

FCC Test Report FCC ID:2AHHH-GP70020

Product: Android POS

Trade Name: Pintron

Model Number: GP7002

Serial Model: N/A

Report No.: NTEK-2015NT12113414F1

Prepared for

Pintron Company Limited

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Prepared by

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TEST RESULT CERTIFICATION

Applicant's name	Pintron Comp	any Limited				
Address	RM 1302, 13/F, Building A3, LeeLang Software Park, No.31,Rd BuLan,LongGang District,City ShenZhen,518112,P.R. C.					
Manufacturer's Name	Pintron Company Limited					
Address	RM 1302, 13/F, Building A3, LeeLang Software Park, No.31,Rd. BuLan,LongGang District,City ShenZhen,518112,P.R. C.					
Product description						
Product name	Android POS					
Model and/or type reference	GP7002					
Standards	FCC Part15B ANSI C63.4:2	:01 Oct.2015 :014				
	is in complian	ted by NTEK, and the test results show that the ce with Part 15 of FCC Rules. And it is applicable only to				
This report shall not be repre	oduced except	t in full, without the written approval of NTEK, this				
document may be altered or	revised by NT	EK, personnel only, and shall be noted in the revision of				
the document.						
Date of Test						
Date (s) of performance of te	sts 11	Dec. 2015 ~28 Jan. 2016				
Date of Issue	28	Jan. 2016				
Test Result	Pa	ss				
Testing En	gineer :	Eileen Wu. (Eileen Liu)				
Technical I	Manager :	(Brown Lu)				

Authorized Signatory:

Sam . Chew

(Sam Chen)



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1. TEST SUMMARY

Test procedures according to the technical standards:

EMC Emission							
Standard	Test Item	Limit	Judgment	Remark			
FCC Part15B:2014 ANSI C63.4: 2014	Conducted Emission	Class B	PASS				
	Radiated Emission	Class B	PASS				

NOTE:

- (1) 'N/A' denotes test is not applicable in this Test Report
- (2) For client's request and manual description, the test will not be executed.



1.1 TEST FACILITY

NTEK Testing Technology Co., Ltd

Add.: 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao'an District, Shenzhen P.R. China.

FCC Registration Number:238937; IC Registration Number:9270A-1

CNAS Registration Number:L5516

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $\mathbf{y} \pm \mathbf{U}$, where expended uncertainty \mathbf{U} is based on a standard uncertainty multiplied by a coverage factor of $\mathbf{k=2}$, providing a level of confidence of approximately 95 %.

A. Conducted Measurement:

Test Site	Method	Measurement Frequency Range	U , (dB)	NOTE
NTEKC01	ANSI	150 KHz ~ 30MHz	3.2	

B. Radiated Measurement:

Test Site	Method	Measurement Frequency Range	U , (dB)	NOTE
NTEKA01	ANSI	30MHz ~ 1000MHz	4.7	
		1GHz ~12.4GHz	5.0	



2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment						
Model Name GP7002	Equipment	Android POS				
Serial Model N/A	Trade Name	Pintron				
Model Difference	Model Name	GP7002				
The EUT is a Android POS.	Serial Model	N/A				
Connecting I/O port: USB, DC in	Model Difference	N/A				
Operation Frequency: WiFi:802.11b/g/n(20MHz): 2412~2462MHz						
Product Description			USB, DC in			
Product Description		Operation Frequency:	WIFI:802.11b/g/n(20MHz): 2412~2462MHz			
Product Description			802.11n(40MHz):2422~2452MHz			
Product Description 1852.4-1907.6MHz			GSM: 824.2-848.8MHz/1850.2-1909.8MHz			
1852.4-1907.6MHz	Product Description		WCDMA: 826.4-846.6MHz/			
DSSS (CCK, QPSK, DBPSK) IEEE 802.11g/n (HT20/HT40) : OFDM (64QAM, 16QAM, QPSK, BPSK) GSM / DCS: GMSK WCDMA:QPSK Power Source DC Voltage Model:YN36W-0900300UW Input: AC100-240V~, 50/60Hz,1.0A Output: 9V, 3A	1 Todact Description		1852.4-1907.6MHz			
Adapter Model:YN36W-0900300UW Input: AC100-240V~, 50/60Hz,1.0A Output: 9V ====, 3A		Modulation Type:	DSSS (CCK, QPSK, DBPSK) IEEE 802.11g/n (HT20/HT40) : OFDM (64QAM, 16QAM, QPSK, BPSK) GSM / DCS: GMSK			
Adapter Model:YN36W-0900300UW Input: AC100-240V~, 50/60Hz,1.0A Output: 9V ====, 3A	D					
Adapter Input: AC100-240V~, 50/60Hz,1.0A Output: 9V ====, 3A	Power Source	<u> </u>				
Battery DC 7.4V.4000mAh	Adapter	Input: AC100-240V~, 50/60Hz,1.0A				
20.11.1, 1000.11.11.1	Battery	DC 7.4V,4000mAh				



2.1.1 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

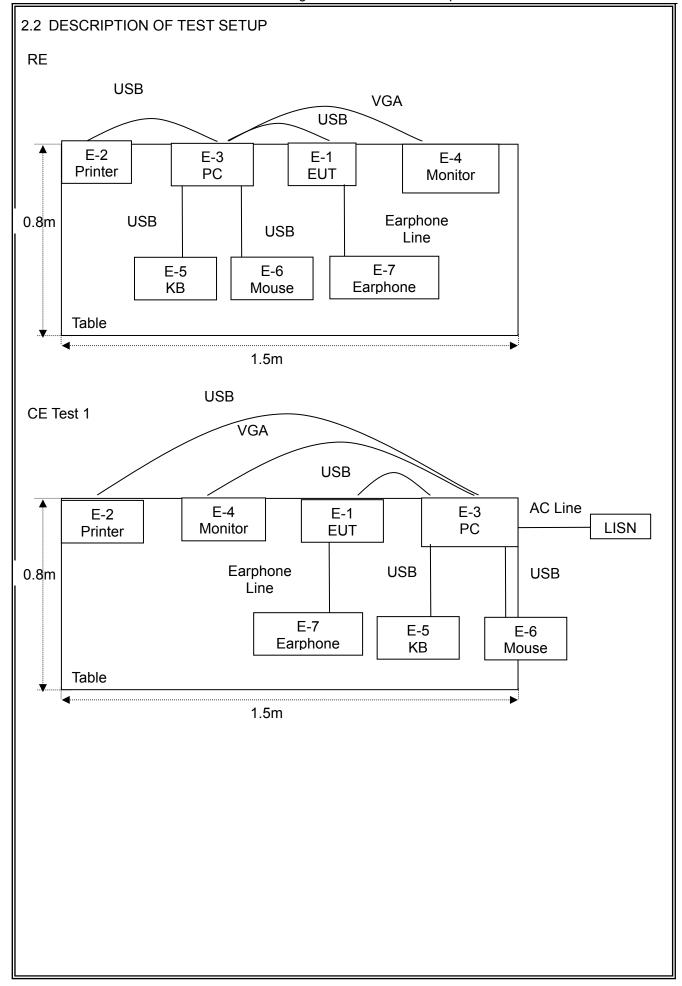
Pretest Mode	Description
Mode 1	Downloading Mode

For Conducted Test				
Final Test Mode Description				
Mode 1	Downloading Mode			

For Radiated Test				
Final Test Mode Description				
Mode 1	Downloading Mode			

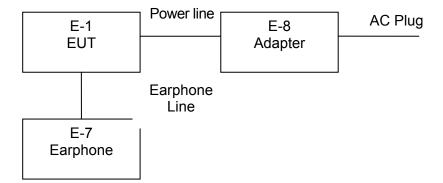
Note: Final Test Mode: Through Pre-scan, find the mode 1 is the worst case. Only the worst case mode is recorded in the report.







CE Test 2





2.3 DESCRIPTION TEST PERIPHERAL AND EUT PERIPHERAL

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Brand	Model/Type No.	Series No.	Note
E-1	Android POS	Pintron	GP7002	N/A	EUT
E-2	Printer	Canon	L11121E	LBP2900	
E-3	Personal computer	DELL	FT4Y23X	34413561645	
E-4	Monitor	DELL	IN2020MB	cn-0y6mhx-74261-11f- 67es	
E-5	Keyboard	DELL	SK-8185	OY526KUS	
E-6	Mouse	DELL	MS111-P	cn-011d3v-71581-11e- 1th7	
E-7	Earphone	N/A	2688	N/A	
E-8	Adapter	N/A	YN36W-0900300UW	N/A	

Item	Shielded Type	Ferrite Core	Length	Note
USB	NO	NO	1.2m	
USB	NO	NO	1.0m	
USB	NO	NO	1.0m	
USB	NO	NO	1.0m	
VGA	NO	NO	1.0m	
Earphone Line	NO	NO	1.0m	
Power line	NO	YES	1.2m	

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in <code>"Length_"</code> column.
- (3) "YES" means "shielded" "with core"; "NO" means "unshielded" "without core".



2.4 MEASUREMENT INSTRUMENTS LIST

Radiation Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibratio n period
1	Spectrum Analyzer	Agilent	E4407B	MY4510804 0	2015.07.06	2016.07.05	1 year
2	Test Receiver	R&S	ESPI	101318	2015.06.07	2016.06.06	1 year
3	Bilog Antenna	TESEQ	CBL6111D	31216	2015.07.06	2016.07.05	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	620026441 6	2015.06.07	2016.06.06	1 year
5	Spectrum Analyzer	ADVANTEST	R3132	150900201	2015.06.07	2016.06.06	1 year
6	Horn Antenna	EM	EM-AH-101 80	2011071402	2015.07.06	2016.07.05	1 year
7	Horn Ant	Schwarzbeck	BBHA 9170	9170-181	2015.07.06	2016.07.05	1 year
8	Amplifier	EM	EM-30180	060538	2015.12.22	2016.12.21	1 year
9	Loop Antenna	ARA	PLA-1030/B	1029	2015.06.08	2016.06.07	1 year
10	Power Meter	R&S	NRVS	100696	2015.07.06	2016.07.05	1 year
11	Power Sensor	R&S	URV5-Z4	0395.1619. 05	2015.07.06	2016.07.05	1 year
12	Test Cable	N/A	R-01	N/A	2015.07.06	2016.07.05	1 year
13	Test Cable	N/A	R-02	N/A	2015.07.06	2016.07.05	1 year

Conduction Test equipment

Item	Kind of Equipment	Manufactu rer	Type No.	Serial No.	Last calibration	Calibrated until	Calibratio n period
1	Test Receiver	R&S	ESCI	101160	2015.06.06	2016.06.05	1 year
2	LISN	R&S	ENV216	101313	2015.08.24	2016.08.23	1 year
3	LISN	EMCO	3816/2	00042990	2015.08.24	2016.08.23	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	620026441 7	2015.06.07	2016.06.06	1 year
5	Passive Voltage Probe	R&S	ESH2-Z3	100196	2015.06.07	2016.06.06	1 year
6	Absorbing clamp	R&S	MOS-21	100423	2015.06.08	2016.06.07	1 year
7	Test Cable	N/A	C01	N/A	2015.06.08	2016.06.07	1 year
8	Test Cable	N/A	C02	N/A	2015.06.08	2016.06.07	1 year
9	Test Cable	N/A	C03	N/A	2015.06.08	2016.06.07	1 year



3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)		
FREQUENCT (MHZ)	Quasi-peak	Average	Quasi-peak	Average	
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *	
0.50 -5.0	73.00	60.00	56.00	46.00	
5.0 -30.0	73.00	60.00	60.00	50.00	

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz



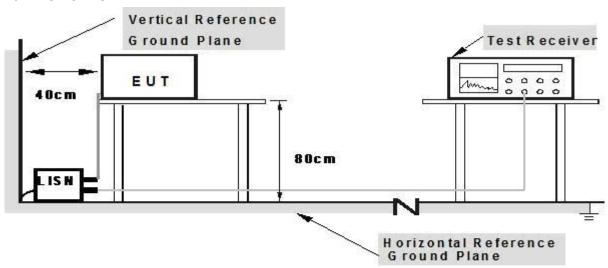
3.1.2 TEST PROCEDURE

a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.

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- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 TEST SETUP



Note: 1.Support units were connected to second LISM.

2.Both of LISMs (AMM) are 80 cm from EUT and at least 80 from other units and other metal planes

3.1.4 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of **2.3** Unless otherwise a special operating condition is specified in the follows during the testing.

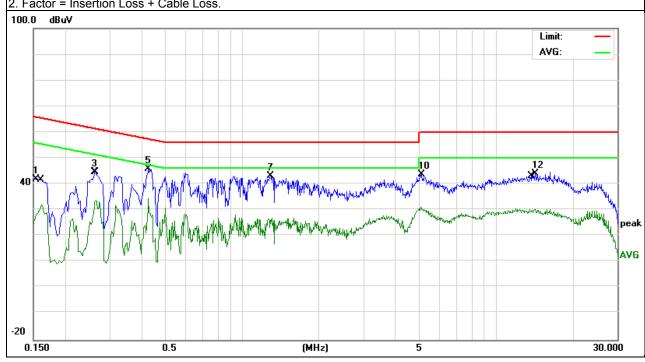


3.1.5 TEST RESULTS

EUT:	Android POS	Model Name. :	GP7002				
Temperature :	26 ℃	Relative Humidity:	54%				
Pressure:	1010hPa	Test Date :	2016-01-26				
Test Mode:	Mode 1	Phase :	L				
Test Voltage :	DC 5V From PC AC 120V/60H:	DC 5V From PC AC 120V/60Hz					

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.1539	31.72	10.12	41.84	65.78	-23.94	QP
0.1620	21.98	10.12	32.10	55.36	-23.26	AVG
0.2620	34.58	10.14	44.72	61.36	-16.64	QP
0.2660	23.55	10.14	33.69	51.24	-17.55	AVG
0.4259	36.01	9.98	45.99	57.33	-11.34	QP
0.4259	24.55	9.98	34.53	47.33	-12.80	AVG
1.2900	33.37	9.82	43.19	56.00	-12.81	QP
1.3060	17.28	9.81	27.09	46.00	-18.91	AVG
5.0377	21.24	9.76	31.00	50.00	-19.00	QP
5.1059	34.01	9.76	43.77	60.00	-16.23	AVG
13.5899	20.50	9.84	30.34	50.00	-19.66	QP
14.2779	34.24	9.85	44.09	60.00	-15.91	AVG

- 1. All readings are Quasi-Peak and Average values.
- 2. Factor = Insertion Loss + Cable Loss.



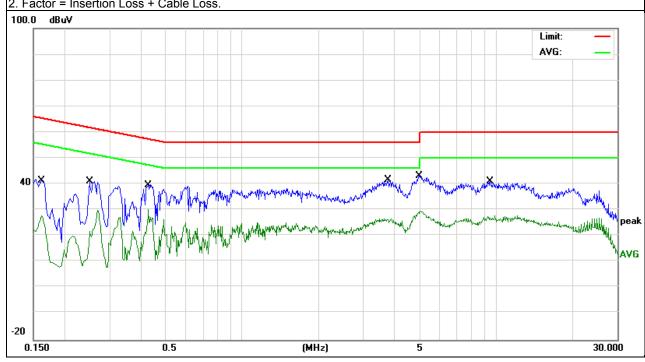


EUT: Model Name. : GP7002 Android POS Temperature: Relative Humidity: 54% 26 ℃ Pressure: 1010hPa Test Date: 2016-01-26 Test Mode: Mode 1 Phase: Test Voltage : DC 5V From PC AC 120V/60Hz

Report No.: NTEK-2015NT12113414F1

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Domark
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.1620	31.31	10.07	41.38	65.36	-23.98	QP
0.1620	17.78	10.07	27.85	55.36	-27.51	AVG
0.2500	31.10	10.08	41.18	61.75	-20.57	QP
0.2500	19.79	10.08	29.87	51.75	-21.88	AVG
0.4259	29.83	9.99	39.82	57.33	-17.51	QP
0.4259	20.37	9.99	30.36	47.33	-16.97	AVG
3.7580	32.08	9.72	41.80	56.00	-14.20	QP
3.7580	16.95	9.72	26.67	46.00	-19.33	AVG
4.9739	33.41	9.73	43.14	56.00	-12.86	QP
4.9739	19.79	9.73	29.52	46.00	-16.48	AVG
9.4899	31.28	9.76	41.04	60.00	-18.96	QP
9.4899	18.18	9.76	27.94	50.00	-22.06	AVG

- 1. All readings are Quasi-Peak and Average values.
- 2. Factor = Insertion Loss + Cable Loss.



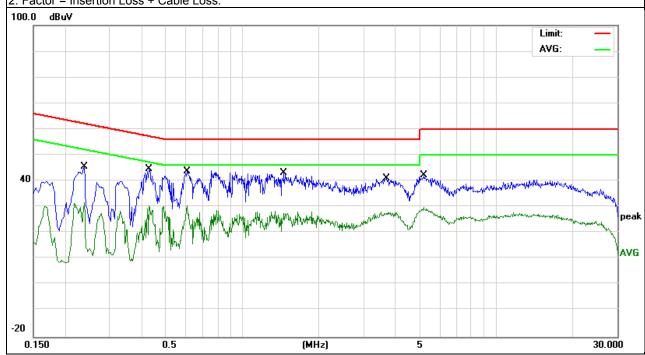


EUT: Model Name. : GP7002 Android POS Temperature: Relative Humidity: 54% 26 ℃ Pressure: 1010hPa Test Date: 2016-01-26 Test Mode: Mode 1 Phase: Test Voltage : DC 5V From PC AC 240V/60Hz

Report No.: NTEK-2015NT12113414F1

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Domark
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.2379	35.44	10.13	45.57	62.17	-16.60	QP
0.2379	21.65	10.13	31.78	52.17	-20.39	AVG
0.4299	34.59	9.97	44.56	57.25	-12.69	QP
0.4299	20.50	9.97	30.47	47.25	-16.78	AVG
0.6059	33.95	9.79	43.74	56.00	-12.26	QP
0.6059	20.87	9.79	30.66	46.00	-15.34	AVG
1.4578	33.42	9.79	43.21	56.00	-12.79	QP
1.4578	18.49	9.79	28.28	46.00	-17.72	AVG
3.7099	31.21	9.75	40.96	56.00	-15.04	QP
3.7099	18.33	9.75	28.08	46.00	-17.92	AVG
5.2099	32.54	9.76	42.30	60.00	-17.70	QP
5.2099	20.17	9.76	29.93	50.00	-20.07	AVG

- 1. All readings are Quasi-Peak and Average values.
- 2. Factor = Insertion Loss + Cable Loss.



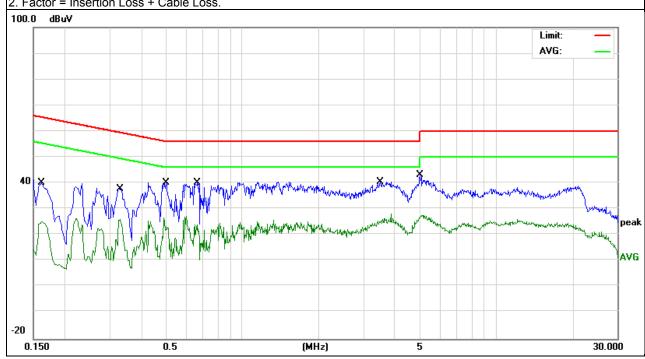


EUT: GP7002 Model Name. : Android POS Temperature: Relative Humidity: 54% 26 ℃ Pressure: 1010hPa Test Date: 2016-01-26 Test Mode: Mode 1 Phase: Ν Test Voltage : DC 5V From PC AC 240V/60Hz

Report No.: NTEK-2015NT12113414F1

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.1620	31.13	10.07	41.20	65.36	-24.16	QP
0.1620	15.02	10.07	25.09	55.36	-30.27	AVG
0.3300	27.60	10.11	37.71	59.45	-21.74	QP
0.3300	15.82	10.11	25.93	49.45	-23.52	AVG
0.5020	30.24	9.82	40.06	56.00	-15.94	QP
0.5020	16.87	9.82	26.69	46.00	-19.31	AVG
0.6660	30.46	9.81	40.27	56.00	-15.73	QP
0.6660	14.82	9.81	24.63	46.00	-21.37	AVG
3.4940	30.86	9.73	40.59	56.00	-15.41	QP
3.4940	18.36	9.73	28.09	46.00	-17.91	AVG
5.0058	33.38	9.73	43.11	60.00	-16.89	QP
5.0058	17.95	9.73	27.68	50.00	-22.32	AVG

- 1. All readings are Quasi-Peak and Average values.
- 2. Factor = Insertion Loss + Cable Loss.



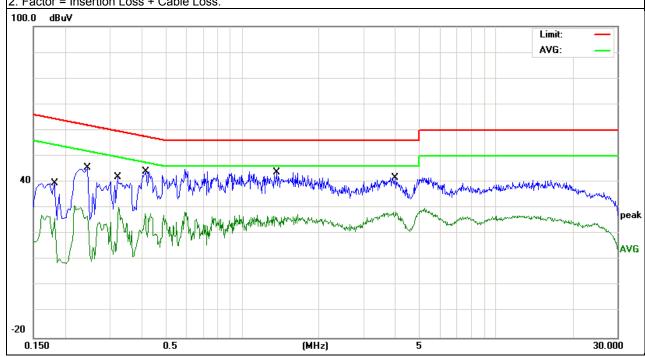


EUT: Model Name. : GP7002 Android POS Relative Humidity: 54% Temperature: 26 ℃ Pressure: Test Date: 1010hPa 2016-01-26 Test Mode: Mode 1 Phase: Test Voltage : DC 9V From Adapter AC 120V/60Hz

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Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Domark
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.1819	29.45	10.13	39.58	64.39	-24.81	QP
0.1819	16.85	10.13	26.98	54.39	-27.41	AVG
0.2459	35.56	10.13	45.69	61.89	-16.20	QP
0.2459	20.76	10.13	30.89	51.89	-21.00	AVG
0.3220	31.77	10.12	41.89	59.65	-17.76	QP
0.3220	20.11	10.12	30.23	49.65	-19.42	AVG
0.4179	34.02	10.00	44.02	57.49	-13.47	QP
0.4179	17.91	10.00	27.91	47.49	-19.58	AVG
1.3700	33.86	9.81	43.67	56.00	-12.33	QP
1.3700	17.17	9.81	26.98	46.00	-19.02	AVG
3.9900	31.84	9.75	41.59	56.00	-14.41	QP
3.9900	18.81	9.75	28.56	46.00	-17.44	AVG

- 1. All readings are Quasi-Peak and Average values.
- 2. Factor = Insertion Loss + Cable Loss.



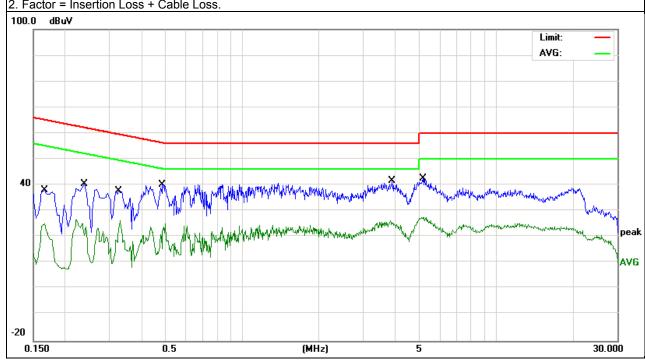


EUT: Model Name. : GP7002 Android POS Relative Humidity: 54% Temperature: 26 ℃ Pressure: 1010hPa Test Date: 2016-01-26 Test Mode: Mode 1 Phase: Test Voltage : DC 9V From Adapter AC 120V/60Hz

Report No.: NTEK-2015NT12113414F1

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Domark
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.1660	27.86	10.06	37.92	65.15	-27.23	QP
0.1660	15.16	10.06	25.22	55.15	-29.93	AVG
0.2379	30.30	10.06	40.36	62.17	-21.81	QP
0.2379	16.70	10.06	26.76	52.17	-25.41	AVG
0.3260	27.53	10.11	37.64	59.55	-21.91	QP
0.3260	16.12	10.11	26.23	49.55	-23.32	AVG
0.4859	30.37	9.85	40.22	56.24	-16.02	QP
0.4859	15.44	9.85	25.29	46.24	-20.95	AVG
3.8980	31.88	9.72	41.60	56.00	-14.40	QP
3.8980	16.76	9.72	26.48	46.00	-19.52	AVG
5.1459	32.94	9.73	42.67	60.00	-17.33	QP
5.1459	17.91	9.73	27.64	50.00	-22.36	AVG

- 1. All readings are Quasi-Peak and Average values.
- 2. Factor = Insertion Loss + Cable Loss.

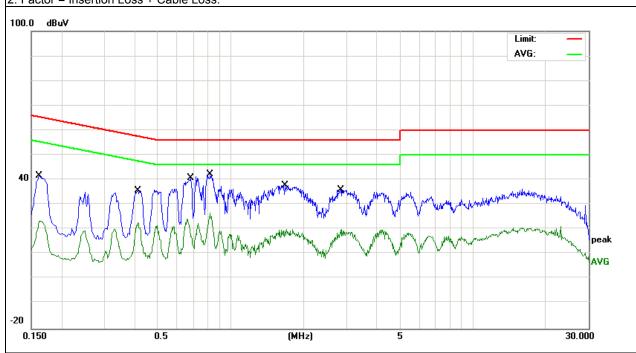




EUT:	Android POS	Model Name. :	GP7002
Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	1010hPa	Test Date :	2016-01-26
Test Mode:	Mode 1	Phase :	L
Test Voltage :	DC 9V From Adapter AC 240V	/60Hz	

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Domark
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.1620	32.00	9.60	41.60	65.36	-23.76	QP
0.1620	13.70	9.60	23.30	55.36	-32.06	AVG
0.4138	26.15	9.64	35.79	57.57	-21.78	QP
0.4138	13.20	9.64	22.84	47.57	-24.73	AVG
0.6860	31.16	9.64	40.80	56.00	-15.20	QP
0.6860	14.66	9.64	24.30	46.00	-21.70	AVG
0.8220	32.67	9.63	42.30	56.00	-13.70	QP
0.8220	16.87	9.63	26.50	46.00	-19.50	AVG
1.6778	28.28	9.56	37.84	56.00	-18.16	QP
1.6778	10.64	9.56	20.20	46.00	-25.80	AVG
2.8460	26.44	9.52	35.96	56.00	-20.04	QP
2.8460	10.52	9.52	20.04	46.00	-25.96	AVG

- 1. All readings are Quasi-Peak and Average values.
- 2. Factor = Insertion Loss + Cable Loss.



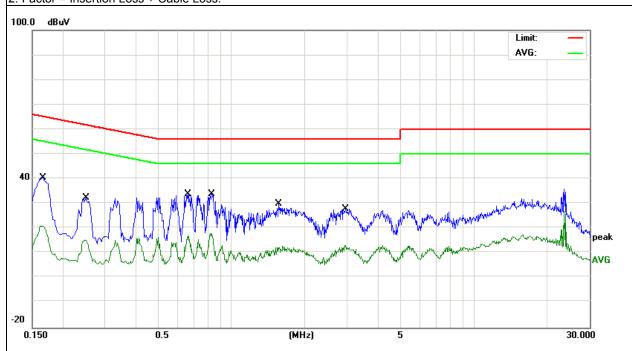


EUT: Model Name. : GP7002 Android POS Temperature: Relative Humidity: 54% 26 ℃ Pressure: 1010hPa Test Date: 2016-01-26 Test Mode: Mode 1 Phase: Test Voltage : DC 9V From Adapter AC 240V/60Hz

Report No.: NTEK-2015NT12113414F1

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.1660	0.1660 30.74 9.60 0.1660 11.45 9.60 0.2500 22.64 9.61 0.2500 5.60 9.61 0.6580 24.34 9.65		40.34	65.15	-24.81	QP
0.1660			21.05	55.15	-34.10	AVG
0.2500			32.25	61.75	-29.50	QP
0.2500			15.21	51.75	-36.54	AVG
0.6580			33.99	56.00	-22.01	QP
0.6580	0.6580 7.69 9.65 0.8299 24.26 9.63	17.34	46.00	-28.66	AVG	
0.8299		33.89	56.00	-22.11	QP	
0.8299	8.46	9.63	18.09	46.00	-27.91	AVG
1.5620	20.32	9.57	29.89	56.00	-26.11	QP
1.5620	3.20	9.57	12.77	46.00	-33.23	AVG
2.9580	18.46	9.52	27.98	56.00	-28.02	QP
2.9580	3.56	9.52	13.08	46.00	-32.92	AVG

- 1. All readings are Quasi-Peak and Average values.
- 2. Factor = Insertion Loss + Cable Loss.





3.2 RADIATED EMISSION MEASUREMENT

3.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

	Class A (at 10m)	Class B (at 3m)
FREQUENCY (MHz)	dBuV/m	dBuV/m
30 ~ 88	39.0	40.0
88 ~ 216	43.5	43.5
216 ~ 960	46.5	46.0
Above 960	49.5	54.0

Notes:

- (1) The limit for radiated test was performed according to as following: FCC PART 15B /ICES-003.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

3.2.2 TEST PROCEDURE

Test Arrangement for Radiated Emissions up to 1 GHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at an accredited test facility. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

Note: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for quasi-peak detection (QP) at frequency below 1GHz.

Test Arrangement for Radiated Emissions above 1 GHz.

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at an accredited chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna can be varied from one meter to four meters, the height of adjustment depends on the EUT height and the antenna 3dB beamwidth both, to detect the maximum value of the field strength.Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

Note: For the hand-held device, the EUT should be measured for all 3 axes and only the worst case is recorded in the report

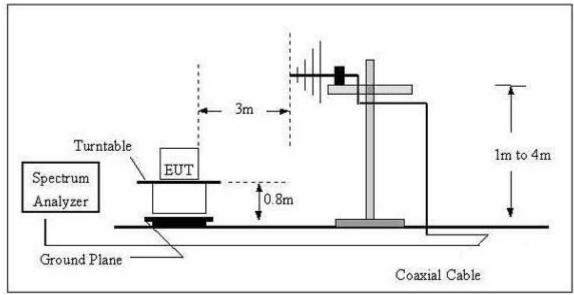


During the radiated emission test, the Spectrum Analyzer was set with the following configurations:

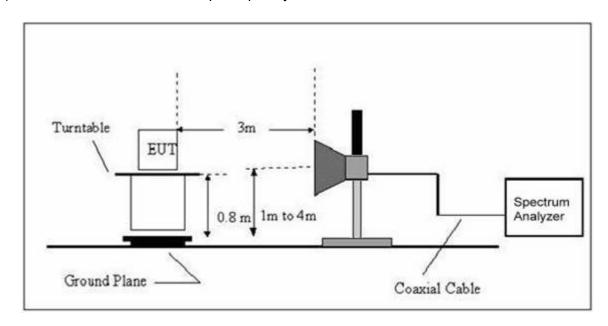
Frequency Band (MHz)	Function	Resolution bandwidth	Video Bandwidth	
30 to 1000	QP	120 kHz	300 kHz	
	Peak	1 MHz	1 MHz	
Above 1000	Avg	1 MHz	10 Hz	

3.2.3 TEST SETUP

For Radiated Emission 30~1000MHz



(B) Radiated Emission Test Set-Up Frequency Above 1GHz





3.2.4 TEST RESULTS

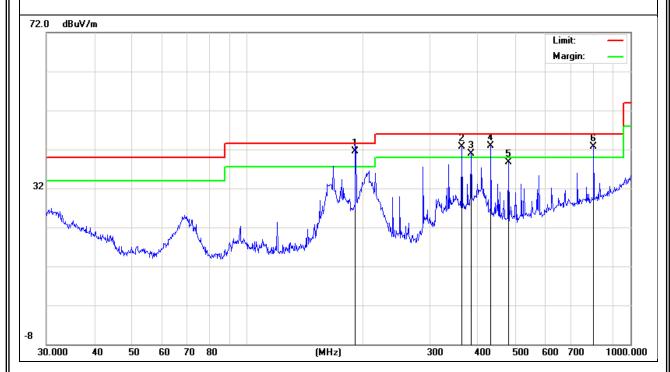
TEST RESULTS (30~1000 MHz)

EUT:	Android POS	Model Name :	GP7002		
Temperature :	24 °C	Relative Humidity:	54%		
Pressure:	1010 hPa	Test Date :	2016-01-26		
Test Mode :	Mode 1	Polarization :	Horizontal		
Test Power :	DC 5V From PC AC 120V/60Hz				

Freq.	Reading	Factor	Measurement	Limit	Over	Remark
(MHz)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	Remark
191.7450	30.16	11.34	41.50	43.50	-2.00	QP
362.9844	28.31	14.43	42.74	46.00	-3.26	QP
383.9318	26.04	14.90	40.94	46.00	-5.06	QP
432.5457	27.75	15.08	42.83	46.00	-3.17	QP
480.5276	22.05	16.56	38.61	46.00	-7.39	QP
801.7862	20.11	22.69	42.80	46.00	-3.20	QP

Remark:

Factor = Antenna Factor + Cable Loss - Amplifier.







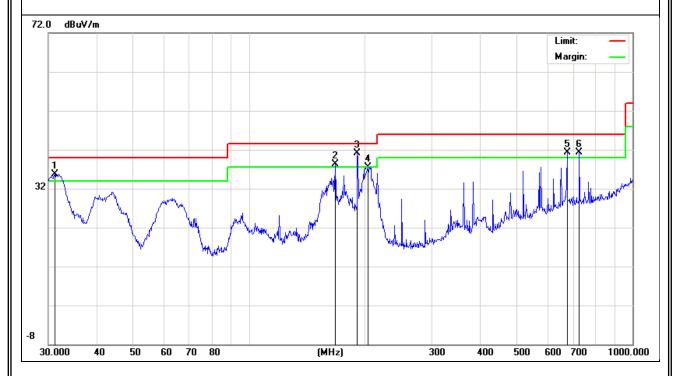
EUT: Model Name : Android POS GP7002 Temperature: **24** ℃ Relative Humidity: 54% Pressure: 1010 hPa Test Date: 2016-01-26 Test Mode : Mode 1 Polarization: Vertical DC 5V From PC AC 120V/60Hz Test Power :

Report No.: NTEK-2015NT12113414F1

Freq.	Reading	Factor	Measurement	Limit	Over	Remark
(MHz)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	Remark
31.1798	16.65	19.14	35.79	40.00	-4.21	QP
167.8241	26.10	12.20	38.30	43.50	-5.20	QP
191.7450	29.72	11.34	41.06	43.50	-2.44	QP
204.2375	26.02	11.56	37.58	43.50	-5.92	QP
675.2080	20.49	20.82	41.31	46.00	-4.69	QP
726.8052	19.60	21.66	41.26	46.00	-4.74	QP

Remark:

Factor = Antenna Factor + Cable Loss - Amplifier.





3.2.5 TEST RESULTS(1000~12400MHz)

Polar	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
V	1107.528	60.80	-12.60	48.20	74.00	-25.80	peak
V	1736.483	62.60	-10.10	52.50	74.00	-21.50	peak
V	2040.348	58.27	-7.67	50.60	74.00	-23.40	peak
V	2520.728	60.53	-7.53	53.00	74.00	-21.00	peak
V	3442.900	55.73	-4.53	51.20	74.00	-22.80	peak
V	4856.567	48.77	1.93	50.70	74.00	-23.30	peak
Н	1191.952	58.07	-11.37	46.70	74.00	-27.30	peak
Н	1451.628	60.08	-10.58	49.50	74.00	-24.50	peak
Н	1829.098	59.18	-9.68	49.50	74.00	-24.50	peak
Н	2247.628	59.36	-7.86	51.50	74.00	-22.50	peak
Н	2821.952	53.18	-6.28	46.90	74.00	-27.10	peak
Н	4512.583	52.55	-0.35	52.20	74.00	-21.80	peak

Remark:

Absolute Level= ReadingLevel+ Factor, Margin= Absolute Level - Limit



4. EUT TEST PHOTO



