



# FCC Radio TEST Report

## FCC ID: Y36LG5041

This report concerns (check one) :  Original Grant  Class II Change

**Report No. :** ATS-2010NT1219001E  
**Product :** Car MP3  
**Model No. :** LG5041  
**Applicant :** China Etech Groups Ltd.  
**Address :** 3/f, Block A, Wenle Ind. Zone, Xixiang, Bao'an,  
Shenzhen, Guangdong, China

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**Date of Test:**

Dec.08, 2010 ~ Dec.10, 2010

**Date of Issue:**

Dec.10, 2010

**Test Result :** Pass**Standards:** FCC Part 15 subpart C(15.239)

Testing Engineer :           *Jake wang*            
(Jake Wang)

Technical Manager :           *Ada Li*            
(Ada Li)

Authorized Signatory :           *Can Liu*            
(Can Liu)

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### 1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

| FCC Part15, Subpart C (15.239) |                            |          |         |
|--------------------------------|----------------------------|----------|---------|
| Standard Section               | Test Item                  | Judgment | Remark  |
| 15.207                         | Conducted Emission         | N/A      | Note(1) |
| 15.203                         | Antenna Requirement        | Pass     |         |
| 15.239                         | Radiated Spurious Emission | Pass     |         |
| 15.239                         | Occupied Bandwidth         | Pass     |         |

NOTE:

(1) " N/A" denotes test is not applicable in this Test Report.



1.1 TEST FACILITY

Asia Institute Technology (Dongguan) Limited  
Add. : No.6 Binhe Road, Tianxin Village, Huangjiang, Dongguan, Guangdong, China.  
FCC Registered No.: 248337

1.2 MEASUREMENT UNCERTAINTY

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

A. Conducted Measurement :

| Test Site | Method          | Measurement Frequency Range | U , (dB) |
|-----------|-----------------|-----------------------------|----------|
| C01       | ANSI C63.4-2003 | 150 KHz ~ 30MHz             | 1.94     |

B. Radiated Measurement :

| Test Site | Method          | Measurement Frequency Range | Ant. H / V | U , (dB) |
|-----------|-----------------|-----------------------------|------------|----------|
| OS-01     | ANSI C63.4-2003 | 30MHz ~ 200MHz              | V          | 2.93     |
|           |                 | 30MHz ~ 200MHz              | H          | 2.86     |
|           |                 | 200MHz ~ 1,000MHz           | V          | 3.86     |
|           |                 | 200MHz ~ 1,000MHz           | H          | 3.94     |



## 2. GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF EUT

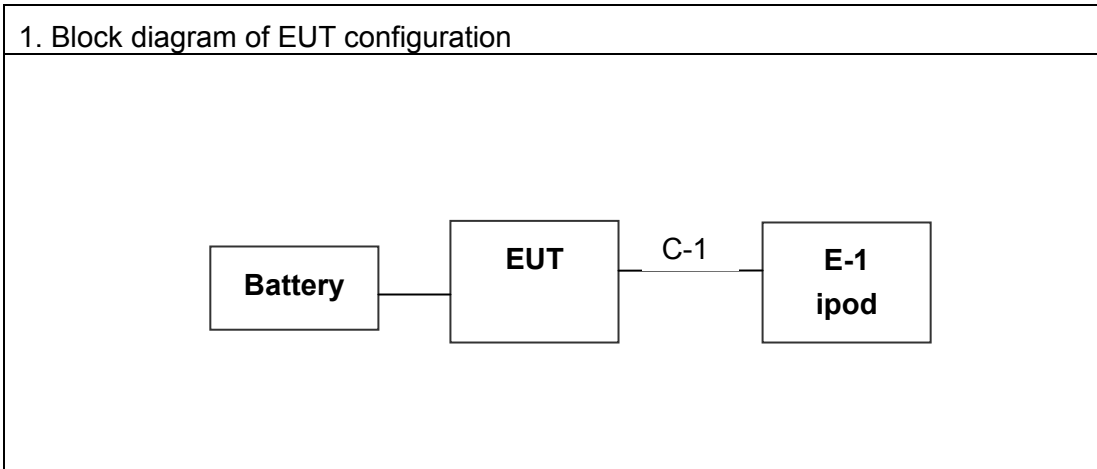
|                        |  |  |
|------------------------|--|--|
| Equipment              | Car MP3  |  |
| Brand Name             | N/A  |  |
| Model Name.            | LG5041   |  |
| OEM Brand/Model Name   | N/A  |  |
| Model Difference       | N/A  |  |
| Manufacturer           | China Etech Groups Ltd.  |  |
| Manufacturer Address   | 3/f, Block A, Wenle Ind. Zone, Xixiang, Bao'an, Shenzhen, Guangdong, China   |  |
| Product Description    | The EUT is a Car MP3   |  |
|                        | Product Type   | Low Power Communication Device Transmitter |
|                        | Operation Frequency:   | 88.1-107.9MHz                              |
|                        | Modulation Type:   | FM   |
|                        | Number Of Channel  | 199CH.                                     |
|                        | Antenna Designation:   | Printed antenna                            |
|                        | Antenna Gain(Peak)   | 2.32 dBi                                   |
|                        | Output Power:  | 44.75 dBuV/m (AV Max.)                     |
|                        | Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an Control Device. More details of EUT technical specification, please refer to the User's Manual. |  |
| Channel List           | N/A  |  |
| Power Source           | DC Voltage supplied from Battery   |  |
| Power Rating           | DC 12V   |  |
| Connecting I/O Port(s) | Please refer to the User's Manual  |  |

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

2.2 DESCRIPTION OF TEST CONDITIONS

(1) EUT was tested in normal configuration (Please See following Block diagram)



(2) E.U.T. test conditions:

15.31(e) :For intentional radiators, measurements of the variation of the input power or the adiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% ofthe nominal rated supply voltage. For battery operated equipment, theequipment tests shall be performed using a new battery.

(3) Test frequencies:

According to the 15.31(m) Measurements on intentional radiators or receivers, other than TV broadcast receivers, shall be performed and. if required. reported for each band in which the device can be operated with the device operating at the number of fequencies in each band specified in the following table:

| Frequency range over which device operates | Number of frequencies | Location in the range of operation          |
|--|-----------------------|---|
| 1 MHz or less                              | 1                     | Middle                                      |
| 1 to 10 MHz                                | 2                     | 1 near top and 1 near bottom                |
| More than 10 MHz                           | 3                     | 1 near top, 1 near middle and 1 near bottom |

(4) Frequency range of radiated measurements:

According to the 15.33,The test range will be upto the tenth harmonic of the highest fundamental frequency, During testing, the Ipod was actively playing music set to its maximum audio volume in order to generate the worst case emissions (e.g. to generate the maximum bandwidth during bandwidth test). No test tones were used for testing. The tuning range of the EUT was manually verified and the conclusion is that it only works at selected channels within 88.1-107.9MHz, not below and not above this range.



### 2.3 DESCRIPTION OF SUPPORT UNITS

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 | Mfr/Brand | Model/Type No. | FCC ID | Series No.  | Note |
|------|-----------|-----------|----------------|--------|-------------|------|
| E-1  | ipod      | N/A       | A1285          | VOC    | YM838NYL3QS |      |
|      |           |           |                |        |             |      |
|      |           |           |                |        |             |      |
|      |           |           |                |        |             |      |
|      |           |           |                |        |             |      |
|      |           |           |                |        |             |      |
|      |           |           |                |        |             |      |

| Item | Shielded Type | Ferrite Core | Length | Note |
|------|---------------|--------------|--------|------|
| C-1  | NO            | NO           | 25cm   |      |
|      |               |              |        |      |
|      |               |              |        |      |
|      |               |              |        |      |
|      |               |              |        |      |

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 『Length』 column.



## 2.4 EQUIPMENTS LIST FOR ALL TEST ITEMS

| No | Test Equipment                      | Manufacturer | Model No         | Serial No  | Cal. Due Date |
|----|-------------------------------------|--------------|------------------|------------|---------------|
| 1  | Spectrum Analyzer                   | ADVANTEST    | R3182            | 150900201  | 2011.04.16    |
| 2  | EMI Measuring Receiver              | Schaffner    | SCR3501          | 235        | 2011.04.06    |
| 3  | Low Noise Pre Amplifier             | Tsj          | MLA-10K01-B01-27 | 1205323    | 2011.09.06    |
| 4  | Low Noise Pre Amplifier             | Tsj          | MLA-0120-A02-34  | 2648A04738 | 2011.04.07    |
| 5  | TRILOG Super Broadband test Antenna | SCHWARZBECK  | VULB9160         | 9160-3206  | 2011.07.01    |
| 6  | Broadband Horn Antenna              | SCHWARZBECK  | BBHA9120D        | 451        | 2011.07.14    |
| 7  | 50Ω Coaxial Switch                  | Anritsu      | MP59B            | 6200264416 | 2011.09.06    |
| 8  | EMI Test Receiver                   | R&S          | ESCI             | 100124     | 2010.12.27    |
| 9  | LISN                                | Kyoritsu     | KNW-242          | 8-837-4    | 2011.04.06    |
| 10 | LISN                                | Kyoritsu     | KNW-407          | 8-1789-3   | 2011.04.06    |
| 11 | 50Ω Coaxial Switch                  | Anritsu      | MP59B            | 6200264417 | 2011.09.06    |
| 12 | Loop Antenna                        | ARA          | PLA-1030/B       | 1029       | 2011.03.19    |





### 3. TEST RESULT

#### 3.1 ANTENNA REQUIREMENT

##### 3.1.1 STANDARD REQUIREMENT

15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

##### 3.1.2 EUT ANTENNA

The EUT antenna is integral Antenna. It comply with the standard requirement.



## 3.2 CONDUCTED EMISSION MEASUREMENT

### 3.2.1 POWER LINE CONDUCTED EMISSION LIMITS (Frequency Range 150KHz-30MHz)

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

|           |       |       |           |           |     |
|-----------|-------|-------|-----------|-----------|-----|
| 0.15 -0.5 | 79.00 | 66.00 | 66 - 56 * | 56 - 46 * | FCC |
| 0.50 -5.0 | 73.00 | 60.00 | 56.00     | 46.00     | FCC |
| 5.0 -30.0 | 73.00 | 60.00 | 60.00     | 50.00     | FCC |

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    |

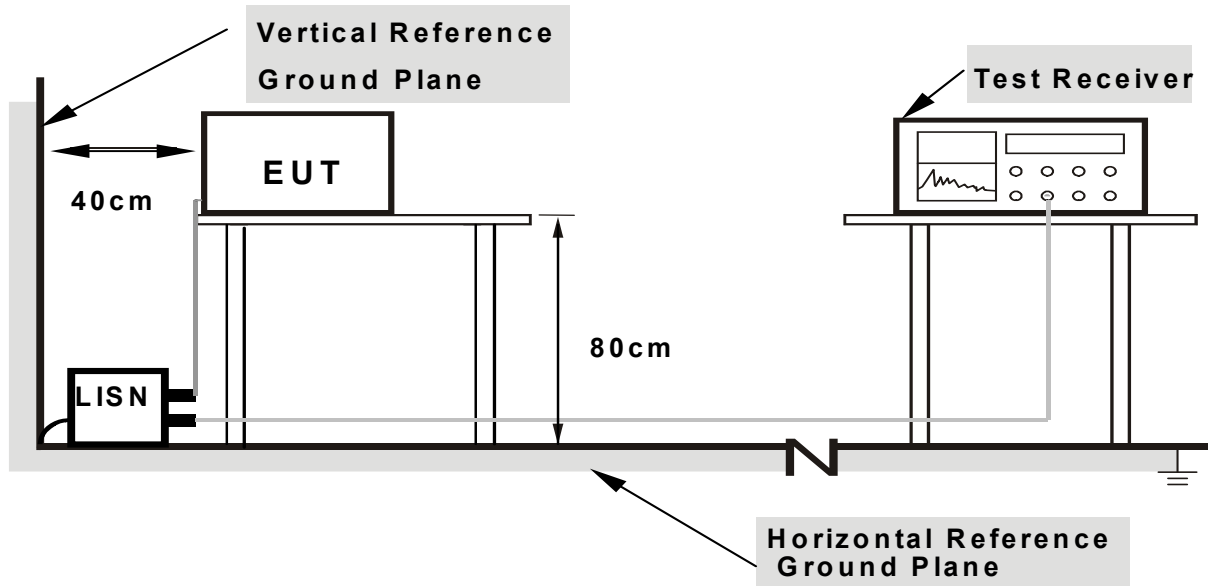
**3.2.2 TEST PROCEDURE**

- a. The EUT was placed 0.4 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.
- 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.

**3.2.3 DEVIATION FROM TEST STANDARD**

No deviation

**3.2.4 TEST SETUP**



**Note: 1. Support units were connected to second LISN.**

**2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes**



### 3.2.5 TEST RESULTS

|               |  |                     |        |
|---------------|--|---------------------|--------|
| EUT :         | Car MP3  | Model Name :        | LG5041 |
| Temperature : | 26 °C  | Relative Humidity : | 53%    |
| Pressure :    | 1010 hPa   | Test Power :        | DC 12V |
| Test Mode :   | N/A - denotes test is not applicable in this test report |                     |        |

#### Remark

- (1) All readings are QP Mode value unless otherwise stated AVG in column of Note 1. If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform. In this case, a " \* " marked in AVG Mode column of Interference Voltage Measured.
- (2) Measuring frequency range from 150KHz to 30MHz.
- (3) N/A - denotes test is not applicable in this test report



3.3 RADIATED EMISSION MEASUREMENT

3.3.1 RADIATED EMISSION LIMITS ( FCC 15.209 )

| Frequencies (MHz) | Field Strength (microrvolts/meter) | Measurement Distance (meters) |
|-------------------|------------------------------------|-------------------------------|
| 0.009~0.490       | 2400/F(KHz)                        | 300                           |
| 0.490~1.705       | 24000/F(KHz)                       | 30                            |
| 1.705~30.0        | 30                                 | 30                            |
| 30~88             | 100                                | 3                             |
| 88~216            | 150                                | 3                             |
| 216~960           | 200                                | 3                             |
| Above 960         | 500                                | 3                             |

Note:

- (1) The tighter limit applies at the band edges.
- (2) Emission level (dBuV/m)=20log Emission level (uV/m).

LIMITS OF RADIATED EMISSION MEASUREMENT ( FCC 15.239)

| Frequency of Emission (MHz) | Field Strength of fundamental (dBµV/m) |         |
|-----------------------------|--|---------|
|                             | Peak                                   | Average |
| 88-108                      | 68                                     | 48      |

Notes:

- (1) Fcc part15.239 (b) The field strength of any emissions within the permitted 200 kHz band shall not exceed 250 microvolts/meter at 3 meters. The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The provisions in Section 15.35 for limiting peak emissions apply.

| Spectrum Parameter                    | Setting               |
|---------------------------------------|-----------------------|
| Attenuation                           | Auto                  |
| Start Frequency                       | 1000 MHz              |
| Stop Frequency                        | 10th carrier harmonic |
| RB / VB (emission in restricted band) | 1MHz / 1MHz for Peak  |

| Receiver Parameter     | Setting                          |
|------------------------|----------------------------------|
| Attenuation            | Auto                             |
| Start ~ Stop Frequency | 9kHz~150kHz / RB 200Hz for QP    |
| Start ~ Stop Frequency | 150kHz~30MHz / RB 9kHz for QP    |
| Start ~ Stop Frequency | 30MHz~1000MHz / RB 120kHz for QP |



### 3.3.2 TEST PROCEDURE

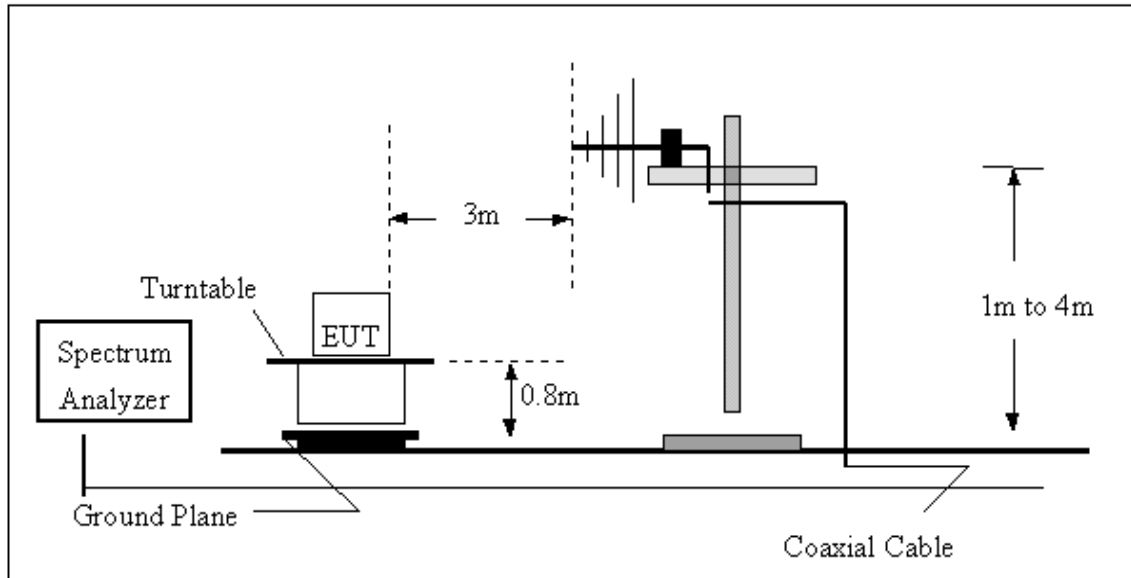
- a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3m meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement. performed pretest to three orthogonal axis.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

### 3.3.3 DEVIATION FROM TEST STANDARD

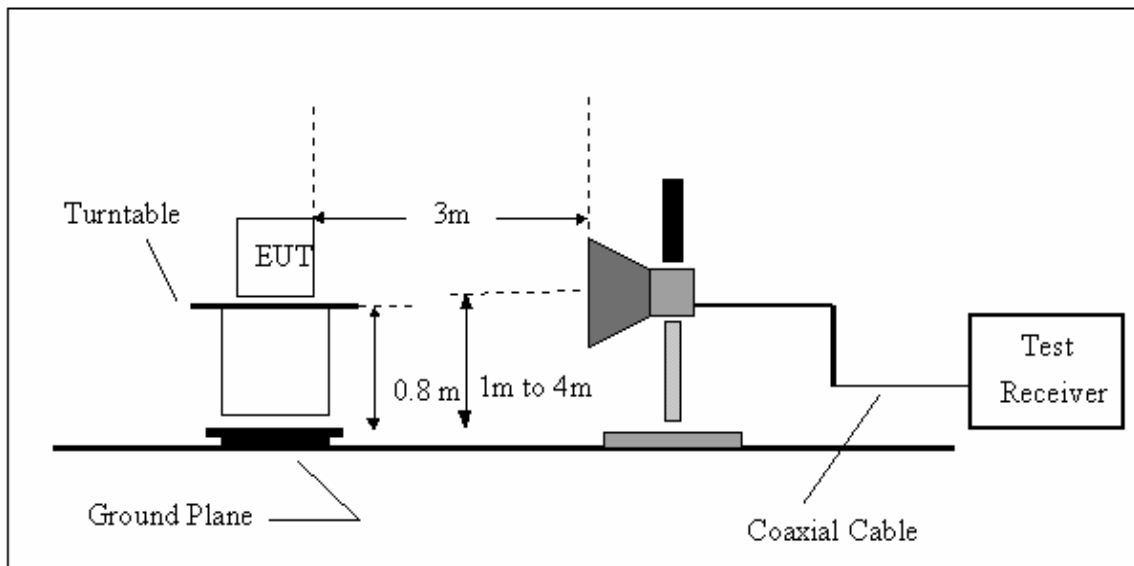
No deviation

### 3.3.4 TEST SETUP

(A) Radiated Emission Test Set-Up, Frequency Below 1000MHz



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





## 3.3.5 TEST RESULTS (BETWEEN 9KHz – 1000 MHz)

|               |          |                     |                      |
|---------------|----------|---------------------|----------------------|
| EUT :         | Car MP3  | Model Name :        | LG5041               |
| Temperature : | 24 °C    | Relative Humidity : | 54%                  |
| Pressure :    | 1010 hPa | Test Date :         | 2010-12-8            |
| Test Mode :   | 88.1MHz  | Polarization :      | Vertical& Horizontal |
| Test Power :  | DC 12V   |                     |                      |

## (a) Antenna polarization: Horizontal

| Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|-----------------|---------------------|----------------------|------------------------|-------------|----------------|---------------|
| 88.1000         | -17.92              | 62.67                | 44.75                  | -3.25       | 48             | AVERAGE       |
| 88.1000         | -17.92              | 78.36                | 60.44                  | -7.56       | 68             | PEAK          |
| 179.3863        | -14.26              | 53.26                | 39                     | -4.5        | 43.5           | QUASIPeAK     |
| 228.4903        | -10.63              | 37.64                | 27.01                  | -18.99      | 46             | QUASIPeAK     |
| 261.0582        | -11.82              | 43.92                | 32.1                   | -13.9       | 46             | QUASIPeAK     |
| 356.6757        | -9.01               | 50.41                | 41.4                   | -4.6        | 46             | QUASIPeAK     |
| 531.9634        | -4.33               | 45.13                | 40.8                   | -5.2        | 46             | QUASIPeAK     |

## (b) Antenna polarization: vertical

| Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|-----------------|---------------------|----------------------|------------------------|-------------|----------------|---------------|
| 88.1000         | -17.92              | 60.62                | 42.7                   | -5.3        | 48             | AVERAGE       |
| 88.1000         | -17.92              | 76.57                | 58.65                  | -9.35       | 68             | PEAK          |
| 171.3925        | -14.33              | 52.43                | 38.1                   | -5.4        | 43.5           | QUASIPeAK     |
| 233.3487        | -10.6               | 39.79                | 29.19                  | -16.81      | 46             | QUASIPeAK     |
| 265.6757        | -11.84              | 51.94                | 40.1                   | -5.9        | 46             | QUASIPeAK     |
| 354.1831        | -9.13               | 50.83                | 41.7                   | -4.3        | 46             | QUASIPeAK     |
| 782.3451        | 2.05                | 33.95                | 36                     | -10         | 46             | QUASIPeAK     |

## Remark :

- (1) '\*' means the worst case  
 Measurement Level = Reading Level + Factor  
 Ant Factor + Cable Loss-Amp
- (2) Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Peak detector mode or QP detector mode of the emission .
- (3) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.





|               |          |                     |                      |
|---------------|----------|---------------------|----------------------|
| EUT :         | Car MP3  | Model Name :        | LG5041               |
| Temperature : | 24 °C    | Relative Humidity : | 54%                  |
| Pressure :    | 1010 hPa | Test Date :         | 2010-9-11            |
| Test Mode :   | 98.1MHz  | Polarization :      | Vertical& Horizontal |
| Test Power :  | DC 12V   |                     |                      |

## (a) Antenna polarization: Horizontal

| Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|-----------------|---------------------|----------------------|------------------------|-------------|----------------|---------------|
| 98.1000         | -15.91              | 58.61                | 42.7                   | -5.3        | 48             | AVERAGE       |
| 98.1000         | -15.91              | 77.51                | 61.6                   | -6.4        | 68             | PEAK          |
| 192.4185        | -12.79              | 51.39                | 38.6                   | -4.9        | 43.5           | QUASIPeAK     |
| 285.9778        | -11.43              | 49.63                | 38.2                   | -7.8        | 46             | QUASIPeAK     |
| 401.8385        | -7.73               | 47.53                | 39.8                   | -6.2        | 46             | QUASIPeAK     |
| 482.2155        | -6.6                | 40.2                 | 33.6                   | -12.4       | 46             | QUASIPeAK     |
| 564.6389        | -3.53               | 29.91                | 26.38                  | -19.62      | 46             | QUASIPeAK     |

## (b) Antenna polarization: vertical

| Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|-----------------|---------------------|----------------------|------------------------|-------------|----------------|---------------|
| 98.1000         | -15.91              | 59.21                | 43.3                   | -4.7        | 48             | AVERAGE       |
| 98.1000         | -15.91              | 78.2                 | 62.2                   | -5.8        | 68             | PEAK          |
| 138.3873        | -12.6               | 46.53                | 33.93                  | -9.57       | 43.5           | QUASIPeAK     |
| 192.4183        | -12.79              | 50.59                | 37.8                   | -5.7        | 43.5           | QUASIPeAK     |
| 287.9904        | -11.33              | 44.93                | 33.6                   | -12.4       | 46             | QUASIPeAK     |
| 387.992         | -8.21               | 46.71                | 38.5                   | -7.5        | 46             | QUASIPeAK     |
| 582.7423        | -4.78               | 46.18                | 41.4                   | -4.6        | 46             | QUASIPeAK     |

## Remark :

- (1) '\*' means the worst case  
Measurement Level = Reading Level + Factor  
Factor=Ant Factor + Cable Loss-Amp
- (2) Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Peak detector mode or QP detector mode of the emission .
- (3) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.



|               |          |                     |                      |
|---------------|----------|---------------------|----------------------|
| EUT :         | Car MP3  | Model Name :        | LG5041               |
| Temperature : | 24 °C    | Relative Humidity : | 54%                  |
| Pressure :    | 1010 hPa | Test Date :         | 2010-9-11            |
| Test Mode :   | 88.1MHz  | Polarization :      | Vertical& Horizontal |
| Test Power :  | DC 12V   |                     |                      |

## (a) Antenna polarization: Horizontal

| Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|-----------------|---------------------|----------------------|------------------------|-------------|----------------|---------------|
| 107.900         | -14.33              | 58.03                | 43.7                   | -4.3        | 48             | AVERAGE       |
| 107.900         | -14.33              | 77.03                | 62.7                   | -5.3        | 68             | PEAK          |
| 210.786         | -10.81              | 46.51                | 35.7                   | -7.8        | 43.5           | QUASIPeAK     |
| 315.4806        | -10.14              | 49.74                | 39.6                   | -6.4        | 46             | QUASIPeAK     |
| 447.9821        | -7.83               | 47.33                | 39.5                   | -6.5        | 46             | QUASIPeAK     |
| 549.0193        | -3.64               | 44.04                | 40.4                   | -5.6        | 46             | QUASIPeAK     |
| 854.0247        | 3.5                 | 38.9                 | 42.4                   | -3.6        | 46             | QUASIPeAK     |

## (b) Antenna polarization: vertical

| Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|-----------------|---------------------|----------------------|------------------------|-------------|----------------|---------------|
| 49.3594         | -13.45              | 50.12                | 36.67                  | -3.33       | 40             | QUASIPeAK     |
| 107.900         | -14.33              | 58.43                | 44.1                   | -3.9        | 48             | AVERAGE       |
| 107.900         | -14.33              | 77.73                | 63.4                   | -4.6        | 68             | PEAK          |
| 222.9501        | -10.81              | 34.51                | 23.7                   | -22.3       | 46             | QUASIPeAK     |
| 522.7179        | -4.72               | 46.52                | 41.8                   | -4.2        | 46             | QUASIPeAK     |
| 760.7036        | 1.39                | 41.11                | 42.5                   | -3.5        | 46             | QUASIPeAK     |
| 932.2714        | 5.36                | 37.74                | 43.1                   | -2.9        | 46             | QUASIPeAK     |

## Remark :

- (1) '\*' means the worst case  
Measurement Level = Reading Level + Factor  
Ant Factor + Cable Loss-Amp
- (2) Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Peak detector mode or QP detector mode of the emission .
- (3) Data of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

#### 4. BANDWIDTH TEST

##### 4.1 LIMIT

(a) Emissions from the intentional radiator shall be confined within a band 200 kHz wide centered on the operating frequency. The 200kHz band shall lie wholly within the frequency range of 88-108 MHz

##### 4.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting : RBW= 10KHz, VBW $\geq$ RBW, Sweep time = Auto.

##### 4.3 DEVIATION FROM STANDARD

No deviation.

##### 4.4 TEST SETUP



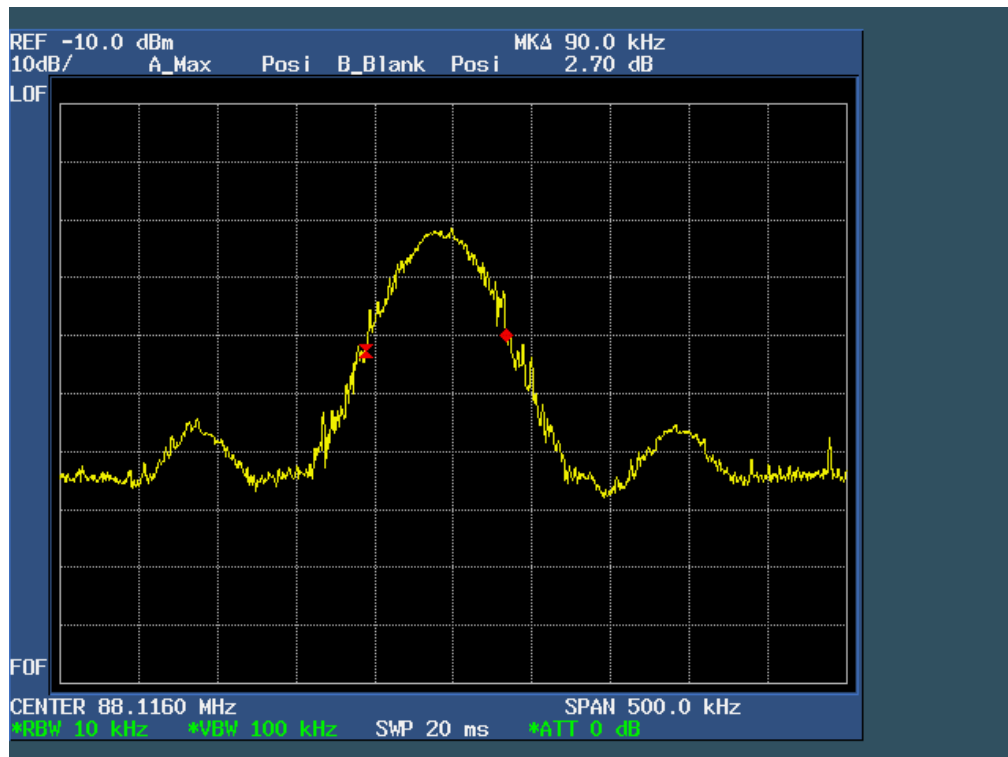


### 4.5 TEST RESULTS

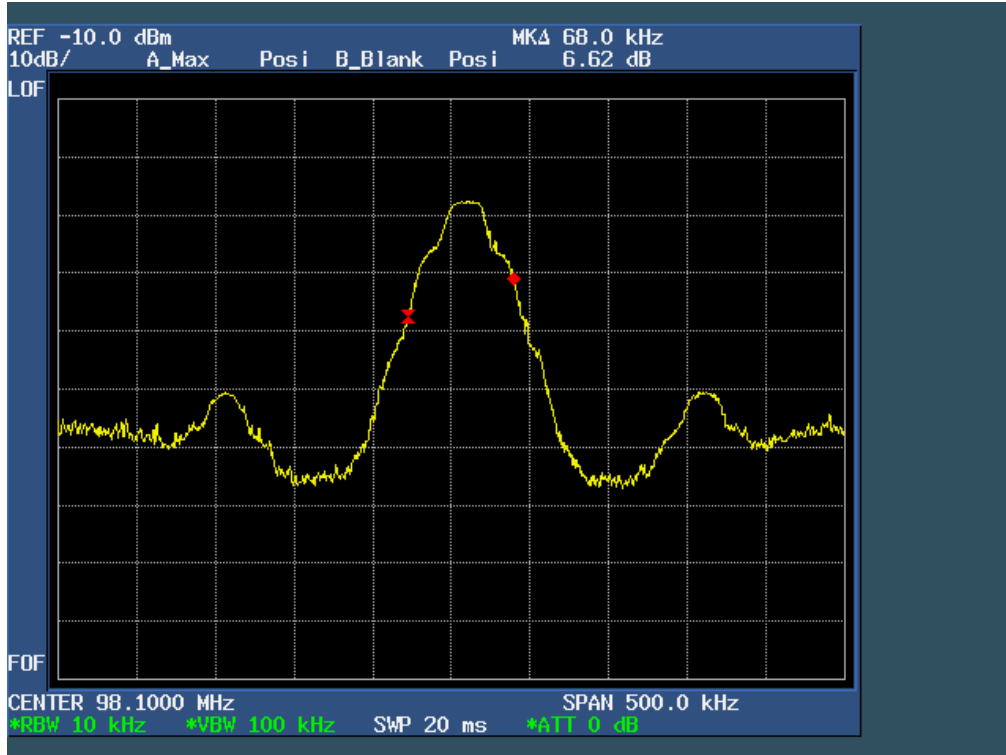
|               |          |                     |        |
|---------------|----------|---------------------|--------|
| EUT :         | Car MP3  | Model Name :        | LG5041 |
| Temperature : | 26 °C    | Relative Humidity : | 53%    |
| Pressure :    | 1020 hPa | Test Power :        | DC 12V |
| Test Mode :   | TX       |                     |        |

| Test Channel | Frequency (MHz) | 20 dBc Bandwidth (kHz) | Limit (kHz) |
|--------------|-----------------|------------------------|-------------|
| CH01         | 88.1            | 90                     | 200         |
| CH101        | 98.1            | 68                     | 200         |
| CH199        | 107.9           | 86.5                   | 200         |

The Lowest Channel:88.1MHz



### The Middle Channel:98.1MHz



### The Highest Channel:107.9MHz

