



Appendix B

E-UTRA Band 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-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

| | | |
|-----------|---|-----------|
| 1 | EFFECTIVE (ISOTROPIC) RADIATED POWER..... | 4 |
| 1.1. | TEST RESULT..... | 4 |
| 2. | PEAK-TO-AVERAGE RATIO (CCDF)..... | 10 |
| 2.1. | TEST RESULT..... | 10 |
| 2.2. | TEST PLOTS..... | 10 |
| 3. | MODULATION CHARACTERISTICS..... | 14 |
| 3.1. | TEST MODE = LTE /TM1 10MHZ..... | 14 |
| 3.1.1. | TEST CHANNEL = MCH..... | 14 |
| 3.2. | TEST MODE = LTE /TM2 10MHZ..... | 15 |
| 3.2.1. | TEST CHANNEL = MCH..... | 15 |
| 4. | 26DB BANDWIDTH AND OCCUPIED BANDWIDTH..... | 16 |
| 4.1. | TEST RESULT..... | 16 |
| 4.2. | TEST PLOTS..... | 17 |
| 5. | BAND EDGE COMPLIANCE..... | 29 |
| 5.1. | TEST PLOTS..... | 29 |
| 6. | SPURIOUS EMISSION AT ANTENNA TERMINAL..... | 46 |
| 6.1. | TEST PLOTS..... | 46 |
| 7. | FIELD STRENGTH OF SPURIOUS RADIATION..... | 53 |
| 7.1. | Test Band = LTE_12_TM1..... | 53 |
| 7.1.1. | Test Channel = Low Channel..... | 53 |
| 7.2. | Test Band = LTE_12_TM1..... | 54 |
| 7.2.1. | Test Channel = Low Channel..... | 54 |
| 7.3. | Test Band = LTE_12_TM1..... | 55 |
| 7.3.1. | Test Channel = Mid Channel..... | 55 |
| 7.4. | Test Band = LTE_12_TM1..... | 56 |
| 7.4.1. | Test Channel = Mid Channel..... | 56 |
| 7.5. | Test Band = LTE_12_TM1..... | 57 |
| 7.5.1. | Test Channel = High Channel..... | 57 |
| 7.6. | Test Band = LTE_12_TM1..... | 58 |
| 7.6.1. | Test Channel = High Channel..... | 58 |



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



| | | |
|------|--------------------------------|----|
| 8. | FREQUENCY STABILITY..... | 59 |
| 8.1. | FREQUENCY VS VOLTAGE..... | 59 |
| 8.2. | FREQUENCY VS TEMPERATURE | 59 |



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

1.1. Test Result

| Band | Bandwidth | Modulation | Channel | RB Configuration | Conducted Power(dBm) | ERP (dBm) | Limit (dBm) | Verdict |
|--------|-----------|------------|---------|------------------|----------------------|-----------|-------------|---------|
| Band12 | 1.4MHz | QPSK | 23017 | 1RB#0 | 23.25 | 25.47 | 34.77 | PASS |
| Band12 | 1.4MHz | QPSK | 23017 | 1RB#2 | 23.47 | 25.69 | 34.77 | PASS |
| Band12 | 1.4MHz | QPSK | 23017 | 1RB#5 | 23.36 | 25.58 | 34.77 | PASS |
| Band12 | 1.4MHz | QPSK | 23017 | 3RB#0 | 23.38 | 25.60 | 34.77 | PASS |
| Band12 | 1.4MHz | QPSK | 23017 | 3RB#1 | 23.30 | 25.52 | 34.77 | PASS |
| Band12 | 1.4MHz | QPSK | 23017 | 3RB#3 | 23.52 | 25.74 | 34.77 | PASS |
| Band12 | 1.4MHz | QPSK | 23017 | 6RB#0 | 22.50 | 24.72 | 34.77 | PASS |
| Band12 | 1.4MHz | QPSK | 23095 | 1RB#0 | 23.17 | 25.39 | 34.77 | PASS |
| Band12 | 1.4MHz | QPSK | 23095 | 1RB#5 | 23.48 | 25.70 | 34.77 | PASS |
| Band12 | 1.4MHz | QPSK | 23095 | 1RB#2 | 23.19 | 25.41 | 34.77 | PASS |
| Band12 | 1.4MHz | QPSK | 23095 | 3RB#0 | 23.41 | 25.63 | 34.77 | PASS |
| Band12 | 1.4MHz | QPSK | 23095 | 3RB#1 | 23.33 | 25.55 | 34.77 | PASS |
| Band12 | 1.4MHz | QPSK | 23095 | 3RB#3 | 23.35 | 25.57 | 34.77 | PASS |
| Band12 | 1.4MHz | QPSK | 23095 | 6RB#0 | 22.56 | 24.78 | 34.77 | PASS |
| Band12 | 1.4MHz | QPSK | 23173 | 1RB#5 | 23.27 | 25.49 | 34.77 | PASS |
| Band12 | 1.4MHz | QPSK | 23173 | 1RB#0 | 23.36 | 25.58 | 34.77 | PASS |
| Band12 | 1.4MHz | QPSK | 23173 | 1RB#2 | 23.23 | 25.45 | 34.77 | PASS |
| Band12 | 1.4MHz | QPSK | 23173 | 3RB#0 | 23.34 | 25.56 | 34.77 | PASS |
| Band12 | 1.4MHz | QPSK | 23173 | 3RB#1 | 23.41 | 25.63 | 34.77 | PASS |
| Band12 | 1.4MHz | QPSK | 23173 | 3RB#3 | 23.33 | 25.55 | 34.77 | PASS |
| Band12 | 1.4MHz | QPSK | 23173 | 6RB#0 | 22.46 | 24.68 | 34.77 | PASS |
| Band12 | 1.4MHz | 16QAM | 23017 | 1RB#0 | 22.35 | 24.57 | 34.77 | PASS |
| Band12 | 1.4MHz | 16QAM | 23017 | 1RB#2 | 22.76 | 24.98 | 34.77 | PASS |
| Band12 | 1.4MHz | 16QAM | 23017 | 1RB#5 | 22.21 | 24.43 | 34.77 | PASS |
| Band12 | 1.4MHz | 16QAM | 23017 | 3RB#1 | 22.40 | 24.62 | 34.77 | PASS |
| Band12 | 1.4MHz | 16QAM | 23017 | 3RB#0 | 22.49 | 24.71 | 34.77 | PASS |
| Band12 | 1.4MHz | 16QAM | 23017 | 3RB#3 | 22.37 | 24.59 | 34.77 | 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 (CSTC) Laboratory

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057
中国·深圳·科技园中区M-10栋一号厂房

t (86-755) 26012053 f (86-755) 26710594
t (86-755) 26012053 f (86-755) 26710594

www.sgsgroup.com.cn
sgs.china@sgs.com



| | | | | | | | | |
|--------|--------|-------|-------|--------|-------|-------|-------|------|
| Band12 | 1.4MHz | 16QAM | 23017 | 6RB#0 | 21.42 | 23.64 | 34.77 | PASS |
| Band12 | 1.4MHz | 16QAM | 23095 | 1RB#0 | 22.14 | 24.36 | 34.77 | PASS |
| Band12 | 1.4MHz | 16QAM | 23095 | 1RB#2 | 22.84 | 25.06 | 34.77 | PASS |
| Band12 | 1.4MHz | 16QAM | 23095 | 1RB#5 | 22.36 | 24.58 | 34.77 | PASS |
| Band12 | 1.4MHz | 16QAM | 23095 | 3RB#3 | 22.18 | 24.40 | 34.77 | PASS |
| Band12 | 1.4MHz | 16QAM | 23095 | 3RB#0 | 22.32 | 24.54 | 34.77 | PASS |
| Band12 | 1.4MHz | 16QAM | 23095 | 3RB#1 | 22.12 | 24.34 | 34.77 | PASS |
| Band12 | 1.4MHz | 16QAM | 23095 | 6RB#0 | 21.43 | 23.65 | 34.77 | PASS |
| Band12 | 1.4MHz | 16QAM | 23173 | 1RB#2 | 22.27 | 24.49 | 34.77 | PASS |
| Band12 | 1.4MHz | 16QAM | 23173 | 1RB#0 | 22.79 | 25.01 | 34.77 | PASS |
| Band12 | 1.4MHz | 16QAM | 23173 | 1RB#5 | 22.20 | 24.42 | 34.77 | PASS |
| Band12 | 1.4MHz | 16QAM | 23173 | 3RB#0 | 22.30 | 24.52 | 34.77 | PASS |
| Band12 | 1.4MHz | 16QAM | 23173 | 3RB#1 | 22.39 | 24.61 | 34.77 | PASS |
| Band12 | 1.4MHz | 16QAM | 23173 | 3RB#3 | 22.20 | 24.42 | 34.77 | PASS |
| Band12 | 1.4MHz | 16QAM | 23173 | 6RB#0 | 21.40 | 23.62 | 34.77 | PASS |
| Band12 | 3MHz | QPSK | 23025 | 1RB#8 | 23.29 | 25.51 | 34.77 | PASS |
| Band12 | 3MHz | QPSK | 23025 | 1RB#14 | 23.38 | 25.60 | 34.77 | PASS |
| Band12 | 3MHz | QPSK | 23025 | 1RB#0 | 23.38 | 25.60 | 34.77 | PASS |
| Band12 | 3MHz | QPSK | 23025 | 8RB#0 | 22.27 | 24.49 | 34.77 | PASS |
| Band12 | 3MHz | QPSK | 23025 | 8RB#4 | 22.41 | 24.63 | 34.77 | PASS |
| Band12 | 3MHz | QPSK | 23025 | 8RB#7 | 22.40 | 24.62 | 34.77 | PASS |
| Band12 | 3MHz | QPSK | 23025 | 15RB#0 | 22.33 | 24.55 | 34.77 | PASS |
| Band12 | 3MHz | QPSK | 23095 | 1RB#0 | 23.25 | 25.47 | 34.77 | PASS |
| Band12 | 3MHz | QPSK | 23095 | 1RB#14 | 23.29 | 25.51 | 34.77 | PASS |
| Band12 | 3MHz | QPSK | 23095 | 1RB#8 | 23.26 | 25.48 | 34.77 | PASS |
| Band12 | 3MHz | QPSK | 23095 | 8RB#7 | 22.26 | 24.48 | 34.77 | PASS |
| Band12 | 3MHz | QPSK | 23095 | 8RB#0 | 22.47 | 24.69 | 34.77 | PASS |
| Band12 | 3MHz | QPSK | 23095 | 8RB#4 | 22.36 | 24.58 | 34.77 | PASS |
| Band12 | 3MHz | QPSK | 23095 | 15RB#0 | 22.38 | 24.60 | 34.77 | PASS |
| Band12 | 3MHz | QPSK | 23165 | 1RB#8 | 23.30 | 25.52 | 34.77 | PASS |
| Band12 | 3MHz | QPSK | 23165 | 1RB#0 | 23.37 | 25.59 | 34.77 | PASS |
| Band12 | 3MHz | QPSK | 23165 | 1RB#14 | 23.32 | 25.54 | 34.77 | PASS |
| Band12 | 3MHz | QPSK | 23165 | 8RB#0 | 22.42 | 24.64 | 34.77 | 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



| | | | | | | | | |
|--------|------|-------|-------|---------|-------|-------|-------|------|
| Band12 | 3MHz | QPSK | 23165 | 8RB#7 | 22.39 | 24.61 | 34.77 | PASS |
| Band12 | 3MHz | QPSK | 23165 | 8RB#4 | 22.40 | 24.62 | 34.77 | PASS |
| Band12 | 3MHz | QPSK | 23165 | 15RB#0 | 22.37 | 24.59 | 34.77 | PASS |
| Band12 | 3MHz | 16QAM | 23025 | 1RB#14 | 22.29 | 24.51 | 34.77 | PASS |
| Band12 | 3MHz | 16QAM | 23025 | 1RB#0 | 22.39 | 24.61 | 34.77 | PASS |
| Band12 | 3MHz | 16QAM | 23025 | 1RB#8 | 22.21 | 24.43 | 34.77 | PASS |
| Band12 | 3MHz | 16QAM | 23025 | 8RB#7 | 21.47 | 23.69 | 34.77 | PASS |
| Band12 | 3MHz | 16QAM | 23025 | 8RB#4 | 21.52 | 23.74 | 34.77 | PASS |
| Band12 | 3MHz | 16QAM | 23025 | 8RB#0 | 21.56 | 23.78 | 34.77 | PASS |
| Band12 | 3MHz | 16QAM | 23025 | 15RB#0 | 21.34 | 23.56 | 34.77 | PASS |
| Band12 | 3MHz | 16QAM | 23095 | 1RB#14 | 22.69 | 24.91 | 34.77 | PASS |
| Band12 | 3MHz | 16QAM | 23095 | 1RB#0 | 22.70 | 24.92 | 34.77 | PASS |
| Band12 | 3MHz | 16QAM | 23095 | 1RB#8 | 22.71 | 24.93 | 34.77 | PASS |
| Band12 | 3MHz | 16QAM | 23095 | 8RB#7 | 21.45 | 23.67 | 34.77 | PASS |
| Band12 | 3MHz | 16QAM | 23095 | 8RB#0 | 21.45 | 23.67 | 34.77 | PASS |
| Band12 | 3MHz | 16QAM | 23095 | 8RB#4 | 21.42 | 23.64 | 34.77 | PASS |
| Band12 | 3MHz | 16QAM | 23095 | 15RB#0 | 21.34 | 23.56 | 34.77 | PASS |
| Band12 | 3MHz | 16QAM | 23165 | 1RB#8 | 22.36 | 24.58 | 34.77 | PASS |
| Band12 | 3MHz | 16QAM | 23165 | 1RB#0 | 22.30 | 24.52 | 34.77 | PASS |
| Band12 | 3MHz | 16QAM | 23165 | 1RB#14 | 22.56 | 24.78 | 34.77 | PASS |
| Band12 | 3MHz | 16QAM | 23165 | 8RB#0 | 21.52 | 23.74 | 34.77 | PASS |
| Band12 | 3MHz | 16QAM | 23165 | 8RB#4 | 21.32 | 23.54 | 34.77 | PASS |
| Band12 | 3MHz | 16QAM | 23165 | 8RB#7 | 21.30 | 23.52 | 34.77 | PASS |
| Band12 | 3MHz | 16QAM | 23165 | 15RB#0 | 21.36 | 23.58 | 34.77 | PASS |
| Band12 | 5MHz | QPSK | 23035 | 1RB#0 | 23.12 | 25.34 | 34.77 | PASS |
| Band12 | 5MHz | QPSK | 23035 | 1RB#12 | 23.26 | 25.48 | 34.77 | PASS |
| Band12 | 5MHz | QPSK | 23035 | 1RB#24 | 23.20 | 25.42 | 34.77 | PASS |
| Band12 | 5MHz | QPSK | 23035 | 12RB#0 | 22.35 | 24.57 | 34.77 | PASS |
| Band12 | 5MHz | QPSK | 23035 | 12RB#6 | 22.42 | 24.64 | 34.77 | PASS |
| Band12 | 5MHz | QPSK | 23035 | 12RB#13 | 22.48 | 24.70 | 34.77 | PASS |
| Band12 | 5MHz | QPSK | 23035 | 25RB#0 | 22.44 | 24.66 | 34.77 | PASS |
| Band12 | 5MHz | QPSK | 23095 | 1RB#0 | 23.21 | 25.43 | 34.77 | PASS |
| Band12 | 5MHz | QPSK | 23095 | 1RB#24 | 23.27 | 25.49 | 34.77 | 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



| | | | | | | | | |
|--------|------|-------|-------|---------|-------|-------|-------|------|
| Band12 | 5MHz | QPSK | 23095 | 1RB#12 | 23.17 | 25.39 | 34.77 | PASS |
| Band12 | 5MHz | QPSK | 23095 | 12RB#0 | 22.25 | 24.47 | 34.77 | PASS |
| Band12 | 5MHz | QPSK | 23095 | 12RB#6 | 22.36 | 24.58 | 34.77 | PASS |
| Band12 | 5MHz | QPSK | 23095 | 12RB#13 | 22.29 | 24.51 | 34.77 | PASS |
| Band12 | 5MHz | QPSK | 23095 | 25RB#0 | 22.42 | 24.64 | 34.77 | PASS |
| Band12 | 5MHz | QPSK | 23155 | 1RB#24 | 23.11 | 25.33 | 34.77 | PASS |
| Band12 | 5MHz | QPSK | 23155 | 1RB#0 | 23.36 | 25.58 | 34.77 | PASS |
| Band12 | 5MHz | QPSK | 23155 | 1RB#12 | 23.20 | 25.42 | 34.77 | PASS |
| Band12 | 5MHz | QPSK | 23155 | 12RB#0 | 22.41 | 24.63 | 34.77 | PASS |
| Band12 | 5MHz | QPSK | 23155 | 12RB#6 | 22.46 | 24.68 | 34.77 | PASS |
| Band12 | 5MHz | QPSK | 23155 | 12RB#13 | 22.32 | 24.54 | 34.77 | PASS |
| Band12 | 5MHz | QPSK | 23155 | 25RB#0 | 22.42 | 24.64 | 34.77 | PASS |
| Band12 | 5MHz | 16QAM | 23035 | 1RB#0 | 22.64 | 24.86 | 34.77 | PASS |
| Band12 | 5MHz | 16QAM | 23035 | 1RB#12 | 22.65 | 24.87 | 34.77 | PASS |
| Band12 | 5MHz | 16QAM | 23035 | 1RB#24 | 22.61 | 24.83 | 34.77 | PASS |
| Band12 | 5MHz | 16QAM | 23035 | 12RB#6 | 21.32 | 23.54 | 34.77 | PASS |
| Band12 | 5MHz | 16QAM | 23035 | 12RB#0 | 21.35 | 23.57 | 34.77 | PASS |
| Band12 | 5MHz | 16QAM | 23035 | 12RB#13 | 21.38 | 23.60 | 34.77 | PASS |
| Band12 | 5MHz | 16QAM | 23035 | 25RB#0 | 21.32 | 23.54 | 34.77 | PASS |
| Band12 | 5MHz | 16QAM | 23095 | 1RB#0 | 22.27 | 24.49 | 34.77 | PASS |
| Band12 | 5MHz | 16QAM | 23095 | 1RB#12 | 22.39 | 24.61 | 34.77 | PASS |
| Band12 | 5MHz | 16QAM | 23095 | 1RB#24 | 22.53 | 24.75 | 34.77 | PASS |
| Band12 | 5MHz | 16QAM | 23095 | 12RB#13 | 21.26 | 23.48 | 34.77 | PASS |
| Band12 | 5MHz | 16QAM | 23095 | 12RB#0 | 21.27 | 23.49 | 34.77 | PASS |
| Band12 | 5MHz | 16QAM | 23095 | 12RB#6 | 21.25 | 23.47 | 34.77 | PASS |
| Band12 | 5MHz | 16QAM | 23095 | 25RB#0 | 21.39 | 23.61 | 34.77 | PASS |
| Band12 | 5MHz | 16QAM | 23155 | 1RB#12 | 22.34 | 24.56 | 34.77 | PASS |
| Band12 | 5MHz | 16QAM | 23155 | 1RB#0 | 22.60 | 24.82 | 34.77 | PASS |
| Band12 | 5MHz | 16QAM | 23155 | 1RB#24 | 22.36 | 24.58 | 34.77 | PASS |
| Band12 | 5MHz | 16QAM | 23155 | 12RB#0 | 21.36 | 23.58 | 34.77 | PASS |
| Band12 | 5MHz | 16QAM | 23155 | 12RB#6 | 21.43 | 23.65 | 34.77 | PASS |
| Band12 | 5MHz | 16QAM | 23155 | 12RB#13 | 21.40 | 23.62 | 34.77 | PASS |
| Band12 | 5MHz | 16QAM | 23155 | 25RB#0 | 21.49 | 23.71 | 34.77 | 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@sgs.com

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

| | | | | | | | | |
|--------|-------|-------|-------|---------|-------|-------|-------|------|
| Band12 | 10MHz | QPSK | 23060 | 1RB#49 | 23.32 | 25.54 | 34.77 | PASS |
| Band12 | 10MHz | QPSK | 23060 | 1RB#24 | 23.33 | 25.55 | 34.77 | PASS |
| Band12 | 10MHz | QPSK | 23060 | 1RB#0 | 23.32 | 25.54 | 34.77 | PASS |
| Band12 | 10MHz | QPSK | 23060 | 25RB#0 | 22.31 | 24.53 | 34.77 | PASS |
| Band12 | 10MHz | QPSK | 23060 | 25RB#12 | 22.41 | 24.63 | 34.77 | PASS |
| Band12 | 10MHz | QPSK | 23060 | 25RB#25 | 22.56 | 24.78 | 34.77 | PASS |
| Band12 | 10MHz | QPSK | 23060 | 50RB#0 | 22.53 | 24.75 | 34.77 | PASS |
| Band12 | 10MHz | QPSK | 23095 | 1RB#0 | 23.26 | 25.48 | 34.77 | PASS |
| Band12 | 10MHz | QPSK | 23095 | 1RB#49 | 23.35 | 25.57 | 34.77 | PASS |
| Band12 | 10MHz | QPSK | 23095 | 1RB#24 | 23.38 | 25.60 | 34.77 | PASS |
| Band12 | 10MHz | QPSK | 23095 | 25RB#25 | 22.36 | 24.58 | 34.77 | PASS |
| Band12 | 10MHz | QPSK | 23095 | 25RB#0 | 22.48 | 24.70 | 34.77 | PASS |
| Band12 | 10MHz | QPSK | 23095 | 25RB#12 | 22.49 | 24.71 | 34.77 | PASS |
| Band12 | 10MHz | QPSK | 23095 | 50RB#0 | 22.34 | 24.56 | 34.77 | PASS |
| Band12 | 10MHz | QPSK | 23130 | 1RB#24 | 23.16 | 25.38 | 34.77 | PASS |
| Band12 | 10MHz | QPSK | 23130 | 1RB#0 | 23.27 | 25.49 | 34.77 | PASS |
| Band12 | 10MHz | QPSK | 23130 | 1RB#49 | 23.35 | 25.57 | 34.77 | PASS |
| Band12 | 10MHz | QPSK | 23130 | 25RB#0 | 22.39 | 24.61 | 34.77 | PASS |
| Band12 | 10MHz | QPSK | 23130 | 25RB#25 | 22.36 | 24.58 | 34.77 | PASS |
| Band12 | 10MHz | QPSK | 23130 | 25RB#12 | 22.40 | 24.62 | 34.77 | PASS |
| Band12 | 10MHz | QPSK | 23130 | 50RB#0 | 22.48 | 24.70 | 34.77 | PASS |
| Band12 | 10MHz | 16QAM | 23060 | 1RB#49 | 22.68 | 24.90 | 34.77 | PASS |
| Band12 | 10MHz | 16QAM | 23060 | 1RB#0 | 22.82 | 25.04 | 34.77 | PASS |
| Band12 | 10MHz | 16QAM | 23060 | 1RB#24 | 22.72 | 24.94 | 34.77 | PASS |
| Band12 | 10MHz | 16QAM | 23060 | 25RB#25 | 21.33 | 23.55 | 34.77 | PASS |
| Band12 | 10MHz | 16QAM | 23060 | 25RB#12 | 21.41 | 23.63 | 34.77 | PASS |
| Band12 | 10MHz | 16QAM | 23060 | 25RB#0 | 21.47 | 23.69 | 34.77 | PASS |
| Band12 | 10MHz | 16QAM | 23060 | 50RB#0 | 21.40 | 23.62 | 34.77 | PASS |
| Band12 | 10MHz | 16QAM | 23095 | 1RB#49 | 22.40 | 24.62 | 34.77 | PASS |
| Band12 | 10MHz | 16QAM | 23095 | 1RB#0 | 22.52 | 24.74 | 34.77 | PASS |
| Band12 | 10MHz | 16QAM | 23095 | 1RB#24 | 22.85 | 25.07 | 34.77 | PASS |
| Band12 | 10MHz | 16QAM | 23095 | 25RB#25 | 21.27 | 23.49 | 34.77 | PASS |
| Band12 | 10MHz | 16QAM | 23095 | 25RB#0 | 21.38 | 23.60 | 34.77 | 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

| | | | | | | | | |
|--------|-------|-------|-------|---------|-------|-------|-------|------|
| Band12 | 10MHz | 16QAM | 23095 | 25RB#12 | 21.41 | 23.63 | 34.77 | PASS |
| Band12 | 10MHz | 16QAM | 23095 | 50RB#0 | 21.32 | 23.54 | 34.77 | PASS |
| Band12 | 10MHz | 16QAM | 23130 | 1RB#24 | 22.65 | 24.87 | 34.77 | PASS |
| Band12 | 10MHz | 16QAM | 23130 | 1RB#0 | 22.63 | 24.85 | 34.77 | PASS |
| Band12 | 10MHz | 16QAM | 23130 | 1RB#49 | 22.69 | 24.91 | 34.77 | PASS |
| Band12 | 10MHz | 16QAM | 23130 | 25RB#0 | 21.28 | 23.50 | 34.77 | PASS |
| Band12 | 10MHz | 16QAM | 23130 | 25RB#12 | 21.46 | 23.68 | 34.77 | PASS |
| Band12 | 10MHz | 16QAM | 23130 | 25RB#25 | 21.26 | 23.48 | 34.77 | PASS |
| Band12 | 10MHz | 16QAM | 23130 | 50RB#0 | 21.39 | 23.61 | 34.77 | 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-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.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

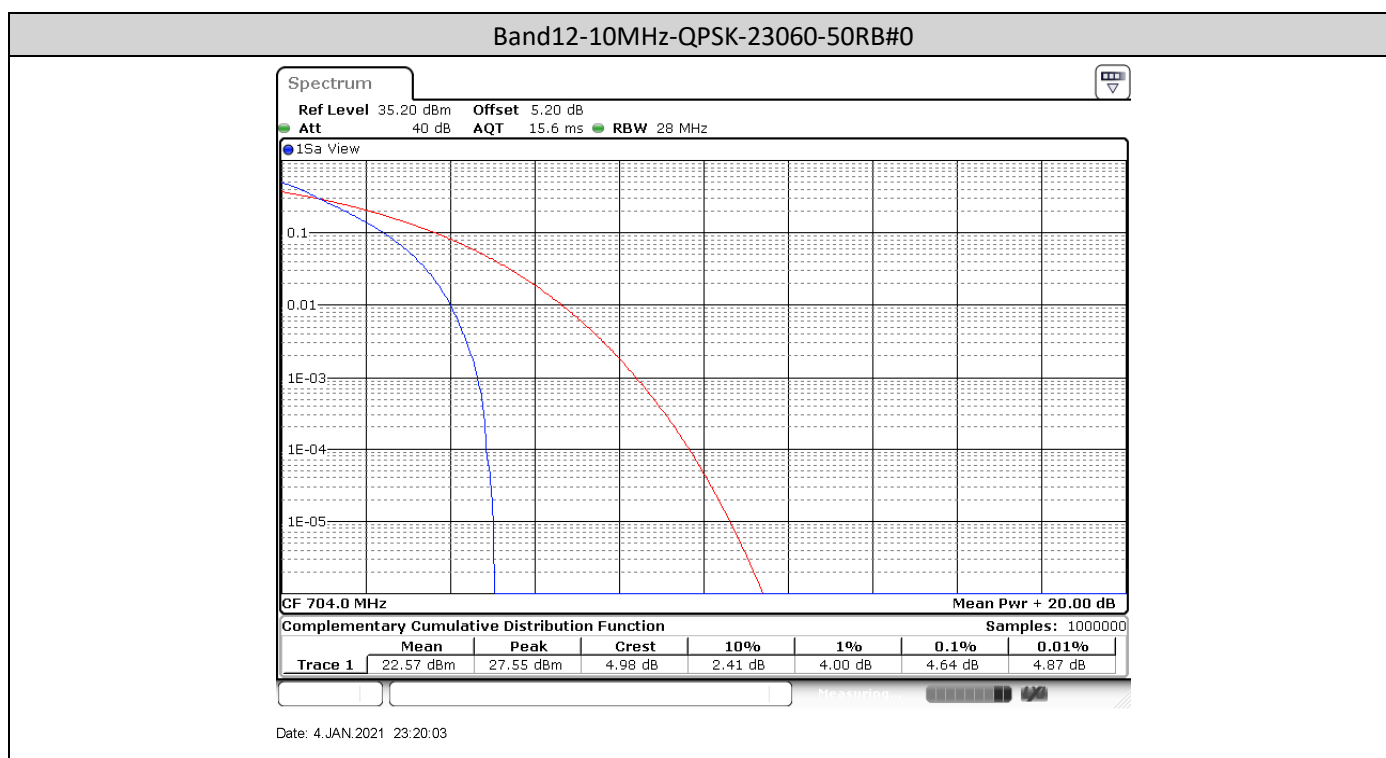


2. Peak-to-Average Ratio (CCDF)

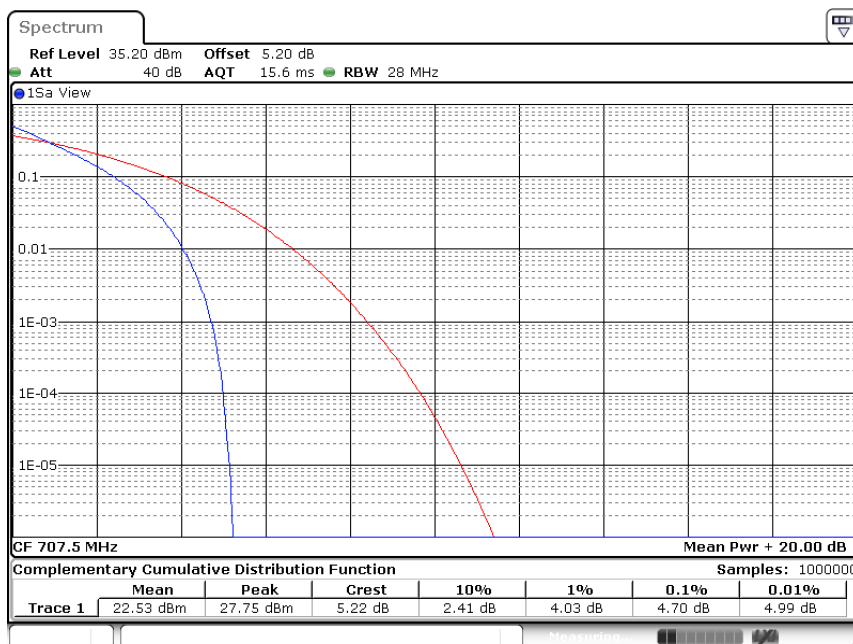
2.1. Test Result

| Band | Bandwidth | Modulation | Channel | RB Configuration | Result(dB) | Limit(dB) | Verdict |
|--------|-----------|------------|---------|------------------|------------|-----------|---------|
| Band12 | 10MHz | QPSK | 23060 | 50RB#0 | 4.64 | 13 | PASS |
| Band12 | 10MHz | QPSK | 23095 | 50RB#0 | 4.70 | 13 | PASS |
| Band12 | 10MHz | QPSK | 23130 | 50RB#0 | 4.78 | 13 | PASS |
| Band12 | 10MHz | 16QAM | 23060 | 50RB#0 | 5.42 | 13 | PASS |
| Band12 | 10MHz | 16QAM | 23095 | 50RB#0 | 5.54 | 13 | PASS |
| Band12 | 10MHz | 16QAM | 23130 | 50RB#0 | 5.62 | 13 | PASS |

2.2. Test Plots

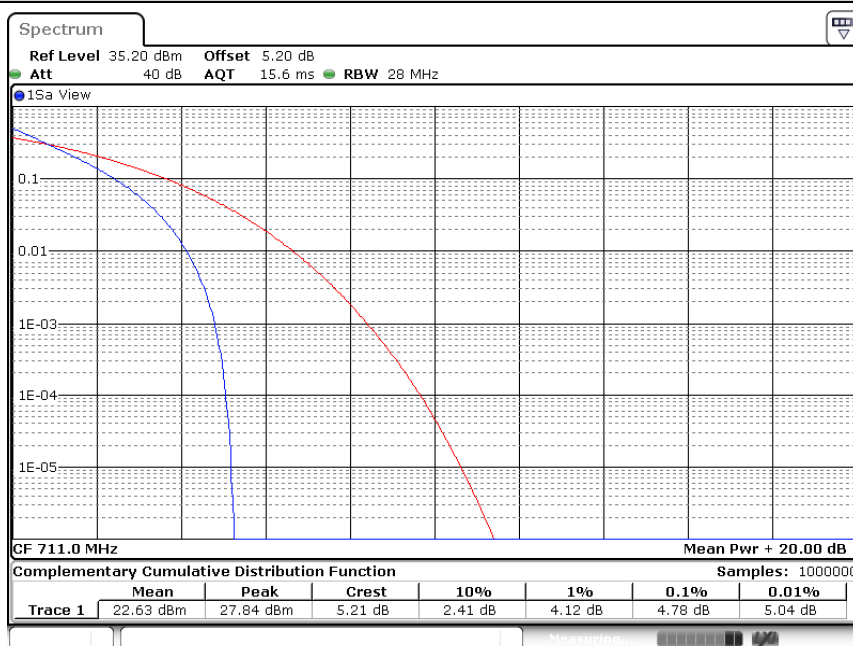


Band12-10MHz-QPSK-23095-50RB#0



Date: 4.JAN.2021 23:20:26

Band12-10MHz-QPSK-23130-50RB#0



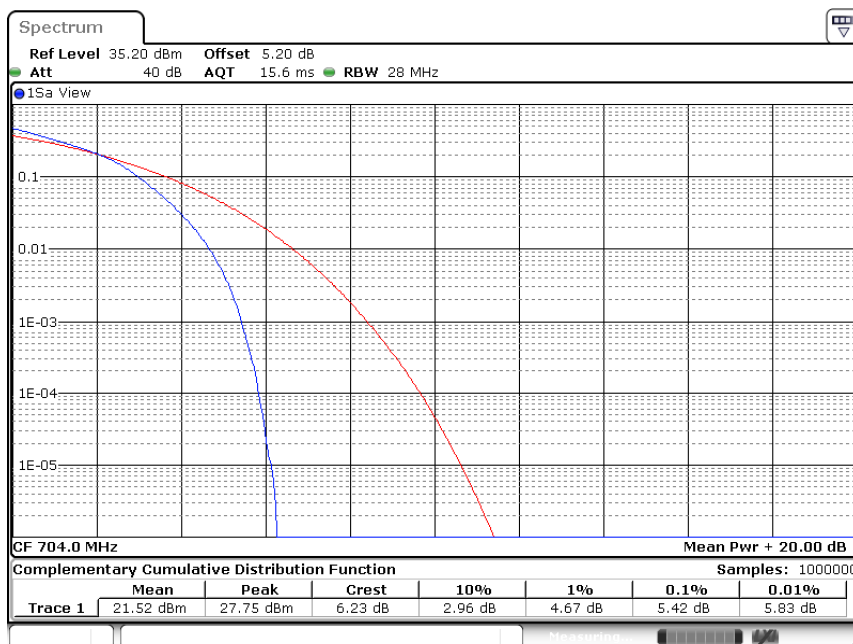
Date: 4.JAN.2021 23:20:49



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.

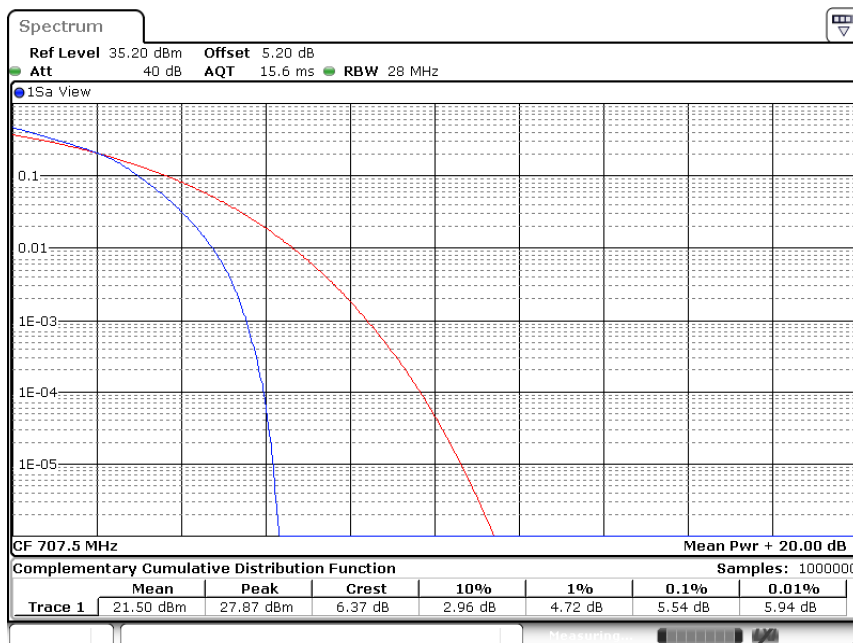
Attention: To check the authenticity of testing/inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.com.cn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

Band12-10MHz-16QAM-23060-50RB#0



Date: 4.JAN.2021 23:20:15

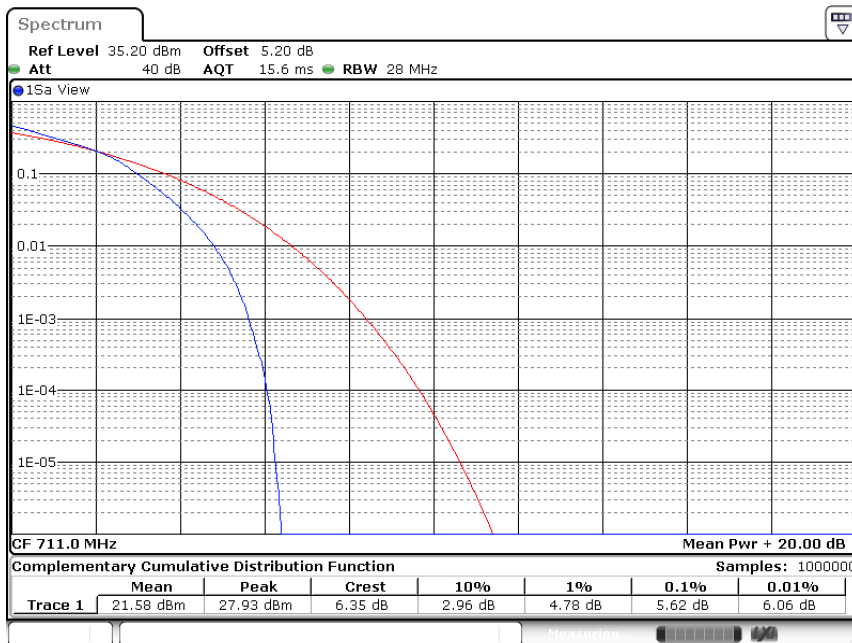
Band12-10MHz-16QAM-23095-50RB#0



Date: 4.JAN.2021 23:20:37



Band12-10MHz-16QAM-23130-50RB#0



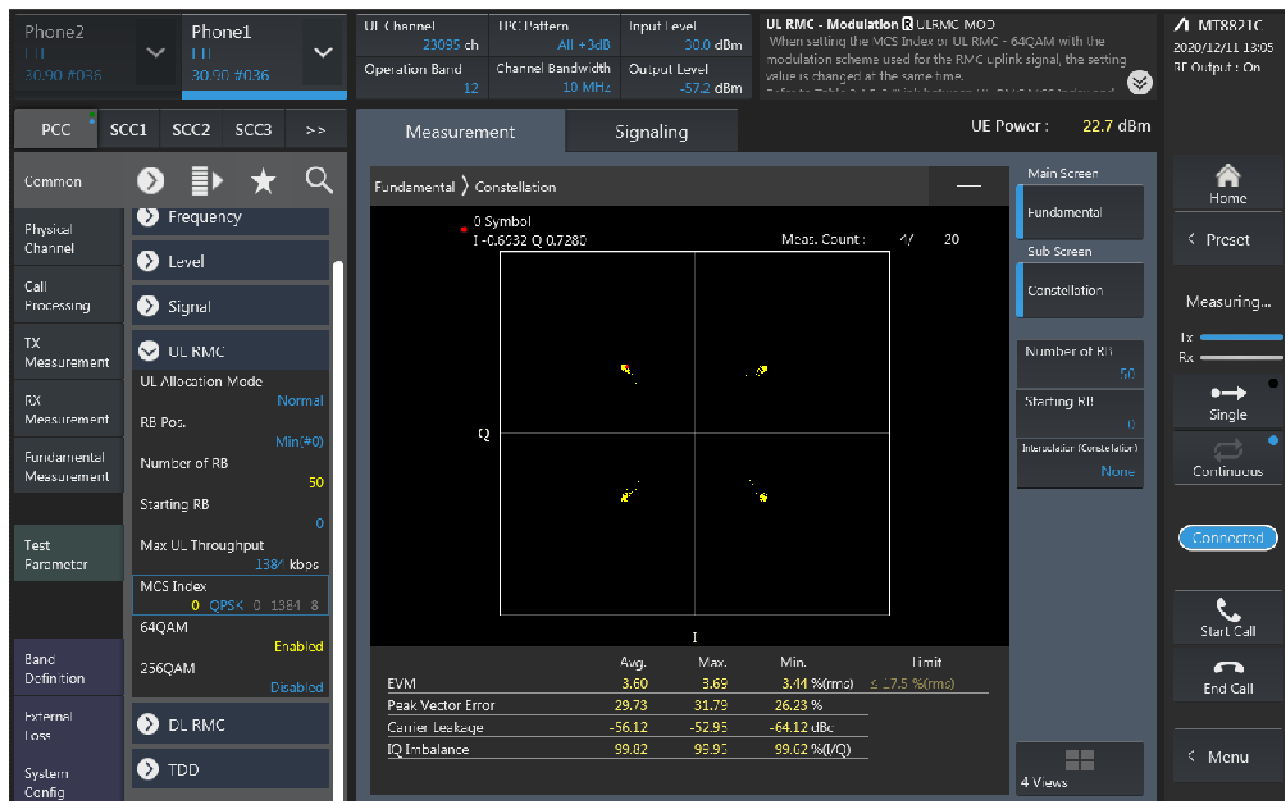
Date: 4.JAN.2021 23:21:00



3. Modulation Characteristics

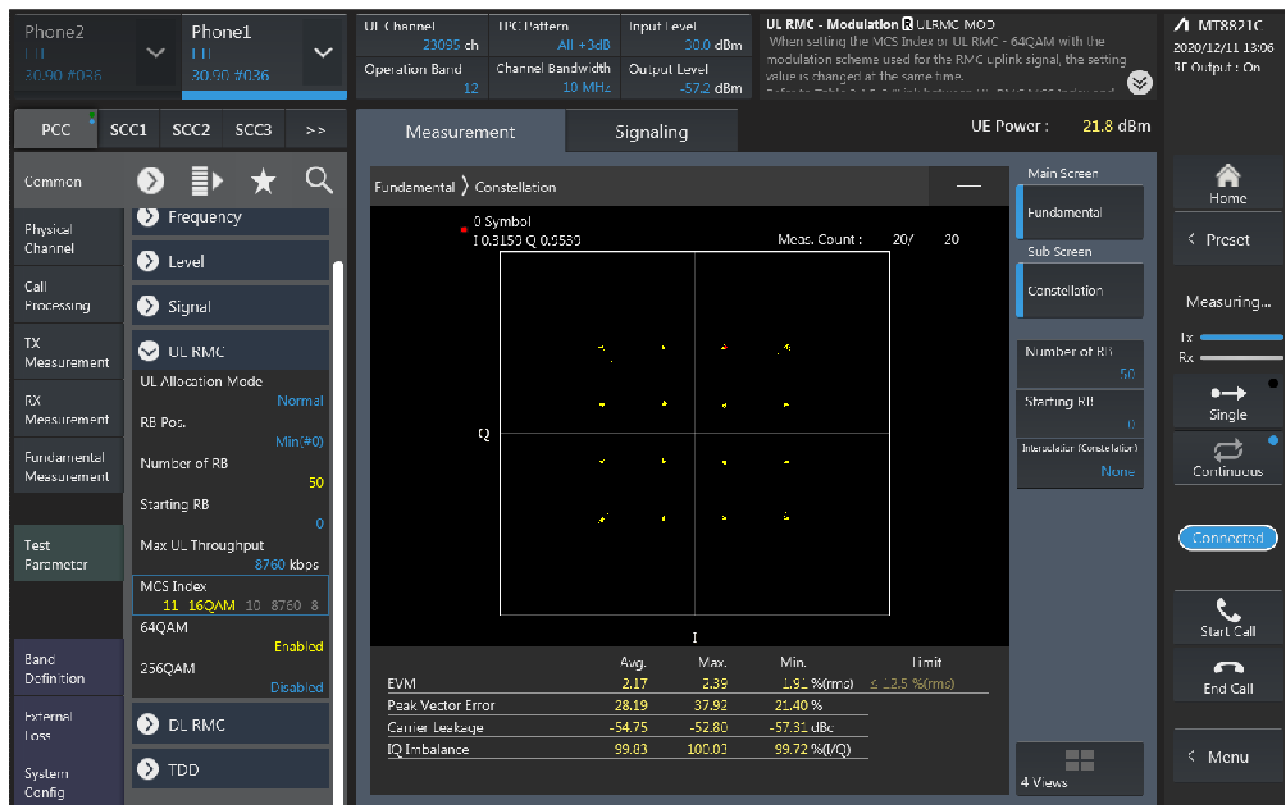
3.1. Test Mode = LTE /TM1 10MHz

3.1.1. Test Channel = MCH



3.2. Test Mode = LTE /TM2 10MHz

3.2.1. Test Channel = MCH





4. 26dB Bandwidth and Occupied Bandwidth

4.1. Test Result

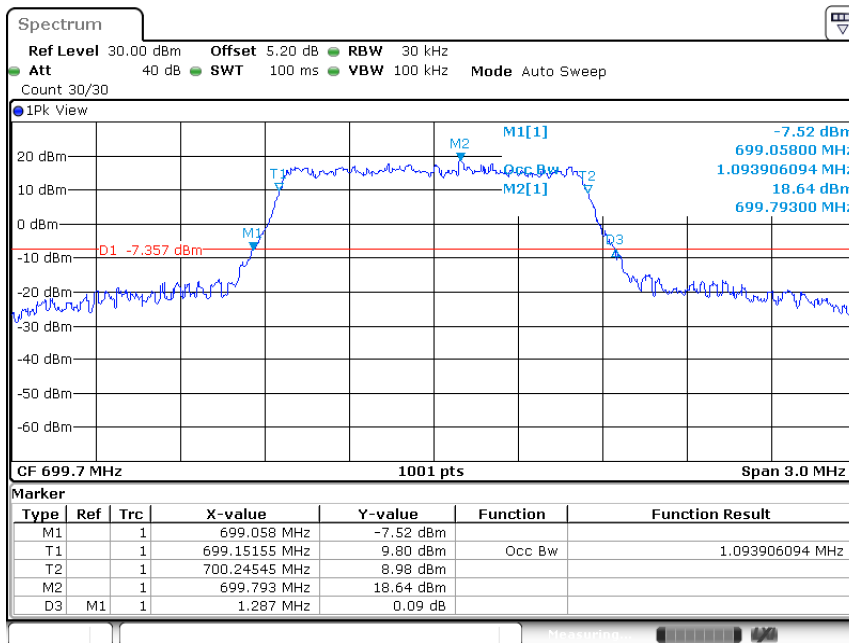
| Band | Bandwidth | Modulation | Channel | RB Configuration | Occupied Bandwidth (MHz) | 26dB Bandwidth (MHz) | Verdict |
|--------|-----------|------------|---------|------------------|--------------------------|----------------------|---------|
| Band12 | 1.4MHz | QPSK | 23017 | 6RB#0 | 1.094 | 1.287 | PASS |
| Band12 | 1.4MHz | QPSK | 23095 | 6RB#0 | 1.088 | 1.287 | PASS |
| Band12 | 1.4MHz | QPSK | 23173 | 6RB#0 | 1.094 | 1.296 | PASS |
| Band12 | 1.4MHz | 16QAM | 23017 | 6RB#0 | 1.091 | 1.281 | PASS |
| Band12 | 1.4MHz | 16QAM | 23095 | 6RB#0 | 1.088 | 1.290 | PASS |
| Band12 | 1.4MHz | 16QAM | 23173 | 6RB#0 | 1.094 | 1.290 | PASS |
| Band12 | 3MHz | QPSK | 23025 | 15RB#0 | 2.691 | 2.928 | PASS |
| Band12 | 3MHz | QPSK | 23095 | 15RB#0 | 2.691 | 2.922 | PASS |
| Band12 | 3MHz | QPSK | 23165 | 15RB#0 | 2.691 | 2.934 | PASS |
| Band12 | 3MHz | 16QAM | 23025 | 15RB#0 | 2.679 | 2.904 | PASS |
| Band12 | 3MHz | 16QAM | 23095 | 15RB#0 | 2.679 | 2.904 | PASS |
| Band12 | 3MHz | 16QAM | 23165 | 15RB#0 | 2.679 | 2.898 | PASS |
| Band12 | 5MHz | QPSK | 23035 | 25RB#0 | 4.486 | 5.100 | PASS |
| Band12 | 5MHz | QPSK | 23095 | 25RB#0 | 4.476 | 5.200 | PASS |
| Band12 | 5MHz | QPSK | 23155 | 25RB#0 | 4.486 | 5.090 | PASS |
| Band12 | 5MHz | 16QAM | 23035 | 25RB#0 | 4.496 | 5.110 | PASS |
| Band12 | 5MHz | 16QAM | 23095 | 25RB#0 | 4.496 | 5.090 | PASS |
| Band12 | 5MHz | 16QAM | 23155 | 25RB#0 | 4.496 | 5.110 | PASS |
| Band12 | 10MHz | QPSK | 23060 | 50RB#0 | 8.931 | 9.860 | PASS |
| Band12 | 10MHz | QPSK | 23095 | 50RB#0 | 8.931 | 9.860 | PASS |
| Band12 | 10MHz | QPSK | 23130 | 50RB#0 | 8.951 | 9.920 | PASS |
| Band12 | 10MHz | 16QAM | 23060 | 50RB#0 | 8.951 | 9.880 | PASS |
| Band12 | 10MHz | 16QAM | 23095 | 50RB#0 | 8.931 | 9.860 | PASS |
| Band12 | 10MHz | 16QAM | 23130 | 50RB#0 | 8.971 | 9.860 | PASS |





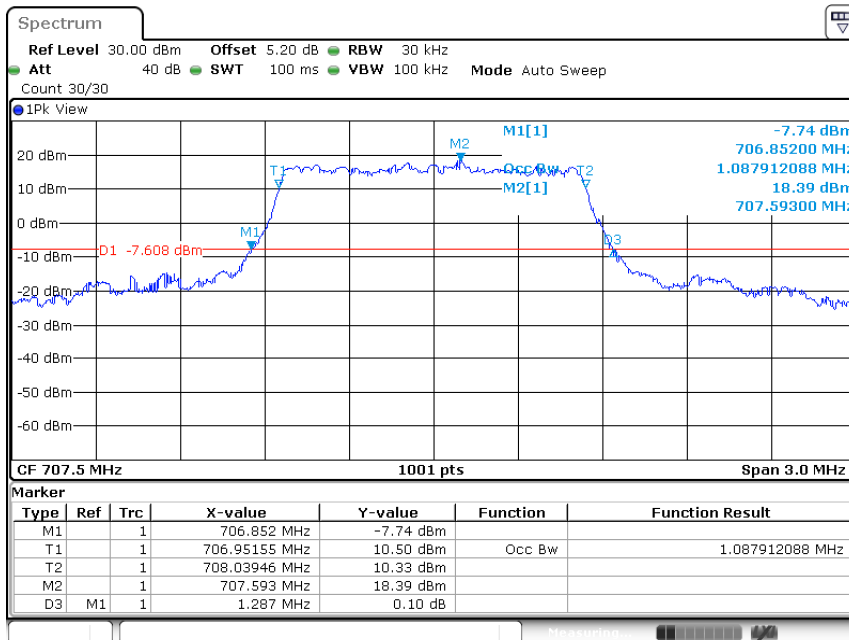
4.2. Test Plots

Band12-1.4MHz-QPSK-23017-6RB#0-1.094



Date: 4.JAN.2021 22:53:31

Band12-1.4MHz-QPSK-23095-6RB#0-1.088



Date: 4.JAN.2021 22:53:57



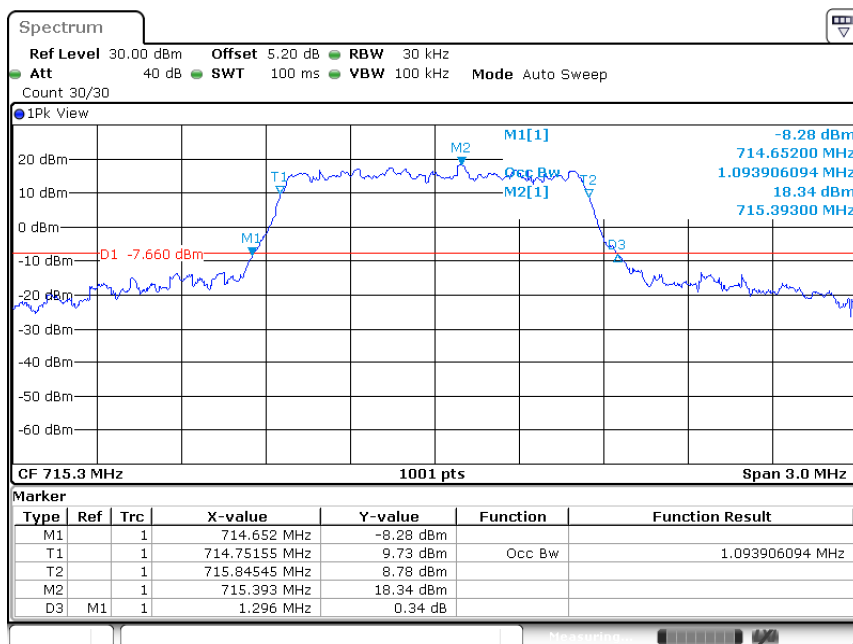
SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (CMAA) Calibration Laboratory

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-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

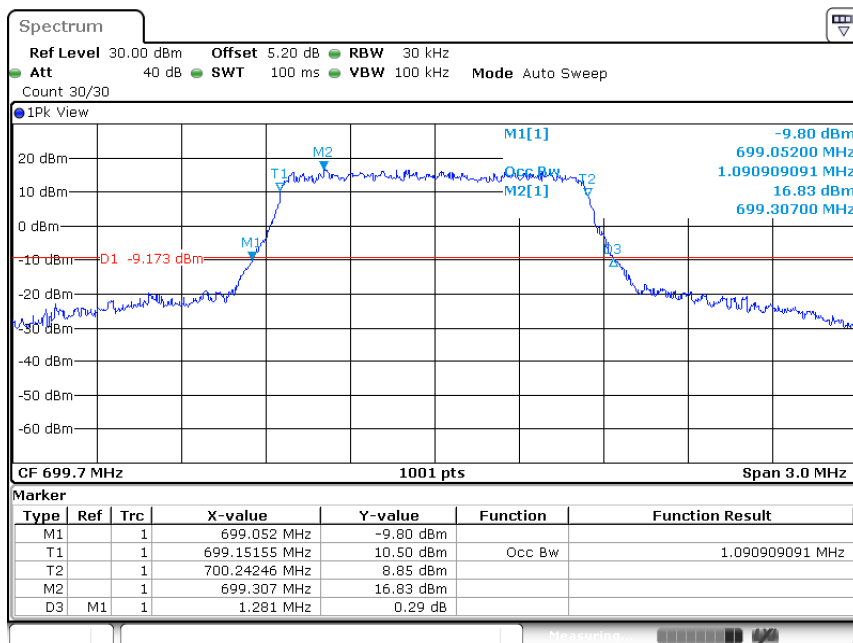
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn
中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

Band12-1.4MHz-QPSK-23173-6RB#0-1.094



Date: 4.JAN.2021 22:54:23

Band12-1.4MHz-16QAM-23017-6RB#0-1.091

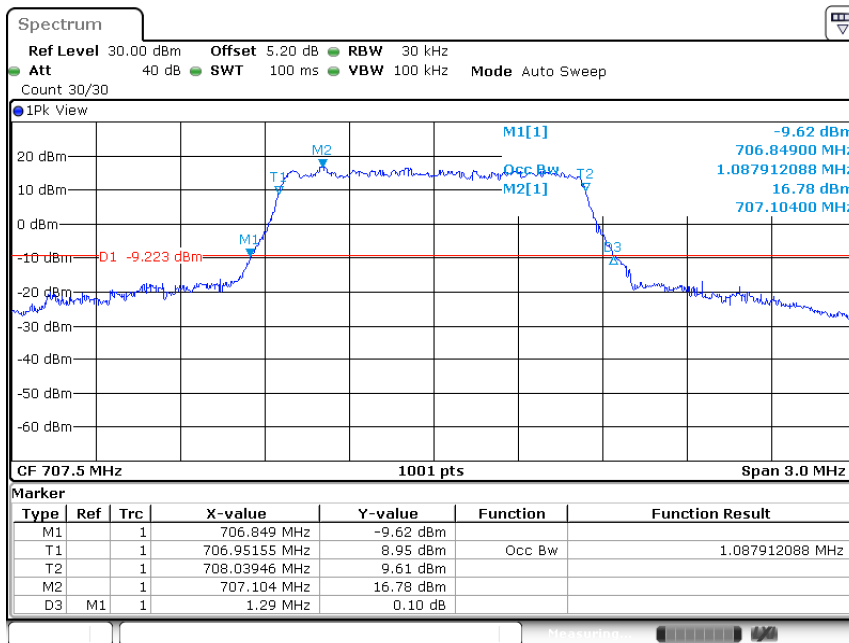


Date: 4.JAN.2021 22:53:44



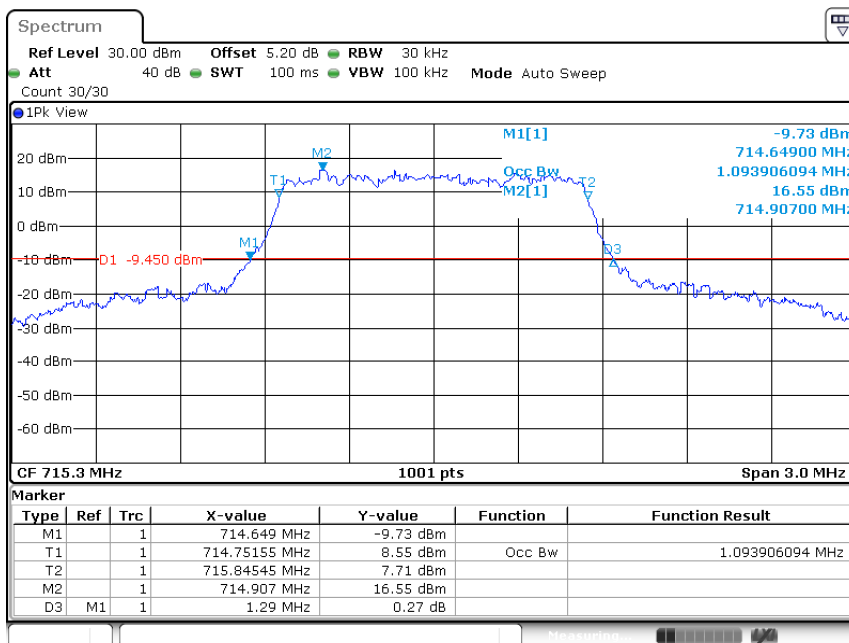


Band12-1.4MHz-16QAM-23095-6RB#0-1.088



Date: 4.JAN.2021 22:54:10

Band12-1.4MHz-16QAM-23173-6RB#0-1.094



Date: 4.JAN.2021 22:54:35

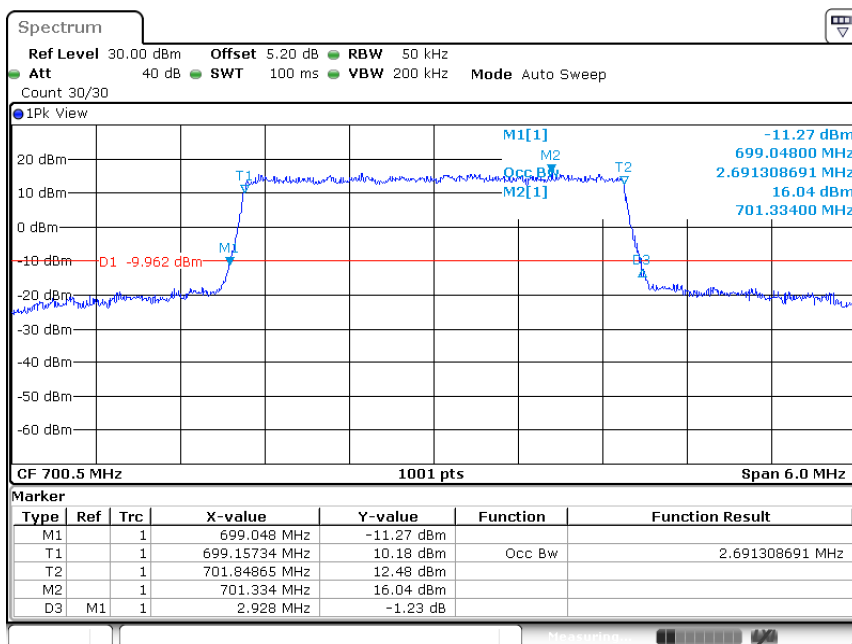


SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch

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.

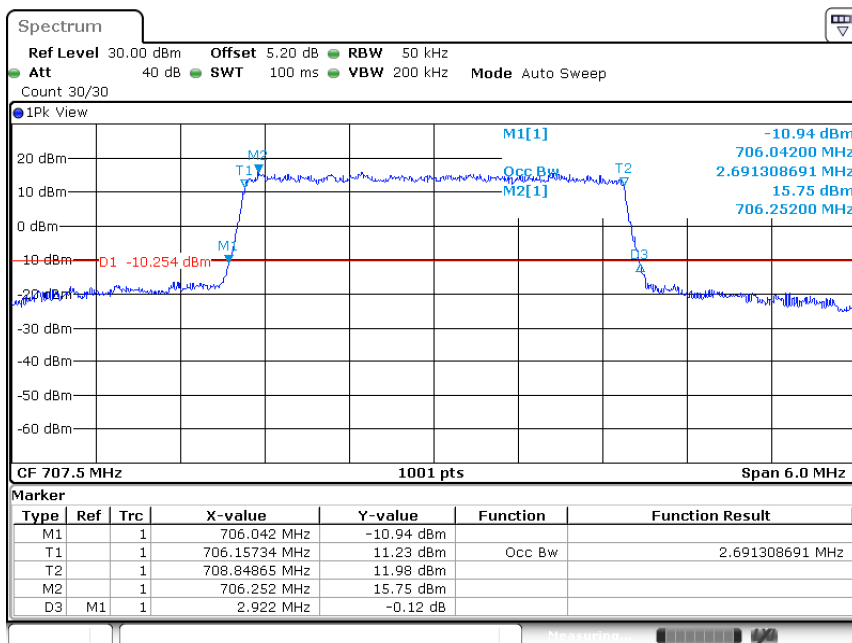
Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn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

Band12-3MHz-QPSK-23025-15RB#0-2.691



Date: 4.JAN.2021 22:54:53

Band12-3MHz-QPSK-23095-15RB#0-2.691

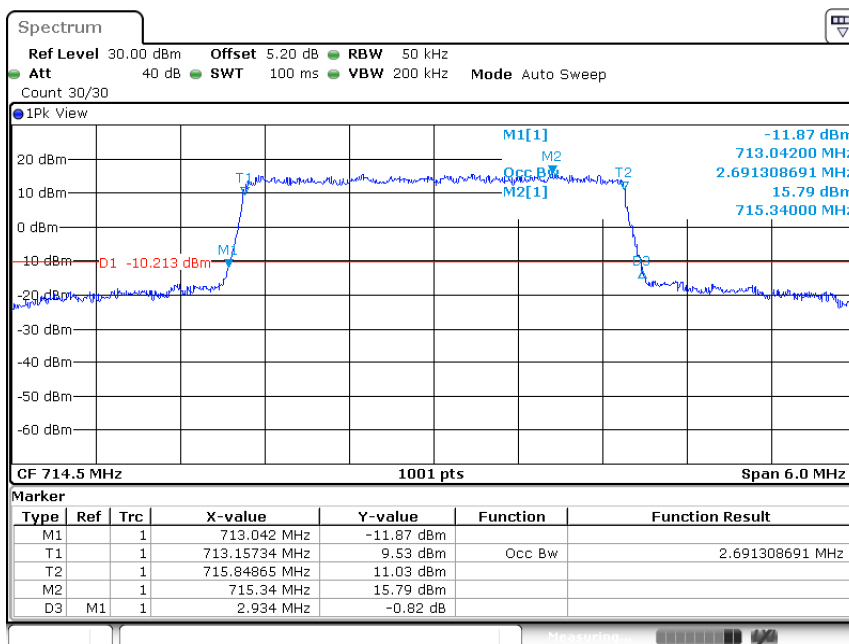


Date: 4.JAN.2021 22:55:19



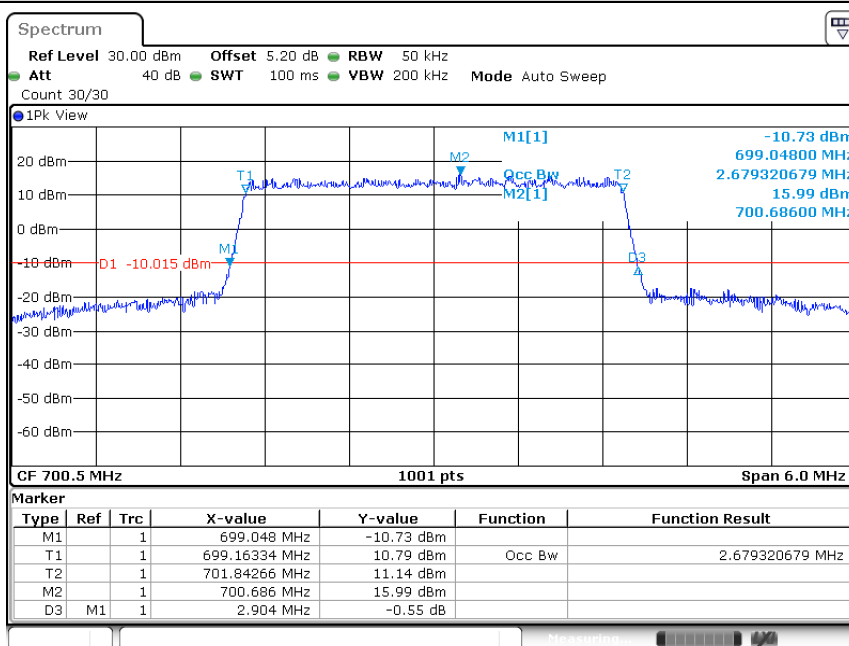


Band12-3MHz-QPSK-23165-15RB#0-2.691



Date: 4.JAN.2021 22:55:44

Band12-3MHz-16QAM-23025-15RB#0-2.679

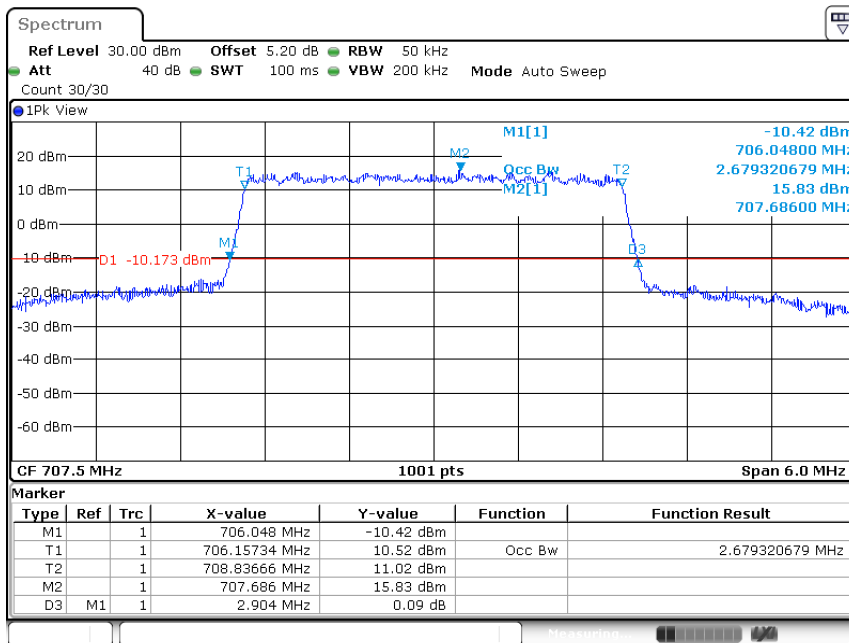


Date: 4.JAN.2021 22:55:06



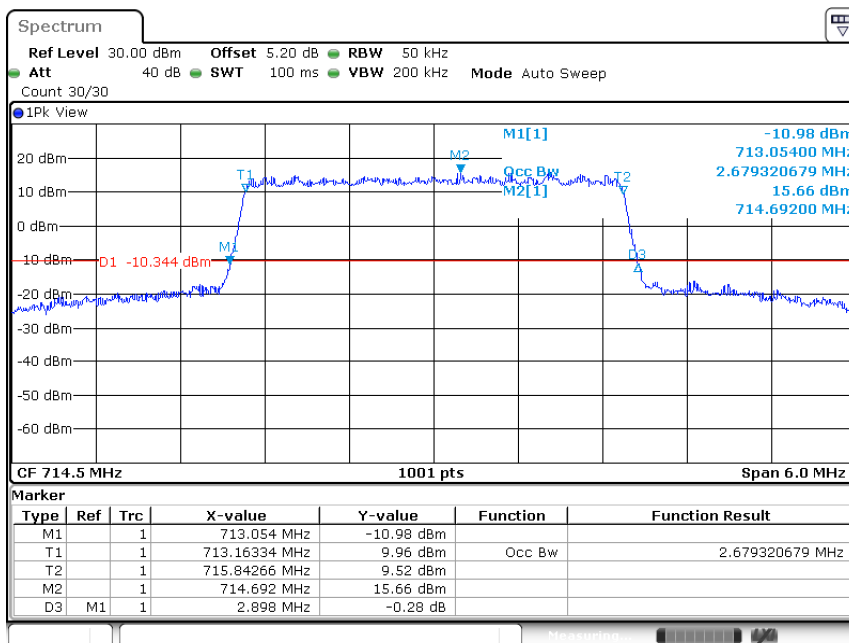


Band12-3MHz-16QAM-23095-15RB#0-2.679



Date: 4.JAN.2021 22:55:31

Band12-3MHz-16QAM-23165-15RB#0-2.679



Date: 4.JAN.2021 22:55:57

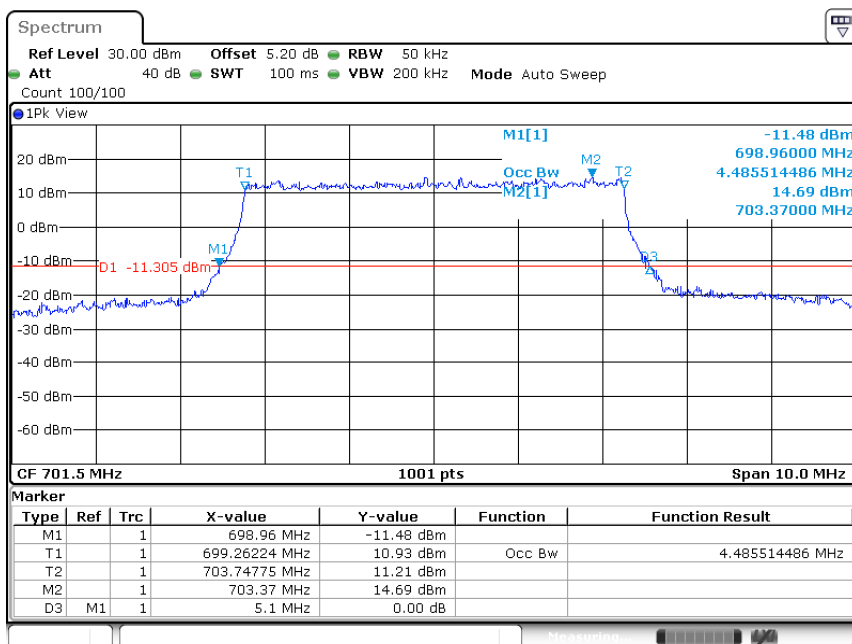


SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (CCC Laboratory)

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.

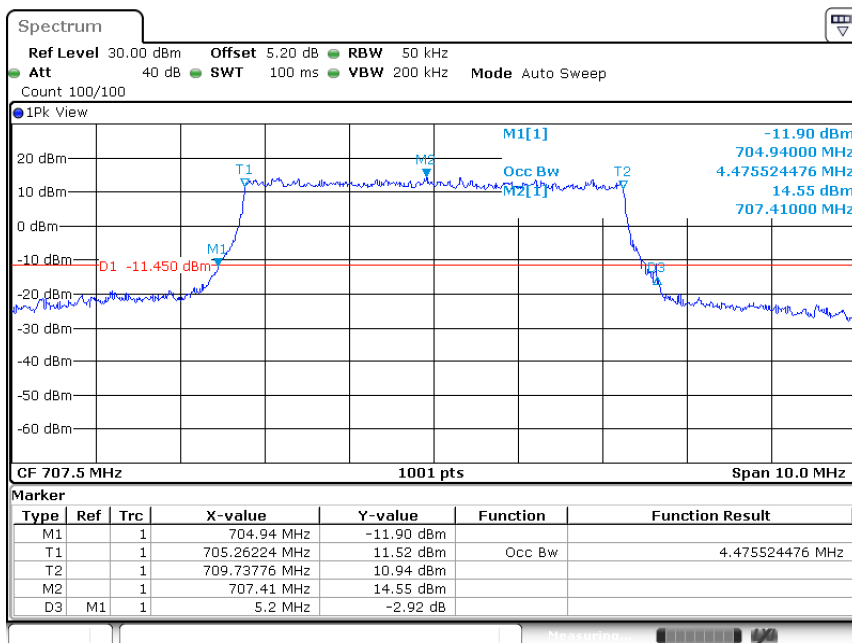
Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.com.cn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

Band12-5MHz-QPSK-23035-25RB#0-4.486



Date: 4.JAN.2021 22:56:21

Band12-5MHz-QPSK-23095-25RB#0-4.476

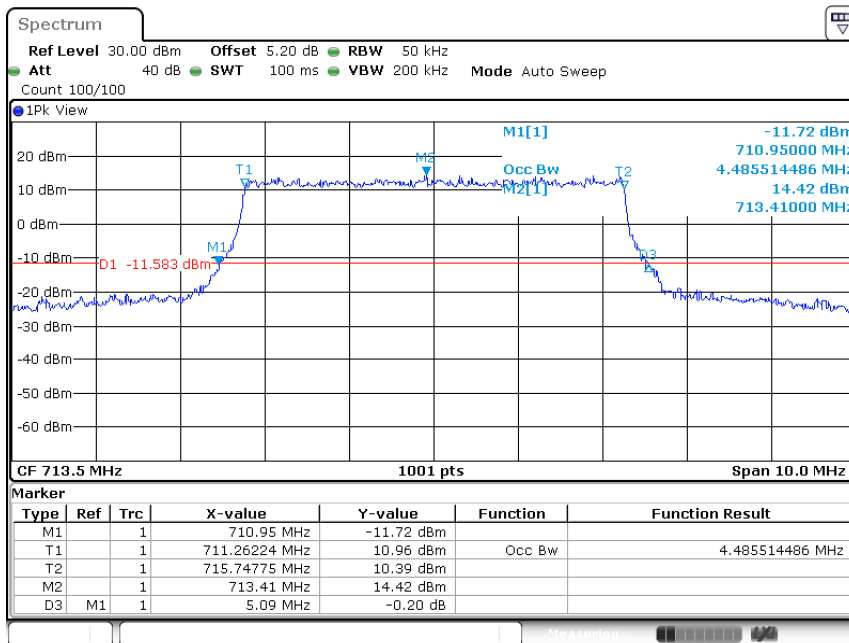


Date: 4.JAN.2021 22:57:02



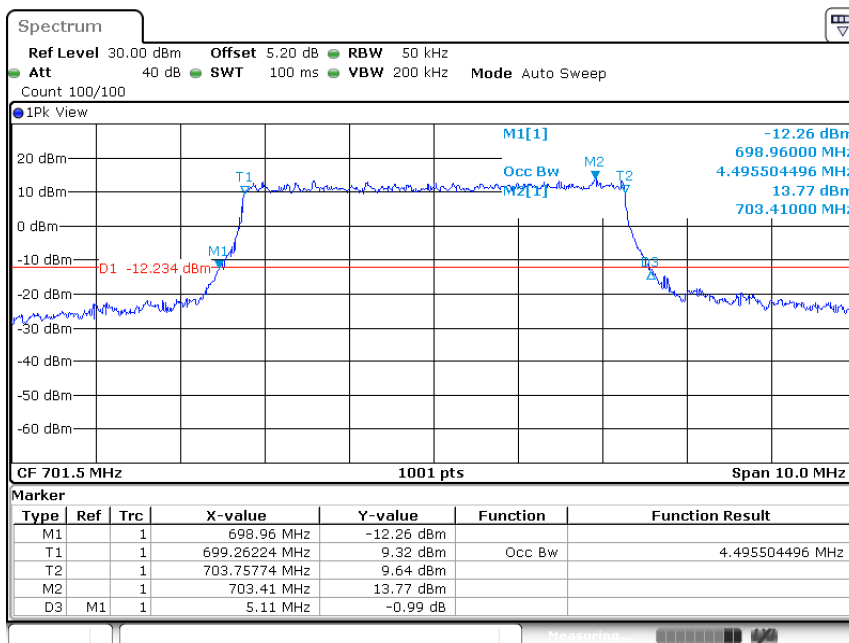


Band12-5MHz-QPSK-23155-25RB#0-4.486



Date: 4.JAN.2021 22:57:42

Band12-5MHz-16QAM-23035-25RB#0-4.496



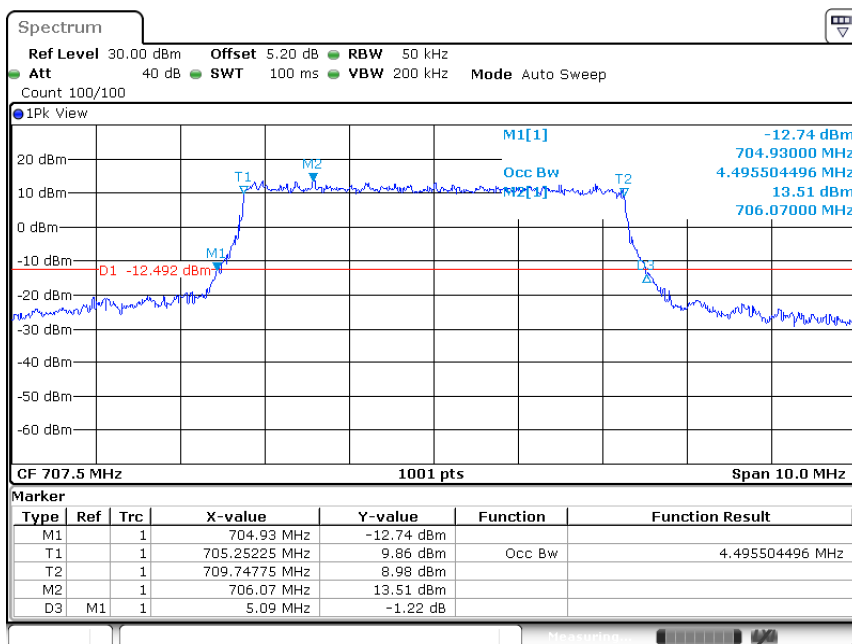
Date: 4.JAN.2021 22:56:41



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

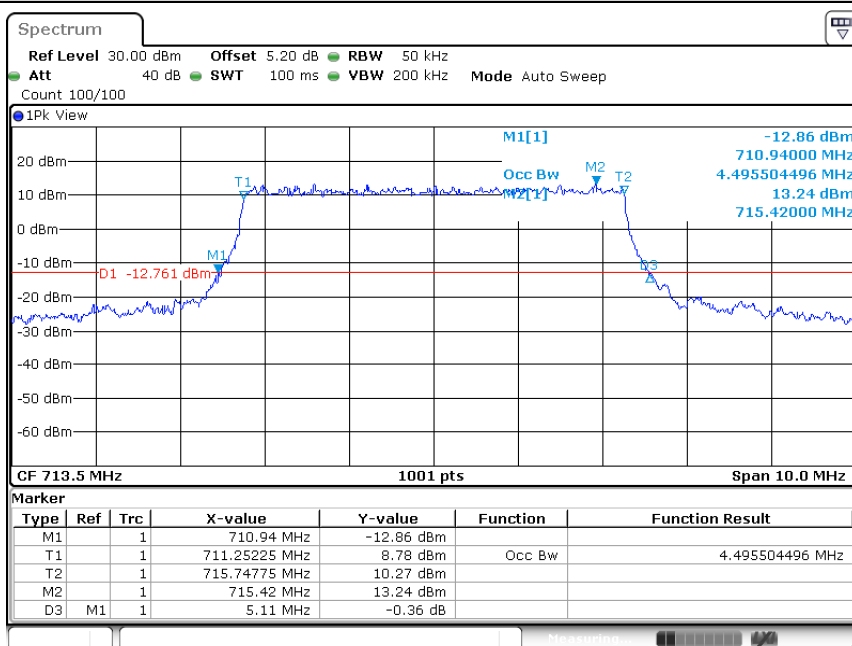
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

Band12-5MHz-16QAM-23095-25RB#0-4.496



Date: 4.JAN.2021 22:57:21

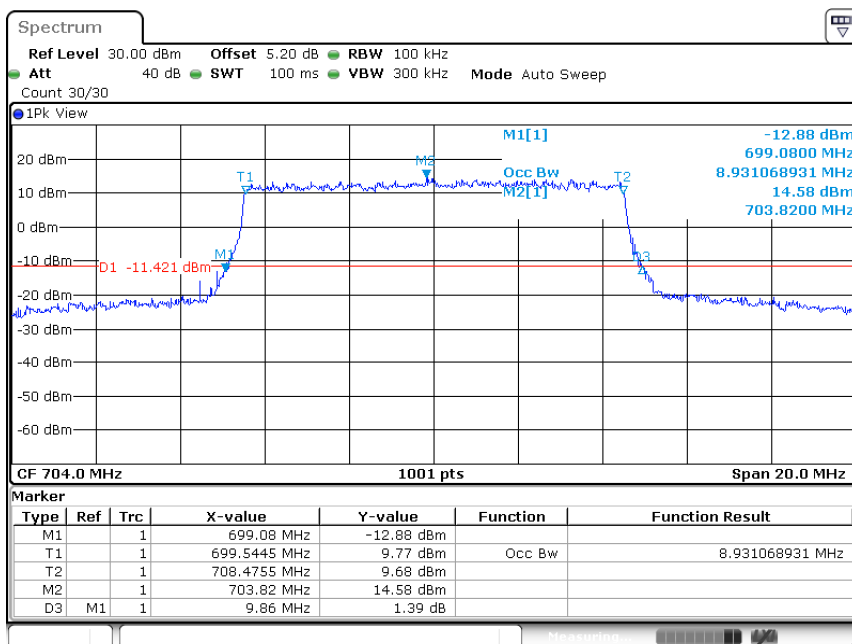
Band12-5MHz-16QAM-23155-25RB#0-4.496



Date: 4.JAN.2021 22:58:02

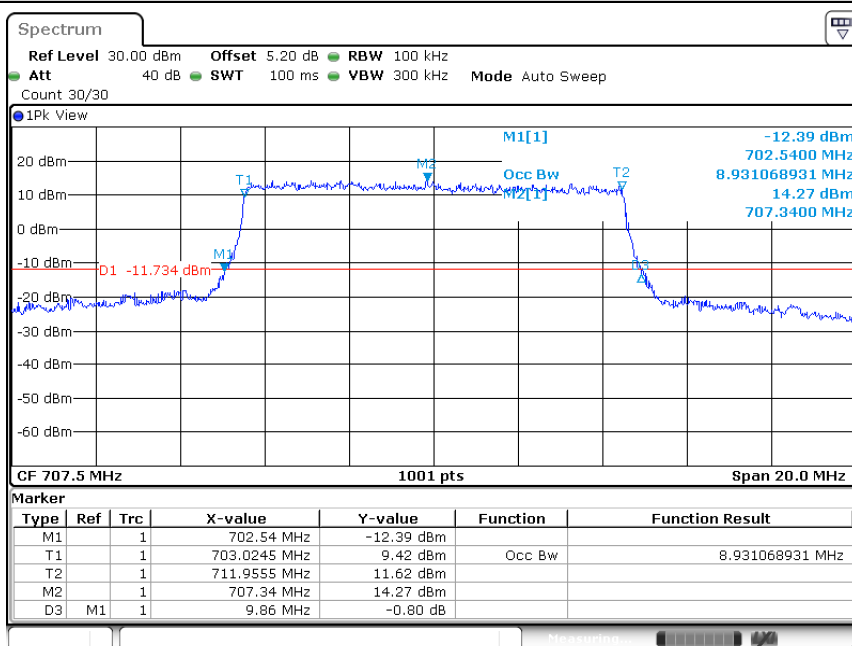


Band12-10MHz-QPSK-23060-50RB#0-8.931



Date: 4.JAN.2021 22:58:19

Band12-10MHz-QPSK-23095-50RB#0-8.931

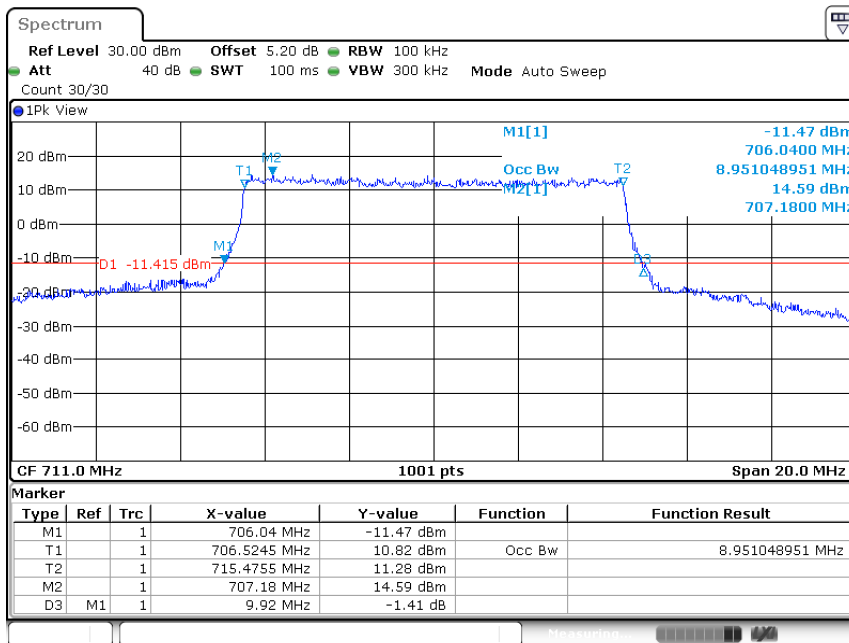


Date: 4.JAN.2021 22:58:45



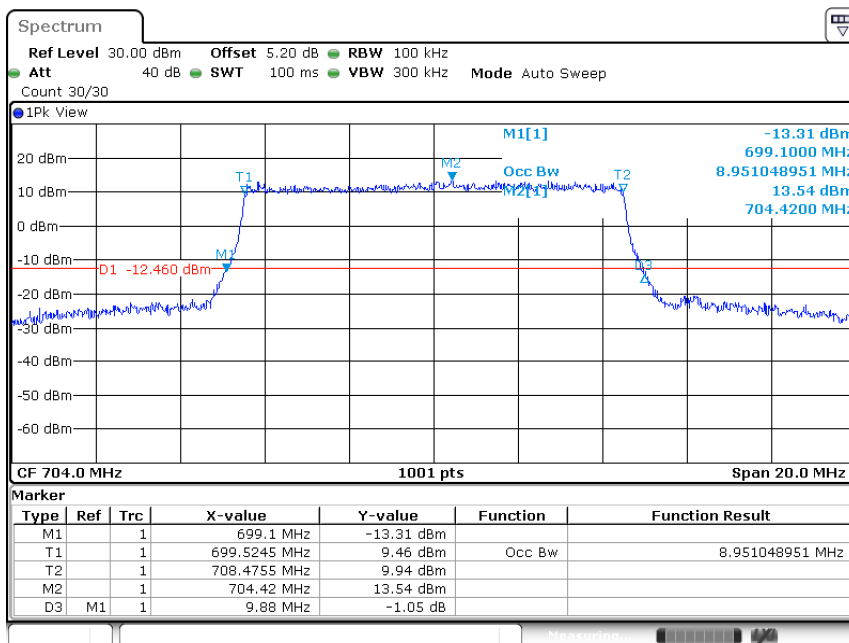


Band12-10MHz-QPSK-23130-50RB#0-8.951



Date: 4.JAN.2021 22:59:11

Band12-10MHz-16QAM-23060-50RB#0-8.951



Date: 4.JAN.2021 22:58:32



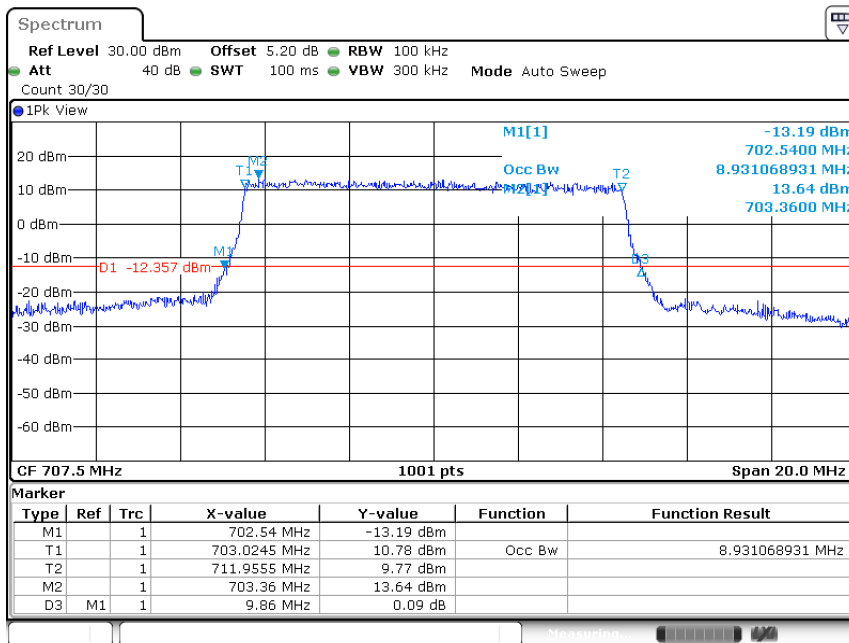
SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch

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 herein 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.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

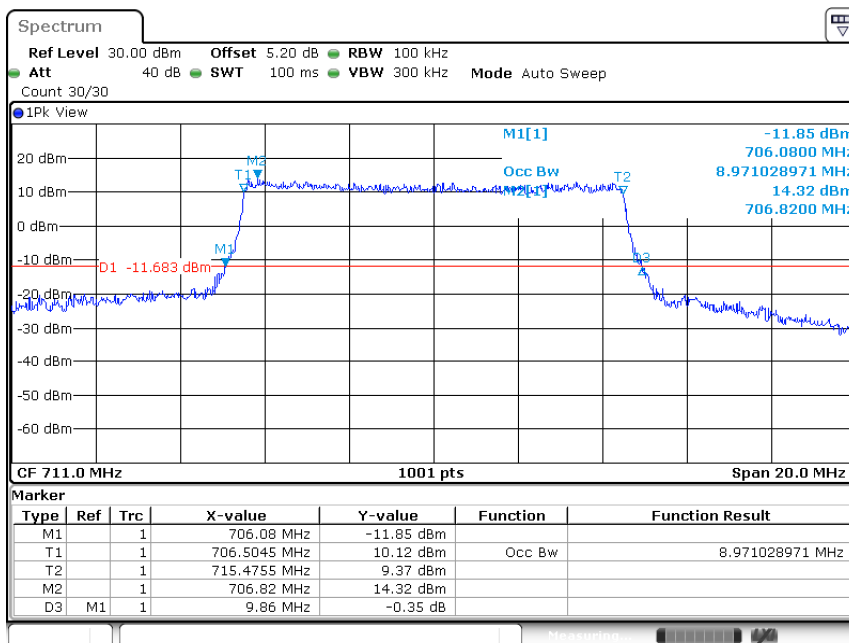


Band12-10MHz-16QAM-23095-50RB#0-8.931



Date: 4.JAN.2021 22:58:58

Band12-10MHz-16QAM-23130-50RB#0-8.971



Date: 4.JAN.2021 22:59:24

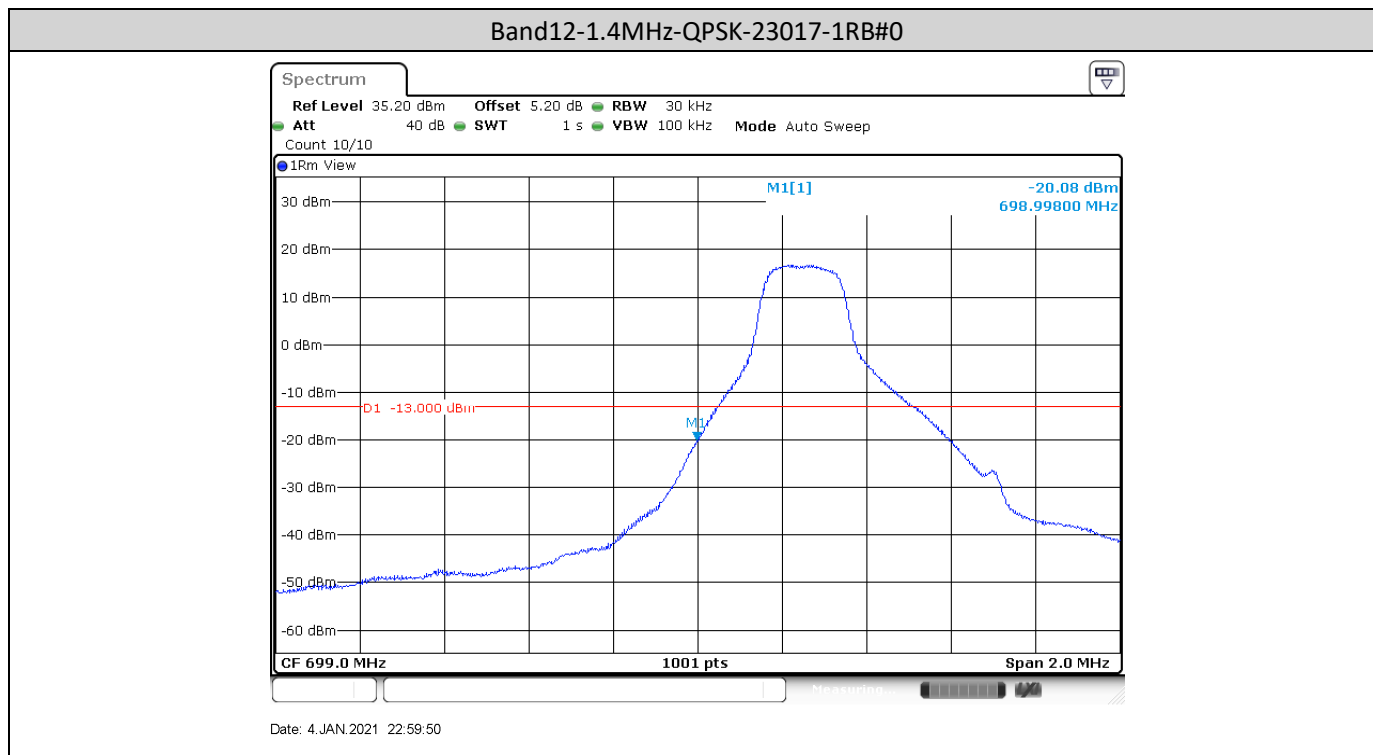


SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch

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.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

5. Band Edge Compliance

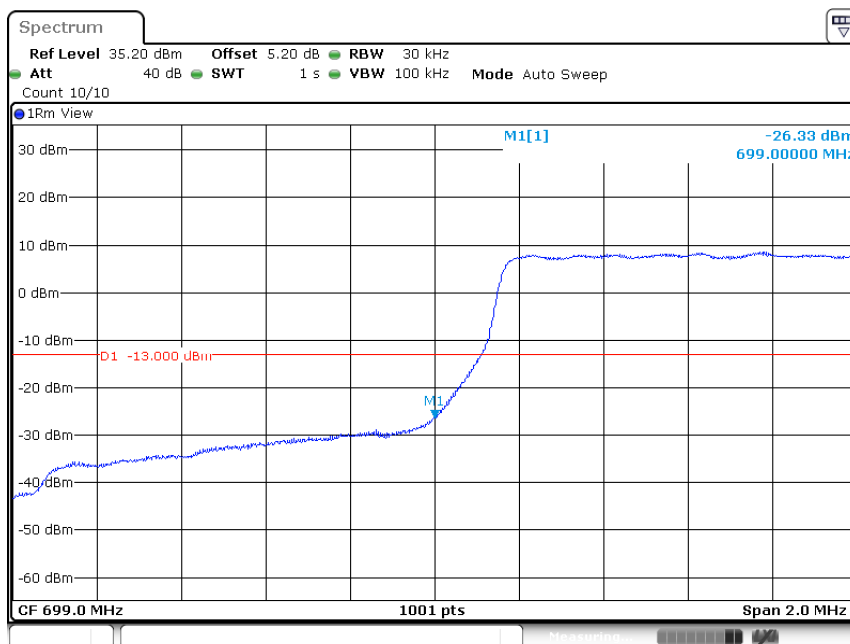
5.1. Test Plots



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.

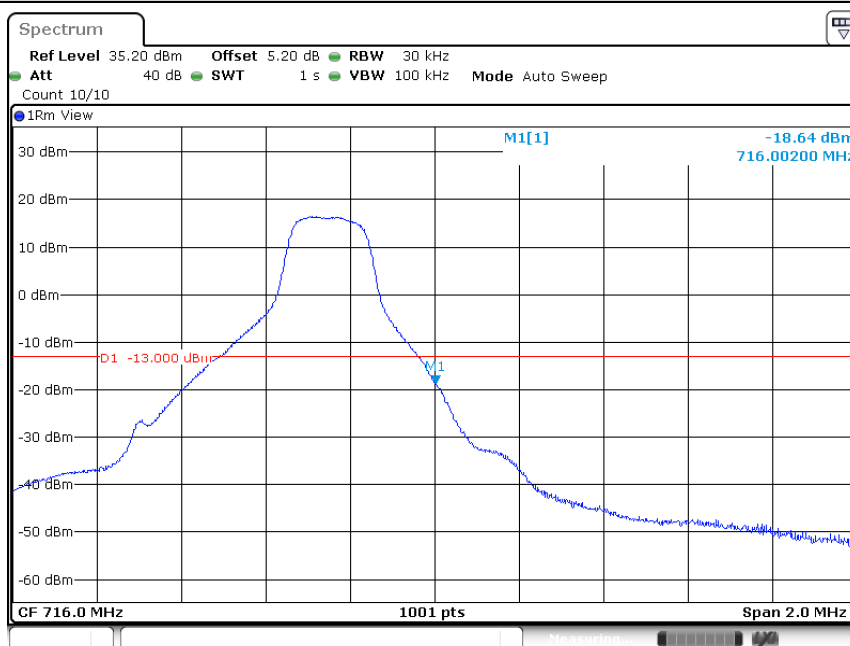


Band12-1.4MHz-QPSK-23017-6RB#0



Date: 4.JAN.2021 23:00:31

Band12-1.4MHz-QPSK-23173-1RB#5



Date: 4.JAN.2021 23:01:17



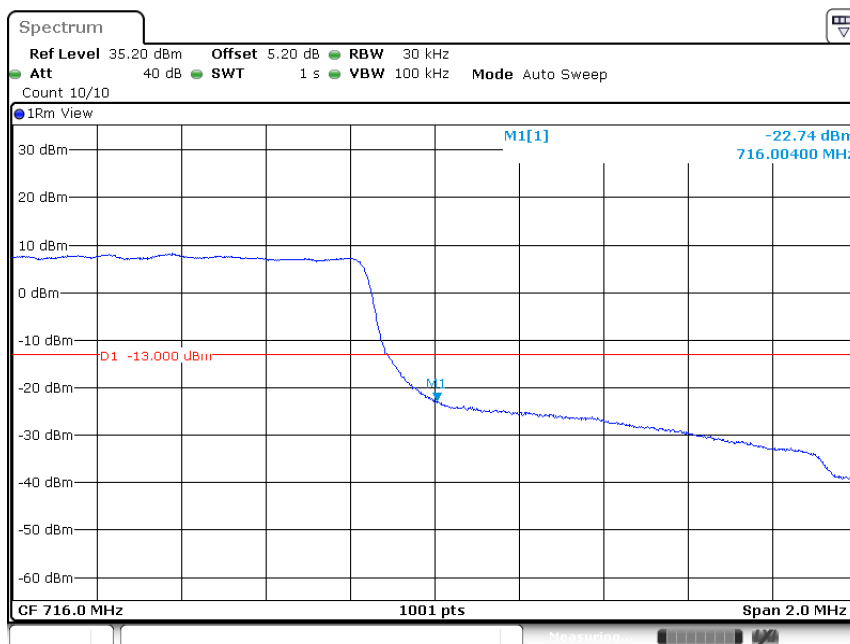
SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (CMAA Laboratory)

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.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

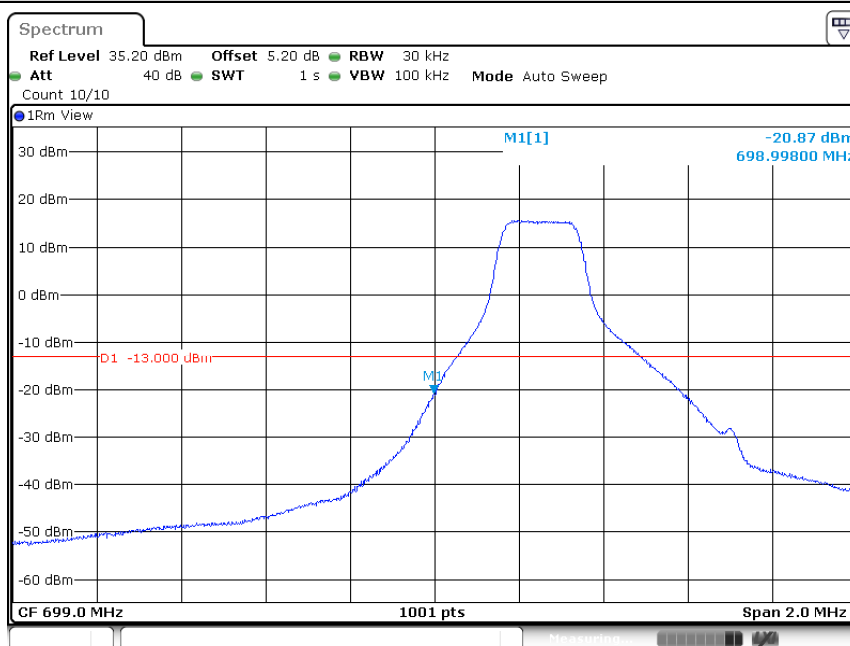


Band12-1.4MHz-QPSK-23173-6RB#0



Date: 4.JAN.2021 23:01:58

Band12-1.4MHz-16QAM-23017-1RB#0



Date: 4.JAN.2021 23:00:10

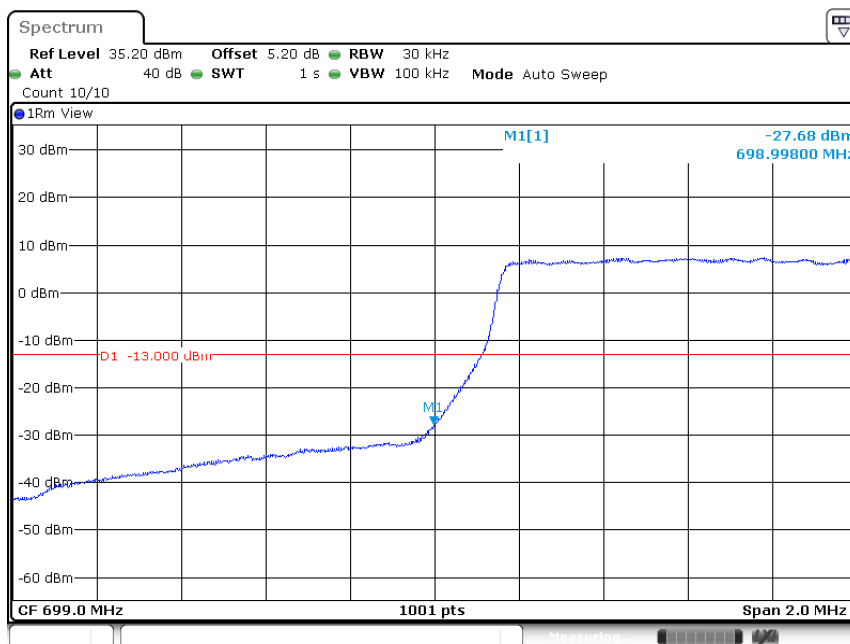


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

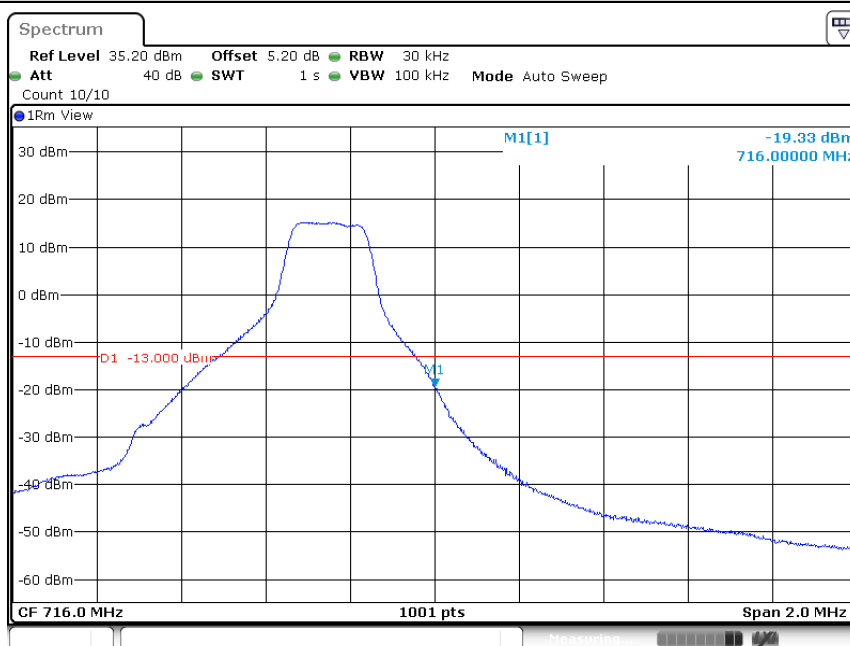


Band12-1.4MHz-16QAM-23017-6RB#0



Date: 4.JAN.2021 23:00:52

Band12-1.4MHz-16QAM-23173-1RB#5

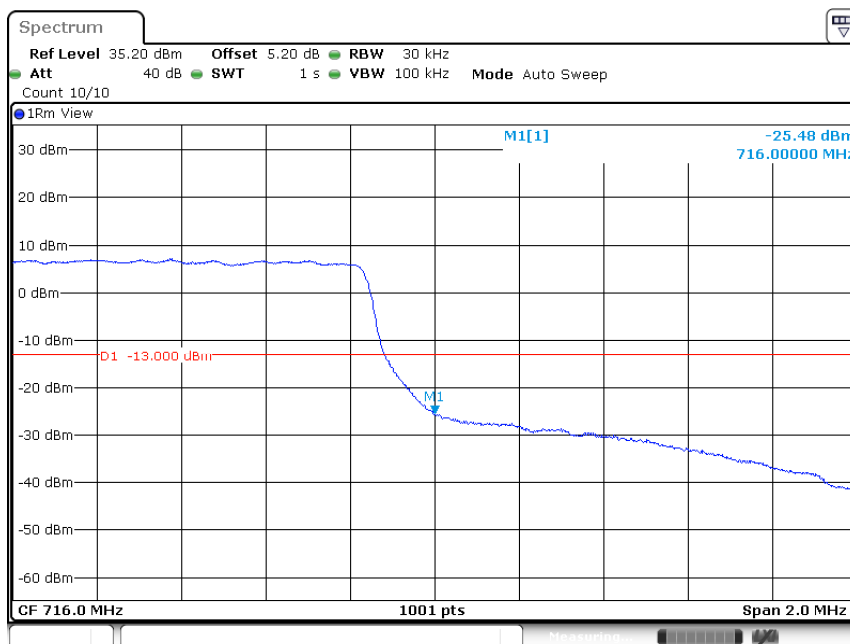


Date: 4.JAN.2021 23:01:37



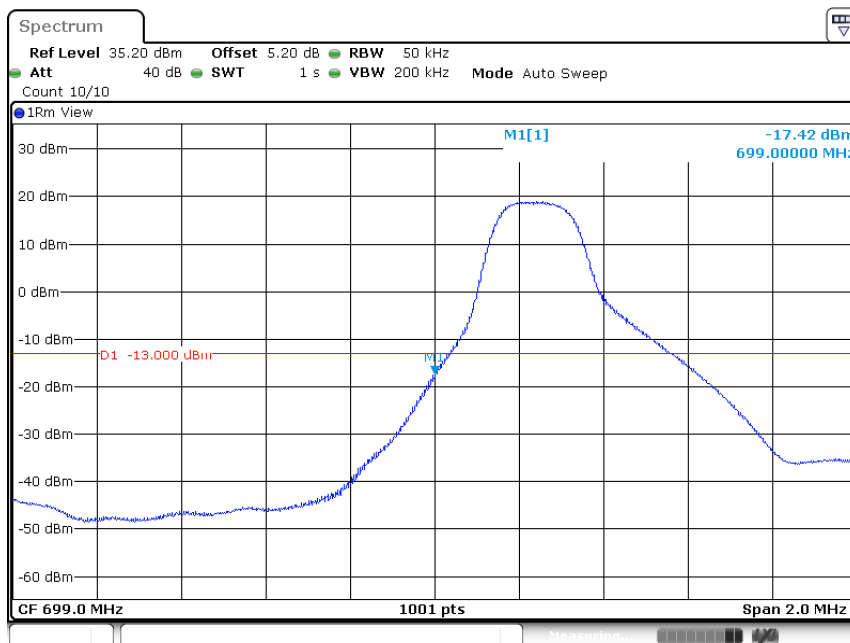


Band12-1.4MHz-16QAM-23173-6RB#0



Date: 4.JAN.2021 23:02:18

Band12-3MHz-QPSK-23025-1RB#0



Date: 4.JAN.2021 23:02:44

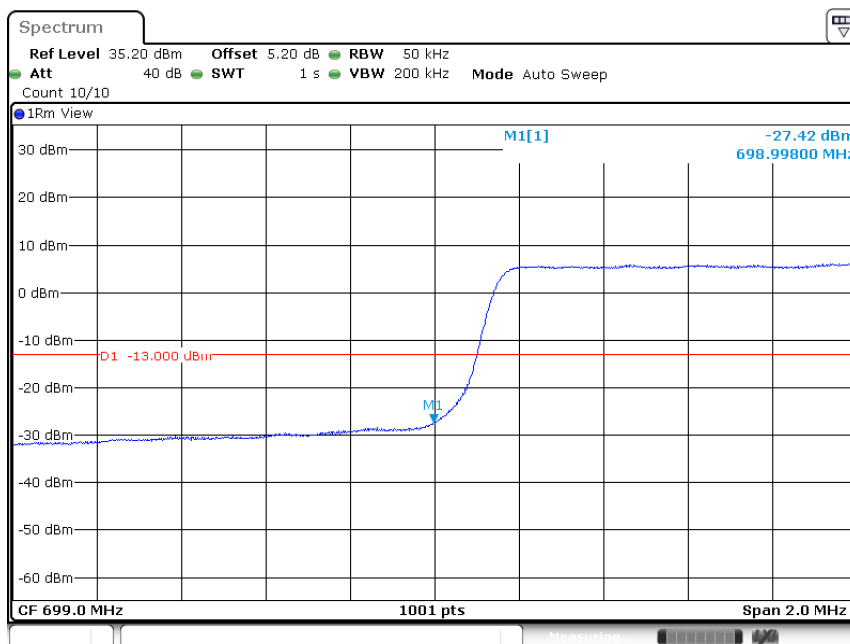


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Band12-3MHz-QPSK-23025-15RB#0



Date: 4.JAN.2021 23:03:26

Band12-3MHz-QPSK-23165-1RB#14

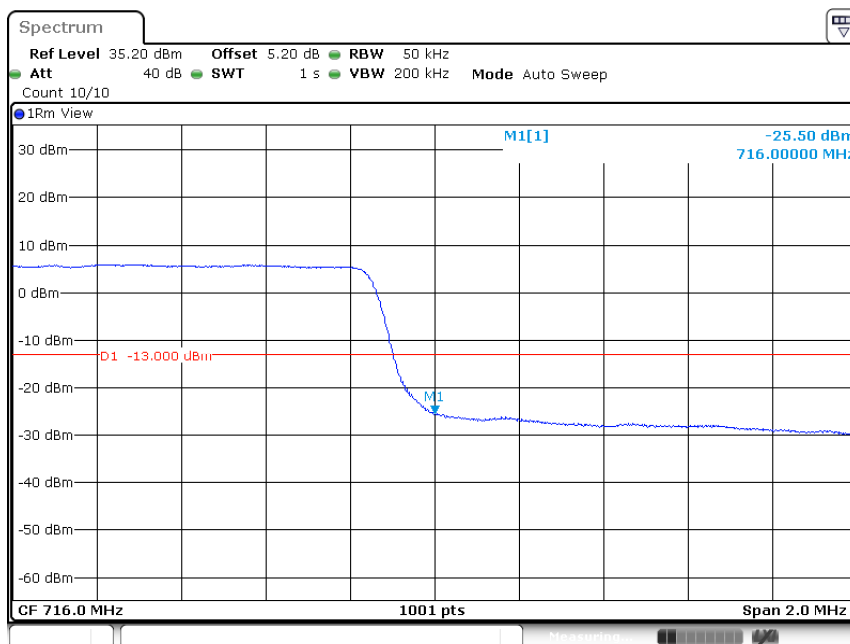


Date: 4.JAN.2021 23:04:11



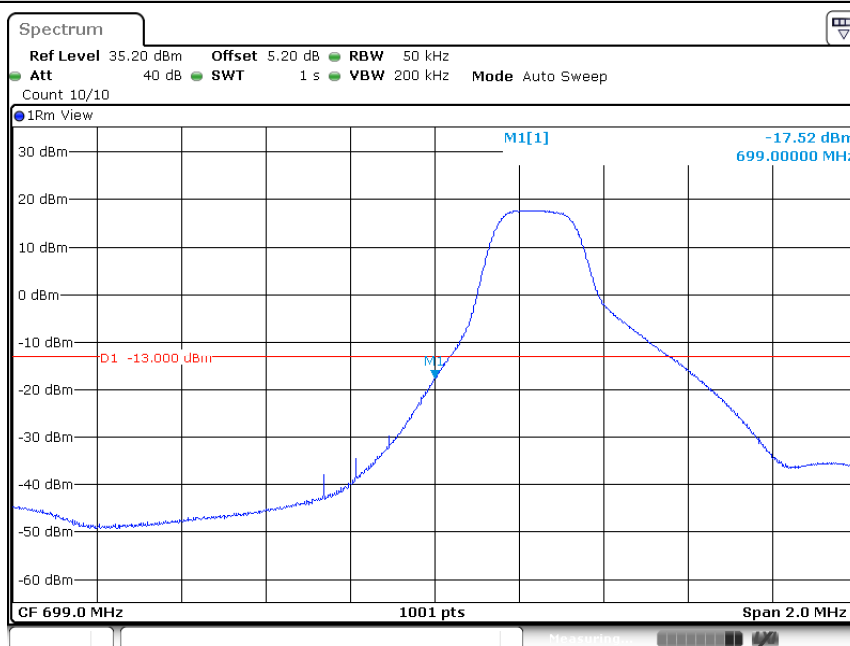


Band12-3MHz-QPSK-23165-15RB#0



Date: 4.JAN.2021 23:04:52

Band12-3MHz-16QAM-23025-1RB#0



Date: 4.JAN.2021 23:03:05



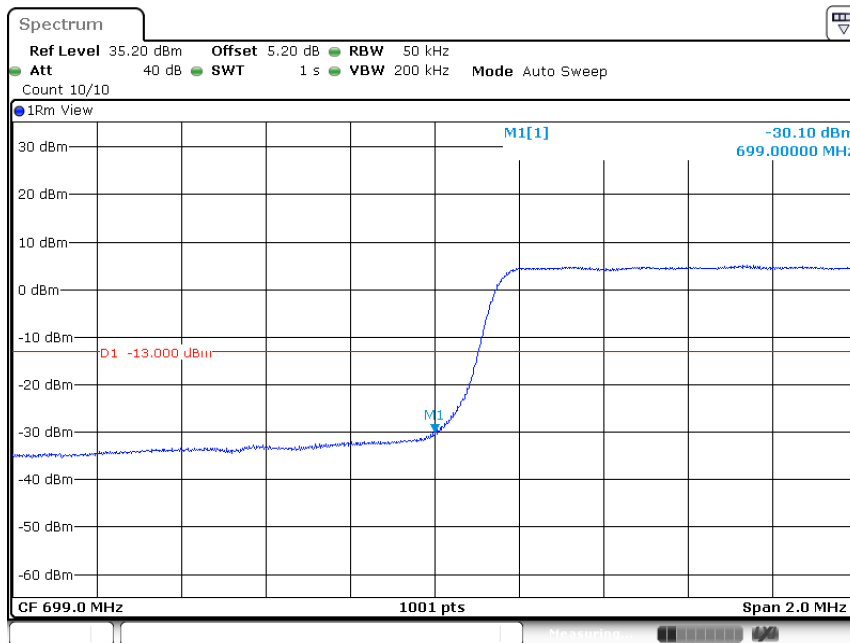
SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (CCC Laboratory)

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.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

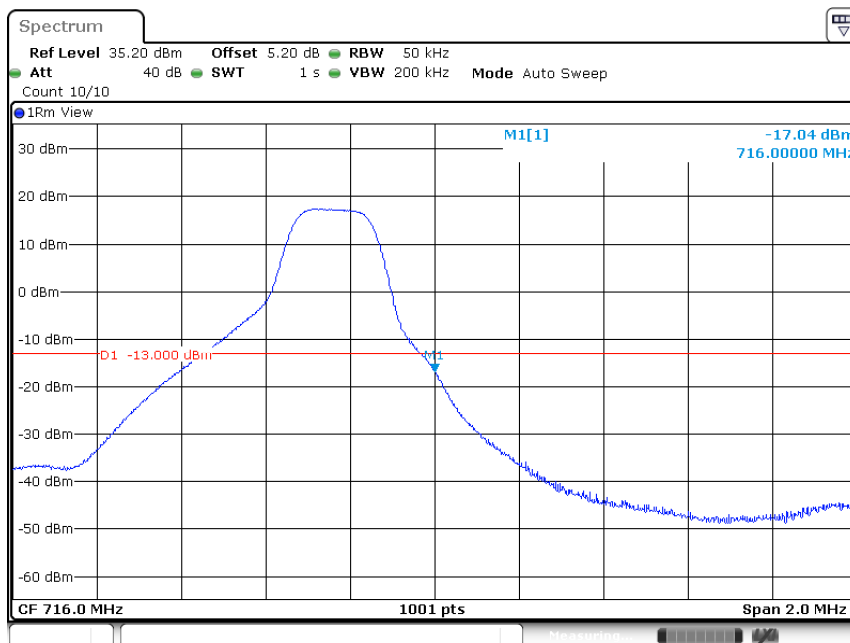


Band12-3MHz-16QAM-23025-15RB#0



Date: 4.JAN.2021 23:03:46

Band12-3MHz-16QAM-23165-1RB#14



Date: 4.JAN.2021 23:04:32

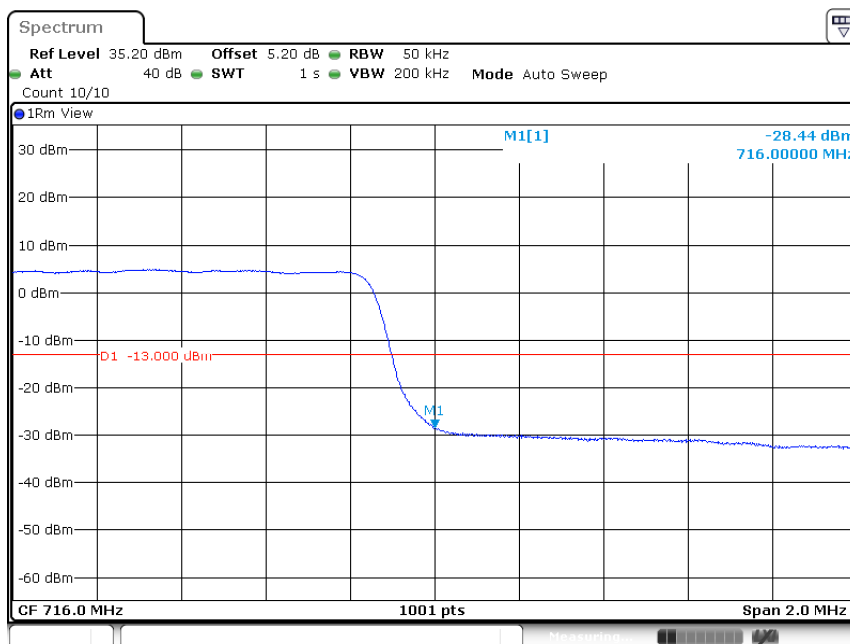


SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch

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.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

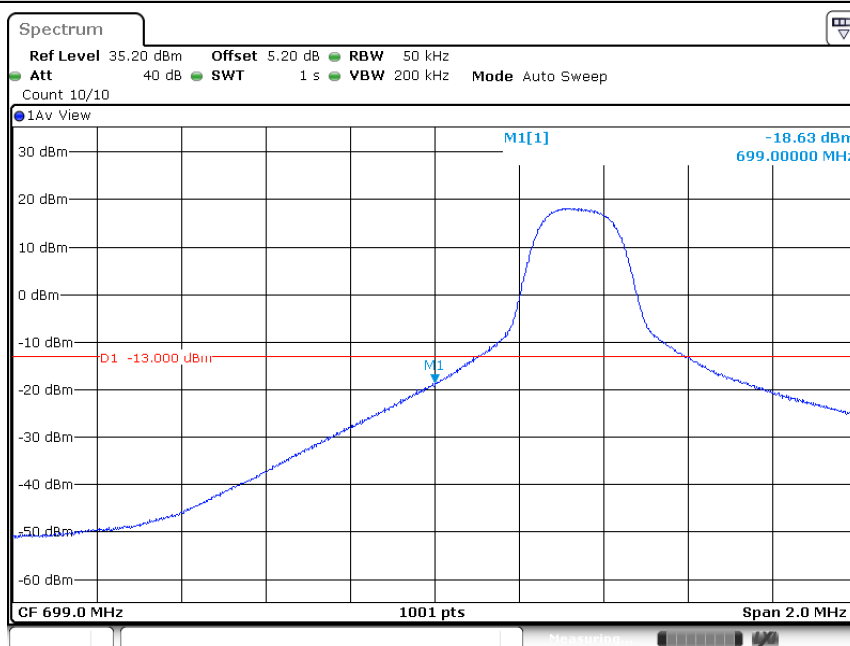


Band12-3MHz-16QAM-23165-15RB#0



Date: 4.JAN.2021 23:05:13

Band12-5MHz-QPSK-23035-1RB#0

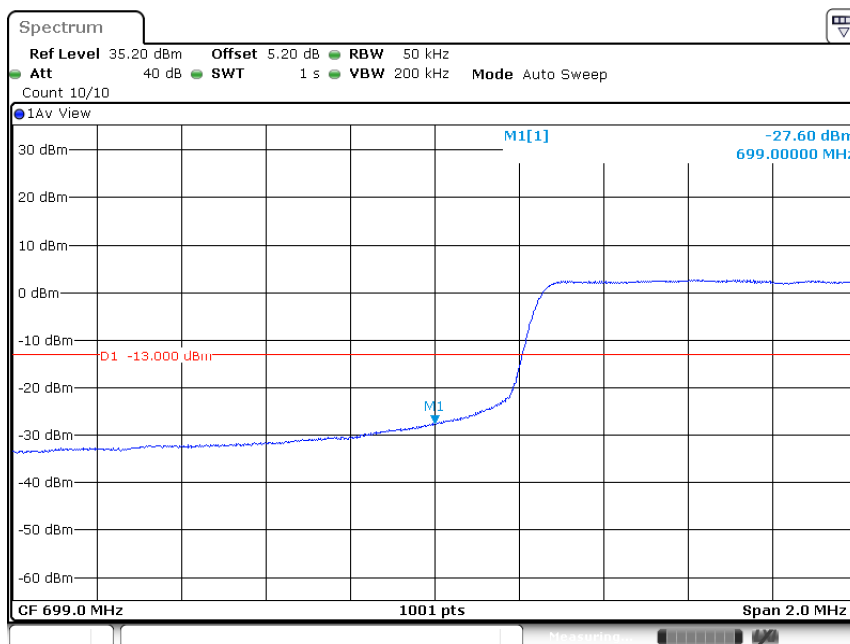


Date: 5.JAN.2021 09:05:48



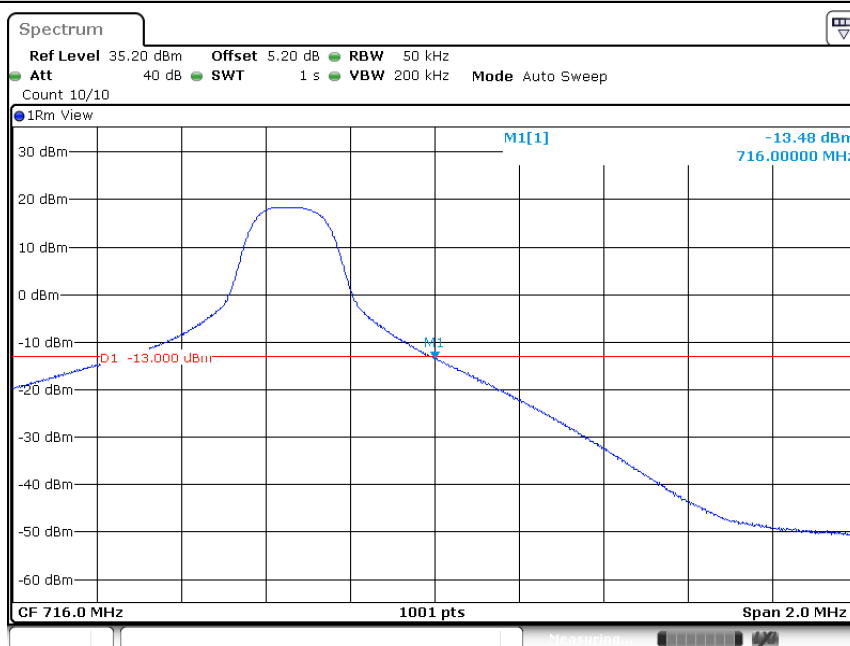


Band12-5MHz-QPSK-23035-25RB#0



Date: 5.JAN.2021 09:06:29

Band12-5MHz-QPSK-23155-1RB#24



Date: 4.JAN.2021 23:07:05



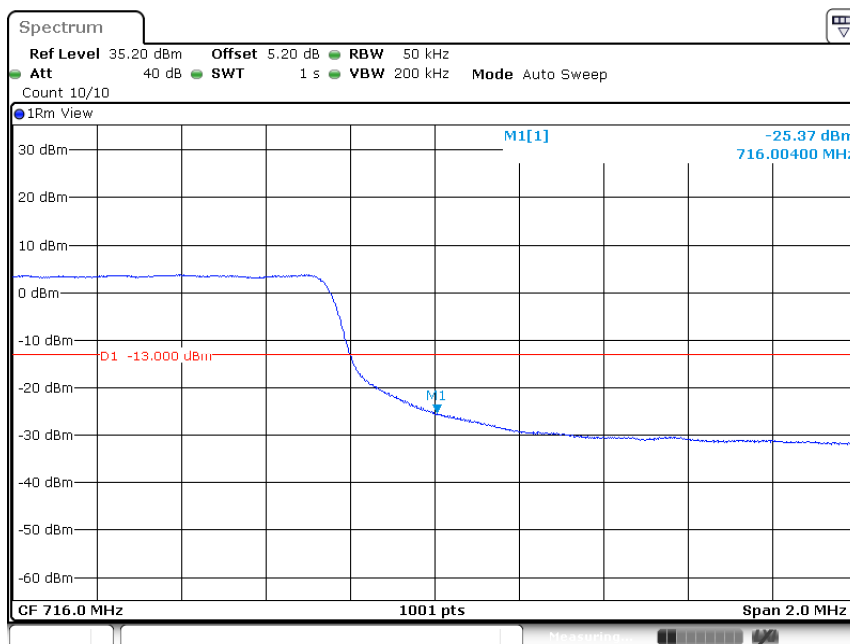
SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (CCC Laboratory)

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

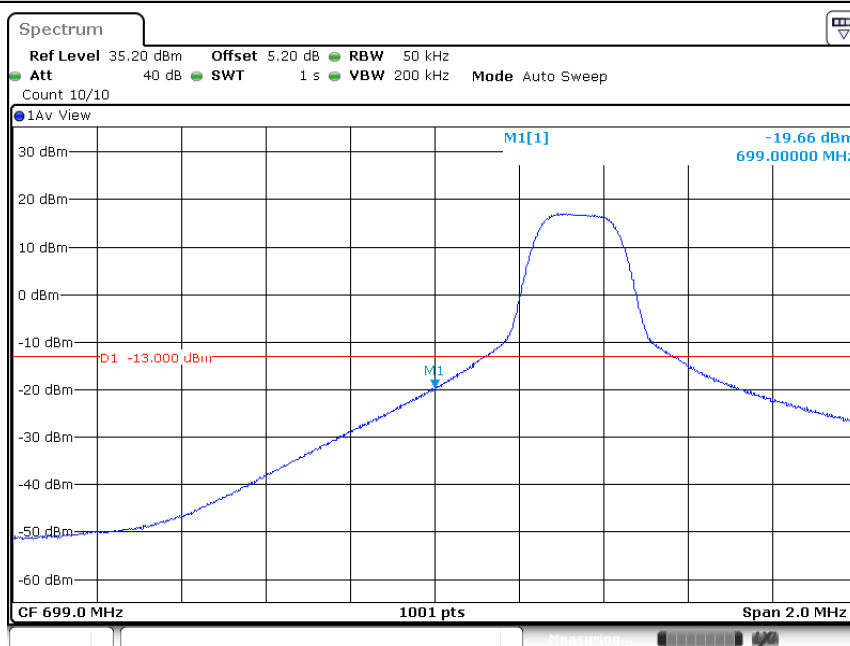


Band12-5MHz-QPSK-23155-25RB#0



Date: 4.JAN.2021 23:07:46

Band12-5MHz-16QAM-23035-1RB#0



Date: 5.JAN.2021 09:06:09



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

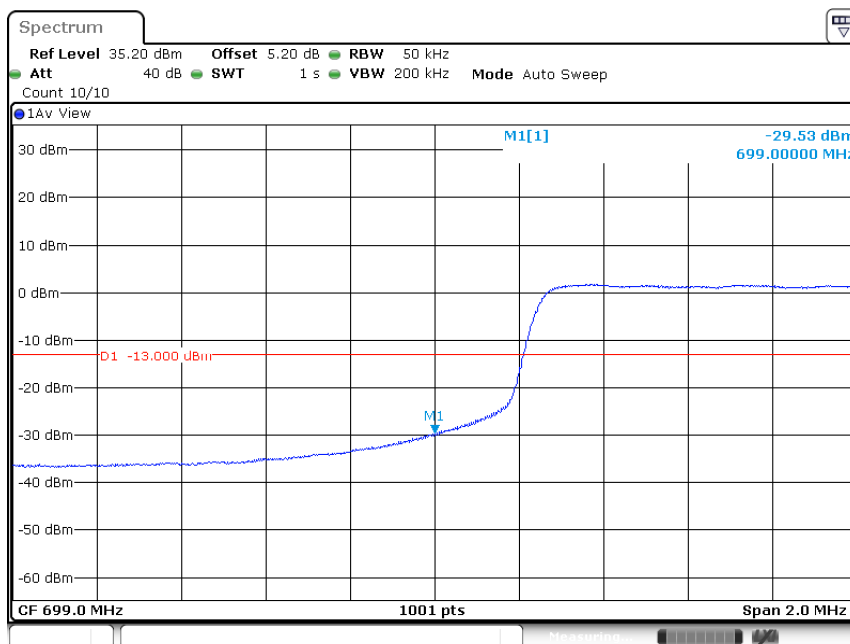
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

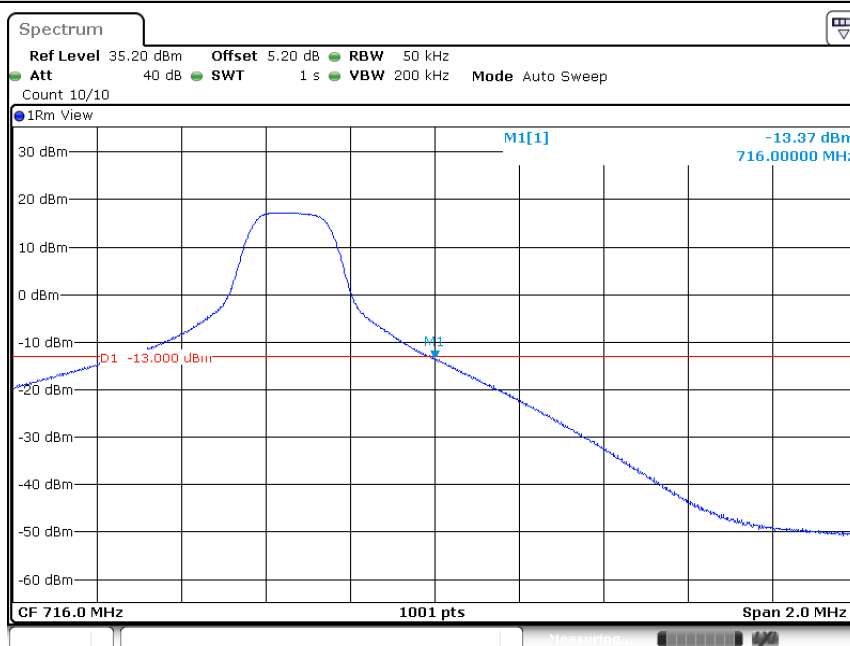


Band12-5MHz-16QAM-23035-25RB#0



Date: 5.JAN.2021 09:06:50

Band12-5MHz-16QAM-23155-1RB#24



Date: 4.JAN.2021 23:07:26

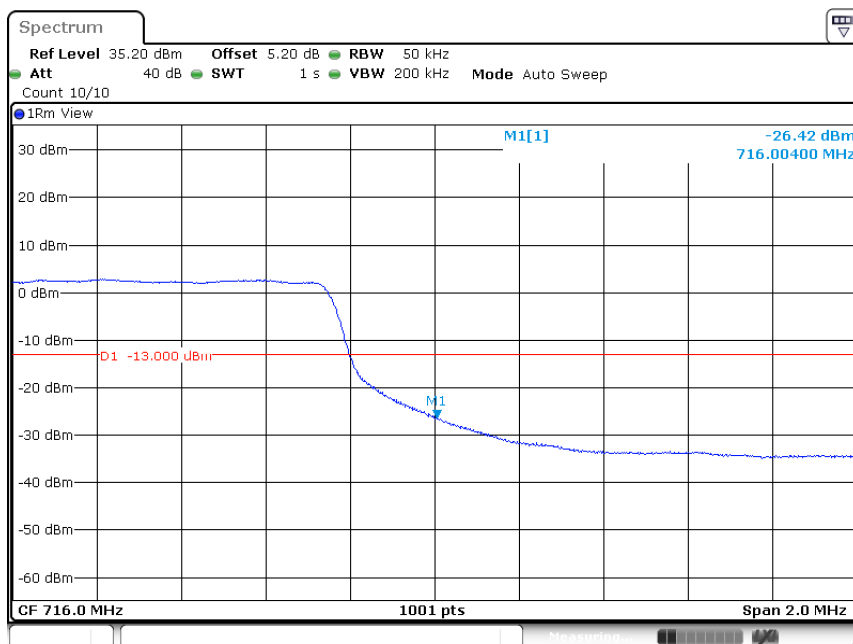


SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (CCC Laboratory)

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.

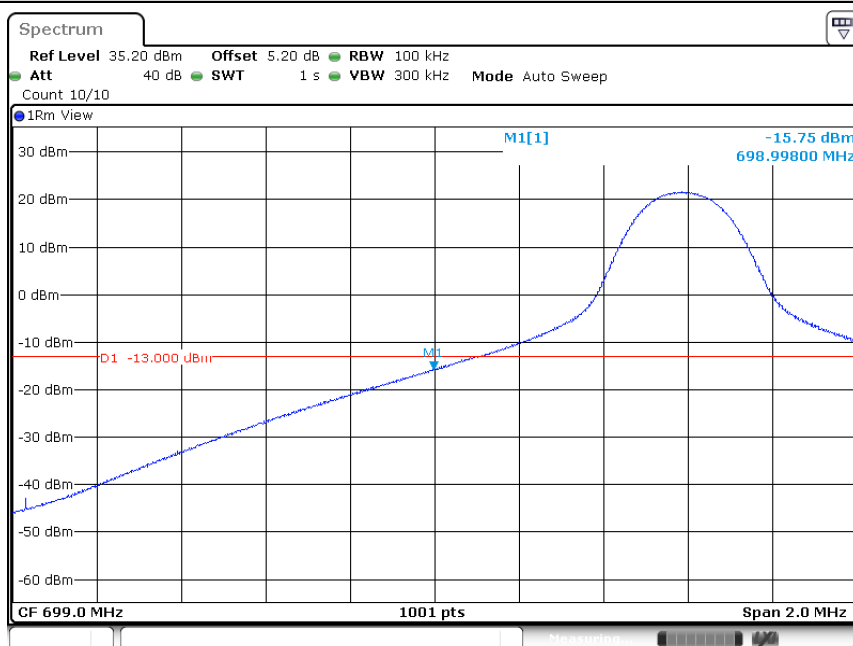
Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.com.cn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

Band12-5MHz-16QAM-23155-25RB#0



Date: 4 JAN 2021 23:08:07

Band12-10MHz-QPSK-23060-1RB#0



Date: 4 JAN 2021 23:08:32



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

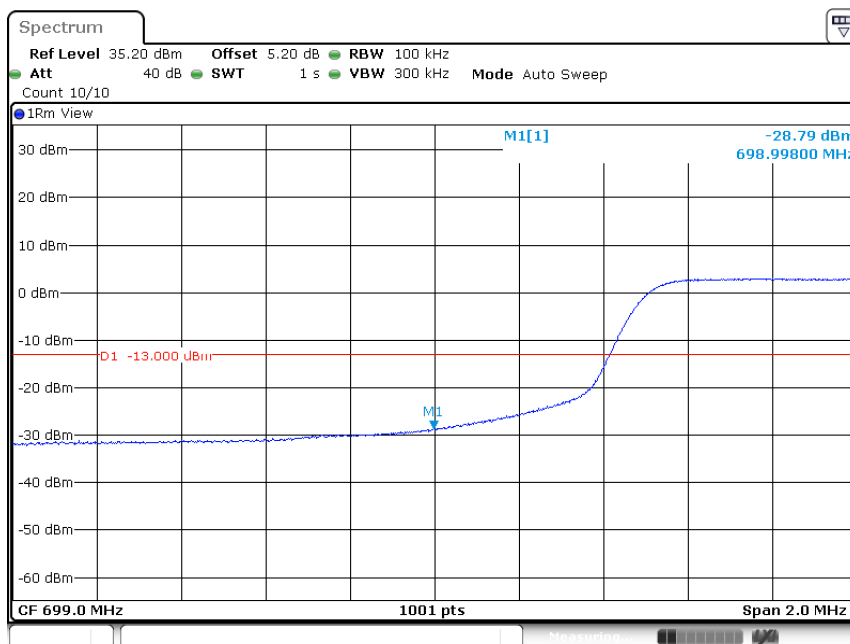
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed online, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for electronic documents at <http://www.sgs.com/en/Terms-and-Conditions-T-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 herein 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 integrity of this document is strictly prohibited and may, where appropriate, be reported to the competent authorities. 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.

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

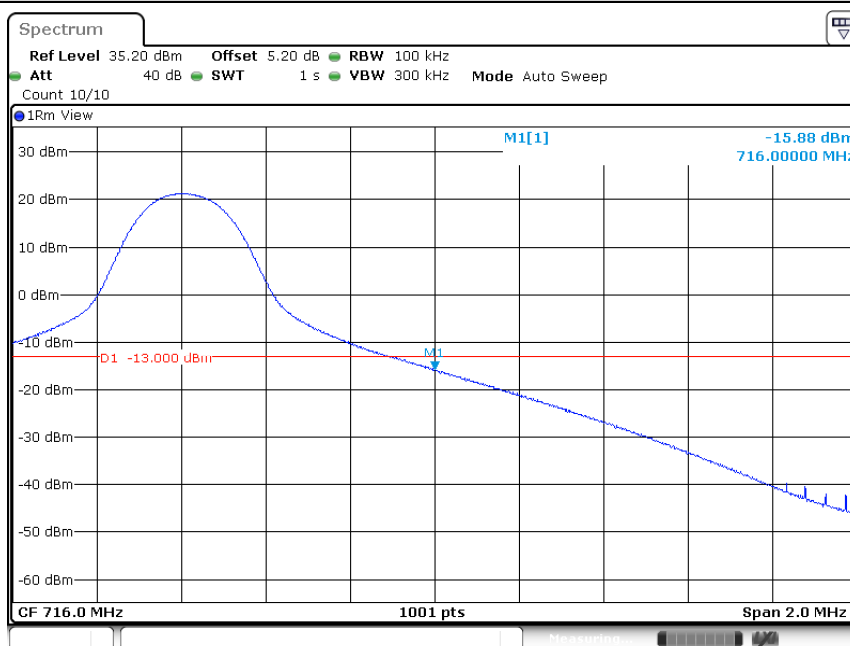


Band12-10MHz-QPSK-23060-50RB#0



Date: 4.JAN.2021 23:09:13

Band12-10MHz-QPSK-23130-1RB#49



Date: 4.JAN.2021 23:09:59

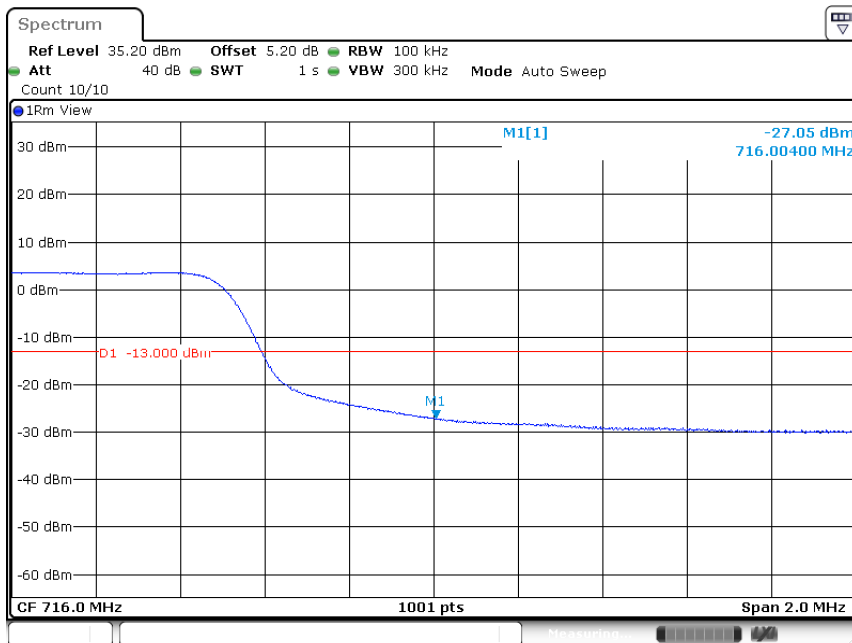


SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch

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.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

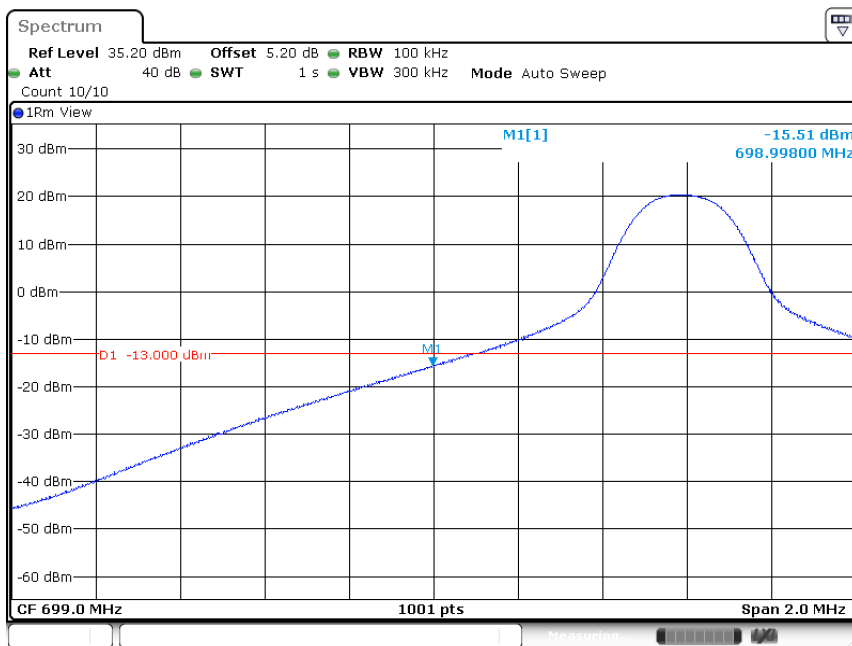


Band12-10MHz-QPSK-23130-50RB#0



Date: 4.JAN.2021 23:10:40

Band12-10MHz-16QAM-23060-1RB#0



Date: 4.JAN.2021 23:08:53



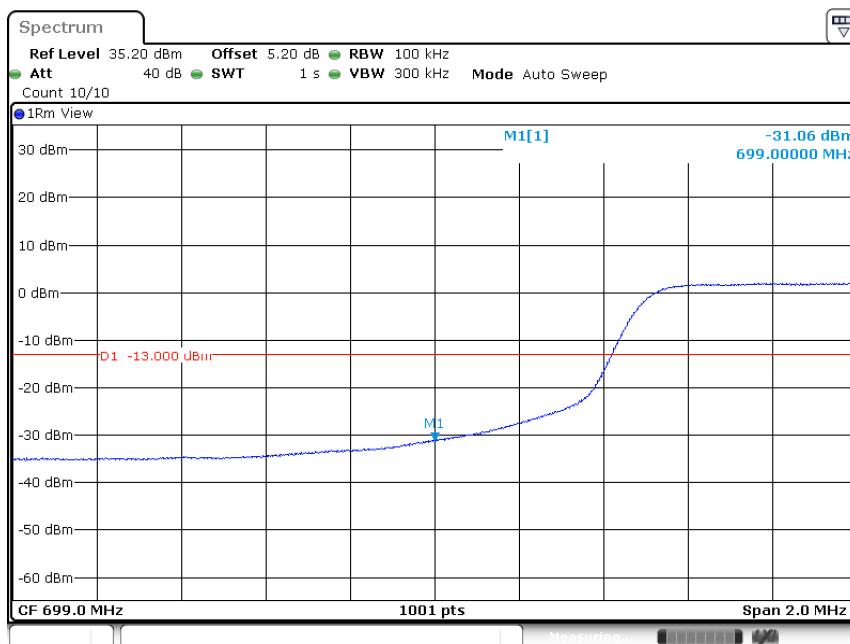
SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (CCC Laboratory)

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.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

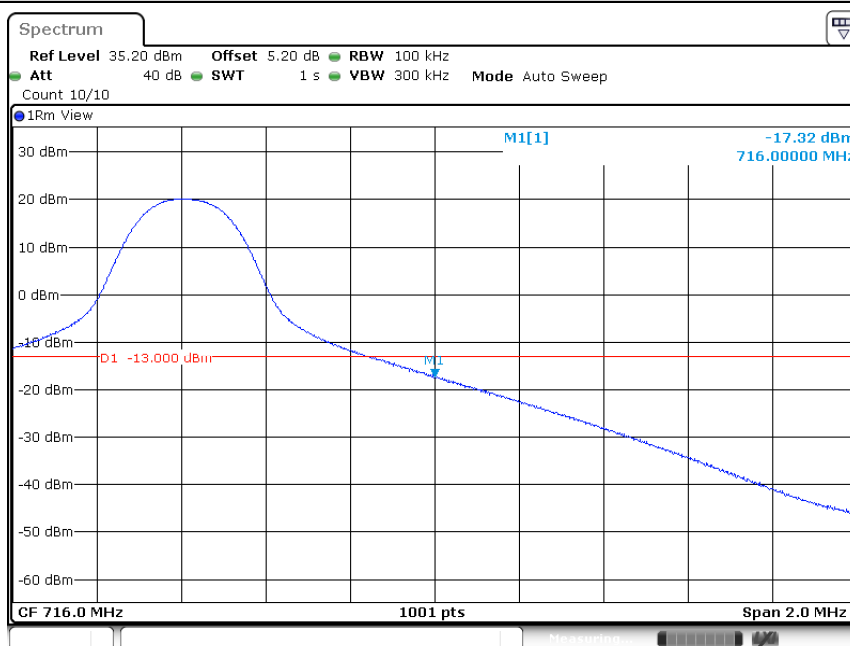


Band12-10MHz-16QAM-23060-50RB#0



Date: 4.JAN.2021 23:09:34

Band12-10MHz-16QAM-23130-1RB#49



Date: 4.JAN.2021 23:10:20



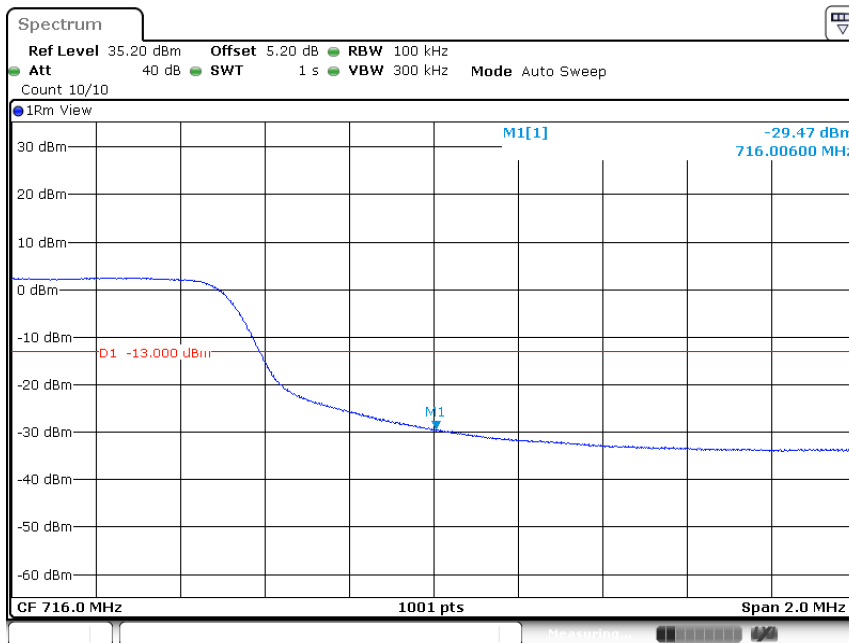
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

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



Band12-10MHz-16QAM-23130-50RB#0



Date: 4.JAN.2021 23:11:01



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

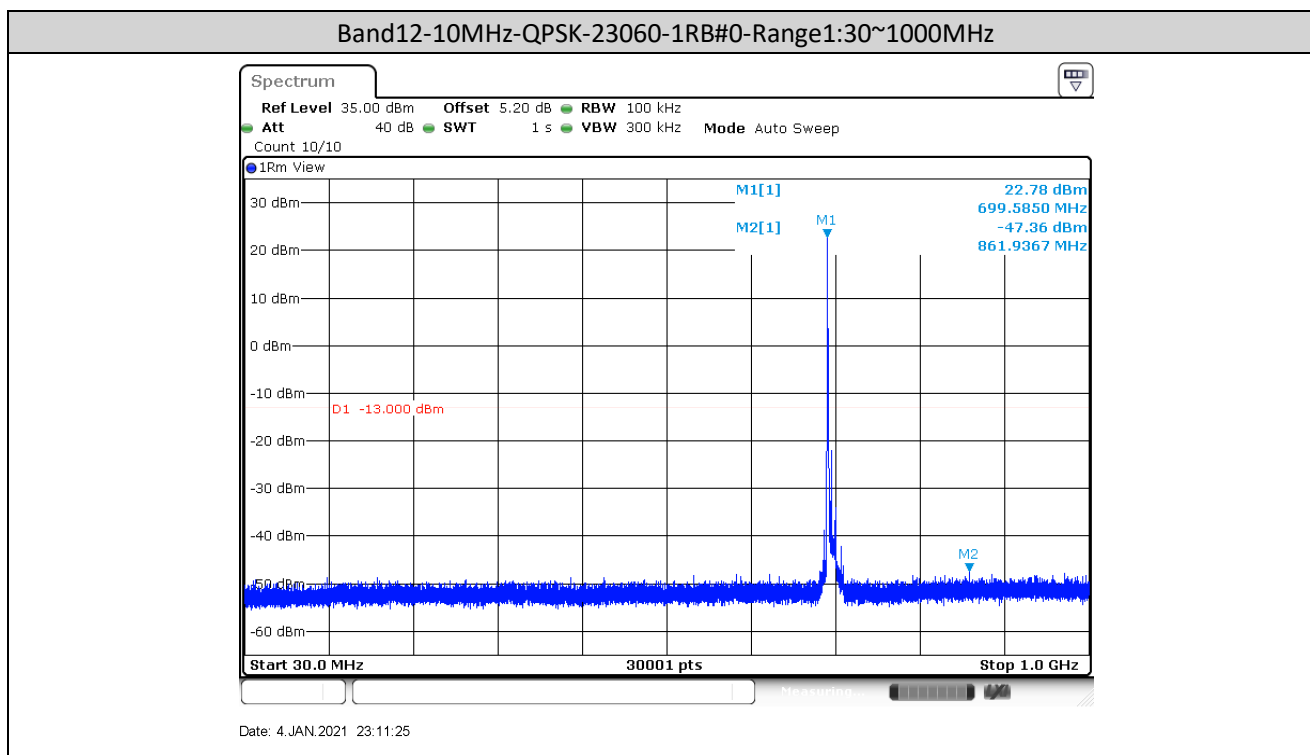
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn
中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

6. Spurious Emission at Antenna Terminal

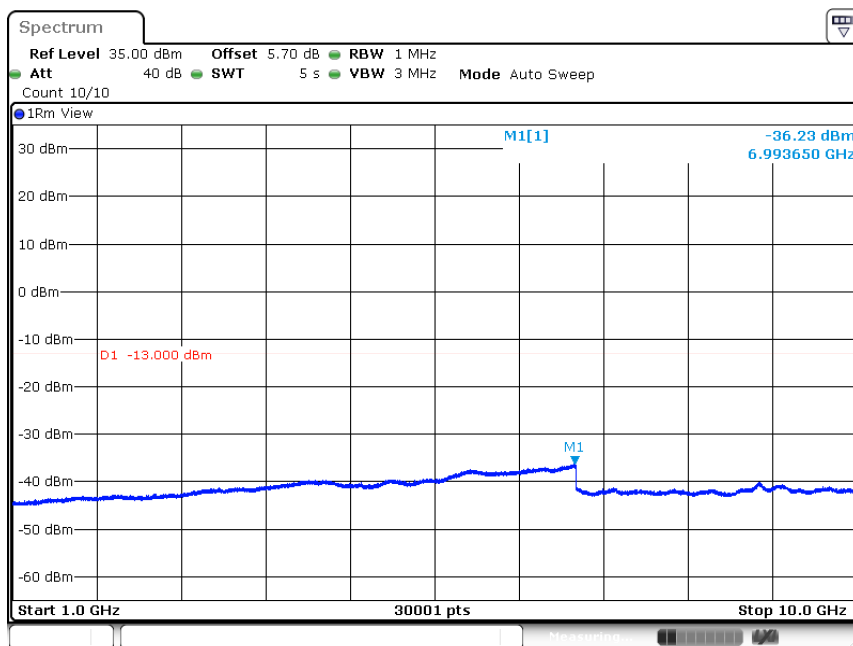
Remark1: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of $< RBW/2$ so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points =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

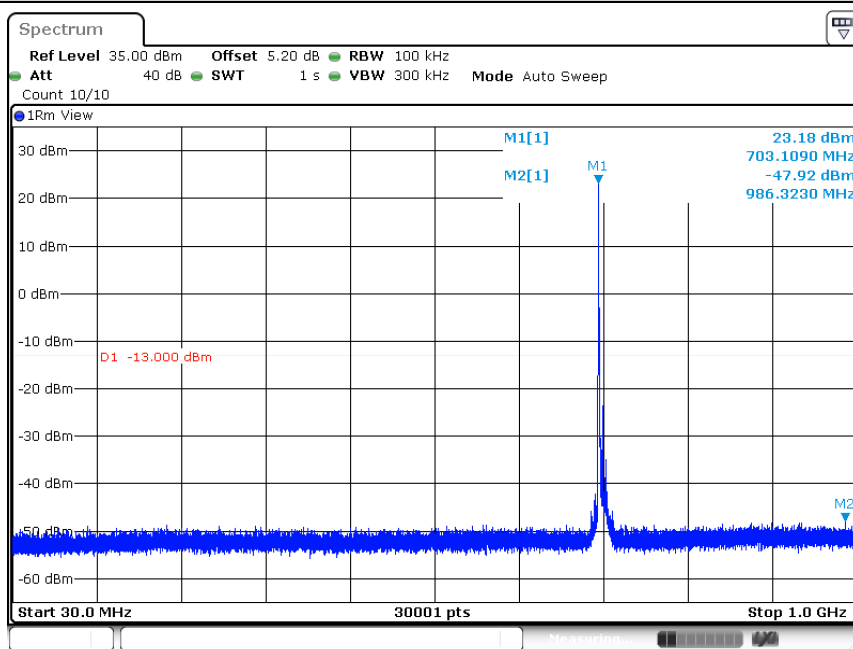


Band12-10MHz-QPSK-23060-1RB#0-Range2:1000~10000MHz



Date: 4.JAN.2021 23:12:33

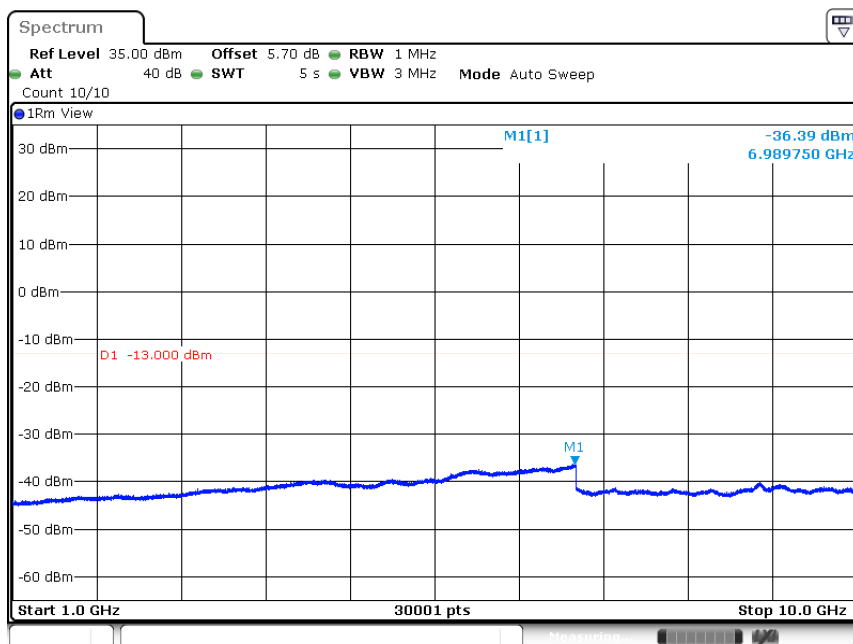
Band12-10MHz-QPSK-23095-1RB#0-Range1:30~1000MHz



Date: 4.JAN.2021 23:14:19

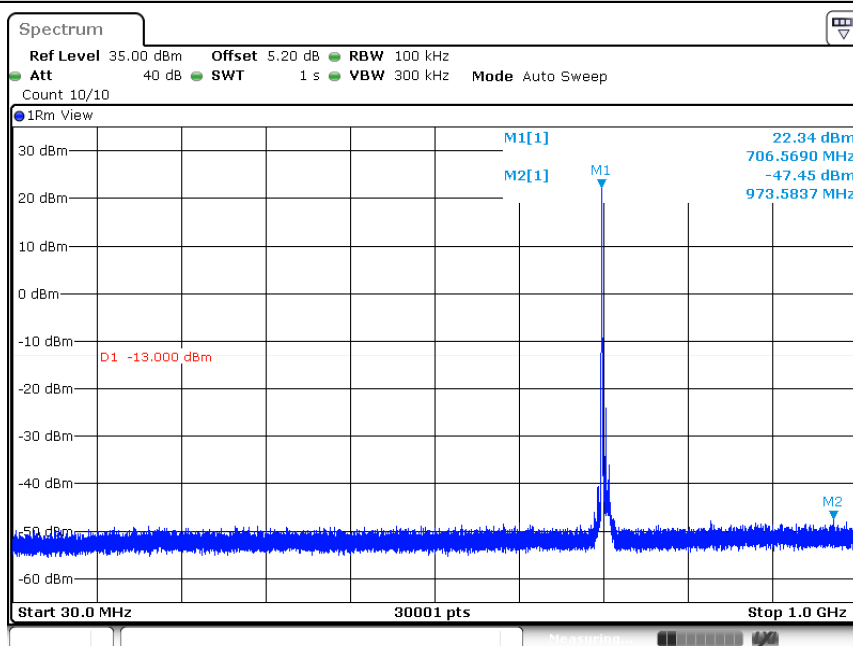


Band12-10MHz-QPSK-23095-1RB#0-Range2:1000~10000MHz



Date: 4.JAN.2021 23:15:27

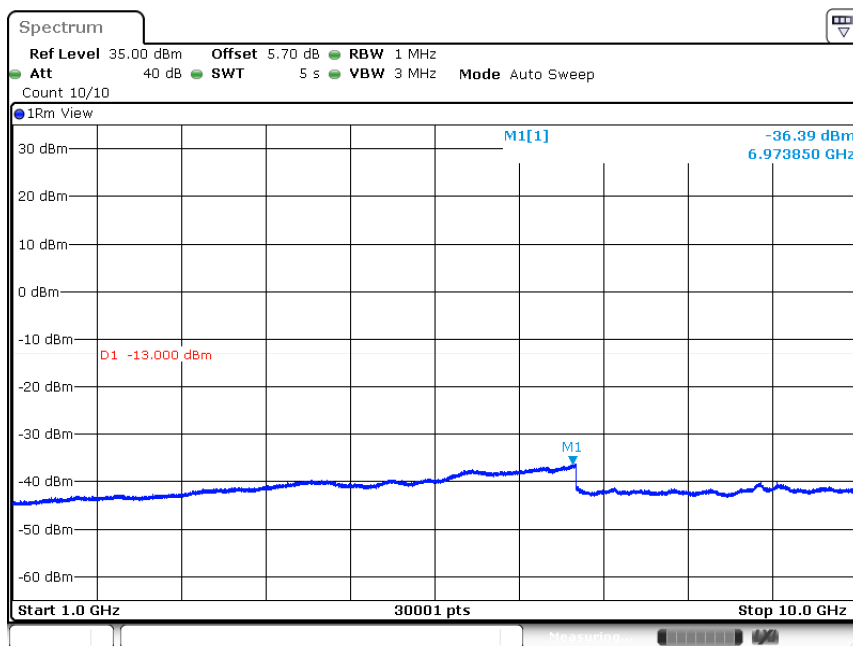
Band12-10MHz-QPSK-23130-1RB#0-Range1:30~1000MHz



Date: 4.JAN.2021 23:17:13

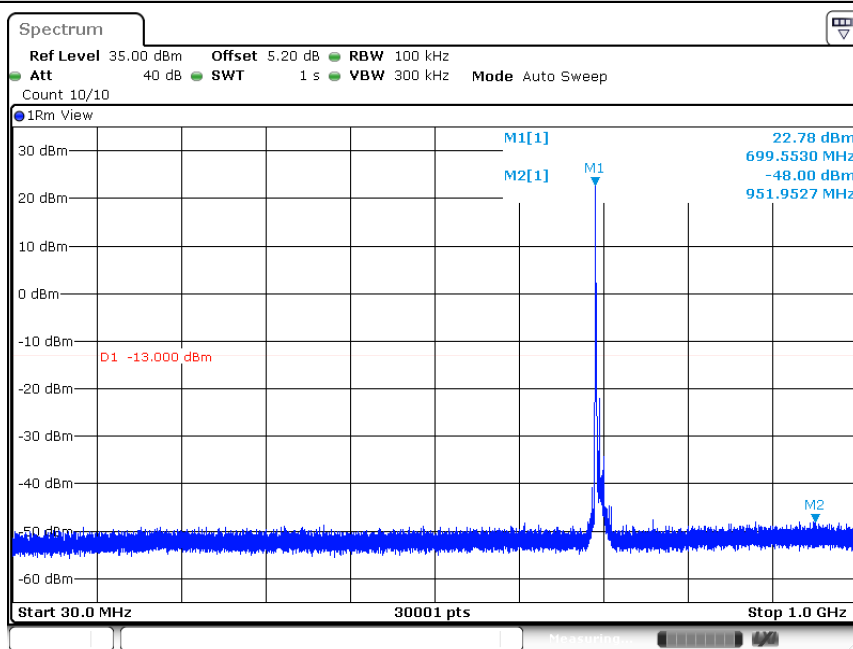


Band12-10MHz-QPSK-23130-1RB#0-Range2:1000~10000MHz



Date: 4.JAN.2021 23:18:21

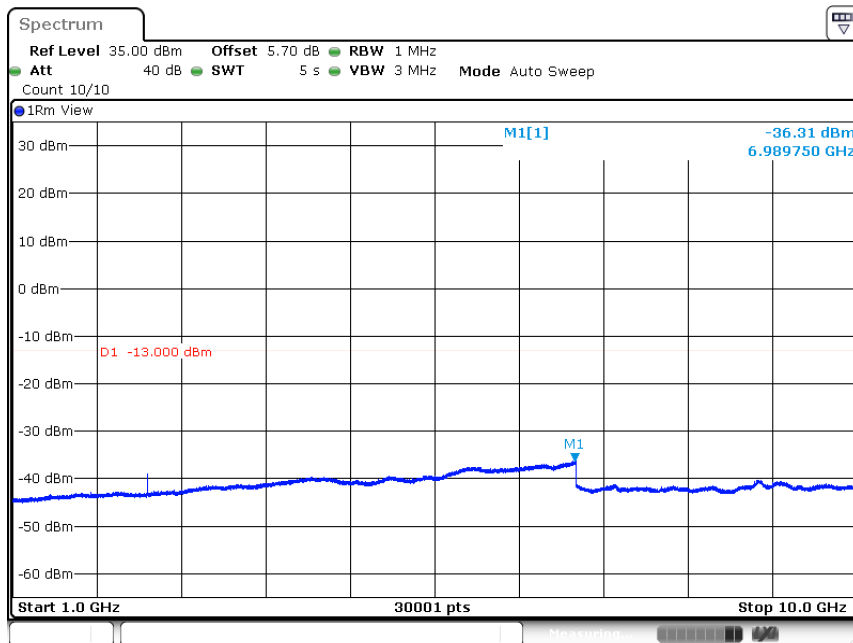
Band12-10MHz-16QAM-23060-1RB#0-Range1:30~1000MHz



Date: 4.JAN.2021 23:12:52

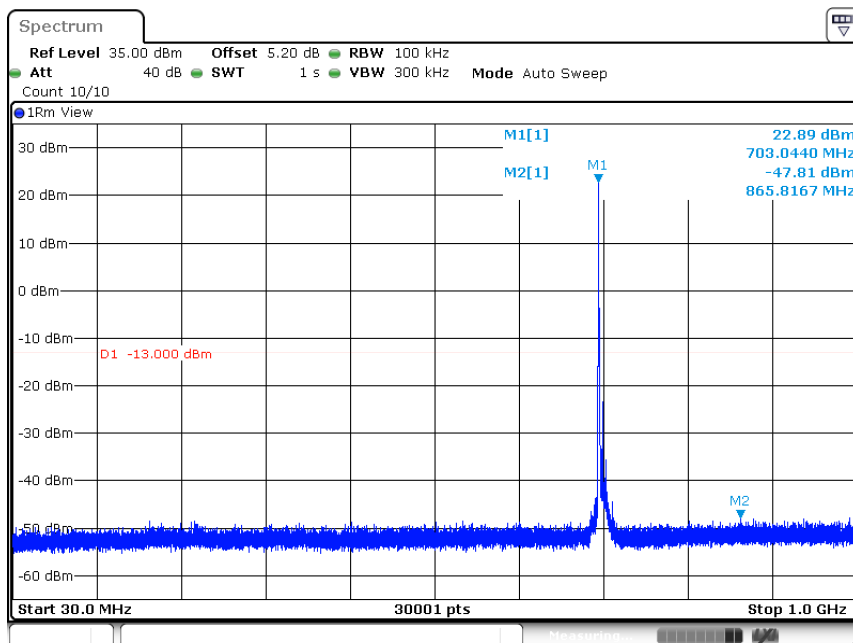


Band12-10MHz-16QAM-23060-1RB#0-Range2:1000~10000MHz



Date: 4.JAN.2021 23:13:59

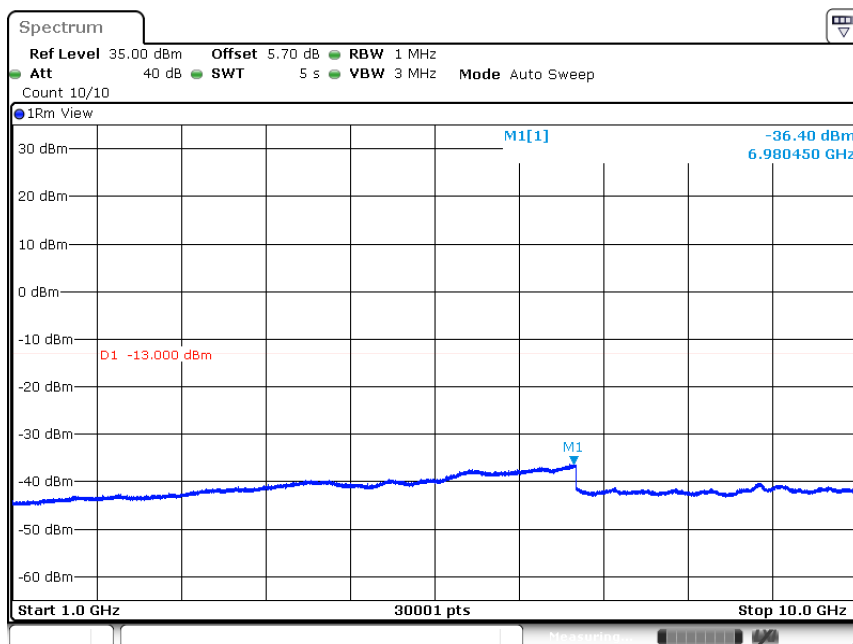
Band12-10MHz-16QAM-23095-1RB#0-Range1:30~1000MHz



Date: 4.JAN.2021 23:15:46

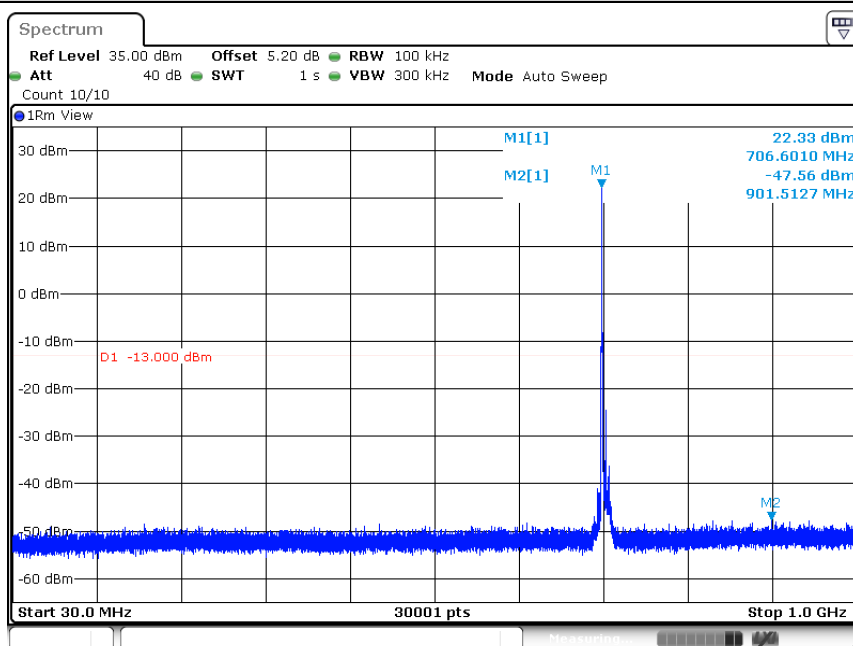


Band12-10MHz-16QAM-23095-1RB#0-Range2:1000~10000MHz



Date: 4.JAN.2021 23:16:54

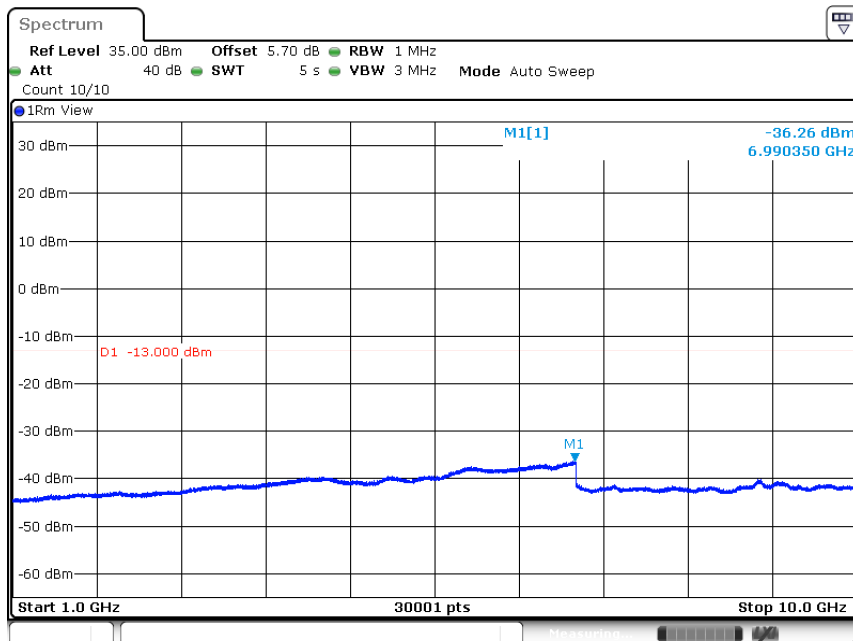
Band12-10MHz-16QAM-23130-1RB#0-Range1:30~1000MHz



Date: 4.JAN.2021 23:18:40



Band12-10MHz-16QAM-23130-1RB#0-Range2:1000~10000MHz



Date: 4.JAN.2021 23:19:48



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.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 = LTE_12_TM1

7.1.1. Test Channel = Low Channel

| Suspected Data List | | | | | |
|---------------------|----------------|----------------|----------------|----------------|------------|
| NO. | Freq. [MHz] | Level [dBm] | Limit [dBm] | Margin [dB] | Polarity |
| 1 | 43.3382 | -63.51 | -13.00 | 50.51 | Horizontal |
| 2 | 238.7544 | -67.71 | -13.00 | 54.71 | Horizontal |
| 3 | 598.8364 | -63.01 | -13.00 | 50.01 | Horizontal |
| 4 | 1399.2799 | -50.46 | -13.00 | 37.46 | Horizontal |
| 5 | 2698.3397 | -54.65 | -13.00 | 41.65 | Horizontal |
| 6 | 9270.8508 | -53.79 | -13.00 | 40.79 | Horizontal |



7.2. Test Band = LTE_12_TM1

7.2.1. Test Channel = Low Channel

| Suspected Data List | | | | | |
|---------------------|----------------|----------------|----------------|----------------|----------|
| NO. | Freq. [MHz] | Level [dBm] | Limit [dBm] | Margin [dB] | Polarity |
| 1 | 51.3411 | -71.06 | -13.00 | 58.06 | Vertical |
| 2 | 110.1745 | -64.18 | -13.00 | 51.18 | Vertical |
| 3 | 467.5889 | -65.86 | -13.00 | 52.86 | Vertical |
| 4 | 1398.8798 | -52.95 | -13.00 | 39.95 | Vertical |
| 5 | 2710.3421 | -55.97 | -13.00 | 42.97 | Vertical |
| 6 | 9300.2520 | -53.64 | -13.00 | 40.64 | Vertical |



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

7.3. Test Band = LTE_12_TM1**7.3.1. Test Channel = Mid Channel**

| Suspected Data List | | | | | |
|---------------------|----------------|----------------|----------------|----------------|------------|
| NO. | Freq. [MHz] | Level [dBm] | Limit [dBm] | Margin [dB] | Polarity |
| 1 | 44.6477 | -62.72 | -13.00 | 49.72 | Horizontal |
| 2 | 241.4221 | -67.83 | -13.00 | 54.83 | Horizontal |
| 3 | 587.6809 | -63.39 | -13.00 | 50.39 | Horizontal |
| 4 | 1406.0812 | -50.96 | -13.00 | 37.96 | Horizontal |
| 5 | 2700.3401 | -54.66 | -13.00 | 41.66 | Horizontal |
| 6 | 9301.0920 | -53.66 | -13.00 | 40.66 | Horizontal |



7.4. Test Band = LTE_12_TM1

7.4.1. Test Channel = Mid Channel

| Suspected Data List | | | | | |
|---------------------|----------------|----------------|----------------|----------------|----------|
| NO. | Freq. [MHz] | Level [dBm] | Limit [dBm] | Margin [dB] | Polarity |
| 1 | 51.1956 | -71.31 | -13.00 | 58.31 | Vertical |
| 2 | 112.7936 | -64.22 | -13.00 | 51.22 | Vertical |
| 3 | 519.5350 | -65.60 | -13.00 | 52.60 | Vertical |
| 4 | 1406.0812 | -53.41 | -13.00 | 40.41 | Vertical |
| 5 | 2701.9404 | -55.99 | -13.00 | 42.99 | Vertical |
| 6 | 7377.9751 | -56.62 | -13.00 | 43.62 | Vertical |



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

7.5. Test Band = LTE_12_TM1

7.5.1. Test Channel = High Channel

| Suspected Data List | | | | | |
|---------------------|----------------|----------------|----------------|----------------|------------|
| NO. | Freq. [MHz] | Level [dBm] | Limit [dBm] | Margin [dB] | Polarity |
| 1 | 41.2041 | -63.90 | -13.00 | 50.90 | Horizontal |
| 2 | 235.4078 | -68.12 | -13.00 | 55.12 | Horizontal |
| 3 | 582.0061 | -63.40 | -13.00 | 50.40 | Horizontal |
| 4 | 1412.8826 | -52.07 | -13.00 | 39.07 | Horizontal |
| 5 | 2703.1406 | -54.75 | -13.00 | 41.75 | Horizontal |
| 6 | 9536.5815 | -53.75 | -13.00 | 40.75 | 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

7.6. Test Band = LTE_12_TM1**7.6.1. Test Channel = High Channel**

| Suspected Data List | | | | | |
|---------------------|----------------|----------------|----------------|----------------|----------|
| NO. | Freq. [MHz] | Level [dBm] | Limit [dBm] | Margin [dB] | Polarity |
| 1 | 109.2045 | -64.24 | -13.00 | 51.24 | Vertical |
| 2 | 575.3128 | -63.00 | -13.00 | 50.00 | Vertical |
| 3 | 1412.8826 | -53.60 | -13.00 | 40.60 | Vertical |
| 4 | 2696.3393 | -55.99 | -13.00 | 42.99 | Vertical |
| 5 | 7434.5374 | -56.89 | -13.00 | 43.89 | Vertical |
| 6 | 9543.8618 | -53.38 | -13.00 | 40.38 | 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 below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the worst case data displayed in this report.
- 3 all modulation and all Bandwidth had been tested, but only the worst case data displayed in this report.





8. Frequency Stability

8.1. Frequency Vs Voltage

| Band | Bandwidth | Modulation | Channel | RB Configure | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
|--------|-----------|------------|---------|--------------|---------------|------------------|----------------|-----------------|-------------|---------|
| Band12 | 10MHz | QPSK | 23060 | 50RB#0 | VL | NT | -5.50 | -0.007813 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23060 | 50RB#0 | VN | NT | -5.90 | -0.008381 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23060 | 50RB#0 | VH | NT | -4.90 | -0.006960 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23095 | 50RB#0 | VL | NT | -4.20 | -0.005936 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23095 | 50RB#0 | VN | NT | -7.00 | -0.009894 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23095 | 50RB#0 | VH | NT | -4.30 | -0.006078 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23130 | 50RB#0 | VL | NT | -2.90 | -0.004079 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23130 | 50RB#0 | VN | NT | -1.70 | -0.002391 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23130 | 50RB#0 | VH | NT | -5.50 | -0.007736 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23060 | 50RB#0 | VL | NT | -3.60 | -0.005114 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23060 | 50RB#0 | VN | NT | -6.60 | -0.009375 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23060 | 50RB#0 | VH | NT | -6.40 | -0.009091 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23095 | 50RB#0 | VL | NT | -10.40 | -0.014700 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23095 | 50RB#0 | VN | NT | -10.40 | -0.014700 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23095 | 50RB#0 | VH | NT | -6.80 | -0.009611 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23130 | 50RB#0 | VL | NT | -7.20 | -0.010127 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23130 | 50RB#0 | VN | NT | -4.20 | -0.005907 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23130 | 50RB#0 | VH | NT | -4.40 | -0.006188 | ±2.5 | PASS |

8.2. Frequency Vs Temperature

| Band | Bandwidth | Modulation | Channel | RB Configure | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
|--------|-----------|------------|---------|--------------|---------------|------------------|----------------|-----------------|-------------|---------|
| Band12 | 10MHz | QPSK | 23060 | 50RB#0 | NV | -30 | -8.40 | -0.011932 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23060 | 50RB#0 | NV | -20 | -0.80 | -0.001136 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23060 | 50RB#0 | NV | -10 | -8.10 | -0.011506 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23060 | 50RB#0 | NV | 0 | -8.20 | -0.011648 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23060 | 50RB#0 | NV | 10 | -8.50 | -0.012074 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23060 | 50RB#0 | NV | 20 | -10.70 | -0.015199 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23060 | 50RB#0 | NV | 30 | -5.40 | -0.007670 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23060 | 50RB#0 | NV | 40 | -2.50 | -0.003551 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23060 | 50RB#0 | NV | 50 | 1.90 | 0.002699 | ±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 (CSTC) Laboratory

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057
中国·深圳·科技园中区M-10栋一号厂房

t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn
邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com



| | | | | | | | | | | |
|--------|-------|-------|-------|--------|----|-----|--------|-----------|------|------|
| Band12 | 10MHz | QPSK | 23095 | 50RB#0 | NV | -30 | -4.00 | -0.005654 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23095 | 50RB#0 | NV | -20 | -0.20 | -0.000283 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23095 | 50RB#0 | NV | -10 | -4.10 | -0.005795 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23095 | 50RB#0 | NV | 0 | -4.90 | -0.006926 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23095 | 50RB#0 | NV | 10 | -8.10 | -0.011449 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23095 | 50RB#0 | NV | 20 | -8.80 | -0.012438 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23095 | 50RB#0 | NV | 30 | -4.60 | -0.006502 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23095 | 50RB#0 | NV | 40 | -3.90 | -0.005512 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23095 | 50RB#0 | NV | 50 | -5.30 | -0.007491 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23130 | 50RB#0 | NV | -30 | -9.40 | -0.013221 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23130 | 50RB#0 | NV | -20 | -8.90 | -0.012518 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23130 | 50RB#0 | NV | -10 | -6.30 | -0.008861 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23130 | 50RB#0 | NV | 0 | 0.00 | 0.000000 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23130 | 50RB#0 | NV | 10 | -6.10 | -0.008579 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23130 | 50RB#0 | NV | 20 | -6.90 | -0.009705 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23130 | 50RB#0 | NV | 30 | -7.10 | -0.009986 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23130 | 50RB#0 | NV | 40 | -4.10 | -0.005767 | ±2.5 | PASS |
| Band12 | 10MHz | QPSK | 23130 | 50RB#0 | NV | 50 | -3.50 | -0.004923 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23060 | 50RB#0 | NV | -30 | -7.50 | -0.010653 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23060 | 50RB#0 | NV | -20 | -7.60 | -0.010795 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23060 | 50RB#0 | NV | -10 | -4.90 | -0.006960 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23060 | 50RB#0 | NV | 0 | -4.70 | -0.006676 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23060 | 50RB#0 | NV | 10 | -7.10 | -0.010085 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23060 | 50RB#0 | NV | 20 | -7.90 | -0.011222 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23060 | 50RB#0 | NV | 30 | -4.10 | -0.005824 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23060 | 50RB#0 | NV | 40 | -5.10 | -0.007244 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23060 | 50RB#0 | NV | 50 | -5.70 | -0.008097 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23095 | 50RB#0 | NV | -30 | -5.30 | -0.007491 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23095 | 50RB#0 | NV | -20 | -3.30 | -0.004664 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23095 | 50RB#0 | NV | -10 | -6.00 | -0.008481 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23095 | 50RB#0 | NV | 0 | -9.10 | -0.012862 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23095 | 50RB#0 | NV | 10 | -6.00 | -0.008481 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23095 | 50RB#0 | NV | 20 | -2.10 | -0.002968 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23095 | 50RB#0 | NV | 30 | -6.00 | -0.008481 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23095 | 50RB#0 | NV | 40 | -6.20 | -0.008763 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23095 | 50RB#0 | NV | 50 | -10.20 | -0.014417 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23130 | 50RB#0 | NV | -30 | -4.40 | -0.006188 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23130 | 50RB#0 | NV | -20 | -2.60 | -0.003657 | ±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, CSTC 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



| | | | | | | | | | | |
|--------|-------|-------|-------|--------|----|-----|-------|-----------|------|------|
| Band12 | 10MHz | 16QAM | 23130 | 50RB#0 | NV | -10 | -5.30 | -0.007454 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23130 | 50RB#0 | NV | 0 | -1.60 | -0.002250 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23130 | 50RB#0 | NV | 10 | -5.10 | -0.007173 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23130 | 50RB#0 | NV | 20 | -1.10 | -0.001547 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23130 | 50RB#0 | NV | 30 | -7.40 | -0.010408 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23130 | 50RB#0 | NV | 40 | -4.30 | -0.006048 | ±2.5 | PASS |
| Band12 | 10MHz | 16QAM | 23130 | 50RB#0 | NV | 50 | -1.60 | -0.002250 | ±2.5 | PASS |

