



中国认可
国际互认
检测
TESTING
CNAS L0310



FCC&IC RF Test Report

Product Name: Smart Phone

Model Number: EML-L09

Report No.: SYBH(Z-RF)20180131016001-2006

FCC ID: QISEML-L09

IC: 6369A-EMLL09

Reliability Laboratory of Huawei Technologies Co., Ltd.

(Global Compliance and Testing Center of Huawei Technologies Co., Ltd)

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Notice

1. The laboratory has passed the accreditation by China National Accreditation Service for Conformity Assessment (CNAS). The accreditation number is L0310.
2. The laboratory has passed the accreditation by The American Association for Laboratory Accreditation (A2LA). The accreditation number is 2174.01.
3. The laboratory has been recognized by the US Federal Communications Commission (FCC) to perform compliance testing subject to the Commission's Declaration Of Conformity (DOC) and Certification rules. The Designation Number is CN1173, and the Test Firm Registration Number is 294140.
4. The laboratory has been listed by Industry Canada to perform electromagnetic emission measurements. The recognition numbers of test site are 6369A-1.
5. The laboratory (Reliability Lab of Huawei Technologies Co., Ltd) is also named "Global Compliance and Testing Center of Huawei Technologies Co., Ltd", the both names have coexisted since 2009.
6. The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.
7. The test report is invalid if there is any evidence of erasure and/or falsification.
8. The test report is only valid for the test samples.
9. Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.



Applicant: Huawei Technologies Co., Ltd.
Address: Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, P.R.C

Date of Receipt Sample: 2018-01-02
Start Date of Test: 2018-01-02
End Date of Test: 2018-02-05

Test Result: Pass

Approved by Senior Engineer: 2018-02-05 Roger zhang *Roger Zhang*
Date Name Signature

Prepared by: 2018-02-05 Pan Man *Panman*
Date Name Signature



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1 General Information

1.1 Applied Standard	
Applied Rules:	47 CFR FCC Part 02 FCC Part 15 Subpart C (15.225)
	IC RSS-Gen (Issue 4, December 2014) IC RSS-210 (Issue 9, August 2016)
1.2 Test Location	
Test Location 1:	Reliability Laboratory of Huawei Technologies Co., Ltd.
Address:	Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, P.R.C
1.3 Test Environmental Condition	
Ambient Temperature:	20 – 25 °C
Ambient Relative Humidity:	45 – 55 %
Atmospheric Pressure:	101 kPa



2 Summary

FCC Part Section	IC Part Section	Test Description	Test Limit	Test Condition	Test Result	Reference
TRANSMITTER MODE						
15.225 (a)	RSS-210, B6(a)	In-Band Emissions	15,848 μ V/m @ 30m 13.553 – 13.567 MHz	RADIATED	refer to No. SYBH(Z-RF)20180131018001-2006	Section 5.2
2.1049	---	20 dB Bandwidth	N/A		refer to No. SYBH(Z-RF)20180131018001-2006	Section 5.1
15.225(b)	RSS-210, B6(b)	In-Band Emissions	334 μ V/m @ 30m 13.410 – 13.553 MHz 13.567 – 13.710 MHz		refer to No. SYBH(Z-RF)20180131018001-2006	Section 5.2
15.225(c)	RSS-210, B6(c)	In-Band Emissions	106 μ V/m @ 30m 13.110 – 13.410 MHz 13.710 – 14.010 MHz		refer to No. SYBH(Z-RF)20180131018001-2006	Section 5.2
15.225(d) 15.209	RSS-210, B6(d)	Out-of-Band Emissions	Emissions outside of the specified band (13.110 – 14.010 MHz) must meet the radiated limits detailed in 15.209		refer to No. SYBH(Z-RF)20180131018001-2006	Section 5.3
15.225(e)	RSS-210, B6(d)	Frequency Stability Tolerance	\pm 0.01% of Operating Frequency	Temperature Chamber	refer to No. SYBH(Z-RF)20180131018001-2006	Section 5.4
15.207	RSS-Gen, 7.2.4	AC Conducted Emissions 150kHz – 30MHz	< FCC 15.207 limits	LINE CONDUCTED	refer to No. SYBH(Z-RF)20180131018001-2006	Section 5.5



3 Product Description

3.1 Product Information

EML-L09 is subscriber equipment in the LTE/ WCDMA/GSM system. The LTE frequency band is Band 1,Band 2,Band 3,Band 4,Band 5, Band 6, Band 7,Band 8, Band 9,Band 12,Band17, Band 18 ,Band 19, Band 20, Band 26, Band 28, Band 32,Band 34,Band 38,Band39, Band 40 and Band 41.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/ WCDMA /GSM protocol processing, voice, video, MMS service, GPS, 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 mobile phone EML-L29 and EML-L09 are LTE/UMTS/GSM mobile phone with Bluetooth. The differences between EML-L29 and EML-L09 are showed in the following table. EML-L09 delete one SIM by software. Other parts of the mobile phone are the same, including the appearance, the antenna, Chipset, Bluetooth mode, Wifi mode, Adapter, Battery, and so on.

	EML-L29	EML-L09
GSM four bands	B2/B3/B5/B8	B2/B3/B5/B8
WCDMA bands	B1/2/4/5/6/8/19	B1/2/4/5/6/8/19
LTE bands	FDD LTE: B1/2/3/4/5/6/7/8/9/12/17/ 18/19/20/ B26/28/32 TDD LTE: B34/B38/39/40/41(110M, 2545-2655)	FDD LTE: B1/2/3/4/5/6/7/8/9/12/17/18/19/20/ B26/28/32 TDD LTE: B34/B38/39/40/41(110M,2545- 2655)
FCC bands	GSM850/1900 WB2/B4/B5 LTE B2/4/5/B7/B12/B17/B26/ 38/B41	GSM850/1900 WB2/B4/B5 LTE B2/4/5/B7/B12/B17/B26/38/B41
SIM card	Two	One
NFC	the same	the same
External camera	the same	the same
internal camera	the same	the same
FLASH	the same	the same



Mainboard	the same	the same
PCB layout	the same	the same
Appearance	the same	the same
Bluetooth mode	the same	the same
WLAN mode	the same	the same
BT/ WLAN antenna	the same	the same
GSM/ WCDMA /LTE antenna	the same	The same
Adapter	the same	the same
Battery	the same	the same
Chipset	the same	the same
Memory	the same	the same
RF Parameter	The same RF Parameter in the same band	The same RF Parameter in the same band
Dimension	the same	the same
Main Frequency NV	The same NV in the same band	The same NV in the same band

NOTE1:Only NFC test data included in this report.

NOTE2: We do not test NFC data of EML-L09, the test data refer to No. SYBH(Z-RF)20180131018001-2006 of EML-L29(FCC ID: QISEML-L29 & IC: 6369A-EMLL29)



3.2 EUT Identity

NOTE: Unless otherwise noted in the report, the functional boards installed in the units shall be selected from the below list, but not means all the functional boards listed below shall be installed in one unit.

3.2.1 Board

Board		
Description	Hardware Version	Software Version
Main Board	HL1EMILYM	EML-L09 8.1.0.71(SP9C900)

3.2.2 Sub-Assembly

Sub-Assembly			
Sub-Assembly Name	Model	Manufacturer	Description
Adapter	HW-050450B00	Huawei Technologies Co.,Ltd.	Input Voltage: 100V-240V~50/60Hz, 0.75A Output Voltage: 5V 2A OR4.5V 5A OR 5V 4.5A Rated Power: 10W/22.5W
Adapter	HW-050450E00	Huawei Technologies Co.,Ltd.	Input Voltage: 100V-240V~50/60Hz, 0.75A Output Voltage: 5V 2A OR4.5V 5A OR 5V 4.5A Rated Power: 10W/22.5W
Adapter	HW-050450U00	Huawei Technologies Co.,Ltd.	Input Voltage: 100V-240V~50/60Hz, 0.75A Output Voltage: 5V 2A OR4.5V 5A OR 5V 4.5A Rated Power: 10W/22.5W
Adapter	HW-050450A00	Huawei Technologies Co.,Ltd.	Input Voltage: ~100-240V 50/60Hz 0.75A Output Voltage: 5V 2A OR4.5V 5A OR 5V 4.5A Rated Power: 10W/22.5W
Rechargeable Li-ion	HB396285ECW	Huawei Technologies Co.,Ltd.	Rated capacity: 3320mAh Nominal Voltage: +3.82V Charging Voltage: +4.4V



4 Main Test Instruments

Main Test Equipments					
Equipment Name	Manufacturer	Model	Serial Number	Cal Date	Cal- Due
Power supply	KEITHLEY	2303	000500E	2017/5/31	2018/5/30
Wireless Communication Test set	Agilent	N4010A	MY49081592	2017/7/31	2018/7/30
Universal Radio Communication Tester	R&S	CMU200	110932	2017/5/2	2018/5/1
Spectrum Analyzer	Agilent	N9020A	MY52090652	2017/7/10	2018/7/9
Universal Radio Communication Tester	R & S	CMW500	126854	2017/10/19	2018/10/18
Signal Analyzer	R&S	FSQ31	200021	2017/7/31	2018/7/30
Spectrum Analyzer	Agilent	N9030A	MY49431698	2017/7/31	2018/7/30
Temperature Chamber	WEISS	WKL64	56246002940010	2017/12/13	2018/12/12
Signal generator	Agilent	E8257D	MY49281095	2017/7/31	2018/7/30
Vector Signal Generator	R&S	SMU200A	104162	2017/7/31	2018/7/30
Test receiver	R&S	ESU26	100387	2017/2/21	2018/2/20
Test receiver	R&S	ESCI	101163	2017/2/21	2018/2/20
Spectrum analyzer	R&S	FSU3	200474	2017/2/21	2018/2/20
Spectrum analyzer	R&S	FSU43	100144	2017/2/21	2018/2/20
LOOP Antennas(9kHz-30MHz)	R&S	HFH2-Z2	100262	2017/4/25	2019/4/25
LOOP Antennas(9kHz-30MHz)	R&S	HFH2-Z2	100263	2017/4/25	2019/4/25
Trilog Broadband Antenna (30M~3GHz)	SCHWARZBECK	VULB 9163	9163-490	2017/3/29	2019/3/29
Trilog Broadband Antenna (30M~3GHz)	SCHWARZBECK	VULB 9163	9163-521	2017/4/9	2019/4/9
Double-Ridged Waveguide Horn Antenna (1G~18GHz)	R&S	HF907	100304	2017/5/27	2019/5/27
Pyramidal Horn Antenna(18GHz-26.5GHz)	ETS-Lindgren	3160-09	206665	2017/3/24	2018/3/23



Main Test Equipments					
Equipment Name	Manufacturer	Model	Serial Number	Cal Date	Cal- Due
Artificial Main Network	R&S	ENV4200	100134	2017/5/15	2018/5/14
Line Impedance Stabilization Network	R&S	ENV216	100382	2017/5/15	2018/5/14
Power Detecting & Sampling Unit	R&S	OSP-B157	100914	2017/7/31	2018/7/30
Software Information					
Test Item	Software Name		Manufacturer	Version	
RE	EMC32		R&S	V9.25.0	
CE	EMC32		R&S	V9.25.0	

5 Test Results

Void

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