ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT
CERTIFICATION TO FCC PART 15 REQUIREMENTS

for

INTENTIONAL RADIATOR

434MHz WIRELESS REMOTE CONTROLLER TRANSCEIVER

MODEL NO: L-500HAF

FCC ID NO: NJQ500HAF

REPORT NO: 00E9087

ISSUE DATE: March 24, 2001

Prepared for
WINTECRONICS CO., LTD.
2F, NO.7-1, MING LEE STREET,
CHUNG HO CITY, TAIPEI,
TAIWAN, R. O. C.

Prepared by
COMPLIANCE ENGINE ERING SERVICES, INC.
d.b.a.
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- Emission Bandwidth Plot
- Radiated Emission for Transmitter Mode
- Radiated Emission for Receiver Mode

1. VERIFICATION OF COMPLIANCE

COMPANY NAME:	WINTECRONICS CO., LTD. 2F, NO.7-1, MING LEE STREET, CHUNG HO CITY, TAIPEI, TAIWAN, R. O. C.
CONTACT PERSON:	RAY HO / ENGINEER
TELEPHONE NO.:	(02) 2249-6046
EUT DESCRIPTION:	434MHz WIRELESS REMOTE CONTROLLER TRANSCEIVER
MODEL NAME/NUMBER:	L-500HAF
FCC ID:	NJQ500HAF
DATE TESTED:	NOVEMBER 15, 2000 & NOVEMBER 16
REPORT NUMBER:	00E9087

TYPE OF EQUIPMENT	SECURITY EQUIPMENT (INTENTIONAL RADIATOR)
EQUIPMENT TYPE	434MHz WIRELESS REMOTE CONTROLLER TRANSCEIVER
MEASUREMENT PROCEDURE	ANSI C63.4 / 1992
LIMIT TYPE	CERTIFICATION
FCC RULE	CFR 47, PART 15

The above equipment was tested by Compliance Certification Services for compliance with the requirements set forth in the FCC CFR 47, PART 15. The results of testing in this report apply to the product/system which was tested only. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties. **Warning** : This document reports conditions under which testing was conducted and results of tests performed. This document may not be altered or revised in any way unless done so by Compliance Certification Services and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by Compliance Certification will constitute fraud and shall nullify the document.

Rick Yeo

RICK YEO / EMC MANAGER
COMPLIANCE ENGINEERING SERVICES, INC.

2. Product Description

Fundamental Frequency	**434 MHz**
Power Source	**1.5V Battery**
Transmitting Time	**Periodic ≤ 5 seconds**
Associated Transceiver	**FCC ID: NJQ520BFA**

3. Test Facility

The open area test sites and conducted measurement facilities used to collect the radiated data are located at No. 199, Chung Sheng Road, Hsin Tien City, Taipei, Taiwan R.O.C. The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22.

4. Measurement Standards

The site is constructed and calibrated in conformance with the requirements of ANSI C63.4/1992.

5. Test Methodology

For an intentional radiator, the spectrum shall be investigated from the lowest radio frequency signal generated in the device, without going below 9 KHz, up to at least the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower. (CFR 47 Section 15.33)

6. Measurement Equipment Used

Manufacturer	Model Number	Description	Cal Due Date
H.P.	8566B	Spectrum Analyzer (100Hz – 22GHz)	12/2001
H.P.	8595EM	Spectrum Analyzer (9KHz – 6.5GHz)	01/2002
EMCO	3115	Antenna (1-18GHz)	09/2001
EMCO	3142	Antenna (30-2000MHz)	06/2001
T.E.C.	PA-102	Amplifier(30-2000MHz)	05/2001
MITEQ	NSP2600-44	Amplifier(1-26GHz)	12/2001

7. POWERLINE RFI LIMIT

CONNECTED TO AC POWER LINE	SECTION 15.207
CARRIER CURRENT SYSTEM IN THE FREQUENCY RANGE OF 450 kHZ TO 30 MHz	SECTION 15.205 AND SECTION 15.209, 15.221, 15.223, 15.225 OR 15.227, AS APPROPRIATE.
BATTERY POWER	NO REQUIRED.

8. RADIATED EMISSION LIMITS

GENERAL REQUIREMENTS	SECTION 15.209
RESTRICTED BANDS OF OPERATION	SECTION 15.205
PERIODIC OPERATION IN THE BAND 40.66 -40.70 MHz AND ABOVE 70 MHz.	SECTION 15.231
Receiver Mode	SECTION 15.109

9. SYSTEM TEST CONFIGURATION

Use a block of foam and combined it with EUT wrapping rubber band around it. This way it can test X.Y, and Z axis. To activate continuous transmission, place a small plastic block between rubber band and EUT push button.

Radiated Open Site Test Set-up (Transmitter Mode)

Radiated Open Site Test Set-up (Receiver Mode)

10. Test Procedure

Radiated Emissions, 15.231(4)(b)

Test Set-up for frequency range 30 – 1000 MHz

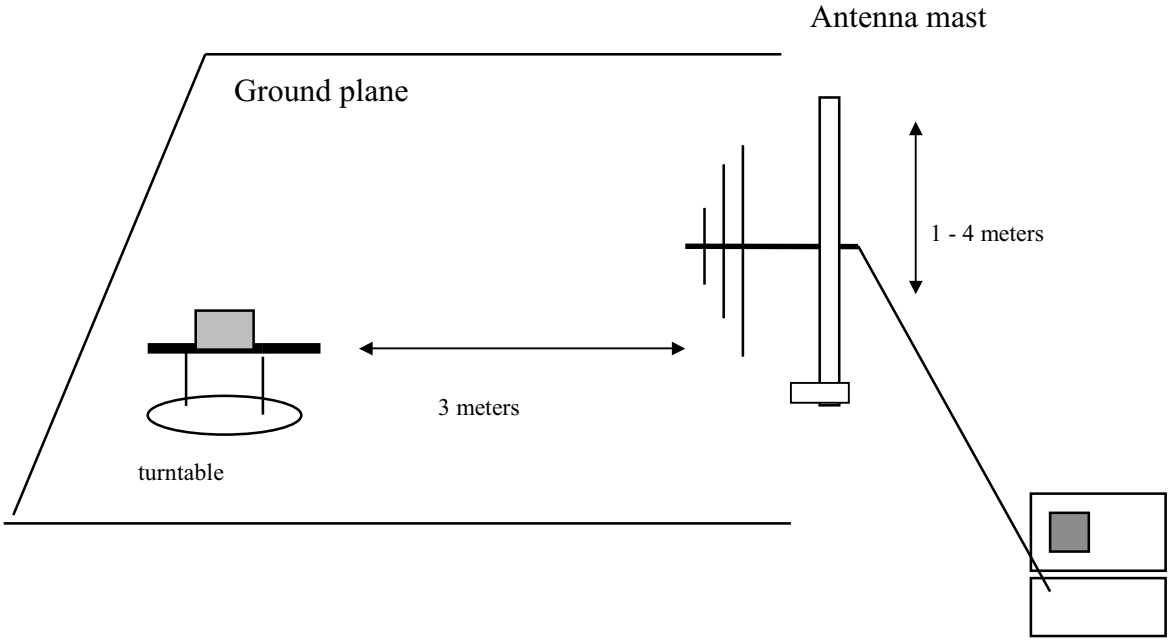


Fig. 1

1. The EUT was placed on a wooden table on the outdoor ground plane. The search antenna was placed 3-meters from the EUT.

2. The turntable was slowly rotated to locate the direction of maximum emission at each emission falling in the restricted bands of 15.205. The EUT was moved throughout the XY, XZ, and YZ planes to maximize emissions received by the search antenna.

3. Once maximum direction was determined, the search antenna was raised and lowered in both vertical and horizontal polarizations. The maximum readings so obtained are recorded in the data listed below.

Test set-up for measurements above 1GHz

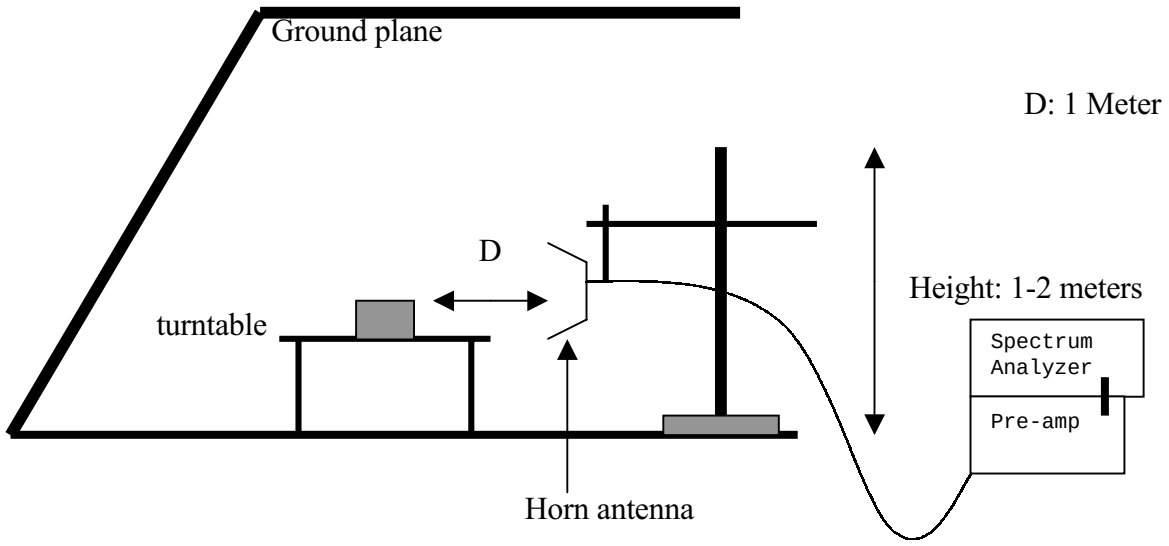


FIG. 2

1. The EUT was placed on a wooden table on the outdoor ground plane. The search antenna was placed 1-meters from the EUT. The EUT antenna was mounted vertically as per normal installation.

2. The turntable was slowly rotated to locate the direction of maximum emission at each emission falling in the restricted bands of 15.205. The EUT was moved throughout the XY, XZ, and YZ planes to maximize emissions received by the search antenna.

3. Once maximum direction was determined, the search antenna was raised and lowered in both vertical and horizontal polarizations. The maximum readings so obtained are recorded in the data listed below.

11. Equipment Modifications

To achieve compliance to FCC Section 15.231 technical limits, the following change(s) were made during compliance testing:

NONE

12. TEST RESULT

Powerline RFI Class B	Eut	Radiated Emission Limits	Eut
SECTION 15.207		SECTION 15.209	X
SECTION 15.205, 15.209, 15.221, 15.223, x 15.225 OR 15.227		SECTION 15.205	
BATTERY POWER	X	SECTION 15.231 (b)	X
		SECTION 15.231 (e)	
		SECTION 15.109	X

12.1 Maximum Modulation Percentage (M%)

CALCULATION:

Average Reading = Peak Reading (dBuV/m)+ 20log (Duty Cycle)

In order to determine possible Maximum Modulation percentage, alternations are made to the EUT. We measured:

WHERE 1 Period = 108.266 mS
Long pulse = 0.656 mS
Short pulse = 0.256 mS
No of Long pulse = 51
No of Short pulse = 27

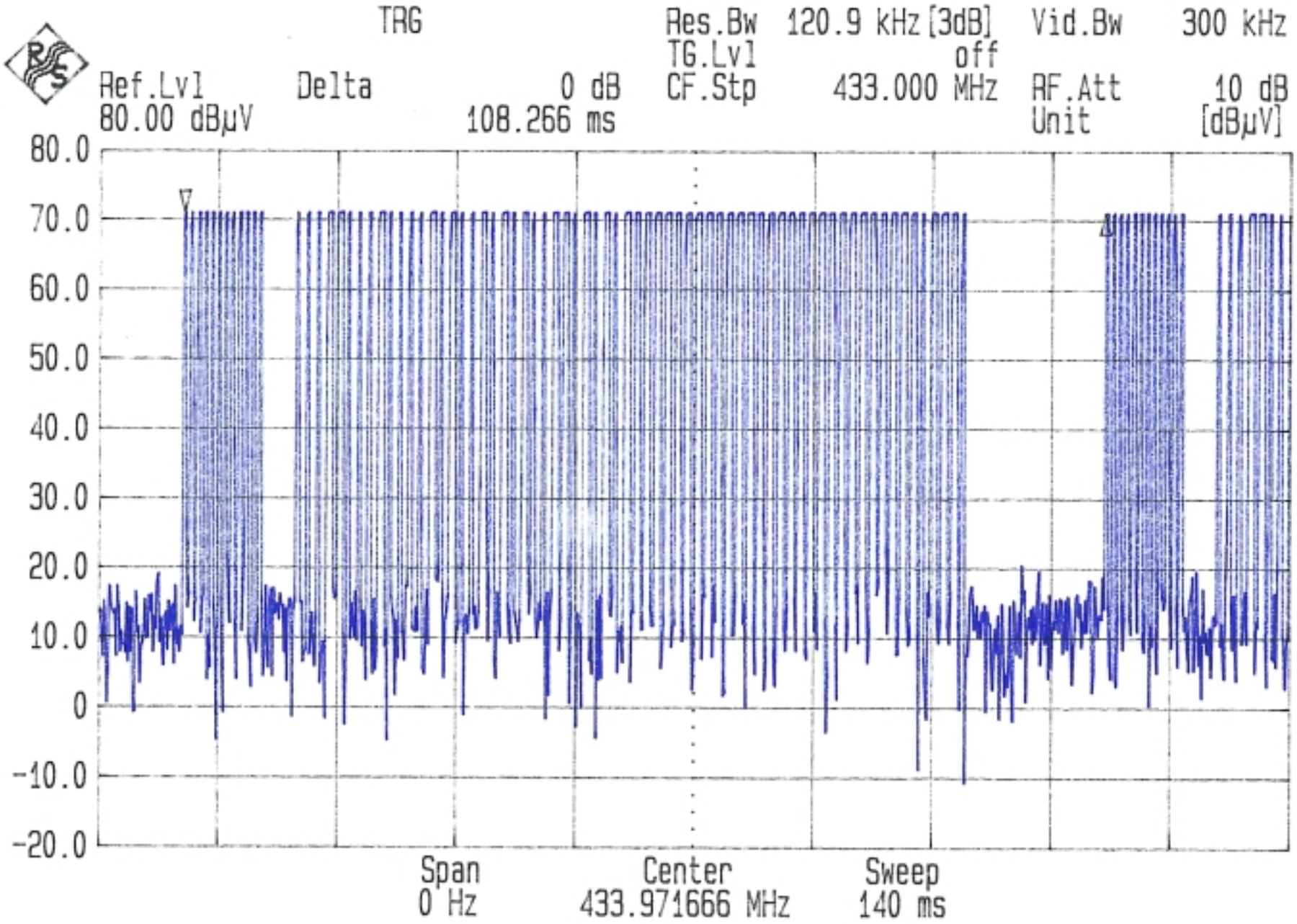
Duty Cycle = (N1L1+N2L2+…+Nn-1Ln-1+NnLn)/100 or T

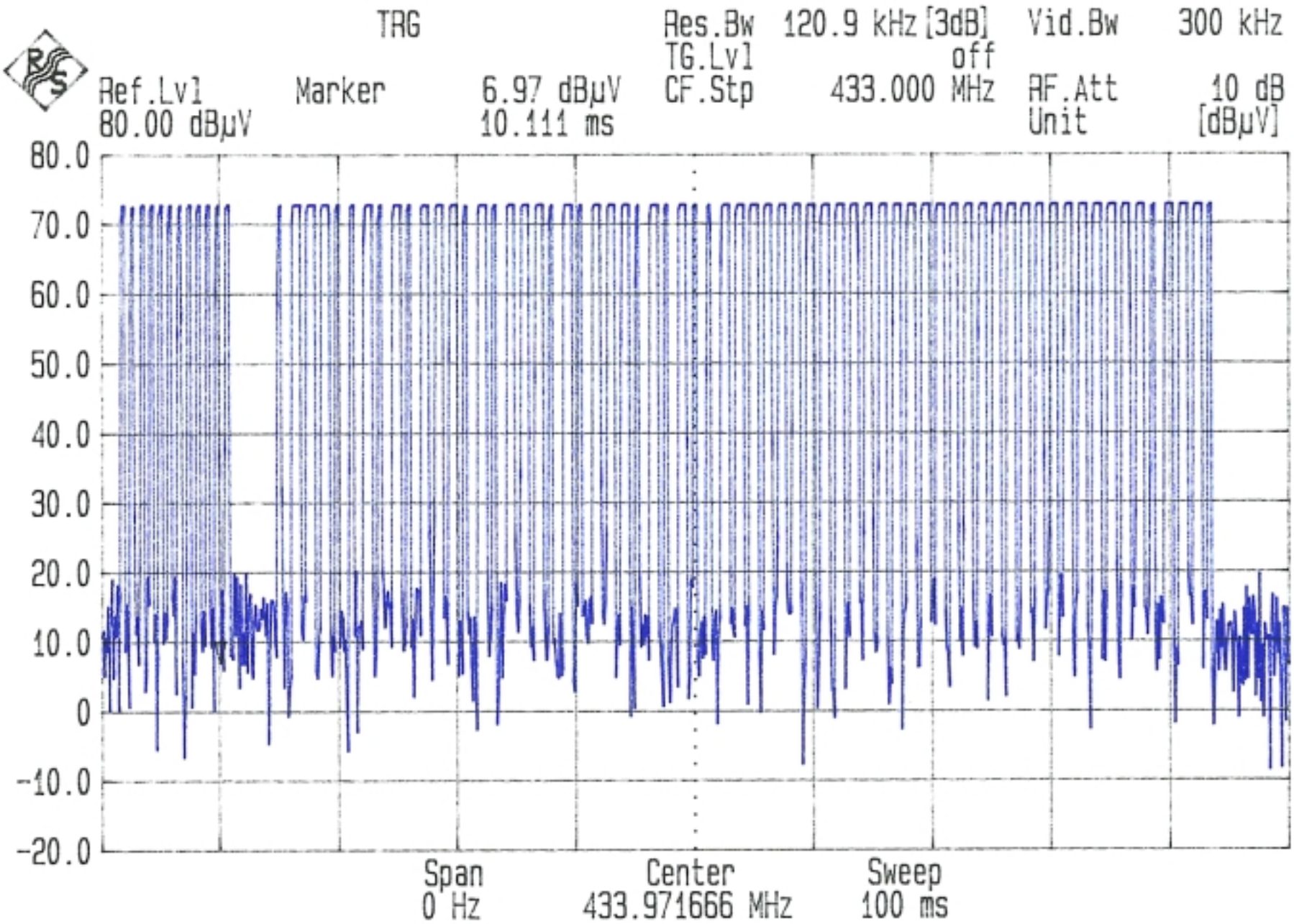
Duty Cycle = ((51x0.655)+(27x0.255))/100=0.4037=40.37% or –7.88dB

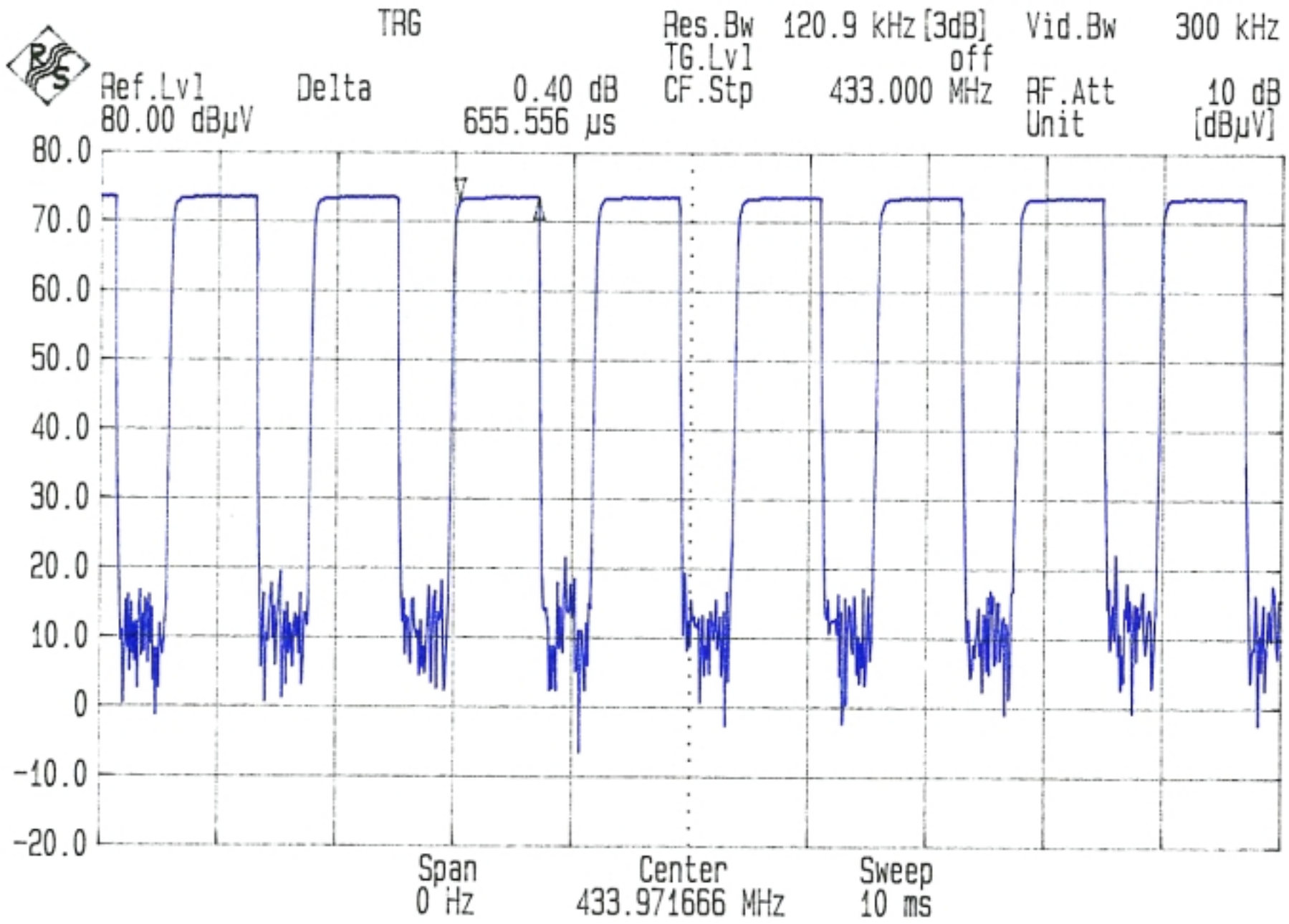
12.2 The Emissions Bandwidth

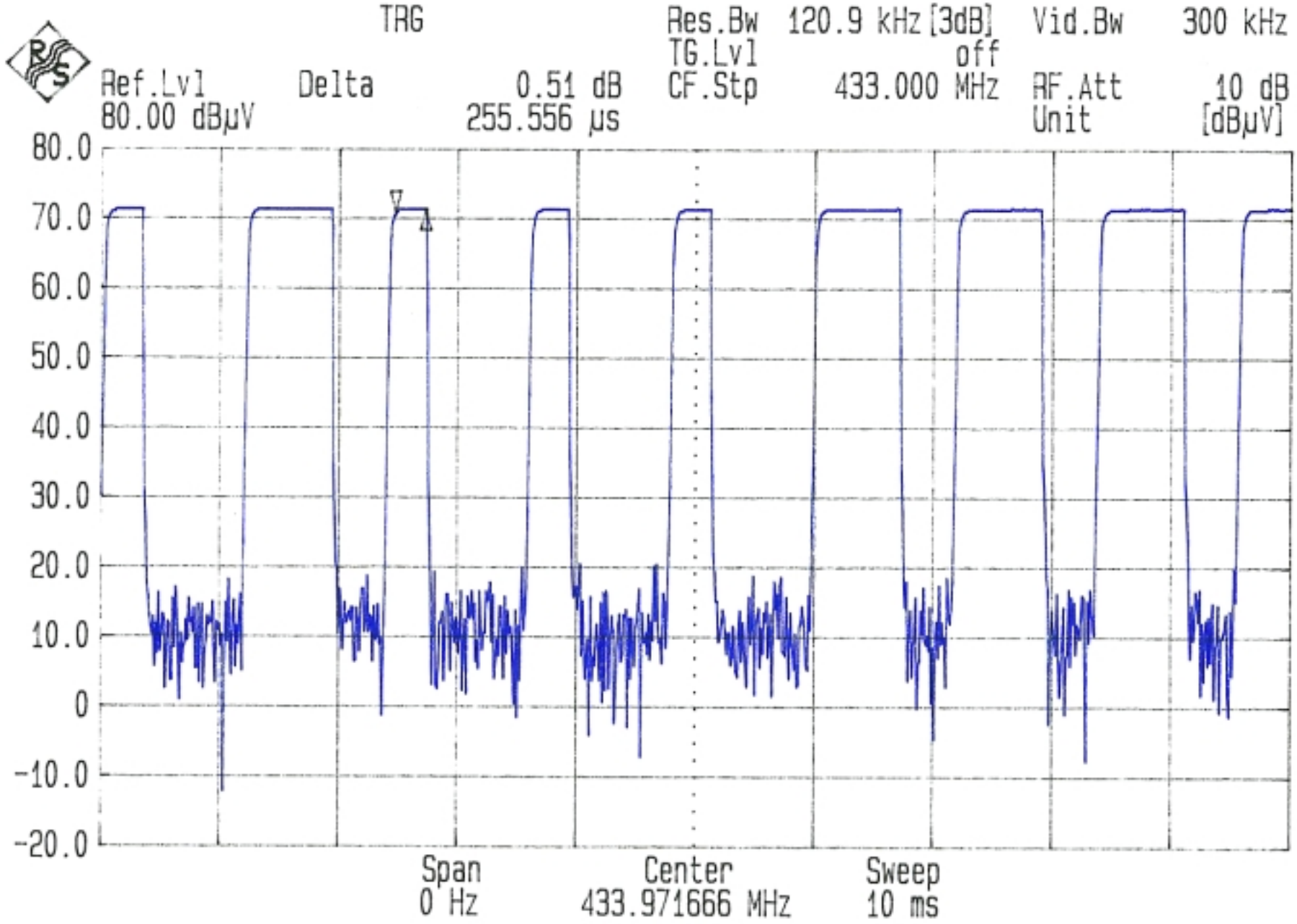
The bandwidth of the emissions were investigated per 15.231(c)

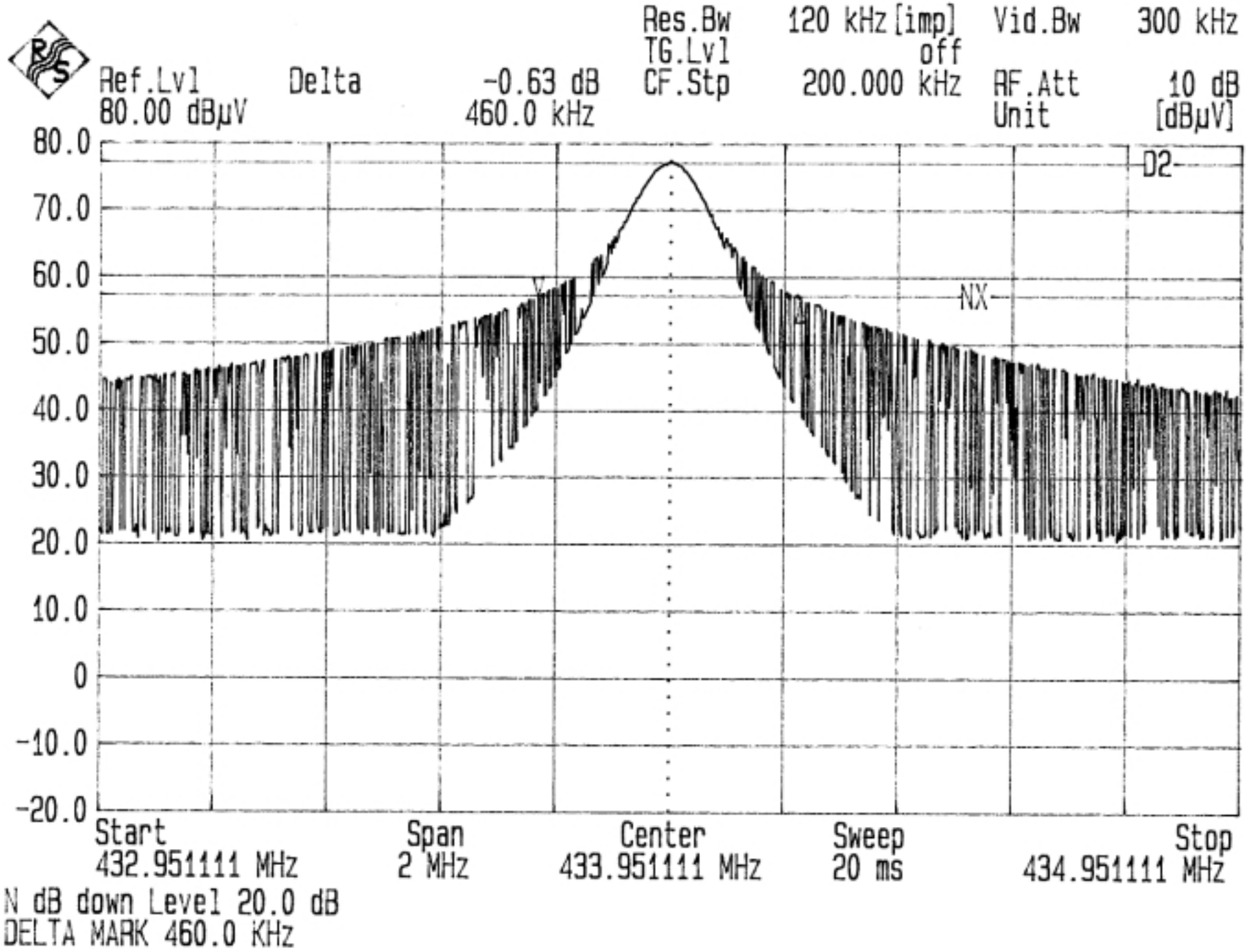
Center Frequency	Measured	Limits
434 MHz	**460.0 kHz < (refer to plot)**	**434X0.25%=1085 kHz**


TRG
Res.Bw 120.9 kHz [3dB]
Vid.Bw 300 kHz
TG.Lvl off
Ref.Lvl 80.00 dBµV
Delta 0 dB 108.266 ms
CF.Stp 433.000 MHz
RF.Att 10 dB
Unit [dBµV]
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0
-10.0
-20.0
Span 0 Hz
Center 433.971666 MHz
Sweep 140 ms


TRG
Res.Bw 120.9 kHz [3dB]
Vid.Bw 300 kHz
TG.Lvl off
Ref.Lvl 80.00 dBµV
Marker 6.97 dBµV 10.111 ms
CF.Stp 433.000 MHz
RF.Att 10 dB
Unit [dBµV]
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0
-10.0
-20.0
Span 0 Hz
Center 433.971666 MHz
Sweep 100 ms


TRG
Res.Bw 120.9 kHz [3dB]
Vid.Bw 300 kHz
TG.Lvl off
Ref.Lvl 80.00 dBµV
Delta 0.40 dB
655.556 µs
CF.Stp 433.000 MHz
RF.Att 10 dB
Unit [dBµV]
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0
-10.0
-20.0
Span 0 Hz
Center 433.971666 MHz
Sweep 10 ms


TRG
Res.Bw 120.9 kHz [3dB]
Vid.Bw 300 kHz
TG.Lvl off
Ref.Lvl 80.00 dBµV
Delta 0.51 dB 255.556 µs
CF.Stp 433.000 MHz
RF.Att 10 dB
Unit [dBµV]
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0
-10.0
-20.0
Span 0 Hz
Center 433.971666 MHz
Sweep 10 ms


Res.Bw 120 kHz [imp]
Vid.Bw 300 kHz
TG.Lvl off
Ref.Lvl 80.00 dBµV
Delta -0.63 dB 460.0 kHz
CF.Stp 200.000 kHz
RF.Att 10 dB
Unit [dBµV]
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0
-10.0
-20.0
D2
NX
Start 432.951111 MHz
Span 2 MHz
Center 433.951111 MHz
Sweep 20 ms
Stop 434.951111 MHz
N dB down Level 20.0 dB
DELTA MARK 460.0 KHz

COMPLIANCE
Certification Services

FCC, VCCI, CISPR, CE, AUSTEL, NZ
UL, CSA, TUV, BSMI, DHHS, NVLAP

No. 199 Chung Sheng Road
Hsin Tien City, Taipei, Taiwan, R.O.C.
PHONE: 02-2217-0894 FAX: 02-2217-1254

Project #:	00E9087
Report #:	9087D1
Date& Time:	11/15/00
Test Engr:	VINCE CHIANG

Company:	WINTECRONICS CO., LTD.
EUT Description:	L-500HAF 434 MHz Wireless Remote Controller Transceiver
Test Configuration :	EUT Only
Type of Test:	FCC 15.231(b)
Mode of Operation:	Transmitter Mode

(•) D-Site ( ) E-Site

M% = ((t1+t2+t3+…)/T) * 100% = **40.37 %**

Av Reading = Pk Reading + 20*log(M%)

20*log(M%) = **-7.8788**

	Freq. (MHz)	Pk Rdg (dBuV)	Av Rdg (dBuV)	AF (dB)	Closs (dB)	Pre-amp (dB)	Level (dBuV/m)	Limit FCC_B	Margin (dB)	Pol (H/V)	Az (Deg)	Height (Meter)
	Button #1:											
X	433.98	54.80	46.92	17.50	2.58	21.28	45.72	80.83	-35.11	3mV	180	1.25
	867.94	46.22	38.34	23.37	4.47	20.69	45.49	60.83	-15.34	3mV	180	1.25
Y	433.97	68.19	60.31	17.50	2.58	21.28	59.11	80.83	-21.72	3mV	0	1.30
	867.95	47.16	39.28	23.37	4.47	20.69	46.43	60.83	-14.40	3mV	0	1.40
Z	433.97	67.40	59.52	17.50	2.58	21.28	58.32	80.83	-22.51	3mV	0	1.25
	867.93	52.57	44.69	23.37	4.47	20.69	51.84	60.83	-8.99	3mV	0	1.50
X	433.98	64.40	56.52	17.50	2.58	21.28	55.32	80.83	-25.51	3mH	180	1.30
	867.92	45.69	37.81	23.37	4.47	20.69	44.96	60.83	-15.87	3mH	180	1.25
Y	433.98	59.91	52.03	17.50	2.58	21.28	50.83	80.83	-30.00	3mH	0	1.20
	867.95	45.05	37.17	23.37	4.47	20.69	44.32	60.83	-16.51	3mH	0	1.35
Z	433.97	63.82	55.94	17.50	2.58	21.28	54.74	80.83	-26.09	3mH	90	1.30
	867.91	42.41	34.53	23.37	4.47	20.69	41.68	60.82	-19.14	3mH	90	1.40
	Button #2:											
X	433.97	56.84	48.96	17.50	2.58	21.28	47.76	80.83	-33.07	3mV	180	1.30
	867.95	41.70	33.82	23.37	4.47	20.69	40.97	60.83	-19.86	3mV	180	1.25
Y	433.97	68.14	60.26	17.50	2.58	21.28	59.06	80.83	-21.77	3mV	0	1.30
	867.92	44.57	36.69	23.37	4.47	20.69	43.84	60.83	-16.99	3mV	0	1.40
Z	433.97	57.52	49.64	17.50	2.58	21.28	48.44	80.83	-32.39	3mV	270	1.20
	867.96	53.31	45.43	23.37	4.47	20.69	52.58	60.83	-8.25	3mV	270	1.10
X	433.97	64.76	56.88	17.50	2.58	21.28	55.68	80.83	-25.15	3mH	90	1.35
	867.93	45.46	37.58	23.37	4.47	20.69	44.73	60.83	-16.10	3mH	90	1.40
Y	433.98	60.90	53.02	17.50	2.58	21.28	51.82	80.83	-29.01	3mH	270	1.30
	867.94	46.96	39.08	23.37	4.47	20.69	46.23	60.83	-14.60	3mH	270	1.20
Z	433.97	64.25	56.37	17.50	2.58	21.28	55.17	80.83	-25.66	3mH	0	1.40
	867.92	41.19	33.31	23.37	4.47	20.69	40.46	60.83	-20.37	3mH	0	1.30
	Total data #: 24											

COMPLIANCE
Certification Services

FCC, VCCI, CISPR, CE, AUSTEL, NZ
UL, CSA, TUV, BSMI, DHHS, NVLAP

No. 199 Chung Sheng Road
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PHONE: 02-2217-0894 FAX: 02-2217-1254

Project #:	00E9087
Report #:	9087D2
Date& Time:	11/15/00
Test Engr:	VINCE CHIANG

Company:	WINTECRONICS CO., LTD.
EUT Description:	L-500HAF 434 MHz Wireless Remote Controller Transceiver
Test Configuration :	EUT Only
Type of Test:	FCC 15.231(b)
Mode of Operation:	Transmitter Mode

(•) D-Site ( ) E-Site

M% = ((t1+t2+t3+…)/T) * 100% = **40.37 %**

Av Reading = Pk Reading + 20*log(M%)
20*log(M%) = **-7.8788**

	Freq.	Pk Rdg	Av Rdg	AF	Closs	Pre-amp	Level	Limit	Margin	Pol	Az	Height
	(MHz)	(dBuV)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	FCC_B	(dB)	(H/V)	(Deg)	(Meter)
	Button #3:											
X	433.97	57.45	49.57	17.50	2.58	21.28	48.37	80.83	-32.46	3mV	270	1.30
	867.95	44.95	37.07	23.37	4.47	20.69	44.22	60.83	-16.61	3mV	270	1.25
Y	433.96	68.62	60.74	17.50	2.58	21.28	59.54	80.83	-21.29	3mV	0	1.20
	867.93	45.87	37.99	23.37	4.47	20.69	45.14	60.83	-15.69	3mV	0	1.20
Z	433.97	63.84	55.96	17.50	2.58	21.28	54.76	80.83	-26.07	3mV	180	1.25
	867.92	52.90	45.02	23.37	4.47	20.69	52.17	60.83	-8.66	3mV	180	1.30
X	433.97	65.14	57.26	17.50	2.58	21.28	56.06	80.83	-24.77	3mH	0	1.30
	867.94	38.76	30.88	23.37	4.47	20.69	38.03	60.83	-22.80	3mH	0	1.40
Y	433.97	61.18	53.30	17.50	2.58	21.28	52.10	80.83	-28.73	3mH	180	1.30
	866.93	26.78	18.90	23.35	4.45	20.69	26.01	60.83	-34.82	3mH	180	1.30
Z	433.98	63.36	55.48	17.50	2.58	21.28	54.28	80.83	-26.55	3mH	0	1.10
	867.95	41.68	33.80	23.37	4.47	20.69	40.95	60.83	-19.88	3mH	0	1.10
	Total data #: 12											

COMPLIANCE Certification Services

FCC, VCCI, CISPR, CE, AUSTEL, NZ
UL, CSA, TUV, BSMI, DHHS, NVLAP

1366 BORDEAUX DRIVE, SUNNYVALE, CA 94089
PHONE: (408) 752-8166 FAX: (408) 752-8168

Project #:	00E9087
Report #:	9087D3
Date& Time:	11/16/2000
Test Engr:	VINCE Chiang

Company:	WINTECRONICS CO., LTD.
EUT Description:	L-500HAF 434 MHz Wireless Remote Controller Transceiver
Test Configuration :	EUT Only
Type of Test:	FCC 15.231(b) / 15.209
Mode of Operation:	Transmitter Mode

(•) D-Site ( ) E-Site 6 Worst Descendin

Freq. (MHz)	Pk Rdg (dBuV)	Av Rdg (dBuV)	AF (dB)	Closs (dB)	Pre-amp (dB)	Dist dB	Level (dBuV/m)	Limit FCC_B	Margin (dB)	Pol (H/V)	Az (Deg)	Height (Meter	Mark (P/Q/A)
1302	**77.90**	**70.02**	**25.1**	**2.8**	**43.27**	**-9.5**	**45.20**	**54.0**	**-8.80**	**1mV**	**90**	**1.0**	**A**
1736	**72.93**	**65.05**	**26.1**	**3.3**	**43.04**	**-9.5**	**41.93**	**60.8**	**-18.90**	**1mV**	**180**	**1.1**	**A**
2170	**62.04**	**54.16**	**27.8**	**3.7**	**42.82**	**-9.5**	**33.27**	**60.8**	**-27.56**	**1mV**	**180**	**1.1**	**A**
2604	**57.05**	**49.17**	**29.2**	**3.9**	**42.59**	**-9.5**	**30.20**	**60.8**	**-30.63**	**1mV**	**270**	**1.0**	**A**
3038	**57.92**	**50.04**	**30.9**	**4.2**	**42.37**	**-9.5**	**33.22**	**60.8**	**-27.61**	**1mV**	**90**	**1.0**	**A**
3472	**50.76**	**42.88**	**32.8**	**4.6**	**42.22**	**-9.5**	**28.59**	**60.8**	**-32.24**	**1mV**	**90**	**1.0**	**A**
3906	**50.23**	**42.35**	**32.8**	**5.1**	**42.06**	**-9.5**	**28.71**	**54.0**	**-25.29**	**1mV**	**90**	**1.0**	**A**
1302	**71.36**	**63.48**	**25.1**	**2.8**	**43.27**	**-9.5**	**38.66**	**54.0**	**-15.34**	**1mH**	**90**	**1.0**	**A**
1736	**72.86**	**64.98**	**26.1**	**3.3**	**43.04**	**-9.5**	**41.86**	**60.8**	**-18.97**	**1mH**	**270**	**1.0**	**A**
2170	**60.14**	**52.26**	**27.8**	**3.7**	**42.82**	**-9.5**	**31.37**	**60.8**	**-29.46**	**1mH**	**180**	**1.1**	**A**
2604	**51.30**	**43.42**	**29.2**	**3.9**	**42.59**	**-9.5**	**24.45**	**60.8**	**-36.38**	**1mH**	**270**	**1.0**	**A**
3038	**55.97**	**48.09**	**30.9**	**4.2**	**42.37**	**-9.5**	**31.27**	**60.8**	**-29.56**	**1mH**	**90**	**1.1**	**A**
3472	**47.24**	**39.36**	**32.8**	**4.6**	**42.22**	**-9.5**	**25.07**	**60.8**	**-35.76**	**1mH**	**270**	**1.0**	**A**
3906	**48.57**	**40.69**	**32.8**	**5.1**	**42.06**	**-9.5**	**27.05**	**54.0**	**-26.95**	**1mH**	**270**	**1.0**	**A**

* No other emission were found within 20dB under the limits upto 4.5 GHz.

Total data #: 14 P(Peak): RBW=VBW=1MHz Distance = 20log(1/3)= -9.5dB
V.2d A(Average): Pk Reading - 7.8788dB

COMPLIANCE Engineering Service, Inc.
FCC,VCCI,CISPR,CE
CL,CSA,TUV

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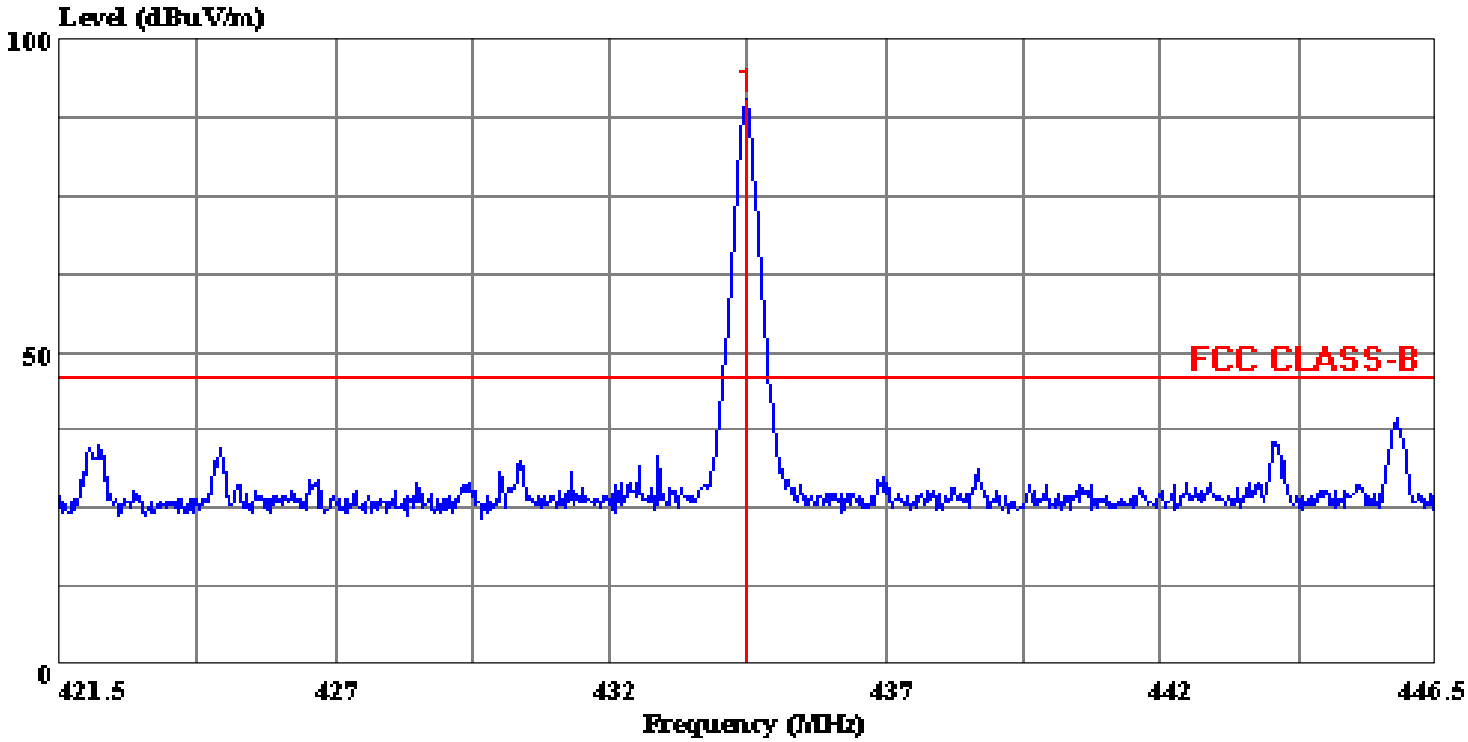
Tel:02-2217-0894 Fax:02-2217-1254

Data#: 27 File#: 9087d.emi Date: 2000-11-24 Time: 09:15:35



(CCS D-Site)

Trace: 21 Ref Trace:

Condition: VERTICAL
Report No. : 00E9087
Test Engr. : VINCE CHIANG
Company   : WINTECRONICS CO., LTD.
EUT   : L-500HAF
Test Config : EUT/S.G.
Type of Test: FCC 15.109
Mode of Op. : Receiver Mode

	Freq	Read Level
	MHz	dBuV
1 *	433.975	91.44

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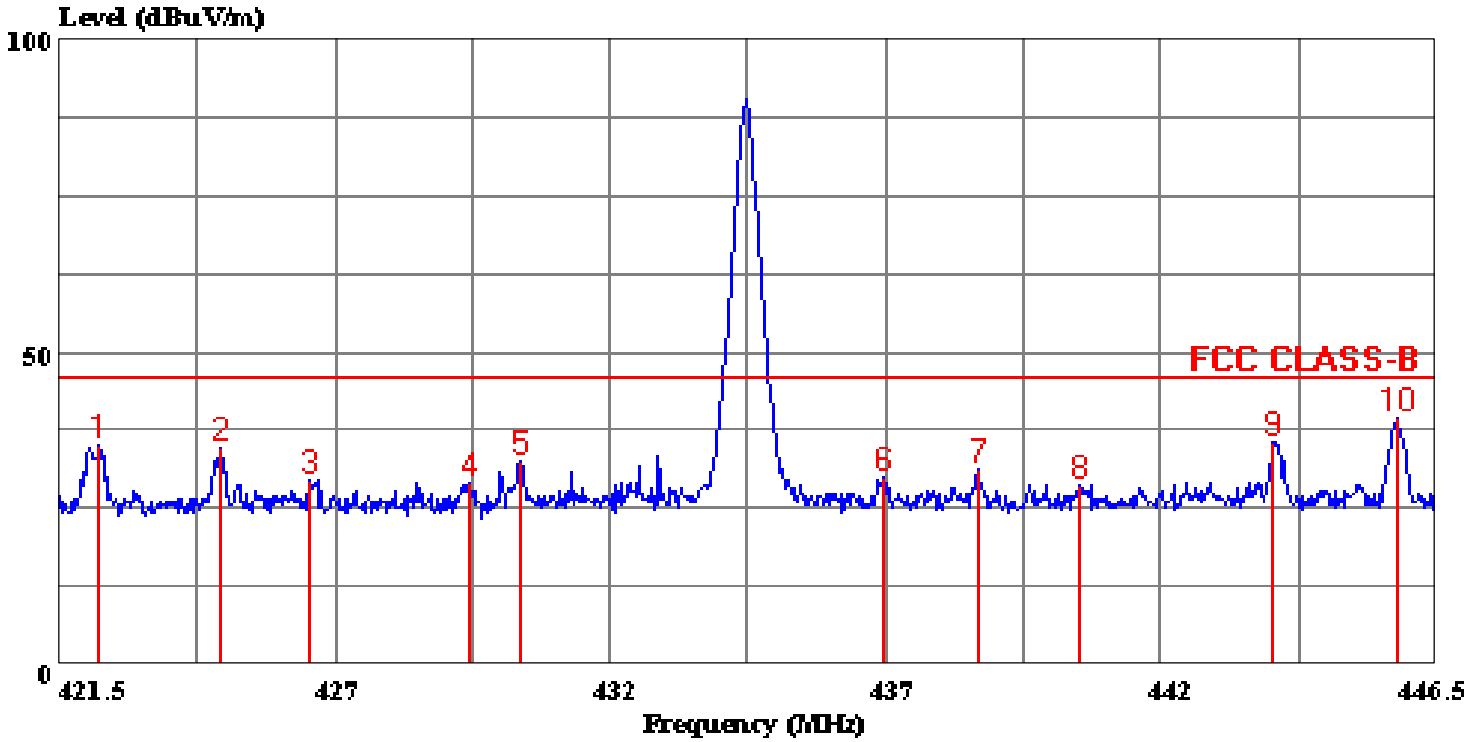
Data#: 26 File#: 9087d.emi Date: 2000-11-24 Time: 11:56:26



(CCS D-Site)

Trace: 21 Ref Trace:

Condition: VERTICAL
Report No. : 00E9087
Test Engr. : VINCE CHIANG
Company : WINTECRONICS CO., LTD.
EUT : L-500HAF
Test Config : EUT/S.G.
Type of Test: FCC 15.109
Mode of Op. : Receiver Mode

	Freq	Read Level	Probe Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV/m	dBuV/m	dB	
1	422.200	36.54	17.37	2.45	21.31	35.04	46.00	-10.96	Peak
2	424.425	36.00	17.40	2.44	21.32	34.53	46.00	-11.47	Peak
3	426.050	30.83	17.42	2.45	21.32	29.38	46.00	-16.62	Peak
4	428.925	30.42	17.45	2.50	21.30	29.07	46.00	-16.93	Peak
5	429.875	33.72	17.46	2.52	21.30	32.41	46.00	-13.59	Peak
6	436.450	30.95	17.54	2.65	21.27	29.87	46.00	-16.13	Peak
7	438.175	32.09	17.56	2.68	21.26	31.08	46.00	-14.92	Peak
8	440.000	29.53	17.59	2.71	21.25	28.58	46.00	-17.42	Peak
9	443.550	36.31	17.63	2.78	21.23	35.48	46.00	-10.52	Peak
10	445.775	40.07	17.64	2.80	21.23	39.28	46.00	-6.72	Peak

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Data#: 24 File#: 9087d.emi Date: 2000-11-24 Time: 09:29:00
CCS D-Site

Condition: VERTICAL
Report No. : 00E9087
Test Engr. : VINCE CHIANG
Company   : WINTECRONICS CO., LTD.
EUT   : L-500HAF
Test Config : EUT/S.G.
Type of Test: FCC 15.109
Mode of Op. : Receiver Mode
            : No other emission were found within 20dB
            : under the limit upto 2000MHz.

	Freq	Read Level	Probe Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV/m	dBuV/m	dB	
1	412.533	36.98	17.25	2.48	21.29	35.42	46.00	-10.58	Peak

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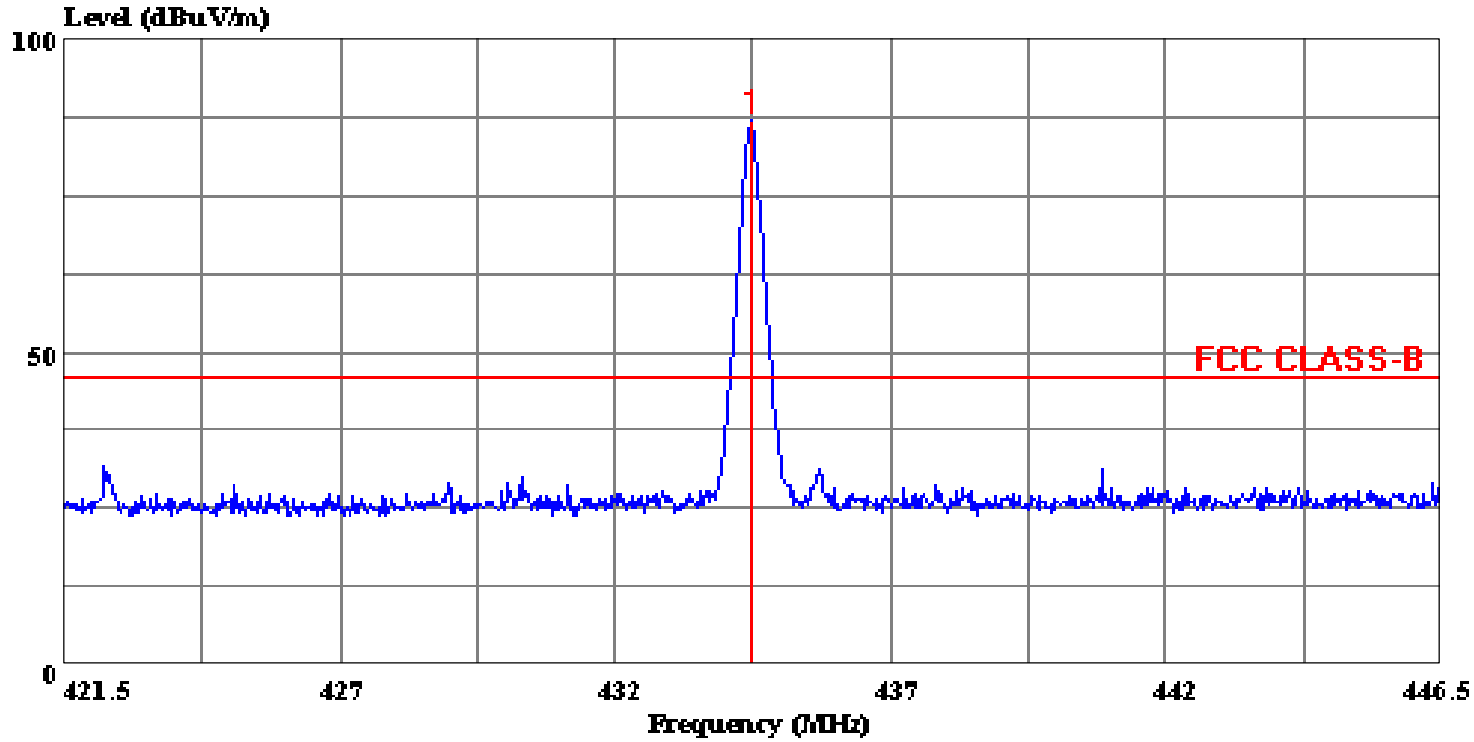
Data#: 28 File#: 9087d.emi Date: 2000-11-24 Time: 11:52:54



(CCS D-Site)

Trace: 22 Ref Trace:

Condition: HORIZONTAL
Report No. : 00E9087
Test Engr. : VINCE CHIANG
Company : WINTECRONICS CO., LTD.
EUT : L-500HAF
Test Config : EUT/S.G.
Type of Test: FCC 15.109
Mode of Op. : Receiver Mode

	Freq	Read Level
	MHz	dBuV
1 *	433.975	88.14

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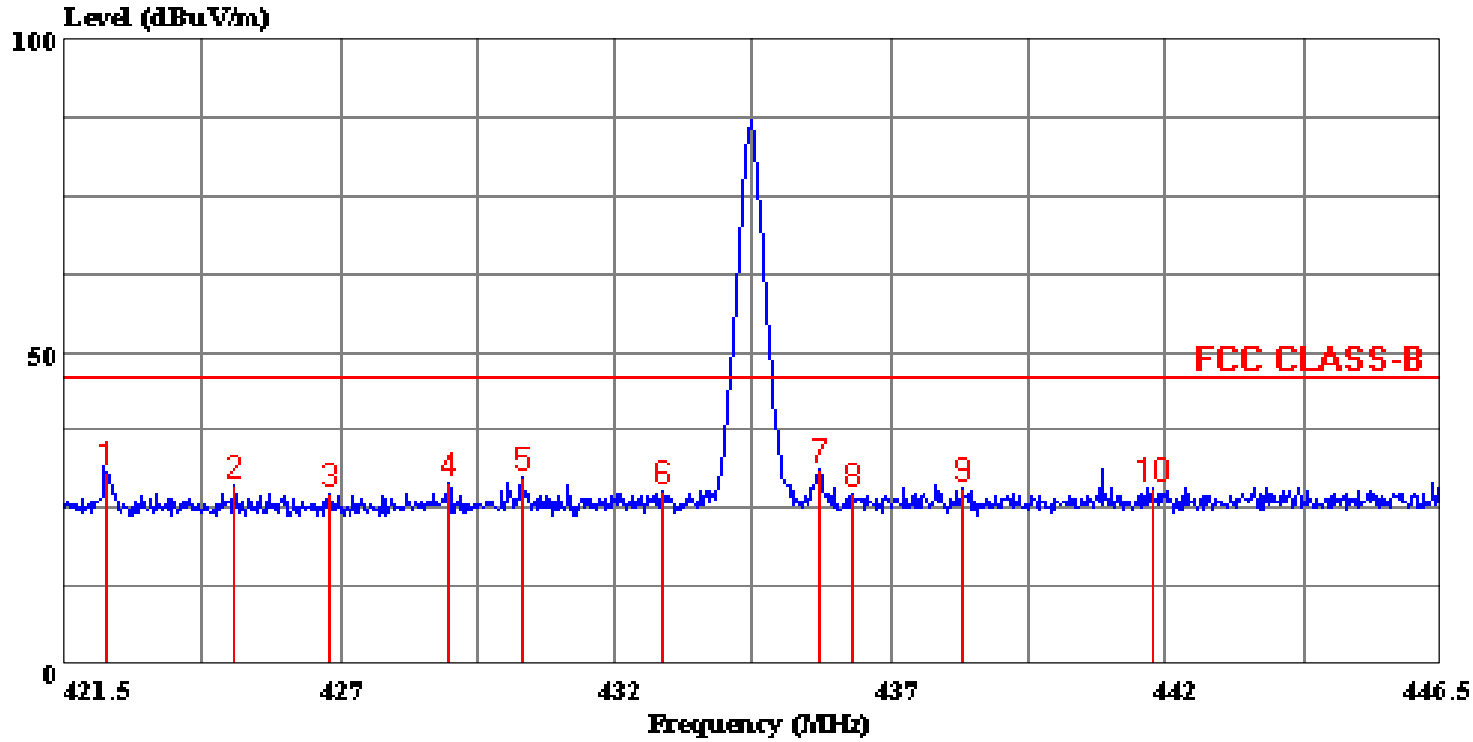
Data#: 25 File#: 9087d.emi Date: 2000-11-24 Time: 11:54:47



(CCS D-Site)

Trace: 22 Ref Trace:

Condition: HORIZONTAL
Report No. : 00E9087
Test Engr. : VINCE CHIANG
Company : WINTECRONICS CO., LTD.
EUT : L-500HAF
Test Config : EUT/S.G.
Type of Test: FCC 15.109
Mode of Op. : Receiver Mode

	Freq	Read Level	Probe Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV/m	dBuV/m	dB	
1	422.275	32.30	17.37	2.45	21.31	30.80	46.00	-15.20	Peak
2	424.600	29.86	17.40	2.44	21.32	28.38	46.00	-17.62	Peak
3	426.300	28.79	17.42	2.45	21.31	27.35	46.00	-18.65	Peak
4	428.450	30.42	17.45	2.50	21.30	29.06	46.00	-16.94	Peak
5	429.800	31.03	17.46	2.52	21.30	29.71	46.00	-16.29	Peak
6	432.375	28.84	17.49	2.57	21.29	27.62	46.00	-18.38	Peak
7	435.225	32.09	17.53	2.62	21.27	30.97	46.00	-15.03	Peak
8	435.825	28.31	17.54	2.63	21.27	27.21	46.00	-18.79	Peak
9	437.800	29.12	17.56	2.67	21.26	28.09	46.00	-17.91	Peak
10	441.250	28.97	17.60	2.74	21.24	28.06	46.00	-17.94	Peak

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Data#: 23 File#: 9087d.emi Date: 2000-11-24 Time: 09:26:20
CCS D-Site

Condition: HORIZONTAL
Report No. : 00E9087
Test Engr. : VINCE CHIANG
Company : WINTECRONICS CO., LTD.
EUT : L-500HAF
Test Config : EUT/S.G.
Type of Test: FCC 15.109
Mode of Op. : Receiver Mode
: No other emission were found within 20dB
: under the limit upto 2000MHz.

	Freq	Read Level	Probe Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV/m	dBuV/m	dB	
1	412.522	44.65	17.25	2.48	21.29	43.09	46.00	-2.91	Peak