



# Appendix B

## E-UTRA Band 5



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](mailto:CN.Doccheck@sgs.com)



## CONTENT

|           |                                              |           |
|-----------|----------------------------------------------|-----------|
| <b>1</b>  | <b>EFFECTIVE (ISOTROPIC) RADIATED POWER</b>  | <b>3</b>  |
| 1.1.      | TEST RESULT                                  | 3         |
| <b>2.</b> | <b>PEAK-TO-AVERAGE RATIO (CCDF)</b>          | <b>9</b>  |
| 2.1.      | TEST RESULT                                  | 9         |
| 2.2.      | TEST PLOTS                                   | 9         |
| <b>3.</b> | <b>MODULATION CHARACTERISTICS</b>            | <b>14</b> |
| 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        |
| 3.3.      | TEST MODE = LTE /TM3 10MHZ                   | 16        |
| 3.3.1.    | TEST CHANNEL = MCH                           | 16        |
| <b>4.</b> | <b>26DB BANDWIDTH AND OCCUPIED BANDWIDTH</b> | <b>17</b> |
| 4.1.      | TEST RESULT                                  | 17        |
| 4.2.      | TEST PLOTS                                   | 18        |
| <b>5.</b> | <b>BAND EDGE COMPLIANCE</b>                  | <b>36</b> |
| 5.1.      | TEST PLOTS                                   | 36        |
| <b>6.</b> | <b>SPURIOUS EMISSION AT ANTENNA TERMINAL</b> | <b>60</b> |
| 6.1.      | TEST PLOTS                                   | 60        |
| <b>7.</b> | <b>FIELD STRENGTH OF SPURIOUS RADIATION</b>  | <b>69</b> |
| 7.1.      | TEST MODE =LTE/TM1                           | 69        |
| 7.1.1.    | TEST CHANNEL = LCH                           | 69        |
| 7.1.2.    | TEST CHANNEL = MCH                           | 69        |
| 7.1.3.    | TEST CHANNEL = HCH                           | 70        |
| <b>8.</b> | <b>FREQUENCY STABILITY</b>                   | <b>71</b> |
| 8.1.      | FREQUENCY VS VOLTAGE                         | 71        |
| 8.2.      | FREQUENCY VS TEMPERATURE                     | 71        |



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](mailto: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



## 1 Effective (Isotropic) Radiated Power

### 1.1. Test Result

| Band  | Bandwidth | Modulation | Channel | RB Configuration | Conducted Power(dBm) | ERP (dBm) | Limit (dBm) | Verdict |
|-------|-----------|------------|---------|------------------|----------------------|-----------|-------------|---------|
| Band5 | 1.4MHz    | QPSK       | 20407   | 1RB#5            | 23.31                | 20.70     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20407   | 1RB#2            | 23.43                | 20.82     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20407   | 1RB#0            | 23.31                | 20.70     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20407   | 3RB#3            | 23.41                | 20.80     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20407   | 3RB#1            | 23.47                | 20.86     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20407   | 3RB#0            | 23.40                | 20.79     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20407   | 6RB#0            | 22.42                | 19.81     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 1RB#0            | 23.32                | 20.71     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 1RB#5            | 23.31                | 20.70     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 1RB#2            | 23.44                | 20.83     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 3RB#3            | 23.45                | 20.84     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 3RB#1            | 23.48                | 20.87     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 3RB#0            | 23.43                | 20.82     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 6RB#0            | 22.42                | 19.81     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 1RB#5            | 23.35                | 20.74     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 1RB#2            | 23.44                | 20.83     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 1RB#0            | 23.33                | 20.72     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 3RB#3            | 23.44                | 20.83     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 3RB#1            | 23.48                | 20.87     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 3RB#0            | 23.43                | 20.82     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 6RB#0            | 22.46                | 19.85     | 38.45       | PASS    |
| Band5 | 1.4MHz    | 64QAM      | 20407   | 1RB#0            | 21.46                | 18.85     | 38.45       | PASS    |
| Band5 | 1.4MHz    | 64QAM      | 20407   | 1RB#5            | 21.45                | 18.84     | 38.45       | PASS    |
| Band5 | 1.4MHz    | 64QAM      | 20407   | 1RB#2            | 21.56                | 18.95     | 38.45       | PASS    |
| Band5 | 1.4MHz    | 64QAM      | 20407   | 3RB#3            | 21.47                | 18.86     | 38.45       | PASS    |
| Band5 | 1.4MHz    | 64QAM      | 20407   | 3RB#1            | 21.55                | 18.94     | 38.45       | PASS    |
| Band5 | 1.4MHz    | 64QAM      | 20407   | 3RB#0            | 21.51                | 18.90     | 38.45       | PASS    |
| Band5 | 1.4MHz    | 64QAM      | 20407   | 6RB#0            | 20.42                | 17.81     | 38.45       | PASS    |
| Band5 | 1.4MHz    | 64QAM      | 20525   | 1RB#5            | 21.45                | 18.84     | 38.45       | PASS    |
| Band5 | 1.4MHz    | 64QAM      | 20525   | 1RB#0            | 21.47                | 18.86     | 38.45       | PASS    |
| Band5 | 1.4MHz    | 64QAM      | 20525   | 1RB#2            | 21.58                | 18.97     | 38.45       | PASS    |
| Band5 | 1.4MHz    | 64QAM      | 20525   | 3RB#0            | 21.50                | 18.89     | 38.45       | PASS    |
| Band5 | 1.4MHz    | 64QAM      | 20525   | 3RB#3            | 21.47                | 18.86     | 38.45       | PASS    |
| Band5 | 1.4MHz    | 64QAM      | 20525   | 3RB#1            | 21.54                | 18.93     | 38.45       | PASS    |
| Band5 | 1.4MHz    | 64QAM      | 20525   | 6RB#0            | 20.37                | 17.76     | 38.45       | PASS    |
| Band5 | 1.4MHz    | 64QAM      | 20643   | 1RB#5            | 21.51                | 18.90     | 38.45       | PASS    |
| Band5 | 1.4MHz    | 64QAM      | 20643   | 1RB#2            | 21.61                | 19.00     | 38.45       | PASS    |
| Band5 | 1.4MHz    | 64QAM      | 20643   | 1RB#0            | 21.53                | 18.92     | 38.45       | PASS    |



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <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](mailto: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.ssgsgroup.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



|       |        |       |       |        |       |       |       |      |
|-------|--------|-------|-------|--------|-------|-------|-------|------|
| Band5 | 1.4MHz | 64QAM | 20643 | 3RB#3  | 21.49 | 18.88 | 38.45 | PASS |
| Band5 | 1.4MHz | 64QAM | 20643 | 3RB#1  | 21.56 | 18.95 | 38.45 | PASS |
| Band5 | 1.4MHz | 64QAM | 20643 | 3RB#0  | 21.51 | 18.90 | 38.45 | PASS |
| Band5 | 1.4MHz | 64QAM | 20643 | 6RB#0  | 20.40 | 17.79 | 38.45 | PASS |
| Band5 | 1.4MHz | 16QAM | 20407 | 1RB#0  | 22.51 | 19.90 | 38.45 | PASS |
| Band5 | 1.4MHz | 16QAM | 20407 | 1RB#5  | 22.59 | 19.98 | 38.45 | PASS |
| Band5 | 1.4MHz | 16QAM | 20407 | 1RB#2  | 22.65 | 20.04 | 38.45 | PASS |
| Band5 | 1.4MHz | 16QAM | 20407 | 3RB#3  | 22.42 | 19.81 | 38.45 | PASS |
| Band5 | 1.4MHz | 16QAM | 20407 | 3RB#0  | 22.40 | 19.79 | 38.45 | PASS |
| Band5 | 1.4MHz | 16QAM | 20407 | 3RB#1  | 22.49 | 19.88 | 38.45 | PASS |
| Band5 | 1.4MHz | 16QAM | 20407 | 6RB#0  | 21.49 | 18.88 | 38.45 | PASS |
| Band5 | 1.4MHz | 16QAM | 20525 | 1RB#5  | 22.56 | 19.95 | 38.45 | PASS |
| Band5 | 1.4MHz | 16QAM | 20525 | 1RB#0  | 22.58 | 19.97 | 38.45 | PASS |
| Band5 | 1.4MHz | 16QAM | 20525 | 1RB#2  | 22.81 | 20.20 | 38.45 | PASS |
| Band5 | 1.4MHz | 16QAM | 20525 | 3RB#3  | 22.53 | 19.92 | 38.45 | PASS |
| Band5 | 1.4MHz | 16QAM | 20525 | 3RB#1  | 22.57 | 19.96 | 38.45 | PASS |
| Band5 | 1.4MHz | 16QAM | 20525 | 3RB#0  | 22.55 | 19.94 | 38.45 | PASS |
| Band5 | 1.4MHz | 16QAM | 20525 | 6RB#0  | 21.48 | 18.87 | 38.45 | PASS |
| Band5 | 1.4MHz | 16QAM | 20643 | 1RB#0  | 22.50 | 19.89 | 38.45 | PASS |
| Band5 | 1.4MHz | 16QAM | 20643 | 1RB#2  | 22.68 | 20.07 | 38.45 | PASS |
| Band5 | 1.4MHz | 16QAM | 20643 | 1RB#5  | 22.57 | 19.96 | 38.45 | PASS |
| Band5 | 1.4MHz | 16QAM | 20643 | 3RB#0  | 22.51 | 19.90 | 38.45 | PASS |
| Band5 | 1.4MHz | 16QAM | 20643 | 3RB#3  | 22.47 | 19.86 | 38.45 | PASS |
| Band5 | 1.4MHz | 16QAM | 20643 | 3RB#1  | 22.59 | 19.98 | 38.45 | PASS |
| Band5 | 1.4MHz | 16QAM | 20643 | 6RB#0  | 21.51 | 18.90 | 38.45 | PASS |
| Band5 | 3MHz   | QPSK  | 20415 | 1RB#14 | 23.40 | 20.79 | 38.45 | PASS |
| Band5 | 3MHz   | QPSK  | 20415 | 1RB#0  | 23.39 | 20.78 | 38.45 | PASS |
| Band5 | 3MHz   | QPSK  | 20415 | 1RB#8  | 23.43 | 20.82 | 38.45 | PASS |
| Band5 | 3MHz   | QPSK  | 20415 | 8RB#7  | 22.47 | 19.86 | 38.45 | PASS |
| Band5 | 3MHz   | QPSK  | 20415 | 8RB#0  | 22.45 | 19.84 | 38.45 | PASS |
| Band5 | 3MHz   | QPSK  | 20415 | 8RB#4  | 22.52 | 19.91 | 38.45 | PASS |
| Band5 | 3MHz   | QPSK  | 20415 | 15RB#0 | 22.45 | 19.84 | 38.45 | PASS |
| Band5 | 3MHz   | QPSK  | 20525 | 1RB#14 | 23.43 | 20.82 | 38.45 | PASS |
| Band5 | 3MHz   | QPSK  | 20525 | 1RB#8  | 23.41 | 20.80 | 38.45 | PASS |
| Band5 | 3MHz   | QPSK  | 20525 | 1RB#0  | 23.41 | 20.80 | 38.45 | PASS |
| Band5 | 3MHz   | QPSK  | 20525 | 8RB#4  | 22.49 | 19.88 | 38.45 | PASS |
| Band5 | 3MHz   | QPSK  | 20525 | 8RB#7  | 22.47 | 19.86 | 38.45 | PASS |
| Band5 | 3MHz   | QPSK  | 20525 | 8RB#0  | 22.45 | 19.84 | 38.45 | PASS |
| Band5 | 3MHz   | QPSK  | 20525 | 15RB#0 | 22.46 | 19.85 | 38.45 | PASS |
| Band5 | 3MHz   | QPSK  | 20635 | 1RB#0  | 23.42 | 20.81 | 38.45 | PASS |
| Band5 | 3MHz   | QPSK  | 20635 | 1RB#8  | 23.43 | 20.82 | 38.45 | PASS |
| Band5 | 3MHz   | QPSK  | 20635 | 1RB#14 | 23.42 | 20.81 | 38.45 | PASS |
| Band5 | 3MHz   | QPSK  | 20635 | 8RB#4  | 22.51 | 19.90 | 38.45 | PASS |
| Band5 | 3MHz   | QPSK  | 20635 | 8RB#0  | 22.50 | 19.89 | 38.45 | PASS |
| Band5 | 3MHz   | QPSK  | 20635 | 8RB#7  | 22.46 | 19.85 | 38.45 | PASS |
| Band5 | 3MHz   | QPSK  | 20635 | 15RB#0 | 22.48 | 19.87 | 38.45 | PASS |
| Band5 | 3MHz   | 64QAM | 20415 | 1RB#14 | 21.57 | 18.96 | 38.45 | PASS |



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <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](mailto: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



|       |      |       |       |         |       |       |       |      |
|-------|------|-------|-------|---------|-------|-------|-------|------|
| Band5 | 3MHz | 64QAM | 20415 | 1RB#8   | 21.59 | 18.98 | 38.45 | PASS |
| Band5 | 3MHz | 64QAM | 20415 | 1RB#0   | 21.50 | 18.89 | 38.45 | PASS |
| Band5 | 3MHz | 64QAM | 20415 | 8RB#0   | 20.45 | 17.84 | 38.45 | PASS |
| Band5 | 3MHz | 64QAM | 20415 | 8RB#7   | 20.47 | 17.86 | 38.45 | PASS |
| Band5 | 3MHz | 64QAM | 20415 | 8RB#4   | 20.50 | 17.89 | 38.45 | PASS |
| Band5 | 3MHz | 64QAM | 20415 | 15RB#0  | 20.43 | 17.82 | 38.45 | PASS |
| Band5 | 3MHz | 64QAM | 20525 | 1RB#0   | 21.54 | 18.93 | 38.45 | PASS |
| Band5 | 3MHz | 64QAM | 20525 | 1RB#14  | 21.53 | 18.92 | 38.45 | PASS |
| Band5 | 3MHz | 64QAM | 20525 | 1RB#8   | 21.54 | 18.93 | 38.45 | PASS |
| Band5 | 3MHz | 64QAM | 20525 | 8RB#0   | 20.43 | 17.82 | 38.45 | PASS |
| Band5 | 3MHz | 64QAM | 20525 | 8RB#4   | 20.48 | 17.87 | 38.45 | PASS |
| Band5 | 3MHz | 64QAM | 20525 | 8RB#7   | 20.46 | 17.85 | 38.45 | PASS |
| Band5 | 3MHz | 64QAM | 20525 | 15RB#0  | 20.42 | 17.81 | 38.45 | PASS |
| Band5 | 3MHz | 64QAM | 20635 | 1RB#14  | 21.51 | 18.90 | 38.45 | PASS |
| Band5 | 3MHz | 64QAM | 20635 | 1RB#0   | 21.50 | 18.89 | 38.45 | PASS |
| Band5 | 3MHz | 64QAM | 20635 | 1RB#8   | 21.49 | 18.88 | 38.45 | PASS |
| Band5 | 3MHz | 64QAM | 20635 | 8RB#7   | 20.40 | 17.79 | 38.45 | PASS |
| Band5 | 3MHz | 64QAM | 20635 | 8RB#0   | 20.46 | 17.85 | 38.45 | PASS |
| Band5 | 3MHz | 64QAM | 20635 | 8RB#4   | 20.45 | 17.84 | 38.45 | PASS |
| Band5 | 3MHz | 64QAM | 20635 | 15RB#0  | 20.42 | 17.81 | 38.45 | PASS |
| Band5 | 3MHz | 16QAM | 20415 | 1RB#14  | 22.55 | 19.94 | 38.45 | PASS |
| Band5 | 3MHz | 16QAM | 20415 | 1RB#0   | 22.63 | 20.02 | 38.45 | PASS |
| Band5 | 3MHz | 16QAM | 20415 | 1RB#8   | 22.59 | 19.98 | 38.45 | PASS |
| Band5 | 3MHz | 16QAM | 20415 | 8RB#7   | 21.50 | 18.89 | 38.45 | PASS |
| Band5 | 3MHz | 16QAM | 20415 | 8RB#4   | 21.55 | 18.94 | 38.45 | PASS |
| Band5 | 3MHz | 16QAM | 20415 | 8RB#0   | 21.50 | 18.89 | 38.45 | PASS |
| Band5 | 3MHz | 16QAM | 20415 | 15RB#0  | 21.42 | 18.81 | 38.45 | PASS |
| Band5 | 3MHz | 16QAM | 20525 | 1RB#0   | 22.59 | 19.98 | 38.45 | PASS |
| Band5 | 3MHz | 16QAM | 20525 | 1RB#8   | 22.69 | 20.08 | 38.45 | PASS |
| Band5 | 3MHz | 16QAM | 20525 | 1RB#14  | 22.71 | 20.10 | 38.45 | PASS |
| Band5 | 3MHz | 16QAM | 20525 | 8RB#7   | 21.52 | 18.91 | 38.45 | PASS |
| Band5 | 3MHz | 16QAM | 20525 | 8RB#4   | 21.53 | 18.92 | 38.45 | PASS |
| Band5 | 3MHz | 16QAM | 20525 | 8RB#0   | 21.50 | 18.89 | 38.45 | PASS |
| Band5 | 3MHz | 16QAM | 20525 | 15RB#0  | 21.44 | 18.83 | 38.45 | PASS |
| Band5 | 3MHz | 16QAM | 20635 | 1RB#14  | 22.59 | 19.98 | 38.45 | PASS |
| Band5 | 3MHz | 16QAM | 20635 | 1RB#8   | 22.69 | 20.08 | 38.45 | PASS |
| Band5 | 3MHz | 16QAM | 20635 | 1RB#0   | 22.75 | 20.14 | 38.45 | PASS |
| Band5 | 3MHz | 16QAM | 20635 | 8RB#4   | 21.55 | 18.94 | 38.45 | PASS |
| Band5 | 3MHz | 16QAM | 20635 | 8RB#7   | 21.50 | 18.89 | 38.45 | PASS |
| Band5 | 3MHz | 16QAM | 20635 | 8RB#0   | 21.56 | 18.95 | 38.45 | PASS |
| Band5 | 3MHz | 16QAM | 20635 | 15RB#0  | 21.45 | 18.84 | 38.45 | PASS |
| Band5 | 5MHz | QPSK  | 20425 | 1RB#0   | 23.30 | 20.69 | 38.45 | PASS |
| Band5 | 5MHz | QPSK  | 20425 | 1RB#12  | 23.57 | 20.96 | 38.45 | PASS |
| Band5 | 5MHz | QPSK  | 20425 | 1RB#24  | 23.31 | 20.70 | 38.45 | PASS |
| Band5 | 5MHz | QPSK  | 20425 | 12RB#0  | 22.45 | 19.84 | 38.45 | PASS |
| Band5 | 5MHz | QPSK  | 20425 | 12RB#6  | 22.52 | 19.91 | 38.45 | PASS |
| Band5 | 5MHz | QPSK  | 20425 | 12RB#13 | 22.46 | 19.85 | 38.45 | PASS |



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <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](mailto: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



|       |      |       |       |         |       |       |       |      |
|-------|------|-------|-------|---------|-------|-------|-------|------|
| Band5 | 5MHz | QPSK  | 20425 | 25RB#0  | 22.48 | 19.87 | 38.45 | PASS |
| Band5 | 5MHz | QPSK  | 20525 | 1RB#0   | 23.33 | 20.72 | 38.45 | PASS |
| Band5 | 5MHz | QPSK  | 20525 | 1RB#12  | 23.61 | 21.00 | 38.45 | PASS |
| Band5 | 5MHz | QPSK  | 20525 | 1RB#24  | 23.31 | 20.70 | 38.45 | PASS |
| Band5 | 5MHz | QPSK  | 20525 | 12RB#0  | 22.45 | 19.84 | 38.45 | PASS |
| Band5 | 5MHz | QPSK  | 20525 | 12RB#13 | 22.45 | 19.84 | 38.45 | PASS |
| Band5 | 5MHz | QPSK  | 20525 | 12RB#6  | 22.52 | 19.91 | 38.45 | PASS |
| Band5 | 5MHz | QPSK  | 20525 | 25RB#0  | 22.49 | 19.88 | 38.45 | PASS |
| Band5 | 5MHz | QPSK  | 20625 | 1RB#24  | 23.29 | 20.68 | 38.45 | PASS |
| Band5 | 5MHz | QPSK  | 20625 | 1RB#12  | 23.60 | 20.99 | 38.45 | PASS |
| Band5 | 5MHz | QPSK  | 20625 | 1RB#0   | 23.30 | 20.69 | 38.45 | PASS |
| Band5 | 5MHz | QPSK  | 20625 | 12RB#0  | 22.48 | 19.87 | 38.45 | PASS |
| Band5 | 5MHz | QPSK  | 20625 | 12RB#6  | 22.54 | 19.93 | 38.45 | PASS |
| Band5 | 5MHz | QPSK  | 20625 | 12RB#13 | 22.42 | 19.81 | 38.45 | PASS |
| Band5 | 5MHz | QPSK  | 20625 | 25RB#0  | 22.49 | 19.88 | 38.45 | PASS |
| Band5 | 5MHz | 64QAM | 20425 | 1RB#0   | 21.42 | 18.81 | 38.45 | PASS |
| Band5 | 5MHz | 64QAM | 20425 | 1RB#12  | 21.69 | 19.08 | 38.45 | PASS |
| Band5 | 5MHz | 64QAM | 20425 | 1RB#24  | 21.40 | 18.79 | 38.45 | PASS |
| Band5 | 5MHz | 64QAM | 20425 | 12RB#6  | 20.50 | 17.89 | 38.45 | PASS |
| Band5 | 5MHz | 64QAM | 20425 | 12RB#13 | 20.47 | 17.86 | 38.45 | PASS |
| Band5 | 5MHz | 64QAM | 20425 | 12RB#0  | 20.39 | 17.78 | 38.45 | PASS |
| Band5 | 5MHz | 64QAM | 20425 | 25RB#0  | 20.47 | 17.86 | 38.45 | PASS |
| Band5 | 5MHz | 64QAM | 20525 | 1RB#0   | 21.41 | 18.80 | 38.45 | PASS |
| Band5 | 5MHz | 64QAM | 20525 | 1RB#12  | 21.69 | 19.08 | 38.45 | PASS |
| Band5 | 5MHz | 64QAM | 20525 | 1RB#24  | 21.48 | 18.87 | 38.45 | PASS |
| Band5 | 5MHz | 64QAM | 20525 | 12RB#0  | 20.41 | 17.80 | 38.45 | PASS |
| Band5 | 5MHz | 64QAM | 20525 | 12RB#6  | 20.49 | 17.88 | 38.45 | PASS |
| Band5 | 5MHz | 64QAM | 20525 | 12RB#13 | 20.43 | 17.82 | 38.45 | PASS |
| Band5 | 5MHz | 64QAM | 20525 | 25RB#0  | 20.46 | 17.85 | 38.45 | PASS |
| Band5 | 5MHz | 64QAM | 20625 | 1RB#24  | 21.39 | 18.78 | 38.45 | PASS |
| Band5 | 5MHz | 64QAM | 20625 | 1RB#12  | 21.73 | 19.12 | 38.45 | PASS |
| Band5 | 5MHz | 64QAM | 20625 | 1RB#0   | 21.35 | 18.74 | 38.45 | PASS |
| Band5 | 5MHz | 64QAM | 20625 | 12RB#0  | 20.42 | 17.81 | 38.45 | PASS |
| Band5 | 5MHz | 64QAM | 20625 | 12RB#13 | 20.33 | 17.72 | 38.45 | PASS |
| Band5 | 5MHz | 64QAM | 20625 | 12RB#6  | 20.45 | 17.84 | 38.45 | PASS |
| Band5 | 5MHz | 64QAM | 20625 | 25RB#0  | 20.44 | 17.83 | 38.45 | PASS |
| Band5 | 5MHz | 16QAM | 20425 | 1RB#0   | 22.54 | 19.93 | 38.45 | PASS |
| Band5 | 5MHz | 16QAM | 20425 | 1RB#12  | 22.86 | 20.25 | 38.45 | PASS |
| Band5 | 5MHz | 16QAM | 20425 | 1RB#24  | 22.61 | 20.00 | 38.45 | PASS |
| Band5 | 5MHz | 16QAM | 20425 | 12RB#6  | 21.52 | 18.91 | 38.45 | PASS |
| Band5 | 5MHz | 16QAM | 20425 | 12RB#13 | 21.47 | 18.86 | 38.45 | PASS |
| Band5 | 5MHz | 16QAM | 20425 | 12RB#0  | 21.43 | 18.82 | 38.45 | PASS |
| Band5 | 5MHz | 16QAM | 20425 | 25RB#0  | 21.45 | 18.84 | 38.45 | PASS |
| Band5 | 5MHz | 16QAM | 20525 | 1RB#24  | 22.50 | 19.89 | 38.45 | PASS |
| Band5 | 5MHz | 16QAM | 20525 | 1RB#0   | 22.59 | 19.98 | 38.45 | PASS |
| Band5 | 5MHz | 16QAM | 20525 | 1RB#12  | 22.89 | 20.28 | 38.45 | PASS |
| Band5 | 5MHz | 16QAM | 20525 | 12RB#13 | 21.50 | 18.89 | 38.45 | PASS |



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <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](mailto: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



|       |       |       |       |         |       |       |       |      |
|-------|-------|-------|-------|---------|-------|-------|-------|------|
| Band5 | 5MHz  | 16QAM | 20525 | 12RB#0  | 21.46 | 18.85 | 38.45 | PASS |
| Band5 | 5MHz  | 16QAM | 20525 | 12RB#6  | 21.53 | 18.92 | 38.45 | PASS |
| Band5 | 5MHz  | 16QAM | 20525 | 25RB#0  | 21.49 | 18.88 | 38.45 | PASS |
| Band5 | 5MHz  | 16QAM | 20625 | 1RB#0   | 22.59 | 19.98 | 38.45 | PASS |
| Band5 | 5MHz  | 16QAM | 20625 | 1RB#12  | 22.88 | 20.27 | 38.45 | PASS |
| Band5 | 5MHz  | 16QAM | 20625 | 1RB#24  | 22.57 | 19.96 | 38.45 | PASS |
| Band5 | 5MHz  | 16QAM | 20625 | 12RB#6  | 21.56 | 18.95 | 38.45 | PASS |
| Band5 | 5MHz  | 16QAM | 20625 | 12RB#0  | 21.51 | 18.90 | 38.45 | PASS |
| Band5 | 5MHz  | 16QAM | 20625 | 12RB#13 | 21.44 | 18.83 | 38.45 | PASS |
| Band5 | 5MHz  | 16QAM | 20625 | 25RB#0  | 21.52 | 18.91 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20450 | 1RB#0   | 23.39 | 20.78 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20450 | 1RB#24  | 23.55 | 20.94 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20450 | 1RB#49  | 23.35 | 20.74 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20450 | 25RB#0  | 22.54 | 19.93 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20450 | 25RB#12 | 22.50 | 19.89 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20450 | 25RB#25 | 22.50 | 19.89 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20450 | 50RB#0  | 22.50 | 19.89 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 1RB#49  | 23.35 | 20.74 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 1RB#24  | 23.53 | 20.92 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 1RB#0   | 23.38 | 20.77 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 25RB#0  | 22.49 | 19.88 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 25RB#25 | 22.49 | 19.88 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 25RB#12 | 22.50 | 19.89 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 50RB#0  | 22.50 | 19.89 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 1RB#49  | 23.38 | 20.77 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 1RB#24  | 23.52 | 20.91 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 1RB#0   | 23.40 | 20.79 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 25RB#12 | 22.53 | 19.92 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 25RB#0  | 22.49 | 19.88 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 25RB#25 | 22.46 | 19.85 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 50RB#0  | 22.49 | 19.88 | 38.45 | PASS |
| Band5 | 10MHz | 64QAM | 20450 | 1RB#0   | 21.51 | 18.90 | 38.45 | PASS |
| Band5 | 10MHz | 64QAM | 20450 | 1RB#24  | 21.66 | 19.05 | 38.45 | PASS |
| Band5 | 10MHz | 64QAM | 20450 | 1RB#49  | 21.51 | 18.90 | 38.45 | PASS |
| Band5 | 10MHz | 64QAM | 20450 | 25RB#25 | 20.48 | 17.87 | 38.45 | PASS |
| Band5 | 10MHz | 64QAM | 20450 | 25RB#12 | 20.51 | 17.90 | 38.45 | PASS |
| Band5 | 10MHz | 64QAM | 20450 | 25RB#0  | 20.51 | 17.90 | 38.45 | PASS |
| Band5 | 10MHz | 64QAM | 20450 | 50RB#0  | 20.49 | 17.88 | 38.45 | PASS |
| Band5 | 10MHz | 64QAM | 20525 | 1RB#49  | 21.45 | 18.84 | 38.45 | PASS |
| Band5 | 10MHz | 64QAM | 20525 | 1RB#0   | 21.49 | 18.88 | 38.45 | PASS |
| Band5 | 10MHz | 64QAM | 20525 | 1RB#24  | 21.67 | 19.06 | 38.45 | PASS |
| Band5 | 10MHz | 64QAM | 20525 | 25RB#25 | 20.49 | 17.88 | 38.45 | PASS |
| Band5 | 10MHz | 64QAM | 20525 | 25RB#12 | 20.49 | 17.88 | 38.45 | PASS |
| Band5 | 10MHz | 64QAM | 20525 | 25RB#0  | 20.51 | 17.90 | 38.45 | PASS |
| Band5 | 10MHz | 64QAM | 20525 | 50RB#0  | 20.49 | 17.88 | 38.45 | PASS |
| Band5 | 10MHz | 64QAM | 20600 | 1RB#0   | 21.45 | 18.84 | 38.45 | PASS |
| Band5 | 10MHz | 64QAM | 20600 | 1RB#24  | 21.65 | 19.04 | 38.45 | PASS |



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

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



|       |       |       |       |         |       |       |       |      |
|-------|-------|-------|-------|---------|-------|-------|-------|------|
| Band5 | 10MHz | 64QAM | 20600 | 1RB#49  | 21.44 | 18.83 | 38.45 | PASS |
| Band5 | 10MHz | 64QAM | 20600 | 25RB#12 | 20.49 | 17.88 | 38.45 | PASS |
| Band5 | 10MHz | 64QAM | 20600 | 25RB#25 | 20.42 | 17.81 | 38.45 | PASS |
| Band5 | 10MHz | 64QAM | 20600 | 25RB#0  | 20.46 | 17.85 | 38.45 | PASS |
| Band5 | 10MHz | 64QAM | 20600 | 50RB#0  | 20.49 | 17.88 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 1RB#49  | 22.60 | 19.99 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 1RB#0   | 22.57 | 19.96 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 1RB#24  | 22.83 | 20.22 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 25RB#0  | 21.52 | 18.91 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 25RB#12 | 21.51 | 18.90 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 25RB#25 | 21.47 | 18.86 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 50RB#0  | 21.49 | 18.88 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 1RB#49  | 22.65 | 20.04 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 1RB#0   | 22.69 | 20.08 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 1RB#24  | 22.80 | 20.19 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 25RB#12 | 21.52 | 18.91 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 25RB#25 | 21.48 | 18.87 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 25RB#0  | 21.50 | 18.89 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 50RB#0  | 21.51 | 18.90 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 1RB#49  | 22.61 | 20.00 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 1RB#24  | 22.76 | 20.15 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 1RB#0   | 22.60 | 19.99 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 25RB#25 | 21.49 | 18.88 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 25RB#12 | 21.54 | 18.93 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 25RB#0  | 21.48 | 18.87 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 50RB#0  | 21.49 | 18.88 | 38.45 | 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](mailto: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

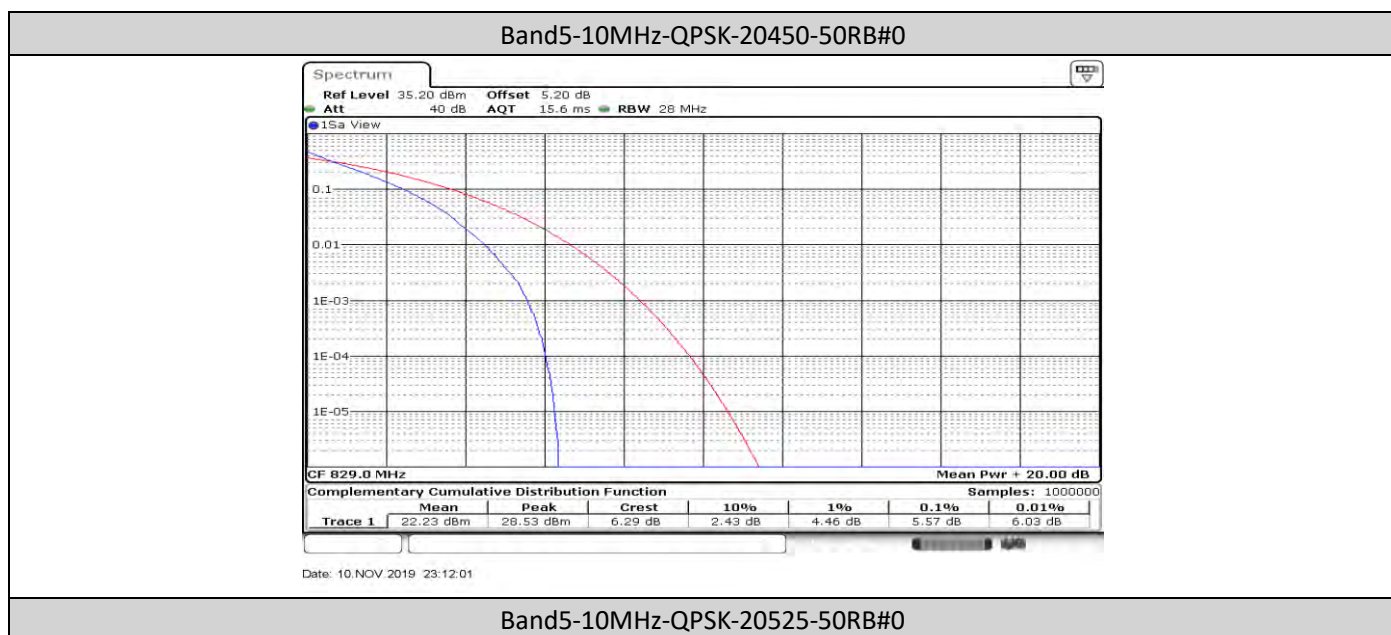


## 2. Peak-to-Average Ratio (CCDF)

### 2.1. Test Result

| Band  | Bandwidth | Modulation | Channel | RB Configuration | Result(dB) | Limit(dB) | Verdict |
|-------|-----------|------------|---------|------------------|------------|-----------|---------|
| Band5 | 10MHz     | QPSK       | 20450   | 50RB#0           | 5.57       | 13        | PASS    |
| Band5 | 10MHz     | QPSK       | 20525   | 50RB#0           | 5.68       | 13        | PASS    |
| Band5 | 10MHz     | QPSK       | 20600   | 50RB#0           | 5.39       | 13        | PASS    |
| Band5 | 10MHz     | 64QAM      | 20450   | 50RB#0           | 6.61       | 13        | PASS    |
| Band5 | 10MHz     | 64QAM      | 20525   | 50RB#0           | 6.64       | 13        | PASS    |
| Band5 | 10MHz     | 64QAM      | 20600   | 50RB#0           | 6.49       | 13        | PASS    |
| Band5 | 10MHz     | 16QAM      | 20450   | 50RB#0           | 6.29       | 13        | PASS    |
| Band5 | 10MHz     | 16QAM      | 20525   | 50RB#0           | 6.43       | 13        | PASS    |
| Band5 | 10MHz     | 16QAM      | 20600   | 50RB#0           | 6.20       | 13        | PASS    |

### 2.2. Test Plots





Band5-10MHz-QPSK-20600-50RB#0



Band5-10MHz-64QAM-20450-50RB#0



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](mailto: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



Band5-10MHz-64QAM-20525-50RB#0



Band5-10MHz-64QAM-20600-50RB#0





Band5-10MHz-16QAM-20450-50RB#0



Band5-10MHz-16QAM-20525-50RB#0



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](mailto: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



Band5-10MHz-16QAM-20600-50RB#0



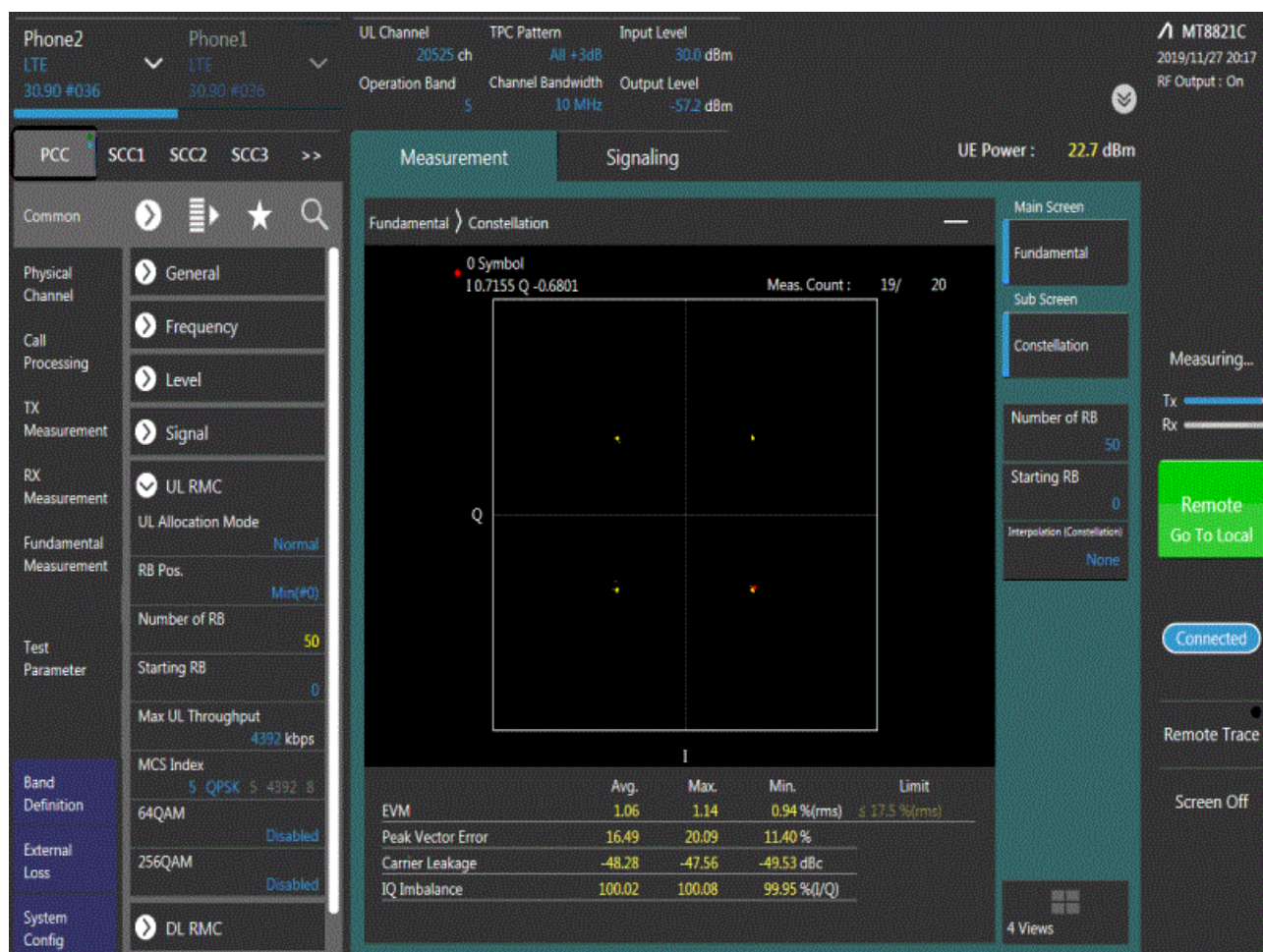
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

### 3. Modulation Characteristics

### 3.1. Test Mode = LTE /TM1 10MHz

### 3.1.1. Test Channel = MCH



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

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed and 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 dispute. The Company's findings are not to be used for any purpose other than that for which they were intended, and any use, in whole or in part, 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) is/are retained for 30 days only.

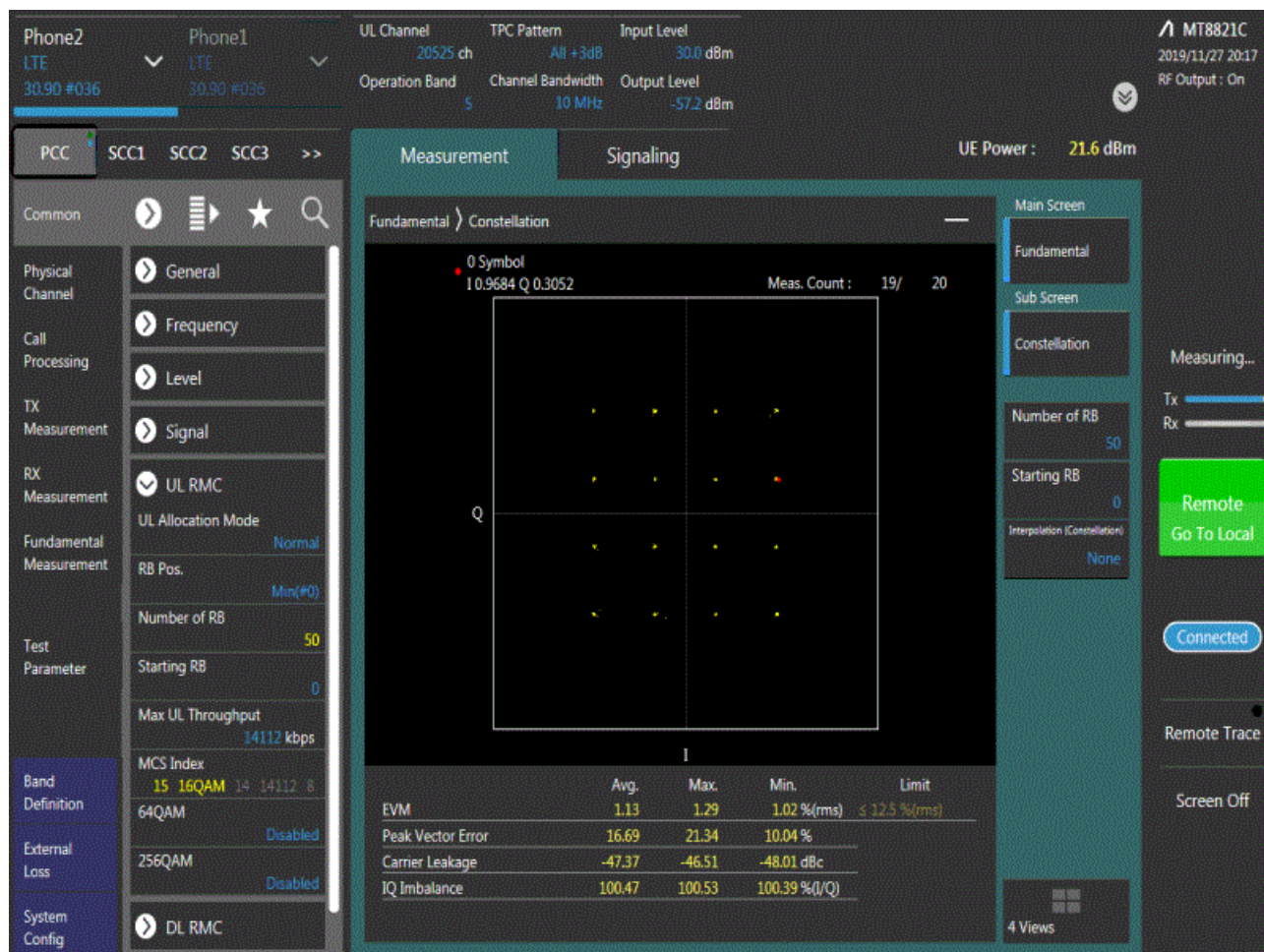
For further information or to request a copy of testing/inspection report & certificate, please contact us at telephone: (86-755) 8307 4443, or email: [CN.Overseas@sgs.com](mailto:CN.Overseas@sgs.com)

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](mailto:sgs.china@sgs.com)



## 3.2. Test Mode = LTE /TM2 10MHz

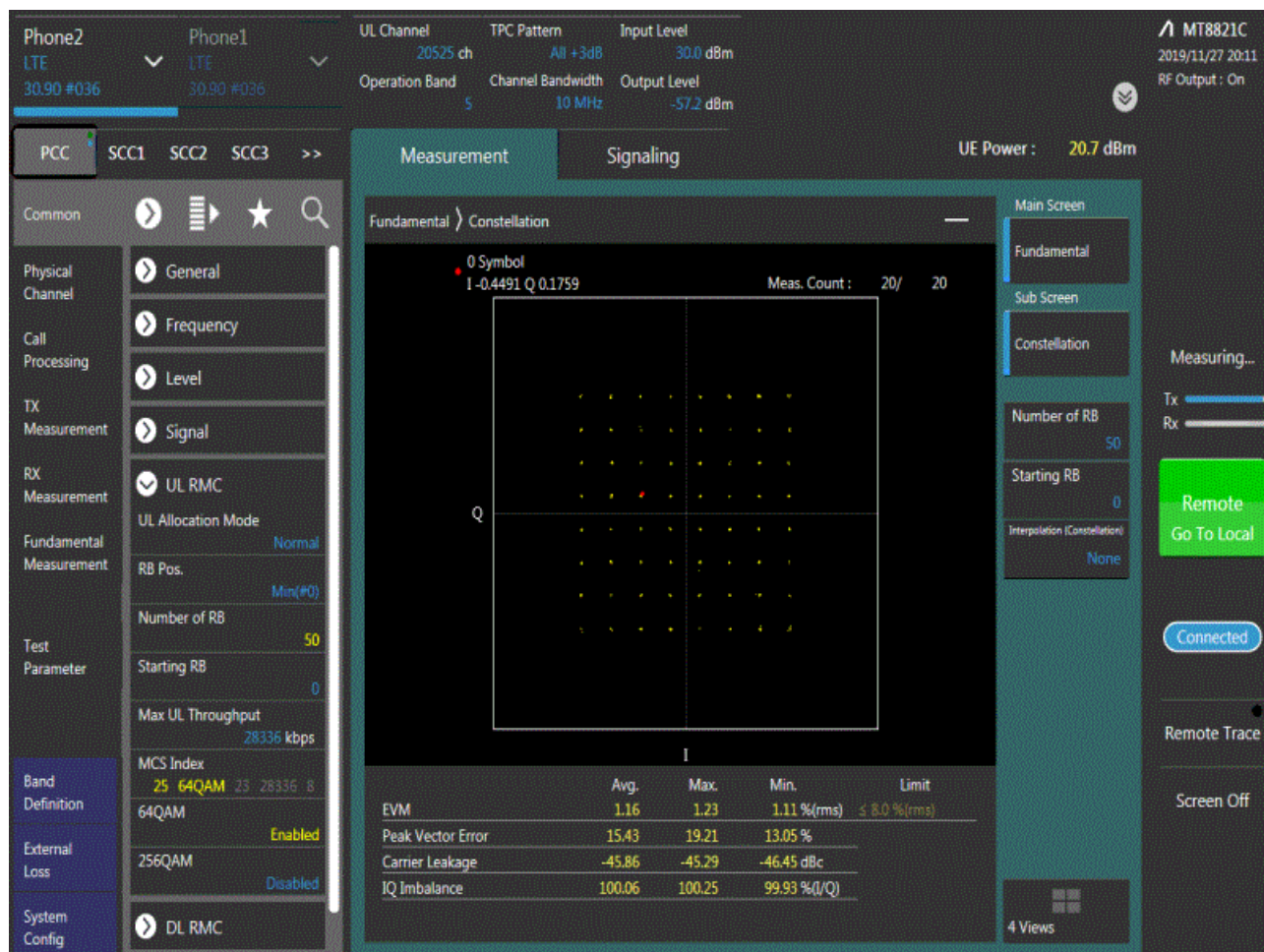
### 3.2.1. Test Channel = MCH





### 3.3. Test Mode = LTE /TM3 10MHz

#### 3.3.1. 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 |
|-------|-----------|------------|---------|------------------|--------------------------|----------------------|---------|
| Band5 | 1.4MHz    | QPSK       | 20407   | 6RB#0            | 1.094                    | 1.368                | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 6RB#0            | 1.097                    | 1.287                | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 6RB#0            | 1.097                    | 1.311                | PASS    |
| Band5 | 1.4MHz    | 64QAM      | 20407   | 6RB#0            | 1.094                    | 1.278                | PASS    |
| Band5 | 1.4MHz    | 64QAM      | 20525   | 6RB#0            | 1.094                    | 1.284                | PASS    |
| Band5 | 1.4MHz    | 64QAM      | 20643   | 6RB#0            | 1.094                    | 1.272                | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20407   | 6RB#0            | 1.103                    | 1.317                | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20525   | 6RB#0            | 1.094                    | 1.293                | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20643   | 6RB#0            | 1.088                    | 1.278                | PASS    |
| Band5 | 3MHz      | QPSK       | 20415   | 15RB#0           | 2.685                    | 2.916                | PASS    |
| Band5 | 3MHz      | QPSK       | 20525   | 15RB#0           | 2.691                    | 2.910                | PASS    |
| Band5 | 3MHz      | QPSK       | 20635   | 15RB#0           | 2.685                    | 2.898                | PASS    |
| Band5 | 3MHz      | 64QAM      | 20415   | 15RB#0           | 2.685                    | 2.910                | PASS    |
| Band5 | 3MHz      | 64QAM      | 20525   | 15RB#0           | 2.685                    | 2.910                | PASS    |
| Band5 | 3MHz      | 64QAM      | 20635   | 15RB#0           | 2.685                    | 2.898                | PASS    |
| Band5 | 3MHz      | 16QAM      | 20415   | 15RB#0           | 2.679                    | 2.910                | PASS    |
| Band5 | 3MHz      | 16QAM      | 20525   | 15RB#0           | 2.685                    | 2.910                | PASS    |
| Band5 | 3MHz      | 16QAM      | 20635   | 15RB#0           | 2.685                    | 2.916                | PASS    |
| Band5 | 5MHz      | QPSK       | 20425   | 25RB#0           | 4.456                    | 4.820                | PASS    |
| Band5 | 5MHz      | QPSK       | 20525   | 25RB#0           | 4.476                    | 4.860                | PASS    |
| Band5 | 5MHz      | QPSK       | 20625   | 25RB#0           | 4.486                    | 4.870                | PASS    |
| Band5 | 5MHz      | 64QAM      | 20425   | 25RB#0           | 4.476                    | 4.810                | PASS    |
| Band5 | 5MHz      | 64QAM      | 20525   | 25RB#0           | 4.466                    | 4.830                | PASS    |
| Band5 | 5MHz      | 64QAM      | 20625   | 25RB#0           | 4.476                    | 4.840                | PASS    |
| Band5 | 5MHz      | 16QAM      | 20425   | 25RB#0           | 4.466                    | 4.860                | PASS    |
| Band5 | 5MHz      | 16QAM      | 20525   | 25RB#0           | 4.476                    | 4.860                | PASS    |
| Band5 | 5MHz      | 16QAM      | 20625   | 25RB#0           | 4.466                    | 4.790                | PASS    |
| Band5 | 10MHz     | QPSK       | 20450   | 50RB#0           | 8.951                    | 9.680                | PASS    |
| Band5 | 10MHz     | QPSK       | 20525   | 50RB#0           | 8.931                    | 9.620                | PASS    |
| Band5 | 10MHz     | QPSK       | 20600   | 50RB#0           | 8.931                    | 9.560                | PASS    |
| Band5 | 10MHz     | 64QAM      | 20450   | 50RB#0           | 8.951                    | 10.180               | 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.

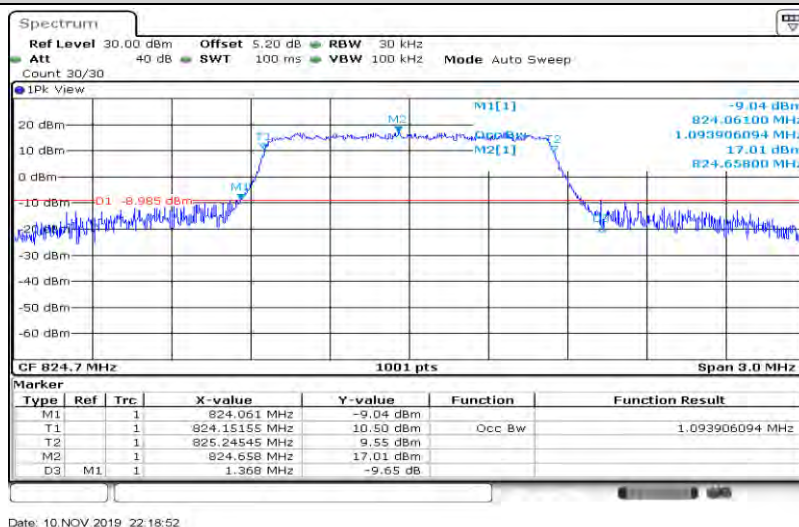
Attention: To check the authenticity of testing/inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: [CN.Doccheck@sgs.com](mailto:CN.Doccheck@sgs.com)  
 No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053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



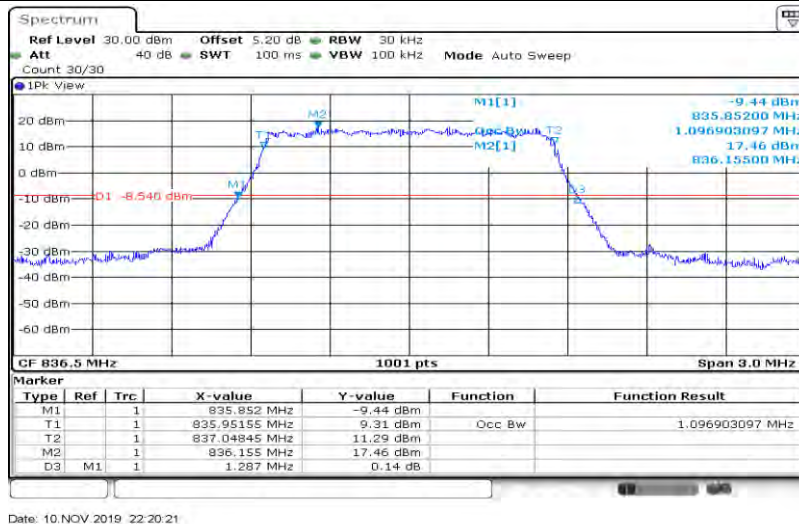
|       |       |       |       |        |       |       |      |
|-------|-------|-------|-------|--------|-------|-------|------|
| Band5 | 10MHz | 64QAM | 20525 | 50RB#0 | 8.911 | 9.560 | PASS |
| Band5 | 10MHz | 64QAM | 20600 | 50RB#0 | 8.931 | 9.540 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 50RB#0 | 8.931 | 9.520 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 50RB#0 | 8.931 | 9.620 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 50RB#0 | 8.931 | 9.660 | PASS |

## 4.2. Test Plots

Band5-1.4MHz-QPSK-20407-6RB#0-1.094



Band5-1.4MHz-QPSK-20525-6RB#0-1.097

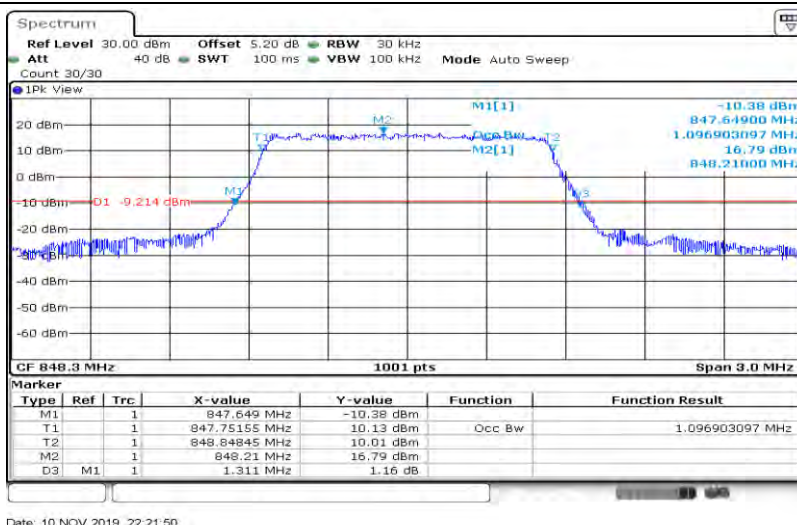


Band5-1.4MHz-QPSK-20643-6RB#0-1.097



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](mailto: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



Band5-1.4MHz-64QAM-20407-6RB#0-1.094

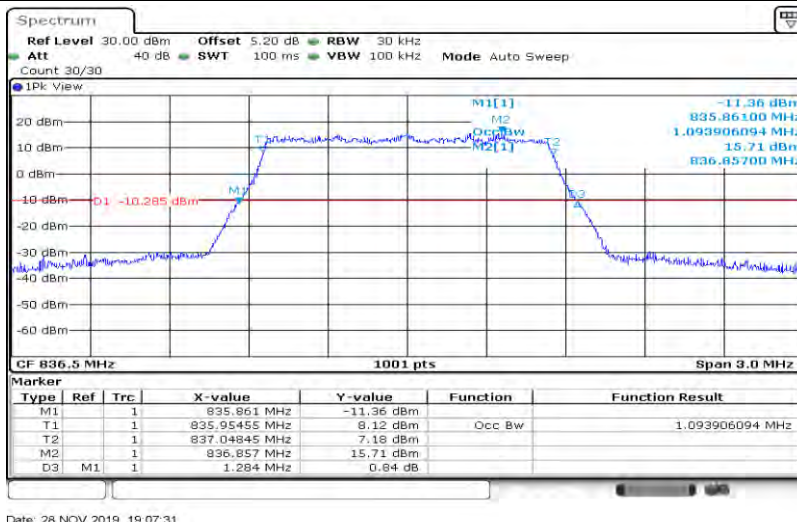


Band5-1.4MHz-64QAM-20525-6RB#0-1.094

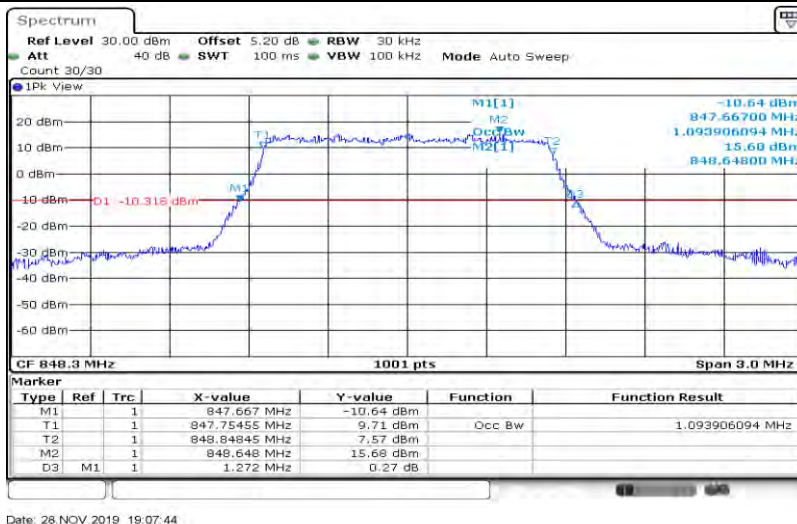


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

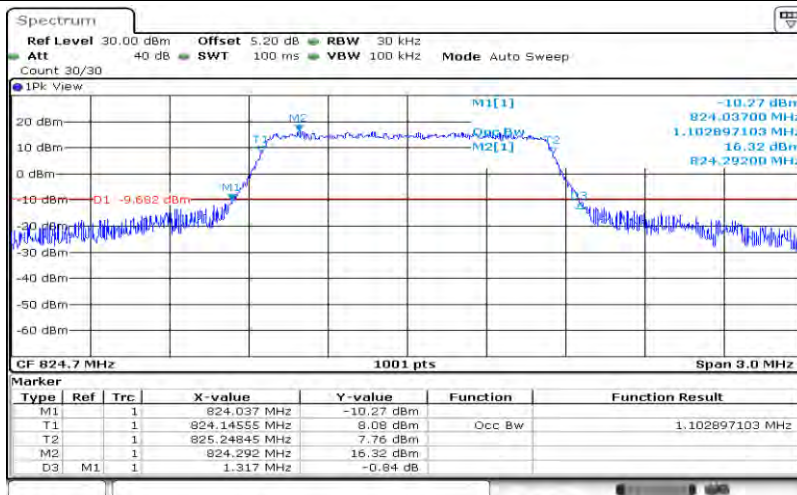


Band5-1.4MHz-64QAM-20643-6RB#0-1.094



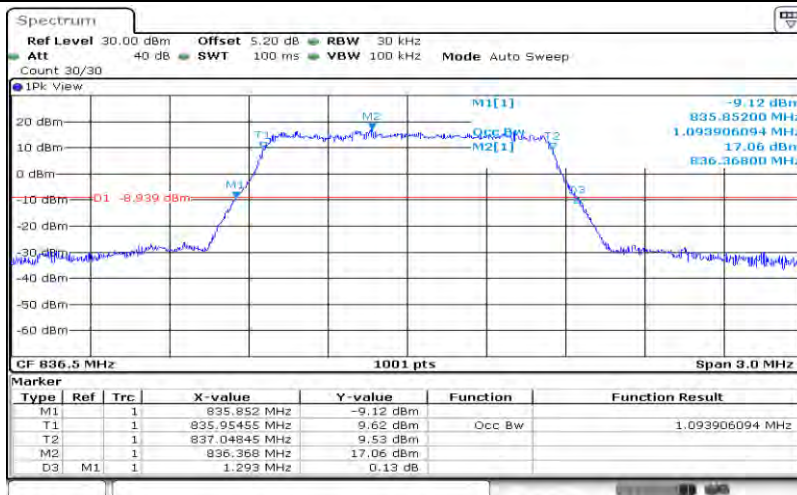
Band5-1.4MHz-16QAM-20407-6RB#0-1.103





Date: 10.NOV.2019 22:19:02

Band5-1.4MHz-16QAM-20525-6RB#0-1.094



Date: 10.NOV.2019 22:20:31

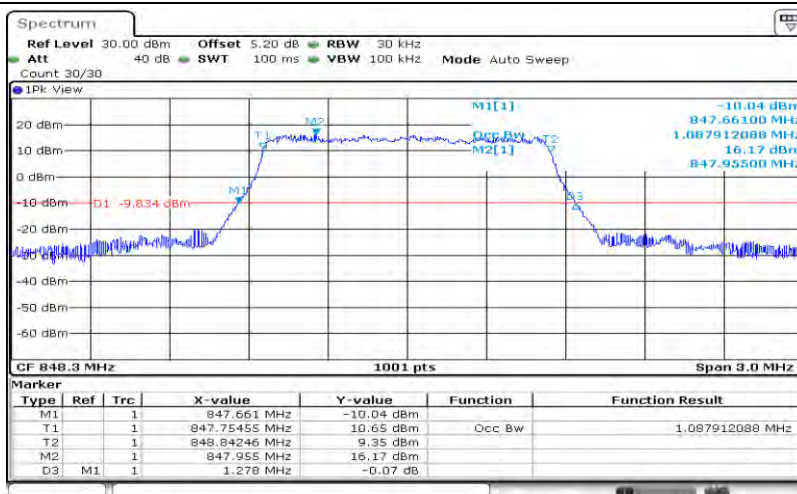
Band5-1.4MHz-16QAM-20643-6RB#0-1.088



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

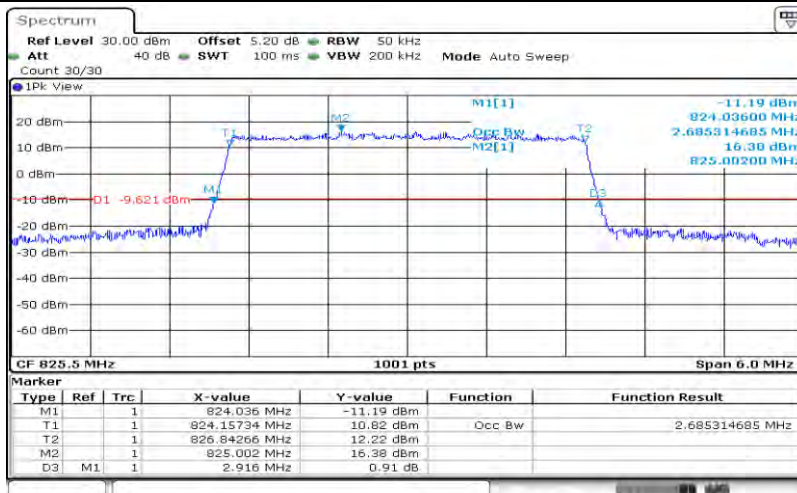
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Date: 10.NOV.2019 22:22:00

Band5-3MHz-QPSK-20415-15RB#0-2.685



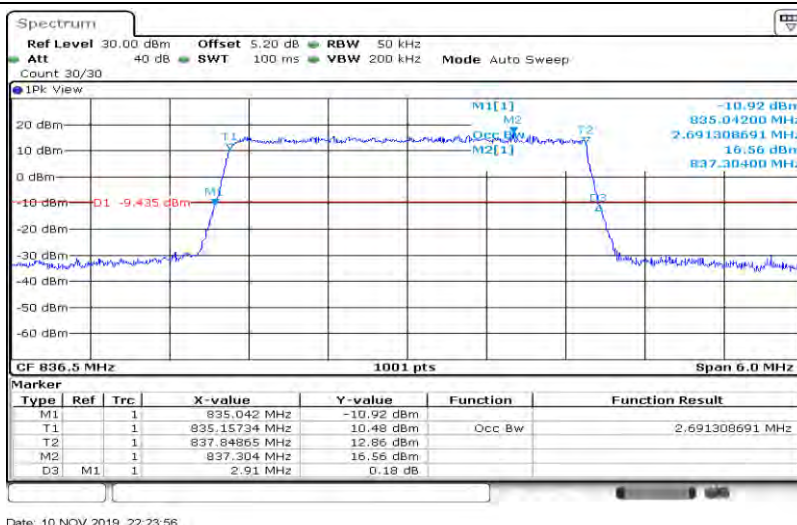
Date: 10.NOV.2019 22:23:34

Band5-3MHz-QPSK-20525-15RB#0-2.691

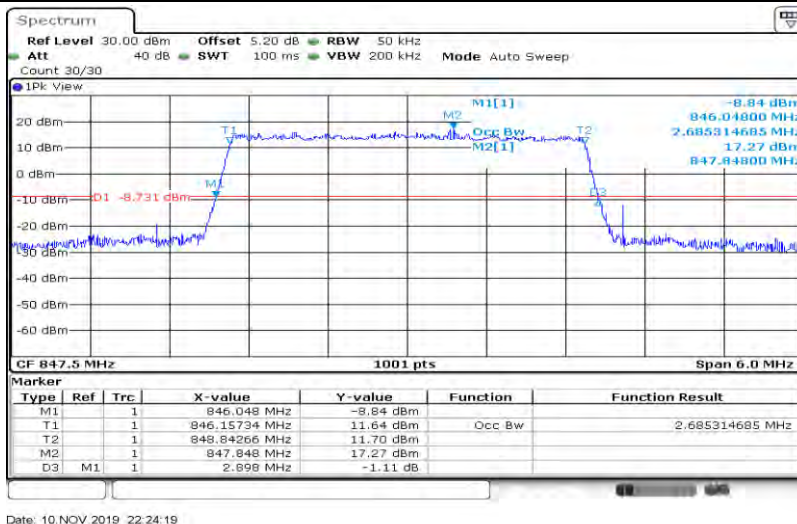


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Band5-3MHz-QPSK-20635-15RB#0-2.685

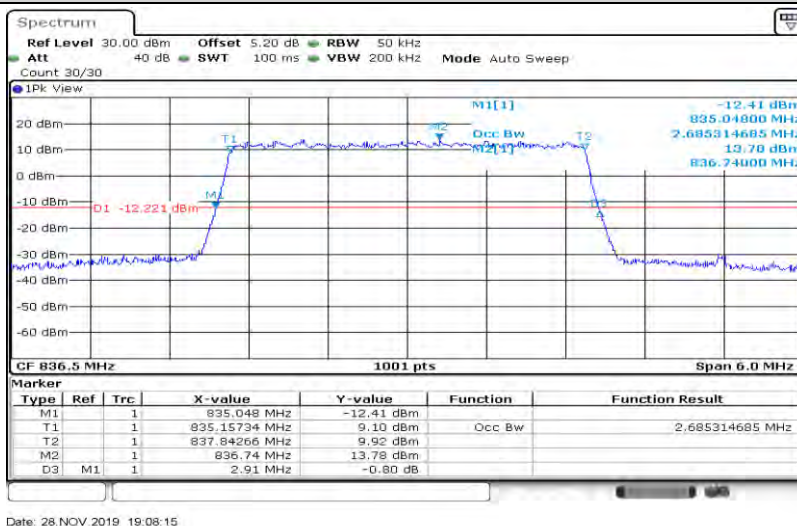


Band5-3MHz-64QAM-20415-15RB#0-2.685



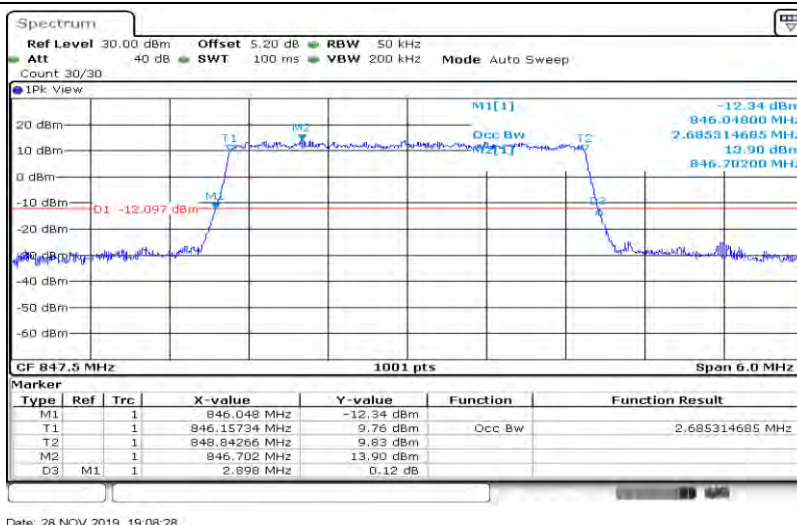


Band5-3MHz-64QAM-20525-15RB#0-2.685

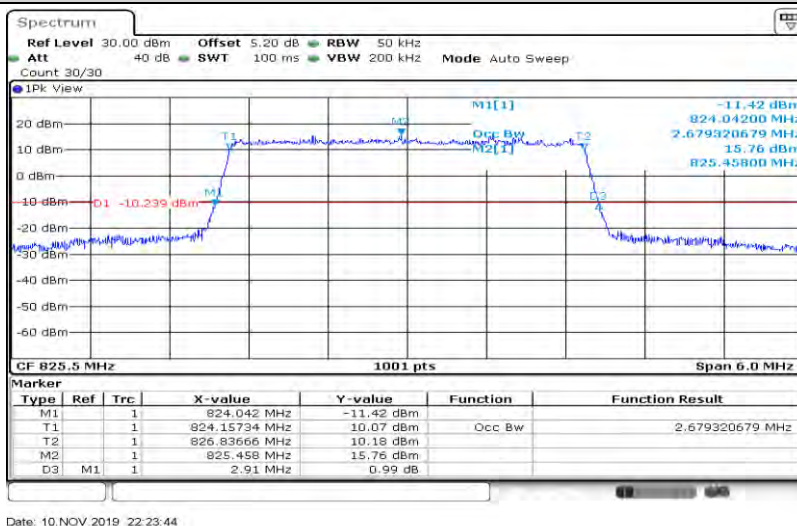


Band5-3MHz-64QAM-20635-15RB#0-2.685



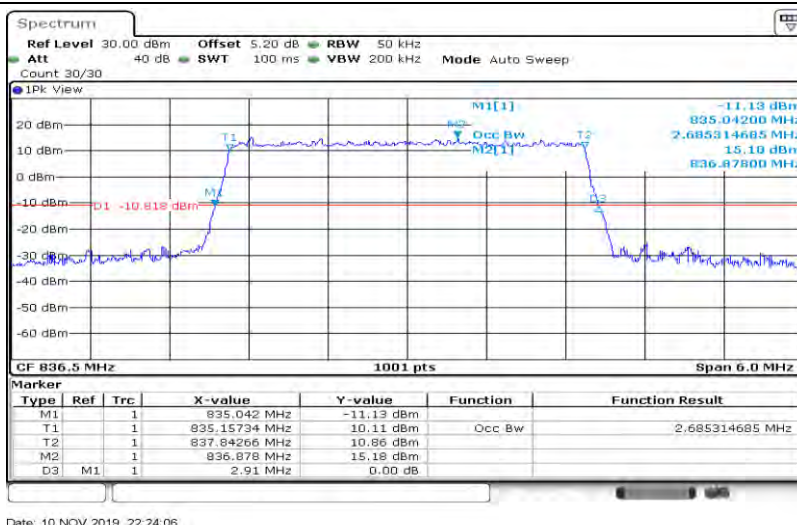


Band5-3MHz-16QAM-20415-15RB#0-2.679

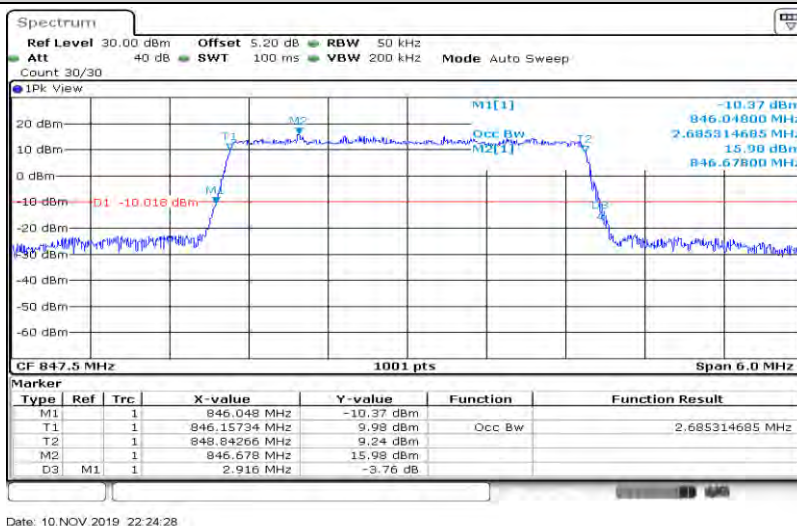


Band5-3MHz-16QAM-20525-15RB#0-2.685





Band5-3MHz-16QAM-20635-15RB#0-2.685

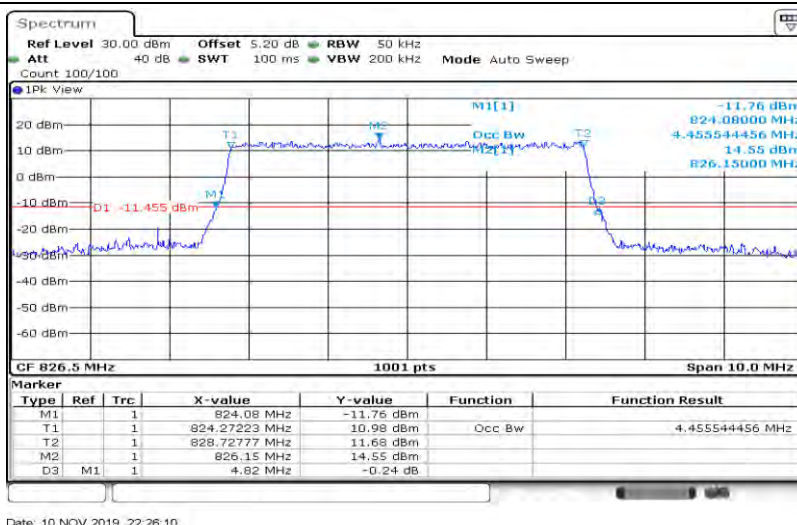


Band5-5MHz-QPSK-20425-25RB#0-4.456

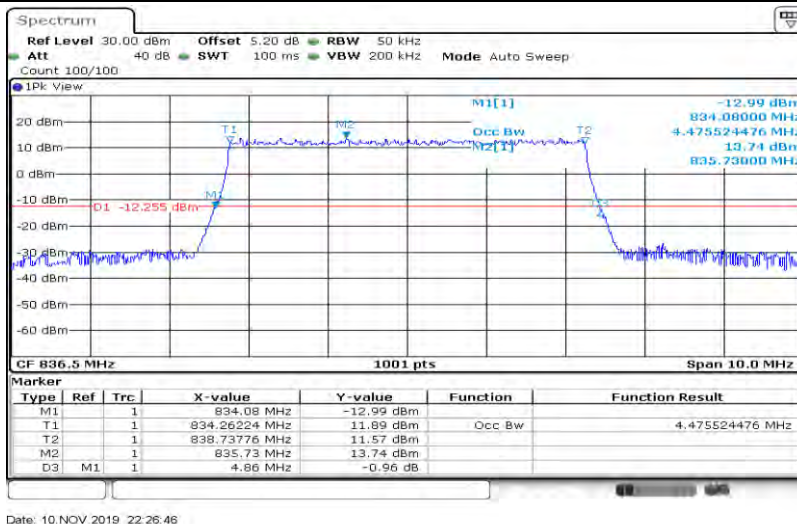


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

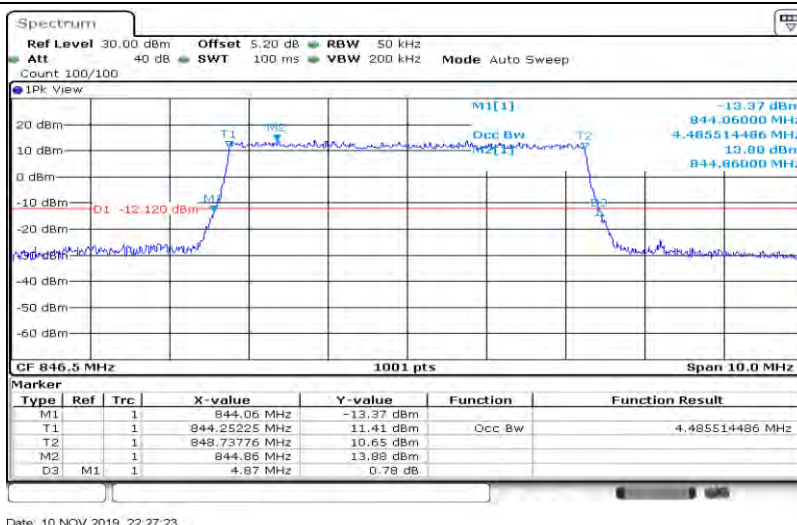


Band5-5MHz-QPSK-20525-25RB#0-4.476



Band5-5MHz-QPSK-20625-25RB#0-4.486



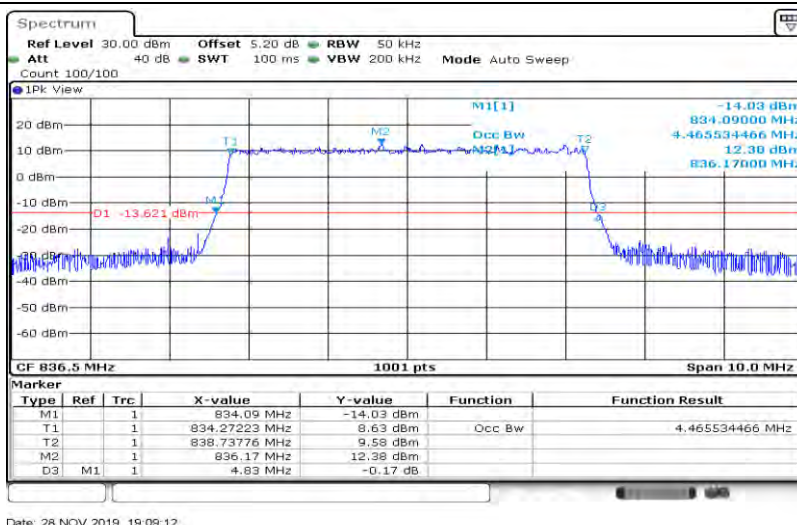


Band5-5MHz-64QAM-20425-25RB#0-4.476



Band5-5MHz-64QAM-20525-25RB#0-4.466



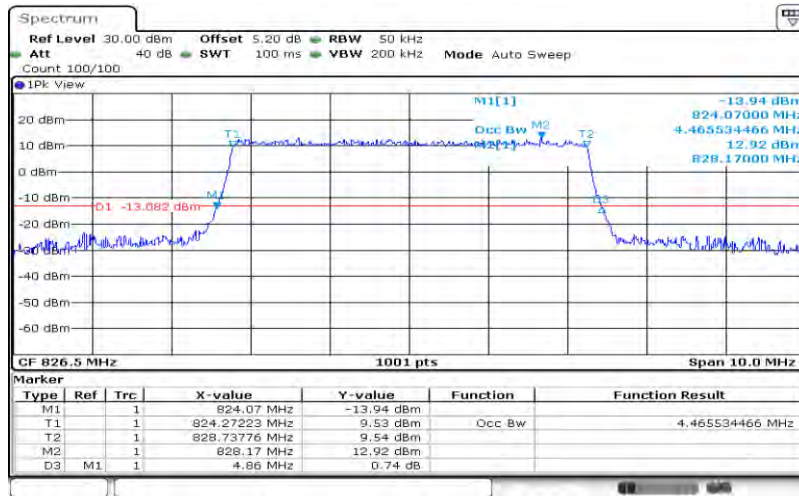


Band5-5MHz-64QAM-20625-25RB#0-4.476



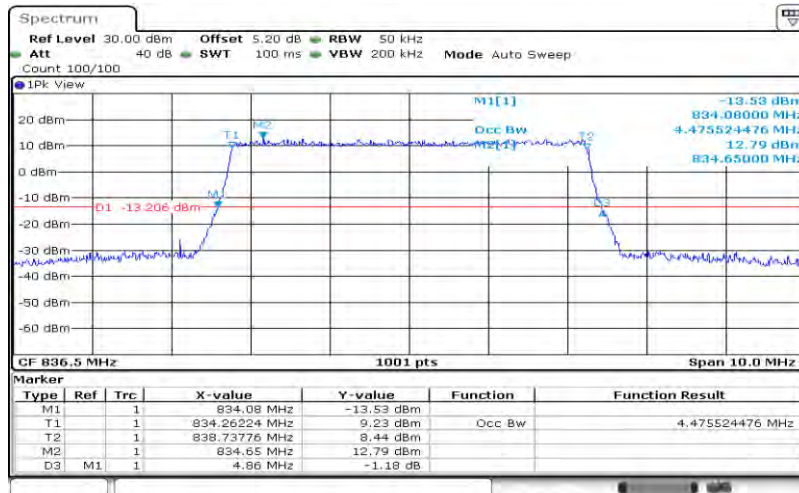
Band5-5MHz-16QAM-20425-25RB#0-4.466





Date: 10.NOV.2019 22:26:26

Band5-5MHz-16QAM-20525-25RB#0-4.476



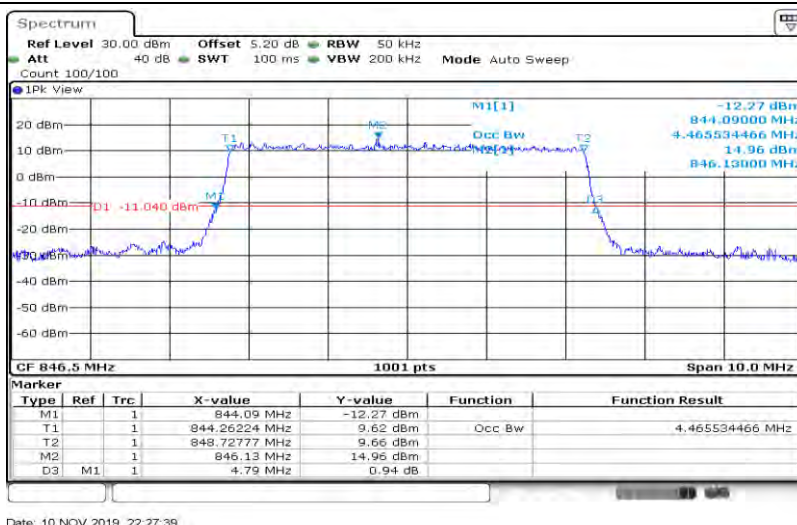
Date: 10.NOV.2019 22:27:03

Band5-5MHz-16QAM-20625-25RB#0-4.466



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](mailto: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



Band5-10MHz-QPSK-20450-50RB#0-8.951

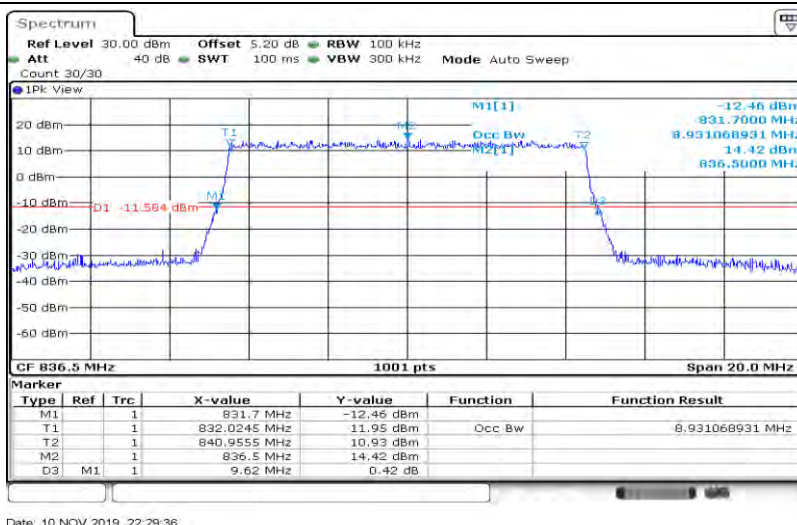


Band5-10MHz-QPSK-20525-50RB#0-8.931

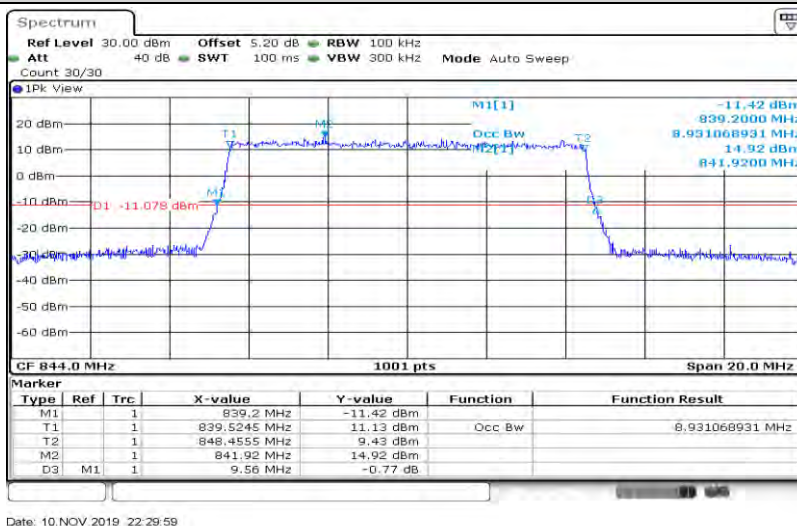


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Band5-10MHz-QPSK-20600-50RB#0-8.931

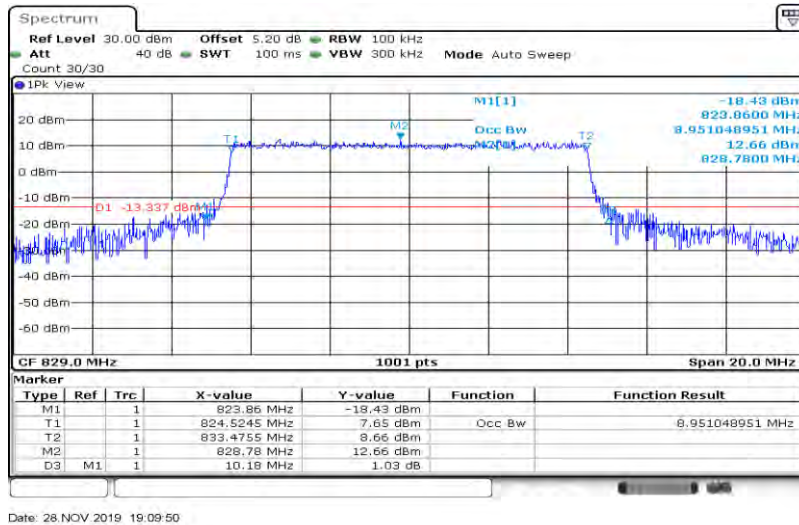


Band5-10MHz-64QAM-20450-50RB#0-8.951

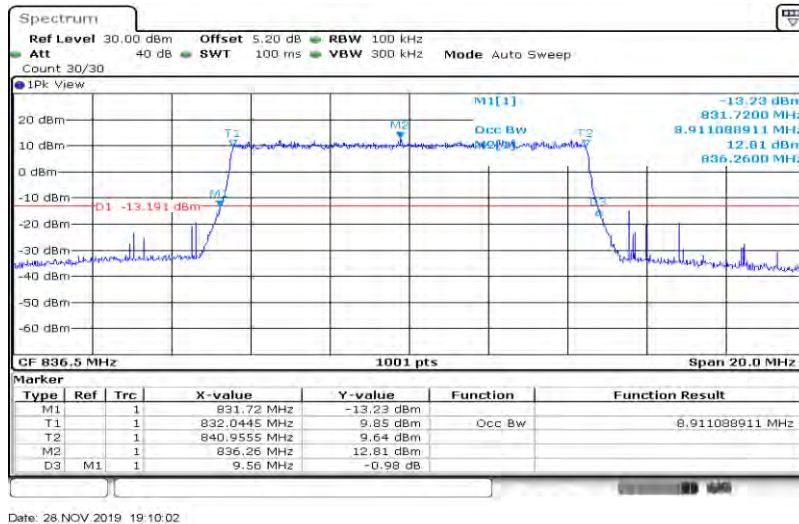


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Band5-10MHz-64QAM-20525-50RB#0-8.911



Band5-10MHz-64QAM-20600-50RB#0-8.931

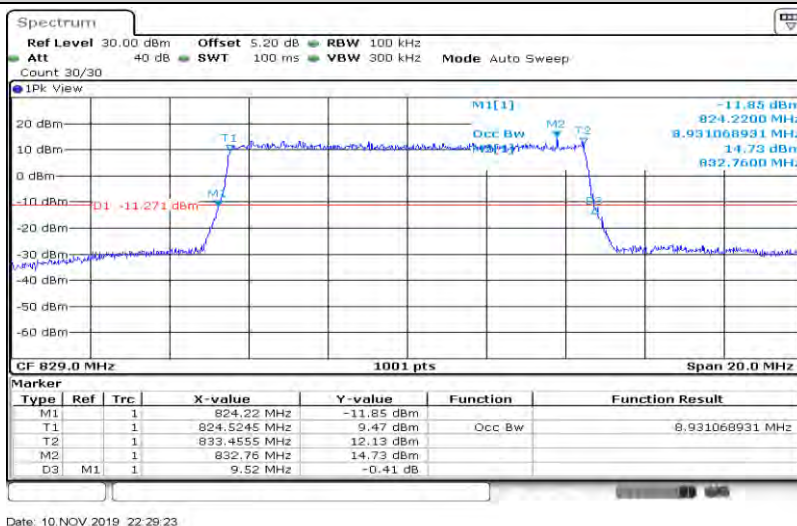


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

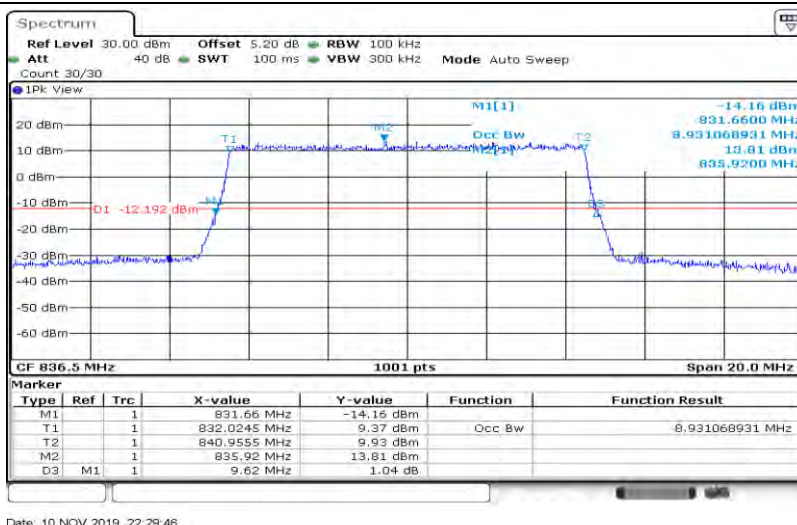


Band5-10MHz-16QAM-20450-50RB#0-8.931



Band5-10MHz-16QAM-20525-50RB#0-8.931





Band5-10MHz-16QAM-20600-50RB#0-8.931





## 5. Band Edge Compliance

### 5.1. Test Plots

Band5-1.4MHz-QPSK-20407-1RB#0



Band5-1.4MHz-QPSK-20407-6RB#0



Band5-1.4MHz-QPSK-20643-1RB#5



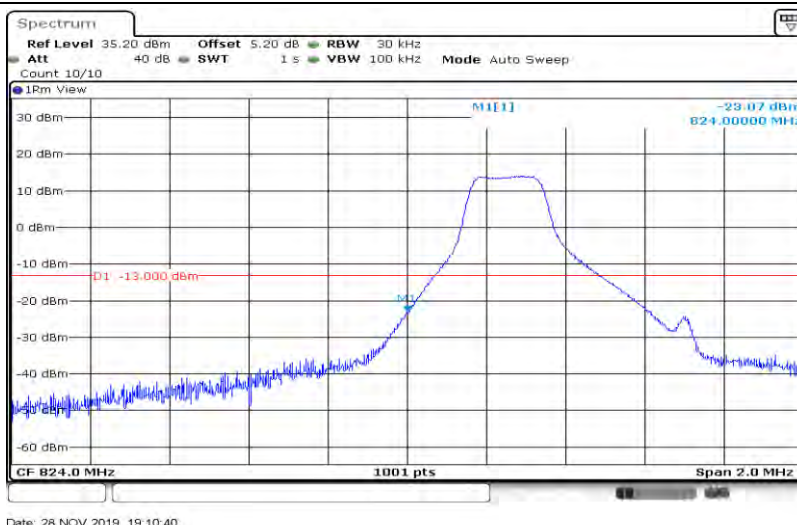


Band5-1.4MHz-QPSK-20643-6RB#0



Band5-1.4MHz-64QAM-20407-1RB#0





Band5-1.4MHz-64QAM-20407-6RB#0



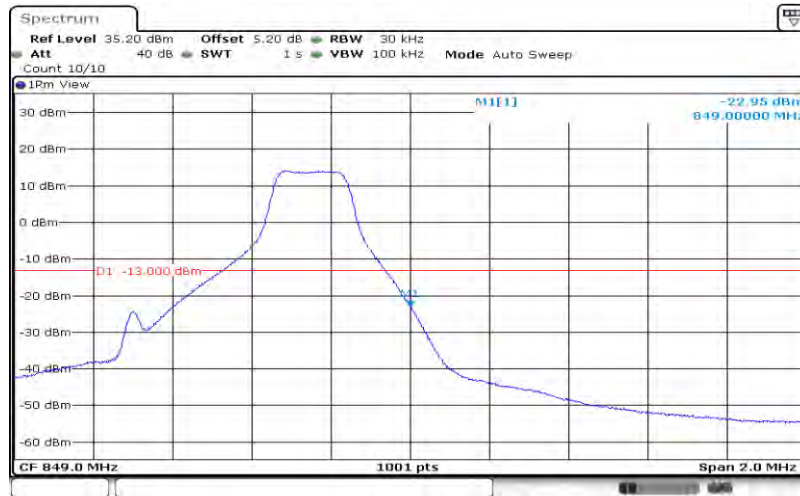
Band5-1.4MHz-64QAM-20643-1RB#5



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](mailto: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



Date: 28.NOV.2019 19:11:23

Band5-1.4MHz-64QAM-20643-6RB#0



Date: 28.NOV.2019 19:11:43

Band5-1.4MHz-16QAM-20407-1RB#0



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

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](mailto: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



Band5-1.4MHz-16QAM-20407-6RB#0



Band5-1.4MHz-16QAM-20643-1RB#5





Date: 10.NOV.2019 22:34:30

Band5-1.4MHz-16QAM-20643-6RB#0



Date: 10.NOV.2019 22:35:04

Band5-3MHz-QPSK-20415-1RB#0



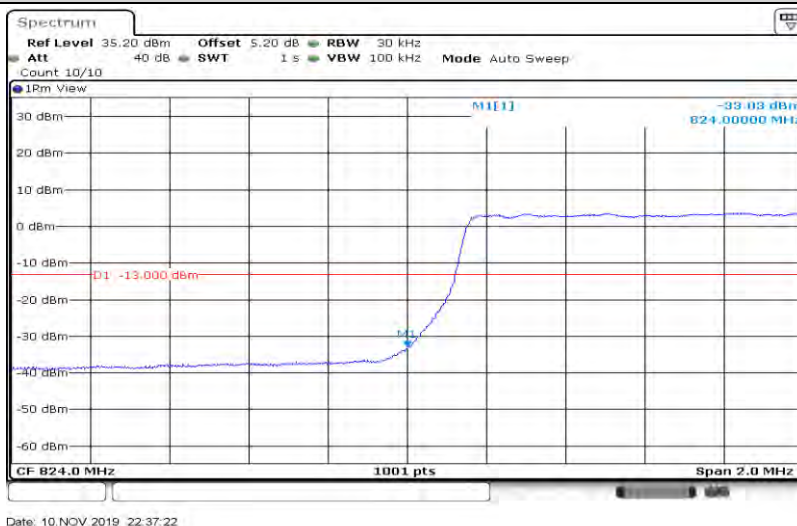
SGS-CSTC Standards Technical Services Co., Ltd.  
Shenzhen Branch, Inspection & Testing Services

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](mailto: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



Band5-3MHz-QPSK-20415-15RB#0



Band5-3MHz-QPSK-20635-1RB#14





Date: 10.NOV.2019 22:38:02

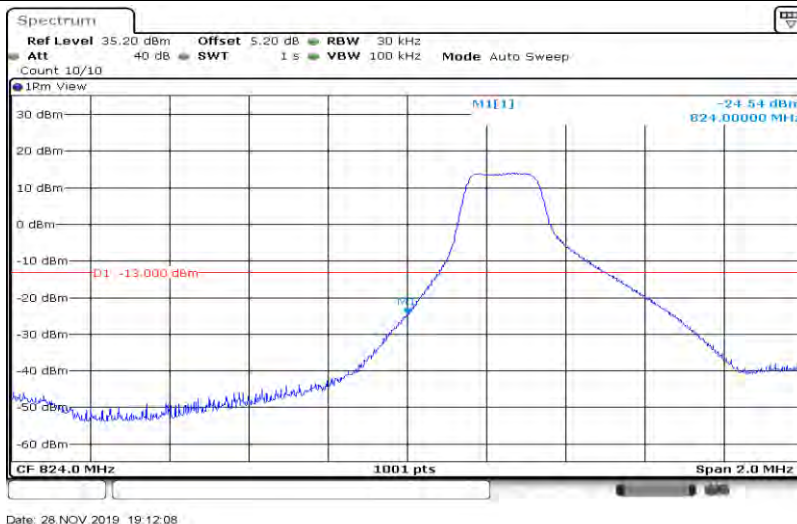
Band5-3MHz-QPSK-20635-15RB#0



Date: 10.NOV.2019 22:38:36

Band5-3MHz-64QAM-20415-1RB#0





Band5-3MHz-64QAM-20415-15RB#0



Band5-3MHz-64QAM-20635-1RB#14



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

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



Band5-3MHz-64QAM-20635-15RB#0



Band5-3MHz-16QAM-20415-1RB#0





Band5-3MHz-16QAM-20415-15RB#0



Band5-3MHz-16QAM-20635-1RB#14





Band5-3MHz-16QAM-20635-15RB#0



Band5-5MHz-QPSK-20425-1RB#0





Band5-5MHz-QPSK-20425-25RB#0



Band5-5MHz-QPSK-20625-1RB#24





Band5-5MHz-QPSK-20625-25RB#0



Band5-5MHz-64QAM-20425-1RB#0



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](mailto: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



Band5-5MHz-64QAM-20425-25RB#0



Band5-5MHz-64QAM-20625-1RB#24



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](mailto: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



Date: 28.NOV.2019 19:14:19

Band5-5MHz-64QAM-20625-25RB#0



Date: 28.NOV.2019 19:14:38

Band5-5MHz-16QAM-20425-1RB#0



SGS-CSTC Standards Technical Services Co., Ltd.  
Shenzhen Branch 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](mailto: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



Band5-5MHz-16QAM-20425-25RB#0



Band5-5MHz-16QAM-20625-1RB#24



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](mailto: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



Band5-5MHz-16QAM-20625-25RB#0



Band5-10MHz-QPSK-20450-1RB#0



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](mailto: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



Band5-10MHz-QPSK-20450-50RB#0



Band5-10MHz-QPSK-20600-1RB#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-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](mailto: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



Band5-10MHz-QPSK-20600-50RB#0



Band5-10MHz-64QAM-20450-1RB#0



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](mailto: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



Band5-10MHz-64QAM-20450-50RB#0



Band5-10MHz-64QAM-20600-1RB#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-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](mailto: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



Band5-10MHz-64QAM-20600-50RB#0



Band5-10MHz-16QAM-20450-1RB#0





Date: 10.NOV.2019 22:45:35

Band5-10MHz-16QAM-20450-50RB#0



Date: 10.NOV.2019 22:46:10

Band5-10MHz-16QAM-20600-1RB#49



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

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](mailto: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



Band5-10MHz-16QAM-20600-50RB#0



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](mailto:CN.Doccheck@sgs.com)

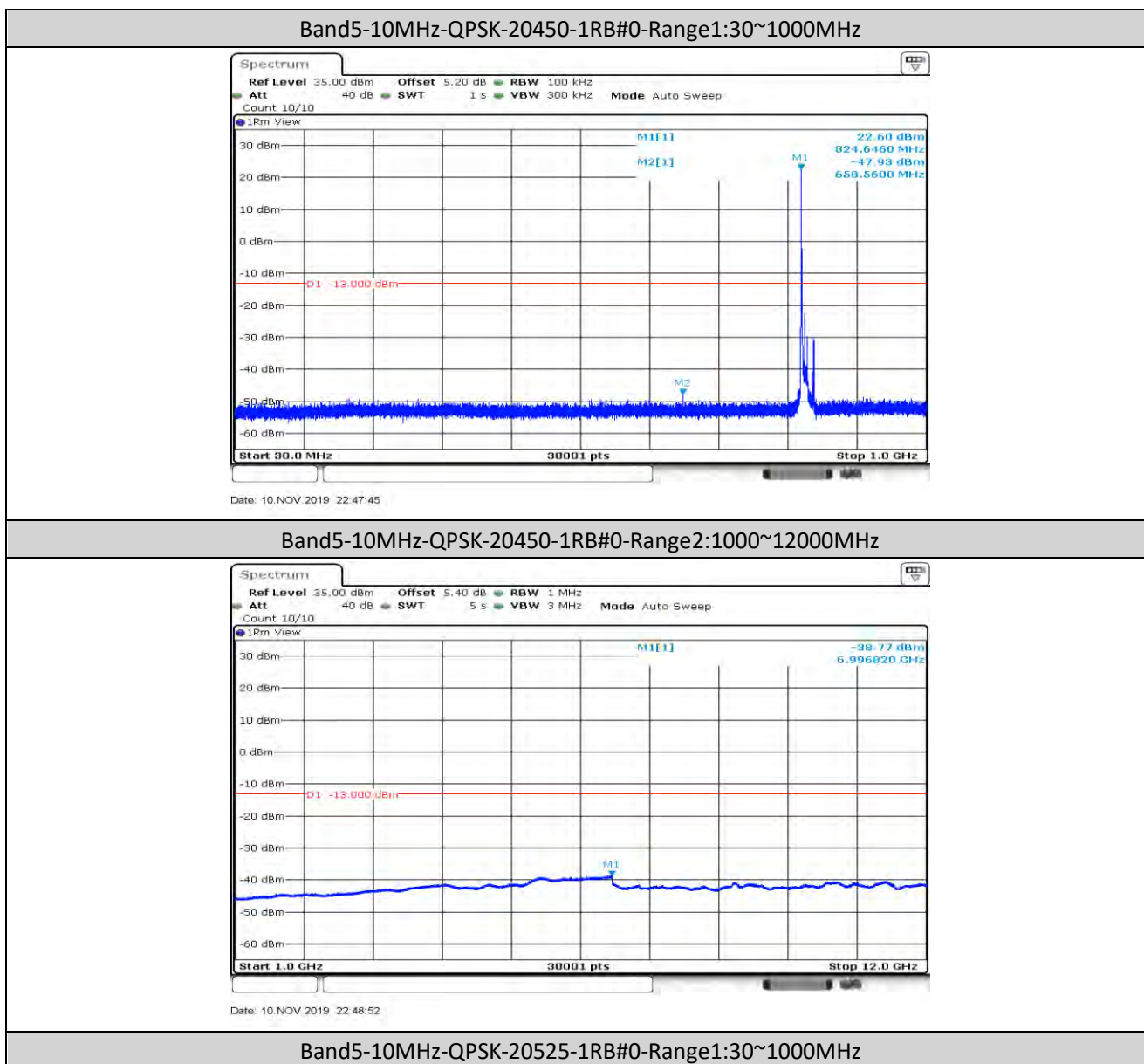
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn  
中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

## 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.

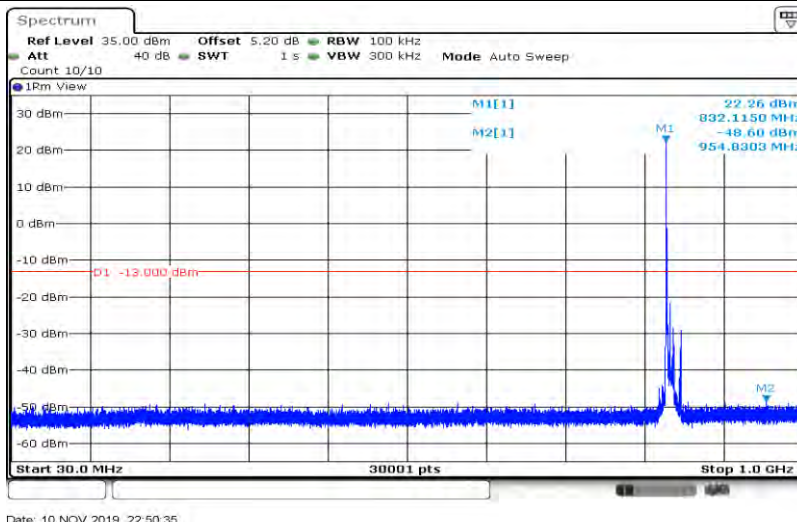
Remark2: only the worst case data displayed in this report.

### 6.1. Test Plots

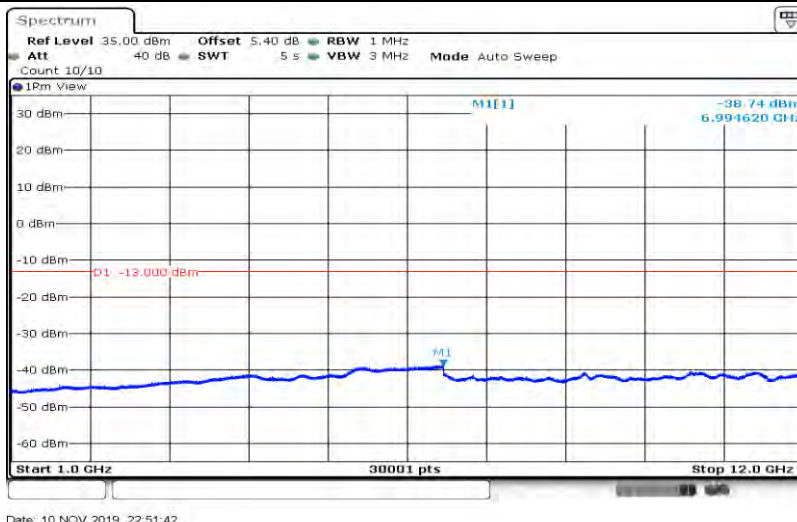


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

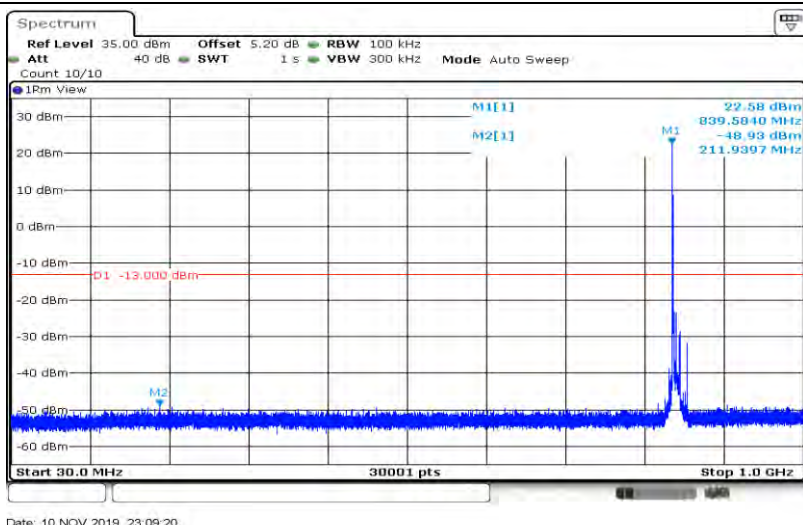


Band5-10MHz-QPSK-20525-1RB#0-Range2:1000~12000MHz

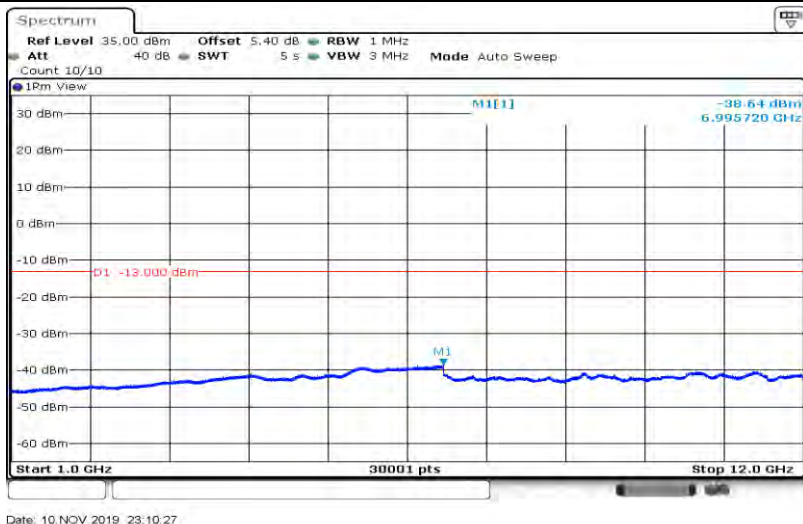


Band5-10MHz-QPSK-20600-1RB#0-Range1:30~1000MHz



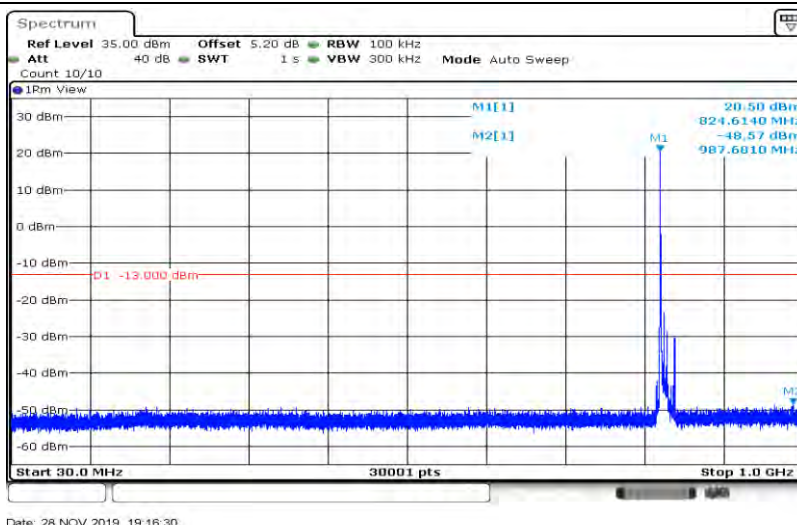


Band5-10MHz-QPSK-20600-1RB#0-Range2:1000~12000MHz

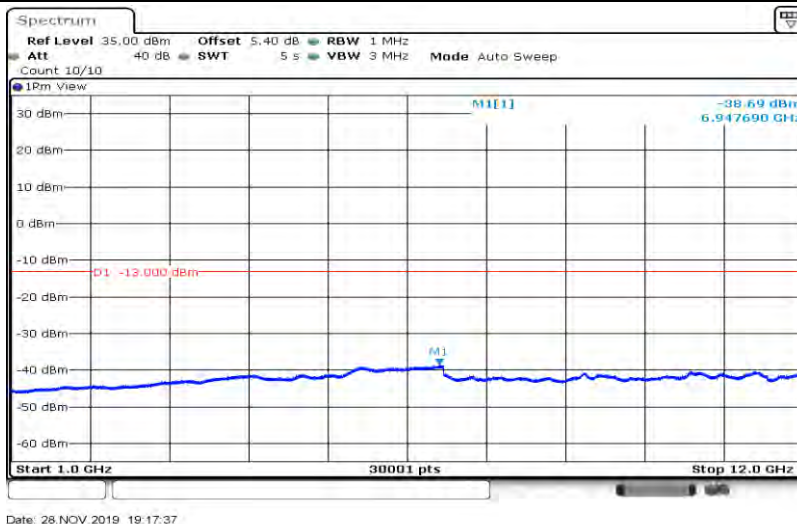


Band5-10MHz-64QAM-20450-1RB#0-Range1:30~1000MHz



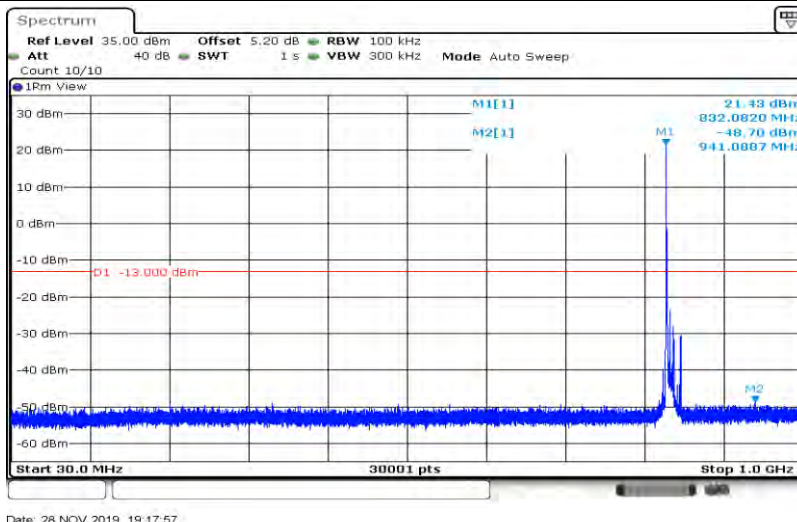


Band5-10MHz-64QAM-20450-1RB#0-Range2:1000~12000MHz

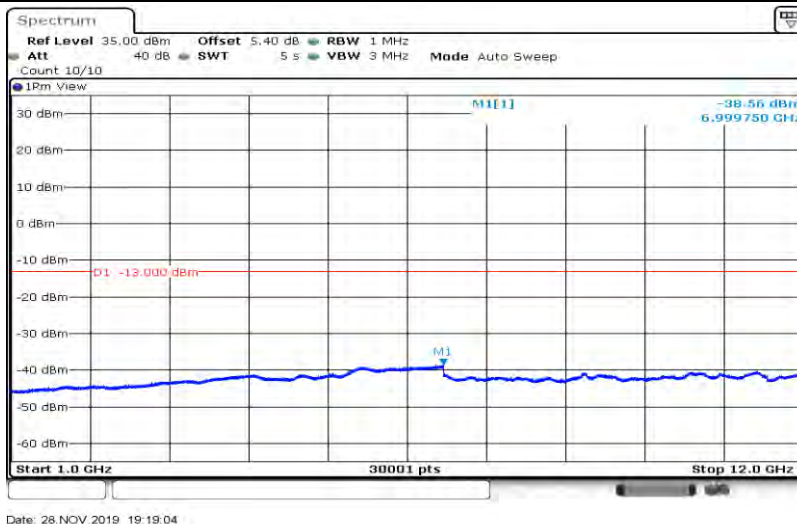


Band5-10MHz-64QAM-20525-1RB#0-Range1:30~1000MHz





Band5-10MHz-64QAM-20525-1RB#0-Range2:1000~12000MHz



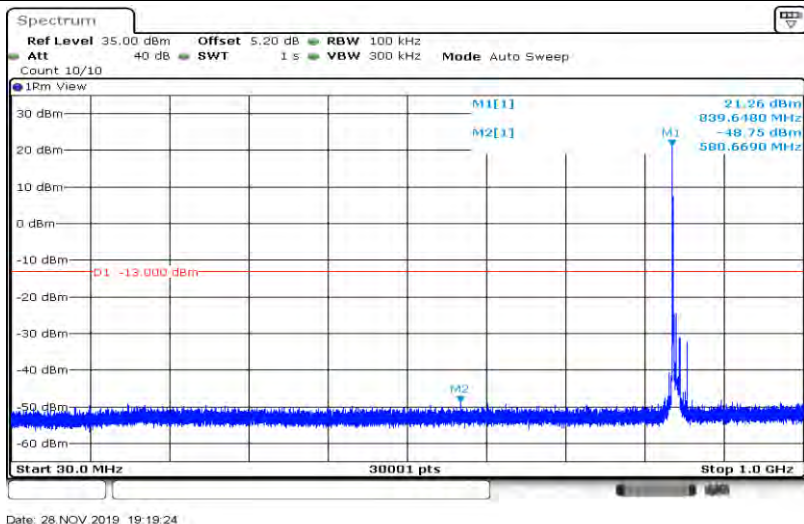
Band5-10MHz-64QAM-20600-1RB#0-Range1:30~1000MHz



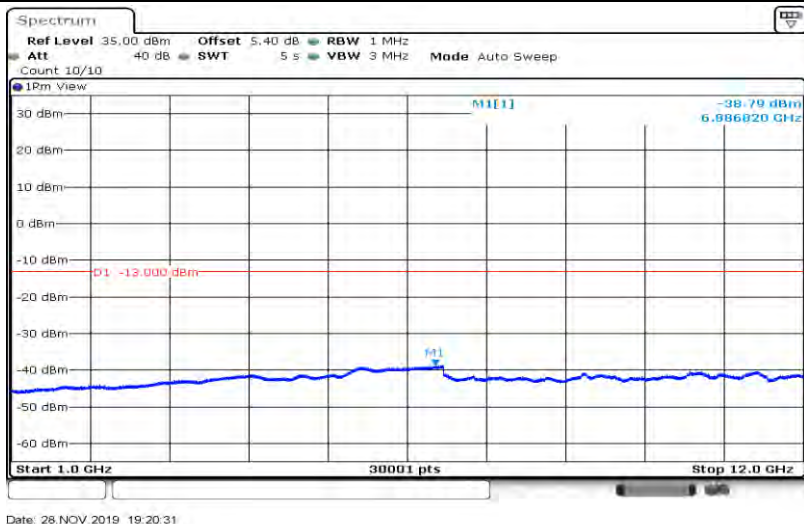
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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

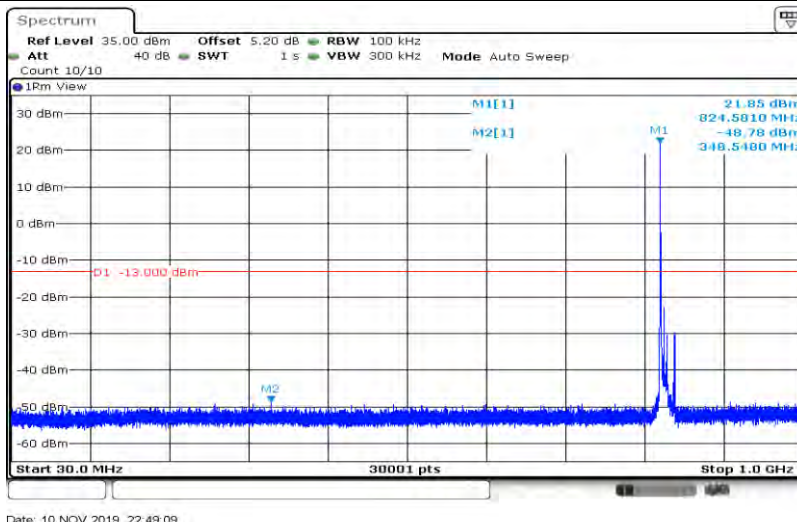


Band5-10MHz-64QAM-20600-1RB#0-Range2:1000~12000MHz

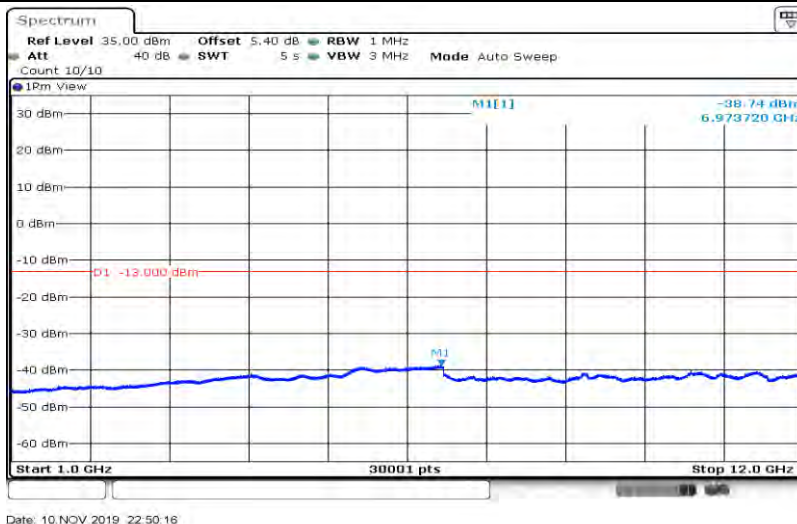


Band5-10MHz-16QAM-20450-1RB#0-Range1:30~1000MHz





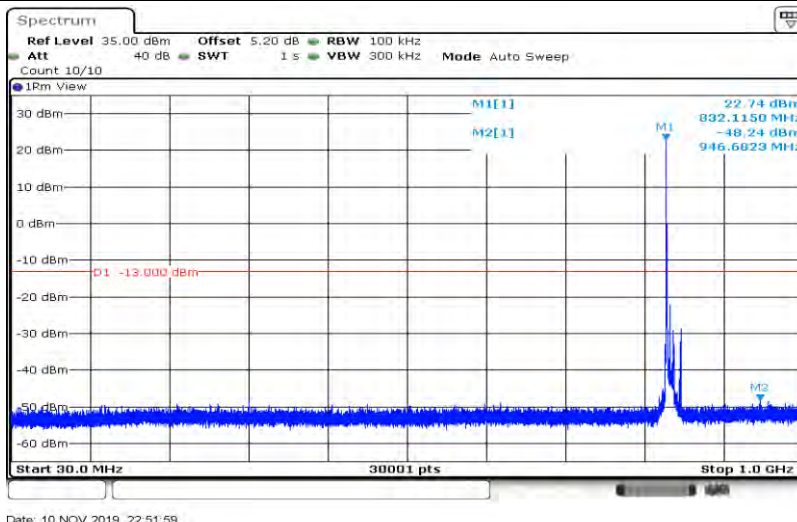
Band5-10MHz-16QAM-20450-1RB#0-Range2:1000~12000MHz



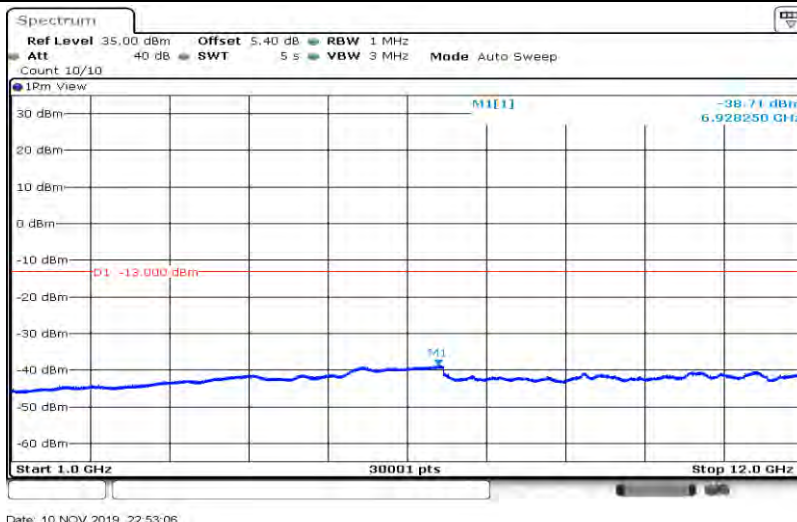
Band5-10MHz-16QAM-20525-1RB#0-Range1:30~1000MHz



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](mailto:CN.Doccheck@sgs.com)



Band5-10MHz-16QAM-20525-1RB#0-Range2:1000~12000MHz



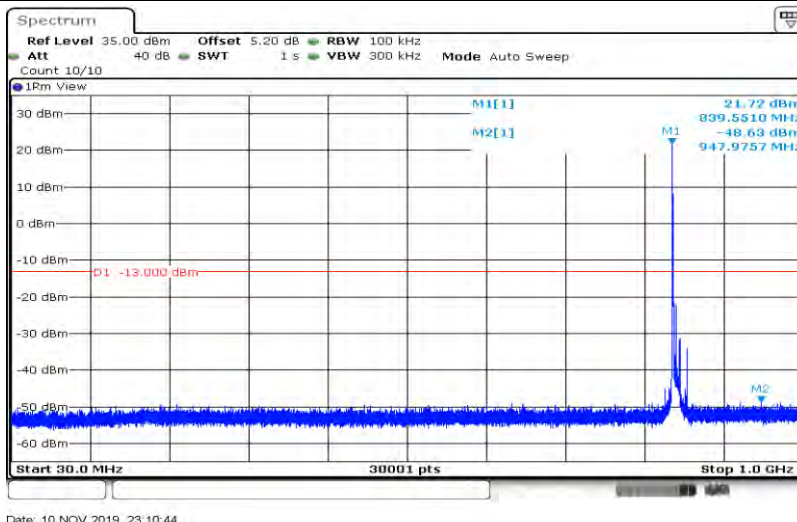
Band5-10MHz-16QAM-20600-1RB#0-Range1:30~1000MHz



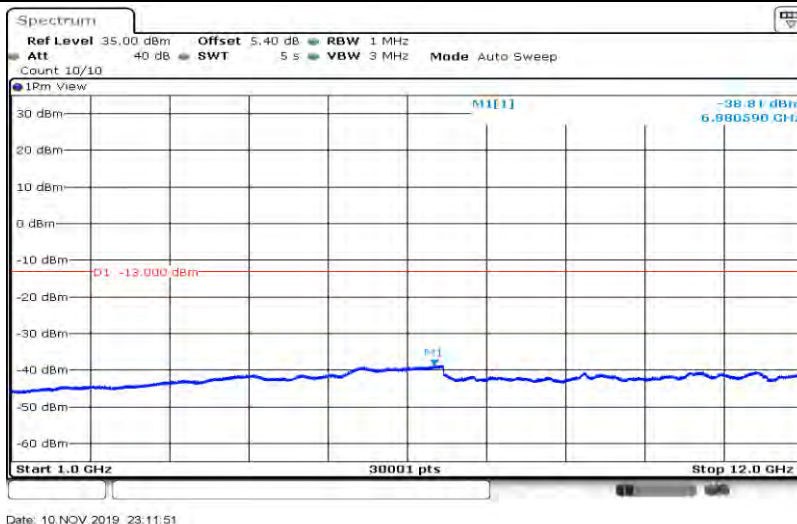
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic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



Band5-10MHz-16QAM-20600-1RB#0-Range2:1000~12000MHz



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](mailto: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 Mode =LTE/TM1

#### 7.1.1. Test Channel = LCH

| Frequency (MHz) | Level (dBm) | Limit Line (dBm) | Margin (dB) | Polarization |
|-----------------|-------------|------------------|-------------|--------------|
| 48.5279         | -70.27      | -13.00           | 57.27       | Vertical     |
| 109.8350        | -62.38      | -13.00           | 49.38       | Vertical     |
| 380.8180        | -65.71      | -13.00           | 52.71       | Vertical     |
| 1664.1328       | -58.99      | -13.00           | 45.99       | Vertical     |
| 2581.5163       | -56.58      | -13.00           | 43.58       | Vertical     |
| 7381.3460       | -52.64      | -13.00           | 39.64       | Vertical     |
| 38.4879         | -62.25      | -13.00           | 49.25       | Horizontal   |
| 229.0540        | -65.46      | -13.00           | 52.46       | Horizontal   |
| 581.4726        | -59.93      | -13.00           | 46.93       | Horizontal   |
| 1664.1328       | -60.94      | -13.00           | 47.94       | Horizontal   |
| 2496.2993       | -48.74      | -13.00           | 35.74       | Horizontal   |
| 8013.3671       | -53.31      | -13.00           | 40.31       | Horizontal   |

#### 7.1.2. Test Channel = MCH

| Frequency (MHz) | Level (dBm) | Limit Line (dBm) | Margin (dB) | Polarization |
|-----------------|-------------|------------------|-------------|--------------|
| 66.6678         | -66.36      | -13.00           | 53.36       | Vertical     |
| 110.1745        | -62.25      | -13.00           | 49.25       | Vertical     |
| 429.4175        | -65.21      | -13.00           | 52.21       | Vertical     |
| 1648.9298       | -51.16      | -13.00           | 38.16       | Vertical     |
| 2473.8948       | -50.07      | -13.00           | 37.07       | Vertical     |
| 8770.1923       | -52.10      | -13.00           | 39.10       | Vertical     |
| 44.8417         | -62.36      | -13.00           | 49.36       | Horizontal   |
| 229.9270        | -64.93      | -13.00           | 51.93       | Horizontal   |
| 610.5740        | -60.62      | -13.00           | 47.62       | Horizontal   |
| 1649.3299       | -56.67      | -13.00           | 43.67       | Horizontal   |
| 2473.8948       | -50.31      | -13.00           | 37.31       | Horizontal   |
| 8909.5970       | -51.66      | -13.00           | 38.66       | Horizontal   |



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

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



### 7.1.3. Test Channel = HCH

| Frequency (MHz) | Level (dBm) | Limit Line (dBm) | Margin (dB) | Polarization |
|-----------------|-------------|------------------|-------------|--------------|
| 51.8746         | -70.11      | -13.00           | 57.11       | Vertical     |
| 110.7565        | -62.54      | -13.00           | 49.54       | Vertical     |
| 370.4870        | -65.85      | -13.00           | 52.85       | Vertical     |
| 1679.3359       | -52.05      | -13.00           | 39.05       | Vertical     |
| 2519.1038       | -50.43      | -13.00           | 37.43       | Vertical     |
| 7381.1460       | -52.57      | -13.00           | 39.57       | Vertical     |
| 40.6220         | -63.06      | -13.00           | 50.06       | Horizontal   |
| 237.5904        | -65.22      | -13.00           | 52.22       | Horizontal   |
| 577.3499        | -61.43      | -13.00           | 48.43       | Horizontal   |
| 1678.9358       | -56.45      | -13.00           | 43.45       | Horizontal   |
| 2518.7037       | -53.25      | -13.00           | 40.25       | Horizontal   |
| 8785.9929       | -51.81      | -13.00           | 38.81       | Horizontal   |

**Remark:**

- 1 According to 971168 D01 Power Meas License Digital Systems, The amplitudes of unwanted emissions that are attenuated more than 20 dB below the applicable limit are not required to be reported.
- 2 The disturbance 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.



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](mailto:CN.Doccheck@sgs.com)

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

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



## 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 |
|-------|-----------|------------|---------|--------------|---------------|------------------|----------------|-----------------|-------------|---------|
| Band5 | 10MHz     | QPSK       | 20450   | 50RB#0       | VL            | NT               | -14.42         | -0.017394       | ±2.5        | PASS    |
| Band5 | 10MHz     | QPSK       | 20450   | 50RB#0       | VN            | NT               | -12.13         | -0.014632       | ±2.5        | PASS    |
| Band5 | 10MHz     | QPSK       | 20450   | 50RB#0       | VH            | NT               | -9.47          | -0.011423       | ±2.5        | PASS    |
| Band5 | 10MHz     | QPSK       | 20525   | 50RB#0       | VL            | NT               | -11.56         | -0.013819       | ±2.5        | PASS    |
| Band5 | 10MHz     | QPSK       | 20525   | 50RB#0       | VN            | NT               | -11.69         | -0.013975       | ±2.5        | PASS    |
| Band5 | 10MHz     | QPSK       | 20525   | 50RB#0       | VH            | NT               | -10.89         | -0.013019       | ±2.5        | PASS    |
| Band5 | 10MHz     | QPSK       | 20600   | 50RB#0       | VL            | NT               | -11.73         | -0.013898       | ±2.5        | PASS    |
| Band5 | 10MHz     | QPSK       | 20600   | 50RB#0       | VN            | NT               | -13.52         | -0.016019       | ±2.5        | PASS    |
| Band5 | 10MHz     | QPSK       | 20600   | 50RB#0       | VH            | NT               | -8.61          | -0.010201       | ±2.5        | PASS    |
| Band5 | 10MHz     | 64QAM      | 20450   | 50RB#0       | VL            | NT               | -6.10          | -0.007358       | ±2.5        | PASS    |
| Band5 | 10MHz     | 64QAM      | 20450   | 50RB#0       | VN            | NT               | -4.90          | -0.005911       | ±2.5        | PASS    |
| Band5 | 10MHz     | 64QAM      | 20450   | 50RB#0       | VH            | NT               | -7.80          | -0.009409       | ±2.5        | PASS    |
| Band5 | 10MHz     | 64QAM      | 20525   | 50RB#0       | VL            | NT               | -2.50          | -0.002989       | ±2.5        | PASS    |
| Band5 | 10MHz     | 64QAM      | 20525   | 50RB#0       | VN            | NT               | -7.20          | -0.008607       | ±2.5        | PASS    |
| Band5 | 10MHz     | 64QAM      | 20525   | 50RB#0       | VH            | NT               | -10.00         | -0.011955       | ±2.5        | PASS    |
| Band5 | 10MHz     | 64QAM      | 20600   | 50RB#0       | VL            | NT               | -9.30          | -0.011019       | ±2.5        | PASS    |
| Band5 | 10MHz     | 64QAM      | 20600   | 50RB#0       | VN            | NT               | -8.10          | -0.009597       | ±2.5        | PASS    |
| Band5 | 10MHz     | 64QAM      | 20600   | 50RB#0       | VH            | NT               | -12.90         | -0.015284       | ±2.5        | PASS    |
| Band5 | 10MHz     | 16QAM      | 20450   | 50RB#0       | VL            | NT               | -13.60         | -0.016405       | ±2.5        | PASS    |
| Band5 | 10MHz     | 16QAM      | 20450   | 50RB#0       | VN            | NT               | -12.19         | -0.014704       | ±2.5        | PASS    |
| Band5 | 10MHz     | 16QAM      | 20450   | 50RB#0       | VH            | NT               | -13.35         | -0.016104       | ±2.5        | PASS    |
| Band5 | 10MHz     | 16QAM      | 20525   | 50RB#0       | VL            | NT               | -10.71         | -0.012803       | ±2.5        | PASS    |
| Band5 | 10MHz     | 16QAM      | 20525   | 50RB#0       | VN            | NT               | -11.19         | -0.013377       | ±2.5        | PASS    |
| Band5 | 10MHz     | 16QAM      | 20525   | 50RB#0       | VH            | NT               | -9.64          | -0.011524       | ±2.5        | PASS    |
| Band5 | 10MHz     | 16QAM      | 20600   | 50RB#0       | VL            | NT               | -11.62         | -0.013768       | ±2.5        | PASS    |
| Band5 | 10MHz     | 16QAM      | 20600   | 50RB#0       | VN            | NT               | -7.45          | -0.008827       | ±2.5        | PASS    |
| Band5 | 10MHz     | 16QAM      | 20600   | 50RB#0       | VH            | NT               | -13.76         | -0.016303       | ±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 |
|-------|-----------|------------|---------|--------------|---------------|------------------|----------------|-----------------|-------------|---------|
| Band5 | 10MHz     | QPSK       | 20450   | 50RB#0       | NV            | -30              | -12.67         | -0.015283       | ±2.5        | PASS    |
| Band5 | 10MHz     | QPSK       | 20450   | 50RB#0       | NV            | -20              | -12.80         | -0.015440       | ±2.5        | PASS    |
| Band5 | 10MHz     | QPSK       | 20450   | 50RB#0       | NV            | 0                | -9.47          | -0.011423       | ±2.5        | PASS    |
| Band5 | 10MHz     | QPSK       | 20450   | 50RB#0       | NV            | 10               | -12.95         | -0.015621       | ±2.5        | PASS    |
| Band5 | 10MHz     | QPSK       | 20450   | 50RB#0       | NV            | 20               | -15.39         | -0.018565       | ±2.5        | PASS    |
| Band5 | 10MHz     | QPSK       | 20450   | 50RB#0       | NV            | 30               | -15.06         | -0.018166       | ±2.5        | PASS    |
| Band5 | 10MHz     | QPSK       | 20450   | 50RB#0       | NV            | 40               | -14.69         | -0.017720       | ±2.5        | PASS    |



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

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



|       |       |       |       |        |    |     |        |           |      |      |
|-------|-------|-------|-------|--------|----|-----|--------|-----------|------|------|
| Band5 | 10MHz | QPSK  | 20450 | 50RB#0 | NV | 50  | -10.40 | -0.012545 | ±2.5 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 50RB#0 | NV | -30 | -13.40 | -0.016019 | ±2.5 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 50RB#0 | NV | -20 | -10.79 | -0.012899 | ±2.5 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 50RB#0 | NV | 0   | -6.24  | -0.007460 | ±2.5 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 50RB#0 | NV | 10  | -12.02 | -0.014369 | ±2.5 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 50RB#0 | NV | 20  | -8.13  | -0.009719 | ±2.5 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 50RB#0 | NV | 30  | -12.16 | -0.014537 | ±2.5 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 50RB#0 | NV | 40  | -10.80 | -0.012911 | ±2.5 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 50RB#0 | NV | 50  | -11.66 | -0.013939 | ±2.5 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 50RB#0 | NV | -30 | -10.60 | -0.012559 | ±2.5 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 50RB#0 | NV | -20 | -11.29 | -0.013377 | ±2.5 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 50RB#0 | NV | 0   | -12.80 | -0.015166 | ±2.5 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 50RB#0 | NV | 10  | -9.77  | -0.011576 | ±2.5 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 50RB#0 | NV | 20  | -13.43 | -0.015912 | ±2.5 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 50RB#0 | NV | 30  | -10.10 | -0.011967 | ±2.5 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 50RB#0 | NV | 40  | -9.37  | -0.011102 | ±2.5 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 50RB#0 | NV | 50  | -8.54  | -0.010118 | ±2.5 | PASS |
| Band5 | 10MHz | 64QAM | 20450 | 50RB#0 | NV | -30 | -2.80  | -0.003378 | ±2.5 | PASS |
| Band5 | 10MHz | 64QAM | 20450 | 50RB#0 | NV | -20 | -9.70  | -0.011701 | ±2.5 | PASS |
| Band5 | 10MHz | 64QAM | 20450 | 50RB#0 | NV | 0   | -8.20  | -0.009891 | ±2.5 | PASS |
| Band5 | 10MHz | 64QAM | 20450 | 50RB#0 | NV | 10  | -8.50  | -0.010253 | ±2.5 | PASS |
| Band5 | 10MHz | 64QAM | 20450 | 50RB#0 | NV | 20  | -1.00  | -0.001206 | ±2.5 | PASS |
| Band5 | 10MHz | 64QAM | 20450 | 50RB#0 | NV | 30  | -5.50  | -0.006634 | ±2.5 | PASS |
| Band5 | 10MHz | 64QAM | 20450 | 50RB#0 | NV | 40  | -5.70  | -0.006876 | ±2.5 | PASS |
| Band5 | 10MHz | 64QAM | 20450 | 50RB#0 | NV | 50  | -10.80 | -0.013028 | ±2.5 | PASS |
| Band5 | 10MHz | 64QAM | 20525 | 50RB#0 | NV | -30 | -9.70  | -0.011596 | ±2.5 | PASS |
| Band5 | 10MHz | 64QAM | 20525 | 50RB#0 | NV | -20 | -6.90  | -0.008249 | ±2.5 | PASS |
| Band5 | 10MHz | 64QAM | 20525 | 50RB#0 | NV | 0   | -0.30  | -0.000359 | ±2.5 | PASS |
| Band5 | 10MHz | 64QAM | 20525 | 50RB#0 | NV | 10  | -2.60  | -0.003108 | ±2.5 | PASS |
| Band5 | 10MHz | 64QAM | 20525 | 50RB#0 | NV | 20  | -5.20  | -0.006216 | ±2.5 | PASS |
| Band5 | 10MHz | 64QAM | 20525 | 50RB#0 | NV | 30  | -6.00  | -0.007173 | ±2.5 | PASS |
| Band5 | 10MHz | 64QAM | 20525 | 50RB#0 | NV | 40  | -6.40  | -0.007651 | ±2.5 | PASS |
| Band5 | 10MHz | 64QAM | 20525 | 50RB#0 | NV | 50  | -6.40  | -0.007651 | ±2.5 | PASS |
| Band5 | 10MHz | 64QAM | 20600 | 50RB#0 | NV | -30 | -4.10  | -0.004858 | ±2.5 | PASS |
| Band5 | 10MHz | 64QAM | 20600 | 50RB#0 | NV | -20 | -7.60  | -0.009005 | ±2.5 | PASS |
| Band5 | 10MHz | 64QAM | 20600 | 50RB#0 | NV | 0   | -8.10  | -0.009597 | ±2.5 | PASS |
| Band5 | 10MHz | 64QAM | 20600 | 50RB#0 | NV | 10  | -12.20 | -0.014455 | ±2.5 | PASS |
| Band5 | 10MHz | 64QAM | 20600 | 50RB#0 | NV | 20  | 0.00   | 0.000000  | ±2.5 | PASS |
| Band5 | 10MHz | 64QAM | 20600 | 50RB#0 | NV | 30  | -6.90  | -0.008175 | ±2.5 | PASS |
| Band5 | 10MHz | 64QAM | 20600 | 50RB#0 | NV | 40  | -10.00 | -0.011848 | ±2.5 | PASS |
| Band5 | 10MHz | 64QAM | 20600 | 50RB#0 | NV | 50  | -8.10  | -0.009597 | ±2.5 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 50RB#0 | NV | -30 | -11.04 | -0.013317 | ±2.5 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 50RB#0 | NV | -20 | -11.06 | -0.013341 | ±2.5 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 50RB#0 | NV | 0   | -8.70  | -0.010495 | ±2.5 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 50RB#0 | NV | 10  | -11.24 | -0.013559 | ±2.5 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 50RB#0 | NV | 20  | -13.59 | -0.016393 | ±2.5 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 50RB#0 | NV | 30  | -10.29 | -0.012413 | ±2.5 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 50RB#0 | NV | 40  | -9.94  | -0.011990 | ±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(s): (86-755) 8307 1443, or email: [CN.Doccheck@sgs.com](mailto: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



|       |       |       |       |        |    |     |        |           |      |      |
|-------|-------|-------|-------|--------|----|-----|--------|-----------|------|------|
| Band5 | 10MHz | 16QAM | 20450 | 50RB#0 | NV | 50  | -12.56 | -0.015151 | ±2.5 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 50RB#0 | NV | -30 | -9.04  | -0.010807 | ±2.5 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 50RB#0 | NV | -20 | -11.56 | -0.013819 | ±2.5 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 50RB#0 | NV | 0   | -7.82  | -0.009348 | ±2.5 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 50RB#0 | NV | 10  | -5.75  | -0.006874 | ±2.5 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 50RB#0 | NV | 20  | -7.58  | -0.009062 | ±2.5 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 50RB#0 | NV | 30  | -11.04 | -0.013198 | ±2.5 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 50RB#0 | NV | 40  | -10.33 | -0.012349 | ±2.5 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 50RB#0 | NV | 50  | -4.65  | -0.005559 | ±2.5 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 50RB#0 | NV | -30 | -12.52 | -0.014834 | ±2.5 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 50RB#0 | NV | -20 | -10.47 | -0.012405 | ±2.5 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 50RB#0 | NV | 0   | -10.54 | -0.012488 | ±2.5 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 50RB#0 | NV | 10  | -11.34 | -0.013436 | ±2.5 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 50RB#0 | NV | 20  | -14.78 | -0.017512 | ±2.5 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 50RB#0 | NV | 30  | -11.76 | -0.013934 | ±2.5 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 50RB#0 | NV | 40  | -12.19 | -0.014443 | ±2.5 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 50RB#0 | NV | 50  | -8.67  | -0.010273 | ±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](mailto:CN.Doccheck@sgs.com)

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

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