



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-Documents.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@sgs.com

CONTENT

	Page
1. EFFECTIVE (ISOTROPIC) RADIATED POWER OUTPUT DATA	4
1.1. Test Result.....	4
2. PEAK-TO-AVERAGE RATIO	6
2.1. Test Result.....	6
2.2. Part II - Test Plots.....	7
3. MODULATION CHARACTERISTICS	13
3.1. For GSM.....	13
3.1.1. Test Band = GSM 850.....	13
3.1.1.1. Test Mode = GSM/TM1	13
3.1.1.1.1. Test Channel = MCH.....	13
3.1.1.1.2. Test Mode = GSM/TM2	14
3.1.1.1.2.1. Test Channel = MCH.....	14
3.1.2. Test Band = GSM 1900.....	15
3.1.2.1. Test Mode = GSM/TM1	15
3.1.2.1.1. Test Channel = MCH.....	15
3.1.2.2. Test Mode = GSM/TM2	16
3.1.2.2.1. Test Channel = MCH.....	16
4. 26dB BANDWIDTH AND OCCUPIED BANDWIDTH	17
4.1. Test Result.....	17
4.2. Test Plots	17
5. BAND EDGE COMPLIANCE	24
5.1. Test Plots	24
6. SPURIOUS EMISSION AT ANTENNA TERMINAL	29
6.1. Test Plots	29
7. FIELD STRENGTH OF SPURIOUS RADIATION	42
7.1. Test Band = GSM 1900	42
7.1.1. Test Channel = LCH	42
7.1.2. Test Channel = MCH	42
7.1.3. Test Channel = HCH.....	43
7.2. Test Band = GSM 850	43
7.2.1. Test Channel = LCH	43
7.2.2. Test Channel = MCH	44



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-Documents.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@sgs.com



7.2.3. Test Channel = HCH.....	44
8. FREQUENCY STABILITY	45
8.1. Frequency Error Vs Voltage.....	45
8.2. Frequency Error Vs Temperature.....	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-Documents.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@sgs.com



1. Effective (Isotropic) Radiated Power Output Data

1.1. Test Result

Band	Channel	Slot	Conducted Power (dBm)	ERP (dBm)	Limit(dBm)	Verdict
GSM850	128	---	32.68	23.53	38.45	PASS
GSM850	190	---	32.51	23.36	38.45	PASS
GSM850	251	---	32.30	23.15	38.45	PASS
EGPRS850	128	1	26.64	17.49	38.45	PASS
EGPRS850	128	2	23.97	14.82	38.45	PASS
EGPRS850	128	3	23.52	14.37	38.45	PASS
EGPRS850	128	4	22.33	13.18	38.45	PASS
EGPRS850	190	1	26.38	17.23	38.45	PASS
EGPRS850	190	2	23.97	14.82	38.45	PASS
EGPRS850	190	3	23.25	14.1	38.45	PASS
EGPRS850	190	4	21.99	12.84	38.45	PASS
EGPRS850	251	1	26.31	17.16	38.45	PASS
EGPRS850	251	2	23.88	14.73	38.45	PASS
EGPRS850	251	3	23.13	13.98	38.45	PASS
EGPRS850	251	4	21.87	12.72	38.45	PASS

Band	Channel	Slot	Conducted Power (dBm)	EIRP (dBm)	Limit(dBm)	Verdict
GSM1900	512	---	29.45	23.45	33.00	PASS
GSM1900	661	---	29.94	23.94	33.00	PASS
GSM1900	810	---	30.03	24.03	33.00	PASS
EGPRS1900	512	1	24.80	18.8	33.00	PASS
EGPRS1900	512	2	22.67	16.67	33.00	PASS
EGPRS1900	512	3	21.47	15.47	33.00	PASS
EGPRS1900	512	4	20.40	14.4	33.00	PASS
EGPRS1900	661	1	25.40	19.4	33.00	PASS
EGPRS1900	661	2	23.24	17.24	33.00	PASS
EGPRS1900	661	3	22.04	16.04	33.00	PASS
EGPRS1900	661	4	20.92	14.92	33.00	PASS
EGPRS1900	810	1	25.61	19.61	33.00	PASS
EGPRS1900	810	2	23.45	17.45	33.00	PASS
EGPRS1900	810	3	22.35	16.35	33.00	PASS
EGPRS1900	810	4	21.17	15.17	33.00	PASS

Remark:



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-Documents.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@sgs.com

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

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.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



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]



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

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-Documents.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@sgs.com

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.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

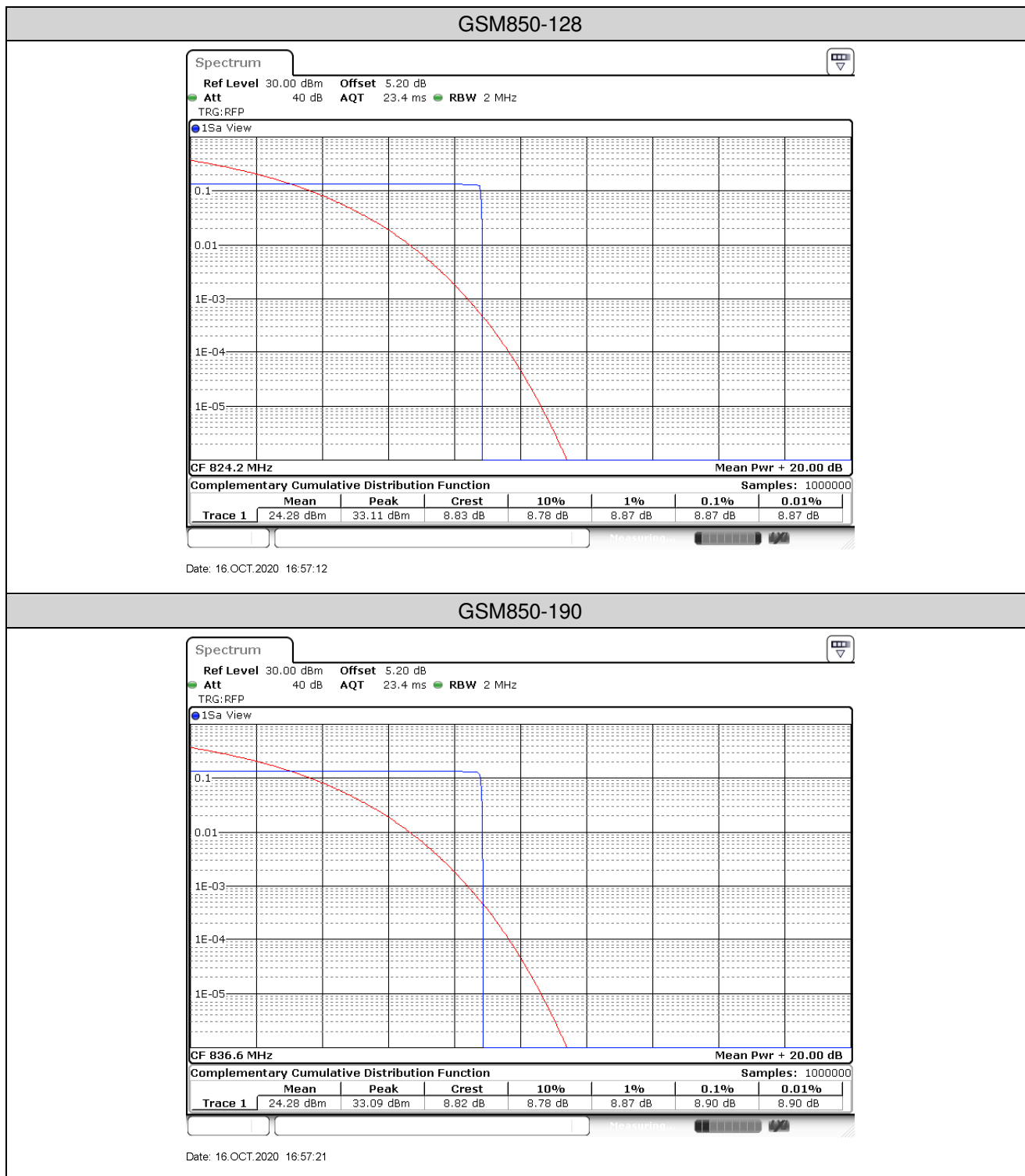
2. Peak-to-Average Ratio

2.1. Test Result

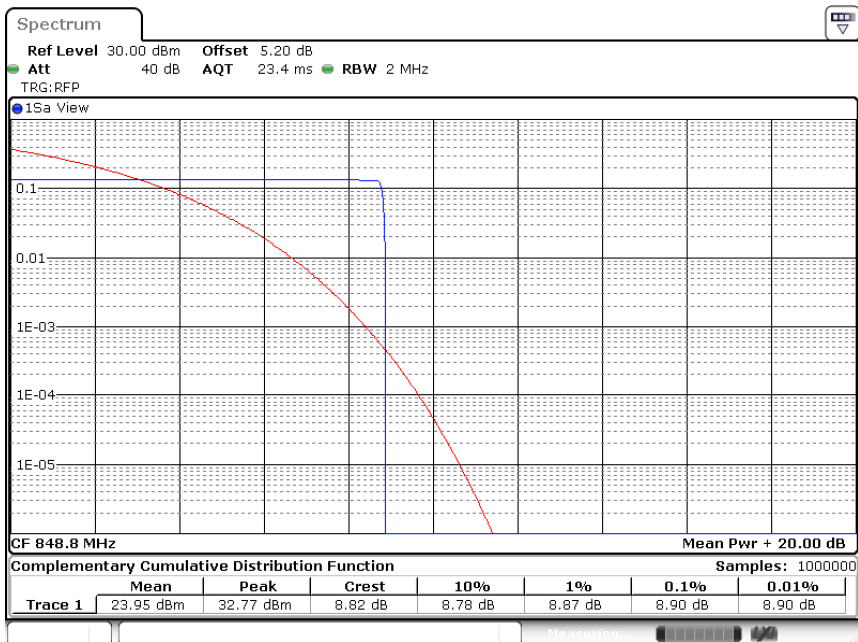
Band	Channel	Result(dB)	Limit(dB)	Verdict
GSM850	128	8.87	13	PASS
GSM850	190	8.9	13	PASS
GSM850	251	8.9	13	PASS
EGPRS850	128	12.49	13	PASS
EGPRS850	190	12.72	13	PASS
EGPRS850	251	12.7	13	PASS
GSM1900	512	8.87	13	PASS
GSM1900	661	8.9	13	PASS
GSM1900	810	9.74	13	PASS
EGPRS1900	512	11.91	13	PASS
EGPRS1900	661	12.75	13	PASS
EGPRS1900	810	12.78	13	PASS



2.2.Part II - Test Plots

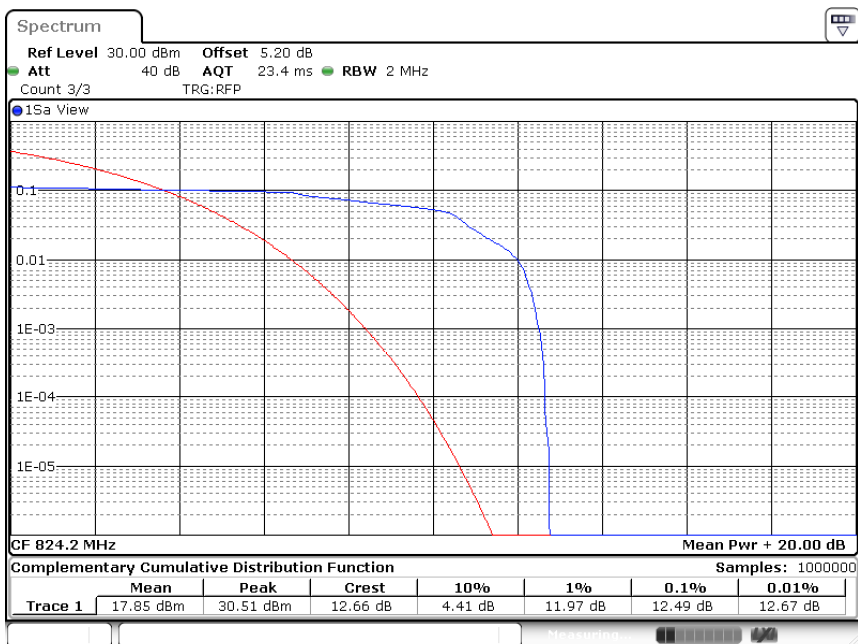


GSM850-251



Date: 16.OCT.2020 16:57:31

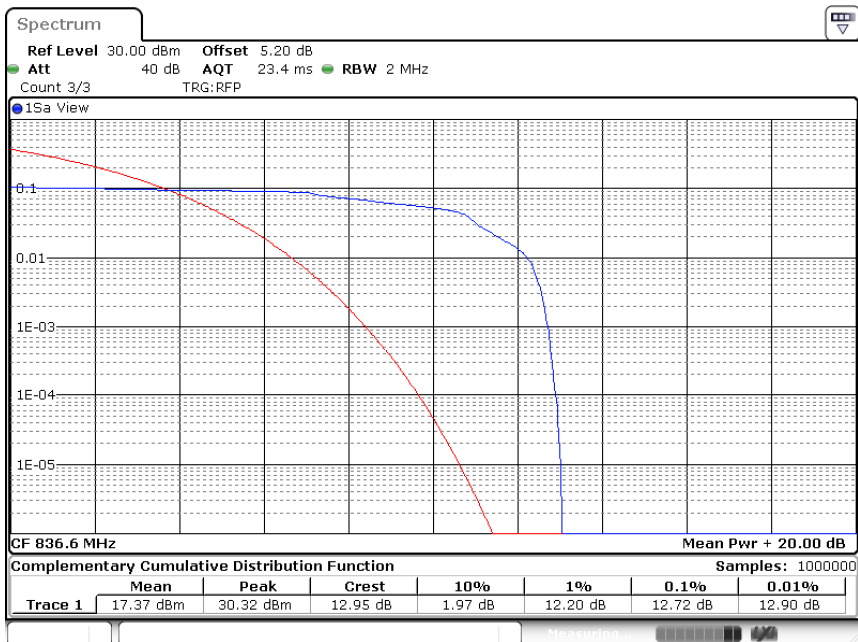
EGPRS850-128



Date: 16.OCT.2020 17:02:10

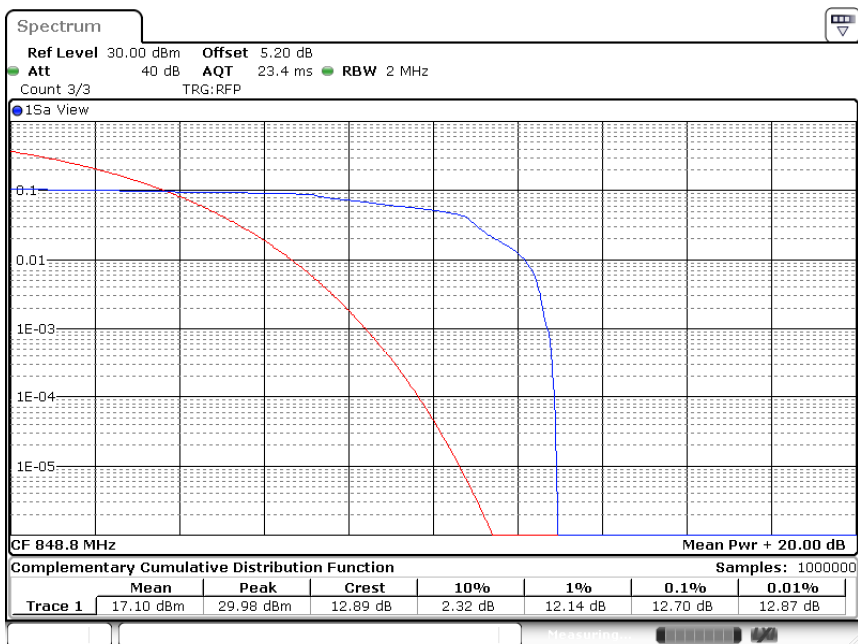


EGPRS850-190



Date: 16.OCT.2020 17:02:21

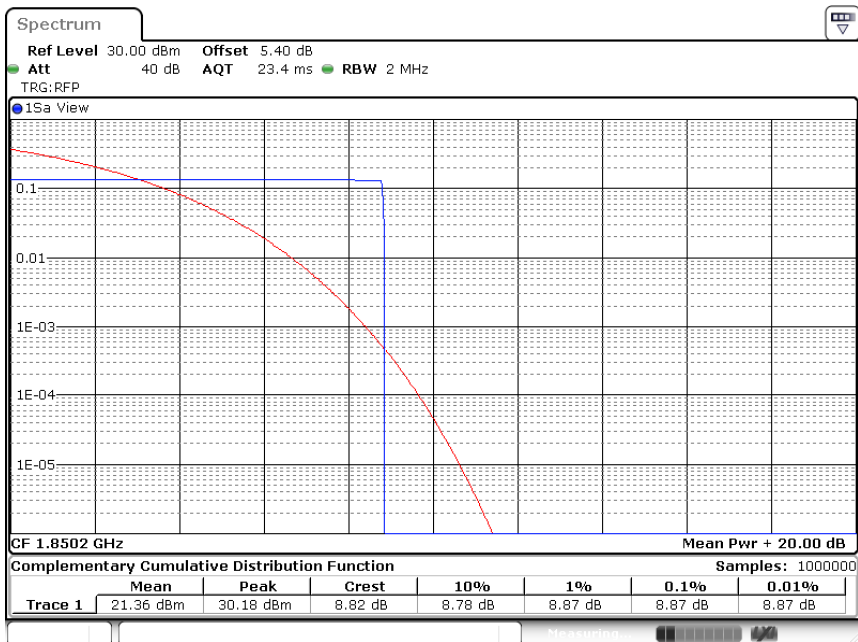
EGPRS850-251



Date: 16.OCT.2020 17:02:31

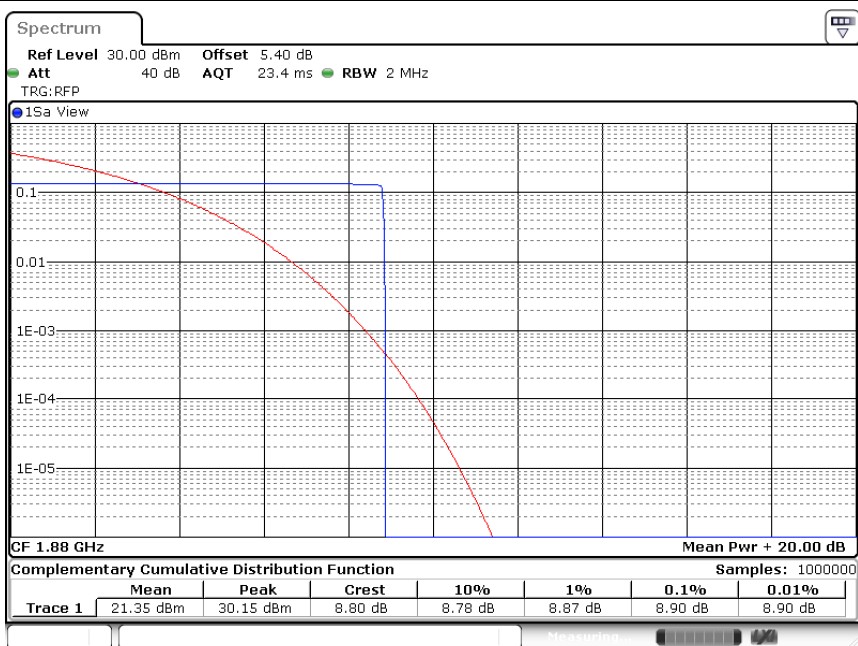


GSM1900-512



Date: 16.OCT.2020 16:48:21

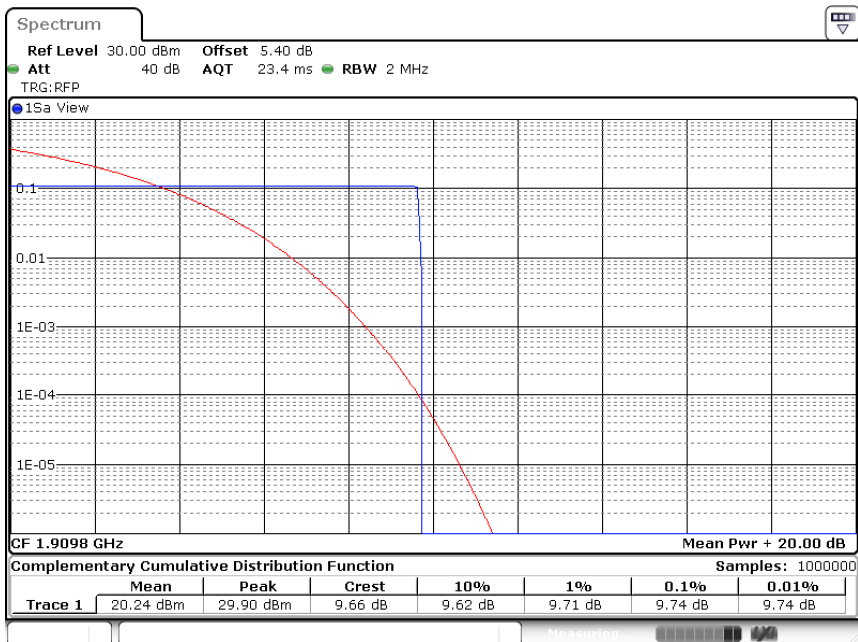
GSM1900-661



Date: 16.OCT.2020 16:48:30

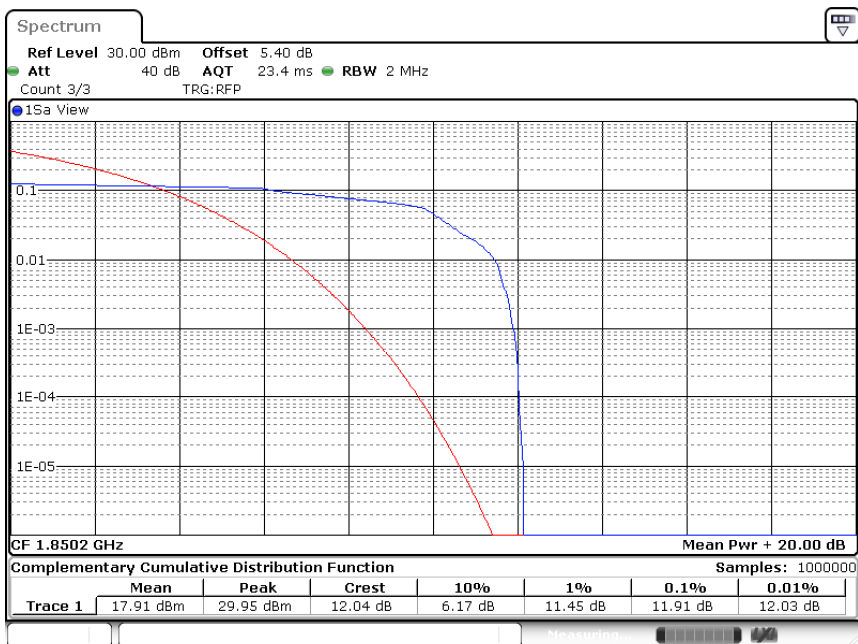


GSM1900-810



Date: 16.OCT.2020 16:48:40

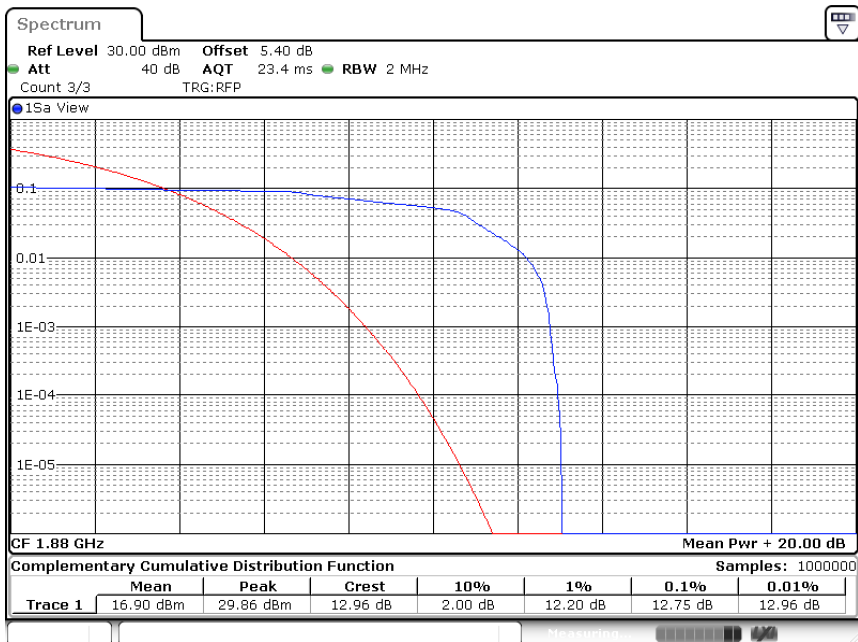
EGPRS1900-512



Date: 16.OCT.2020 16:51:08

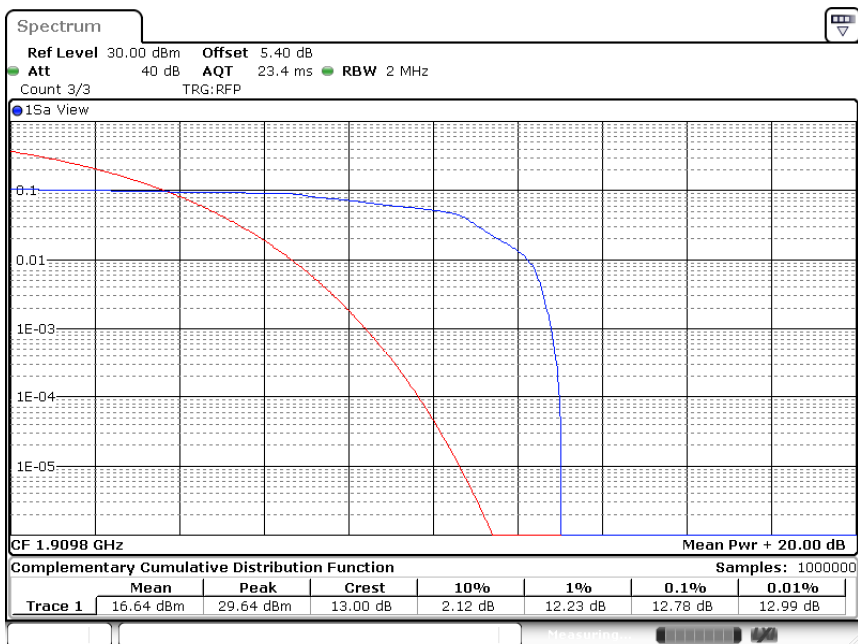


EGPRS1900-661



Date: 16.OCT.2020 16:51:19

EGPRS1900-810



Date: 16.OCT.2020 16:51:29



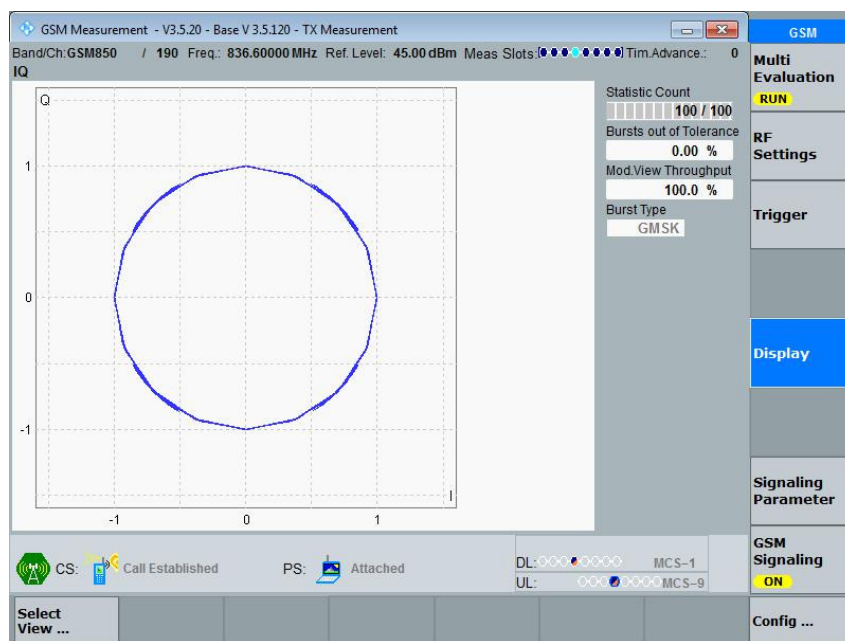
3. Modulation Characteristics

3.1. For GSM

3.1.1. Test Band = GSM 850

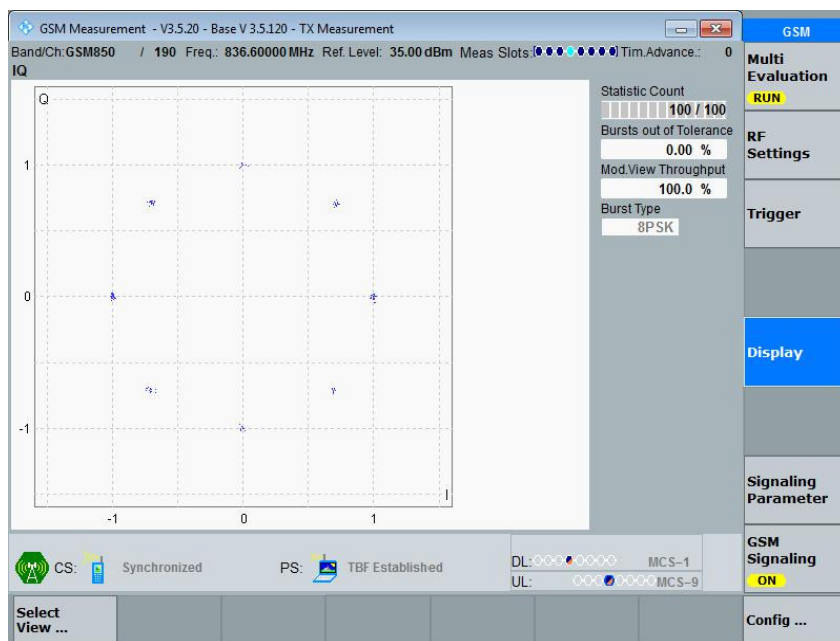
3.1.1.1. Test Mode = GSM/TM1

3.1.1.1.1. Test Channel = MCH



3.1.1.2. Test Mode = GSM/TM2

3.1.1.2.1. Test Channel = MCH

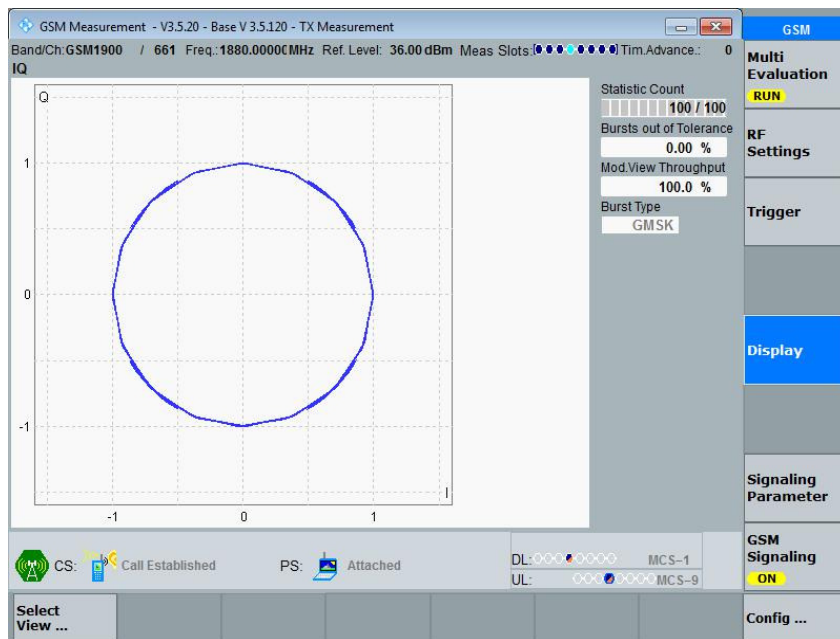


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

3.1.2. Test Band = GSM 1900

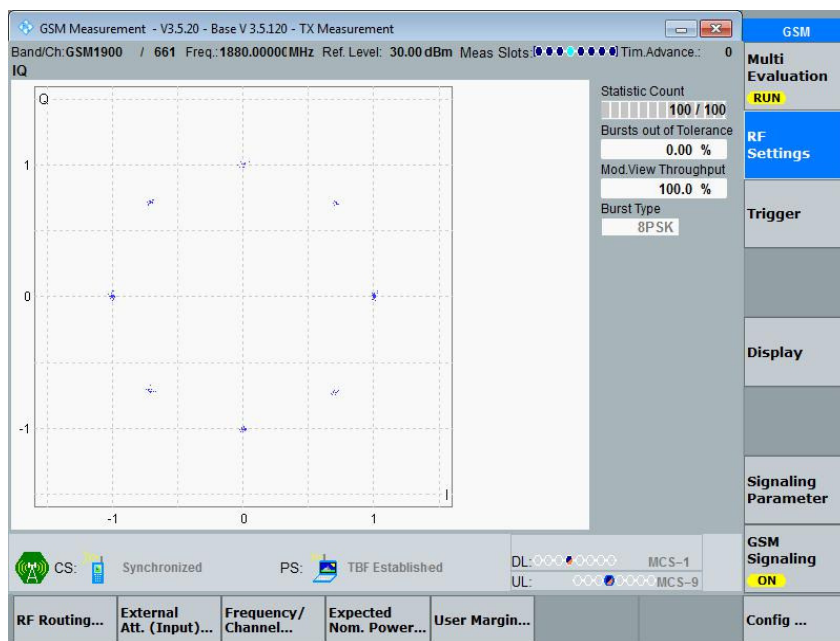
3.1.2.1. Test Mode = GSM/TM1

3.1.2.1.1. Test Channel = MCH



3.1.2.2. Test Mode = GSM/TM2

3.1.2.2.1. Test Channel = MCH



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-Documents.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.

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

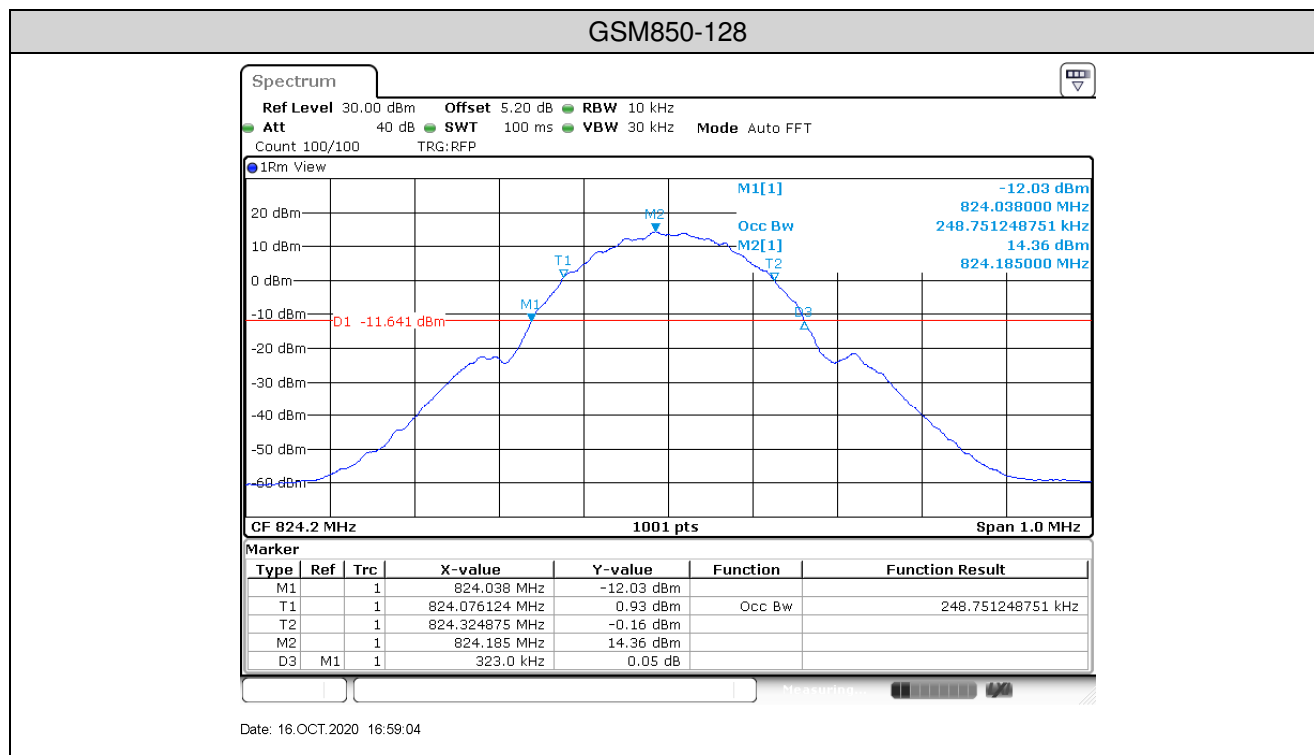
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.com.cn
中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

4. 26dB Bandwidth and Occupied Bandwidth

4.1. Test Result

Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	0.249	0.323	---	PASS
GSM850	190	0.248	0.323	---	PASS
GSM850	251	0.248	0.323	---	PASS
EGPRS850	128	0.248	0.318	---	PASS
EGPRS850	190	0.248	0.321	---	PASS
EGPRS850	251	0.248	0.320	---	PASS
GSM1900	512	0.247	0.324	---	PASS
GSM1900	661	0.247	0.323	---	PASS
GSM1900	810	0.247	0.323	---	PASS
EGPRS1900	512	0.246	0.318	---	PASS
EGPRS1900	661	0.246	0.317	---	PASS
EGPRS1900	810	0.248	0.318	---	PASS

4.2. Test Plots

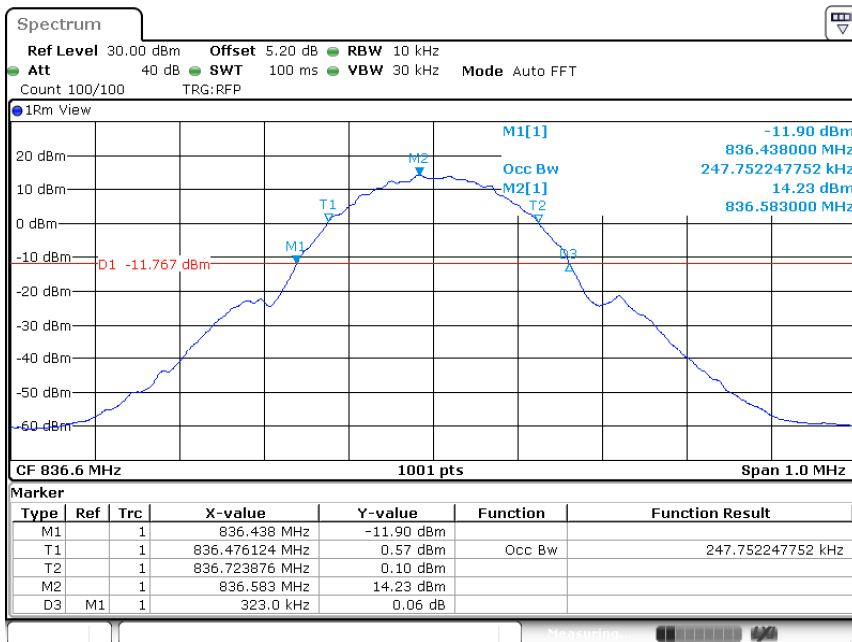


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch Testing Center (CCC Laboratory)

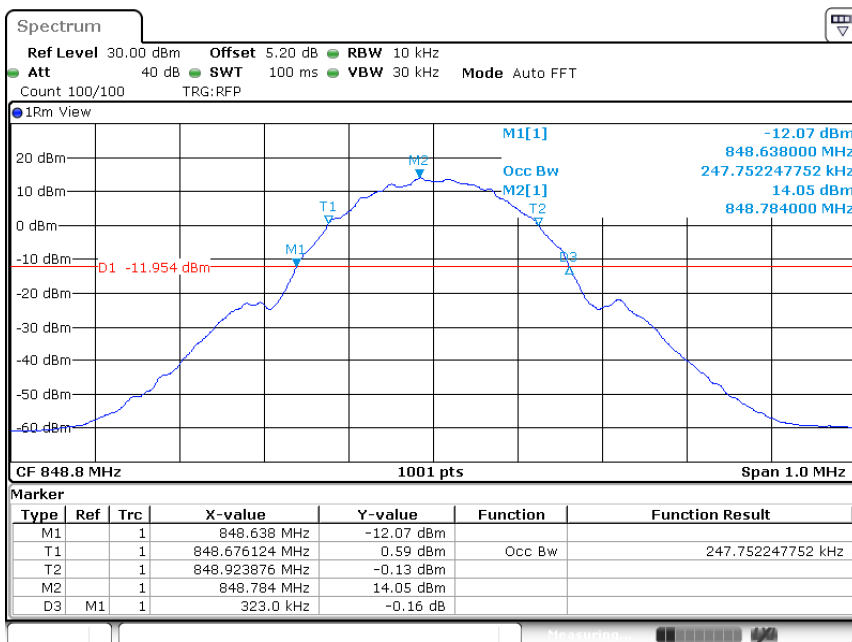
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.com.cn
中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

GSM850-190



Date: 16.OCT.2020 16:59:22

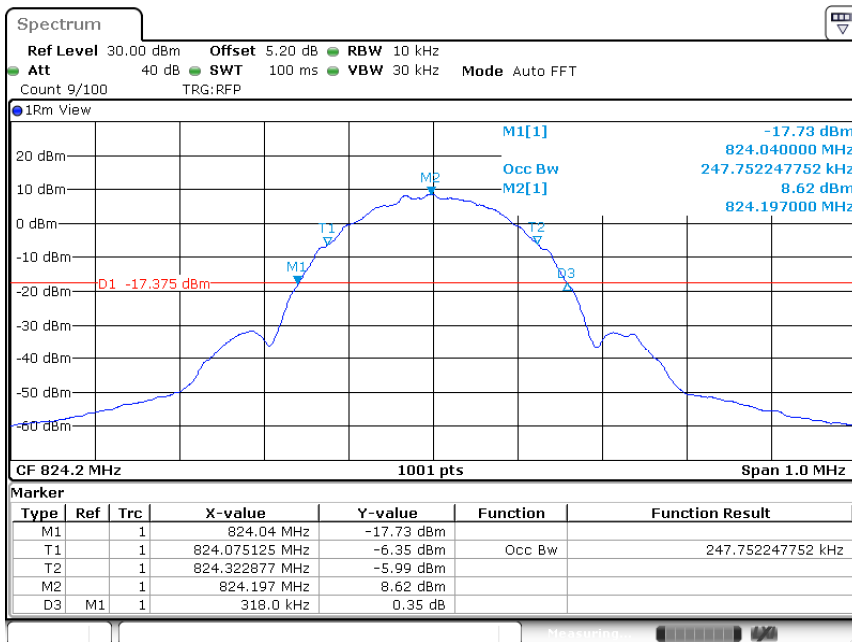
GSM850-251



Date: 16.OCT.2020 16:59:40

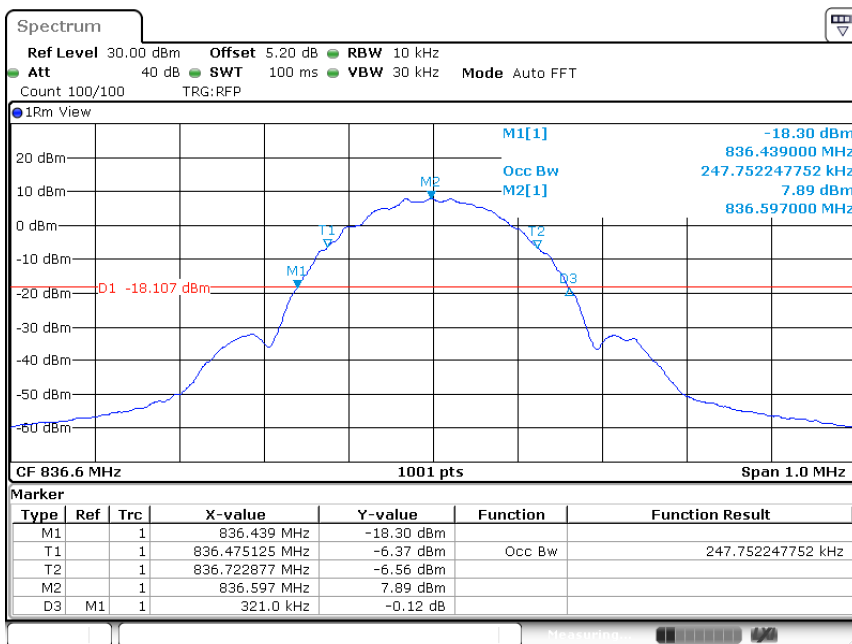


EGPRS850-128



Date: 16.OCT.2020 17:02:50

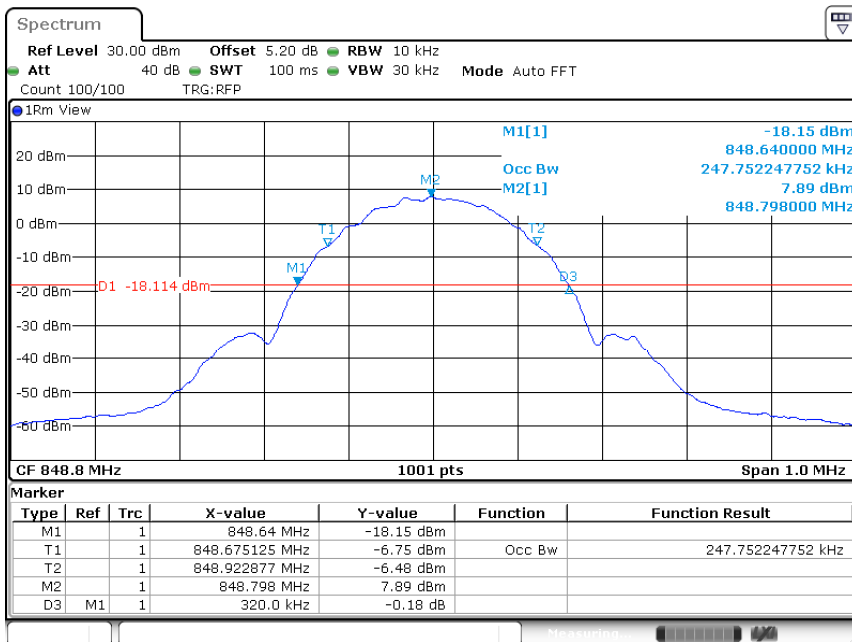
EGPRS850-190



Date: 16.OCT.2020 17:03:09

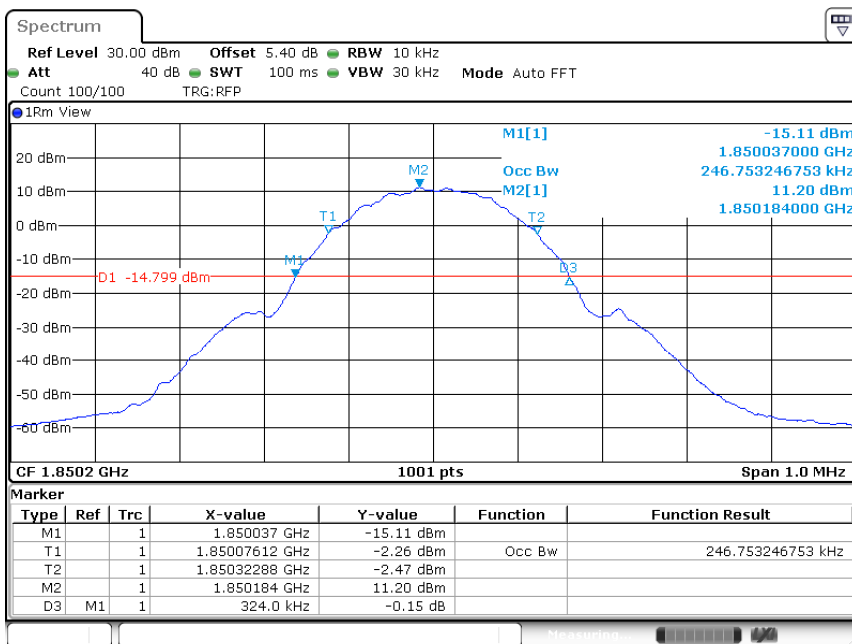


EGPRS850-251



Date: 16.OCT.2020 17:03:28

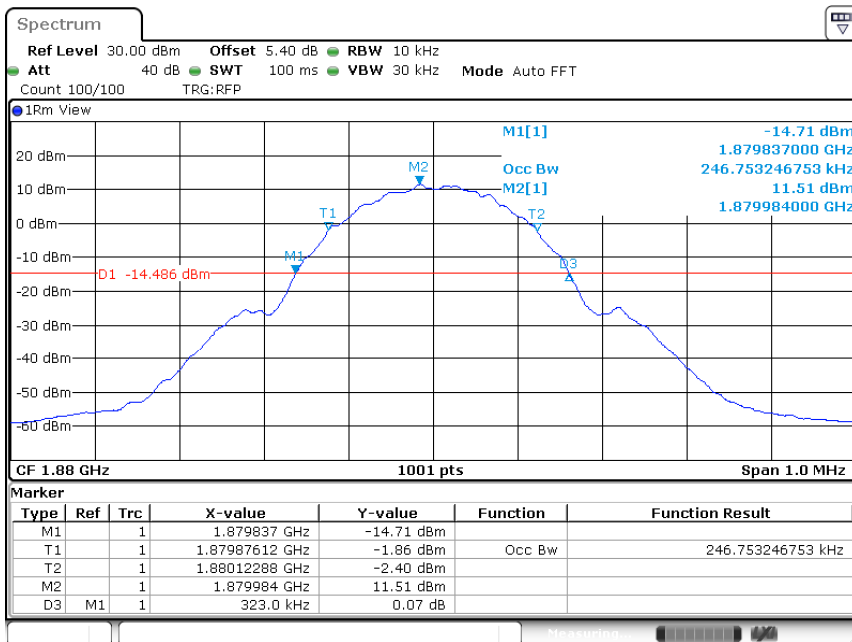
GSM1900-512



Date: 16.OCT.2020 16:48:58

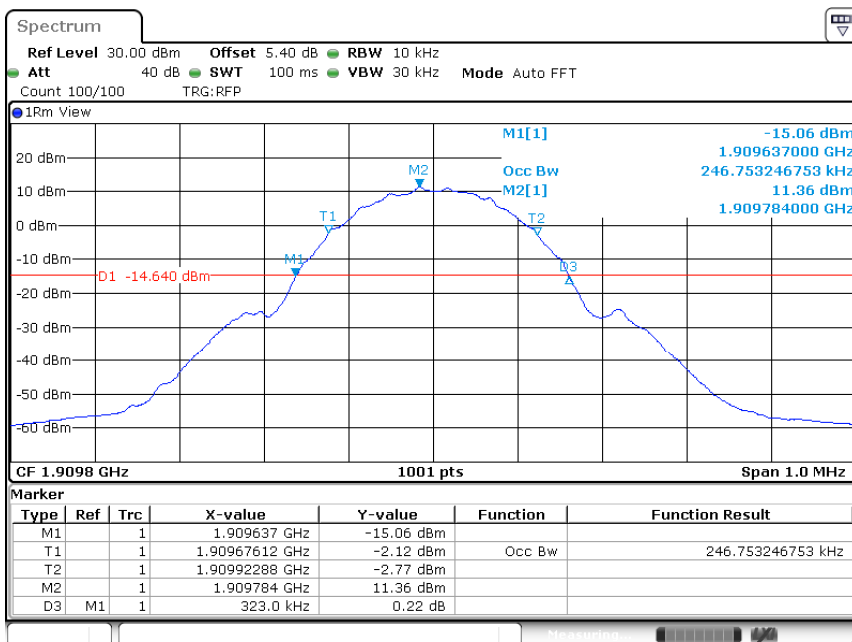


GSM1900-661



Date: 16.OCT.2020 16:49:16

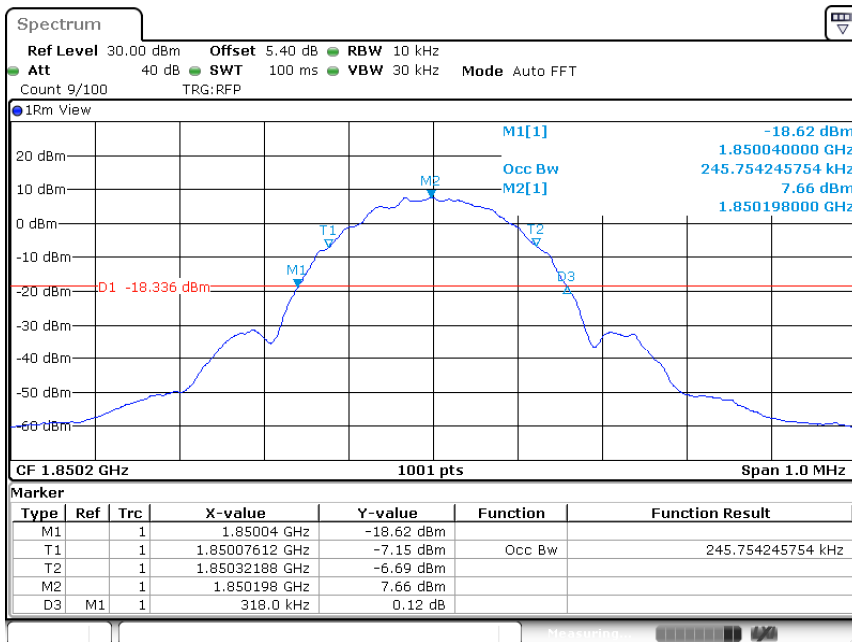
GSM1900-810



Date: 16.OCT.2020 16:49:35

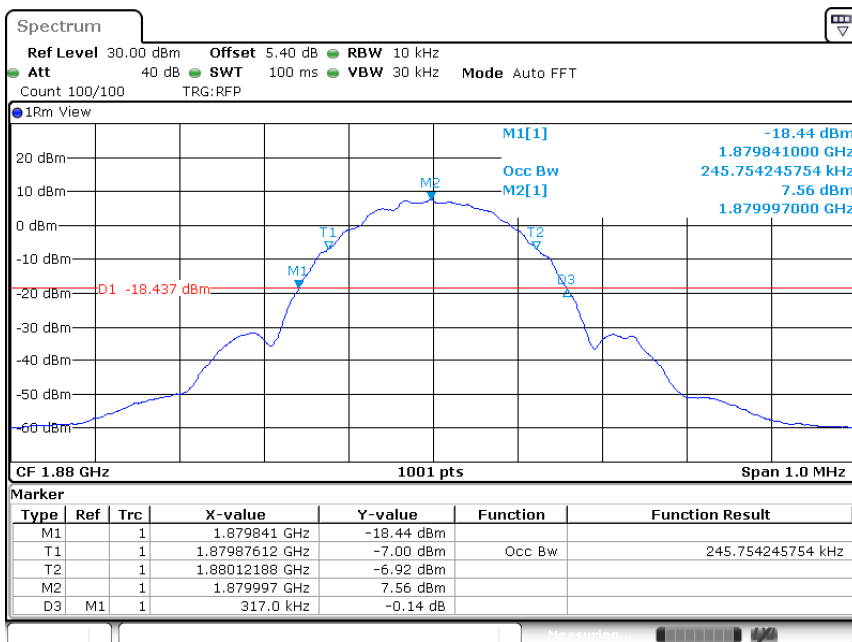


EGPRS1900-512



Date: 16.OCT.2020 16:51:48

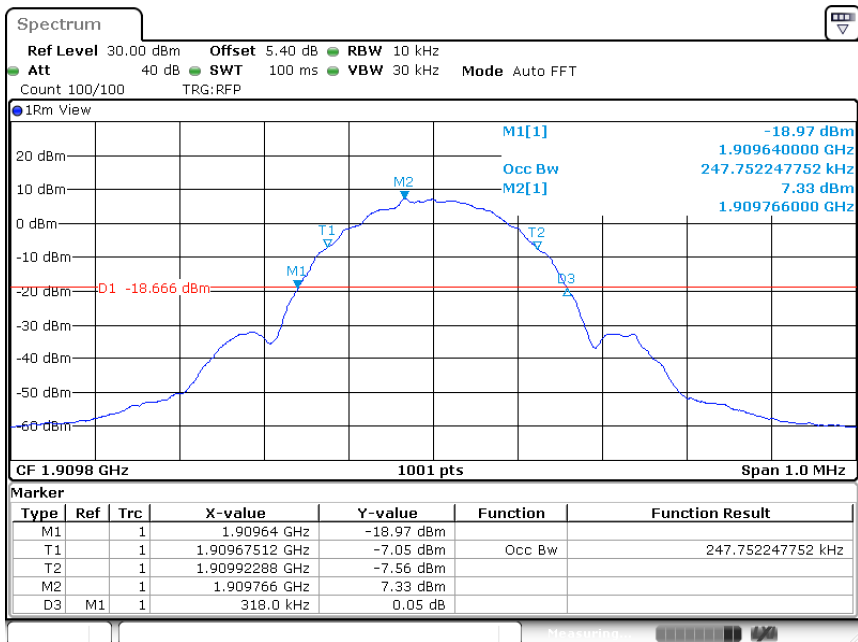
EGPRS1900-661



Date: 16.OCT.2020 16:52:07



EGPRS1900-810

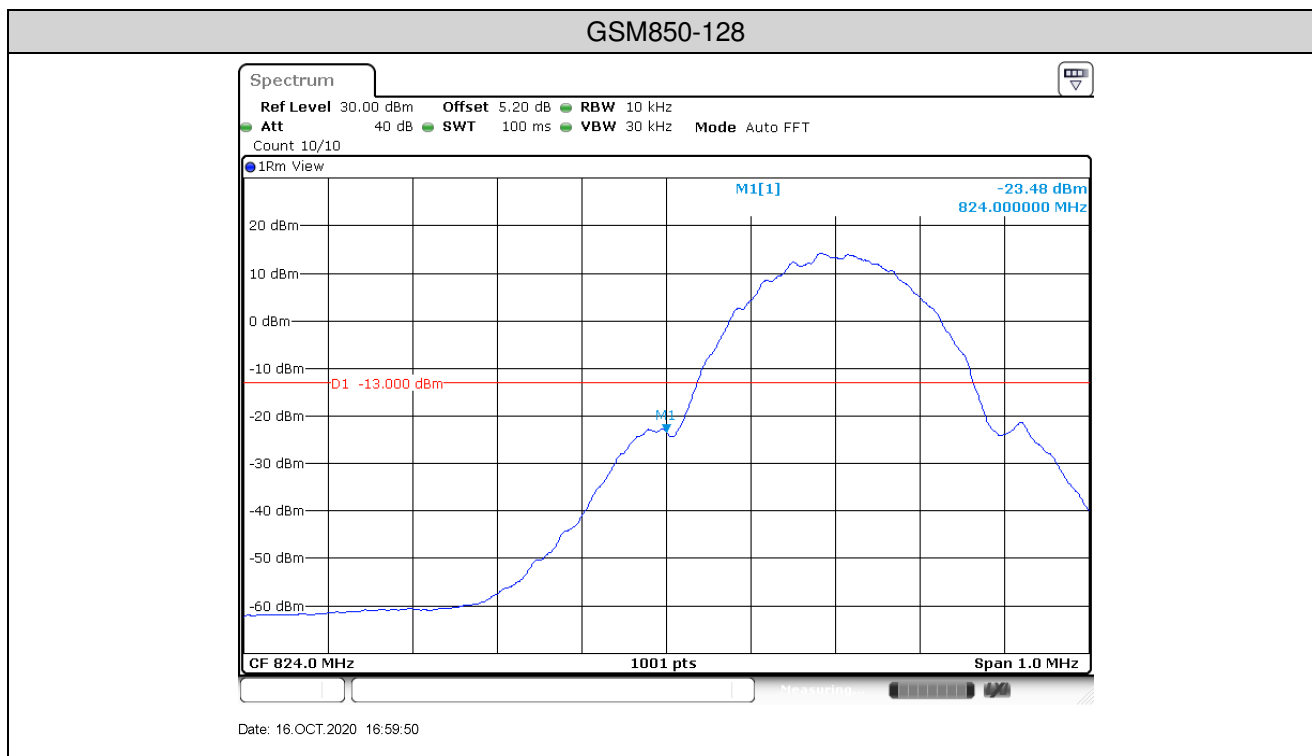


Date: 16.OCT.2020 16:52:26



5. Band Edge Compliance

5.1. Test Plots

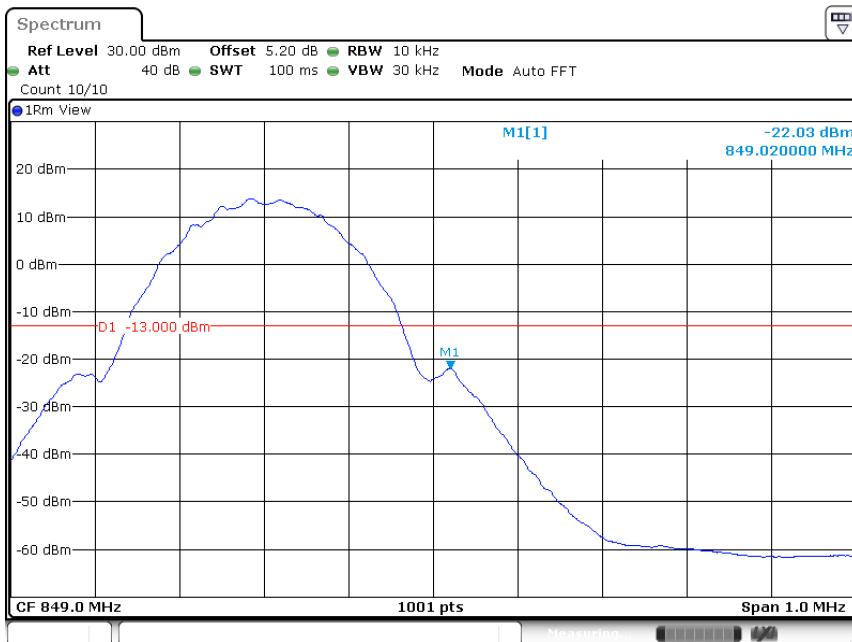


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

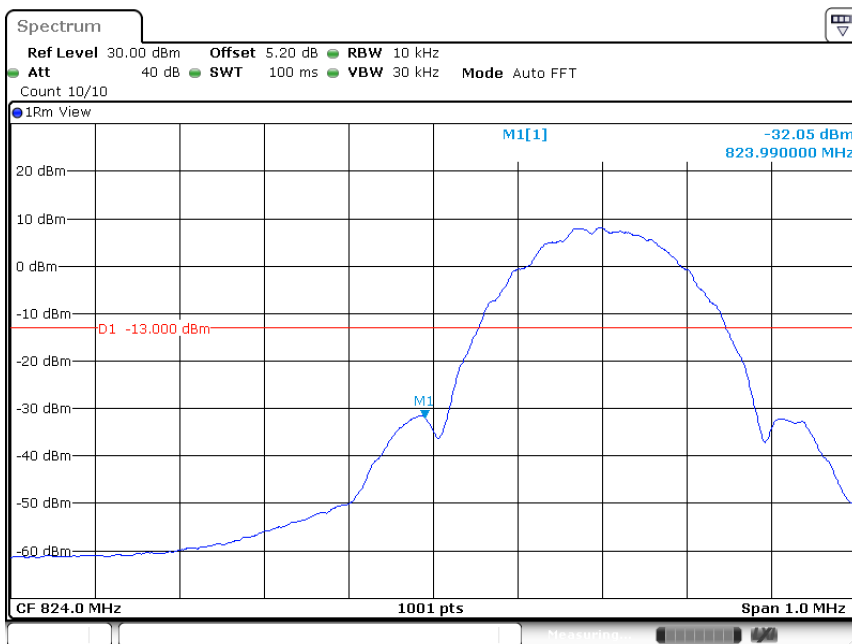
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.com.cn
 中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

GSM850-251



Date: 16.OCT.2020 17:00:00

EGPRS850-128



Date: 16.OCT.2020 17:03:40

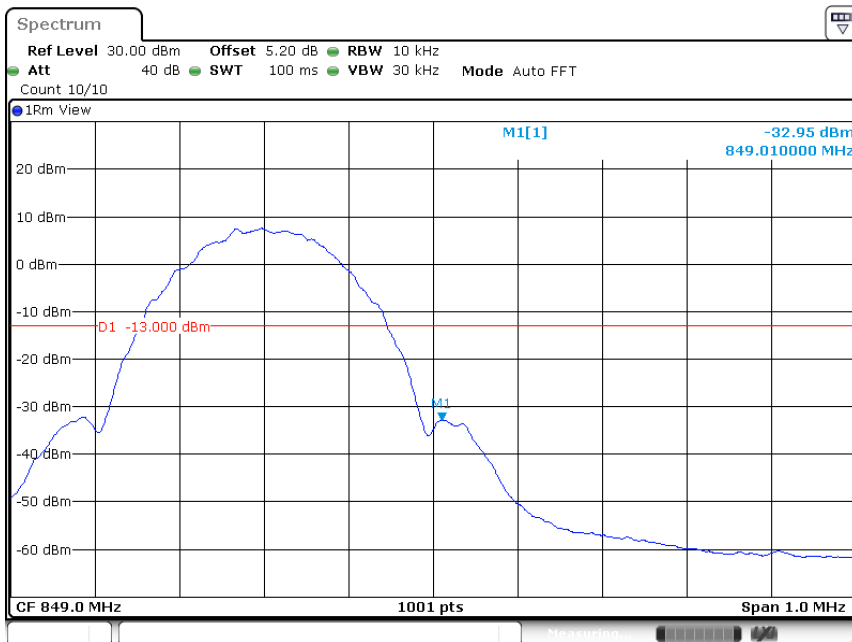


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

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

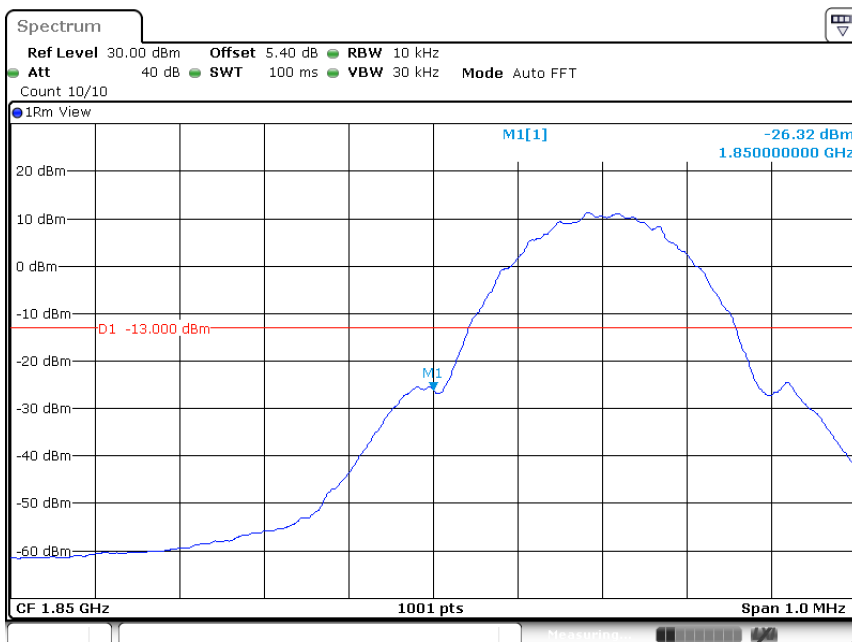
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.com.cn
 中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

EGPRS850-251



Date: 16.OCT.2020 17:03:50

GSM1900-512



Date: 16.OCT.2020 16:49:45

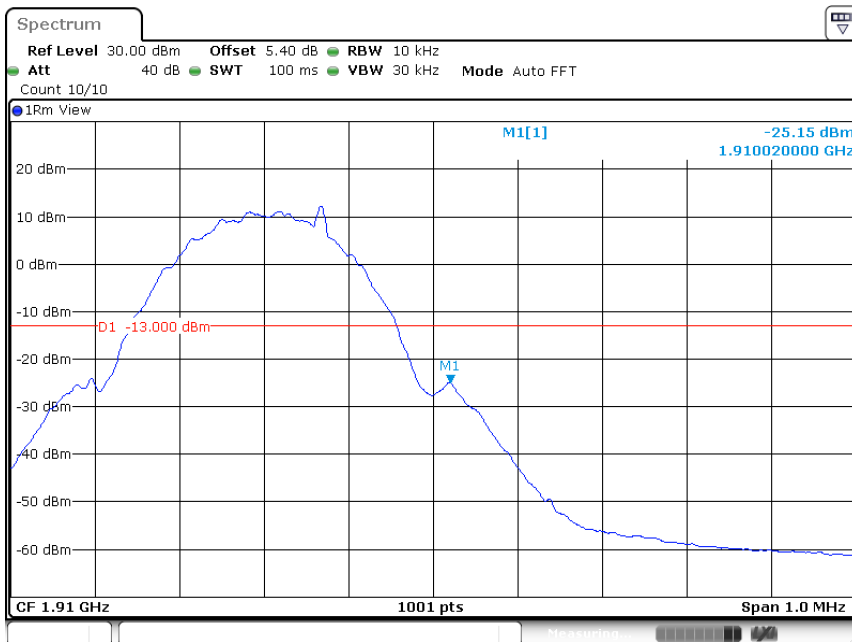


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

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

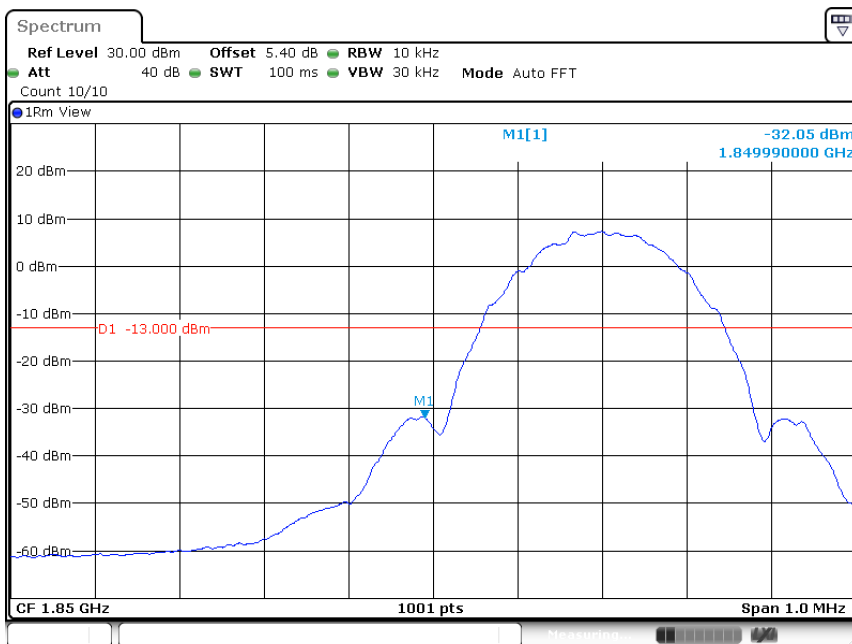
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.com.cn
 中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

GSM1900-810



Date: 16.OCT.2020 16:49:55

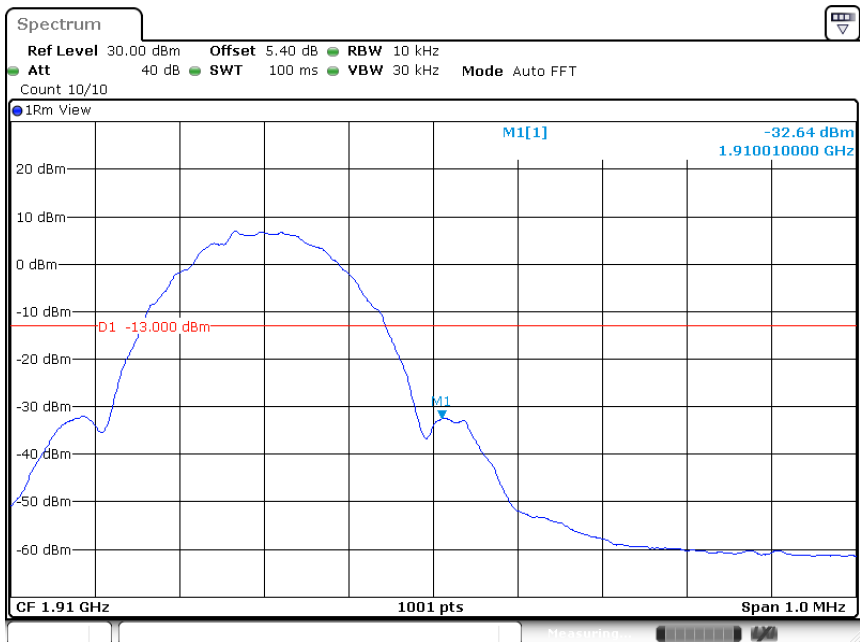
EGPRS1900-512



Date: 16.OCT.2020 16:52:37



EGPRS1900-810



Date: 16.OCT.2020 16:52:48

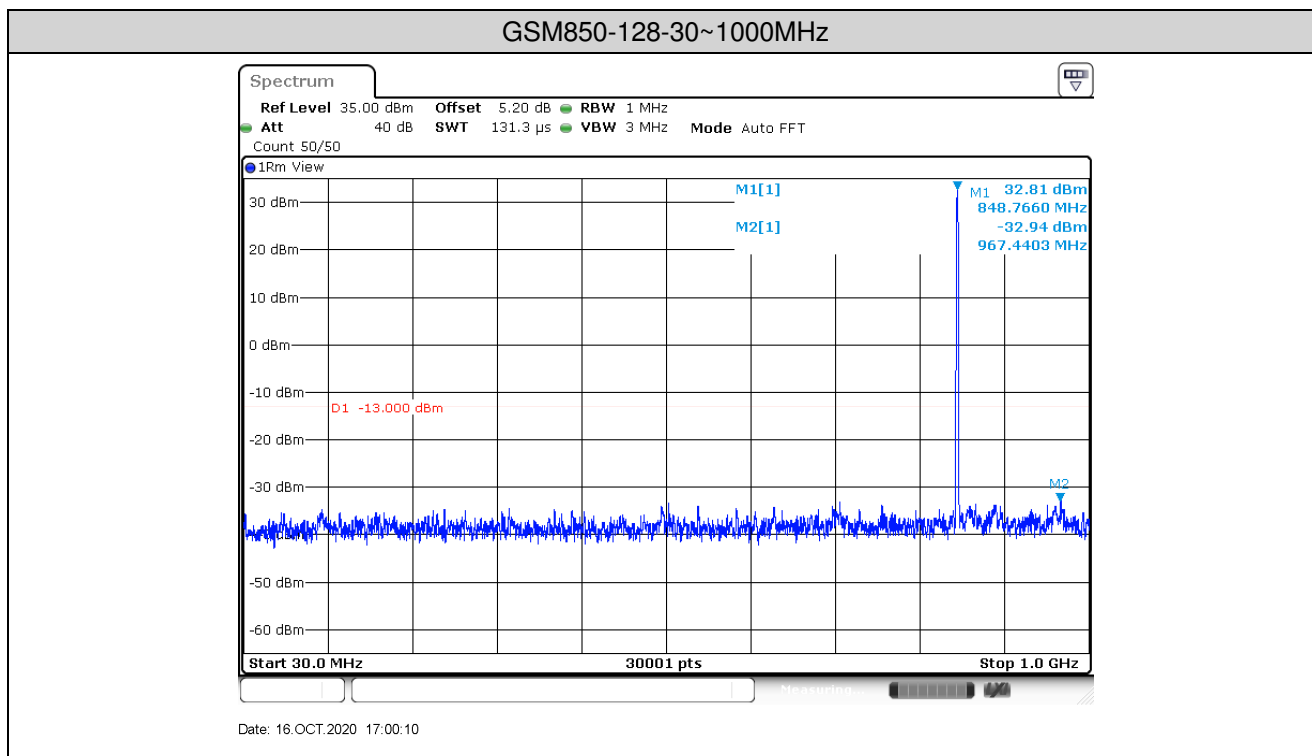


6. Spurious Emission at Antenna Terminal

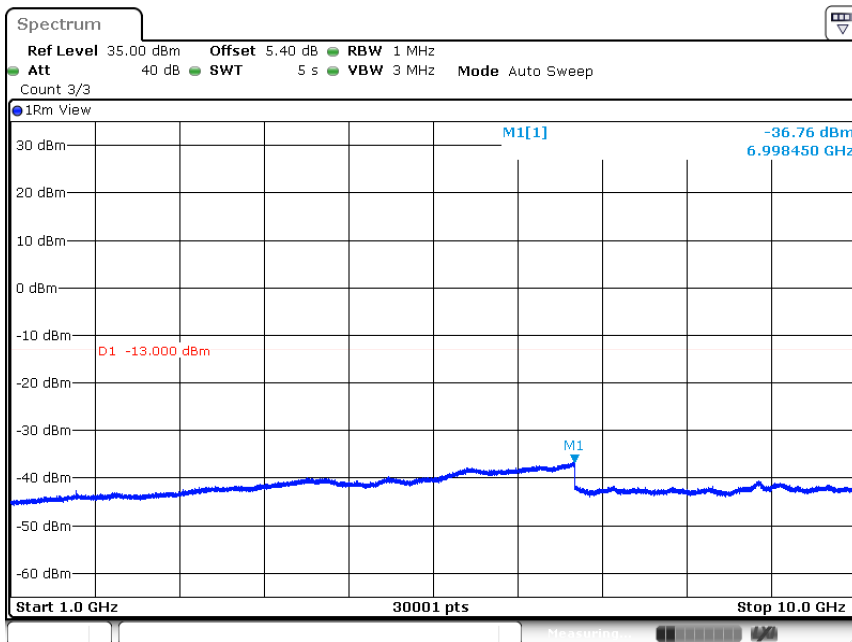
Remark1: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of $< RBW/2$ so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points = $k * (Span / RBW)$ " 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

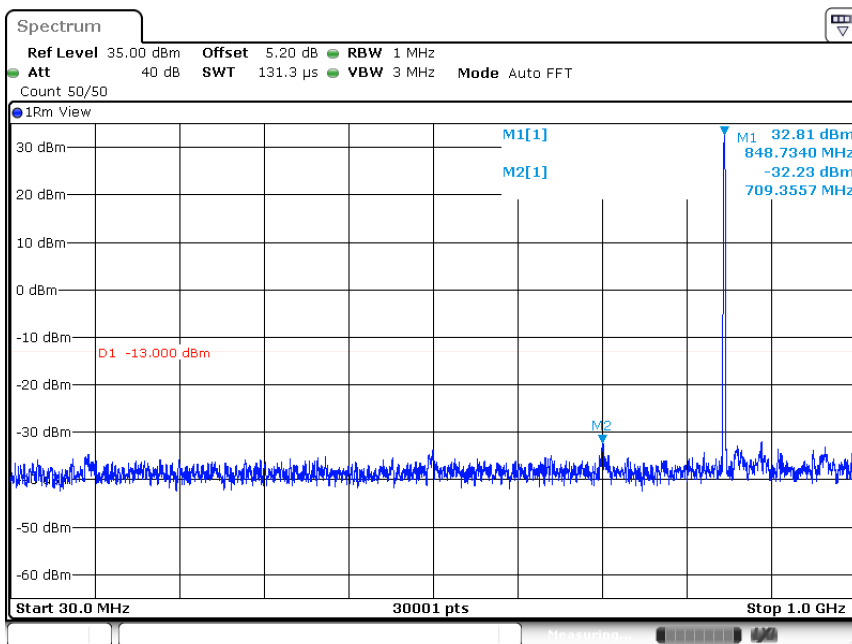


GSM850-128-1000~10000MHz



Date: 16.OCT.2020 17:00:33

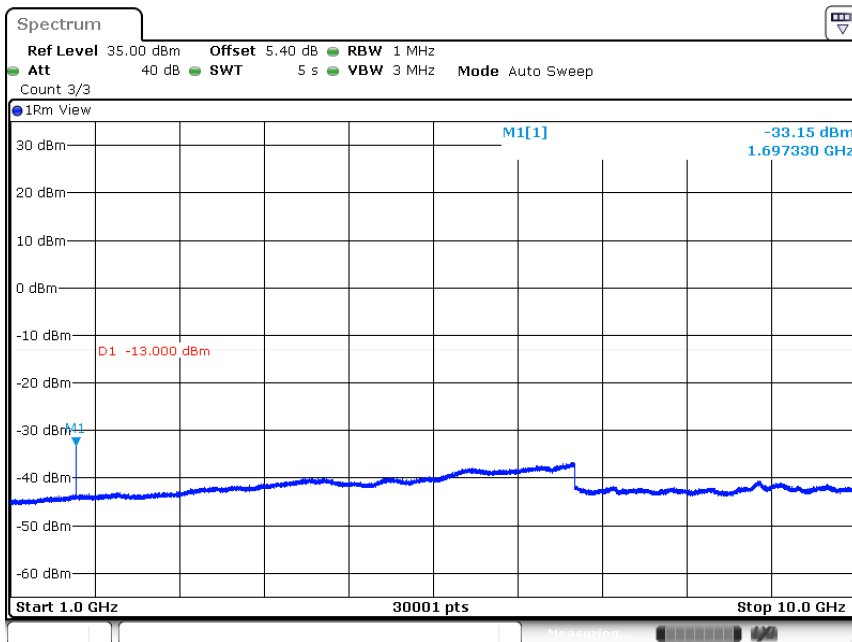
GSM850-190-30~1000MHz



Date: 16.OCT.2020 17:00:42

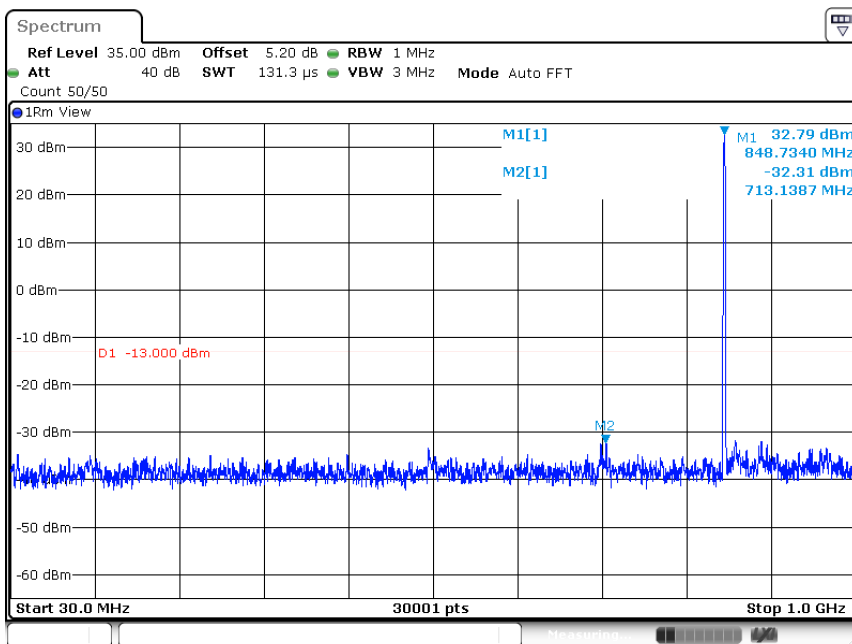


GSM850-190-1000~10000MHz



Date: 16.OCT.2020 17:01:05

GSM850-251-30~1000MHz



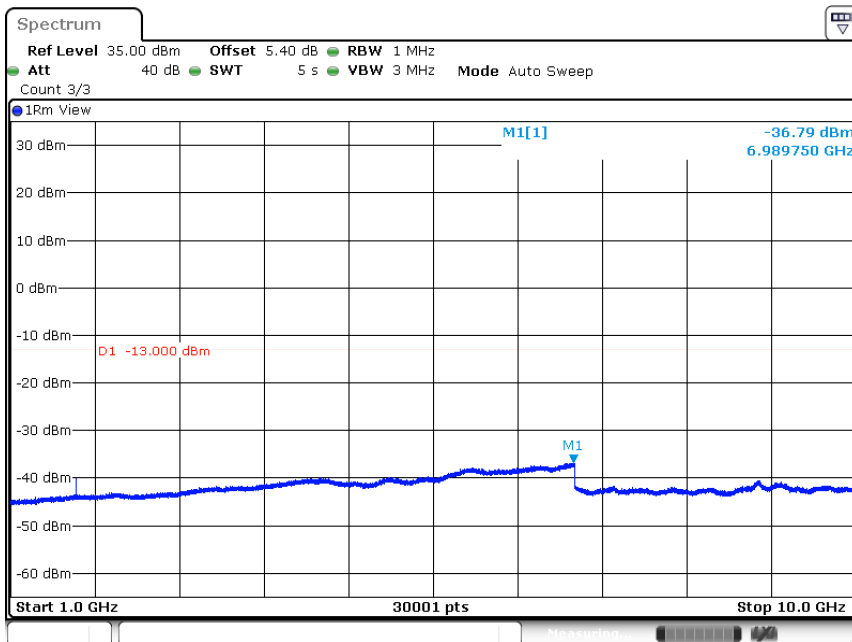
Date: 16.OCT.2020 17:01:14



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-Documents.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.

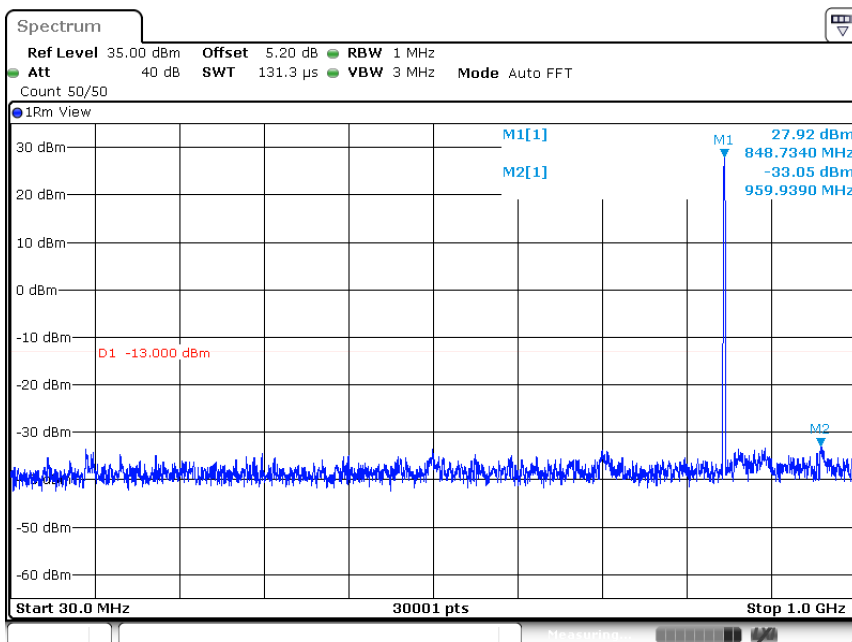
Attention: To check the authenticity of testing / inspection report and certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.com.cn
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

GSM850-251-1000~10000MHz



Date: 16.OCT.2020 17:01:37

EGPRS850-128-30~1000MHz



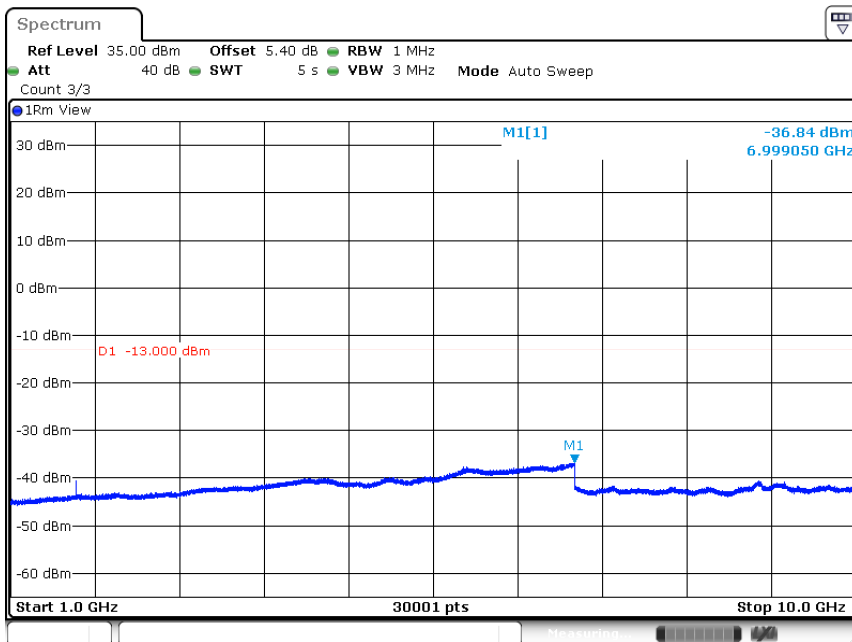
Date: 16.OCT.2020 17:04:01



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-Documents.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.

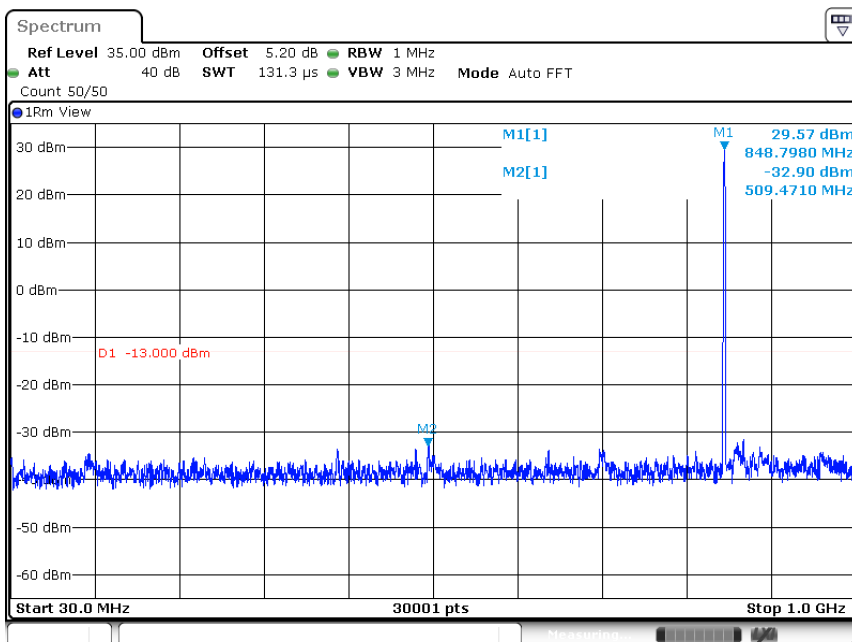
Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.com.cn
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

EGPRS850-128-1000~10000MHz



Date: 16.OCT.2020 17:04:24

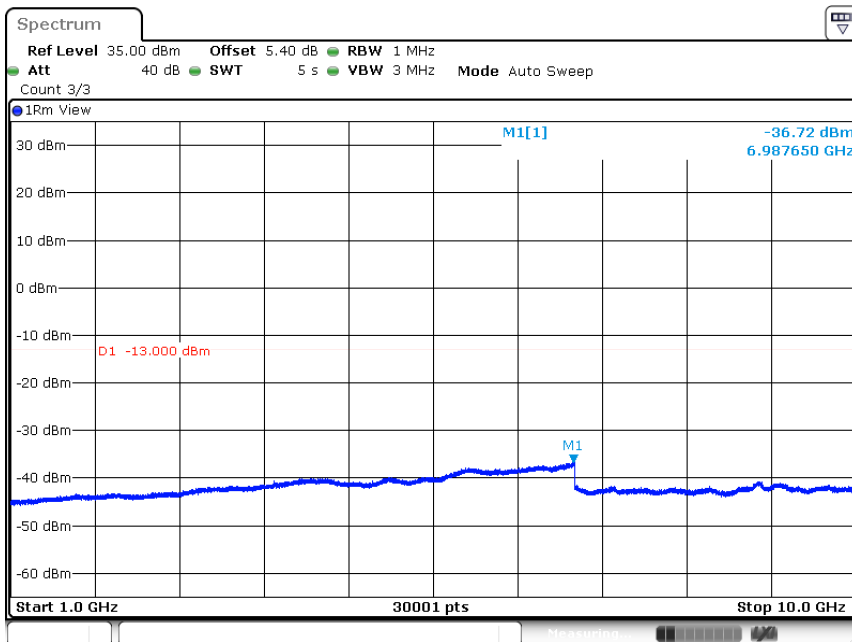
EGPRS850-190-30~1000MHz



Date: 16.OCT.2020 17:04:34

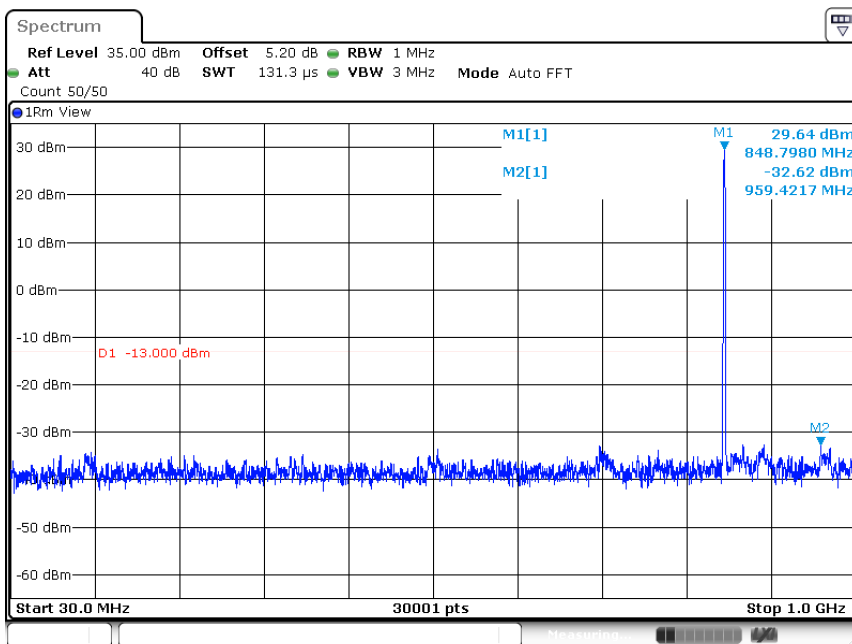


EGPRS850-190-1000~10000MHz



Date: 16.OCT.2020 17:04:57

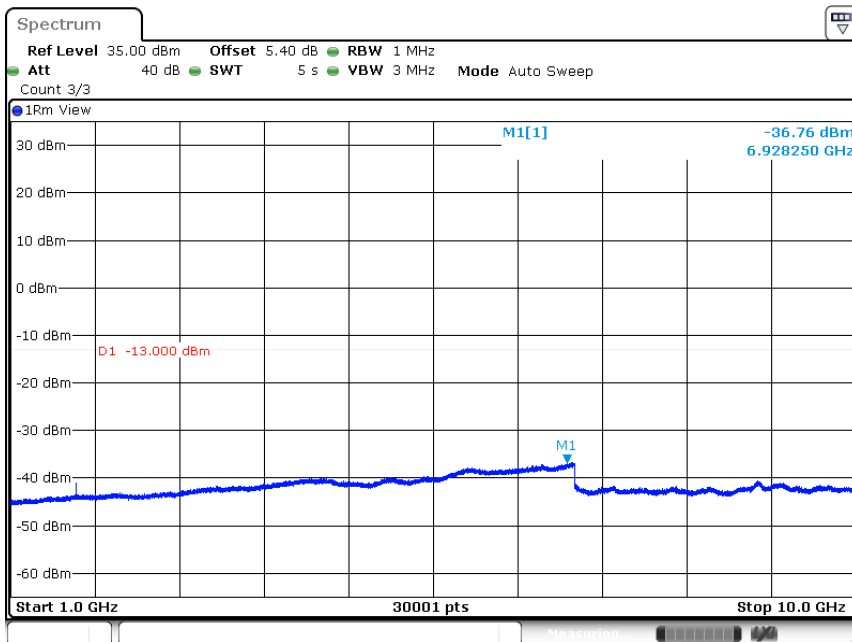
EGPRS850-251-30~1000MHz



Date: 16.OCT.2020 17:05:07

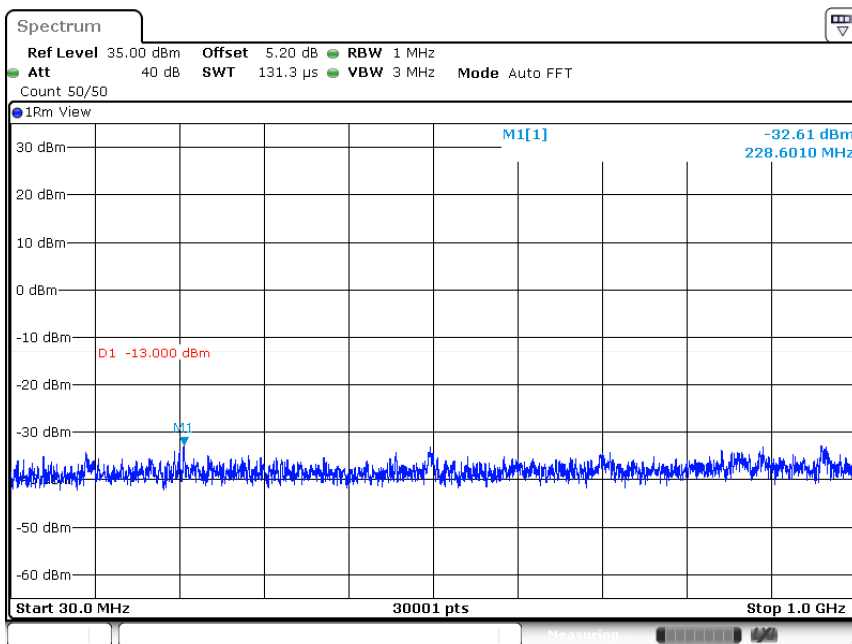


EGPRS850-251-1000~10000MHz



Date: 16.OCT.2020 17:05:29

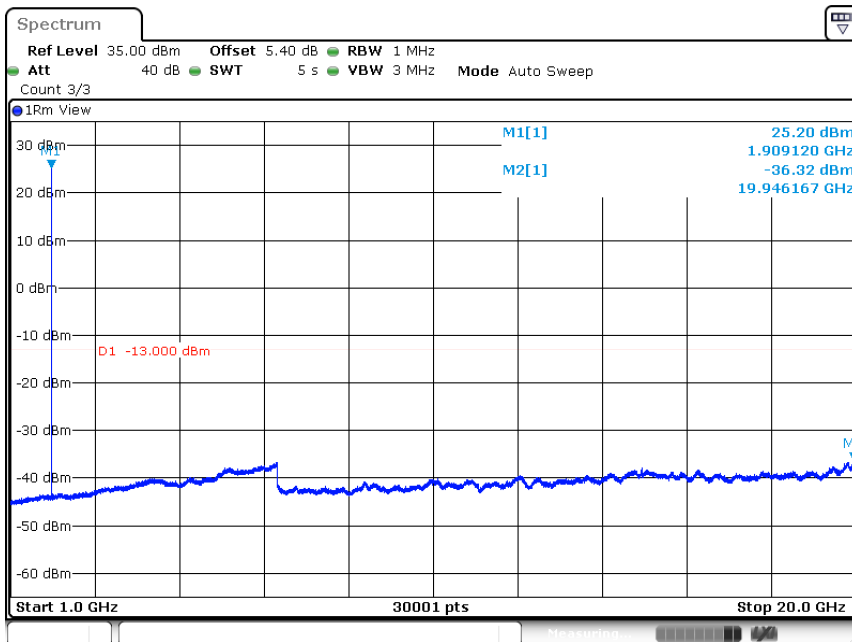
GSM1900-512-30~1000MHz



Date: 16.OCT.2020 16:50:04

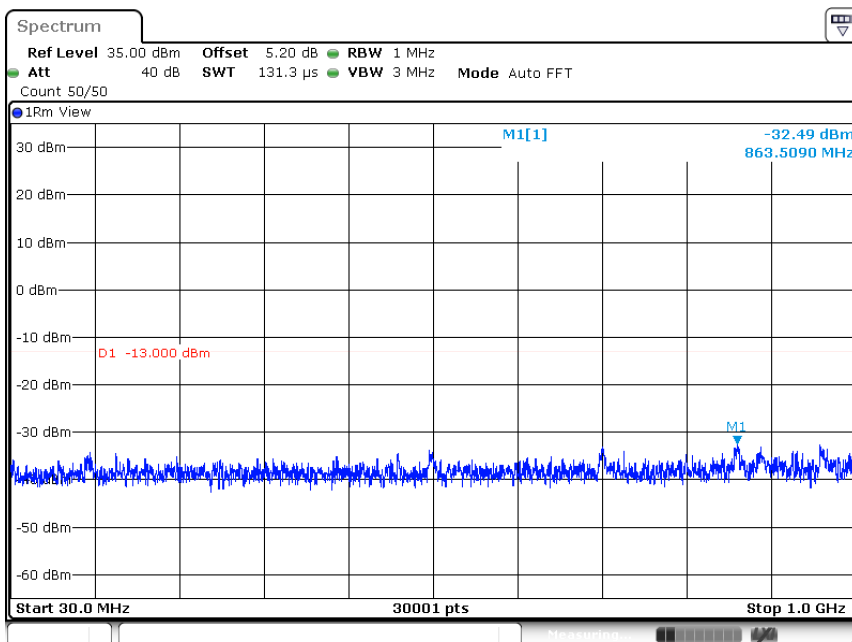


GSM1900-512-1000~20000MHz



Date: 16.OCT.2020 16:50:36

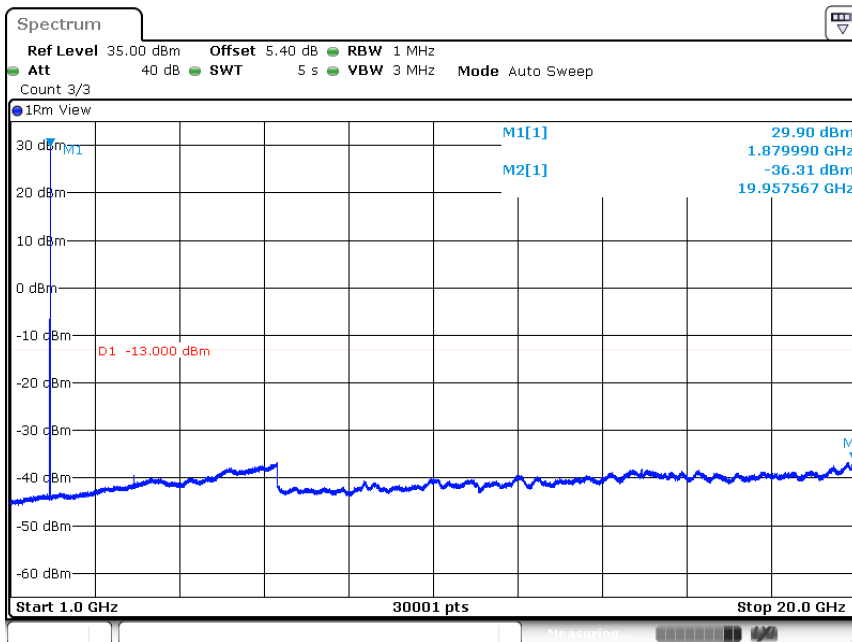
GSM1900-661-30~1000MHz



Date: 16.OCT.2020 17:06:50

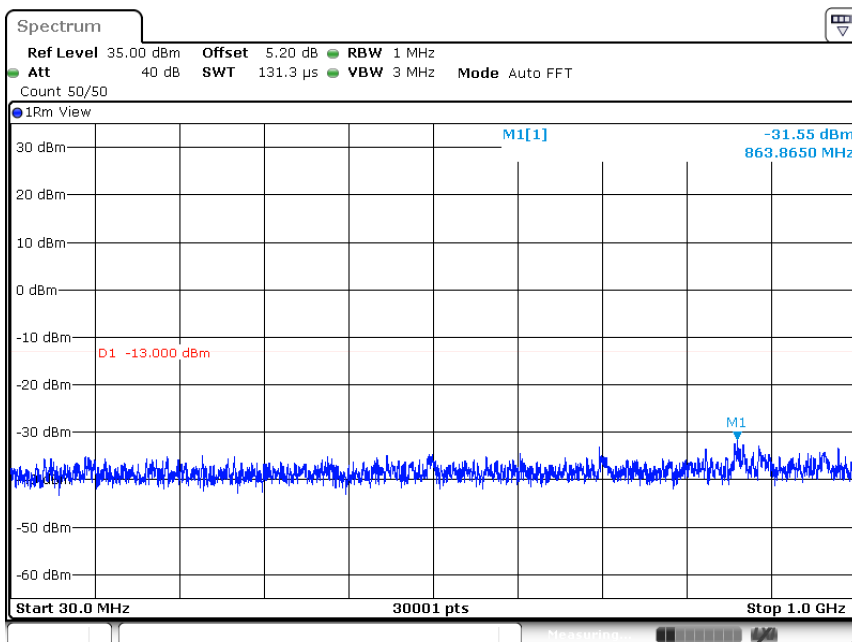


GSM1900-661-1000~20000MHz



Date: 16.OCT.2020 17:07:13

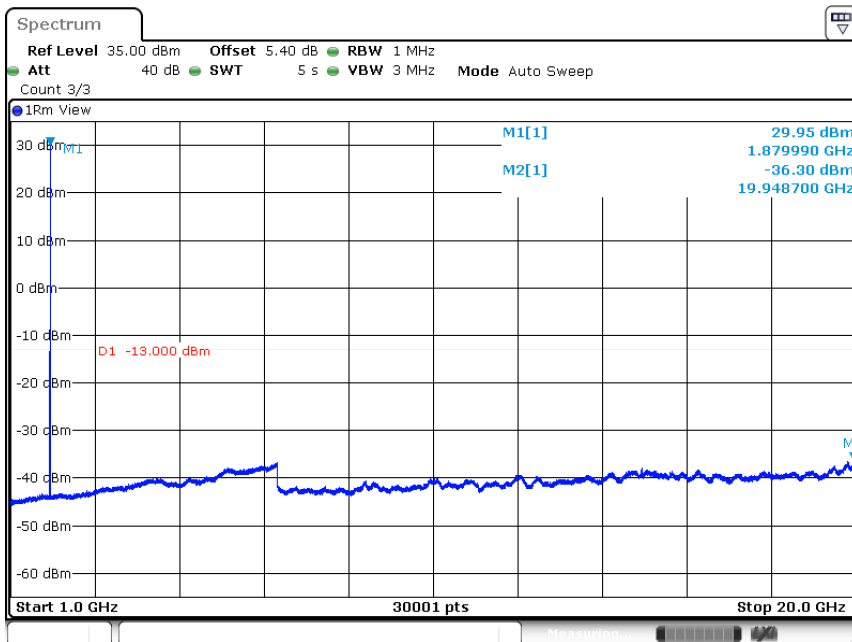
GSM1900-810-30~1000MHz



Date: 16.OCT.2020 17:07:22

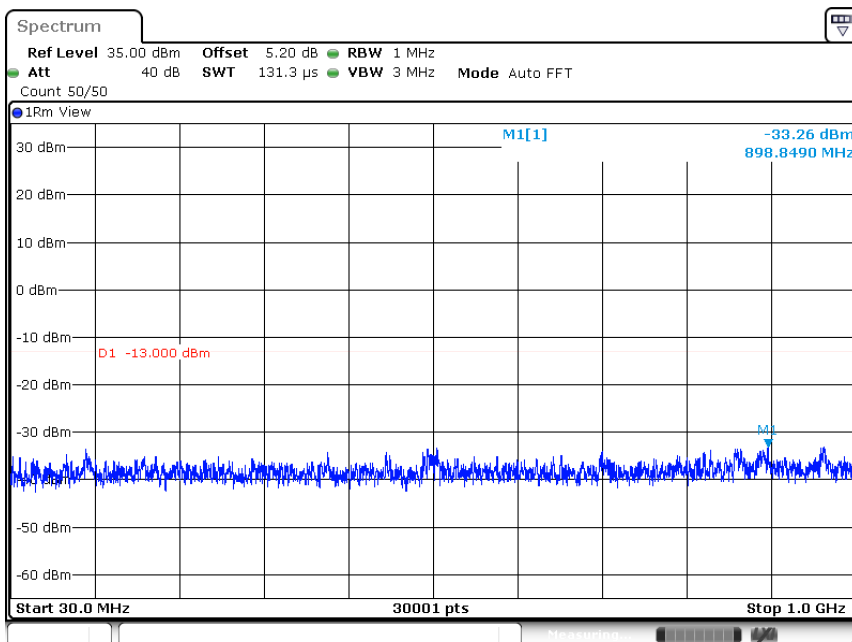


GSM1900-810-1000~20000MHz



Date: 16.OCT.2020 17:07:45

EGPRS1900-512-30~1000MHz

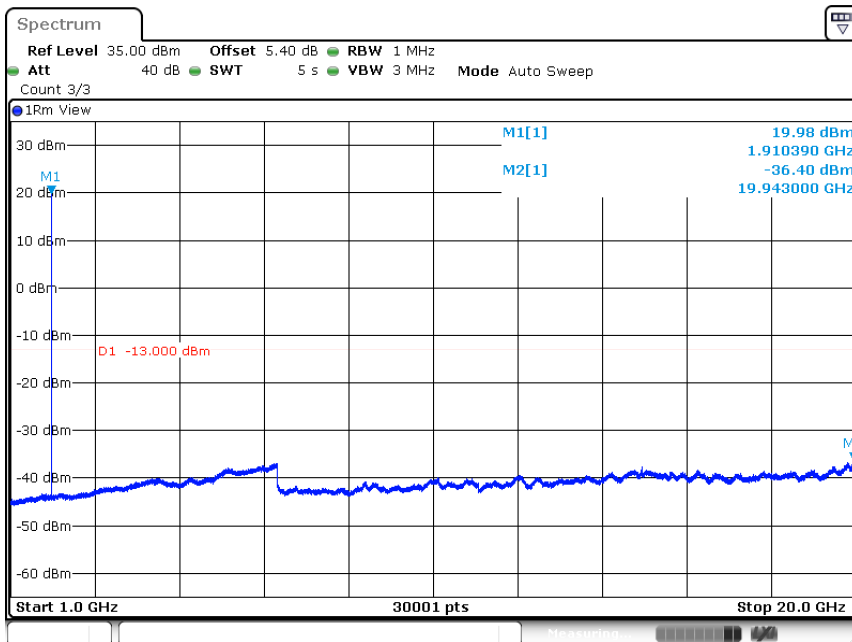


Date: 16.OCT.2020 16:52:57



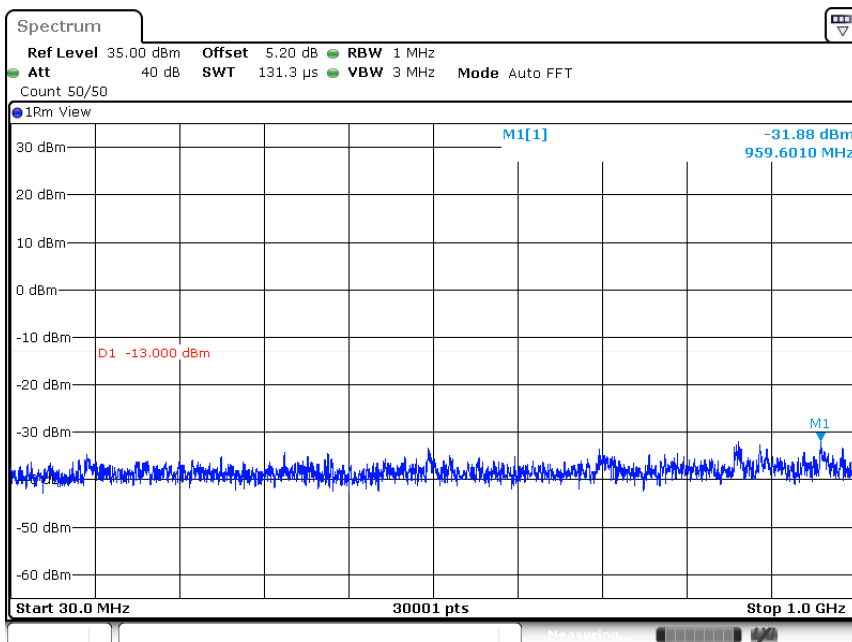
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.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@sgs.com
 No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.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

EGPRS1900-512-1000~20000MHz



Date: 16.OCT.2020 16:53:29

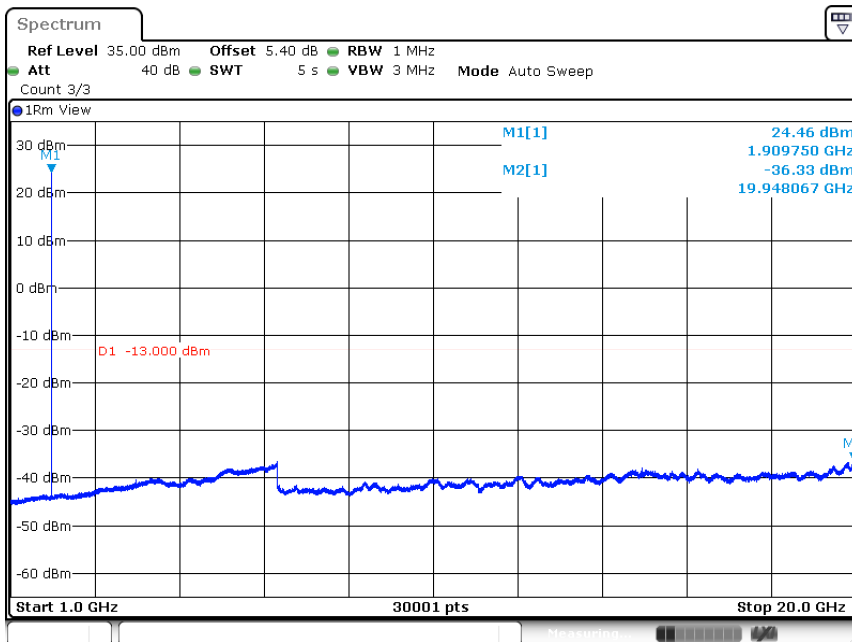
EGPRS1900-661-30~1000MHz



Date: 16.OCT.2020 16:53:38

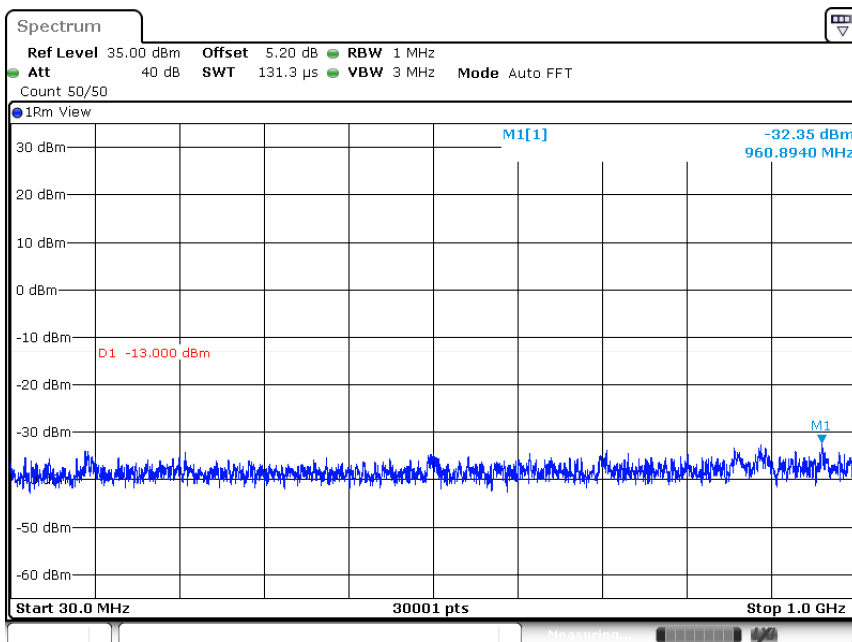


EGPRS1900-661-1000~20000MHz



Date: 16.OCT.2020 16:54:01

EGPRS1900-810-30~1000MHz

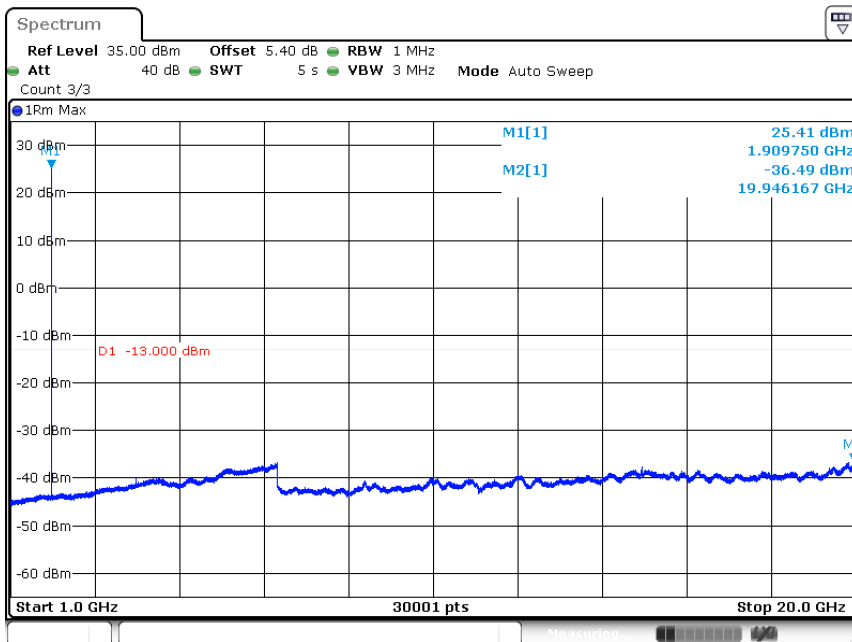


Date: 16.OCT.2020 16:54:11



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-Documents.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@sgs.com
 No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.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

EGPRS1900-810-1000~20000MHz



Date: 16.OCT.2020 16:55:19



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-Documents.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.

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

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

7. Field Strength of Spurious Radiation

7.1. Test Band = GSM 1900

7.1.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
31.3096	-71.66	-13.00	58.66	Vertical
110.6110	-65.10	-13.00	52.10	Vertical
637.3959	-63.62	-13.00	50.62	Vertical
3700.5234	-56.35	-13.00	43.35	Vertical
5550.0850	-61.12	-13.00	48.12	Vertical
17998.5000	-40.14	-13.00	27.14	Vertical
42.7561	-64.68	-13.00	51.68	Horizontal
84.3227	-75.88	-13.00	62.88	Horizontal
251.7531	-68.20	-13.00	55.20	Horizontal
3700.0233	-52.12	-13.00	39.12	Horizontal
5550.5850	-58.84	-13.00	45.84	Horizontal
16392.4464	-43.78	-13.00	30.78	Horizontal

7.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
31.1641	-70.89	-13.00	57.89	Vertical
110.6110	-65.14	-13.00	52.14	Vertical
431.3091	-67.18	-13.00	54.18	Vertical
3760.0253	-57.55	-13.00	44.55	Vertical
5640.0880	-60.38	-13.00	47.38	Vertical
17996.9999	-40.31	-13.00	27.31	Vertical
41.3011	-64.64	-13.00	51.64	Horizontal
96.9333	-75.31	-13.00	62.31	Horizontal
233.2252	-68.34	-13.00	55.34	Horizontal
3760.0253	-55.19	-13.00	42.19	Horizontal
5640.0880	-54.41	-13.00	41.41	Horizontal
16393.4464	-43.85	-13.00	30.85	Horizontal



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <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@sgs.com
 No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.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



7.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
31.7461	-72.67	-13.00	59.67	Vertical
109.0590	-65.33	-13.00	52.33	Vertical
544.2712	-65.87	-13.00	52.87	Vertical
3819.5273	-57.16	-13.00	44.16	Vertical
5729.5910	-55.87	-13.00	42.87	Vertical
17997.4999	-40.43	-13.00	27.43	Vertical
44.5022	-63.65	-13.00	50.65	Horizontal
111.6296	-75.41	-13.00	62.41	Horizontal
238.7059	-67.95	-13.00	54.95	Horizontal
3819.5273	-55.95	-13.00	42.95	Horizontal
5729.5910	-48.60	-13.00	35.60	Horizontal
16397.4466	-44.07	-13.00	31.07	Horizontal

7.2. Test Band = GSM 850

7.2.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
30.3395	-63.19	-13.00	50.19	Vertical
109.9320	-64.09	-13.00	51.09	Vertical
349.0975	-67.61	-13.00	54.61	Vertical
1648.1296	-63.63	-13.00	50.63	Vertical
2699.5399	-56.65	-13.00	43.65	Vertical
9780.4260	-52.42	-13.00	39.42	Vertical
40.8160	-63.84	-13.00	50.84	Horizontal
102.8021	-74.88	-13.00	61.88	Horizontal
241.1311	-67.31	-13.00	54.31	Horizontal
1648.1296	-61.77	-13.00	48.77	Horizontal
2697.5395	-55.27	-13.00	42.27	Horizontal
9305.1102	-52.62	-13.00	39.62	Horizontal



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <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-Documents.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@sgs.com

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

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

7.2.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
31.1641	-71.71	-13.00	58.71	Vertical
115.6068	-63.37	-13.00	50.37	Vertical
349.4370	-67.47	-13.00	54.47	Vertical
1774.5549	-61.18	-13.00	48.18	Vertical
2702.3405	-56.58	-13.00	43.58	Vertical
9566.2189	-52.21	-13.00	39.21	Vertical
40.8160	-62.17	-13.00	49.17	Horizontal
99.3585	-74.32	-13.00	61.32	Horizontal
232.5461	-66.93	-13.00	53.93	Horizontal
1758.5517	-62.07	-13.00	49.07	Horizontal
2701.1402	-55.45	-13.00	42.45	Horizontal
9554.3185	-52.82	-13.00	39.82	Horizontal

7.2.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
30.9700	-71.88	-13.00	58.88	Vertical
107.7979	-63.96	-13.00	50.96	Vertical
376.5498	-67.87	-13.00	54.87	Vertical
1764.1528	-62.45	-13.00	49.45	Vertical
2699.1398	-56.45	-13.00	43.45	Vertical
9916.6972	-52.46	-13.00	39.46	Vertical
42.3196	-63.10	-13.00	50.10	Horizontal
100.9590	-75.05	-13.00	62.05	Horizontal
241.6646	-67.36	-13.00	54.36	Horizontal
1773.3547	-60.85	-13.00	47.85	Horizontal
2697.9396	-55.36	-13.00	42.36	Horizontal
9339.6447	-52.80	-13.00	39.80	Horizontal

Remark:

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



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-Documents.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@sgs.com
 No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.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

3)

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	-5.68	-0.006892	±2.5	PASS
GSM850	128	VN	NT	-8.88	-0.010774	±2.5	PASS
GSM850	128	VH	NT	-5.78	-0.007013	±2.5	PASS
GSM850	190	VL	NT	-6.55	-0.007829	±2.5	PASS
GSM850	190	VN	NT	-10.65	-0.012730	±2.5	PASS
GSM850	190	VH	NT	-6.72	-0.008033	±2.5	PASS
GSM850	251	VL	NT	-9.30	-0.010957	±2.5	PASS
GSM850	251	VN	NT	-4.23	-0.004984	±2.5	PASS
GSM850	251	VH	NT	-5.91	-0.006963	±2.5	PASS
EGPRS850	128	VL	NT	4.62	0.005605	±2.5	PASS
EGPRS850	128	VN	NT	1.84	0.002232	±2.5	PASS
EGPRS850	128	VH	NT	2.45	0.002973	±2.5	PASS
EGPRS850	190	VL	NT	-8.10	-0.009682	±2.5	PASS
EGPRS850	190	VN	NT	-4.33	-0.005176	±2.5	PASS
EGPRS850	190	VH	NT	-8.23	-0.009837	±2.5	PASS
EGPRS850	251	VL	NT	-12.33	-0.014526	±2.5	PASS
EGPRS850	251	VN	NT	-5.46	-0.006433	±2.5	PASS
EGPRS850	251	VH	NT	-3.75	-0.004418	±2.5	PASS
GSM1900	512	VL	NT	-12.66	-0.006843	±2.5	PASS
GSM1900	512	VN	NT	-11.04	-0.005967	±2.5	PASS
GSM1900	512	VH	NT	-9.33	-0.005043	±2.5	PASS
GSM1900	661	VL	NT	-8.33	-0.004431	±2.5	PASS
GSM1900	661	VN	NT	-10.01	-0.005324	±2.5	PASS
GSM1900	661	VH	NT	-10.56	-0.005617	±2.5	PASS
GSM1900	810	VL	NT	-14.08	-0.007372	±2.5	PASS
GSM1900	810	VN	NT	-12.56	-0.006577	±2.5	PASS
GSM1900	810	VH	NT	-10.36	-0.005425	±2.5	PASS
EGPRS1900	512	VL	NT	-15.24	-0.008237	±2.5	PASS
EGPRS1900	512	VN	NT	-15.76	-0.008518	±2.5	PASS
EGPRS1900	512	VH	NT	-12.11	-0.006545	±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-Documents.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@sgs.com

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

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.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



EGPRS1900	661	VL	NT	-18.34	-0.009755	±2.5	PASS
EGPRS1900	661	VN	NT	-14.79	-0.007867	±2.5	PASS
EGPRS1900	661	VH	NT	-16.66	-0.008862	±2.5	PASS
EGPRS1900	810	VL	NT	-16.11	-0.008435	±2.5	PASS
EGPRS1900	810	VN	NT	-18.14	-0.009498	±2.5	PASS
EGPRS1900	810	VH	NT	-19.11	-0.010006	±2.5	PASS

8.2. Frequency Error Vs Temperature

Temperature							
Band	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM850	128	NV	-30	-6.88	-0.008347	±2.5	PASS
GSM850	128	NV	-20	-6.33	-0.007680	±2.5	PASS
GSM850	128	NV	-10	-7.88	-0.009561	±2.5	PASS
GSM850	128	NV	0	-3.49	-0.004234	±2.5	PASS
GSM850	128	NV	10	-5.68	-0.006892	±2.5	PASS
GSM850	128	NV	20	-6.36	-0.007717	±2.5	PASS
GSM850	128	NV	30	-3.91	-0.004744	±2.5	PASS
GSM850	128	NV	40	-8.43	-0.010228	±2.5	PASS
GSM850	128	NV	50	-8.10	-0.009828	±2.5	PASS
GSM850	190	NV	-30	-9.04	-0.010806	±2.5	PASS
GSM850	190	NV	-20	-8.04	-0.009610	±2.5	PASS
GSM850	190	NV	-10	-6.94	-0.008295	±2.5	PASS
GSM850	190	NV	0	-6.39	-0.007638	±2.5	PASS
GSM850	190	NV	10	-8.46	-0.010112	±2.5	PASS
GSM850	190	NV	20	-7.91	-0.009455	±2.5	PASS
GSM850	190	NV	30	-9.81	-0.011726	±2.5	PASS
GSM850	190	NV	40	-8.43	-0.010077	±2.5	PASS
GSM850	190	NV	50	-6.78	-0.008104	±2.5	PASS
GSM850	251	NV	-30	-8.43	-0.009932	±2.5	PASS
GSM850	251	NV	-20	-5.46	-0.006433	±2.5	PASS
GSM850	251	NV	-10	-4.97	-0.005855	±2.5	PASS
GSM850	251	NV	0	-13.27	-0.015634	±2.5	PASS
GSM850	251	NV	10	-5.65	-0.006656	±2.5	PASS
GSM850	251	NV	20	-6.49	-0.007646	±2.5	PASS
GSM850	251	NV	30	-8.68	-0.010226	±2.5	PASS
GSM850	251	NV	40	-5.71	-0.006727	±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-Documents.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@sgs.com
 No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.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

GSM850	251	NV	50	-3.75	-0.004418	±2.5	PASS
EGPRS850	128	NV	-30	1.03	0.001250	±2.5	PASS
EGPRS850	128	NV	-20	0.42	0.000510	±2.5	PASS
EGPRS850	128	NV	-10	-0.36	-0.000437	±2.5	PASS
EGPRS850	128	NV	0	2.68	0.003252	±2.5	PASS
EGPRS850	128	NV	10	3.81	0.004623	±2.5	PASS
EGPRS850	128	NV	20	-3.97	-0.004817	±2.5	PASS
EGPRS850	128	NV	30	1.10	0.001335	±2.5	PASS
EGPRS850	128	NV	40	0.32	0.000388	±2.5	PASS
EGPRS850	128	NV	50	2.52	0.003058	±2.5	PASS
EGPRS850	190	NV	-30	-1.87	-0.002235	±2.5	PASS
EGPRS850	190	NV	-20	-3.13	-0.003741	±2.5	PASS
EGPRS850	190	NV	-10	-6.13	-0.007327	±2.5	PASS
EGPRS850	190	NV	0	-3.97	-0.004745	±2.5	PASS
EGPRS850	190	NV	10	-7.85	-0.009383	±2.5	PASS
EGPRS850	190	NV	20	-2.65	-0.003168	±2.5	PASS
EGPRS850	190	NV	30	1.07	0.001279	±2.5	PASS
EGPRS850	190	NV	40	-1.87	-0.002235	±2.5	PASS
EGPRS850	190	NV	50	-5.88	-0.007028	±2.5	PASS
EGPRS850	251	NV	-30	-6.75	-0.007952	±2.5	PASS
EGPRS850	251	NV	-20	-6.97	-0.008212	±2.5	PASS
EGPRS850	251	NV	-10	-4.26	-0.005019	±2.5	PASS
EGPRS850	251	NV	0	-8.68	-0.010226	±2.5	PASS
EGPRS850	251	NV	10	-4.07	-0.004795	±2.5	PASS
EGPRS850	251	NV	20	-9.43	-0.011110	±2.5	PASS
EGPRS850	251	NV	30	-12.62	-0.014868	±2.5	PASS
EGPRS850	251	NV	40	-8.78	-0.010344	±2.5	PASS
EGPRS850	251	NV	50	-8.36	-0.009849	±2.5	PASS
GSM1900	512	NV	-30	-6.84	-0.003697	±2.5	PASS
GSM1900	512	NV	-20	-5.07	-0.002740	±2.5	PASS
GSM1900	512	NV	-10	-9.62	-0.005199	±2.5	PASS
GSM1900	512	NV	0	-7.59	-0.004102	±2.5	PASS
GSM1900	512	NV	10	-7.72	-0.004173	±2.5	PASS
GSM1900	512	NV	20	-7.39	-0.003994	±2.5	PASS
GSM1900	512	NV	30	-6.39	-0.003454	±2.5	PASS
GSM1900	512	NV	40	-8.68	-0.004691	±2.5	PASS
GSM1900	512	NV	50	-16.59	-0.008967	±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-Documents.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@sgs.com
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.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

GSM1900	661	NV	-30	-9.20	-0.004894	±2.5	PASS
GSM1900	661	NV	-20	-9.88	-0.005255	±2.5	PASS
GSM1900	661	NV	-10	-8.62	-0.004585	±2.5	PASS
GSM1900	661	NV	0	-13.24	-0.007043	±2.5	PASS
GSM1900	661	NV	10	-7.88	-0.004191	±2.5	PASS
GSM1900	661	NV	20	-12.37	-0.006580	±2.5	PASS
GSM1900	661	NV	30	-11.98	-0.006372	±2.5	PASS
GSM1900	661	NV	40	-18.40	-0.009787	±2.5	PASS
GSM1900	661	NV	50	-9.56	-0.005085	±2.5	PASS
GSM1900	810	NV	-30	-11.91	-0.006236	±2.5	PASS
GSM1900	810	NV	-20	-9.56	-0.005006	±2.5	PASS
GSM1900	810	NV	-10	-9.72	-0.005090	±2.5	PASS
GSM1900	810	NV	0	-12.01	-0.006289	±2.5	PASS
GSM1900	810	NV	10	-11.91	-0.006236	±2.5	PASS
GSM1900	810	NV	20	-10.01	-0.005241	±2.5	PASS
GSM1900	810	NV	30	-9.43	-0.004938	±2.5	PASS
GSM1900	810	NV	40	-7.20	-0.003770	±2.5	PASS
GSM1900	810	NV	50	-7.30	-0.003822	±2.5	PASS
EGPRS1900	512	NV	-30	-12.75	-0.006891	±2.5	PASS
EGPRS1900	512	NV	-20	-14.59	-0.007886	±2.5	PASS
EGPRS1900	512	NV	-10	-12.56	-0.006788	±2.5	PASS
EGPRS1900	512	NV	0	-13.08	-0.007070	±2.5	PASS
EGPRS1900	512	NV	10	-19.44	-0.010507	±2.5	PASS
EGPRS1900	512	NV	20	-9.69	-0.005237	±2.5	PASS
EGPRS1900	512	NV	30	-17.89	-0.009669	±2.5	PASS
EGPRS1900	512	NV	40	-17.31	-0.009356	±2.5	PASS
EGPRS1900	512	NV	50	-11.95	-0.006459	±2.5	PASS
EGPRS1900	661	NV	-30	-15.43	-0.008207	±2.5	PASS
EGPRS1900	661	NV	-20	-12.66	-0.006734	±2.5	PASS
EGPRS1900	661	NV	-10	-20.89	-0.011112	±2.5	PASS
EGPRS1900	661	NV	0	-15.17	-0.008069	±2.5	PASS
EGPRS1900	661	NV	10	-16.24	-0.008638	±2.5	PASS
EGPRS1900	661	NV	20	-14.50	-0.007713	±2.5	PASS
EGPRS1900	661	NV	30	-12.11	-0.006441	±2.5	PASS
EGPRS1900	661	NV	40	-15.34	-0.008160	±2.5	PASS
EGPRS1900	661	NV	50	-18.05	-0.009601	±2.5	PASS
EGPRS1900	810	NV	-30	-12.17	-0.006372	±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-Documents.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@sgs.com
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.com.cn
Shenzhen Branch Testing Center, CSTC Laboratory, 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

EGPRS1900	810	NV	-20	-20.05	-0.010498	±2.5	PASS
EGPRS1900	810	NV	-10	-15.95	-0.008352	±2.5	PASS
EGPRS1900	810	NV	0	-18.63	-0.009755	±2.5	PASS
EGPRS1900	810	NV	10	-10.36	-0.005425	±2.5	PASS
EGPRS1900	810	NV	20	-16.56	-0.008671	±2.5	PASS
EGPRS1900	810	NV	30	-11.36	-0.005948	±2.5	PASS
EGPRS1900	810	NV	40	-18.47	-0.009671	±2.5	PASS
EGPRS1900	810	NV	50	-17.66	-0.009247	±2.5	PASS

The End

