

DATA OF CONDUCTION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.3 OPEN TEST SITE
Report No. : 22KE0005-YW

Applicant : Matsushita Electric Industrial Co., Ltd.
Kind of Equipment : Notebook Personal Computer
Model No. : CF-72
Serial No. :
Power : AC120V/60Hz
Mode : Transmitting (2412MHz)
Remarks : FCC ID: ACJ9TGCF-721
Date : 6/17/2002
Phase : Single Phase
Temperature : 25 °C
Humidity : 64 %
Regulation : CISPR Pub. 22 CLASS B


Engineer : Tomoyuki Yamashita

No.	FREQ. [MHz]	READING (N)		READING (L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP	AV	QP	AV				QP	AV	QP	AV	QP	AV
		[dBuV]		[dBuV]					[dBuV]		[dBuV]		[dB]	
1.	0.1500	44.0	-	51.4	-	0.1	0.1	0.0	51.6	-	66.0	56.0	14.4	-
2.	0.8941	28.0	-	31.0	-	0.1	0.1	0.0	31.2	-	56.0	46.0	24.8	-
3.	1.0468	26.8	-	25.0	-	0.1	0.1	0.0	27.0	-	56.0	46.0	29.0	-
4.	3.9015	29.2	-	30.2	-	0.2	0.2	0.0	30.6	-	56.0	46.0	25.4	-
5.	7.7016	29.4	-	30.7	-	0.4	0.3	0.0	31.4	-	60.0	50.0	28.6	-
6.	19.5063	29.7	-	29.3	-	0.8	0.5	0.0	31.0	-	60.0	50.0	29.0	-
7.	29.9585	33.2	-	32.8	-	0.9	0.6	0.0	34.7	-	60.0	50.0	25.3	-

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

All other spurious emissions were less than 20dB for the limit.

DATA OF CONDUCTION TEST CHART

A-PEX INTERNATIONAL CO., LTD.

YOKOWA No.3 OPEN TEST SITE

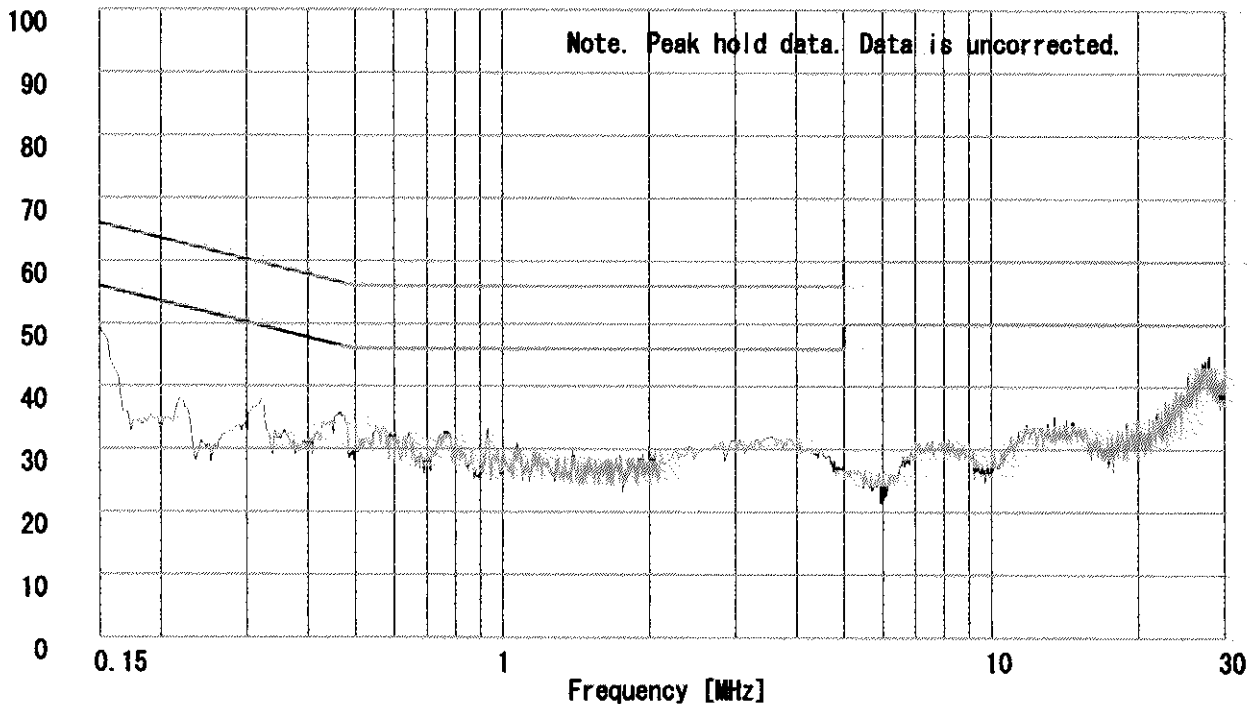
Report No. : 22KE0005-YW

Applicant : Matsushita Electric Industrial Co., Ltd.
Kind of Equipment : Notebook Personal Computer
Model No. : CF-72
Serial No. :
Power : AC120V/60Hz
Mode : Transmitting (2412MHz)
Remarks : FCC ID: ACJ9TGCF-721
Date : 6/17/2002
Phase : Single Phase
Temperature : 25 °C
Humidity : 64 %
Regulation 1 : CISPR Pub. 22 CLASS B
Regulation 2 : None

T. Yamashita
Engineer : Tomoyuki Yamashita

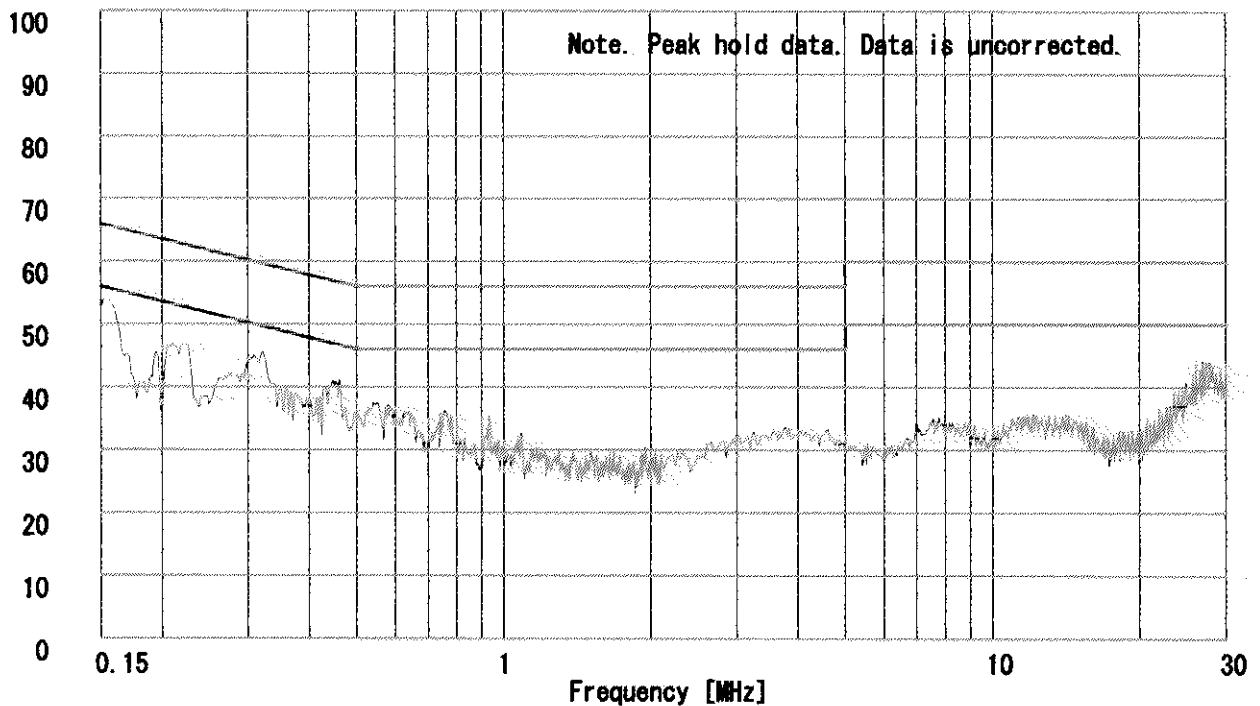
Emission Level [dB μ V]

PHASE:N



Emission Level [dB μ V]

PHASE:L1



DATA OF CONDUCTION TEST CHART

A-PEX INTERNATIONAL CO., LTD.

YOKOWA No.3 OPEN TEST SITE

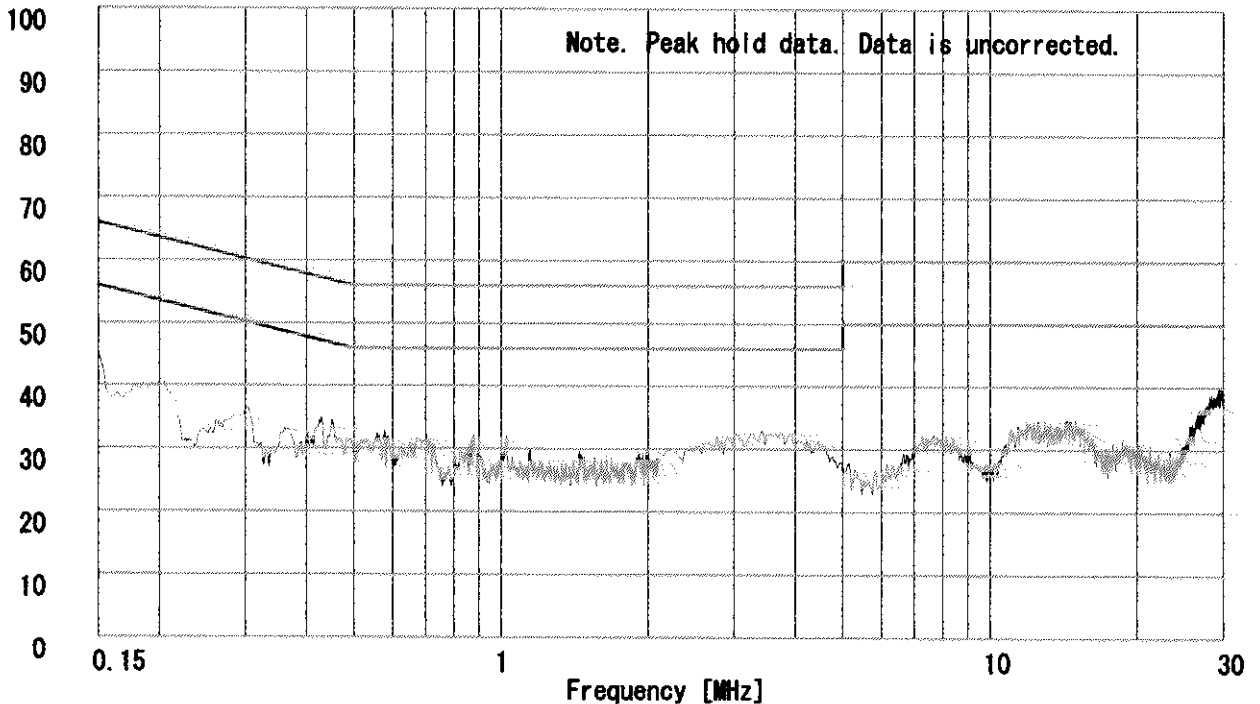
Report No. : 22KE0005-YW

Applicant : Matsushita Electric Industrial Co., Ltd.
Kind of Equipment : Notebook Personal Computer
Model No. : CF-72
Serial No. :
Power : AC120V/60Hz
Mode : Transmitting (2437MHz)
Remarks : FCC ID: ACJ9TGCF-721
Date : 6/17/2002
Phase : Single Phase
Temperature : 25 °C
Humidity : 64 %
Regulation 1 : CISPR Pub. 22 CLASS B
Regulation 2 : None

T. Yamashita
Engineer : Tomoyuki Yamashita

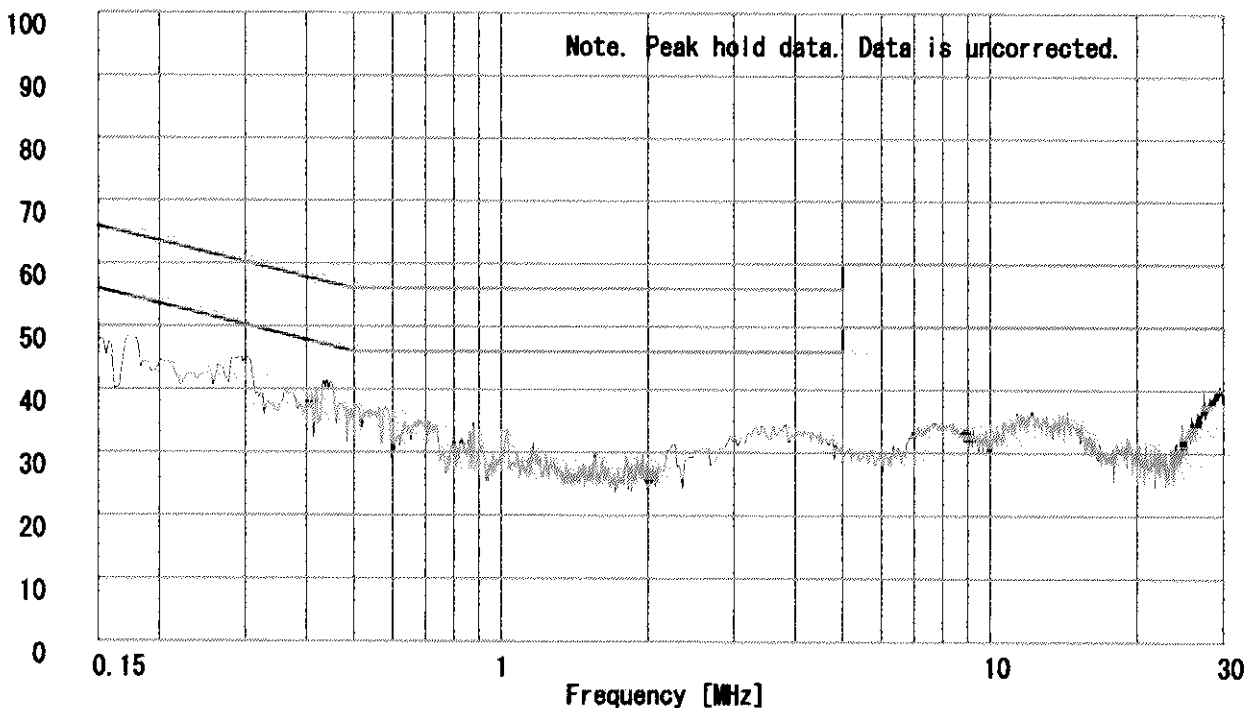
Emission Level [dB μ V]

PHASE:N



Emission Level [dB μ V]

PHASE:L1



DATA OF CONDUCTION TEST CHART

A-PEX INTERNATIONAL CO., LTD.

YOKOWA No.3 OPEN TEST SITE

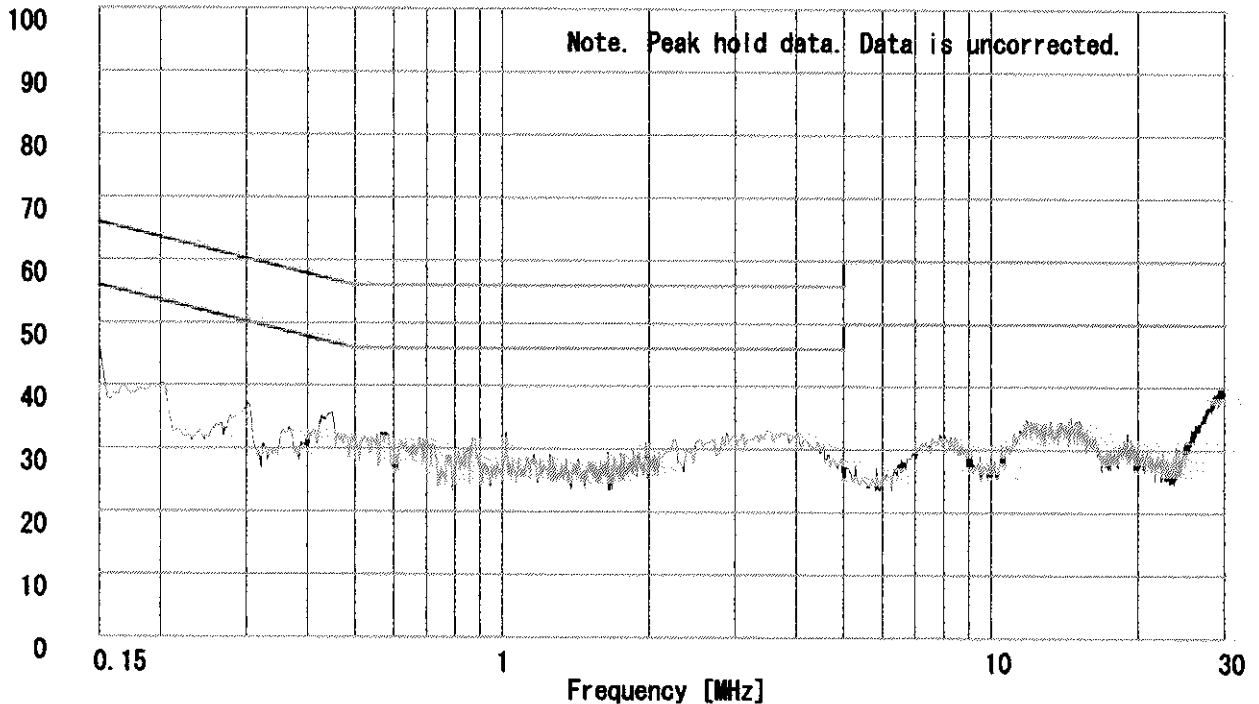
Report No. : 22KE0005-YW

Applicant : Matsushita Electric Industrial Co., Ltd.
Kind of Equipment : Notebook Personal Computer
Model No. : CF-72
Serial No. :
Power : AC120V/60Hz
Mode : Transmitting (2462MHz)
Remarks : FCC ID: ACJ9TGCF-721
Date : 6/17/2002
Phase : Single Phase
Temperature : 25 °C
Humidity : 64 %
Regulation 1 : CISPR Pub. 22 CLASS B
Regulation 2 : None

T. Yamashita
Engineer : Tomoyuki Yamashita

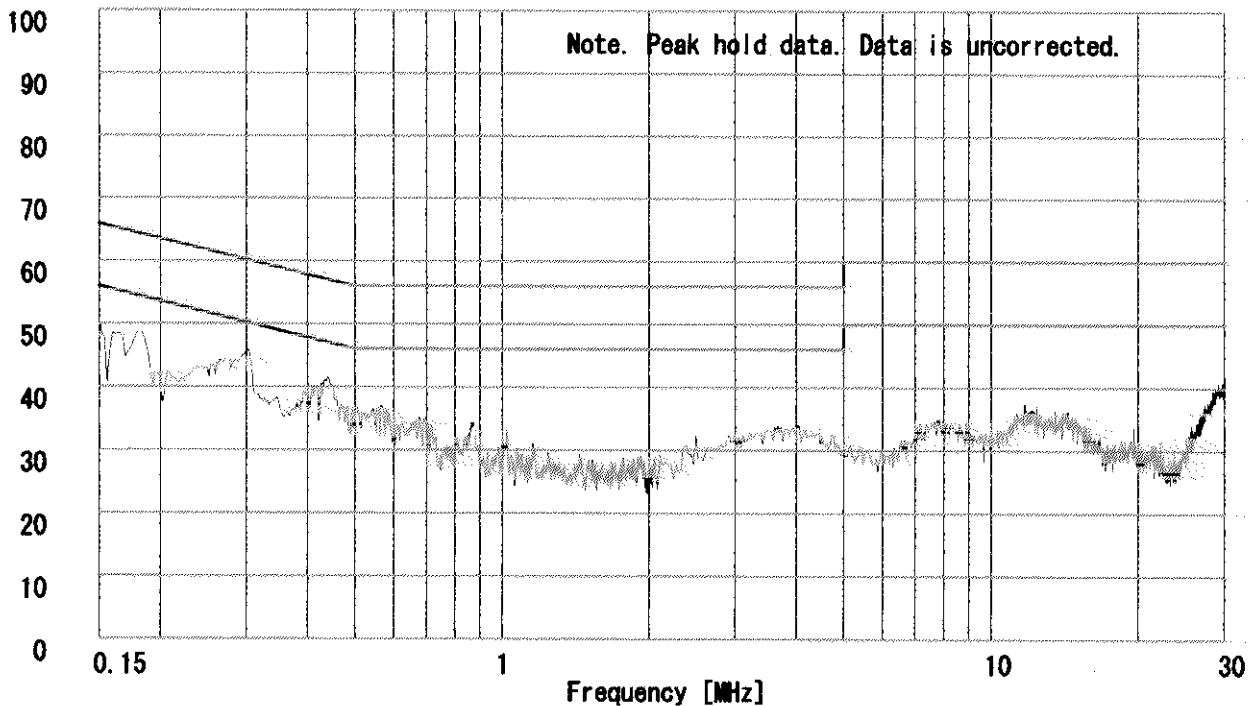
Emission Level [dB μ V]

PHASE:N



Emission Level [dB μ V]

PHASE:L1



DATA OF CONDUCTION TEST CHART

A-PEX INTERNATIONAL CO., LTD.

YOKOWA No.3 OPEN TEST SITE

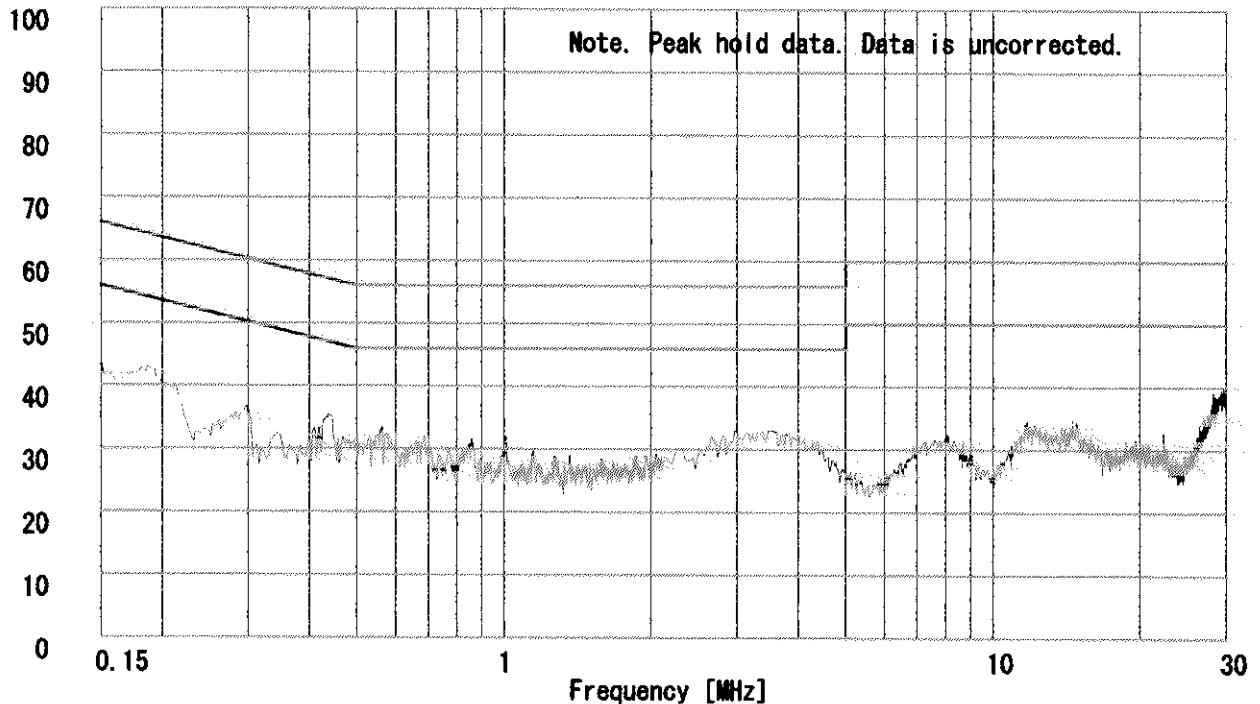
Report No. : 22KE0005-YW

Applicant : Matsushita Electric Industrial Co., Ltd.
Kind of Equipment : Notebook Personal Computer
Model No. : CF-72
Serial No. :
Power : AC120V/60Hz
Mode : Receiving
Remarks : FCC ID:ACJ9TGCF-721
Date : 6/17/2002
Phase : Single Phase
Temperature : 25 °C
Humidity : 64 %
Regulation 1 : CISPR Pub. 22 CLASS B
Regulation 2 : None

T. Yamashita
Engineer : Tomoyuki Yamashita

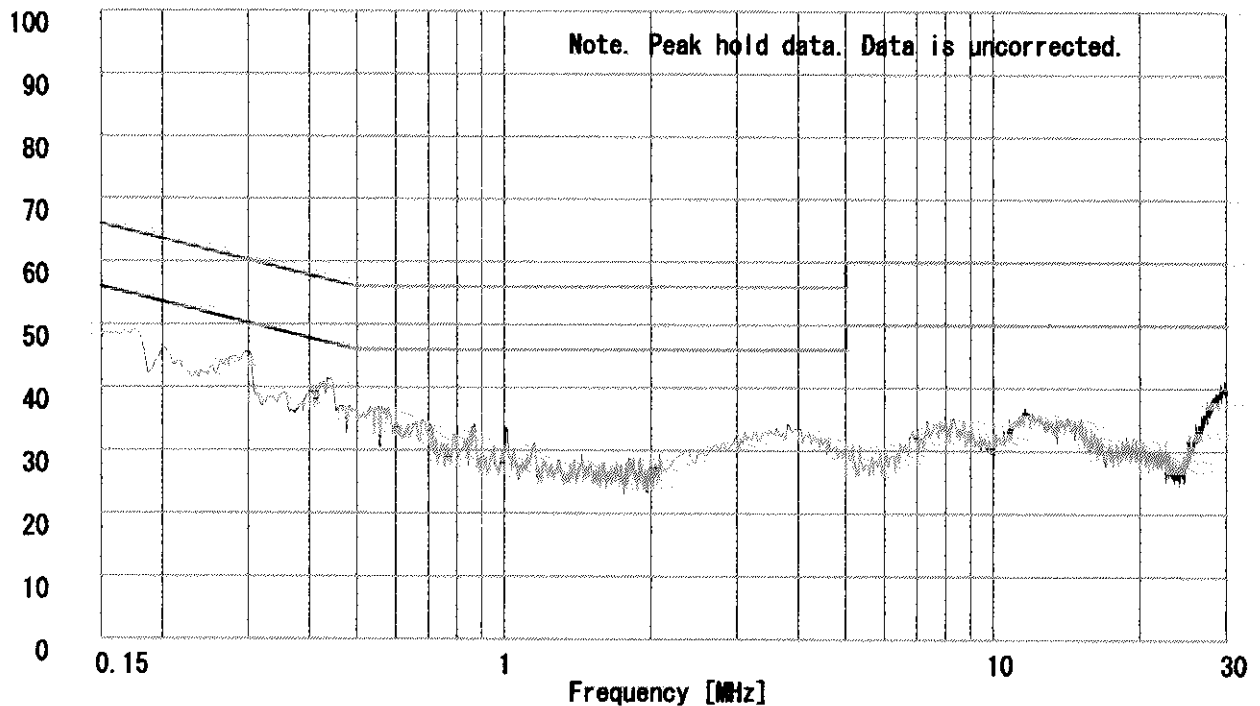
Emission Level [dB μ V]

PHASE:N

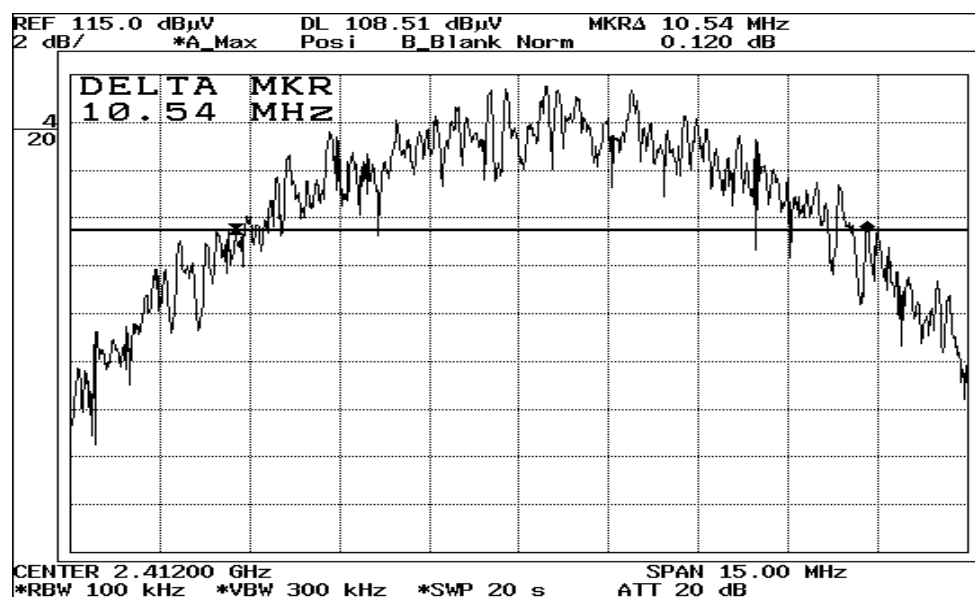


Emission Level [dB μ V]

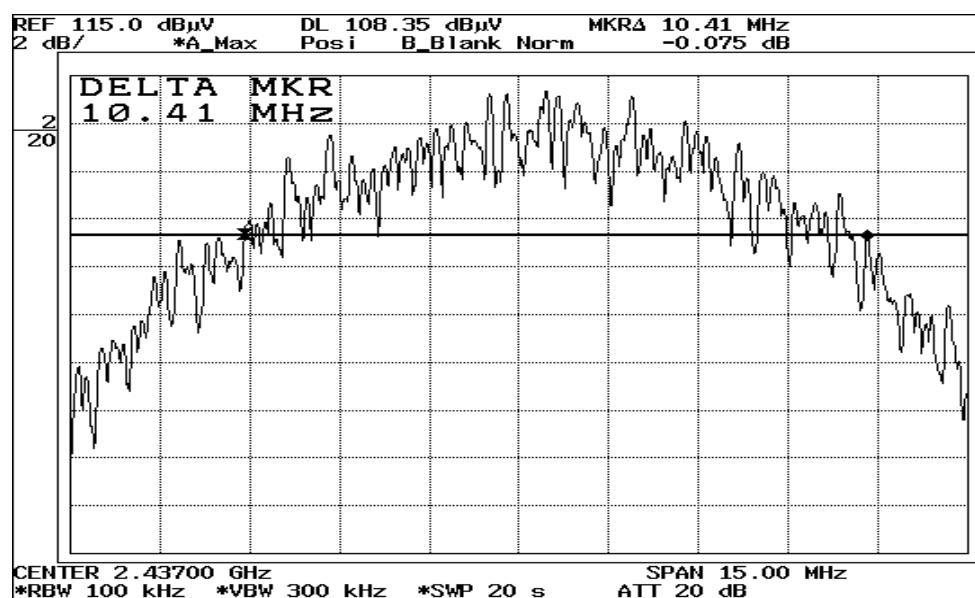
PHASE:L1



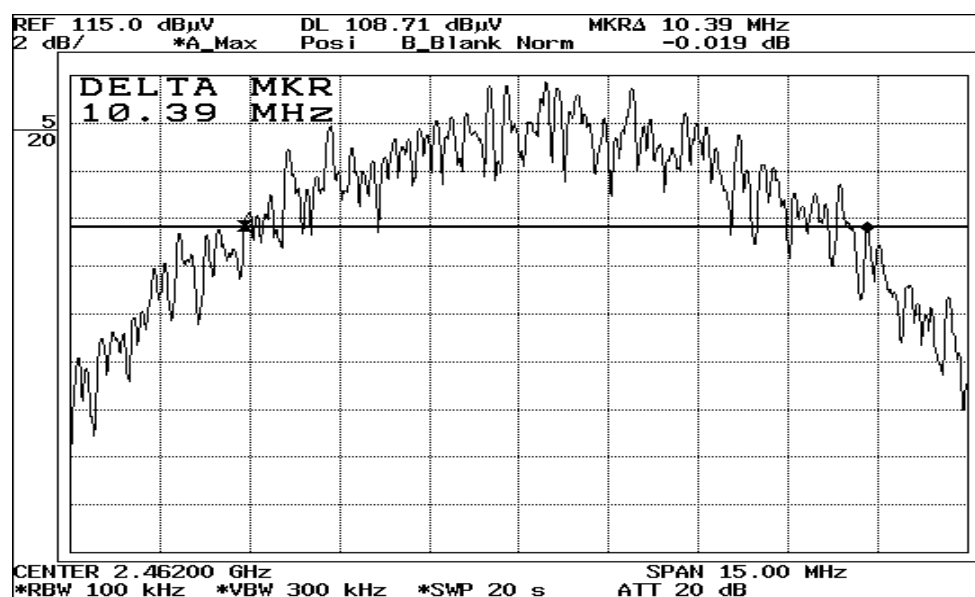
1. ch 1: 2412MHz



2. ch 6: 2437MHz



3. ch 11: 2462MHz



Peak Out Put Power(Conducted)

A-PEX INTERNATIONAL CO., LTD.
YOKOWA NO.3 OPEN SITE

Company : Matsushita Electric Industrial Co.,Ltd.
Equipment : Notebook Personal Computer
Model : CF-72
Sample No. :
FCC ID : ACJ9TGCF-721
Power : AC120/60Hz
Mode : Transmitting

Report No. : 22KE0005-YW
Regulation : FCC Part15C 247(b)
Test Distance : -
Date : 2002/06/19
Temperature : 26deg.C
Humidity : 39%

T. Yamashita

ENGINEER : Tomoyuki Yamashita

CH	FREQ [GHz]	PM Reading [dBm]	Limit (1W) [dBm]	MARGIN [dB]
Low	2.41200	19.4	30.0	10.6
Mid	2.43700	19.0	30.0	11.0
High	2.46200	18.9	30.0	11.1

DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.3 OPEN TEST SITE
Report No. : 22KE0005-YW

Applicant : Matsushita Electric Industrial Co., Ltd.
Kind of Equipment : Notebook Personal Computer
Model No. : CF-72
Serial No. :
Power : AC120V/60Hz
Mode : Transmitting (2412MHz)
Remarks : FCC ID:ACJ9TGCF-721
Date : 6/18/2002
Test Distance : 3 m
Temperature : 20 °C
Humidity : 78 %
Regulation : Fcc 15C § 15.209(a)

T. Yamashita
Engineer : Tomoyuki Yamashita

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 [dB μ V]					HOR [dB μ V/m]	VER [dB μ V/m]		HOR [dB]	VER [dB]
1.	86.37	BB	29.7	44.3	7.3	27.8	1.9	6.0	17.1	31.7	40.0	22.9	8.3
2.	99.70	BB	36.5	40.5	9.7	27.8	2.1	6.0	26.5	30.5	43.5	17.0	13.0
3.	122.86	BB	29.6	32.6	13.2	27.9	2.3	6.0	23.2	26.2	43.5	20.3	17.3
4.	166.18	BB	33.1	33.5	15.2	27.8	2.8	6.0	29.3	29.7	43.5	14.2	13.8
5.	232.69	BB	29.6	30.6	16.7	27.7	3.2	6.0	27.8	28.8	46.0	18.2	17.2
6.	352.00	BB	26.2	30.6	17.3	27.9	4.7	6.0	26.3	30.7	46.0	19.7	15.3
7.	498.50	BB	30.8	32.0	19.1	27.9	5.1	6.1	33.2	34.4	46.0	12.8	11.6
8.	517.50	BB	42.1	37.7	19.2	27.9	5.3	6.1	44.8	40.4	46.0	1.2	5.6

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

Except for the above table : adequate margin data below the limits.
ANT. TYPE: 30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.3 OPEN TEST SITE
Report No. : 22KE0005-YW

Applicant : Matsushita Electric Industrial Co., Ltd.
Kind of Equipment : Notebook Personal Computer
Model No. : CF-72
Serial No. :
Power : AC120V/60Hz
Mode : Transmitting (2437MHz)
Remarks : FCC ID: ACJ9TGCF-721
Date : 6/18/2002
Test Distance : 3 m
Temperature : 20 °C
Humidity : 78 %
Regulation : Fcc 15C § 15.209(a)

Engineer  Tomoyuki Yamashita

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER [dB μV]					HOR [dB μV/m]	VER [dB μV/m]		HOR [dB]	VER [dB]
1.	86.37	BB	28.6	43.8	7.3	27.8	1.9	6.0	16.0	31.2	40.0	24.0	8.8
2.	99.70	BB	36.1	41.0	9.7	27.8	2.1	6.0	26.1	31.0	43.5	17.4	12.5
3.	122.86	BB	29.6	33.9	13.2	27.9	2.3	6.0	23.2	27.5	43.5	20.3	16.0
4.	166.18	BB	33.2	34.3	15.2	27.8	2.8	6.0	29.4	30.5	43.5	14.1	13.0
5.	232.69	BB	31.5	30.8	16.7	27.7	3.2	6.0	29.7	29.0	46.0	16.3	17.0
6.	352.02	BB	29.0	30.0	17.3	27.9	4.7	6.0	29.1	30.1	46.0	16.9	15.9
7.	498.61	BB	33.2	32.4	19.1	27.9	5.1	6.1	35.6	34.8	46.0	10.4	11.2
8.	517.48	BB	42.4	42.1	19.2	27.9	5.3	6.1	45.1	44.8	46.0	0.9	1.2

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

Except for the above table : adequate margin data below the limits.
ANT. TYPE: 30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.3 OPEN TEST SITE
Report No. : 22KE0005-YW

Applicant : Matsushita Electric Industrial Co., Ltd.
Kind of Equipment : Notebook Personal Computer
Model No. : CF-72
Serial No. :
Power : AC120V/60Hz
Mode : Transmitting (2462MHz)
Remarks : FCC ID: ACJ9TGCF-721
Date : 6/18/2002
Test Distance : 3 m
Temperature : 20 °C
Humidity : 78 %
Regulation : Fcc 15C § 15.209(a)

T. Yamashita
Engineer : Tomoyuki Yamashita

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 [dB μ V]					HOR [dB μ V/m]	VER [dB μ V/m]		HOR [dB]	VER [dB]
1.	86.40	BB	29.7	43.8	7.3	27.8	1.9	6.0	17.1	31.2	40.0	22.9	8.8
2.	99.77	BB	36.4	41.0	9.8	27.8	2.1	6.0	26.5	31.1	43.5	17.0	12.4
3.	122.89	BB	28.9	34.1	13.2	27.9	2.3	6.0	22.5	27.7	43.5	21.0	15.8
4.	166.17	BB	33.2	34.5	15.2	27.8	2.8	6.0	29.4	30.7	43.5	14.1	12.8
5.	232.69	BB	29.6	30.7	16.7	27.7	3.2	6.0	27.8	28.9	46.0	18.2	17.1
6.	352.01	BB	27.3	28.9	17.3	27.9	4.7	6.0	27.4	29.0	46.0	18.6	17.0
7.	498.50	BB	33.4	33.2	19.1	27.9	5.1	6.1	35.8	35.6	46.0	10.2	10.4
8.	517.50	BB	42.0	40.0	19.2	27.9	5.3	6.1	44.7	42.7	46.0	1.3	3.3

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

Except for the above table : adequate margin data below the limits.
ANT. TYPE: 30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.3 OPEN TEST SITE
Report No. : 22KE0005-YW

Applicant : Matsushita Electric Industrial Co., Ltd.
Kind of Equipment : Notebook Personal Computer
Model No. : CF-72
Serial No. :
Power : AC120V/60Hz
Mode : Receiving
Remarks : FCC ID:ACJ9TGCF-721
Date : 6/18/2002
Test Distance : 3 m
Temperature : 20 °C
Humidity : 78 %
Regulation : Fcc 15C § 15.209(a)

T. Yamashita
Engineer : Tomoyuki Yamashita

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 [dB μ V]					HOR [dB μ V/m]	VER [dB μ V/m]		HOR [dB]	VER [dB]
1.	86.40	BB	28.0	43.7	7.3	27.8	1.9	6.0	15.4	31.1	40.0	24.6	8.9
2.	99.63	BB	36.1	41.3	9.7	27.8	2.1	6.0	26.1	31.3	43.5	17.4	12.2
3.	122.88	BB	29.7	33.4	13.2	27.9	2.3	6.0	23.3	27.0	43.5	20.2	16.5
4.	166.17	BB	33.0	34.7	15.2	27.8	2.8	6.0	29.2	30.9	43.5	14.3	12.6
5.	232.73	BB	31.0	30.8	16.7	27.7	3.2	6.0	29.2	29.0	46.0	16.8	17.0
6.	498.55	BB	33.0	32.2	19.1	27.9	5.1	6.1	35.4	34.6	46.0	10.6	11.4
7.	517.50	BB	42.3	39.4	19.2	27.9	5.3	6.1	45.0	42.1	46.0	1.0	3.9

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

Except for the above table : adequate margin data below the limits.
ANT. TYPE: 30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF SUPURIOUS EMISSIONS(1GHz to 26GHz)

A-PEX INTERNATIONAL CO., LTD.
YOKOWA NO.3 OPEN SITE

Company : Matsushita Electric Industrial Co.,Ltd.
Equipment : Notebook Personal Computer
Model : CF-72
Sample No. :
FCC ID : ACJ9TGCF-721
Power : AC 120V/60Hz
Mode : Transmitting (ch1: 2412MHz / 11Mbps)

Report No. : 22KE0005-YW
Regulation : FCC Part15C 247 / 205 & 209
Test Distance : 3m and 1m
Date : 2002/06/17
Temperature : 22deg.C
Humidity : 67%

T. Yamashita

ENGINEER : Tomoyuki Yamashita

AV DETECT(S/A : RBW 1MHz and VBW 10Hz)

No.	FREQ [GHz]	S/A READING		ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	H-Pass Filter [dB]	ATTN [dB]	Duty Factor [dB]	D-fac [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 + (High Pass or ATTEN)															
1	1.50379	39.2	37.6	31.3	38.0	2.9	0.0	10.0	-	0.0	45.4	43.8	54.0	8.6	10.2
2	2.03847	38.6	41.0	31.3	38.0	2.9	0.0	10.0	-	0.0	44.8	47.2	54.0	9.2	6.8
3	2.39000	38.4	42.2	31.3	38.0	2.9	0.0	10.0	-	0.0	44.6	48.4	54.0	9.4	5.6
4	4.82580	35.1	35.1	35.4	38.0	4.4	1.1	0.0	-	0.0	38.0	38.0	54.0	16.0	16.0
5	7.23920	31.5	30.9	39.1	38.2	5.5	0.5	0.0	-	0.0	38.4	37.8	54.0	15.7	16.2
6	9.65220	32.4	32.4	39.2	38.5	6.5	0.5	0.0	-	0.0	40.1	40.1	54.0	13.9	13.9
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + High Pass - Dfac															
7	12.06000	31.7	32.7	43.5	38.5	7.5	0.5	0.0	-	9.5	35.2	36.1	54.0	18.8	17.9
8	14.47200	33.4	31.5	42.2	38.5	8.1	0.5	0.0	-	9.5	36.1	34.3	54.0	17.9	19.7
9	16.88400	33.1	33.0	39.0	38.5	8.5	0.6	0.0	-	9.5	33.2	33.1	54.0	20.8	20.9
10	19.29600	32.5	33.0	38.1	38.5	10.6	1.1	0.0	-	9.5	34.3	34.8	54.0	19.7	19.2
11	21.70800	33.9	34.3	39.2	38.5	11.0	0.5	0.0	-	9.5	36.6	37.0	54.0	17.4	17.0
12	24.12000	31.6	31.7	39.2	38.5	11.6	0.7	0.0	-	9.5	35.1	35.2	54.0	18.9	18.8

PK DETECT(S/A : RBW 1MHz and VBW 1MHz)

No.	FREQ [GHz]	S/A READING		ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	H-Pass Filter [dB]	ATTN [dB]	Duty Factor [dB]	D-fac [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 + (High Pass or ATTEN)															
1	1.50379	50.4	48.8	31.3	38.0	2.9	0.0	10.0	-	0.0	56.6	55.0	74.0	17.4	19.0
2	2.03853	48.2	49.1	31.3	38.0	2.9	0.0	10.0	-	0.0	54.4	55.3	74.0	19.6	18.7
3	2.39000	48.8	51.7	31.3	38.0	2.9	0.0	10.0	-	0.0	55.0	57.9	74.0	19.0	16.1
4	4.82580	47.0	48.0	35.4	38.0	4.4	1.1	0.0	-	0.0	49.9	50.9	74.0	24.1	23.1
5	7.23920	41.3	40.9	39.1	38.2	5.5	0.5	0.0	-	0.0	48.2	47.8	74.0	25.8	26.2
6	9.65220	43.0	44.0	39.2	38.5	6.5	0.5	0.0	-	0.0	50.7	51.7	74.0	23.4	22.3
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + High Pass - Dfac															
7	12.06000	43.0	42.8	43.5	38.5	7.5	0.5	0.0	-	9.5	46.4	46.2	74.0	27.6	27.8
8	14.47200	41.6	41.0	42.2	38.5	8.1	0.5	0.0	-	9.5	44.3	43.8	74.0	29.7	30.2
9	16.88400	44.1	44.9	39.0	38.5	8.5	0.6	0.0	-	9.5	44.2	45.0	74.0	29.8	29.0
10	19.29600	44.6	45.9	38.1	38.5	10.6	1.1	0.0	-	9.5	46.3	47.7	74.0	27.7	26.3
11	21.70800	45.0	46.5	39.2	38.5	11.0	0.5	0.0	-	9.5	47.7	49.1	74.0	26.3	24.9
12	24.12000	47.9	45.8	39.2	38.5	11.6	0.7	0.0	-	9.5	51.4	49.3	74.0	22.6	24.7

REMARKS

*Test Distance 1.0m : Distance Factor(D-fac) = 20log(3/1) = 9.5dB

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

DATA OF SUPURIOUS EMISSIONS(1GHz to 26GHz)

A-PEX INTERNATIONAL CO., LTD.
YOKOWA NO.3 OPEN SITE

Company : Matsushita Electric Industrial Co.,Ltd.
Equipment : Notebook Personal Computer
Model : CF-72
Sample No. :
FCC ID : ACJ9TGCF-721
Power : AC 120V/60Hz
Mode : Transmitting (ch6: 2437MHz / 11Mbps)

Report No. : 22KE0005-YW
Regulation : FCC Part15C 247 / 205 & 209
Test Distance : 3m and 1m
Date : 2002/06/17
Temperature : 22deg.C
Humidity : 67%

T. Yamashita

ENGINEER : Tomoyuki Yamashita

AV DETECT(S/A : RBW 1MHz and VBW 10Hz)

No.	FREQ [GHz]	S/A READING		ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	H-Pass Filter [dB]	ATTN [dB]	Duty Factor [dB]	D-fac [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 + (High Pass or ATTN)															
1	1.54019	34.8	37.3	35.6	37.9	4.5	1.1	0.0	-	0.0	38.1	40.6	54.0	16.0	13.4
2	2.06350	42.8	43.7	35.6	37.9	4.5	1.1	0.0	-	0.0	46.1	47.0	54.0	7.9	7.0
3	4.87400	36.5	38.2	35.6	37.9	4.5	1.1	0.0	-	0.0	39.8	41.5	54.0	14.2	12.5
4	7.31100	31.5	31.7	39.2	38.2	5.5	0.5	0.0	-	0.0	38.5	38.7	54.0	15.5	15.3
5	9.74800	32.5	32.6	39.2	38.5	6.6	0.5	0.0	-	0.0	40.3	40.4	54.0	13.7	13.6
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + High Pass - Dfac															
6	12.18500	32.3	32.7	43.4	38.5	7.5	0.5	0.0	-	9.5	35.6	36.0	54.0	18.4	18.0
7	14.62200	31.4	31.6	42.6	38.5	8.2	0.5	0.0	-	9.5	34.6	34.9	54.0	19.4	19.1
8	17.05900	31.8	32.0	39.1	38.5	8.5	0.6	0.0	-	9.5	32.0	32.2	54.0	22.0	21.8
9	19.49600	32.5	32.4	37.9	38.5	10.5	1.3	0.0	-	9.5	34.1	34.1	54.0	19.9	19.9
10	21.93300	34.9	35.0	39.4	38.5	11.4	0.3	0.0	-	9.5	38.0	38.0	54.0	16.0	16.0
11	24.37000	34.9	35.1	39.1	38.5	11.9	0.8	0.0	-	9.5	38.7	38.8	54.0	15.3	15.2

PK DETECT(S/A : RBW 1MHz and VBW 1MHz)

No.	FREQ [GHz]	S/A READING		ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	H-Pass Filter [dB]	ATTN [dB]	Duty Factor [dB]	D-fac [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 + (High Pass or ATTN)															
1	1.54019	45.3	46.7	35.6	37.9	4.5	1.1	0.0	-	0.0	48.6	50.0	74.0	25.4	24.0
2	2.06350	48.4	50.0	35.6	37.9	4.5	1.1	0.0	-	0.0	51.7	53.3	74.0	22.3	20.7
3	4.87400	49.7	52.5	35.6	37.9	4.5	1.1	0.0	-	0.0	53.0	55.8	74.0	21.0	18.2
4	7.31100	44.1	44.8	39.2	38.2	5.5	0.5	0.0	-	0.0	51.1	51.8	74.0	22.9	22.2
5	9.74800	44.8	45.1	39.2	38.5	6.6	0.5	0.0	-	0.0	52.6	52.9	74.0	21.4	21.1
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + High Pass - Dfac															
6	12.18500	44.6	46.0	43.4	38.5	7.5	0.5	0.0	-	9.5	48.0	49.4	74.0	26.0	24.6
7	14.62200	44.1	43.8	42.6	38.5	8.2	0.5	0.0	-	9.5	47.3	47.1	74.0	26.7	26.9
8	17.05900	44.4	44.7	39.1	38.5	8.5	0.6	0.0	-	9.5	44.5	44.8	74.0	29.5	29.2
9	19.49600	45.3	45.5	37.9	38.5	10.5	1.3	0.0	-	9.5	47.0	47.2	74.0	27.0	26.8
10	21.93300	47.5	47.3	39.4	38.5	11.4	0.3	0.0	-	9.5	50.5	50.4	74.0	23.5	23.6
11	24.37000	47.4	47.3	39.1	38.5	11.9	0.8	0.0	-	9.5	51.1	51.1	74.0	22.9	22.9

REMARKS

*Test Distance 1.0m : Distance Factor(D-fac) = $20\log(3/1) = 9.5\text{dB}$

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

DATA OF SUPURIOUS EMISSIONS(1GHz to 26GHz)

A-PEX INTERNATIONAL CO., LTD.
YOKOWA NO.3 OPEN SITE

Company : Matsushita Electric Industrial Co.,Ltd.
Equipment : Notebook Personal Computer
Model : CF-72
Sample No. :
FCC ID : ACJ9TGCF-721
Power : DC 3.3V
Mode : Transmitting (ch11: 2462MHz / 11Mbps)

Report No. : 22KE0005-YW
Regulation : FCC Part15C 247 / 205 & 209
Test Distance : 3m and 1m
Date : 2002/06/17
Temperature : 22deg.C
Humidity : 67%

T. Yamashita

ENGINEER : Tomoyuki Yamashita

AV DETECT(S/A : RBW 1MHz and VBW 10Hz)

No.	FREQ [GHz]	S/A READING		ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	H-Pass Filter [dB]	ATTN [dB]	Duty Factor [dB]	D-fac [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 + (High Pass or ATTEN)															
1	1.57913	35.3	36.7	31.6	38.0	3.0	0.0	10.0	-	0.0	41.9	43.3	54.0	12.1	10.7
2	2.08850	42.2	44.1	31.6	38.0	3.0	0.0	10.0	-	0.0	48.8	50.7	54.0	5.2	3.3
3	2.48350	38.2	41.8	31.6	38.0	3.0	0.0	10.0	-	0.0	44.8	48.4	54.0	9.2	5.6
4	4.92360	37.7	37.7	35.8	37.9	4.5	1.1	0.0	-	0.0	41.2	41.2	54.0	12.8	12.8
5	7.38665	31.5	31.8	39.2	38.3	5.6	0.5	0.0	-	0.0	38.5	38.8	54.0	15.5	15.2
6	9.84800	33.0	33.2	39.2	38.5	6.7	0.5	0.0	-	0.0	40.9	41.1	54.0	13.1	12.9
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + High Pass - Dfac															
7	12.31000	32.9	33.1	43.3	38.5	7.5	0.5	0.0	-	9.5	36.2	36.3	54.0	17.8	17.7
8	14.77200	31.5	31.7	42.9	38.5	8.3	0.5	0.0	-	9.5	35.2	35.4	54.0	18.8	18.6
9	17.23400	32.7	32.8	38.7	38.5	8.6	0.6	0.0	-	9.5	32.6	32.6	54.0	21.4	21.4
10	19.69600	34.2	33.4	38.0	38.5	10.3	1.5	0.0	-	9.5	36.0	35.2	54.0	18.0	18.8
11	22.15800	33.9	33.6	39.4	38.5	11.3	0.3	0.0	-	9.5	36.9	36.5	54.0	17.1	17.5
12	24.62000	33.8	33.6	39.1	38.6	12.3	0.9	0.0	-	9.5	38.0	37.7	54.0	16.0	16.3

PK DETECT(S/A : RBW 1MHz and VBW 1MHz)

No.	FREQ [GHz]	S/A READING		ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	H-Pass Filter [dB]	ATTN [dB]	Duty Factor [dB]	D-fac [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 + (High Pass or ATTEN)															
1	1.57849	45.5	46.9	31.6	38.0	3.0	0.0	10.0	-	0.0	52.1	53.5	74.0	21.9	20.5
2	2.08850	48.4	49.6	31.6	38.0	3.0	0.0	10.0	-	0.0	55.0	56.2	74.0	19.0	17.8
3	2.48350	50.2	52.2	31.6	38.0	3.0	0.0	10.0	-	0.0	56.8	58.8	74.0	17.2	15.2
4	4.92360	50.2	50.1	35.8	37.9	4.5	1.1	0.0	-	0.0	53.7	53.6	74.0	20.3	20.4
5	7.38665	41.1	42.0	39.2	38.3	5.6	0.5	0.0	-	0.0	48.1	49.0	74.0	25.9	25.0
6	9.84800	44.1	44.8	39.2	38.5	6.7	0.5	0.0	-	0.0	52.0	52.7	74.0	22.0	21.3
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + High Pass - Dfac															
7	12.31000	44.6	43.1	43.3	38.5	7.5	0.5	0.0	-	9.5	47.8	46.4	74.0	26.2	27.6
8	14.77200	42.8	42.8	42.9	38.5	8.3	0.5	0.0	-	9.5	46.5	46.4	74.0	27.5	27.6
9	17.23400	43.5	42.5	38.7	38.5	8.6	0.6	0.0	-	9.5	43.4	42.4	74.0	30.6	31.6
10	19.69600	46.2	46.0	38.0	38.5	10.3	1.5	0.0	-	9.5	48.0	47.8	74.0	26.0	26.2
11	22.15800	44.6	45.4	39.4	38.5	11.3	0.3	0.0	-	9.5	47.6	48.4	74.0	26.4	25.6
12	24.62000	47.0	46.4	39.1	38.6	12.3	0.9	0.0	-	9.5	51.2	50.6	74.0	22.8	23.4

REMARKS

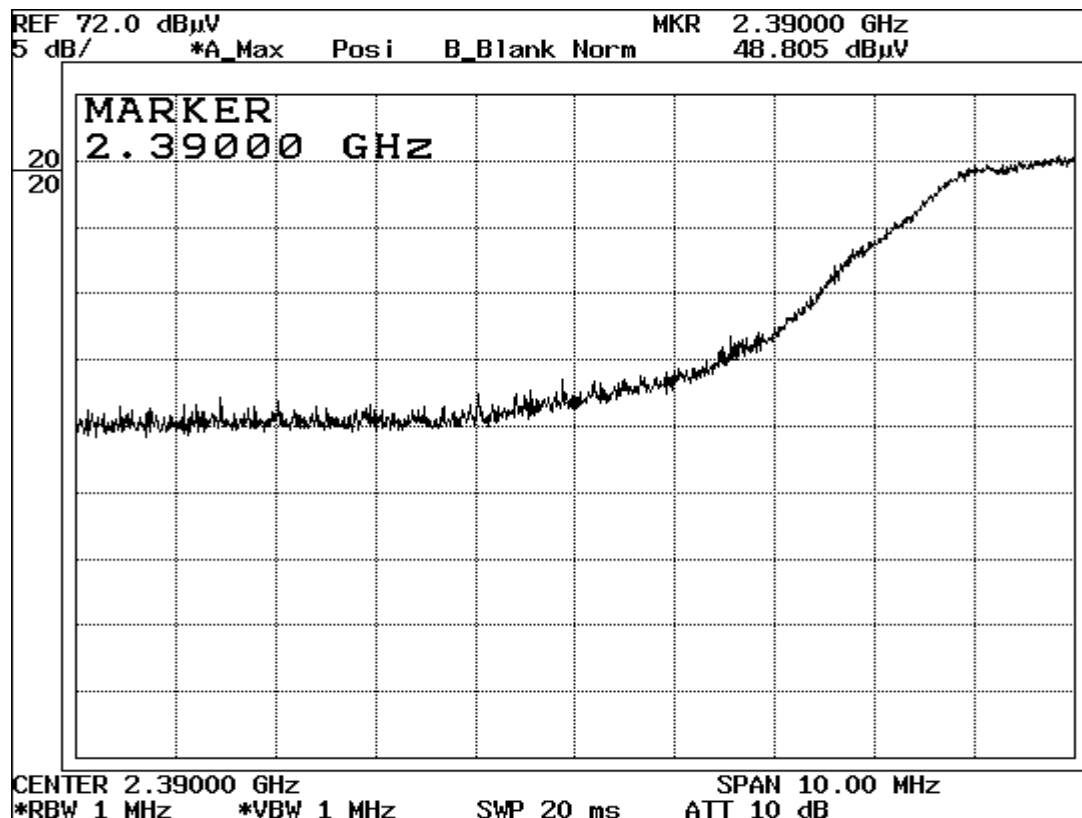
*Test Distance 1.0m : Distance Factor(D-fac) = 20log(3/1) = 9.5dB

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

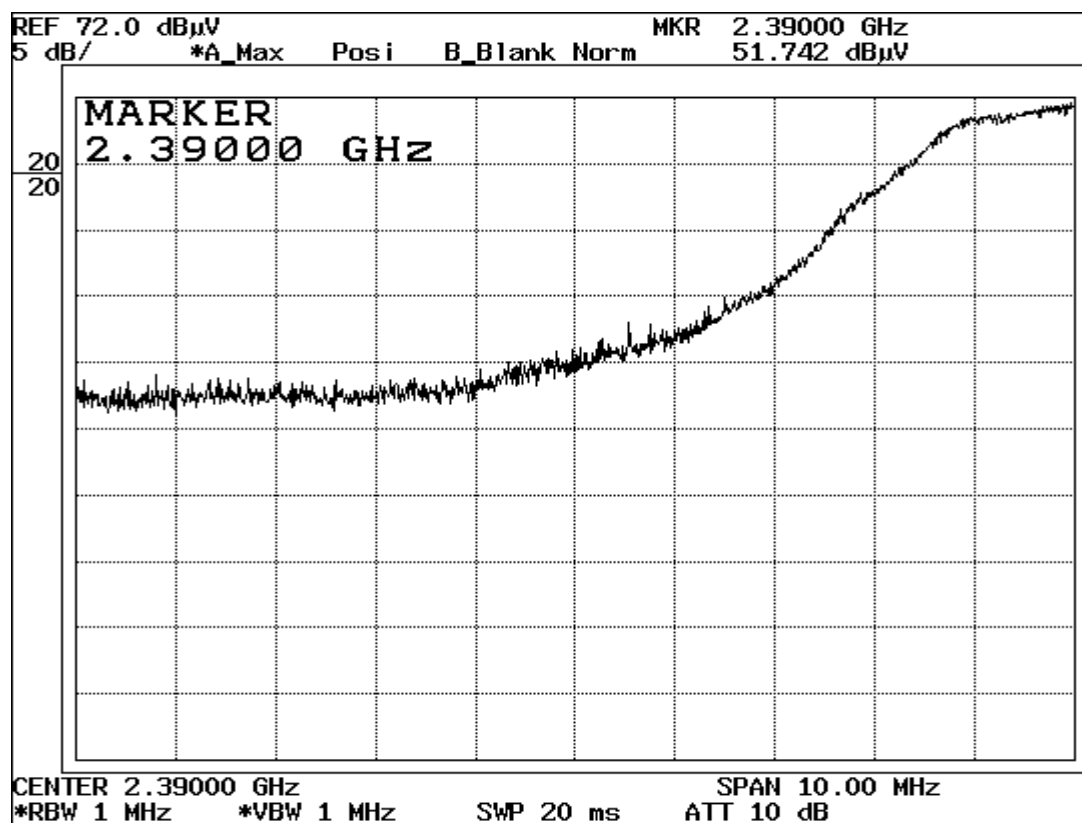
Page: A14

2.39GHz (Ch 1)

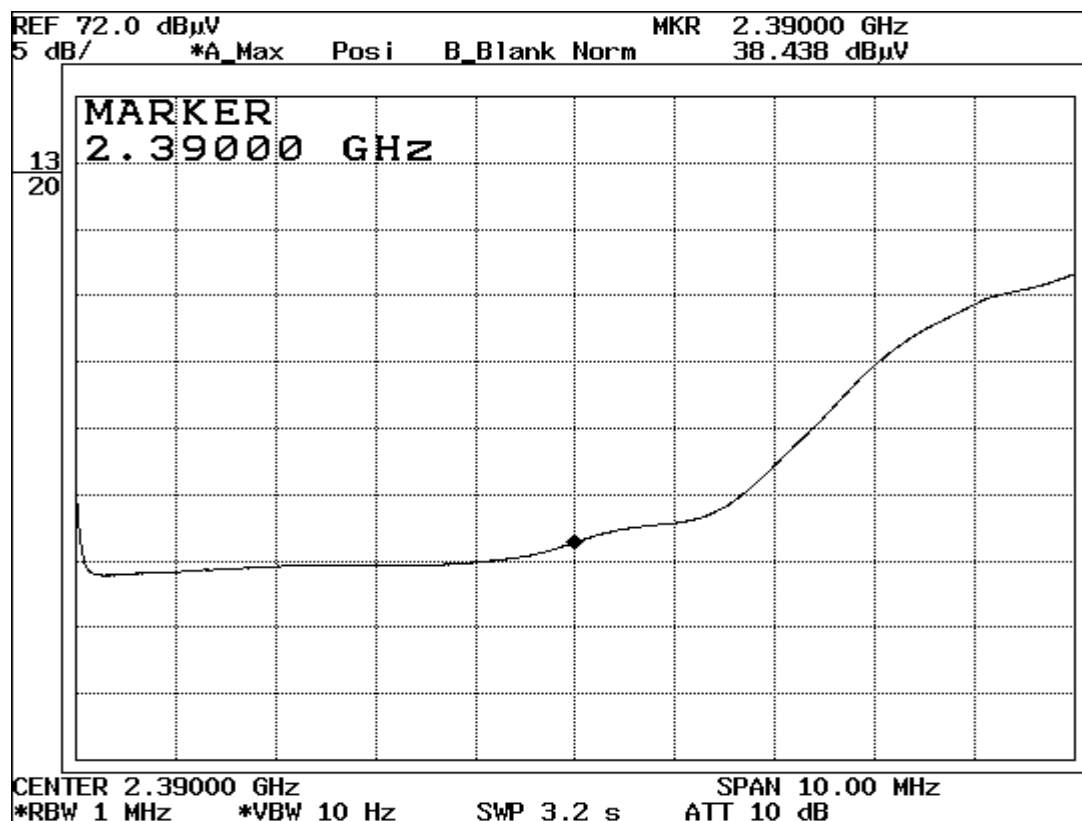
1. Horizontal/PK



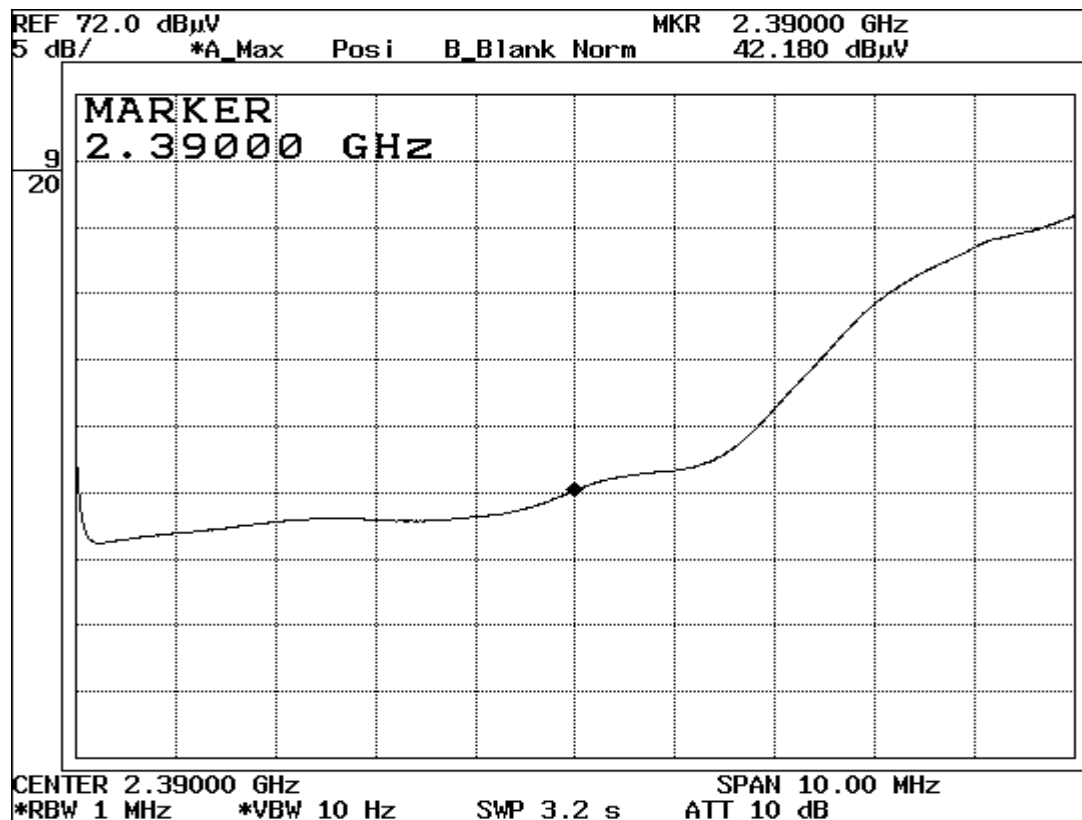
2. Vertical/PK



3. Horizontal/ AV

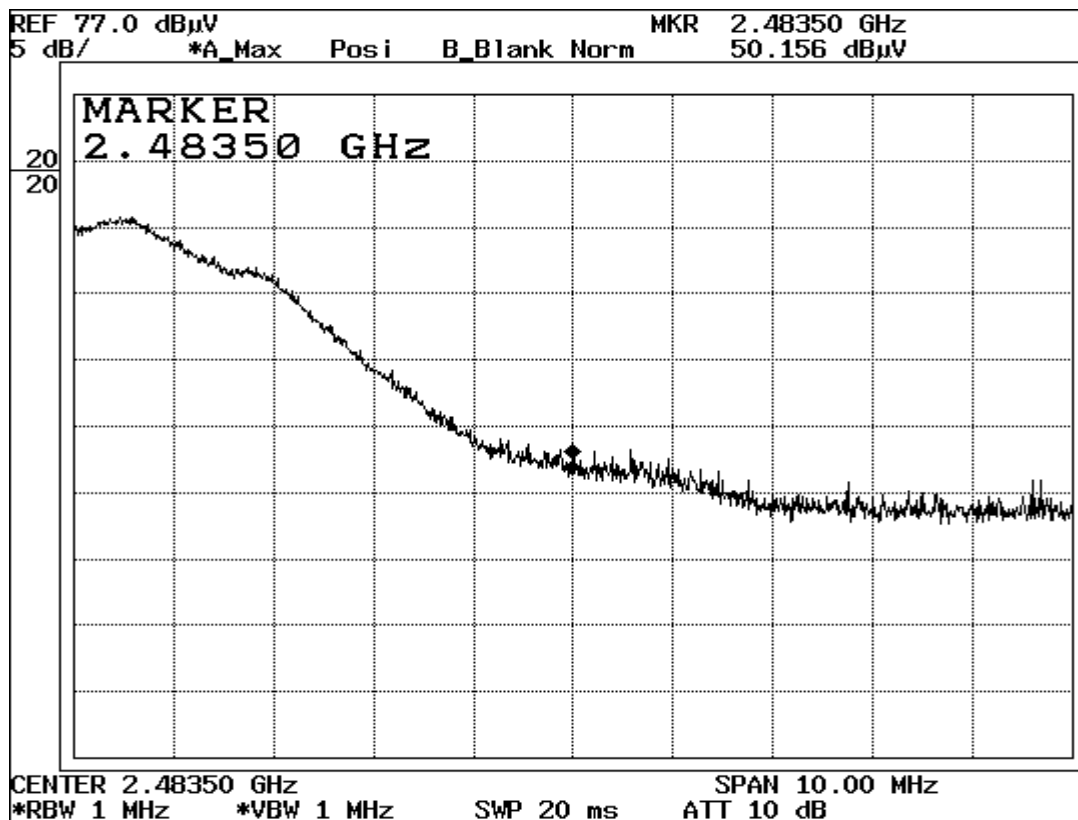


4. Vertical/ AV

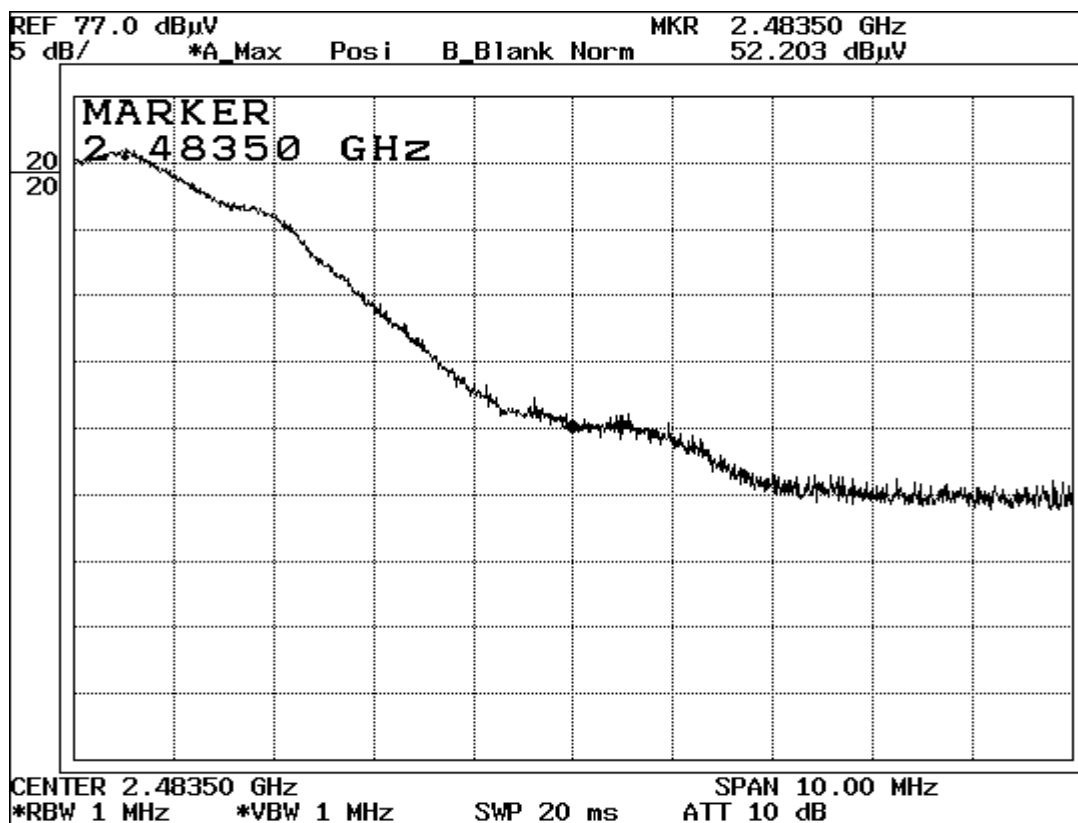


2.4835GHz (Ch 11)

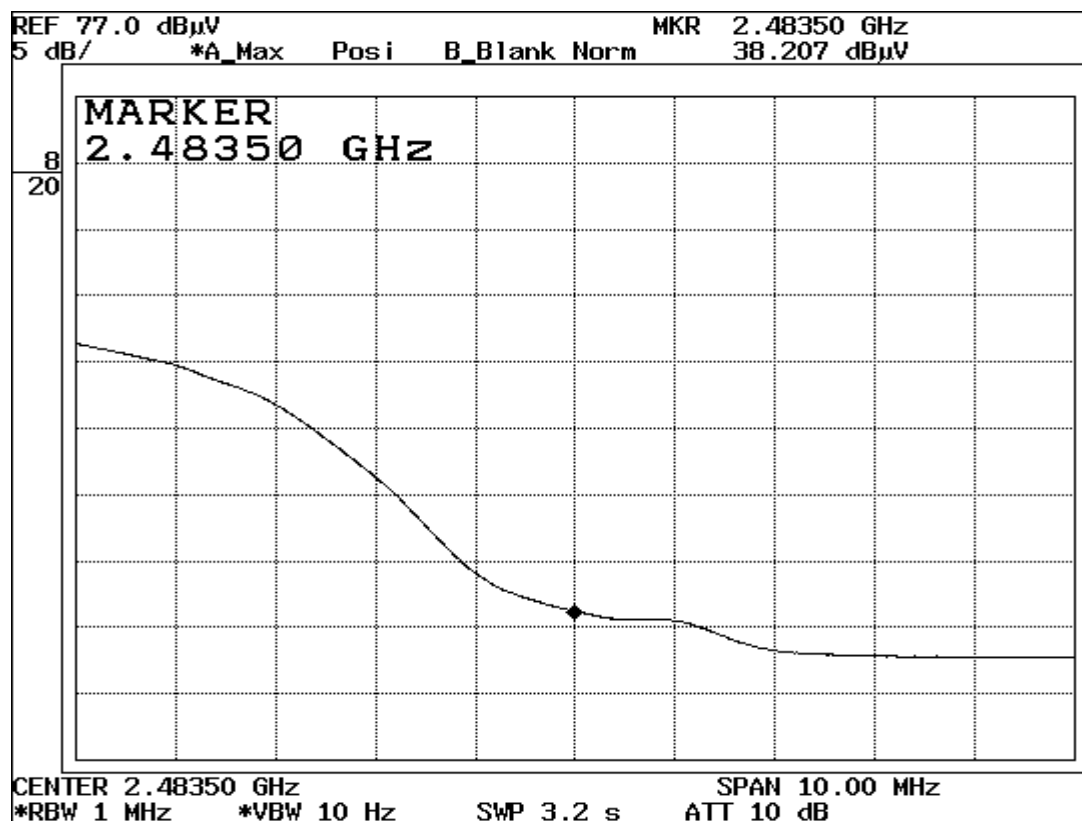
1. Horizontal/PK



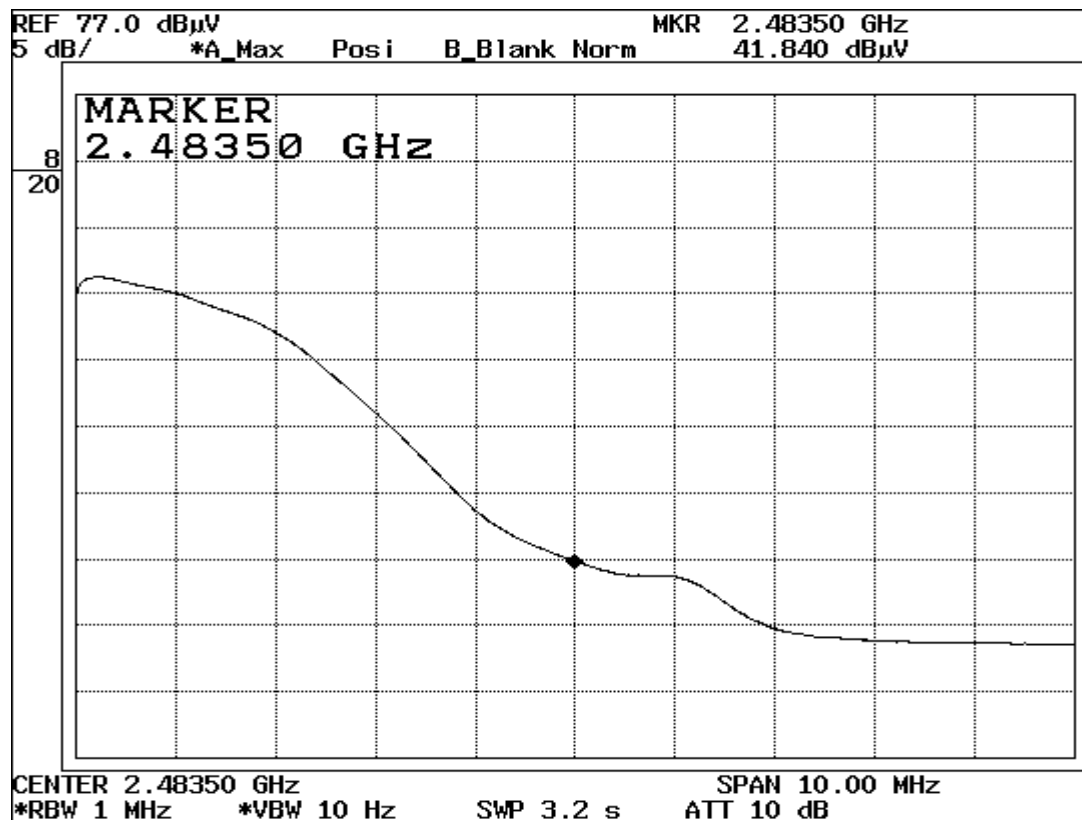
2. Vertical/PK



3. Horizontal/ AV

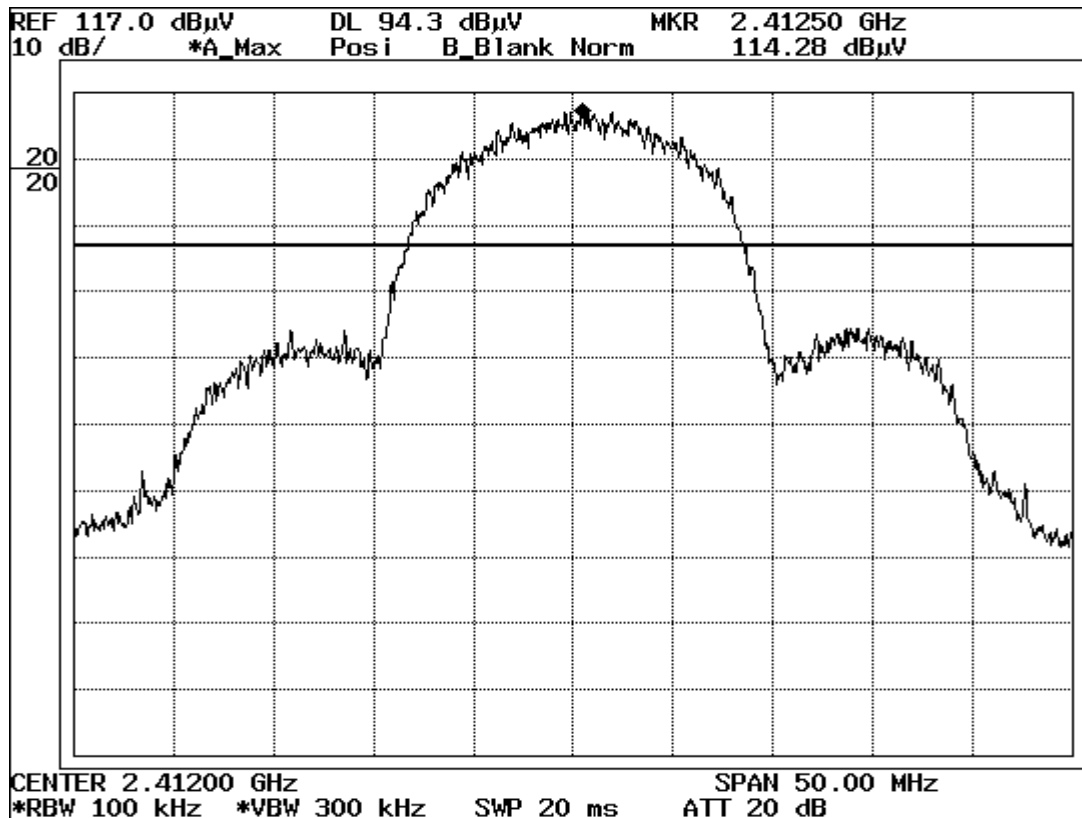


4. Vertical/ AV

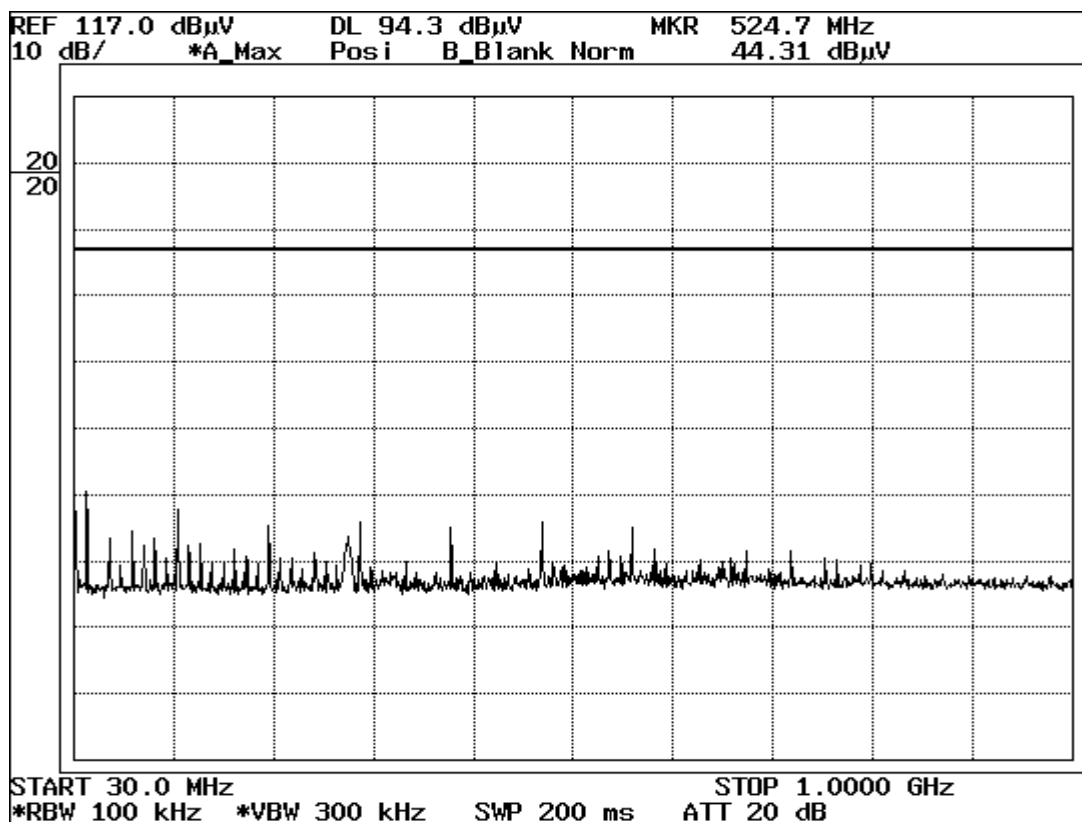


Ch 1: 2412MHz

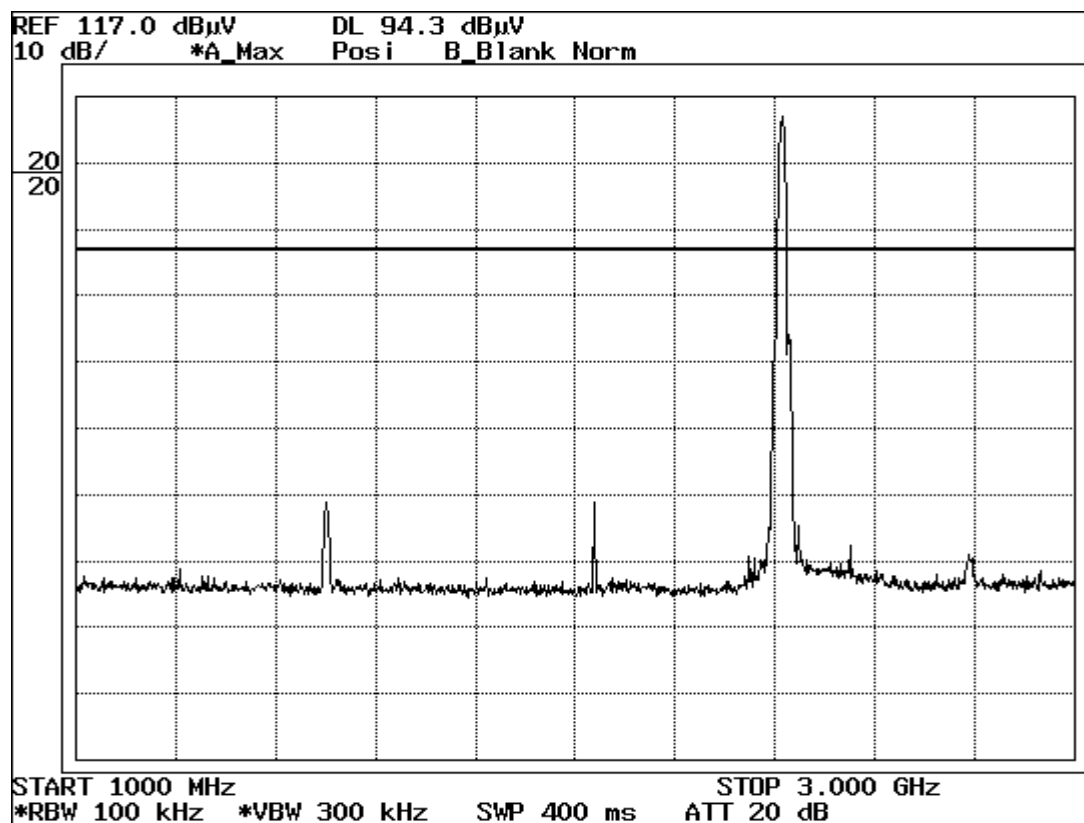
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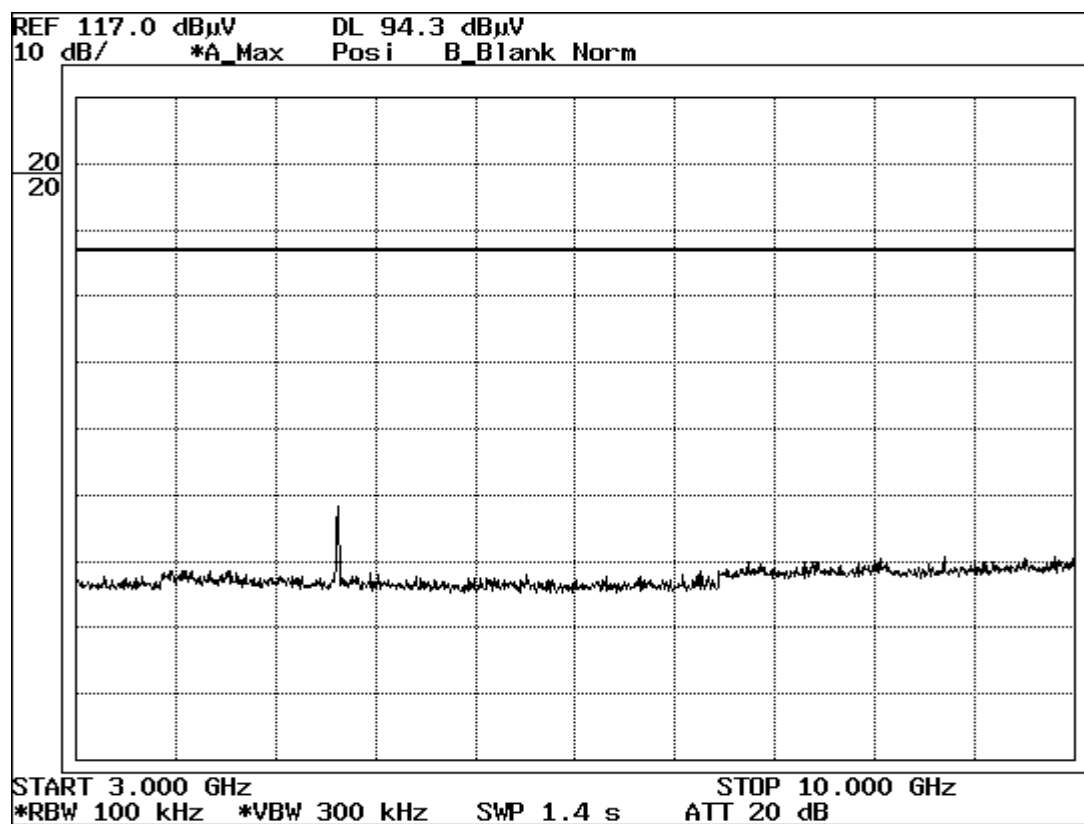
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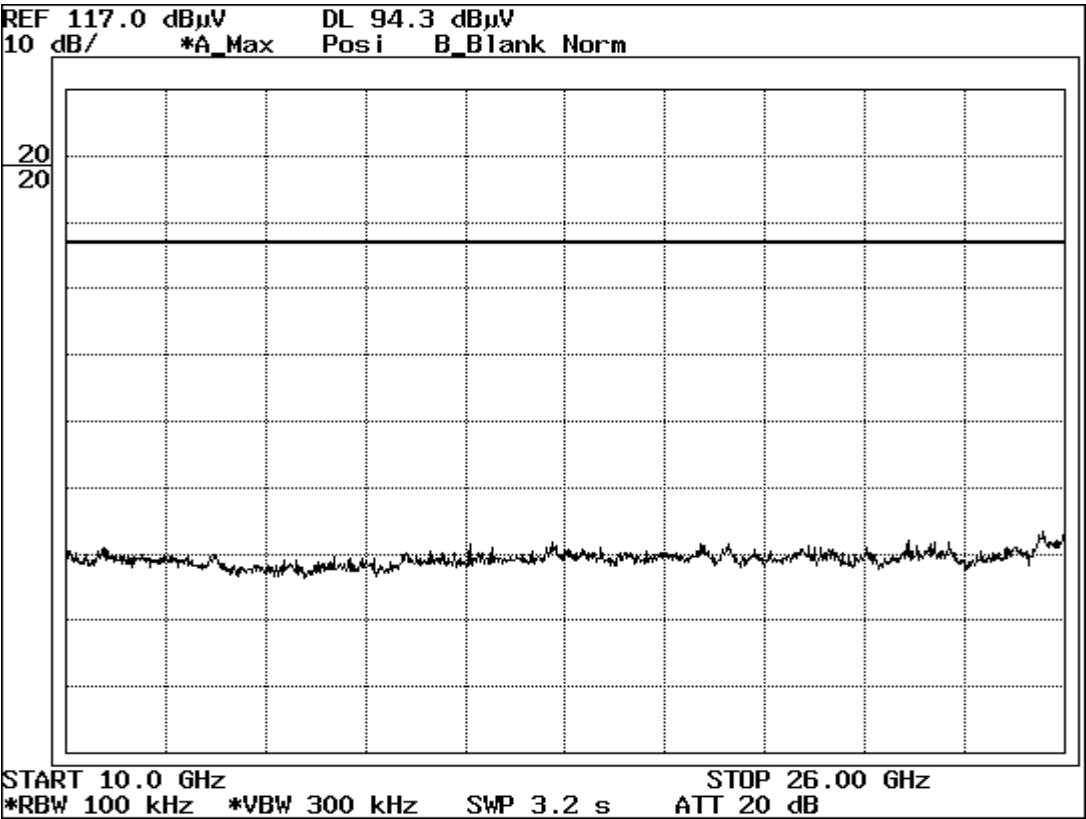
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4.

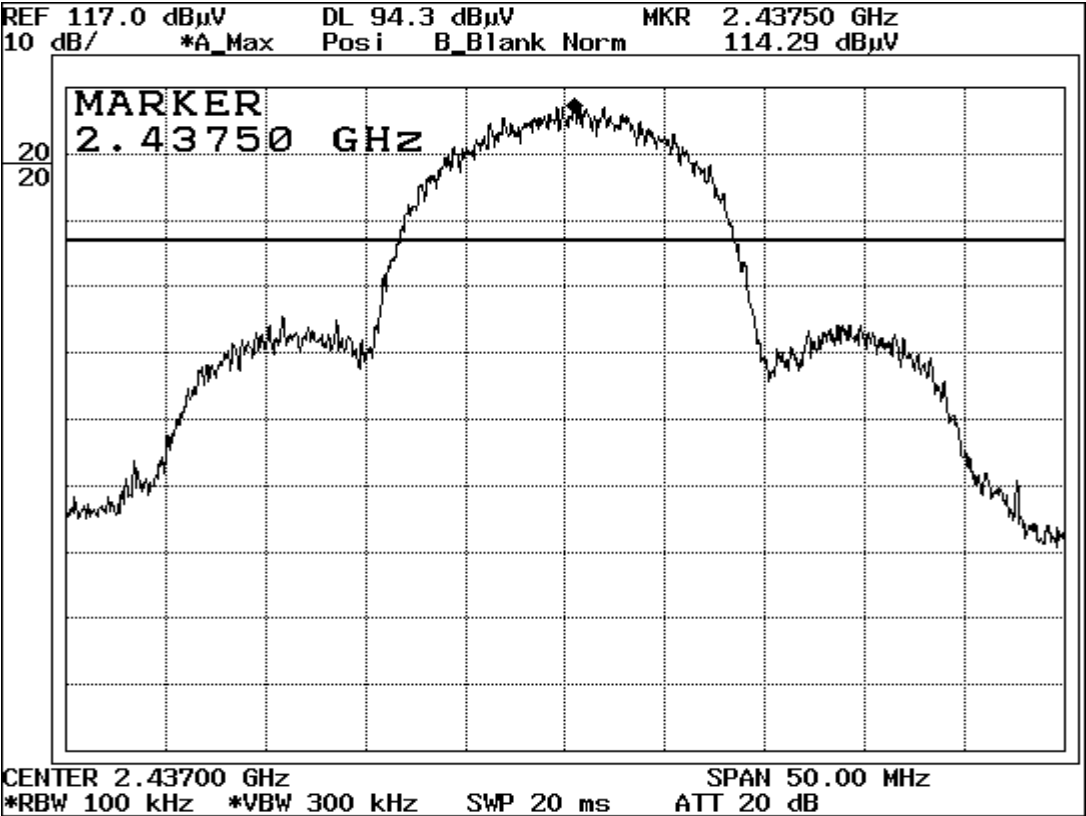


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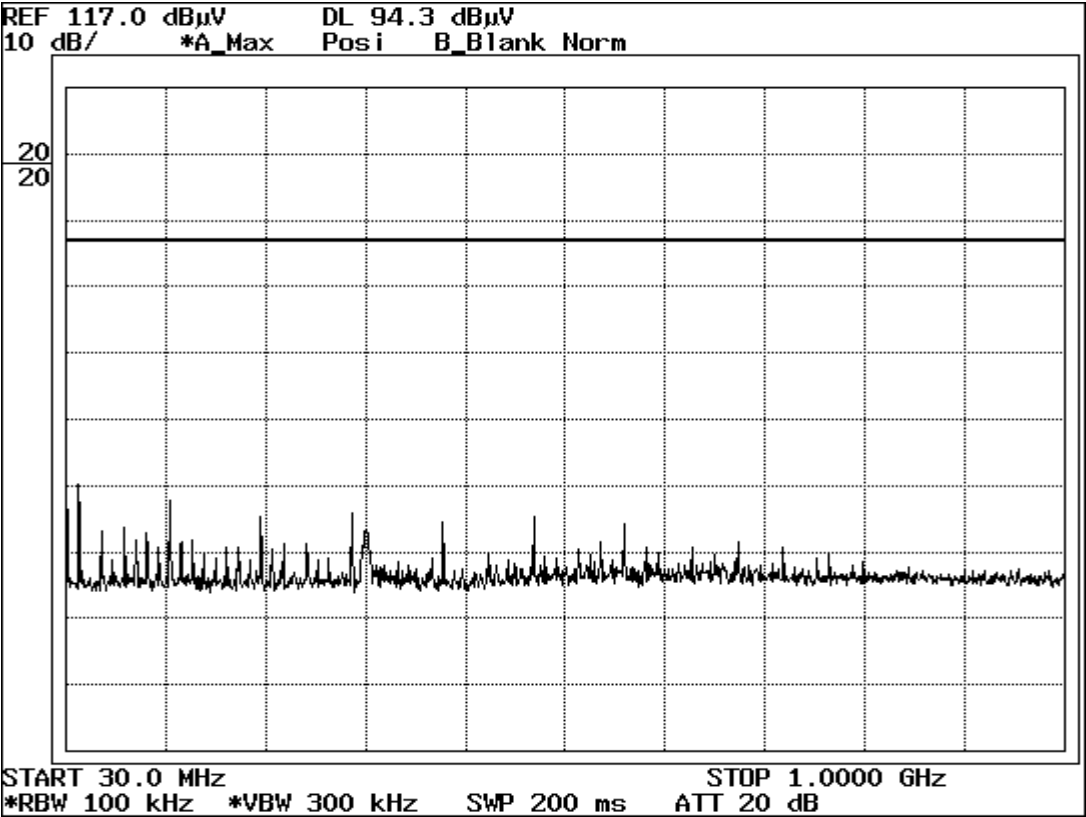


Ch 6: 2437MHz

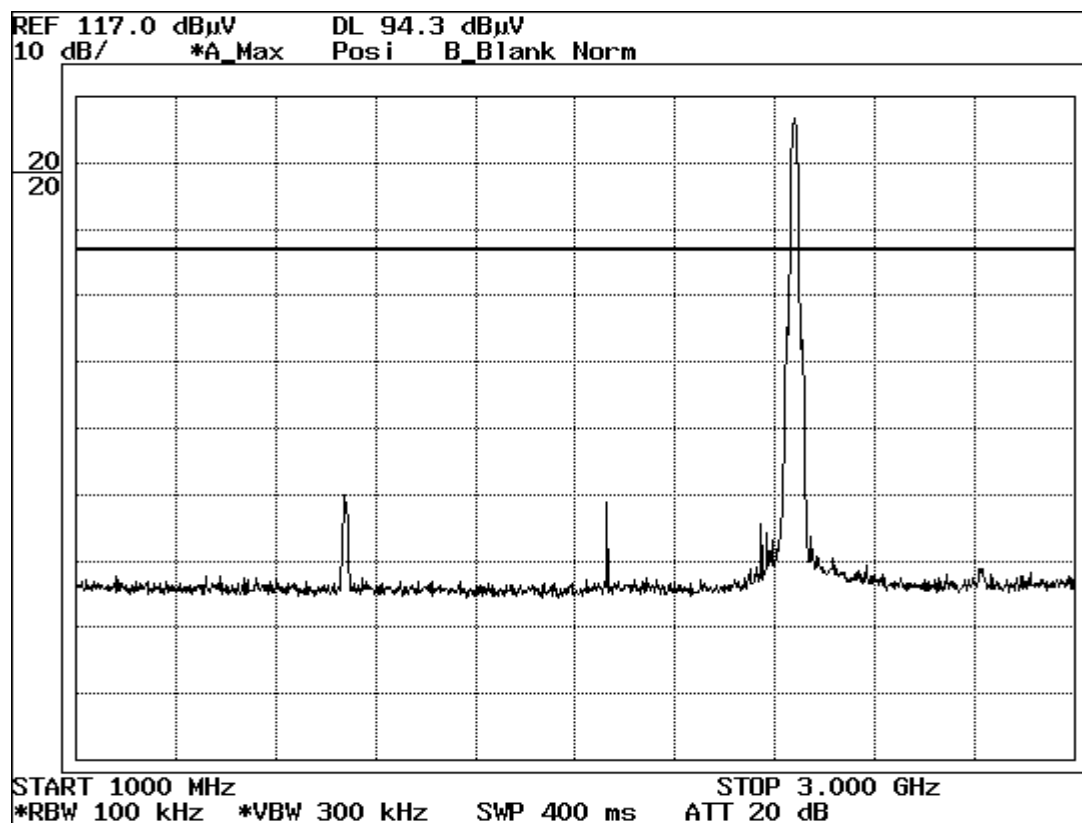
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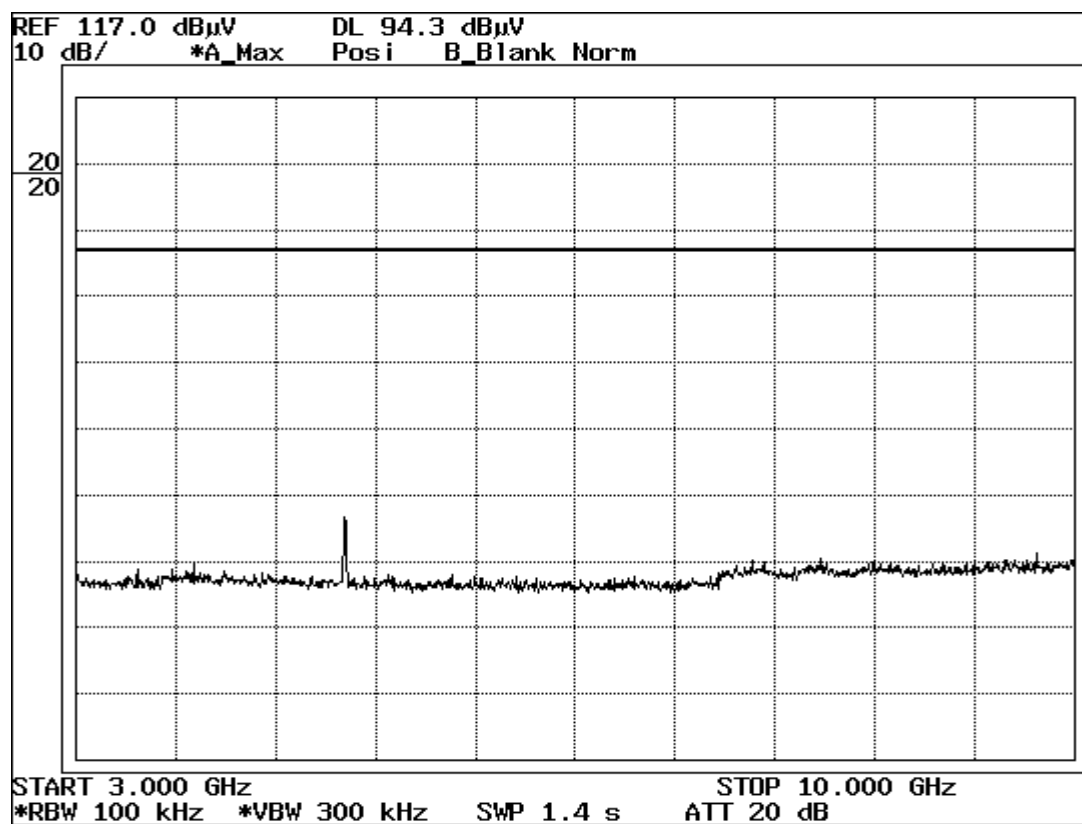
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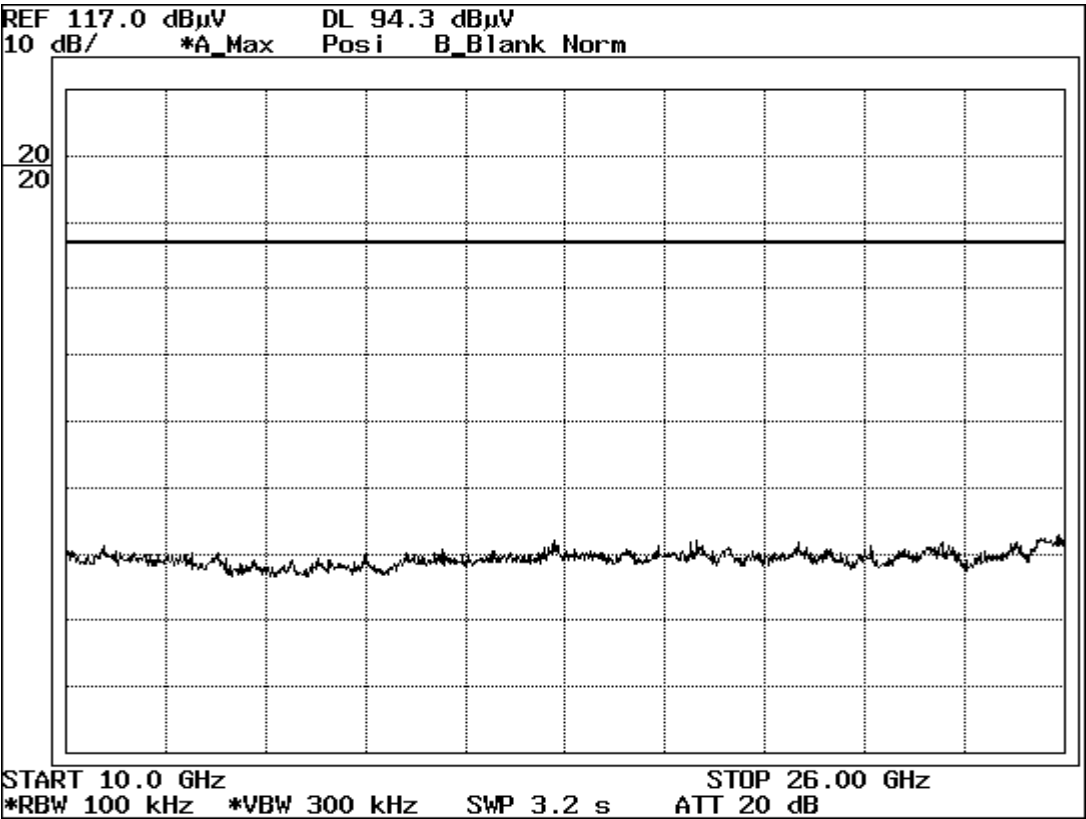
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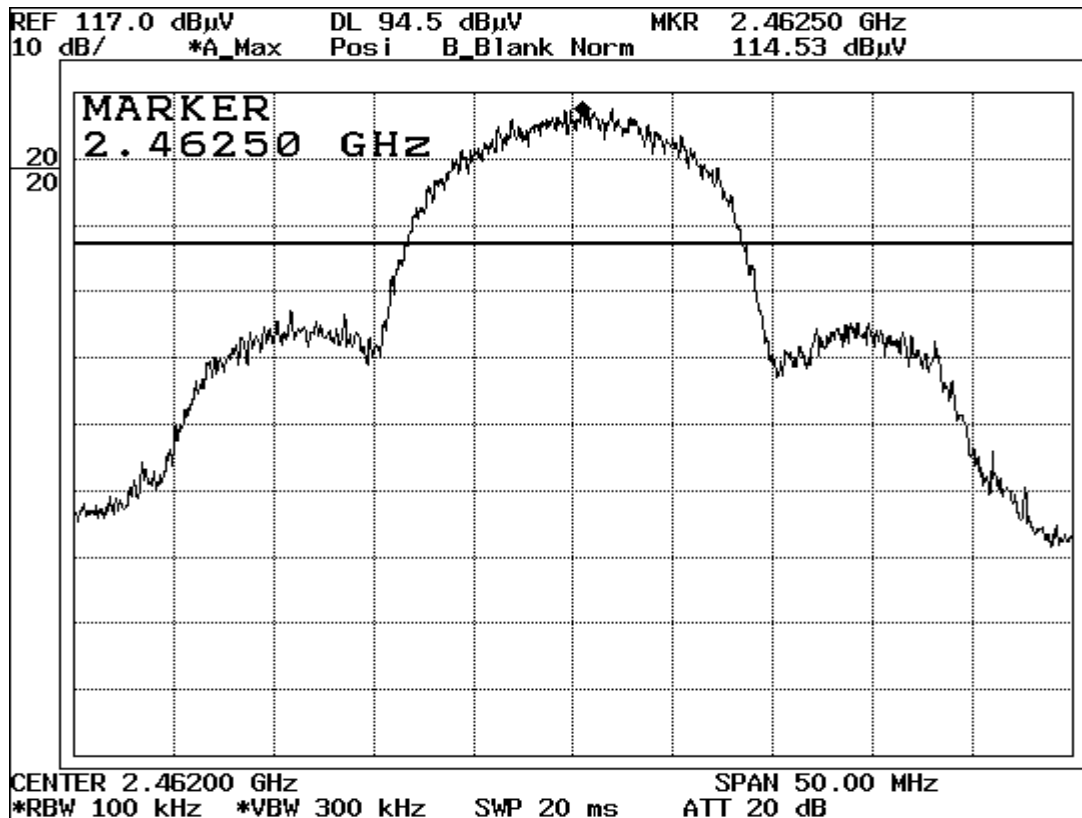


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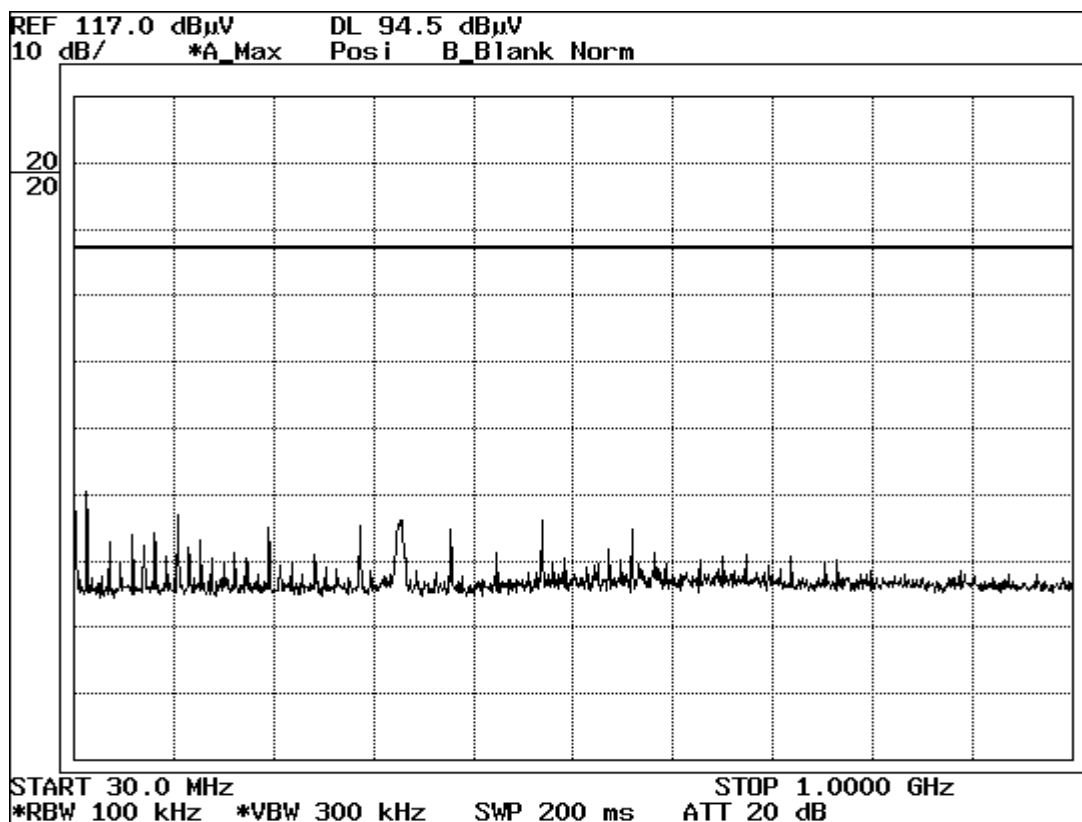


Ch 11: 2462MHz

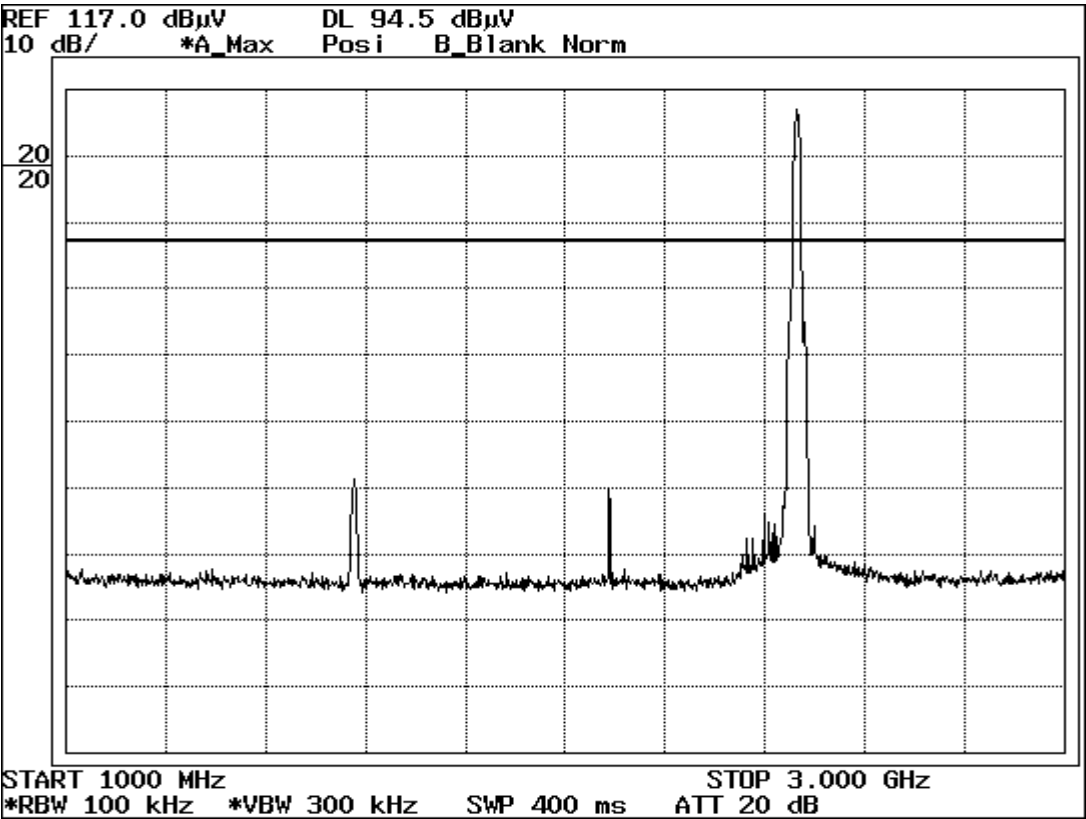
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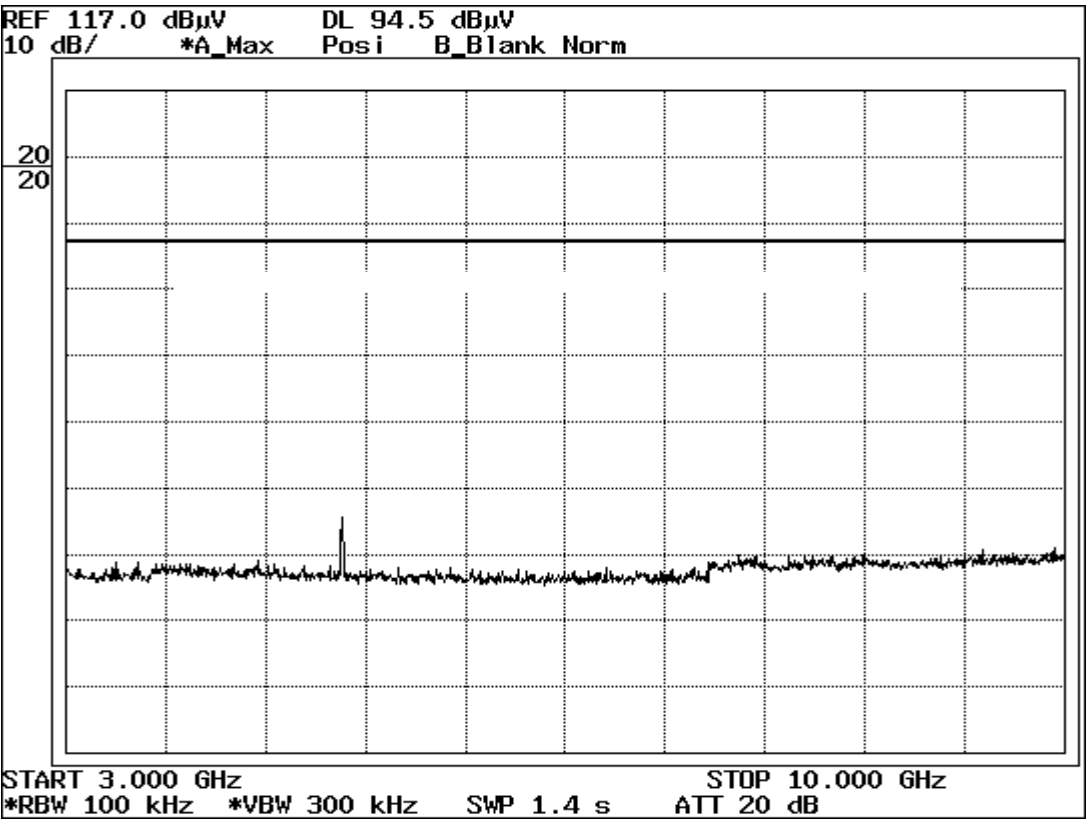
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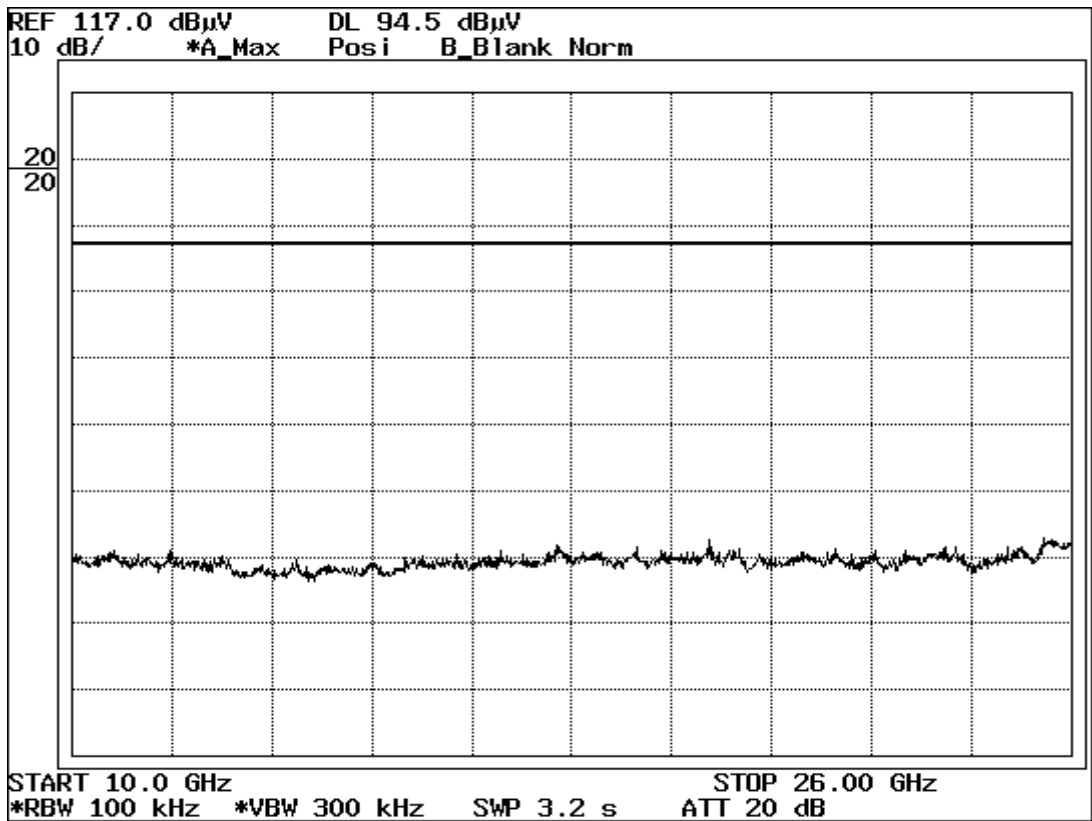
3.



4.



5.



Power Density(Conducted)

A-PEX INTERNATIONAL CO., LTD.
YOKOWA NO.3 OPEN SITE

Company : Matsushita Electric Industrial Co.,Ltd.
Equipment : Notebook Personal Computer
Model : CF-72
Sample No. :
FCC ID : ACJ9TGCF-721
Power : AC 120V/60Hz
Mode : Transmitting

Report No. : 22KE0005-YW
Regulation : FCC Part15C 247(d)
Date : 2002/06/19
Temperature : 26deg.C
Humidity : 39%

T. Yamashita

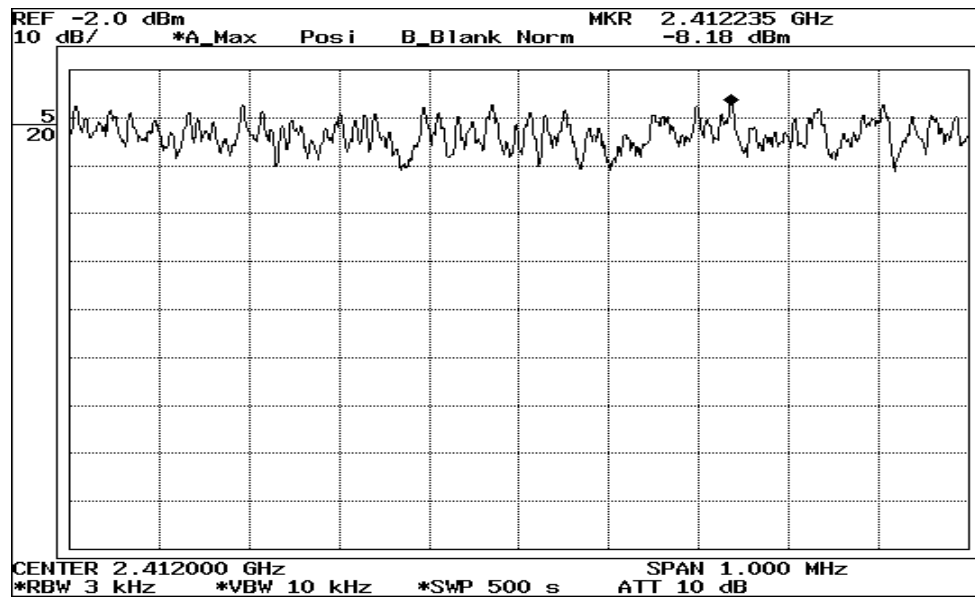
ENGINEER : Tomoyuki Yamashita

CH	FREQ [GHz]	S/A Reading [dBm]	Limit [dBm]	Margin [dB]
Low	2.4132	-8.2	8.0	16.2
Mid	2.4350	-8.3	8.0	16.3
High	2.4620	-8.3	8.0	16.3

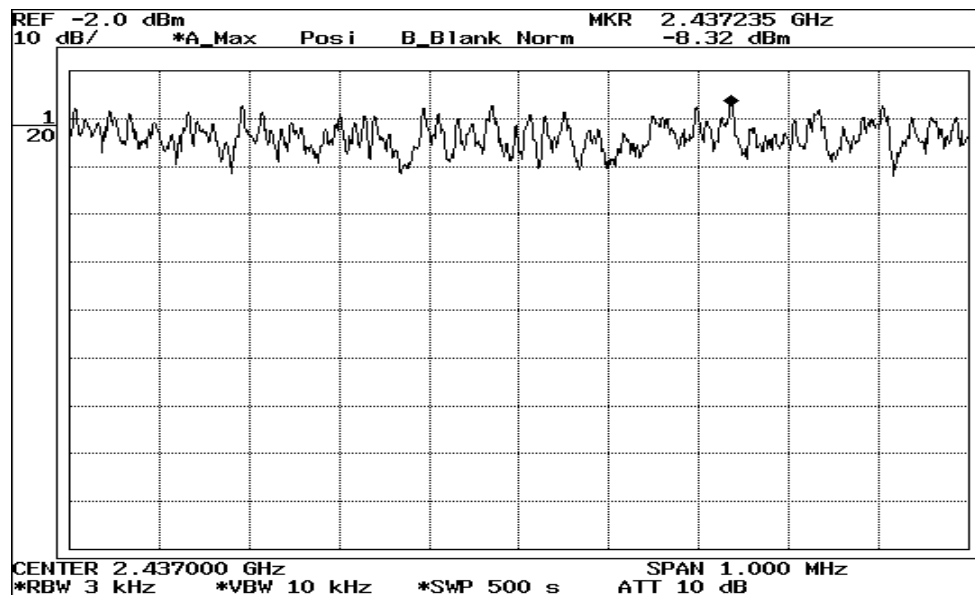
Sample Calculation :

RESULT=Reading(-107:Converted to dBm)

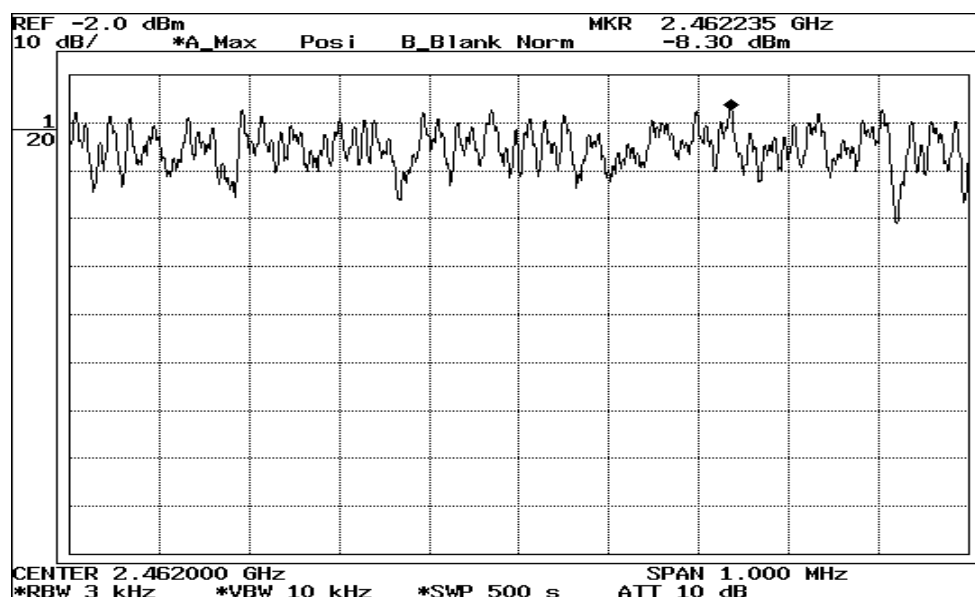
1. ch 1: 2412MHz



2. ch 6: 2437MHz



3. ch 11: 2462MHz



Test Report No : 22KE0005-YW

APPENDIX 3

Test Instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
AF-01	Pre Amplifier	Hewlett Packard	8447D	RE	2002/04/01 * 12
AT-06	Attenuator	Anritsu	MP721B	RE	2002/04/04 * 12
BA-03	Biconical Antenna	Schwarzbeck	BBA9106	RE	2002/05/02 * 12
LA-06	Logperiodic Antenna	Schwarzbeck	UHALP9108-A	RE	2002/05/02 * 12
SA-04	Spectrum Analyzer	Hewlett Packard	8567A	RE / CE	2002/04/03 * 12
TR-05	Test Receiver	Rohde & Schwarz	ESHS10	CE	2001/08/24 * 12
TR-06	Test Receiver	Rohde & Schwarz	ESVS10	RE	2001/11/22 * 12
HA-02	Horn Antenna	A.H.Systems	SAS-200/571	RE	2002/05/07 * 12
HA-03	Horn Antenna	Schwarzbeck	BBHA9170	RE	2002/04/27 * 12
AF-06	Pre Amplifier	Agilent	HP8449B	RE	2001/12/21 * 12
AT-15	Attenuator	Weinschel	2	RE	2002/04/23 * 12
SA-06	Spectrum Analyzer	Advantest	R3273	RE / CE	2001/11/20 * 12
HF-04	High Pass Filter	Tokimec	TF323DCA	RE	2001/10/15 * 12
LS-04	LISN	Rohde & Schwarz	ESH3-Z5	CE	2001/11/08 * 12
PM-02	Power Meter	Agilent	E4416A	RE	2002/03/22 * 12
PS-03	Power sensor	Agilent	E9327A	RE	2002/03/12 * 12

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

Test Item:

CE: AC Main Conducted emission,

RE: Radiated emission,