EMC
TEST REPORT

Report No. : EME-010966
Model No. : TC-201
Issued Date : Jan. 23, 2002

Applicant : JEBSEE ELECTRONICS CO., LTD.
24-3, SIN-LO ROAD, P.O. BOX 57 TAINAN, TAIWAN

Test By : Intertek Testing Services Taiwan Ltd.
No. 11, Ko-Tze-Nan Chia-Tung Li, Shiang-Shan District,
Hsinchu, Taiwan, R.O.C.

Tested By

Kaysi Chen

Approved By

J. T. CHEN
MANAGER (EMC LABORATORY)
ETL SEMKO DIVISION

Reviewed By

Elton Chen

Table of Contents

1. General information 4
1.1 Identification of the EUT 4
1.2 Additional information about the EUT 4
1.3 Antenna description 5
1.4 Peripherals equipment 5
2. Test specifications 6
2.1 Test standard 6
2.2 Operation mode 6
2.3 Modifications required for compliance 6
2.4 Test equipment 7
3. Radiated emission test FCC 15.249 (C) 8
3.1 Operating environment 8
3.2 Test setup & procedure 8
3.3 Emission limit 9
3.3.1 Fundamental and harmonics emission limits 9
3.3.2 General radiated emission limits 9
3.4 Radiated emission test data FCC 15.249 10
3.4.1 Fundamental & harmonics radiated emission data 10
4. Conducted emission test FCC 15.207 37
4.1 Operating environment 37
4.2 Test setup & procedure 37
4.3 Emission limit 37
4.4 Conducted emission data FCC 15.207 38
5. Radiated emission on the band edge FCC 15.249(C) 41

Summary of Tests

WIRELESS CAMERA -Model: TC-201
FCC ID: DT9TC-201

Test	Reference	Results
Conducted Emission of AC Power	15.207	Complies
Radiated Emission test	15.249(c), 15.209	Complies

1. General information

1.1 Identification of the EUT

Manufacturer	: JEBSEE ELECTRONICS CO., LTD.
Product	: WIRELESS CAMERA
Model No.	: TC-201
FCC ID.	: DT9TC-201
Frequency Range	: 2414MHz to 2468MHz
Channel Number	: 4 channels
Frequency of Each Channel	: 2414MHz, 2432MHz, 2450MHz, 2468MHz
Type of Modulation	: ASK
Power Supply	: 120Vac, 60Hz with Adapter
Power Cord	: N/A
Data Cable	: 1 meter length RCA Connector
Sample Received	: Nov. 27, 2001
Test Date(s)	: Jan. 01, 2002 to Jan. 14, 2002

A DoC report has been generated for the client.

1.2 Additional information about the EUT

The EUT is a 2.4GHz wireless camera with 3 type of lens, for these 3 types of lens camera using the same RF module and circuit so they are combined in one application. The 3 type of lens listed as below:

Type of Lens (mode)	**Name of Lens**
CMOS Color	BC-301N
CMOS Black and White	BC-401N
CMOS CCD	BC-101N

CMOS Color type is evaluated as the main mode with whole test data recorded in this report, and radiated emission test were conducted for cameras with all 3 lens respectively under evaluation that different lens can affect the result of radiated emission.

The CMOS Color and CMOS B/W type are driven with 9Vdc adapter, and CMOS CCD type is driven with 12Vdc adapter.

For more detail features, please refer to User's manual as file name “installation guide.pdf”.

1.3 Antenna description

The EUT uses a permanently connected antenna.

Antenna Gain : 0dBi max
Antenna Type : PATH

1.4 Peripherals equipment

Monitor
Product No. : DCT-10CP
Serial No. : 00101713
Manufacturer : Acula Technology Corporation

2. Test specifications

2.1 Test standard

The EUT was performed according to the procedures in FCC Part 15 Subpart C Paragraph 15.249 for non-spread spectrum devices.

The AC power conducted emissions was invested over the frequency range from 0.45MHz to 30MHz using a receiver bandwidth of 9kHz. (15.207 paragraph)

Radiated emissions were invested cover the frequency range from 30MHz to 1000MHz using a receiver RBW of 120kHz record QP reading, and the frequency over 1GHz using a spectrum analyzer RBW of 1MHz and 10Hz VBW record Average reading. (15.209 paragraph), the Peak reading recorded also on the report.

The test of radiated measurements according to FCC Part15 Section 15.33(a) had been conducted and the field strength of this frequency band were all more than 20dB under limit level as specified in Section 15.33(a), thus we evaluate the EUT pass the specified test.

The EUT setup configurations please refer to the photo of test configuration in item.

2.2 Operation mode

Turn on the EUT'S power and connected to monitor via a 1m length RCA cable, then selected the wanted channel (low channel, middle channel, high channel).

The EUT transmitted continuously during all tests.

2.3 Modifications required for compliance

No modification were installed during test performance to bring the product into compliance (Please note that this list does not include changes made specifically by JEBSEE ELECTRONICS CO., LTD. Prior to compliance testing.)

2.4 Test equipment

Equipment	Brand	Frequency range	Model No.	Series No.	Next Cal.Date
EMI Receiver	Rohde & Schwarz	9kHz~2.75GHz	ESCS 30	825788/014	May 29, 2002
Pulse Limiter	Rohde & Schwarz	9kHz~30MHz	ESH3-Z2	848.766/052	N/A
Spectrum Analyzer	Rohde & Schwarz	9kHz~30GHz	FSP 30	100137	July 9, 2002
Horn Antenna	EMCO	1GHz~18GHz	3115	9906-5822	Sep. 10, 2002
Horn Antenna	SCHWARZBECK	14GHz~40GHz	BBHA 9170	159	June 21, 2002
Bilog Antenna	SCHWARZBECK	25MHz~1.7GHz	VULB 9160	3111	June 21, 2002
Turn Table	HDGmbH	N/A	DS 420S	420/669/01	N/A
Antenna Tower	HDGmbH	N/A	MA 240	240/573	N/A
Microwave Amplifier	Agilent	2GHz~26.5GHz	8348A	3111A00567	Dec. 20, 2002

Note:
1. The calibration interval of the above instruments is 12 months.

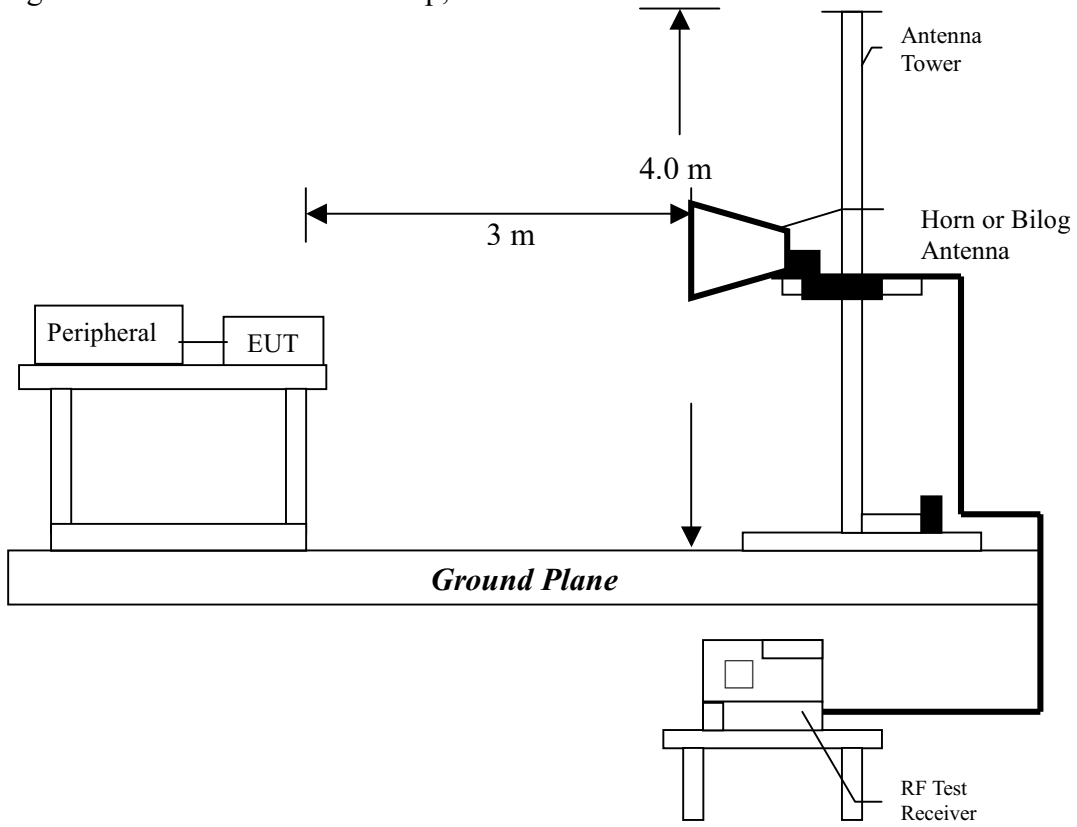
3. Radiated emission test FCC 15.249 (C)

3.1 Operating environment

Temperature:	20	℃
Relative Humidity:	55	%

3.2 Test setup & procedure

The Diagram below shows the test setup, which is utilized to make these measurements.



Radiated emission measurements were performed from 30MHz to 24GHz. Spectrum Analyzer Resolution Bandwidth is 100kHz or greater for frequencies 30MHz to 1GHz, 1MHz – for frequencies above 1GHz.

The EUT for testing is arranged on a wooden turntable. If some peripherals apply to the EUT, the peripherals will be connected to EUT and the whole system. During the test, all cables were arranged to produce worst-case emissions. The signal is maximized through rotation. The height of antenna and polarization is changing constantly for exploring for maximum signal level. The height of antenna can be up to 4 meters and down to 1 meter.

The measurement for radiated emission will be done at the distance of three meters unless the signal level is too low to measure at that distance. In the case of the reading under noise floor, a pre-amplifier is used and/or the test is conducted at a closer distance. And then all readings are extrapolated back to the equivalent three meter reading using inverse scaling with distance.

3.3 Emission limit

3.3.1 Fundamental and harmonics emission limits

Frequency (MHz)	Field Strength of Fundamental		Field Strength of Harmonics	
	(mV/m@3m)	(dBuV/m@3m)	(uV/m@3m)	(dBuV/m@3m)
2400-2483.5	50	94	500	54

3.3.2 General radiated emission limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

Frequency MHz	15.209 Limits (dB μ V/m@3m)	General Radiated Limits (dB μ V/m@3m)
30-88	40	40
88-216	43.5	43.5
216-960	46	46
Above 960	54	54

Remark:
1. In the above table, the tighter limit applies at the band edges.
2. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system

   Uncertainty was calculated in accordance with NAMAS NIS 81. In the General Radiated Emission Test, the uncertainty is within ±2.5dB

3.4 Radiated emission test data FCC 15.249

3.4.1 Fundamental & harmonics radiated emission data

EUT : TC-201 (with CMOS Color lens)
Test Mode : Low Channel
Test Condition : Transmitted

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Preamp (dB)	Correction Factor (dB/m)	Reading (dBuV)	Corrected Reading (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)
2414.31	PK	V	0	33.3	58.13	91.43	114	-22.57
2414.31	AV	V	0	33.3	50.31	83.61	94	-10.39
4827.76	PK	V	28.02	40.4	47.44	59.82	74	-14.18
4876.76	AV	V	28.02	40.4	38.01	50.39	54	-3.61
7241.49	PK	V	28.02	43.86	43.84	59.68	74	-14.32
7241.49	AV	V	28.02	43.86	34.26	50.1	54	-3.9
9656	PK	V	28.02	46.9	30.83	49.71	74	-24.29
9656	AV	V	28.02	46.9	-	-	54	-
1934.33	PK	V	28.02	31.99	48.24	52.21	74	-21.79
1934.33	AV	V	28.02	31.99	39.33	43.3	54	-10.7
3869	PK	V	28.02	38.85	31.18	42.01	74	-31.99
3869	AV	V	28.02	38.85	-	-	54	-

Remark:
1.Corrected Level = Reading Level + Correction Factor－Preamp
2.Correction Factor = Antenna Factor + Cable Loss
3. “-“ means the emission is below the noise floor.

The radiated emissions at

Frequency(MHz)	Margin
4827.99	-2.37

is less than uncertainty. This is within the stated measurement uncertainty, this may affect compliance determined in other test arrangements.

EUT : TC-201 (with CMOS Color lens)
Test Mode : Low Channel
Test Condition : Transmitted

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Preamp (dB)	Correction Factor (dB/m)	Reading (dBuV)	Corrected Reading (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)
2413.93	PK	H	0	33.3	56.21	89.51	114	-24.49
2413.93	AV	H	0	33.3	49.31	82.61	94	-11.39
4827.99	PK	H	28.02	40.4	47.91	60.29	74	-13.71
4827.99	AV	H	28.02	40.4	39.25	51.63	54	-2.37
7242.55	PK	H	28.02	43.86	45.11	60.95	74	-13.05
7242.55	AV	H	28.02	43.86	34.26	50.1	54	-3.9
9656	PK	H	28.02	46.9	30.08	48.96	74	-25.04
9656	AV	H	28.02	46.9	-	-	54	-
1934.62	PK	H	28.02	31.99	49.35	53.32	74	-20.68
1934.62	AV	H	28.02	31.99	38.83	42.8	54	-11.2
3869	PK	H	28.02	38.85	31.23	42.06	74	-31.94
3869	AV	H	28.02	38.85	-	-	54	-

Remark:
1.Corrected Level = Reading Level + Correction Factor－Preamp
2.Correction Factor = Antenna Factor + Cable Loss
3. “-“ means the emission is below the noise floor.

The radiated emissions at

Frequency(MHz)	Margin
4864.02	-1.57

is less than uncertainty. This is within the stated measurement uncertainty, this may affect compliance determined in other test arrangements.

EUT : TC-201 (with CMOS Color lens)
Test Mode : Middle Channel
Test Condition : Transmitted

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Preamp (dB)	Correction Factor (dB/m)	Reading (dBuV)	Corrected Reading (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)
2432.17	PK	V	0	33.3	58.12	91.42	114	-22.58
2432.17	AV	V	0	33.3	54.55	87.85	94	-6.15
4864.02	PK	V	28.02	40.4	49.84	62.22	74	-11.78
4864.02	AV	V	28.02	40.4	40.05	52.43	54	-1.57
7295.55	PK	V	28.02	45.19	42.24	59.41	74	-14.59
7295.55	AV	V	28.02	45.19	32.1	49.27	54	-4.73
9728	PK	V	28.02	46.98	31.14	50.1	74	-23.9
9728	AV	V	28.02	46.98	-	-	54	-
1952.01	PK	V	28.02	31.99	47.45	51.42	74	-22.58
1952.01	AV	V	28.02	31.99	36.55	40.52	54	-13.48
3905	PK	V	28.02	38.94	33.23	44.15	74	-29.85
3905	AV	V	28.02	38.94	-	-	54	-

Remark:
1.Corrected Level = Reading Level + Correction Factor－Preamp
2.Correction Factor = Antenna Factor + Cable Loss
3. “-“ means the emission is below the noise floor.

EUT : TC-201 (with CMOS Color lens)
Test Mode : Middle Channel
Test Condition : Transmitted

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Preamp (dB)	Correction Factor (dB/m)	Reading (dBuV)	Corrected Reading (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)
2432.31	PK	H	0	33.3	56.77	90.07	114	-23.93
2432.31	AV	H	0	33.3	51.34	84.64	94	-9.36
4864.25	PK	H	28.02	40.4	48.4	60.78	74	-13.22
4864.25	AV	H	28.02	40.4	38.39	50.77	54	-3.23
7296.55	PK	H	28.02	45.19	45.04	62.21	74	-11.79
7296.55	AV	H	28.02	45.19	33.33	50.5	54	-3.5
9728	PK	H	28.02	46.98	30.66	49.62	74	-24.38
9728	AV	H	28.02	46.98	-	-	54	-
1952.32	PK	H	28.02	31.99	47.96	51.93	74	-22.07
1952.32	AV	H	28.02	31.99	37.33	41.3	54	-12.7
3905	PK	H	28.02	38.94	31.83	42.75	74	-31.25
3905	AV	H	28.02	38.94	-	-	54	-

Remark:
1.Corrected Level = Reading Level + Correction Factor－Preamp
2.Correction Factor = Antenna Factor + Cable Loss
3. “-“ means the emission is below the noise floor.

EUT : TC-201 (with CMOS Color lens)
Test Mode : High Channel
Test Condition : Transmitted

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Preamp (dB)	Correction Factor (dB/m)	Reading (dBuV)	Corrected Reading (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)
2468.18	PK	V	0	33.3	55.15	88.45	114	-25.55
2468.18	AV	V	0	33.3	49.7	83	94	-11
4936.58	PK	V	28.02	40.44	48.37	60.79	74	-13.21
4936.58	AV	V	28.02	40.44	38.83	51.25	54	-2.75
7403.98	PK	V	28.02	45.19	43.01	60.18	74	-13.82
7403.98	AV	V	28.02	45.19	32.64	49.81	54	-4.19
9872	PK	V	28.02	46.98	30.2	49.16	74	-24.84
9872	AV	V	28.02	46.98	-	-	54	-
1988.75	PK	V	28.02	31.99	47.39	51.36	74	-22.64
1988.75	AV	V	28.02	31.99	38.36	42.33	54	-11.67
3977	PK	V	28.02	38.94	31.13	42.05	74	-31.95
3977	AV	V	28.02	38.94	-	-	54	-

Remark:
1.Corrected Level = Reading Level + Correction Factor－Preamp
2.Correction Factor = Antenna Factor + Cable Loss
3. “-“ means the emission is below the noise floor.

EUT : TC-201 (with CMOS Color lens)
Test Mode : High Channel
Test Condition : Transmitted

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Preamp (dB)	Correction Factor (dB/m)	Reading (dBuV)	Corrected Reading (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)
2468.41	PK	H	0	33.3	57.34	90.64	114	-23.36
2468.41	AV	H	0	33.3	51.22	84.52	94	-9.48
4936.47	PK	H	28.02	40.44	49.14	61.56	74	-12.44
4936.47	AV	H	28.02	40.44	38.4	50.82	54	-3.18
7403.99	PK	H	28.02	45.19	43.28	60.45	74	-13.55
7403.99	AV	H	28.02	45.19	33.33	50.5	54	-3.5
9872	PK	H	28.02	46.98	30.71	49.67	74	-24.33
9872	AV	H	28.02	46.98	-	-	54	-
1988.18	PK	H	28.02	31.99	49.11	53.08	74	-20.92
1988.18	AV	H	28.02	31.99	37.15	41.12	54	-12.88
3977	PK	H	28.02	38.94	31.17	42.09	74	-31.91
3977	AV	H	28.02	38.94	-	-	54	-

Remark:
1.Corrected Level = Reading Level + Correction Factor－Preamp
2.Correction Factor = Antenna Factor + Cable Loss
3. “-“ means the emission is below the noise floor.

EUT : TC-201 (with CMOS B/W lens)
Test Mode : Low Channel
Test Condition : Transmitted

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Preamp (dB)	Correction Factor (dB/m)	Reading (dBuV)	Corrected Reading (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)
2414.33	PK	V	0	33.3	58.24	91.54	114	-22.46
2414.33	AV	V	0	33.3	50.61	83.91	94	-10.09
4827.88	PK	V	28.02	40.4	47.57	59.95	74	-14.05
4876.88	AV	V	28.02	40.4	38.13	50.51	54	-3.49
7242.15	PK	V	28.02	43.86	42.91	58.75	74	-15.25
7242.15	AV	V	28.02	43.86	34.07	49.91	54	-4.09
9656	PK	V	28.02	46.9	31.16	50.04	74	-23.96
9656	AV	V	28.02	46.9	-	-	54	-
1934.56	PK	V	28.02	31.99	46.9	50.87	74	-23.13
1934.56	AV	V	28.02	31.99	38.81	42.78	54	-11.22
3869	PK	V	28.02	38.85	30.84	41.67	74	-32.33
3869	AV	V	28.02	38.85	-	-	54	-

Remark:
1.Corrected Level = Reading Level + Correction Factor－Preamp
2.Correction Factor = Antenna Factor + Cable Loss
3. “-“ means the emission is below the noise floor.

EUT : TC-201 (with CMOS B/W lens)
Test Mode : Low Channel
Test Condition : Transmitted

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Preamp (dB)	Correction Factor (dB/m)	Reading (dBuV)	Corrected Reading (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)
2413.99	PK	H	0	33.3	55.54	88.84	114	-25.16
2413.99	AV	H	0	33.3	48.33	81.63	94	-12.37
4828.15	PK	H	28.02	40.4	47.7	60.08	74	-13.92
4828.15	AV	H	28.02	40.4	38.39	50.77	54	-3.23
7242.66	PK	H	28.02	43.86	44.43	60.27	74	-13.73
7242.66	AV	H	28.02	43.86	34.1	49.94	54	-4.06
9656	PK	H	28.02	46.9	31.35	50.23	74	-23.77
9656	AV	H	28.02	46.9	-	-	54	-
1934.51	PK	H	28.02	31.99	48.24	52.21	74	-21.79
1934.51	AV	H	28.02	31.99	38	41.97	54	-12.03
3869	PK	H	28.02	38.85	30.39	41.22	74	-32.78
3869	AV	H	28.02	38.85	-	-	54	-

Remark:
1.Corrected Level = Reading Level + Correction Factor－Preamp
2.Correction Factor = Antenna Factor + Cable Loss
3. “-“ means the emission is below the noise floor.

EUT : TC-201 (with CMOS B/W lens)
Test Mode : Middle Channel
Test Condition : Transmitted

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Preamp (dB)	Correction Factor (dB/m)	Reading (dBuV)	Corrected Reading (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)
2432.11	PK	V	0	33.3	57.11	90.41	114	-23.59
2432.11	AV	V	0	33.3	50.31	83.61	94	-10.39
4864.66	PK	V	28.02	40.4	48.57	60.95	74	-13.05
4864.66	AV	V	28.02	40.4	38.91	51.29	54	-2.71
7295.59	PK	V	28.02	45.19	43.83	61	74	-13
7295.59	AV	V	28.02	45.19	33.9	51.07	54	-2.93
9728	PK	V	28.02	46.98	30.34	49.3	74	-24.7
9728	AV	V	28.02	46.98	-	-	54	-
1952.85	PK	V	28.02	31.99	47.84	51.81	74	-22.19
1952.85	AV	V	28.02	31.99	37.26	41.23	54	-12.77
3905	PK	V	28.02	38.94	30.13	41.05	74	-32.95
3905	AV	V	28.02	38.94	-	-	54	-

Remark:
1.Corrected Level = Reading Level + Correction Factor－Preamp
2.Correction Factor = Antenna Factor + Cable Loss
3. “-“ means the emission is below the noise floor.

EUT : TC-201 (with CMOS B/W lens)
Test Mode : Middle Channel
Test Condition : Transmitted

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Preamp (dB)	Correction Factor (dB/m)	Reading (dBuV)	Corrected Reading (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)
2432.15	PK	H	0	33.3	56.55	89.85	114	-24.15
2432.15	AV	H	0	33.3	50.73	84.03	94	-9.97
4864.01	PK	H	28.02	40.4	49.21	61.59	74	-12.41
4864.01	AV	H	28.02	40.4	38.29	50.67	54	-3.33
7295.99	PK	H	28.02	45.19	43.66	60.83	74	-13.17
7295.99	AV	H	28.02	45.19	32.82	49.99	54	-4.01
9728	PK	H	28.02	46.98	31.48	50.44	74	-23.56
9728	AV	H	28.02	46.98	-	-	54	-
1952.14	PK	H	28.02	31.99	49.69	53.66	74	-20.34
1952.14	AV	H	28.02	31.99	36.39	40.36	54	-13.64
3905	PK	H	28.02	38.94	32.21	43.13	74	-30.87
3905	AV	H	28.02	38.94	-	-	54	-

Remark:
1.Corrected Level = Reading Level + Correction Factor－Preamp
2.Correction Factor = Antenna Factor + Cable Loss
3. “-“ means the emission is below the noise floor.

The radiated emissions at

Frequency(MHz)	Margin
4936.55	-2.29

is less than uncertainty. This is within the stated measurement uncertainty, this may affect compliance determined in other test arrangements.

EUT : TC-201 (with CMOS B/W lens)
Test Mode : High Channel
Test Condition : Transmitted

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Preamp (dB)	Correction Factor (dB/m)	Reading (dBuV)	Corrected Reading (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)
2468.19	PK	V	0	33.3	56.31	89.61	114	-24.39
2468.19	AV	V	0	33.3	48.97	82.27	94	-11.73
4936.55	PK	V	28.02	40.44	49.53	61.95	74	-12.05
4936.55	AV	V	28.02	40.44	39.29	51.71	54	-2.29
7404.51	PK	V	28.02	45.19	44.83	62	74	-12
7404.51	AV	V	28.02	45.19	33.45	50.62	54	-3.38
9872	PK	V	28.02	46.98	30.43	49.39	74	-24.61
9872	AV	V	28.02	46.98	-	-	54	-
1988.15	PK	V	28.02	31.99	47.53	51.5	74	-22.5
1988.15	AV	V	28.02	31.99	35.57	39.54	54	-14.46
3977	PK	V	28.02	38.94	31.19	42.11	74	-31.89
3977	AV	V	28.02	38.94	-	-	54	-

Remark:
1.Corrected Level = Reading Level + Correction Factor－Preamp
2.Correction Factor = Antenna Factor + Cable Loss
3. “-“ means the emission is below the noise floor.

The radiated emissions at

Frequency(MHz)	Margin
4935.99	-2.41

is less than uncertainty. This is within the stated measurement uncertainty, this may affect compliance determined in other test arrangements.

EUT : TC-201 (with CMOS B/W lens)
Test Mode : High Channel
Test Condition : Transmitted

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Preamp (dB)	Correction Factor (dB/m)	Reading (dBuV)	Corrected Reading (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)
2468.13	PK	H	0	33.3	56.27	89.57	114	-24.43
2468.13	AV	H	0	33.3	52.37	85.67	94	-8.33
4935.99	PK	H	28.02	40.44	50.26	62.68	74	-11.32
4935.99	AV	H	28.02	40.44	39.17	51.59	54	-2.41
7404.11	PK	H	28.02	45.19	44.83	62	74	-12
7404.11	AV	H	28.02	45.19	32.83	50	54	-4
9872	PK	H	28.02	46.98	32.35	51.31	74	-22.69
9872	AV	H	28.02	46.98	-	-	54	-
1988.33	PK	H	28.02	31.99	49.85	53.82	74	-20.18
1988.33	AV	H	28.02	31.99	37.33	41.3	54	-12.7
3977	PK	H	28.02	38.94	31.51	42.43	74	-31.57
3977	AV	H	28.02	38.94	-	-	54	-

Remark:
1.Corrected Level = Reading Level + Correction Factor－Preamp
2.Correction Factor = Antenna Factor + Cable Loss
3. “-“ means the emission is below the noise floor.

EUT : TC-201 (with CMOS CCD lens)
Test Mode : Low Channel
Test Condition : Transmitted

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Preamp (dB)	Correction Factor (dB/m)	Reading (dBuV)	Corrected Reading (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)
2414.23	PK	V	0	33.3	56.84	90.14	114	-23.86
2414.23	AV	V	0	33.3	51.62	84.92	94	-9.08
4828.01	PK	V	28.02	40.4	47.55	59.93	74	-14.07
4828.01	AV	V	28.02	40.4	38.14	50.52	54	-3.48
7242.11	PK	V	28.02	43.86	44.24	60.08	74	-13.92
7242.11	AV	V	28.02	43.86	33.73	49.57	54	-4.43
9656	PK	V	28.02	46.9	27.12	46	74	-28
9656	AV	V	28.02	46.9	-	-	54	-
1934.15	PK	V	28.02	31.99	47.13	51.1	74	-22.9
1934.15	AV	V	28.02	31.99	39.24	43.21	54	-10.79
3869	PK	V	28.02	38.85	29.13	39.96	74	-34.04
3869	AV	V	28.02	38.85	-	-	54	-

Remark:
1.Corrected Level = Reading Level + Correction Factor－Preamp
2.Correction Factor = Antenna Factor + Cable Loss
3. “-“ means the emission is below the noise floor.

EUT : TC-201 (with CMOS CCD lens)
Test Mode : Low Channel
Test Condition : Transmitted

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Preamp (dB)	Correction Factor (dB/m)	Reading (dBuV)	Corrected Reading (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)
2414.05	PK	H	0	33.3	57.76	91.06	114	-22.94
2414.05	AV	H	0	33.3	53.55	86.85	94	-7.15
4828.02	PK	H	28.02	40.4	47.94	60.32	74	-13.68
4828.02	AV	H	28.02	40.4	38.33	50.71	54	-3.29
7242.69	PK	H	28.02	43.86	46.53	62.37	74	-11.63
7242.69	AV	H	28.02	43.86	34.26	50.1	54	-3.9
9656	PK	H	28.02	46.9	28.37	47.25	74	-26.75
9656	AV	H	28.02	46.9	-	-	54	-
1934.61	PK	H	28.02	31.99	47.91	51.88	74	-22.12
1934.61	AV	H	28.02	31.99	38.36	42.33	54	-11.67
3869	PK	H	28.02	38.85	28.81	39.64	74	-34.36
3869	AV	H	28.02	38.85	-	-	54	-

Remark:
1.Corrected Level = Reading Level + Correction Factor－Preamp
2.Correction Factor = Antenna Factor + Cable Loss
3. “-“ means the emission is below the noise floor.

The radiated emissions at

Frequency(MHz)	Margin
4864.15	-2.21

is less than uncertainty. This is within the stated measurement uncertainty, this may affect compliance determined in other test arrangements.

EUT : TC-201 (with CMOS CCD lens)
Test Mode : Middle Channel
Test Condition : Transmitted

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Preamp (dB)	Correction Factor (dB/m)	Reading (dBuV)	Corrected Reading (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)
2432.32	PK	V	0	33.3	58.88	92.18	114	-21.82
2432.32	AV	V	0	33.3	52.34	85.64	94	-8.36
4864.15	PK	V	28.02	40.4	49.48	61.86	74	-12.14
4864.15	AV	V	28.02	40.4	39.41	51.79	54	-2.21
7296.65	PK	V	28.02	45.19	44.15	61.32	74	-12.68
7296.65	AV	V	28.02	45.19	34.55	51.72	54	-2.28
9728	PK	V	28.02	46.98	29.31	48.27	74	-25.73
9728	AV	V	28.02	46.98	-	-	54	-
1952.51	PK	V	28.02	31.99	48.16	52.13	74	-21.87
1952.51	AV	V	28.02	31.99	37.89	41.86	54	-12.14
3905	PK	V	28.02	38.94	30.14	41.06	74	-32.94
3905	AV	V	28.02	38.94	-	-	54	-

Remark:
1.Corrected Level = Reading Level + Correction Factor－Preamp
2.Correction Factor = Antenna Factor + Cable Loss
3. “-“ means the emission is below the noise floor.

EUT : TC-201 (with CMOS CCD lens)
Test Mode : Middle Channel
Test Condition : Transmitted

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Preamp (dB)	Correction Factor (dB/m)	Reading (dBuV)	Corrected Reading (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)
2432.45	PK	H	0	33.3	59.77	93.07	114	-20.93
2432.45	AV	H	0	33.3	52.03	85.33	94	-8.67
4863.99	PK	H	28.02	40.4	47.2	59.58	74	-14.42
4863.99	AV	H	28.02	40.4	39.04	51.42	54	-2.58
7296.11	PK	H	28.02	45.19	43.36	60.53	74	-13.47
7296.11	AV	H	28.02	45.19	32.51	49.68	54	-4.32
9728	PK	H	28.02	46.98	29.35	48.31	74	-25.69
9728	AV	H	28.02	46.98	-	-	54	-
1951.85	PK	H	28.02	31.99	48.96	52.93	74	-21.07
1951.85	AV	H	28.02	31.99	39.15	43.12	54	-10.88
3905	PK	H	28.02	38.94	30.24	41.16	74	-32.84
3905	AV	H	28.02	38.94	-	-	54	-

Remark:
1.Corrected Level = Reading Level + Correction Factor－Preamp
2.Correction Factor = Antenna Factor + Cable Loss
3. “-“ means the emission is below the noise floor.

EUT : TC-201 (with CMOS CCD lens)
Test Mode : High Channel
Test Condition : Transmitted

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Preamp (dB)	Correction Factor (dB/m)	Reading (dBuV)	Corrected Reading (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)
2468.21	PK	V	0	33.3	57.12	90.42	114	-23.58
2468.21	AV	V	0	33.3	50.29	83.59	94	-10.41
4935.99	PK	V	28.02	40.44	48.45	60.87	74	-13.13
4935.99	AV	V	28.02	40.44	37.81	50.23	54	-3.77
7404.01	PK	V	28.02	45.19	42	59.17	74	-14.83
7404.01	AV	V	28.02	45.19	33.53	50.7	54	-3.3
9872	PK	V	28.02	46.98	30.96	49.92	74	-24.08
9872	AV	V	28.02	46.98	-	-	54	-
1988.69	PK	V	28.02	31.99	47.95	51.92	74	-22.08
1988.69	AV	V	28.02	31.99	37.09	41.06	54	-12.94
3977	PK	V	28.02	38.94	29.99	40.91	74	-33.09
3977	AV	V	28.02	38.94	-	-	54	-

Remark:
1.Corrected Level = Reading Level + Correction Factor－Preamp
2.Correction Factor = Antenna Factor + Cable Loss
3. “-“ means the emission is below the noise floor.

The radiated emissions at

Frequency(MHz)	Margin
4936.44	-2.04

is less than uncertainty. This is within the stated measurement uncertainty, this may affect compliance determined in other test arrangements.

EUT : TC-201 (with CMOS CCD lens)
Test Mode : High Channel
Test Condition : Transmitted

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Preamp (dB)	Correction Factor (dB/m)	Reading (dBuV)	Corrected Reading (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)
2468.45	PK	H	0	33.3	57.13	90.43	114	-23.57
2468.45	AV	H	0	33.3	51.09	84.39	94	-9.61
4936.44	PK	H	28.02	40.44	48.9	61.32	74	-12.68
4936.44	AV	H	28.02	40.44	39.54	51.96	54	-2.04
7404.55	PK	H	28.02	45.19	44.33	61.5	74	-12.5
7404.55	AV	H	28.02	45.19	33.18	50.35	54	-3.65
9872	PK	H	28.02	46.98	30.51	49.47	74	-24.53
9872	AV	H	28.02	46.98	-	-	54	-
1988.61	PK	H	28.02	31.99	51.48	55.45	74	-18.55
1988.61	AV	H	28.02	31.99	37.83	41.8	54	-12.2
3977	PK	H	28.02	38.94	31.33	42.25	74	-31.75
3977	AV	H	28.02	38.94	-	-	54	-

Remark:
1.Corrected Level = Reading Level + Correction Factor－Preamp
2.Correction Factor = Antenna Factor + Cable Loss
3. “-“ means the emission is below the noise floor.

3.5 General radiated emission data FCC 15.209

3.5.1 General Radiated Emission Data

EUT : TC-201 (with CMOS Color lens)
Test Mode : Transmitter Mode
Test Condition : Low Channel

Polar (circle)	Freq. (MHz)	Antenna Factor (dB)	Cable Loss (dB)	Reading (dB μ V)	Emission Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
VER.	78.50000	7.49	2.18	7.93	17.60	40	-22.40
VER.	92.10000	6.83	2.30	7.27	16.40	43.5	-27.10
VER.	136.70000	7.27	2.83	24.00	34.10	43.5	-9.40
VER.	216.20000	10.59	3.50	4.61	18.70	46	-27.30
VER.	231.80000	11.42	3.50	5.68	20.60	46	-25.40
HOR.	84.30000	6.47	2.18	14.05	22.70	40	-17.30
HOR.	94.00000	6.83	2.30	13.67	22.80	43.5	-20.70
HOR.	134.80000	7.30	2.83	15.97	26.10	43.5	-17.40
HOR.	218.20000	10.59	3.50	3.91	18.00	46	-28.00
HOR.	404.40000	15.71	4.33	0.56	20.60	46	-25.40

Remark:
1. Emission Level = Reading Level + Antenna Factor + Cable Loss
2. Uncertainty was calculated in accordance with NAMAS NIS 81. In the General Radiated Emission Test, the uncertainty is within ±2.5dB

EUT : TC-201 (with CMOS Color lens)
Test Mode : Transmitted Mode
Test Condition : Middle Channel

Polar (circle)	Freq. (MHz)	Antenna Factor (dB)	Cable Loss (dB)	Reading (dB μ V)	Emission Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
VER.	80.40000	6.47	2.18	8.65	17.30	40	-22.70
VER.	136.70000	7.27	2.83	24.10	34.20	43.5	-9.30
VER.	216.20000	10.59	3.50	5.11	19.20	46	-26.80
VER.	231.80000	11.42	3.50	4.58	19.50	46	-26.50
VER.	809.90000	21.17	6.30	0.23	27.70	46	-18.30
HOR.	78.50000	7.49	2.18	11.13	20.80	40	-19.20
HOR.	94.00000	6.83	2.30	12.87	22.00	43.5	-21.50
HOR.	134.80000	7.30	2.83	13.97	24.10	43.5	-19.40
HOR.	218.20000	10.59	3.50	5.41	19.50	46	-26.50
HOR.	885.50000	22.43	6.70	-0.63	28.50	46	-17.50

Remark:
1. Emission Level = Reading Level + Antenna Factor + Cable Loss
2. Uncertainty was calculated in accordance with NAMAS NIS 81. In the General Radiated Emission Test, the uncertainty is within ±2.5dB

EUT : TC-201 (with CMOS Color lens)
Test Mode : Transmitted Mode
Test Condition : High Channel

Polar (circle)	Freq. (MHz)	Antenna Factor (dB)	Cable Loss (dB)	Reading (dB μ V)	Emission Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
VER.	76.60000	7.49	2.18	8.03	17.70	40	-22.30
VER.	136.70000	7.27	2.83	24.50	34.60	43.5	-8.90
VER.	229.80000	10.59	3.50	8.11	22.20	46	-23.80
VER.	738.10000	19.74	6.30	0.96	27.00	46	-19.00
VER.	912.70000	22.75	6.95	-1.00	28.70	46	-17.30
HOR.	94.00000	6.83	2.30	12.37	21.50	43.5	-22.00
HOR.	117.30000	8.25	2.88	8.97	20.10	43.5	-23.40
HOR.	136.70000	7.27	2.83	16.10	26.20	43.5	-17.30
HOR.	218.20000	10.59	3.50	4.61	18.70	46	-27.30
HOR.	229.80000	10.59	3.50	4.81	18.90	46	-27.10

Remark:
1. Emission Level = Reading Level + Antenna Factor + Cable Loss
2. Uncertainty was calculated in accordance with NAMAS NIS 81. In the General Radiated Emission Test, the uncertainty is within ±2.5dB

EUT : TC-201 (with CMOS B/W lens)
Test Mode : Transmitted Mode
Test Condition : Low Channel

Polar (circle)	Freq. (MHz)	Antenna Factor (dB)	Cable Loss (dB)	Reading (dB μ V)	Emission Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
VER.	36.50000	15.50	1.79	5.61	22.90	40	-17.10
VER.	79.70000	7.49	2.18	12.53	22.20	40	-17.80
VER.	107.80000	7.75	2.88	7.27	17.90	43.5	-25.60
VER.	135.30000	7.27	2.83	24.10	34.20	43.5	-9.30
VER.	222.80000	10.59	3.50	6.51	20.60	46	-25.40
HOR.	73.70000	8.69	1.95	8.36	19.00	40	-21.00
HOR.	79.70000	7.49	2.18	15.53	25.20	40	-14.80
HOR.	91.00000	6.83	2.30	15.17	24.30	43.5	-19.20
HOR.	136.40000	7.27	2.83	16.00	26.10	43.5	-17.40
HOR.	217.40000	10.59	3.50	6.41	20.50	46	-25.50

Remark:
1. Emission Level = Reading Level + Antenna Factor + Cable Loss
2. Uncertainty was calculated in accordance with NAMAS NIS 81. In the General Radiated Emission Test, the uncertainty is within ±2.5dB

EUT : TC-201 (with CMOS B/W lens)
Test Mode : Transmitted Mode
Test Condition : Middle Channel

Polar (circle)	Freq. (MHz)	Antenna Factor (dB)	Cable Loss (dB)	Reading (dB μ V)	Emission Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
VER.	36.50000	15.50	1.79	5.61	22.90	40	-17.10
VER.	79.70000	7.49	2.18	11.43	21.10	40	-18.90
VER.	107.80000	7.75	2.88	6.77	17.40	43.5	-26.10
VER.	138.50000	7.27	2.83	23.70	33.80	43.5	-9.70
VER.	220.60000	10.59	3.50	5.91	20.00	46	-26.00
HOR.	79.70000	7.49	2.18	15.33	25.00	40	-15.00
HOR.	92.60000	6.83	2.30	15.27	24.40	43.5	-19.10
HOR.	118.60000	8.25	2.88	9.87	21.00	43.5	-22.50
HOR.	134.80000	7.30	2.83	15.97	26.10	43.5	-17.40
HOR.	227.60000	10.59	3.50	4.51	18.60	46	-27.40

Remark:
1. Emission Level = Reading Level + Antenna Factor + Cable Loss
2. Uncertainty was calculated in accordance with NAMAS NIS 81. In the General Radiated Emission Test, the uncertainty is within $\pm$2.5dB

EUT : TC-201 (with CMOS B/W lens)
Test Mode : Transmitted Mode
Test Condition : High Channel

Polar (circle)	Freq. (MHz)	Antenna Factor (dB)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
VER.	36.50000	15.50	1.79	5.11	22.40	40	-17.60
VER.	79.70000	7.49	2.18	13.33	23.00	40	-17.00
VER.	136.90000	7.27	2.83	23.30	33.40	43.5	-10.10
VER.	188.80000	9.26	3.13	6.91	19.30	43.5	-24.20
VER.	230.90000	11.42	3.50	8.28	23.20	46	-22.80
HOR.	79.70000	7.49	2.18	13.53	23.20	40	-16.80
HOR.	93.70000	6.83	2.30	15.67	24.80	43.5	-18.70
HOR.	136.90000	7.27	2.83	17.20	27.30	43.5	-16.20
HOR.	216.80000	10.59	3.50	6.51	20.60	46	-25.40
HOR.	230.90000	11.42	3.50	6.68	21.60	46	-24.40

Remark:
1. Emission Level = Reading Level + Antenna Factor + Cable Loss
2. Uncertainty was calculated in accordance with NAMAS NIS 81. In the General Radiated Emission Test, the uncertainty is within ±2.5dB

The radiated emissions at

Frequency(MHz)	Margin
85.60000	-2.20
85.91000	-1.10

is less than uncertainty. This is within the stated measurement uncertainty, this may affect compliance determined in other test arrangements.

EUT : TC-201 (with CMOS CCD lens)
Test Mode : Transmitted Mode
Test Condition : Low Channel

Polar (circle)	Freq. (MHz)	Antenna Factor (dB)	Cable Loss (dB)	Reading (dB μ V)	Emission Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
VER.	85.60000	6.14	2.30	29.36	37.80	40	-2.20
VER.	142.90000	7.45	2.80	26.65	36.90	43.5	-6.60
VER.	152.60000	9.10	2.80	22.00	33.90	43.5	-9.60
VER.	200.10000	10.28	3.10	14.32	27.70	43.5	-15.80
VER.	257.30000	11.42	3.50	15.38	30.30	46	-15.70
VER.	267.10000	11.88	3.85	12.77	28.50	46	-17.50
HOR.	85.91000	6.14	2.30	30.46	38.90	40	-1.10
HOR	142.90000	7.45	2.80	20.95	31.20	43.5	-12.30
HOR.	200.10000	10.28	3.10	19.02	32.40	43.5	-11.10
HOR.	228.70000	10.59	3.50	19.51	33.60	46	-12.40
HOR.	257.30000	11.42	3.50	17.78	32.70	46	-13.30
HOR.	371.40000	15.78	4.33	13.19	33.30	46	-12.70

Remark:
1. Emission Level = Reading Level + Antenna Factor + Cable Loss
2. Uncertainty was calculated in accordance with NAMAS NIS 81. In the General Radiated Emission Test, the uncertainty is within ±2.5dB

The radiated emissions at

Frequency(MHz)	Margin
85.60000	-1.50
85.90000	-1.00

are less than uncertainty. This is within the stated measurement uncertainty, this may affect compliance determined in other test arrangements.

EUT : TC-201 (with CMOS CCD lens)
Test Mode : Transmitted Mode
Test Condition : Middle Channel

Polar (circle)	Freq. (MHz)	Antenna Factor (dB)	Cable Loss (dB)	Reading (dB μ V)	Emission Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
VER.	85.60000	6.14	2.30	30.06	38.50	40	-1.50
VER.	142.90000	7.45	2.80	26.65	36.90	43.5	-6.60
VER.	152.60000	9.10	2.80	21.60	33.50	43.5	-10.00
VER.	200.10000	10.28	3.10	14.42	27.80	43.5	-15.70
VER.	228.70000	10.59	3.50	13.41	27.50	46	-18.50
VER.	257.30000	11.42	3.50	15.08	30.00	46	-16.00
HOR.	85.90000	6.14	2.30	30.56	39.00	40	-1.00
HOR.	142.90000	7.45	2.80	20.85	31.10	43.5	-12.40
HOR	200.10000	10.28	3.10	18.22	31.60	43.5	-11.90
HOR.	228.70000	10.59	3.50	19.51	33.60	46	-12.40
HOR.	257.30000	11.42	3.50	17.58	32.50	46	-13.50
HOR.	371.40000	15.78	4.33	12.49	32.60	46	-13.40

Remark:
1. Emission Level = Reading Level + Antenna Factor + Cable Loss
2. Uncertainty was calculated in accordance with NAMAS NIS 81. In the General Radiated Emission Test, the uncertainty is within ±2.5dB

The radiated emissions at

Frequency(MHz)	Margin
142.90000	-1.90
85.90000	-1.40

are less than uncertainty. This is within the stated measurement uncertainty, this may affect compliance determined in other test arrangements.

EUT : TC-201 (with CMOS CCD lens)
Test Mode : Transmitted Mode
Test Condition : High Channel

Polar (circle)	Freq. (MHz)	Antenna Factor (dB)	Cable Loss (dB)	Reading (dB μ V)	Emission Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
VER.	142.90000	7.45	2.80	26.45	36.70	40	-1.90
VER.	152.60000	9.10	2.80	21.30	33.20	43.5	-6.80
VER.	200.10000	10.28	3.10	14.62	28.00	43.5	-10.30
VER.	257.30000	11.42	3.50	14.78	29.70	43.5	-15.50
VER.	466.60000	16.97	4.75	11.78	33.50	46	-16.30
VER.	142.90000	7.45	2.80	26.45	36.70	46	-12.50
HOR.	76.40000	7.49	2.18	17.43	27.10	40	-12.90
HOR.	85.90000	6.14	2.30	30.16	38.60	40	-1.40
HOR.	142.90000	7.45	2.80	21.75	32.00	43.5	-11.50
HOR.	200.10000	10.28	3.10	18.72	32.10	43.5	-11.40
HOR.	228.70000	10.59	3.50	20.01	34.10	46	-11.90
HOR.	257.30000	11.42	3.50	18.18	33.10	46	-12.90

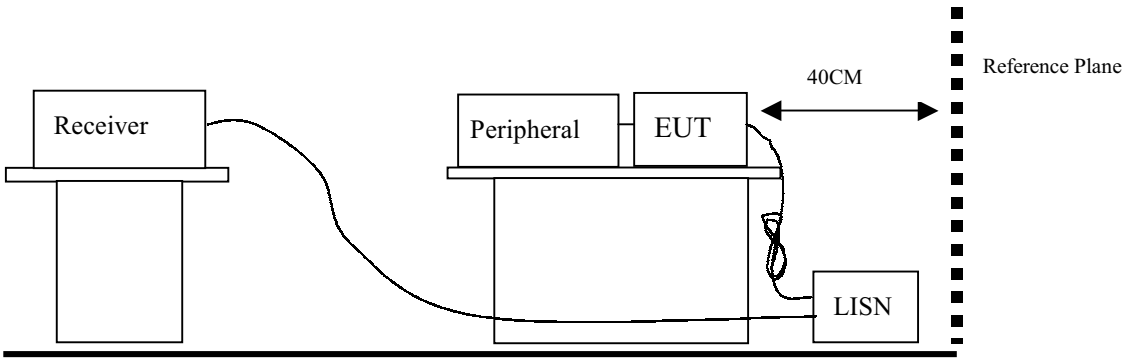
Remark:
1. Emission Level = Reading Level + Antenna Factor + Cable Loss
2. Uncertainty was calculated in accordance with NAMAS NIS 81. In the General Radiated Emission Test, the uncertainty is within ±2.5dB

4. Conducted emission test FCC 15.207

4.1 Operating environment

Temperature: 20 ℃
Relative Humidity: 55 %

4.2 Test setup & procedure



Ground Plane

The EUT are connected to the main power through a line impedance stabilization network (LISN). This provides a 50 ohm/50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination.
Both sides (Line and Neutral) of AC line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4/1992 on conducted measurement.
The bandwidth of the field strength meter (R & S Test Receiver ESCS 30) is set at 9kHz.

See AC line conduction plot as file name “AC line conduction plot.pdf”.

4.3 Emission limit

FCC Part 15 Paragraph 15.207		
Freq. (MHz)	Maximum RF Line Voltage	
	uV	dBuV
0.45 - 30	250	48.0

4.4 Conducted emission data FCC 15.207

Worst case conducted emission
at Low Channel, Neutral 0.4500MHz ,margin:-19.1 dB

EUT : TC-201 (with CMOS Color lens)
Test Mode : Transmitted Mode
Test Condition : Low Channel

Power Line (circle)	Freq. (MHz)	Reading (dB μ V) QP	Limit (dB μ V) QP	Margin (dB) QP
LINE	0.65000	25.3	48.00	-22.70
LINE	3.04200	15.2	48.00	-32.80
LINE	3.79400	15.4	48.00	-32.60
LINE	9.96200	14.0	48.00	-34.00
LINE	14.32200	15.7	48.00	-32.30
LINE	17.65800	15.7	48.00	-32.30
NEUTRAL	0.45000	28.9	48.00	-19.10
NEUTRAL	0.61800	28.2	48.00	-19.80
NEUTRAL	3.78600	16.5	48.00	-31.50
NEUTRAL	7.93000	14.7	48.00	-33.30
NEUTRAL	17.62600	16.6	48.00	-31.40
NEUTRAL	28.63400	19.8	48.00	-28.20

Remark:
1. The reading value including cable loss and LISN factor.
2. Uncertainty was calculated in accordance with NAMAS NIS 81. In the Conducted Emission Test, the uncertainty is within ±2dB
3. The average measurement was not performed when the peak measured data under the limit of average detection.

EUT : TC-201 (with CMOS Color lens)
Test Mode : Transmitted Mode
Test Condition : Middle Channel

Power Line (circle)	Freq. (MHz)	Reading (dB μ V) QP	Limit (dB μ V) QP	Margin (dB) QP
LINE	0.62600	25.8	48.00	-22.20
LINE	1.31400	12.8	48.00	-35.20
LINE	4.18600	15.4	48.00	-32.60
LINE	13.65000	16.7	48.00	-31.30
LINE	21.81000	14.4	48.00	-33.60
LINE	28.30600	13.8	48.00	-34.20
NEUTRAL	0.45000	28.8	48.00	-19.20
NEUTRAL	0.64200	28.5	48.00	-19.50
NEUTRAL	4.33000	15.8	48.00	-32.20
NEUTRAL	13.65000	23.2	48.00	-24.80
NEUTRAL	17.56200	17.6	48.00	-30.40
NEUTRAL	28.63400	19.7	48.00	-28.30

Remark:
1. 1. The reading value included cable loss and LISN factor.
2. Uncertainty was calculated in accordance with NAMAS NIS 81. In the Conducted Emission Test, the uncertainty is within ±2dB
3. The average measurement was not performed when the peak measured data under the limit of average detection.

EUT : TC-201 (with CMOS Color lens)
Test Mode : Transmitted Mode
Test Condition : High Channel

Power Line (circle)	Freq. (MHz)	Reading (dB μ V) QP	Limit (dB μ V) QP	Margin (dB) QP
LINE	0.62600	25.7	48.00	-22.30
LINE	1.31400	12.6	48.00	-35.40
LINE	2.97800	15.7	48.00	-32.30
LINE	7.98600	14.8	48.00	-33.20
LINE	15.92200	18.5	48.00	-29.50
LINE	28.63400	18.9	48.00	-29.10
NEUTRAL	0.45000	28.9	48.00	-19.10
NEUTRAL	0.64200	28.4	48.00	-19.60
NEUTRAL	3.77800	14.3	48.00	-33.70
NEUTRAL	10.36200	14.3	48.00	-33.70
NEUTRAL	17.81800	16.5	48.00	-31.50
NEUTRAL	28.63400	19.9	48.00	-28.10

Remark:
1. 1. The reading value included cable loss and LISN factor.
2. Uncertainty was calculated in accordance with NAMAS NIS 81. In the Conducted Emission Test, the uncertainty is within ±2dB
3. The average measurement was not performed when the peak measured data under the limit of average detection.

5. Radiated emission on the band edge FCC 15.249(C)

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental (2400~2483.5MHz). Please refer to the attachment plots.

See band-edge plot as file name “band-edge plot.pdf”.