



Date 22.Aug.'02 Time 21:15:54
Ref.Lvl 100.00 dB μ V
Delta -0.08 dB
577.778 μ s

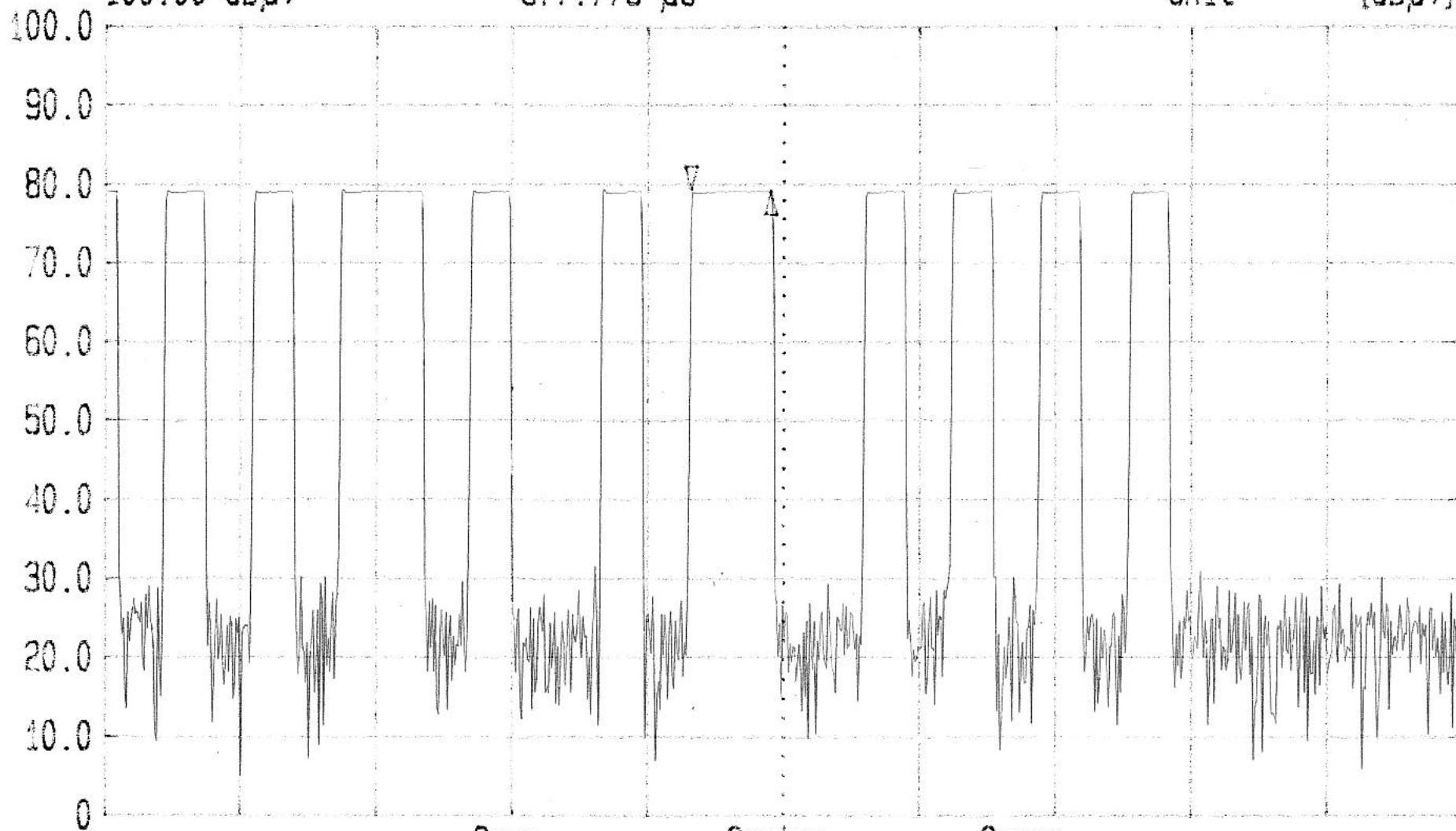
TRG

Res.Bw
TG.Lvl
CF.Stp

120 kHz [imp]
off
12.000 kHz

Vid.Bw
RF.Att
Unit

300 kHz
10 dB
[dB μ V]



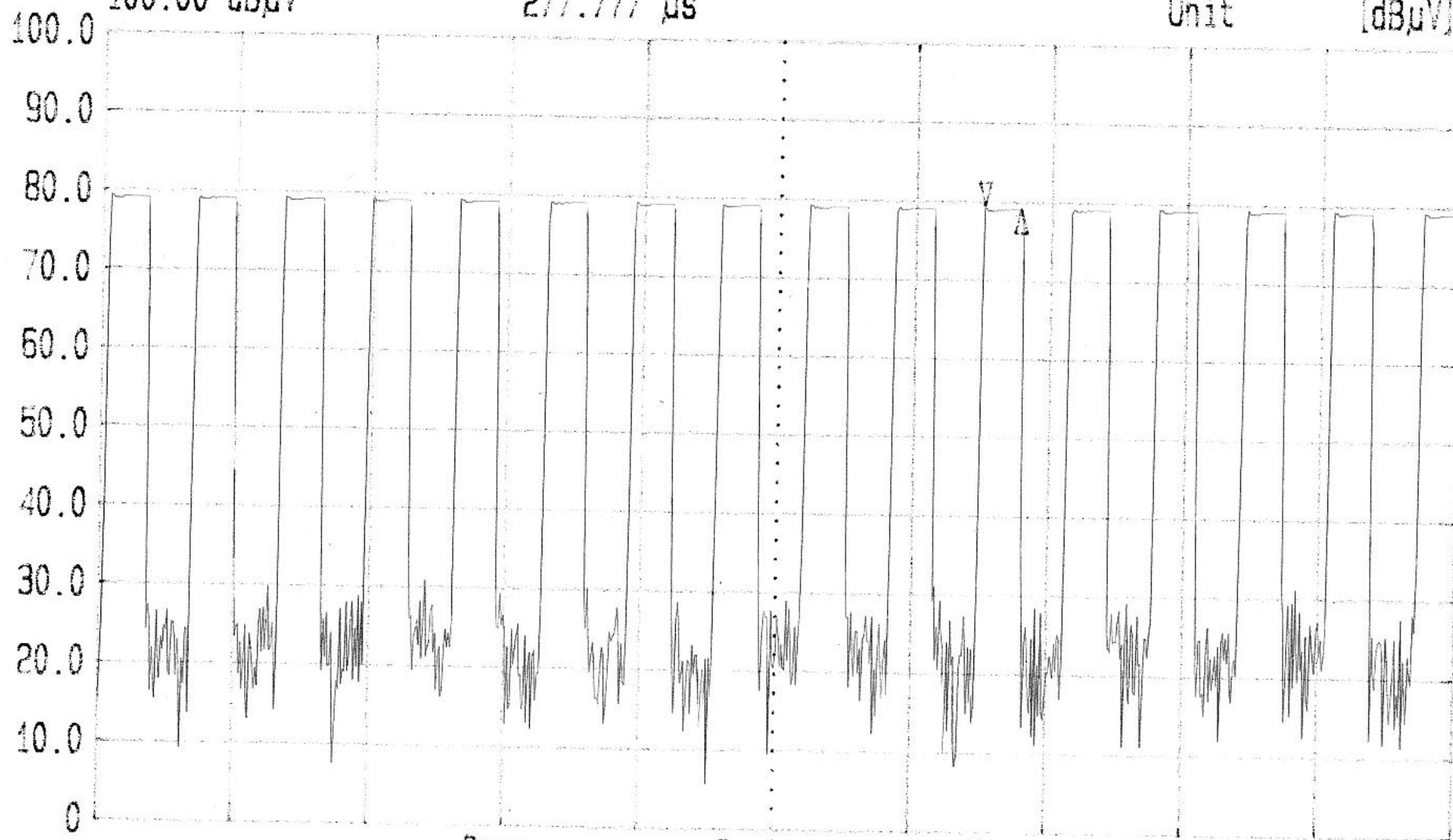


Date 22.Aug.'02 Time 21:05:11
Ref.Lvl 100.00 dBμV
Delta -0.43 dB
277.777 μs

Res.Bw
TG.Lvl
CF.Stp

120 kHz [imp]
off
12.000 kHz

Vid.Bw 300 kHz
RF.Att 10 dB
Unit [dBμV]



Span
0 Hz

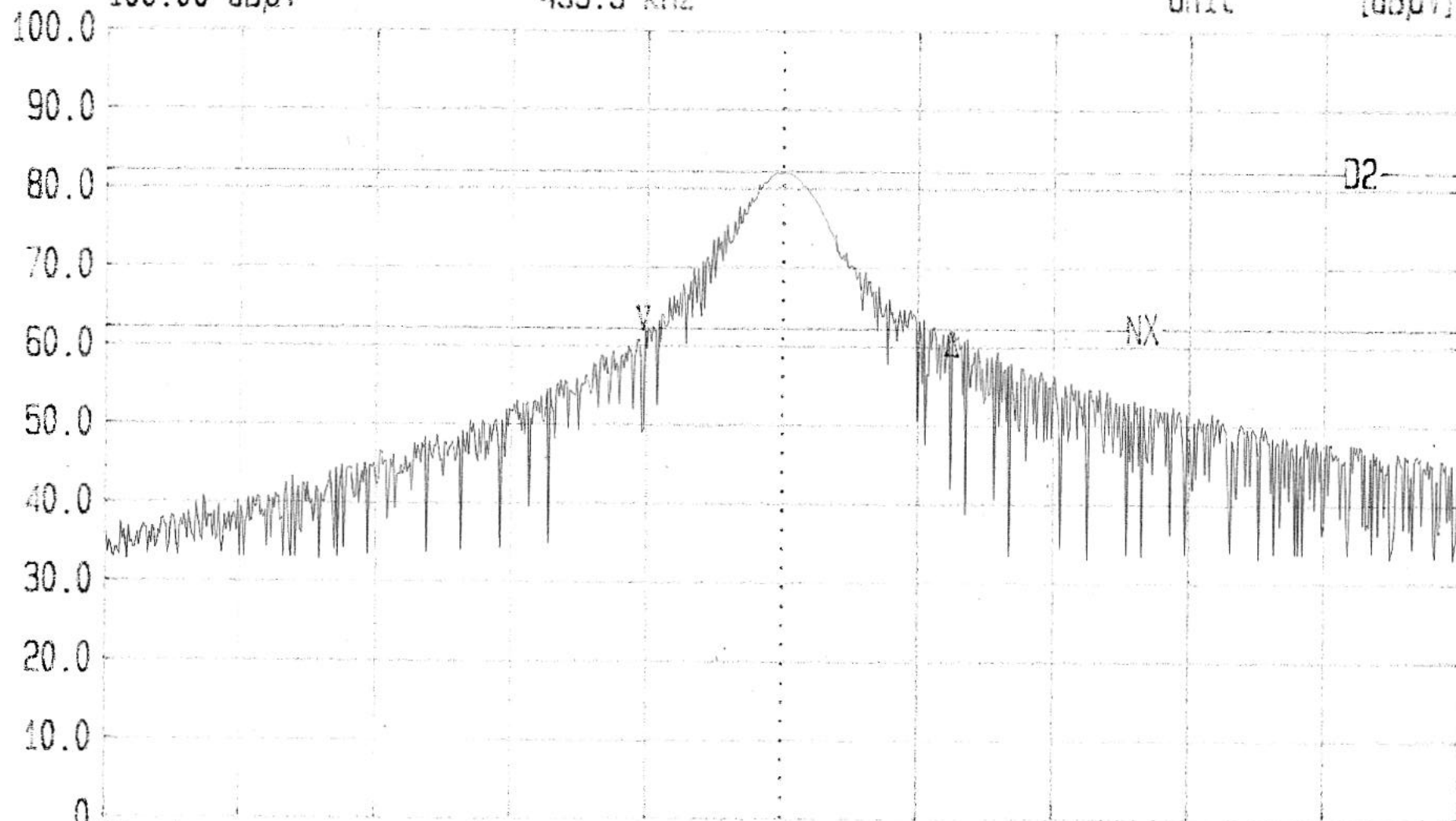
Center
434 MHz

Sweep
10 ms



Date 22.Aug.'02 Time 21:33:07
Ref.Lvl 100.00 dB μ V
Delta -0.18 dB
455.5 kHz

Res.Bw 120 kHz [imp]
TG.Lvl off
CF.Stp 200.000 kHz
Vid.Bw 300 kHz
RF.Att 10 dB
Unit [dB μ V]



Start 433.022221 MHz
Span 2 MHz
Center 434.022221 MHz
Sweep 20 ms
Stop 435.022221 MHz
N dB down Level 20.0 dB
DELTA MARK 455.5 kHz

C&C Laboratory CO., LTD.

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 #: 02E0428
Report #: 0248D1
Date& Time: 2002/08/23
Test Engr: MICHAEL HUNG

Company: DIRECTED ELECTRONICS INC.
EUT Description: DEI544 (433.92 MHz / TRANSCEIVER)
Test Configuration : EUT / DC POWER
Type of Test: FCC 15.231(b)
Mode of Operation: TRANSMITTER MODE

☒ D-Site

M% = ((t1+t2+t3+..)/T) * 100% = **21.74 %**

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

20*log(M%) = **-13.3**

	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 #1:											
X	433.91	84.59	71.34	18.14	3.19	26.83	65.84	80.82	-14.99	3mV	270	1.00
	867.82	43.73	30.48	24.10	5.05	26.26	33.37	60.82	-27.45	3mV	270	1.20
Y	433.91	82.13	68.88	18.14	3.19	26.83	63.38	80.82	-17.45	3mV	0	1.00
	867.82	45.10	31.85	24.10	5.05	26.26	34.74	60.82	-26.08	3mV	0	1.30
Z	433.91	92.67	79.42	18.14	3.19	26.83	73.92	80.82	-6.91	3mV	90	1.00
	867.84	46.35	33.10	24.10	5.05	26.26	35.99	60.82	-24.83	3mV	90	1.40
X	433.90	95.43	82.18	18.14	3.19	26.83	76.68	80.82	-4.15	3mH	90	1.00
	867.89	50.97	37.72	22.88	5.05	26.26	39.39	60.82	-21.43	3mH	90	1.50
Y	433.91	97.08	83.83	18.14	3.19	26.83	78.33	80.82	-2.50	3mH	180	1.00
	867.82	44.66	31.41	24.10	5.05	26.26	34.30	60.82	-26.52	3mH	180	1.40
Z	433.91	94.00	80.75	18.14	3.19	26.83	75.25	80.82	-5.58	3mH	270	1.10
	867.82	49.34	36.09	24.10	5.05	26.26	38.98	60.82	-21.84	3mH	270	1.30

Peak: RBW= 120KHz
VBW= 300KHz
A(Average): PkReading - 13.3dB

Total Data #12

C&C Laboratory CO., LTD.

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 #: 02E0428
Report #: 0428D2
Date & Time: 2002/08/29
Test Engr: DAVID HUNG

Company: DIRECTED ELECTRONICS INC.
EUT Description: DEI544 (433.92 MHz / TRANSCEIVER)
Test Configuration : EUT / DC POWER
Type of Test: FCC 15.231(b) / FCC 15.209
Mode of Operation: TRANSMITTER MODE

☒ D-Site

☐ E-Site

6 Worst Data

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)	Mark (P/Q/A)
1302	64.57	51.32	24.9	3.6	37.07	42.71	54.0	-11.30	1mV	0	1.0	A
1736	70.99	57.74	26.4	4.4	36.47	52.07	60.8	-8.76	1mV	0	1.0	A
2170	71.80	58.55	27.7	4.5	36.07	54.72	60.8	-6.11	1mV	60	1.0	A
2603	63.52	50.27	28.8	5.7	36.02	48.71	60.8	-12.12	1mV	60	1.0	A
3037	64.20	50.95	30.4	5.8	36.06	51.08	60.8	-9.75	1mV	90	1.0	A
3471	54.00	40.75	31.3	6.1	35.64	42.49	60.8	-18.34	1mV	150	1.0	A
3905	52.45	39.20	32.3	6.7	35.21	42.97	54.0	-11.04	1mV	240	1.0	A
4339	57.62	44.37	32.4	7.1	35.17	48.70	54.0	-5.31	1mV	150	1.0	A
1302	65.56	52.31	24.9	3.6	37.07	43.74	54.0	-10.27	1mH	0	1.0	A
1736	68.19	54.94	26.4	4.4	36.47	49.27	60.8	-11.56	1mH	0	1.0	A
2170	69.39	56.14	27.7	4.5	36.07	52.31	60.8	-8.52	1mH	60	1.0	A
2603	58.63	45.38	28.8	5.7	36.02	43.82	60.8	-17.01	1mH	60	1.0	A
3037	61.52	48.27	30.4	5.8	36.06	48.40	60.8	-12.43	1mH	90	1.0	A
3471	53.47	40.22	31.3	6.1	35.64	41.96	60.8	-18.87	1mH	150	1.0	A
3905	51.49	38.24	32.3	6.7	35.21	42.01	54.0	-12.00	1mH	240	1.0	A
4339	54.21	40.96	32.4	7.1	35.17	45.29	54.0	-8.72	1mH	150	1.0	A

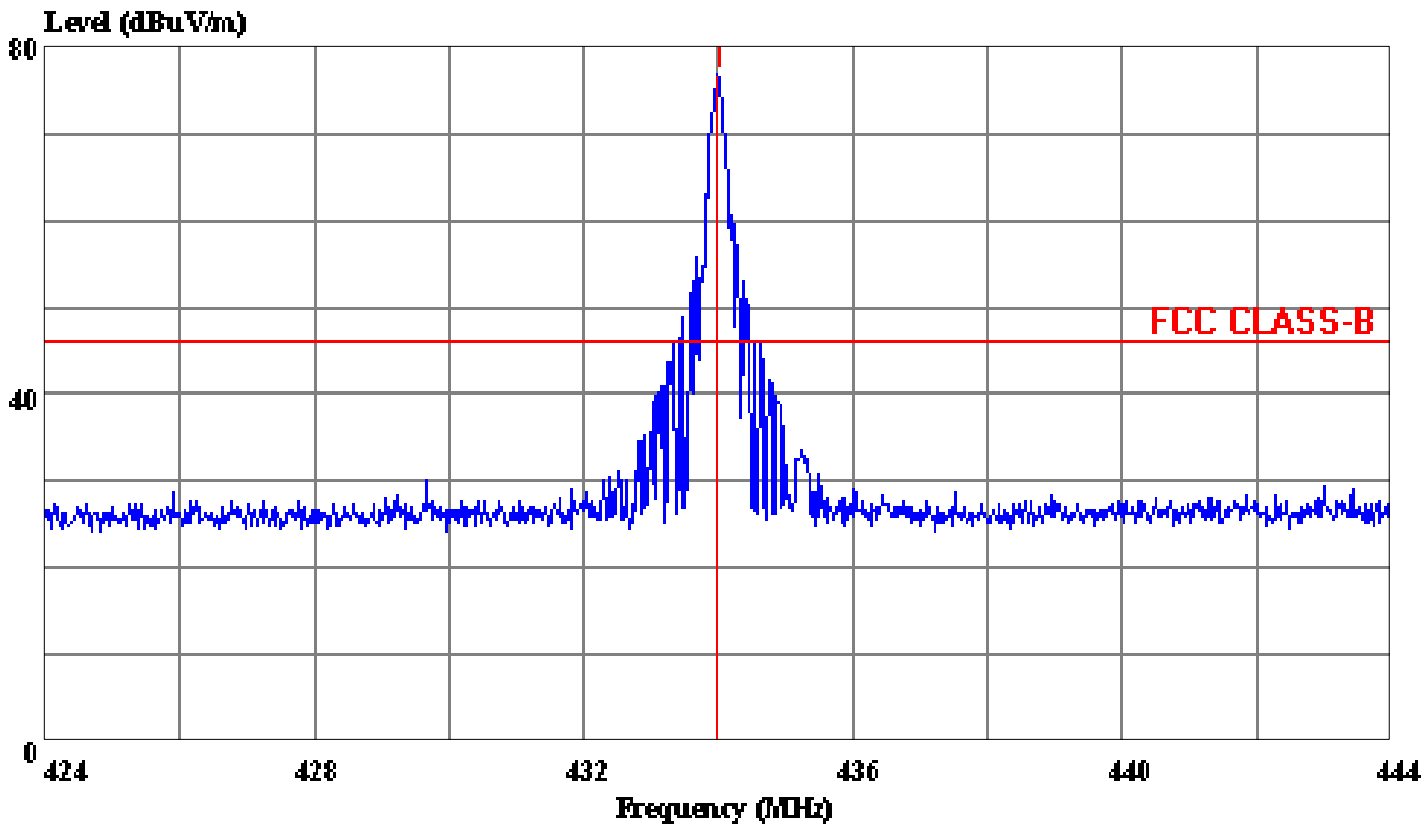
* No other emission were found within 20dB under the limits upto 4.5 GHz.

Total data #16
V.2d

P(Peak): RBW=VBW=1MHz
A(Average): Pk Reading - 13.3dB (For FCC 15.231(b))

Data#: 210 File#: 0246d.EMI

Date: 2002-09-03 Time: 10:09:46



(D- Site)

Trace: 192

Ref Trace:

Condition: VERTICAL

Report No. : 02E0428

Test Engr. : DAVID HUNG

Company : DIRECTED ELECTRONICS INC.

EUT : DEI544

Test Config : EUT / DC POWER / TX

Type of Test: FCC 15.109

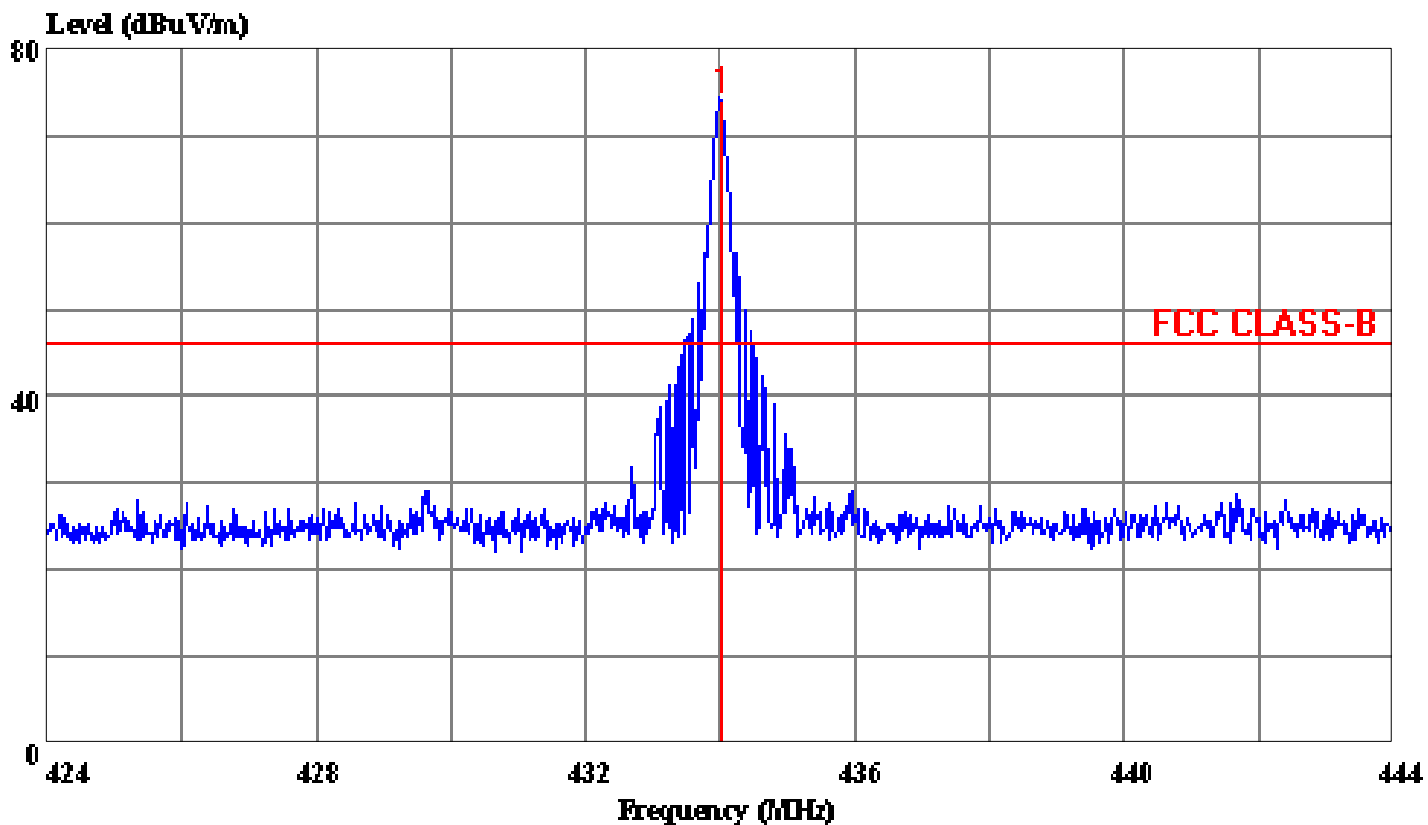
Mode of Op. : RECEIVER MODE (Model No. DEI477T Transmit signal and trigger EUT to product signal)

Page: 1

	Freq	Read
	MHz	dBuV
1 *	434.000	82.35

Data#: 209 File#: 0246d.EMI

Date: 2002-09-03 Time: 10:13:34



(D- Site)

Trace: 193

Ref Trace:

Condition: HORIZONTAL

Report No. : 02E0428

Test Engr. : DAVID HUNG

Company : DIRECTED ELECTRONICS INC.

EUT : DEI544

Test Config : EUT / DC POWER / TX

Type of Test: FCC 15.109

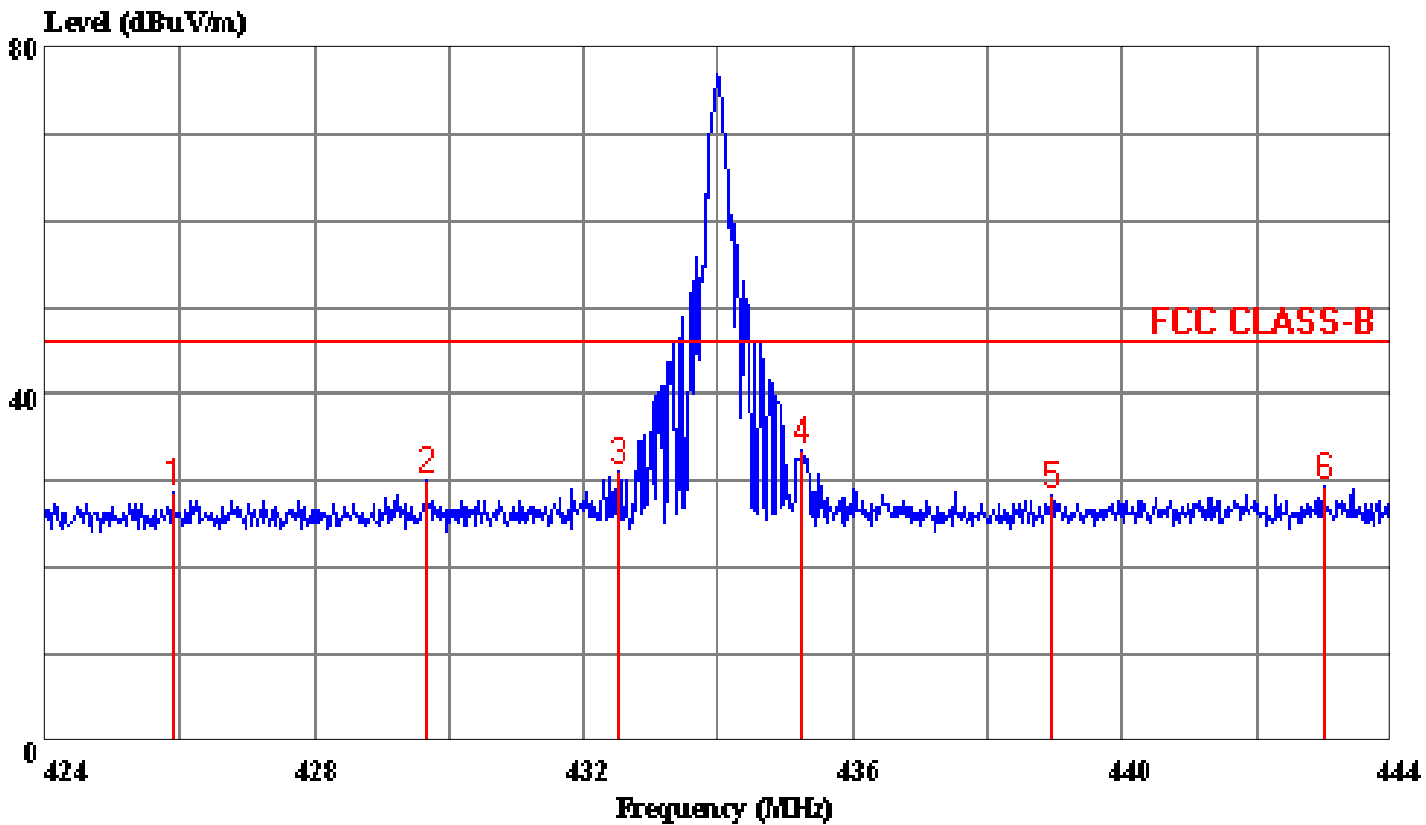
Mode of Op. : RECEIVER MODE (Model No. DEI477T Transmit signal and trigger EUT to product signal)

Page: 1

	Freq	Read
	MHz	dBuV
1 *	434.020	79.58

Data#: 211 File#: 0246d.EMI

Date: 2002-09-04 Time: 18:29:06



(D-Site)

Trace: 192

Ref Trace:

Condition: VERTICAL

Report No. : 02E0428

Test Engr. : DAVID HUNG

Company : DIRECTED ELECTRONICS INC.

EUT : DEI544

Test Config : EUT / DC POWER / TX

Type of Test: FCC 15.109

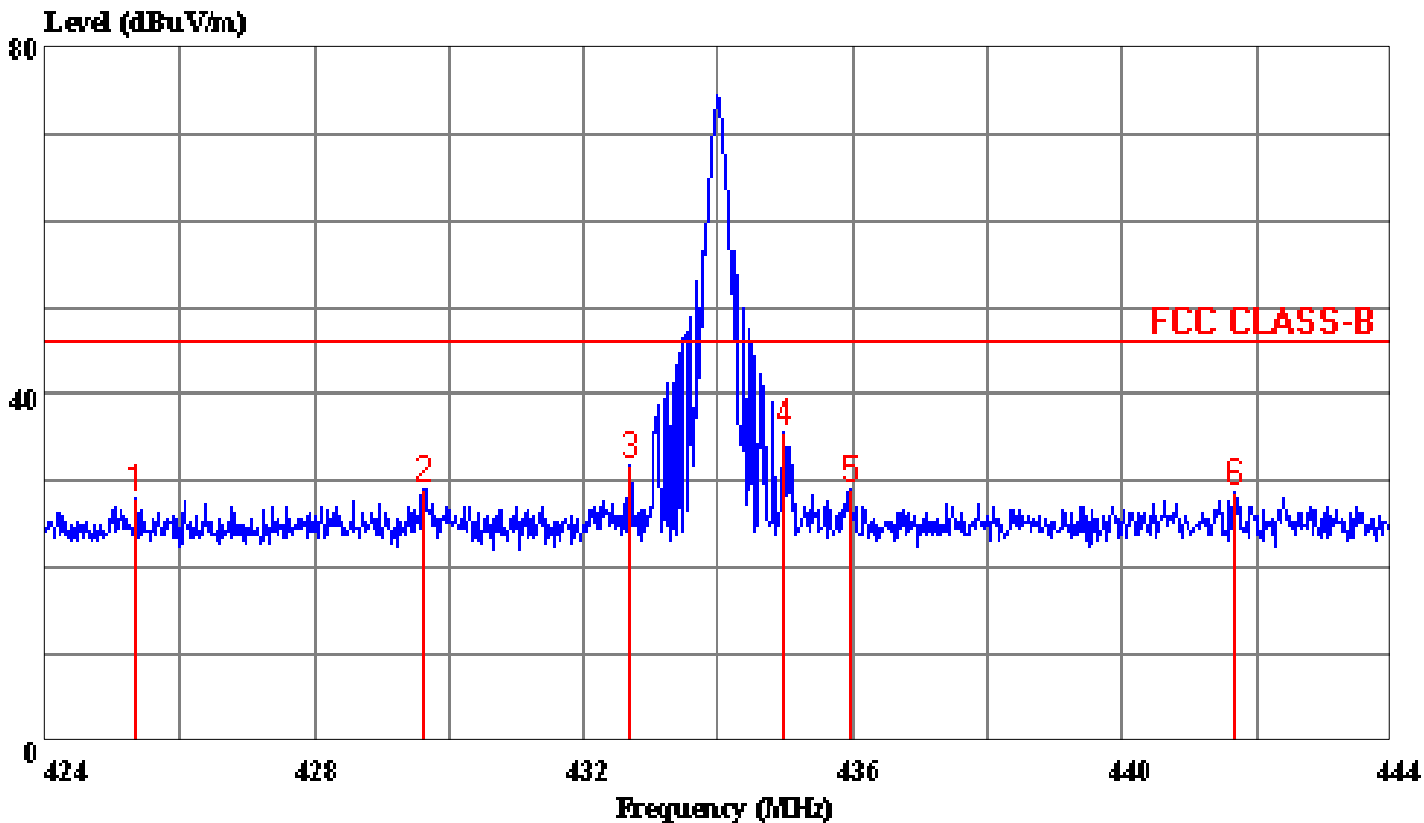
Mode of Op. : RECEIVER MODE (Model No. DEI477T Transmit signal and trigger EUT to product signal)

Page: 1

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	
1	425.880	34.38	-5.68	28.71	46.00	-17.29	Peak
2	429.660	35.55	-5.58	29.97	46.00	-16.03	Peak
3	432.520	36.82	-5.51	31.31	46.00	-14.69	Peak
4	435.240	39.16	-5.44	33.72	46.00	-12.28	Peak
5	438.960	33.65	-5.34	28.30	46.00	-17.70	Peak
6	443.000	34.69	-5.24	29.45	46.00	-16.55	Peak

Data#: 198 File#: 0246d.EMI

Date: 2002-09-04 Time: 18:30:58



(D- Site)

Trace: 193

Ref Trace:

Condition: HORIZONTAL

Report No. : 02E0428

Test Engr. : DAVID HUNG

Company : DIRECTED ELECTRONICS INC.

EUT : DEI544

Test Config : EUT / DC POWER / TX

Type of Test: FCC 15.109

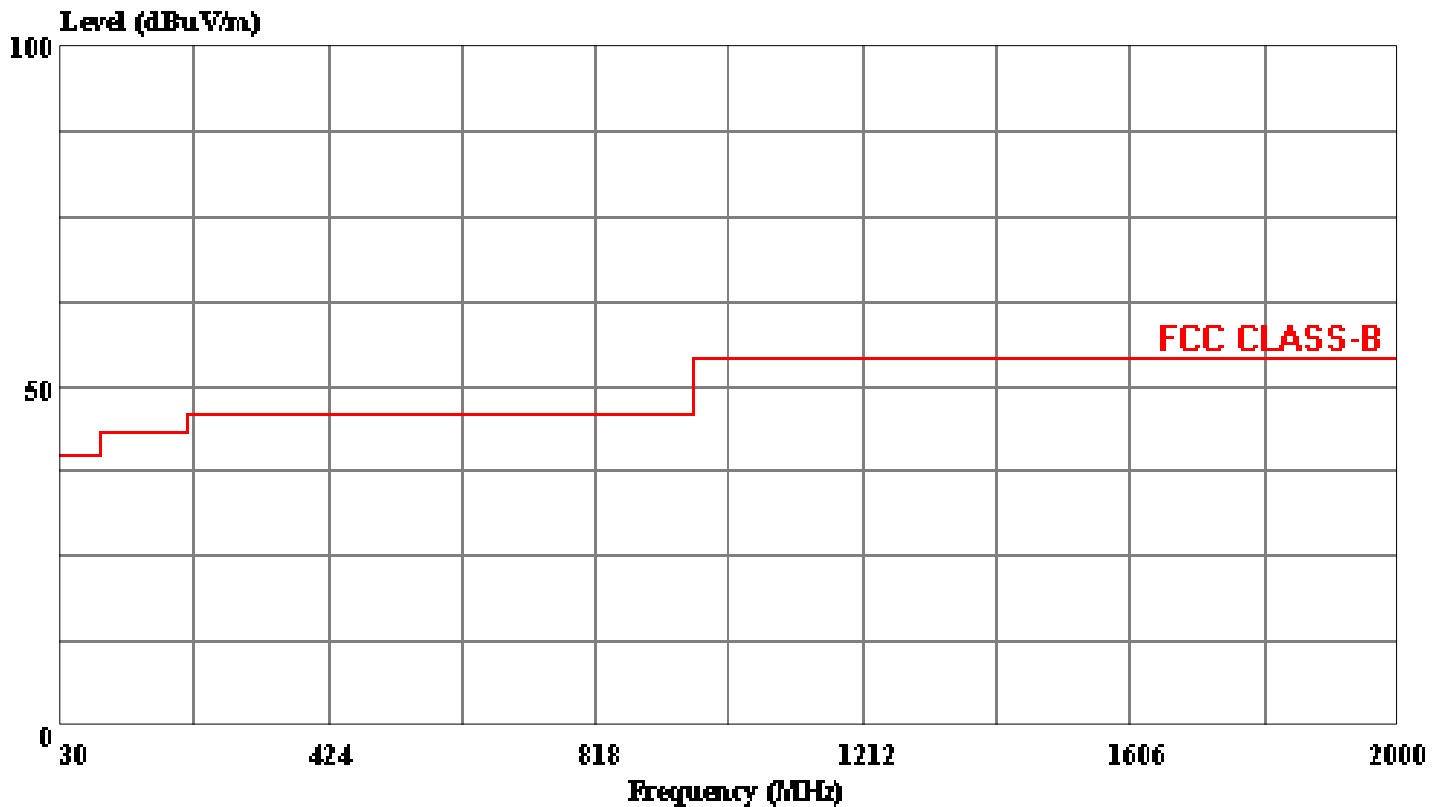
Mode of Op. : RECEIVER MODE (Model No. DEI477T Transmit signal and trigger EUT to product signal)

Page: 1

	Freq	Read Level	Probe Factor	Cable Loss	Preamplifier Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV/m	dBuV/m	dB	
1	425.360	33.82	17.95	3.16	26.80	28.13	46.00	-17.87	Peak
2	429.620	34.66	18.06	3.18	26.82	29.08	46.00	-16.92	Peak
3	432.700	37.23	18.13	3.19	26.83	31.72	46.00	-14.28	Peak
4	434.960	41.14	18.19	3.20	26.83	35.69	46.00	-10.31	Peak
5	435.960	34.38	18.21	3.20	26.84	28.96	46.00	-17.04	Peak
6	441.660	33.88	18.35	3.22	26.85	28.60	46.00	-17.40	Peak

Data#: 212 File#: 0246d.EMI

Date: 2002-09-04 Time: 18:54:15



(D-Site)

Trace:

Ref Trace:

Condition:

Report No. : 02E0428

Test Engr. : DAVID HUNG

Company : DIRECTED ELECTRONICS INC.

EUT : DEI544

Test Config : EUT / DC POWER / TX

Type of Test: FCC 15.109

Mode of Op. : RECEIVER MODE

: NO OTHER EMISSION WERE FOUND WITHIN / 20 dB BELOW THE LIMITS FROM 30-2000MHz