

Quectel Wireless Solutions Company Limited

BG95-M5 original date of grant : 08/07/2020,

Certificate number :202180652AA00

FCC ID: XMR202005BG95M5

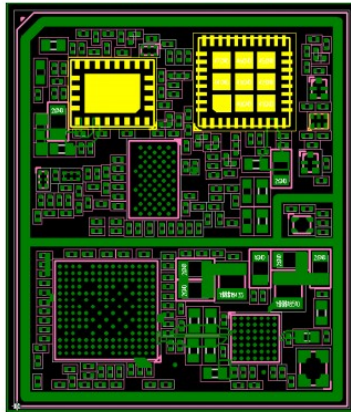
Name: LTE Cat M1 & Cat NB2 & EGPRS Module

Parent Model: BG95-M5

Hardware Version:R1.1

The description of the modification is as follows:

The HW design is not changed, just change the PA chip as follow:



| Designator | BG95-M5 (Original) (Part Description) | BG95-M5 (New) (Part Description) |
|------------|--|---|
| U603 | IC RF SWITCH SP12T + GSM Quadband 5.5x5.3mm H0.83mm RO (VC7912-62) | IC RF SWITCH SP14T 36dBm & PA GSM Quadband TDD34/39 5.3x5.5mm H0.94mm RO (RR88916-81H) |
| U701 | IC RF PA LTE/NB-IOT LB/MB 5.0x4.0mm H0.65mm RO (QM55001) | IC RF PA LTE 4.0x5.0mm H0.9mm RO (SKY68018-11) |

The change will not impact RF performance of CatM1/ NB-IoT/EGPRS.

Your assistance on this matter is highly appreciated.

#1 New FEM containing PA has slightly different electrical characteristics as the original

#2 The new PA is pin-to-pin compatible with the original PA

All reports are updated as follows:

BG95-M5 (Report No.: R2108A0767-R1V1) is a variant model of BG95-M5 (Report No.: R2005A0283-R1V1). There is only changed the Power Amplifier and Software

Version of product.

Tested cases refer to the following table. Please refer to Appendix C for Verify data

| Test Case | Original | Variant |
|--|-----------------|---|
| RF Power Output and Effective Radiated Power | PASS | Retest(GSM850 / LTE band5 / LTE band 26) |
| Occupied Bandwidth | PASS | Verify the worst combination of each frequency band(GSM850 / LTE band5 / LTE band 26) |
| Band Edge Compliance | PASS | Verify the worst combination of each frequency band(GSM850 / LTE band5 / LTE band 26) |
| Peak-to-Average Power Ratio | PASS | Retest(GSM850 / LTE band5 / LTE band 26) |
| Frequency Stability | PASS | Verify the worst combination of each frequency band(GSM850 / LTE band5 / LTE band 26) |
| Spurious Emissions at Antenna Terminals | PASS | Verify the worst combination of each frequency band(GSM850 / LTE band5 / LTE band 26) |
| Radiates Spurious Emission | PASS | Verify the worst combination of each frequency band(GSM850 / LTE band5 / LTE band 26) |

BG95-M5 (Report No.: R2108A0767-R2V1) is a variant model of BG95-M5 (Report No.: R2005A0283-R2V1). There is only changed the Power Amplifier and Software Version of product.

Tested cases refer to the following table. Please refer to Appendix C for Verify data

| Test Case | Original | Variant |
|--|-----------------|---|
| RF Power Output and Effective Radiated Power | PASS | Retest(GSM1900 / LTE Band 2 / LTE Band 25) |
| Occupied Bandwidth | PASS | Verify the worst combination of each frequency band(GSM1900 / LTE Band 2 / LTE Band 25) |
| Band Edge Compliance | PASS | Verify the worst combination of each frequency band(GSM1900 / LTE Band 2 / LTE Band 25) |
| Peak-to-Average Power Ratio | PASS | Retest(GSM1900 / LTE Band 2 / LTE Band 25) |
| Frequency Stability | PASS | Verify the worst combination of each frequency band(GSM1900 / LTE Band 2 / LTE Band 25) |
| Spurious Emissions at Antenna Terminals | PASS | Verify the worst combination of each frequency band(GSM1900 / LTE Band 2 / LTE Band 25) |
| Radiates Spurious Emission | PASS | Verify the worst combination of each frequency band(GSM1900 / LTE Band 2 / LTE Band 25) |

BG95-M5 (Report No.: R2108A0767-R3V1) is a variant model of BG95-M5 (Report No.: R2005A0283-R3V1). There is only changed the Power Amplifier and Software Version of product.

Tested cases refer to the following table. Please refer to Appendix C for Verify data

| Test Case | Original | Variant |
|--|----------|--|
| RF Power Output and Effective Radiated Power | PASS | Retest(LTE Band 26) |
| Occupied Bandwidth | PASS | Verify the worst combination of each frequency band(LTE Band 26) |
| Band Edge Compliance | PASS | Verify the worst combination of each frequency band(LTE Band 26) |
| Peak-to-Average Power Ratio | PASS | Retest(LTE Band 26) |
| Frequency Stability | PASS | Verify the worst combination of each frequency band(LTE Band 26) |
| Spurious Emissions at Antenna Terminals | PASS | Verify the worst combination of each frequency band(LTE Band 26) |
| Radiates Spurious Emission | PASS | Verify the worst combination of each frequency band(LTE Band 26) |

BG95-M5 (Report No.: R2108A0767-R4V1) is a variant model of BG95-M5 (Report No.: R2005A0283-R4V1). There is only changed the Power Amplifier and Software Version of product.

Tested cases refer to the following table. Please refer to Appendix C for Verify data

| Test Case | Original | Variant |
|--|----------|---|
| RF Power Output and Effective Radiated Power | PASS | Retest(LTE Band 4/66/12/13/85) |
| Occupied Bandwidth | PASS | Verify the worst combination of each frequency band(LTE Band 4/66/12/13/85) |
| Band Edge Compliance | PASS | Verify the worst combination of each frequency band(LTE Band 4/66/12/13/85) |
| Peak-to-Average Power Ratio | PASS | Retest(LTE Band 4/66/12/13/85) |
| Frequency Stability | PASS | Verify the worst combination of each frequency band(LTE Band 4/66/12/13/85) |
| Spurious Emissions at Antenna Terminals | PASS | Verify the worst combination of each frequency band(LTE Band 4/66/12/13/85) |
| Radiates Spurious Emission | PASS | Verify the worst combination of each frequency band(LTE Band 4/66/12/13/85) |

BG95-M5 (Report No.: R2108A0767-R5V1) is a variant model of BG95-M5 (Report No.: R2005A0283-R5). There is only changed the Power Amplifier and Software Version of product.

Tested cases refer to the following table. Please refer to Appendix C for Verify data

| Test Case | Original | Variant |
|--|----------|--|
| RF Power Output and Effective Radiated Power | PASS | Retest(NB-IoT Band 5) |
| Occupied Bandwidth | PASS | Verify the worst combination of each frequency band(NB-IoT Band 5) |
| Band Edge Compliance | PASS | Verify the worst combination of each frequency band(NB-IoT Band 5) |
| Peak-to-Average Power Ratio | PASS | Retest(NB-IoT Band 5) |
| Frequency Stability | PASS | Verify the worst combination of each frequency band(NB-IoT Band 5) |
| Spurious Emissions at Antenna Terminals | PASS | Verify the worst combination of each frequency band(NB-IoT Band 5) |
| Radiates Spurious Emission | PASS | Verify the worst combination of each frequency band(NB-IoT Band 5) |

BG95-M5 (Report No.: R2108A0767-R6V1) is a variant model of BG95-M5 (Report No.: R2005A0283-R6). There is only changed the Power Amplifier and Software Version of product.

Tested cases refer to the following table. Please refer to Appendix C for Verify data

| Test Case | Original | Variant |
|--|----------|---|
| RF Power Output and Effective Radiated Power | PASS | Retest(NB-IoT Band 2 / NB-IoT Band 25) |
| Occupied Bandwidth | PASS | Verify the worst combination of each frequency band(NB-IoT Band 2 / NB-IoT Band 25) |
| Band Edge Compliance | PASS | Verify the worst combination of each frequency band(NB-IoT Band 2 / NB-IoT Band 25) |
| Peak-to-Average Power Ratio | PASS | Retest(NB-IoT Band 2 / NB-IoT Band 25) |
| Frequency Stability | PASS | Verify the worst combination of each frequency band(NB-IoT Band 2 / NB-IoT Band 25) |
| Spurious Emissions at Antenna Terminals | PASS | Verify the worst combination of each frequency band(NB-IoT Band 2 / NB-IoT Band 25) |
| Radiates Spurious Emission | PASS | Verify the worst combination of each frequency band(NB-IoT Band 2 / NB-IoT Band 25) |

BG95-M5 (Report No.: R2108A0767-R7V1) is a variant model of BG95-M5 (Report No.: R2005A0283-R7). There is only changed the Power Amplifier and Software Version of product.

Tested cases refer to the following table. Please refer to Appendix C for Verify data

| Test Case | Original | Variant |
|--|-----------------|--|
| RF Power Output and Effective Radiated Power | PASS | Retest(NB-IoT 4/66/12/13/71/85) |
| Occupied Bandwidth | PASS | Verify the worst combination of each frequency band(NB-IoT 4/66/12/13/71/85) |
| Band Edge Compliance | PASS | Verify the worst combination of each frequency band(NB-IoT 4/66/12/13/71/85) |
| Peak-to-Average Power Ratio | PASS | Retest(NB-IoT 4/66/12/13/71/85) |
| Frequency Stability | PASS | Verify the worst combination of each frequency band(NB-IoT 4/66/12/13/71/85) |
| Spurious Emissions at Antenna Terminals | PASS | Verify the worst combination of each frequency band(NB-IoT 4/66/12/13/71/85) |
| Radiates Spurious Emission | PASS | Verify the worst combination of each frequency band(NB-IoT 4/66/12/13/71/85) |

Your assistance on this matter is highly appreciated.

Signature: 

Print name: Jean Hu

Date: 11/11/2021

Company: Quectel Wireless Solutions Co., Ltd.