TEST REPORT

Ref. number : YE18768

Date of issue : July 27, 2018

Applicant information

Name	: JVC KENWOOD Corporation
Address	: 2967-3 Ishikawa cho, Hachioji-shi, Tokyo, 192-8525, Japan

Test Sample (EUT) Information

Type description	: DIGITAL MEDIA RECEIVER
Trade name/ Brand	: JVC
Model name	: KD-X262
Serial number(s)	: 113X0025
Rating	: 12V DC, 6A
Accessory	: None

Test Summary

Test laboratory	: JVC KENWOOD Corporation 2967-3 Ishikawa cho, Hachioji-shi, Tokyo, 192-8525, Japan TEL +81-42-646-5525 FAX +81-42-646-1440
Date(s) of test	: July 23, 2018
Test specification	: EN55035:2017
Test result	: Pass / The test results relate only to the sample tested.

Approved by

H. Ryu

Hiroyuki Ryu, Manager
JVC KENWOOD EMC CENTER

Tested and written by

M. Kobayashi

Minoru Kobayashi, Engineer
JVC KENWOOD EMC CENTER

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1. Scope of test

1.1 Emission

Measurements	Result	Remark
- Harmonic current emissions	N/A	N/A
- Voltage change fluctuations and flicker	N/A	N/A

1.2 Immunity

Measurements	Result	Remark
- Electrostatic discharge (ESD)	N/A	N/A
- Radiated RF fields	Test passed	Note 1
- Electrical fast transients/burst	N/A	N/A
- Surge	N/A	N/A
- Conducted disturbances (Inducted by radio-frequency fields)	N/A	N/A
- Power frequency magnetic fields (50Hz)	N/A	N/A
- Voltage dips, short interruptions and voltage variations	N/A	N/A

Note 1 : Measurement was carried out only from the frequency range above 1000MHz.

- Procedure : Assessment of conformity to test specification / Type examination
- All tests were performed with no deviation from the standard EN55035.
- This test results responds to the tested sample.

2. Test facility

Ref. no. : Hachioji, Small sized anechoic chamber (3m semi-anechoic chamber), size 6m x 4m x 3m/TOKIN

3. Test sample Information (additional)

Description : The EUT KD-X262 is a DIGITAL MEDIA RECEIVER.
EUT is provided radio tuner and audio amplifier (50W x4, 4Ω - 8Ω).
EUT is connected iPhone/iPad via the USB terminal and can be playback.
The EUT provides the clock, the max frequency 6.2208GHz.
For the features/Terminals of the EUT, the details are attached on next page.

Date of receipt	: June 14, 2018
Way of sampling	: Sent by client
EUT condition	: Pre production sample
EUT modifications	: No modification has been carried out by test laboratory

3.1 Features / Terminals of the EUT

Features	Terminals	Special options/terminals
	For rear	
☐ CD Player	☒ Wiring harness (14 cables),Note 2	☒ Detachable Faceplate
☐ DVD Player	☐ FRONT L/R(RCA)	☐ Bluetooth
☒ Radio Tuner	☐ REAR L/R (RCA)	☐
☒ iPod or iPhone	☐ SW L/R(RCA)	☐
☒ USB memory	☒ REAR/SW L/R(RCA)	☐
☐	☐ External optional accessory	☐
☐	☐ MIC (φ3.5, mono)	☐
☐	For front	☐
☐	☒ AUX (φ3.5, stereo)	☐
☐	☒ USB (Slave)	☐
☐	☐	☐
☐	☐	☐

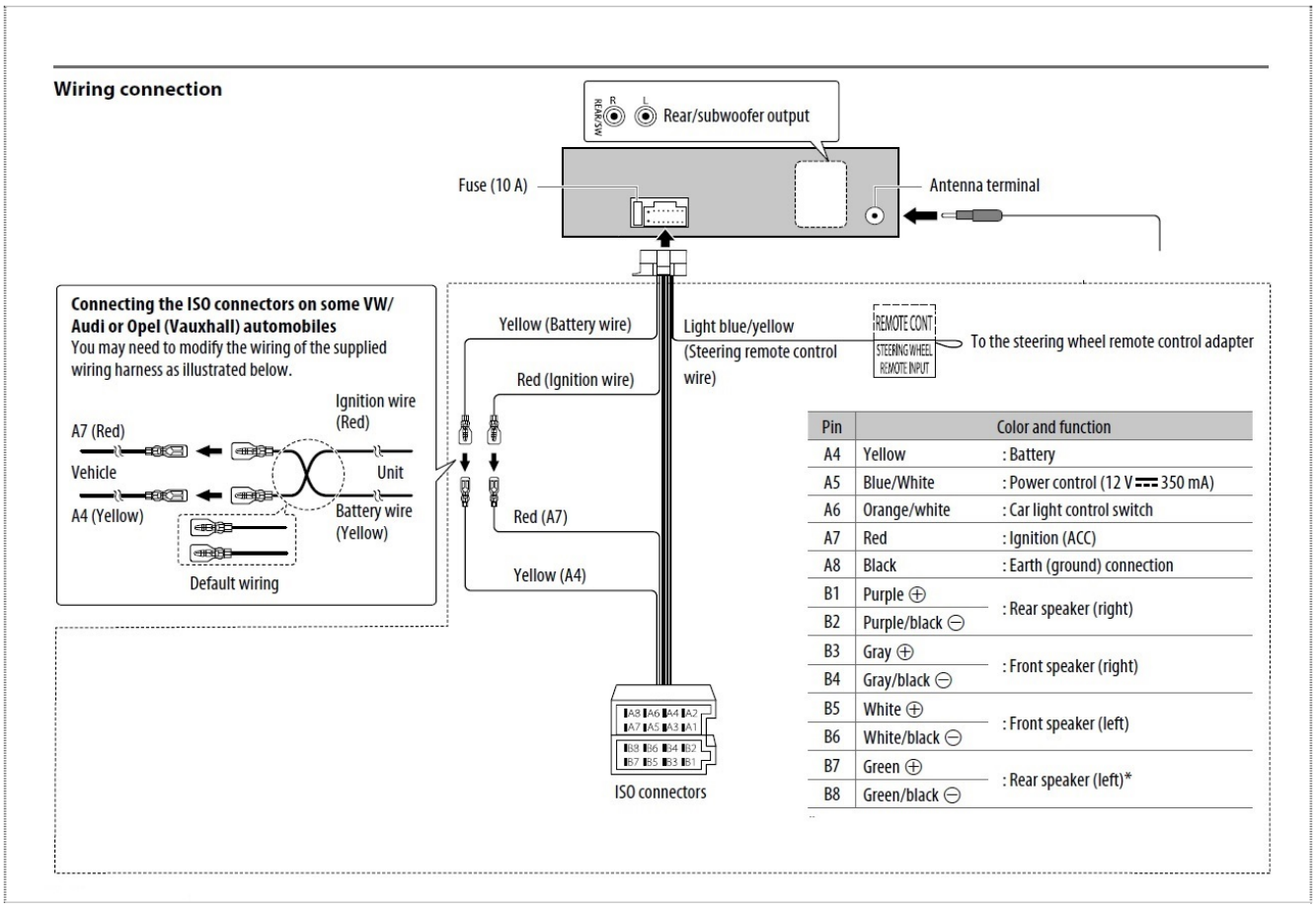
Note : "☒" indicates that the EUT equips the feature/terminal.

"☐" indicates that the EUT does not equip feature/terminal.

Note 2 : The detail as next page.

Remark : None

Wiring harness 14 pin cables



Pin	Color and function	
A4	Yellow	: Battery
A5	Blue/White	: Power control (12 V ⎓ 350 mA)
A6	Orange/white	: Car light control switch
A7	Red	: Ignition (ACC)
A8	Black	: Earth (ground) connection
B1	Purple ⊕	: Rear speaker (right)
B2	Purple/black ⊖	
B3	Gray ⊕	: Front speaker (right)
B4	Gray/black ⊖	
B5	White ⊕	: Front speaker (left)
B6	White/black ⊖	
B7	Green ⊕	: Rear speaker (left)*
B8	Green/black ⊖	

Each cable length is as follows

front speaker (left & right / 4 cables)	:	original/20cm + extension/80cm	→ 100cm / 4Ω load
rear speaker (left & right / 4 cables)	:	original/20cm + extension/80cm	→ 100cm/ 4Ω load
Ignition wire / 1 cable	:	original/20cm + extension/100cm	→ 120cm / DC 12V
Battery wire / 1 cable	:	original/20cm + extension/100cm	→ 120cm / DC 12V
Ground wire / 1 cable	:	original/20cm + extension/100cm	→ 120cm / Ground
Power control wire /1 cable	:	16cm / opened	
Mute control wire /1 cable	:	16cm / opened	
Antenna control wire /1 cable	:	16cm / opened	

3.2 List of accessory

Type no.	Model no.	Serial no.	Manufacturer /Brand	CE
USB Flash Drive /Peripheral	USB/128M	None	Bestrunner	N/A

3.3 list of cable

Cable type no.	Type no.	Connection	Shielded	Ferrite core	Length (m)
Wiring harness 14 pin cables	N/A	EUT	None	None	Note 1
REAR/SW L/R cable	RCA	EUT	Yes	None	1.6
AUX cable	3.5mm (Streo)	EUT	Yes	None	1.0
USB terminal cable	USB	EUT to USB Flash Drive	Yes	None	1.0

Note 1: for details, see “Wiring harness 14 pin cables“ of page 6

4. Test configuration

Power supply : 12V DC

4.1 Communication modes (operation modes)

4.1.1 Electrostatic discharge (ESD)

Test standard : EN55035:2017 with EN61000-4-2:2009

The test was waived according to the request of the client.

4.1.2 Radiated RF fields

Test standard : EN55035:2017 with EN61000-4-3:2006 + A1:2008 + A2:2010

Communication modes :

1) EUT alone operated

The details of operation modes are as follows,

Communi-cation modes	Operation modes	4.2.3 Configuration of tested system
1)	1. EUT playback USB, 1kHz audio signal / 4Ω dummy load x4 connected	(1) EUT alone operating / CD mode

Note :

1. Software is used to exercise the EUT as follows
   Software is not used to exercise the EUT
2. For Speakers output was adjust to approximately 500mW (1.42V) at 4Ω.
   The requirement is a wanted to unwanted audio signal (a sinusoidal signal at 1kHz) of >26dB at a wanted audio signal level of 500mW.
3. Judgment of criterion A was judged by electrical reference level from 4Ω dummy load of Front speakers.

4.1.3 Electrical fast transients/burst

Test standard : EN55035:2017 with EN61000-4-4:2004

The test was waived according to the request of the client.

4.1.4 Surge

Test standard : EN55035:2017 with EN61000-4-5:2006

EUT does not have a mains power supply (DC equipment).

4.1.5 Conducted disturbances (Inducted by radio-frequency fields)

Test standard : EN55035:2017 with EN61000-4-6:2009

The test was waived according to the request of the client.

4.1.6 Power frequency magnetic fields (50Hz)

Test standard : EN55035:2017 with EN61000-4-8:2010

EUT is not a device intrinsically susceptible to magnetic fields.

4.1.7 Voltage dips, short interruptions and voltage variations

Test standard : EN55035:2017 with EN61000-4-11:2004

EUT does not have a mains power supply (DC equipment).

4.2 Radiated RF fields

4.2.1 Summary of measurement setting

- The tests and measurements carried out EN55035 and EN61000-4-3, Immunity from radiated RF fields.
- The set-up and conditions are “4.2.3” and “4.2.5 Photo of test configuration”.
- The immunity against radiated RF fields in the frequency range of 80MHz to 1000MHz was tested according EN55035.
- The immunity against radiated RF fields in the frequency range of above 1GHz (1800MHz, 2600MHz, 3500MHz, 5000MHz) was tested according EN55035.
- The test set-up and the measurement was done according, EN61000-4-3 in 3m Semi-anechoic chamber
- The test condition was performed as follows,

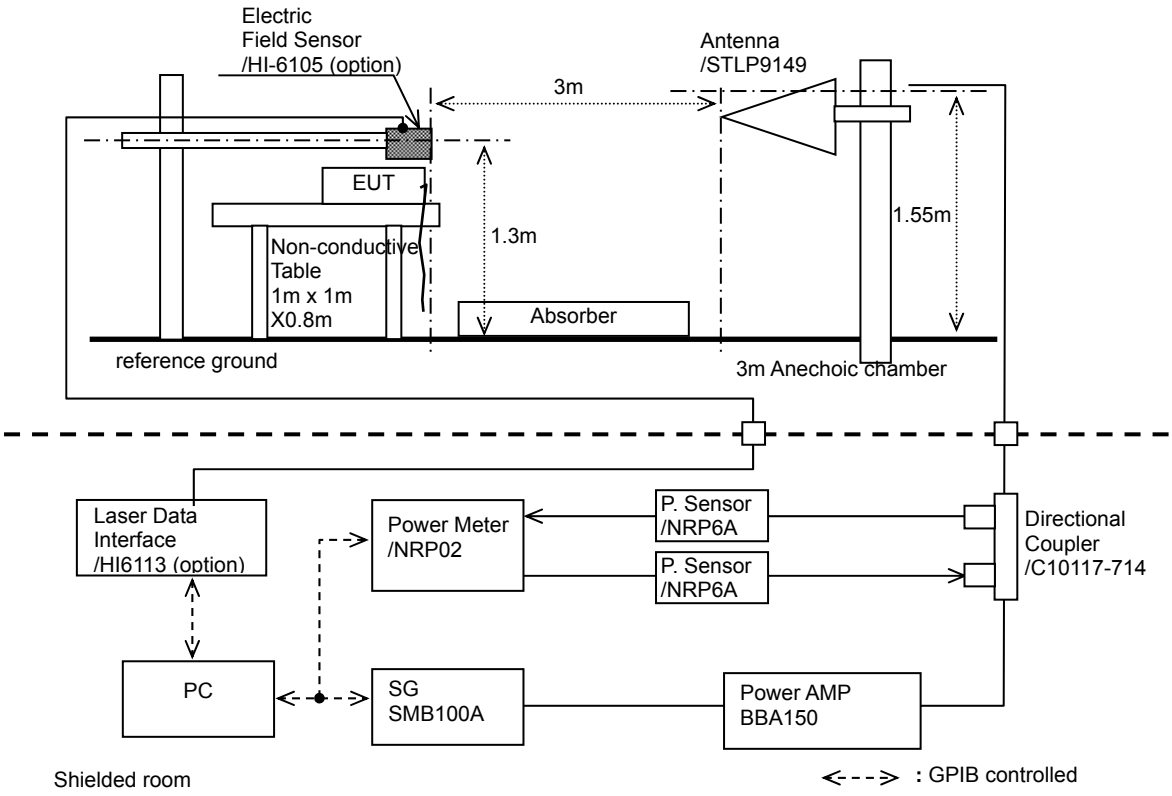
RF emission frequency	: from 80MHz to 1000MHz
Fielded strength	: 3V/m
Modulation	: AM 80%, 1kHz
Frequency step size	: 1% of fundamental
Performance criterion	: A

RF emission frequency	: 1800MHz, 2600MHz, 3500MHz, 5000MHz / frequency ±1%
Fielded strength	: 3V/m
Modulation	: AM 80%, 1kHz
Performance criterion	: A

4.2.2 Special test condition

None

4.2.3 Configuration or tested system



4.2.4 Measuring instruments

Test Site : 3m Semi-anechoic chamber/ Hachioji

Description : Small sized anechoic chamber 6m x 4m x 3m

	Instrument	Type no.	Serial no.	Manufacturer	Inst. no.	Latest cal.	Cal. Interval
☒	Stacked Microwave Log-Per	STLP9149	00586	Schwarzbeck	H-A05	N/A	N/A
☒	Power Amplifier	BBA150	102993 -20	Rohde & Schwarz	AMP12	N/A	N/A
☒	Power Meter	NRP02	106441	Rohde & Schwarz	POM02	Dec/21/2017	1 year
☐	Electric Field Sensor	HI-6105	00224564	ETS Lindgren	EFP01	Feb/18/2018	1 year
☒	Software	TEPTO-RS/ANT	Ver. 4.8.411	tsj	N/A	N/A	N/A
☒	Signal Generator	SMB100A	114887	Rohde & Schwarz	SGE05	Jan/5/2018	1 year
☒	Distortion Meter	725B	M-51143009	Shibasoku	N/A	Jun/8/2018	1 year
☒	Band pass filter	BP02	None	Erika Fiedler	N/A	N/A	N/A
☒	DC Power Supply	PAD60 -60LA	KK000998	KIKUSUI	N/A	N/A	N/A
☐							
☐							
☐							
☐							

Note : "☒" indicates that these instruments were in use for this test.

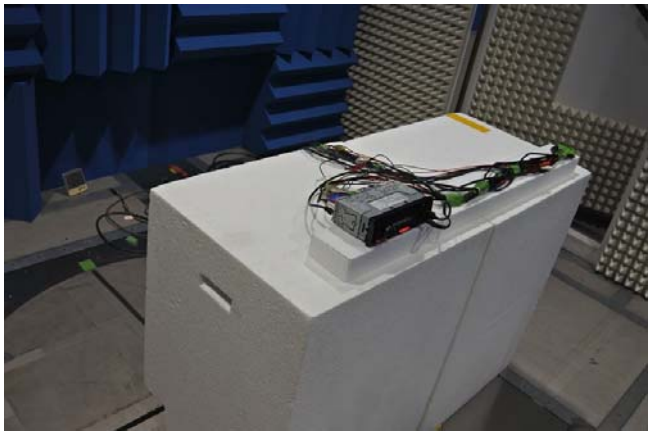
"☐" indicates that these instruments were not in use for this test.

4.2.5 Photo of test configuration

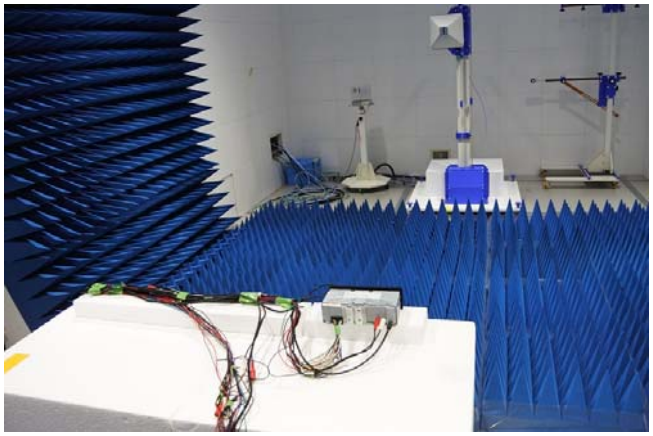
picture 1 : Measurement set-up

picture 2 : Measurement set-up

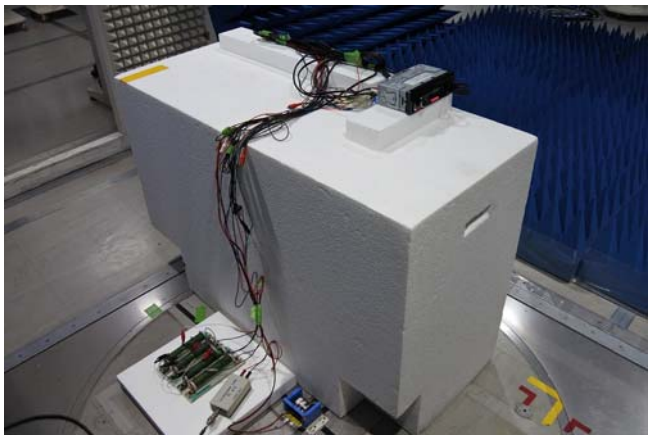
picture 3 : EUT alone/ Front side



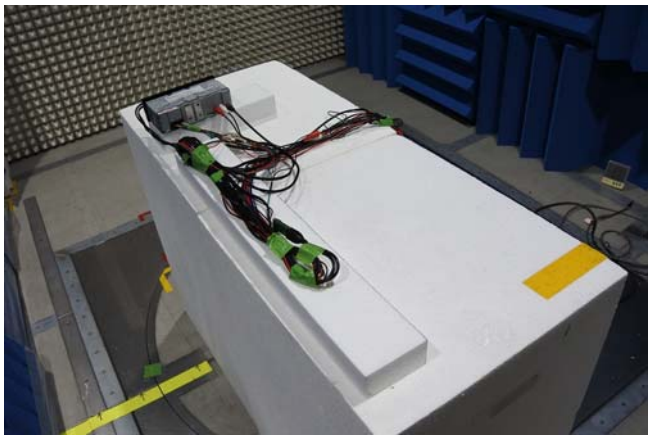
picture 4 : EUT alone/ Front side



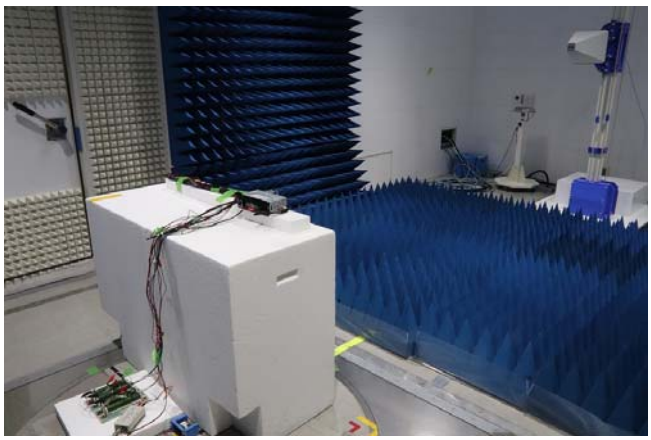
picture 5 : EUT alone/ Left side



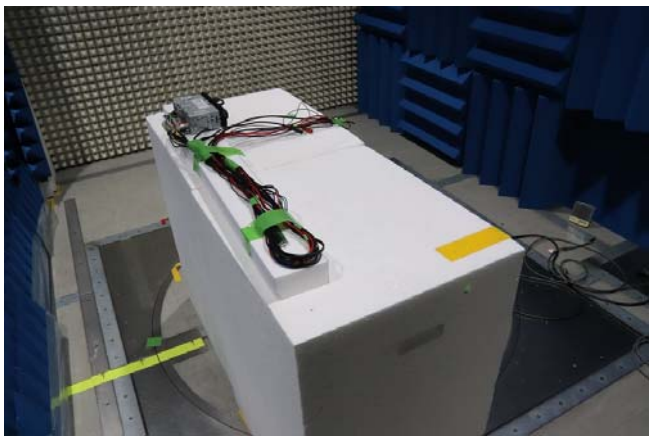
picture 6 : EUT alone/ Left side



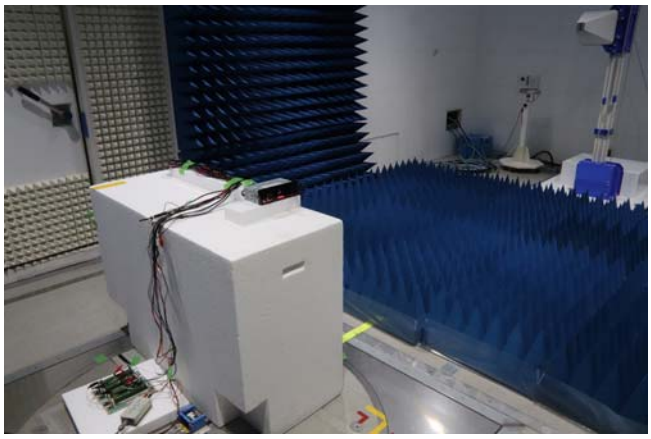
picture 7 : EUT alone/ Back side



picture 8 : EUT alone/ Back side



picture 9 : EUT alone / Right side



picture 10 : EUT alone/ Right side

4.2.6 Measurement uncertainty

Frequency range : 1000MHz – 6000MHz

The uncertainty for the setting level of the Electric field strength : ±1.28dB

The measurement uncertainties have been determined at a confidence level of approximately 95% (k=2).

The uncertainty value was calculated in accordance with IEC61000-4-3.

5. Measurement results

5.1 Radiated RF fields measurement results

Test specification : EN55035

Test set-up performed according EN61000-4-3.

(1-1) Measurement results

Trade name/Brand	: KENWOOD	Temperature	: 23 degrees
Model name	: KD-X262	Humidity	: 58 %
Type description	: DIGITAL MEDIA RECEIVER	Date	: July 24, 2018
Serial no	: 113X0025	Test engineer	: T. Shimizu/M. Kobayashi
Power supply	: DC 12V		

Testing mode : EUT playback USB, 1kHz audio signal/ 4Ω dummy load x4 connected

Comment : Measurement was carried out only from the frequency range above 1000MHz.
The audio output was evaluated according to the setup of Annex G, Fig.G.1.
The measurement acoustic interference ratio and/or the measured electrical interference ratio during the test shall be -20dB or better.
For Speakers output was adjust to approximately 500mW (1.42V) at 4Ω.
The requirement is a wanted to unwanted audio signal (a sinusoidal signal at 1kHz) of >26dB at a wanted audio signal level of 500mW.

Remarks : None

Function of the EUT after test : OK

Result : OK, The EUT kept the criterion A for the required limits.

Spot frequency : 1800MHz, 2600MHz, 3500MHz, 5000MHz

Test time each frequency : 10 sec

Operation mode	Antenna pol.	Test level	EUT location	Remark/observation	Result
EUT playback USB/ 1kHz audio signal	Horizontal	3V/m	Front	Sound, electrical interference ratio is more than 20dB.	pass
			Left		pass
			Rear		pass
			Right		pass
	Vertical	3V/m	Front	Sound, electrical interference ratio is more than 20dB.	pass
			Left		pass
			Rear		pass
			Right		pass

Remark : None