Test Report of FCC CFR 47 Part 15 Subpart B

On Behalf of

Shen Zhen MTC Co., LTD

FCC ID: UVD-10M6

Product Description: Android MID

Model No.: MD1005

Supplementary Model: MD1001, MD10** (* can from 0 to 9), 10D8, DWA1015D

Brand Name: AMTC, Mitraveler, digital stream

Prepared for: Shen Zhen MTC Co., LTD

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P.R.China

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Report No.: BCT13ER142E-1

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Test Date: May 6~16, 2013

Tested by:

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Approved by:

Tøny Wu

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1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant:	Shen Zhen MTC Co., LTD
Address of Applicant:	31-32/F A Xing He Shi Ji Bldg, 3069 Cai Tian Road, Shen Zhen,
	P.R.China
	Observation MTO OscilTD
Manufacturer:	Shen Zhen MTC Co., LTD
Manufacturer: Address of Manufacturer:	31-32/F A Xing He Shi Ji Bldg, 3069 Cai Tian Road, Shen Zhen,

General Description of E.U.T

Items	Description
EUT Description:	Android MID
Trade Name:	AMTC, Mitraveler, digital stream
Model No.:	MD1005
Supplementary Model:	MD1001, MD10** (* can from 0 to 9), 10D8, DWA1015D
Frequency Band:	IEEE 802.11b/g,
	IEEE 802.11n HT20 (ISM Band) : 2412MHz∼2462MHz,
	IEEE 802.11n HT40 (ISM Band) : 2422MHz∼2452MHz
Channel Spacing:	IEEE 802.11b/g, 802.11n HT20/HT40: 5MHz
Number of Channels:	IEEE 802.11b/g, 802.11n HT20:11 Channels
	IEEE 802.11n HT40 :7 Channels
Transmit Data Rate:	maximum of 150Mbps
Type of Modulation:	IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK)
	IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK)
	IEEE 802.11n HT20/40: OFDM (64QAM, 16QAM, QPSK, BPSK)
Antenna Type:	Built-in Antenna
Antenna Gain:	1dBi
Power Supply:	AC/DC Adapter and build-in battery with DC3.7V 3000mAh
Adapter Information:	Model:DC050250110
	Input:100-240V 50/60Hz 0.4A Max
	Output: 5VDC 2500mA

^{*} The test data gathered are from the production sample provided by the manufacturer.

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^{*} Supplementary models are identical in circuitry and electrical, mechanical and physical construction; the only differences are the appearance \(\) trade name and model no.

1.2 Test Standards

The report of EUT is prepared in accordance with FCC Rules and Regulations Part 15 Subpart B The objective of the manufacturer is to demonstrate compliance with the described above standards.

1.3 Test Facility

All measurement required was performed at laboratory of Shenzhen Bontek Compliance Testing Laboratory Co., Ltd. at 1/F, Block East H-3, OCT Eastern Ind. Zone, Qiaocheng East Road, Nanshan, Shenzhen, China.

The test facility is recognized, certified, or accredited by the following organizations:

FCC – Registration No.: 338263

Shenzhen Bontek Compliance Testing Laboratory Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 338263, March 03, 2011.

IC Registration No.: 7631A

The 3m alternate test site of Shenzhen Bontek Compliance Testing Laboratory Co., Ltd. EMC Laboratory has been registered by Certification and Engineer Bureau of Industry Canada for the performance of with Registration NO.: 7631A on January 25, 2011.

CNAS - Registration No.: L3923

Shenzhen Bontek Compliance Testing Laboratory Co., Ltd. to ISO/IEC 17025:25 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing. The acceptance letter from the CNAS is maintained in our files: Registration: L3923,March 22,2012.

TUV - Registration No.: UA 50242657-0001

Shenzhen Bontek Compliance Testing Laboratory Co., Ltd. An assessment of the laboratory was conducted according to the "Procedures and Conditions for EMC Test Laboratories" with reference to EN ISO/IEC 17025 by a TUV Rheinland auditor. Audit Report NO. 17010783-003.

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2. SYSTEM TEST CONFIGURATION

2.1 EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

2.2 Support Equipments

The calibrated antennas used to sample the radiated field strength are mounted on a non-conductive, motorized antenna mast 3 or 10 meters from the leading edge of the turntable.

Support equipments or special accessories in test configuration:

AUX Description:	Manufacturer	Model No.	Certificate	CABLE
Host Computer	Dell	78MD82X	CE, FCC	1.5m Unshielded Power Cord
Monitor	Dell	E178Pc	CE, FCC	1.5m Unshielded Power Cord 1.8m shielded data Cable with core
Keyboard	Dell	L100	CE, FCC	1.8m shielded data Cable with core
Mouse	Dell	OCJ339	CE, FCC	1.8m shielded data Cable with core
Printer	EPSON	P330A	CE, FCC	1.2m Unshielded Power Cord 1.5m shielded data Cable

2.3 General Test Procedures

Conducted Emissions:The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 7.1 of ANSI C63.4-2009 Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak detector mode.

Radiated Emissions: The EUT is a placed on as turntable, which is 0.8 m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements in Section 13.1.4.1 of ANSI C63.4-2009.

2.4 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Parameter	Uncertainty
Power Line Conducted Emission	+/- 2.3 dB
Radiated Emission	+/- 3.4 dB

Uncertainty figures are valid to a confidence level of 95%.

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2.5 List of Measuring Equipments Used

Test equipments list of Shenzhen Bontek Compliance Testing Laboratory Co., Ltd.

No.	Instrument no.	Equipment	Manufacturer	Model No.	S/N	Last Calculator	Due Calculator
1	BCT-EMC001	EMI Test Receiver	R&S	ESCI	100687	2013-4-16	2014-4-17
2	BCT-EMC002	EMI Test Receiver	R&S	ESPI	100097	2012-11-1	2013-10-31
3	BCT-EMC003	Amplifier	HP	8447D	1937A02492	2013-4-19	2014-4-18
4	BCT-EMC004	Single Power Conductor Module	R&S	NNBM 8124	242	2013-4-19	2014-4-18
5	BCT-EMC005	Single Power Conductor Module	R&S	NNBM 8124	243	2013-4-19	2014-4-18
6	BCT-EMC006	Power Clamp	SCHWARZBECK	MDS-21	3812	2012-11-5	2013-11-4
7	BCT-EMC007	Positioning Controller	C&C	CC-C-1F	MF7802113	N/A	N/A
8	BCT-EMC008	`Electrostatic Discharge Simulator	TESEQ	NSG437	125	2012-11-2	2013-11-1
9	BCT-EMC009	Fast Transient Burst Generator	SCHAFFNER	MODULA615 0	34572	2013-4-16	2014-4-17
10	BCT-EMC010	Fast Transient Noise Simulator	Noiseken	FNS-105AX	10501	2012-6-26	2013-6-25
11	BCT-EMC011	Color TV Pattern Genenator	PHILIPS	PM5418	TM209947	N/A	N/A
12	BCT-EMC012	Power Frequency Magnetic Field Generator	EVERFINE	EMS61000- 8K	608002	2013-4-16	2014-4-17
14	BCT-EMC014	Capacitive Coupling Clamp	TESEQ	CDN8014	25096	2013-4-16	2014-4-17
15	BCT-EMC015	High Field Biconical Antenna	ELECTRO- METRICS	EM-6913	166	2012-11-28	2013-11-27
16	BCT-EMC016	Log Periodic Antenna	ELECTRO- METRICS	EM-6950	811	2012-11-28	2013-11-27
17	BCT-EMC017	Remote Active Vertical Antenna	ELECTRO- METRICS	EM-6892	304	2012-11-28	2013-11-27
18	BCT-EMC018	TRILOG Broadband Test-Antenna	SCHWARZBECK	VULB9163	9163-324	2012-5-19	2014-5-18
19	BCT-EMC019	Horn Antenna	SCHWARZBECK	BBHA9120A	0499	2012-11-28	2013-11-27
20	BCT-EMC020	Teo Line Single Phase Module	SCHWARZBECK	NSLK8128	8128247	2012-11-1	2013-10-31
21	BCT-EMC021	Triple-Loop Antenna	EVERFINE	LLA-2	711002	2012-11-15	2013-11-14
22	BCT-EMC022	Electric bridge	Jhai	JK2812C	803024	N/A	N/A
23	BCT-EMC026	RF POWER AMPLIFIER	FRANKONIA	FLL-75	1020A1109	2012-4-17	2013-4-16
24	BCT-EMC027	CDN	FRANKONIA	CDN M2+M3	A3027019	2012-4-17	2013-4-16

25	BCT-EMC029	9 6DB Attenuator FRANKONIA		N/A	1001698	2012-4-17	2013-4-16
26	BCT-EMC030	EM Injection clamp	FCC	F-203I-23mm	091536	2013-4-16	2014-4-17
27	BCT-EMC031	9kHz-2.4GHz signal generator 2024 MARCONI		10S/6625-99- 457-8730	112260/042	2013-4-16	2014-4-17
28	BCT-EMC032	10dB attenuator ELECTRO-METRICS		EM-7600	836	2013-4-16	2014-4-17
29	BCT-EMC033	ISN TESEQ		ISN-T800	30301	2012-11-15	2013-11-14
30	BCT-EMC034	10KV surge generator SANKI		SKS-0510M	048110003E 321	2012-11-01	2013-10-31
31	BCT-EMC035	HRMONICS&FLICK RE ANALYSER	I VOLTECH		200006700433	2012-11-20	2013-11-19
32	BCT-EMC036	Spectrum Analyzer	R&S	FSP	100397	2012-11-1	2013-10-31
33	BCT-EMC037	Broadband preamplifier	SCH WARZBECK	BBV9718	9718-182	2013-4-19	2014-4-18

3. SUMMARY OF TEST RESULTS

Standard	Test Items	Result
FCC Part 15 Subpart B	Conduction Emission, 0.15MHz to 30MHz	Pass
FCC Part 15 Subpart B	Radiation Emission, 30MHz to 1000MHz	Pass

4. TEST OF AC POWER LINE CONDUCTED EMISSION

4.1 Limit of AC Power Line Conducted Emission

Fraguency Bongo (MUT)	Limits (dBuV)			
Frequency Range (MHz)	Quasi-Peak	Average		
0.150~0.500	66∼56	56∼46		
0.500~5.000	56	46		
5.000~30.00	60	50		

4.2 EUT Setup

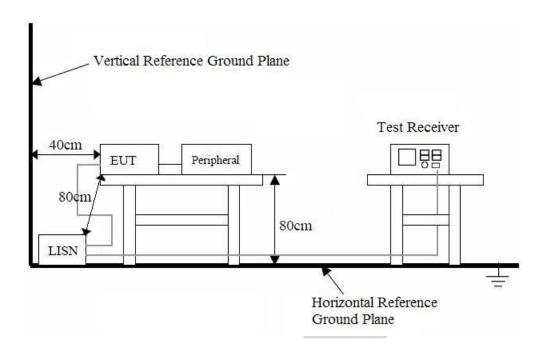
The setup of EUT is according with ANSI C63.4-2009 measurement procedure. The specification used was the FCC Rules and Regulations Part 15 Subpart B limits.

The EUT was placed center and the back edge of the test table.

The AV cables were draped along the test table and bundled to 30-40cm in the middle.

The spacing between the peripherals was 10 cm.

Maximum emission emitted from EUT was determined by manipulating the EUT, support equipment, interconnecting cables and varying the mode of operation and the levels in the final result of the test were recorded with the EUT running in the operating mode that maximum emission was emitted.



Remark: The EUT was connected to a 120VAC/60Hz power source.

4.3 Instrument Setup

The test receiver was set with the following configurations:

Test Receiver Setting:

4.4 Test Procedure

During the conducted emission test, the EUT power cord was connected to the auxiliary outlet of the first Artificial Mains.

Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance using all installation combination.

All data was recorded in the peak detection mode. Quasi-peak and Average readings were only performed when an emission was found to be marginal (within -10 dB_µV of specification limits). Quasi-peak readings are distinguished with a "QP". Average readings are distinguished with a "AV".

4.5 Test Result

Temperature ($^{\circ}\mathrm{C}$) : 22~23	EUT: Android MID
Humidity (%RH): 50~54	M/N: MD1005
Barometric Pressure (mbar): 950~1000	Operation Condition: Charging & Camera / Connect to PC/HDMI

EUT: Android MID M/N: MD1005

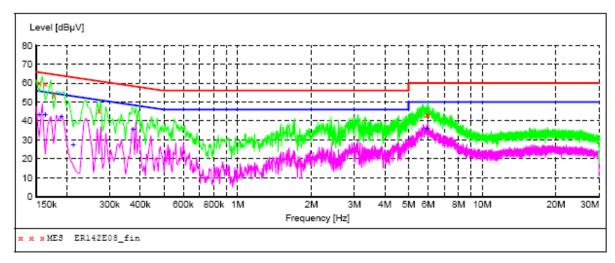
Operating Condition: Charging & Camera Test Site: Shielded Room

Operator: Yang

Test Specification: AC 120V/60Hz for adapter

Comment: L Line

SCAN TABLE: "Voltage (150K-30M) FIN"
Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "ER142E08 fin"

5/7/2013	5:49PM							
Freque	ncy I	evel Tr	ansd L	imit M	argin	Detector	Line	PΕ
	MHz	dΒμV	dΒ	dΒμV	dB			
0.154	500 6	0.40	13.2	66	5.4	QP	L1	GND
0.163	500 5	9.90	12.8	65	5.4	QP	L1	GND
0.177	000 5	3.70	12.2	65	10.9	QP	L1	GND
0.271	500 4	5.30	11.1	61	15.8	QP	L1	GND
5.932	500 4	3.20	10.4	60	16.8	QP	L1	GND
5.995	500 4	3.20	10.4	60	16.8	QP	L1	GND

MEASUREMENT RESULT: "ER142E08 fin2"

5/7/2013 5:49 Frequency MHz	PM Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.154500 0.163500 0.190500 0.213000 0.375000 5.946000	43.10 43.10 42.30 27.30 35.60 35.90	13.2 12.8 11.7 11.3 10.8 10.4	56 55 54 53 48 50	12.7 12.2 11.7 25.8 12.8 14.1	AV AV AV AV AV	L1 L1 L1 L1 L1	GND GND GND GND GND GND

EUT: Android MID M/N: MD1005

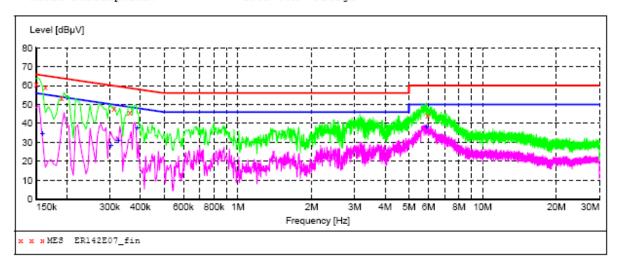
Operating Condition: Charging & Camera Test Site: Shielded Room

Operator: Yang

Test Specification: AC 120V/60Hz for adapter

Comment: N Line

SCAN TABLE: "Voltage (150K-30M) FIN"
Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "ER142E07_fin"

PM						
Level	Transd	Limit	Margin	Detector	Line	PΕ
dΒμV	dB	dΒμV	dB			
60.90	13.4	66	5.1	QP	N	GND
59.20	12.8	65	6.1	QP	N	GND
53.70	11.7	64	10.3	QP	N	GND
47.90	10.9	60	12.0	QP	N	GND
45.60	10.8	59	13.1	QP	N	GND
44.20	10.4	60	15.8	QP	N	GND
	dBμV 60.90 59.20 53.70 47.90 45.60	Level Transd dB	Level Transd Limit dBμV dB dBμV 60.90 13.4 66 59.20 12.8 65 53.70 11.7 64 47.90 10.9 60 45.60 10.8 59	Level Transd Limit Margin dBμV dB dBμV dB 60.90 13.4 66 5.1 59.20 12.8 65 6.1 53.70 11.7 64 10.3 47.90 10.9 60 12.0 45.60 10.8 59 13.1	Level Transd Limit Margin Detector dBμV dB dBμV dB dB dBμV dB 60.90 13.4 66 5.1 QP 59.20 12.8 65 6.1 QP 53.70 11.7 64 10.3 QP 47.90 10.9 60 12.0 QP 45.60 10.8 59 13.1 QP	Level Transd Dimit dBμV Margin dB Detector Detector Detector Line dBμV 60.90 13.4 66 5.1 QP N 59.20 12.8 65 6.1 QP N 53.70 11.7 64 10.3 QP N 47.90 10.9 60 12.0 QP N 45.60 10.8 59 13.1 QP N

MEASUREMENT RESULT: "ER142E07 fin2"

5/7/2013 5:4	6PM						
Frequency		Transd		_	Detector	Line	PE
MHz	dΒμV	dB	dΒμV	dB			
0.159000	34.80	13.0	56	20.7	AV	N	GND
0.303000	28.10	11.0	50	22.1	AV	N	GND
0.325500	31.00	10.9	50	18.6	AV	N	GND
0.388500	37.60	10.7	48	10.5	AV	N	GND
5.896500	38.10	10.4	50	11.9	AV	N	GND

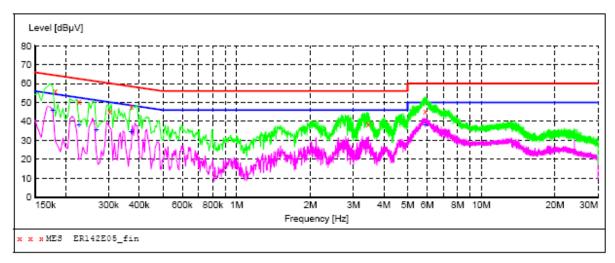
EUT: Android MID
M/N: MD1005
Operating Condition: Connect to PC
Test Site: Shielded Room

Operator: Yang

Test Specification: AC 120V/60Hz for PC

Comment: L Line

SCAN TABLE: "Voltage (150K-30M) FIN"
Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "ER142E05 fin"

5/7/2013 Frequ		M Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
	1500	56.30	12.0	64	8.1	QP	L1	GND
0.22	6500	50.60	11.2	63	12.0	QP	L1	GND
0.30	3000	45.50	11.0	60	14.7	QP	L1	GND
0.37	0500	48.10	10.8	59	10.4	QP	L1	GND
3.45	3000	38.50	10.4	56	17.5	QP	L1	GND
5.90	1000	45.50	10.4	60	14.5	QP	L1	GND

MEASUREMENT RESULT: "ER142E05 fin2"

5/7/2013 5:40 Frequency MHz		Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.177000 0.226500 0.267000 0.370500 5.910000	45.60 38.40 35.30 34.80 38.20	12.2 11.2 11.1 10.8 10.4	55 53 51 49 50	9.0 14.2 15.9 13.7 11.8		L1 L1 L1 L1	GND GND GND GND GND

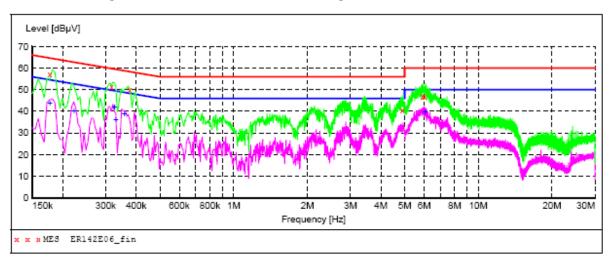
EUT: Android MID
M/N: MD1005
Operating Condition: Connect to PC
Test Site: Shielded Room

Operator: Yang

Test Specification: AC 120V/60Hz for PC

Comment: N Line

SCAN TABLE: "Voltage (150K-30M) FIN"
Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "ER142E06 fin"

5/7/2013 5:4	2PM						
Frequency	Level	Transd	Limit	Margin	Detector	Line	PE
MHz	dΒμV	dB	dΒμV	dB			
0.177000	57.20	12.2	65	7.4	QP	N	GND
0.316500	51.50	10.9	60	8.3	QP	N	GND
0.375000	49.90	10.8	58	8.5	QP	N	GND
4.888500	40.80	10.4	56	15.2	QP	N	GND
5.914500	46.70	10.4	60	13.3	QP	N	GND
6.040500	47.00	10.4	60	13.0	QP	N	GND

MEASUREMENT RESULT: "ER142E06 fin2"

5/7/2013 5:42 Frequency MHz	PM Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.177000	43.80	12.2	55	10.8	AV	N	GND
0.222000	40.30	11.2	53	12.4	AV	N	GND
0.325500	41.80	10.9	50	7.8	AV	N	GND
0.330000	36.10	10.9	50	13.4	AV	N	GND
0.357000	39.00	10.8	49	9.8	AV	N	GND
6.063000	39.60	10.4	50	10.4	AV	N	GND

EUT: Android MID M/N: MD1005
Operating Condition: HDMI

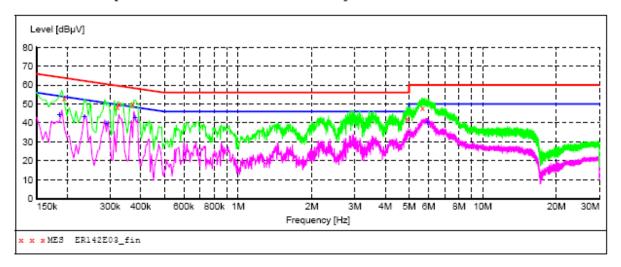
Test Site: Shielded Room

Operator: Yang

Test Specification: AC 120V/60Hz for PC

Comment: L Line

SCAN TABLE: "Voltage (150K-30M) FIN" Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "ER142E03 fin"

5/7/2013 5:	17PM						
Frequency MH2		Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.195000 0.321000 0.325500 0.370500	48.40 50.00 49.90	11.5 10.9 10.9 10.8	64 60 59	11.0 11.3 9.6 8.6	QP QP QP	L1 L1 L1	GND GND GND GND
4.902000 5.685000		10.4	56 60	13.5 12.0	QP QP	L1 L1	GND GND

MEASUREMENT RESULT: "ER142E03 fin2"

5/7/2013 5:17	PM						
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.186000	44.10	11.9	54	10.1	AV	L1	GND
0.235500	43.40	11.2	52	8.9	AV	L1	GND
0.289500	39.90	11.0	51	10.6	AV	L1	GND
0.379500	42.70	10.7	48	5.6	AV	Ll	GND
5.950500	40.30	10.4	50	9.7	AV	L1	GND

EUT: Android MID M/N: MD1005
Operating Condition: HDMI

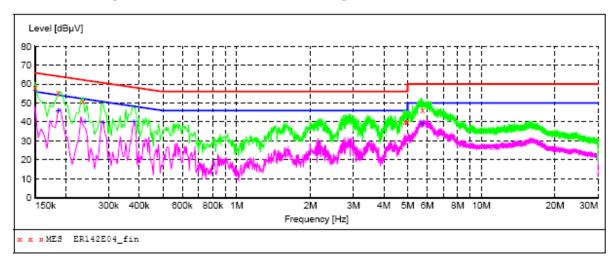
Test Site: Shielded Room

Operator: Yang

Test Specification: AC 120V/60Hz for PC

Comment: N Line

SCAN TABLE: "Voltage (150K-30M) FIN" Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "ER142E04 fin"

5/7/2013 5:20 Frequency MHz		Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	58.30	13.4	66	7.7	QP	N	GND
0.186000	55.90	11.9	64	8.3	QP	N	GND
0.235500	51.00	11.2	62	11.3	QP	N	GND
4.879500	40.40	10.4	56	15.6	QP	N	GND
4.974000	40.20	10.4	56	15.8	QP	N	GND
5.752500	46.30	10.4	60	13.7	QP	N	GND

MEASUREMENT RESULT: "ER142E04 fin2"

5/7/2013 5:20	PM						
Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
PINZ	ασμν	αь	αвμν	αв			
0.186000	46.10	11.9	54	8.1	AV	N	GND
0.240000	40.00	11.2	52	12.1	AV	N	GND
0.285000	39.50	11.0	51	11.2	AV	N	GND
0.379500	40.30	10.7	48	8.0	AV	N	GND
5.757000	39.10	10.4	50	10.9	AV	N	GND

5 - RADIATED DISTURBANCES

5.1 Limit of Radiated Disturbances

Frequency (MHz)	Distance (Meters)	Field Strengths Limits (dBµV/m)
30 ~ 88	3	40
88~216	3	43.5
216 ~ 960	3	46
960 ~ 1000	3	54

Note:

- (1) The tighter limit shall apply at the edge between two frequency bands.(2) Distance refers to the distance in meters between the test instrument antenna and the closest point of any part of the E.U.T.

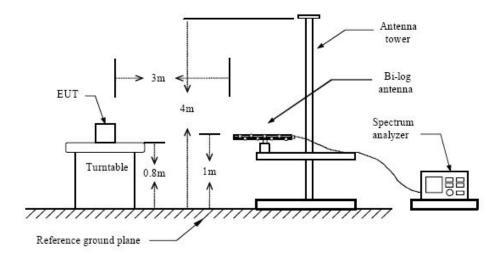
5.2 EUT Setup

The radiated emission tests were performed in the in the 3-meter anechoic chamber, using the setup accordance with the ANSI C63.4-2009. The specification used was the FCC Part 15 Subpart B limits.

The EUT was placed on the center of the test table.

Maximum emission emitted from EUT was determined by manipulating the EUT, support equipment, interconnecting cables and varying the mode of operation and the levels in the final result of the test were recorded with the EUT running in the operating mode that maximum emission was emitted.

Below 1 GHz



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5.3 Test Receiver Setup

According to FCC Part 15 rule, the frequency was investigated from 30 to 1000 MHz. During the radiated emission test, the test receiver was set with the following configurations:

Test Receiver Setting:

Detector.....Peak & Quasi-Peak

IF Band Width......120KHz

Antenna Position:

Height......1m to 4m

Polarity......Horizontal and Vertical

5.4 Test Procedure

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

All data was recorded in the peak detection mode. Quasi-peak readings performed only when an emission was found to be marginal (within -10 dB $_{\mu}$ V of specification limits), and are distinguished with a "QP" in the data table.

5.5 Corrected Amplitude & Margin Calculation

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

Corr. Ampl. = Indicated Reading + Antenna Factor + Cable Factor - 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 μ V means the emission is 7dB μ V below the maximum limit for Subpart B. The equation for margin calculation is as follows:

Margin = Limit - Corr. Ampl.

5.6 Radiated Emissions Test Result

Temperature (°C): 22~23	EUT: Android MID
Humidity (%RH): 50~54	M/N: MD1005
Barometric Pressure (mbar): 950~1000	Operation Condition: Charging & Camera / Connect to PC/HDMI

EUT: Android MID M/N: MD1005

Operating Condition: Charging & Camera Test Site: 3m CHAMBER

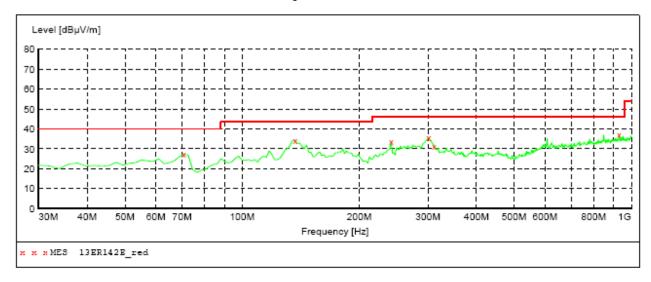
Operator: Chen

Test Specification: AC 120V/60Hz for adapter Comment: Polarization: Horizontal

SWEEP TABLE: "test (30M-1G)"
Short Description: Field Strength
Start Stop Detector Meas. IF Detector Meas. IF Transducer

Bandw. Frequency Frequency Time

Coupled 100 kHz VULB9163 NEW T 30.0 MHz 1.0 GHz MaxPeak



11/13/2012 2: Frequency MHz		Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
70.740000	27.40	12.4	40.0	12.6	QP	100.0	0.00	HORIZONTAL
136.700000	34.30	12.5	43.5	9.2	QP	100.0	0.00	HORIZONTAL
241.460000	33.60	17.0	46.0	12.4	QP	100.0	0.00	HORIZONTAL
301.600000	35.50	18.8	46.0	10.5	QP	100.0	0.00	HORIZONTAL
311.300000	31.40	19.0	46.0	14.6	QΡ	100.0	0.00	HORIZONTAL
930.160000	37.20	29.4	46.0	8.8	QP	100.0	0.00	HORIZONTAL

EUT: Android MID M/N: MD1005

Operating Condition: Charging & Camera Test Site: 3m CHAMBER

Operator: Chen

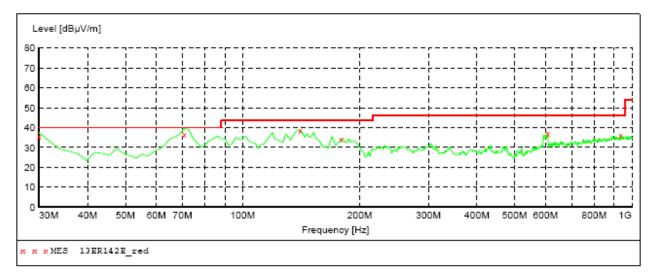
Test Specification: AC 120V/60Hz for adapter Comment: Polarization: Vertical

SWEEP TABLE: "test (30M-1G)"
Short Description: Field Strength

Stop Detector Meas. Start IF Transducer

Frequency Frequency Bandw. Time

30.0 MHz 1.0 GHz MaxPeak Coupled 100 kHz VULB9163 NEW T



11/13/2012 2 Frequency MHz		Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
30.000000	35.40	14.3	40.0	4.6	QP	100.0	0.00	VERTICAL
70.740000	36.60	12.4	40.0	3.4	QP	100.0	0.00	VERTICAL
140.580000	38.70	12.3	43.5	4.8	QP	100.0	0.00	VERTICAL
179.380000	34.40	13.8	43.5	9.1	QP	100.0	0.00	VERTICAL
608.120000	37.30	26.0	46.0	8.7	QP	100.0	0.00	VERTICAL
935.980000	36.20	29.5	46.0	9.8	QP	100.0	0.00	VERTICAL

EUT: Android MID MD1005 M/N:

Operating Condition: Connect to PC Test Site: 3m CHAMBER

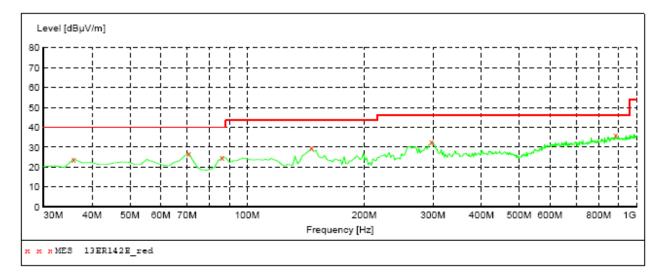
Operator: Chen

Test Specification: AC 120V/60Hz for PC Comment: Polarization: Horizontal

SWEEP TABLE: "test (30M-1G)"
Short Description: Field Strength

Stop Detector Meas. IF Start Transducer Frequency Frequency Time Bandw.

30.0 MHz 1.0 GHz MaxPeak Coupled 100 kHz VULB9163 NEW T



11/13/2012 2	:46AM							
Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
35.820000	24.00	14.7	40.0	16.0	QP	100.0	0.00	HORIZONTAL
70.740000	27.00	12.4	40.0	13.0	QP	100.0	0.00	HORIZONTAL
86.260000	24.90	14.8	40.0	15.1	QP	100.0	0.00	HORIZONTAL
146.400000	29.60	12.3	43.5	13.9	QP	100.0	0.00	HORIZONTAL
297.720000	32.80	18.7	46.0	13.2	QΡ	100.0	0.00	HORIZONTAL
883.600000	36.10	29.0	46.0	9.9	OP	100.0	0.00	HORIZONTAL

EUT: Android MID M/N: MD1005 **Operating Condition:** Connect to PC

Test Site: 3m CHAMBER

Operator: Chen

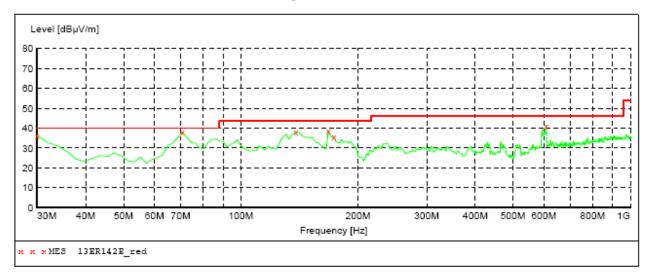
Test Specification: AC 120V/60Hz for PC Comment: Polarization: Vertical

SWEEP TABLE: "test (30M-1G)"
Short Description: Field Strength

ΙF Start Stop Detector Meas. Transducer

Frequency Frequency Bandw. Time

30.0 MHz 1.0 GHz Coupled 100 kHz VULB9163 NEW T MaxPeak



11/13/2	012 2:	44AM							
Frequ	uency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
30.00	00000	36.30	14.3	40.0	3.7	QP	100.0	0.00	VERTICAL
70.7	40000	37.00	12.4	40.0	3.0	QP	100.0	0.00	VERTICAL
138.6	40000	38.10	12.4	43.5	5.4	QP	100.0	0.00	VERTICAL
167.7	40000	38.70	13.0	43.5	4.8	QP	100.0	0.00	VERTICAL
173.5	60000	35.60	13.4	43.5	7.9	QΡ	100.0	0.00	VERTICAL
608.12	20000	40.80	26.0	46.0	5.2	OP	100.0	0.00	VERTICAL

EUT: Android MID M/N: MD1005 **Operating Condition: HDMI**

Test Site: 3m CHAMBER

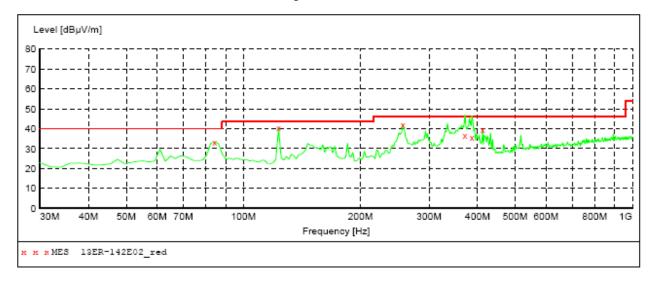
Operator: Chen

Test Specification: AC 120V/60Hz for PC Comment: Polarization: Horizontal

SWEEP TABLE: "test (30M-1G)" Short Description: Fi

Field Strength Start Stop Detector Meas. IF Transducer Bandw.

Frequency Frequency Time 30.0 MHz 1.0 GHz MaxPeak Coupled 100 kHz VULB9163 NEW



5/7/2013 19:3	32							
Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
84.320000	33.20	14.1	40.0	6.8	QP	100.0	0.00	HORIZONTAL
123.120000	40.40	14.2	43.5	3.1	QP	100.0	0.00	HORIZONTAL
256.980000	42.20	17.3	46.0	3.8	QΡ	100.0	0.00	HORIZONTAL
371.440000	36.40	20.8	46.0	8.6	QP	100.0	0.00	HORIZONTAL
386.960000	35.70	21.1	46.0	9.3	QP	100.0	0.00	HORIZONTAL
412.180000	39.30	21.8	46.0	6.7	OP	100.0	0.00	HORIZONTAL

EUT: Android MID M/N: MD1005 **Operating Condition: HDMI**

Test Site: 3m CHAMBER

Operator: Chen

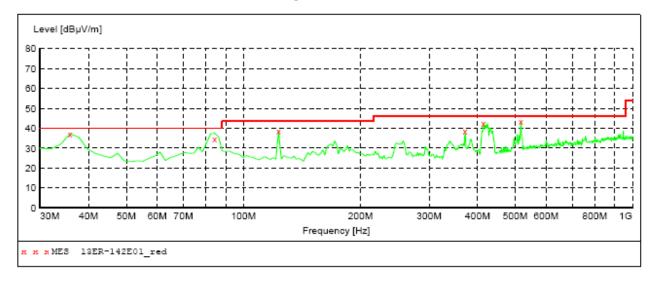
Test Specification: AC 120V/60Hz for PC Comment: Polarization: Vertical

SWEEP TABLE: "test (30M-1G)"
Short Description: Field Strength
Start Stop Detector Meas. IF

IF Start Stop Transducer Detector Meas.

Frequency Frequency Time Bandw.

Coupled 100 kHz VULB9163 NEW 30.0 MHz 1.0 GHz MaxPeak



5/7/2013 19:28									
Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization	
35.820000	37.30	14.7	40.0	2.7	QP	100.0	0.00	VERTICAL	
84.320000	34.60	14.1	40.0	5.4	QP	100.0	0.00	VERTICAL	
123.120000	38.80	14.2	43.5	4.7	QP	100.0	0.00	VERTICAL	
371.440000	38.80	20.8	46.0	7.2	QP	100.0	0.00	VERTICAL	
414.120000	42.60	21.8	46.0	3.4	QP	100.0	0.00	VERTICAL	
516.940000	43.60	24.2	46.0	2.4	QP	100.0	0.00	VERTICAL	

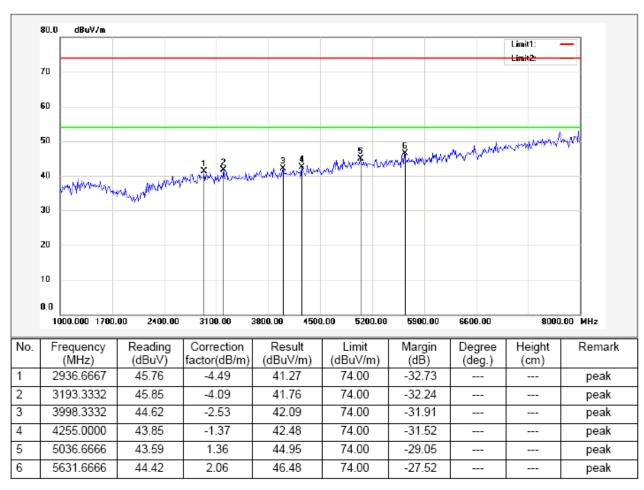
Worst Case Radiated Emission Above 1GHz Test Data:

EUT: Android MID M/N: MD1005

Operating Condition: Connect to PC Test Site: 3m CHAMBER

Operator: Chen

Test Specification: AC 120V/60Hz for PC Comment: Polarization: Horizontal



Worst Case Radiated Emission Above 1GHz Test Data:

EUT: Android MID M/N: MD1005

Operating Condition: Connect to PC Test Site: 3m CHAMBER

Operator: Chen

Test Specification: AC 120V/60Hz for PC Comment: Polarization: Vertical

