EMI TEST REPORT

Test Report No.: 13002573S-R2

Applicant	:	**Panasonic Corporation**
Type of EUT	:	**Car radio tuner**
Model Number of EUT	:	**CQ-TH1AN1MX**
FCC ID	:	**ACJ932CQTH1AN1MX**
Test regulation	:	**FCC Part 15 Subpart B: 2019**
Test result	:	**Complied (Refer to Section 3.2)**

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2. The results in this report apply only to the sample tested.
3. This sample tested is in compliance with the limits of the above regulation.
4. The test results in this test report are traceable to the national or international standards.
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6. This test report covers EMC technical requirements.
   It does not cover administrative issues such as Manual or non-EMC test related Requirements. (if applicable)
7. The all test items in this test report are conducted by UL Japan, Inc. Shonan EMC Lab.
8. The opinions and the interpretations to the result of the description in this report are outside scopes where UL Japan has been accredited.
9. This report is a revised version of 13002573S-R1. 13002573S-R1 is replaced with this report.

Date of test: September 3 to 6, 2019

Representative test engineer:
Yohsuke Matsuzawa
Engineer
Consumer Technology Division

Approved by:
Shinichi Takano
Engineer
Consumer Technology Division

☐ The testing in which "Non-accreditation" is displayed is outside the accreditation scopes in UL Japan.
☒ There is no testing item of "Non-accreditation".

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Shonan EMC Lab.
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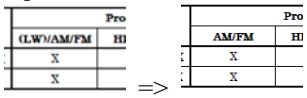
REVISION HISTORY

Original Test Report No.: 13002573S

Revision	Test report No.	Date	Page revised	Contents
- (Original)	13002573S	March 11, 2020	-	-
1	13002573S-R1	April 10, 2020	P.5	Modification of rating from: DC 13.2 V to: DC 6 V, DC 9 V
			P.6	Update table of similar models 
			P.6	Modification of Frequency of operation from: 87.75 MHz to 107.9 MHz to: 87.75 MHz, 87.9 MHz to 107.9 MHz
2	13002573S-R2	April 15, 2020	- (full revision)	Modification of Clock frequencies on Section 2 from: Clock frequencies: 300 MHz to: Clock frequencies maximum: 300 MHz
				Modification of "No.1 Antenna" shield in List of cables on Section 4 shield in the List of cables from: Unshielded to: Shielded
				Addition of “Figure 2: Test Setup” on Section 5

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Reference: Abbreviations (Including words undescribed in this report)

AAN	Asymmetric Artificial Network
AC	Alternating Current
AM	Amplitude Modulation
AMN	Artificial Mains Network
Amp, AMP	Amplifier
ANSI	American National Standards Institute
Ant, ANT	Antenna
AP	Access Point
ASK	Amplitude Shift Keying
Atten., ATT	Attenuator
AV	Average
BPSK	Binary Phase-Shift Keying
BR	Bluetooth Basic Rate
BT	Bluetooth
BT LE	Bluetooth Low Energy
BW	BandWidth
C.F	Correction Factor
Cal Int	Calibration Interval
CAV	CISPR AV
CCK	Complementary Code Keying
CDN	Coupling Decoupling Network
Ch., CH	Channel
CISPR	Comite International Special des Perturbations Radioelectriques
Corr.	Correction
CPE	Customer premise equipment
CW	Continuous Wave
DBPSK	Differential BPSK
DC	Direct Current
DET	Detector
Dmax	maximum absolute voltage change during an observation period
DQPSK	Differential QPSK
DSSS	Direct Sequence Spread Spectrum
EDR	Enhanced Data Rate
e.i.r.p., EIRP	Equivalent Isotropically Radiated Power
EM clamp	Electromagnetic clamp
EMC	ElectroMagnetic Compatibility
EMI	ElectroMagnetic Interference
EMS	ElectroMagnetic Susceptibility
EN	European Norm
e.r.p., ERP	Effective Radiated Power
EU	European Union
EUT	Equipment Under Test
Fac.	Factor
FCC	Federal Communications Commission
FHSS	Frequency Hopping Spread Spectrum
FM	Frequency Modulation
Freq.	Frequency
FSK	Frequency Shift Keying
Fund	Fundamental
FWD	Forward
GFSK	Gaussian Frequency-Shift Keying
GNSS	Global Navigation Satellite System
GPS	Global Positioning System
Hori.	Horizontal
ICES	Interference-Causing Equipment Standard
I/O	Input/Output
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronics Engineers
IF	Intermediate Frequency
ILAC	International Laboratory Accreditation Conference
ISED	Innovation, Science and Economic Development Canada
ISN	Impedance Stabilization Network
ISO	International Organization for Standardization
JAB	Japan Accreditation Board
LAN	Local Area Network
LCL	Longitudinal Conversion Loss
LIMS	Laboratory Information Management System
LISN	Line Impedance Stabilization Network
MRA	Mutual Recognition Arrangement
NIST	National Institute of Standards and Technology
NS	No signal detect.
NSA	Normalized Site Attenuation
NVLAP	National Voluntary Laboratory Accreditation Program
OBW	Occupied Band Width
OFDM	Orthogonal Frequency Division Multiplexing
PK	Peak
P_{LT}	long-term flicker severity
POHC(A)	Partial Odd Harmonic Current
Pol., Pola.	Polarization
PR-ASK	Phase Reversal ASK
P_{ST}	short-term flicker severity
QAM	Quadrature Amplitude Modulation
QP	Quasi-Peak
QPSK	Quadri-Phase Shift Keying
r.m.s., RMS	Root Mean Square
RBW	Resolution Band Width
RE	Radio Equipment
REV	Reverse
RF	Radio Frequency
RFID	Radio Frequency Identifier
RSS	Radio Standards Specifications
Rx	Receiving
SINAD	Ratio of (Signal + Noise + Distortion) to (Noise + Distortion)
S/N	Signal to Noise ratio
SA, S/A	Spectrum Analyzer
SG	Signal Generator
SVSWR	Site-Voltage Standing Wave Ratio
THC(A)	Total Harmonic Current
THD(%)	Total Harmonic Distortion
TR	Test Receiver
Tx	Transmitting
VBW	Video BandWidth
Vert.	Vertical
WLAN	Wireless LAN
xDSL	Generic term for all types of DSL technology (DSL: Digital Subscriber Line)

CONTENTS

SECTION 1: Customer information

Company Name	:	Panasonic Corporation
Address	:	4261 Ikonobe-cho, Tsuzuki-ku, Yokohama-city, Kanagawa-ken, 224-8520, Japan
Telephone Number	:	+81-50-3689-6676
Facsimile Number	:	+81-45-931-0806
Contact Person	:	Takanori Matsumoto

The information provided from the customer is as follows;
- Applicant, Type of Equipment, Model No. FCC ID on the cover and other relevant pages
- Operating/Test Mode(s) (Mode(s)) on all the relevant pages
- SECTION 1: Customer information
- SECTION 2: Equipment under test (E.U.T.)
- SECTION 4: Operation of E.U.T. during testing

* The laboratory is exempted from liability of any test results affected from the above information in SECTION 2 and 4.

SECTION 2: Equipment under test (E.U.T.)

2.1 Identification of E.U.T.

Type of Equipment	:	Car radio tuner
Model No.	:	CQ-TH1AN1MX
Serial No.	:	Refer to Clause 4.2
Rating	:	DC 6 V, DC 9 V
Country of Mass-production	:	Mexico (Japan)
Condition of EUT	:	Engineering prototype (Not for Sale: This sample is equivalent to mass-produced items.)
Modification of EUT	:	No modification by the test lab.
Receipt Date of Sample (Information from test lab.)	:	September 2, 2019

2.2 Product description

Model: CQ-TH1AN1MX (referred to as the EUT in this report) is a Car radio tuner.

Similar model:

Version	Model No.	Product Function				Radio Band	Mounting Bracket	Assembly Plant
		AM/FM	HD-Radio	DAB	FM-VICS			
Ver.2	CQ-TH1AN1MX	X	X	-	-	US	A	Mexico
	CQ-TH1AN1CX	X	X	-	-	US	A	Mexico
	CQ-TH1BN1FX	X	X	-	-	US	A	Mexico
	CQ-TH1AN1AJ	X	X	-	-	US	A	Japan
	CQ-TH2CN0TX	X	X	-	-	US	B	Mexico
	CQ-TH2BN0CX	X	X	-	-	US	B	Mexico
	CQ-TH2CN0MX	X	X	-	-	US	B	Mexico
	CQ-TH2BN0AJ	X	X	-	-	US	B	Japan
	CQ-THVBN0JX	X	X	-	-	US	C	Mexico

Clock frequencies maximum: 300 MHz

FM tuner specification
Frequency of operation: 87.75 MHz, 87.9 MHz to 107.9 MHz
Intermediate frequency: ±44.1 kHz

SECTION 3: Test specification, procedures & results

3.1 Test specification

Test specification : FCC Part 15 Subpart B: 2019
FCC Part 15 final revised on July 19, 2019 and effective August 19, 2019 except 15.258
Title : FCC 47CFR Part 15 Radio Frequency Device
Subpart B Unintentional Radiators

3.2 Procedures & Results

Item	Test Procedure	Limits	Deviation	Worst margin	Result
Conducted emission	ANSI C63.4: 2014 IEEE 187:2003	FCC 15.107 (a)	N/A *1)	N/A	N/A
Radiated emission	ANSI C63.4: 2014 IEEE 187:2003	FCC 15.109 (a)	N/A	14.8 dB Freq.: 921.637 MHz Polarization: Horizontal Mode: FM Receiving (97.9 MHz) analog	Complied a)
Antenna power conduction for receivers	ANSI C63.4: 2014 IEEE 187:2003	FCC 15.111 (a)	N/A	11.7 dB Freq.: 1858.000 MHz Detector: Peak Mode: FM Receiving (97.9 MHz) analog	Complied b)
Note: UL Japan's EMI Work Procedures No. 13-EM-W0420 a) Refer to Appendix 1 (data of Radiated emission) b) Refer to Appendix 1 (data of Antenna Terminal)					
Symbols: Complied The data of this test item has enough margin, more than the measurement uncertainty. Complied# The data of this test item meets the limits unless the measurement uncertainty is taken into consideration.					

*1) The test is not applicable since the EUT does not have AC Mains.

3.3 Additions to standards

No addition, deviation or exclusion has been made from standards.

3.4 Confirmation

UL Japan, Inc. hereby confirms that E.U.T., in the configuration tested, complies with the specifications FCC Part 15 Subpart B: 2019

3.5 Uncertainty

The following uncertainties have been calculated to provide a confidence level of 95% using a coverage factor *k*=2.

Item	Frequency range	No.1 SAC*1/SR*2 (±)	No.2 SAC/SR (±)	No.3 SAC/SR (±)
Radiated emission (Measurement distance: 3 m)	30 MHz-200 MHz	4.6 dB	4.6 dB	4.7 dB
	200 MHz-1 GHz	6.0 dB	6.0 dB	6.1 dB
	1 GHz-6 GHz	4.8 dB	4.8 dB	4.8 dB
Antenna Terminal Voltage*3	5 MHz-1000 MHz	3.1 dB		
	1000 MHz-	2.4 dB		

*1: SAC=Semi-Anechoic Chamber
*2: SR= Shielded Room is applied besides radiated emission
*3: Value of Antenna Terminal Voltage measurement is also applies to the No.5 and No.6 Shielded Room.

3.6 Test location

UL Japan, Inc. Shonan EMC Lab.
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Telephone number : +81 463 50 6400
Facsimile number : +81 463 50 6401
JAB Accreditation No. : RTL02610
FCC Test Firm Registration Number: 839876
ISED Lab Company Number: 2973D

	Width x Depth x Height (m)	Size of reference ground plane (m) / horizontal conducting plane	Maximum measurement distance
No.1 Semi-anechoic chamber	20.6 x 11.3 x 7.65	20.6 x 11.3	10 m
No.2 Semi-anechoic chamber	20.6 x 11.3 x 7.65	20.6 x 11.3	10 m
No.3 Semi-anechoic chamber	12.7 x 7.7 x 5.35	12.7 x 7.7	5 m
No.4 Semi-anechoic chamber	8.1 x 5.1 x 3.55	8.1 x 5.1	-
No.1 Shielded room	6.8 x 4.1 x 2.7	6.8 x 4.1	-
No.2 Shielded room	6.8 x 4.1 x 2.7	6.8 x 4.1	-
No.3 Shielded room	6.3 x 4.7 x 2.7	6.3 x 4.7	-
No.4 Shielded room	4.4 x 4.7 x 2.7	4.4 x 4.7	-
No.5 Shielded room	7.8 x 6.4 x 2.7	7.8 x 6.4	-
No.6 Shielded room	7.8 x 6.4 x 2.7	7.8 x 6.4	-
No.7 Shielded room	2.76 x 3.76 x 2.4	2.76 x 3.76	-
No.8 Shielded room	3.45 x 5.5 x 2.4	3.45 x 5.5	-
No.1 Measurement room	2.55 x 4.1 x 2.5	2.55 x 4.1	-

3.7 Test Setup, Data of EMI & Test instruments

Refer to Appendix 1 to 3.

SECTION 4: Operation of E.U.T. during testing

4.1 Operating mode

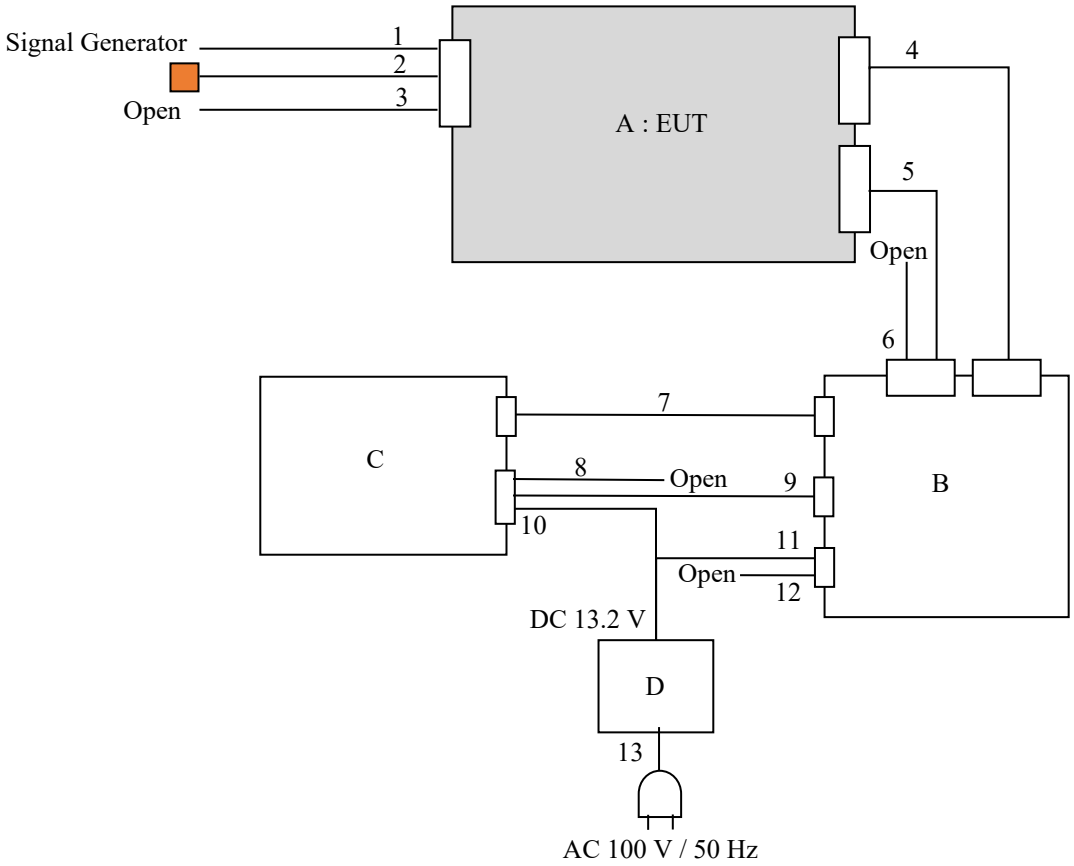
The EUT exercise program used during testing was designed to exercise the various system components in a manner similar to typical use.

Test sequence is used : FM Reception (87.75 MHz, 97.9 MHz, 107.9 MHz), Analog/Digital
Software (Firmware) : BBU1200080000031

Justification: The system was configured in typical fashion (as a customer would normally use it) for testing.

4.2 Configuration and peripherals

: Termination



* Cabling and setup(s) were taken into consideration and test data was taken under worse case conditions.

Description of EUT and Support equipment

No.	Item	Model number	Serial number	Manufacturer	Remark
A	Car radio Tuner	CQ-TH1AN1MX	19072245	Panasonic Corporation	EUT
B	Display Audio Unit	CL-MH1AX0JT	30	Panasonic Corporation	-
C	Display Unit	RD6D8AC	KEZ22000152	ALPINE	-
D	Power Supply	PAN60-10A	N+002383	Kikusui	-

List of cables used

No.	Name	Length (m)	Shield		Remark
			Cable	Connector	
1	Antenna	0.15 + 2.0	Shielded	Shielded	-
2	Antenna	0.15 + 2.0	Shielded	Shielded	-
3	Signal	0.15 + 1.0	Shielded	Shielded	-
4	Signal	1.0	Shielded	Shielded	-
5	Signal	1.0	Unshielded	Unshielded	-
6	Signal	1.0	Shielded	Shielded	-
7	Signal	1.0	Shielded	Shielded	-
8	Signal	1.0	Shielded	Shielded	-
9	Signal	0.5	Unshielded	Unshielded	-
10	DC Power	1.0 + 0.15	Unshielded	Unshielded	-
11	DC Power	1.0 + 0.15	Unshielded	Unshielded	-
12	General-purpose	1.0	Unshielded	Unshielded	-
13	AC Power	2.0	Unshielded	Unshielded	-

SECTION 5: Radiated emission

5.1 Operating environment

Test room : Refer to data
Temperature : Refer to data
Humidity : Refer to data

5.2 Test configuration

For below 1 GHz, EUT was placed on a platform of nominal size, 1.0 m by 2.0 m, raised 0.8 m above the conducting ground plane. For above 1 GHz, EUT was placed on a platform of nominal size, 1.0 m by 1.5 m, raised 0.8 m above the conducting ground plane.
The table is made of expanded polystyrol and expanded polypropylene and the table top is covered with polycarbonate. That has very low permittivity. The rear of EUT, including its peripherals was aligned and flushed with rear of tabletop. I/O cables that were connected to the peripherals were bundled in center. They were folded back and for the forming a bundle 30 cm to 40 cm long and were hanged at a 40 cm height to the ground plane.
Photographs of the set up are shown in Appendix 1.

5.3 Test conditions

Frequency range : 30 MHz - 2 GHz
Test distance : 3 m
EUT position : Table top

5.4 Test procedure

The Radiated Electric Field Strength intensity has been measured on an anechoic chamber with a ground plane and at a distance of 3 m. Measurements were performed with quasi-peak, peak and average detector. The measuring antenna height was varied between 1 and 4 m and EUT was rotated a full revolution in order to obtain the maximum value of the electric field intensity. Test antenna was aimed at the EUT for receiving the maximum signal and always kept within the illumination area of the 3 dB beamwidth of the antenna.
The measurements were performed for both vertical and horizontal antenna polarization. The radiated emission measurements were made with the following detector function of the test receiver.

The noise levels were confirmed at each position of X, Y and Z axes of EUT to see the position of maximum noise, and the test was made at the position that has the maximum noise.

		30 MHz -1000 MHz (Test receiver)	1 GHz – 2 GHz (Spectrum analyzer) *2)	
Detector Type	:	QP	AV *1)	PK
IF Band width	:	120 kHz	RBW 1 MHz/ VBW 10 Hz	RBW 1 MHz/ VBW 3 MHz

* When using Spectrum analyzer, the test was made with adjusting span to zero by using peak hold.

Figure 1. Antenna angle

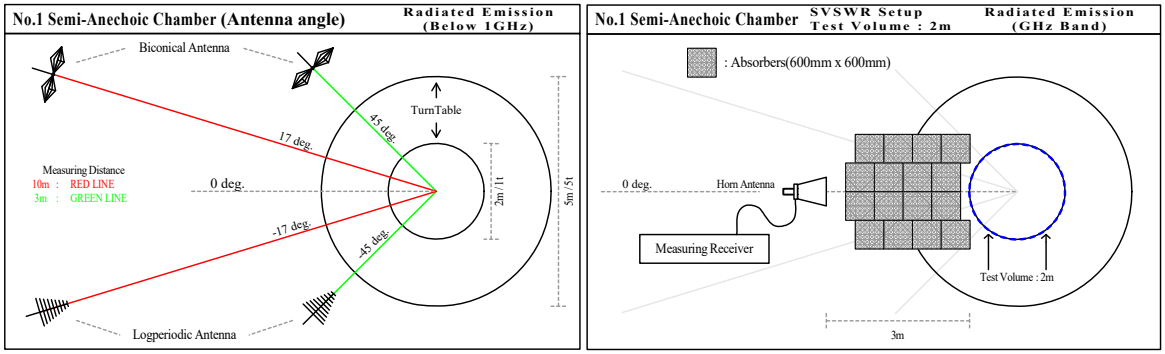
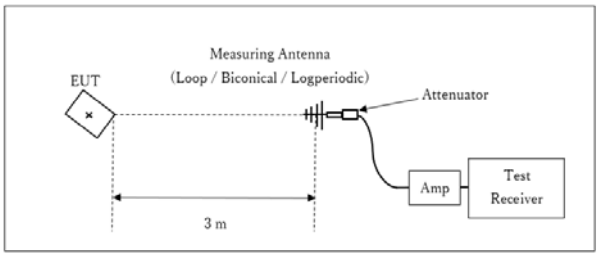


Figure 2: Test Setup

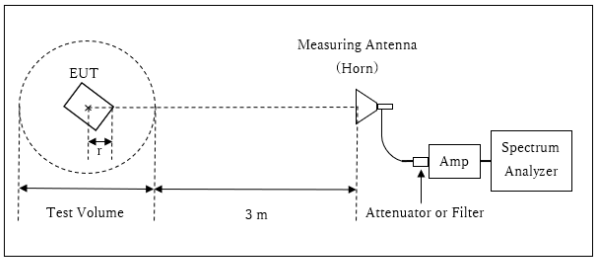
Below 1 GHz



× : Center of turn table

Test Distance: 3 m

1 GHz - 2 GHz



r : Radius of an outer periphery of EUT
× : Center of turn table

Distance Factor: 20 x log (3.62 m / 3.00 m) = 1.64 dB
* Test Distance: (3 + Test Volume /2) - r = 3.62 m

Test Volume : 2.00 m
(Test Volume has been calibrated based on CISPR 16-1-4.)
r = 0.38 m

5.5 Results

Summary of the test results : Pass

SECTION 6: Antenna power conduction for receivers

6.1 Operating environment

Test room : Refer to data
Temperature : Refer to data
Humidity : Refer to data

6.2 Test configuration

The EUT was placed on a non-metallic table height of 0.8 m above the reference ground plane.
Photographs of the set up are shown in Appendix 1.

6.3 Test conditions

Frequency range : 30 MHz - 2 GHz
EUT position : Table top

6.4 Test procedure

The antenna power conduction for receivers was made with the following detector function of the test receiver.

		30 MHz -1000 MHz (Test receiver)	1 GHz – 2 GHz
Detector Type	:	QP	Peak
IF Band width	:	120 kHz	RBW: 1 MHz/ VBW: 3 MHz

6.5 Results

Summary of the test results : Pass

DATA OF RADIATED EMISSION TEST

UL Japan,Inc. Shonan EMC Lab. No.1 Semi-Anechoic Chamber

Date : 2019/09/03

Company : Panasonic Corporation
Kind of EUT : Car radio tuner
Model No. : CQ-TH1AN1MX
Serial No. : Refer to Section 4.2
Remarks : EUT Axis Hori : X Vert : Y Local

Mode : FM Receiving (87.75 MHz)_analog
Order No. : 13002573S
Power : DC 13.2 V
Temp./Humi. : 21 deg.C / 51 %RH

Limit : FCC_Part 15 Subpart B(15.109)_Class B

Engineer : Kouki Yamada

<< QP DATA >>

No.	Freq.	Reading <QP>	Ant.Fac	Loss	Gain	S.Fac	Result <QP>	Limit <QP>	Margin <QP>	Pola.	Height	Angle	Ant. Type	Comment
	[MHz]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[H/V]	[cm]	[deg]		
1	87.794	23.70	7.51	8.05	31.82	0.38	7.82	40.00	32.1	Hori.	186	36	BC	
2	175.588	21.10	16.14	9.12	31.79	-0.01	14.56	43.50	28.9	Hori.	100	1	BC	
3	263.118	38.30	12.38	6.75	31.76	0.00	25.67	46.00	20.3	Hori.	120	92	LP	
4	263.382	27.90	12.40	6.75	31.76	0.00	15.29	46.00	30.7	Hori.	117	87	LP	
5	438.971	21.30	16.32	8.13	31.85	0.00	13.90	46.00	32.1	Hori.	100	358	LP	
6	877.941	21.30	22.07	9.77	31.45	0.00	21.69	46.00	24.3	Hori.	100	123	LP	
7	87.794	23.50	7.51	8.05	31.82	0.38	7.62	40.00	32.3	Vert.	100	359	BC	
8	175.588	21.10	16.14	9.12	31.79	-0.01	14.56	43.50	28.9	Vert.	100	356	BC	
9	263.118	33.40	12.38	6.75	31.76	0.00	20.77	46.00	25.2	Vert.	100	321	LP	
10	263.382	24.20	12.40	6.75	31.76	0.00	11.59	46.00	34.4	Vert.	100	322	LP	
11	438.971	21.10	16.32	8.13	31.85	0.00	13.70	46.00	32.3	Vert.	100	1	LP	
12	877.941	21.10	22.07	9.77	31.45	0.00	21.49	46.00	24.5	Vert.	100	168	LP	

Calculation:Result[dBuV/m]=Reading[dBuV]+Ant.Fac[dB/m]+Loss(Cable+ATT)[dB]-Gain(AMP)[dB]+S.Fac(ΔAF)[dB]
Ant.Type=BC:Biconical Antenna LP:Logperiodic Antenna

DATA OF RADIATED EMISSION TEST

UL Japan,Inc. Shonan EMC Lab. No.1 Semi-Anechoic Chamber
Date : 2019/09/03

Company : Panasonic Corporation
Kind of EUT : Car radio tuner
Model No. : CQ-TH1AN1MX
Serial No. : Refer to Section 4.2
Remarks : EUT Axis Hori : X Vert : Y Local

Mode : FM Receiving (97.9 MHz)_analog
Order No. : 13002573S
Power : DC 13.2 V
Temp./Humi. : 21 deg.C / 51 %RH

Limit : FCC_Part 15 Subpart B(15.109)_Class B

Engineer : Kouki Yamada

<< QP DATA >>

No.	Freq.	Reading <QP>	Ant.Fac	Loss	Gain	S.Fac	Result <QP>	Limit <QP>	Margin <QP>	Pola.	Height	Angle	Ant. Type	Comment
	[MHz]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[H/V]	[cm]	[deg]		
1	97.856	27.00	9.78	8.20	31.82	0.12	13.28	43.50	30.2	Hori.	307	235	BC	
2	97.944	24.70	9.79	8.20	31.82	0.12	10.99	43.50	32.5	Hori.	185	211	BC	
3	489.721	21.40	17.52	8.22	31.87	0.00	15.27	46.00	30.7	Hori.	100	201	LP	
4	587.665	21.30	18.90	8.52	31.95	0.00	16.77	46.00	29.2	Hori.	100	99	LP	
5	685.609	22.20	19.65	8.97	31.98	0.00	18.84	46.00	27.1	Hori.	144	345	LP	
6	783.553	21.40	20.62	9.36	31.84	0.00	19.54	46.00	26.4	Hori.	100	94	LP	
7	97.856	26.40	9.78	8.20	31.82	0.12	12.68	43.50	30.8	Vert.	100	1	BC	
8	97.944	28.50	9.79	8.20	31.82	0.12	14.79	43.50	28.7	Vert.	100	305	BC	
9	489.721	21.30	17.52	8.22	31.87	0.00	15.17	46.00	30.8	Vert.	100	117	LP	
10	587.665	21.30	18.90	8.52	31.95	0.00	16.77	46.00	29.2	Vert.	100	0	LP	
11	685.609	21.70	19.65	8.97	31.98	0.00	18.34	46.00	27.6	Vert.	100	114	LP	
12	783.553	21.50	20.62	9.36	31.84	0.00	19.64	46.00	26.3	Vert.	100	25	LP	

Calculation:Result[dBuV/m]=Reading[dBuV]+Ant.Fac[dB/m]+Loss(Cable+ATT)[dB]-Gain(AMP)[dB]+S.Fac(ΔAF)[dB]
Ant.Type=BC:Biconical Antenna LP:Logperiodic Antenna

DATA OF RADIATED EMISSION TEST

UL Japan,Inc. Shonan EMC Lab. No.1 Semi-Anechoic Chamber
Date : 2019/09/03

Company : Panasonic Corporation
Kind of EUT : Car radio tuner
Model No. : CQ-TH1AN1MX
Serial No. : Refer to Section 4.2
Remarks : EUT Axis Hori : X Vert : Y Local

Mode : FM Receiving (107.9 MHz)_analog
Order No. : 13002573S
Power : DC 13.2 V
Temp./Humi. : 21 deg.C / 51 %RH

Limit : FCC_Part 15 Subpart B(15.109)_Class B

Engineer : Kouki Yamada

<< QP DATA >>

No.	Freq.	Reading <QP>	Ant.Fac	Loss	Gain	S.Fac	Result <QP>	Limit <QP>	Margin <QP>	Pola.	Height	Angle	Ant. Type	Comment
	[MHz]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[H/V]	[cm]	[deg]		
1	107.856	22.50	11.71	8.32	31.82	-0.10	10.61	43.50	32.8	Hori.	299	220	BC	
2	107.944	22.80	11.73	8.32	31.82	-0.10	10.93	43.50	32.5	Hori.	285	239	BC	
3	215.712	21.60	11.11	6.16	31.77	0.00	7.10	43.50	36.4	Hori.	150	359	LP	
4	215.888	21.50	11.11	6.16	31.77	0.00	7.00	43.50	36.5	Hori.	147	77	LP	
5	970.703	27.00	22.20	10.14	30.78	0.00	28.56	53.90	25.3	Hori.	100	301	LP	
6	971.497	20.60	22.21	10.14	30.77	0.00	22.18	53.90	31.7	Hori.	100	359	LP	
7	107.856	22.80	11.71	8.32	31.82	-0.10	10.91	43.50	32.5	Vert.	100	244	BC	
8	107.944	22.90	11.73	8.32	31.82	-0.10	11.03	43.50	32.4	Vert.	100	225	BC	
9	215.712	22.90	11.11	6.16	31.77	0.00	8.40	43.50	35.1	Vert.	100	272	LP	
10	215.888	27.70	11.11	6.16	31.77	0.00	13.20	43.50	30.3	Vert.	100	39	LP	
11	970.703	27.40	22.20	10.14	30.78	0.00	28.96	53.90	24.9	Vert.	100	283	LP	
12	971.497	21.20	22.21	10.14	30.77	0.00	22.78	53.90	31.1	Vert.	100	286	LP	

Calculation:Result[dBuV/m]=Reading[dBuV]+Ant.Fac[dB/m]+Loss(Cable+ATT)[dB]-Gain(AMP)[dB]+S.Fac(ΔAF)[dB]
Ant.Type=BC:Biconical Antenna LP:Logperiodic Antenna

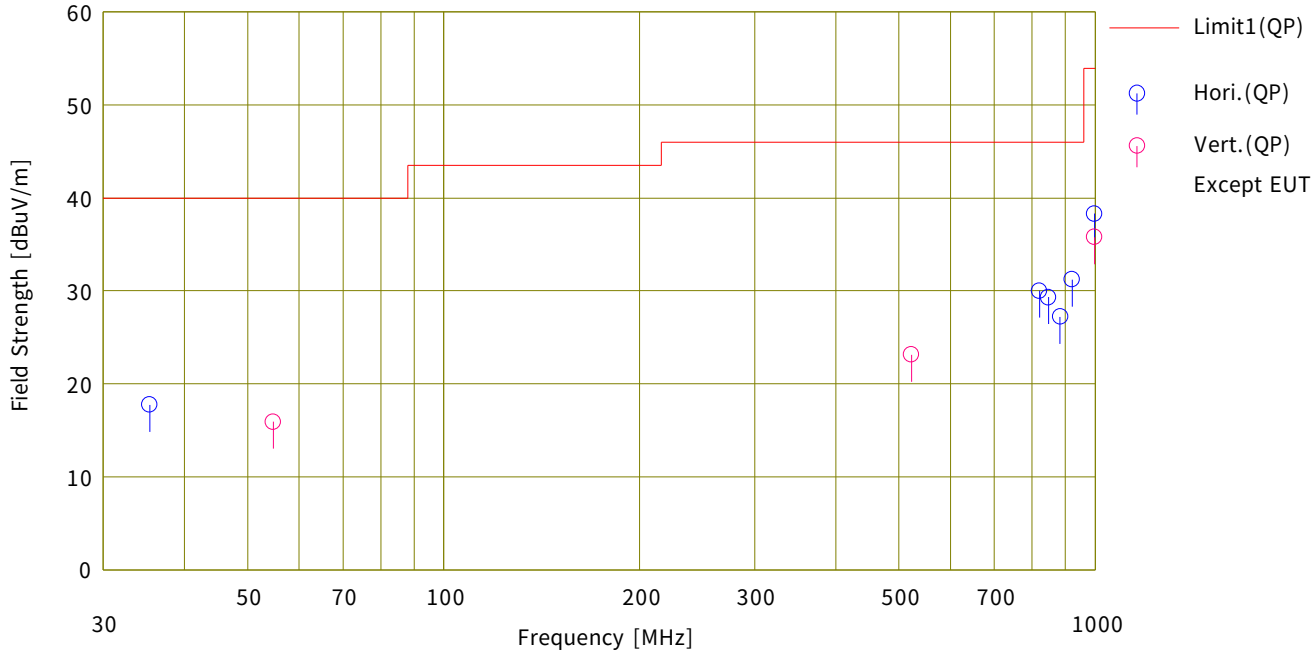
DATA OF RADIATED EMISSION TEST

UL Japan,Inc. Shonan EMC Lab. No.1 Semi-Anechoic Chamber
Date : 2019/09/03

Company	:	Panasonic Corporation	Mode	:	FM Receiving (97.9 MHz)_analog
Kind of EUT	:	Car radio tuner	Order No.	:	13002573S
Model No.	:	CQ-TH1AN1MX	Power	:	DC 13.2 V
Serial No.	:	Refer to Section 4.2	Temp./Humi.	:	21 deg.C / 51 %RH
Remarks	:	EUT Axis Hori : X Vert : Y Other			

Limit : FCC_Part 15 Subpart B(15.109)_Class B

Engineer : Kouki Yamada



No.	Freq. [MHz]	Reading <QP> [dBuV]	Ant.Fac [dB/m]	Loss [dB]	Gain [dB]	S.Fac [dB]	Result <QP> [dBuV/m]	Limit <QP> [dBuV/m]	Margin <QP> [dB]	Pola. [H/V]	Height [cm]	Angle [deg]	Ant. Type	Comment
1	35.339	25.90	16.55	7.24	31.84	-0.09	17.76	40.00	22.2	Hori.	212	183	BC	
2	821.344	31.20	20.96	9.54	31.70	0.00	30.00	46.00	16.0	Hori.	108	308	LP	
3	847.906	29.80	21.45	9.66	31.59	0.00	29.32	46.00	16.6	Hori.	100	277	LP	
4	884.766	26.70	22.13	9.80	31.42	0.00	27.21	46.00	18.7	Hori.	112	57	LP	
5	921.637	30.40	22.03	9.93	31.16	0.00	31.20	46.00	14.8	Hori.	100	239	LP	
6	998.406	36.10	22.49	10.27	30.58	0.00	38.28	53.90	15.6	Hori.	100	330	LP	
7	54.736	30.70	9.59	7.57	31.84	-0.12	15.90	40.00	24.1	Vert.	100	359	BC	
8	522.672	29.10	17.61	8.33	31.91	0.00	23.13	46.00	22.8	Vert.	100	116	LP	
9	998.407	33.60	22.49	10.27	30.58	0.00	35.78	53.90	18.1	Vert.	100	328	LP	

Calculation:Result[dBuV/m]=Reading[dBuV]+Ant.Fac[dB/m]+Loss(Cable+ATT)[dB]-Gain(AMP)[dB]+S.Fac(ΔAF)[dB]
Ant.Type=BC:Biconical Antenna LP:Logperiodic Antenna

DATA OF RADIATED EMISSION TEST

UL Japan,Inc. Shonan EMC Lab. No.1 Semi-Anechoic Chamber
Date : 2019/09/04

Company : Panasonic Corporation
Kind of EUT : Car radio tuner
Model No. : CQ-TH1AN1MX
Serial No. : Refer to Section 4.2
Remarks : EUT Axis Hori : X Vert : Y Local

Mode : FM Receiving (87.75 MHz)_digital
Order No. : 13002573S
Power : DC 13.2 V
Temp./Humi. : 21 deg.C / 51 %RH

Limit : FCC_Part 15 Subpart B(15.109)_Class B

Engineer : Kouki Yamada

<< QP DATA >>

No.	Freq.	Reading <QP>	Ant.Fac	Loss	Gain	S.Fac	Result <QP>	Limit <QP>	Margin <QP>	Pola.	Height	Angle	Ant. Type	Comment
	[MHz]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[H/V]	[cm]	[deg]		
1	87.794	24.10	7.51	8.05	31.82	0.38	8.22	40.00	31.7	Hori.	191	27	BC	
2	175.588	21.10	16.14	9.12	31.79	-0.01	14.56	43.50	28.9	Hori.	100	1	BC	
3	263.118	35.90	12.38	6.75	31.76	0.00	23.27	46.00	22.7	Hori.	110	85	LP	
4	263.382	26.10	12.40	6.75	31.76	0.00	13.49	46.00	32.5	Hori.	123	85	LP	
5	438.971	21.60	16.32	8.13	31.85	0.00	14.20	46.00	31.8	Hori.	100	354	LP	
6	877.941	21.50	22.07	9.77	31.45	0.00	21.89	46.00	24.1	Hori.	100	100	LP	
7	87.794	23.80	7.51	8.05	31.82	0.38	7.92	40.00	32.0	Vert.	100	358	BC	
8	175.588	22.00	16.14	9.12	31.79	-0.01	15.46	43.50	28.0	Vert.	100	355	BC	
9	263.118	28.50	12.38	6.75	31.76	0.00	15.87	46.00	30.1	Vert.	100	320	LP	
10	263.382	22.30	12.40	6.75	31.76	0.00	9.69	46.00	36.3	Vert.	100	334	LP	
11	438.971	21.00	16.32	8.13	31.85	0.00	13.60	46.00	32.4	Vert.	100	359	LP	
12	877.941	21.40	22.07	9.77	31.45	0.00	21.79	46.00	24.2	Vert.	100	170	LP	

Calculation:Result[dBuV/m]=Reading[dBuV]+Ant.Fac[dB/m]+Loss(Cable+ATT)[dB]-Gain(AMP)[dB]+S.Fac(ΔAF)[dB]
Ant.Type=BC:Biconical Antenna LP:Logperiodic Antenna

DATA OF RADIATED EMISSION TEST

UL Japan,Inc. Shonan EMC Lab. No.1 Semi-Anechoic Chamber
Date : 2019/09/03

Company : Panasonic Corporation
Kind of EUT : Car radio tuner
Model No. : CQ-TH1AN1MX
Serial No. : Refer to Section 4.2
Remarks : EUT Axis Hori : X Vert : Y Local

Mode : FM Receiving (97.9 MHz)_digital
Order No. : 13002573S
Power : DC 13.2 V
Temp./Humi. : 21 deg.C / 51 %RH

Limit : FCC_Part 15 Subpart B(15.109)_Class B

Engineer : Kouki Yamada

<< QP DATA >>

No.	Freq.	Reading <QP>	Ant.Fac	Loss	Gain	S.Fac	Result <QP>	Limit <QP>	Margin <QP>	Pola.	Height	Angle	Ant. Type	Comment
	[MHz]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[H/V]	[cm]	[deg]		
1	97.856	23.50	9.78	8.20	31.82	0.12	9.78	43.50	33.7	Hori.	310	239	BC	
2	97.944	23.20	9.79	8.20	31.82	0.12	9.49	43.50	34.0	Hori.	190	223	BC	
3	489.721	21.50	17.52	8.22	31.87	0.00	15.37	46.00	30.6	Hori.	100	211	LP	
4	587.665	21.40	18.90	8.52	31.95	0.00	16.87	46.00	29.1	Hori.	100	101	LP	
5	685.609	22.60	19.65	8.97	31.98	0.00	19.24	46.00	26.7	Hori.	145	332	LP	
6	783.553	21.60	20.62	9.36	31.84	0.00	19.74	46.00	26.2	Hori.	100	79	LP	
7	97.856	27.70	9.78	8.20	31.82	0.12	13.98	43.50	29.5	Vert.	100	359	BC	
8	97.944	27.30	9.79	8.20	31.82	0.12	13.59	43.50	29.9	Vert.	100	307	BC	
9	489.721	21.40	17.52	8.22	31.87	0.00	15.27	46.00	30.7	Vert.	100	139	LP	
10	587.665	21.30	18.90	8.52	31.95	0.00	16.77	46.00	29.2	Vert.	100	11	LP	
11	685.609	21.80	19.65	8.97	31.98	0.00	18.44	46.00	27.5	Vert.	100	101	LP	
12	783.553	21.30	20.62	9.36	31.84	0.00	19.44	46.00	26.5	Vert.	100	30	LP	

Calculation:Result[dBuV/m]=Reading[dBuV]+Ant.Fac[dB/m]+Loss(Cable+ATT)[dB]-Gain(AMP)[dB]+S.Fac(ΔAF)[dB]
Ant.Type=BC:Biconical Antenna LP:Logperiodic Antenna

DATA OF RADIATED EMISSION TEST

UL Japan,Inc. Shonan EMC Lab. No.1 Semi-Anechoic Chamber
Date : 2019/09/04

Company : Panasonic Corporation
Kind of EUT : Car radio tuner
Model No. : CQ-TH1AN1MX
Serial No. : Refer to Section 4.2
Remarks : EUT Axis Hori : X Vert : Y Local

Mode : FM Receiving (107.9 MHz)_digital
Order No. : 13002573S
Power : DC 13.2 V
Temp./Humi. : 21 deg.C / 51 %RH

Limit : FCC_Part 15 Subpart B(15.109)_Class B

Engineer : Kouki Yamada

<< QP DATA >>

No.	Freq.	Reading <QP>	Ant.Fac	Loss	Gain	S.Fac	Result <QP>	Limit <QP>	Margin <QP>	Pola.	Height	Angle	Ant. Type	Comment
	[MHz]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[H/V]	[cm]	[deg]		
1	107.856	22.90	11.71	8.32	31.82	-0.10	11.01	43.50	32.4	Hori.	263	207	BC	
2	107.944	24.40	11.73	8.32	31.82	-0.10	12.53	43.50	30.9	Hori.	296	231	BC	
3	215.712	21.50	11.11	6.16	31.77	0.00	7.00	43.50	36.5	Hori.	147	1	LP	
4	215.888	21.50	11.11	6.16	31.77	0.00	7.00	43.50	36.5	Hori.	145	88	LP	
5	970.703	27.00	22.20	10.14	30.78	0.00	28.56	53.90	25.3	Hori.	100	298	LP	
6	971.497	20.80	22.21	10.14	30.77	0.00	22.38	53.90	31.5	Hori.	100	1	LP	
7	107.856	25.80	11.71	8.32	31.82	-0.10	13.91	43.50	29.5	Vert.	100	246	BC	
8	107.944	25.60	11.73	8.32	31.82	-0.10	13.73	43.50	29.7	Vert.	100	211	BC	
9	215.712	23.20	11.11	6.16	31.77	0.00	8.70	43.50	34.8	Vert.	100	266	LP	
10	215.888	28.00	11.11	6.16	31.77	0.00	13.50	43.50	30.0	Vert.	100	47	LP	
11	970.703	26.10	22.20	10.14	30.78	0.00	27.66	53.90	26.2	Vert.	100	267	LP	
12	971.497	20.80	22.21	10.14	30.77	0.00	22.38	53.90	31.5	Vert.	100	275	LP	

Calculation:Result[dBuV/m]=Reading[dBuV]+Ant.Fac[dB/m]+Loss(Cable+ATT)[dB]-Gain(AMP)[dB]+S.Fac(ΔAF)[dB]
Ant.Type=BC:Biconical Antenna LP:Logperiodic Antenna

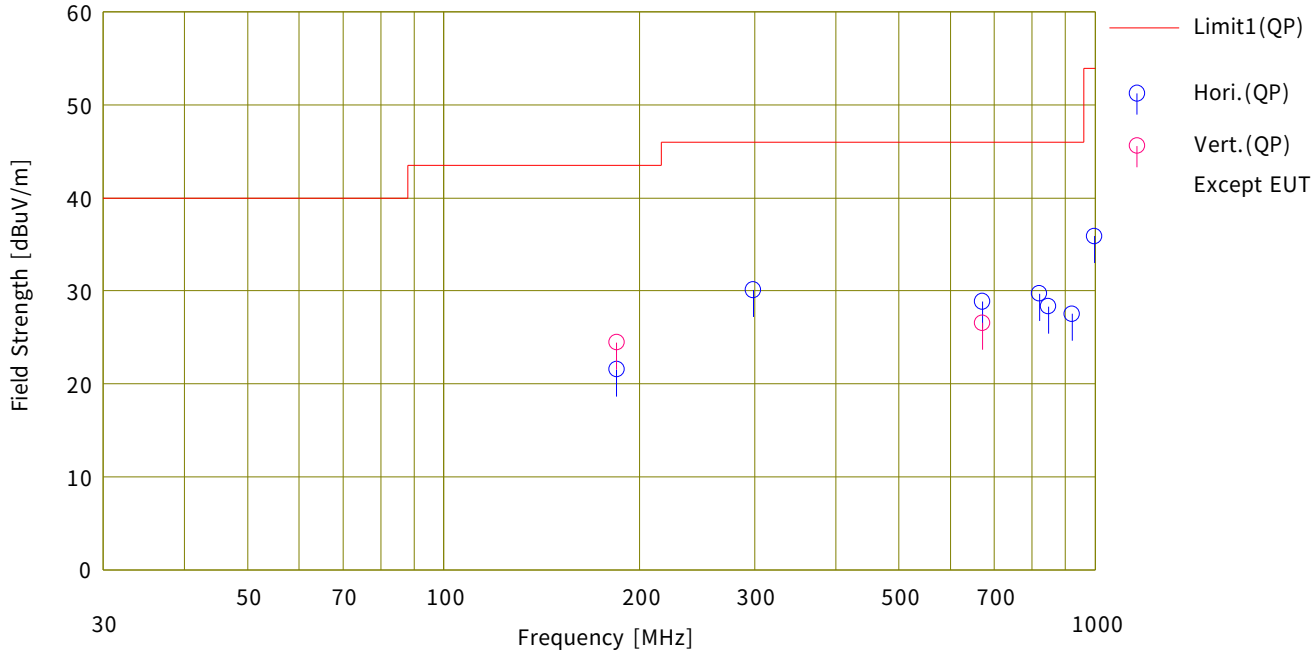
DATA OF RADIATED EMISSION TEST

UL Japan,Inc. Shonan EMC Lab. No.1 Semi-Anechoic Chamber
Date : 2019/09/03

Company	:	Panasonic Corporation	Mode	:	FM Receiving (97.9 MHz)_digital
Kind of EUT	:	Car radio tuner	Order No.	:	13002573S
Model No.	:	CQ-TH1AN1MX	Power	:	DC 13.2 V
Serial No.	:	Refer to Section 4.2	Temp./Humi.	:	21 deg.C / 51 %RH
Remarks	:	EUT Axis Hori : X Vert : Y Other			

Limit : FCC_Part 15 Subpart B(15.109)_Class B

Engineer : Kouki Yamada



No.	Freq. [MHz]	Reading <QP> [dBuV]	Ant.Fac [dB/m]	Loss [dB]	Gain [dB]	S.Fac [dB]	Result <QP> [dBuV/m]	Limit <QP> [dBuV/m]	Margin <QP> [dB]	Pola. [H/V]	Height [cm]	Angle [deg]	Ant. Type	Comment
1	184.331	27.80	16.41	9.22	31.79	-0.08	21.56	43.50	21.9	Hori.	177	336	BC	
2	298.671	41.00	13.64	7.23	31.78	0.00	30.09	46.00	15.9	Hori.	132	182	LP	
3	672.013	32.40	19.53	8.90	31.99	0.00	28.84	46.00	17.1	Hori.	148	135	LP	
4	821.347	30.90	20.96	9.54	31.70	0.00	29.70	46.00	16.3	Hori.	110	320	LP	
5	847.903	28.80	21.45	9.66	31.59	0.00	28.32	46.00	17.6	Hori.	100	300	LP	
6	921.637	26.70	22.03	9.93	31.16	0.00	27.50	46.00	18.5	Hori.	100	342	LP	
7	998.460	33.70	22.49	10.27	30.58	0.00	35.88	53.90	18.0	Hori.	100	330	LP	
8	184.328	30.70	16.41	9.22	31.79	-0.08	24.46	43.50	19.0	Vert.	100	144	BC	
9	672.010	30.10	19.53	8.90	31.99	0.00	26.54	46.00	19.4	Vert.	100	152	LP	

Calculation:Result[dBuV/m]=Reading[dBuV]+Ant.Fac[dB/m]+Loss(Cable+ATT)[dB]-Gain(AMP)[dB]+S.Fac(ΔAF)[dB]
Ant.Type=BC:Biconical Antenna LP:Logperiodic Antenna

DATA OF RADIATED EMISSION TEST

UL Japan,Inc. Shonan EMC Lab. No.1 Semi-Anechoic Chamber
Date : 2019/09/04

Company	: Panasonic Corporation	Mode	: FM Receiving (87.75 MHz)_analog
Kind of EUT	: Car radio tuner	Order No.	: 13002573S
Model No.	: CQ-TH1AN1MX	Power	: DC 13.2 V
Serial No.	: Refer to Section 4.2	Temp./Humi.	: 21 deg.C / 54 %RH
Remarks	: EUT Axis Hori : X Vert : X Test Distance=362 cm Local		

Limit : FCC_Part 15 Subpart B(15.109)_Class B

Engineer : Kouki Yamada

<< AV/PK DATA >>

No.	Freq.	Reading		Ant.Fac	Loss	Gain	D.Fac	Result		Limit		Margin		Pola.	Height	Angle	Ant. Type	Comment
		<AV>	<PK>					<AV>	<PK>	<AV>	<PK>	<AV>	<PK>					
	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	[H/V]	[cm]	[deg]		
1	1140.177	34.55	46.78	24.88	3.20	39.28	1.64	24.99	37.22	53.90	73.90	28.9	36.6	Hori.	126	288	31SH1	
2	1492.500	40.17	49.23	25.37	3.67	39.27	1.64	31.58	40.64	53.90	73.90	22.3	33.2	Hori.	120	141	31SH1	
3	1140.177	35.91	48.62	24.88	3.20	39.28	1.64	26.35	39.06	53.90	73.90	27.5	34.8	Vert.	100	331	31SH1	
4	1492.500	38.87	48.66	25.37	3.67	39.27	1.64	30.28	40.07	53.90	73.90	23.6	33.8	Vert.	100	310	31SH1	

Calculation:Result[dBuV/m]=Reading[dBuV]+Ant.Fac[dB/m]+Loss(Cable+ATT)[dB]+D.Fac[dB]-Gain(AMP)[dB]
Ant.Type=Horn Antenna

DATA OF RADIATED EMISSION TEST

UL Japan,Inc. Shonan EMC Lab. No.1 Semi-Anechoic Chamber
Date : 2019/09/04

Company	: Panasonic Corporation	Mode	: FM Receiving (97.9 MHz)_analog
Kind of EUT	: Car radio tuner	Order No.	: 13002573S
Model No.	: CQ-TH1AN1MX	Power	: DC 13.2 V
Serial No.	: Refer to Section 4.2	Temp./Humi.	: 21 deg.C / 54 %RH
Remarks	: EUT Axis Hori : X Vert : X Test Distance=362 cm Local		

Limit : FCC_Part 15 Subpart B(15.109)_Class B

Engineer : Kouki Yamada

<< AV/PK DATA >>

No.	Freq.	Reading		Ant.Fac	Loss	Gain	D.Fac	Result		Limit		Margin		Pola.	Height	Angle	Ant. Type	Comment
		<AV>	<PK>					<AV>	<PK>	<AV>	<PK>	<AV>	<PK>					
	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	[H/V]	[cm]	[deg]		
1	1076.415	33.71	46.32	24.68	3.12	39.29	1.64	23.86	36.47	53.90	73.90	30.0	37.4	Hori.	258	334	31SH1	
2	1567.106	35.49	51.15	25.19	3.75	39.30	1.64	26.77	42.43	53.90	73.90	27.1	31.4	Hori.	100	36	31SH1	
3	1076.415	34.46	47.15	24.68	3.12	39.29	1.64	24.61	37.30	53.90	73.90	29.2	36.6	Vert.	100	246	31SH1	
4	1567.106	34.84	49.76	25.19	3.75	39.30	1.64	26.12	41.04	53.90	73.90	27.7	32.8	Vert.	100	198	31SH1	

Calculation:Result[dBuV/m]=Reading[dBuV]+Ant.Fac[dB/m]+Loss(Cable+ATT)[dB]+D.Fac[dB]-Gain(AMP)[dB]
Ant.Type=Horn Antenna

DATA OF RADIATED EMISSION TEST

UL Japan,Inc. Shonan EMC Lab. No.1 Semi-Anechoic Chamber
Date : 2019/09/04

Company	: Panasonic Corporation	Mode	: FM Receiving (107.9 MHz)_analog
Kind of EUT	: Car radio tuner	Order No.	: 13002573S
Model No.	: CQ-TH1AN1MX	Power	: DC 13.2 V
Serial No.	: Refer to Section 4.2	Temp./Humi.	: 21 deg.C / 54 %RH
Remarks	: EUT Axis Hori : X Vert : X Test Distance=362 cm Local		

Limit : FCC_Part 15 Subpart B(15.109)_Class B

Engineer : Kouki Yamada

<< AV/PK DATA >>

No.	Freq.	Reading		Ant.Fac	Loss	Gain	D.Fac	Result		Limit		Margin		Pola.	Height	Angle	Ant. Type	Comment
		<AV>	<PK>					<AV>	<PK>	<AV>	<PK>	<AV>	<PK>					
	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	[H/V]	[cm]	[deg]		
1	1511.217	36.60	49.19	25.33	3.69	39.27	1.64	27.99	40.58	53.90	73.90	25.9	33.3	Hori.	130	146	31SH1	
2	1725.694	33.07	46.05	25.36	3.93	39.36	1.64	24.64	37.62	53.90	73.90	29.2	36.2	Hori.	128	45	31SH1	
3	1511.217	35.40	47.50	25.33	3.69	39.27	1.64	26.79	38.89	53.90	73.90	27.1	35.0	Vert.	101	221	31SH1	
4	1725.694	33.40	46.61	25.36	3.93	39.36	1.64	24.97	38.18	53.90	73.90	28.9	35.7	Vert.	100	210	31SH1	

Calculation:Result[dBuV/m]=Reading[dBuV]+Ant.Fac[dB/m]+Loss(Cable+ATT)[dB]+D.Fac[dB]-Gain(AMP)[dB]
Ant.Type=Horn Antenna

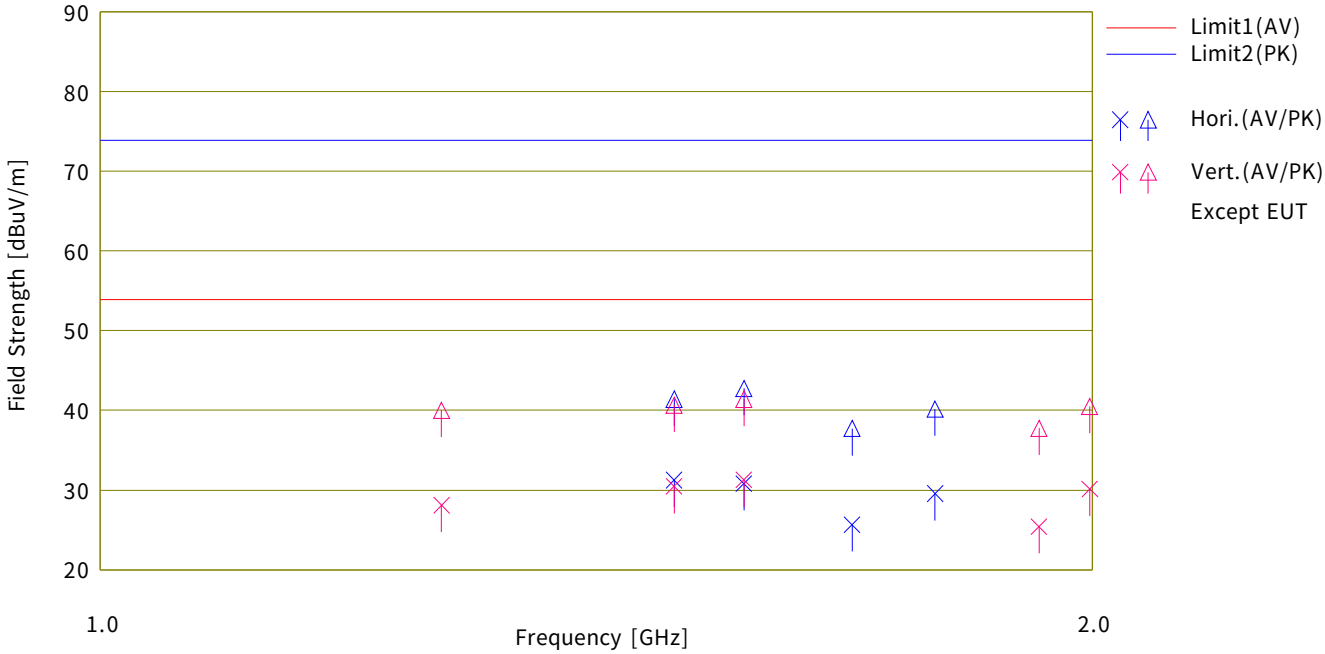
DATA OF RADIATED EMISSION TEST

UL Japan,Inc. Shonan EMC Lab. No.1 Semi-Anechoic Chamber
Date : 2019/09/04

Company	:	Panasonic Corporation	Mode	:	FM Receiving (97.9 MHz)_analog
Kind of EUT	:	Car radio tuner	Order No.	:	13002573S
Model No.	:	CQ-TH1AN1MX	Power	:	DC 13.2 V
Serial No.	:	Refer to Section 4.2	Temp./Humi.	:	21 deg.C / 54 %RH
Remarks	:	EUT Axis Hori : X Vert : X Test Distance=362 cm Other			

Limit : FCC_Part 15 Subpart B(15.109)_Class B

Engineer : Kouki Yamada



No.	Freq.	Reading <AV>	Reading <PK>	Ant.Fac	Loss	Gain	D.Fac	Result <AV>	Result <PK>	Limit <AV>	Limit <PK>	Margin <AV>	Margin <PK>	Pola.	Height	Angle	Ant. Type	Comment
	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	[H/V]	[cm]	[deg]		
1	1493.361	39.84	49.99	25.37	3.67	39.27	1.64	31.25	41.40	53.90	73.90	22.6	32.5	Hori.	118	138	31SH1	
2	1568.063	39.54	51.47	25.19	3.75	39.30	1.64	30.82	42.75	53.90	73.90	23.0	31.1	Hori.	100	35	31SH1	
3	1691.159	34.21	46.25	25.28	3.89	39.35	1.64	25.67	37.71	53.90	73.90	28.2	36.1	Hori.	100	239	31SH1	
4	1792.074	37.75	48.34	25.55	4.01	39.39	1.64	29.56	40.15	53.90	73.90	24.3	33.7	Hori.	109	107	31SH1	
5	1269.345	36.80	48.72	25.57	3.37	39.28	1.64	28.10	40.02	53.90	73.90	25.8	33.8	Vert.	106	150	31SH1	
6	1493.397	39.06	49.23	25.37	3.67	39.27	1.64	30.47	40.64	53.90	73.90	23.4	33.2	Vert.	100	307	31SH1	
7	1568.101	39.99	50.12	25.19	3.75	39.30	1.64	31.27	41.40	53.90	73.90	22.6	32.5	Vert.	105	202	31SH1	
8	1927.007	33.11	45.45	25.94	4.17	39.45	1.64	25.41	37.75	53.90	73.90	28.4	36.1	Vert.	100	294	31SH1	
9	1996.831	37.46	47.82	26.28	4.24	39.48	1.64	30.14	40.50	53.90	73.90	23.7	33.4	Vert.	157	175	31SH1	

Calculation:Result[dBuV/m]=Reading[dBuV]+Ant.Fac[dB/m]+Loss(Cable+ATT)[dB]+D.Fac[dB]-Gain(AMP)[dB]
Ant.Type=Horn Antenna

DATA OF RADIATED EMISSION TEST

UL Japan,Inc. Shonan EMC Lab. No.1 Semi-Anechoic Chamber
Date : 2019/09/04

Company	: Panasonic Corporation	Mode	: FM Receiving (87.75 MHz)_digital
Kind of EUT	: Car radio tuner	Order No.	: 13002573S
Model No.	: CQ-TH1AN1MX	Power	: DC 13.2 V
Serial No.	: Refer to Section 4.2	Temp./Humi.	: 21 deg.C / 54 %RH
Remarks	: EUT Axis Hori : X Vert : X Test Distance=362 cm Loacl		

Limit : FCC_Part 15 Subpart B(15.109)_Class B

Engineer : Kouki Yamada

<< AV/PK DATA >>

No.	Freq.	Reading		Ant.Fac	Loss	Gain	D.Fac	Result		Limit		Margin		Pola.	Height	Angle	Ant. Type	Comment
		<AV>	<PK>					<AV>	<PK>	<AV>	<PK>	<AV>	<PK>					
	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	[H/V]	[cm]	[deg]		
1	1140.177	36.80	48.37	24.88	3.20	39.28	1.64	27.24	38.81	53.90	73.90	26.6	35.0	Hori.	124	281	31SH1	
2	1492.500	40.01	49.22	25.37	3.67	39.27	1.64	31.42	40.63	53.90	73.90	22.4	33.2	Hori.	129	149	31SH1	
3	1140.177	35.17	48.42	24.88	3.20	39.28	1.64	25.61	38.86	53.90	73.90	28.2	35.0	Vert.	100	338	31SH1	
4	1492.500	39.07	49.34	25.37	3.67	39.27	1.64	30.48	40.75	53.90	73.90	23.4	33.1	Vert.	100	321	31SH1	

Calculation:Result[dBuV/m]=Reading[dBuV]+Ant.Fac[dB/m]+Loss(Cable+ATT)[dB]+D.Fac[dB]-Gain(AMP)[dB]
Ant.Type=Horn Antenna

DATA OF RADIATED EMISSION TEST

UL Japan,Inc. Shonan EMC Lab. No.1 Semi-Anechoic Chamber
Date : 2019/09/04

Company	: Panasonic Corporation	Mode	: FM Receiving (97.9 MHz)_digital
Kind of EUT	: Car radio tuner	Order No.	: 13002573S
Model No.	: CQ-TH1AN1MX	Power	: DC 13.2 V
Serial No.	: Refer to Section 4.2	Temp./Humi.	: 21 deg.C / 54 %RH
Remarks	: EUT Axis Hori : X Vert : X Test Distance=362 cm Local		

Limit : FCC_Part 15 Subpart B(15.109)_Class B

Engineer : Kouki Yamada

<< AV/PK DATA >>

No.	Freq.	Reading		Ant.Fac	Loss	Gain	D.Fac	Result		Limit		Margin		Pola.	Height	Angle	Ant. Type	Comment
		<AV>	<PK>					<AV>	<PK>	<AV>	<PK>	<AV>	<PK>					
	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	[H/V]	[cm]	[deg]		
1	1076.415	33.80	45.92	24.68	3.12	39.29	1.64	23.95	36.07	53.90	73.90	29.9	37.8	Hori.	251	339	31SH1	
2	1567.106	35.97	51.62	25.19	3.75	39.30	1.64	27.25	42.90	53.90	73.90	26.6	31.0	Hori.	100	37	31SH1	
3	1076.415	34.79	46.03	24.68	3.12	39.29	1.64	24.94	36.18	53.90	73.90	28.9	37.7	Vert.	100	252	31SH1	
4	1567.106	35.14	49.22	25.19	3.75	39.30	1.64	26.42	40.50	53.90	73.90	27.4	33.4	Vert.	100	201	31SH1	

Calculation:Result[dBuV/m]=Reading[dBuV]+Ant.Fac[dB/m]+Loss(Cable+ATT)[dB]+D.Fac[dB]-Gain(AMP)[dB]
Ant.Type=Horn Antenna

DATA OF RADIATED EMISSION TEST

UL Japan,Inc. Shonan EMC Lab. No.1 Semi-Anechoic Chamber
Date : 2019/09/04

Company	: Panasonic Corporation	Mode	: FM Receiving (107.9 MHz)_digital
Kind of EUT	: Car radio tuner	Order No.	: 13002573S
Model No.	: CQ-TH1AN1MX	Power	: DC 13.2 V
Serial No.	: Refer to Section 4.2	Temp./Humi.	: 21 deg.C / 54 %RH
Remarks	: EUT Axis Hori : X Vert : X Test Distance=362 cm Local		

Limit : FCC_Part 15 Subpart B(15.109)_Class B

Engineer : Kouki Yamada

<< AV/PK DATA >>

No.	Freq.	Reading		Ant.Fac	Loss	Gain	D.Fac	Result		Limit		Margin		Pola.	Height	Angle	Ant. Type	Comment
		<AV>	<PK>					<AV>	<PK>	<AV>	<PK>	<AV>	<PK>					
	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	[H/V]	[cm]	[deg]		
1	1511.217	34.74	47.37	25.33	3.69	39.27	1.64	26.13	38.76	53.90	73.90	27.7	35.1	Hori.	127	148	31SH1	
2	1725.694	33.15	44.98	25.36	3.93	39.36	1.64	24.72	36.55	53.90	73.90	29.1	37.3	Hori.	133	67	31SH1	
3	1511.217	34.78	45.93	25.33	3.69	39.27	1.64	26.17	37.32	53.90	73.90	27.7	36.5	Vert.	103	211	31SH1	
4	1725.694	33.03	45.74	25.36	3.93	39.36	1.64	24.60	37.31	53.90	73.90	29.3	36.5	Vert.	100	214	31SH1	

Calculation:Result[dBuV/m]=Reading[dBuV]+Ant.Fac[dB/m]+Loss(Cable+ATT)[dB]+D.Fac[dB]-Gain(AMP)[dB]
Ant.Type=Horn Antenna

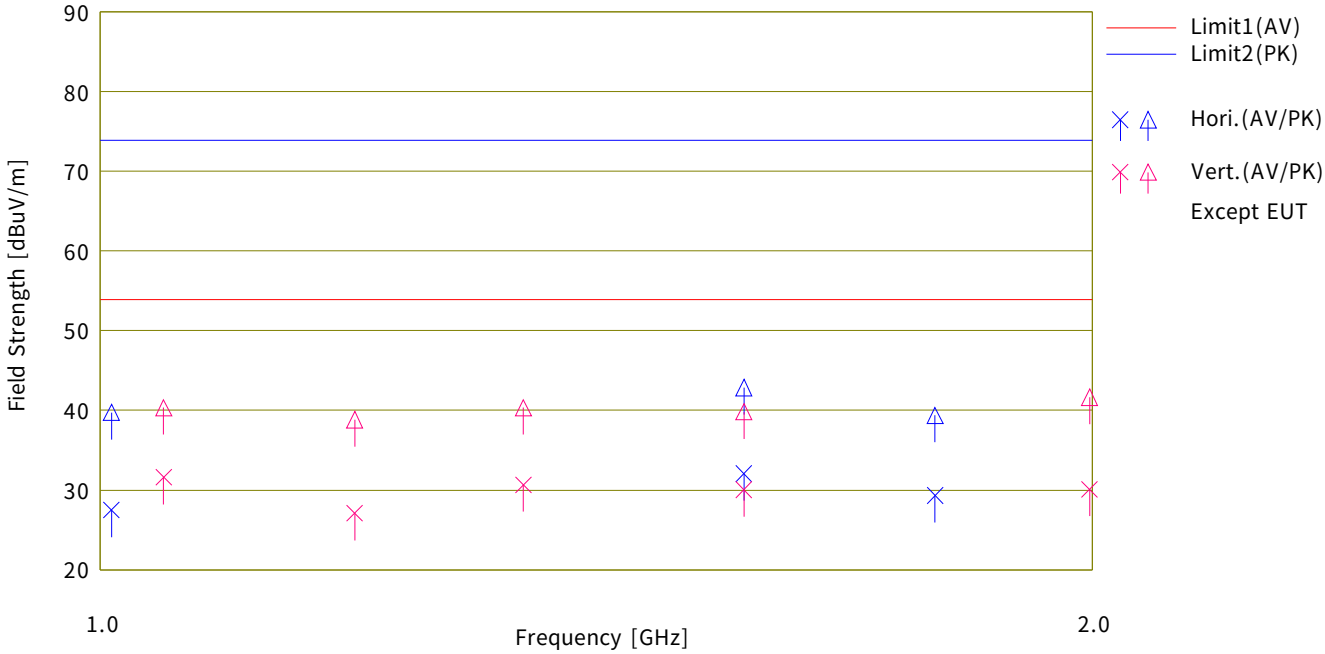
DATA OF RADIATED EMISSION TEST

UL Japan,Inc. Shonan EMC Lab. No.1 Semi-Anechoic Chamber
Date : 2019/09/04

Company	:	Panasonic Corporation	Mode	:	FM Receiving (97.9 MHz)_digital
Kind of EUT	:	Car radio tuner	Order No.	:	13002573S
Model No.	:	CQ-TH1AN1MX	Power	:	DC 13.2 V
Serial No.	:	Refer to Section 4.2	Temp./Humi.	:	21 deg.C / 54 %RH
Remarks	:	EUT Axis Hori : X Vert : X Test Distance=362 cm Other			

Limit : FCC_Part 15 Subpart B(15.109)_Class B

Engineer : Kouki Yamada



No.	Freq.	Reading <AV>	Reading <PK>	Ant.Fac	Loss	Gain	D.Fac	Result <AV>	Result <PK>	Limit <AV>	Limit <PK>	Margin <AV>	Margin <PK>	Pola.	Height	Angle	Ant. Type	Comment
	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	[H/V]	[cm]	[deg]		
1	1008.046	37.51	49.75	24.60	3.03	39.29	1.64	27.49	39.73	53.90	73.90	26.4	34.1	Hori.	100	167	31SH1	
2	1567.993	40.77	51.57	25.19	3.75	39.30	1.64	32.05	42.85	53.90	73.90	21.8	31.0	Hori.	100	40	31SH1	
3	1792.125	37.51	47.54	25.55	4.01	39.39	1.64	29.32	39.35	53.90	73.90	24.5	34.5	Hori.	100	107	31SH1	
4	1045.371	41.53	50.29	24.62	3.08	39.29	1.64	31.58	40.34	53.90	73.90	22.3	33.5	Vert.	348	26	31SH1	
5	1194.714	36.28	48.02	25.16	3.28	39.28	1.64	27.08	38.82	53.90	73.90	26.8	35.0	Vert.	100	336	31SH1	
6	1344.002	39.12	48.79	25.71	3.47	39.28	1.64	30.66	40.33	53.90	73.90	23.2	33.5	Vert.	115	164	31SH1	
7	1568.175	38.75	48.52	25.19	3.75	39.30	1.64	30.03	39.80	53.90	73.90	23.8	34.1	Vert.	109	197	31SH1	
8	1996.672	37.41	48.97	26.28	4.24	39.48	1.64	30.09	41.65	53.90	73.90	23.8	32.2	Vert.	262	191	31SH1	

Calculation:Result[dBuV/m]=Reading[dBuV]+Ant.Fac[dB/m]+Loss(Cable+ATT)[dB]+D.Fac[dB]-Gain(AMP)[dB]
Ant.Type=Horn Antenna

DATA OF ANTENNA TERMINAL TEST

UL Japan,Inc. Shonan EMC Lab. No.5 Shielded Room
Date : 2019/09/06

Company : Panasonic Corporation
Kind of EUT : Car radio tuner
Model No. : CQ-TH1AN1MX
Serial No. : Refer to Section 4.2

Mode : FM Receiving (87.75 MHz)_analog
Order No. : 13002573S
Power : DC 13.2 V
Temp./Humi. : 25 deg.C / 50 %RH

Remarks : Local

Engineer : Yohsuke Matsuzawa

LIMIT (Fundamental) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal
LIMIT (Harmonics) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal

CH	Freq	Reading		Factor	Result		Limit	Margin
		PEAK	QP		PEAK	QP		
	[MHz]	[dBuV]		[dB]	[dBuV/75]		[dBuV/75]	[dB]
87.75MHz	87.706	----	18.0	-7.1	----	10.9	51.7	40.8
	175.410	----	18.3	-6.9	----	11.4	51.7	40.3
	263.120	----	18.5	-6.8	----	11.7	51.7	40.0
	350.820	----	18.0	-6.6	----	11.4	51.7	40.3
	438.530	----	18.0	-6.4	----	11.6	51.7	40.1
	526.240	----	17.8	-6.2	----	11.6	51.7	40.1
	613.940	----	18.0	-6.0	----	12.0	51.7	39.7
	701.650	----	18.0	-5.8	----	12.2	51.7	39.5
	789.350	----	19.0	-5.8	----	13.2	51.7	38.5
	877.060	----	18.6	-5.9	----	12.7	51.7	39.0
	964.760	----	23.2	-5.9	----	17.3	51.7	34.4
	87.794	----	18.0	-7.1	----	10.9	51.7	40.8
	175.590	----	18.3	-6.9	----	11.4	51.7	40.3
	263.380	----	18.5	-6.8	----	11.7	51.7	40.0
	351.180	----	18.0	-6.6	----	11.4	51.7	40.3
	438.970	----	18.1	-6.4	----	11.7	51.7	40.0
	526.760	----	17.8	-6.2	----	11.6	51.7	40.1
	614.560	----	18.0	-6.0	----	12.0	51.7	39.7
	702.350	----	17.8	-5.8	----	12.0	51.7	39.7
	790.150	----	19.0	-5.8	----	13.2	51.7	38.5
	877.940	----	19.1	-5.9	----	13.2	51.7	38.5
	965.740	----	18.7	-5.9	----	12.8	51.7	38.9

Calculation:Rsult [dBuV] =Reading [dBuV] +Fac (Cable+Matching Pad-Amp+Combiner) [dB]

DATA OF ANTENNA TERMINAL TEST

UL Japan,Inc. Shonan EMC Lab. No.5 Shielded Room
Date : 2019/09/06

Company : Panasonic Corporation
Kind of EUT : Car radio tuner
Model No. : CQ-TH1AN1MX
Serial No. : Refer to Section 4.2

Mode : FM Receiving (97.9 MHz)_analog
Order No. : 13002573S
Power : DC 13.2 V
Temp./Humi. : 25 deg.C / 50 %RH

Remarks : Local

Engineer : Yohsuke Matsuzawa

LIMIT (Fundamental) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal
LIMIT (Harmonics) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal

CH	Freq	Reading		Factor	Result		Limit	Margin
		PEAK	QP		PEAK	QP		
	[MHz]	[dBuV]		[dB]	[dBuV/75]		[dBuV/75]	[dB]
97.9MHz	97.856	----	18.0	-7.1	----	10.9	51.7	40.8
	195.710	----	18.2	-6.9	----	11.3	51.7	40.4
	293.570	----	18.3	-6.7	----	11.6	51.7	40.1
	391.420	----	18.1	-6.6	----	11.5	51.7	40.2
	489.280	----	17.8	-6.2	----	11.6	51.7	40.1
	587.140	----	18.2	-6.1	----	12.1	51.7	39.6
	684.990	----	17.8	-5.8	----	12.0	51.7	39.7
	782.850	----	18.5	-5.8	----	12.7	51.7	39.0
	880.700	----	23.5	-5.9	----	17.6	51.7	34.1
	978.560	----	18.6	-5.9	----	12.7	51.7	39.0
	97.944	----	18.0	-7.1	----	10.9	51.7	40.8
	195.890	----	18.2	-6.9	----	11.3	51.7	40.4
	293.830	----	18.1	-6.7	----	11.4	51.7	40.3
	391.780	----	18.0	-6.6	----	11.4	51.7	40.3
	489.720	----	17.8	-6.2	----	11.6	51.7	40.1
	587.660	----	18.1	-6.1	----	12.0	51.7	39.7
	685.610	----	18.0	-5.8	----	12.2	51.7	39.5
	783.550	----	18.3	-5.8	----	12.5	51.7	39.2
	881.500	----	19.0	-5.9	----	13.1	51.7	38.6
	979.440	----	18.7	-5.9	----	12.8	51.7	38.9

Calculation:Rsult [dBuV] =Reading [dBuV] +Fac (Cable+Matching Pad-Amp+Combiner) [dB]

DATA OF ANTENNA TERMINAL TEST

UL Japan,Inc. Shonan EMC Lab. No.5 Shielded Room
Date : 2019/09/06

Company : Panasonic Corporation
Kind of EUT : Car radio tuner
Model No. : CQ-TH1AN1MX
Serial No. : Refer to Section 4.2

Mode : FM Receiving (107.9 MHz)_analog
Order No. : 13002573S
Power : DC 13.2 V
Temp./Humi. : 25 deg.C / 50 %RH

Remarks : Local

Engineer : Yohsuke Matsuzawa

LIMIT (Fundamental) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal
LIMIT (Harmonics) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal

CH	Freq	Reading		Factor	Result		Limit	Margin
		PEAK	QP		PEAK	QP		
	[MHz]	[dBuV]		[dB]	[dBuV/75]		[dBuV/75]	[dB]
107.9MHz	107.856	----	16.2	-7.1	----	9.1	51.7	42.6
	215.710	----	16.2	-6.9	----	9.3	51.7	42.4
	323.570	----	21.2	-6.7	----	14.5	51.7	37.2
	431.420	----	16.1	-6.4	----	9.7	51.7	42.0
	539.280	----	16.1	-6.1	----	10.0	51.7	41.7
	647.140	----	16.1	-5.8	----	10.3	51.7	41.4
	754.990	----	15.8	-5.8	----	10.0	51.7	41.7
	862.850	----	16.0	-5.9	----	10.1	51.7	41.6
	970.700	----	15.8	-5.9	----	9.9	51.7	41.8
	107.944	----	16.3	-7.1	----	9.2	51.7	42.5
	215.890	----	16.7	-6.9	----	9.8	51.7	41.9
	323.830	----	18.5	-6.7	----	11.8	51.7	39.9
	431.780	----	18.8	-6.4	----	12.4	51.7	39.3
	539.720	----	19.5	-6.1	----	13.4	51.7	38.3
	647.660	----	15.7	-5.8	----	9.9	51.7	41.8
	755.610	----	16.0	-5.8	----	10.2	51.7	41.5
	863.550	----	16.3	-5.9	----	10.4	51.7	41.3
	971.500	----	15.7	-5.9	----	9.8	51.7	41.9

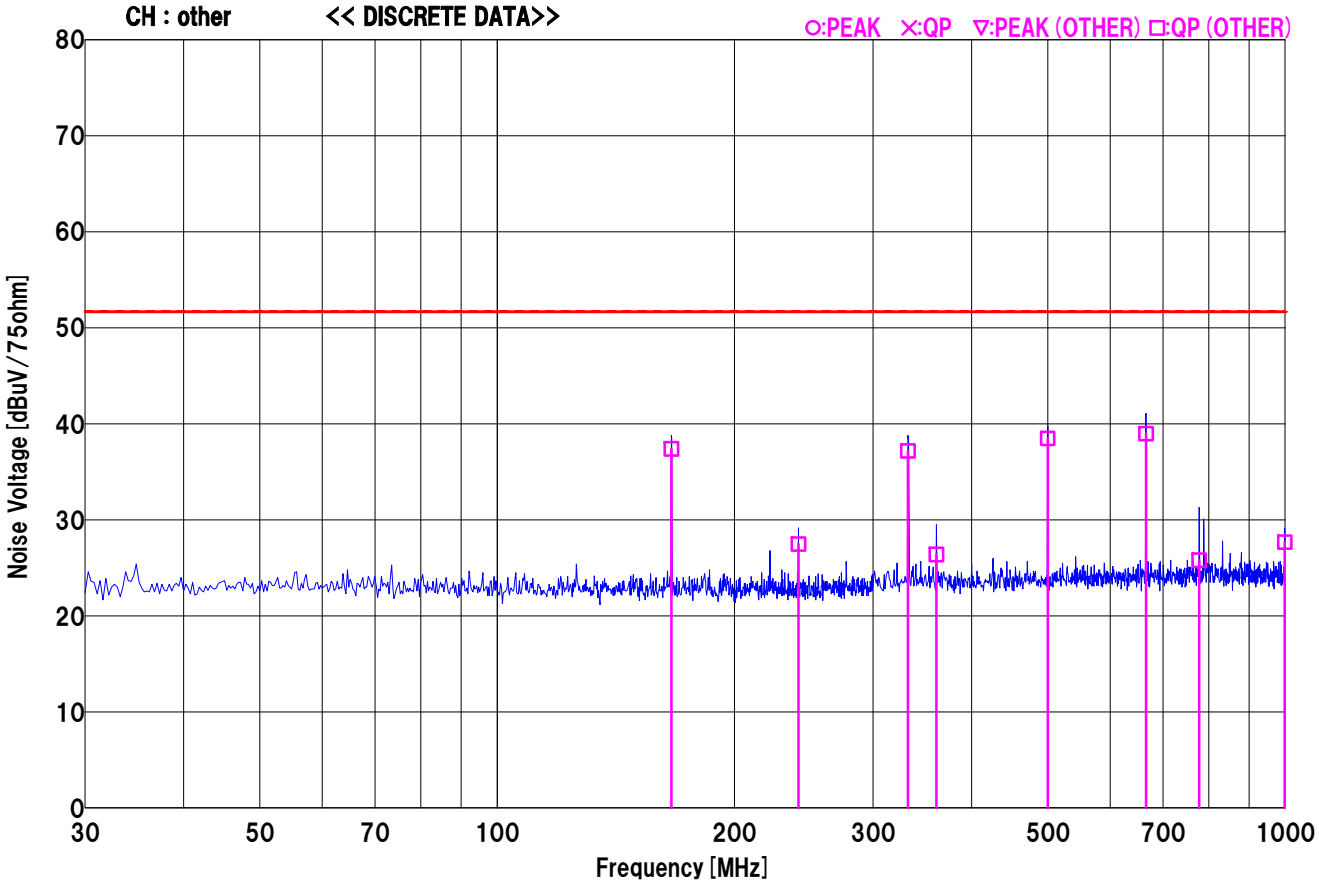
Calculation:Rsult [dBuV] =Reading [dBuV] +Fac (Cable+Matching Pad-Amp+Combiner) [dB]

DATA OF ANTENNA TERMINAL TEST

UL Japan,Inc. Shonan EMC Lab. No.5 Shielded Room
Date : 2019/09/06

Company	: Panasonic Corporation	Mode	: FM Receiving (97.9 MHz)_analog
Kind of EUT	: Car radio tuner	Order No.	: 13002573S
Model No.	: CQ-TH1AN1MX	Power	: DC 13.2 V
Serial No.	: Refer to Section 4.2	Temp./Humi.	: 25 deg.C / 50 %RH
Remarks	: Other		
		Engineer	: Yohsuke Matsuzawa

LIMIT (Fundamental) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal
LIMIT (Harmonics) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal



Calculation:Rsult [dBuV] =Reading [dBuV] +Fac (Cable+Matching Pad-Amp+Combiner) [dB]

DATA OF ANTENNA TERMINAL TEST

UL Japan,Inc. Shonan EMC Lab. No.5 Shielded Room
Date : 2019/09/06

Company : Panasonic Corporation
Kind of EUT : Car radio tuner
Model No. : CQ-TH1AN1MX
Serial No. : Refer to Section 4.2

Mode : FM Receiving (97.9 MHz)_analog
Order No. : 13002573S
Power : DC 13.2 V
Temp./Humi. : 25 deg.C / 50 %RH

Remarks : Other

Engineer : Yohsuke Matsuzawa

LIMIT (Fundamental) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal
LIMIT (Harmonics) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal

CH	Freq	Reading		Factor	Result		Limit	Margin
		PEAK	QP		PEAK	QP		
	[MHz]	[dBuV]		[dB]	[dBuV/75]		[dBuV/75]	[dB]
other	*166.350	----	44.3	-6.9	----	37.4	51.7	14.3
	*241.141	----	34.3	-6.8	----	27.5	51.7	24.2
	*332.201	----	43.8	-6.6	----	37.2	51.7	14.5
	*360.901	----	33.0	-6.6	----	26.4	51.7	25.3
	*499.504	----	44.7	-6.2	----	38.5	51.7	13.2
	*666.106	----	44.8	-5.8	----	39.0	51.7	12.7
	*778.108	----	31.6	-5.8	----	25.8	51.7	25.9
	*998.612	----	33.7	-6.0	----	27.7	51.7	24.0

Calculation:Rsult [dBuV] =Reading [dBuV] +Fac (Cable+Matching Pad-Amp+Combiner) [dB]

DATA OF ANTENNA TERMINAL TEST

UL Japan,Inc. Shonan EMC Lab. No.5 Shielded Room
Date : 2019/09/06

Company : Panasonic Corporation
Kind of EUT : Car radio tuner
Model No. : CQ-TH1AN1MX
Serial No. : Refer to Section 4.2

Mode : FM Receiving (87.75 MHz)_digital
Order No. : 13002573S
Power : DC 13.2 V
Temp./Humi. : 25 deg.C / 50 %RH

Remarks : Local

Engineer : Yohsuke Matsuzawa

LIMIT (Fundamental) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal
LIMIT (Harmonics) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal

CH	Freq	Reading		Factor	Result		Limit	Margin
		PEAK	QP		PEAK	QP		
	[MHz]	[dBuV]		[dB]	[dBuV/75]		[dBuV/75]	[dB]
87.75MHz	87.706	----	16.5	-7.1	----	9.4	51.7	42.3
	175.410	----	21.1	-6.9	----	14.2	51.7	37.5
	263.120	----	19.5	-6.8	----	12.7	51.7	39.0
	350.820	----	18.8	-6.6	----	12.2	51.7	39.5
	438.530	----	16.2	-6.4	----	9.8	51.7	41.9
	526.240	----	16.0	-6.2	----	9.8	51.7	41.9
	613.940	----	15.7	-6.0	----	9.7	51.7	42.0
	701.650	----	15.8	-5.8	----	10.0	51.7	41.7
	789.350	----	18.0	-5.8	----	12.2	51.7	39.5
	877.060	----	17.1	-5.9	----	11.2	51.7	40.5
	964.760	----	22.0	-5.9	----	16.1	51.7	35.6
	87.794	----	16.6	-7.1	----	9.5	51.7	42.2
	175.590	----	29.8	-6.9	----	22.9	51.7	28.8
	263.380	----	26.3	-6.8	----	19.5	51.7	32.2
	351.180	----	18.7	-6.6	----	12.1	51.7	39.6
	438.970	----	16.2	-6.4	----	9.8	51.7	41.9
	526.760	----	16.0	-6.2	----	9.8	51.7	41.9
	614.560	----	15.7	-6.0	----	9.7	51.7	42.0
	702.350	----	15.8	-5.8	----	10.0	51.7	41.7
	790.150	----	19.0	-5.8	----	13.2	51.7	38.5
	877.940	----	17.3	-5.9	----	11.4	51.7	40.3
	965.740	----	17.8	-5.9	----	11.9	51.7	39.8

Calculation:Rsult [dBuV] =Reading [dBuV] +Fac (Cable+Matching Pad-Amp+Combiner) [dB]

DATA OF ANTENNA TERMINAL TEST

UL Japan,Inc. Shonan EMC Lab. No.5 Shielded Room
Date : 2019/09/06

Company : Panasonic Corporation
Kind of EUT : Car radio tuner
Model No. : CQ-TH1AN1MX
Serial No. : Refer to Section 4.2

Mode : FM Receiving (97.9 MHz)_digital
Order No. : 13002573S
Power : DC 13.2 V
Temp./Humi. : 25 deg.C / 50 %RH

Remarks : Local

Engineer : Yohsuke Matsuzawa

LIMIT (Fundamental) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal
LIMIT (Harmonics) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal

CH	Freq	Reading		Factor	Result		Limit	Margin
		PEAK	QP		PEAK	QP		
	[MHz]	[dBuV]		[dB]	[dBuV/75]		[dBuV/75]	[dB]
97.9MHz	97.856	----	17.0	-7.1	----	9.9	51.7	41.8
	195.710	----	19.6	-6.9	----	12.7	51.7	39.0
	293.570	----	18.0	-6.7	----	11.3	51.7	40.4
	391.420	----	18.8	-6.6	----	12.2	51.7	39.5
	489.280	----	16.3	-6.2	----	10.1	51.7	41.6
	587.140	----	16.0	-6.1	----	9.9	51.7	41.8
	684.990	----	15.8	-5.8	----	10.0	51.7	41.7
	782.850	----	16.0	-5.8	----	10.2	51.7	41.5
	880.700	----	23.0	-5.9	----	17.1	51.7	34.6
	978.560	----	15.8	-5.9	----	9.9	51.7	41.8
	97.944	----	17.1	-7.1	----	10.0	51.7	41.7
	195.890	----	28.1	-6.9	----	21.2	51.7	30.5
	293.830	----	22.6	-6.7	----	15.9	51.7	35.8
	391.780	----	19.0	-6.6	----	12.4	51.7	39.3
	489.720	----	16.3	-6.2	----	10.1	51.7	41.6
	587.660	----	16.7	-6.1	----	10.6	51.7	41.1
	685.610	----	15.7	-5.8	----	9.9	51.7	41.8
	783.550	----	16.0	-5.8	----	10.2	51.7	41.5
	881.500	----	26.3	-5.9	----	20.4	51.7	31.3
	979.440	----	15.9	-5.9	----	10.0	51.7	41.7

Calculation:Rsult [dBuV] =Reading [dBuV] +Fac (Cable+Matching Pad-Amp+Combiner) [dB]

DATA OF ANTENNA TERMINAL TEST

UL Japan,Inc. Shonan EMC Lab. No.5 Shielded Room
Date : 2019/09/06

Company : Panasonic Corporation
Kind of EUT : Car radio tuner
Model No. : CQ-TH1AN1MX
Serial No. : Refer to Section 4.2

Mode : FM Receiving (107.9 MHz)_digital
Order No. : 13002573S
Power : DC 13.2 V
Temp./Humi. : 25 deg.C / 50 %RH

Remarks : Local

Engineer : Yohsuke Matsuzawa

LIMIT (Fundamental) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal
LIMIT (Harmonics) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal

CH	Freq	Reading		Factor	Result		Limit	Margin
		PEAK	QP		PEAK	QP		
	[MHz]	[dBuV]		[dB]	[dBuV/75]		[dBuV/75]	[dB]
107.9MHz	107.856	----	16.8	-7.1	----	9.7	51.7	42.0
	215.710	----	25.7	-6.9	----	18.8	51.7	32.9
	323.570	----	21.1	-6.7	----	14.4	51.7	37.3
	431.420	----	18.0	-6.4	----	11.6	51.7	40.1
	539.280	----	16.6	-6.1	----	10.5	51.7	41.2
	647.140	----	15.8	-5.8	----	10.0	51.7	41.7
	754.990	----	16.0	-5.8	----	10.2	51.7	41.5
	862.850	----	17.0	-5.9	----	11.1	51.7	40.6
	970.700	----	16.0	-5.9	----	10.1	51.7	41.6
	107.944	----	16.8	-7.1	----	9.7	51.7	42.0
	215.890	----	25.7	-6.9	----	18.8	51.7	32.9
	323.830	----	28.3	-6.7	----	21.6	51.7	30.1
	431.780	----	20.3	-6.4	----	13.9	51.7	37.8
	539.720	----	16.3	-6.1	----	10.2	51.7	41.5
	647.660	----	15.8	-5.8	----	10.0	51.7	41.7
	755.610	----	16.1	-5.8	----	10.3	51.7	41.4
	863.550	----	16.6	-5.9	----	10.7	51.7	41.0
	971.500	----	15.8	-5.9	----	9.9	51.7	41.8

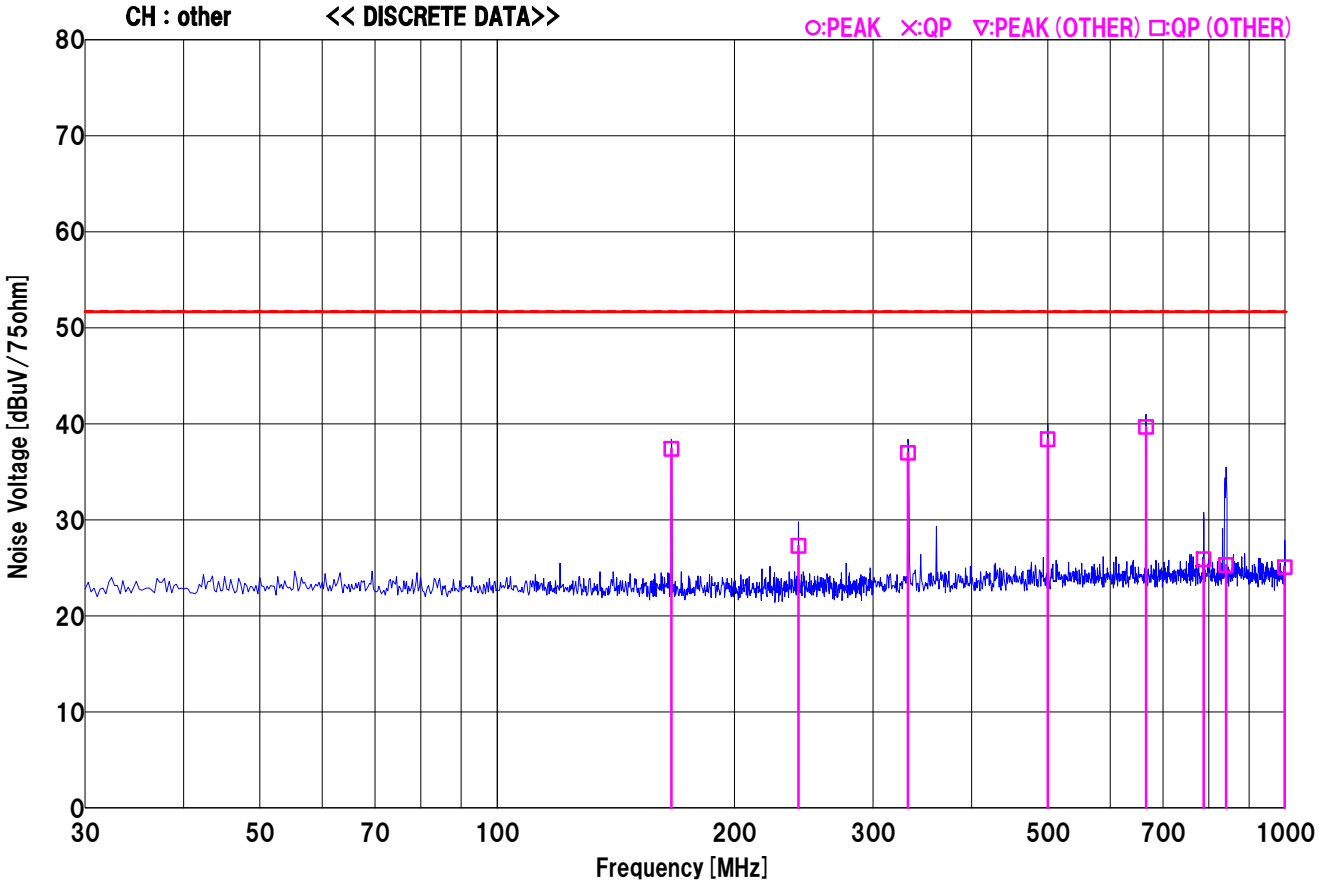
Calculation:Rsult [dBuV] =Reading [dBuV] +Fac (Cable+Matching Pad-Amp+Combiner) [dB]

DATA OF ANTENNA TERMINAL TEST

UL Japan,Inc. Shonan EMC Lab. No.5 Shielded Room
Date : 2019/09/06

Company	: Panasonic Corporation	Mode	: FM Receiving (97.9 MHz)_digital
Kind of EUT	: Car radio tuner	Order No.	: 13002573S
Model No.	: CQ-TH1AN1MX	Power	: DC 13.2 V
Serial No.	: Refer to Section 4.2	Temp./Humi.	: 25 deg.C / 50 %RH
Remarks	: Other		
		Engineer	: Yohsuke Matsuzawa

LIMIT (Fundamental) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal
LIMIT (Harmonics) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal



Calculation:Rsult [dBuV] =Reading [dBuV] +Fac (Cable+Matching Pad-Amp+Combiner) [dB]

DATA OF ANTENNA TERMINAL TEST

UL Japan,Inc. Shonan EMC Lab. No.5 Shielded Room
Date : 2019/09/06

Company : Panasonic Corporation
Kind of EUT : Car radio tuner
Model No. : CQ-TH1AN1MX
Serial No. : Refer to Section 4.2

Mode : FM Receiving (97.9 MHz)_digital
Order No. : 13002573S
Power : DC 13.2 V
Temp./Humi. : 25 deg.C / 50 %RH

Remarks : Other

Engineer : Yohsuke Matsuzawa

LIMIT (Fundamental) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal
LIMIT (Harmonics) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal

CH	Freq	Reading		Factor	Result		Limit	Margin
		PEAK	QP		PEAK	QP		
	[MHz]	[dBuV]		[dB]	[dBuV/75]		[dBuV/75]	[dB]
other	*166.350	----	44.3	-6.9	----	37.4	51.7	14.3
	*241.141	----	34.1	-6.8	----	27.3	51.7	24.4
	*332.201	----	43.6	-6.6	----	37.0	51.7	14.7
	*499.504	----	44.6	-6.2	----	38.4	51.7	13.3
	*666.106	----	45.5	-5.8	----	39.7	51.7	12.0
	*787.909	----	31.7	-5.8	----	25.9	51.7	25.8
	*841.109	----	31.1	-5.8	----	25.3	51.7	26.4
	*998.612	----	31.1	-6.0	----	25.1	51.7	26.6

Calculation:Rsult [dBuV] =Reading [dBuV] +Fac (Cable+Matching Pad-Amp+Combiner) [dB]

DATA OF ANTENNA TERMINAL TEST

UL Japan,Inc. Shonan EMC Lab. No.5 Shielded Room
Date : 2019/09/06

Company : Panasonic Corporation
Kind of EUT : Car radio tuner
Model No. : CQ-TH1AN1MX
Serial No. : Refer to Section 4.2

Mode : FM Receiving (87.75 MHz)_analog
Order No. : 13002573S
Power : DC 13.2 V
Temp./Humi. : 25 deg.C / 50 %RH

Remarks : Local

Engineer : Yohsuke Matsuzawa

LIMIT (Fundamental) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal
LIMIT (Harmonics) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal

CH	Freq	Reading		Factor	Result		Limit	Margin
		PEAK	QP		PEAK	QP		
	[MHz]	[dBuV]		[dB]	[dBuV/75]		[dBuV/75]	[dB]
87.75MHz	1052.471	48.4	----	-25.9	22.5	----	51.7	29.2
	1140.177	48.6	----	-25.6	23.0	----	51.7	28.7
	1491.000	46.6	----	-24.7	21.9	----	51.7	29.8
	1053.529	50.1	----	-25.9	24.2	----	51.7	27.5
	1141.323	47.3	----	-25.6	21.7	----	51.7	30.0
	1492.499	47.4	----	-24.7	22.7	----	51.7	29.0

Calculation:Rsult [dBuV] =Reading [dBuV] +Fac (Cable+ATT-Amp) [dB]

DATA OF ANTENNA TERMINAL TEST

UL Japan,Inc. Shonan EMC Lab. No.5 Shielded Room
Date : 2019/09/06

Company : Panasonic Corporation
Kind of EUT : Car radio tuner
Model No. : CQ-TH1AN1MX
Serial No. : Refer to Section 4.2

Remarks : Local

Mode : FM Receiving (97.9 MHz)_analog
Order No. : 13002573S
Power : DC 13.2 V
Temp./Humi. : 25 deg.C / 50 %RH

Engineer : Yohsuke Matsuzawa

LIMIT (Fundamental) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal
LIMIT (Harmonics) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal

CH	Freq	Reading		Factor	Result		Limit	Margin
		PEAK	QP		PEAK	QP		
	[MHz]	[dBuV]		[dB]	[dBuV/75]		[dBuV/75]	[dB]
97.9MHz	1076.415	48.3	----	-25.8	22.5	----	51.7	29.2
	1565.694	47.2	----	-24.6	22.6	----	51.7	29.2
	1859.262	64.2	----	-24.3	39.9	----	51.7	11.9
	1077.385	48.8	----	-25.8	23.0	----	51.7	28.7
	1567.106	46.7	----	-24.6	22.1	----	51.7	29.6
	1860.938	63.5	----	-24.3	39.2	----	51.7	12.5

Calculation:Rsult [dBuV] =Reading [dBuV] +Fac (Cable+ATT-Amp) [dB]

DATA OF ANTENNA TERMINAL TEST

UL Japan,Inc. Shonan EMC Lab. No.5 Shielded Room
Date : 2019/09/06

Company : Panasonic Corporation
Kind of EUT : Car radio tuner
Model No. : CQ-TH1AN1MX
Serial No. : Refer to Section 4.2

Remarks : Local

Mode : FM Receiving (107.9 MHz)_analog
Order No. : 13002573S
Power : DC 13.2 V
Temp./Humi. : 25 deg.C / 50 %RH

Engineer : Yohsuke Matsuzawa

LIMIT (Fundamental) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal
LIMIT (Harmonics) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal

CH	Freq	Reading		Factor	Result		Limit	Margin
		PEAK	QP		PEAK	QP		
	[MHz]	[dBuV]		[dB]	[dBuV/75]		[dBuV/75]	[dB]
107.9MHz	1509.983	47.2	----	-24.6	22.6	----	51.7	29.1
	1725.694	44.8	----	-24.4	20.4	----	51.7	31.3
	1833.550	54.3	----	-24.3	30.0	----	51.7	21.7
	1511.217	46.5	----	-24.6	21.9	----	51.7	29.8
	1727.106	45.1	----	-24.4	20.7	----	51.7	31.0
	1835.050	46.8	----	-24.3	22.5	----	51.7	29.2

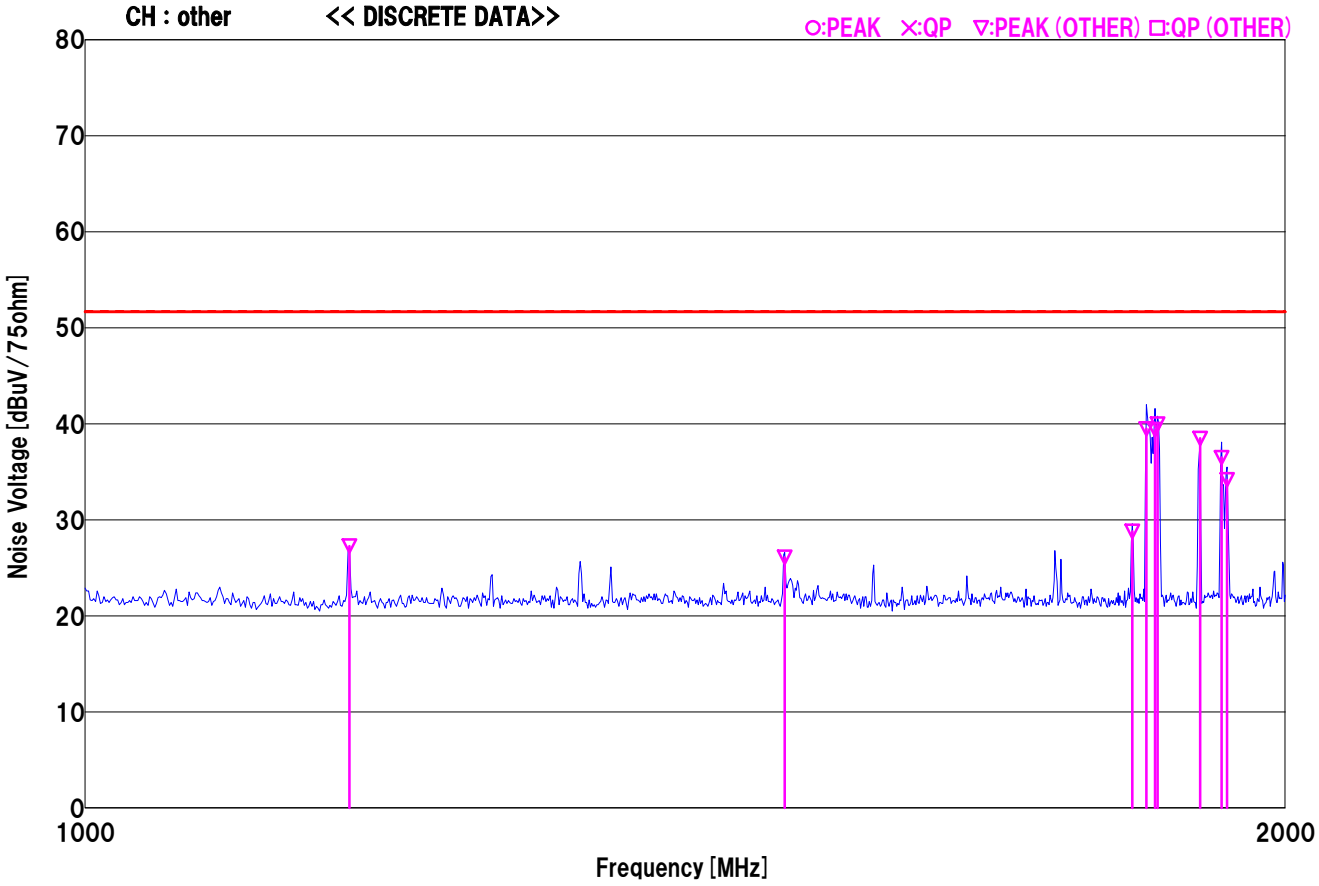
Calculation:Rsult [dBuV] =Reading [dBuV] +Fac (Cable+ATT-Amp) [dB]

DATA OF ANTENNA TERMINAL TEST

UL Japan,Inc. Shonan EMC Lab. No.5 Shielded Room
Date : 2019/09/06

Company	: Panasonic Corporation	Mode	: FM Receiving (97.9 MHz)_analog
Kind of EUT	: Car radio tuner	Order No.	: 13002573S
Model No.	: CQ-TH1AN1MX	Power	: DC 13.2 V
Serial No.	: Refer to Section 4.2	Temp./Humi.	: 25 deg.C / 50 %RH
Remarks	: Other		
		Engineer	: Yohsuke Matsuzawa

LIMIT (Fundamental) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal
LIMIT (Harmonics) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal



Calculation:Rsult [dBuV] =Reading [dBuV] +Fac (Cable+ATT-Amp) [dB]

DATA OF ANTENNA TERMINAL TEST

UL Japan,Inc. Shonan EMC Lab. No.5 Shielded Room
Date : 2019/09/06

Company : Panasonic Corporation
Kind of EUT : Car radio tuner
Model No. : CQ-TH1AN1MX
Serial No. : Refer to Section 4.2

Mode : FM Receiving (97.9 MHz)_analog
Order No. : 13002573S
Power : DC 13.2 V
Temp./Humi. : 25 deg.C / 50 %RH

Remarks : Other

Engineer : Yohsuke Matsuzawa

LIMIT (Fundamental) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal
LIMIT (Harmonics) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal

CH	Freq	Reading		Factor	Result		Limit	Margin
		PEAK	QP		PEAK	QP		
	[MHz]	[dBuV]		[dB]	[dBuV/75]		[dBuV/75]	[dB]
other	*1165.000	52.8	----	-25.5	27.3	----	51.7	24.4
	*1498.000	50.7	----	-24.6	26.1	----	51.7	25.6
	*1831.000	53.1	----	-24.3	28.8	----	51.7	22.9
	*1846.000	63.8	----	-24.3	39.5	----	51.7	12.2
	*1855.000	63.7	----	-24.3	39.4	----	51.7	12.3
	*1858.000	64.3	----	-24.3	40.0	----	51.7	11.7
	*1904.000	62.7	----	-24.2	38.5	----	51.7	13.2
	*1928.000	60.6	----	-24.1	36.5	----	51.7	15.2
	*1934.000	58.3	----	-24.1	34.2	----	51.7	17.5

Calculation:Rsult [dBuV] =Reading [dBuV] +Fac (Cable+ATT-Amp) [dB]

DATA OF ANTENNA TERMINAL TEST

UL Japan,Inc. Shonan EMC Lab. No.5 Shielded Room
Date : 2019/09/06

Company : Panasonic Corporation
Kind of EUT : Car radio tuner
Model No. : CQ-TH1AN1MX
Serial No. : Refer to Section 4.2

Mode : FM Receiving (87.75 MHz)_digital
Order No. : 13002573S
Power : DC 13.2 V
Temp./Humi. : 25 deg.C / 50 %RH

Remarks : Local

Engineer : Yohsuke Matsuzawa

LIMIT (Fundamental) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal
LIMIT (Harmonics) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal

CH	Freq	Reading		Factor	Result		Limit	Margin
		PEAK	QP		PEAK	QP		
	[MHz]	[dBuV]		[dB]	[dBuV/75]		[dBuV/75]	[dB]
87.75MHz	1052.471	48.1	----	-25.9	22.2	----	51.7	29.5
	1140.177	48.2	----	-25.6	22.6	----	51.7	29.1
	1491.000	47.6	----	-24.7	22.9	----	51.7	28.8
	1841.824	58.1	----	-24.3	33.8	----	51.7	17.9
	1053.529	49.1	----	-25.9	23.2	----	51.7	28.5
	1141.323	48.5	----	-25.6	22.9	----	51.7	28.8
	1492.499	50.6	----	-24.7	25.9	----	51.7	25.8
	1843.676	60.6	----	-24.3	36.3	----	51.7	15.5

Calculation:Rsult [dBuV] =Reading [dBuV] +Fac (Cable+ATT-Amp) [dB]

DATA OF ANTENNA TERMINAL TEST

UL Japan,Inc. Shonan EMC Lab. No.5 Shielded Room
Date : 2019/09/06

Company : Panasonic Corporation
Kind of EUT : Car radio tuner
Model No. : CQ-TH1AN1MX
Serial No. : Refer to Section 4.2

Mode : FM Receiving (97.9 MHz)_digital
Order No. : 13002573S
Power : DC 13.2 V
Temp./Humi. : 25 deg.C / 50 %RH

Remarks : Local

Engineer : Yohsuke Matsuzawa

LIMIT (Fundamental) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal
LIMIT (Harmonics) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal

CH	Freq	Reading		Factor	Result		Limit	Margin
		PEAK	QP		PEAK	QP		
	[MHz]	[dBuV]		[dB]	[dBuV/75]		[dBuV/75]	[dB]
97.9MHz	1076.415	47.9	----	-25.8	22.1	----	51.7	29.6
	1565.694	47.1	----	-24.6	22.5	----	51.7	29.2
	1859.262	57.6	----	-24.3	33.3	----	51.7	18.4
	1077.385	48.1	----	-25.8	22.3	----	51.7	29.4
	1567.106	46.6	----	-24.6	22.0	----	51.7	29.7
	1860.938	47.6	----	-24.3	23.3	----	51.7	28.4

Calculation:Rsult [dBuV] =Reading [dBuV] +Fac (Cable+ATT-Amp) [dB]

DATA OF ANTENNA TERMINAL TEST

UL Japan,Inc. Shonan EMC Lab. No.5 Shielded Room
Date : 2019/09/06

Company : Panasonic Corporation
Kind of EUT : Car radio tuner
Model No. : CQ-TH1AN1MX
Serial No. : Refer to Section 4.2

Mode : FM Receiving (107.9 MHz)_digital
Order No. : 13002573S
Power : DC 13.2 V
Temp./Humi. : 25 deg.C / 50 %RH

Remarks : Local

Engineer : Yohsuke Matsuzawa

LIMIT (Fundamental) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal
LIMIT (Harmonics) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal

CH	Freq	Reading		Factor	Result		Limit	Margin
		PEAK	QP		PEAK	QP		
	[MHz]	[dBuV]		[dB]	[dBuV/75]		[dBuV/75]	[dB]
107.9MHz	1509.983	46.7	----	-24.6	22.1	----	51.7	29.6
	1725.694	45.0	----	-24.4	20.6	----	51.7	31.1
	1833.550	54.5	----	-24.3	30.2	----	51.7	21.5
	1511.217	46.7	----	-24.6	22.1	----	51.7	29.6
	1727.106	46.6	----	-24.4	22.2	----	51.7	29.5
	1835.050	46.8	----	-24.3	22.5	----	51.7	29.2

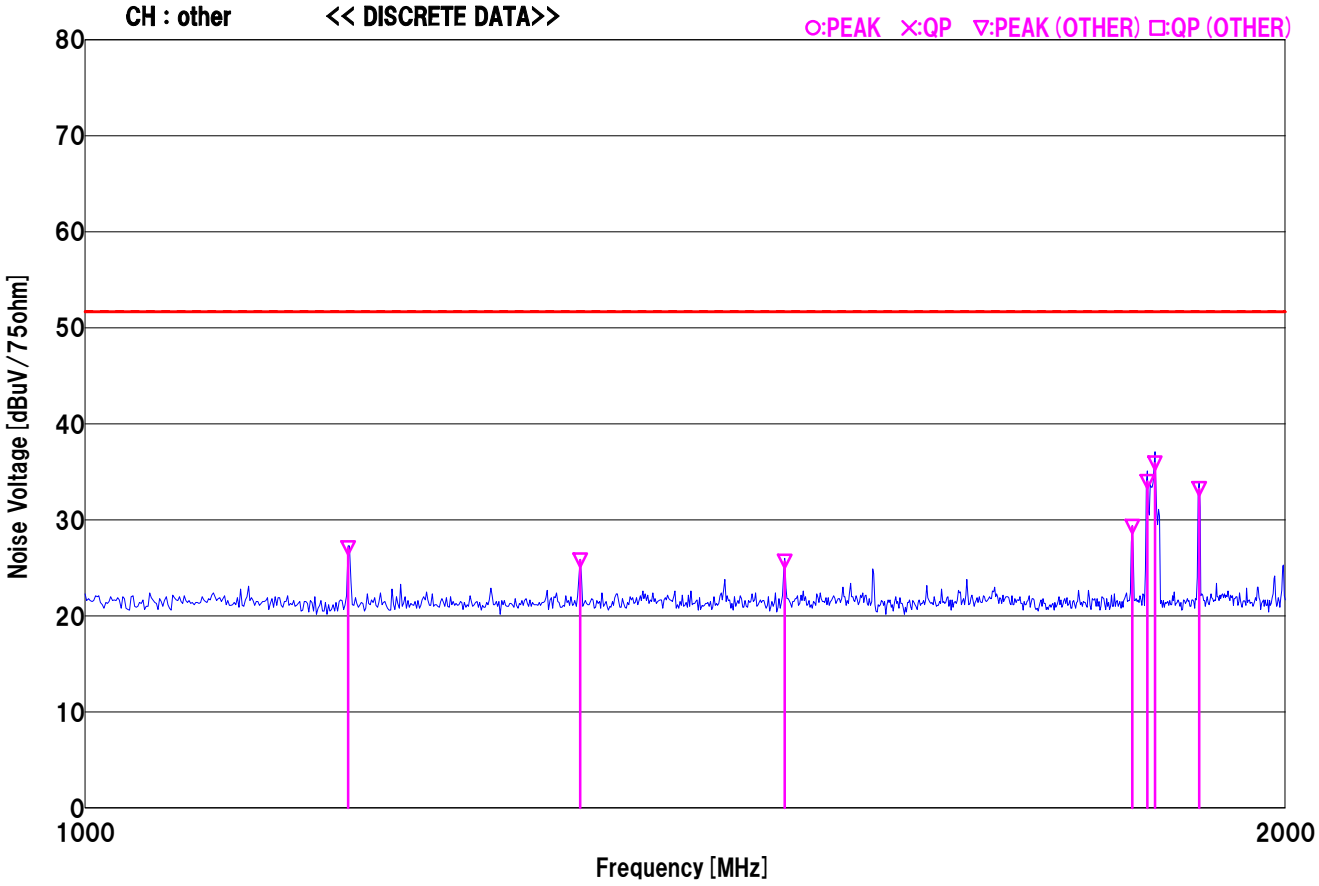
Calculation:Rsult [dBuV] =Reading [dBuV] +Fac (Cable+ATT-Amp) [dB]

DATA OF ANTENNA TERMINAL TEST

UL Japan,Inc. Shonan EMC Lab. No.5 Shielded Room
Date : 2019/09/06

Company	: Panasonic Corporation	Mode	: FM Receiving (97.9 MHz)_digital
Kind of EUT	: Car radio tuner	Order No.	: 13002573S
Model No.	: CQ-TH1AN1MX	Power	: DC 13.2 V
Serial No.	: Refer to Section 4.2	Temp./Humi.	: 25 deg.C / 50 %RH
Remarks	: Other		
		Engineer	: Yohsuke Matsuzawa

LIMIT (Fundamental) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal
LIMIT (Harmonics) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal



Calculation:Rsult [dBuV] =Reading [dBuV] +Fac (Cable+ATT-Amp) [dB]

DATA OF ANTENNA TERMINAL TEST

UL Japan,Inc. Shonan EMC Lab. No.5 Shielded Room
Date : 2019/09/06

Company : Panasonic Corporation
Kind of EUT : Car radio tuner
Model No. : CQ-TH1AN1MX
Serial No. : Refer to Section 4.2

Mode : FM Receiving (97.9 MHz)_digital
Order No. : 13002573S
Power : DC 13.2 V
Temp./Humi. : 25 deg.C / 50 %RH

Remarks : Other

Engineer : Yohsuke Matsuzawa

LIMIT (Fundamental) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal
LIMIT (Harmonics) : FCC Part15 SubpartB_Antenna terminal / FCC Part15 SubpartB_Antenna terminal

CH	Freq	Reading		Factor	Result		Limit	Margin
		PEAK	QP		PEAK	QP		
	[MHz]	[dBuV]		[dB]	[dBuV/75]		[dBuV/75]	[dB]
other	*1164.000	52.6	----	-25.5	27.1	----	51.7	24.6
	*1331.000	50.8	----	-25.0	25.8	----	51.7	25.9
	*1498.000	50.3	----	-24.6	25.7	----	51.7	26.0
	*1831.000	53.6	----	-24.3	29.3	----	51.7	22.4
	*1847.000	58.3	----	-24.3	34.0	----	51.7	17.7
	*1855.000	60.2	----	-24.3	35.9	----	51.7	15.8
	*1903.000	57.5	----	-24.2	33.3	----	51.7	18.5

Calculation:Rsult [dBuV] =Reading [dBuV] +Fac (Cable+ATT-Amp) [dB]

APPENDIX 2
Test Instruments

EMI test equipment

Local ID	Test Name	LIMS ID	Description	Manufacturer	Model	Serial	Last Calibration Date	Calibration Due Date	Calibration Interval (Month)
COTS-SEMI-2	AT	144866	EMI Software for AV Equipment	TSJ	TEPTO-DV(AT,TV)	2	-	-	-
KAF-02	AT	144878	Pre Amplifier	HEWLETT PACKARD	8449B	3008A01268	2019/4/16	2020/4/30	12
SAF-07	AT	145006	Pre Amplifier	TSJ	MLA-8k03-D01-35	81212	2019/6/17	2020/6/30	12
SAT10-09	AT	145132	Attenuator	Weinschel Corp.	54A-10	W5692	2018/11/25	2019/11/30	12
SCC-AT1/AT2/KMP-09	AT	180424	Coaxial cable,Matching pad	TAMAGAWA	5D2W/ZT-130	-/1454514E	2019/6/17	2020/6/30	12
SCC-G31	AT	145042	Coaxial Cable	Junkosha	MWX241-01000KMSKMS	OCT-08-13-046	2019/4/16	2020/4/30	12
SCC-G37	AT	151614	Coaxial Cable	Junkosha	MWX241-01000KMSKMS/B	1612Q035	2018/12/25	2019/12/31	12
SHD-01	AT	145817	HD Radio Vector Signal Generator	MEGURO ELECTRONICS CORPORATION	MSG-3100	2100109	-	-	-
SMC75-01	AT	146281	Coupling Circuit	JFW	75PD-045BNC 2 to 1	512019	2019/2/5	2020/2/29	12
SOS-09	AT	146318	Humidity Indicator	A&D	AD-5681	4061484	2018/12/5	2019/12/31	12
SSG-15	AT	146918	Signal Generator	Rohde & Schwarz	SMY01	836488/026	2019/3/5	2020/3/31	12
STM75-02	AT	146065	Terminator	TME	CT-01	-	-	-	-
STR-06	AT	146208	Test Receiver	Rohde & Schwarz	ESCI	101259	2019/3/19	2020/3/31	12
STS-05	AT	146212	Digital Hitester	HIOKI	3805-50	80997828	2018/10/16	2019/10/31	12
COTS-SEMI-5	RE	170932	EMI Software	TSJ	TEPTO-DV3(RE,CE,ME,PE)	-	-	-	-
KAT6-04	RE	144899	Attenuator	Inmet	18N-6dB	-	2018/12/25	2019/12/31	12
KBA-01	RE	146343	Biconical Antenna	Schwarzbeck	BBA9106	1748	2019/6/5	2020/6/30	12
KJM-09	RE	145929	Measure	KOMELON	KMC-36	-	-	-	-
SAEC-01(NSA)	RE	145597	Semi-Anechoic Chamber	TDK	SAEC-01(NSA)	1	2019/4/2	2020/4/30	12
SAEC-01(SVSWR)	RE	145561	Semi-Anechoic Chamber	TDK	SAEC-01(SVSWR)	1	2019/5/6	2020/5/30	12
SAF-01	RE	145003	Pre Amplifier	SONOMA	310N	290211	2019/2/5	2020/2/29	12
SAF-04	RE	145127	Pre Amplifier	Toyo Corporation	TPA0118-36	2072554	2019/6/4	2020/6/30	12
SAT3-09	RE	144959	Attenuator	JFW	50HF-003N	-	2019/8/6	2020/8/31	12
SCC-A1/A3/A5/A7/A8/A13/SRSE-01	RE	144967	Coaxial Cable&RF Selector	Fujikura/Fujikura/Suhner/Suhner/Suhner/TOYO	8D2W/12DSFA/141PE/141PE/141PE/141P	-/0901-269(RF Selector)	2019/4/19	2020/4/30	12
SCC-A2/A4/A6/A7/A8/A13/SRSE-01	RE	144968	Coaxial Cable&RF Selector	Fujikura/Fujikura/Suhner/Suhner/Suhner/TOYO	8D2W/12DSFA/141PE/141PE/141PE/141P	-/0901-269(RF Selector)	2019/4/19	2020/4/30	12
SCC-G05	RE	145039	Coaxial Cable	Junkosha	J12J102207-00	APR-30-15-037	2019/1/25	2020/1/31	12
SCC-G41	RE	151617	Coaxial Cable	Junkosha	MWX221-01000NFSNMS/B	1612S006	2019/1/25	2020/1/31	12
SCC-G56	RE	179539	Coaxial Cable	Huber+Suhner	SUCOFLEX 104	803289/4	2019/5/16	2020/5/31	12
SHA-01	RE	145383	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-725	2019/5/9	2020/5/31	12
SLA-05	RE	145527	Logperiodic Antenna	Schwarzbeck	VUSLP9111B	193	2019/4/1	2020/4/30	12
SOS-01	RE	146316	Humidity Indicator	A&D	AD-5681	4062555	2018/10/25	2019/10/31	12
STR-01	RE	145790	Test Receiver	Rohde & Schwarz	ESU40	100093	2019/4/14	2020/4/30	12
STS-01	RE	145792	Digital Hitester	HIOKI	3805-50	80997812	2018/10/16	2019/10/31	12

The expiration date of the calibration is the end of the expired month.
As for some calibrations performed after the tested dates , those test equipment have been controlled by means of an unbroken chains of calibrations .

All equipment is calibrated with valid calibrations . Each measurement data is traceable to the national or international standards
Test Item：
RE: Radiated emission,
AT: Antenna terminal disturbance voltage