DATA OF CONDUCTION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.1 OPEN TEST SITE
Report No. : 22CE0062-YW

Applicant	: Matsushita Electric Industrial Co.,Ltd
Kind of Equipment	: Wireless LAN builtin PC
Model No.	: CF-M34
Serial No.	:
Power	: AC120V/60Hz
Mode	: Transmitting(6ch)
Remarks	: FCC ID:ACJ9TGCF-M34
Date	: 11/19/2001
Phase	: Single Phase
Temperature	: 26 ℃
Humidity	: 42 %
Regulation	: FCC Part15.207

T. Yamashita
Engineer : Tomoyuki Yamashita

No.	FREQ.	READING(N) QP	AV	READING(L1) QP	AV	LISN FACTOR	CABLE LOSS	ATTEN.	RESULT QP	AV	LIMITS QP	AV	MARGIN QP	AV
	[MHz]	[dBuV]		[dBuV]		[dB]	[dB]	[dB]	[dBuV]		[dBuV]		[dB]	
1.	0.4740	25.5	-	28.9	-	0.1	0.2	0.0	29.2	-	48.0	0.0	18.8	-
2.	1.8344	23.5	-	21.2	-	0.2	0.3	0.0	24.0	-	48.0	0.0	24.0	-
3.	4.9560	33.4	-	34.7	-	0.3	0.5	0.0	35.5	-	48.0	0.0	12.5	-
4.	5.6355	37.9	-	37.5	-	0.3	0.6	0.0	38.8	-	48.0	0.0	9.2	-
5.	6.2465	38.4	-	39.9	-	0.3	0.6	0.0	40.8	-	48.0	0.0	7.2	-
6.	18.4737	21.9	-	24.3	-	0.6	1.0	0.0	25.9	-	48.0	0.0	22.1	-
7.	27.9123	13.2	-	12.7	-	0.8	1.2	0.0	15.2	-	48.0	0.0	32.8	-

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

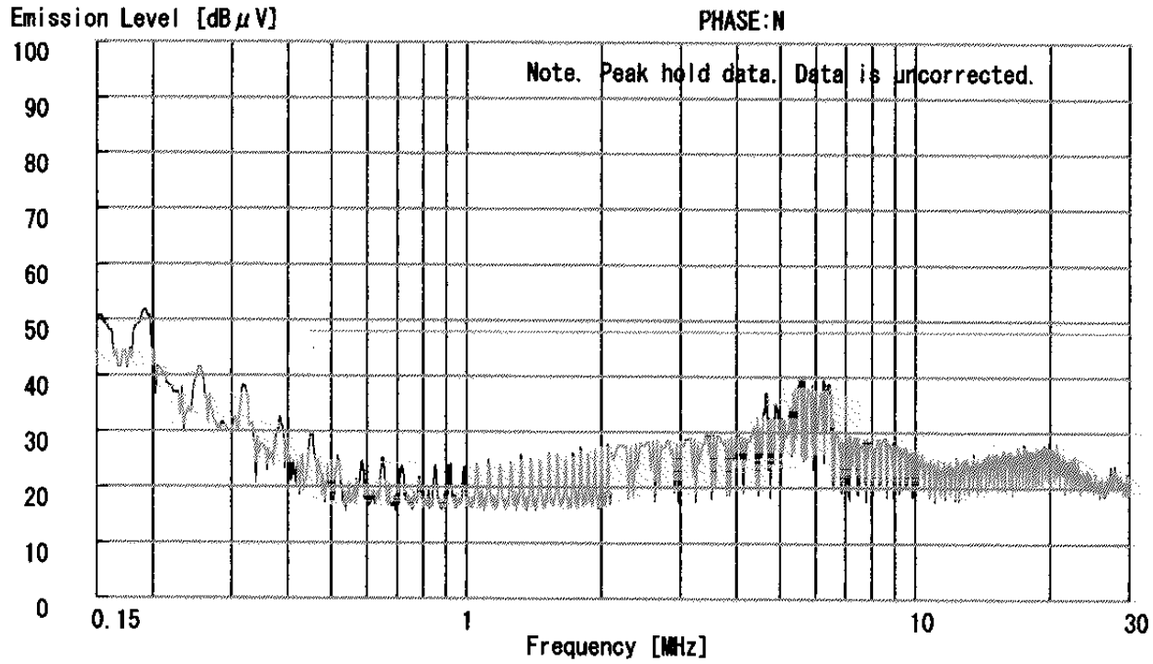
Except for the above table: adequate margin data below the limits.

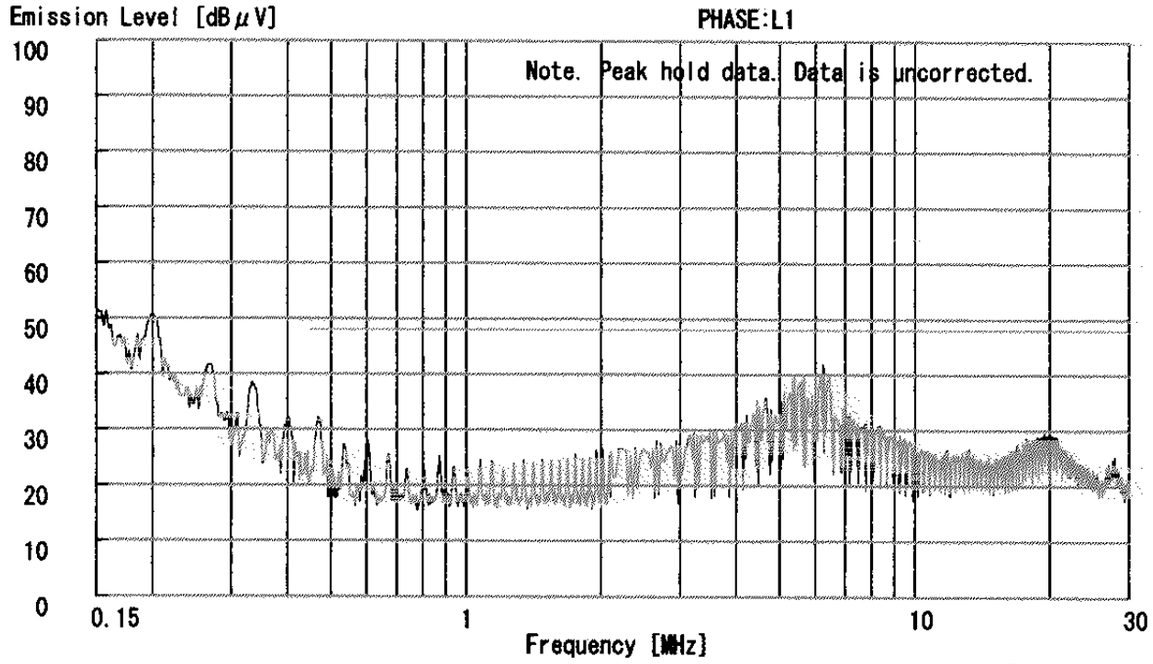
DATA OF CONDUCTION TEST CHART

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.1 OPEN TEST SITE
Report No.: 22CE0062-YW

Applicant	:	Matsushita Electric Industrial Co.,Ltd
Kind of Equipment	:	Wireless LAN builtin PC
Model No.	:	CF-M34
Serial No.	:	
Power	:	AC120V/60Hz
Mode	:	Transmitting(1ch)
Remarks	:	FCC ID:ACJ9TGCF-M34
Date	:	11/19/2001
Phase	:	Single Phase
Temperature	:	26 °C
Humidity	:	42 %
Regulation 1	:	FCC Part15.207
Regulation 2	:	None

T. Yamashita
Engineer : Tomoyuki Yamashita



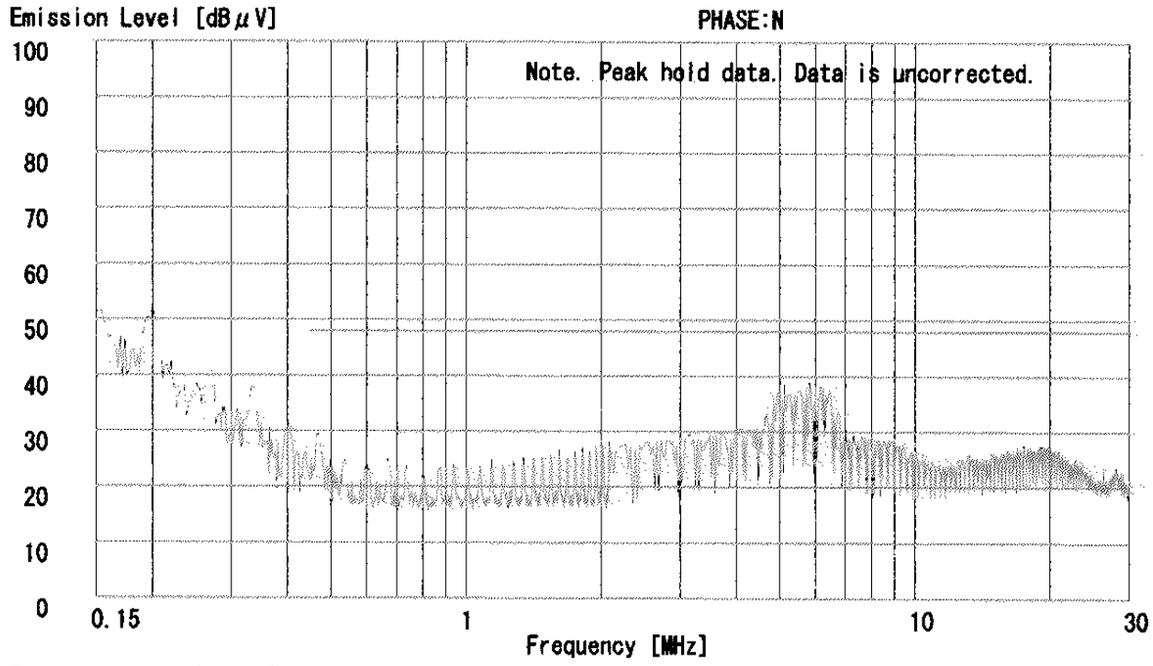


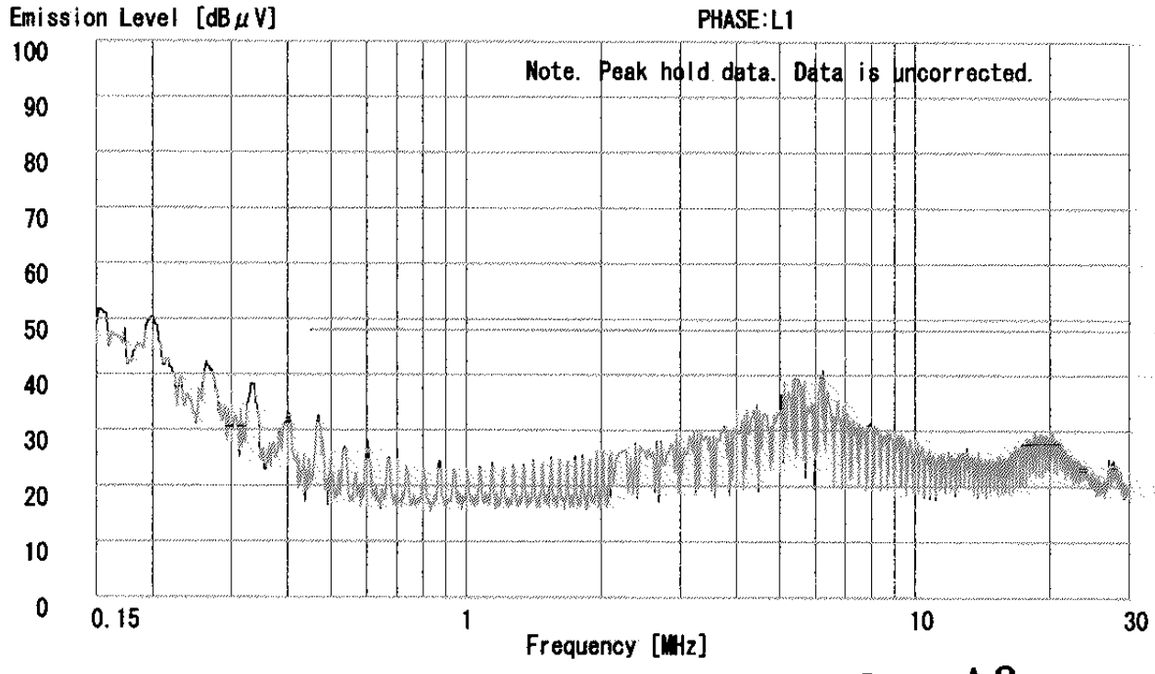
DATA OF CONDUCTION TEST CHART

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.1 OPEN TEST SITE
Report No.: 22CE0062-YW

Applicant	:	Matsushita Electric Industrial Co.,Ltd
Kind of Equipment	:	Wireless LAN builtin PC
Model No.	:	CF-M34
Serial No.	:	
Power	:	AC120V/60Hz
Mode	:	Transmitting(6ch)
Remarks	:	FCC ID:ACJ9TGCF-M34
Date	:	11/19/2001
Phase	:	Single Phase
Temperature	:	26 ℃
Humidity	:	42 %
Regulation 1	:	FCC Part15.207
Regulation 2	:	None

T. Yamashita
Engineer : Tomoyuki Yamashita



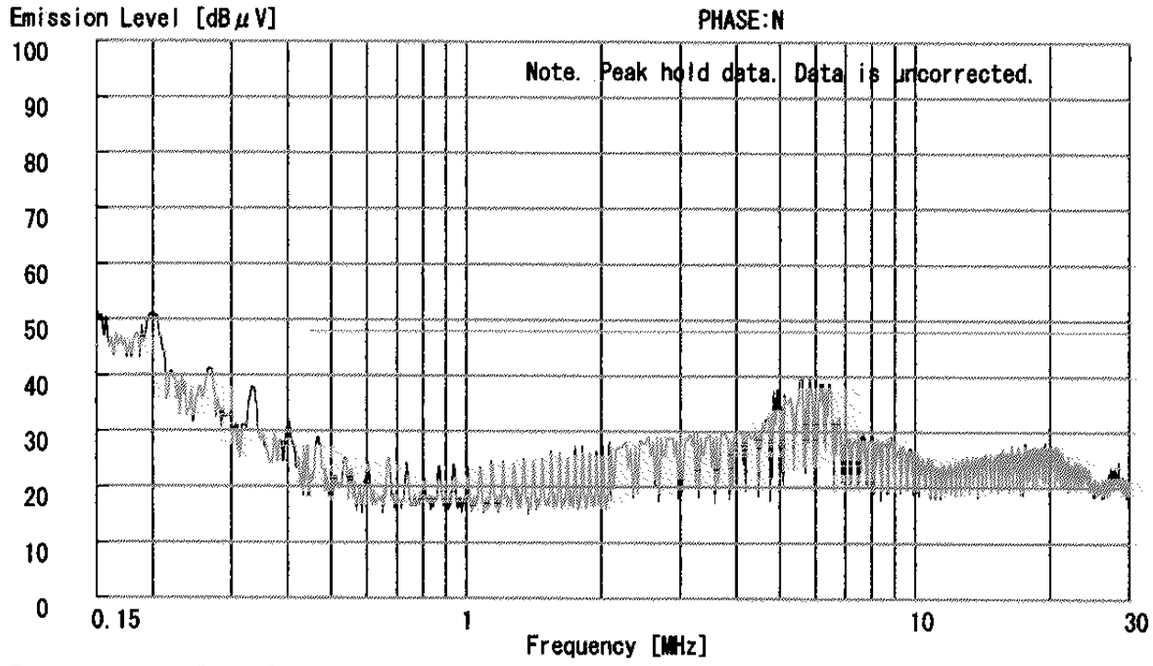


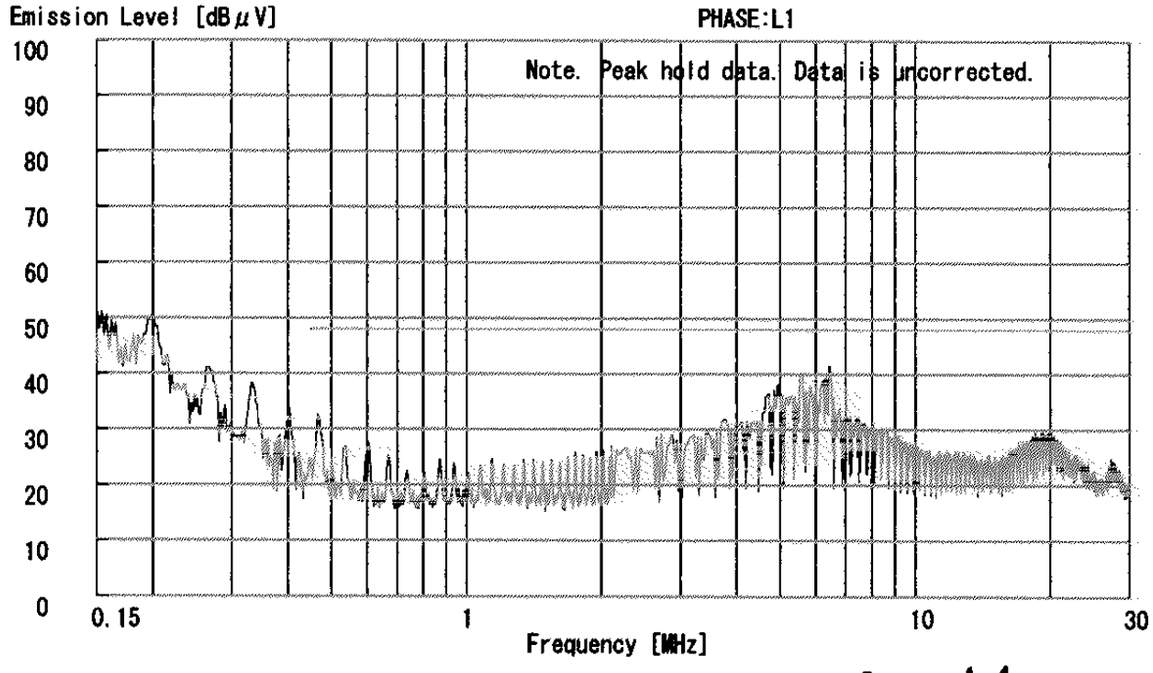
DATA OF CONDUCTION TEST CHART

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.1 OPEN TEST SITE
Report No.: 22CE0062-YW

Applicant	:	Matsushita Electric Industrial Co.,Ltd
Kind of Equipment	:	Wireless LAN builtin PC
Model No.	:	CF-M34
Serial No.	:	
Power	:	AC120V/60Hz
Mode	:	Transmitting(11ch)
Remarks	:	FCC ID:ACJ9TGCF-M34
Date	:	11/19/2001
Phase	:	Single Phase
Temperature	:	26 ℃
Humidity	:	42 %
Regulation 1	:	FCC Part15.207
Regulation 2	:	None

Engineer : Tomoyuki Yamashita



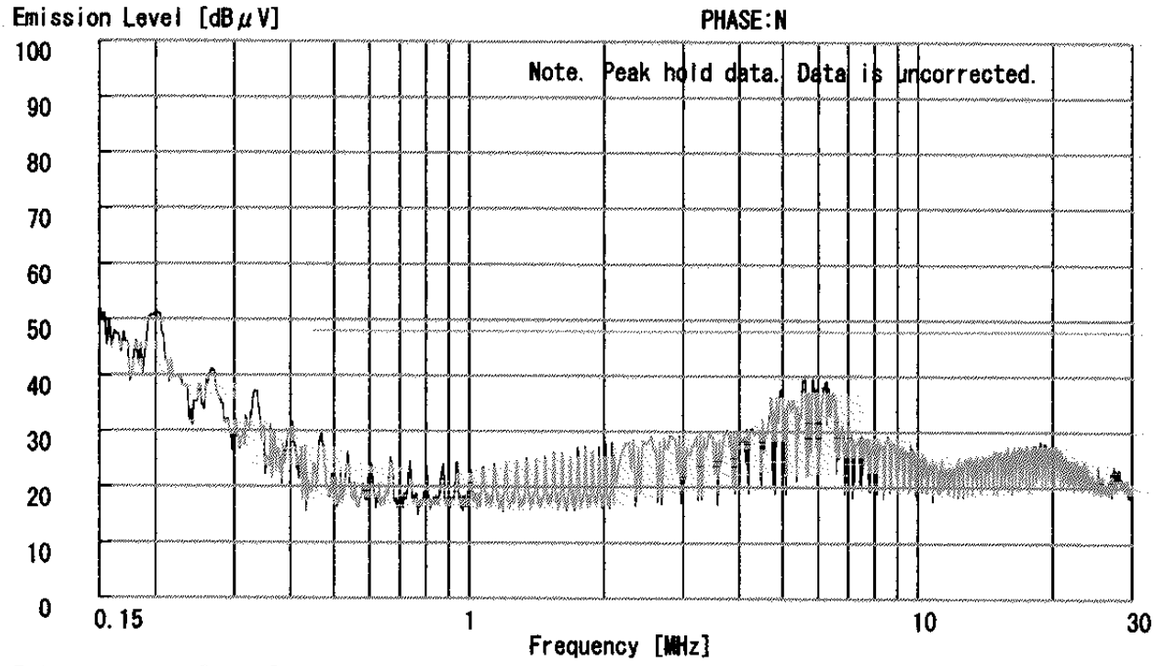


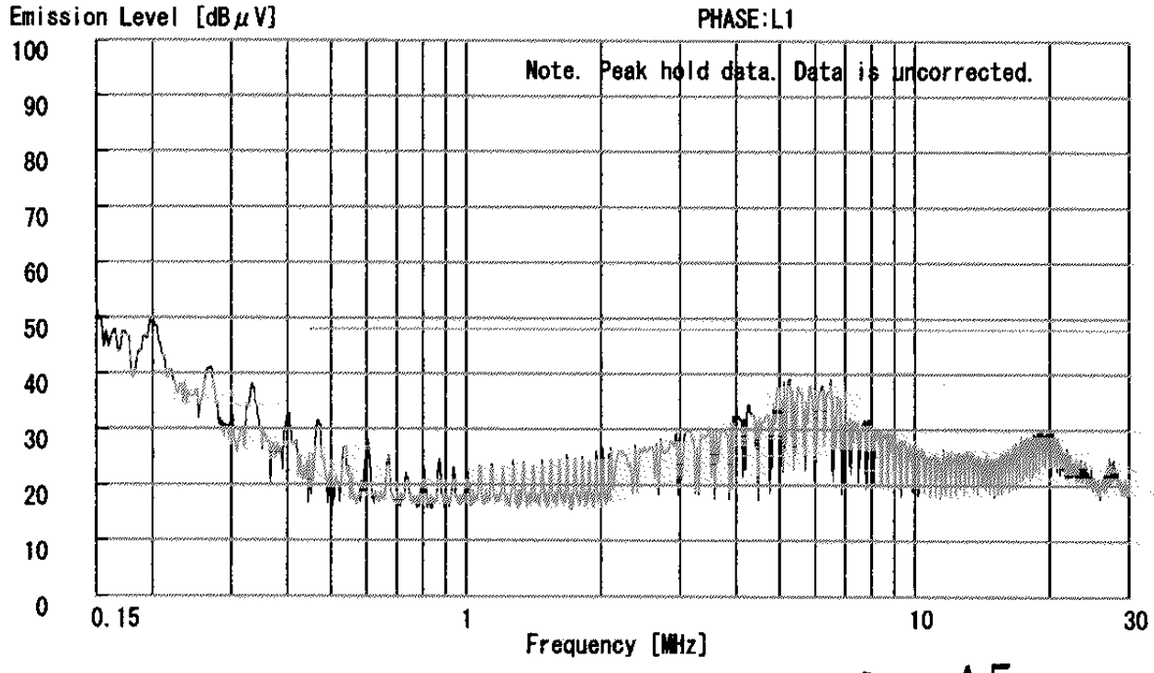
DATA OF CONDUCTION TEST CHART

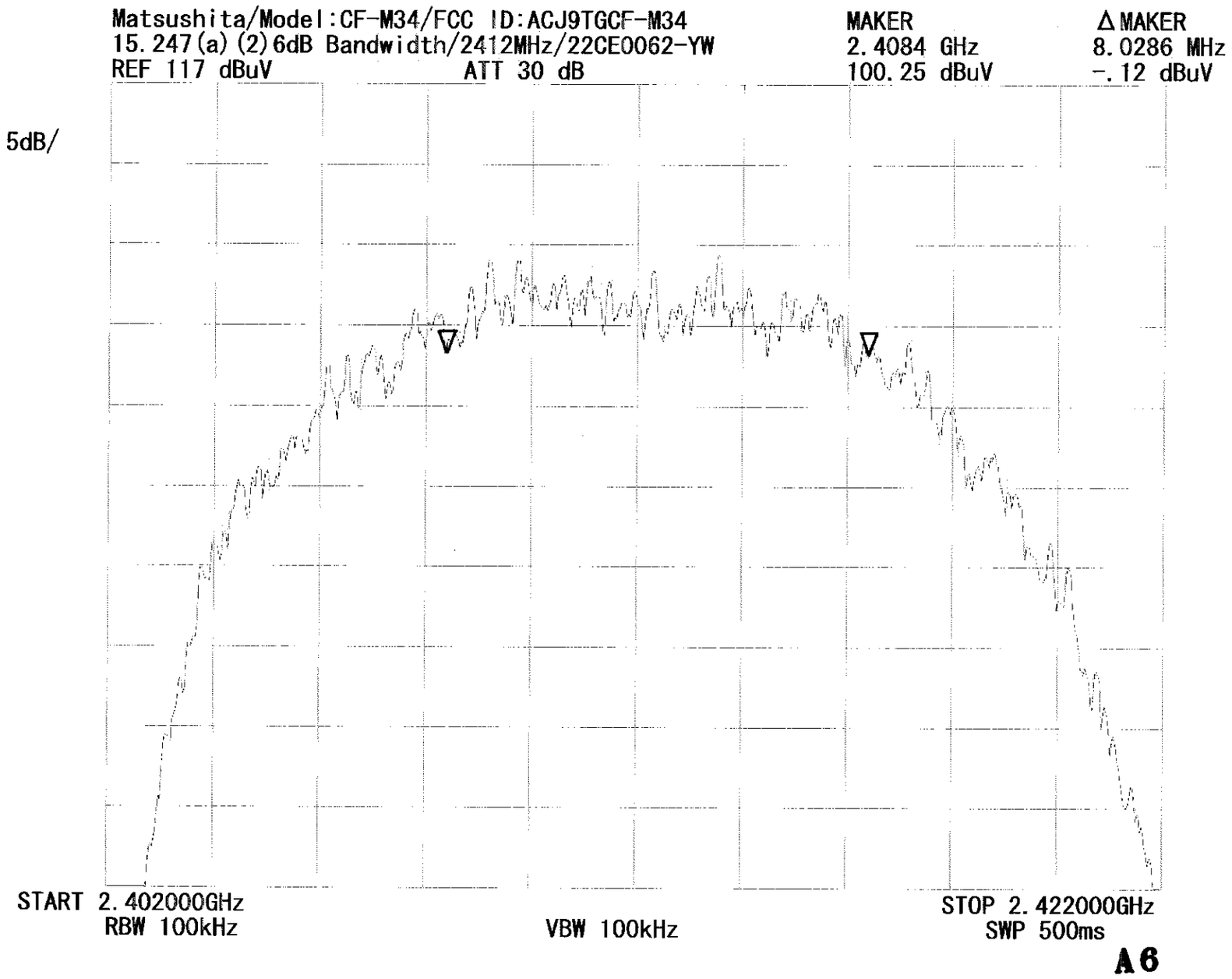
A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.1 OPEN TEST SITE
Report No.: 22CE0062-YW

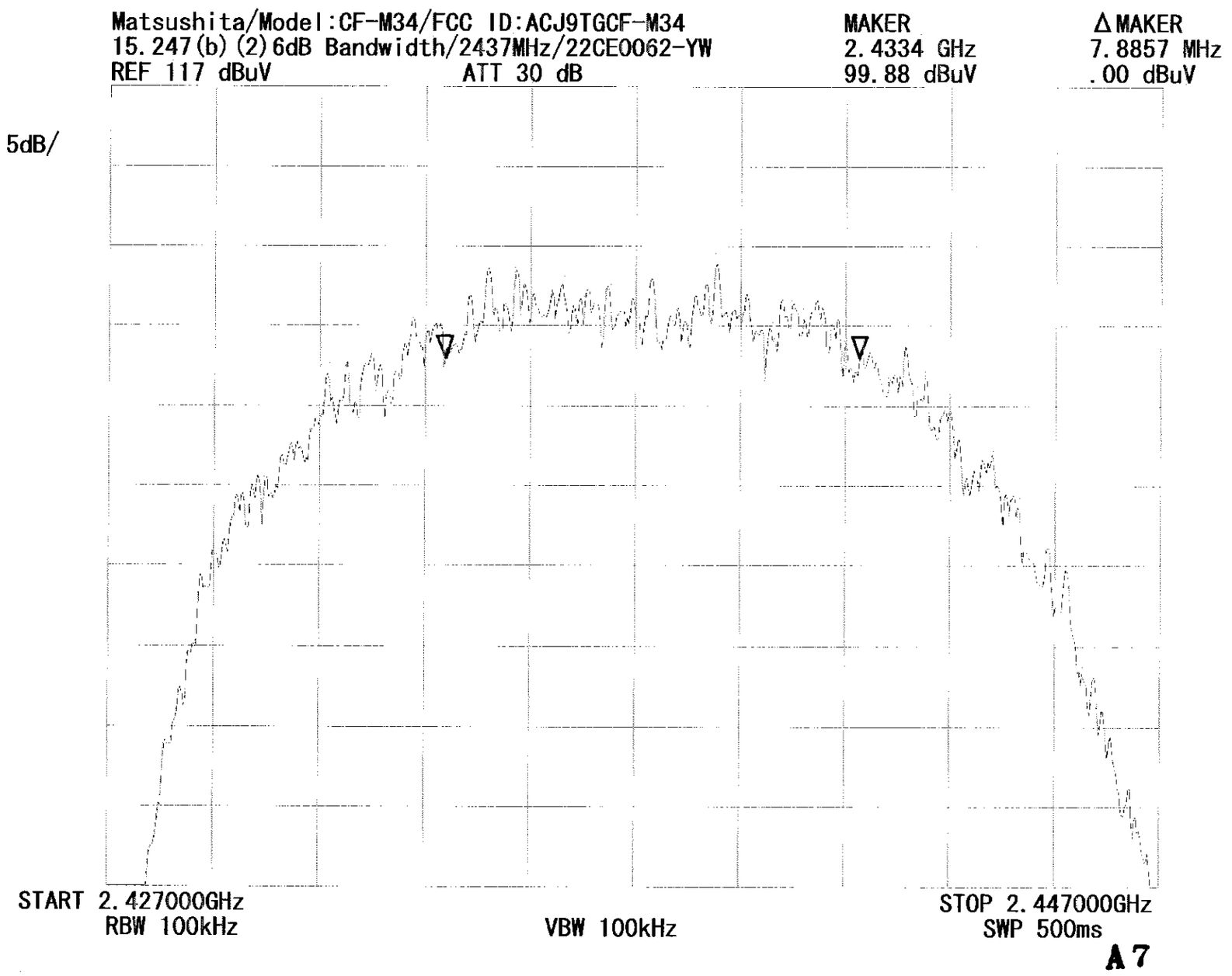
Applicant	:	Matsushita Electric Industrial Co.,Ltd
Kind of Equipment	:	Wireless LAN builtin PC
Model No.	:	CF-M34
Serial No.	:	
Power	:	AC120V/60Hz
Mode	:	Receiving
Remarks	:	FCC ID:ACJ9TGCF-M34
Date	:	11/19/2001
Phase	:	Single Phase
Temperature	:	26 ℃
Humidity	:	42 %
Regulation 1	:	FCC Part15.207
Regulation 2	:	None

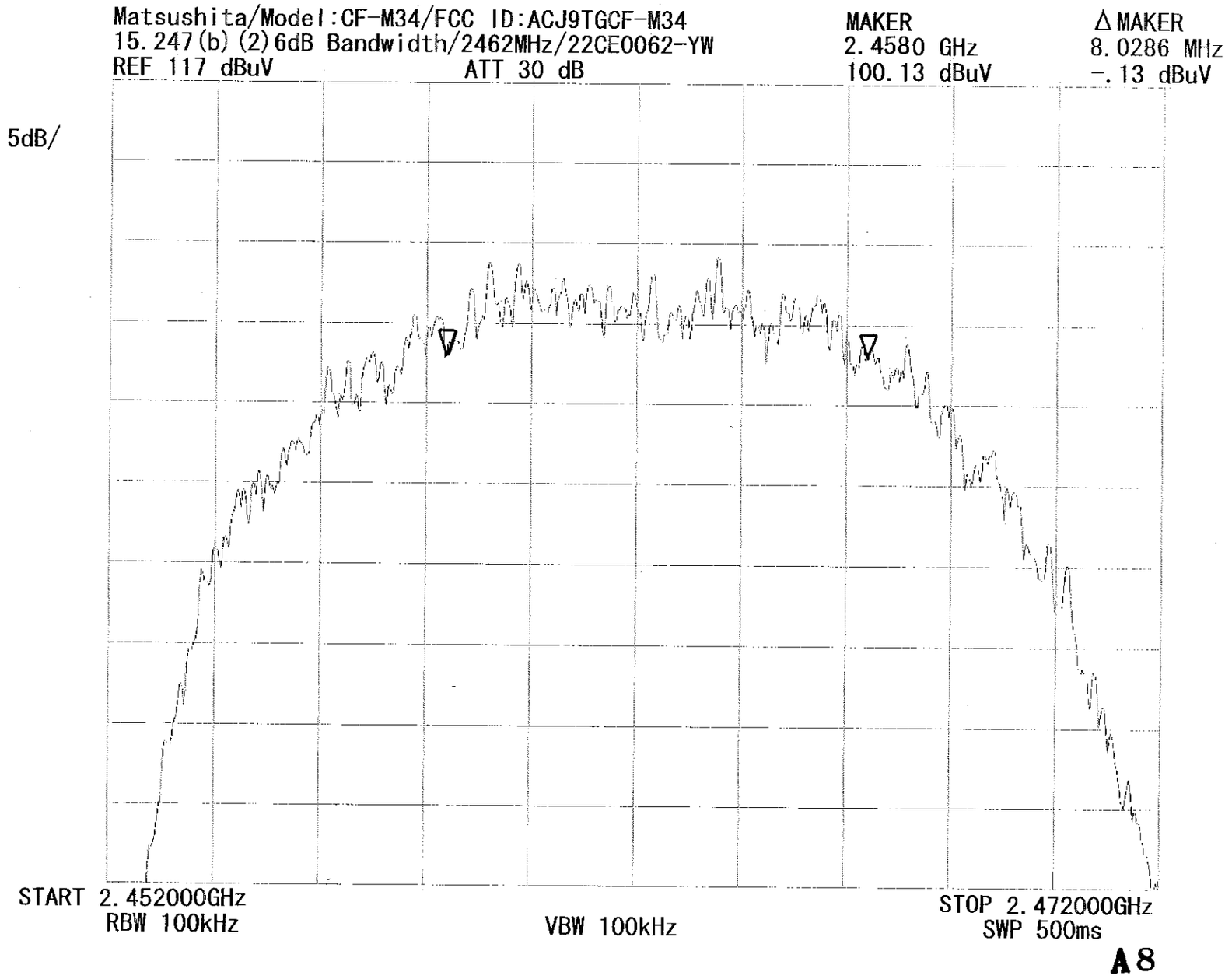
Engineer : Tomoyuki Yamashita






Matsushita/Model:CF-M34/FCC ID:ACJ9TGCF-M34
15.247(a)(2)6dB Bandwidth/2412MHz/22CE0062-YW
REF 117 dBuV
ATT 30 dB
MAKER
2.4084 GHz
100.25 dBuV
ΔMAKER
8.0286 MHz
-.12 dBuV
5dB/
START 2.402000GHz
RBW 100kHz
VBW 100kHz
STOP 2.422000GHz
SWP 500ms
A6


Matsushita/Model:CF-M34/FCC ID:ACJ9TGCF-M34
15.247(b)(2)6dB Bandwidth/2437MHz/22CE0062-YW
REF 117 dBuV
ATT 30 dB
MAKER
2.4334 GHz
99.88 dBuV
ΔMAKER
7.8857 MHz
.00 dBuV
5dB/
START 2.427000GHz
RBW 100kHz
VBW 100kHz
STOP 2.447000GHz
SWP 500ms
A7


Matsushita/Model:CF-M34/FCC ID:ACJ9TGCF-M34
15.247(b)(2)6dB Bandwidth/2462MHz/22CE0062-YW
REF 117 dBuV
ATT 30 dB
MAKER
2.4580 GHz
100.13 dBuV
ΔMAKER
8.0286 MHz
-.13 dBuV
5dB/
START 2.452000GHz
RBW 100kHz
VBW 100kHz
STOP 2.472000GHz
SWP 500ms
A8

Peak Out Put Power(Radiated)

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

COMPANY : Matsushita Electric Industrial Co.,Ltc
EQUIPMENT : Wireless LAN builtin PC
MODEL : CF-M34
FCC ID : ACJ9TGCF-M34
POWER : AC120V/60Hz
Mode : Transmitting

REPORT NO : 22CE0062-YW
REGULATION : Fcc Part15SubpartC 247(b)(1)
TEST DISTANCE : 3m
DATE : 2001/11/20
Temp./Humi. : 20℃/43%

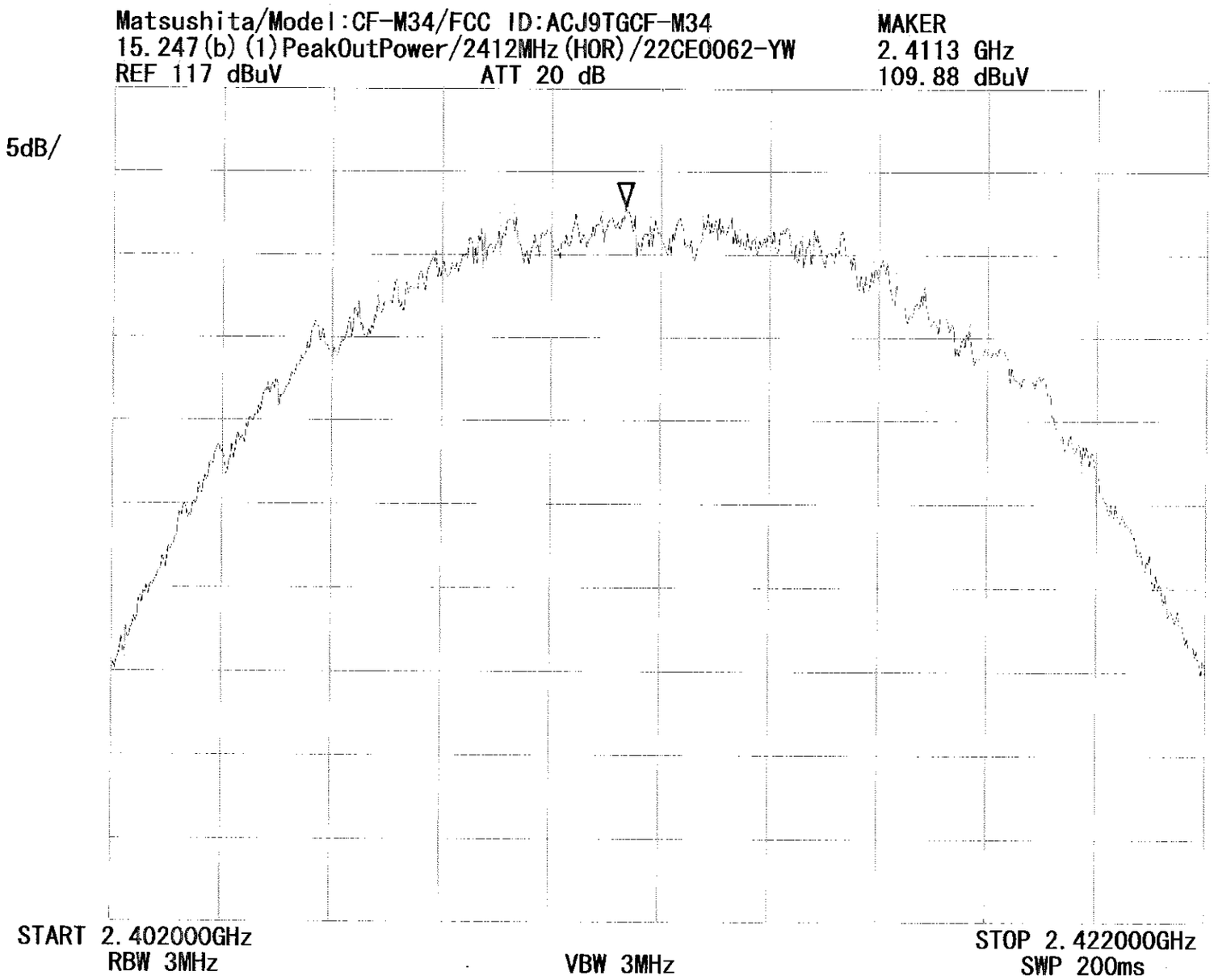
ENGINEER : Naoki Sakamoto

PK DETECT(S/A : RBW 3MHz and VBW 3MHz)

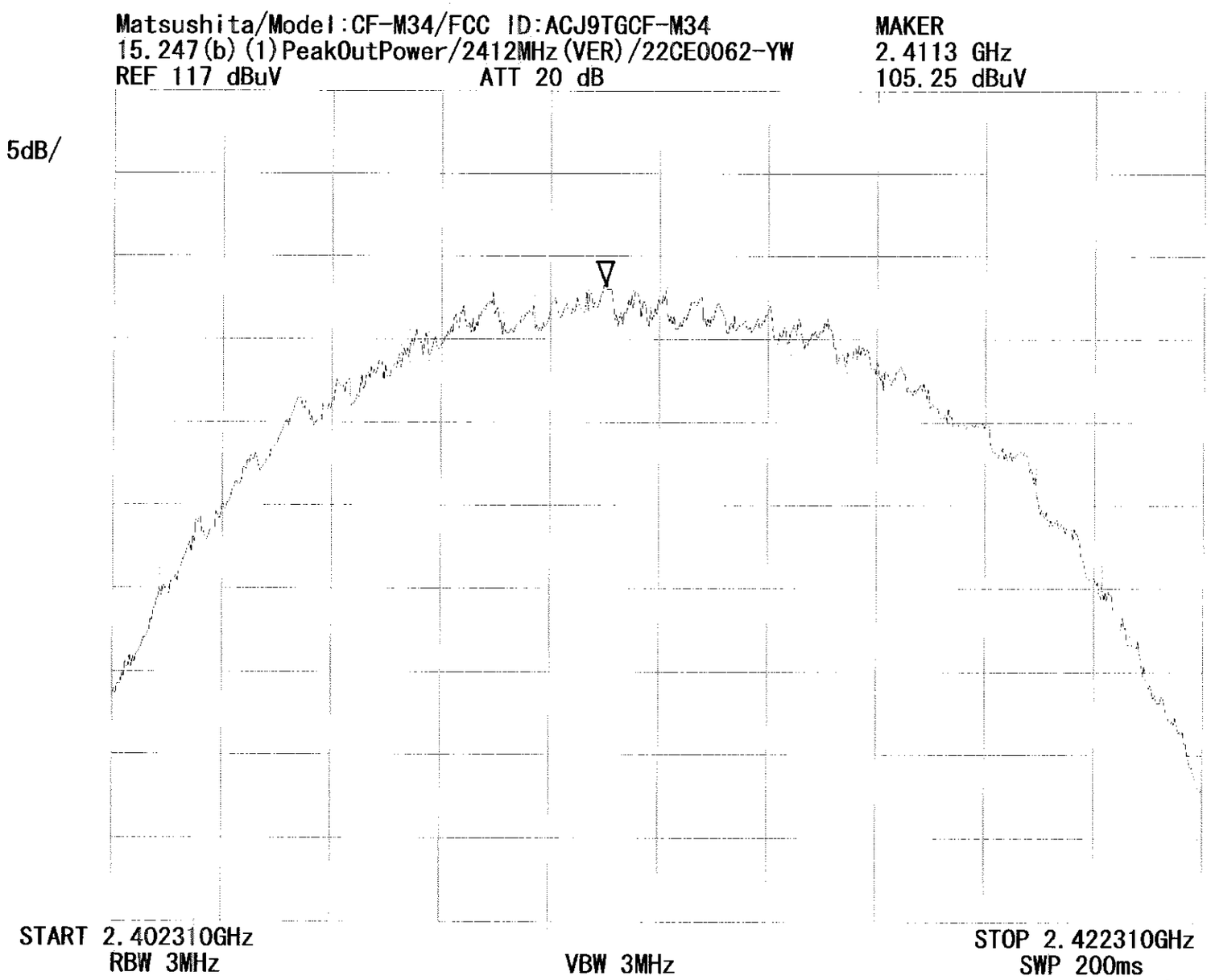
Ch	FREQ	S/A READING		All	E1		E		Limit	Result	
		HOR	VER	Factor	HOR	VER	HOR	VER	(1W)	HOR	VER
	[GHz]	[dBμV]		[dB]	[dBμV/m]		[V/m]		[mW]	[mW]	
Low	2.4120	109.9	105.5	5.9	115.8	111.4	0.6166	0.3715	1000.0	69.5	25.3
Mid	2.4370	108.4	104.3	5.9	114.3	110.2	0.5212	0.3251	1000.0	49.7	19.3
High	2.4620	108.6	105.5	6.1	114.7	111.6	0.5433	0.3802	1000.0	54.0	26.4

Sample Calculation :

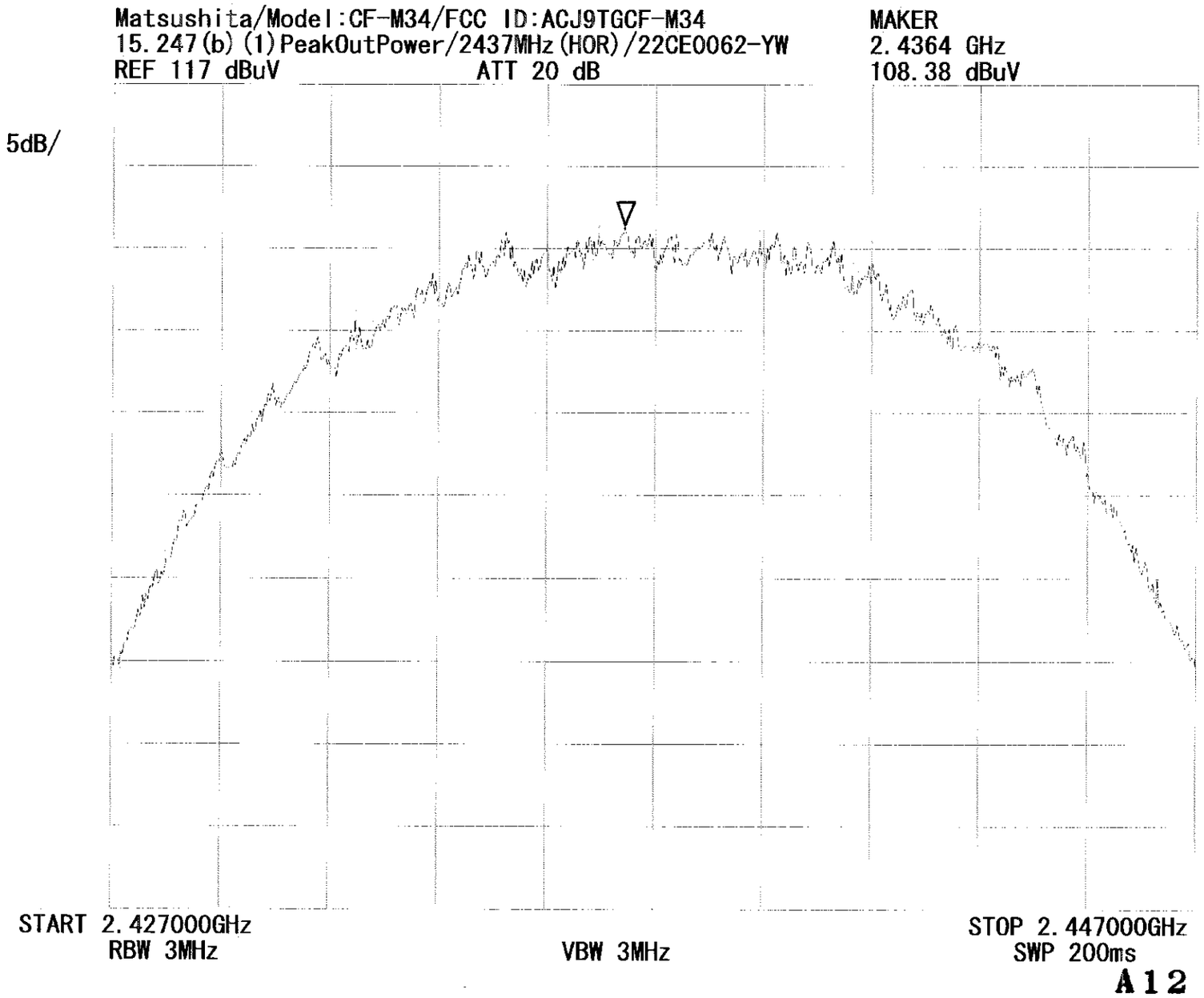
All Factor = ANT Factor - Amp Gain + CABLE LOSS + ATTEN
Low(2412MHz):ANT Factor(31.4dB) - Amp Gain(34.5dB) + CABLE LOSS(3.0dB) + ATTEN(6.0dB)
Mid(2437MHz):ANT Factor(31.4dB) - Amp Gain(34.5dB) - CABLE LOSS(3.0dB) + ATTEN(6.0dB)
High(2462MHz):ANT Factor(31.5dB) - Amp Gain(34.5dB) + CABLE LOSS(3.1dB) + ATTEN(6.0dB)
RESULT = (E*d)(E*d)/(30G)
E : Converted to V/m
E1: S/A Reading + All Factor
d : Test distance(3.0m)
G : Antenna Gaine(1.64)


Matsushita/Model:CF-M34/FCC ID:ACJ9TGCF-M34
15.247(b) (1)PeakOutPower/2412MHz(HOR)/22CE0062-YW
REF 117 dBuV
ATT 20 dB
MAKER
2.4113 GHz
109.88 dBuV
5dB/
START 2.402000GHz
RBW 3MHz
VBW 3MHz
STOP 2.422000GHz
SWP 200ms

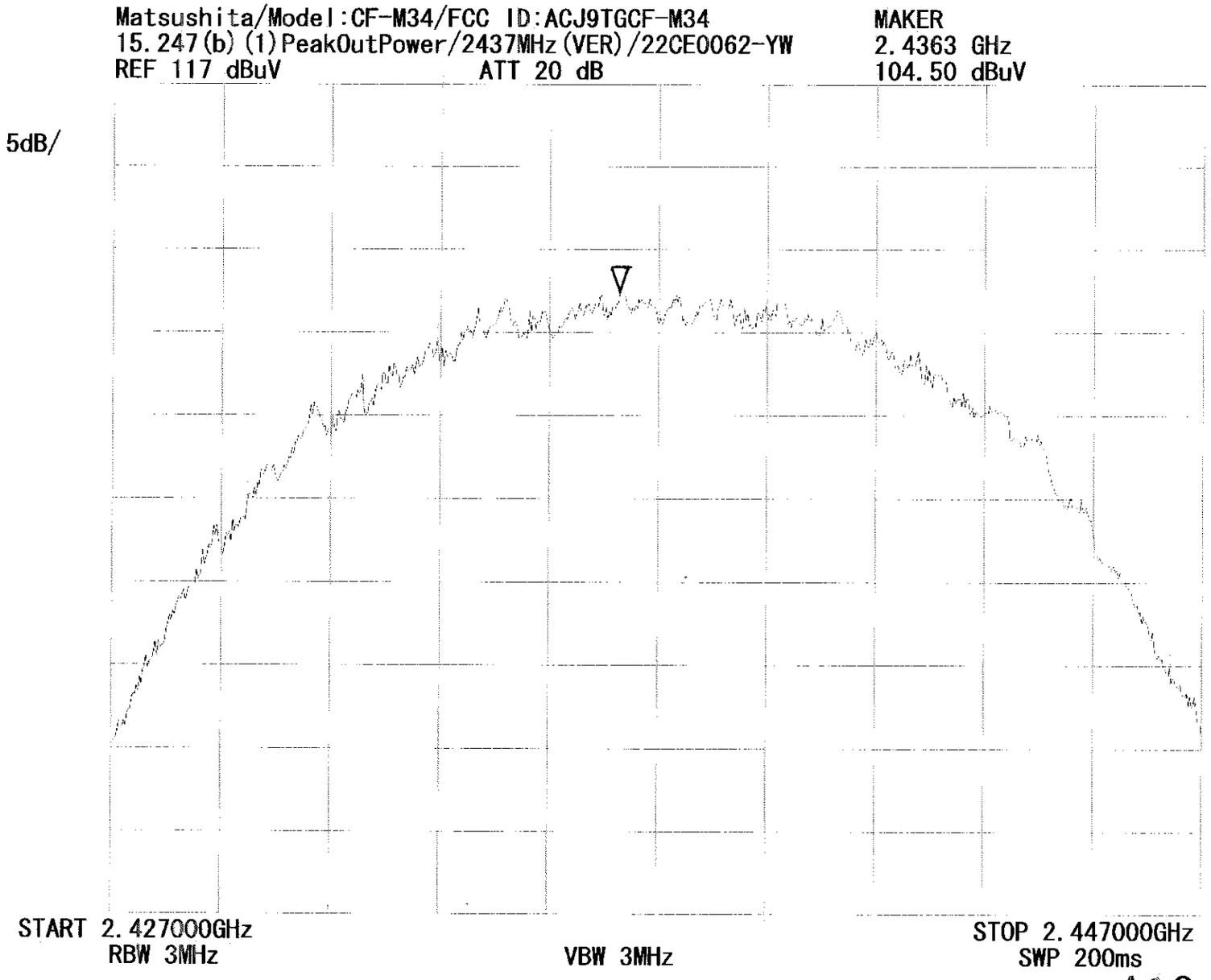
A10

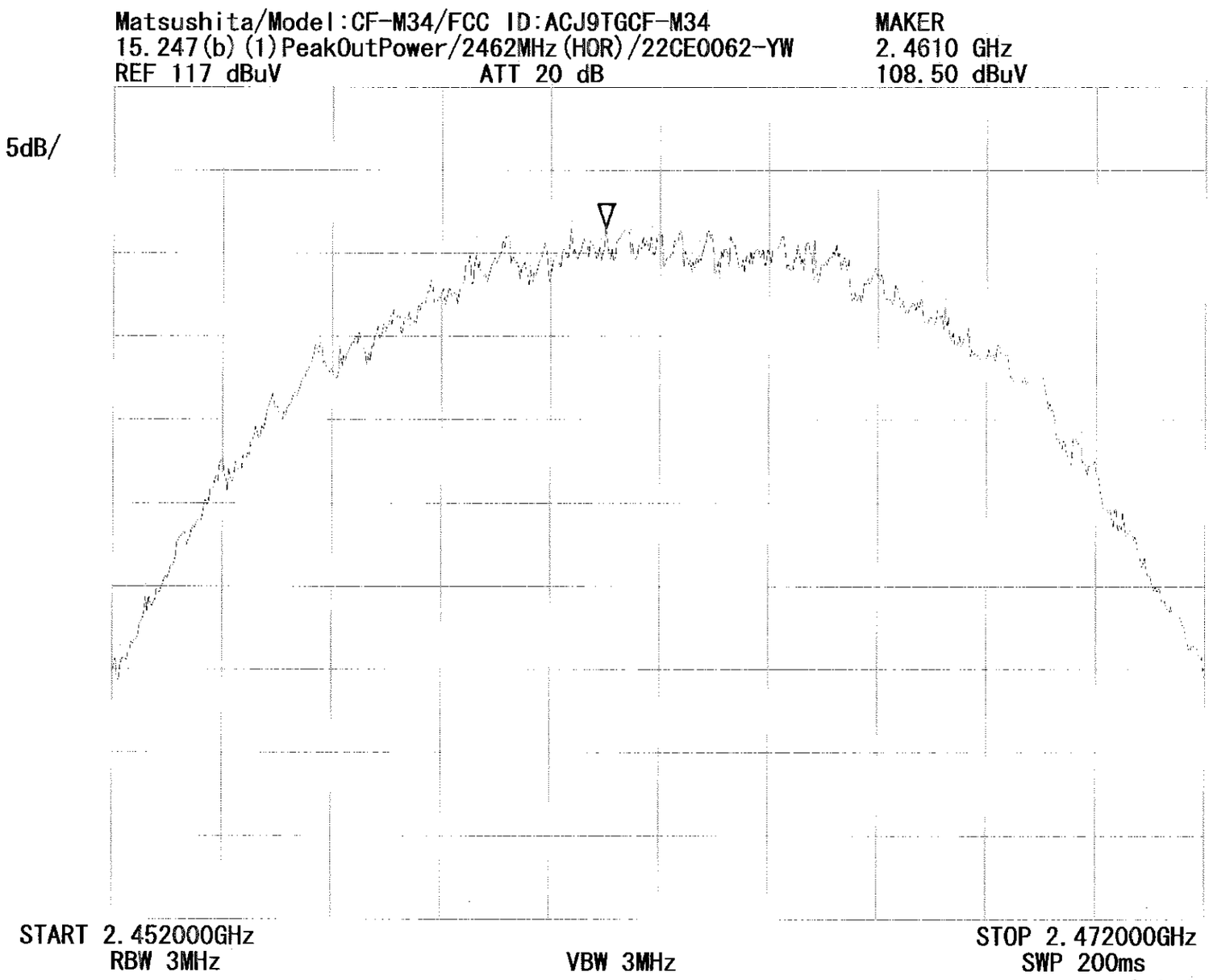

Matsushita/Model:CF-M34/FCC ID:ACJ9TGCF-M34
15.247(b) (1)PeakOutPower/2412MHz(VER)/22CE0062-YW
REF 117 dBuV
ATT 20 dB
MAKER
2.4113 GHz
105.25 dBuV
5dB/
START 2.402310GHz
RBW 3MHz
VBW 3MHz
STOP 2.422310GHz
SWP 200ms

A11

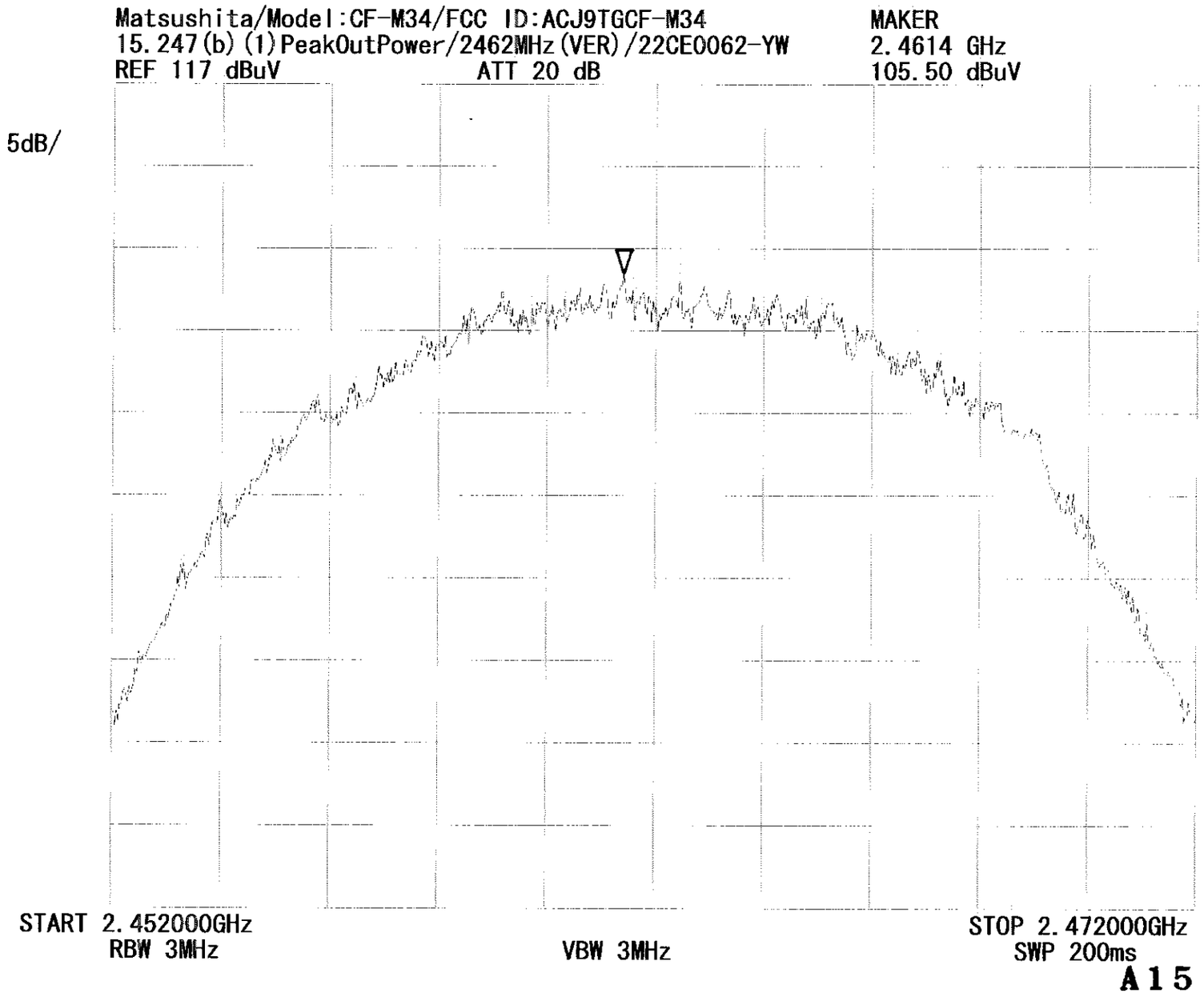

Matsushita/Model:CF-M34/FCC ID:ACJ9TGCF-M34
15.247(b) (1)PeakOutPower/2437MHz(HOR)/22CE0062-YW
REF 117 dBuV
ATT 20 dB
MAKER
2.4364 GHz
108.38 dBuV
5dB/
START 2.427000GHz
RBW 3MHz
VBW 3MHz
STOP 2.447000GHz
SWP 200ms

A12


Matsushita/Model:CF-M34/FCC ID:ACJ9TGCF-M34
15.247(b) (1)PeakOutPower/2437MHz(VER)/22CE0062-YW
REF 117 dBuV
ATT 20 dB
MAKER
2.4363 GHz
104.50 dBuV
5dB/
START 2.427000GHz
RBW 3MHz
VBW 3MHz
STOP 2.447000GHz
SWP 200ms
A13


Matsushita/Model:CF-M34/FCC ID:ACJ9TGCF-M34
15.247(b) (1)PeakOutPower/2462MHz(HOR)/22CE0062-YW
REF 117 dBuV
ATT 20 dB
MAKER
2.4610 GHz
108.50 dBuV
5dB/
START 2.452000GHz
RBW 3MHz
VBW 3MHz
STOP 2.472000GHz
SWP 200ms

A14


Matsushita/Model:CF-M34/FCC ID:ACJ9TGCF-M34
15.247(b)(1)PeakOutPower/2462MHz(VER)/22CE0062-YW
REF 117 dBuV
ATT 20 dB
MAKER
2.4614 GHz
105.50 dBuV
5dB/
START 2.452000GHz
RBW 3MHz
VBW 3MHz
STOP 2.472000GHz
SWP 200ms

A15

Peak Out Put Power(Conducted)

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

COMPANY : Matsushita Electric Industrial Co.,Ltd
EQUIPMENT : Wireless LAN builtin PC
MODEL : CF-M34
FCC ID : ACJ9TGCF-M34
POWER : AC120V/60Hz
Mode : Transmitting

REPORT NO : 22CE0062-YW
REGULATION : Fcc Part15SubpartC 247(b)(1)
TEST DISTANCE :
DATE : 2001/11/20
Temp./Humi. : 20℃/43%

ENGINEER : Naoki Sakamoto

CH	FREQ [GHz]	PM Reading [dBm]	Limit (1W) [dBm]	MARGIN [dB]
Low	2.41200	11.3	30.0	18.7
Mid	2.43700	11.7	30.0	18.3
High	2.46200	11.6	30.0	18.4

DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.1 OPEN TEST SITE
Report No. : 22CE0062-YW

Applicant	: Matsushita Electric Industrial Co.,Ltd
Kind of Equipment	: Wireless LAN builtin PC
Model No.	: CF-M34
Serial No.	:
Power	: AC120V/60Hz
Mode	: Transmitting(1ch)
Remarks	: FC ID:ACJ9TGCF-M34
Date	: 11/19/2001
Test Distance	: 3 m
Temperature	: 20 ℃
Humidity	: 58 %
Regulation	: Fcc 15C §15.209(a)

Engineer : Tomoyuki Yamashita

No.	FREQ. [MHz]	ANT TYPE	READING HOR [dBμV]	READING VER [dBμV]	ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT HOR [dBμV/m]	RESULT VER [dBμV/m]	LIMITS [dBμV/m]	MARGIN HOR [dB]	MARGIN VER [dB]
1.	99.24	BB	36.0	40.8	9.7	29.9	2.1	6.0	23.9	28.7	43.5	19.6	14.8
2.	120.29	BB	44.4	46.1	13.1	29.8	2.4	6.0	36.1	37.8	43.5	7.4	5.7
3.	257.74	BB	39.4	32.0	16.9	29.9	3.8	6.1	36.3	28.9	46.0	9.7	17.1
4.	297.67	BB	33.9	30.5	18.7	30.0	4.1	6.1	32.8	29.4	46.0	13.2	16.6
5.	336.05	BB	44.8	39.9	17.0	30.1	4.4	6.1	42.2	37.3	46.0	3.8	8.7
6.	528.12	BB	33.6	34.5	19.3	30.2	5.7	6.0	34.4	35.3	46.0	11.6	10.7
7.	624.11	BB	35.1	34.1	20.2	30.4	6.3	6.0	37.2	36.2	46.0	8.8	9.8
8.	704.00	BB	38.9	35.3	21.7	30.2	6.8	6.0	43.2	39.6	46.0	2.8	6.4

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

All other spurious emissions are more than 20dB below the limits.
ANT.TYPE: 30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.1 OPEN TEST SITE
Report No. : 22CE0062-YW

Applicant	: Matsushita Electric Industrial Co.,Ltd
Kind of Equipment	: Wireless LAN builtin PC
Model No.	: CF-M34
Serial No.	:
Power	: AC120V/60Hz
Mode	: Transmitting(6ch)
Remarks	: FCC ID:ACJ9TGCF-M34
Date	: 11/19/2001
Test Distance	: 3 m
Temperature	: 20 ℃
Humidity	: 58 %
Regulation	: Fcc 15C §15.209(a)

Engineer : Tomoyuki Yamashita

No.	FREQ. [MHz]	ANT TYPE	READING HOR [dBμV]	READING VER [dBμV]	ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT HOR [dBμV/m]	RESULT VER [dBμV/m]	LIMITS [dBμV/m]	MARGIN HOR [dB]	MARGIN VER [dB]
1.	99.24	BB	33.2	40.1	9.7	29.9	2.1	6.0	21.1	28.0	43.5	22.4	15.5
2.	120.29	BB	43.1	45.2	13.1	29.8	2.4	6.0	34.8	36.9	43.5	8.7	6.6
3.	257.74	BB	39.6	33.4	16.9	29.9	3.8	6.1	36.5	30.3	46.0	9.5	15.7
4.	297.67	BB	37.8	25.9	18.7	30.0	4.1	6.1	36.7	24.8	46.0	9.3	21.2
5.	336.05	BB	43.7	39.8	17.0	30.1	4.4	6.1	41.1	37.2	46.0	4.9	8.8
6.	528.12	BB	28.0	34.3	19.3	30.2	5.7	6.0	28.8	35.1	46.0	17.2	10.9
7.	624.11	BB	32.9	33.5	20.2	30.4	6.3	6.0	35.0	35.6	46.0	11.0	10.4
8.	704.00	BB	38.4	33.9	21.7	30.2	6.8	6.0	42.7	38.2	46.0	3.3	7.8

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

All other spurious emissions are more than 20dB below the limits.
ANT.TYPE: 30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.1 OPEN TEST SITE
Report No. : 22CE0062-YW

Applicant	: Matsushita Electric Industrial Co.,Ltd
Kind of Equipment	: Wireless LAN builtin PC
Model No.	: CF-M34
Serial No.	:
Power	: AC120V/60Hz
Mode	: Transmitting(11ch)
Remarks	: FCC ID:ACJ9TGCF-M34
Date	: 11/19/2001
Test Distance	: 3 m
Temperature	: 20 ℃
Humidity	: 58 %
Regulation	: Fcc 15C §15.209(a)

Engineer : Tomoyuki Yamashita

No.	FREQ. [MHz]	ANT TYPE	READING HOR [dBμV]	READING VER [dBμV]	ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT HOR [dBμV/m]	RESULT VER [dBμV/m]	LIMITS [dBμV/m]	MARGIN HOR [dB]	MARGIN VER [dB]
1.	99.24	BB	37.1	41.3	9.7	29.9	2.1	6.0	25.0	29.2	43.5	18.5	14.3
2.	120.29	BB	44.9	45.3	13.1	29.8	2.4	6.0	36.6	37.0	43.5	6.9	6.5
3.	257.74	BB	40.8	38.7	16.9	29.9	3.8	6.1	37.7	35.6	46.0	8.3	10.4
4.	297.67	BB	32.1	31.5	18.7	30.0	4.1	6.1	31.0	30.4	46.0	15.0	15.6
5.	336.05	BB	48.5	45.6	17.0	30.1	4.4	6.1	45.9	43.0	46.0	0.1	3.0
6.	528.12	BB	34.2	35.5	19.3	30.2	5.7	6.0	35.0	36.3	46.0	11.0	9.7
7.	624.11	BB	31.0	33.2	20.2	30.4	6.3	6.0	33.1	35.3	46.0	12.9	10.7
8.	704.00	BB	39.0	36.6	21.7	30.2	6.8	6.0	43.3	40.9	46.0	2.7	5.1

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

All other spurious emissions are more than 20dB below the limits.
ANT.TYPE: 30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

A-PEX INTERNATIONAL CO., LTD.
YOKOWA No.1 OPEN TEST SITE
Report No. : 22CE0062-YW

Applicant	:	Matsushita Electric Industrial Co.,Ltd
Kind of Equipment	:	Wireless LAN builtin PC
Model No.	:	CF-M34
Serial No.	:	
Power	:	AC120V/60Hz
Mode	:	Receiving
Remarks	:	FCC ID:ACJ9TGCF-M34
Date	:	11/19/2001
Test Distance	:	3 m
Temperature	:	20 ℃
Humidity	:	58 %
Regulation	:	Fcc 15C §15.209(a)

Engineer : Tomoyuki Yamashita

No.	FREQ. [MHz]	ANT TYPE	READING HOR [dBμV]	READING VER [dBμV]	ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT HOR [dBμV/m]	RESULT VER [dBμV/m]	LIMITS [dBμV/m]	MARGIN HOR [dB]	MARGIN VER [dB]
1.	99.24	BB	36.7	41.0	9.7	29.9	2.1	6.0	24.6	28.9	43.5	18.9	14.6
2.	120.29	BB	44.9	45.8	13.1	29.8	2.4	6.0	36.6	37.5	43.5	6.9	6.0
3.	257.74	BB	43.3	37.0	16.9	29.9	3.8	6.1	40.2	33.9	46.0	5.8	12.1
4.	297.67	BB	34.4	27.2	18.7	30.0	4.1	6.1	33.3	26.1	46.0	12.7	19.9
5.	336.05	BB	46.1	46.4	17.0	30.1	4.4	6.1	43.5	43.8	46.0	2.5	2.2
6.	528.12	BB	30.3	35.7	19.3	30.2	5.7	6.0	31.1	36.5	46.0	14.9	9.5
7.	624.11	BB	36.5	33.4	20.2	30.4	6.3	6.0	38.6	35.5	46.0	7.4	10.5

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

All other spurious emissions are more than 20dB 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 : Wireless LAN builtin PC
MODEL : CF-M34
FCC ID : ACJ9TGCF-M34
POWER : AC120V/60Hz
Mode : Transmitting(ch1:2412MHz)

REPORT NO : 22CE0062-YW
REGULATION : Fcc Part15 SubpartC 247/209
TEST DISTANCE : 3m
DATE : 2001/11/20
Temp./Humi. : 20℃/43%

ENGINEER : Naoki Sakamoto

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	H.P.Filter	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	or ATTEN	HOR	VER	PK	HOR	VER
	[GHz]	[dBμV]	[dBμV]	[dB]	[dB]	[dB]	[dB]	[dBμV/m]	[dBμV/m]	[dBμV/m]	[dB]	[dB]
#1	1.29140	47.6	49.9	26.3	35.0	3.8	6.0	49.3	49.8	74.0	24.7	24.2
#2	2.39000	43.1	43.6	31.3	34.5	3.4	6.0	49.3	49.8	74.0	24.7	24.2
3	4.82400	41.6	41.2	35.4	34.5	8.0	1.2	51.7	51.4	74.0	22.3	22.6
4	7.23600	40.9	41.4	39.1	34.8	9.4	1.0	55.6	56.1	74.0	18.4	17.9
5	9.64800	43.3	43.6	39.2	35.0	11.0	1.3	59.8	60.1	74.0	14.2	13.9
*6	12.06000	41.0	42.0	43.5	34.4	12.1	1.5	63.7	64.7	83.5	19.8	18.8
*7	14.47200	40.9	41.2	42.2	33.1	13.5	1.1	64.6	64.9	83.5	18.9	18.6
*8	16.88400	42.7	43.8	43.8	33.4	14.8	1.1	69.0	70.1	83.5	14.5	13.4
*9	19.29600	45.0	45.5	38.0	33.4	15.8	1.0	66.4	66.9	83.5	17.1	16.6
*10	21.70800	45.0	46.1	37.8	33.0	16.5	0.8	67.1	68.2	83.5	16.4	15.3
*11	24.12000	46.9	46.9	39.6	33.2	15.8	0.7	69.8	69.8	83.5	13.7	13.7

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	H.P.Filter	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	or ATTEN	HOR	VER	AV	HOR	VER
	[GHz]	[dBμV]	[dBμV]	[dB]	[dB]	[dB]	[dB]	[dBμV/m]	[dBμV/m]	[dBμV/m]	[dB]	[dB]
#1	1.29140	31.9	33.4	26.3	35.0	3.8	6.0	33.0	34.5	54.0	21.0	19.5
#2	2.39000	31.0	32.0	31.1	34.5	3.4	6.0	37.0	38.0	54.0	17.0	16.0
3	4.82400	30.7	30.8	35.4	34.5	8.0	1.2	40.8	41.0	54.0	13.2	13.0
4	7.23600	30.5	30.4	39.1	34.8	9.4	1.0	45.2	45.1	54.0	8.8	8.9
5	9.64800	33.1	33.1	39.2	35.0	11.0	1.3	49.6	49.6	54.0	4.4	4.4
*6	12.06000	28.9	28.4	43.5	34.4	12.1	1.5	51.6	51.1	63.5	11.9	12.4
*7	14.47200	28.3	28.4	42.2	33.1	13.5	1.1	52.0	52.1	63.5	11.5	11.4
*8	16.88400	30.3	30.3	43.8	33.4	14.8	1.1	56.6	56.6	63.5	6.9	6.9
*9	19.29600	32.7	32.5	38.0	33.4	15.8	1.0	54.1	53.9	63.5	9.4	9.6
*10	21.70800	32.9	32.7	37.8	33.0	16.5	0.8	55.0	54.8	63.5	8.5	8.7
*11	24.12000	34.1	34.2	39.6	33.2	15.8	0.7	57.0	57.1	63.5	6.6	6.5

Sample Calculation :
RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + High Pass Filter or ATTEN.
Except for the above table : All other spurious emissions are more than 20dB below the limit.
* Test Distance 1m, 1m Limit=3m Limit+20log(3/1)
# Use ATTEN, Other points use high pass filter.

DATA OF SUPURIOUS EMISSIONS(1GHz to 26GHz)

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

COMPANY : Matsushita Electric Industrial Co.,Ltd
EQUIPMENT : Wireless LAN builtin PC
MODEL : CF-M34
FCC ID : ACJ9TGCF-M34
POWER : AC120V/60Hz
Mode : Transmitting(ch6:2437MHz)

REPORT NO : 22CE0062-YW
REGULATION : Fcc Part15SubpartC 247 / 209
TEST DISTANCE : 3m
DATE : 2001/11/20
Temp./Humi. : 20℃/43%

ENGINEER : Naoki Sakamoto

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	H.P.Filter	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	or ATTEN	HOR	VER	PK	HOR	VER
	[GHz]	[dBμV]	[dBμV]	[dB]	[dB]	[dB]	[dB]	[dBμV/m]	[dBμV/m]	[dBμV/m]	[dB]	[dB]
#1	1.29140	48.1	49.5	26.3	35.0	3.8	6.0	49.2	50.6	74.0	24.8	23.4
2	4.87600	41.9	41.5	35.6	34.5	7.8	1.3	52.1	51.7	74.0	21.9	22.3
3	7.31400	41.3	41.8	39.2	34.9	9.4	1.0	56.0	56.5	74.0	18.0	17.5
4	9.75200	44.0	44.1	39.2	35.0	11.0	1.3	60.5	60.6	74.0	13.5	13.4
*5	12.19000	42.3	41.9	43.4	34.3	12.3	1.5	65.2	64.8	83.5	18.3	18.7
*6	14.62800	40.3	40.6	42.6	33.1	13.6	1.1	64.5	64.8	83.5	19.0	18.7
*7	17.06600	43.8	43.3	43.8	33.2	14.8	1.1	70.3	69.8	83.5	13.2	13.7
*8	19.50400	44.8	44.5	38.0	33.4	15.9	1.4	66.7	66.4	83.5	16.8	17.1
*9	21.94200	45.2	44.7	37.8	33.0	16.5	0.6	67.1	66.6	83.5	16.4	16.9
*10	24.38000	47.1	47.0	39.5	33.2	15.7	0.5	69.6	69.5	83.5	13.9	14.0

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	H.P.Filter	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	or ATTEN	HOR	VER	AV	HOR	VER
	[GHz]	[dBμV]	[dBμV]	[dB]	[dB]	[dB]	[dB]	[dBμV/m]	[dBμV/m]	[dBμV/m]	[dB]	[dB]
#1	1.29140	32.5	33.2	26.3	35.0	3.8	6.0	33.6	34.3	54.0	20.4	19.7
2	4.87600	30.9	30.5	35.6	34.5	7.8	1.3	41.1	40.6	54.0	12.9	13.4
3	7.31400	31.0	30.5	39.2	34.9	9.4	1.0	45.7	45.2	54.0	8.3	8.8
4	9.75200	33.0	33.2	39.2	35.0	11.0	1.3	49.5	49.7	63.5	14.0	13.8
*5	12.19000	29.6	29.6	43.4	34.3	12.3	1.5	52.5	52.5	63.5	11.0	11.0
*6	14.62800	27.6	27.9	42.6	33.1	13.6	1.1	51.8	52.1	63.5	11.7	11.4
*7	17.06600	31.2	31.3	43.8	33.2	14.8	1.1	57.7	57.8	63.5	5.8	5.7
*8	19.50400	32.6	32.6	38.0	33.4	15.9	1.4	54.5	54.5	63.5	9.0	9.0
*9	21.94200	33.0	33.2	37.8	33.0	16.5	0.6	54.9	55.1	63.5	8.6	8.4
*10	24.38000	34.5	34.5	39.5	33.2	15.7	0.5	57.0	57.0	63.5	6.6	6.6

Sample Calculation :
RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + High Pass Filter or ATTEN.
Except for the above table : All other spurious emissions are more than 20dB below the limit.
* Test Distance 1m, 1m Limit=3m Limit+20log(3/1)
# Use ATTEN, Other points use high pass filter.

DATA OF SUPURIOUS EMISSIONS(1GHz to 26GHz)

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

COMPANY : Matsushita Electric Industrial Co.,Ltd
EQUIPMENT : Wireless LAN builtin PC
MODEL : CF-M34
FCC ID : ACJ9TGCF-M34
POWER : AC120V/60Hz
Mode : Transmitting(ch11:2462MHz)

REPORT NO : 22CE0062-YW
REGULATION : Fcc Part15SubpartC 247 / 209
TEST DISTANCE : 3m
DATE : 2001/11/20
Temp./Humi. : 20℃/43%

ENGINEER : Naoki Sakamoto

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	H.P.Filter	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	or ATTEN	HOR	VER	PK	HOR	VER
	[GHz]	[dBμV]	[dBμV]	[dB]	[dB]	[dB]	[dB]	[dBμV/m]	[dBμV/m]	[dBμV/m]	[dB]	[dB]
#1	1.29140	49.1	50.9	26.3	35.0	3.8	6.0	50.2	52.0	74.0	23.8	22.0
#2	2.48350	43.3	43.9	31.6	34.5	3.5	6.0	49.9	50.4	74.0	24.1	23.6
3	4.92400	41.2	41.8	35.8	34.5	7.9	1.3	51.7	52.3	74.0	22.3	21.7
4	7.38600	41.2	41.7	39.2	34.9	9.5	0.9	55.9	56.4	74.0	18.1	17.6
5	9.84800	44.2	43.7	39.2	34.9	11.0	1.1	60.6	60.1	74.0	13.4	13.9
*6	12.31000	41.7	41.2	43.3	34.2	12.3	1.5	64.6	64.1	83.5	18.9	19.4
*7	14.77200	41.4	41.5	42.9	33.0	13.7	1.2	66.2	66.3	83.5	17.3	17.2
*8	17.23400	44.3	44.7	43.9	33.1	14.8	0.8	70.7	71.1	83.5	12.8	12.4
*9	19.69600	44.5	44.3	38.0	33.4	16.0	1.6	66.7	66.5	83.5	16.8	17.0
*10	22.15800	44.3	45.2	38.3	33.0	16.5	0.7	66.8	67.7	83.5	16.8	15.9
*11	24.62000	47.0	46.7	39.4	33.2	15.4	0.6	69.2	68.9	83.5	14.3	14.6

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	H.P.Filter	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	or ATTEN	HOR	VER	AV	HOR	VER
	[GHz]	[dBμV]	[dBμV]	[dB]	[dB]	[dB]	[dB]	[dBμV/m]	[dBμV/m]	[dBμV/m]	[dB]	[dB]
#1	1.29140	34.3	34.8	26.3	35.0	3.8	6.0	35.4	35.9	54.0	18.6	18.1
#2	2.48350	31.6	32.4	31.6	34.5	3.5	6.0	38.2	39.0	54.0	15.8	15.0
3	4.92400	30.8	30.7	35.8	34.5	7.9	1.3	41.3	41.2	54.0	12.7	12.8
4	7.38600	30.5	30.7	39.2	34.9	9.5	0.9	45.2	45.4	54.0	8.8	8.6
5	9.84800	33.2	33.1	39.2	34.9	11.0	1.1	49.6	49.5	54.0	4.4	4.5
*6	12.31000	27.7	28.9	43.3	34.2	12.3	1.5	50.6	51.8	63.5	12.9	11.7
*7	14.77200	28.6	28.7	42.9	33.0	13.7	1.2	53.4	53.5	63.5	10.1	10.1
*8	17.23400	31.6	31.2	43.9	33.1	14.8	0.8	58.0	57.6	63.5	5.5	5.9
*9	19.69600	31.7	30.8	38.0	33.4	16.0	1.6	53.9	53.0	63.5	9.6	10.5
*10	22.15800	32.3	31.5	38.3	33.0	16.5	0.7	54.8	54.0	63.5	8.8	9.6
*11	24.62000	34.7	34.5	39.4	33.2	15.4	0.6	56.9	56.7	63.5	6.6	6.8

Sample Calculation :
RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + High Pass Filter or ATTEN.
Except for the above table : All other spurious emissions are more than 20dB below the limit.
* Test Distance 1m, 1m Limit=3m Limit+20log(3/1)
# Use ATTEN, Other points use high pass filter.

DATA OF SUPURIOUS EMISSIONS(1GHz to 5GHz)

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

COMPANY : Matsushita Electric Industrial Co.,Ltd
EQUIPMENT : Wireless LAN builtin PC
MODEL : CF-M34
FCC ID : ACJ9TGCF-M34
POWER : AC120V/60Hz
Mode : Receiving

REPORT NO : 22CE0062-YW
REGULATION : Fcc Part15SubpartC 247 / 209
TEST DISTANCE : 3m
DATE : 2001/11/20
Temp./Humi. : 20℃/43%

ENGINEER : Naoki Sakamoto

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	ATTEN	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS		HOR	VER	PK	HOR	VER
	[GHz]	[dBμV]	[dBμV]	[dB]	[dB]	[dB]	[dB]	[dBμV/m]	[dBμV/m]	[dBμV/m]	[dB]	[dB]
1	1.29140	48.5	50.5	26.3	35.0	3.8	6.0	49.6	51.6	74.0	24.4	22.4

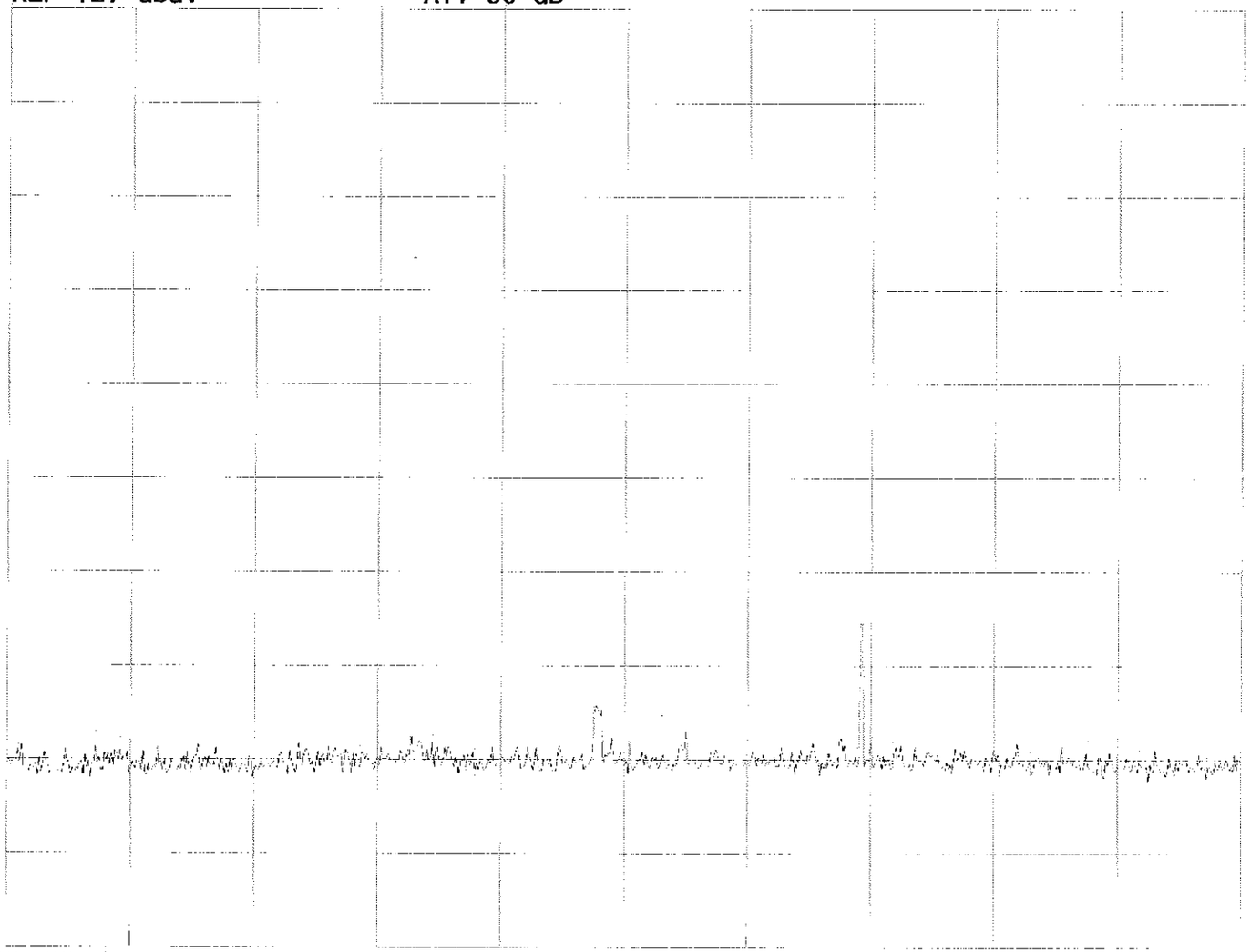
AV DETECT(S/A : RBW 1MHz and VBW 10Hz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	ATTEN	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS		HOR	VER	AV	HOR	VER
	[GHz]	[dBμV]	[dBμV]	[dB]	[dB]	[dB]	[dB]	[dBμV/m]	[dBμV/m]	[dBμV/m]	[dB]	[dB]
1	1.29140	32.7	33.3	26.3	35.0	3.8	6.0	33.8	34.4	54.0	20.2	19.6

Sample Calculation :
RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + ATTEN.
Except for the above table : All other spurious emissions are more than 20dB below the limit.

Matsushita/Model:CF-M34/FCC ID:ACJ9TGCF-M34
15.247(c)Out of Band(30-1G)/2412MHz/22CE0062-YW
REF 127 dBuV ATT 30 dB

10dB/



START 30.00MHz
RBW 100kHz

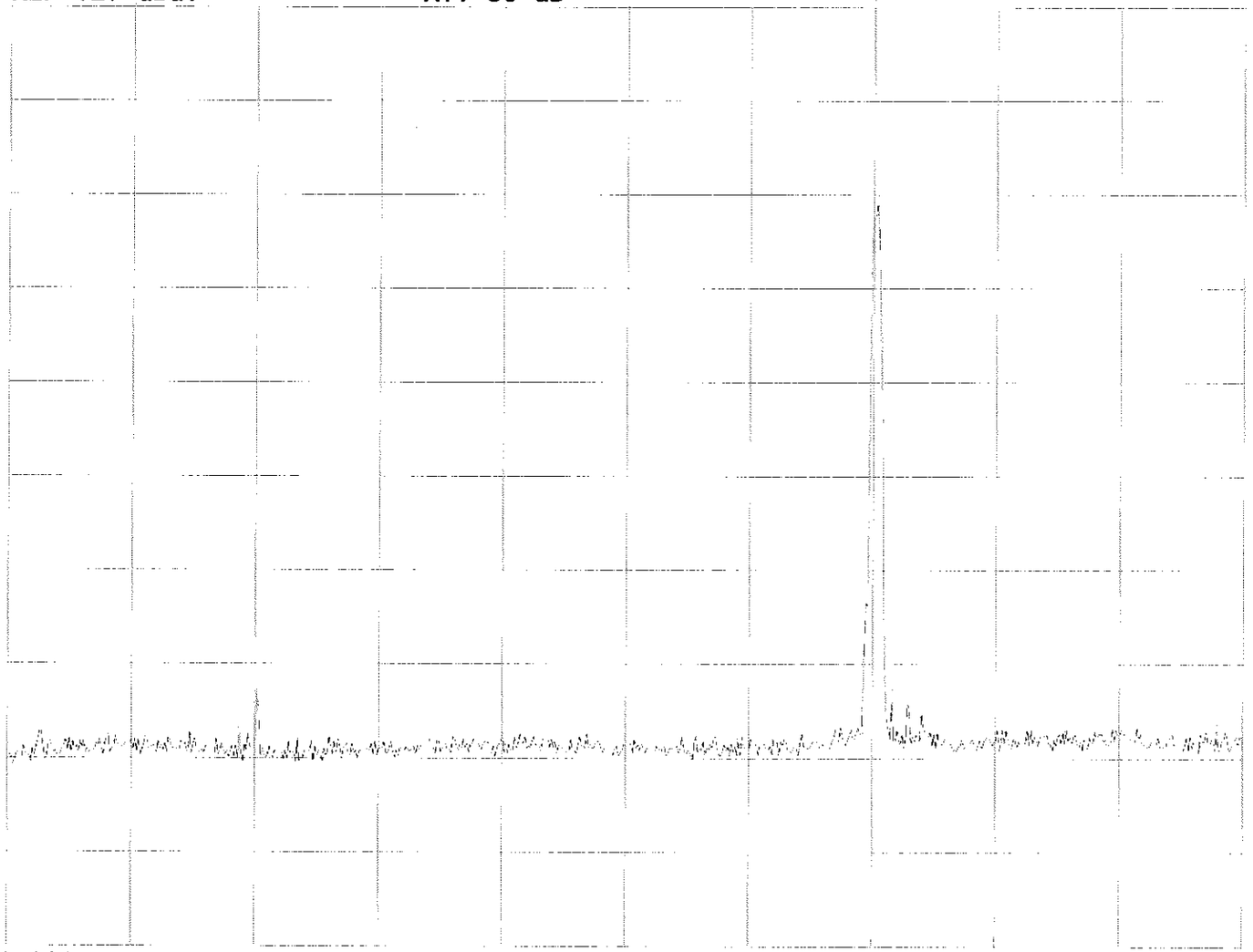
VBW 100kHz

STOP 1.000000GHz
SWP 200ms

A25

Matsushita/Model:CF-M34/FCC ID:ACJ9TGCF-M34
15.247(c)Out of Band(1G-3G)/2412MHz/22CE0062-YW
REF 127 dBuV ATT 30 dB

10dB/



START 1.000000GHz
RBW 100kHz

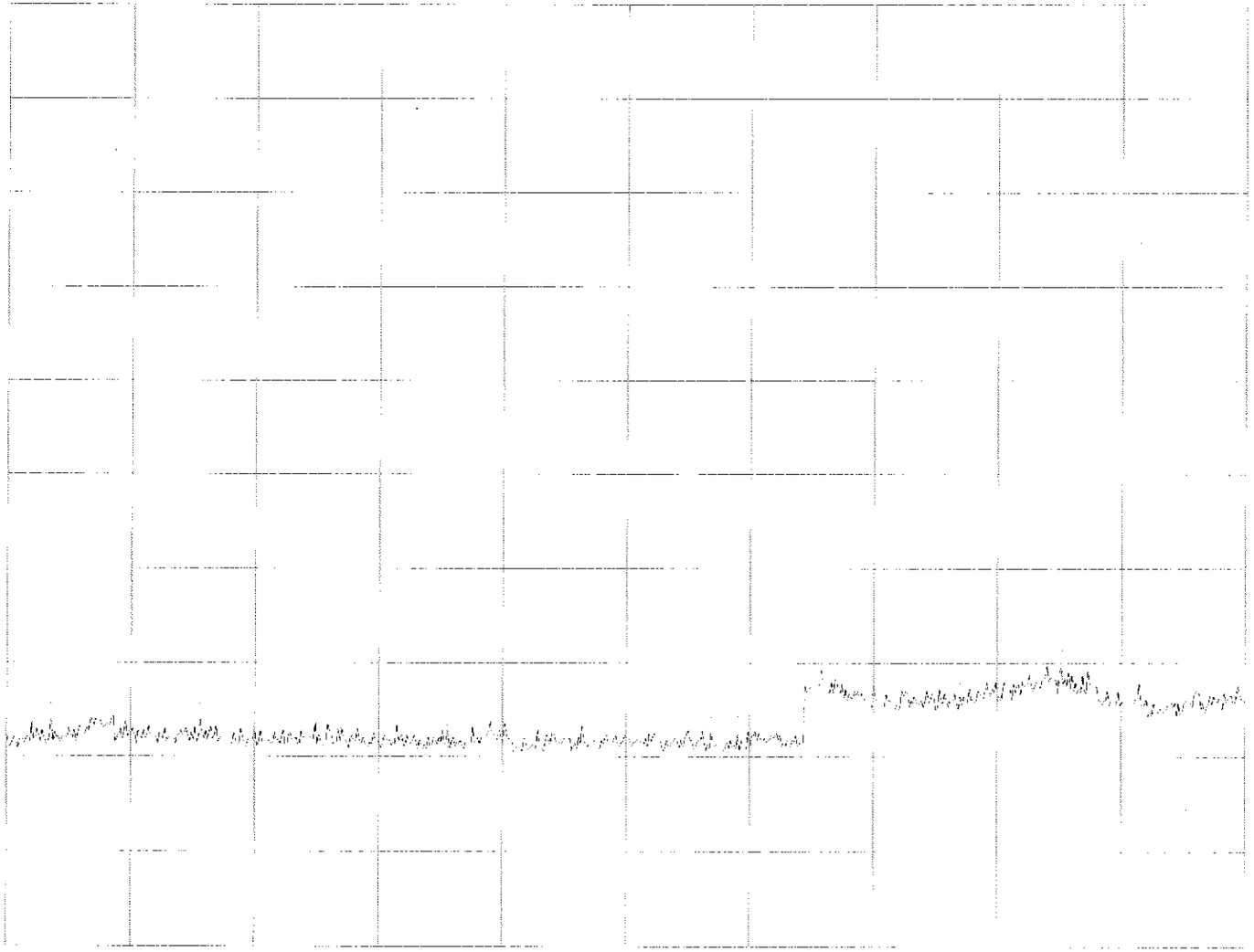
VBW 100kHz

STOP 3.000000GHz
SWP 1s

A26

Matsushita/Model:CF-M34/FCC ID:ACJ9TGCF-M34
15.247(c)Out of Band(3G-10G)/2412MHz/22CE0062-YW
REF 127 dBuV ATT 30 dB

10dB/



START 3.000000GHz
RBW 100kHz

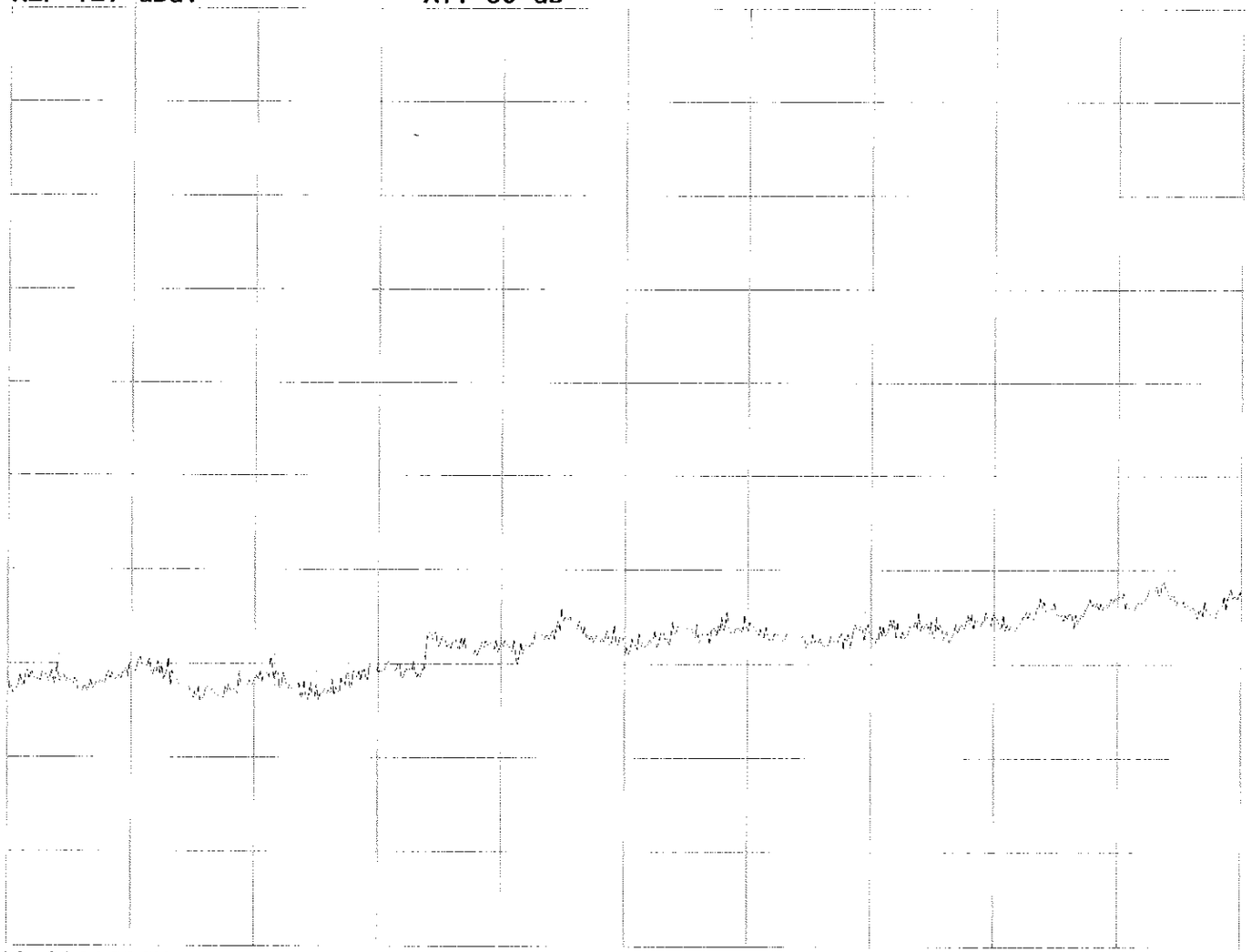
VBW 100kHz

STOP 10.000000GHz
SWP 2s

A27

Matsushita/Model:CF-M34/FCC ID:ACJ9TGWCF-M34
15.247(c)Out of Band(10G-26G)/2412MHz/22CE0062-YW
REF 127 dBuV ATT 30 dB

10dB/



START 10.000000GHz
RBW 100kHz

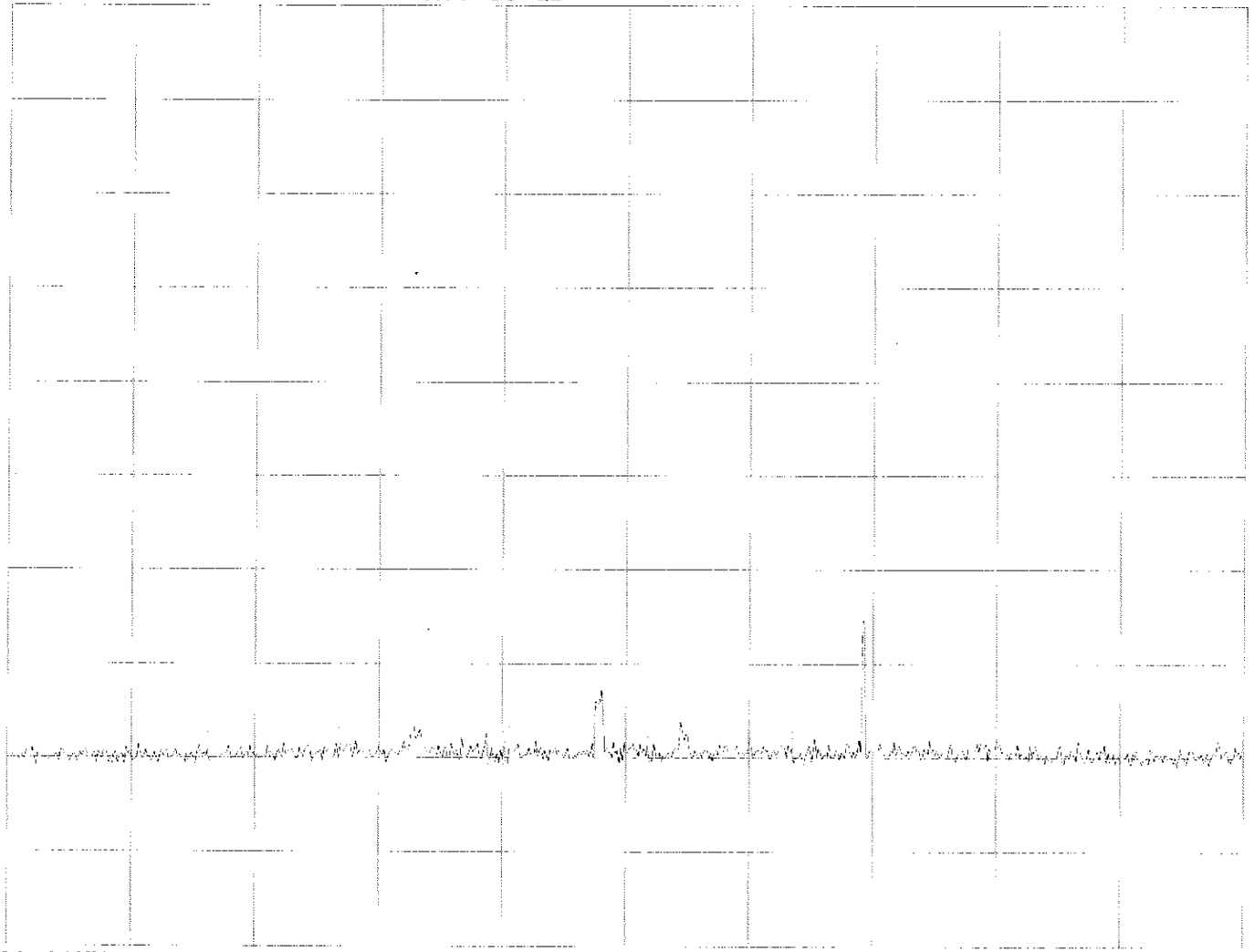
VBW 100kHz

STOP 26.000000GHz
SWP 5s

A28

Matsushita/Model:CF-M34/FCC ID:ACJ9TGCF-M34
15.247(c)Out of Band(30-1G)/2437MHz/22CE0062-YW
REF 127 dBuV ATT 30 dB

10dB/



START 30.00MHz
RBW 100kHz

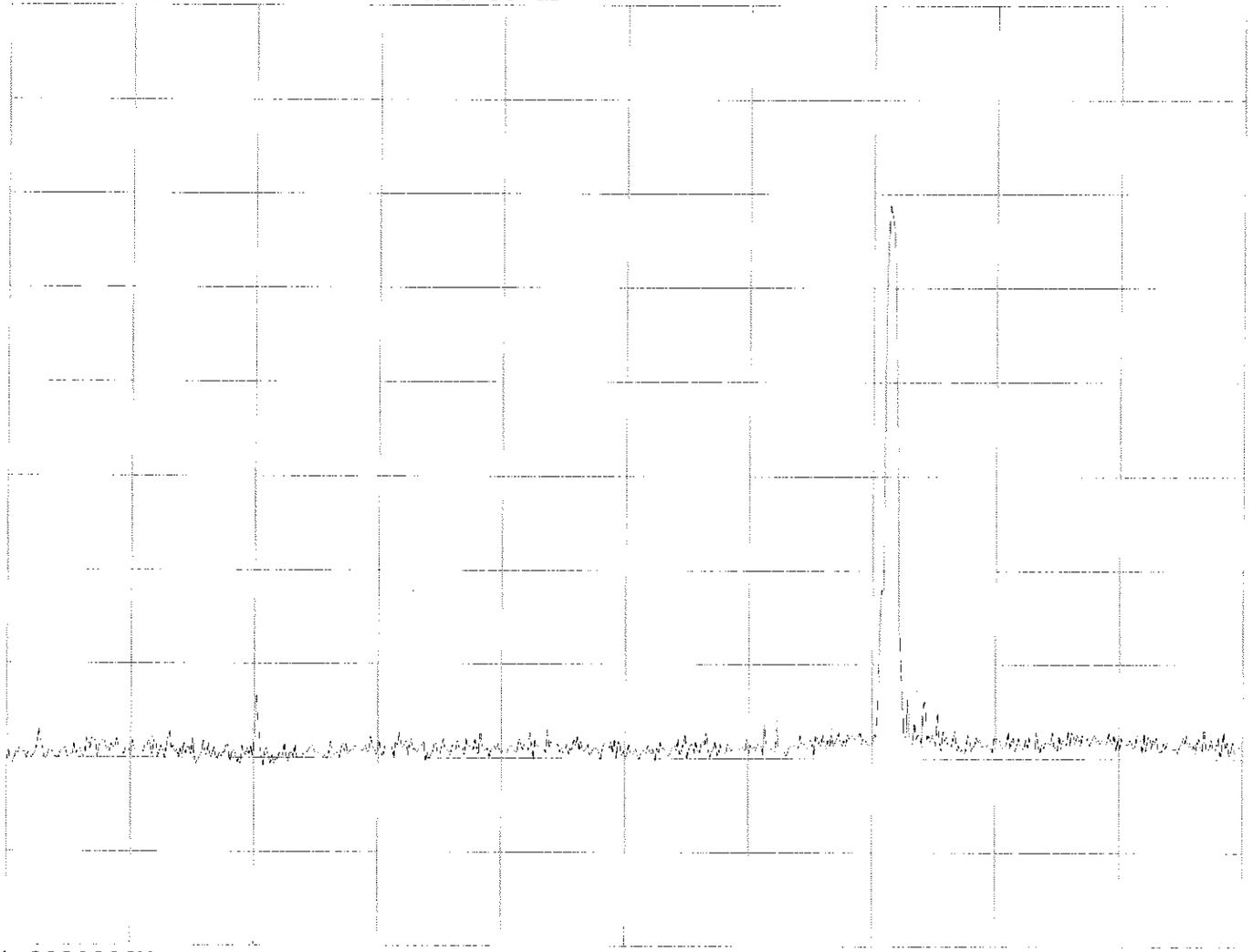
VBW 100kHz

STOP 1.000000GHz
SWP 200ms

A29

Matsushita/Model:CF-M34/FCC ID:ACJ9TGCF-M34
15.247(c)Out of Band(1G-3G)/2437MHz/22CE0062-YW
REF 127 dBuV ATT 30 dB

10dB/



START 1.000000GHz
RBW 100kHz

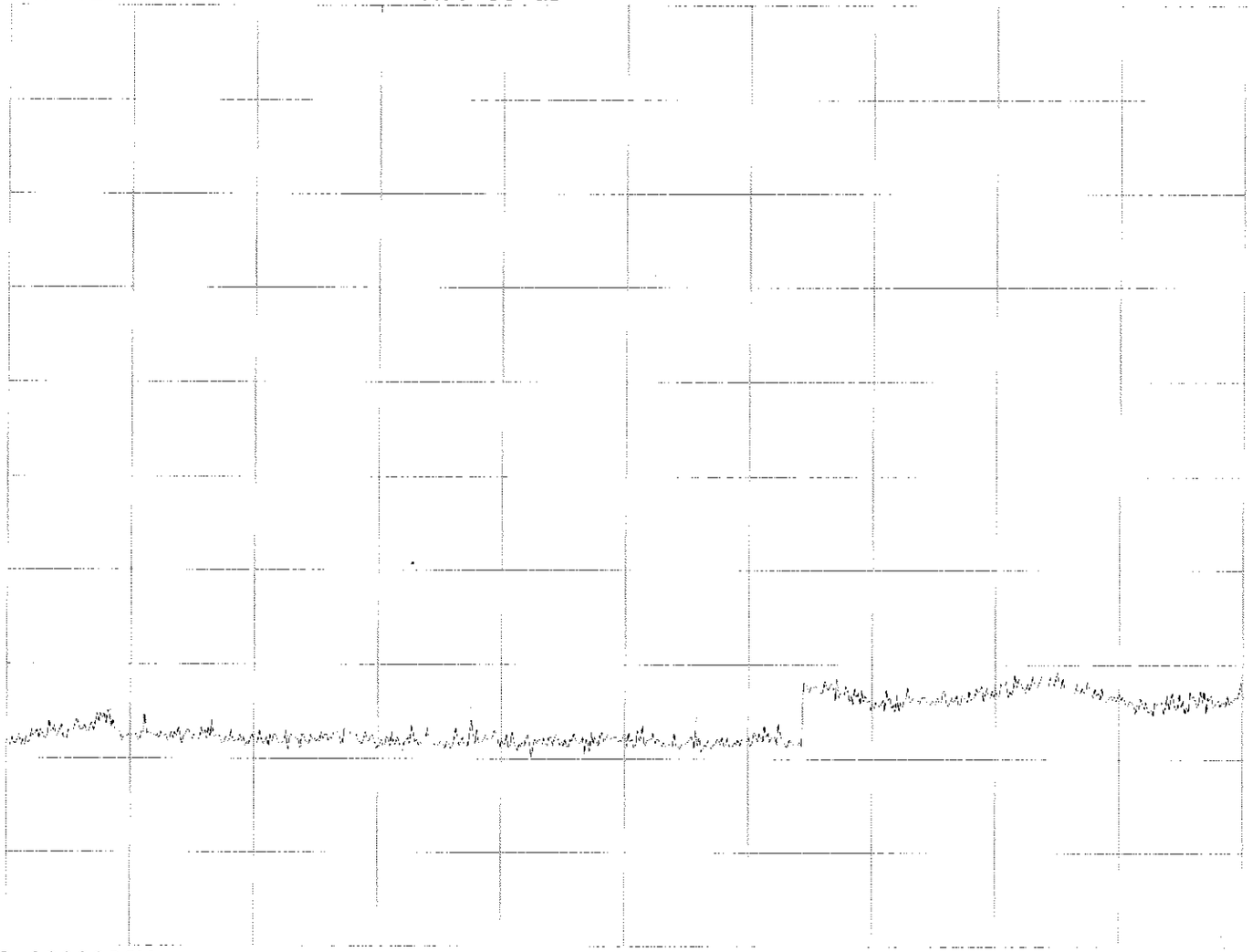
VBW 100kHz

STOP 3.000000GHz
SWP 1s

A30

Matsushita/Model:CF-M34/FCC ID:ACJ9TGCF-M34
15.247(c)Out of Band(3G-10G)/2437MHz/22CE0062-YW
REF 127 dBuV ATT 30 dB

10dB/



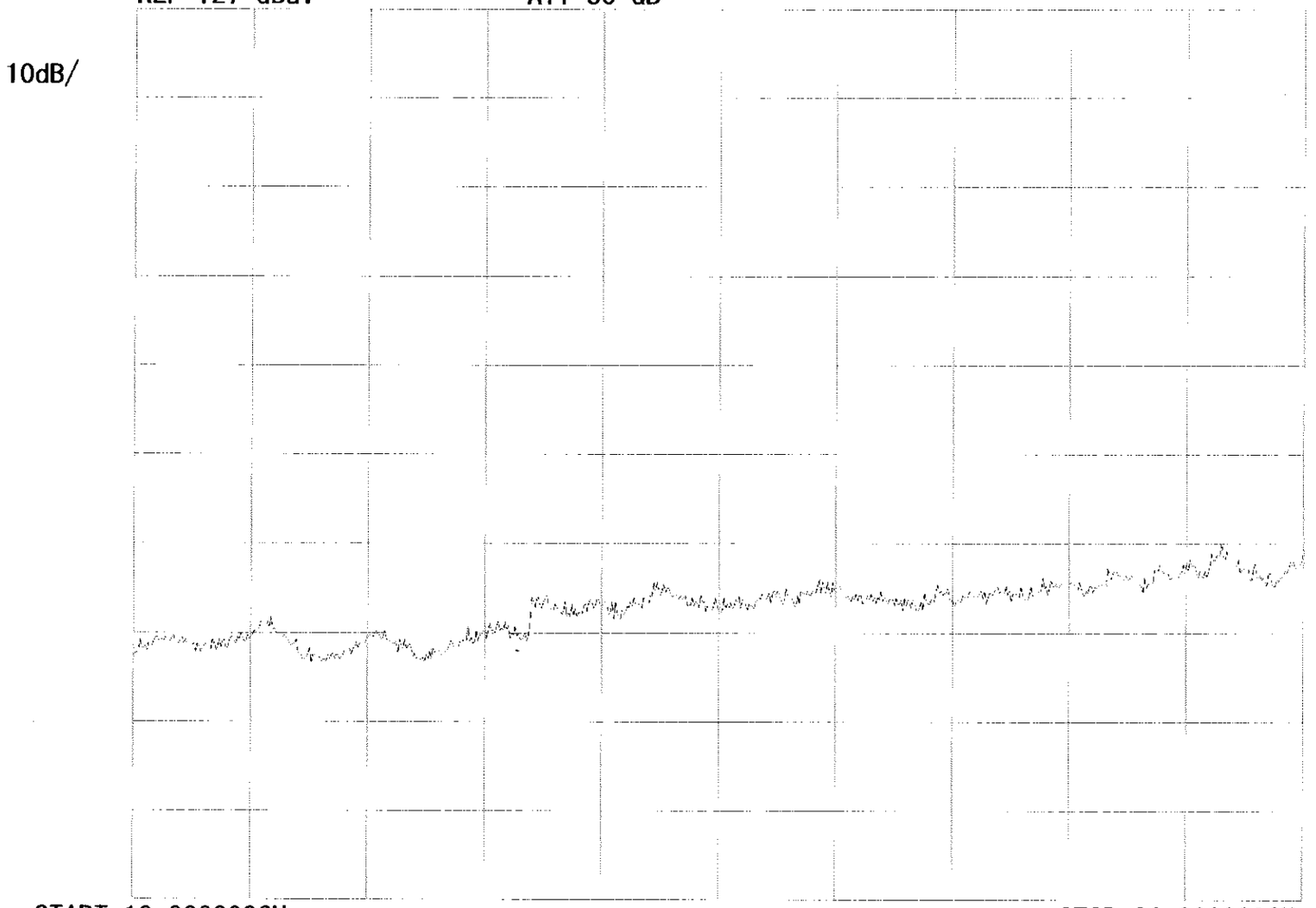
START 3.000000GHz
RBW 100kHz

VBW 100kHz

STOP 10.000000GHz
SWP 5s

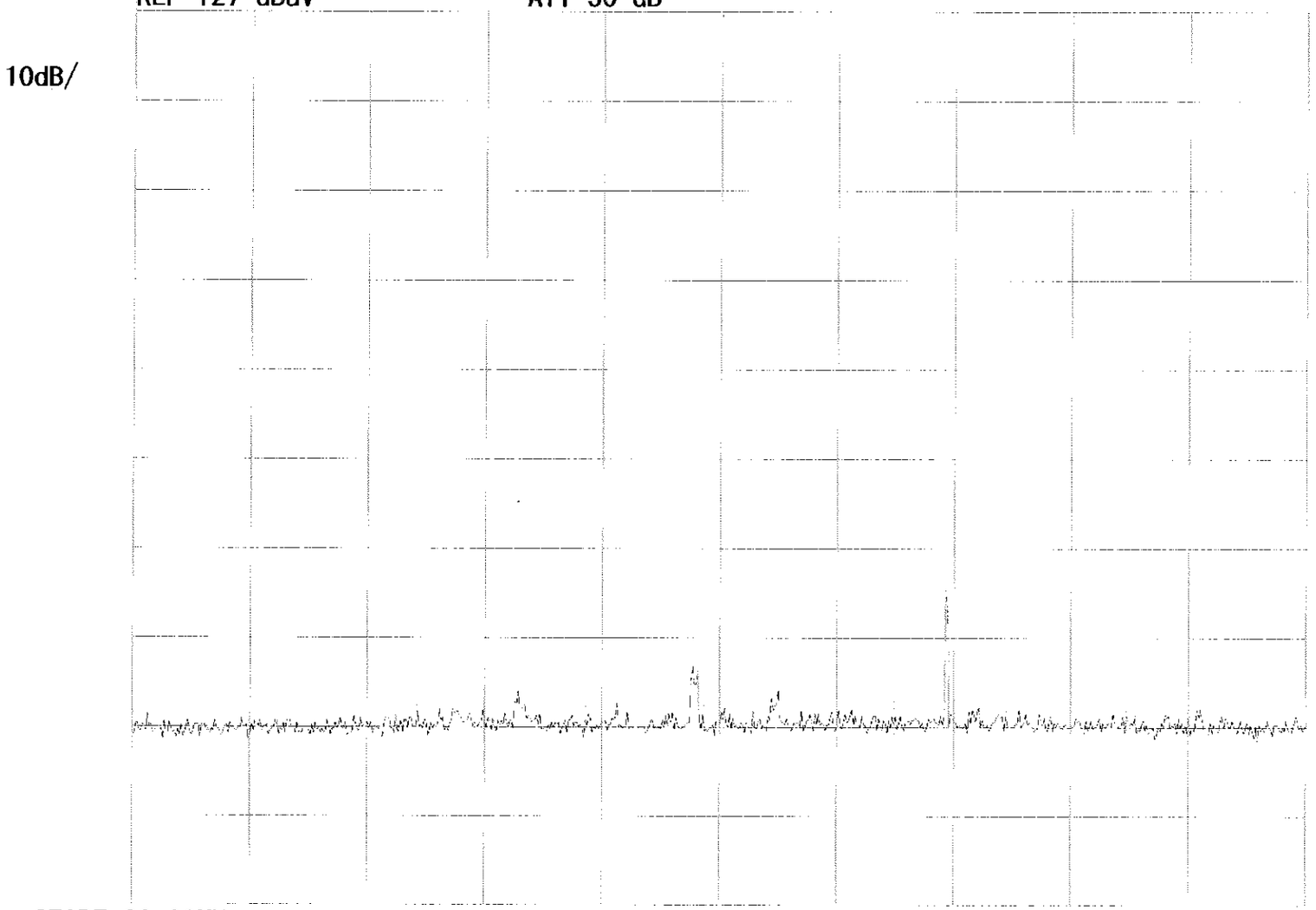
A31

Matsushita/Model:CF-M34/FCC ID:ACJ9TGCF-M34
15.247(c)Out of Band(10G-26G)/2437MHz/22CE0062-YW



A32

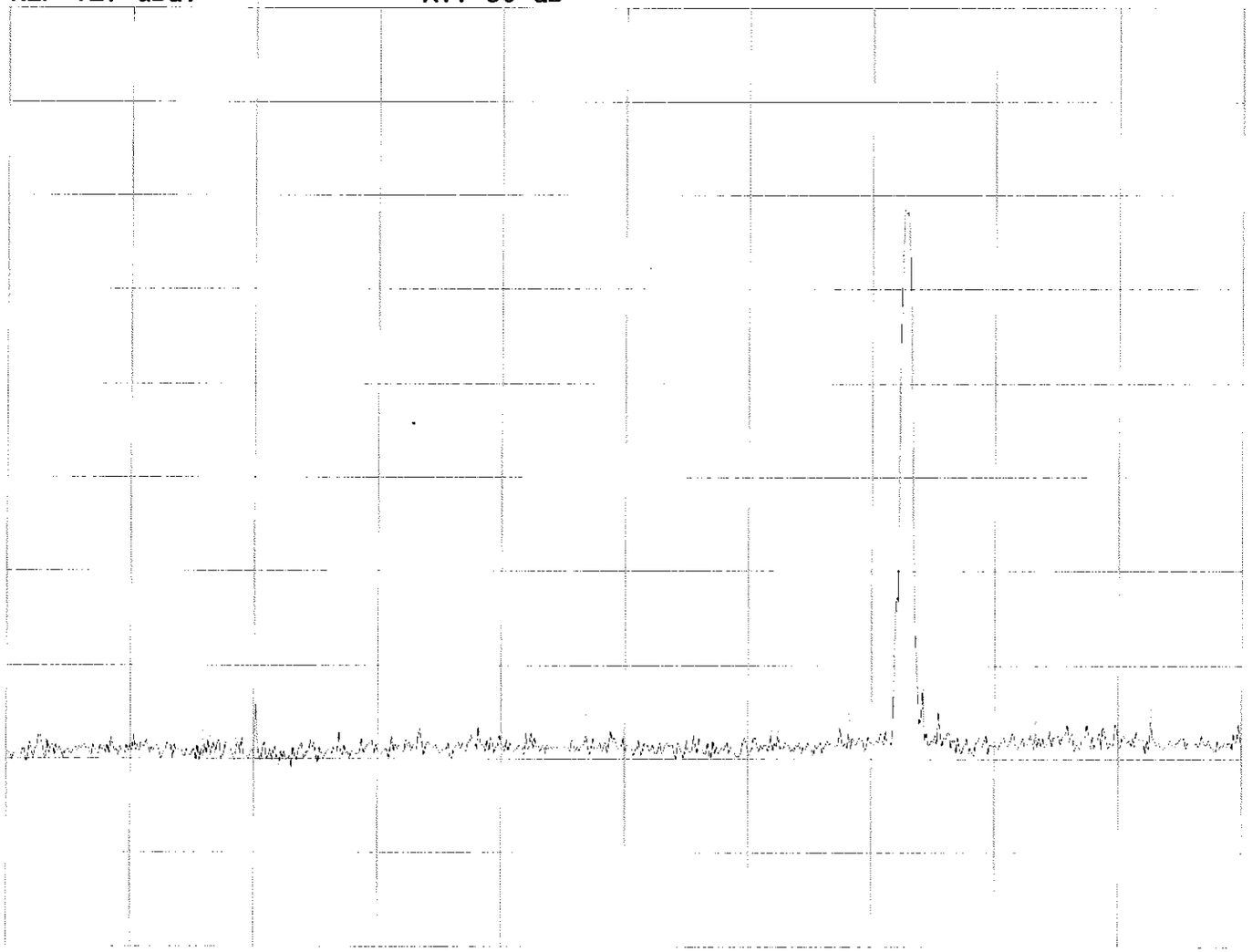
Matsushita/Model:CF-M34/FCC ID:ACJ9TGCF-M34
15.247(c)Out of Band(30M-1G)/2462MHz/22CE0062-YW



A 33

Matsushita/Model:CF-M34/FCC ID:ACJ9TGCF-M34
15.247(c)Out of Band(1G-3G)/2462MHz/22CE0062-YW
REF 127 dBuV ATT 30 dB

10dB/



START 1.000000GHz
RBW 100kHz

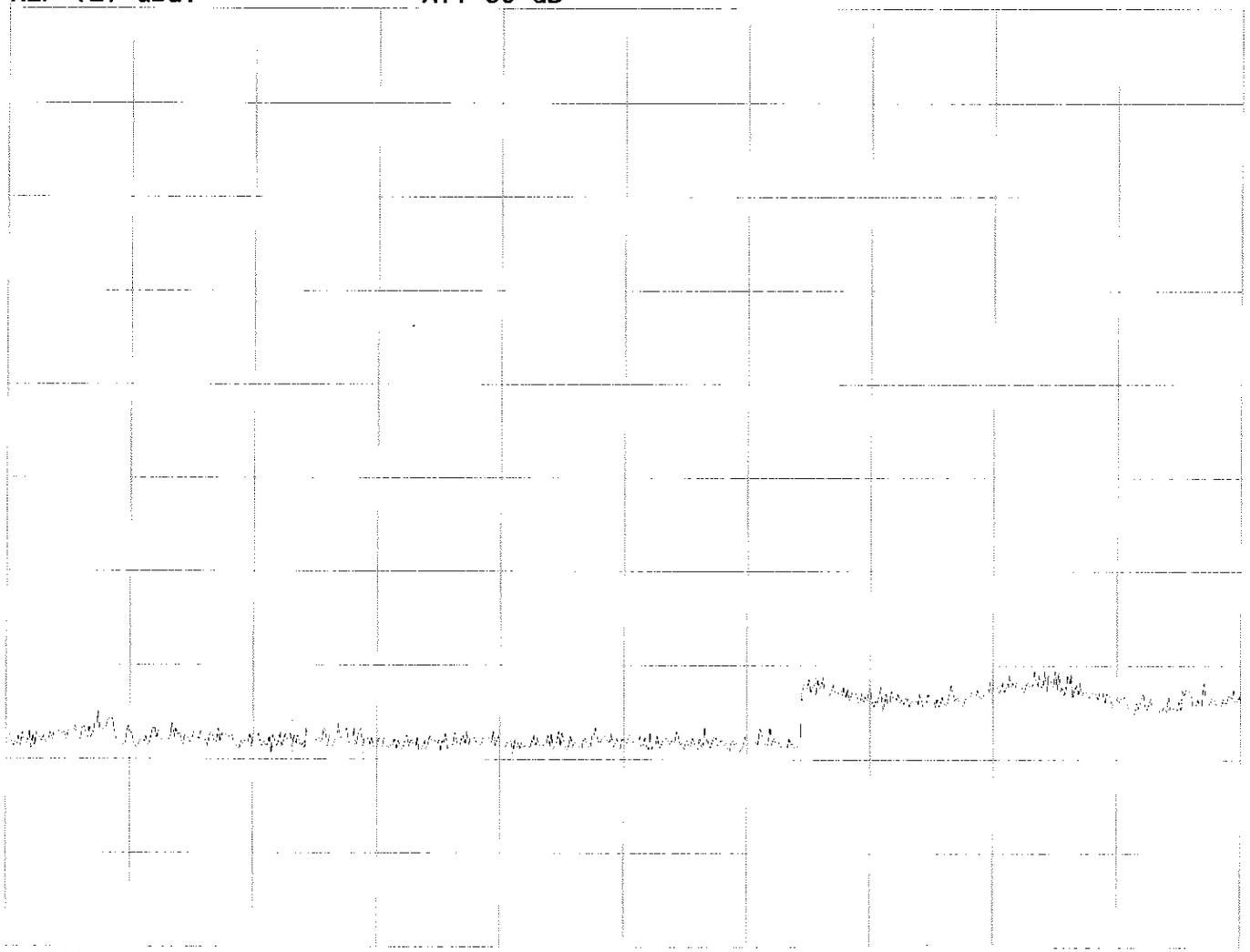
VBW 100kHz

STOP 3.000000GHz
SWP 400ms

A34

Matsushita/Model:CF-M34/FCC ID:ACJ9TGCF-M34
15.247(c)Out of Band(3G-10G)/2462MHz/22CE0062-YW
REF 127 dBuV ATT 30 dB

10dB/



START 3.000000GHz
RBW 100kHz

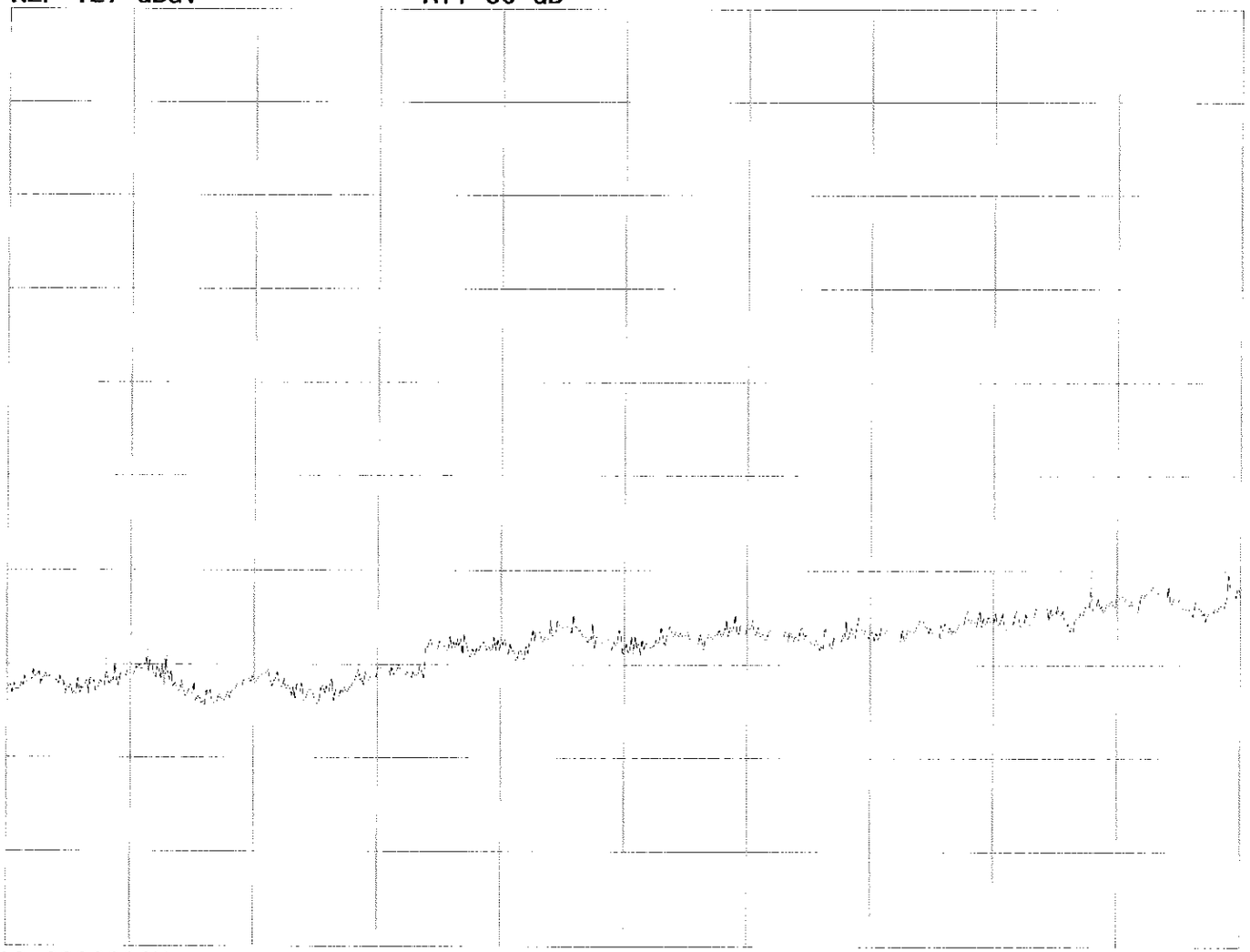
VBW 100kHz

STOP 10.000000GHz
SWP 2s

A35

Matsushita/Model:CF-M34/FCC ID:ACJ9TGCF-M34
15.247(c)Out of Band(10G-26G)/2462MHz/22CE0062-YW
REF 127 dBuV ATT 30 dB

10dB/



START 10.000000GHz
RBW 100kHz

VBW 100kHz

STOP 26.000000GHz
SWP 5s

A36

Power Density(Conducted)

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

COMPANY : Matsushita Electric Industrial Co.,Ltd
EQUIPMENT : Wireless LAN builtin PC
MODEL : CF-M34
FCC ID : ACJ9TGCF-M34
POWER : AC120V/60Hz
Mode : Transmitting

REPORT NO : 22CE0062-YW
REGULATION : Fcc Part15SubpartC 247 (d)
TEST DISTANCE :
DATE : 2001/11/20
Temp./Humi. : 20℃/43%

ENGINEER : Naoki Sakamoto

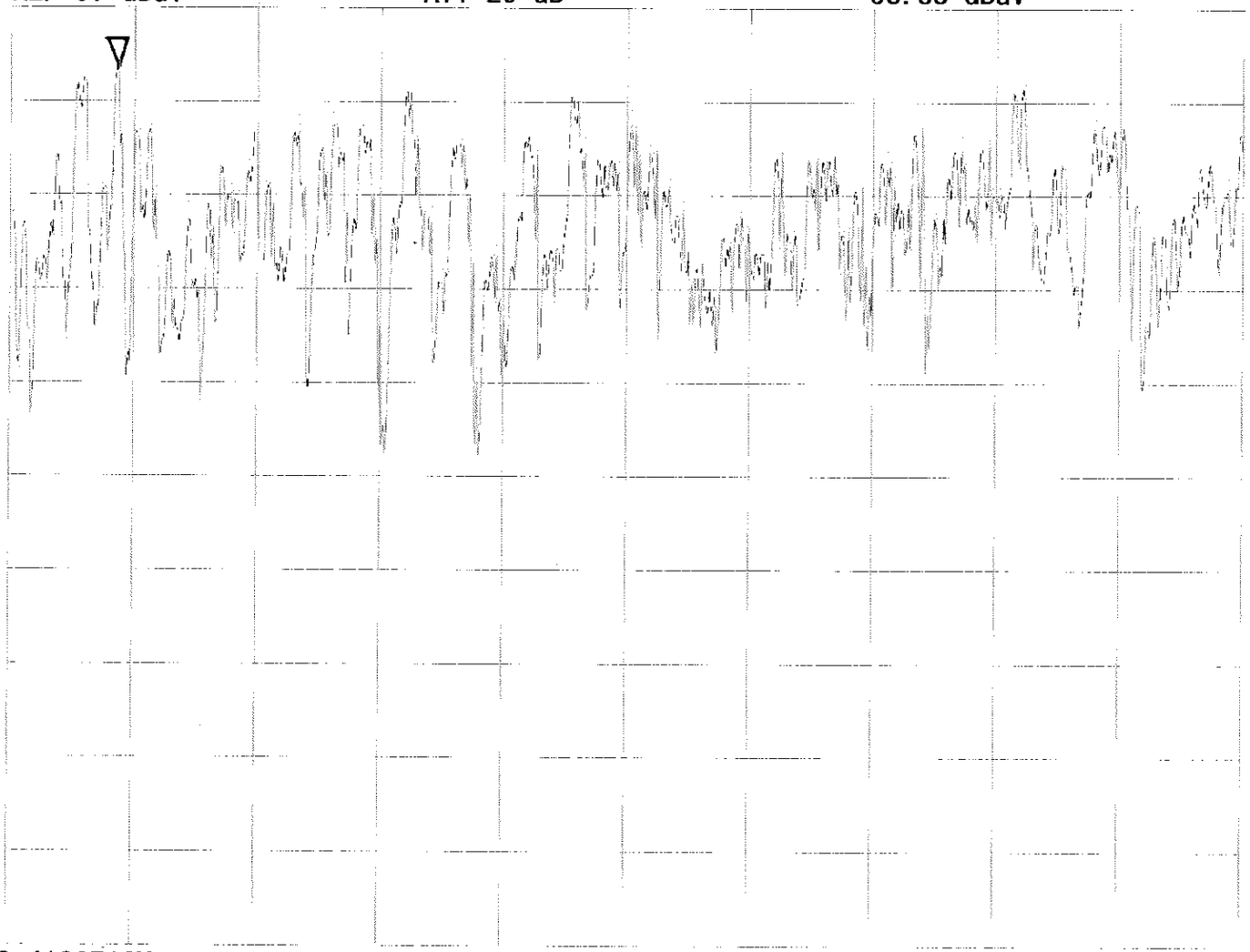
CH	FREQ [GHz]	S/A Reading [dBuV]	Cable Loss [dB]	ATTEN. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
Low	2.4132	93.9	0.5	6.0	-6.6	8.0	14.6
Mid	2.4350	93.5	0.5	6.0	-7.0	8.0	15.0
High	2.4620	92.5	0.5	6.0	-8.0	8.0	16.0

Sample Calculation :
RESULT=Reading(-107:Comverted to dBm) + CABLE LOSS + ATTEN.

Matsushita/Model:CF-M34/FCC ID:ACJ9TGCF-M34
15.247(d)Power Density/2412MHz/22CE0062-YW
REF 97 dBuV ATT 20 dB

MAKER
2.4132 GHz
93.88 dBuV

5dB/



START 2.413071GHz
RBW 3kHz

VBW 10kHz

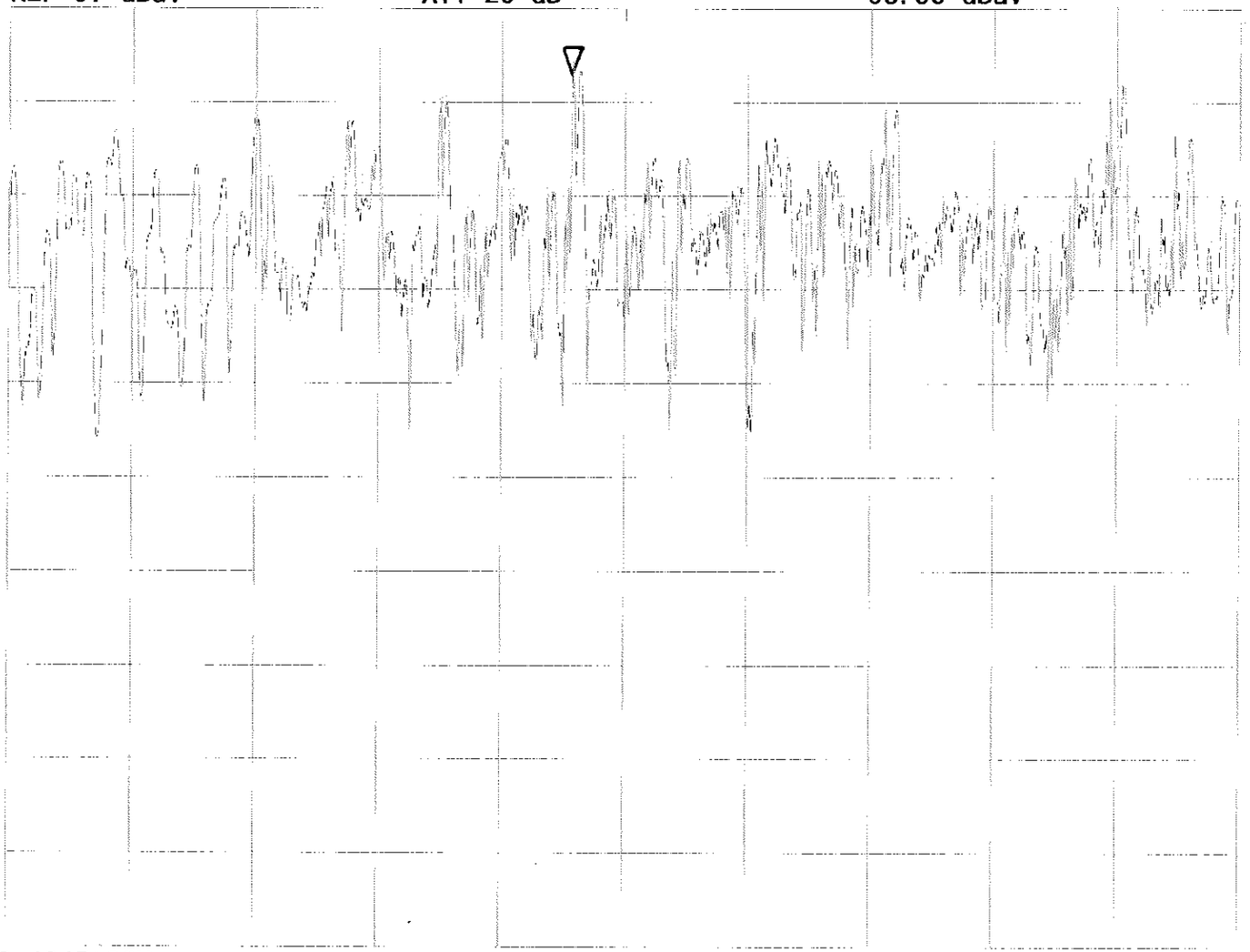
STOP 2.414071GHz
SWP 500s

A38

Matsushita/Model:CF-M34/FCC ID:ACJ9TGCF-M34
15.247(d)Power Density/2437MHz/22CE0062-YW
REF 97 dBuV ATT 20 dB

MAKER
2.4350 GHz
93.50 dBuV

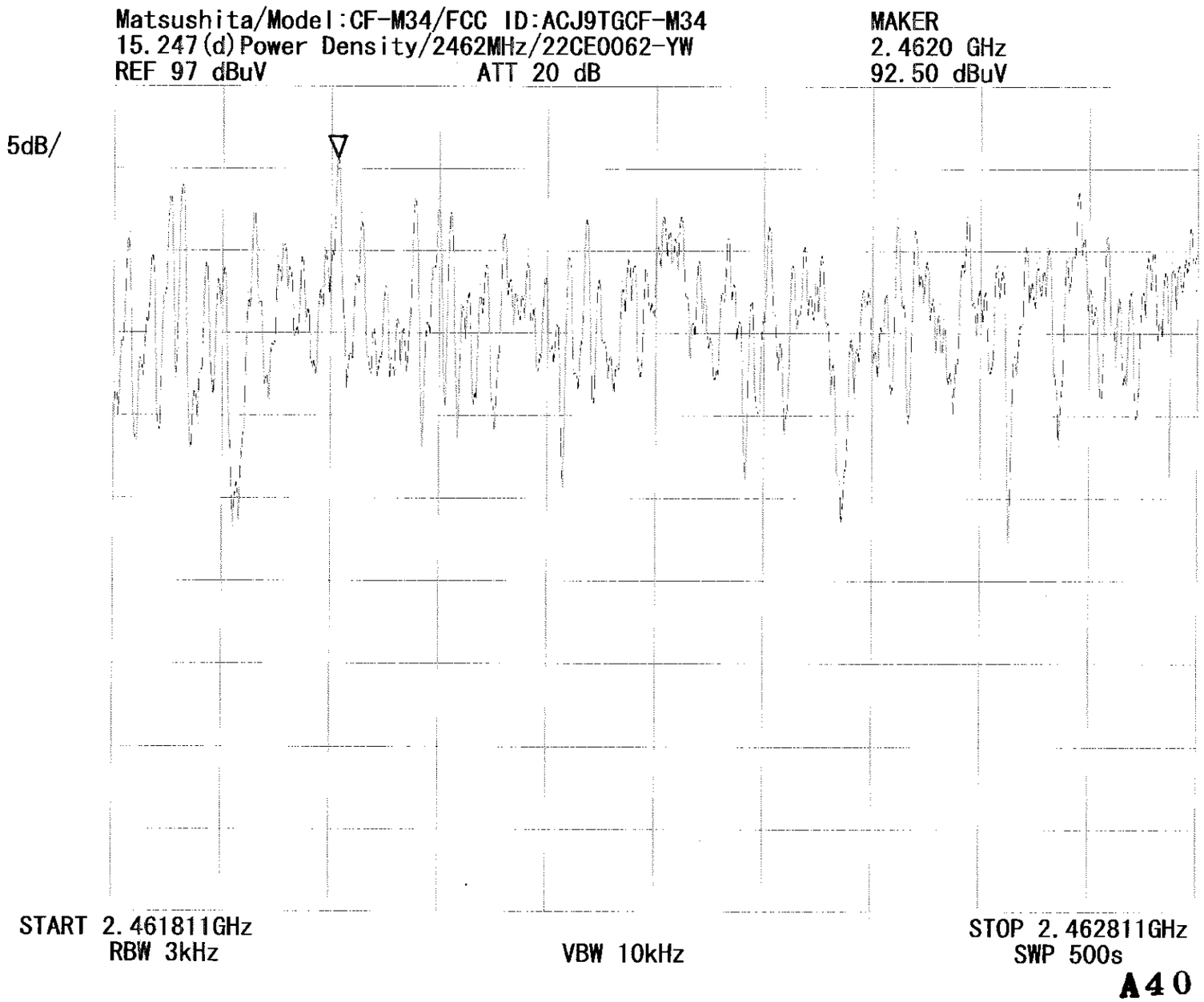
5dB/



START 2.434513GHz
RBW 3kHz

VBW 10kHz

STOP 2.435513GHz
SWP 500s


Matsushita/Model:CF-M34/FCC ID:ACJ9TGCF-M34
15.247(d)Power Density/2462MHz/22CE0062-YW
REF 97 dBuV
ATT 20 dB
MAKER
2.4620 GHz
92.50 dBuV
5dB/
START 2.461811GHz
RBW 3kHz
VBW 10kHz
STOP 2.462811GHz
SWP 500s

A40