Quectel Wireless Solutions Company Limited

EC21-AUX original date of grant : 10/31/2019,

Certificate number :192181004AA00

FCC ID：XMR201909EC21AUX

Name: LTE Module

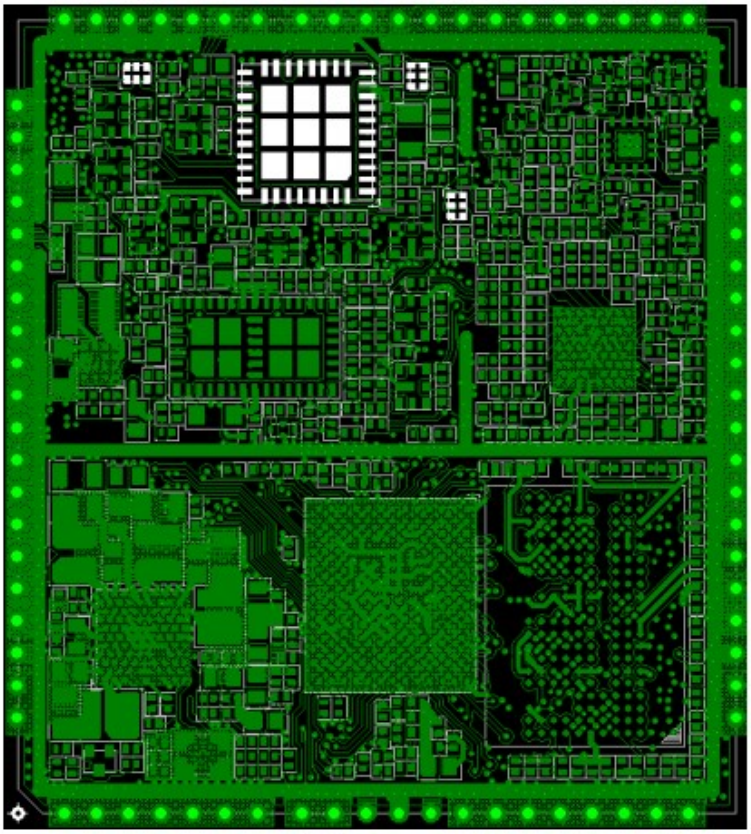
Parent Model: EC21-AUX, EC21-AUX MINIPCIE

The description of the modification is as follows：

We **Quectel Wireless Solutions Co., Ltd** declare the following models.

Product Name: LTE Module
Model Number: EC21-AUX
Hardware Version: R2.0

The new version of EC21-AUX share the same HW design with the certificated version, The main differences are Switch and TXM as follow:



Designator	EC21-AUX (Original) (Part Description)	EC21-AUX (new version) (Part Description)
U0702	BGS12SN6 E6327 IC RF SWITCH SPDT 30dBm 1.1x0.7mm H0.375mm RO	MXD8625C IC RF SWITCH SPDT 36.5dBm 1.1x0.7mm H0.45mm RO
U0703	BGS12SN6 E6327 IC RF SWITCH SPDT 30dBm 1.1x0.7mm H0.375mm RO	MXD8625C IC RF SWITCH SPDT 36.5dBm 1.1x0.7mm H0.45mm RO
U0801	BGS12SN6 E6327 IC RF SWITCH SPDT 30dBm 1.1x0.7mm H0.375mm RO	MXD8625C IC RF SWITCH SPDT 36.5dBm 1.1x0.7mm H0.45mm RO
U0803	VC7912-61 IC RF SWITCH SP10T + GSM Qualband 5.3x5.5mm H0.905mm RO	VC7916-62 IC RF SWITCH SP14T + GSM Qualband 5.3x5.5mm H0.83mm RO

The change will not impact RF performance for original frequency bands.
Verification with the causal impact are related test made, and the results reflect the modification remains compliant below the compliance level.
Your assistance on this matter is highly appreciated.

1. FEM IC (swtich, and PA) are changed
2. the swtich are changed.

All reports are updated as follows:

EC21-AUX, EC21-AUX MINIPCIE (Report No.: R2108A0686-R1V1) is a variant model of EC21-AUX MINIPCIE (Report No.: R1908A0502-R1). 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 /WCDMA Band V/ LTE band5)
Occupied Bandwidth	PASS	Verify the worst combination of each frequency band(GSM850 / WCDMA Band V/ LTE band5)
Band Edge Compliance	PASS	Verify the worst combination of each frequency band(GSM850 / WCDMA Band V/ LTE band5)
Peak-to-Average Power Ratio	PASS	Retest(GSM850 / WCDMA Band V/ LTE band 5)
Frequency Stability	PASS	Retest(GSM850 / WCDMA Band V/ LTE band 5)
Spurious Emissions at Antenna Terminals	PASS	Verify the worst combination of each frequency band(GSM850 / WCDMA Band V/ LTE band5)
Radiates Spurious Emission	PASS	Retest(GSM850 / WCDMA Band V/ LTE band 5)

EC21-AUX, EC21-AUX MINIPCIE (Report No.: R2108A0686-R2V1) is a variant model of EC21-AUX MINIPCIE (Report No.: R1908A0502-R2). 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/WCDMA Band II/LTE Band 2)
Occupied Bandwidth	PASS	Verify the worst combination of each frequency band(GSM1900/WCDMA Band II/LTE Band 2)
Band Edge Compliance	PASS	Verify the worst combination of each frequency band(GSM1900/WCDMA Band II/LTE Band 2)
Peak-to-Average Power Ratio	PASS	Retest(GSM1900/WCDMA Band II/LTE Band 2)
Frequency Stability	PASS	Retest(GSM1900/WCDMA Band II/LTE Band 2)
Spurious Emissions at Antenna Terminals	PASS	Verify the worst combination of each frequency band(GSM1900/WCDMA Band II/LTE Band 2)
Radiates Spurious Emission	PASS	Retest(GSM1900/WCDMA Band II/LTE Band 2)

EC21-AUX, EC21-AUX MINIPCIE (Report No.: R2108A0686-R3V1) is a variant model of EC21-AUX MINIPCIE (Report No.: R1908A0502-R3). 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(WCDMA Band IV/ LTE Band 4/7)
Occupied Bandwidth	PASS	Verify the worst combination of each frequency band(WCDMA Band IV/ LTE Band 4/7)
Band Edge Compliance	PASS	Verify the worst combination of each frequency band(WCDMA Band IV/ LTE Band 4/7)
Peak-to-Average Power Ratio	PASS	Retest(WCDMA Band IV/ LTE Band 4/7)
Frequency Stability	PASS	Retest(WCDMA Band IV/ LTE Band 4/7)
Spurious Emissions at Antenna Terminals	PASS	Verify the worst combination of each frequency band(WCDMA Band IV/ LTE Band 4/7)
Radiates Spurious Emission	PASS	Retest(WCDMA Band IV/ LTE Band 4/7)

Your assistance on this matter is highly appreciated.

Signature:

Print name: Jean Hu

Date: 11/20/2021

Company: Quectel Wireless Solutions Co., Ltd.