



RF TEST REPORT

Applicant Mobiwire SAS

FCC ID QPN-ONEIDA

Product 4G Smart Feature Phone

Brand MobiWire

Model MobiWire Oneida, MobiWire Oneida
Lite, MBW Vodacom Vibe 4G

Report No. R1912A0712-R5V1

Issue Date January 8, 2020

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 15C (2018)**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

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Summary of measurement results

Number	Test Case	Clause in FCC rules	Verdict
1	Maximum conducted output power	15.247(b)(3)	PASS
2	6 dB bandwidth	15.247(a)(2)	Refer to the Original
3	Power spectral density	15.247(e)	Refer to the Original
4	Band Edge	15.247(d)	Refer to the Original
5	Spurious RF Conducted Emissions	15.247(d)	Refer to the Original
6	Unwanted Emissions	15.247(d), 15.205, 15.209	Refer to the Original
7	Conducted Emissions	15.207	Refer to the Original
Date of Testing: December 18, 2019~ January 8, 2020			
Note: All indications of Pass/Fail in this report are opinions expressed by TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.			

Note: This revised report (Report No.: R1912A0712-R5V1) supersedes and replaces the previously issued report (Report No.: R1912A0712-R5). Please discard or destroy the previously issued report and dispose of it accordingly.

MobiWire Oneida, MobiWire Oneida Lite, MBW Vodacom Vibe 4G (Report No.: R1912A0712-R5V1) is a variant model of MobiWire Oneida (Report No.: I18D00205-SRD02/ I18D00205-SRD 03). Test values partial duplicated from Original for variant. There is only tested RF power output for variant in this report. The detailed product change description please refers to the GM2809D Oneida Product Change Description 20191205.

1. Test Laboratory

1.1. Notes of the test report

This report shall not be reproduced in full or partial, without the written approval of **TA technology (shanghai) co., Ltd.** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support regulatory compliance of the applicable standards stated above.

1.2. Testing Location

Company: TA Technology (Shanghai) Co., Ltd.
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2. General Description of Equipment under Test

2.1. Applicant and Manufacturer Information

Applicant	Mobiwire SAS
Applicant address	79 avenue Francois Arago, 92000 NANTERRE France
Manufacturer	Mobiwire SAS
Manufacturer address	79 avenue Francois Arago, 92000 NANTERRE France

2.2. General information

EUT Description	
Model	MobiWire Oneida, MobiWire Oneida Lite, MBW Vodacom Vibe 4G
IMEI	IMEI 1:352718110002129 IMEI 2:352718110002137
Hardware Version	V04C
Software Version	V01
Power Supply	Battery/AC adapter
Antenna Type	Internal Antenna
Antenna Connector	A permanently attached antenna (meet with the standard FCC Part 15.203 requirement)
Antenna Gain	1.00 dBi
additional beamforming gain	NA
Test Mode	Bluetooth V4.2 LE 802.11b 802.11g, 802.11n(HT20/HT40);
Modulation Type	BLE :GFSK 802.11b: DSSS; 802.11g/n(HT20/HT40): OFDM
Max. Conducted Power	Wi-Fi 2.4G :14.52dBm BLE : 3.61dBm
Operating Frequency Range(s)	802.11b/g/n(HT20): 2412 ~ 2462 MHz 802.11n(HT40): 2422 ~ 2452 MHz BLE: 2402 ~2480 MHz
EUT Accessory	
Adapter	Manufacturer: DongGuan Aohai Power Technology Co.,Ltd Model: A31A-050055U-US1
Battery	Manufacturer: NINGBO VEKEN BATTERY CO.,LTD

	Model: 178150977
Earphone 1	Manufacturer: jiu jiang JUWEI ELECTRONICS CO.,LTD Model: JWEP1062-M01R 1.0m, Shielded
Earphone 2	Manufacturer: jiu jiang JUWEI ELECTRONICS CO.,LTD Model: JWEP0944-M01R 1.0m, Shielded
Note: The information of the EUT is declared by the manufacturer.	

Item	Configure 1	Configure 2	Configure 3	Configure 4
Software	the same	the same	the same	the same
Hardware	the same	the same	the same	the same
Frequency band	the same	the same	the same	the same
camera	with camera	with camera	without camera	without camera
SIM card slot	2*SIM card	2*SIM card	1*SIM card	1*SIM card
LCD	HLT LCD	SL LCD	HLT LCD	SL LCD
Other	The same	The same	The same	The same
Note: Customer declaration, Four configurations is the same, except for camera, LCD and SIM card slot. There are more than one Configure, each one should be applied throughout the compliance test respectively, however, only the worst case (Configure 2) will be recorded in this report.				

3. Applied Standards

According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

Test standards:

FCC CFR47 Part 15C (2018) Radio Frequency Devices

ANSI C63.10 (2013)

Reference standard:

KDB 558074 D01 15.247 Meas Guidance v05r02

4. Test Configuration

Test Mode

The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

In order to find the worst case condition, Pre-tests are needed at the presence of different data rate. Preliminary tests have been done on all the configuration for confirming worst case. Data rate below means worst-case rate of each test item.

Worst-case data rates are shown as following table.

Band	Data Rate
Bluetooth(Low Energy)	1Mbps
802.11b	1 Mbps
802.11g	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0

5. Test Case Results

5.1. Maximum output power

Ambient condition

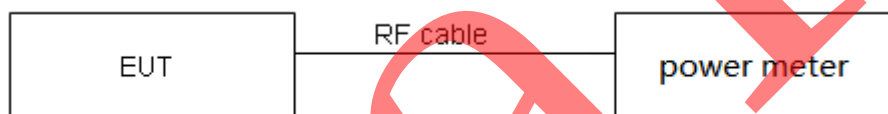
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Methods of Measurement

During the process of the testing, The EUT was connected to Average Power meter with a known loss. The EUT is max power transmission with proper modulation. The signal transmission is continuous.

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Test Setup



Limits

Rule Part 15.247 (b) (3) specifies that " For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz: 1 Watt."

Average Output Power	$\leq 1W$ (30dBm)
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Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U = 0.44$ dB.

Test Results

Power Index			
Packet Type	CH1	CH6	CH11
802.11b	19	19	19
802.11g	16	16	16
802.11n HT20	16	16	16
Packet Type	CH3	CH6	CH9
802.11n HT40	14	14	14

Network Standards	Carrier frequency (MHz)	Peak Power Measured (dBm)	Limit (dBm)	Conclusion
802.11b	2412	14.41	30	PASS
	2437	14.52	30	PASS
	2462	14.33	30	PASS
802.11g	2412	10.86	30	PASS
	2437	12.04	30	PASS
	2462	12.44	30	PASS
802.11n HT20	2412	11.12	30	PASS
	2437	12.37	30	PASS
	2462	12.18	30	PASS
802.11n HT40	2422	8.45	30	PASS
	2437	6.79	30	PASS
	2452	6.78	30	PASS
Bluetooth (Low Energy)	2402	2.45	30	PASS
	2440	3.61	30	PASS
	2480	2.49	30	PASS

6. Main Test Instruments

Name	Manufacturer	Type	Serial Number	Calibration Date	Expiration Date
Spectrum Analyzer	R&S	FSV30	100815	2019-12-15	2020-12-14
EMI Test Receiver	R&S	ESCI	100948	2019-05-19	2020-05-18
Loop Antenna	SCHWARZBECK	FMZB1519	1519-047	2017-09-26	2020-09-25
TRILOG Broadband Antenna	Schwarzbeck	VULB 9163	9163-201	2017-11-18	2020-11-17
Double Ridged Waveguide Horn Antenna	R&S	HF907	100126	2018-07-07	2020-07-06
Standard Gain Horn	ETS-Lindgren	3160-09	00102643	2018-06-20	2020-06-19
EMI Test Receiver	R&S	ESR	101667	2019-05-19	2020-05-18
LISN	R&S	ENV216	101171	2018-12-15	2021-12-14
Spectrum Analyzer	Agilent	N9010A	MY47191109	2019-05-19	2020-05-18
Power Meter	R&S	NRP	104306	2019-05-19	2020-05-18
Power Sensor	R&S	NRP-Z21	104799	2019-05-19	2020-05-18
20dB Attenuator	Star River Highlight	UCL-TS2S-20	18013001	2019-12-15	2020-12-14
RF Cable	Agilent	SMA 15cm	0001	2019-12-13	2020-06-12
Software	R&S	EMC32	9.26.0	/	/

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