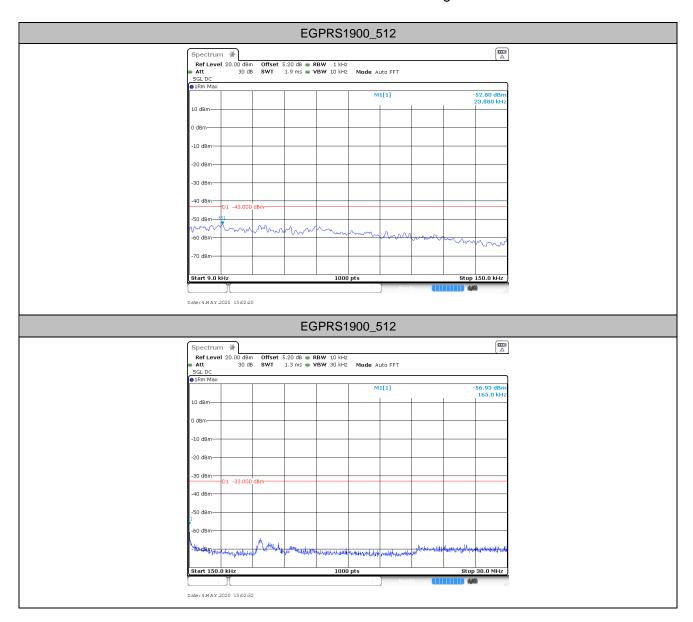


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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, \*\*Certificate\*\*.



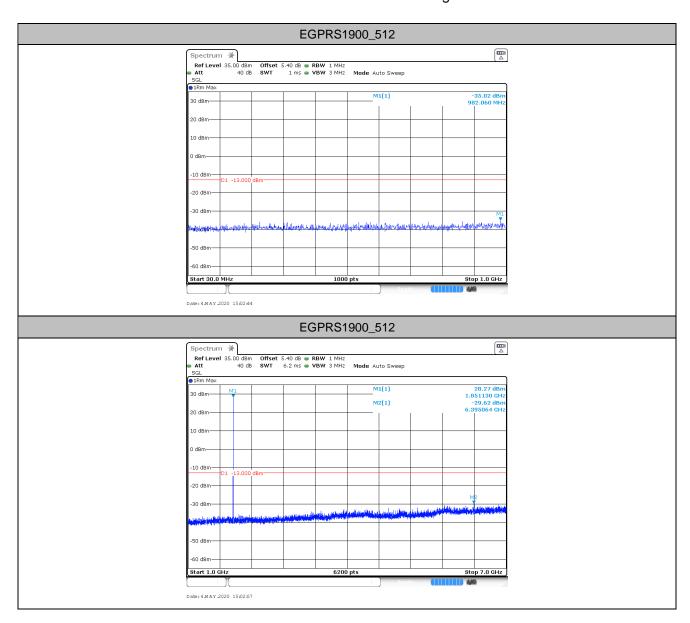
Page: 55 of 73





Report No.: ZR/2020/4000206

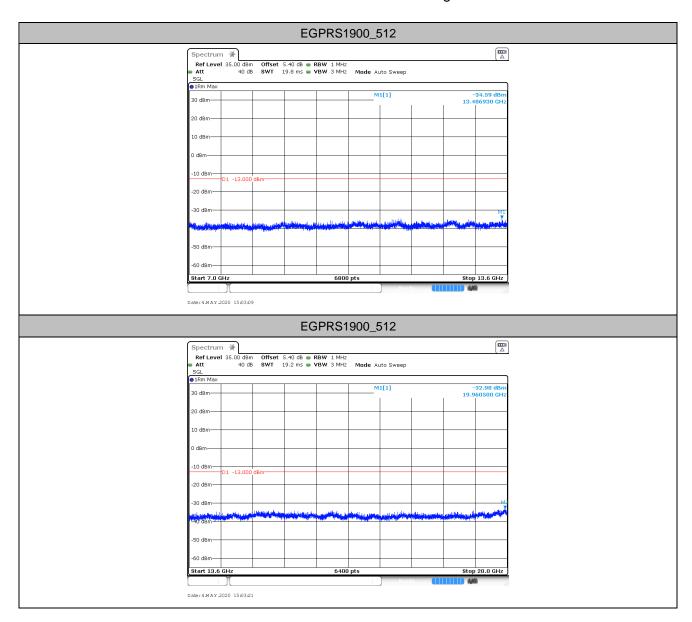
Page: 56 of 73





Report No.: ZR/2020/4000206

Page: 57 of 73



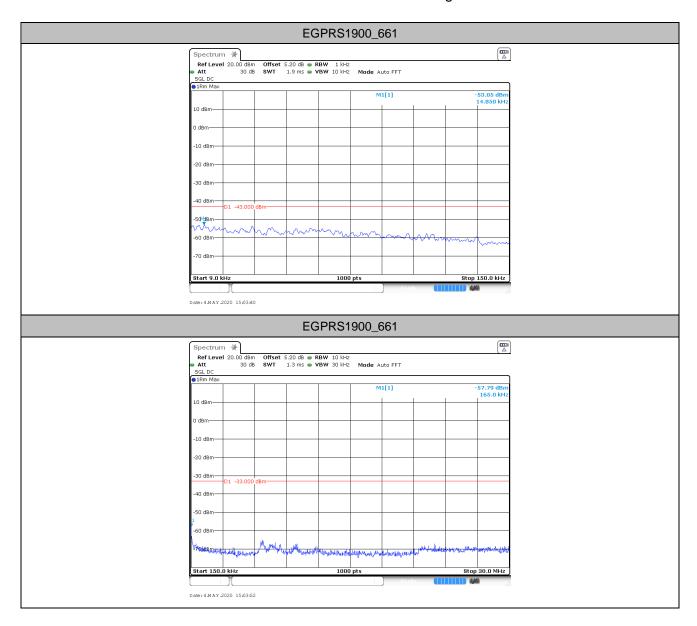


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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, \*\*Certificate\*\*.



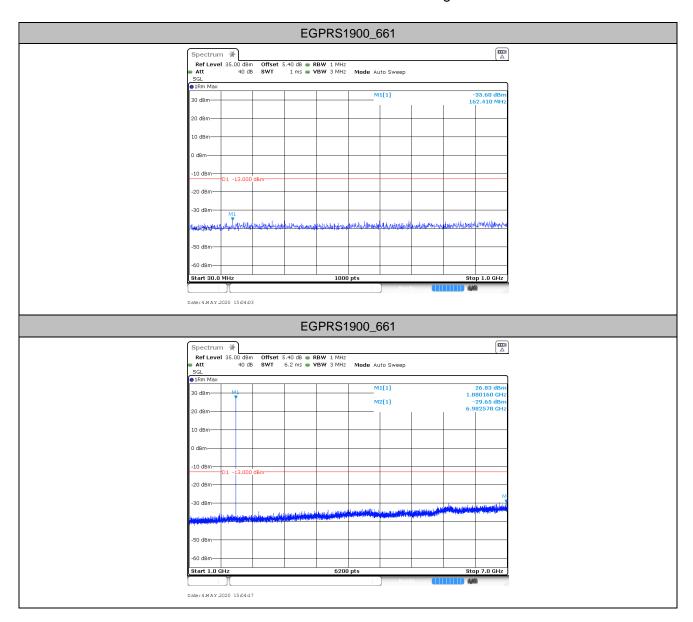
Page: 58 of 73





Report No.: ZR/2020/4000206

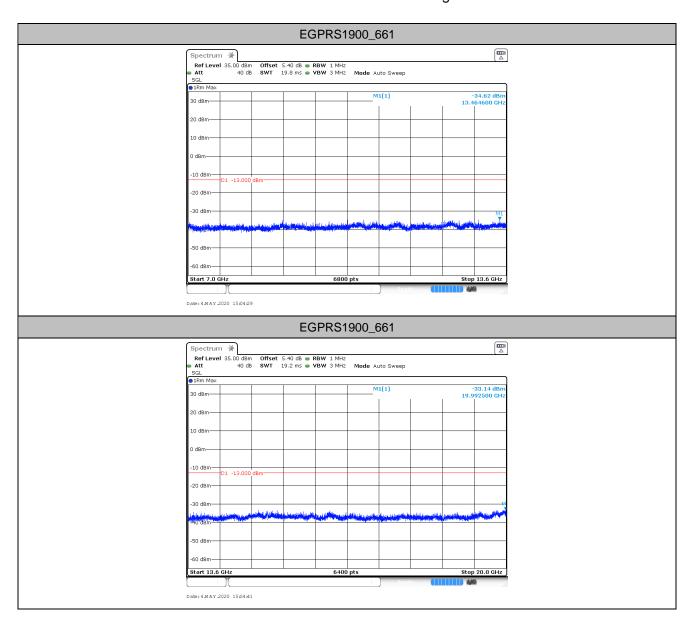
Page: 59 of 73





Report No.: ZR/2020/4000206

Page: 60 of 73



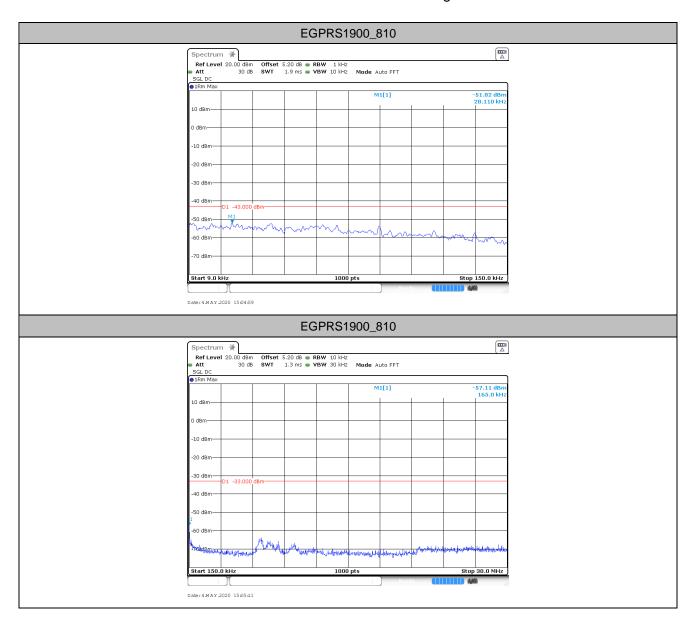


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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, \*\*Certificate\*\*.

Report No.: ZR/2020/4000206

Page: 61 of 73



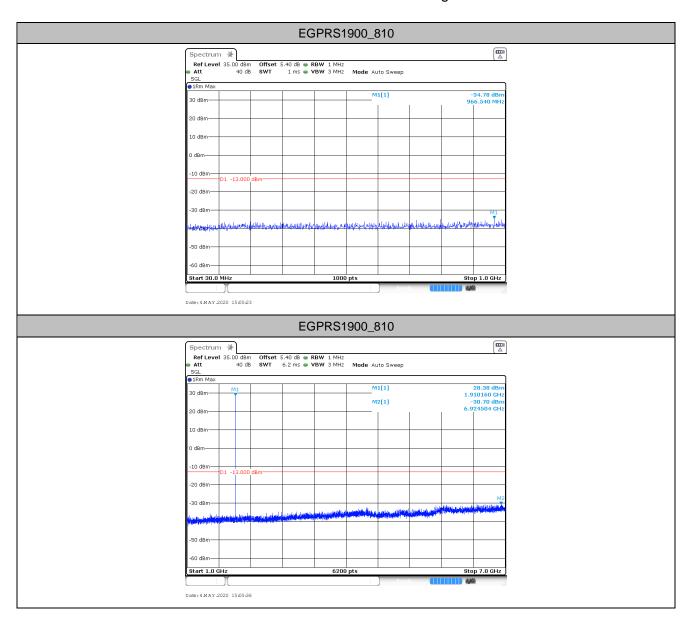


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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, \*\*Certificate\*\*.

Report No.: ZR/2020/4000206

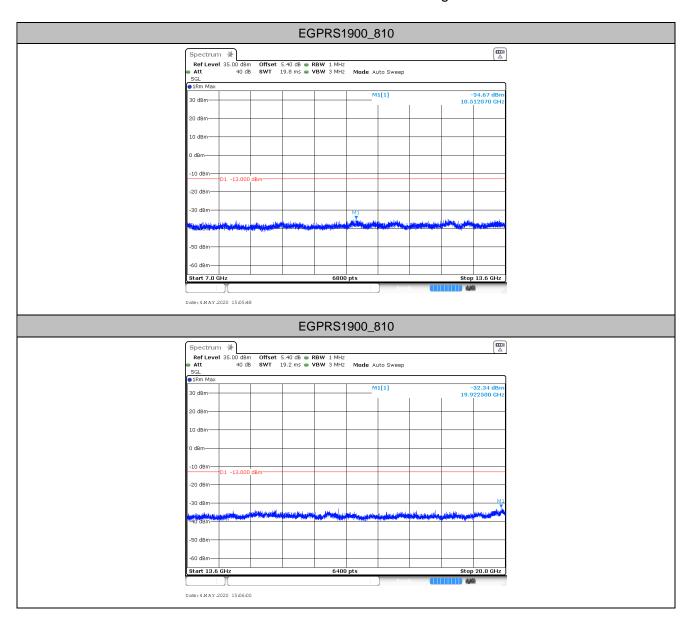
Page: 62 of 73





Report No.: ZR/2020/4000206

Page: 63 of 73





Page: 64 of 73

### 7. Field Strength of Spurious Radiation

### 7.1. Test Band = GSM 1900(Down Antenna)

### 7.1.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
65.744500	-71.61	-13.00	58.61	Vertical
348.451000	-79.25	-13.00	66.25	Vertical
945.389000	-71.53	-13.00	58.53	Vertical
3700.350000	-51.64	-13.00	38.64	Vertical
5550.450000	-46.83	-13.00	33.83	Vertical
7706.450000	-52.96	-13.00	39.96	Vertical
60.312500	-72.38	-13.00	59.38	Horizontal
224.727500	-78.21	-13.00	65.21	Horizontal
945.728500	-70.69	-13.00	57.69	Horizontal
3700.350000	-49.99	-13.00	36.99	Horizontal
5550.800000	-51.79	-13.00	38.79	Horizontal
7864.650000	-51.79	-13.00	38.79	Horizontal

#### 7.1.2. Test Channel = MCH

Times Tool Char	7.1.2. Test offamilier = Mort				
Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization	
60.652000	-72.08	-13.00	59.08	Vertical	
225.018500	-76.61	-13.00	63.61	Vertical	
947.038000	-71.11	-13.00	58.11	Vertical	
3759.850000	-49.00	-13.00	36.00	Vertical	
5639.700000	-51.31	-13.00	38.31	Vertical	
7969.300000	-52.19	-13.00	39.19	Vertical	
65.599000	-68.98	-13.00	55.98	Horizontal	
342.534000	-79.05	-13.00	66.05	Horizontal	
967.165500	-71.67	-13.00	58.67	Horizontal	
3759.500000	-48.59	-13.00	35.59	Horizontal	
5639.700000	-46.52	-13.00	33.52	Horizontal	
7520.250000	-51.35	-13.00	38.35	Horizontal	



Page: 65 of 73

### 7.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
65.502000	-69.55	-13.00	56.55	Vertical
341.079000	-78.74	-13.00	65.74	Vertical
950.918000	-71.42	-13.00	58.42	Vertical
3819.350000	-45.15	-13.00	32.15	Vertical
5729.300000	-50.31	-13.00	37.31	Vertical
7816.000000	-52.03	-13.00	39.03	Vertical
57.160000	-71.95	-13.00	58.95	Horizontal
219.635000	-78.69	-13.00	65.69	Horizontal
954.992000	-71.36	-13.00	58.36	Horizontal
3819.700000	-51.66	-13.00	38.66	Horizontal
5730.000000	-53.11	-13.00	40.11	Horizontal
7806.200000	-53.01	-13.00	40.01	Horizontal

### 7.2. Test Band = GSM 850(Down Antenna)

### 7.2.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
64.629000	-70.01	-13.00	57.01	Vertical
335.453000	-79.47	-13.00	66.47	Vertical
1648.200000	-53.06	-13.00	40.06	Vertical
2523.075000	-51.36	-13.00	38.36	Vertical
3438.200000	-57.28	-13.00	44.28	Vertical
5299.500000	-54.75	-13.00	41.75	Vertical
61.331000	-71.71	-13.00	58.71	Horizontal
224.873000	-77.60	-13.00	64.60	Horizontal
617.335000	-75.03	-13.00	62.03	Horizontal
1648.425000	-55.02	-13.00	42.02	Horizontal
2568.600000	-50.69	-13.00	37.69	Horizontal
3308.000000	-57.73	-13.00	44.73	Horizontal



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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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, \*\*Certificate\*\*.

Page: 66 of 73

### 7.2.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
65.502000	-69.24	-13.00	56.24	Vertical
347.238500	-79.03	-13.00	66.03	Vertical
1613.850000	-56.16	-13.00	43.16	Vertical
2561.025000	-51.20	-13.00	38.20	Vertical
3416.500000	-57.85	-13.00	44.85	Vertical
4668.100000	-55.98	-13.00	42.98	Vertical
64.823000	-69.56	-13.00	56.56	Horizontal
224.727500	-78.76	-13.00	65.76	Horizontal
1673.475000	-55.02	-13.00	42.02	Horizontal
2451.525000	-51.80	-13.00	38.80	Horizontal
3347.550000	-57.29	-13.00	44.29	Horizontal
5112.950000	-54.73	-13.00	41.73	Horizontal

### 7.2.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
65.696000	-70.95	-13.00	57.95	Vertical
340.254500	-78.64	-13.00	65.64	Vertical
1697.850000	-53.88	-13.00	40.88	Vertical
2532.825000	-51.27	-13.00	38.27	Vertical
3585.200000	-56.85	-13.00	43.85	Vertical
7032.350000	-52.76	-13.00	39.76	Vertical
60.506500	-69.86	-13.00	56.86	Horizontal
224.921500	-77.83	-13.00	64.83	Horizontal
634.067500	-76.65	-13.00	63.65	Horizontal
1697.250000	-53.28	-13.00	40.28	Horizontal
2546.100000	-50.85	-13.00	37.85	Horizontal
3226.100000	-56.51	-13.00	43.51	Horizontal



Page: 67 of 73

### 7.3. Test Band = GSM 1900(Up Antenna)

### 7.3.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
65.744500	-71.61	-13.00	58.61	Vertical
348.451000	-79.25	-13.00	66.25	Vertical
945.389000	-71.53	-13.00	58.53	Vertical
3700.350000	-51.64	-13.00	38.64	Vertical
5550.450000	-46.83	-13.00	33.83	Vertical
7706.450000	-52.96	-13.00	39.96	Vertical
60.312500	-72.38	-13.00	59.38	Horizontal
224.727500	-78.21	-13.00	65.21	Horizontal
945.728500	-70.69	-13.00	57.69	Horizontal
3700.350000	-49.99	-13.00	36.99	Horizontal
5550.800000	-51.79	-13.00	38.79	Horizontal
7864.650000	-51.79	-13.00	38.79	Horizontal

### 7.3.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
65.599000	-68.98	-13.00	55.98	Vertical
342.534000	-79.05	-13.00	66.05	Vertical
967.165500	-71.67	-13.00	58.67	Vertical
3759.500000	-48.59	-13.00	35.59	Vertical
5639.700000	-46.52	-13.00	33.52	Vertical
7520.250000	-51.35	-13.00	38.35	Vertical
60.652000	-72.08	-13.00	59.08	Horizontal
225.018500	-76.61	-13.00	63.61	Horizontal
947.038000	-71.11	-13.00	58.11	Horizontal
3759.850000	-49.00	-13.00	36.00	Horizontal
5639.700000	-51.31	-13.00	38.31	Horizontal
7969.300000	-52.19	-13.00	39.19	Horizontal



Page: 68 of 73

### 7.3.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
57.160000	-71.95	-13.00	58.95	Vertical
219.635000	-78.69	-13.00	65.69	Vertical
954.992000	-71.36	-13.00	58.36	Vertical
3819.700000	-51.66	-13.00	38.66	Vertical
5730.000000	-53.11	-13.00	40.11	Vertical
7806.200000	-53.01	-13.00	40.01	Vertical
65.502000	-69.55	-13.00	56.55	Horizontal
341.079000	-78.74	-13.00	65.74	Horizontal
950.918000	-71.42	-13.00	58.42	Horizontal
3819.350000	-45.15	-13.00	32.15	Horizontal
5729.300000	-50.31	-13.00	37.31	Horizontal
7816.000000	-52.03	-13.00	39.03	Horizontal

### 7.4. Test Band = GSM 850(Up Antenna)

### 7.4.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
65.793000	-71.24	-13.00	58.24	Vertical
343.310000	-79.05	-13.00	66.05	Vertical
1647.975000	-54.60	-13.00	41.60	Vertical
2564.700000	-51.08	-13.00	38.08	Vertical
3380.450000	-57.68	-13.00	44.68	Vertical
5156.350000	-54.66	-13.00	41.66	Vertical
57.257000	-71.12	-13.00	58.12	Horizontal
225.261000	-78.32	-13.00	65.32	Horizontal
634.504000	-76.26	-13.00	63.26	Horizontal
1699.800000	-54.99	-13.00	41.99	Horizontal
2425.950000	-51.44	-13.00	38.44	Horizontal
3284.900000	-57.28	-13.00	44.28	Horizontal



Page: 69 of 73

### 7.4.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
65.550500	-70.15	-13.00	57.15	Vertical
342.146000	-79.49	-13.00	66.49	Vertical
1673.250000	-53.47	-13.00	40.47	Vertical
2578.950000	-50.30	-13.00	37.30	Vertical
3352.100000	-57.69	-13.00	44.69	Vertical
5032.800000	-55.33	-13.00	42.33	Vertical
59.536500	-70.95	-13.00	57.95	Horizontal
220.023000	-78.27	-13.00	65.27	Horizontal
617.286500	-75.98	-13.00	62.98	Horizontal
1673.400000	-55.71	-13.00	42.71	Horizontal
2471.475000	-51.10	-13.00	38.10	Horizontal
3451.500000	-57.06	-13.00	44.06	Horizontal

#### 7.4.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
1 requericy (WI12)	Level (abili)	Lillit Lille (dBill)	margin (db)	1 Glarization
60.458000	-71.59	-13.00	58.59	Vertical
224.194000	-79.10	-13.00	66.10	Vertical
607.247000	-75.55	-13.00	62.55	Vertical
1697.475000	-53.99	-13.00	40.99	Vertical
2611.275000	-50.16	-13.00	37.16	Vertical
3457.100000	-57.04	-13.00	44.04	Vertical
65.211000	-70.81	-13.00	57.81	Horizontal
316.974500	-79.10	-13.00	66.10	Horizontal
1697.175000	-53.00	-13.00	40.00	Horizontal
2561.850000	-50.35	-13.00	37.35	Horizontal
3357.700000	-57.43	-13.00	44.43	Horizontal
4707.300000	-55.27	-13.00	42.27	Horizontal

#### Remark:

- 1) According to 971168 D01 Power Meas License Digital Systems, The amplitudes of unwanted emissions that are attenuated more than 20 dB below the applicable limit are not required to be reported.
- 2) The disturbance above 12.75GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the worst case data had been displayed.



Page: 70 of 73

3)

### 8. Frequency Stability

### 8.1. Frequency Error Vs Voltage

Band	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM850	128	VL	TN	9.98	0.012114	±2.5	PASS
GSM850	128	VN	TN	-9.04	-0.010972	±2.5	PASS
GSM850	128	VH	TN	14.29	0.017340	±2.5	PASS
GSM850	190	VL	TN	-2.74	-0.003276	±2.5	PASS
GSM850	190	VN	TN	-4.02	-0.004802	±2.5	PASS
GSM850	190	VH	TN	-5.39	-0.006440	±2.5	PASS
GSM850	251	VL	TN	11.64	0.013716	±2.5	PASS
GSM850	251	VN	TN	-2.97	-0.003497	±2.5	PASS
GSM850	251	VH	TN	1.02	0.001203	±2.5	PASS
EGPRS850	128	VL	TN	-8.64	-0.010482	±2.5	PASS
EGPRS850	128	VN	TN	14.66	0.017790	±2.5	PASS
EGPRS850	128	VH	TN	-10.60	-0.012865	±2.5	PASS
EGPRS850	190	VL	TN	-1.48	-0.001764	±2.5	PASS
EGPRS850	190	VN	TN	-6.12	-0.007319	±2.5	PASS
EGPRS850	190	VH	TN	12.80	0.015295	±2.5	PASS
EGPRS850	251	VL	TN	8.56	0.010081	±2.5	PASS
EGPRS850	251	VN	TN	0.98	0.001152	±2.5	PASS
EGPRS850	251	VH	TN	5.04	0.005937	±2.5	PASS
GSM1900	512	VL	TN	8.19	0.004425	±2.5	PASS
GSM1900	512	VN	TN	-8.31	-0.004493	±2.5	PASS
GSM1900	512	VH	TN	2.76	0.001492	±2.5	PASS
GSM1900	661	VL	TN	-5.51	-0.002930	±2.5	PASS
GSM1900	661	VN	TN	8.32	0.004424	±2.5	PASS
GSM1900	661	VH	TN	13.35	0.007102	±2.5	PASS
GSM1900	810	VL	TN	-10.58	-0.005538	±2.5	PASS
GSM1900	810	VN	TN	-10.93	-0.005724	±2.5	PASS
GSM1900	810	VH	TN	6.69	0.003505	±2.5	PASS
EGPRS1900	512	VL	TN	-13.66	-0.007385	±2.5	PASS
EGPRS1900	512	VN	TN	8.51	0.004600	±2.5	PASS
EGPRS1900	512	VH	TN	-7.54	-0.004076	±2.5	PASS
EGPRS1900	661	VL	TN	-2.24	-0.001190	±2.5	PASS
EGPRS1900	661	VN	TN	6.16	0.003275	±2.5	PASS
EGPRS1900	661	VH	TN	11.11	0.005912	±2.5	PASS
EGPRS1900	810	VL	TN	-2.88	-0.001508	±2.5	PASS
EGPRS1900	810	VN	TN	5.20	0.002723	±2.5	PASS
EGPRS1900	810	VH	TN	13.83	0.007243	±2.5	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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. 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, \*\*Company\*\* \*\*Company\*\*\* \*\*Co

Page: 71 of 73

### 8.2. Frequency Error Vs Temperature

Band	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM850	128	VN	-30	11.36	0.013781	±2.5	PASS
GSM850	128	VN	-20	6.68	0.008106	±2.5	PASS
GSM850	128	VN	-10	-3.29	-0.003987	±2.5	PASS
GSM850	128	VN	0	-13.50	-0.016383	±2.5	PASS
GSM850	128	VN	10	10.57	0.012824	±2.5	PASS
GSM850	128	VN	20	0.12	0.000147	±2.5	PASS
GSM850	128	VN	30	10.52	0.012768	±2.5	PASS
GSM850	128	VN	40	-10.47	-0.012703	±2.5	PASS
GSM850	128	VN	50	5.97	0.007245	±2.5	PASS
GSM850	190	VN	-30	14.31	0.017101	±2.5	PASS
GSM850	190	VN	-20	11.78	0.014078	±2.5	PASS
GSM850	190	VN	-10	9.47	0.011319	±2.5	PASS
GSM850	190	VN	0	2.08	0.002491	±2.5	PASS
GSM850	190	VN	10	11.70	0.013982	±2.5	PASS
GSM850	190	VN	20	0.28	0.000333	±2.5	PASS
GSM850	190	VN	30	14.55	0.017392	±2.5	PASS
GSM850	190	VN	40	11.14	0.013319	±2.5	PASS
GSM850	190	VN	50	10.96	0.013099	±2.5	PASS
GSM850	251	VN	-30	7.36	0.008674	±2.5	PASS
GSM850	251	VN	-20	-10.65	-0.012548	±2.5	PASS
GSM850	251	VN	-10	-0.30	-0.000350	±2.5	PASS
GSM850	251	VN	0	-4.44	-0.005236	±2.5	PASS
GSM850	251	VN	10	11.18	0.013166	±2.5	PASS
GSM850	251	VN	20	5.95	0.007008	±2.5	PASS
GSM850	251	VN	30	-4.21	-0.004958	±2.5	PASS
GSM850	251	VN	40	-13.71	-0.016151	±2.5	PASS
GSM850	251	VN	50	4.62	0.005438	±2.5	PASS
EGPRS850	128	VN	-30	4.08	0.004952	±2.5	PASS
EGPRS850	128	VN	-20	-10.67	-0.012949	±2.5	PASS
EGPRS850	128	VN	-10	4.98	0.006047	±2.5	PASS
EGPRS850	128	VN	0	-1.39	-0.001691	±2.5	PASS
EGPRS850	128	VN	10	-5.86	-0.007106	±2.5	PASS
EGPRS850	128	VN	20	-5.48	-0.006648	±2.5	PASS
EGPRS850	128	VN	30	14.20	0.017230	±2.5	PASS
EGPRS850	128	VN	40	6.98	0.008466	±2.5	PASS
EGPRS850	128	VN	50	-8.93	-0.010841	±2.5	PASS
EGPRS850	190	VN	-30	8.65	0.010335	±2.5	PASS
EGPRS850	190	VN	-20	-4.75	-0.005681	±2.5	PASS
EGPRS850	190	VN	-10	-13.14	-0.015706	±2.5	PASS
EGPRS850	190	VN	0	12.56	0.015010	±2.5	PASS
EGPRS850	190	VN	10	4.41	0.005272	±2.5	PASS
EGPRS850	190	VN	20	-13.22	-0.015796	±2.5	PASS
EGPRS850	190	VN	30	14.02	0.016758	±2.5	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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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, \*\*Certificate\*\*.



Report No.: ZR/2020/4000206

Page: 72 of 73

					<del>,</del>	•	
EGPRS850	190	VN	40	3.67	0.004382	±2.5	PASS
EGPRS850	190	VN	50	2.70	0.003228	±2.5	PASS
EGPRS850	251	VN	-30	-7.13	-0.008404	±2.5	PASS
EGPRS850	251	VN	-20	-12.43	-0.014647	±2.5	PASS
EGPRS850	251	VN	-10	-7.88	-0.009287	±2.5	PASS
EGPRS850	251	VN	0	0.33	0.000389	±2.5	PASS
EGPRS850	251	VN	10	12.50	0.014725	±2.5	PASS
EGPRS850	251	VN	20	-14.60	-0.017197	±2.5	PASS
EGPRS850	251	VN	30	-1.56	-0.001835	±2.5	PASS
EGPRS850	251	VN	40	-8.25	-0.009722	±2.5	PASS
EGPRS850	251	VN	50	-11.91	-0.014026	±2.5	PASS
GSM1900	512	VN	-30	-7.08	-0.003825	±2.5	PASS
GSM1900	512	VN	-20	4.96	0.002680	±2.5	PASS
GSM1900	512	VN	-10	-2.25	-0.001215	±2.5	PASS
GSM1900	512	VN	0	-13.25	-0.007161	±2.5	PASS
GSM1900	512	VN	10	5.23	0.002829	±2.5	PASS
GSM1900	512	VN	20	-9.62	-0.005198	±2.5	PASS
GSM1900	512	VN	30	-13.52	-0.007307	±2.5	PASS
GSM1900	512	VN	40	1.87	0.001009	±2.5	PASS
GSM1900	512	VN	50	8.11	0.004383	±2.5	PASS
GSM1900	661	VN	-30	2.76	0.001468	±2.5	PASS
GSM1900	661	VN	-20	-14.76	-0.007852	±2.5	PASS
GSM1900	661	VN	-10	-9.57	-0.005091	±2.5	PASS
GSM1900	661	VN	0	6.90	0.003669	±2.5	PASS
GSM1900	661	VN	10	1.10	0.000583	±2.5	PASS
GSM1900	661	VN	20	-0.85	-0.000454	±2.5	PASS
GSM1900	661	VN	30	9.23	0.004912	±2.5	PASS
GSM1900	661	VN	40	10.24	0.005444	±2.5	PASS
GSM1900	661	VN	50	8.57	0.004559	±2.5	PASS
GSM1900	810	VN	-30	-1.54	-0.000807	±2.5	PASS
GSM1900	810	VN	-20	7.03	0.003681	±2.5	PASS
GSM1900	810	VN	-10	6.83	0.003578	±2.5	PASS
GSM1900	810	VN	0	0.40	0.000208	±2.5	PASS
GSM1900	810	VN	10	-7.21	-0.003773	±2.5	PASS
GSM1900	810	VN	20	-12.65	-0.006623	±2.5	PASS
GSM1900	810	VN	30	-1.56	-0.000815	±2.5	PASS
GSM1900	810	VN	40	11.69	0.006120	±2.5	PASS
GSM1900	810	VN	50	1.86	0.000973	±2.5	PASS
EGPRS1900	512	VN	-30	14.14	0.007641	±2.5	PASS
EGPRS1900	512	VN	-20	3.43	0.001853	±2.5	PASS
EGPRS1900	512	VN	-10	7.54	0.004073	±2.5	PASS
EGPRS1900	512	VN	0	-4.70	-0.002541	±2.5	PASS
EGPRS1900	512	VN	10	3.27	0.001765	±2.5	PASS
EGPRS1900	512	VN	20	8.48	0.004584	±2.5	PASS
EGPRS1900	512	VN	30	-9.11	-0.004925	±2.5	PASS
EGPRS1900	512	VN	40	3.83	0.002068	±2.5	PASS
EGPRS1900	512	VN	50	3.38	0.001827	±2.5	PASS
L		ı			1		



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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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, \*\*Company\*\* \*\*Company\*\*\* \*\*Com



Report No.: ZR/2020/4000206

Page: 73 of 73

EGPRS1900	661	VN	-30	-0.39	-0.000207	±2.5	PASS
EGPRS1900	661	VN	-20	3.07	0.001632	±2.5	PASS
EGPRS1900	661	VN	-10	9.15	0.004865	±2.5	PASS
EGPRS1900	661	VN	0	13.81	0.007347	±2.5	PASS
EGPRS1900	661	VN	10	12.75	0.006782	±2.5	PASS
EGPRS1900	661	VN	20	2.72	0.001446	±2.5	PASS
EGPRS1900	661	VN	30	4.74	0.002520	±2.5	PASS
EGPRS1900	661	VN	40	6.82	0.003629	±2.5	PASS
EGPRS1900	661	VN	50	-2.35	-0.001249	±2.5	PASS
EGPRS1900	810	VN	-30	5.91	0.003095	±2.5	PASS
EGPRS1900	810	VN	-20	10.79	0.005650	±2.5	PASS
EGPRS1900	810	VN	-10	3.48	0.001820	±2.5	PASS
EGPRS1900	810	VN	0	-12.57	-0.006581	±2.5	PASS
EGPRS1900	810	VN	10	4.02	0.002107	±2.5	PASS
EGPRS1900	810	VN	20	8.06	0.004221	±2.5	PASS
EGPRS1900	810	VN	30	6.19	0.003243	±2.5	PASS
EGPRS1900	810	VN	40	-8.27	-0.004331	±2.5	PASS
EGPRS1900	810	VN	50	10.76	0.005635	±2.5	PASS

The End



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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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, \*\*Certificate\*\*.