

KEY 1

Thu 2004 Jan 15 18:00

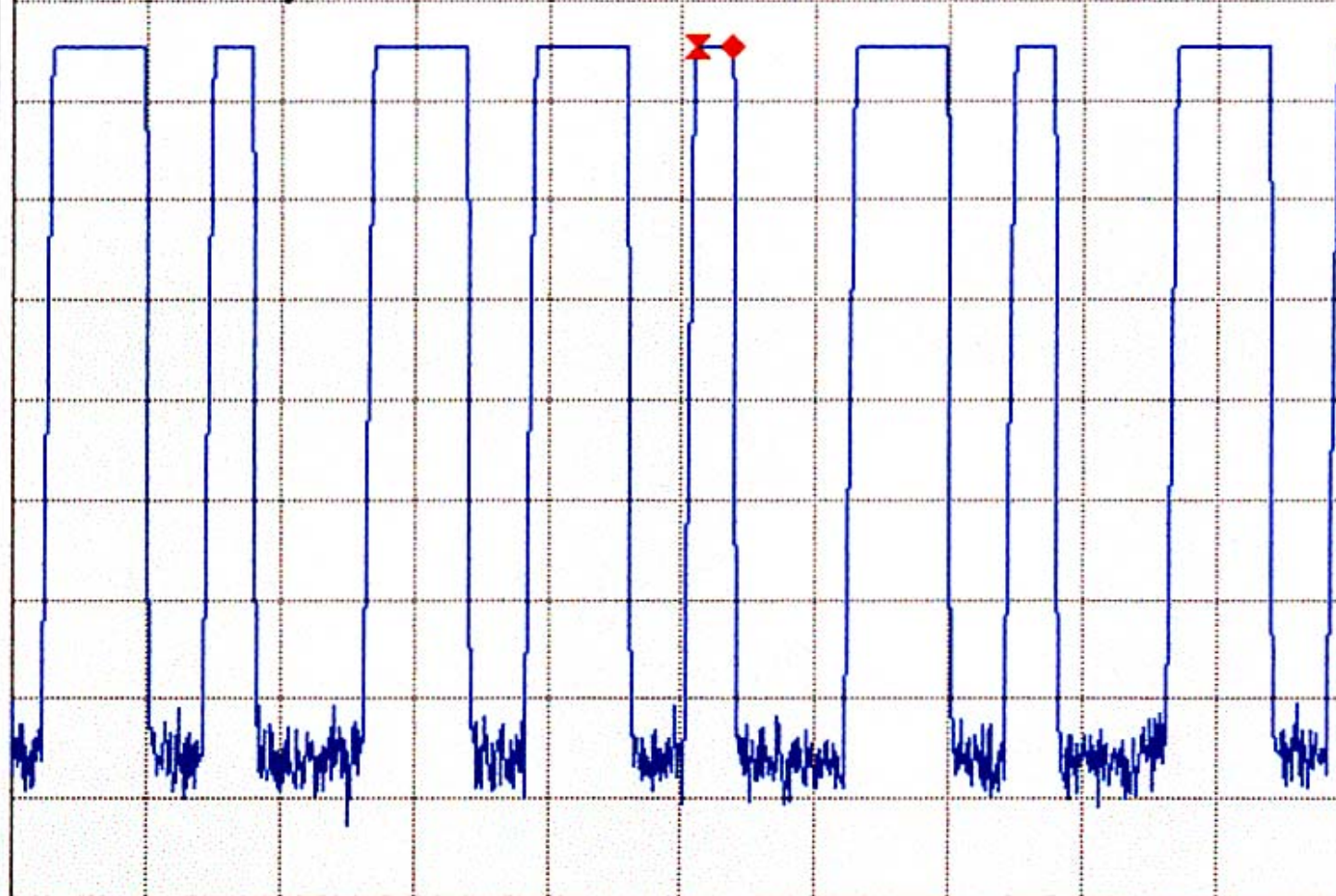
REF 107.0 dB μ V

MKA 260.0 μ s

10dB/ A_Write Smp1 B_Blank Posi

0.16 dB

DELTA MKR
260.0 μ s



CENTER 433.919700 MHz

SPAN 0.000 kHz

*RBW 100 kHz

*VBW 100 kHz

*SWP 10 ms

*ATT 10dB

KEY 1

Thu 2004 Jan 15 17:56

REF 107.0 dB μ V

MK4 21.69 ms

10dB/

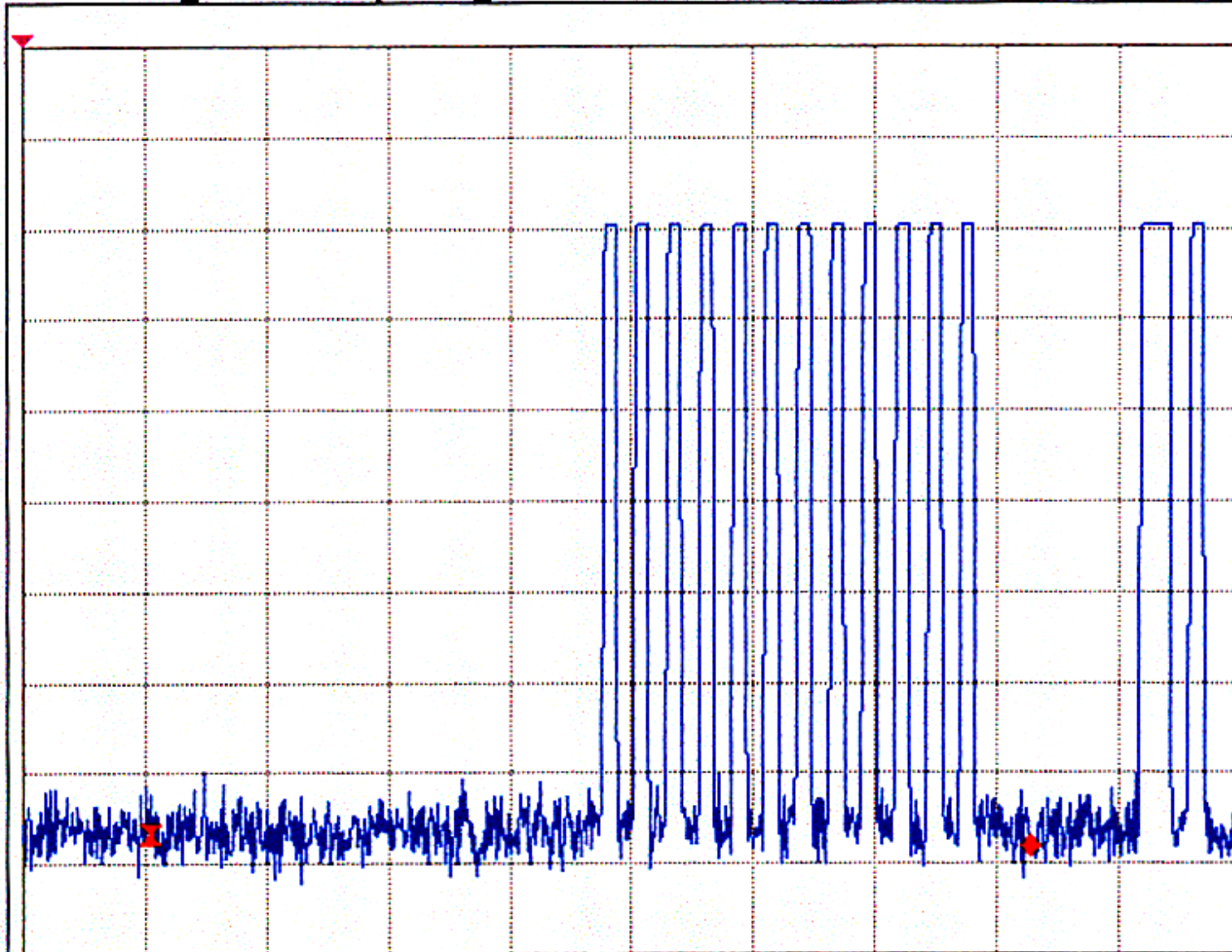
A_Write

Smpl

B_Blank

Posi

-1.53 dB



CENTER 433.919700 MHz

SPAN 0.000 kHz

*RBW 100 kHz

*VBW 100 kHz

*SWP 30 ms

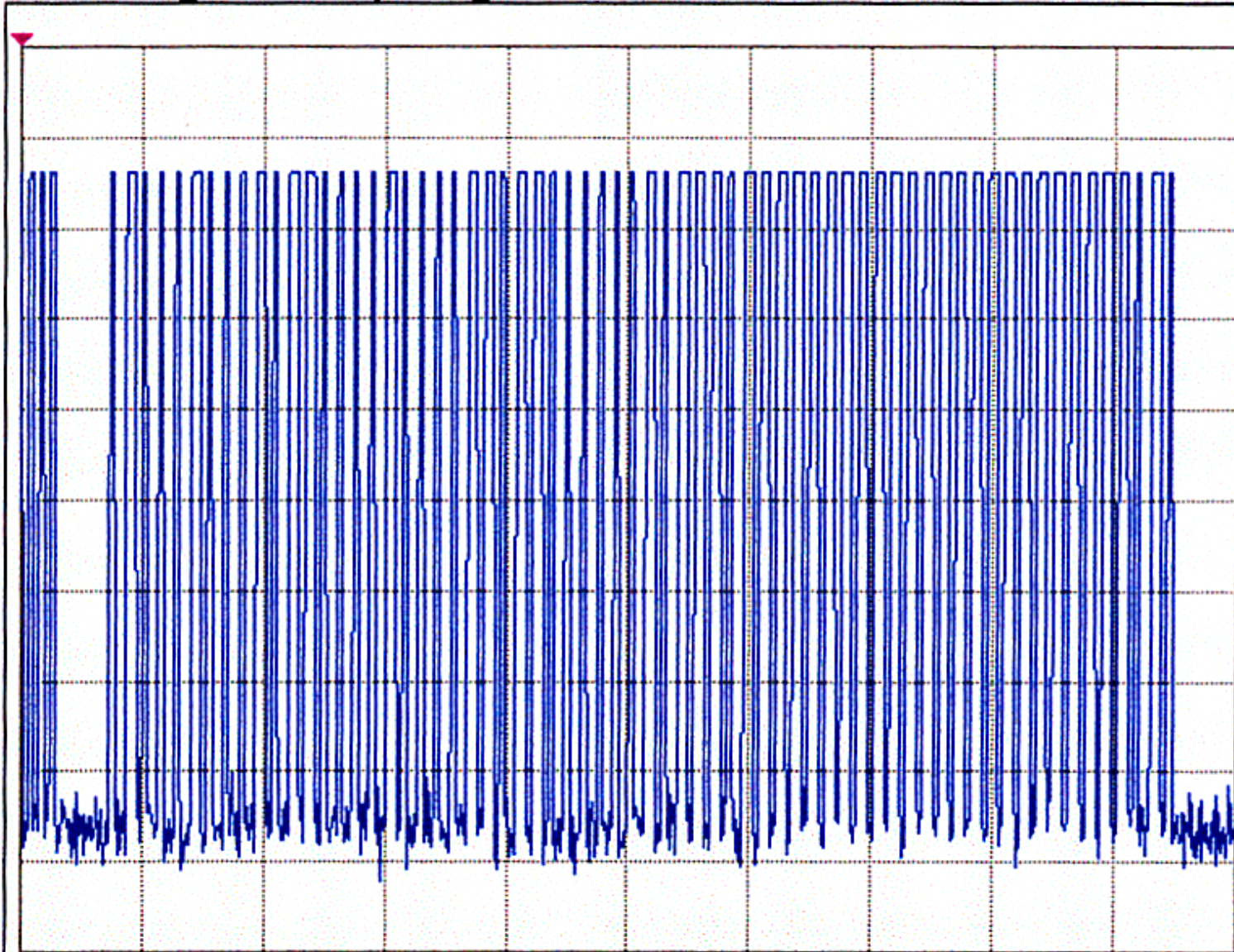
*ATT 10dB

KEY 1

Thu 2004 Jan 15 17:43

REF 107.0 dB μ V

10dB/ A_Write Smp1 B_Blank Posi



CENTER 433.919700 MHz

SPAN 0.000 kHz

*RBW 100 kHz

*VBW 100 kHz

*SWP 90 ms

*ATT 10dB

KEY 1

Thu 2004 Jan 15 17:27

REF 107.0 dB μ V

DL 74.8 dB μ V

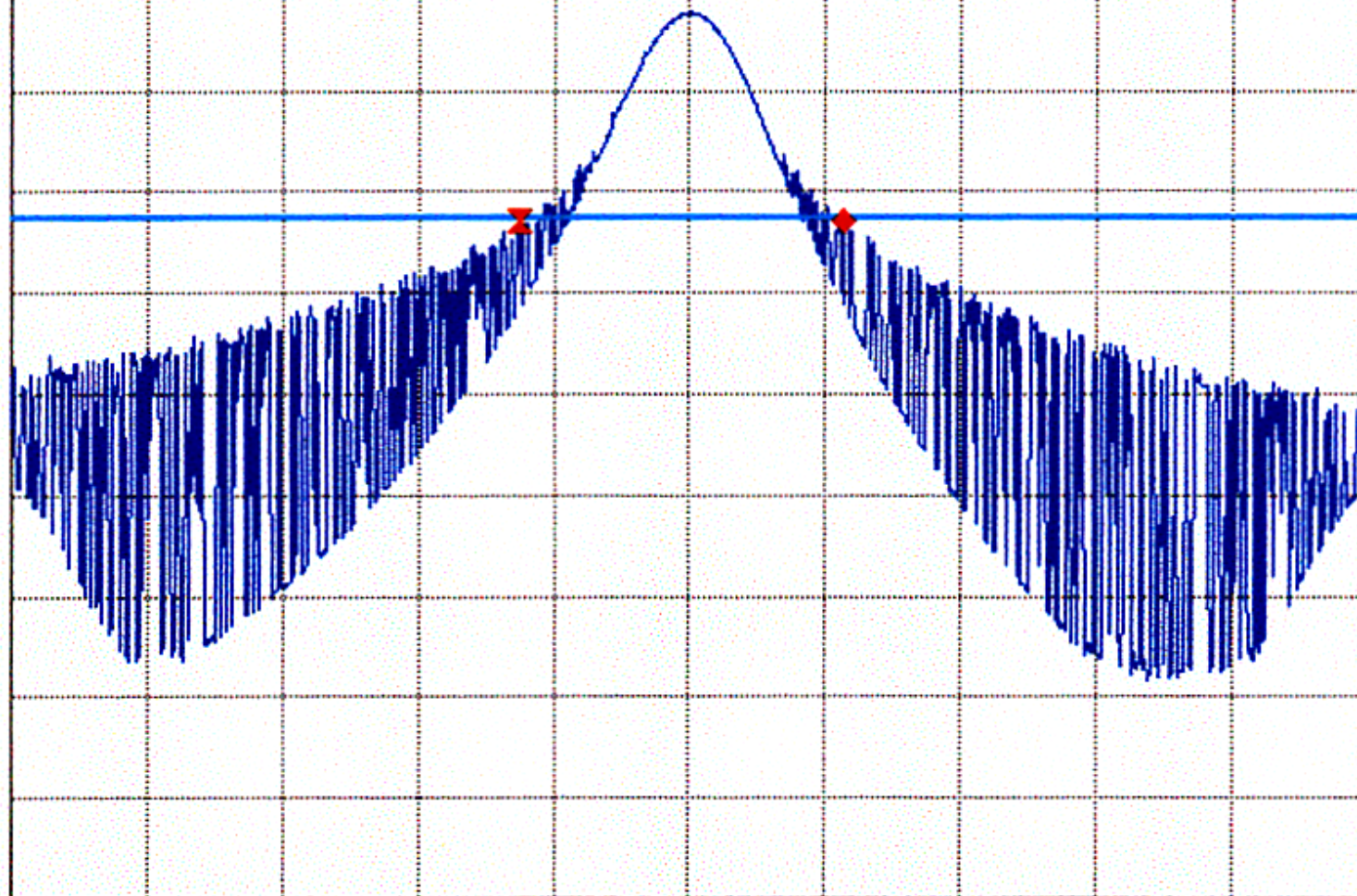
MK Δ 473 kHz

10dB/ A_Max

Posi B_Blank Posi

0.14 dB

DELTA MKR
473 kHz



CENTER 433.919 MHz

SPAN 1.980 MHz

*RBW 100 kHz

*VBW 100 kHz

*SWP 10 ms

*ATT 10dB

S



Compliance Certification
Services Inc.

FCC, VCCI, CISPR, CE, AUSTEL, NZ
UL, CSA, TUV, BSMI, DHHS, NVLAP
No. 165, Chung Sheng Road,
Hsin Tien City, Taipei, Taiwan, R.O.C.
TEL: 02-2217-0894 FAX: 02-2217-1029

Project #: C30710402
Report #: C30710402-RP
Date: 2003/07/10
Test Engr: JIMMY CHEN

Company: NUTEK CORPORATION
EUT Description: AC17 (433.92 MHz / Car Alarm Transceiver)
Test Configuration : EUT ONLY
Type of Test: FCC 15.231(b)
Mode of Operation: Transmitter Mode

K-Site

M% = ((t1+t2+t3+...)/T) * 100% = **35.75 %**

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

20*log(M%) = **-8.9345**

	Freq.	Pk Rdg	Av Rdg	AF/AT	Closs	Pre-amp	Level	Limit	Margin	Pol	Az	Height
	(MHz)	(dBuV)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	FCC B	(dB)	(H/V)	(Deg)	(Meter)
X	Button #2:											
	433.91	78.50	69.57	27.12	3.28	29.68	70.29	80.82	-10.53	3mV	180	1.10
Y	867.83	45.92	36.99	32.74	5.02	28.79	45.96	60.82	-14.86	3mV	180	1.30
	433.91	78.12	69.19	27.12	3.28	29.68	69.91	80.82	-10.91	3mV	90	1.20
Z	867.81	41.15	32.22	32.74	5.02	28.79	41.19	60.82	-19.63	3mV	270	1.50
	433.92	85.16	76.23	27.12	3.28	29.68	76.95	80.82	-3.87	3mV	0	1.10
	867.84	42.27	33.34	32.74	5.02	28.79	42.31	60.82	-18.51	3mV	90	1.40
X	433.91	77.88	68.95	27.12	3.28	29.68	69.67	80.82	-11.15	3mH	90	1.10
	867.82	36.28	27.35	32.74	5.02	28.79	36.32	60.82	-24.50	3mH	90	1.30
Y	433.91	80.11	71.18	27.12	3.28	29.68	71.90	80.82	-8.92	3mH	270	1.00
	867.83	39.05	30.12	32.74	5.02	28.79	39.09	60.82	-21.73	3mH	180	1.30
Z	433.91	77.26	68.33	27.12	3.28	29.68	69.05	80.82	-11.77	3mH	0	1.10
	867.83	41.44	32.51	32.74	5.02	28.79	41.48	60.82	-19.34	3mH	270	1.30

AF/AT=AF+10dB(ATTENUATOR)

Peak: RBW= 120KHz

VBW= 300KHz

A(Average): Pk Reading - 8.9345dB

Total Data #12

KEY 2

Thu 2004 Jan 15 18:10

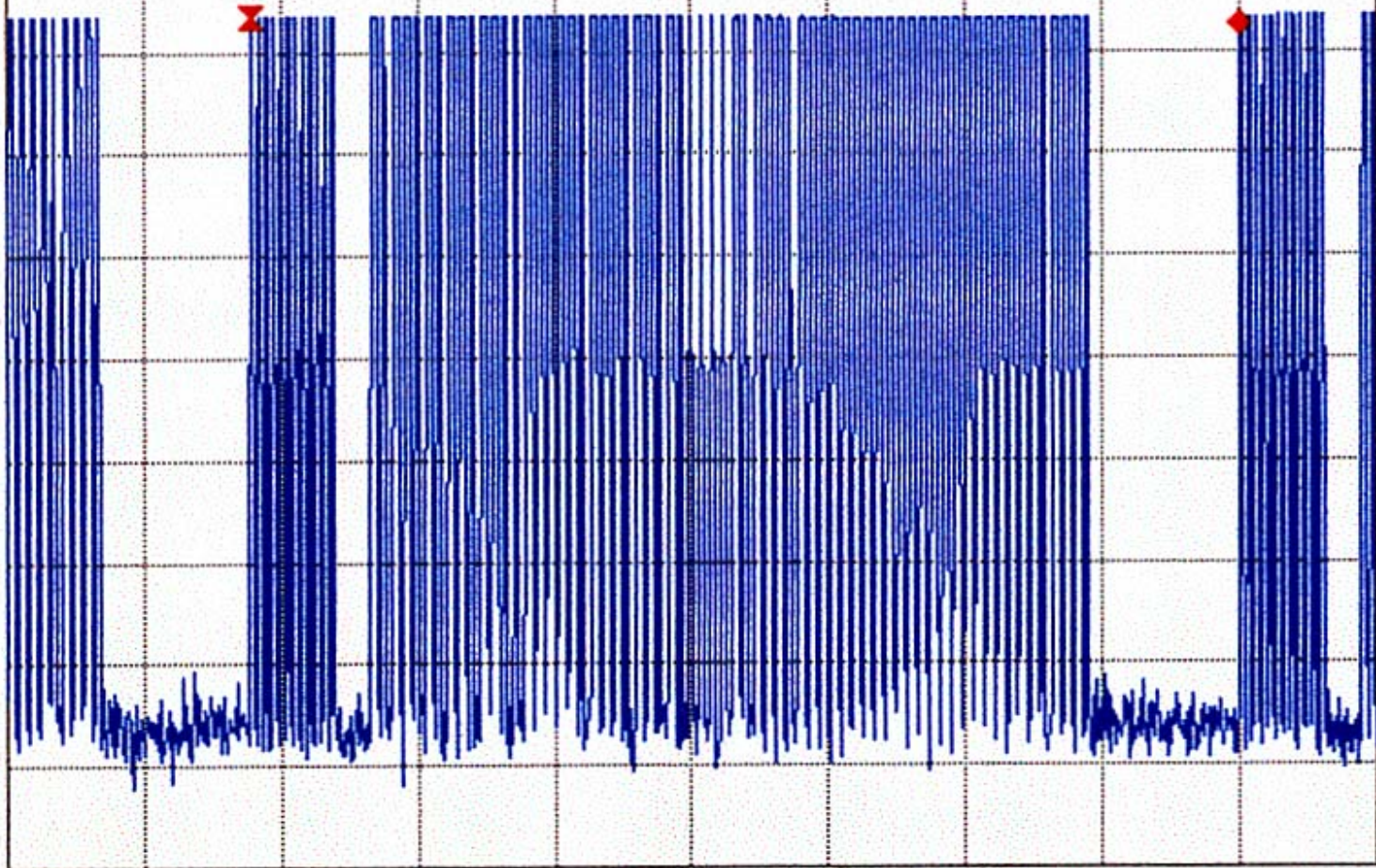
REF 107.0 dB μ V

MK4 108.3 ms

10dB/ A_Write Smpl B_Blank Posi

-0.67 dB

DELTA MKR
108.3 ms



CENTER 433.919700 MHz

SPAN 0.000 kHz

*RBW 100 kHz *VBW 100 kHz *SWP 150 ms *ATT 10dB

KEY 2

Thu 2004 Jan 15 18:01

REF 107.0 dB μ V

MK4 660.0 μ s

10dB/

A_Write

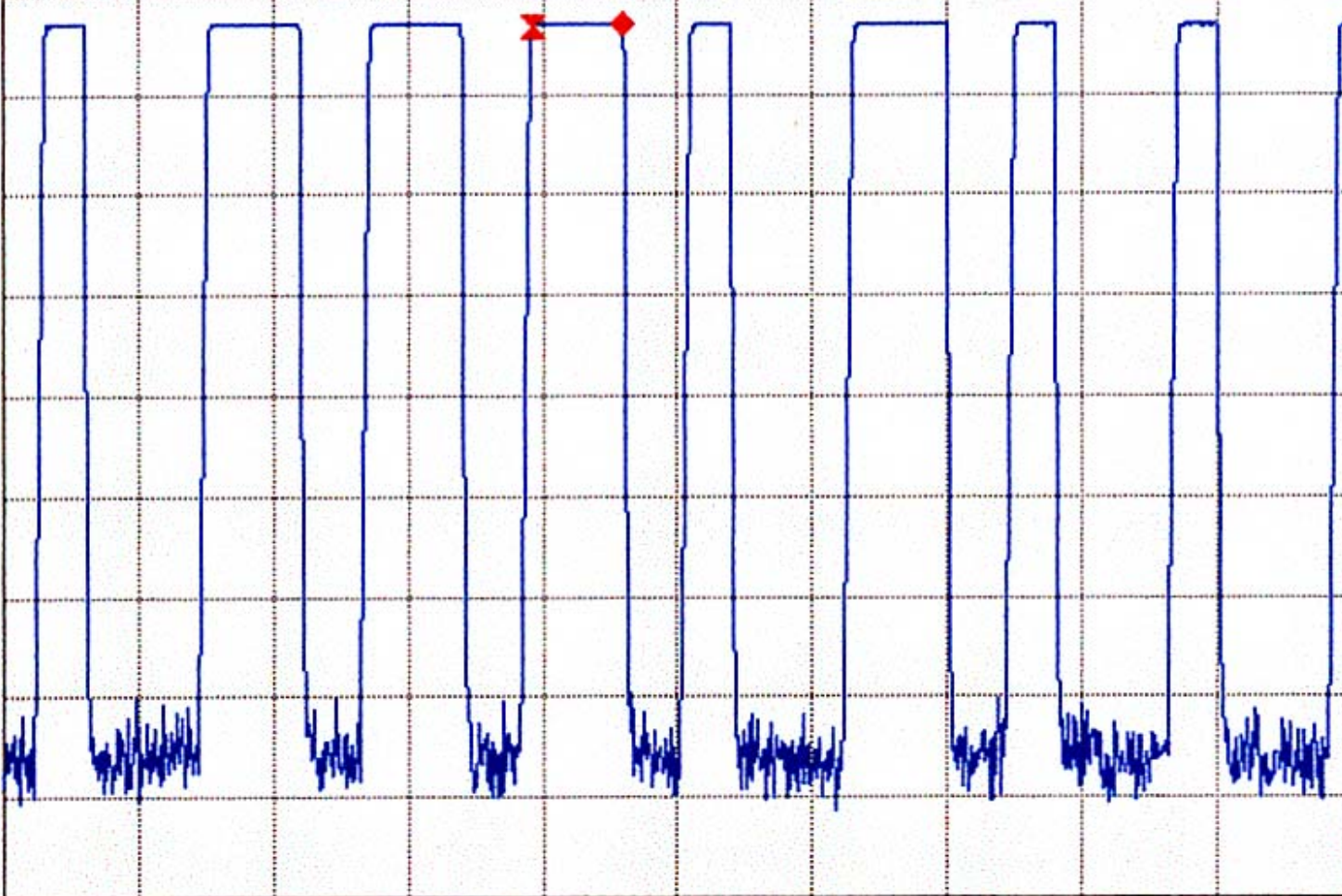
Smpl

B_Blank

Posi

0.18 dB

DELTA MKR
660.0 μ s



CENTER 433.919700 MHz

SPAN 0.000 kHz

*RBW 100 kHz

*VBW 100 kHz

*SWP 10 ms

*ATT 10dB

KEY 2

Thu 2004 Jan 15 18:02

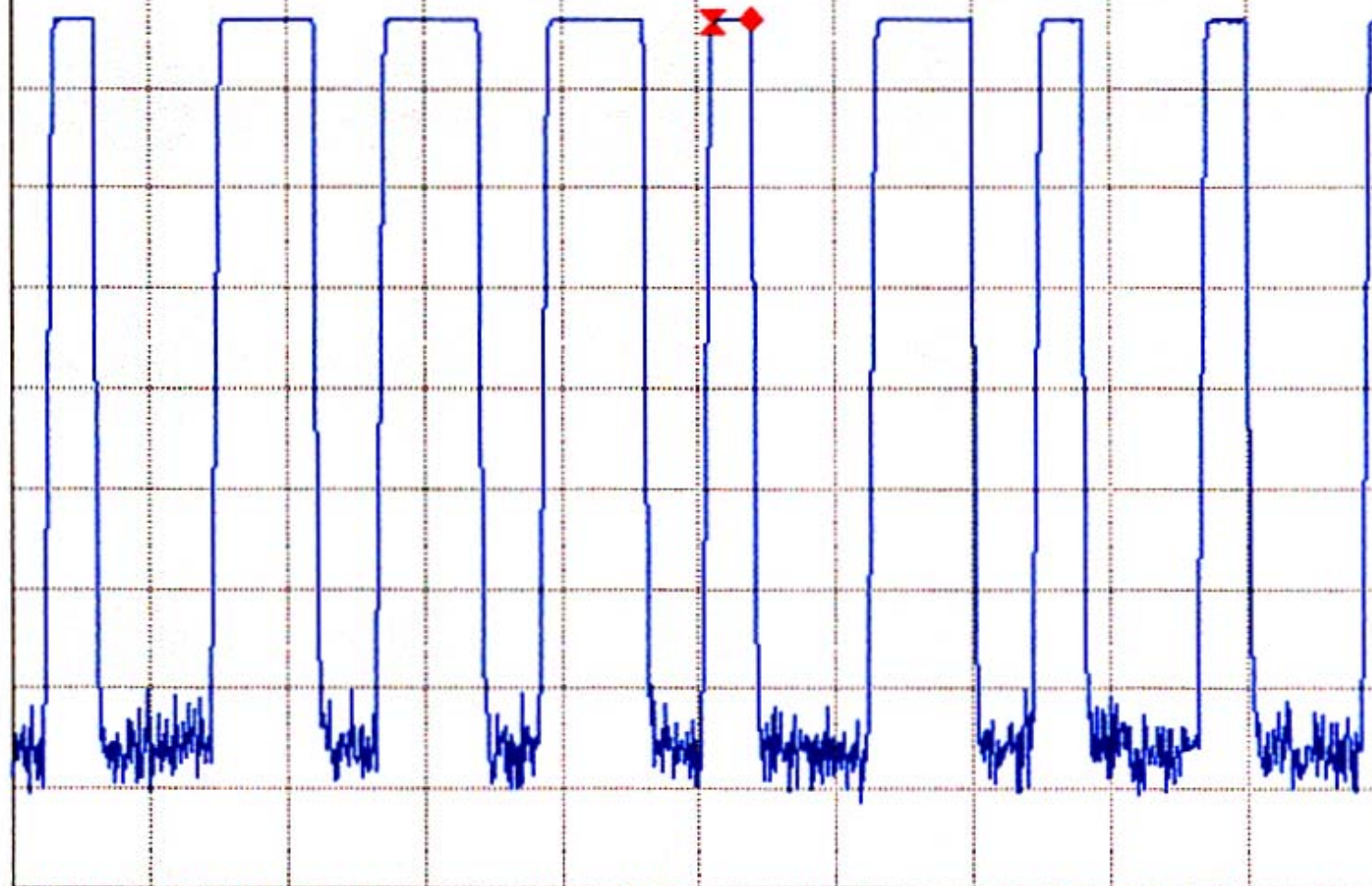
REF 107.0 dB μ V

MK4 270.0 μ s

10dB/ A_Write Smp1 B_Blank Posi

0.09 dB

DELTA MKR
270.0 μ s



CENTER 433.919700 MHz

SPAN 0.000 kHz

*RBW 100 kHz

*VBW 100 kHz

*SWP 10 ms

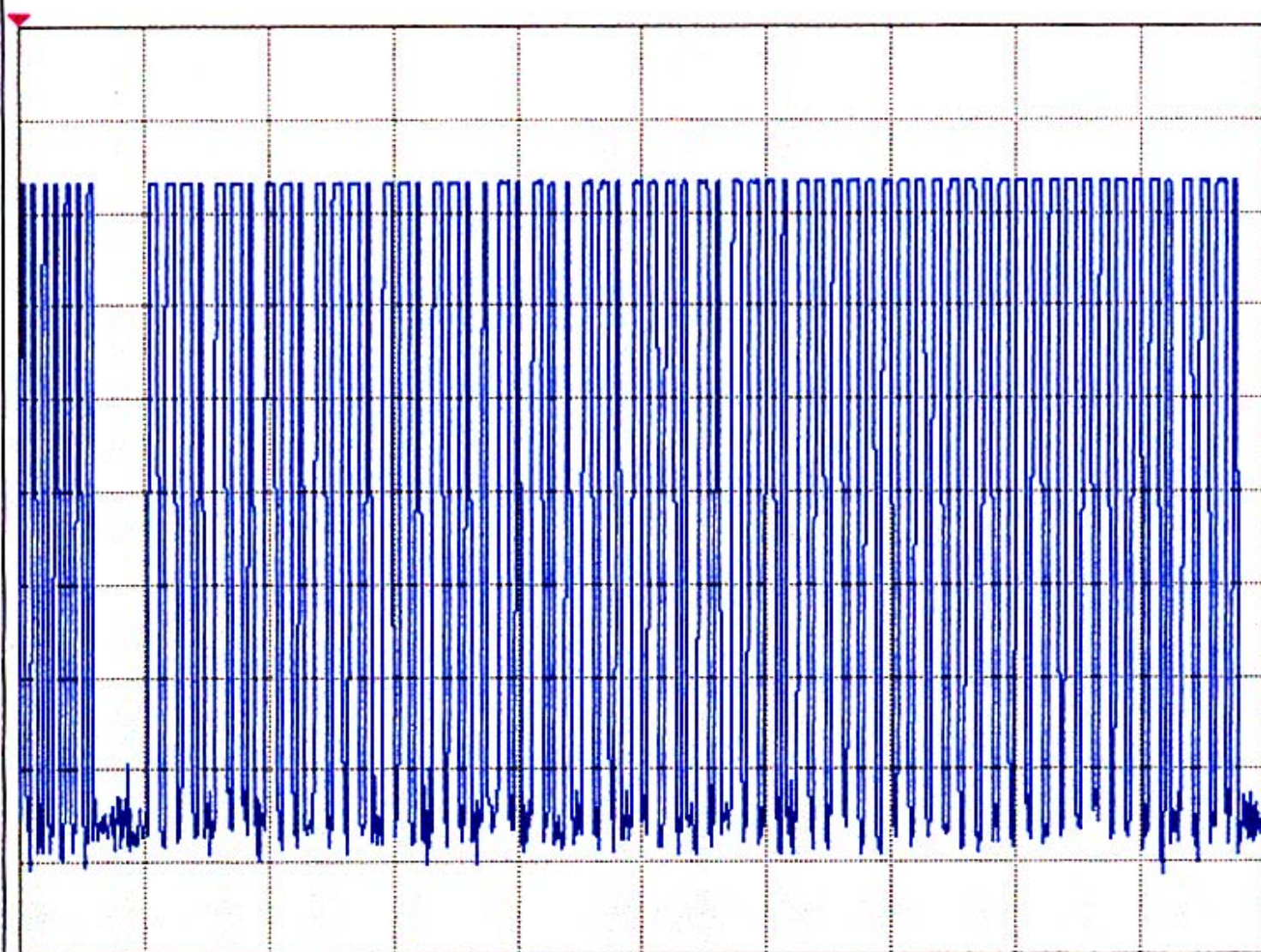
*ATT 10dB

KEY 2

Thu 2004 Jan 15 17:41

REF 107.0 dB μ V

10dB/ A_Write Smp1 B_Blank Posi



CENTER 433.919700 MHz

SPAN 0.000 kHz

*RBW 100 kHz *VBW 100 kHz *SWP 90 ms *ATT 10dB

KEY 2

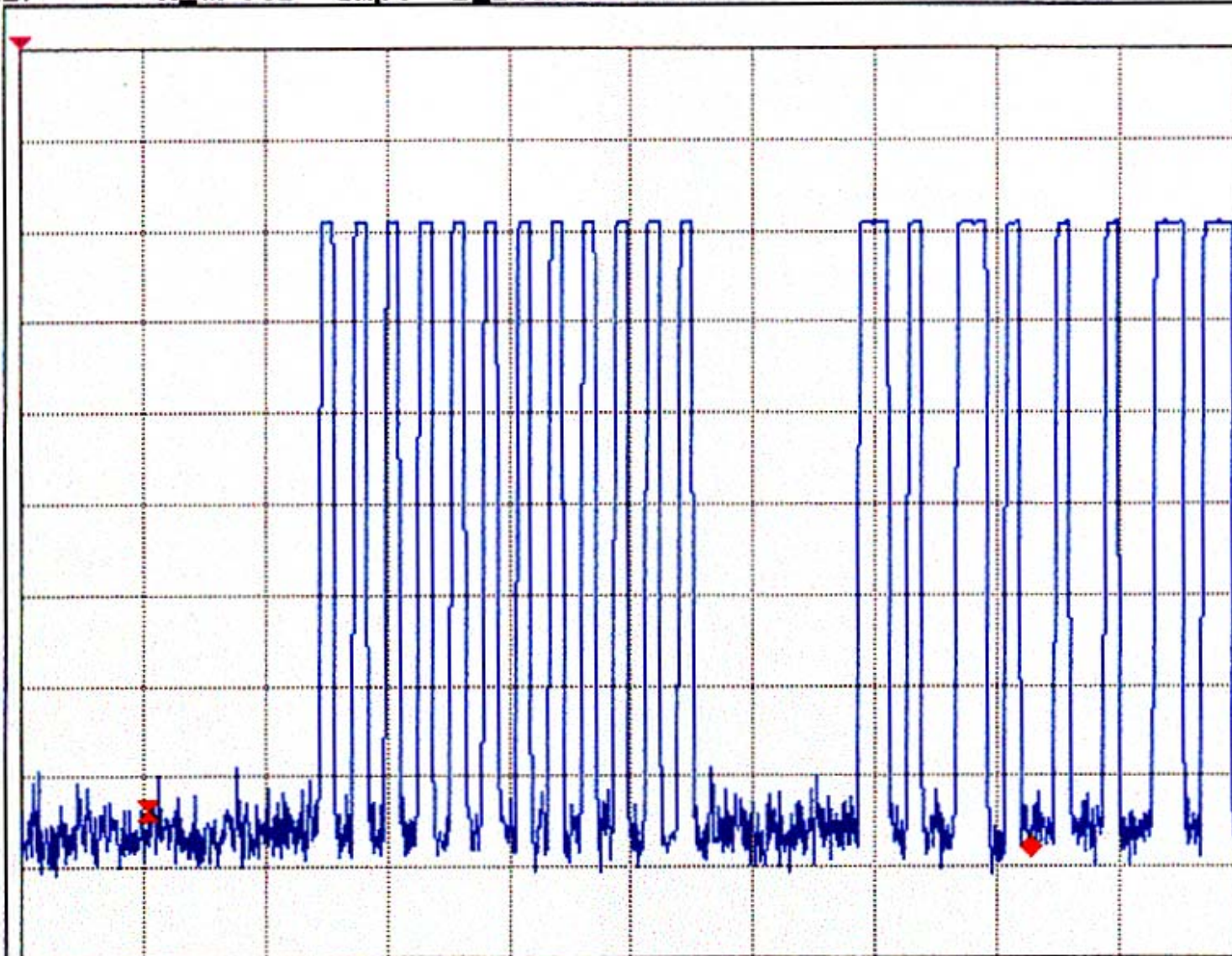
Thu 2004 Jan 15 17:54

REF 107.0 dB μ V

MK Δ 21.69 ms

10dB/ A_Write Smp1 B_Blank Pos1

-3.92 dB



CENTER 433.919700 MHz

SPAN 0.000 kHz

*RBW 100 kHz *VBW 100 kHz *SWP 30 ms *ATT 10dB

KEY 2

Thu 2004 Jan 15 17:30

REF 107.0 dB μ V

DL 74.0 dB μ V

MK Δ 475 kHz

10dB/

A_Max

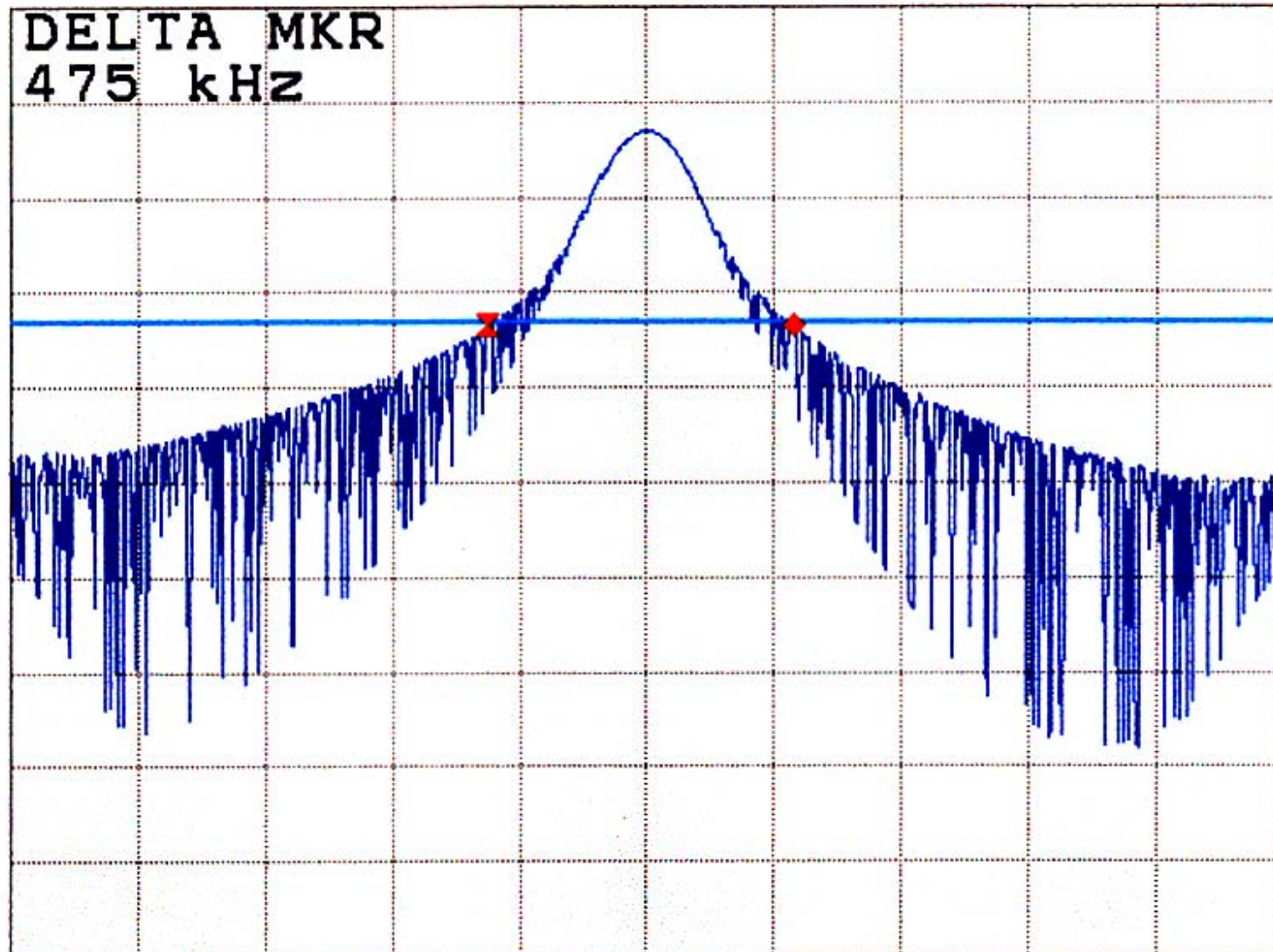
Posi

B_Blank

Posi

0.02 dB

DELTA MKR
475 kHz



CENTER 433.919 MHz

SPAN 1.980 MHz

*RBW 100 kHz

*VBW 100 kHz

*SWP 10 ms

*ATT 10dB



Compliance Certification
Services Inc.

FCC, VCCI, CISPR, CE, AUSTEL, NZ
UL, CSA, TUV, BSMI, DHHS, NVLAP
No. 165, Chung Sheng Road,
Hsin Tien City, Taipei, Taiwan, R.O.C.
TEL: 02-2217-0894 FAX: 02-2217-1029

Project #: C30710402
Report #: C30710402-RP
Date: 2003/07/10
Test Engr: JIMMY CHEN

Company: NUTEK CORPORATION
EUT Description: AC17 (433.92 MHz / Car Alarm Transceiver)
Test Configuration : EUT ONLY
Type of Test: FCC 15.231(b)
Mode of Operation: Transmitter Mode

K Site

M% = ((t1+t2+t3+...)/T) * 100% = **39.63 %**

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

20*log(M%) = **-8.0395**

	Freq.	Pk Rdg	Av Rdg	AF/AT	Closs	Pre-amp	Level	Limit	Margin	Pol	Az	Height
	(MHz)	(dBuV)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	FCC B	(dB)	(H/V)	(Deg)	(Meter)
X	Button #3:											
	433.93	72.77	64.73	27.12	3.28	29.68	65.45	80.82	-15.37	3mV	270	1.00
Y	867.83	40.93	32.89	32.74	5.02	28.79	41.86	60.82	-18.96	3mV	0	1.20
	433.92	80.52	72.48	27.12	3.28	29.68	73.20	80.82	-7.62	3mV	90	1.20
Z	867.85	40.59	32.55	32.74	5.02	28.79	41.52	60.82	-19.30	3mV	270	1.50
	433.92	84.99	76.95	27.12	3.28	29.68	77.67	80.82	-3.15	3mV	0	1.30
	867.83	41.43	33.39	32.74	5.02	28.79	42.36	60.82	-18.46	3mV	90	1.10
X	433.91	79.55	71.51	27.12	3.28	29.68	72.23	80.82	-8.59	3mH	0	1.00
	867.82	38.23	30.19	32.74	5.02	28.79	39.16	60.82	-21.66	3mH	90	1.40
Y	433.91	78.95	70.91	27.12	3.28	29.68	71.63	80.82	-9.19	3mH	0	1.00
	867.83	43.57	35.53	32.74	5.02	28.79	44.50	60.82	-16.32	3mH	180	1.20
Z	433.92	71.45	63.41	27.12	3.28	29.68	64.13	80.82	-16.69	3mH	90	1.10
	867.83	41.29	33.25	32.74	5.02	28.79	42.22	60.82	-18.60	3mH	270	1.50

AF/AT=AF+10dB(ATTENUATOR)
Peak: RBW= 120KHz
VBW= 300KHz
A(Average): Pk Reading - 8.0395dB

Total Data #12

KEY 3

Thu 2004 Jan 15 17:51

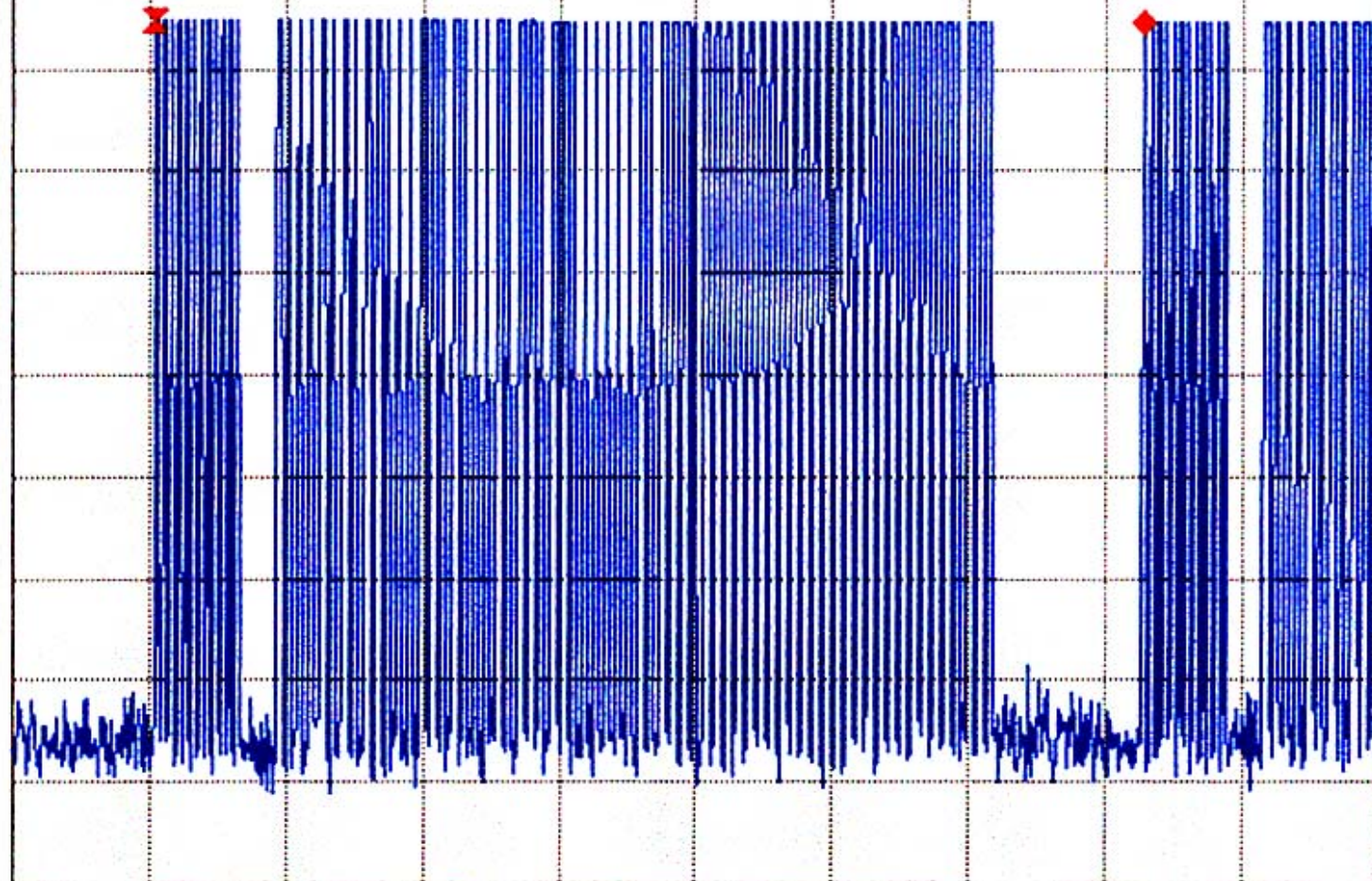
REF 107.0 dB μ V

MK4 108.4 ms

10dB/ A_Write Smp1 B_Blank Pos1

-0.18 dB

DELTA MKR
108.4 ms



CENTER 433.919700 MHz

SPAN 0.000 kHz

*RBW 100 kHz *VBW 100 kHz *SWP 150 ms *ATT 10dB

KEY 3

Thu 2004 Jan 15 18:05

REF 107.0 dB μ V

MK4 670.0 μ s

10dB/

A_Write

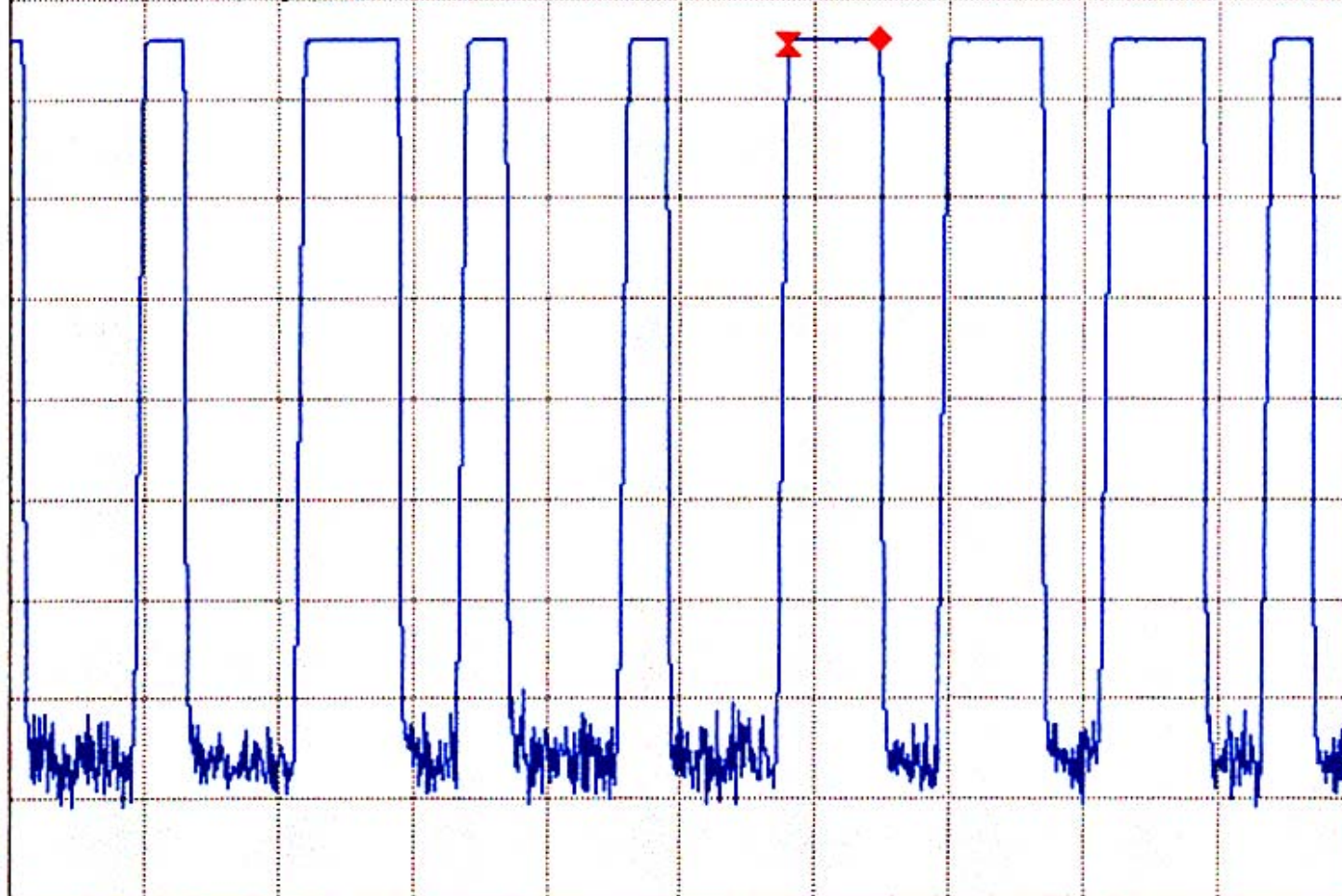
Smpl

B_Blank

Posi

0.41 dB

DELTA MKR
670.0 μ s



CENTER 433.919700 MHz

SPAN 0.000 kHz

*RBW 100 kHz

*VBW 100 kHz

*SWP 10 ms

*ATT 10dB

KEY 3

Thu 2004 Jan 15 18:04

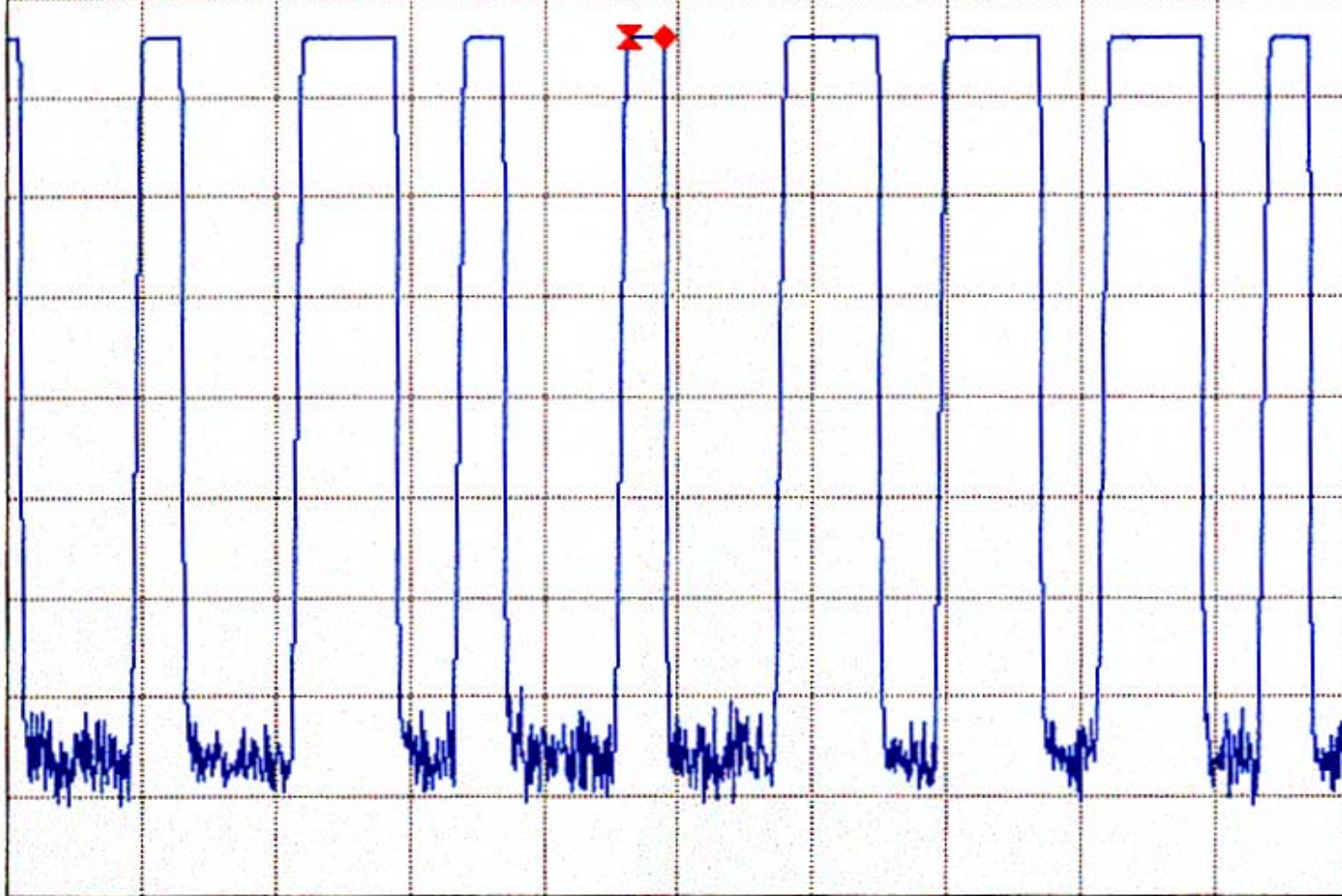
REF 107.0 dB μ V

MKA 250.0 μ s

10dB/ A_Write Smpl B_Blank Posi

0.03 dB

DELTA MKR
250.0 μ s



CENTER 433.919700 MHz

SPAN 0.000 kHz

*RBW 100 kHz

*VBW 100 kHz

*SWP 10 ms

*ATT 10dB

KEY 3

Thu 2004 Jan 15 17:53

REF 107.0 dB μ V

MK4 21.69 ms

10dB/

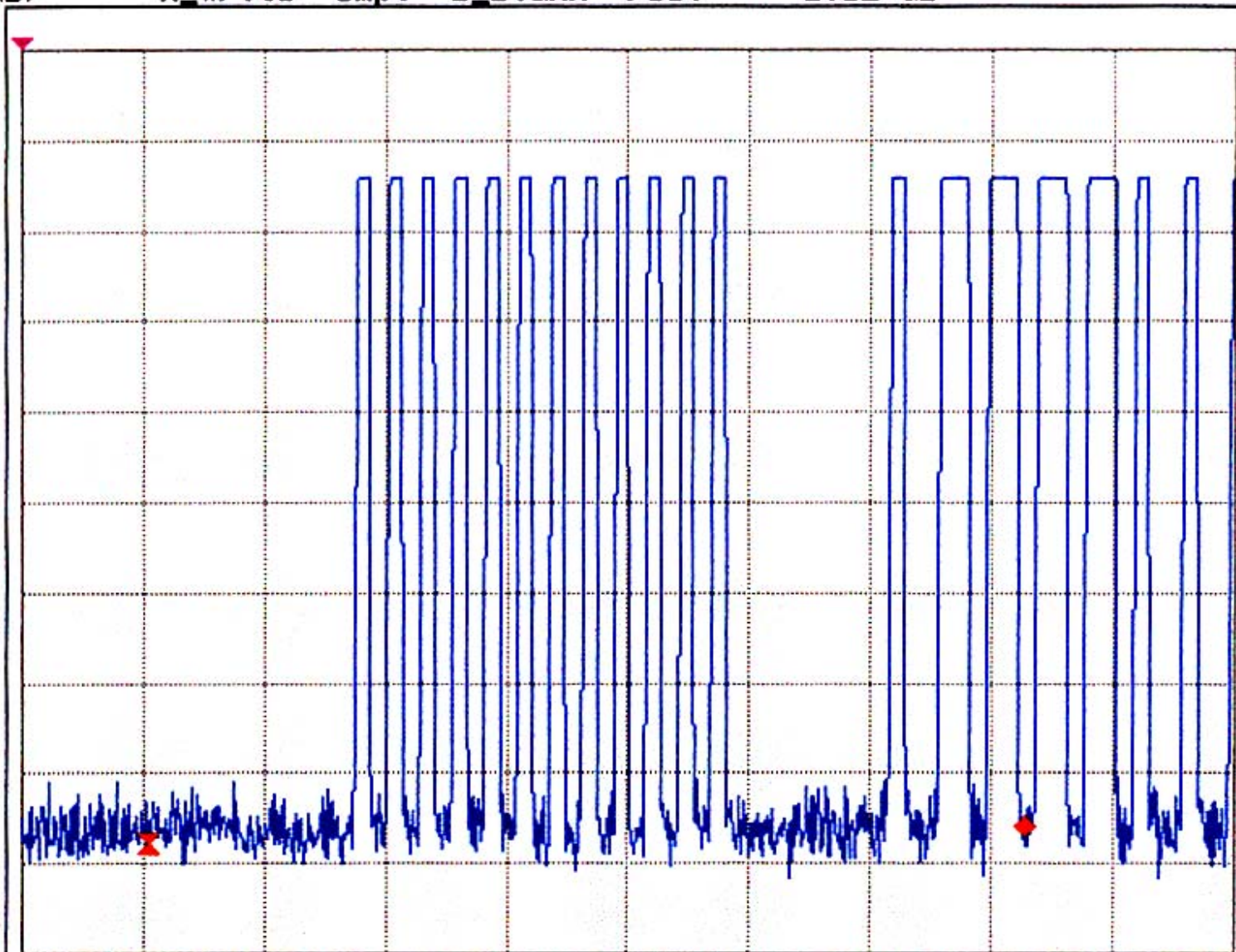
A_Write

Smpl

B_Blank

Posi

1.92 dB



CENTER 433.919700 MHz

SPAN 0.000 kHz

*RBW 100 kHz

*VBW 100 kHz

*SWP 30 ms

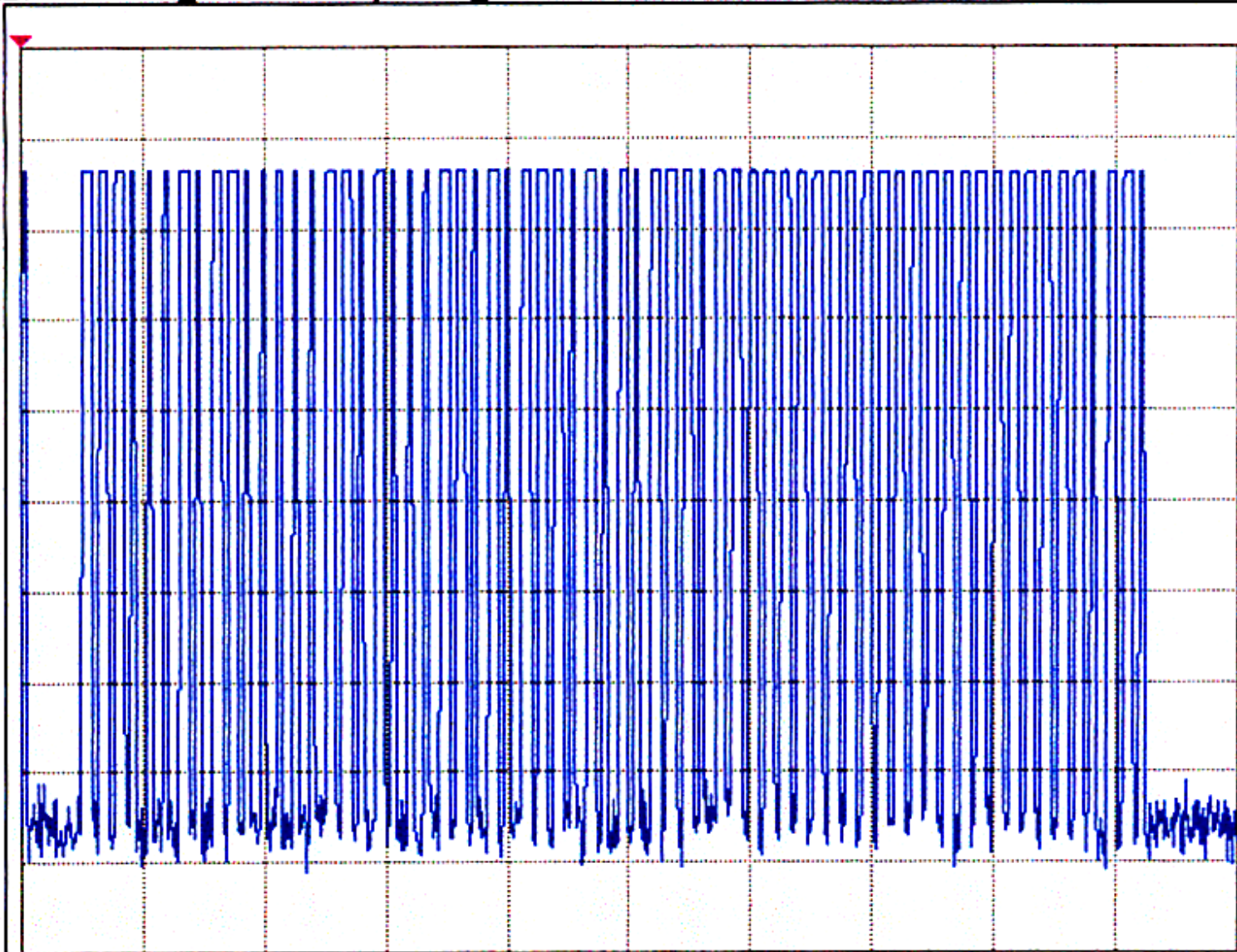
*ATT 10dB

KEY 3

Thu 2004 Jan 15 17:38

REF 107.0 dB μ V

10dB/ A_Write Smp1 B_Blank Posi



CENTER 433.919700 MHz

SPAN 0.000 kHz

*RBW 100 kHz *VBW 100 kHz *SWP 90 ms *ATT 10dB

KEY 3

Thu 2004 Jan 15 17:32

REF 107.0 dB μ V

DL 74.3 dB μ V

MK4 449 kHz

10dB/

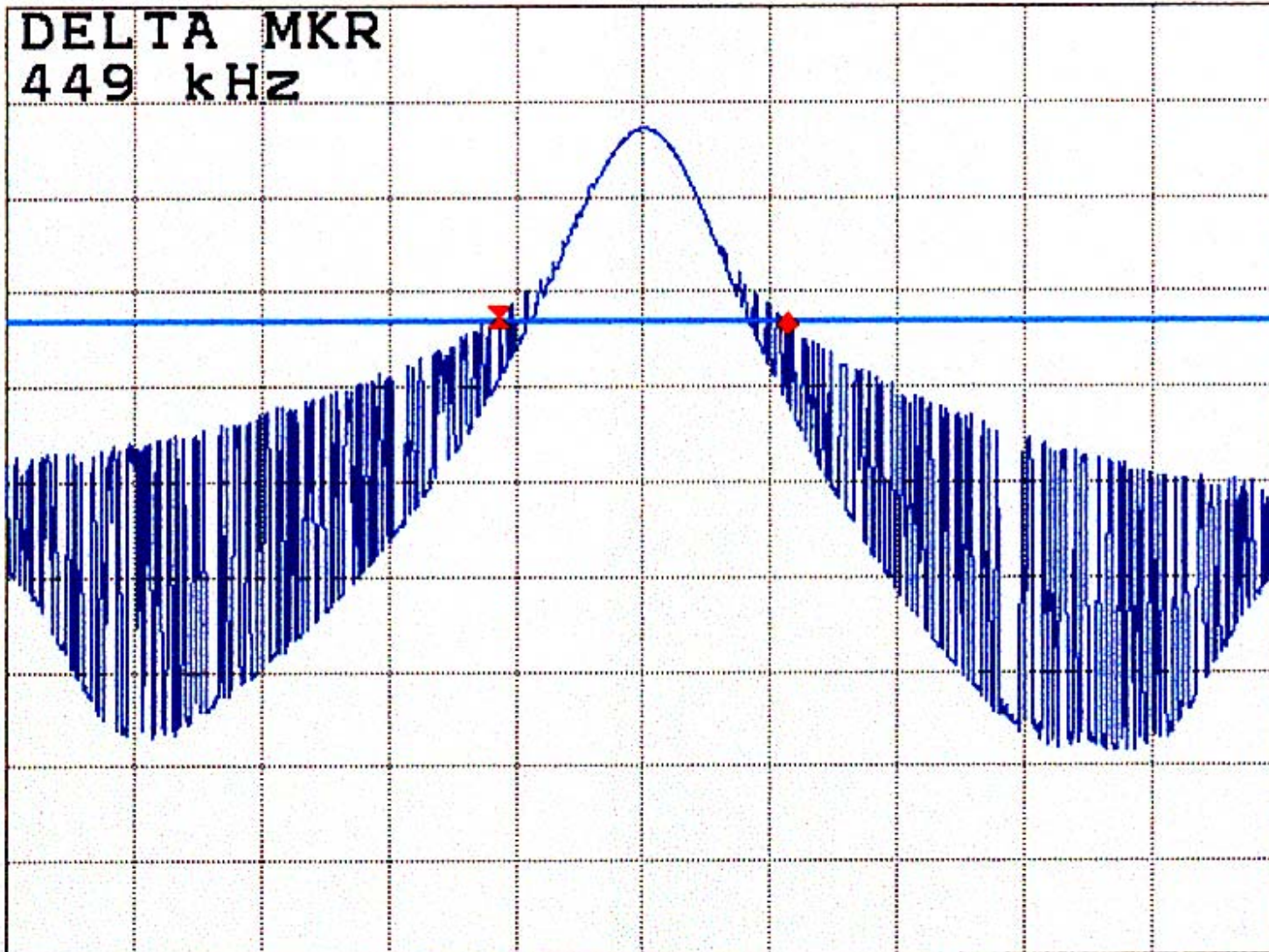
A_Max

Posi B_Blank

Posi

-0.84 dB

DELTA MKR
449 kHz



CENTER 433.919 MHz

SPAN 1.980 MHz

*RBW 100 kHz

*VBW 100 kHz

*SWP 10 ms

*ATT 10dB



Compliance Certification
Services Inc.

FCC, VCCI, CISPR, CE, AUSTEL, NZ
UL, CSA, TUV, BSMI, DHHS, NVLAP
No. 165, Chung Sheng Road,
Hsin Tien City, Taipei, Taiwan, R.O.C.
TEL: 02-2217-0894 FAX: 02-2217-1029

Project #: C30710402
Report #: C30710402-RP
Date: 2003/07/10
Test Engr: JIMMY CHEN

Company: NUTEK CORPORATION
EUT Description: AC17 (433.92 MHz / Car Alarm Transceiver)
Test Configuration : EUT ONLY
Type of Test: FCC 15.231(b)
Mode of Operation: Transmitter Mode

K Site

M% = ((t1+t2+t3+...)/T) * 100% = **38.4 %**

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

20*log(M%) = **-8.3134**

	Freq.	Pk Rdg	Av Rdg	AF/AT	Closs	Pre-amp	Level	Limit	Margin	Pol	Az	Height
	(MHz)	(dBuV)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	FCC B	(dB)	(H/V)	(Deg)	(Meter)
X	Button #4:											
	433.93	71.52	63.21	27.12	3.28	29.68	63.93	80.82	-16.89	3mV	180	1.20
Y	867.83	43.28	34.97	32.74	5.02	28.79	43.94	60.82	-16.88	3mV	0	1.30
	433.91	81.34	73.03	27.12	3.28	29.68	73.75	80.82	-7.07	3mV	270	1.30
Z	867.83	40.27	31.96	32.74	5.02	28.79	40.93	60.82	-19.89	3mV	180	1.40
	433.91	82.26	73.95	27.12	3.28	29.68	74.67	80.82	-6.15	3mV	90	1.00
	867.83	41.14	32.83	32.74	5.02	28.79	41.80	60.82	-19.02	3mV	180	1.30
X	433.91	78.07	69.76	27.12	3.28	29.68	70.48	80.82	-10.34	3mH	0	1.00
	867.84	38.25	29.94	32.74	5.02	28.79	38.91	60.82	-21.91	3mH	90	1.20
Y	433.90	82.62	74.31	27.12	3.28	29.68	75.03	80.82	-5.79	3mH	0	1.00
	867.83	37.16	28.85	32.74	5.02	28.79	37.82	60.82	-23.00	3mH	180	1.00
Z	433.93	73.14	64.83	27.12	3.28	29.68	65.55	80.82	-15.27	3mH	270	1.20
	867.84	39.06	30.75	32.74	5.02	28.79	39.72	60.82	-21.10	3mH	270	1.30

AF/AT=AF+10dB(ATTENUATOR)
Peak: RBW= 120KHz
VBW= 300KHz
A(Average): Pk Reading - 8.3134dB

Total Data #12



Compliance Certification
Services Inc.

FCC, VCCI, CISPR, CE, AUSTEL, NZ
UL, CSA, TUV, BSMI, DHHS, NVLAP
No. 165, Chung Sheng Road,
Hsin Tien City, Taipei, Taiwan, R.O.C.
TEL: 02-2217-0894 FAX: 02-2217-1029

Project #: C30710402
Report #: C30710402-RP
Date: 2003/07/10
Test Engr: JIMMY CHEN

Company: NUTEK CORPORATION
EUT Description: AC17 (433.92 MHz / Car Alarm Transceiver)
Test Configuration : EUT ONLY
Type of Test: FCC 15.231(b)/FCC 15.209
Mode of Operation: Transmitter Mode

☒ K Site

Freq.	Pk Rdg	Av Rdg	AF	Closs	Pre-amp	Level	Limit	Margin	Pol	Az	Height	Mark
(MHz)	(dBuV)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	FCC_B	(dB)	(H/V)	(Deg)	(Meter)	(P/Q/A)
1302	45.50	37.43	25.18	4.75	32.04	35.32	54.00	-18.68	3mV	90	1.2	A
1736	49.40	41.33	26.43	5.58	32.76	40.58	60.82	-20.24	3mV	180	1.0	A
2170	49.00	40.93	27.76	6.25	33.15	41.79	60.82	-19.03	3mV	270	1.0	A
2604	47.90	39.83	28.91	6.77	33.18	42.33	60.82	-18.49	3mV	90	1.1	A
3037	42.70	34.63	30.09	7.45	33.02	39.15	60.82	-21.67	3mV	90	1.0	A
3471	43.70	35.63	31.14	8.18	32.69	42.26	60.82	-18.56	3mV	180	1.0	A
3905	44.00	35.93	32.37	8.62	32.91	44.01	54.00	-9.99	3mV	0	1.3	A
4339	44.40	36.33	32.25	9.10	32.97	44.71	54.00	-9.29	3mV	90	1.7	A
1302	42.90	34.83	25.18	4.75	32.04	32.72	54.00	-21.28	3mH	90	1.1	A
1736	47.80	39.73	26.43	5.58	32.76	38.98	60.82	-21.84	3mH	0	1.0	A
2170	47.30	39.23	27.76	6.25	33.15	40.09	60.82	-20.73	3mH	270	1.0	A
2604	47.30	39.23	28.91	6.77	33.18	41.73	60.82	-19.09	3mH	180	1.3	A
3037	44.60	36.53	30.09	7.45	33.02	41.05	60.82	-19.77	3mH	180	1.0	A
3471	45.40	37.33	31.14	8.18	32.96	43.69	60.82	-17.13	3mH	90	1.5	A
3905	44.30	36.23	32.37	8.62	32.91	44.31	54.00	-9.69	3mH	180	1.2	A
4339	44.10	36.03	32.25	9.10	32.97	44.41	54.00	-9.59	3mH	180	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 - 8.0659dB

VERTICAL

Thu 2003 Jul 10 22:07

REF 90.0 dB μ V

MKR 433.92 MHz

10dB/

A_View

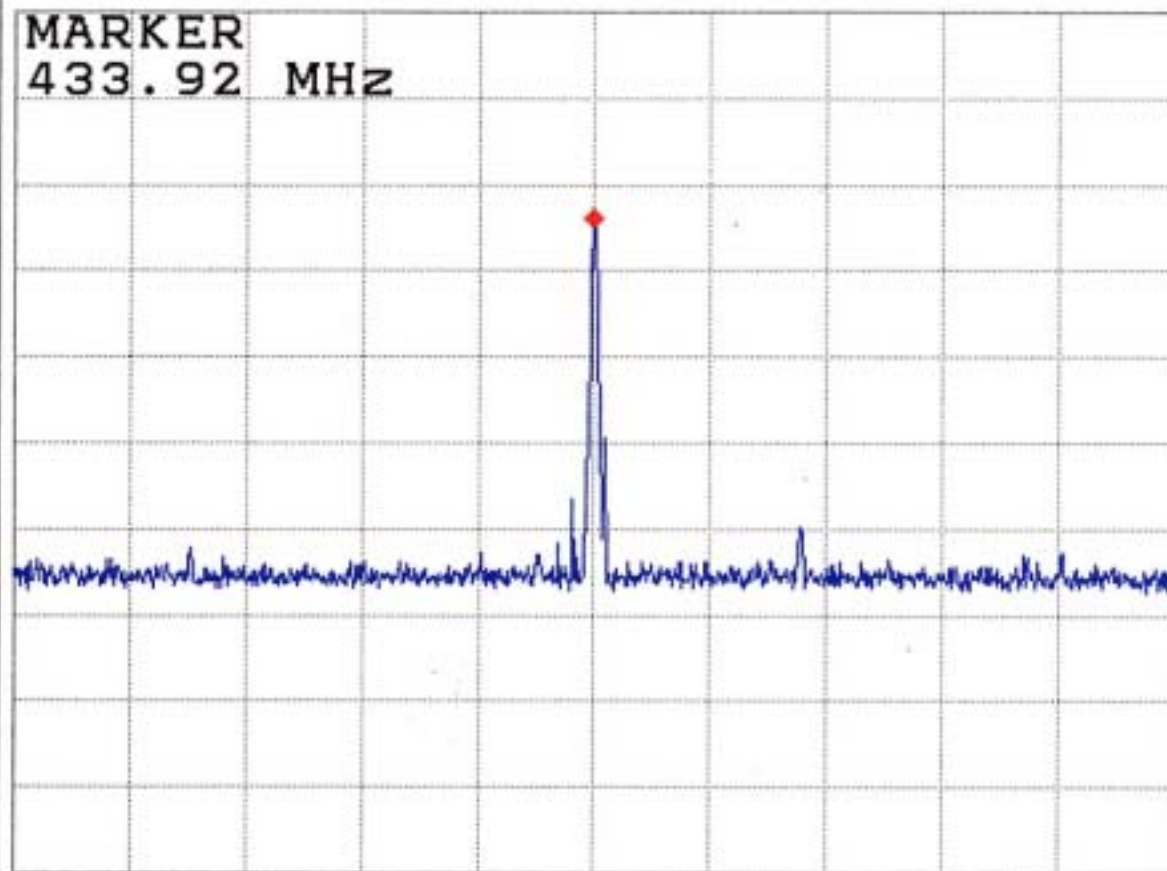
Posi

B_Blank

Posi

66.01 dB μ V

MARKER
433.92 MHz



CENTER 433.92 MHz

SPAN 40.00 MHz

*RBW 100 kHz

*VBW 100 kHz

SWP 20 ms

*ATT 10dB

HORIZONTAL

Thu 2003 Jul 10 22:15

REF 90.0 dB μ V

MKR 433.92 MHz

10dB/

A_View

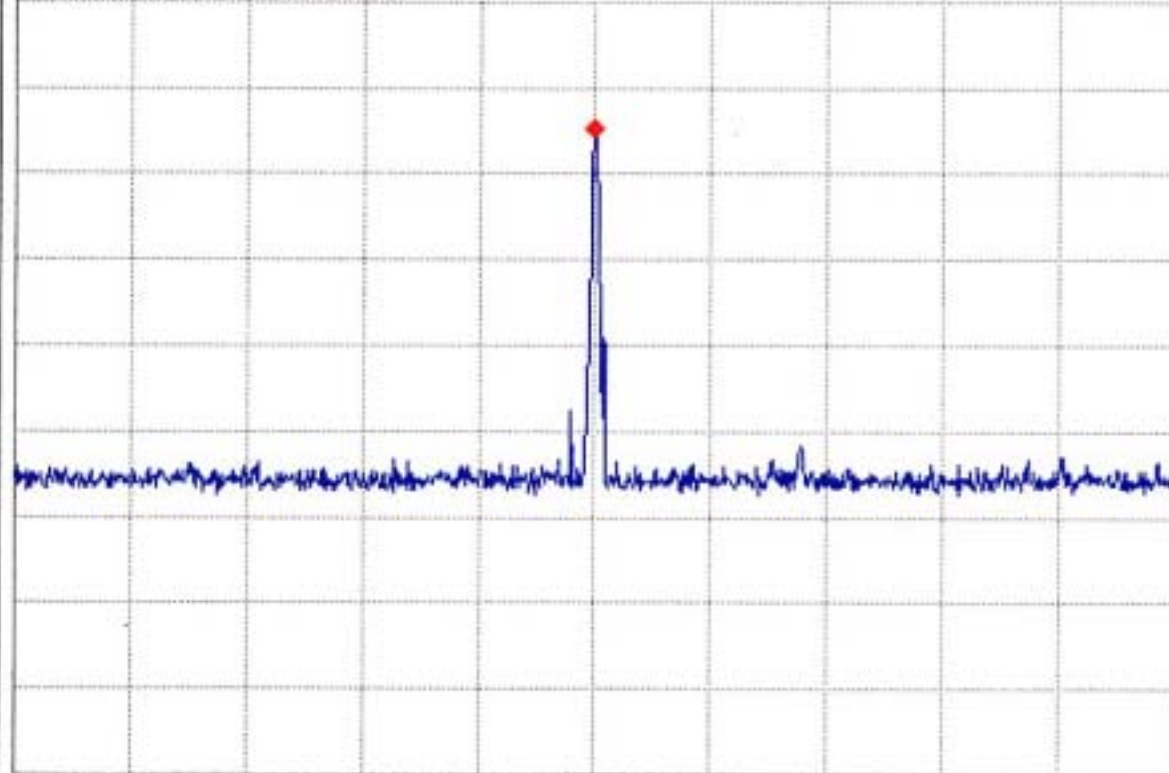
Posi

B_Blank

Posi

65.37 dB μ V

MARKER
433.92 MHz



CENTER 433.92 MHz

SPAN 40.00 MHz

*RBW 100 kHz

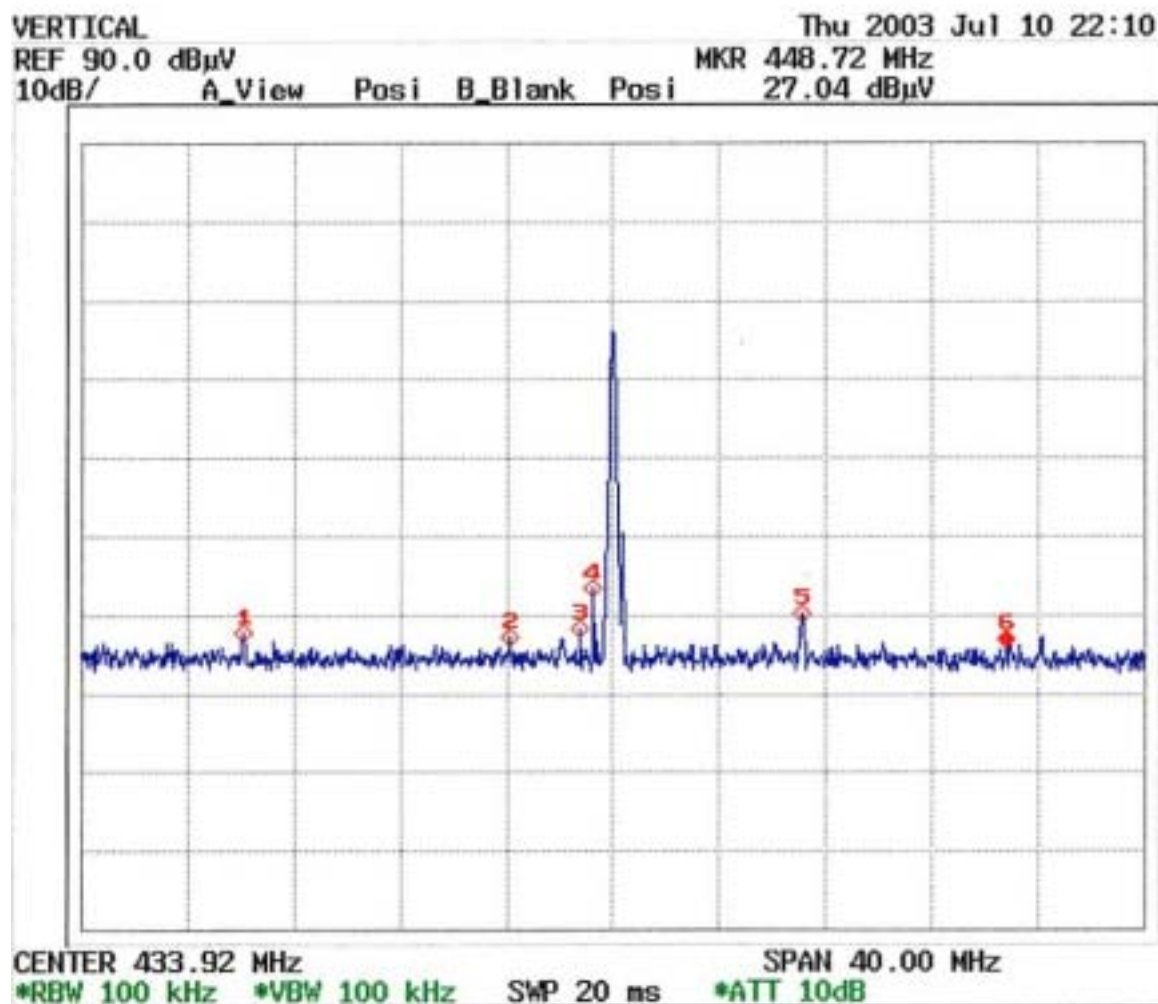
*VBW 100 kHz

SWP 20 ms

*ATT 10dB

Measurement Result

Operation Mode:	Receiver Mode	Test Configuration:	EUT / TX
Fundamental Frequency:	433.92 MHz	Test Date:	July 10, 2003
Temperature:	25 °C	Test By:	Jimmy Chen
Humidity:	62 %	Pol:	Vertical

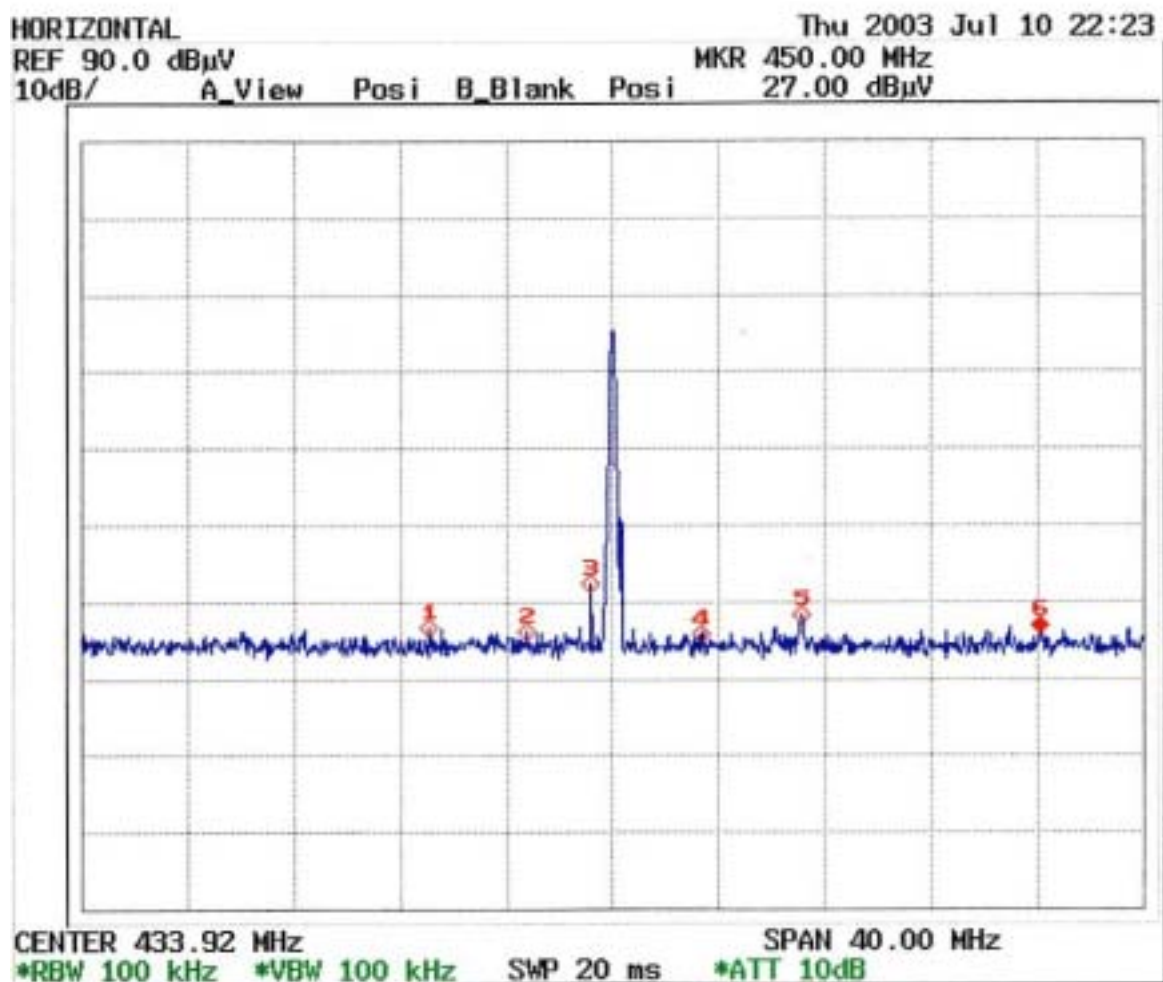


Freq. (MHz)	Ant.Pol. H/V	DetectorMode (PK/AV)	Reading (dBuV)	Ant./CL/ Amp. CF(dB)	Actual FS (dBuV/m)	Limit3m (dBuV/m)	Safe Margin (dB)
420.000	V	Peak	27.76	-2.72	25.04	46.00	-20.96
430.000	V	Peak	27.19	-2.38	24.81	46.00	-21.19
432.680	V	Peak	28.34	-2.28	26.06	46.00	-19.94
433.160	V	Peak	33.56	-2.27	31.29	46.00	-14.71
441.040	V	Peak	30.11	-1.99	28.12	46.00	-17.88
448.720	V	Peak	27.04	-1.72	25.32	46.00	-20.68

No other emissions were found within 20dB below the limits from 30-2000MHz.

Measurement Result

Operation Mode:	Receiver Mode	Test Configuration:	EUT / TX
Fundamental Frequency:	433.92 MHz	Test Date:	July 10, 2003
Temperature:	25 °C	Test By:	Jimmy Chen
Humidity:	62 %	Pol:	Horizontal



Freq. (MHz)	Ant.Pol. H/V	DetectorMode (PK/AV)	Reading (dBuV)	Ant./CL/ Amp. CF(dB)	Actual FS (dBuV/m)	Limit3m (dBuV/m)	Safe Margin (dB)
427.000	H	Peak	26.59	-2.48	24.11	46.00	-21.89
430.680	H	Peak	26.20	-2.35	23.85	46.00	-22.15
433.080	H	Peak	32.52	-2.27	30.25	46.00	-15.75
437.240	H	Peak	25.77	-2.12	23.65	46.00	-22.35
441.040	H	Peak	28.37	-1.99	26.38	46.00	-19.62
450.000	H	Peak	27.00	-1.68	25.32	46.00	-20.68

No other emissions were found within 20dB below the limits from 30-2000MHz.