

Class 2 permissive change justification Letter

Date (03/29/2017)

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, VTR-L29, FCC ID: QISVTR-L29, granted data: 2017-02-15 as following:

VTR-L29 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 IX,Band XII,BandXVII, Band XVIII ,Band XIX, Band XX, Band XXVI, Band XXVIII, Band XXIX,Band XXXVIII,BandXXXIX, 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.

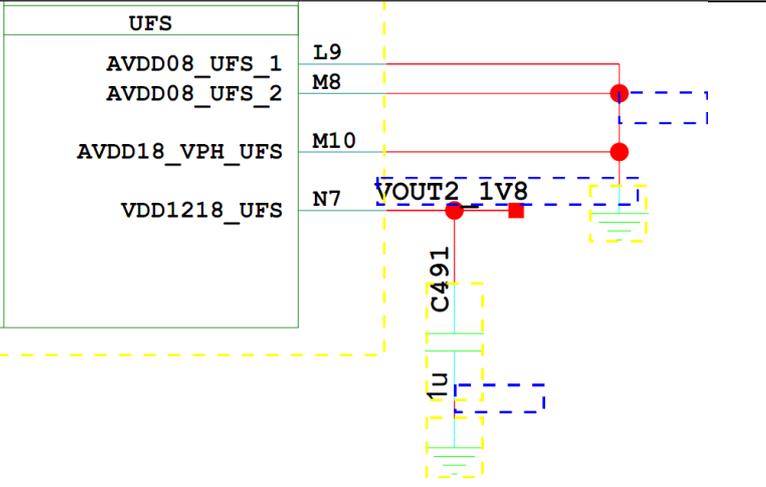
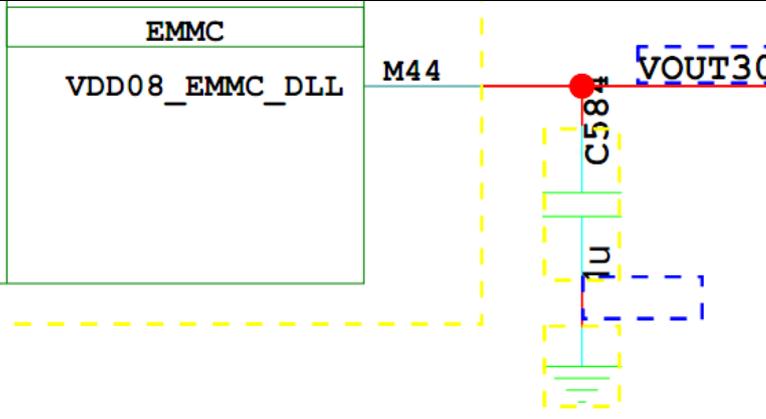
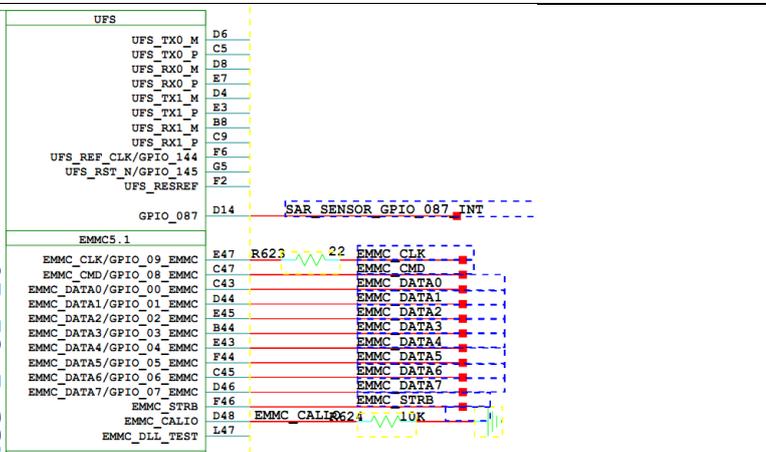
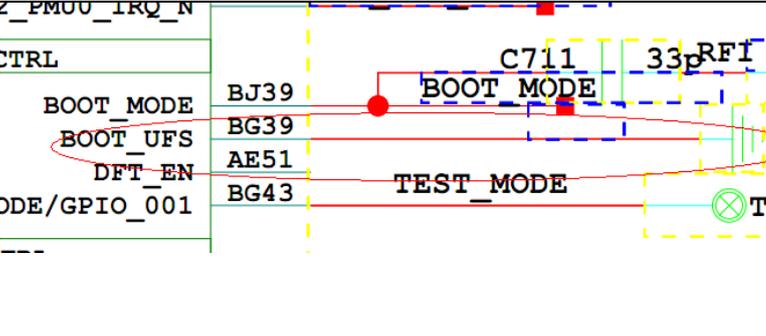
Description of the change:

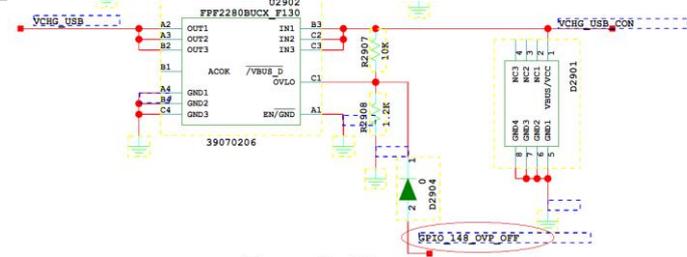
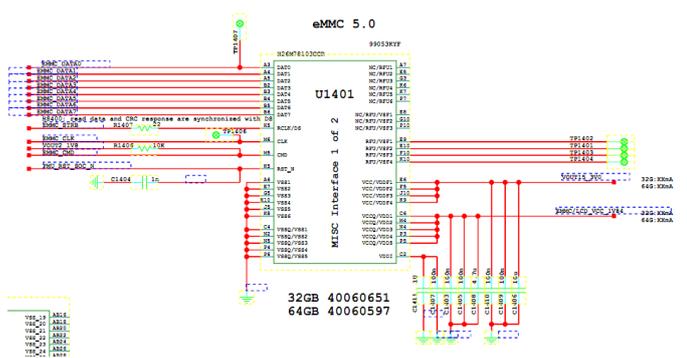
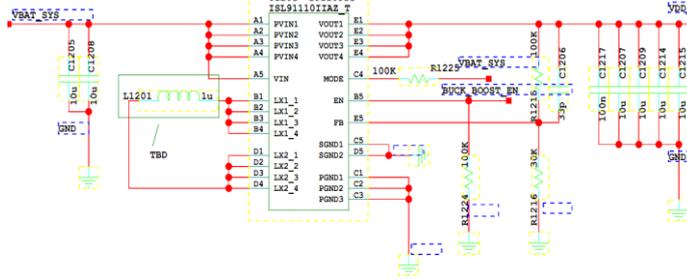
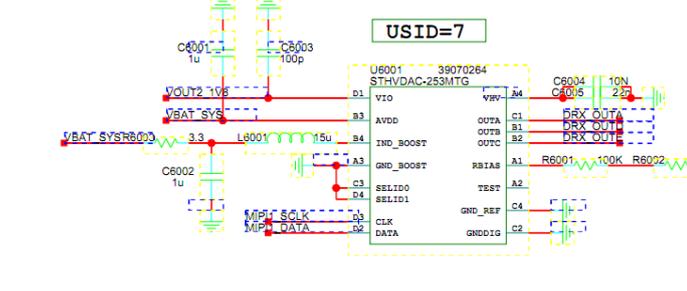
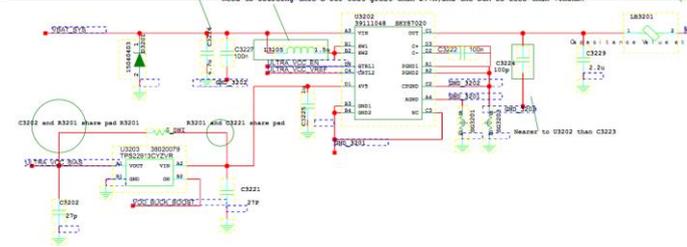
There three changed points:

- 1) Add an alternate NAND FLASH and the related match circuit is changed as well.

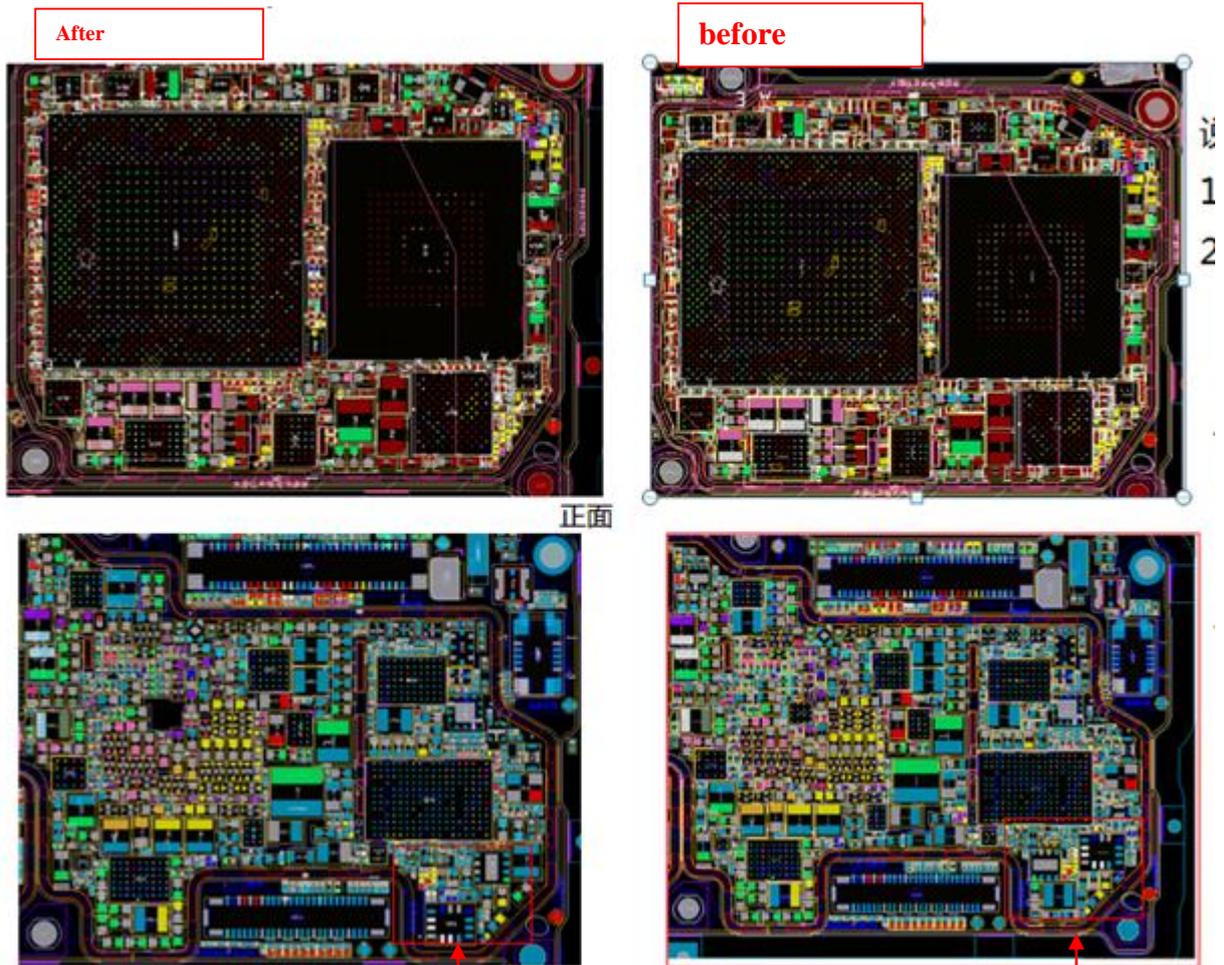
Before	After
Memory type : UFS2.0 Description : Gear3 2lane RPMB 16MB@1key(G3-1lane 4MB RPMB for one exception),3.3V/1.8V,FBGA153b	Memory type : eMMC5.1 Description : CMDQ,400MHz,3.3V/1.8V,FBGA153

Change of match circuit as below:

After	Description
	<p>For UFS is changed to EMMC, the related power supply circuit is changed.</p>
	<p>For UFS is changed to EMMC, the related power supply circuit is changed.</p>
	<p>For UFS is changed to EMMC, the related interface circuit is changed.</p>
	<p>For UFS is changed to EMMC, BOOT_UFS pin is connected to GND.</p>
<p>NC</p>	<p>GPIO_033 pin is disused.</p>

<p>GPIO_148_OVP_OFF</p>	<p>buckboost_INT,GPIO_148 is changed to GPIO_148_OVP_OFF.</p>
	<p>The net OVP OFF changed to GPIO_148 from GPIO_033</p>
	<p>(1) UFS is changed to EMMC; (2) The name of the net GPIO_022 changed to GPIO_022_EMMCPOWER_INT_N</p>
	<p>BUCKBOOST is changed to a new device</p>
<p>NA</p>	<p>GPIO_108 is disused.</p>
	<p>Tuner IC is changed</p>
	<p>Add U3203's match circuit.</p>

UFS change to EMMC,

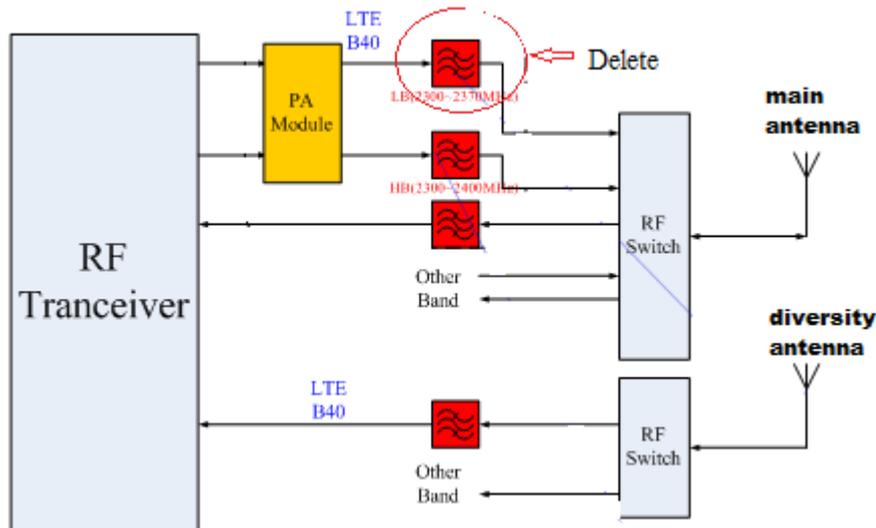


- 1>. No change on front PCB layout
- 2>. Because the power supply circuit changed, so PCB layout on the lower right corner have some differences
- 3>. Performance is significantly lower

2) Delete a B40 SAW passive filter

Description :SAW Filter, 2335MHz, 2.8dB

Block diagram:



3) PA model change , Add an alternate PA

New model modified the power Bias, the overall performance of the product does not affect.

Before	After
Model : SKY78117-14 Description : RF Multi-functional Component, HB PAMID(w/ B7 DUP), 2300~2690MHz, LGA	Model : SKY78117-14A Description : RF Multi-functional Component, HB PAMID(w/ B7 DUP) w/ B7 Gain improvement, 2300~2690MHz, LGA,

For more detail please check:

- Tune-up Procedure
- Schematics and PCB layout
- Bom List
- Internal photos
- SAR test setup photos
- EMC test setup photos

The following documents from the original application remain unchanged, applicable and representative after Class II Permissive change:

- Block Diagram
- User Manual
- External Photos
- Operation Description
- label and Label location
- test setup photos (for RF)

So in this C2PC FCC application for Smart Phone, VTR-L29, FCC ID: QISVTR-L29

New Test report BTL-FCCE-1-1611C132B 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.

The original test report SYBH(Z-RF)032112016-2004 for Bluetooth (DSS part) had been submitted in this applicable and the data remains valid it is representative of the compliance of this change of the product.

The original test report SYBH(Z-RF)032112016-2003 for BLE (DTS part) had been submitted in this applicable and the data remains valid it is representative of the compliance of this change of the product.

The original test report SYBH(Z-RF)032112016-2002 for 2.4GHz WLAN(DTS part) had been submitted in this applicable and the data remains valid it is representative of the compliance of this change of the product.

The original test reports SYBH(Z-RF)032112016-2005(for RF part), BTL-FCCP-2-1611C132(for DFS) and BTL-FCCP-1-1611C132(for radiated spurious emission) for 5GHz WLAN had been submitted in this applicable and the data remains valid they are representative of the compliance of this change of the product.

The original test report SYBH(Z-RF)032112016-2006 for NFC (DXX part) had been submitted in this applicable and the data remains valid it is representative of the compliance of this change of the product.

New test report SYBH(Z-RF)018032017-2001 for GSM/UMTS/LTE was submitted, and all the test data of this report refer to original report "SYBH(Z-RF)032112016-2001, and this data remains valid and it is representative of the compliance of this change of the product.

New SAR test report SYBH(Z-SAR)017032017-2 had been submitted in this applicable, the test data in this report refer to original test report SYBH(Z-SAR)011112016-2 and add the spot check test at the SAR worst case for each same antenna, frequency band and RF exposure condition. The test data in original test report SYBH(Z-SAR)011112016-2 remains valid and applicable. New test SAR report is representative of the compliance of this change of the product.

Sincerely,

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

A handwritten signature in black ink, reading "Zhang Xinghai". The signature is written in a cursive, flowing style.

Zhangxinghai
EMC Laboratory Manager