
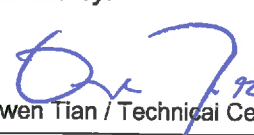


Prüfbericht-Nr.: <i>Test report No.:</i>	50057770 001	Auftrags-Nr.: <i>Order No.:</i>	164072339	Seite 1 von 16 <i>Page 1 of 16</i>
Kunden-Referenz-Nr.: <i>Client reference No.:</i>	N/A	Auftragsdatum: <i>Order date.:</i>	24.08.2016	
Auftraggeber: <i>Client:</i>	Lightcomm Technology Co., Ltd. RM 1808 18/F, FO TAN INDUSTRIAL CENTRE, NOS. 26-28 AU PUI WAN STREET, FO TAN SHATIN NEW TERRITORIES HONG KONG			
Prüfgegenstand: <i>Test item:</i>	Tablet PC			
Bezeichnung / Typ-Nr.: <i>Identification / Type No.:</i>	DL1028W (DIGILAND)			
Auftrags-Inhalt: <i>Order content:</i>	FCC approval			
Prüfgrundlage: <i>Test specification:</i>	CFR47 FCC Part 15: Subpart B Section 15.107 CFR47 FCC Part 15: Subpart B Section 15.109			
Wareneingangsdatum: <i>Date of receipt:</i>	29.08.2016	Refer to photo documents		
Prüfmuster-Nr.: <i>Test sample No.:</i>	A000415310-001			
Prüfzeitraum: <i>Testing period:</i>	31.08.2016 - 18.11.2016			
Ort der Prüfung: <i>Place of testing:</i>	Emtek (Shenzhen) Co., Ltd.			
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüfergebnis*: <i>Test result*:</i>	Pass			
geprüft von / tested by:		kontrolliert von / reviewed by:		
 28.11.2016 Andy Yan / Project Manager		 28.11.2016 Owen Tian / Technical Certifier		
Datum <i>Date</i>	Name/Stellung <i>Name/Position</i>	Unterschrift <i>Signature</i>	Datum <i>Date</i>	Name/Stellung <i>Name/Position</i>
				Unterschrift <i>Signature</i>
Sonstiges / Other:				
FCC ID: XMF-MID10261B				
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>		Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged:</i>		
* Legende: 1 = sehr gut 2 = gut 3 = befriedigend 4 = ausreichend 5 = mangelhaft P(ass) = entspricht o.g. Prüfgrundlage(n) F(all) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet Legend: 1 = very good 2 = good 3 = satisfactory 4 = sufficient 5 = poor P(ass) = passed a.m. test specifications(s) F(all) = failed a.m. test specifications(s) N/A = not applicable N/T = not tested				
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

Test Summary

5.1.1 CONDUCTED EMISSION

RESULT: Pass

5.1.2 RADIATED EMISSION

RESULT: Pass

Contents

1	GENERAL REMARKS	4
1.1	COMPLEMENTARY MATERIALS	4
2	TEST SITES	4
2.1	TEST FACILITIES	4
2.2	LIST OF TEST AND MEASUREMENT INSTRUMENTS.....	5
2.3	TRACEABILITY	6
2.4	CALIBRATION	6
2.5	MEASUREMENT UNCERTAINTY.....	6
2.6	LOCATION OF ORIGINAL DATA.....	6
2.7	STATUS OF FACILITY USED FOR TESTING.....	6
3	GENERAL PRODUCT INFORMATION	7
3.1	PRODUCT FUNCTION AND INTENDED USE.....	7
3.2	RATINGS AND SYSTEM DETAILS	7
3.3	INDEPENDENT OPERATION MODES	8
3.4	NOISE GENERATING AND NOISE SUPPRESSING PARTS.....	8
3.5	SUBMITTED DOCUMENTS.....	8
4	TEST SET-UP AND OPERATION MODES	9
4.1	PRINCIPLE OF CONFIGURATION SELECTION	9
4.2	TEST OPERATION AND TEST SOFTWARE.....	9
4.3	SPECIAL ACCESSORIES AND AUXILIARY EQUIPMENT.....	9
4.4	COUNTERMEASURES TO ACHIEVE EMC COMPLIANCE.....	9
4.5	TEST SETUP DIAGRAM.....	10
5	TEST RESULTS	12
5.1	TRANSMITTER REQUIREMENT & TEST SUITES	12
5.1.1	<i>Conducted Emission</i>	<i>12</i>
5.1.2	<i>Radiated Emission</i>	<i>13</i>
6	PHOTOGRAPHS OF THE TEST SET-UP	14
7	LIST OF TABLES.....	16
8	LIST OF PHOTOGRAPHS	16

1 General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:
Appendix A: Test Results of Radiated Emission and Conducted Emission for Part 15B

2 Test Sites

2.1 Test Facilities

Emtek (Shenzhen) Co., Ltd.

Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen Guangdong, China

FCC Registration No.: 406365

Test site Industry Canada No.: 4480A-2

The tests at the test sites have been conducted under the supervision of a TÜV engineer.

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Emtek (Shenzhen) Co., Ltd.

Conducted Emission				
Equipment	Manufacturer	Model No.	Serial No.	Cal. Until
Test Receiver	R&S	ESCI	26115-010-0027	17.05.2017
L.I.S.N.	R&S	ENV216	101161	17.05.2017
50Ω Coaxial Switch	Anritsu	MP59B	6100175589	17.05.2017
Voltage Probe	R&S	ESH2-Z3	100122	17.05.2017
Radiated Emission				
Equipment	Manufacturer	Model No.	Serial No.	Cal. Until
EMI Test Receiver	R&S	ESU	1302.6005.26	17.05.2017
Loop Antenna	Schwarzbeck	FMZB 1519	1519-012	17.05.2017
Pre-Amplifier	HP	8447F	2944A07999	17.05.2017
Bilog Antenna	Schwarzbeck	VULB9163	142	17.05.2017
Pre-Amplifier	A.H.	PAM-0126	1415261	17.05.2017
Horn Antenna	Schwarzbeck	BBHA 9120	707	17.05.2017
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170399	17.05.2017
Cable	N/A	3M SF104-26.5	295838/4	17.05.2017
Cable	N/A	6M SF104-26.5	295840/4	17.05.2017
Cable	Schwarzbeck	AK9513	ACRX1	17.05.2017
Cable	Rosenberger	N/A	FP2RX2	17.05.2017
Cable	Schwarzbeck	AK9513	CRPX1	17.05.2017
Cable	Schwarzbeck	AK9513	CRRX2	17.05.2017
Cable	H+B	0.5M SF104-26.5	289147/4	17.05.2017
Cable	H+B	3M SF104-26.5	295838/4	17.05.2017
Cable	H+B	6M SF104-26.5	295840/4	17.05.2017

2.3 Traceability

All measurement equipment calibrations are traceable to NIM (National Institute of Metrology) or where calibration is performed in other countries, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

2.5 Measurement Uncertainty

The estimated combined standard uncertainty for radiated emissions and conducted emissions measurements as below table

Item	Extended Uncertainty
Conducted Emission	± 2.96 dB
Radiated Emission(30MHz – 1GHz)	± 4.27 dB
Radiated Emission(1GHz – 18GHz)	± 4.96 dB
Temperature	± 0.5 °C
Humidity	± 3.0 %

2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix A of this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Shenzhen) file for certification follow-up purposes.

2.7 Status of Facility Used for Testing

The Emtek (Shenzhen) Co., Ltd. Test facility located at Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen Guangdong, China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

3 General Product Information

3.1 Product Function and Intended Use

The EUT is a 'Tablet PC' device. It supports Bluetooth 4.2 (Dual mode) and 2.4GHz Wi-Fi 802.11 b/g/n wireless technology. This report is only for JBC. Other functions are reported in the related reports.

For details refer to the User Manual, Technical Description and Circuit Diagram.

3.2 Ratings and System Details

Table 2: Technical Specification of EUT

Technical Specification	Value
Kind of Equipment	Tablet PC
Type Designation	DL1028W
Trade Mark	DIGILAND
FCC ID	XMF-MID1026IB
Operating Frequency	2400 - 2483.5 MHz
Operating Temperature Range	0 °C ~ +40 °C
Operating Voltage	DC 3.7V 6000mAh via internal rechargeable Li-Poly battery DC 5.0V 2.5A via AC/DC adapter for charging
Testing Voltage	Fully charged DC 3.7V internal rechargeable Li-Poly battery DC 5.0V 2.5A via AC/DC adapter with 120V/60Hz input
Adapter	Model: TEKA018-0502500UK Input: AC 100-240V ~ 50/60Hz 0.5A Max. Output: DC 5.0V ~ 2.5A
Highest internal source	Less than 1.3GHz

3.3 Independent Operation Modes

The basic operation modes are:

- A. Running with full system, (with Adapter+HDMI output+Keyboard)
- B. Running with full system, (with Adapter+HDMI output)
- C. Running with full system, (with HDMI output+Keyboard)
- D. Running with full system, (With HDMI output)
- E. Off

Note: Running with full system including USB Playing/TF Card playing/ Memory Playing with HDMI displaying, Camera Recording etc. Only the worst cases of TF Card playing + HDMI output were reported.

3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

3.5 Submitted Documents

- Application Form
- Block Diagram
- ID Label and Location Info
- User Manual
- Photo Document
- Photo Document
- Schematics
- Block Diagram

4 Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

Radio Spectrum: The equipment under test (EUT) was configured at its highest power output in order to measure its highest possible radiation and conducted level. The test modes were adapted accordingly in reference to the instructions for use.

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All testing were performed according to the procedures in ANSI C63.4: 2014.

According to clause 3.1, all tests were performed on model DL1028W in this report.

4.3 Special Accessories and Auxiliary Equipment

Table 3: List of Accessories and Auxiliary Equipment

Description	Manufacturer	Model	S/N	Rating
Shielded HDMI Cable	N/A	N/A	N/A	150cm
Monitor	Lenovo	N/A	8#	--
USB Disk	Kingston	DTM30R	--	32GB
TF Card	SanDisk	--	--	16GB
AC Adapter	TEKA	TEKA018-0502500UK	--	Input: AC 100-240V ~ 50/60Hz 0.5A Max. Output: DC 5.0V ~ 2.5A

4.4 Countermeasures to Achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Technical Construction File (TCF).

No additional measures were employed to achieve compliance.

4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

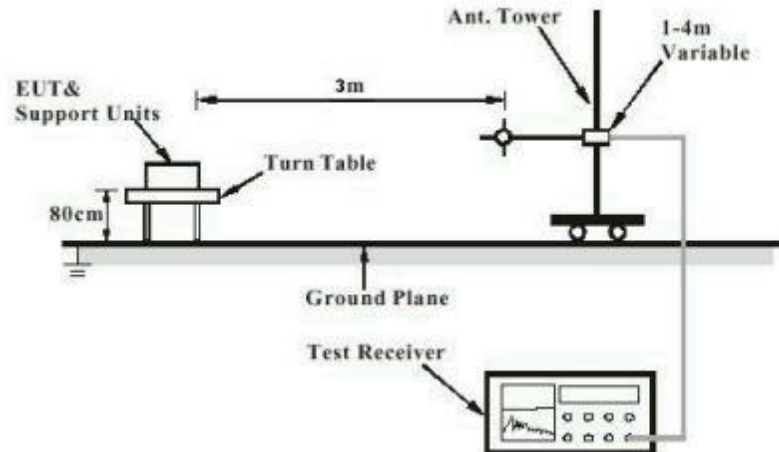


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

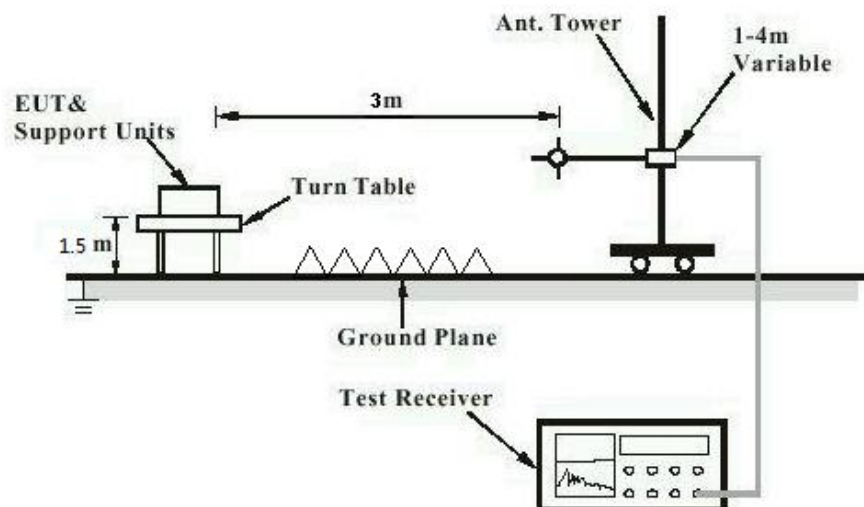
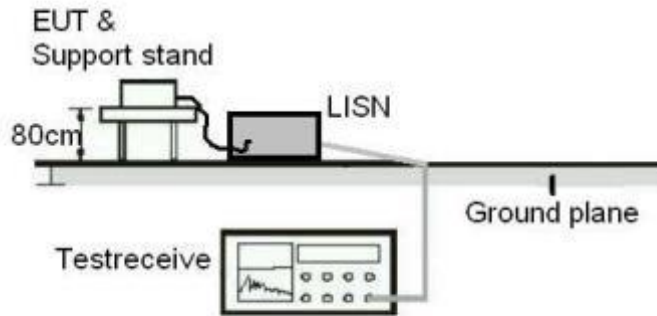


Diagram of Measurement Configuration for Mains Conduction Measurement



5 Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Conducted Emission

RESULT:

Pass

Test Specification

Test standard	:	FCC Part 15.107(a)
Basic standard	:	ANSI C63.4: 2014
Frequency range	:	0.15 – 30MHz
Limits	:	FCC Part 15.107(a)
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	01.09.2016
Operation mode	:	A, B
Earthing	:	Not connected
Ambient temperature	:	22 °C
Relative humidity	:	55 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the Appendix A.

5.1.2 Radiated Emission

RESULT:**Pass****Test Specification**

Test standard	: FCC Part 15.109(a)
Basic standard	: ANSI C63.4: 2014
Frequency range	: 30 - 6000MHz
Classification	: Class B
Limits	: FCC Part 15.109(a)
Kind of test site	: 3m Semi-anechoic Chamber

Test Setup

Date of testing	: 31.08.2016 - 18.11.2016
Operation mode	: A, B, C, D
Earthing	: Not connected
Ambient temperature	: 24 °C
Relative humidity	: 53 %
Atmospheric pressure	: 101 kPa

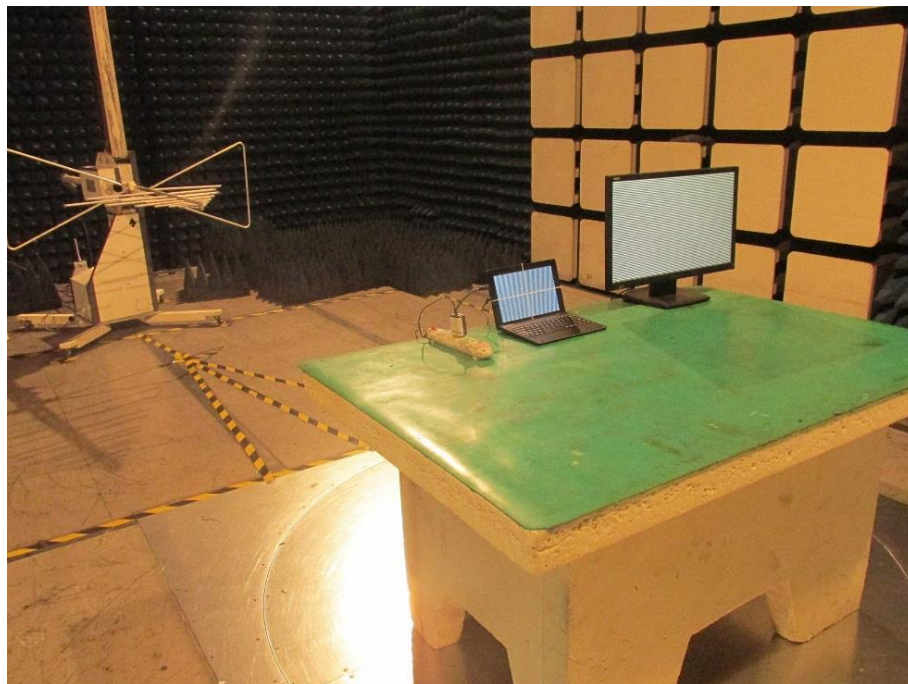
For the measurement records, refer to the Appendix A.

6 Photographs of the Test Set-Up

Photograph 1: Set-up for Conducted Emission



Photograph 2: Set-up for Radiated Emission (30MHz ~ 1GHz)



Photograph 3: Set-up for Radiated Emission (above 1GHz)



7 List of Tables

Table 1: List of Test and Measurement Equipment.....	5
Table 2: Technical Specification of EUT	7
Table 3: List of Accessories and Auxiliary Equipment.....	9

8 List of Photographs

Photograph 1: Set-up for Conducted Emission	14
Photograph 2: Set-up for Radiated Emission (30MHz ~ 1GHz)	14
Photograph 3: Set-up for Radiated Emission (above 1GHz)	15