

APPENDIX 2: Data of EMI test

Conducted Emission
(11b, Low ch.)

DATA OF CONDUCTED EMISSION TEST

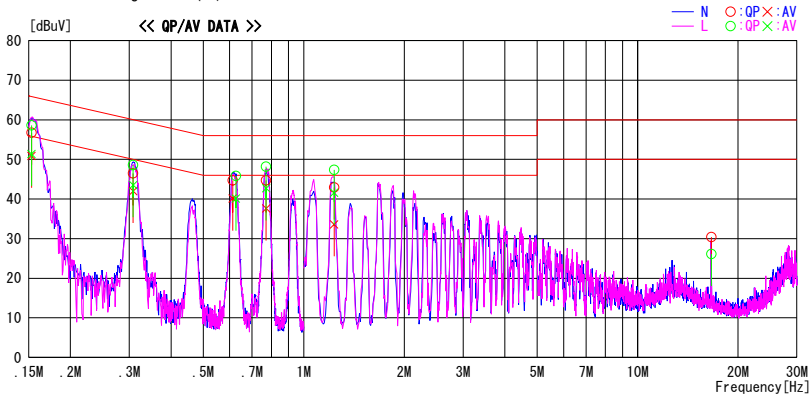
UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2006/09/11 16:27:52

Company : Nikon Corporation
Kind of EUT : Wireless LAN Module
Model No. : GG-131
Serial No. : 411D4

Report No. : 27AE0229-H0
Power : DC3.3/1.8V (AC Adapter:120V/60Hz)
Temp./Humi. : 24deg.C / 52%
Operator : Hiroka Uneyama

Mode / Remarks : Transmitting 2412MHz, 11b, 11Mbps

LIMIT : FCC15C §15.207 (QP)
FCC15C §15.207 (AV)



Frequency [MHz]	Reading Level		Corr. Factor	Results		Limit		Margin		Phase
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]	
0.15290	58.4	51.2	0.2	58.6	51.4	65.8	55.8	7.2	4.4	L
0.15290	56.5	50.7	0.2	56.7	50.9	65.8	55.8	9.1	4.9	N
0.30790	46.1	41.6	0.4	46.5	42.0	60.0	50.0	13.5	8.0	N
0.30790	48.2	43.1	0.4	48.6	43.5	60.0	50.0	11.4	6.5	L
0.61280	44.3	39.7	0.4	44.7	40.1	56.0	46.0	11.3	5.9	N
0.62630	45.4	39.7	0.4	45.8	40.1	56.0	46.0	10.2	5.9	L
0.77150	44.3	37.2	0.4	44.7	37.6	56.0	46.0	11.3	8.4	N
0.77150	47.8	42.3	0.4	48.2	42.7	56.0	46.0	7.8	3.3	L
1.23360	42.5	33.2	0.4	42.9	33.6	56.0	46.0	13.1	12.4	N
1.23360	47.0	41.2	0.4	47.4	41.6	56.0	46.0	8.6	4.4	L
16.62920	28.5	---	1.9	30.4	---	60.0	---	29.6	---	N
16.62920	24.2	---	1.9	26.1	---	60.0	---	33.9	---	L

CHART: WITH FACTOR, Peak hold data. Data is uncorrected. CALCULATION: RESULT=READING+C.F (LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission
(11b, Mid ch.)

DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2006/09/11 17:05:24

Company : Nikon Corporation

Kind of EUT : Wireless LAN Module

Model No. : GC-131

Serial No. : 411D4

Report No. : 27AE0229-HO

Power : DC3.3/1.8V(AC Adapter:120V/60Hz)

Temp./Humi. : 24deg. C / 52%

Operator : Hiroka Umeyama

Mode / Remarks : Transmitting 2437MHz, 11b, 11Mbps

LIMIT : FCC15C §15.207 (QP)
FCC15C §15.207 (AV)

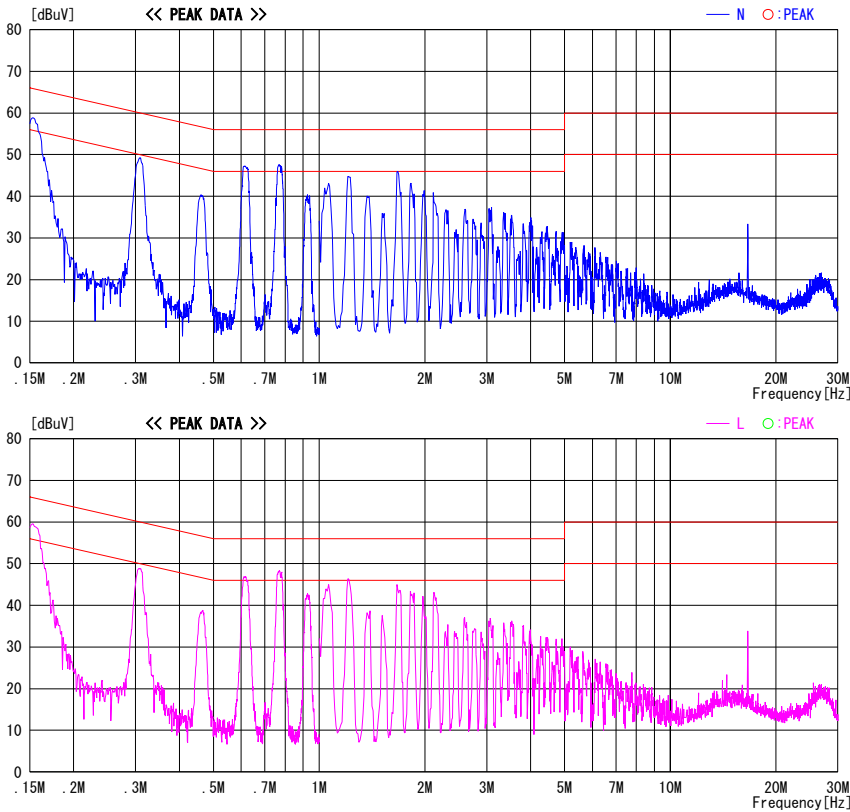


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission (11b, High ch.)

DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2006/09/11 17:14:04

Company : Nikon Corporation
Kind of EUT : Wireless LAN Module
Model No. : GC-131
Serial No. : 411D4

Report No. : 27AE0229-HO
Power : DC3.3/1.8V (AC Adapter:120V/60Hz)
Temp./Humi. : 24deg.C / 52%
Operator : Hiroka Umeyama

Mode / Remarks : Transmitting 2462MHz, 11b, 11Mbps

LIMIT : FCC15C § 15.207 (QP)
FCC15C § 15.207 (AV)

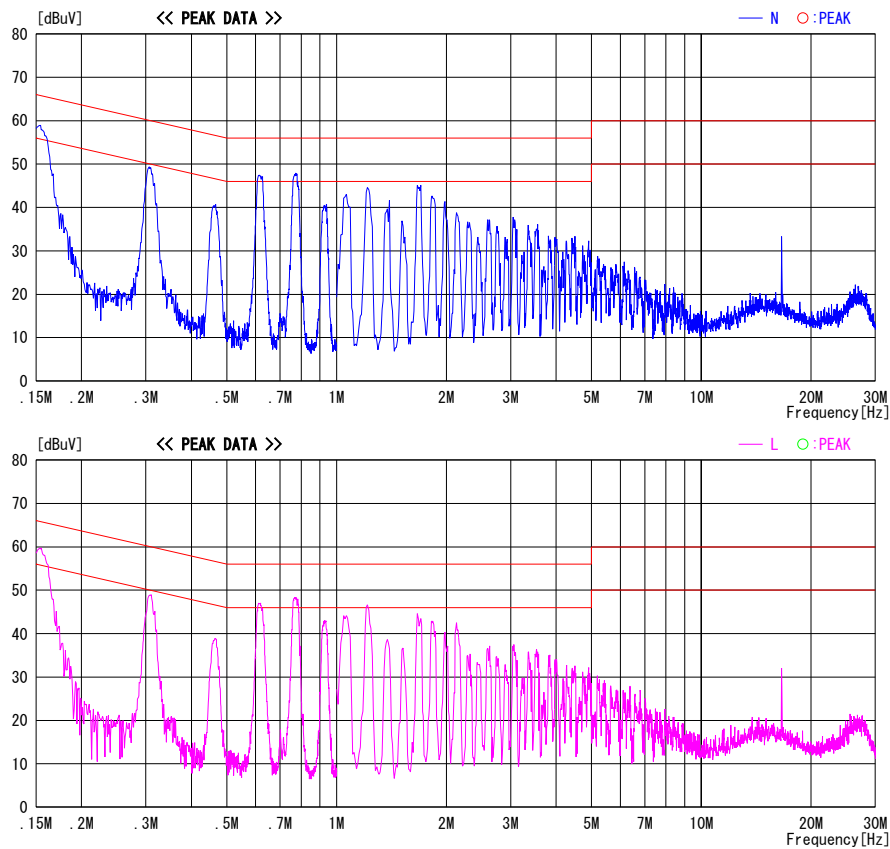


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(L1SN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission
(11g, Low ch.)

DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2006/09/11 17:19:30

Company : Nikon Corporation

Kind of EUT : Wireless LAN Module

Model No. : GC-131

Serial No. : 411D4

Report No. : 27AE0229-HO

Power : DC3.3/1.8V (AC Adapter:120V/60Hz)

Temp./Humi. : 24deg.C / 52%

Operator : Hiroka Umeyama

Mode / Remarks : Transmitting 2412MHz, 11g, 54Mbps

LIMIT : FCC15C § 15.207 (QP)
FCC15C § 15.207 (AV)

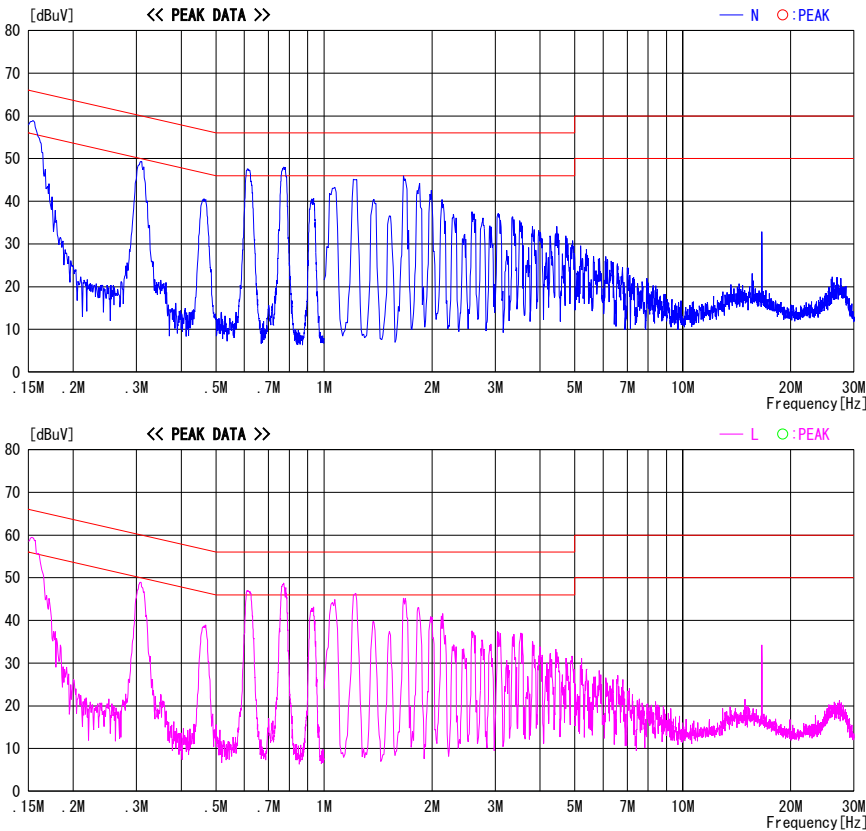


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission
(11g, Mid ch.)

DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2006/09/11 17:24:10

Company : Nikon Corporation

Kind of EUT : Wireless LAN Module

Model No. : GG-131

Serial No. : 411D4

Report No. : 27AE0229-HO

Power : DC3.3/1.8V (AC Adapter:120V/60Hz)

Temp./Humi. : 24deg.C / 52%

Operator : Hiroka Umeyama

Mode / Remarks : Transmitting 2437MHz, 11g, 54Mbps

LIMIT : FCC15C §15.207 (QP)
FCC15C §15.207 (AV)

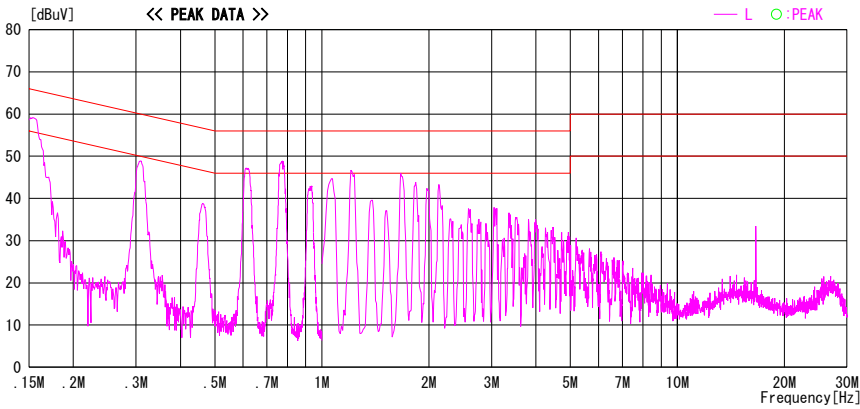
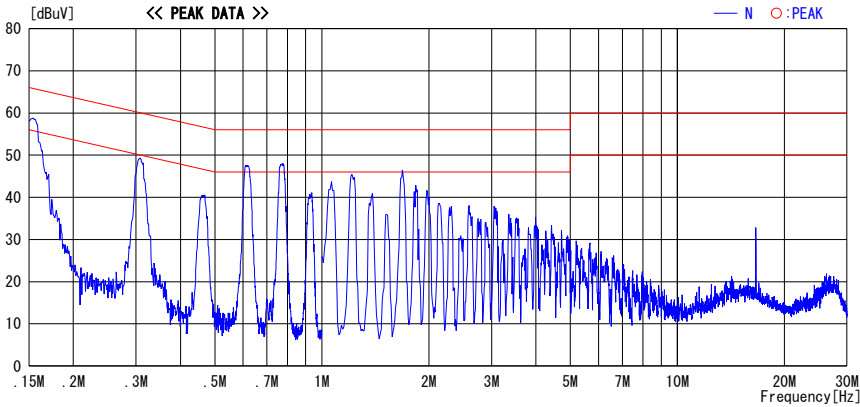


CHART:WITH FACTOR,Peak hold data,Data is uncorrected. CALCURATION:RESULT=READING+C.F (LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission (11g, High ch.)

DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2006/09/11 17:30:16

Company : Nikon Corporation
Kind of EUT : Wireless LAN Module
Model No. : GC-131
Serial No. : 411D4

Report No. : 27AE0229-HO
Power : DC3.3/1.8V (AC Adapter:120V/60Hz)
Temp./Humi. : 24deg.C / 52%
Operator : Hiroka Umeyama

Mode / Remarks : Transmitting 2462MHz, 11g, 54Mbps

LIMIT : FCC15C §15.207 (QP)
FCC15C §15.207 (AV)

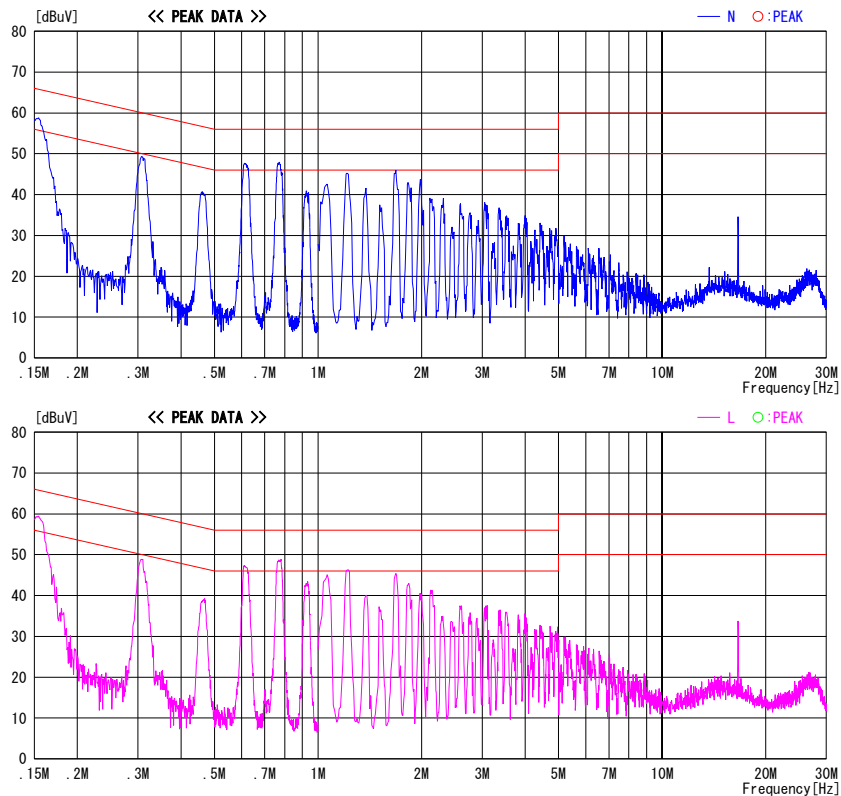


CHART:WITH FACTOR, Peak hold data. Data is uncorrected. CALCURATION: RESULT=READING+C.F (LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission
(Rx, Mid ch.)

DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2006/09/11 17:35:58

Company : Nikon Corporation
Kind of EUT : Wireless LAN Module
Model No. : GC-131
Serial No. : 411D4

Report No. : 27AE0229-HO
Power : DC3.3/1.8V(AC Adapter:120V/60Hz)
Temp./Humi. : 24deg. C / 52%
Operator : Hiroka Umeyama

Mode / Remarks : Receiving 2437MHz

LIMIT : FCC15C §15.207 (QP)
FCC15C §15.207 (AV)

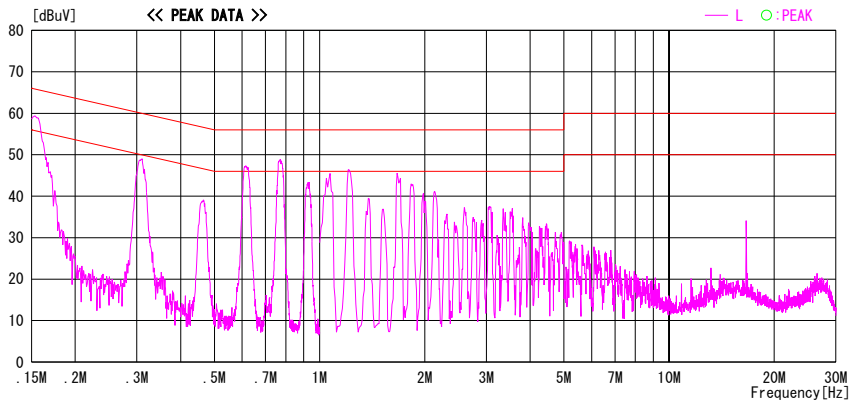
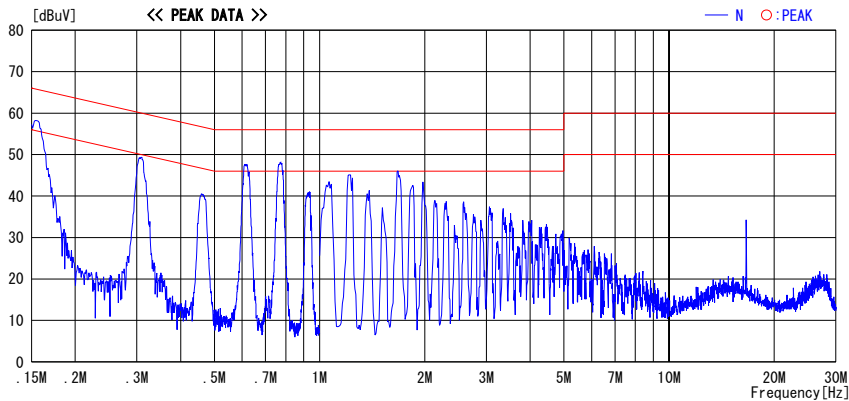


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

6dB Bandwidth

UL Apex Co., Ltd.
Head Office EMC Lab. No.2 Shielded Room

Company : Nikon Corporation
Equipment : Wireless LAN Module
Model : GC-131
Sample No. : 412A1
Power : DC1.8/3.3V
Mode : Tx(ch1,6,11)

REPORT NO : 27AE0229-HO
REGULATION : FCC Part15 Subpart C 15.247(a)(2)
TEST DISTANCE : -
DATE : 2006/09/12
TEMPERATURE : 27deg.C.
HUMIDITY : 59%
ENGINEER : Hiroka Umeyama

[IEEE802.11b]

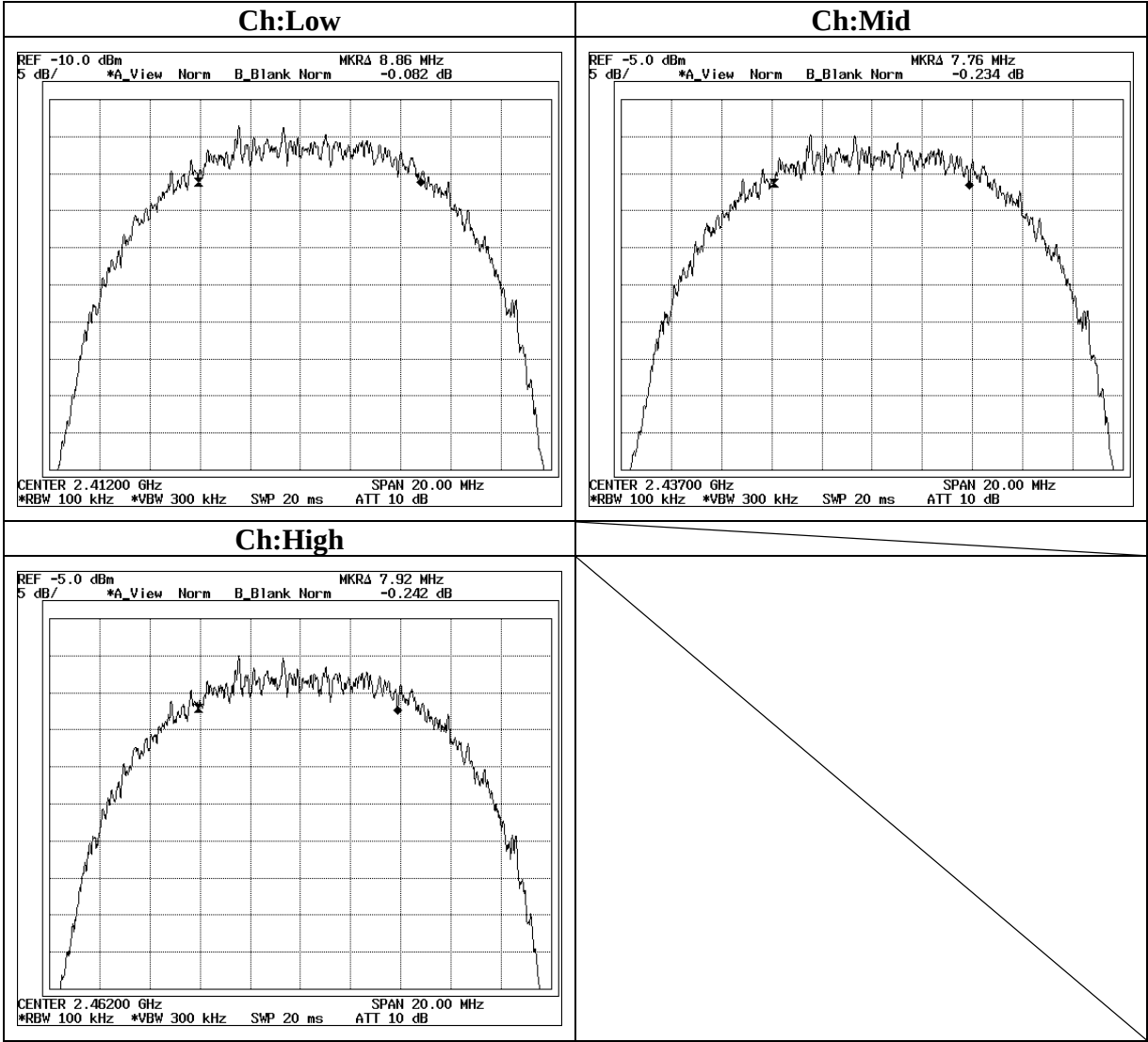
Ch	Freq. [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
Low	2412.0	8.860	500.0
Mid	2437.0	7.760	500.0
High	2462.0	7.920	500.0

[IEEE802.11g]

Ch	Freq. [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
Low	2412.0	16.560	500.0
Mid	2437.0	16.560	500.0
High	2462.0	16.600	500.0

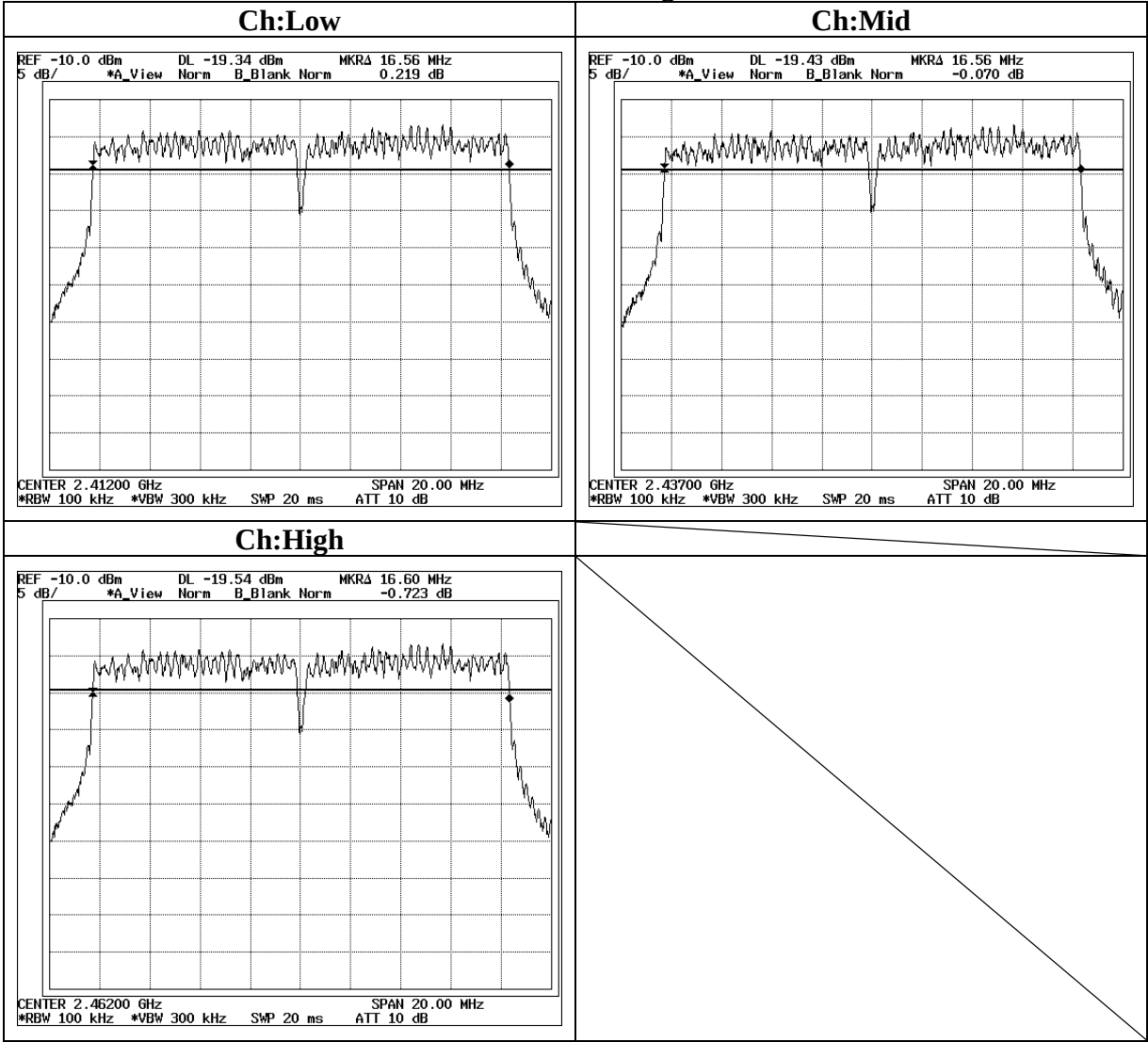
6dB Bandwidth

IEEE802.11b



6dB Bandwidth

IEEE802.11g



Maximum Peak OutPut Power

UL Apex Co., Ltd.
Head Office EMC Lab. No.2 Shielded Room

Company : Nikon Corporation
Equipment : Wireless LAN Module
Model : GC-131
Sample No. : 412A1
Power : DC1.8/3.3V
Mode : Tx(ch1,6,11)

REPORT NO : 27AE0229-HO
REGULATION : FCC Part15 Subpart C 15.247(b)(3)
TEST DISTANCE : -
DATE : 2006/09/06
TEMPERATURE : 25deg.C.
HUMIDITY : 61%
ENGINEER : Hiroka Umeyama

[IEEE802.11b]

Ch	Freq.	P/M Reading	Cable Loss	Atten.	Result		Limit		Margin
	[MHz]	[dBm]	[dB]	[dB]	[dBm]	[mW]	[dBm]	[mW]	[dB]
Low	2412.0	3.04	0.30	10.22	13.56	22.70	30.00	1000	16.44
Mid	2437.0	3.09	0.30	10.22	13.61	22.96	30.00	1000	16.39
High	2462.0	2.98	0.30	10.22	13.50	22.39	30.00	1000	16.50

[IEEE802.11g]

Ch	Freq.	P/M Reading	Cable Loss	Atten.	Result		Limit		Margin
	[MHz]	[dBm]	[dB]	[dB]	[dBm]	[mW]	[dBm]	[mW]	[dB]
Low	2412.0	10.02	0.30	10.22	20.54	113.24	30.00	1000	9.46
Mid	2437.0	10.44	0.30	10.22	20.96	124.74	30.00	1000	9.04
High	2462.0	10.09	0.30	10.22	20.61	115.08	30.00	1000	9.39

Sample Calculation:

Result = Reading + Cable Loss (supplied by customer) + Attenuator

* In the above table, factor 0.0dB represents no use of Atten. and/or Filter.

Radiated Spurious Emission (below 1GHz)
(11b, Low ch.)

* The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

DATA OF RADIATED EMISSION TEST

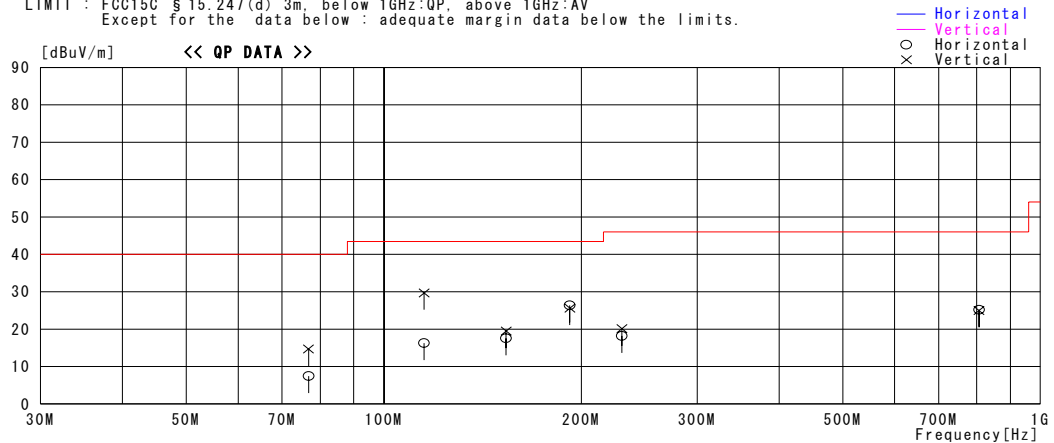
UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2006/09/06 21:55:45

Company : Nikon Corporation
Kind of EUT : Wireless LAN Module
Model No. : GC-131
Serial No. : 411D4

Report No. : 27AE0229-HO
Power : DC3.3V/1.8V
Temp./Humi. : 25deg.C / 53%
Operator : Yasuyuki Fukui

Mode / Remarks : Transmitting 2412MHz, 11b, 11Mbps, MAX-Axis:X((HOR),Y(VER)

LIMIT : FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV
Except for the data below : adequate margin data below the limits.



Frequency	Reading	DET	Antenna Factor	Loss& Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
76.800	22.4	QP	6.4	-21.3	7.5	311	205	Hori.	40.0	32.5
76.800	29.6	QP	6.4	-21.3	14.7	178	100	Vert.	40.0	25.4
115.200	25.6	QP	11.9	-21.2	16.3	200	277	Hori.	43.5	27.2
115.200	39.0	QP	11.9	-21.2	29.7	349	100	Vert.	43.5	13.8
153.600	23.5	QP	14.9	-20.8	17.6	25	172	Hori.	43.5	25.9
153.600	25.4	QP	14.9	-20.8	19.5	116	100	Vert.	43.5	24.0
192.000	30.3	QP	16.4	-20.3	26.4	62	171	Hori.	43.5	17.1
192.000	29.5	QP	16.4	-20.3	25.6	180	100	Vert.	43.5	17.9
230.400	21.4	QP	16.9	-20.1	18.2	73	203	Hori.	46.0	27.8
230.400	23.3	QP	16.9	-20.1	20.1	300	100	Vert.	46.0	25.9
806.400	21.5	QP	21.4	-17.7	25.2	55	100	Hori.	46.0	20.8
806.400	21.3	QP	21.4	-17.7	25.0	198	100	Vert.	46.0	21.0

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION:RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

Radiated Spurious Emission (below 1GHz)
(11b, Mid ch.)

* The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

DATA OF RADIATED EMISSION TEST

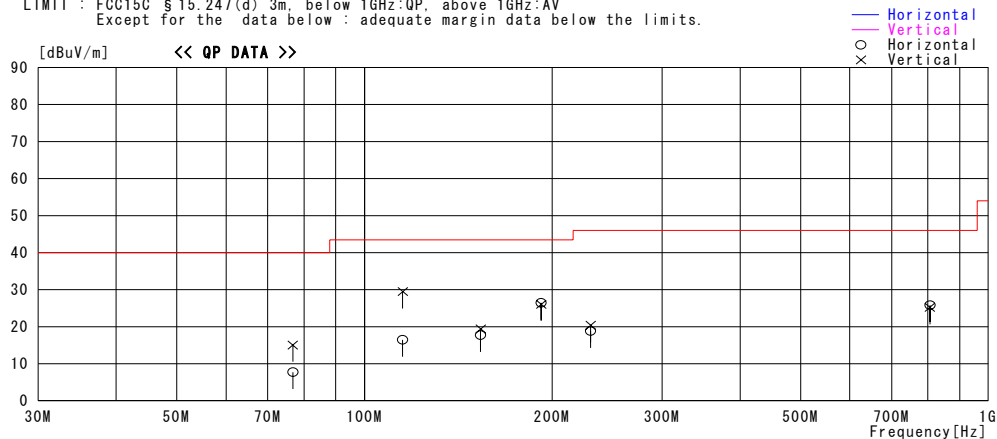
UL Apex Co., Ltd. Head Office EMC Lab. No. 2 Semi Anechoic Chamber
Date : 2006/09/06 21:55:45

Company : Nikon Corporation
Kind of EUT : Wireless LAN Module
Model No. : GC-131
Serial No. : 411D4

Report No. : 27AE0229-HO
Power : DC3.3V/1.8V
Temp./Humi. : 25deg.C / 53%
Operator : Yasuyuki Fukui

Mode / Remarks : Transmitting 2437MHz, 11b, 11Mbps, MAX-Axis:X((HOR),Y(VER)

LIMIT : FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV
Except for the data below : adequate margin data below the limits.



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
76.800	22.6	QP	6.4	-21.3	7.7	311	205	Hori.	40.0	32.3
76.800	30.0	QP	6.4	-21.3	15.1	178	100	Vert.	40.0	24.9
115.200	25.8	QP	11.9	-21.2	16.5	200	277	Hori.	43.5	27.0
115.200	38.8	QP	11.9	-21.2	29.5	349	100	Vert.	43.5	14.0
153.600	23.6	QP	14.9	-20.8	17.7	25	172	Hori.	43.5	25.8
153.600	25.3	QP	14.9	-20.8	19.4	116	100	Vert.	43.5	24.1
192.000	30.4	QP	16.4	-20.3	26.5	62	171	Hori.	43.5	17.0
192.000	30.0	QP	16.4	-20.3	26.1	180	100	Vert.	43.5	17.4
230.400	22.0	QP	16.9	-20.1	18.8	73	203	Hori.	46.0	27.2
230.400	23.6	QP	16.9	-20.1	20.4	300	100	Vert.	46.0	25.6
806.400	22.1	QP	21.4	-17.7	25.8	55	100	Hori.	46.0	20.2
806.400	21.5	QP	21.4	-17.7	25.2	198	100	Vert.	46.0	20.8

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION:RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN(AMP)

Radiated Spurious Emission (below 1GHz)
(11b, High ch.)

* The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

DATA OF RADIATED EMISSION TEST

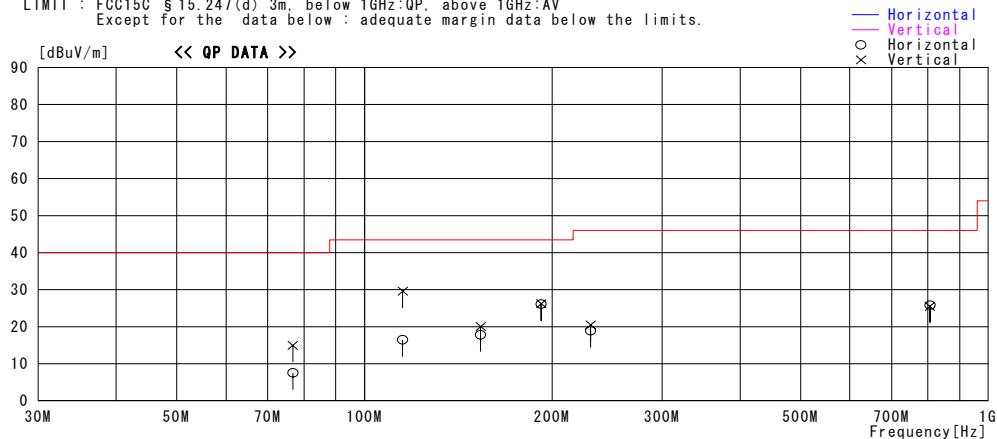
UL Apex Co., Ltd. Head Office EMC Lab. No. 2 Semi Anechoic Chamber
Date : 2006/09/06 21:55:45

Company : Nikon Corporation
Kind of EUT : Wireless LAN Module
Model No. : GC-131
Serial No. : 411D4

Report No. : 27AE0229-HO
Power : DC3.3V/1.8V
Temp./Humi. : 25deg.C / 53%
Operator : Yasuyuki Fukui

Mode / Remarks : Transmitting 2462MHz, 11b, 11Mbps, MAX-Axis:X((HOR),Y(VER)

LIMIT : FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV
Except for the data below : adequate margin data below the limits.



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
76.800	22.5	QP	6.4	-21.3	7.6	311	205	Hori.	40.0	32.4
76.800	29.9	QP	6.4	-21.3	15.0	178	100	Vert.	40.0	25.0
115.200	25.8	QP	11.9	-21.2	16.5	200	277	Hori.	43.5	27.0
115.200	38.9	QP	11.9	-21.2	29.6	349	100	Vert.	43.5	13.9
153.600	23.7	QP	14.9	-20.8	17.8	25	172	Hori.	43.5	25.7
153.600	26.0	QP	14.9	-20.8	20.1	116	100	Vert.	43.5	23.4
192.000	30.0	QP	16.4	-20.3	26.1	62	171	Hori.	43.5	17.4
192.000	30.1	QP	16.4	-20.3	26.2	180	100	Vert.	43.5	17.3
230.400	22.1	QP	16.9	-20.1	18.9	73	203	Hori.	46.0	27.1
230.400	23.7	QP	16.9	-20.1	20.5	300	100	Vert.	46.0	25.5
806.400	22.1	QP	21.4	-17.7	25.8	55	100	Hori.	46.0	20.2
806.400	21.8	QP	21.4	-17.7	25.5	198	100	Vert.	46.0	20.5

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION:RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN(AMP)

Radiated Spurious Emission (below 1GHz)
(11g, Low ch.)

* The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

DATA OF RADIATED EMISSION TEST

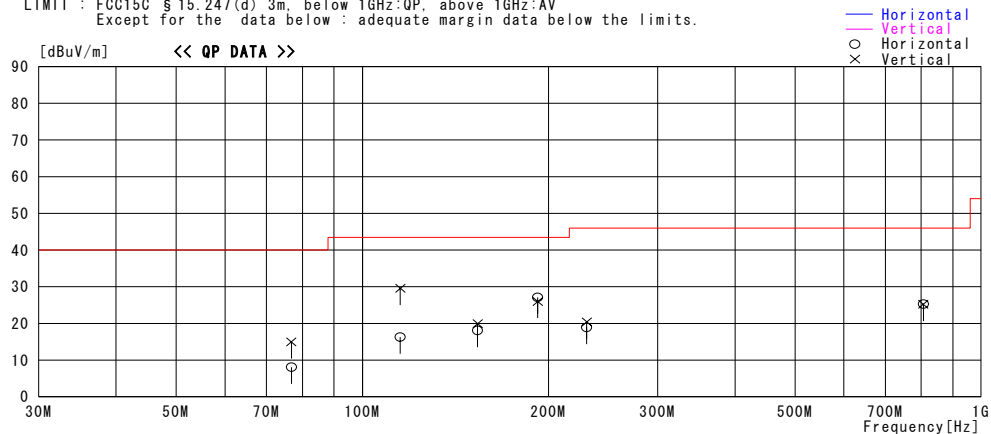
UL Apex Co., Ltd. Head Office EMC Lab. No. 2 Semi Anechoic Chamber
Date : 2006/09/07 00:16:04

Company : Nikon Corporation
Kind of EUT : Wireless LAN Module
Model No. : GC-131
Serial No. : 411D4

Report No. : 27AE0229-H0
Power : DC3.3V/1.8V
Temp./Humi. : 25deg.C / 53%
Operator : Yasuyuki Fukui

Mode / Remarks : Transmitting 2412MHz, 11g, 54Mbps, MAX-Axis:X((HOR),Y(VER)

LIMIT : FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV
Except for the data below : adequate margin data below the limits.



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]
			Factor [dB/m]	Gain [dB]						
76.800	23.0	QP	6.4	-21.3	8.1	315	207	Hori.	40.0	31.9
76.800	29.9	QP	6.4	-21.3	15.0	170	100	Vert.	40.0	25.0
115.200	38.9	QP	11.9	-21.2	29.6	340	100	Vert.	43.5	13.9
115.200	25.6	QP	11.9	-21.2	16.3	200	279	Hori.	43.5	27.2
153.600	24.0	QP	14.9	-20.8	18.1	82	200	Hori.	43.5	25.4
153.600	25.9	QP	14.9	-20.8	20.0	121	100	Vert.	43.5	23.5
192.000	31.0	QP	16.4	-20.3	27.1	67	180	Hori.	43.5	16.4
192.000	29.9	QP	16.4	-20.3	26.0	178	100	Vert.	43.5	17.5
230.400	22.1	QP	16.9	-20.1	18.9	75	206	Hori.	46.0	27.1
230.400	23.6	QP	16.9	-20.1	20.4	303	100	Vert.	46.0	25.6
806.400	21.6	QP	21.4	-17.7	25.3	56	100	Hori.	46.0	20.7
806.400	21.5	QP	21.4	-17.7	25.2	200	100	Vert.	46.0	20.8

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION:RESULT = READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - GAIN(AMP)

Radiated Spurious Emission (below 1GHz)
(11g, Mid ch.)

* The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

DATA OF RADIATED EMISSION TEST

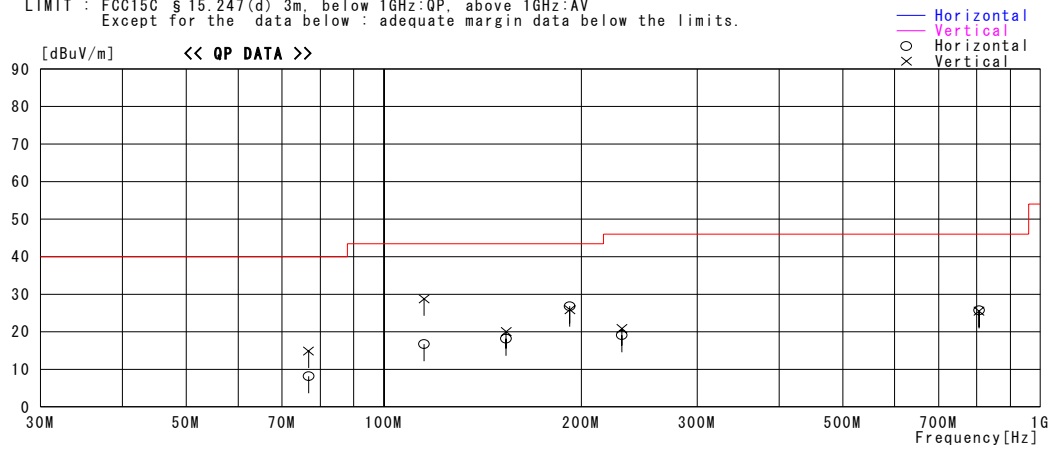
UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2006/09/07 00:16:04

Company : Nikon Corporation
Kind of EUT : Wireless LAN Module
Model No. : GC-131
Serial No. : 411D4

Report No. : 27AE0229-HO
Power : DC3.3V/1.8V
Temp./Humi. : 25deg.C / 53%
Operator : Yasuyuki Fukui

Mode / Remarks : Transmitting 2437MHz, 11g, 54Mbps, MAX-Axis:X((HOR).Y(VER)

LIMIT : FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV
Except for the data below : adequate margin data below the limits.



Frequency	Reading	DET	Antenna Factor	Loss & Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
76.800	23.1	QP	6.4	-21.3	8.2	315	207	Hori.	40.0	31.8
76.800	29.8	QP	6.4	-21.3	14.9	170	100	Vert.	40.0	25.1
115.200	38.1	QP	11.9	-21.2	28.8	340	100	Vert.	43.5	14.7
115.200	26.0	QP	11.9	-21.2	16.7	200	279	Hori.	43.5	26.8
153.600	24.1	QP	14.9	-20.8	18.2	82	200	Hori.	43.5	25.3
153.600	26.0	QP	14.9	-20.8	20.1	121	100	Vert.	43.5	23.4
192.000	30.7	QP	16.4	-20.3	26.8	67	180	Hori.	43.5	16.7
192.000	29.8	QP	16.4	-20.3	25.9	178	100	Vert.	43.5	17.6
230.400	22.3	QP	16.9	-20.1	19.1	75	206	Hori.	46.0	26.9
230.400	24.1	QP	16.9	-20.1	20.9	303	100	Vert.	46.0	25.1
806.400	22.0	QP	21.4	-17.7	25.7	56	100	Hori.	46.0	20.3
806.400	21.8	QP	21.4	-17.7	25.5	200	100	Vert.	46.0	20.5

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION:RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

Radiated Spurious Emission (below 1GHz)
(11g, High ch.)

* The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

DATA OF RADIATED EMISSION TEST

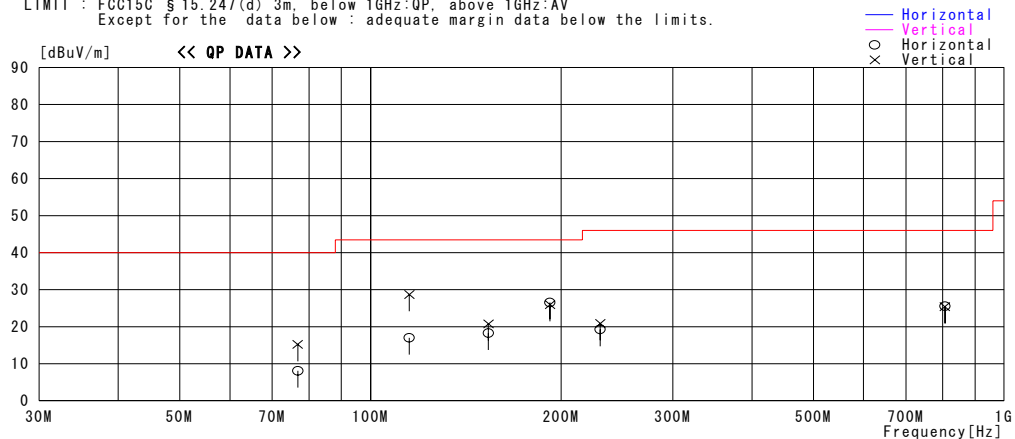
UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2006/09/07 00:16:04

Company : Nikon Corporation
Kind of EUT : Wireless LAN Module
Model No. : GC-131
Serial No. : 411D4

Report No. : 27AE0229-HO
Power : DC3.3V/1.8V
Temp./Humi. : 25deg.C / 53%
Operator : Yasuyuki Fukui

Mode / Remarks : Transmitting 2462MHz, 11g, 54Mbps, MAX-Axis:X((HOR),Y(VER)

LIMIT : FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV
Except for the data below : adequate margin data below the limits.



Frequency	Reading	DET	Antenna Factor	Loss & Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
76.800	23.0	QP	6.4	-21.3	8.1	315	207	Hori.	40.0	31.9
76.800	30.1	QP	6.4	-21.3	15.2	170	100	Vert.	40.0	24.8
115.200	38.0	QP	11.9	-21.2	28.7	340	100	Vert.	43.5	14.8
115.200	26.3	QP	11.9	-21.2	17.0	200	279	Hori.	43.5	26.5
153.600	24.2	QP	14.9	-20.8	18.3	82	200	Hori.	43.5	25.2
153.600	26.7	QP	14.9	-20.8	20.8	121	100	Vert.	43.5	22.7
192.000	30.5	QP	16.4	-20.3	26.6	67	180	Hori.	43.5	16.9
192.000	29.9	QP	16.4	-20.3	26.0	178	100	Vert.	43.5	17.5
230.400	22.5	QP	16.9	-20.1	19.3	75	206	Hori.	46.0	26.7
230.400	24.1	QP	16.9	-20.1	20.9	303	100	Vert.	46.0	25.1
806.400	21.9	QP	21.4	-17.7	25.6	56	100	Hori.	46.0	20.4
806.400	21.7	QP	21.4	-17.7	25.4	200	100	Vert.	46.0	20.6

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION:RESULT = READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - GAIN(AMP)

Radiated Spurious Emission (below 1GHz)
(Rx, Mid ch.)

* The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

DATA OF RADIATED EMISSION TEST

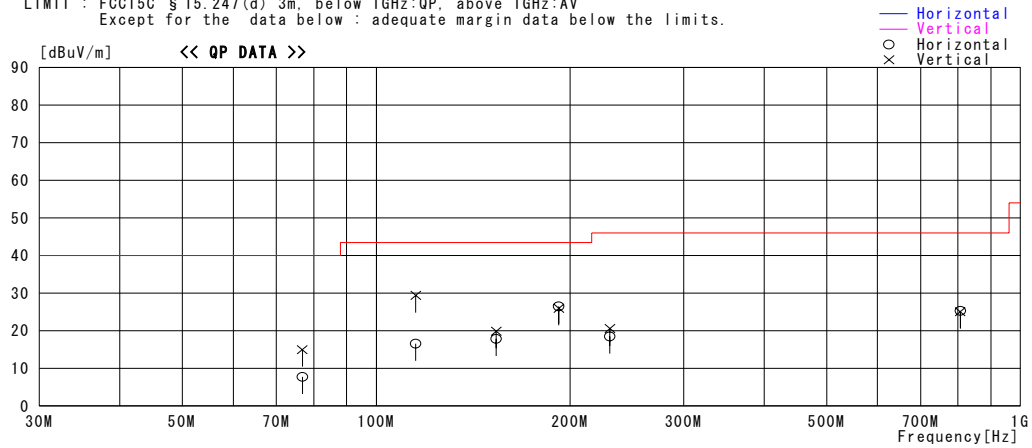
UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2006/09/07 01:35:20

Company : Nikon Corporation
Kind of EUT : Wireless LAN Module
Model No. : GC-131
Serial No. : 411D4

Report No. : 27AE0229-HO
Power : DC3.3V/1.8V
Temp./Humi. : 25deg.C / 53%
Operator : Yasuyuki Fukui

Mode / Remarks : Receiving 2437MHz, 11b/11g, MAX-Axis:X((HOR),Y(VER)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV
Except for the data below : adequate margin data below the limits.



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
76.800	22.6	QP	6.4	-21.3	7.7	309	207	Hori.	40.0	32.3
76.800	29.9	QP	6.4	-21.3	15.0	180	100	Vert.	40.0	25.0
115.200	25.9	QP	11.9	-21.2	16.6	200	277	Hori.	43.5	26.9
115.200	38.7	QP	11.9	-21.2	29.4	349	100	Vert.	43.5	14.1
153.600	23.7	QP	14.9	-20.8	17.8	256	180	Hori.	43.5	25.7
153.600	25.8	QP	14.9	-20.8	19.9	194	100	Vert.	43.5	23.6
192.000	30.4	QP	16.4	-20.3	26.5	294	178	Hori.	43.5	17.0
192.000	29.9	QP	16.4	-20.3	26.0	12	100	Vert.	43.5	17.5
230.400	21.7	QP	16.9	-20.1	18.5	216	203	Hori.	46.0	27.5
230.400	23.8	QP	16.9	-20.1	20.6	296	100	Vert.	46.0	25.4
806.400	21.6	QP	21.4	-17.7	25.3	269	100	Hori.	46.0	20.7
806.400	21.4	QP	21.4	-17.7	25.1	338	100	Vert.	46.0	20.9

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION:RESULT = READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - GAIN(AMP)

Radiated Spurious Emission(above 1GHz) (11b, Low ch.)

UL Apex Co., Ltd.
Head Office EMC Lab. No.2Semi Anechoic Chamber

Company : Nikon Corporation	REPORT NO : 27AE0229-HO
Equipment : Wireless LAN Module	REGULATION : Fcc Part15 Subpart C 15.247(d)
Model : GC-131	TEST DISTANCE : 3/1m
Sample No. : 411D4	DATE : 09/11/2006
Power : DC3.3/1.8V	TEMPERATURE : 22deg.C
Mode : Tx WLAN 11b 11Mbps 2412MHz	HUMIDITY : 60%
Remarks : Hor X , Ver Y-axis	ENGINEER : Hiroka Umeyama

PK DETECT (RBW: 1MHz, VBW: 1MHz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2390.0	56.5	57.1	30.6	36.3	3.3	0.0	54.1	54.7	74.0	19.9	19.3
2	4824.0	46.9	46.5	35.8	35.8	4.6	0.1	51.6	51.2	74.0	22.4	22.8
3	7236.0	44.5	44.1	37.6	35.8	5.5	0.4	52.2	51.8	74.0	21.8	22.2
4	9648.0	45.9	45.9	36.6	36.4	6.7	0.7	53.5	53.5	74.0	20.5	20.5
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	24120.0	46.3	46.7	39.1	36.5	10.7	0.0	50.1	50.5	74.0	23.9	23.5

AV DETECT (RBW: 1MHz, VBW: 10Hz)

AV DEFECT (REV: FMHZ, VBU: FMHZ)												
No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2390.0	45.6	45.2	30.6	36.3	3.3	0.0	43.2	42.8	54.0	10.8	11.2
2	4824.0	34.4	34.2	35.8	35.8	4.6	0.1	39.1	38.9	54.0	14.9	15.1
3	7236.0	32.2	32.1	37.6	35.8	5.5	0.4	39.9	39.8	54.0	14.1	14.2
4	9648.0	33.1	33.1	36.6	36.4	6.7	0.7	40.7	40.7	54.0	13.3	13.3
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	24120.0	33.8	33.9	39.1	36.5	10.7	0.0	37.6	37.7	54.0	16.4	16.3

20dBc(Fundamental 2412MHz) (RBW: 100kHz, VBW: 300kHz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit 20dBc [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2412.0	106.3	103.5	30.6	36.3	3.3	0.0	103.9	101.1	-	-	-
2	2400.0	60.5	57.7	30.6	36.3	3.4	0.0	58.2	55.4	Funda-20dB	25.7	25.7

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB

*Except for the above table : All other spurious emissions were less than 20dB for the limit.

*In the frequency over the fifth harmonic, the noise from the EUT was not seen. The data above is its base noise.

*The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

*Hi-Pass Filter was not used for factor 0.0dB of the above table.

Radiated Spurious Emission(above 1GHz) (11b, Mid ch.)

UL Apex Co., Ltd.
Head Office EMC Lab. No.2Semi Anechoic Chamber

Company : Nikon Corporation	REPORT NO : 27AE0229-HO
Equipment : Wireless LAN Module	REGULATION : Fcc Part15 Subpart C 15.247(d)
Model : GC-131	TEST DISTANCE : 3/1m
Sample No. : 411D4	DATE : 09/11/2006
Power : DC3.3/1.8V	TEMPERATURE : 22deg.C
Mode : Tx WLAN 11b 11Mbps 2437MHz	HUMIDITY : 60%
Remarks : Hor X , Ver Y-axis	ENGINEER : Hiroka Umeyama

PK DETECT (RBW: 1MHz, VBW: 1MHz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	4874.0	48.8	49.4	36.1	35.9	4.6	0.0	53.6	54.2	74.0	20.4	19.8
2	7311.0	44.6	44.3	37.8	35.8	5.5	0.4	52.5	52.2	74.0	21.5	21.8
3	9748.0	44.5	44.4	36.6	36.5	6.7	0.7	52.0	51.9	74.0	22.0	22.1
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
4	24370.0	45.7	45.8	39.1	35.8	10.7	0.0	50.2	50.3	74.0	23.8	23.7

AV DETECT (RBW: 1MHz, VBW: 10Hz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN		
		HOR	VER					HOR	VER		HOR	VER	
		[dBuV]						[dB]			[dBuV/m]		[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss													
1	4874.0	35.9	34.4	36.1	35.9	4.6	0.0	40.7	39.2	54.0	13.3	14.8	
2	7311.0	32.1	32.0	37.8	35.8	5.5	0.4	40.0	39.9	54.0	14.0	14.1	
3	9748.0	33.0	33.1	36.6	36.5	6.7	0.7	40.5	40.6	54.0	13.5	13.4	
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac													
4	24370.0	34.5	34.7	39.1	35.8	10.7	0.0	39.0	39.2	54.0	15.0	14.8	

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB

*Except for the above table : All other spurious emissions were less than 20dB for the limit.

*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.

*The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

*Hi-Pass Filter was not used for factor 0.0dB of the above table.

Radiated Spurious Emission(above 1GHz)
(11b, High ch.)

UL Apex Co., Ltd.
Head Office EMC Lab. No.2Semi Anechoic Chamber

Company	: Nikon Corporation	REPORT NO	: 27AE0229-HO
Equipment	: Wireless LAN Module	REGULATION	: Fcc Part15 Subpart C 15.247(d)
Model	: GC-131	TEST DISTANCE	: 3/1m
Sample No.	: 411D4	DATE	: 09/11/2006
Power	: DC3.3/1.8V	TEMPERATURE	: 22deg.C
Mode	: Tx WLAN 11b 11Mbps 2462MHz	HUMIDITY	: 60%
Remarks	: Hor X , Ver Y-axis	ENGINEER	: Hiroka Umeyama

PK DETECT (RBW: 1MHz, VBW: 1MHz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1567.0	72.9	54.6	25.2	36.5	2.4	0.0	64.0	45.7	74.0	10.0	28.3
2	2483.5	59.5	53.3	30.4	36.3	3.1	0.0	56.7	50.5	74.0	17.3	23.5
3	4924.0	48.9	48.6	36.4	35.9	4.7	0.0	54.1	53.8	74.0	19.9	20.2
4	7836.0	44.4	44.2	38.0	35.8	5.6	0.5	52.7	52.5	74.0	21.3	21.5
5	9848.0	45.3	46.1	36.5	36.5	6.7	0.7	52.7	53.5	74.0	21.3	20.5
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	24620.0	46.4	45.7	39.2	35.8	10.8	0.0	51.1	50.4	74.0	22.9	23.6

AV DETECT (RBW: 1MHz, VBW: 10Hz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1567.0	61.7	43.8	25.2	36.5	2.4	0.0	52.8	34.9	54.0	1.2	19.1
2	2483.5	47.7	40.8	30.4	36.3	3.1	0.0	44.9	38.0	54.0	9.1	16.0
3	4924.0	34.5	34.6	36.4	35.9	4.7	0.0	39.7	39.8	54.0	14.3	14.2
4	7836.0	32.0	32.1	38.0	35.8	5.6	0.5	40.3	40.4	54.0	13.7	13.6
5	9848.0	33.2	33.2	36.5	36.5	6.7	0.7	40.6	40.6	54.0	13.4	13.4
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	24620.0	34.8	34.5	39.2	35.8	10.8	0.0	39.5	39.2	54.0	14.5	14.8

Test Distance 1.0m : Distance Factor(Dfac) = $20\log(3/1.0) = 9.5\text{dB}$

*Except for the above table : All other spurious emissions were less than 20dB for the limit.

*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.

*The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

*Hi-Pass Filter was not used for factor 0.0dB of the above table.

Test report No. : 27AE0229-HO-A
Page : 37 of 54
Issued date : October 17, 2006
FCC ID : CGJ3143EB

Radiated Spurious Emission(above 1GHz)
(11g, Low ch.)

UL Apex Co., Ltd.
Head Office EMC Lab. No.2Semi Anechoic Chamber

Company	: Nikon Corporation	REPORT NO	: 27AE0229-HO
Equipment	: Wireless LAN Module	REGULATION	: Fcc Part15 Subpart C 15.247(d)
Model	: GC-131	TEST DISTANCE	: 3/1m
Sample No.	: 411D4	DATE	: 09/11/2006
Power	: DC3.3/1.8V	TEMPERATURE	: 22deg.C
Mode	: Tx WLAN 11g 54Mbps 2412MHz	HUMIDITY	: 60%
Remarks	: Hor X , Ver Y-axis	ENGINEER	: Hiroka Umeyama

PK DETECT (RBW: 1MHz, VBW: 1MHz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1498.0	49.1	53.6	24.0	36.6	2.4	0.0	38.9	43.4	74.0	35.1	30.6
2	2390.0	69.4	68.2	30.6	32.2	3.3	0.0	71.1	69.9	74.0	2.9	4.1
3	4824.0	47.1	47.2	35.8	35.8	4.6	0.1	51.8	51.9	74.0	22.2	22.1
3	7236.0	44.6	44.2	37.6	35.8	5.5	0.4	52.3	51.9	74.0	21.7	22.1
4	9648.0	45.9	46.2	36.6	36.4	6.7	0.7	53.5	53.8	74.0	20.5	20.2
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	24120.0	45.0	45.2	39.1	36.5	10.7	0.0	48.8	49.0	74.0	25.2	25.0

AV DETECT (RBW: 1MHz, VBW: 10Hz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1498.0	34.9	47.5	24.0	36.6	2.4	0.0	24.7	37.3	54.0	29.3	16.7
2	2390.0	52.0	51.0	30.6	32.2	3.3	0.0	53.7	52.7	54.0	0.3	1.3
3	4824.0	34.1	33.5	35.8	35.8	4.6	0.1	38.8	38.2	54.0	15.2	15.8
3	7236.0	32.1	32.0	37.6	35.8	5.5	0.4	39.8	39.7	54.0	14.2	14.3
4	9648.0	33.1	33.0	36.6	36.4	6.7	0.7	40.7	40.6	54.0	13.3	13.4
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	24120.0	33.7	33.7	39.1	36.5	10.7	0.0	37.5	37.5	54.0	16.5	16.5

20dBc(Fundamental 2412MHz) (RBW: 100kHz, VBW: 300kHz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit 20dBc [dBuV/m]	MARGIN	
		HOR	VER					HOR [dBuV/m]	VER [dBuV/m]		HOR [dB]	VER [dB]
		[dBuV]										
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2412.0	103.5	100.6	30.6	36.3	3.3	0.0	101.1	98.2	-	-	-
2	2400.0	71.0	69.2	30.6	36.3	3.4	0.0	68.7	66.9	Funda-20dB	12.4	11.3

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB

*Except for the above table : All other spurious emissions were less than 20dB for the limit.

*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.

*The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

*Hi-Pass Filter was not used for factor 0.0dB of the above table.

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MF060b(14.06.06)

Radiated Spurious Emission(above 1GHz) (11g, Mid ch.)

UL Apex Co., Ltd.
Head Office EMC Lab. No.2Semi Anechoic Chamber

Company : Nikon Corporation Equipment : Wireless LAN Module Model : GC-131 Sample No. : 411D4 Power : DC3.3/1.8V Mode : Tx WLAN 11g 54Mbps 2437MHz Remarks : Hor X , Ver Y-axis	REPORT NO : 27AE0229-HO REGULATION : Fcc Part15 Subpart C 15.247(d) TEST DISTANCE : 3/1m DATE : 09/11/2006 TEMPERATURE : 22deg.C HUMIDITY : 60% ENGINEER : Hiroka Umeyama
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PK DETECT (RBW: 1MHz, VBW: 1MHz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	4874.0	47.1	47.2	36.1	35.9	4.6	0.0	51.9	52.0	74.0	22.1	22.0
2	7311.0	44.8	44.2	37.8	35.8	5.5	0.4	52.7	52.1	74.0	21.3	21.9
3	9748.0	44.1	44.9	36.6	36.5	6.7	0.7	51.6	52.4	74.0	22.4	21.6
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
4	24370.0	47.2	46.7	39.1	35.8	10.7	0.0	51.7	51.2	74.0	22.3	22.8

AV DETECT (RBW: 1MHz, VBW: 10Hz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	4874.0	34.0	34.2	36.1	35.9	4.6	0.0	38.8	39.0	54.0	15.2	15.0
2	7311.0	32.0	32.0	37.8	35.8	5.5	0.4	39.9	39.9	54.0	14.1	14.1
3	9748.0	33.2	33.0	36.6	36.5	6.7	0.7	40.7	40.5	54.0	13.3	13.5
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
4	24370.0	35.1	34.8	39.1	35.8	10.7	0.0	39.6	39.3	54.0	14.4	14.7

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB

*Except for the above table : All other spurious emissions were less than 20dB for the limit.

*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.

*The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

*Hi-Pass Filter was not used for factor 0.0dB of the above table.

Radiated Spurious Emission(above 1GHz) (11g, High ch.)

UL Apex Co., Ltd.
Head Office EMC Lab. No.2Semi Anechoic Chamber

Company : Nikon Corporation	REPORT NO : 27AE0229-HO
Equipment : Wireless LAN Module	REGULATION : Fcc Part15 Subpart C 15.247(d)
Model : GC-131	TEST DISTANCE : 3/1m
Sample No. : 411D4	DATE : 09/11/2006
Power : DC3.3/1.8V	TEMPERATURE : 22deg.C
Mode : Tx WLAN 11g 54Mbps 2462MHz	HUMIDITY : 60%
Remarks : Hor X , Ver Y-axis	ENGINEER : Hiroka Umeyama

PK DETECT (RBW: 1MHz, VBW: 1MHz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1567.0	73.1	61.5	25.2	36.5	2.4	0.0	64.2	52.6	74.0	9.8	21.4
2	2483.5	72.0	69.0	30.4	32.3	3.4	0.0	73.5	70.5	74.0	0.5	3.5
3	4924.0	46.6	49.1	36.4	35.9	4.7	0.0	51.8	54.3	74.0	22.2	19.7
4	7836.0	44.6	45.1	38.0	35.8	5.6	0.5	52.9	53.4	74.0	21.1	20.6
5	9848.0	45.1	44.1	36.5	36.5	6.7	0.7	52.5	51.5	74.0	21.5	22.5
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	24620.0	47.2	47.9	39.2	35.8	10.8	0.0	51.9	52.6	74.0	22.1	21.4

AV DETECT (RBW: 1MHz, VBW: 10Hz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1567.0	62.2	48.3	25.2	36.5	2.4	0.0	53.3	39.4	54.0	0.7	14.6
2	2483.5	52.2	49.9	30.4	32.3	3.4	0.0	53.7	51.4	54.0	0.3	2.6
3	4924.0	35.7	38.1	36.4	35.9	4.7	0.0	40.9	43.3	54.0	13.1	10.7
4	7836.0	32.0	32.0	38.0	35.8	5.6	0.5	40.3	40.3	54.0	13.7	13.7
5	9848.0	33.9	33.2	36.5	36.5	6.7	0.7	41.3	40.6	54.0	12.7	13.4
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	24620.0	34.9	34.8	39.2	35.8	10.8	0.0	39.6	39.5	54.0	14.4	14.5

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB

*Except for the above table : All other spurious emissions were less than 20dB for the limit.

*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.

*The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

*Hi-Pass Filter was not used for factor 0.0dB of the above table.

Test report No. : 27AE0229-HO-A
Page : 40 of 54
Issued date : October 17, 2006
FCC ID : CGJ3143EB

Radiated Spurious Emission(above 1GHz) (Rx, Mid ch.)

UL Apex Co., Ltd.
Head Office EMC Lab. No.2Semi Anechoic Chamber

Company : Nikon Corporation
Equipment : Wireless LAN Module
Model : GC-131
Sample No. : 411D4
Power : DC3.3/1.8V
Mode : Rx WLAN 11b/g2437MHz
Remarks : Hor X , Ver Y-axis

REPORT NO : 27AE0229-HO
REGULATION : Fcc Part15 Subpart C 15.247(d)
TEST DISTANCE : 3/1m
DATE : 09/11/2006
TEMPERATURE : 22deg.C
HUMIDITY : 60%
ENGINEER : Hiroka Umeyama

PK DETECT (RBW: 1MHz, VBW: 1MHz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1064.0	52.8	56.3	23.1	36.9	1.9	0.0	40.9	44.4	74.0	33.1	29.6
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
2	24370.0	46.9	47.6	39.1	35.8	10.7	0.0	51.4	52.1	74.0	22.6	21.9

AV DETECT (RBW: 1MHz, VBW: 10Hz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1064.0	47.9	50.1	23.1	36.9	1.9	0.0	36.0	38.2	54.0	18.0	15.8
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
2	24370.0	34.7	34.7	39.1	35.8	10.7	0.0	39.2	39.2	54.0	14.8	14.8

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB

*Except for the above table : All other spurious emissions were less than 20dB for the limit.

*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.

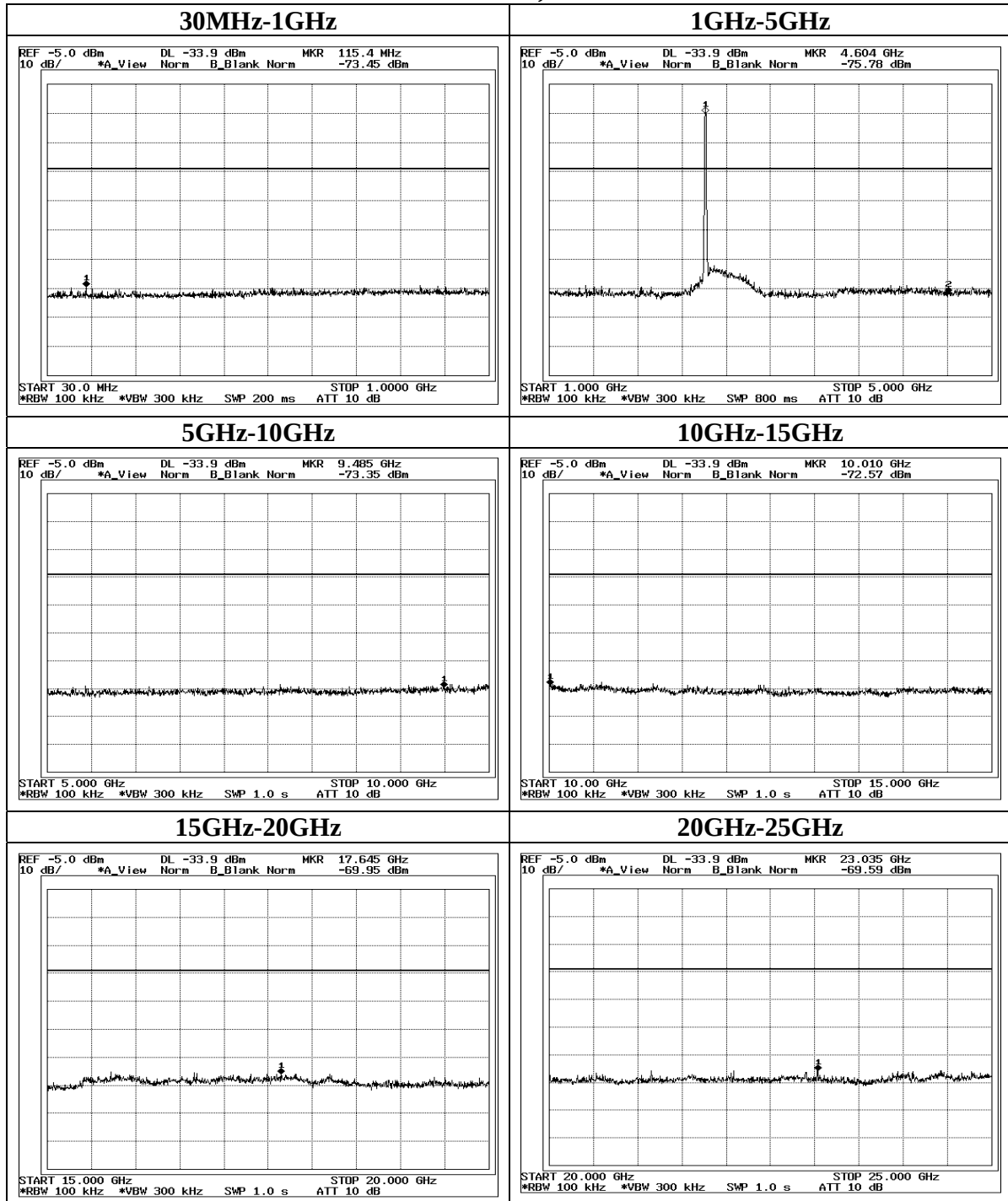
*The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

*Hi-Pass Filter was not used for factor 0.0dB of the above table.

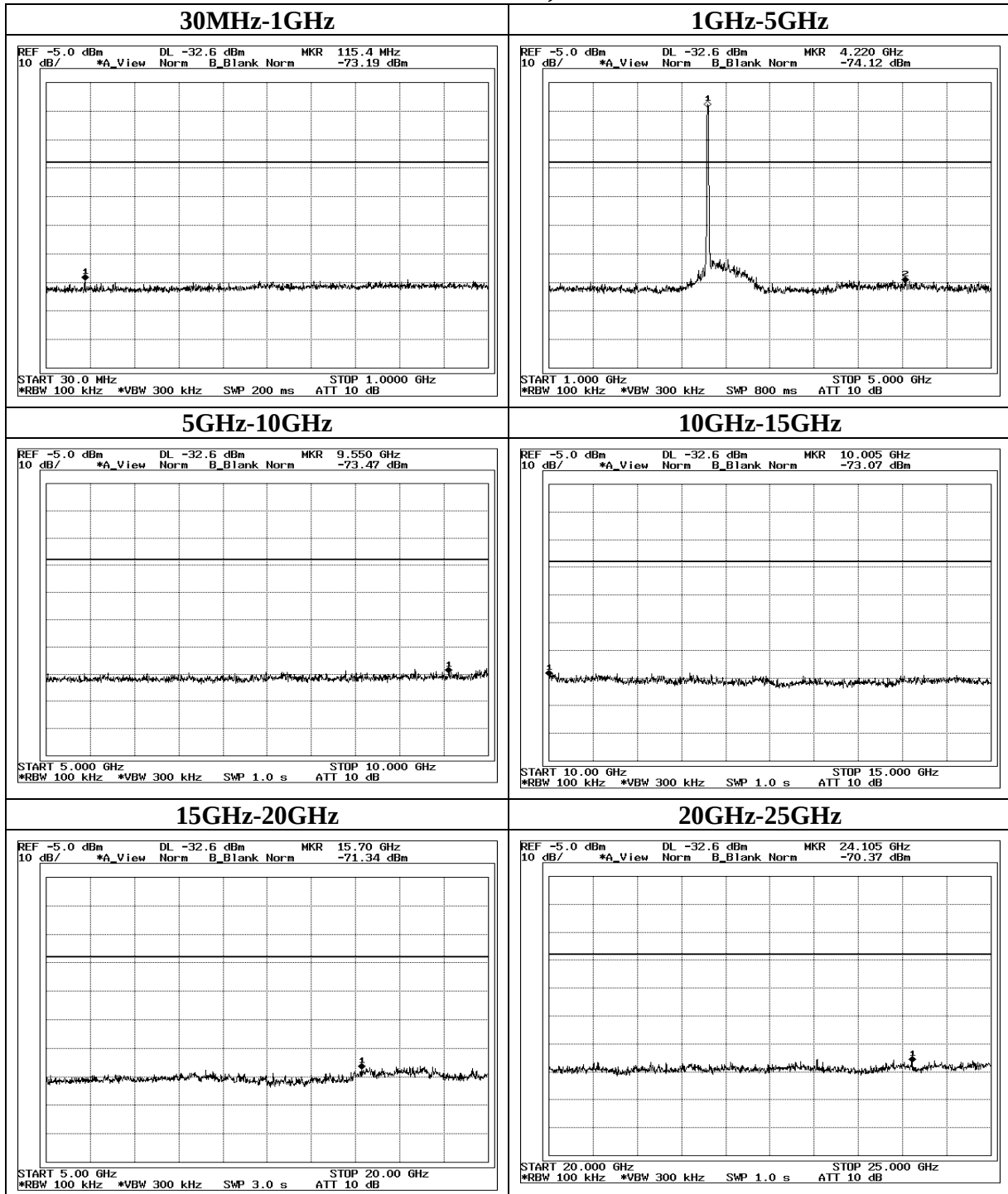
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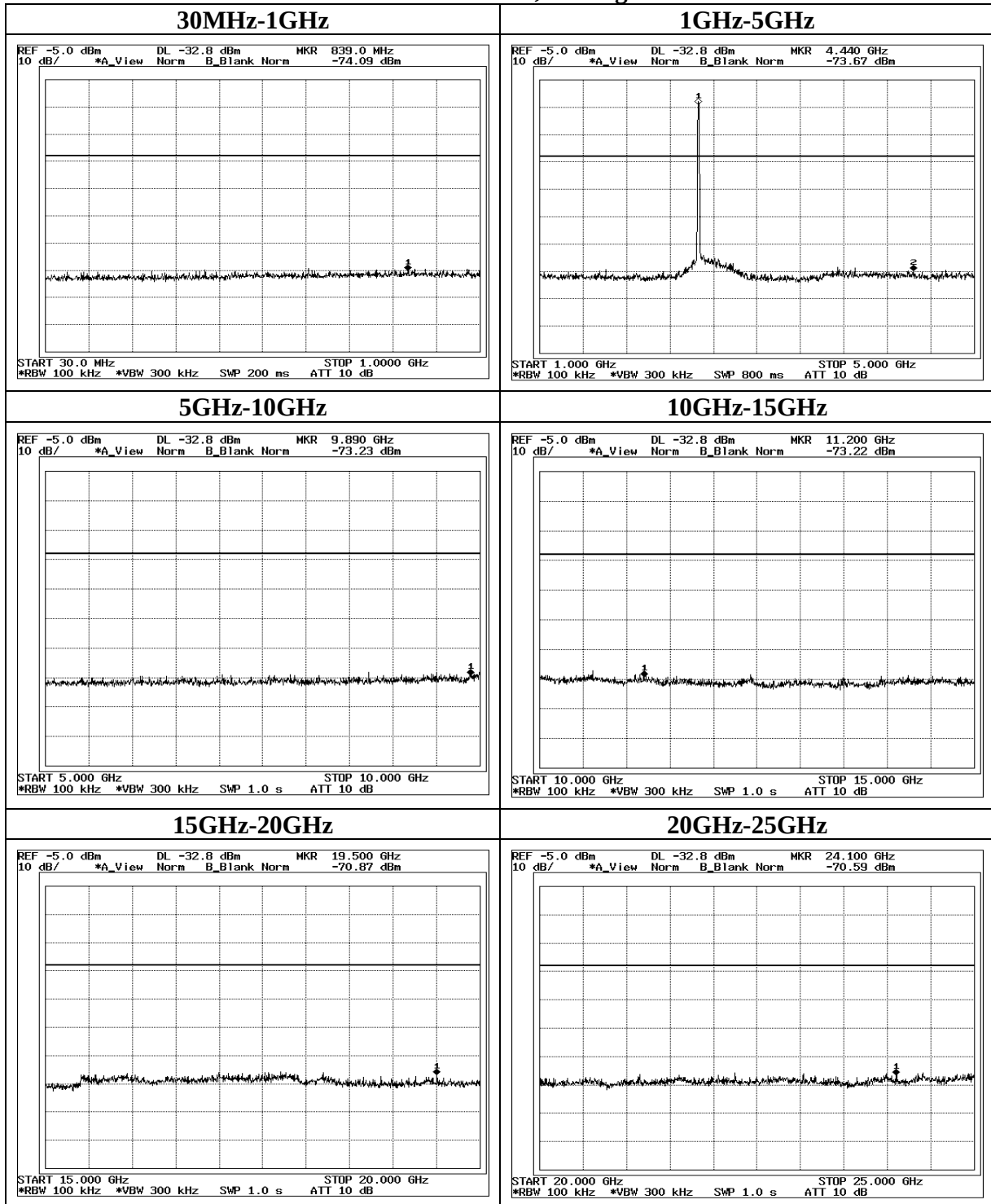
Conducted Spurious Emission
IEEE802.11b,Ch: Low



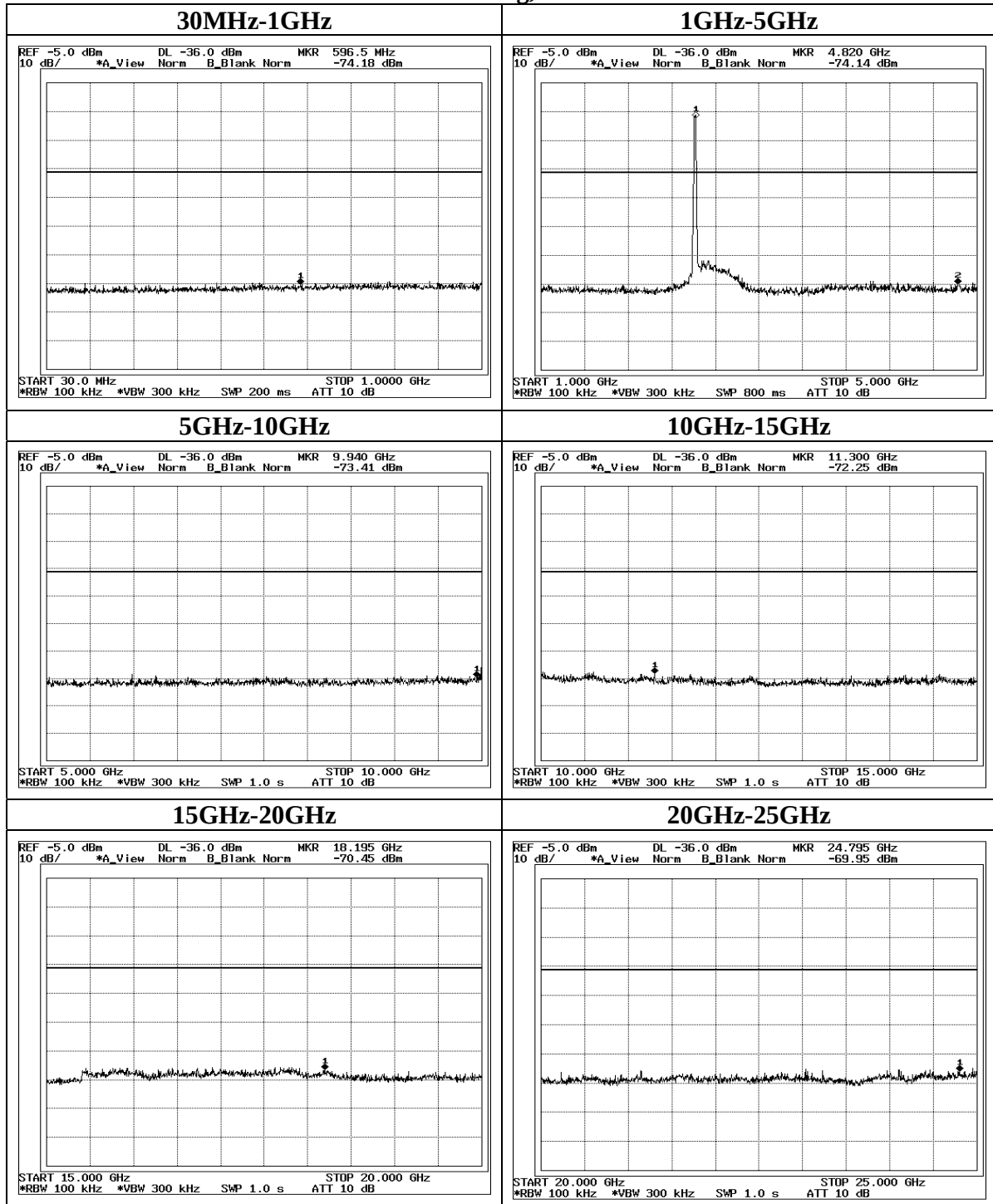
Conducted Spurious Emission
IEEE802.11b,Ch: Mid



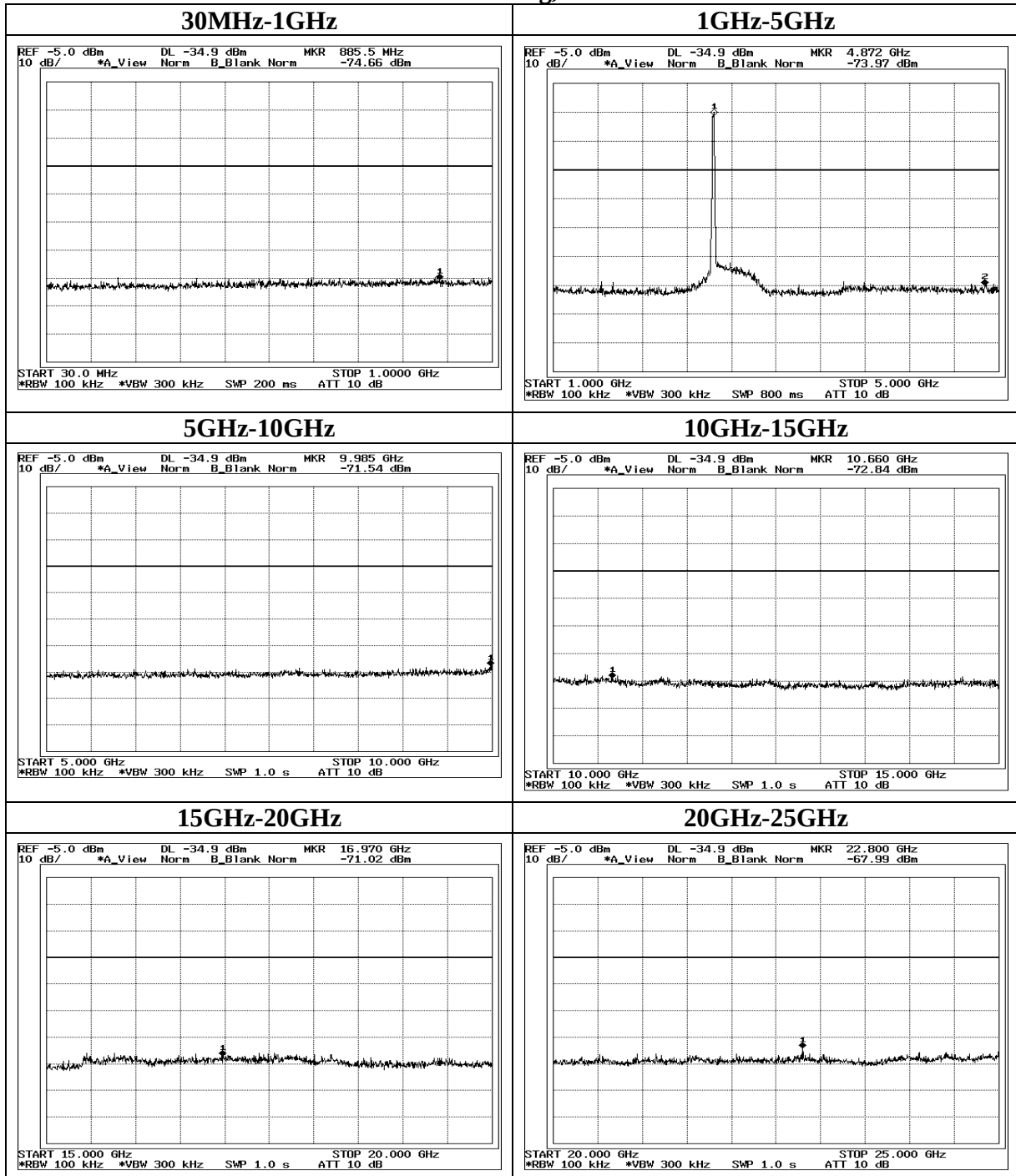
Conducted Spurious Emission **IEEE802.11b,Ch: High**



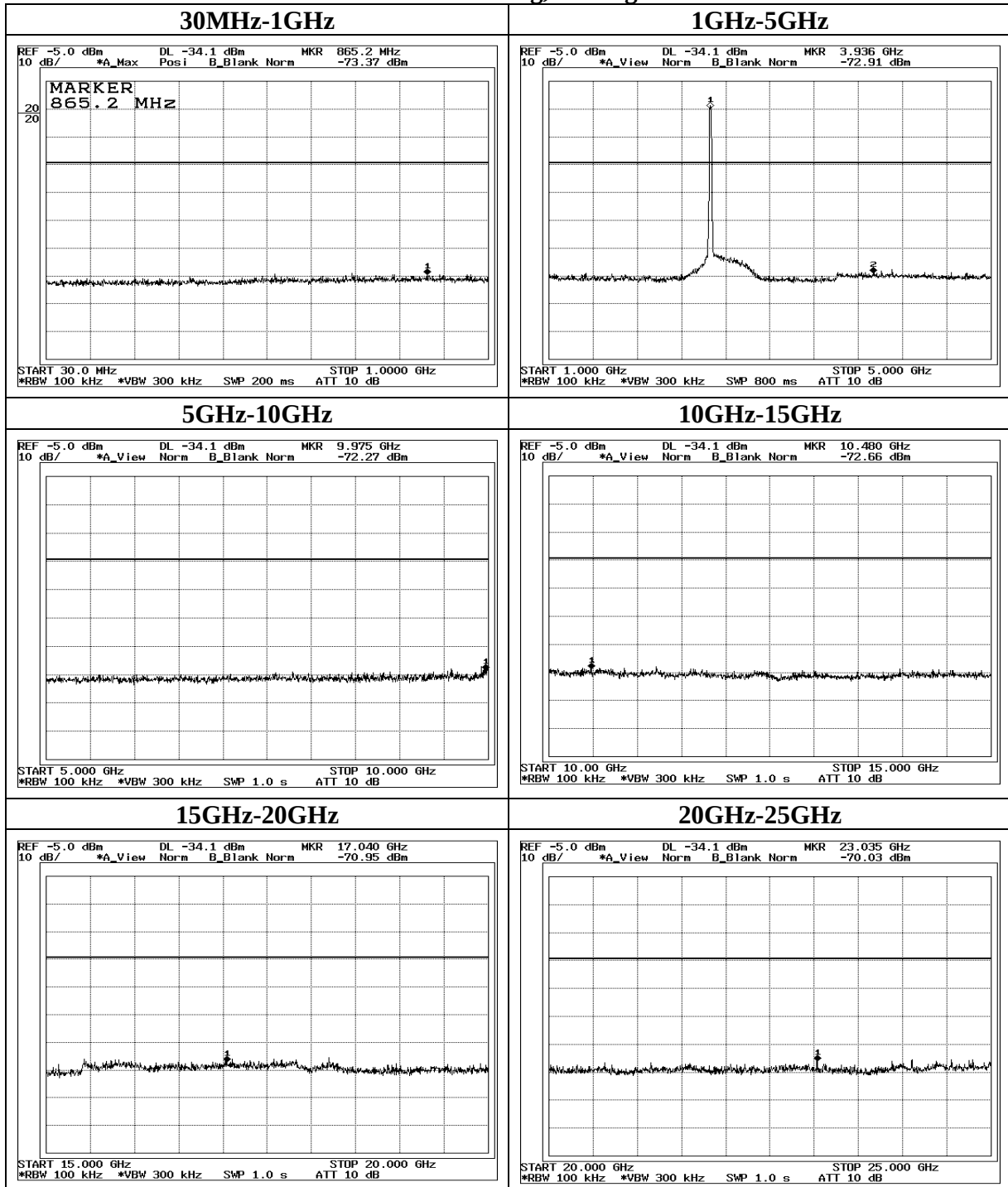
Conducted Spurious Emission
IEEE802.11g,Ch: Low



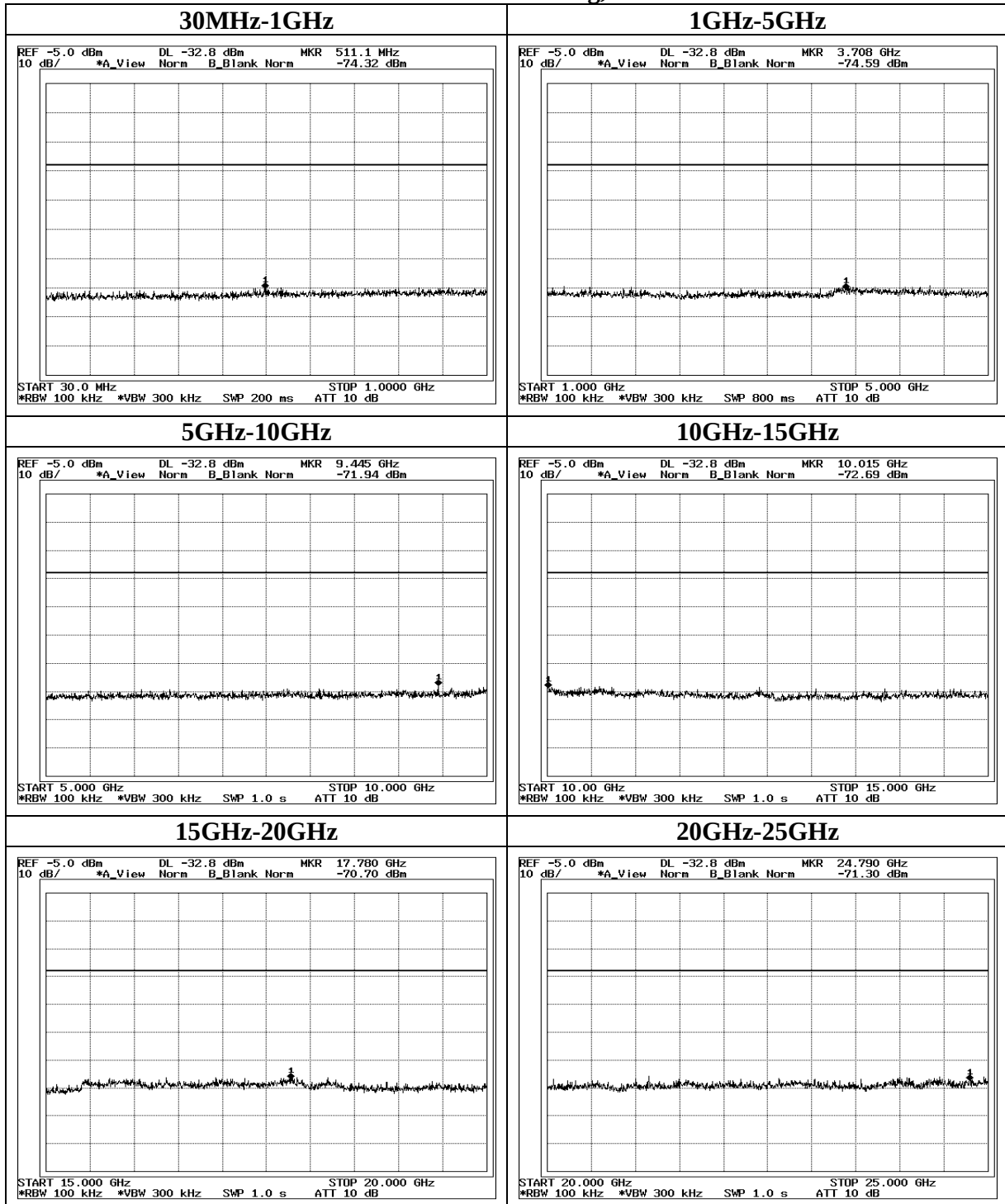
Conducted Spurious Emission
IEEE802.11g,Ch: Mid



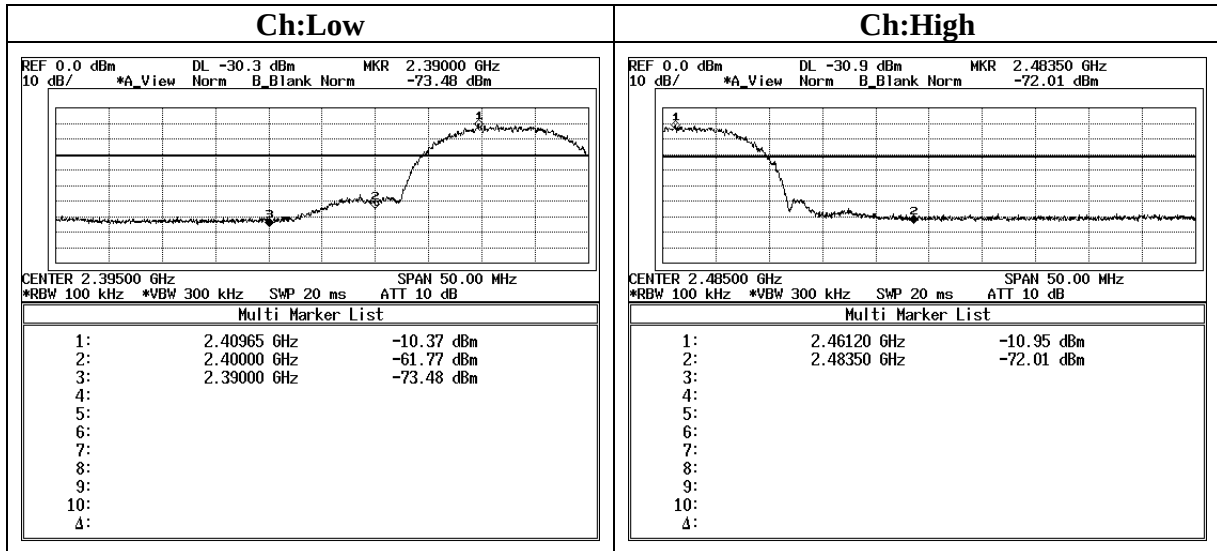
Conducted Spurious Emission
IEEE802.11g,Ch: High



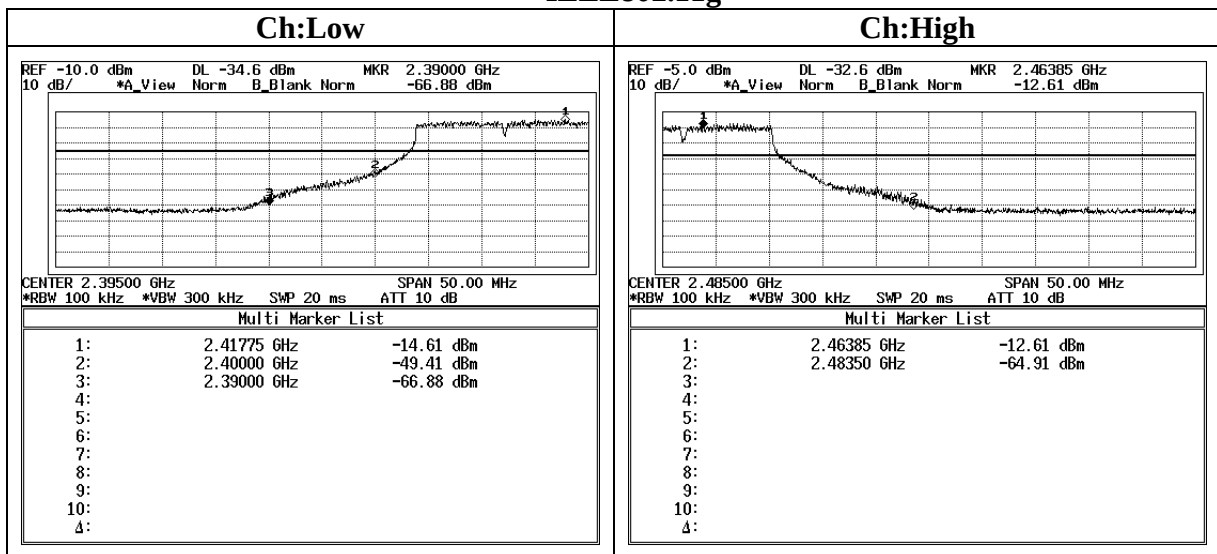
Conducted Spurious Emission
IEEE802.11b/11g,Rx



Conducted emission Band Edge compliance
IEEE802.11b



IEEE802.11g



Power Density

UL Apex Co., Ltd.
Head Office EMC Lab. No.2 Shielded Room

Company	: Nikon Corporation	REPORT NO	: 27AE0229-HO
Equipment	: Wireless LAN Module	REGULATION	: FCC Part15 Subpart C 15.247(e)
Model	: GC-131	TEST DISTANCE	: -
Sample No.	: 412A1	DATE	: 2006/09/12
Power	: DC1.8/3.3V	TEMPERATURE	: 27deg.C.
Mode	: Tx(ch1,6,11)	HUMIDITY	: 59%
		ENGINEER	: Hiroka Umeyama

[IEEE802.11b]

Ch	Freq. [MHz]	Reading [dBm]	Cable [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
Low	2412.0	-26.65	1.75	10.22	-14.68	8.00	22.68
Mid	2437.0	-26.88	1.79	10.22	-14.87	8.00	22.87
High	2462.0	-24.97	1.85	10.22	-12.90	8.00	20.90

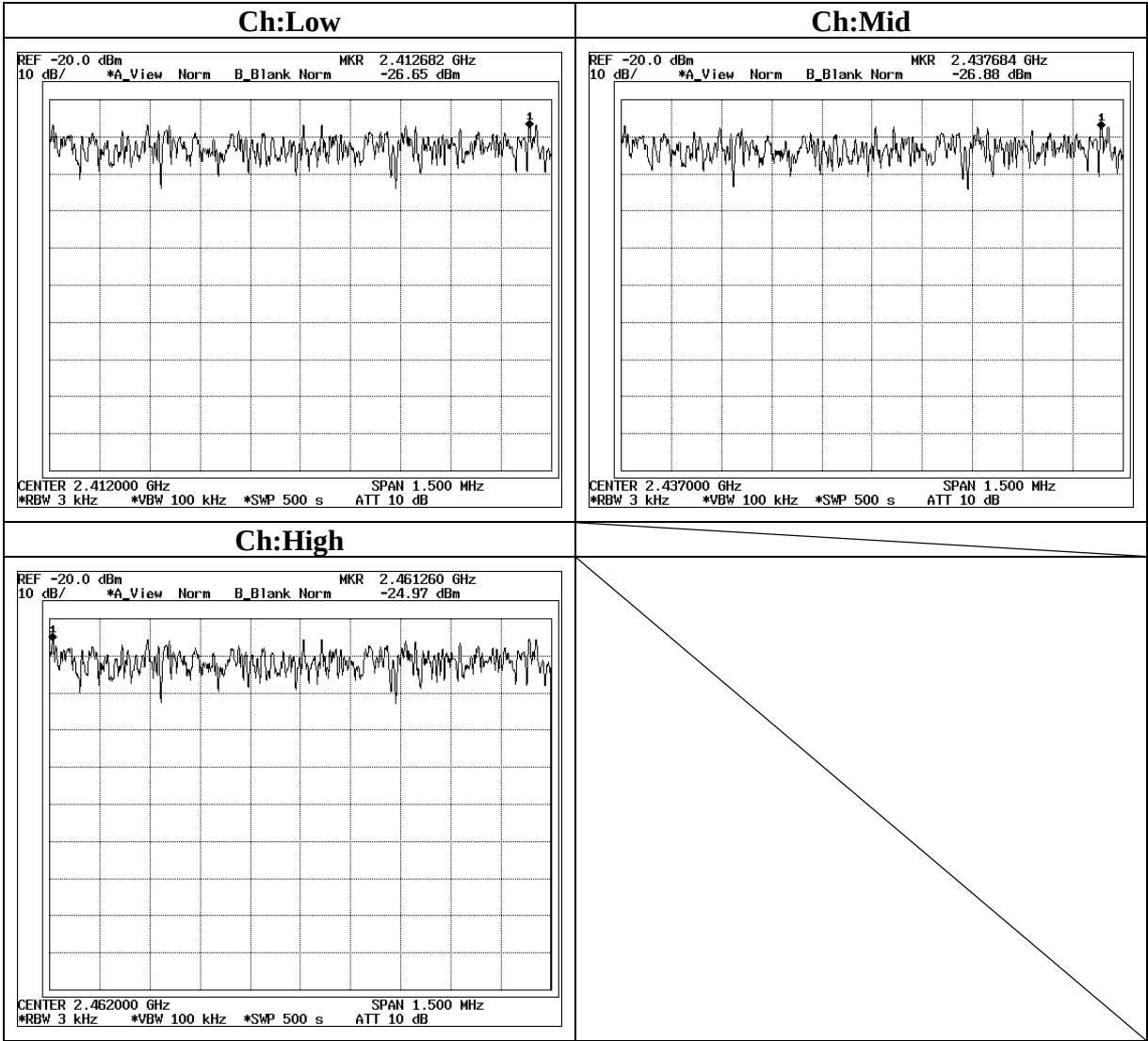
[IEEE802.11g]

Ch	Freq. [MHz]	Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
Low	2412.0	-28.73	1.75	10.22	-16.76	8.00	24.76
Mid	2437.0	-28.20	1.79	10.22	-16.19	8.00	24.19
High	2462.0	-29.20	1.85	10.22	-17.13	8.00	25.13

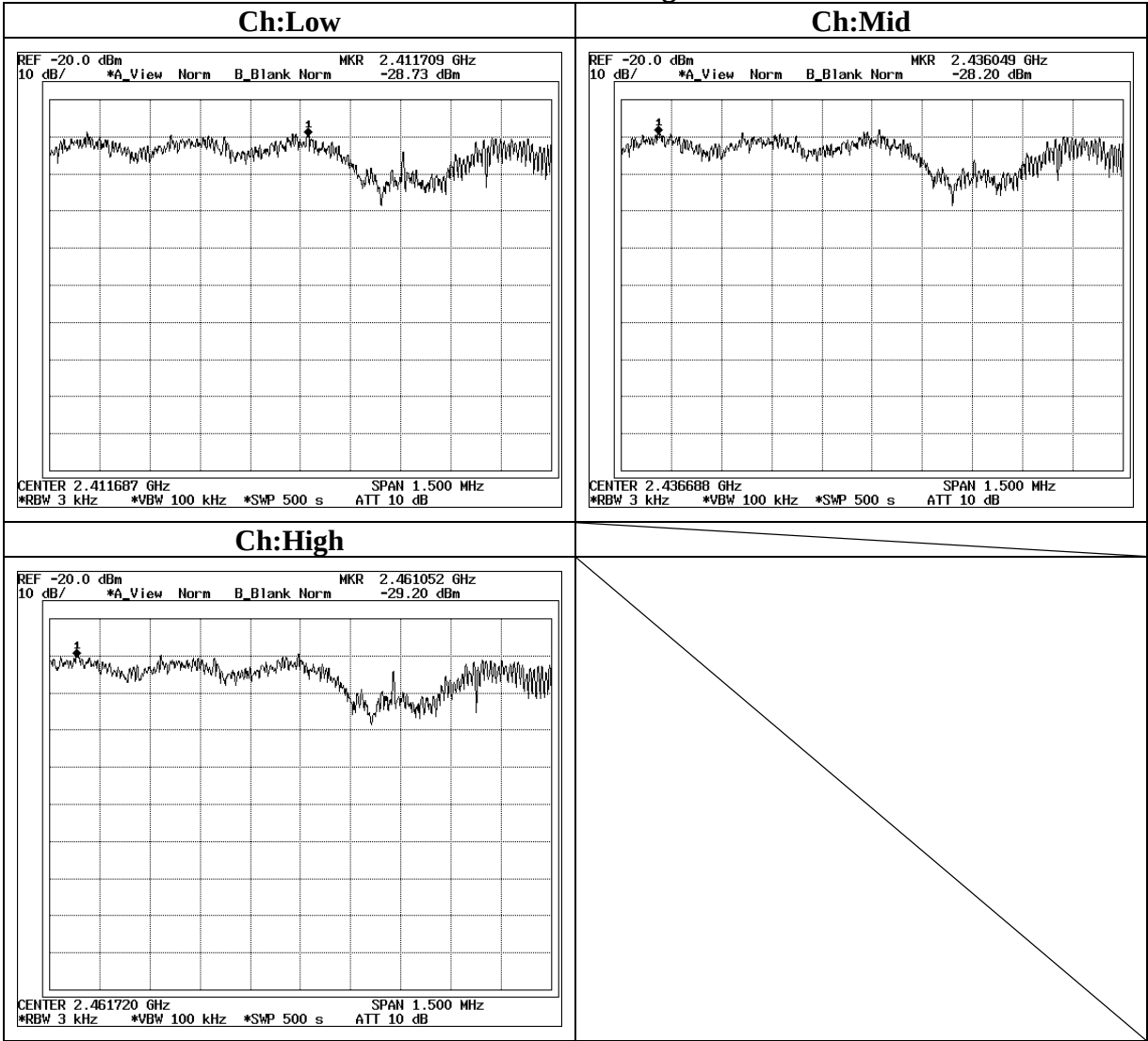
Sample Calculation:

Result = Reading + Cable Loss + Attenuator

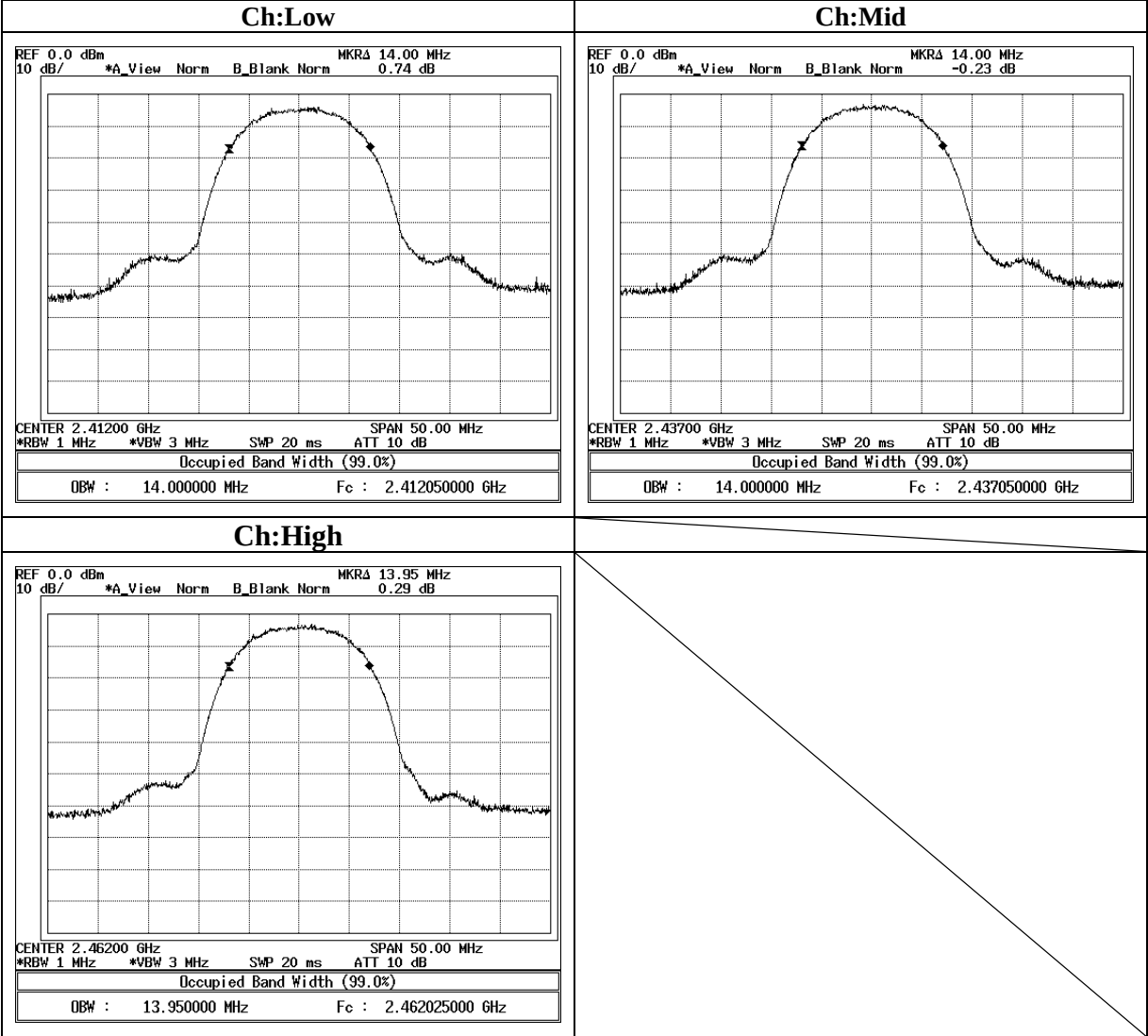
Power Density
IEEE802.11b



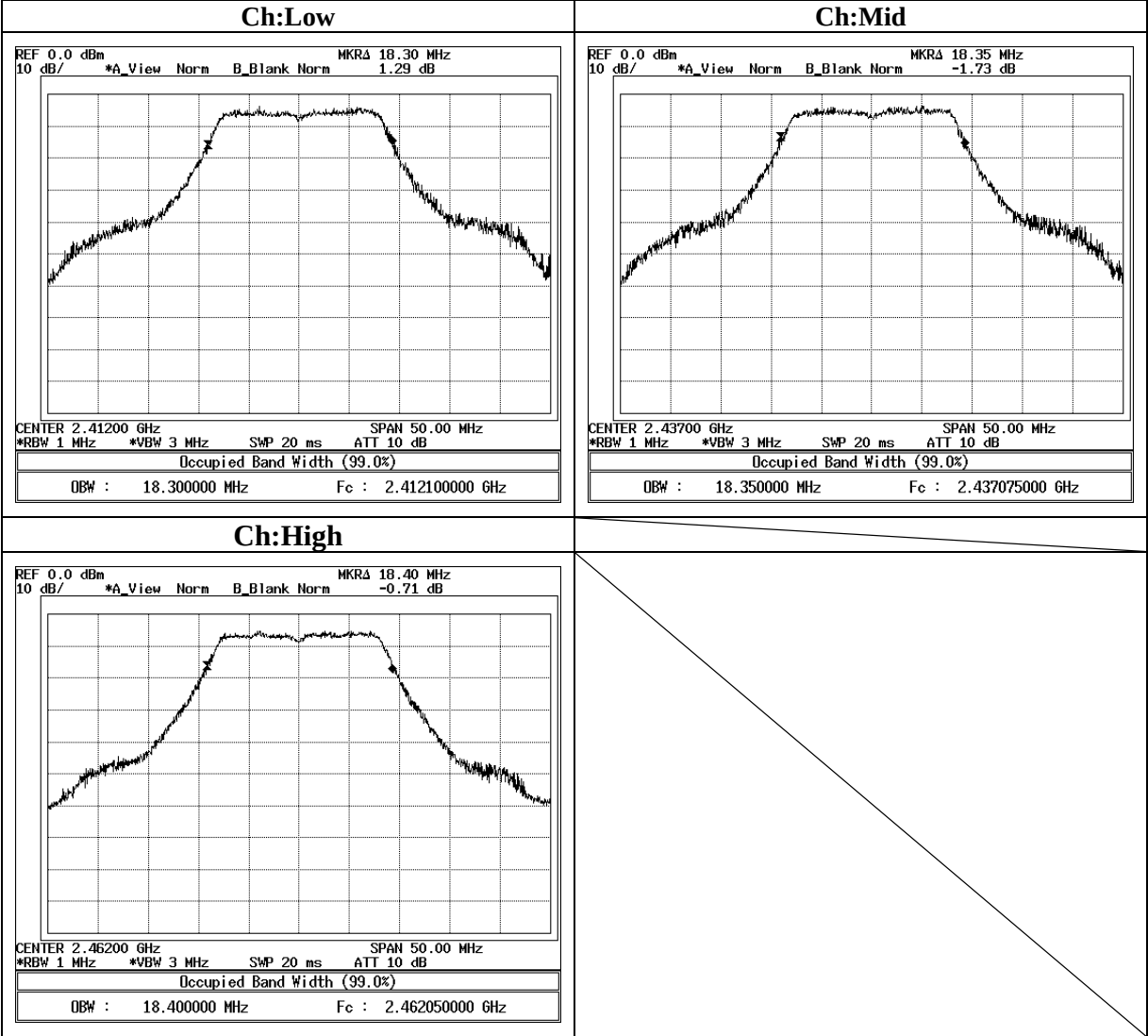
Power Density
IEEE802.11g



99% Occupied Bandwidth
IEEE802.11b



99% Occupied Bandwidth
IEEE802.11g



APPENDIX 3:Test instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MAEC-02	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	RE/CE/AT	2006/04/10 * 12
MOS-02	Digital Humidity Indicator	N.T	NT-1800	RE/CE/AT	2004/11/25 * 24
MSTW-14	EMI measurement program	TSJ	TEPTO-DV	RE/CE	-
MRENT-39	Spectrum Analyzer	Advantest	R3273	RE/CE/AT	2006/07/25 * 12
MHA-06	Horn Antenna	Schwarzbeck	BBHA9120D	RE	2006/01/09 * 12
MCC-47	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2006/08/29 * 12
MCC-16	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX 104	RE	2006/02/02 * 12
MRENT-34	Power sensor	Anritsu	MA2411B	AT	2006/04/25 * 12
MRENT-35	Power Meter	Anritsu	ML2496A	AT	2006/04/25 * 12
MAT-25	Attenuator(10dB)(above1GHz)	Agilent	8493C	AT	2006/06/02 * 12
MBA-02	Biconical Antenna	Schwarzbeck	BBA9106	RE	2005/10/10 * 12
MLA-02	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2005/10/14 * 12
MCC-12	Coaxial Cable	Fujikura/Agilent	-	RE	2006/02/23 * 12
MAT-07	Attenuator(6dB)	Weinschel Corp	2	RE	2005/12/16 * 12
MPA-09	Pre Amplifier	Agilent	8447D	RE	2006/09/07 * 12
MTR-03	Test Receiver	Rohde & Schwarz	ESCI	RE/CE	2006/03/04 * 12
MPA-01	Pre Amplifier	Agilent	8449B	RE	2006/02/09 * 12
MHA-02	Horn Antenna	EMCO	3160-09	RE	2006/01/09 * 12
MCC-13	Coaxial Cable	Fujikura/Agilent	-	CE	2006/02/23 * 12
MLS-06	LISN(AMN)	Schwarzbeck	NSLK8127	CE (AE)	2006/02/06 * 12
MLS-07	LISN(AMN)	Schwarzbeck	NSLK8127	CE (EUT)	2006/02/06 * 12
MTA-07	Terminator	MCL	BTRM-50	CE	2006/02/06 * 12
MCC-05	Microwave Cable 1G-40GHz 2m	Storm	421-011 (90-1394-079)	AT	2006/01/04 * 12
MJM-05	Measure	PROMART	SEN1955	RE	-

All equipment is calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

Test Item:

CE: Conducted emission
RE: Radiated emission
AT: Antenna Terminal Conducted test

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