Page: 1 of 76

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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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, **Testilia **Testil

Page: 2 of 76

CONTENT

		Page
1.	. EFFECTIVE (ISOTROPIC) RADIATED POWER OUTPUT DATA	5
	1.1. Test Result	5
2.	PEAK-TO-AVERAGE RATIO	7
	2.1. Test Result	7
	2.2. Part II - Test Plots	8
3.	. MODULATION CHARACTERISTICS	14
	3.1. For GSM	14
	3.1.1. Test Band = GSM 850	14
	3.1.1.1. Test Mode = GSM/TM1	14
	3.1.1.1.1. Test Channel = MCH	14
	3.1.1.2. Test Mode = GSM/TM2	15
	3.1.1.2.1. Test Channel = MCH	15
	3.1.2. Test Band = GSM 1900	16
	3.1.2.1. Test Mode = GSM/TM1	16
	3.1.2.1.1. Test Channel = MCH	16
	3.1.2.2. Test Mode = GSM/TM2	17
	3.1.2.2.1. Test Channel = MCH	17
4.	. 26DB BANDWIDTH AND OCCUPIED BANDWIDTH	18
	4.1. Test Result	18
	4.2. Test Plots	18
5.	. BAND EDGE COMPLIANCE	25
	5.1. Test Plots	25
6.	. Spurious Emission at Antenna Terminal	
	6.1. Test Plots	30
7.	FIELD STRENGTH OF SPURIOUS RADIATION	43
	7.1. Test Band = GSM_850 MAIN	43
	7.1.1. Test Channel = Low Channel	43
	7.2. Test Band = GSM_850 MAIN	44
	7.2.1. Test Channel = Low Channel	44
	7.3. Test Band = GSM_850 MAIN	45
	7.3.1. Test Channel = Mid Channel	45
	7.4. Test Band = GSM_850 MAIN	46



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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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. | 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.: AR/2020/C000601-01

Page: 3 of 76

711	Tool Channel Mid Channel	16
7.4.1.	Test Channel = Mid Channel	
	Test Band = GSM_850 MAIN	
7.5.1.	Test Channel = High Channel	
	Test Band = GSM_850 MAIN	
7.6.1.	Test Channel = High Channel	
	Test Band = GSM_1900 MAIN	
7.7.1.	Test Channel = Low Channel	
7.8. 7	Test Band = GSM_1900 MAIN	50
7.8.1.	Test Channel = Low Channel	50
7.9. 7	Test Band = GSM_1900 MAIN	51
7.9.1.	Test Channel = Mid Channel	51
7.10.	Test Band = GSM_1900 MAIN	52
7.10.1.	Test Channel = Mid Channel	52
7.11.	Test Band = GSM_1900 MAIN	53
7.11.1.	Test Channel = High Channel	53
7.12.	Test Band = GSM_1900 MAIN	54
7.12.1.	Test Channel = High Channel	54
7.13.	Test Band = GSM_850 DIV	55
7.13.1.	Test Channel = Low Channel	55
7.14.	Test Band = GSM_850 DIV	56
7.14.1.	Test Channel = Low Channel	56
7.15.	Test Band = GSM_850 DIV	57
7.15.1.	Test Channel = Mid Channel	57
7.16.	Test Band = GSM_850 DIV	58
7.16.1.	Test Channel = Mid Channel	58
7.17.	Test Band = GSM_850 DIV	59
7.17.1.	Test Channel = High Channel	59
7.18.	Test Band = GSM_850 DIV	60
7.18.1.	Test Channel = High Channel	60
7.19.	Test Band = GSM_1900 DIV	61
7.19.1.		
7.20.	Test Band = GSM_1900 DIV	
7.20.1.		
7.21.	Test Band = GSM_1900 DIV	
	. 55. 24.12	



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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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, or email: CND Doccheck-Ross.com.

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.: AR/2020/C000601-01

4 of 76 Page:

	7.21.1.	Test Channel = Mid Channel	63
	7.22.	Test Band = GSM_1900 DIV	64
	7.22.1.	Test Channel = Mid Channel	64
	7.23.	Test Band = GSM_1900 DIV	65
	7.23.1.	Test Channel = High Channel	65
	7.24.	Test Band = GSM_1900 DIV	66
	7.24.1.	Test Channel = High Channel	66
	7.25.	Test Band = GSM_850 DIV	67
	7.25.1.	Test Channel = Mid Channel	67
	7.26.	Test Band = GSM_850 DIV	. 68
	7.26.1.	Test Channel = Mid Channel	68
	7.27.	Test Band = GSM_850 MAIN	69
	7.27.1.	Test Channel = Mid Channel	69
	7.28.	Test Band = GSM_850 MAIN	. 70
	7.28.1.	Test Channel = Mid Channel	. 70
8.	FREQ	JENCY STABILITY	71
	8.1. F	requency Error Vs Voltage	. 71
	8.2. F	requency Error Vs Temperature	. 73



Page: 5 of 76

1. Effective (Isotropic) Radiated Power Output Data

1.1.Test Result

MAIN:

Band	Channel	Slot	Conducted Power (dBm)	ERP (dBm)	Limit(dBm)	Verdict
GSM850	128		32.81	30.18	38.45	PASS
GSM850	190		33.26	30.63	38.45	PASS
GSM850	251		33.04	30.41	38.45	PASS
EGPRS850	128	1	26.55	23.92	38.45	PASS
EGPRS850	128	2	24.24	21.61	38.45	PASS
EGPRS850	128	3	22.37	19.74	38.45	PASS
EGPRS850	128	4	21.39	18.76	38.45	PASS
EGPRS850	190	1	26.38	23.75	38.45	PASS
EGPRS850	190	2	24.16	21.53	38.45	PASS
EGPRS850	190	3	22.45	19.82	38.45	PASS
EGPRS850	190	4	21.34	18.71	38.45	PASS
EGPRS850	251	1	26.47	23.84	38.45	PASS
EGPRS850	251	2	24.19	21.56	38.45	PASS
EGPRS850	251	3	22.50	19.87	38.45	PASS
EGPRS850	251	4	21.44	18.81	38.45	PASS

Band	Channel	Slot	Conducted Power (dBm)	EIRP (dBm)	Limit(dBm)	Verdict
GSM1900	512		30.11	30.81	33.00	PASS
GSM1900	661		30.12	30.82	33.00	PASS
GSM1900	810		29.83	30.53	33.00	PASS
EGPRS1900	512	1	25.27	25.97	33.00	PASS
EGPRS1900	512	2	22.99	23.69	33.00	PASS
EGPRS1900	512	3	20.88	21.58	33.00	PASS
EGPRS1900	512	4	19.56	20.26	33.00	PASS
EGPRS1900	661	1	25.59	26.29	33.00	PASS
EGPRS1900	661	2	23.20	23.9	33.00	PASS
EGPRS1900	661	3	21.33	22.03	33.00	PASS
EGPRS1900	661	4	20.13	20.83	33.00	PASS
EGPRS1900	810	1	25.98	26.68	33.00	PASS
EGPRS1900	810	2	23.69	24.39	33.00	PASS
EGPRS1900	810	3	21.01	21.71	33.00	PASS
EGPRS1900	810	4	20.29	20.99	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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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@gs.com.

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.: AR/2020/C000601-01

Page: 6 of 76

DIV:

Band	Channel	Slot	Conducted Power (dBm)	ERP (dBm)	Limit(dBm)	Verdict
GSM850	128		33.31	26.76	38.45	PASS
GSM850	190		33.33	26.78	38.45	PASS
GSM850	251		32.77	26.22	38.45	PASS
EGPRS850	128	1	26.77	20.22	38.45	PASS
EGPRS850	128	2	24.07	17.52	38.45	PASS
EGPRS850	128	3	22.35	15.8	38.45	PASS
EGPRS850	128	4	21.19	14.64	38.45	PASS
EGPRS850	190	1	26.77	20.22	38.45	PASS
EGPRS850	190	2	23.97	17.42	38.45	PASS
EGPRS850	190	3	22.39	15.84	38.45	PASS
EGPRS850	190	4	21.25	14.7	38.45	PASS
EGPRS850	251	1	26.62	20.07	38.45	PASS
EGPRS850	251	2	23.85	17.3	38.45	PASS
EGPRS850	251	3	22.17	15.62	38.45	PASS
EGPRS850	251	4	21.15	14.6	38.45	PASS

Band	Channel	Slot	Conducted Power (dBm)	EIRP (dBm)	Limit(dBm)	Verdict
GSM1900	512		30.12	29.92	33.00	PASS
GSM1900	661		30.15	29.95	33.00	PASS
GSM1900	810		29.67	29.47	33.00	PASS
EGPRS1900	512	1	25.24	25.04	33.00	PASS
EGPRS1900	512	2	22.93	22.73	33.00	PASS
EGPRS1900	512	3	20.77	20.57	33.00	PASS
EGPRS1900	512	4	19.01	18.81	33.00	PASS
EGPRS1900	661	1	24.93	24.73	33.00	PASS
EGPRS1900	661	2	22.55	22.35	33.00	PASS
EGPRS1900	661	3	20.33	20.13	33.00	PASS
EGPRS1900	661	4	19.21	19.01	33.00	PASS
EGPRS1900	810	1	24.85	24.65	33.00	PASS
EGPRS1900	810	2	22.53	22.33	33.00	PASS
EGPRS1900	810	3	20.26	20.06	33.00	PASS
EGPRS1900	810	4	19.21	19.01	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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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, **Testilia **Testil

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: 7 of 76

2. Peak-to-Average Ratio

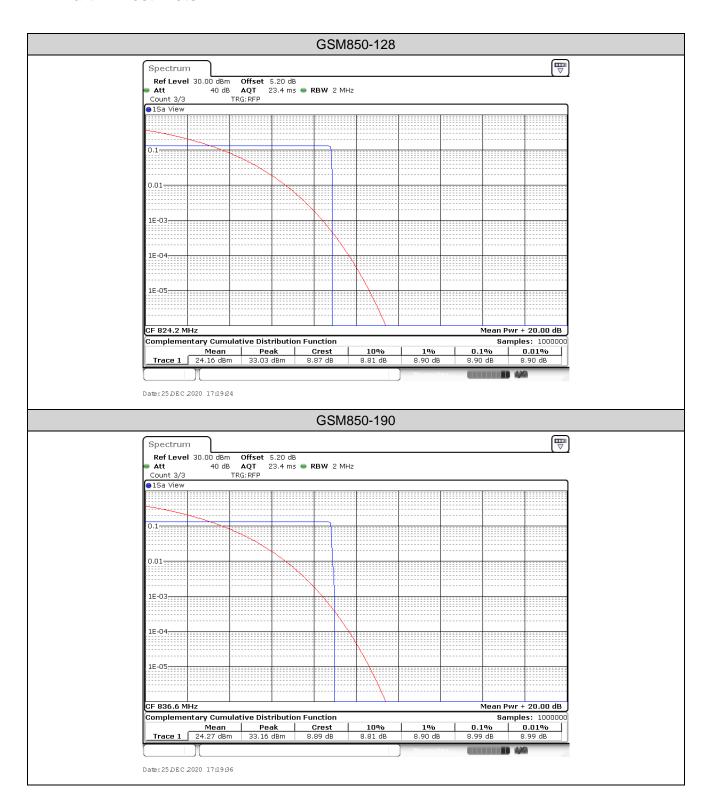
2.1. Test Result

Band	Channel	Result(dB)	Limit(dB)	Verdict
GSM850	128	8.9	13	PASS
GSM850	190	8.99	13	PASS
GSM850	251	8.9	13	PASS
EGPRS850	128	12.12	13	PASS
EGPRS850	190	11.97	13	PASS
EGPRS850	251	11.88	13	PASS
GSM1900	512	8.9	13	PASS
GSM1900	661	8.93	13	PASS
GSM1900	810	8.96	13	PASS
EGPRS1900	512	12.72	13	PASS
EGPRS1900	661	11.97	13	PASS
EGPRS1900	810	12	13	PASS



8 of 76 Page:

2.2. Part II - Test Plots





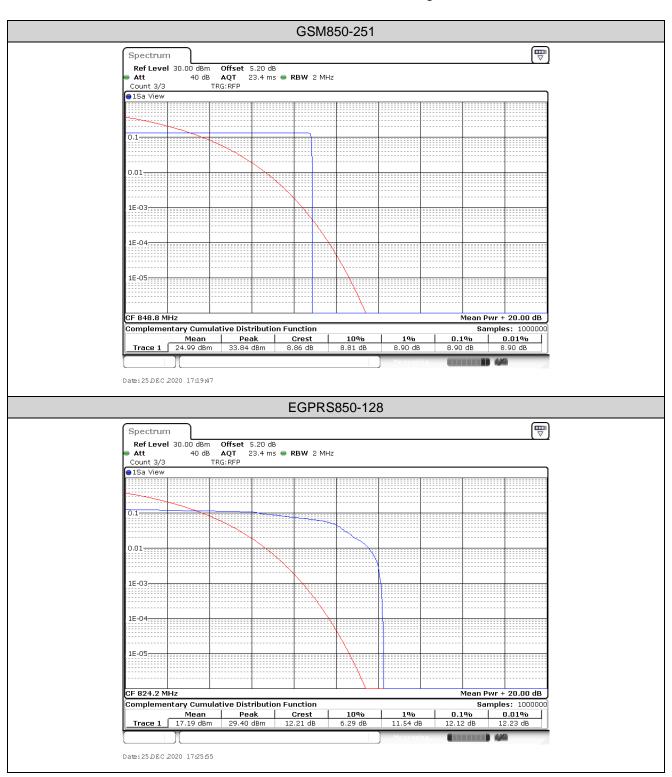
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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・科技園中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594

Report No.: AR/2020/C000601-01

9 of 76 Page:





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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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.

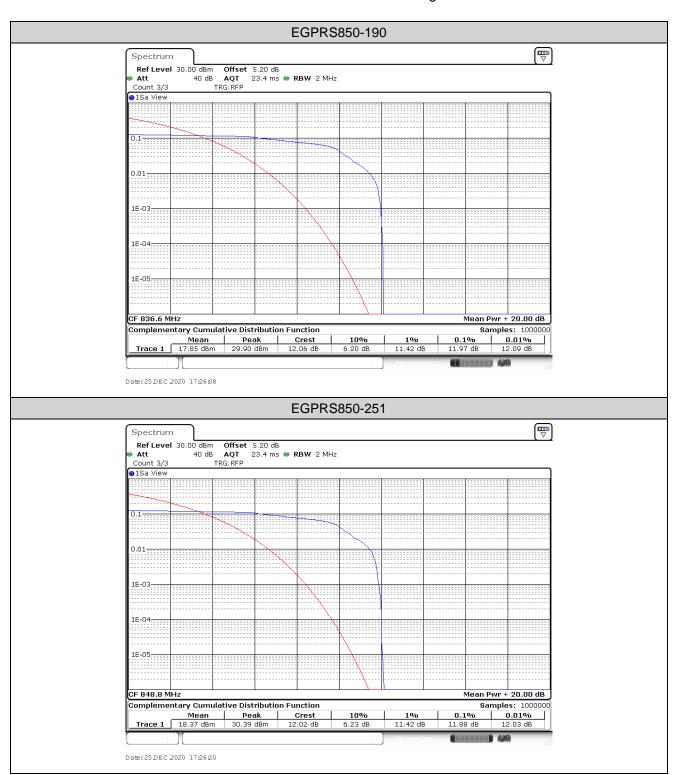
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@gs.com.

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・科技園中区M-10栋一号厂房

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

Report No.: AR/2020/C000601-01

Page: 10 of 76





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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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.

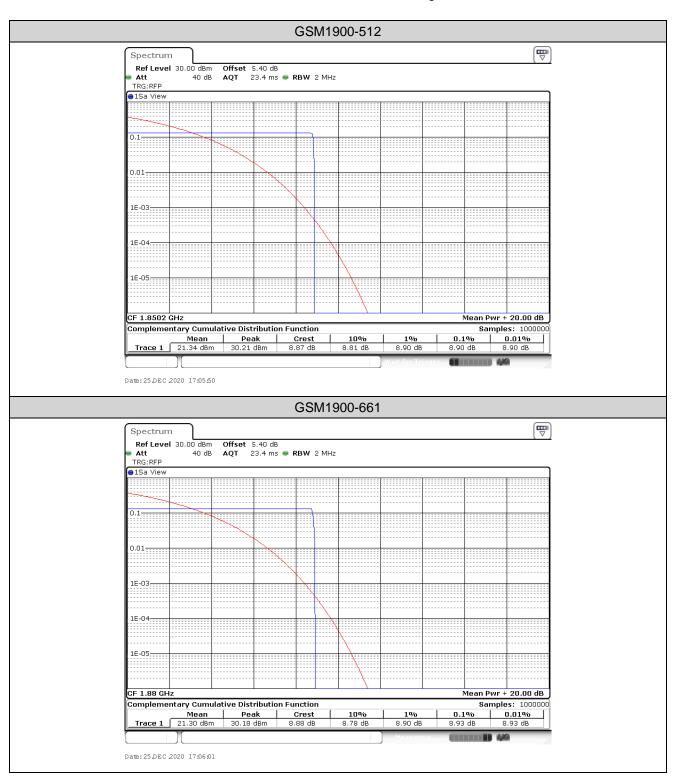
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@gs.com.

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・科技園中区M-10栋一号厂房

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

Report No.: AR/2020/C000601-01

11 of 76 Page:





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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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.

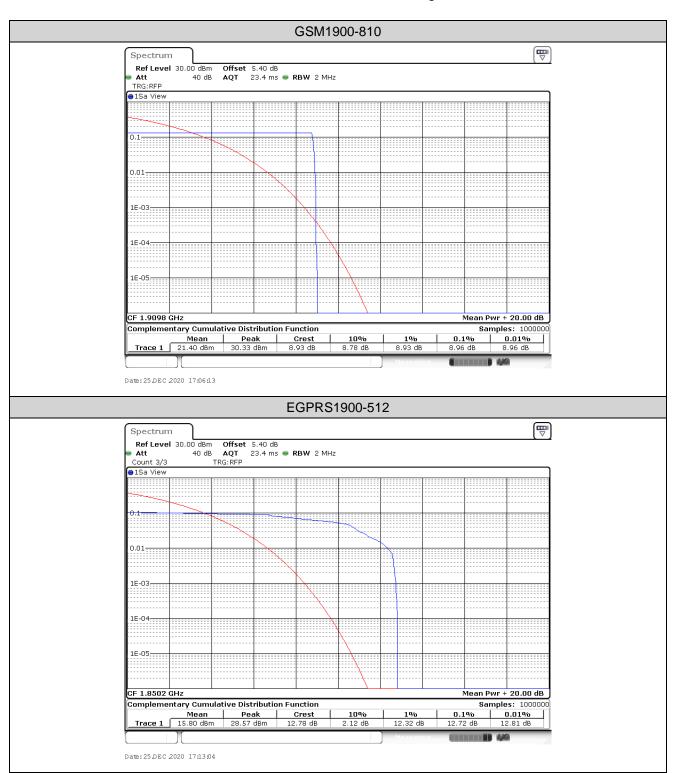
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@gs.com.

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・科技園中区M-10栋一号厂房

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

Report No.: AR/2020/C000601-01

Page: 12 of 76





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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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.

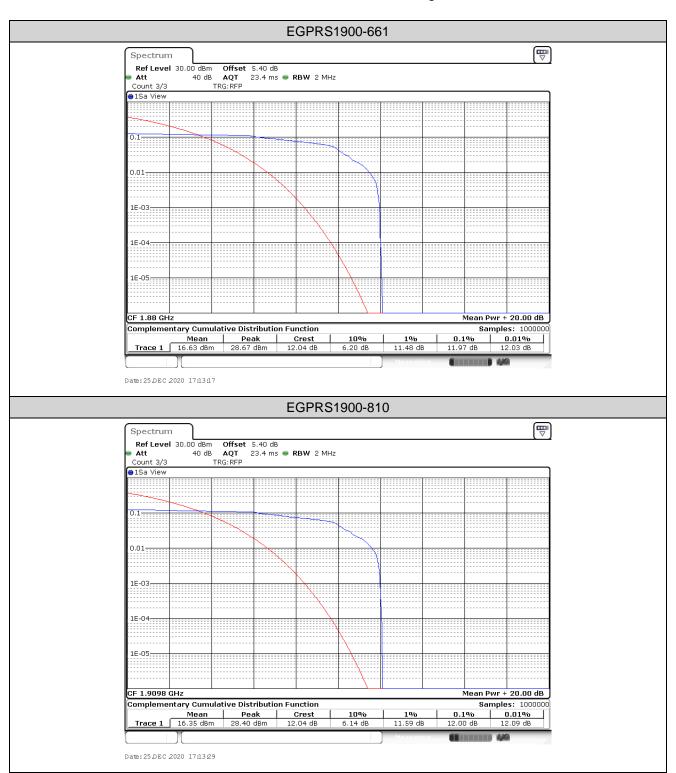
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@gs.com.

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・科技園中区M-10栋一号厂房

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

Report No.: AR/2020/C000601-01

Page: 13 of 76





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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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@gs.com.

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・科技園中区M-10栋一号厂房

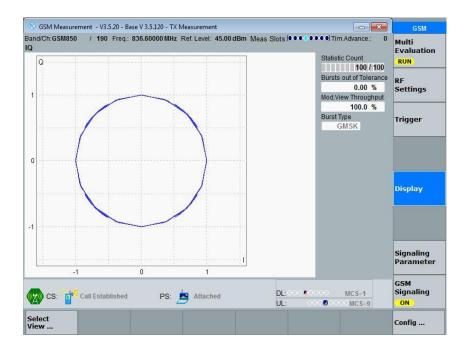
邮编: 518057 t (86-755) 26012053 f (86-755) 26710594

14 of 76 Page:

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

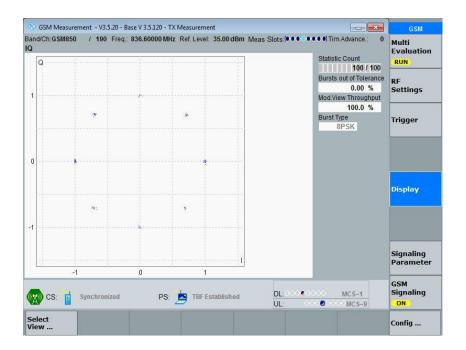




15 of 76 Page:

3.1.1.2. Test Mode = GSM/TM2

3.1.1.2.1. Test Channel = MCH



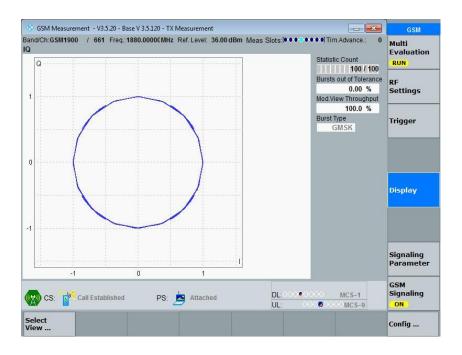


16 of 76 Page:

3.1.2. Test Band = GSM 1900

3.1.2.1. Test Mode = GSM/TM1

3.1.2.1.1. Test Channel = MCH

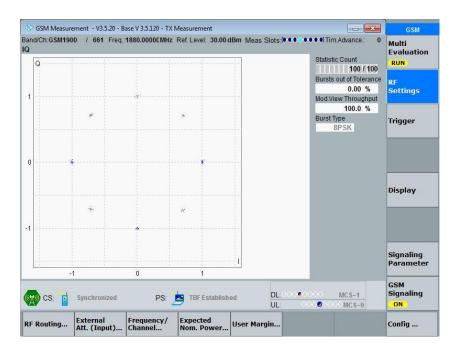




17 of 76 Page:

3.1.2.2. Test Mode = GSM/TM2

3.1.2.2.1. Test Channel = MCH





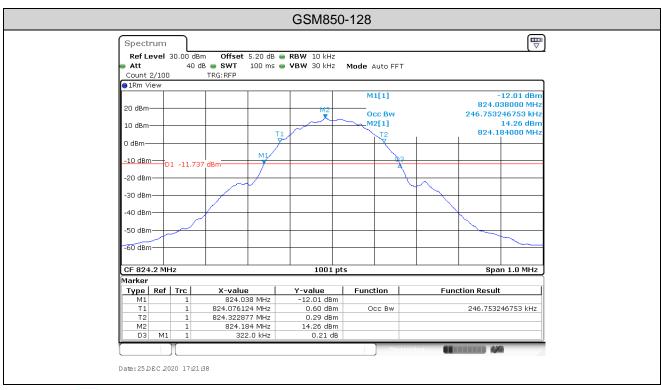
Page: 18 of 76

4. 26dB Bandwidth and Occupied Bandwidth

4.1. Test Result

Dond	and Channel	Occupied	26dB Bandwidth	Limit	\
Band		Bandwidth (MHz)	(MHz)	(MHz)	Verdict
GSM850	128	0.247	0.322		PASS
GSM850	190	0.247	0.323		PASS
GSM850	251	0.247	0.324		PASS
EGPRS850	128	0.247	0.316		PASS
EGPRS850	190	0.245	0.316		PASS
EGPRS850	251	0.246	0.316		PASS
GSM1900	512	0.247	0.323		PASS
GSM1900	661	0.247	0.322		PASS
GSM1900	810	0.247	0.322		PASS
EGPRS1900	512	0.243	0.316		PASS
EGPRS1900	661	0.243	0.317		PASS
EGPRS1900	810	0.243	0.316		PASS

4.2. Test Plots





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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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,

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.: AR/2020/C000601-01

Page: 19 of 76





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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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,

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.: AR/2020/C000601-01

Page: 20 of 76





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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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.

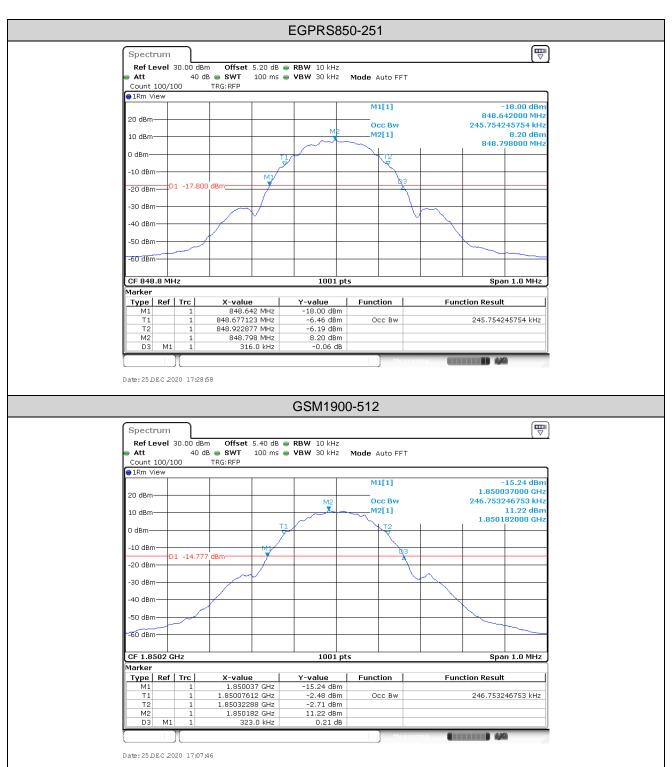
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443,

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.: AR/2020/C000601-01

Page: 21 of 76





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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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,

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.: AR/2020/C000601-01

Page: 22 of 76





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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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,

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.: AR/2020/C000601-01

Page: 23 of 76





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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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.

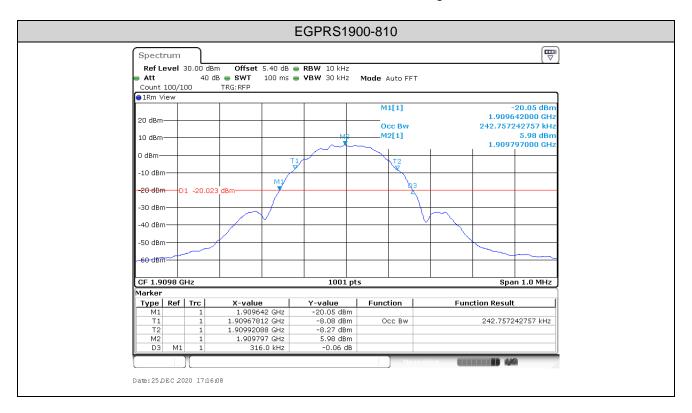
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443,

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.: AR/2020/C000601-01

24 of 76 Page:

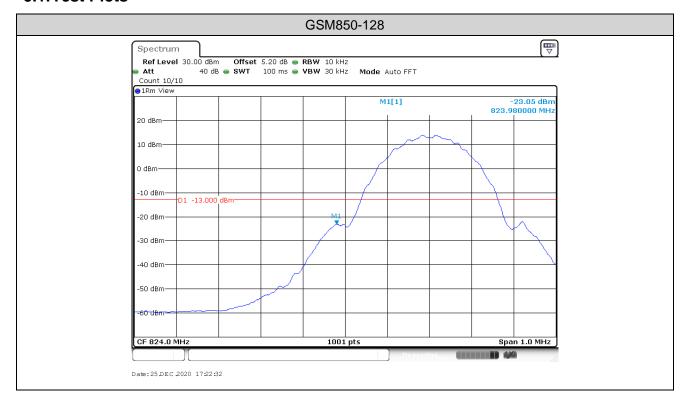




25 of 76 Page:

5. Band Edge Compliance

5.1. Test Plots

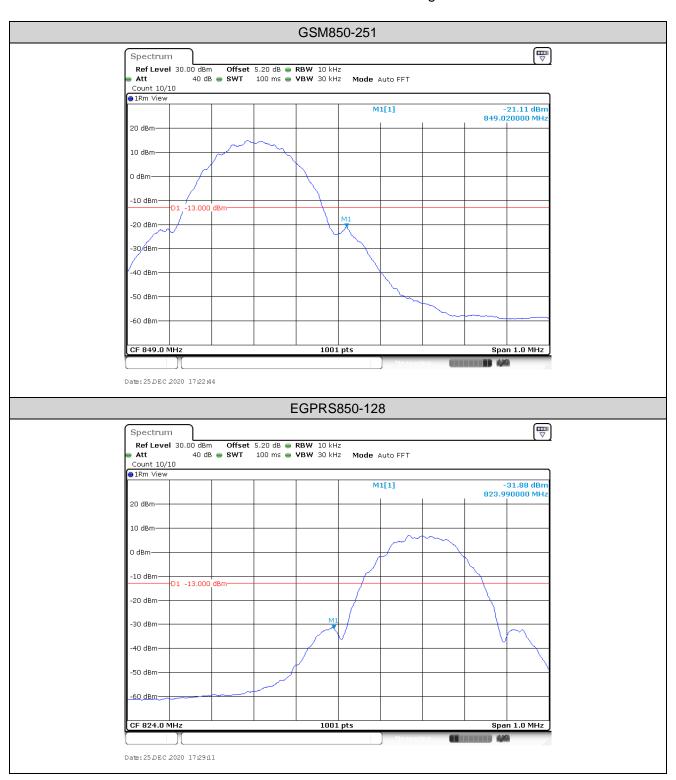






Report No.: AR/2020/C000601-01

26 of 76 Page:





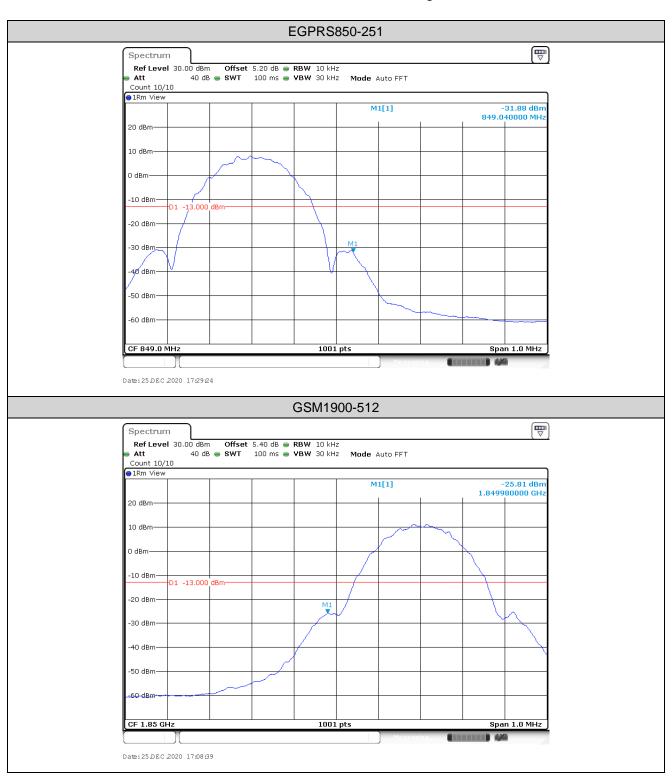
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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@gs.com.

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・科技園中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594

Report No.: AR/2020/C000601-01

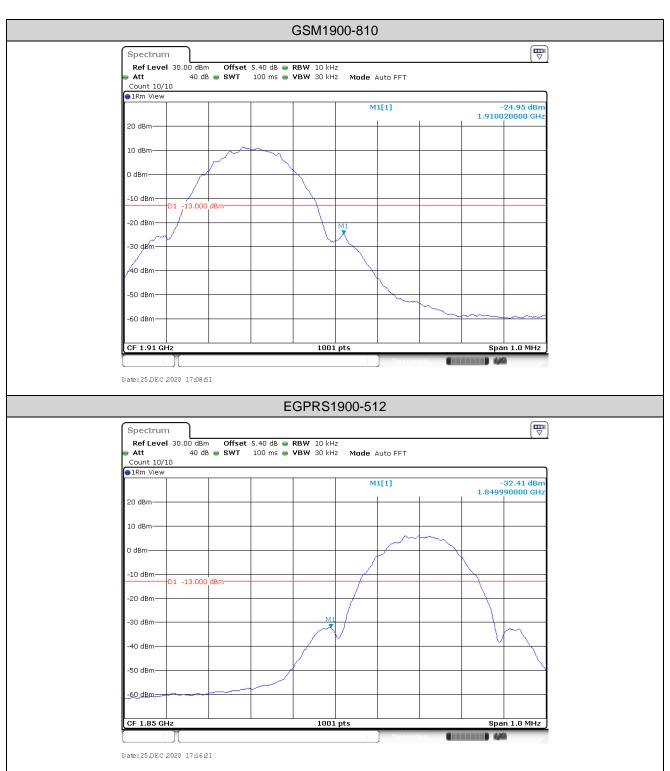
27 of 76 Page:





Report No.: AR/2020/C000601-01

28 of 76 Page:





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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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@gs.com.



Report No.: AR/2020/C000601-01

29 of 76 Page:





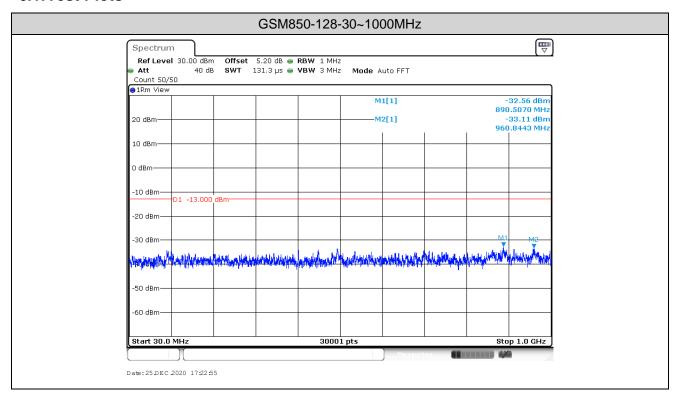
Page: 30 of 76

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

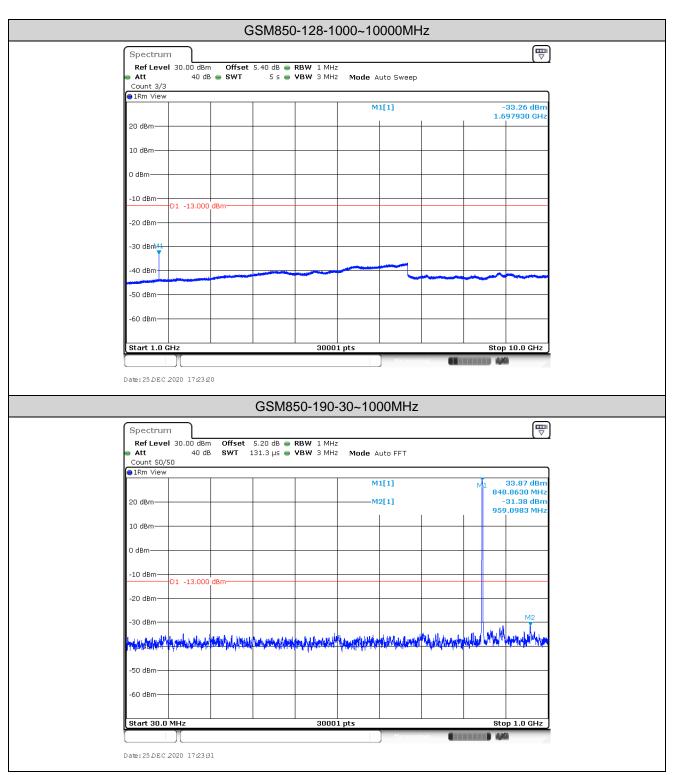






Report No.: AR/2020/C000601-01

Page: 31 of 76





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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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.

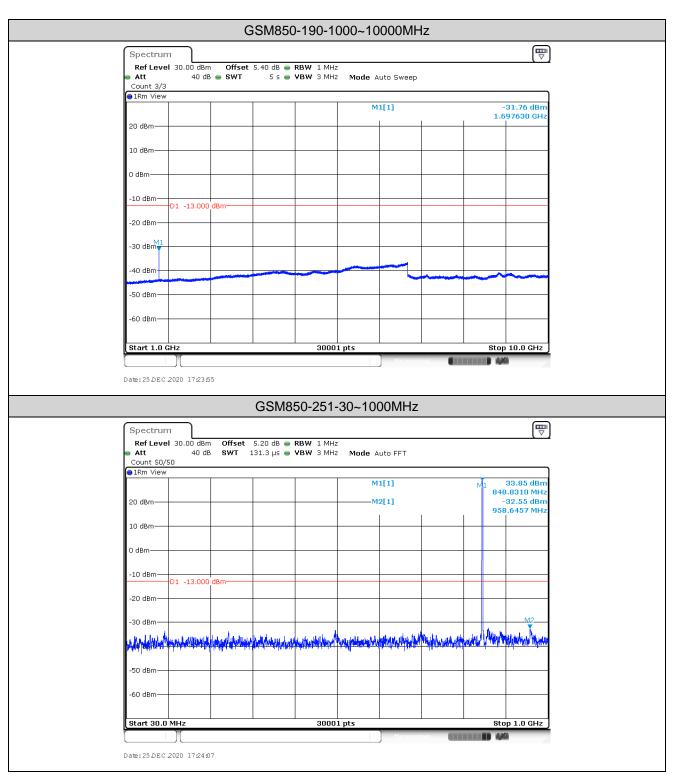
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@gs.com.

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・科技園中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594



Report No.: AR/2020/C000601-01

Page: 32 of 76





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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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.

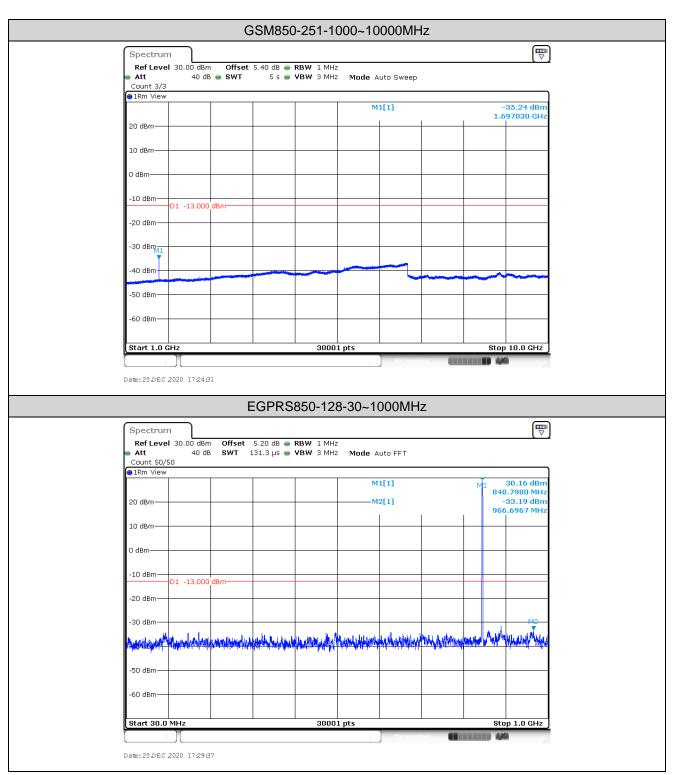
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@gs.com.

|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.: AR/2020/C000601-01

Page: 33 of 76





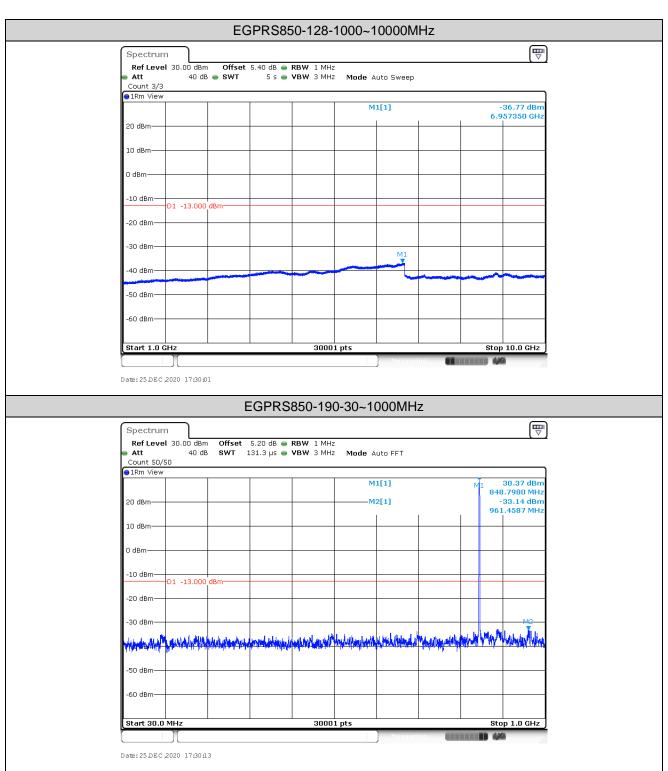
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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@gs.com.



Report No.: AR/2020/C000601-01

Page: 34 of 76





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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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.

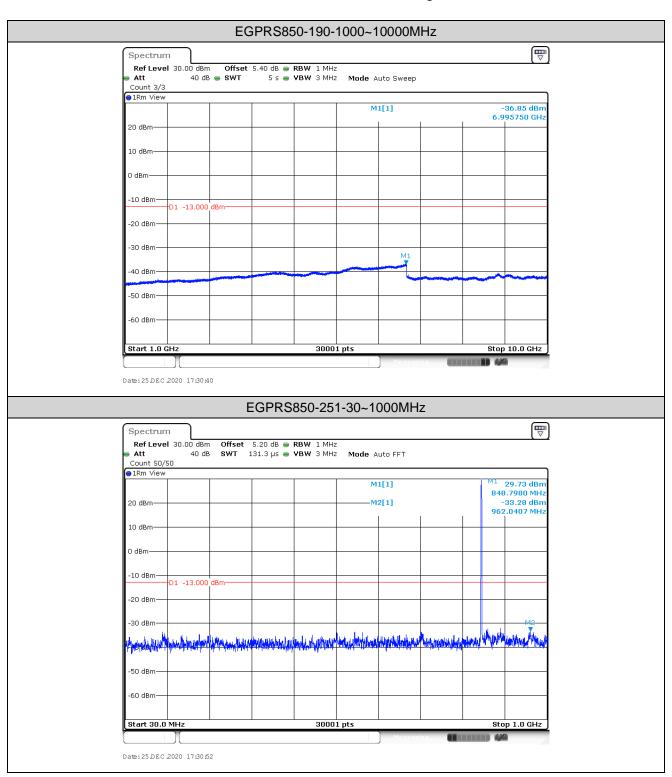
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@gs.com.

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・科技園中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594



Report No.: AR/2020/C000601-01

Page: 35 of 76





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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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.

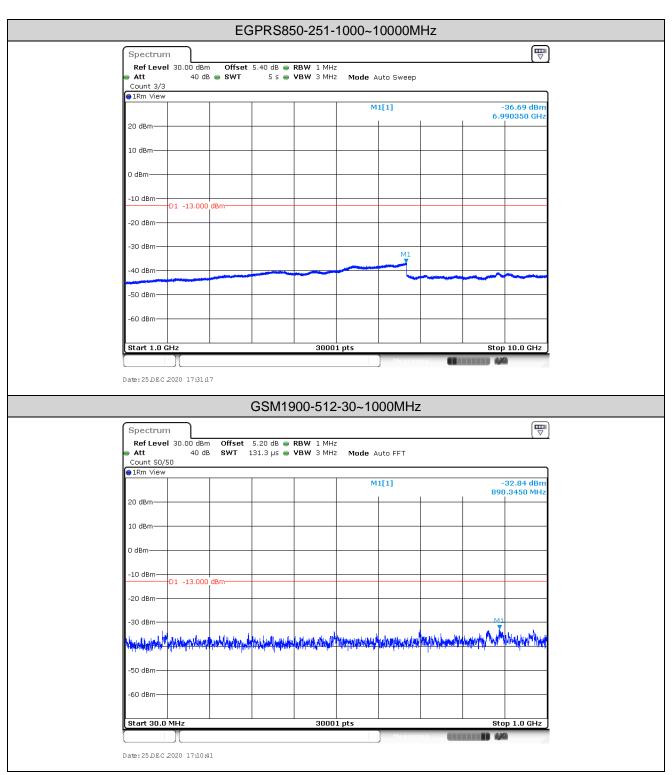
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@gs.com.

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・科技園中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594



Report No.: AR/2020/C000601-01

Page: 36 of 76





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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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@gs.com.

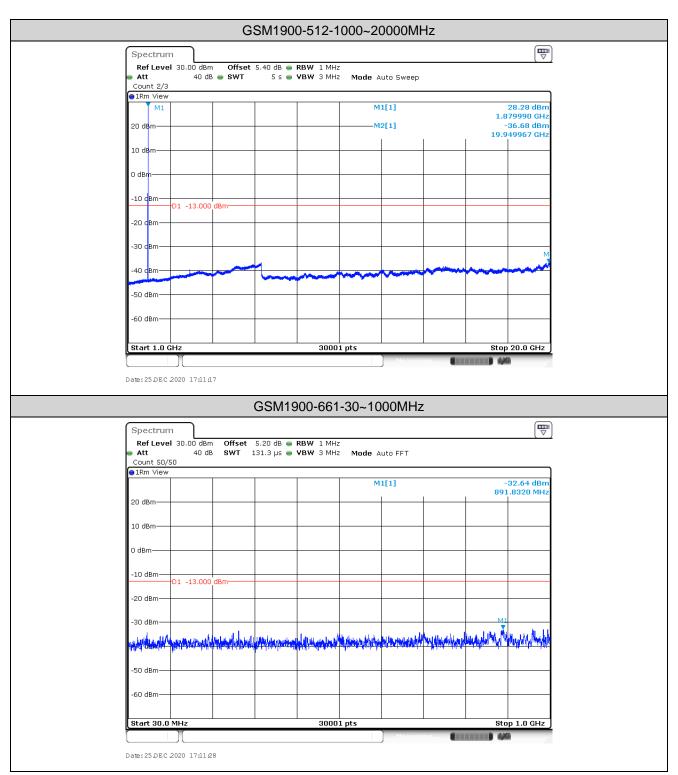
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn 中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com



SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

Report No.: AR/2020/C000601-01

Page: 37 of 76





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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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@gs.com.

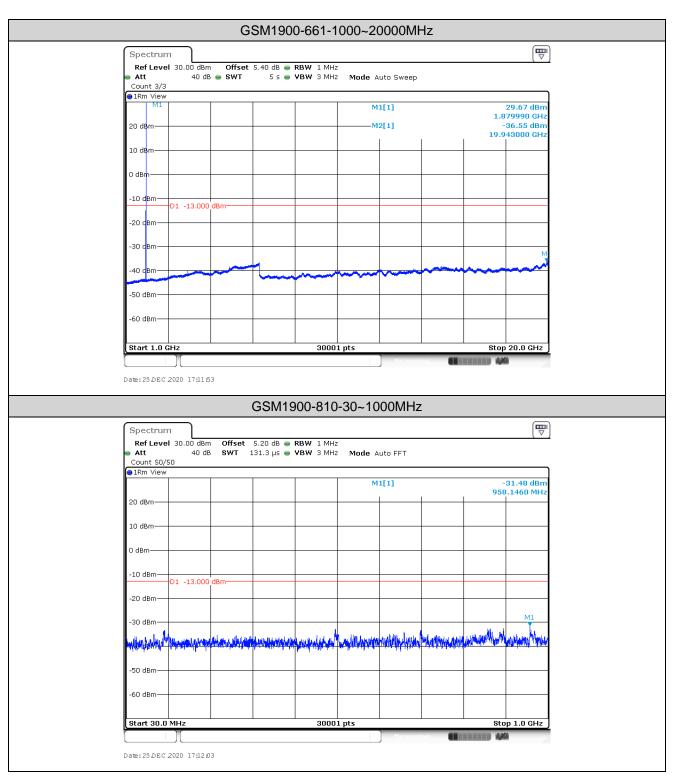
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn 中国 ·深圳 · 科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com



SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen

Report No.: AR/2020/C000601-01

Page: 38 of 76





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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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@gs.com.

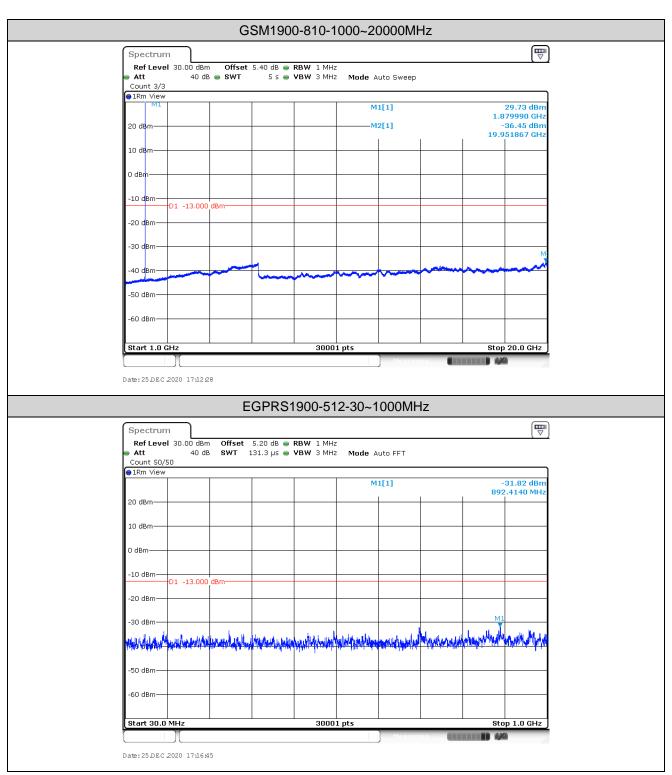
sgs.china@sgs.com



SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

Report No.: AR/2020/C000601-01

Page: 39 of 76





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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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@gs.com.

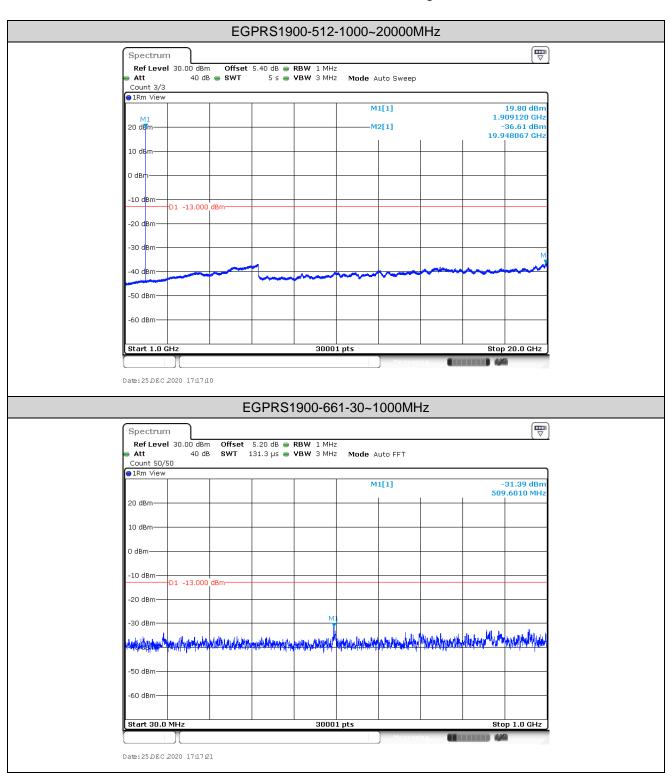
No. Workshop, M-10, Middle Sedion, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn 中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com



SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

Report No.: AR/2020/C000601-01

Page: 40 of 76



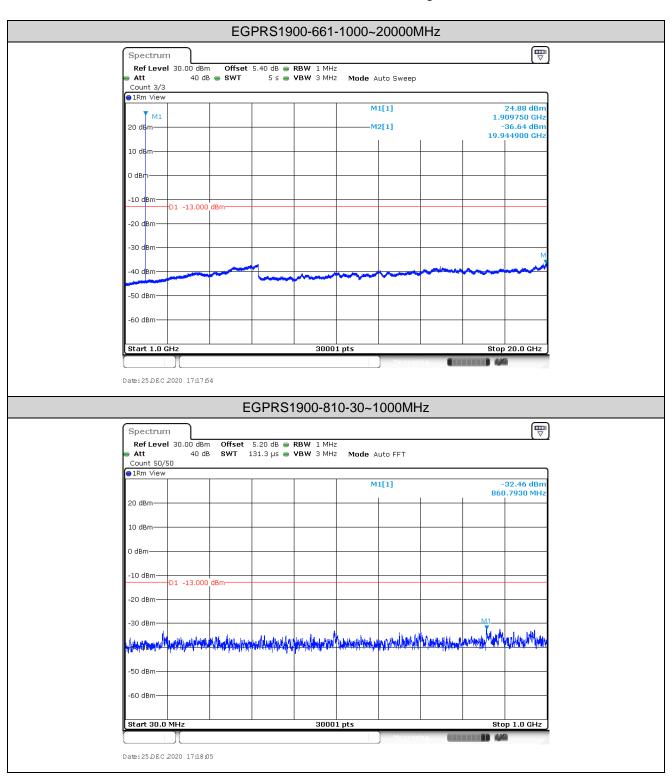




SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen

Report No.: AR/2020/C000601-01

Page: 41 of 76





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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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@gs.com.

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・科技園中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594

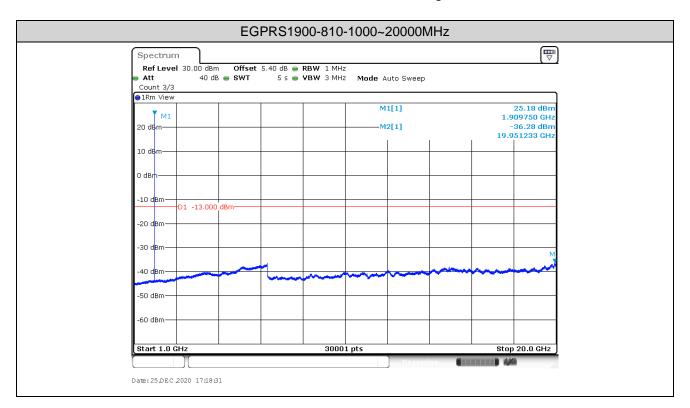
sgs.china@sgs.com



SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen

Report No.: AR/2020/C000601-01

Page: 42 of 76





Page: 43 of 76

7. Field Strength of Spurious Radiation

7.1. Test Band = GSM 850 MAIN

7.1.1. Test Channel = Low Channel

Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity			
1	43.8232	-62.75	-13.00	49.75	Horizontal			
2	99.0675	-73.88	-13.00	60.88	Horizontal			
3	241.8586	-66.51	-13.00	53.51	Horizontal			
4	1648.5297	-39.14	-13.00	26.14	Horizontal			
5	2473.0946	-38.60	-13.00	25.60	Horizontal			
6	4121.2040	-59.59	-13.00	46.59	Horizontal			



Page: 44 of 76

7.2. Test Band = GSM_850 MAIN

7.2.1. Test Channel = Low Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	31.6491	-73.10	-13.00	60.10	Vertical				
2	114.7822	-62.69	-13.00	49.69	Vertical				
3	460.2165	-64.52	-13.00	51.52	Vertical				
4	1648.1296	-49.38	-13.00	36.38	Vertical				
5	2472.2945	-45.89	-13.00	32.89	Vertical				
6	9821.7274	-51.95	-13.00	38.95	Vertical				



Page: 45 of 76

7.3. Test Band = GSM_850 MAIN

7.3.1. Test Channel = Mid Channel

Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity			
1	42.9501	-61.93	-13.00	48.93	Horizontal			
2	102.0261	-73.91	-13.00	60.91	Horizontal			
3	237.0569	-67.09	-13.00	54.09	Horizontal			
4	1673.3347	-39.90	-13.00	26.90	Horizontal			
5	2509.9020	-37.44	-13.00	24.44	Horizontal			
6	9561.7854	-52.67	-13.00	39.67	Horizontal			



Page: 46 of 76

7.4. Test Band = GSM_850 MAIN

7.4.1. Test Channel = Mid Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	30.5335	-74.85	-13.00	61.85	Vertical				
2	108.4769	-62.92	-13.00	49.92	Vertical				
3	438.8269	-66.25	-13.00	53.25	Vertical				
4	1672.9346	-49.11	-13.00	36.11	Vertical				
5	2510.3021	-46.45	-13.00	33.45	Vertical				
6	9585.8195	-52.62	-13.00	39.62	Vertical				



Page: 47 of 76

7.5. Test Band = GSM_850 MAIN

7.5.1. Test Channel = High Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	39.7490	-63.22	-13.00	50.22	Horizontal				
2	96.6423	-72.93	-13.00	59.93	Horizontal				
3	232.0126	-66.59	-13.00	53.59	Horizontal				
4	1697.3395	-40.31	-13.00	27.31	Horizontal				
5	2546.3093	-41.56	-13.00	28.56	Horizontal				
6	9542.6514	-52.62	-13.00	39.62	Horizontal				



Page: 48 of 76

7.6. Test Band = GSM_850 MAIN

7.6.1. Test Channel = High Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	30.6790	-74.02	-13.00	61.02	Vertical				
2	109.9320	-63.73	-13.00	50.73	Vertical				
3	421.0751	-65.48	-13.00	52.48	Vertical				
4	1697.7395	-48.54	-13.00	35.54	Vertical				
5	2546.7093	-42.06	-13.00	29.06	Vertical				
6	9313.0438	-52.70	-13.00	39.70	Vertical				



Page: 49 of 76

7.7. Test Band = GSM_1900 MAIN

7.7.1. Test Channel = Low Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	42.1741	-63.87	-13.00	50.87	Horizontal				
2	100.9590	-74.14	-13.00	61.14	Horizontal				
3	231.9641	-67.78	-13.00	54.78	Horizontal				
4	3700.5234	-51.72	-13.00	38.72	Horizontal				
5	5550.5850	-46.22	-13.00	33.22	Horizontal				
6	16401.946	-45.13	-13.00	32.13	Horizontal				



Page: 50 of 76

7.8. Test Band = GSM_1900 MAIN

7.8.1. Test Channel = Low Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	30.2910	-74.76	-13.00	61.76	Vertical				
2	118.7109	-63.68	-13.00	50.68	Vertical				
3	386.1048	-66.90	-13.00	53.90	Vertical				
4	3700.5234	-59.01	-13.00	46.01	Vertical				
5	5550.5850	-51.06	-13.00	38.06	Vertical				
6	17988.499	-41.06	-13.00	28.06	Vertical				



Page: 51 of 76

7.9. Test Band = **GSM_1900 MAIN**

7.9.1. Test Channel = Mid Channel

Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity			
1	40.9130	-63.30	-13.00	50.30	Horizontal			
2	92.3741	-74.73	-13.00	61.73	Horizontal			
3	234.0497	-66.84	-13.00	53.84	Horizontal			
4	3760.0253	-49.04	-13.00	36.04	Horizontal			
5	5640.0880	-47.26	-13.00	34.26	Horizontal			
6	16386.446	-44.76	-13.00	31.76	Horizontal			



Page: 52 of 76

7.10. Test Band = GSM_1900 MAIN 7.10.1. Test Channel = Mid Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	30.2425	-75.02	-13.00	62.02	Vertical				
2	110.6595	-63.97	-13.00	50.97	Vertical				
3	459.2465	-65.95	-13.00	52.95	Vertical				
4	3760.0253	-57.40	-13.00	44.40	Vertical				
5	5640.0880	-50.33	-13.00	37.33	Vertical				
6	17999.000	-41.31	-13.00	28.31	Vertical				



Page: 53 of 76

7.11. Test Band = GSM_1900 MAIN 7.11.1. Test Channel = High Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	44.1142	-63.23	-13.00	50.23	Horizontal				
2	109.3500	-74.83	-13.00	61.83	Horizontal				
3	234.3892	-66.82	-13.00	53.82	Horizontal				
4	3819.5273	-53.61	-13.00	40.61	Horizontal				
5	5729.5910	-51.17	-13.00	38.17	Horizontal				
6	16376.445	-45.26	-13.00	32.26	Horizontal				



Page: 54 of 76

7.12. Test Band = GSM_1900 MAIN 7.12.1. Test Channel = High Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	31.6976	-75.94	-13.00	62.94	Vertical				
2	115.5583	-63.98	-13.00	50.98	Vertical				
3	517.6919	-65.27	-13.00	52.27	Vertical				
4	3819.5273	-55.38	-13.00	42.38	Vertical				
5	5729.5910	-55.43	-13.00	42.43	Vertical				
6	17997.999	-41.38	-13.00	28.38	Vertical				



Page: 55 of 76

7.13. Test Band = GSM_850 DIV

7.13.1. Test Channel = Low Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	43.6292	-62.97	-13.00	49.97	Horizontal				
2	101.8806	-74.69	-13.00	61.69	Horizontal				
3	244.0897	-66.53	-13.00	53.53	Horizontal				
4	1648.5297	-46.44	-13.00	33.44	Horizontal				
5	2473.0946	-36.00	-13.00	23.00	Horizontal				
6	9313.2771	-52.05	-13.00	39.05	Horizontal				



Page: 56 of 76

7.14. Test Band = GSM_850 DIV 7.14.1. Test Channel = Low Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	30.9215	-74.51	-13.00	61.51	Vertical				
2	116.0433	-63.08	-13.00	50.08	Vertical				
3	433.3462	-66.38	-13.00	53.38	Vertical				
4	1648.1296	-47.16	-13.00	34.16	Vertical				
5	2472.6945	-39.57	-13.00	26.57	Vertical				
6	9851.8284	-51.88	-13.00	38.88	Vertical				



Page: 57 of 76

7.15. Test Band = GSM_850 DIV 7.15.1. Test Channel = Mid Channel

Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity			
1	38.5364	-63.14	-13.00	50.14	Horizontal			
2	97.3699	-74.51	-13.00	61.51	Horizontal			
3	236.1353	-67.13	-13.00	54.13	Horizontal			
4	1672.9346	-40.76	-13.00	27.76	Horizontal			
5	2509.9020	-30.10	-13.00	17.10	Horizontal			
6	9329.8443	-52.13	-13.00	39.13	Horizontal			



Page: 58 of 76

7.16. Test Band = GSM_850 DIV 7.16.1. Test Channel = Mid Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	30.6790	-74.81	-13.00	61.81	Vertical				
2	112.3571	-63.24	-13.00	50.24	Vertical				
3	439.0210	-66.17	-13.00	53.17	Vertical				
4	1672.9346	-47.64	-13.00	34.64	Vertical				
5	2509.9020	-44.90	-13.00	31.90	Vertical				
6	9874.6958	-51.80	-13.00	38.80	Vertical				



Page: 59 of 76

7.17. Test Band = GSM_850 DIV 7.17.1. Test Channel = High Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	46.6848	-62.91	-13.00	49.91	Horizontal				
2	106.1003	-74.01	-13.00	61.01	Horizontal				
3	233.0312	-67.00	-13.00	54.00	Horizontal				
4	1697.3395	-48.21	-13.00	35.21	Horizontal				
5	2546.7093	-35.34	-13.00	22.34	Horizontal				
6	9571.1190	-52.05	-13.00	39.05	Horizontal				



Page: 60 of 76

7.18. Test Band = GSM_850 DIV 7.18.1. Test Channel = High Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	30.0485	-74.00	-13.00	61.00	Vertical				
2	108.8164	-63.38	-13.00	50.38	Vertical				
3	330.5695	-67.35	-13.00	54.35	Vertical				
4	1697.7395	-47.50	-13.00	34.50	Vertical				
5	2546.7093	-38.92	-13.00	25.92	Vertical				
6	9890.3297	-51.61	-13.00	38.61	Vertical				



Page: 61 of 76

7.19. Test Band = GSM_1900 DIV 7.19.1. Test Channel = Low Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	42.4166	-63.02	-13.00	50.02	Horizontal				
2	103.9177	-75.05	-13.00	62.05	Horizontal				
3	233.1282	-68.07	-13.00	55.07	Horizontal				
4	3700.5234	-54.68	-13.00	41.68	Horizontal				
5	5550.5850	-46.09	-13.00	33.09	Horizontal				
6	16377.945	-43.38	-13.00	30.38	Horizontal				



Page: 62 of 76

7.20. Test Band = GSM_1900 DIV 7.20.1. Test Channel = Low Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	30.4365	-75.08	-13.00	62.08	Vertical				
2	108.4769	-64.82	-13.00	51.82	Vertical				
3	648.4059	-62.73	-13.00	49.73	Vertical				
4	3700.5234	-51.25	-13.00	38.25	Vertical				
5	5550.5850	-51.40	-13.00	38.40	Vertical				
6	17998.500	-39.16	-13.00	26.16	Vertical				



Page: 63 of 76

7.21. Test Band = GSM_1900 DIV 7.21.1. Test Channel = Mid Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	45.0358	-63.27	-13.00	50.27	Horizontal				
2	83.5952	-75.42	-13.00	62.42	Horizontal				
3	234.7772	-67.27	-13.00	54.27	Horizontal				
4	3760.0253	-47.60	-13.00	34.60	Horizontal				
5	5640.0880	-44.58	-13.00	31.58	Horizontal				
6	16374.445	-42.92	-13.00	29.92	Horizontal				



Page: 64 of 76

7.22. Test Band = GSM_1900 DIV 7.22.1. Test Channel = Mid Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	31.4066	-74.06	-13.00	61.06	Vertical				
2	108.3799	-64.77	-13.00	51.77	Vertical				
3	595.8293	-63.06	-13.00	50.06	Vertical				
4	3759.5253	-54.89	-13.00	41.89	Vertical				
5	5640.0880	-47.83	-13.00	34.83	Vertical				
6	17995.999	-39.23	-13.00	26.23	Vertical				



Page: 65 of 76

7.23. Test Band = GSM_1900 DIV 7.23.1. Test Channel = High Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	44.1142	-63.04	-13.00	50.04	Horizontal				
2	102.1716	-74.26	-13.00	61.26	Horizontal				
3	242.8286	-67.21	-13.00	54.21	Horizontal				
4	3819.5273	-57.23	-13.00	44.23	Horizontal				
5	5729.5910	-41.76	-13.00	28.76	Horizontal				
6	16378.445	-43.18	-13.00	30.18	Horizontal				



Page: 66 of 76

7.24. Test Band = GSM_1900 DIV 7.24.1. Test Channel = High Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	30.1940	-74.54	-13.00	61.54	Vertical				
2	110.4170	-64.15	-13.00	51.15	Vertical				
3	638.6084	-62.84	-13.00	49.84	Vertical				
4	3820.0273	-55.94	-13.00	42.94	Vertical				
5	5729.5910	-50.19	-13.00	37.19	Vertical				
6	17999.500	-39.27	-13.00	26.27	Vertical				



Page: 67 of 76

Test on the worst case:

7.25. Test Band = GSM_850 DIV 7.25.1. Test Channel = Mid Channel

Susp	Suspected Data List												
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity								
1	41.2041	-62.76	-13.00	49.76	Horizontal								
2	404.5357	-66.01	-13.00	53.01	Horizontal								
3	1672.9346	-45.03	-13.00	32.03	Horizontal								
4	2509.9020	-33.89	-13.00	20.89	Horizontal								
5	3346.0449	-60.13	-13.00	47.13	Horizontal								
6	9312.8104	-52.65	-13.00	39.65	Horizontal								



Page: 68 of 76

7.26. Test Band = GSM_850 DIV 7.26.1. Test Channel = Mid Channel

Susp	Suspected Data List												
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity								
1	71.3241	-64.99	-13.00	51.99	Vertical								
2	111.0476	-63.32	-13.00	50.32	Vertical								
3	615.0848	-62.22	-13.00	49.22	Vertical								
4	1672.9346	-49.01	-13.00	36.01	Vertical								
5	2509.9020	-42.41	-13.00	29.41	Vertical								
6	7348.3116	-55.47	-13.00	42.47	Vertical								



Page: 69 of 76

7.27. Test Band = GSM_850 MAIN 7.27.1. Test Channel = Mid Channel

Susp	Suspected Data List												
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity								
1	43.0957	-62.59	-13.00	49.59	Horizontal								
2	235.8443	-67.65	-13.00	54.65	Horizontal								
3	1673.3347	-39.17	-13.00	26.17	Horizontal								
4	2509.9020	-26.53	-13.00	13.53	Horizontal								
5	3346.5116	-59.68	-13.00	46.68	Horizontal								
6	8627.7209	-55.70	-13.00	42.70	Horizontal								



Page: 70 of 76

7.28. Test Band = GSM_850 MAIN 7.28.1. Test Channel = Mid Channel

Susp	Suspected Data List												
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity								
1	67.0559	-68.01	-13.00	55.01	Vertical								
2	112.2116	-63.52	-13.00	50.52	Vertical								
3	545.4353	-64.56	-13.00	51.56	Vertical								
4	1672.9346	-48.86	-13.00	35.86	Vertical								
5	2509.9020	-25.09	-13.00	12.09	Vertical								
6	7344.3448	-55.59	-13.00	42.59	Vertical								

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: 71 of 76

8. Frequency Stability

8.1. Frequency Error Vs Voltage

Voltage										
Band	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict			
GSM850	128	VL	NT	21.63	0.026244	±2.5	PASS			
GSM850	128	VN	NT	17.98	0.021815	±2.5	PASS			
GSM850	128	VH	NT	16.40	0.019898	±2.5	PASS			
GSM850	190	VL	NT	13.79	0.016483	±2.5	PASS			
GSM850	190	VN	NT	21.28	0.025436	±2.5	PASS			
GSM850	190	VH	NT	18.08	0.021611	±2.5	PASS			
GSM850	251	VL	NT	22.79	0.026850	±2.5	PASS			
GSM850	251	VN	NT	26.25	0.030926	±2.5	PASS			
GSM850	251	VH	NT	25.18	0.029665	±2.5	PASS			
EGPRS850	128	VL	NT	46.39	0.056285	±2.5	PASS			
EGPRS850	128	VN	NT	45.59	0.055314	±2.5	PASS			
EGPRS850	128	VH	NT	43.39	0.052645	±2.5	PASS			
EGPRS850	190	VL	NT	41.04	0.049056	±2.5	PASS			
EGPRS850	190	VN	NT	46.49	0.055570	±2.5	PASS			
EGPRS850	190	VH	NT	42.42	0.050705	±2.5	PASS			
EGPRS850	251	VL	NT	41.10	0.048421	±2.5	PASS			
EGPRS850	251	VN	NT	43.17	0.050860	±2.5	PASS			
EGPRS850	251	VH	NT	47.30	0.055726	±2.5	PASS			
GSM1900	512	VL	NT	31.45	0.016998	±2.5	PASS			
GSM1900	512	VN	NT	28.48	0.015393	±2.5	PASS			
GSM1900	512	VH	NT	25.80	0.013944	±2.5	PASS			
GSM1900	661	VL	NT	44.43	0.023633	±2.5	PASS			
GSM1900	661	VN	NT	42.39	0.022548	±2.5	PASS			
GSM1900	661	VH	NT	41.39	0.022016	±2.5	PASS			
GSM1900	810	VL	NT	45.91	0.024039	±2.5	PASS			
GSM1900	810	VN	NT	41.81	0.021892	±2.5	PASS			
GSM1900	810	VH	NT	34.51	0.018070	±2.5	PASS			
EGPRS1900	512	VL	NT	41.91	0.022652	±2.5	PASS			
EGPRS1900	512	VN	NT	46.56	0.025165	±2.5	PASS			
EGPRS1900	512	VH	NT	41.75	0.022565	±2.5	PASS			
EGPRS1900	661	VL	NT	54.11	0.028782	±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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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@gs.com.

|No. | 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



SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

Report No.: AR/2020/C000601-01

Page: 72 of 76

EGPRS1900	661	VN	NT	48.07	0.025569	±2.5	PASS
EGPRS1900	661	VH	NT	55.43	0.029484	±2.5	PASS
EGPRS1900	810	VL	NT	55.69	0.029160	±2.5	PASS
EGPRS1900	810	VN	NT	49.24	0.025783	±2.5	PASS
EGPRS1900	810	VH	NT	58.76	0.030768	±2.5	PASS



Page: 73 of 76

8.2. Frequency Error Vs Temperature

Temperature										
Band	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict			
GSM850	128	NV	-30	18.66	0.022640	±2.5	PASS			
GSM850	128	NV	-20	21.02	0.025504	±2.5	PASS			
GSM850	128	NV	-10	20.44	0.024800	±2.5	PASS			
GSM850	128	NV	0	18.02	0.021864	±2.5	PASS			
GSM850	128	NV	10	15.88	0.019267	±2.5	PASS			
GSM850	128	NV	20	16.59	0.020129	±2.5	PASS			
GSM850	128	NV	30	18.14	0.022009	±2.5	PASS			
GSM850	128	NV	40	16.69	0.020250	±2.5	PASS			
GSM850	128	NV	50	24.54	0.029774	±2.5	PASS			
GSM850	190	NV	-30	17.18	0.020536	±2.5	PASS			
GSM850	190	NV	-20	22.12	0.026440	±2.5	PASS			
GSM850	190	NV	-10	17.21	0.020571	±2.5	PASS			
GSM850	190	NV	0	17.14	0.020488	±2.5	PASS			
GSM850	190	NV	10	17.40	0.020798	±2.5	PASS			
GSM850	190	NV	20	14.59	0.017440	±2.5	PASS			
GSM850	190	NV	30	22.08	0.026393	±2.5	PASS			
GSM850	190	NV	40	15.85	0.018946	±2.5	PASS			
GSM850	190	NV	50	19.27	0.023034	±2.5	PASS			
GSM850	251	NV	-30	24.38	0.028723	±2.5	PASS			
GSM850	251	NV	-20	25.73	0.030313	±2.5	PASS			
GSM850	251	NV	-10	23.89	0.028146	±2.5	PASS			
GSM850	251	NV	0	23.79	0.028028	±2.5	PASS			
GSM850	251	NV	10	24.89	0.029324	±2.5	PASS			
GSM850	251	NV	20	22.12	0.026060	±2.5	PASS			
GSM850	251	NV	30	23.18	0.027309	±2.5	PASS			
GSM850	251	NV	40	27.02	0.031833	±2.5	PASS			
GSM850	251	NV	50	25.31	0.029819	±2.5	PASS			
EGPRS850	128	NV	-30	43.97	0.053349	±2.5	PASS			
EGPRS850	128	NV	-20	42.33	0.051359	±2.5	PASS			
EGPRS850	128	NV	-10	44.68	0.054210	±2.5	PASS			
EGPRS850	128	NV	0	45.23	0.054877	±2.5	PASS			
EGPRS850	128	NV	10	44.78	0.054331	±2.5	PASS			
EGPRS850	128	NV	20	43.75	0.053082	±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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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@gs.com.

or email: CN. Doccheck@sgs.com Mo. Workshop, M-10, Middle Sedion, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn 中国・深圳・科技園中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com



SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

Report No.: AR/2020/C000601-01

Page: 74 of 76

		1					
EGPRS850	128	NV	30	42.65	0.051747	±2.5	PASS
EGPRS850	128	NV	40	42.78	0.051905	±2.5	PASS
EGPRS850	128	NV	50	42.91	0.052063	±2.5	PASS
EGPRS850	190	NV	-30	42.65	0.050980	±2.5	PASS
EGPRS850	190	NV	-20	43.23	0.051673	±2.5	PASS
EGPRS850	190	NV	-10	42.42	0.050705	±2.5	PASS
EGPRS850	190	NV	0	41.91	0.050096	±2.5	PASS
EGPRS850	190	NV	10	39.26	0.046928	±2.5	PASS
EGPRS850	190	NV	20	42.33	0.050598	±2.5	PASS
EGPRS850	190	NV	30	41.62	0.049749	±2.5	PASS
EGPRS850	190	NV	40	40.84	0.048817	±2.5	PASS
EGPRS850	190	NV	50	41.75	0.049904	±2.5	PASS
EGPRS850	251	NV	-30	48.98	0.057705	±2.5	PASS
EGPRS850	251	NV	-20	46.39	0.054654	±2.5	PASS
EGPRS850	251	NV	-10	48.85	0.057552	±2.5	PASS
EGPRS850	251	NV	0	47.17	0.055573	±2.5	PASS
EGPRS850	251	NV	10	48.17	0.056751	±2.5	PASS
EGPRS850	251	NV	20	47.65	0.056138	±2.5	PASS
EGPRS850	251	NV	30	45.68	0.053817	±2.5	PASS
EGPRS850	251	NV	40	47.20	0.055608	±2.5	PASS
EGPRS850	251	NV	50	47.04	0.055419	±2.5	PASS
GSM1900	512	NV	-30	28.73	0.015528	±2.5	PASS
GSM1900	512	NV	-20	29.86	0.016139	±2.5	PASS
GSM1900	512	NV	-10	28.09	0.015182	±2.5	PASS
GSM1900	512	NV	0	31.58	0.017068	±2.5	PASS
GSM1900	512	NV	10	27.70	0.014971	±2.5	PASS
GSM1900	512	NV	20	30.25	0.016350	±2.5	PASS
GSM1900	512	NV	30	24.50	0.013242	±2.5	PASS
GSM1900	512	NV	40	28.99	0.015669	±2.5	PASS
GSM1900	512	NV	50	28.15	0.015215	±2.5	PASS
GSM1900	661	NV	-30	46.69	0.024835	±2.5	PASS
GSM1900	661	NV	-20	39.68	0.021106	±2.5	PASS
GSM1900	661	NV	-10	46.10	0.024521	±2.5	PASS
GSM1900	661	NV	0	43.72	0.023255	±2.5	PASS
GSM1900	661	NV	10	41.68	0.022170	±2.5	PASS
GSM1900	661	NV	20	37.87	0.020144	±2.5	PASS
GSM1900	661	NV	30	44.72	0.023787	±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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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, or email: CND Doccheck-Ross.com.

or email: CN. Doccheck@sgs.com Mo. Workshop, M-10, Middle Sedion, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn 中国・深圳・科技園中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com



SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

Report No.: AR/2020/C000601-01

Page: 75 of 76

		1				1	_
GSM1900	661	NV	40	43.13	0.022941	±2.5	PASS
GSM1900	661	NV	50	43.91	0.023356	±2.5	PASS
GSM1900	810	NV	-30	34.87	0.018258	±2.5	PASS
GSM1900	810	NV	-20	42.20	0.022097	±2.5	PASS
GSM1900	810	NV	-10	40.55	0.021233	±2.5	PASS
GSM1900	810	NV	0	36.52	0.019122	±2.5	PASS
GSM1900	810	NV	10	36.32	0.019018	±2.5	PASS
GSM1900	810	NV	20	38.94	0.020390	±2.5	PASS
GSM1900	810	NV	30	39.16	0.020505	±2.5	PASS
GSM1900	810	NV	40	37.71	0.019746	±2.5	PASS
GSM1900	810	NV	50	38.42	0.020117	±2.5	PASS
EGPRS1900	512	NV	-30	43.49	0.023506	±2.5	PASS
EGPRS1900	512	NV	-20	43.46	0.023489	±2.5	PASS
EGPRS1900	512	NV	-10	41.10	0.022214	±2.5	PASS
EGPRS1900	512	NV	0	40.33	0.021798	±2.5	PASS
EGPRS1900	512	NV	10	43.33	0.023419	±2.5	PASS
EGPRS1900	512	NV	20	44.01	0.023787	±2.5	PASS
EGPRS1900	512	NV	30	41.23	0.022284	±2.5	PASS
EGPRS1900	512	NV	40	41.52	0.022441	±2.5	PASS
EGPRS1900	512	NV	50	45.17	0.024414	±2.5	PASS
EGPRS1900	661	NV	-30	55.73	0.029644	±2.5	PASS
EGPRS1900	661	NV	-20	52.76	0.028064	±2.5	PASS
EGPRS1900	661	NV	-10	56.76	0.030191	±2.5	PASS
EGPRS1900	661	NV	0	53.85	0.028644	±2.5	PASS
EGPRS1900	661	NV	10	52.17	0.027750	±2.5	PASS
EGPRS1900	661	NV	20	58.21	0.030963	±2.5	PASS
EGPRS1900	661	NV	30	57.73	0.030707	±2.5	PASS
EGPRS1900	661	NV	40	48.14	0.025606	±2.5	PASS
EGPRS1900	661	NV	50	53.27	0.028335	±2.5	PASS
EGPRS1900	810	NV	-30	56.37	0.029516	±2.5	PASS
EGPRS1900	810	NV	-20	54.92	0.028757	±2.5	PASS
EGPRS1900	810	NV	-10	55.27	0.028940	±2.5	PASS
EGPRS1900	810	NV	0	56.02	0.029333	±2.5	PASS
EGPRS1900	810	NV	10	58.82	0.030799	±2.5	PASS
EGPRS1900	810	NV	20	56.82	0.029752	±2.5	PASS
EGPRS1900	810	NV	30	53.50	0.028013	±2.5	PASS
EGPRS1900	810	NV	40	55.53	0.029076	±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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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, or email: CND Doccheck-Ross.com.

|No. | 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



76 of 76 Page:

EGPRS1900	810	NV	50	58.79	0.030783	±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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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@gs.com.

sgs.china@sgs.com