

# FCC PART 15.247 TEST REPORT

For

## DDM Brands LLC

1616 NW, 84<sup>TH</sup> Ave. Miami, Florida, U.S.A

**FCC ID: A4JGO80**

<b>Report Type:</b> Class II Permissive Change	<b>Product Type:</b> 2G mobile phone
<b>Test Engineer:</b> Candy Li <i>Candy Li</i>	
<b>Report Number:</b> RSZ140207001-00BA1	
<b>Report Date:</b> 2014-02-14	
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**Note:** This test report is prepared for the customer shown above and for the equipment described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp.

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## GENERAL INFORMATION

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### Product Description for Equipment under Test (EUT)

The *DDM Brands LLC*'s product, model number: *EXCLUSIVE Z10 (FCC ID: A4JGO80)* or the "EUT" in this report was a *2G mobile phone*, which was measured approximately: 11.31 cm (L) x 5.55 cm (W) x 1.45 cm (H), rated with input voltage: DC 3.7 V rechargeable Li-ion battery or DC 5V from adapter.

Adapter Information:

Model: YW12

Input: AC100-240V~50/60 Hz, 150mA

Output: DC5.0V, 500mA

*\*All measurement and test data in this report was gathered from production sample serial number: 1401126 (Assigned by the applicant). The EUT supplied by the applicant was received on 2014-02-07.*

### Objective

This test report is prepared on behalf of *DDM Brands LLC* in accordance with Part 2-Subpart J, Part 15-Subparts A, B and C of the Federal Communication Commissions rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart C, section 15.203, 15.205, 15.207, 15.209 and 15.247 rules.

This is a class II permissive change basing on the original report RSZ140103002-00B with FCC ID: A4JGO80, the changes between the original device and the current one as below:

- 1) Changing the model name: the original one is GO 80, the current one is EXCLUSIVE Z10.
- 2) Changing the color and logo on product appearance, and also the product size. The original one is black with logo "NIU", the current one is black body and silver keyboard with logo "yezz".
- 3) Changing the GSM antenna shape and size.
- 4) Changing the adapter and battery label.

For the changes above, we just performed the item "Radiated Emissions", and the other test items can be referred to the original report RSZ140103002-00B with FCC ID: A4JGO80 granted on 2014-02-03.

### Related Submittal(s)/Grant(s)

Part 22H&24E PCE and Part 15B JBP submissions with FCC ID: A4JGO80

## Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2009, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

All emissions measurement was performed at Bay Area Compliance Laboratories Corp. (Shenzhen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Measurement uncertainty with radiated emission is 5.91 dB for 30MHz-1GHz, and 4.92 dB for above 1GHz, 1.95dB for conducted measurement.

## Test Facility

The test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 6/F, the 3<sup>rd</sup> Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone Shenzhen, Guangdong, China.

Test site at Bay Area Compliance Laboratories Corp. (Shenzhen) has been fully described in reports submitted to the Federal Communication Commission (FCC). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on December 06, 2010. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2009.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 382179. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

**SUMMARY OF TEST RESULTS**

FCC Rules	Description of Test	Result
§15.247 (i), §2.1093	RF Exposure	Compliance
§15.203	Antenna Requirement	Compliance*
§15.207(a)	AC Line Conducted Emissions	Compliance*
§15.205, §15.209 & §15.247(d)	Radiated Emissions	Compliance
§15.247(a)(1)	20 dB Emission Bandwidth	Compliance*
§15.247(a)(1)	Channel Separation Test	Compliance*
§15.247(a)(1)(iii)	Time of Occupancy (Dwell Time)	Compliance*
§15.247(a)(1)(iii)	Quantity of hopping channel Test	Compliance*
§15.247(b)(1)	Peak Output Power Measurement	Compliance*
§15.247(d)	Band edges	Compliance*

Compliance\*: The test data were referred to the original test report RSZ140103002-00B with FCC ID: A4JGO80, which was granted on 2014-02-03.

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**FCC §15.247 (i) & §2.1093 – RF EXPOSURE**

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**Applicable Standard**

According to FCC §2.1093 and §1.1307(b) (1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

According to KDB 447498 D01 General RF Exposure Guidance

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot$

$[\sqrt{f(\text{GHz})}] \leq 3.0$  for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR, where

1.  $f(\text{GHz})$  is the RF channel transmit frequency in GHz.

2. Power and distance are rounded to the nearest mW and mm before calculation.

3. The result is rounded to one decimal place for comparison.

4. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test Exclusion.

The max power:  $-3.30\text{dBm}=0.47\text{mW}$   
 $(0.47/5) \cdot \sqrt{2.402}=0.15 < 3.0$

**Result: Compliance**

## **FCC §15.205, §15.209 & §15.247(d) – RADIATED EMISSIONS**

### **Applicable Standard**

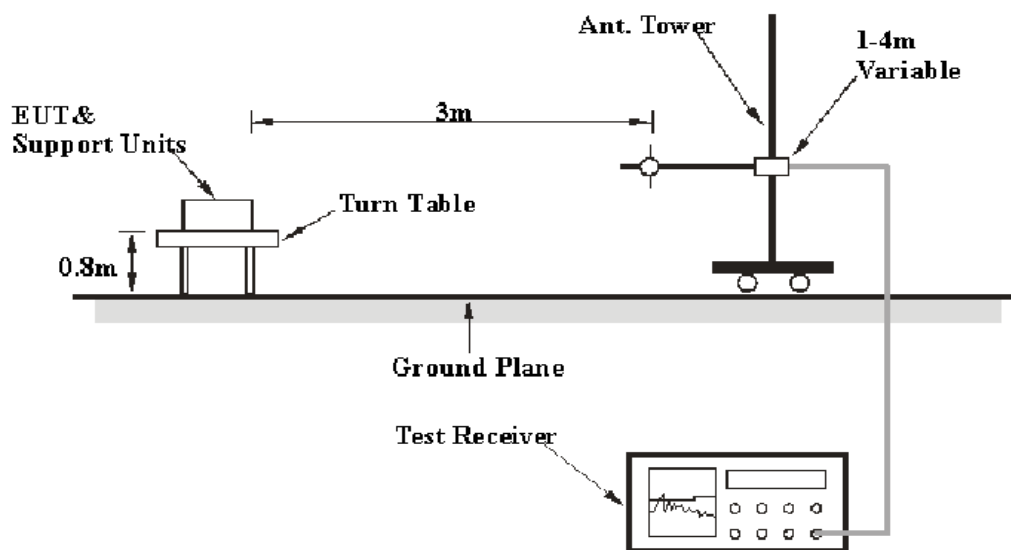
FCC §15.205; §15.209; §15.247(d)

### **Measurement Uncertainty**

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Based on CISPR 16-4-2:2011, the expanded combined standard uncertainty of radiation emissions at Bay Area Compliance Laboratories Corp. (Shenzhen) is 5.91 dB for 30MHz-1GHz, and 4.92 dB for above 1GHz. And this uncertainty will not be taken into consideration for the test data recorded in the report.

### **EUT Setup**



The radiated emission tests were performed in the 3 meters, using the setup accordance with the ANSI C63.4-2009. The specification used was the FCC 15.209 and FCC 15.247 limits.

## EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 25 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Detector
30 MHz – 1000 MHz	100 kHz	300 kHz	120 kHz	QP
Above 1 GHz	1 MHz	3 MHz	/	PK
	1 MHz	10 Hz	/	Ave.

## Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

Data was recorded in Quasi-peak detection mode for frequency range of 30 MHz -1 GHz and peak and Average detection modes for frequencies above 1 GHz.

## Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

$$\text{Corrected Amplitude} = \text{Meter Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Corrected Amplitude}$$

## Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
HP	Amplifier	8447E	1937A01046	2013-09-30	2014-09-30
Rohde & Schwarz	EMI Test Receiver	ESCI	101122	2013-09-17	2014-09-17
Sunol Sciences	Broadband Antenna	JB1	A040904-2	2011-11-28	2014-11-27
Mini	Amplifier	ZVA-183-S+	5969001149	2013-04-03	2014-04-03
A.H. System	Horn Antenna	SAS-200/571	135	2012-02-11	2015-02-10
Rohde & Schwarz	Signal Analyzer	FSIQ26	8386001028	2013-11-12	2014-11-12
the electro-Mechanics Co.	Horn Antenna	3116	9510-2270	2013-10-14	2016-10-13
R&S	Auto test Software	EMC32	V9.10	--	--

\* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).



## Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Title 47, Part 15, Subpart C, section 15.205, 15.209 and 15.247.

**8.57 dB at 4882.0 MHz in the Vertical polarization**

Refer to CISPR16-4-2:2011 and CISPR 16-4-1:2009, the measured level is in compliance with the limit if

$$L_m + U_{(L_m)} \leq L_{\text{lim}} + U_{\text{cisp}}r$$

in BACL.,  $U_{(L_m)}$  is less than  $+ U_{\text{cisp}}r$ , if  $L_m$  is less than  $L_{\text{lim}}$ , it implies that the EUT complies with the limit.

## Test Data

### Environmental Conditions

Temperature:	16 °C
Relative Humidity:	56 %
ATM Pressure:	101.0 kPa

*The testing was performed by Candy Li on 2014-02-10.*

*EUT operation mode: Transmitting*

**30 MHz -25 GHz:** (Scan with GFSK,  $\pi/4$ -DQPSK, 8-DPSK, the worst case is BDR Mode (GFSK))

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBμV/m)	FCC Part 15.247/205/209	
	Reading (dBμV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBμV/m)	Margin (dB)
Low Channel (2402 MHz)									
2402.0	77.78	PK	352	2.1	H	6.13	83.91	/	/
2402.0	67.24	Ave.	352	2.1	H	6.13	73.37	/	/
2402.0	75.03	PK	23	2.0	V	6.13	81.16	/	/
2402.0	66.31	Ave.	23	2.0	V	6.13	72.44	/	/
2367.1	34.29	PK	170	2.5	V	6.13	40.42	74	33.58
2367.1	21.43	Ave.	170	2.5	V	6.13	27.56	54	26.44
2382.3	34.73	PK	40	1.3	H	6.13	40.86	74	33.14
2382.3	21.43	Ave.	40	1.3	H	6.13	27.56	54	26.44
2494.1	34.44	PK	26	2.3	H	7.21	41.65	74	32.35
2494.1	20.52	Ave.	26	2.3	H	7.21	27.73	54	26.27
4804.0	44.29	PK	20	1.1	V	12.44	56.73	74	17.27
4804.0	32.98	Ave.	20	1.1	V	12.44	45.42	54	8.58
7206.0	35.46	PK	98	1.2	V	17.06	52.52	74	21.48
7206.0	20.27	Ave.	98	1.2	V	17.06	37.33	54	16.67
9608.0	34.53	PK	94	2.4	V	19.28	53.81	74	20.19
9608.0	19.28	Ave.	94	2.4	V	19.28	38.56	54	15.44
Middle Channel (2441 MHz)									
2441.0	79.20	PK	261	1.7	H	7.21	86.41	/	/
2441.0	68.71	Ave.	261	1.7	H	7.21	75.92	/	/
2441.0	78.93	PK	34	2.0	V	7.21	86.14	/	/
2441.0	67.45	Ave.	34	2.0	V	7.21	74.66	/	/
2367.3	35.43	PK	189	1.8	H	6.13	41.56	74	32.44
2367.3	22.90	Ave.	189	1.8	H	6.13	29.03	54	24.97
2485.1	36.50	PK	276	1.2	H	7.21	43.71	74	30.29
2485.1	23.05	Ave.	276	1.2	H	7.21	30.26	54	23.74
2491.7	36.24	PK	341	2.4	V	7.21	43.45	74	30.55
2491.7	20.92	Ave.	341	2.4	V	7.21	28.13	54	25.87
4882.0	44.77	PK	186	1.9	V	12.4	57.17	74	16.83
4882.0	33.01	Ave.	186	1.9	V	12.4	45.43	54	8.57
7323.0	36.05	PK	221	2.0	H	16.49	52.54	74	21.46
7323.0	20.36	Ave.	221	2.0	H	16.49	36.85	54	17.15
9764.0	34.68	PK	39	2.3	V	19.4	54.08	74	19.92
9764.0	19.76	Ave.	39	2.3	V	19.4	39.16	54	14.84

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBμV/m)	FCC Part 15.247/205/209	
	Reading (dBμV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBμV/m)	Margin (dB)
High Channel (2480 MHz)									
2480.0	78.70	PK	19	1.4	H	7.21	85.91	/	/
2480.0	68.34	Ave.	19	1.4	H	7.21	75.55	/	/
2480.0	79.69	PK	24	1.4	V	7.21	86.90	/	/
2480.0	69.85	Ave.	24	1.4	V	7.21	77.06	/	/
2371.8	34.83	PK	245	1.3	V	6.13	40.96	74	33.04
2371.8	21.43	Ave.	245	1.3	V	6.13	27.56	54	26.44
2483.6	39.06	PK	190	1.0	V	7.21	46.27	74	27.73
2483.6	23.41	Ave.	190	1.0	V	7.21	30.62	54	23.38
2491.6	35.23	PK	265	2.2	H	7.21	42.44	74	31.56
2491.6	20.17	Ave.	265	2.2	H	7.21	27.38	54	26.62
4960.0	41.45	PK	203	2.2	V	12.5	53.95	74	20.05
4960.0	30.16	Ave.	203	2.2	V	12.5	42.66	54	11.34
7440.0	35.72	PK	271	1.1	V	15.9	51.62	74	22.38
7440.0	20.58	Ave.	271	1.1	V	15.9	36.48	54	17.52
9920.0	34.70	PK	26	2.0	H	19.39	54.09	74	19.91
9920.0	20.17	Ave.	26	2.0	H	19.39	39.56	54	14.44

Note:

Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor

Corrected Amplitude = Corrected Factor + Reading

Margin = Limit - Corrected. Amplitude

For below 1GHz, all spurious emissions are 20 dB below the limit or are on the system noise floor level.

\*\*\*\*\* END OF REPORT \*\*\*\*\*