

DATA OF CONDUCTION TEST

UL Japan, Inc.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No. : 28HE0081-YK-01-F

Applicant : Ricoh Company, Ltd.
 Kind of Equipment : Full-collor MFP
 Model No. : Aficio MP C5000
 Serial No. : 3B51-001011
 Power : AC120V/60Hz
 Mode : Transmitting (2402MHz)
 Remarks : With RFID Transmitting
 Date : 5/7/2008
 Phase : Single Phase
 Temperature : 20 °C
 Humidity : 58 %
 Regulation : FCC Part15C § 15. 207. (CISPR Pub. 22)

Engineer : Tatsuya Arai

No.	FREQ. [MHz]	READING(N)		READING(L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP [dB μ V]	AV	QP [dB μ V]	AV				QP [dB]	AV [dB μ V]	QP [dB μ V]	AV [dB μ V]	QP [dB]	AV [dB]
1.	0.1959	45.1	37.3	44.8	38.0	0.0	0.1	0.0	45.2	38.1	63.8	53.8	18.6	15.7
2.	0.2940	24.5	-	25.7	-	0.0	0.1	0.0	25.8	-	60.4	50.4	34.6	-
3.	0.6872	22.1	-	22.8	-	0.0	0.1	0.0	22.9	-	56.0	46.0	33.1	-
4.	1.0801	22.4	-	22.4	-	0.1	0.1	0.0	22.6	-	56.0	46.0	33.4	-
5.	1.9621	21.8	-	21.7	-	0.1	0.2	0.0	22.1	-	56.0	46.0	33.9	-
6.	2.9436	20.8	-	19.8	-	0.1	0.2	0.0	21.1	-	56.0	46.0	34.9	-
7.	9.4287	30.3	-	29.9	-	0.3	0.5	0.0	31.1	-	60.0	50.0	28.9	-

CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

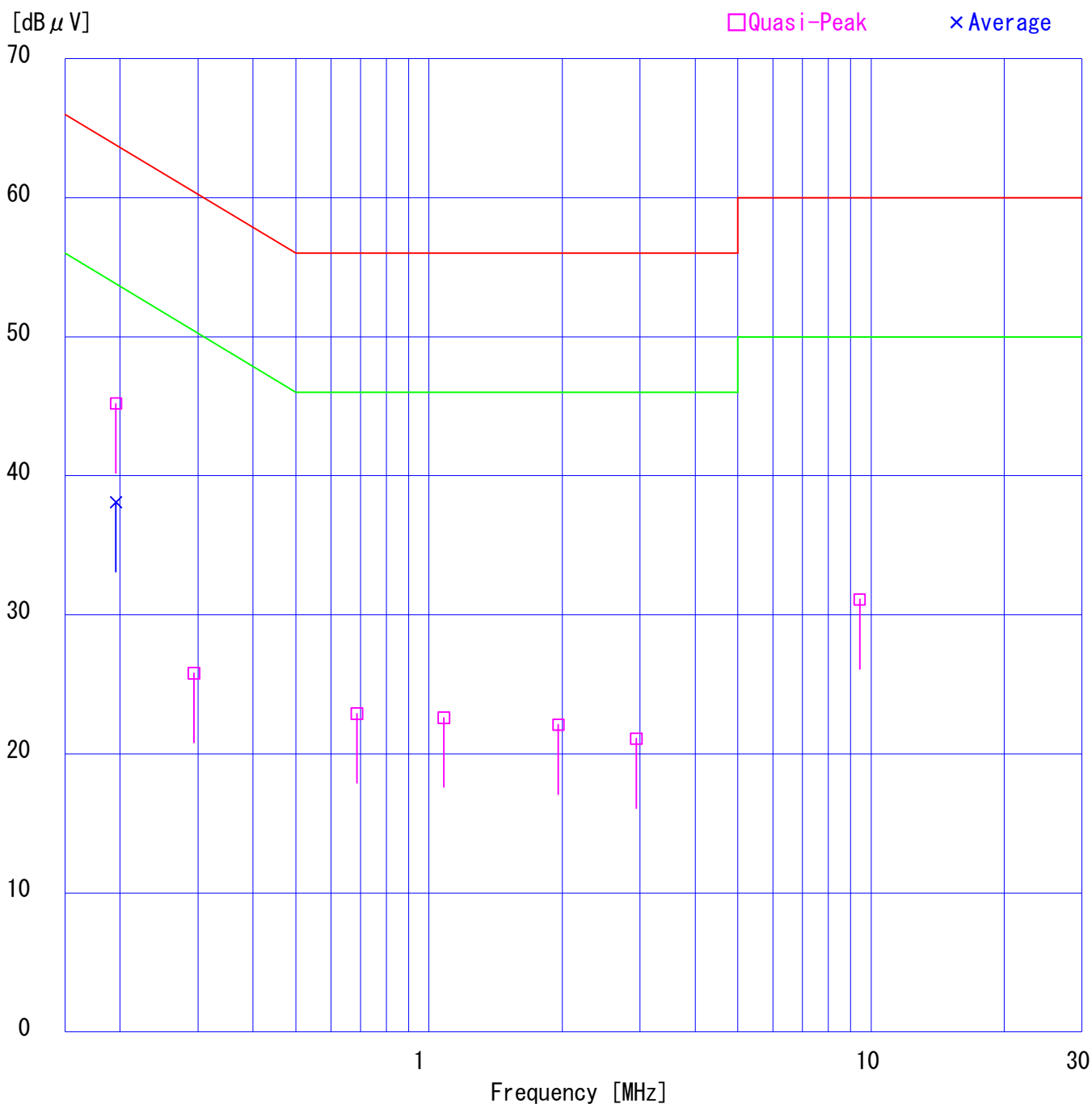
■ LISN: KLS-03 (NNLK8129) ■ COAXIAL CABLE: KCC-33/34
 ■ EMI RECEIVER: KTR-03 (ESHS10)

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Engineer : Tatsuya Arai



DATA OF CONDUCTION TEST CHART

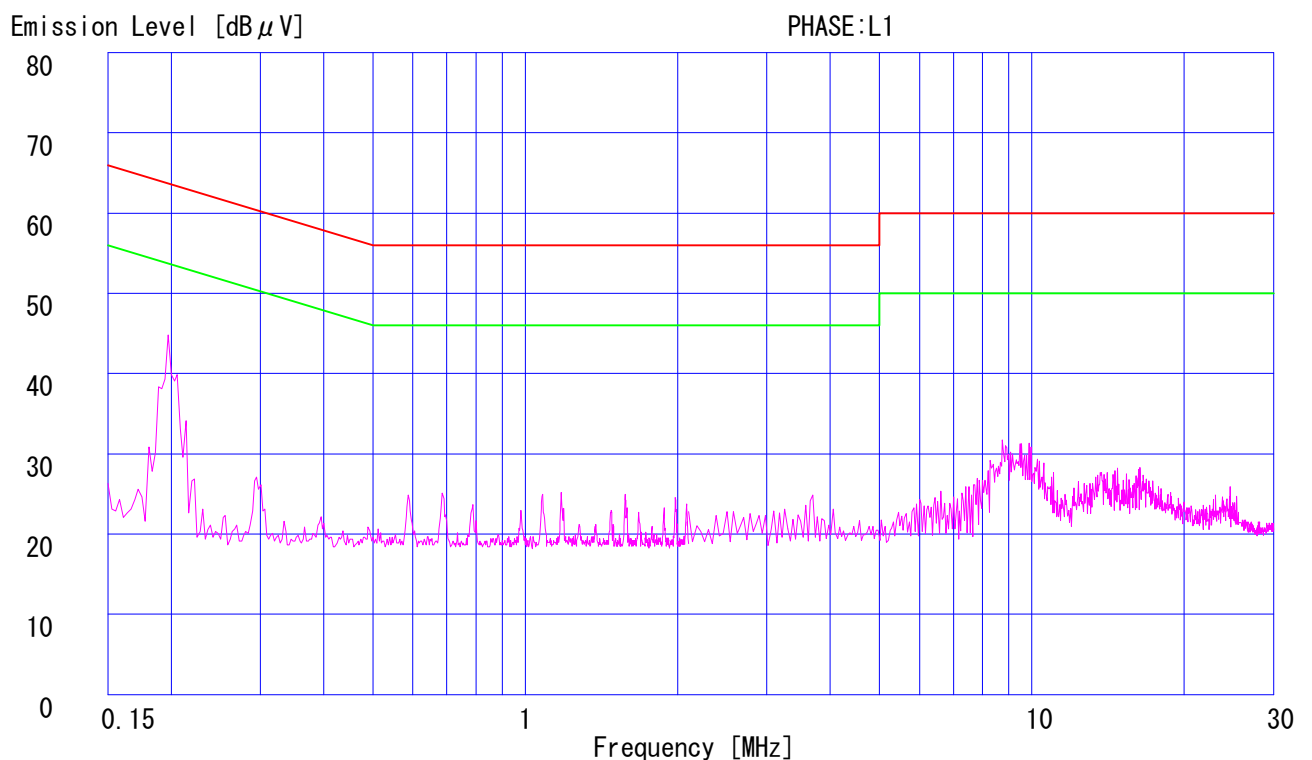
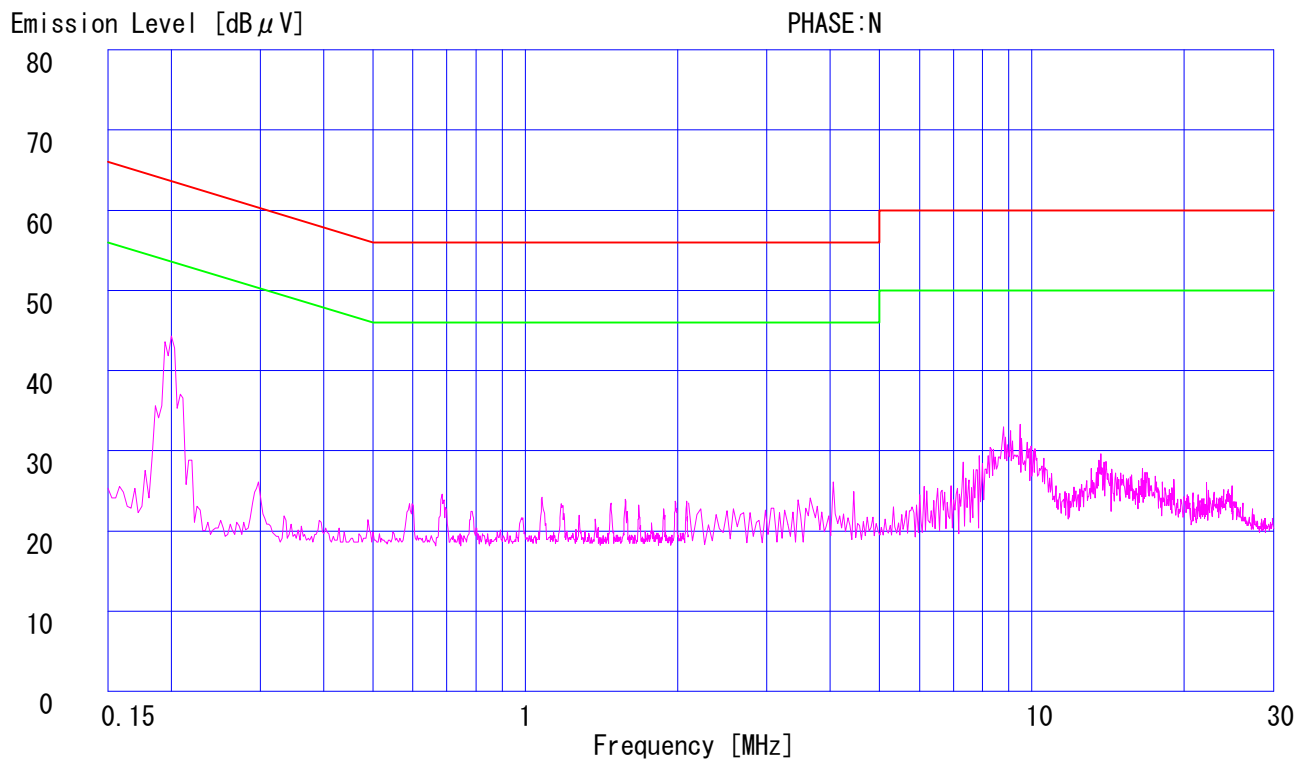
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YAMAKITA No.1 ANECHOIC CHAMBER

Report No. : 28HE0081-YK-01-F

Applicant : Ricoh Company, Ltd.
Kind of Equipment : Full-collar MFP
Model No. : Aficio MP C5000
Serial No. : 3B51-001011
Power : AC120V/60Hz
Mode : Transmitting (2402MHz)
Remarks : With RFID Transmitting
Date : 5/7/2008
Phase : Single Phase
Temperature : 20 °C
Humidity : 58 %
Regulation 1 : FCC Part15C § 15.207. (CISPR Pub. 22)
Regulation 2 : None

Engineer : Tatsuya Arai



DATA OF CONDUCTION TEST CHART

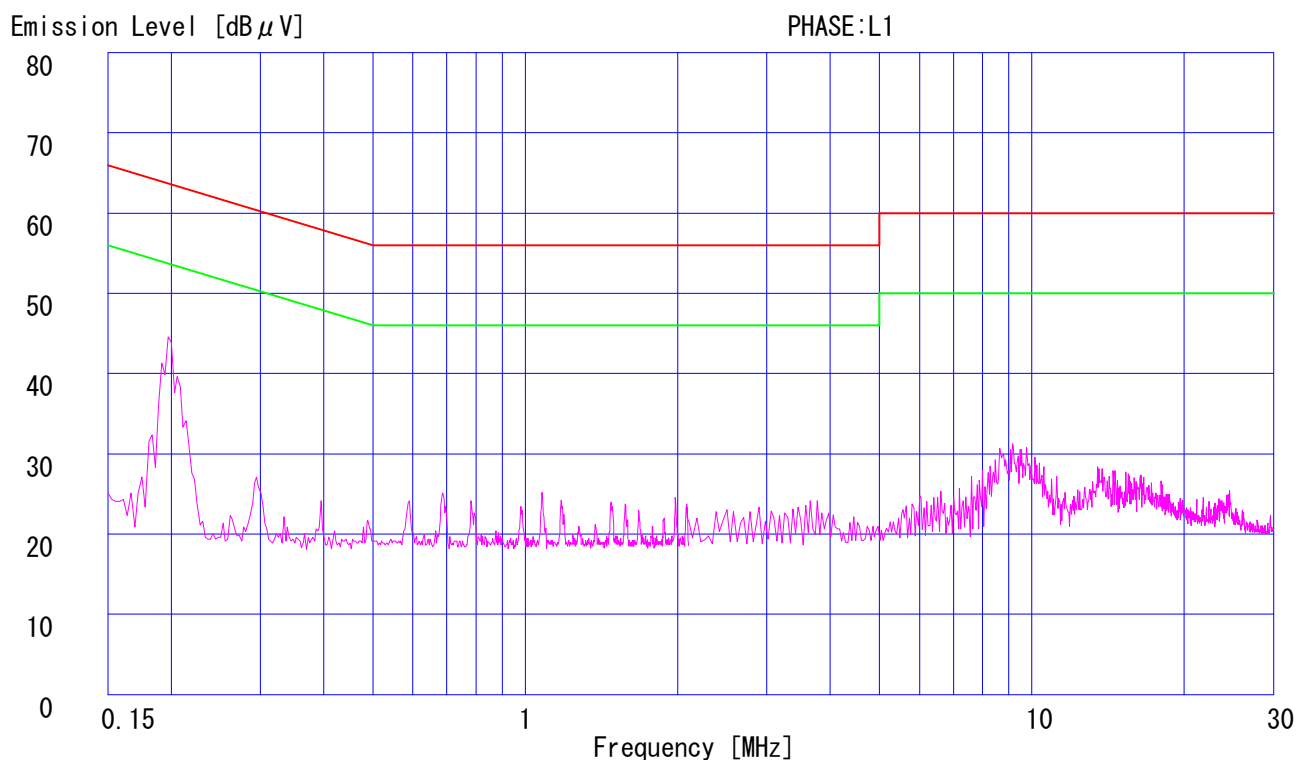
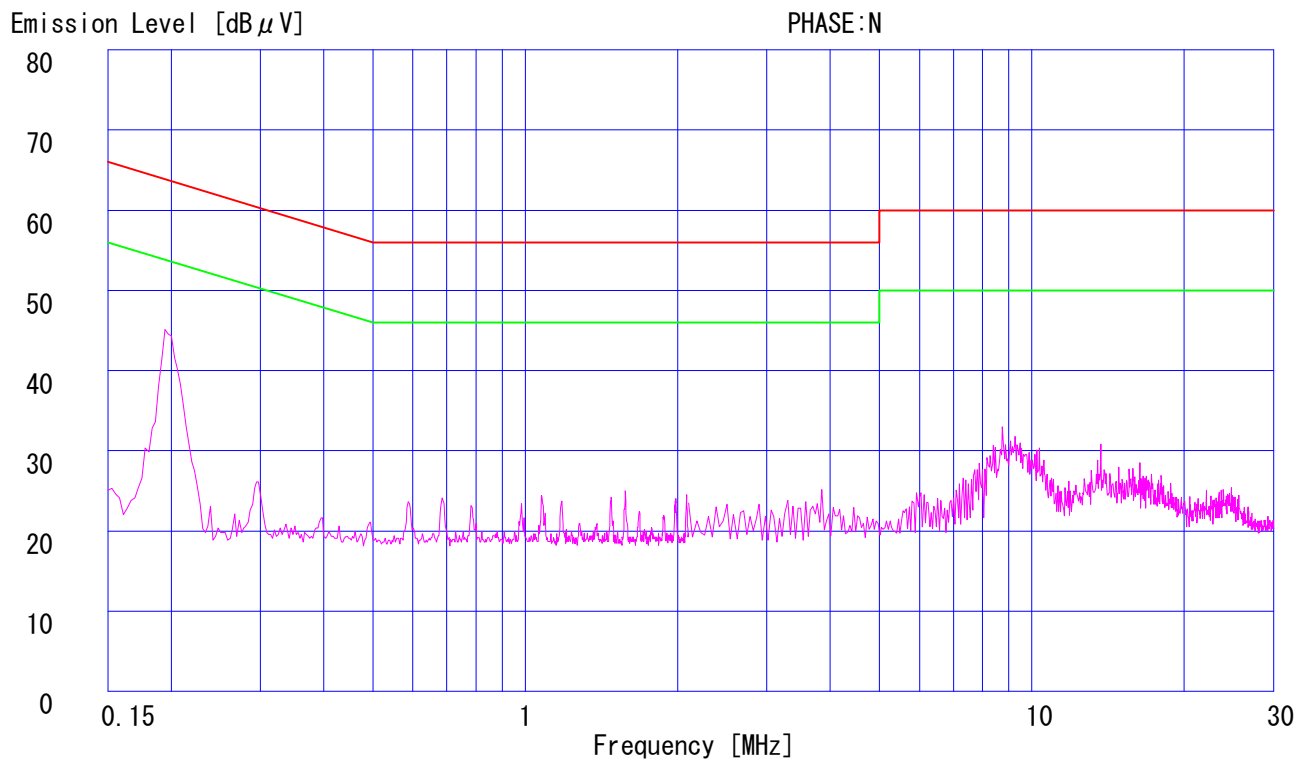
UL Japan, Inc.

YAMAKITA No.1 ANECHOIC CHAMBER

Report No. : 28HE0081-YK-01-F

Applicant : Ricoh Company, Ltd.
Kind of Equipment : Full-collar MFP
Model No. : Aficio MP C5000
Serial No. : 3B51-001011
Power : AC120V/60Hz
Mode : Transmitting (2441MHz)
Remarks : With RFID Transmitting
Date : 5/7/2008
Phase : Single Phase
Temperature : 20 °C
Humidity : 58 %
Regulation 1 : FCC Part15C § 15.207. (CISPR Pub. 22)
Regulation 2 : None

Engineer : Tatsuya Arai



DATA OF CONDUCTION TEST CHART

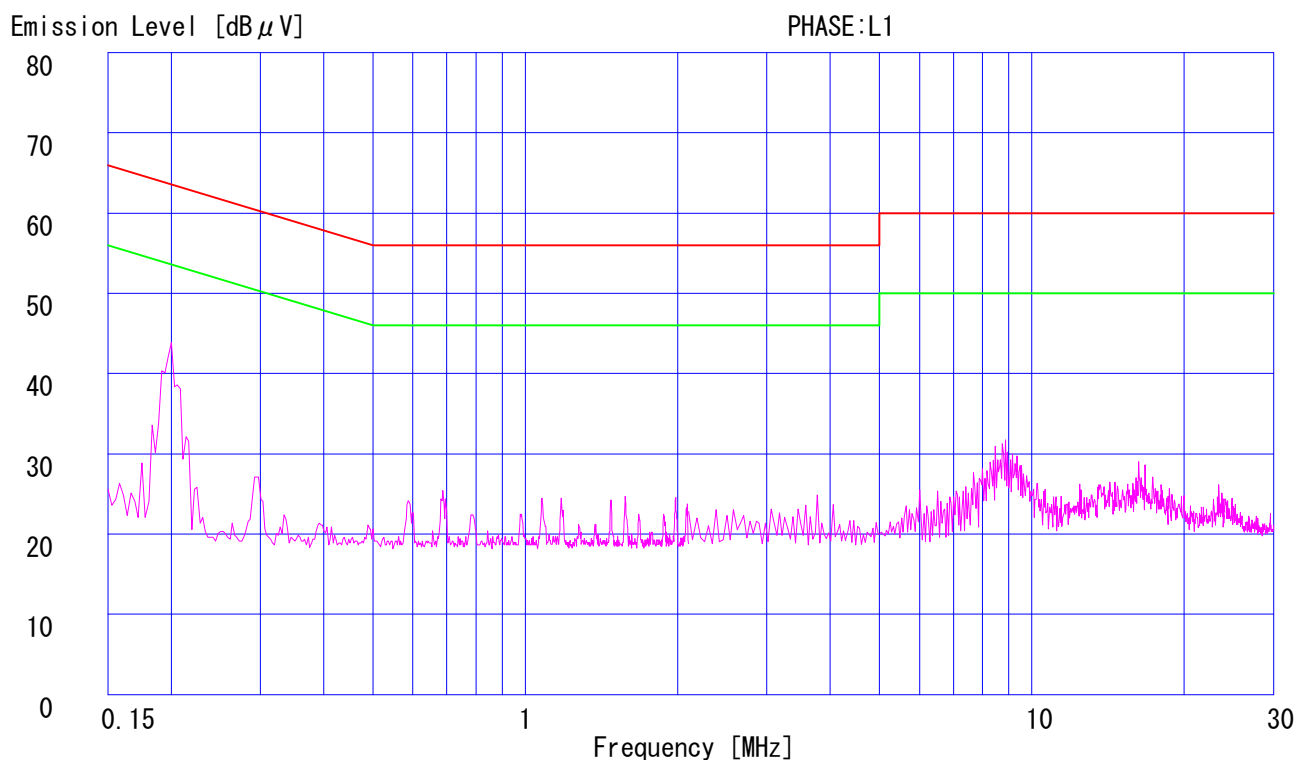
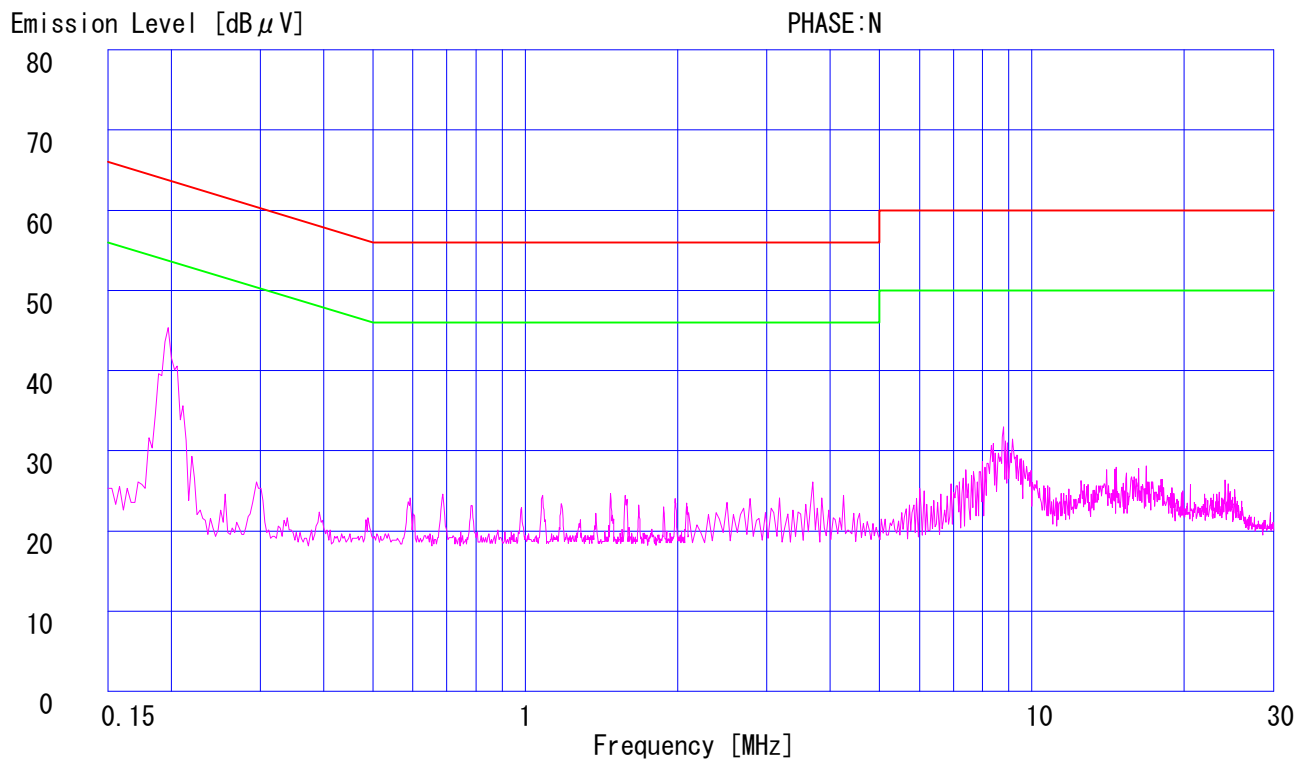
UL Japan, Inc.

YAMAKITA No.1 ANECHOIC CHAMBER

Report No. : 28HE0081-YK-01-F

Applicant : Ricoh Company, Ltd.
Kind of Equipment : Full-collar MFP
Model No. : Aficio MP C5000
Serial No. : 3B51-001011
Power : AC120V/60Hz
Mode : Transmitting (2480MHz)
Remarks : With RFID Transmitting
Date : 5/7/2008
Phase : Single Phase
Temperature : 20 °C
Humidity : 58 %
Regulation 1 : FCC Part15C § 15.207. (CISPR Pub. 22)
Regulation 2 : None

Engineer : Tatsuya Arai



DATA OF RADIATION TEST

UL Japan, Inc.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No. : 28HE0081-YK-01-F

Applicant : Ricoh Company, Ltd.
 Kind of Equipment : Full-collor MFP
 Model No. : Aficio MP C5000
 Serial No. : 3B51-001011
 Power : AC120V/60Hz
 Mode : Transmitting (2402MHz)
 Remarks : With RFID Transmitting
 Date : 5/2/2008
 Test Distance : 3 m
 Temperature : 23 °C
 Humidity : 59 %
 Regulation : FCC Part15C § 15. 209

Engineer : Tatsuya Arai

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER	HOR [dB]	VER		
1.	38.16	BB	27.1	35.2	14.8	28.5	1.0	6.0	20.4	28.5	40.0	19.6	11.5	
2.	117.98	BB	34.6	39.3	12.6	28.2	2.0	6.0	27.0	31.7	43.5	16.5	11.8	
3.	137.63	BB	31.2	36.3	14.0	28.2	2.1	6.0	25.1	30.2	43.5	18.4	13.3	
4.	235.95	BB	35.0	27.9	17.2	27.7	2.9	6.0	33.4	26.3	46.0	12.6	19.7	
5.	350.03	BB	35.1	31.4	15.9	27.9	3.7	6.0	32.8	29.1	46.0	13.2	16.9	
6.	390.02	BB	35.0	30.9	16.9	28.3	3.9	6.0	33.5	29.4	46.0	12.5	16.6	
7.	450.02	BB	31.8	28.1	17.9	28.7	4.3	6.0	31.3	27.6	46.0	14.7	18.4	
8.	619.31	BB	36.4	31.0	20.1	29.3	5.3	6.0	38.5	33.1	46.0	7.5	12.9	
9.	756.93	BB	33.1	29.1	21.0	29.0	5.8	6.1	37.0	33.0	46.0	9.0	13.0	

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KBA-03 (BBA9106) 30-299.99MHz/KLA-03 (USLP9143) 300-1000MHz
 ■ CABLE: KCC-A1/A3 ■ PREAMP: KAF-05 (8447D) ■ EMI RECEIVER: KTR-04 (ESVS10)

DATA OF RADIATION TEST

UL Japan, Inc.

YAMAKITA No.1 ANECHOIC CHAMBER

Report No. : 28HE0081-YK-01-F

Applicant : Ricoh Company, Ltd.
 Kind of Equipment : Full-collor MFP
 Model No. : Aficio MP C5000
 Serial No. : 3B51-001011
 Power : AC120V/60Hz
 Mode : Transmitting (2441MHz)
 Remarks : With RFID Transmitting
 Date : 5/2/2008
 Test Distance : 3 m
 Temperature : 23 °C
 Humidity : 59 %
 Regulation : FCC Part15C § 15. 209

Engineer : Tatsuya Arai

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER	HOR [dB]	VER		
1.	38.16	BB	27.3	35.8	14.8	28.5	1.0	6.0	20.6	29.1	40.0	19.4	10.9	
2.	117.98	BB	34.7	38.7	12.6	28.2	2.0	6.0	27.1	31.1	43.5	16.4	12.4	
3.	137.63	BB	30.6	35.7	14.0	28.2	2.1	6.0	24.5	29.6	43.5	19.0	13.9	
4.	235.95	BB	35.3	27.8	17.2	27.7	2.9	6.0	33.7	26.2	46.0	12.3	19.8	
5.	350.03	BB	35.7	32.3	15.9	27.9	3.7	6.0	33.4	30.0	46.0	12.6	16.0	
6.	390.02	BB	34.2	30.2	16.9	28.3	3.9	6.0	32.7	28.7	46.0	13.3	17.3	
7.	450.02	BB	31.5	27.5	17.9	28.7	4.3	6.0	31.0	27.0	46.0	15.0	19.0	
8.	619.31	BB	37.3	31.9	20.1	29.3	5.3	6.0	39.4	34.0	46.0	6.6	12.0	
9.	756.93	BB	32.8	29.4	21.0	29.0	5.8	6.1	36.7	33.3	46.0	9.3	12.7	

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KBA-03 (BBA9106) 30-299.99MHz/KLA-03 (USLP9143) 300-1000MHz

■ CABLE: KCC-A1/A3 ■ PREAMP: KAF-05 (8447D) ■ EMI RECEIVER: KTR-04 (ESVS10)

DATA OF RADIATION TEST

UL Japan, Inc.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No. : 28HE0081-YK-01-F

Applicant : Ricoh Company, Ltd.
 Kind of Equipment : Full-collor MFP
 Model No. : Aficio MP C5000
 Serial No. : 3B51-001011
 Power : AC120V/60Hz
 Mode : Transmitting (2480MHz)
 Remarks : With RFID Transmitting
 Date : 5/2/2008
 Test Distance : 3 m
 Temperature : 23 °C
 Humidity : 59 %
 Regulation : FCC Part15C § 15. 209

Engineer : Tatsuya Arai

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER	HOR [dB]	VER		
1.	38.17	BB	27.2	35.4	14.8	28.5	1.0	6.0	20.5	28.7	40.0	19.5	11.3	
2.	117.98	BB	30.8	35.7	12.6	28.2	2.0	6.0	23.2	28.1	43.5	20.3	15.4	
3.	137.63	BB	31.8	35.6	14.0	28.2	2.1	6.0	25.7	29.5	43.5	17.8	14.0	
4.	235.95	BB	34.9	27.6	17.2	27.7	2.9	6.0	33.3	26.0	46.0	12.7	20.0	
5.	350.03	BB	35.4	31.4	15.9	27.9	3.7	6.0	33.1	29.1	46.0	12.9	16.9	
6.	390.02	BB	35.3	30.5	16.9	28.3	3.9	6.0	33.8	29.0	46.0	12.2	17.0	
7.	450.03	BB	31.8	28.6	17.9	28.7	4.3	6.0	31.3	28.1	46.0	14.7	17.9	
8.	619.31	BB	36.8	31.3	20.1	29.3	5.3	6.0	38.9	33.4	46.0	7.1	12.6	
9.	756.93	BB	33.2	28.7	21.0	29.0	5.8	6.1	37.1	32.6	46.0	8.9	13.4	

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KBA-03 (BBA9106) 30-299.99MHz/KLA-03 (USLP9143) 300-1000MHz
 ■ CABLE: KCC-A1/A3 ■ PREAMP: KAF-05 (8447D) ■ EMI RECEIVER: KTR-04 (ESVS10)

DATA OF RADIATION TEST

UL Japan, Inc.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No. : 28HE0081-YK-01-F

Applicant : Ricoh Company, Ltd.
 Kind of Equipment : Full-collor MFP
 Model No. : Aficio MP C5000
 Serial No. : 3B51-001011
 Power : AC120V/60Hz
 Mode : Transmitting (2402MHz)
 Remarks : With RFID Transmitting
 Date : 5/2/2008
 Test Distance : 3 m
 Temperature : 23 °C Engineer : Tatsuya Arai
 Humidity : 59 %
 Regulation : FCC Part15C § 15. 209 (a) (PK) 1-18GHz:3m/18-40GHz:1m

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	1500.17	BB	55.3	53.1	25.2	36.0	3.5	0.0	48.0	45.8	74.0	26.0	28.2
2.	2390.00	BB	53.3	48.8	28.5	35.4	4.4	0.0	50.8	46.3	74.0	23.2	27.7
3.	2400.00	BB	69.1	66.5	28.5	35.3	4.5	0.0	66.8	64.2	74.0	7.2	9.8
4.	2626.03	BB	50.7	49.9	28.7	35.2	4.7	0.0	48.9	48.1	74.0	25.1	25.9
5.	4804.00	BB	54.7	52.0	32.9	34.1	5.9	0.0	59.4	56.7	74.0	14.6	17.3
6.	7206.00	BB	49.7	50.7	36.5	34.7	7.1	0.0	58.6	59.6	74.0	15.4	14.4
7.	9608.00	BB	45.2	45.6	37.7	35.3	8.2	0.0	55.8	56.2	74.0	18.2	17.8

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KHA-01 (SAS-200 571) 1-18GHz/KHA-03 (3160-09) 18-26GHz
 ■ CABLE: KCC-D16/D17 ■ PREAMP: KAF-07 (8449B) 1-18GHz ■ EMI RECEIVER: KTR-01 (ES140)

DATA OF RADIATION TEST (Above 1GHz)

UL Japan, Inc.
YAMAKITA NO.1 ANECHOIC CHAMBER
Report No. : 28HE0081-YK-01-F

Company : Ricoh Company, Ltd.
Equipment : Full-color MFP
Model : Aficio MP C5000
Sample No. : 3B51-001011
Power : AC120V/60Hz
Mode : Transmitting 2402MHz
Remarks : Bluetooth, With RFID Transmitting

Regulation : FCC Part15C Section 15.209
Test Distance : 3m
Date : 2008/05/02
Temperature : 23deg.C
Humidity : 59%

ENGINEER : Tatsuya Arai

AV calculation value SPECTRUMANALYZER RBW:1MHz

No.	FREQ [MHz]	READING		ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN [dB]	Duty Factor	RESULT		LIMIT [dBuV/m]	MARGIN		VBW [Hz]
		HOR [dBuV]	VER						HOR [dBuV/m]	VER		HOR [dB]	VER	
1*	1500.17	52.7	49.2	25.2	36.0	3.5	0.0	0.0	45.4	41.9	54.0	8.6	12.1	300
2	2390.00	53.3	48.8	28.5	35.4	4.4	0.0	-30.3	20.5	16.0	54.0	33.5	38.0	1M
3	2400.00	69.1	66.5	28.5	35.3	4.5	0.0	-30.3	36.5	33.9	54.0	17.5	20.1	1M
4	2626.03	50.7	49.9	28.7	35.2	4.7	0.0	-30.3	18.6	17.8	54.0	35.4	36.2	1M
5	4804.00	54.7	52.0	32.9	34.1	5.9	0.0	-30.3	29.1	26.4	54.0	24.9	27.6	1M
6	7206.00	49.7	50.7	36.5	34.7	7.1	0.0	-30.3	28.3	29.3	54.0	25.7	24.7	1M
7	9608.00	45.2	45.6	37.7	35.3	8.2	0.0	-30.3	25.5	25.9	54.0	28.5	28.1	1M

Sample Calculation :

RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + ATT + Duty Factor

Duty Factor calculation: $20 \cdot \log(3.05[\text{ms}]/100[\text{ms}]) = -30.31[\text{dB}]$ See Duty factor data

* $f(\text{Hz})=1/T(\text{s})=1/0.00376(\text{s})=265.96 \approx 300(\text{Hz})$

DATA OF RADIATION TEST

UL Japan, Inc.

YAMAKITA No.1 ANECHOIC CHAMBER

Report No. : 28HE0081-YK-01-F

Applicant : Ricoh Company, Ltd.
Kind of Equipment : Full-collor MFP
Model No. : Aficio MP C5000
Serial No. : 3B51-001011
Power : AC120V/60Hz
Mode : Transmitting (2441MHz)
Remarks : With RFID Transmitting
Date : 5/2/2008
Test Distance : 3 m
Temperature : 23 °C Engineer : Tatsuya Arai
Humidity : 59 %
Regulation : FCC Part15C § 15. 209 (a) (PK) 1-18GHz:3m/18-40GHz:1m

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER	HOR [dB]	VER		
1.	1500.17	BB	54.5	52.7	25.2	36.0	3.5	0.0	47.2	45.4	74.0	26.8	28.6	
2.	2697.20	BB	51.0	52.2	28.9	35.2	4.7	0.0	49.4	50.6	74.0	24.6	23.4	
3.	4882.00	BB	53.7	51.7	33.1	34.1	6.0	0.0	58.7	56.7	74.0	15.3	17.3	
4.	7323.00	BB	51.7	54.6	36.7	34.8	7.1	0.0	60.7	63.6	74.0	13.3	10.4	
5.	9764.00	BB	45.7	44.4	37.7	35.4	8.2	0.0	56.2	54.9	74.0	17.8	19.1	

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KHA-01 (SAS-200 571) 1-18GHz/KHA-03 (3160-09) 18-26GHz
■ CABLE: KCC-D16/D17 ■ PREAMP: KAF-07 (8449B) ■ EMI RECEIVER: KTR-01 (ES140)

Page:

DATA OF RADIATION TEST (Above 1GHz)

UL Japan, Inc.
YAMAKITA NO.1 ANECHOIC CHAMBER
Report No. : 28HE0081-YK-01-F

Company : Ricoh Company, Ltd.
Equipment : Full-color MFP
Model : Aficio MP C5000
Sample No. : 3B51-001011
Power : AC120V/60Hz
Mode : Transmitting 2441MHz
Remarks : Bluetooth, With RFID Transmitting

Regulation : FCC Part15C Section 15.209
Test Distance : 3m
Date : 2008/05/02
Temperature : 23deg.C
Humidity : 59%

ENGINEER : Tatsuya Arai

AV calculation value SPECTRUMANALYZER RBW:1MHz

No.	FREQ [MHz]	READING		ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN [dB]	Duty Factor	RESULT		LIMIT [dBuV/m]	MARGIN		VBW [Hz]
		HOR [dBuV]	VER						HOR [dBuV/m]	VER		HOR [dB]	VER	
1*	1500.17	51.8	49.5	25.2	36.0	3.5	0.0	0.0	44.5	42.2	54.0	9.5	11.8	300
2	2697.20	51.0	52.2	28.9	35.2	4.7	0.0	-30.3	19.1	20.3	54.0	34.9	33.7	1M
3	4882.00	53.7	51.7	33.1	34.1	6.0	0.0	-30.3	28.4	26.4	54.0	25.6	27.6	1M
4	7323.00	51.7	54.6	36.7	34.8	7.1	0.0	-30.3	30.4	33.3	54.0	23.6	20.7	1M
5	9764.00	45.7	44.4	37.7	35.4	8.2	0.0	-30.3	25.9	24.6	54.0	28.1	29.4	1M

Sample Calculation :

RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + ATT + Duty Factor

Duty Factor calculation: $20 \cdot \log(3.05[\text{ms}]/100[\text{ms}]) = -30.31[\text{dB}]$ See Duty factor data

* $f(\text{Hz})=1/T(\text{s})=1/0.00375(\text{s})=266.67 \approx 300(\text{Hz})$

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UL Japan, Inc.
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Report No. : 28HE0081-YK-01-F

Applicant : Ricoh Company, Ltd.
 Kind of Equipment : Full-collor MFP
 Model No. : Aficio MP C5000
 Serial No. : 3B51-001011
 Power : AC120V/60Hz
 Mode : Transmitting (2480MHz)
 Remarks : With RFID Transmitting
 Date : 5/2/2008
 Test Distance : 3 m
 Temperature : 23 °C
 Humidity : 59 %
 Regulation : FCC Part15C § 15. 209 (a) (PK) 1-18GHz:3m/18-40GHz:1m
 Engineer : Tatsuya Arai

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	1500.17	BB	55.9	52.7	25.2	36.0	3.5	0.0	48.6	45.4	74.0	25.4	28.6
2.	2287.95	BB	55.0	52.7	28.7	35.4	4.3	0.0	52.6	50.3	74.0	21.4	23.7
3.	2483.50	BB	58.9	56.6	28.3	35.3	4.5	0.0	56.4	54.1	74.0	17.6	19.9
4.	2484.06	BB	60.2	58.3	28.3	35.3	4.5	0.0	57.7	55.8	74.0	16.3	18.2
5.	4960.00	BB	48.6	43.8	33.4	34.1	6.0	0.0	53.9	49.1	74.0	20.1	24.9
6.	7440.00	BB	41.8	43.0	36.8	34.8	7.1	0.0	50.9	52.1	74.0	23.1	21.9
7.	9920.00	BB	46.8	45.8	37.7	35.4	8.3	0.0	57.4	56.4	74.0	16.6	17.6

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KHA-01 (SAS-200 571) 1-18GHz/KHA-03 (3160-09) 18-26GHz
 ■ CABLE: KCC-D16/D17 ■ PREAMP: KAF-07 (8449B) ■ EMI RECEIVER: KTR-01 (ES140)

DATA OF RADIATION TEST (Above 1GHz)

UL Japan, Inc.
YAMAKITA NO.1 ANECHOIC CHAMBER
Report No. : 28HE0081-YK-01-F

Company : Ricoh Company, Ltd.
Equipment : Full-color MFP
Model : Aficio MP C5000
Sample No. : 3B51-001011
Power : AC120V/60Hz
Mode : Transmitting 2480MHz
Remarks : Bluetooth, With RFID Transmitting

Regulation : FCC Part15C Section 15.209
Test Distance : 3m
Date : 2008/05/02
Temperature : 23deg.C
Humidity : 59%

ENGINEER : Tatsuya Arai

AV calculation value SPECTRUMANALYZER RBW:1MHz

No.	FREQ [MHz]	READING		ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN [dB]	Duty Factor	RESULT		LIMIT [dBuV/m]	MARGIN		VBW [Hz]
		HOR [dBuV]	VER						HOR [dBuV/m]	VER		HOR [dB]	VER	
1*	1500.17	53.2	48.3	25.2	36.0	3.5	0.0	0.0	45.9	41.0	54.0	8.1	13.0	300
2	2287.95	55.0	52.7	28.7	35.4	4.3	0.0	-30.3	22.3	20.0	54.0	31.7	34.0	1M
3	2483.50	58.9	56.6	28.3	35.3	4.5	0.0	-30.3	26.1	23.8	54.0	27.9	30.2	1M
4	2484.06	60.2	58.3	28.3	35.3	4.5	0.0	-30.3	27.4	25.5	54.0	26.6	28.5	1M
5	4960.00	48.6	43.8	33.4	34.1	6.0	0.0	-30.3	23.6	18.8	54.0	30.4	35.2	1M
6	7440.00	41.8	43.0	36.8	34.8	7.1	0.0	-30.3	20.6	21.8	54.0	33.4	32.2	1M
7	9920.00	46.8	45.8	37.7	35.4	8.3	0.0	-30.3	27.1	26.1	54.0	26.9	27.9	1M

Sample Calculation :

RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + ATT + Duty Factor

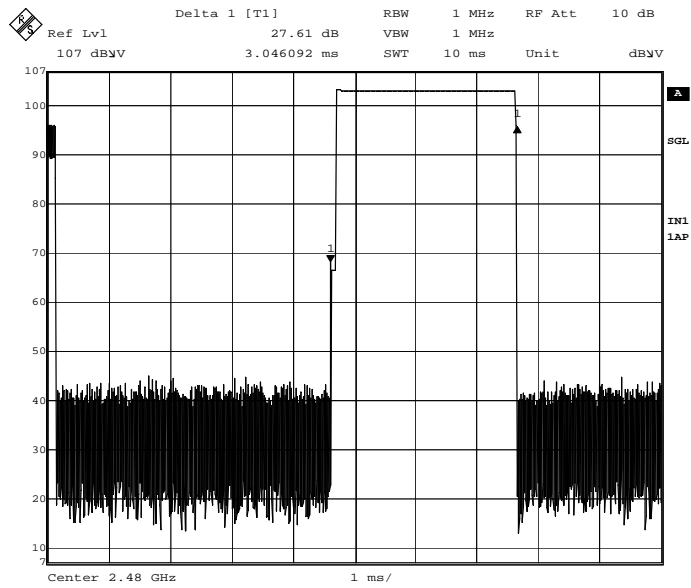
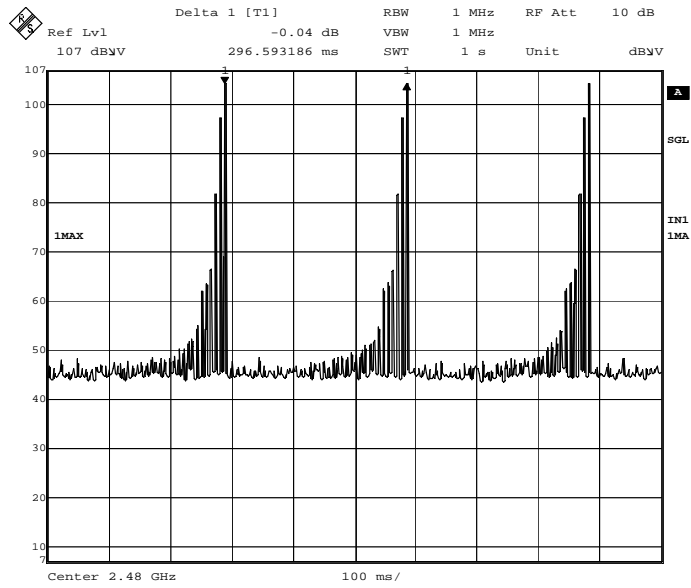
Duty Factor calculation: $20 \cdot \log(3.05[\text{ms}]/100[\text{ms}]) = -30.31[\text{dB}]$ See Duty factor data

* $f(\text{Hz}) = 1/T(\text{s}) = 1/0.00375(\text{s}) = 266.67 \approx 300(\text{Hz})$

Duty Factor

COMPANY : Ricoh Company, Ltd.
EQUIPMENT : Full-color MFP
MODEL NUMBER: Aficio MP C5000
SERIAL NUMBER: 3B51-001011
POWER : AC120V/60Hz

REPORT NO : 28HE0081-YK-01-F
DATE : 2008/05/02
TEMP./HUMI : 23deg.C./59%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai



Duty factor: $20\log(3.05\text{ms}/100\text{ms}) = -30.31\text{dB}$

APPENDIX 3
Test Instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
YA-CE	Conducted emission(software)	UL Japan	CE(Ver.1.6)	CE	-
KCC-33/34/KR M-03	Coaxial Cable/RF Relay Matrix	Fujikura/Suhner/TSJ	5D-2W/S04272B/RFM-E421	CE	2007/11/01 * 12
KLS-02	LISN(AMN)	Schwarzbeck	NSLK8127	CE	2007/08/02 * 12
KLS-03	LISN(AMN)	Schwarzbeck	NNLK8129	CE(EUT)	2007/05/15 * 12
KOS-01	Humidity Indicator	Custom	CTH-190	CE	2006/07/14 * 24
KSA-04	Spectrum Analyzer	Advantest	R3271A	CE/RE	2007/09/25 * 12
KTR-03	Test Receiver	Rohde & Schwarz	ESHS10	CE	2008/02/18 * 12
KJM-07	Measure	KOMELON	KMC-36	CE/RE	-
YA-RE	Radiated emission(software)	UL Japan	RE(Ver.1.5)	RE	-
KAF-05	Pre Amplifier	Agilent	8447D	RE	2008/04/08 * 12
KAT6-01	Attenuator	INMET	18N-6dB	RE	2008/03/17 * 12
KBA-03	Biconical Antenna	Schwarzbeck	BBA9106	RE	2007/12/27 * 12
KCC-A2/A3	Coaxial Cable	Fujikura	5D-2W	RE	2007/05/15 * 12
KLA-03	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2007/12/27 * 12
KAEC-01(NSA)	Anechoic Chamber	JSE	Semi 3m	RE	2007/08/26 * 12
KOS-02	Humidity Indicator	Custom	CTH-190	RE	2006/07/10 * 24
KTR-04	Test Receiver	Rohde & Schwarz	ESVS10	RE	2007/10/30 * 12
KTR-01	Test Receiver	Rohde & Schwarz	ESI40	RE	2008/04/18 * 12
KHA-01	Horn Antenna	A.H.Systems	SAS-200/571	RE	2007/08/14 * 12
KHA-03	Horn Antenna	EMCO	3160-09	RE	2008/04/30 * 12
KCC-D16/D17	Coaxial Cable	INSULATED WIRE INC	KPS-1501-200-KPS/K PS-1501-2000-KPS	RE	2008/02/21 * 12
KAF-07	Pre Amplifier	Hewlett Packard	8449B	RE	2007/12/10 * 12

The expiration date of the calibration is the end of the expired month .

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,

1. Model difference specification

Model (RICOH)	Print speed/minutes	Fusing by induction heater
Aficio MP C2800 Aficio MP C2800G	28	No
Aficio MP C3300 Aficio MP C3300G	33	No
Aficio MP C4000 Aficio MP C4000G	40	Yes
Aficio MP C5000 Aficio MP C5000G	50	Yes

The differences are fusing method and printing speed as above.

Aficio MP C5000 is chosen as a representative for the test since the model has the highest print speed.

2. Model name by brand

Model (RICOH)	Brand name	OEM model
Aficio MP C2800 Aficio MP C2800G	Lanier	LD528C LD528CG
	Savin	C2828 C2828G
	Gestetner	MP C2800
Aficio MP C3300 Aficio MP C3300G	Lanier	LD533C LD533CG
	Savin	C3333 C3333G
	Gestetner	MP C3300
Aficio MP C4000 Aficio MP C4000G	Lanier	LD540C LD540CG
	Savin	C4040 C4040G
	Gestetner	MP C4000
Aficio MP C5000 Aficio MP C5000G	Lanier	LD550C LD550CG
	Savin	C5050 C5050G
	Gestetner	MP C5000