

Class 2 permissive change justification Letter

Date (10/11/2017)

BABT TCB
Balfour House,
Churchfield Road,
Walton-on-Thames,
Surrey,
KT12 2TD

Dear Sir or Madam,

We,

Huawei Technologies Co., Ltd.
Bantian, Longgang District, Shenzhen, 518129, China

hereby to do the class 2 permissive change application justification on FCC application: Smart Phone, MHA-L09, FCC ID: QISMHA-L09, granted data: 11/03/2016 as following:

MHA-L09 is subscriber equipment in the LTE/ WCDMA/GSM system. The LTE frequency band is Band I, Band II, Band III, Band IV, Band V, Band VII, Band VIII, Band VIII, Band XII, Band XVII, Band XVIII, Band XIX, Band XX, Band XXVI, Band XXVIII, Band XXIX, Band XXXVIII, Band XXXIX, Band XL and Band XLI. The HSUPA/HSDPA/UMTS frequency band is Band I, Band II, Band IV, Band V, Band VI, Band VIII and Band XIX, The GSM/GPRS/EDGE frequency band includes GSM850 and GSM900 and DCS1800 and PCS1900, The Mobile Phone implements such functions as RF signal receiving/transmitting, LTE/UMTS/GSM protocol processing, voice, video, MMS service, GPS, AGPS, NFC and WIFI etc. Externally it provides earphone port (to provide voice service) and dual USIM card interfaces. It also provides Bluetooth module to synchronize data between a PC and the phone, or to use the built-in modem of the phone to access the Internet with a PC, or to exchange data with other Bluetooth devices.

The detailed change information of C2PC application as below:

- 1) PA models changed, new model modified the power Bias, the overall performance of the product does not affect. This change only effect LTE band 4/7

Before	After
<p>Model : SKY78117-14</p> <p>Description : RF Multi-functional Component, HB PAMID(w/ B7 DUP), 2300~2690MHz, LGA</p>	<p>Model : SKY78117-14A</p> <p>Description : RF Multi-functional Component, HB PAMID(w/ B7 DUP) w/ B7 Gain improvement, 2300~2690MHz, LGA</p>
<p>Model : SKY78114-14</p> <p>Description : RF Multi-functional Component, MB PAMID(w/ B1/2/3/4 Dup), 1710~2025 MHz, LGA, Terminal Dedicated</p>	<p>Model : SKY78114-21</p> <p>Description : RF Multi-functional Component, MB PAMID(w/ B1/2/3/4 Dup), 1710~2025 MHz, LGA, Terminal Dedicated, but this change only affects B3/4.</p>

The change of PA fulfil below requirements of KDB178919 D01 III requirement

- 1) The new chip component is pin-for-pin compatible.
- 2) The new chip has the same basic function as the old chip, from an external perspective (internal circuitry may differ).
- 3) No change in radio parameters has occurred.
- 4) The same conditions apply when a small area (approximately the same area as the chip) of the PCB is replaced with an equivalent chip.

2) Adjust a capacitor of antenna, but the antenna gain is same as original, this change only effect LTE Band 2/38/41, WCDMA Band II, GSM 1900, but the maximum ERP/EIRP rules are not increase.

Change point	Influencing Bands
Adjust a capacitor of antenna, PCB and other components do not change	LTE Band 2/38/41, WCDMA Band II, GSM 1900

3) Just for SAR report. Delete one kind of optional battery (Manufacture: Desay)

Name	Manufacture
Rechargeable Li-ion	SCUD
HB396689ECW	Sunwoda

Detailed description of the change please refer to below document:

So below new documents were submitted

- Tune-up Procedure
- Part List
- EMC test report
- RF test report for LTE band 2/4/7
- SAR test report
- SAR test setup photos
- EMC test setup photos
- RF test setup photos

So in this C2PC FCC application for Smart Phone, MHA-L09, FCC ID: QISMHA-L09

New Test report BTL-FCCE-1-1607C287D for FCC Part 15B have been submitted, and this report according to Part 15B is valid and applicable and it is representative of the compliance of this change of the product.

New RF test report SYBH(Z-RF)028052017-2001 for LTE band 4/7 was submitted, the test date in this report were refer from test report SYBH(Z-RF)023052017-2001 of C2PC change of FCC ID: QISMHA-L29 due to below difference of two models.

In test report SYBH(Z-RF)023052017-2001 for LTE band 4/7 was submitted, the test data of LTE band 4/7 are new test data, the radiated spurious emission of other GSM/UMTS/LTE bands was retested, and the test result didn't worse than original test report. The original test data are still effective.

New SAR test report SYBH(Z-SAR)030052017-2 was submitted, the test date in this report were refer from test report SYBH(Z-SAR)028052017-2 of C2PC change of FCC ID: QISMHA-L29 due to below difference of two models.

In test report SYBH(Z-SAR)028052017-2 :

- 1) For LTE band 4/7 (main antenna and second antenna), new full SAR test is performed
- 2) For LTE band 38(main antenna), new full SAR test is performed since the max SAR value of the changed model gets worse and exceeds the max measurement uncertainly tolerance compared to the max value in original report SYBH(Z-SAR)004082016-2.
- 3) For other GSM/UMTS/LTE bands, SAR was repeated based on the worst case of original report SYBH(Z-SAR)004082016-2 for each frequency band and RF exposure condition.

Other test data refer from original test report SYBH(Z-SAR)004082016-2, and this data remains valid and it is representative of the compliance of this change of the product.

The differences between MHA-L09 and MHA-L29 as beow:

Model	MHA-L29	MHA-L09
Trade mark	HUAWEI	HUAWEI
FCC ID	QISMHA-L29	QISMHA-L09
Frequency-GSM	the same	the same
Frequency-WCDMA	the same	the same
Frequency-LTE	the same	the same
SIM Card	double	Single change nano-tray to SD-tray
Hardware Version	the same	the same
Software Version	different	different
Dimensions	the same	the same
Appearance	the same	the same
main antenna	the same	the same
BT/Wi-Fi antenna	the same	the same
DIV antenna	the same	the same
Others	the same	the same

Sincerely,

For and Behalf of:
Huawei Technologies Co., Ltd.



Zhangxinghai
EMC Laboratory Manager