Customer: X-10 (USA) Inc.
Test Sample: 2.4 GHz FM Transmitter
Model No.: VT40A FCC ID: BA5VT40A
Test Method: FCC 15.209(a) AC Line Conducted Emissions. 150 kHz to 30 MHz
Notes: Lead Tested = HOT Channel selector = A
Detector = Peak. Peak passes average limit
Date: November 12, 2002 Tech: S. Eanley Sheet 1 of 6

09:36:57 NOV 12, 2002
R-9689 X-10 VT40A(TX) FCC15.209(a) CE CH-A Lead HOT
REF 85.0 dBµV #AT 10 dB

PEAK
LOG
10
dB/
OFFST
10.0
dB

VA SB
SC FC
CORR

START 150 kHz STOP 30.00 MHz
#RES BW 10 kHz #VBW 300 kHz #SWP 20.0 sec

Retlif Testing Laboratories

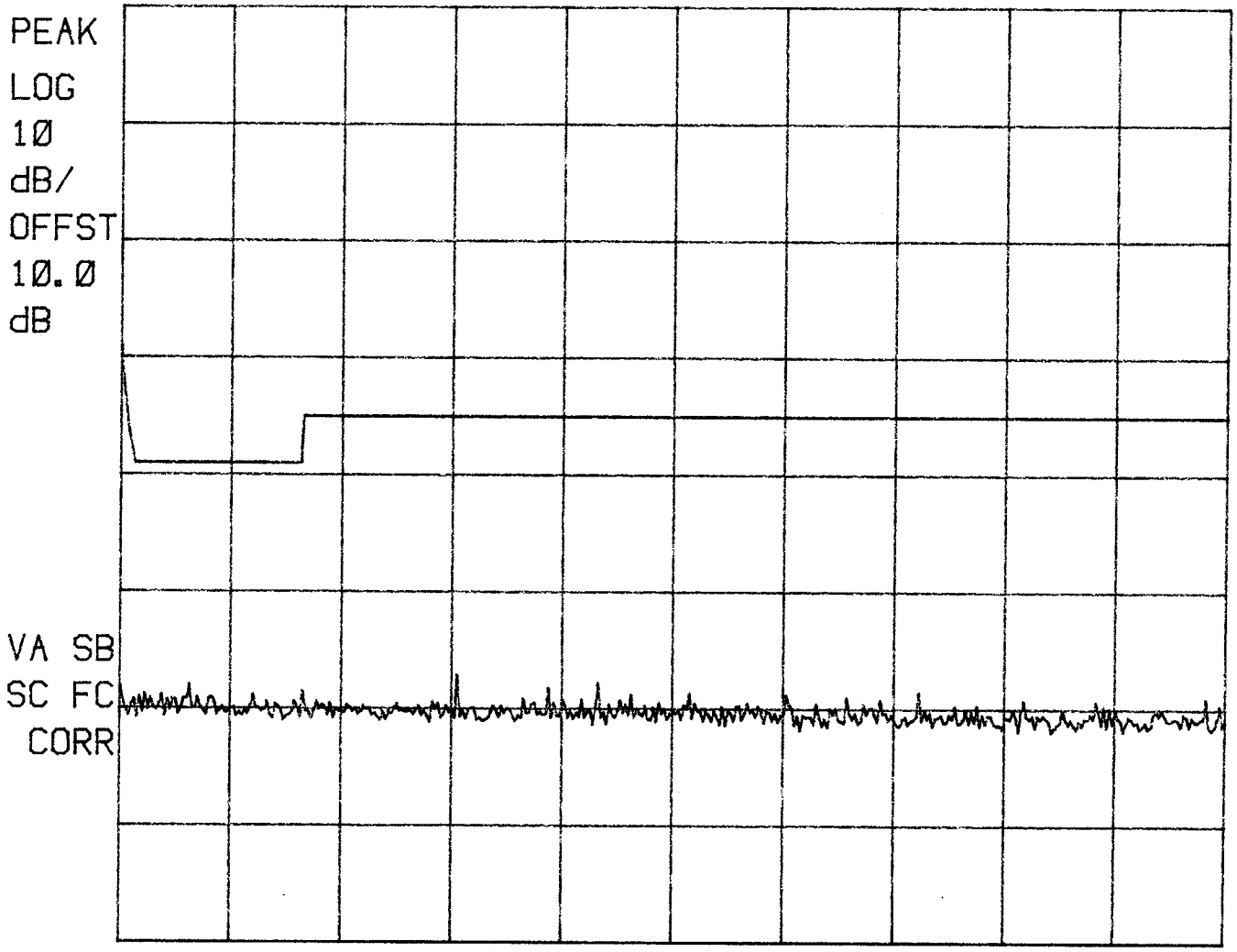
Report No. R-9689

Customer:
Test Sample:
Model No:
Test Method:
Notes:

X-10 (USA) Inc.
2.4 GHz FM Transmitter
VT40A FCC ID: BASVT40A
FCC 15.209(a) AC Line Conducted Emissions. (150 kHz to 30 MHz
Lead Tested – NEUTRAL Channel selector = A
Detector = Peak. Peak passes average limit

Date: November 12, 2002
Tech: S. Darley
Sheet: 2 of 6

09:32:39 NOV 12, 2002
R-9689 X-10 VT40A(TX) FCC15.209(a) CE CH-A Lead NEUTRAL
REF 85.0 dBµV #AT 10 dB




START 150 kHz STOP 30.00 MHz
#RES BW 10 kHz #VBW 300 kHz #SWP 20.0 sec

Retlif Testing Laboratories

Report No. R-9689

Customer: X-10 (USA) Inc.
Test Sample: 2.4 GHz FM Transmitter
Model No: VT40A FCC ID: BA5VT40A
Test Method: FCC 15.209(a) AC Line Conducted Emissions. 150 kHz to 30 MHz
Notes: Lead Tested = HOT Channel selector = C
Detector = Peak. Peak passes average limit
Date: November 12, 2002
Tech: S. Conley
Sheet: 3 of 6

09:49:04 NOV 12, 2002
R-9689 X-10 VT40A(TX) FCC15.209(a) CE CH-C Lead HOT
REF 85.0 dBµV #AT 10 dB

PEAK
LOG
10
dB/
OFFST
10.0
dB

VA SB
SC FC
CORR

START 150 kHz
#RES BW 10 kHz
#VBW 300 kHz
STOP 30.00 MHz
#SWP 20.0 sec

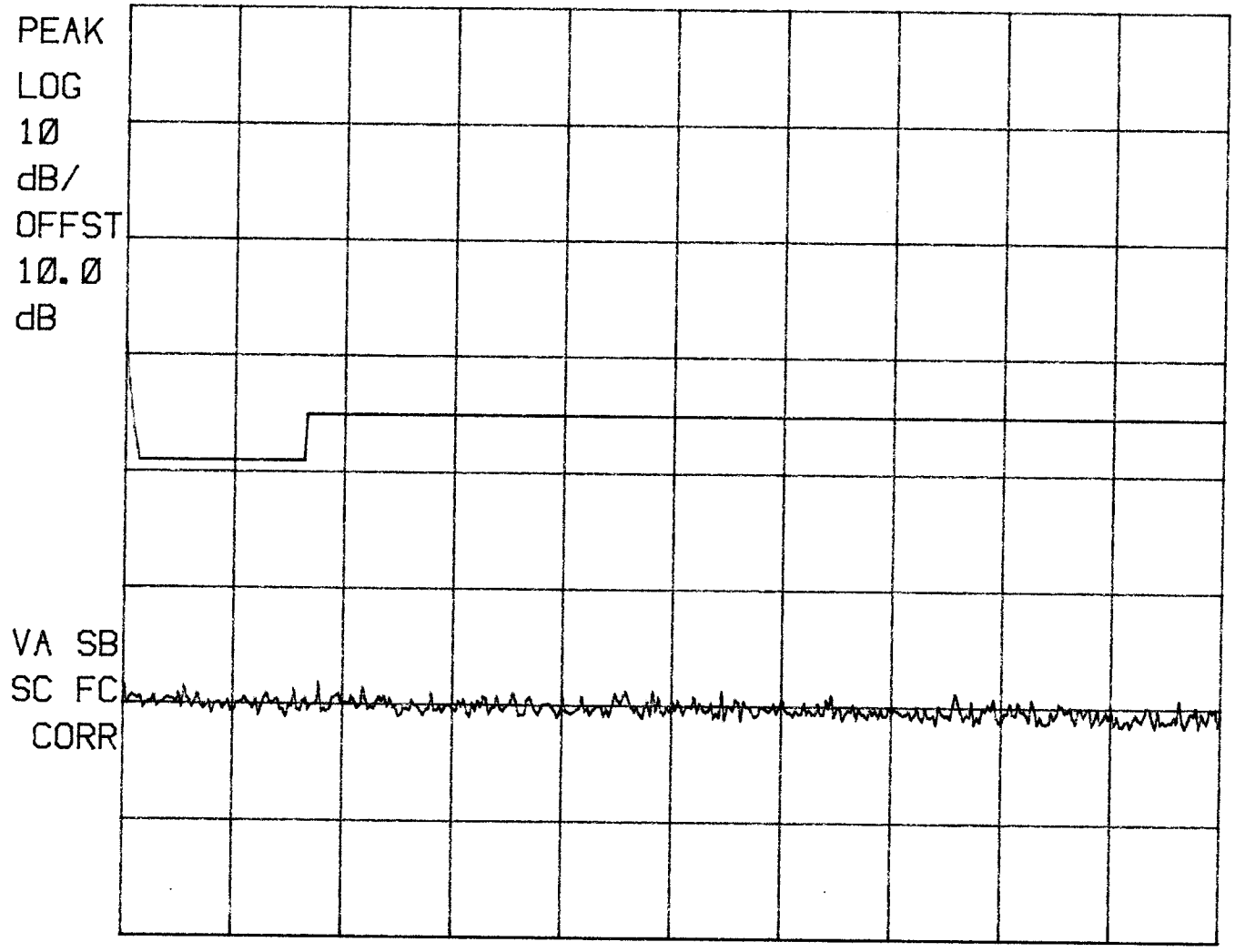
Retlif Testing Laboratories

Report No. R-9689

| | |
|---|---|
| Customer: | X-10 (USA) Inc. |
| Test Sample: | 2.4 GHz FM Transmitter |
| Model No: | VT40A FCC ID: BA5VT40A |
| Test Method: | FCC 15.209(a) AC Line Conducted Emissions. 450 kHz to 30 MHz |
| Notes: | Lead Tested = NEUTRAL Channel Selector = C<br>Detector = Peak. Peak passes average limit |

Date: November 12, 2002 Tech: S. Conley Sheet 4 of 6

09:42:28 NOV 12, 2002
R-9689 X-10 VT40A(TX) FCC15.209(a) CE CH-C Lead NEUTRAL
REF 85.0 dBµV #AT 10 dB



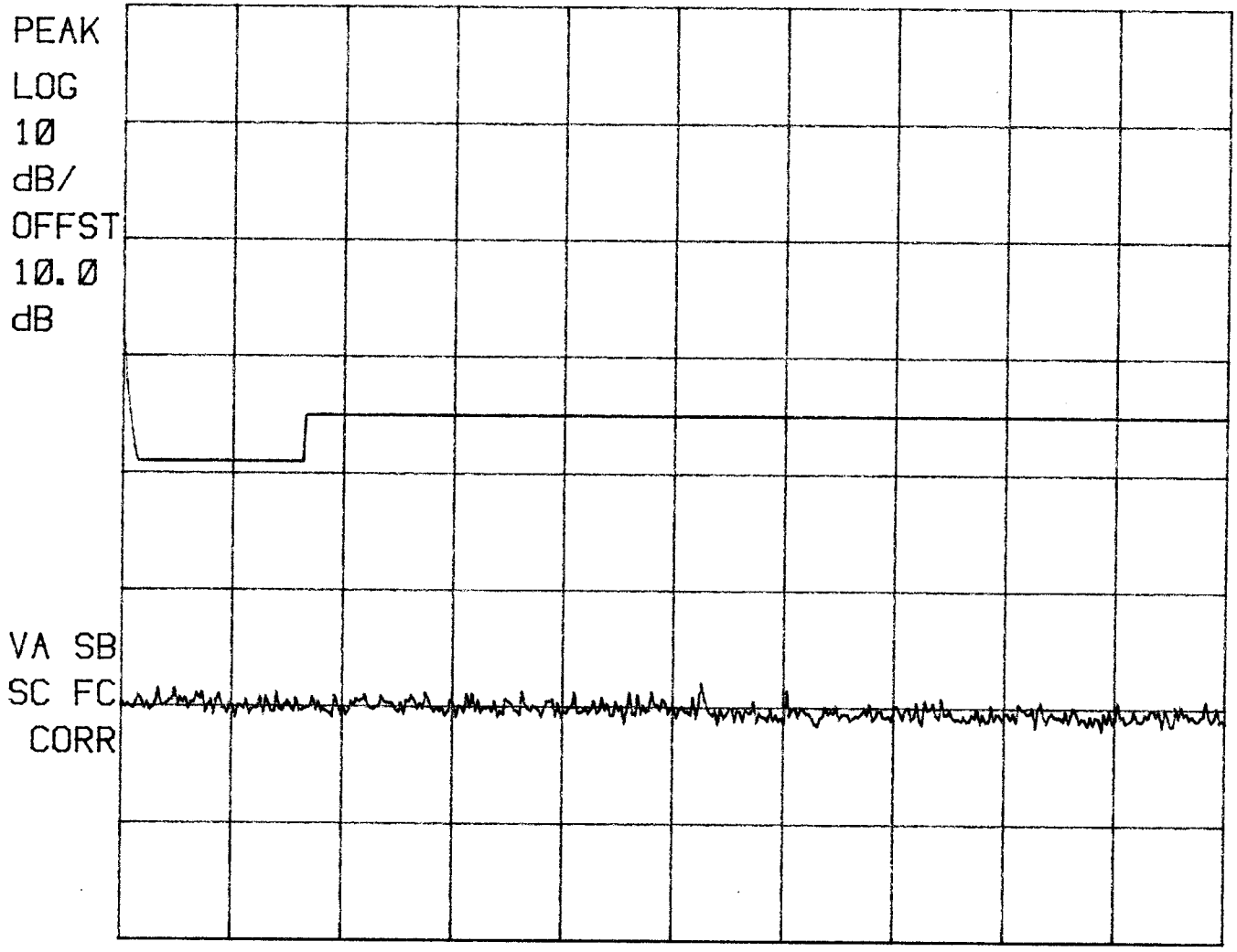

START 150 kHz STOP 30.00 MHz
#RES BW 10 kHz #VBW 300 kHz #SWP 20.0 sec

Retlif Testing Laboratories

Report No. R-9689

Customer: X-10 (USA) Inc.
Test Sample: 2.4 GHz FM Transmitter
Model No.: VT40A FCC ID: BA5VT40A
Test Method: FCC 15.209(a) AC Line Conducted Emissions. 150 kHz to 30 MHz
Notes: Lead Tested = HOT Channel selector = D
Detector = Peak. Peak passes average limit
Data: November 12, 2002 Tech: S. Dartley Sheet 5 of 6

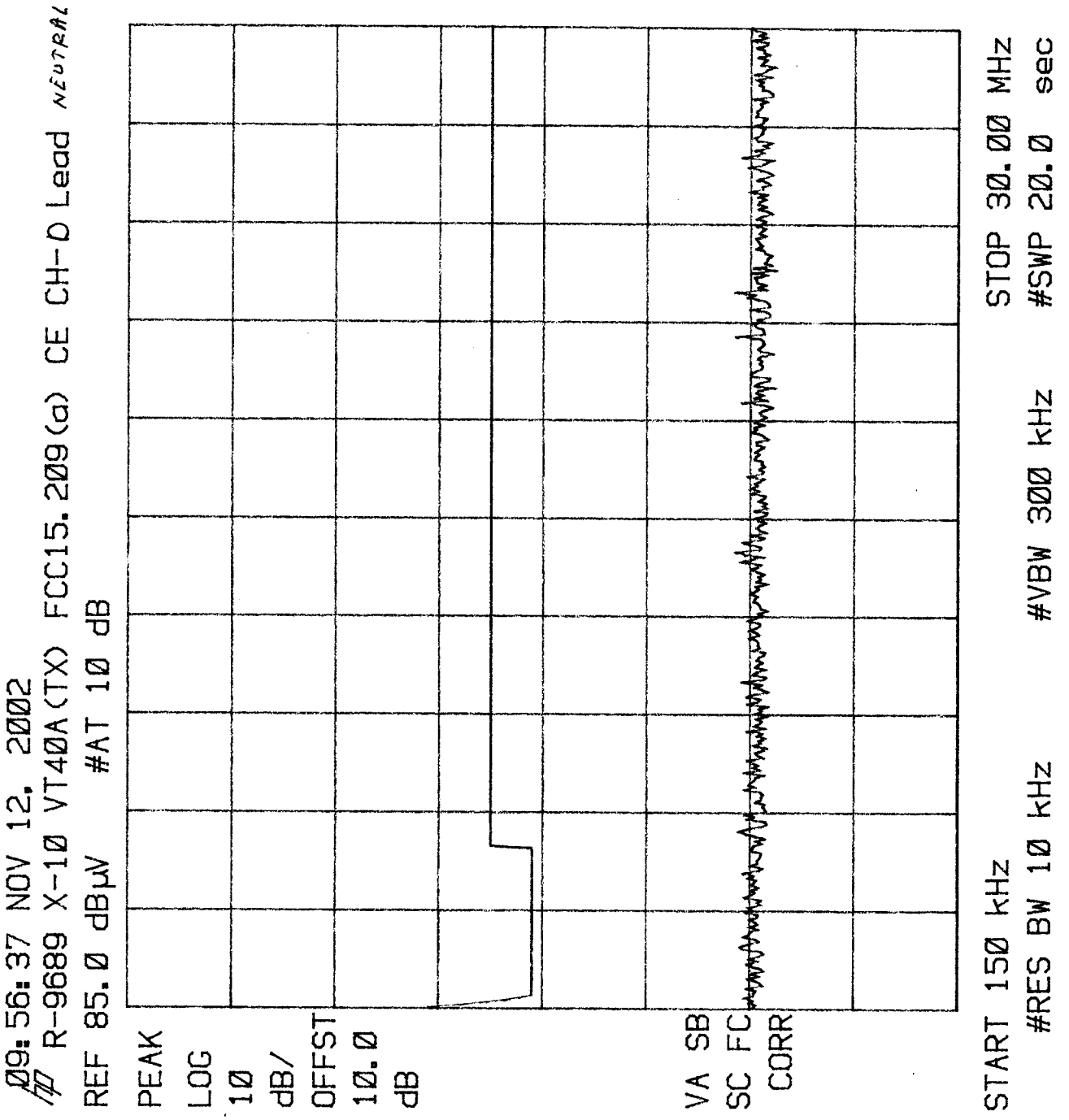
09:53:02 NOV 12, 2002
R-9689 X-10 VT40A(TX) FCC15.209(a) CE CH-D Lead HOT
REF 85.0 dBµV #AT 10 dB




START 150 kHz STOP 30.00 MHz
#RES BW 10 kHz #VBW 300 kHz #SWP 20.0 sec

Retlif Testing Laboratories

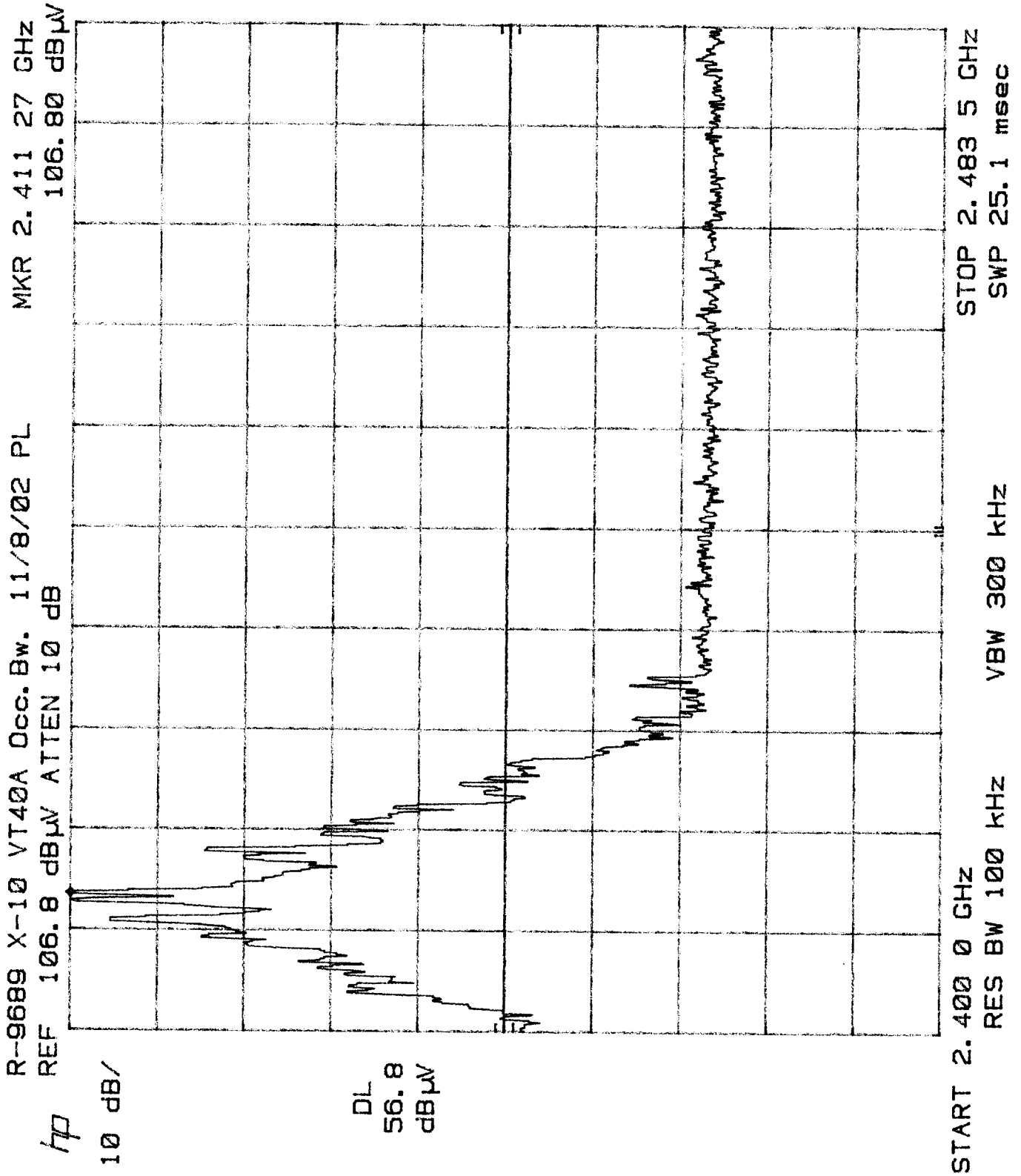
Report No. R-9689




| | |
|---|---|
| Customer: | X-10 (USA) Inc. |
| Test Sample: | 2.4 GHz FM Transmitter |
| Model No: | VT40A FCC ID: B45VT40A |
| Test Method: | FCC 15.209(a) AC Line Conducted Emissions, 150 kHz to 30 MHz |
| Notes: | Lead Tested = NEUTRAL Channel selector = D<br>Detector = Peak. Peak passes average limit |
| Date: November 12, 2002 | Tech: S. Carley Sheet 6 of 6 |

**Retlif Testing Laboratories**

Report No. R-9689



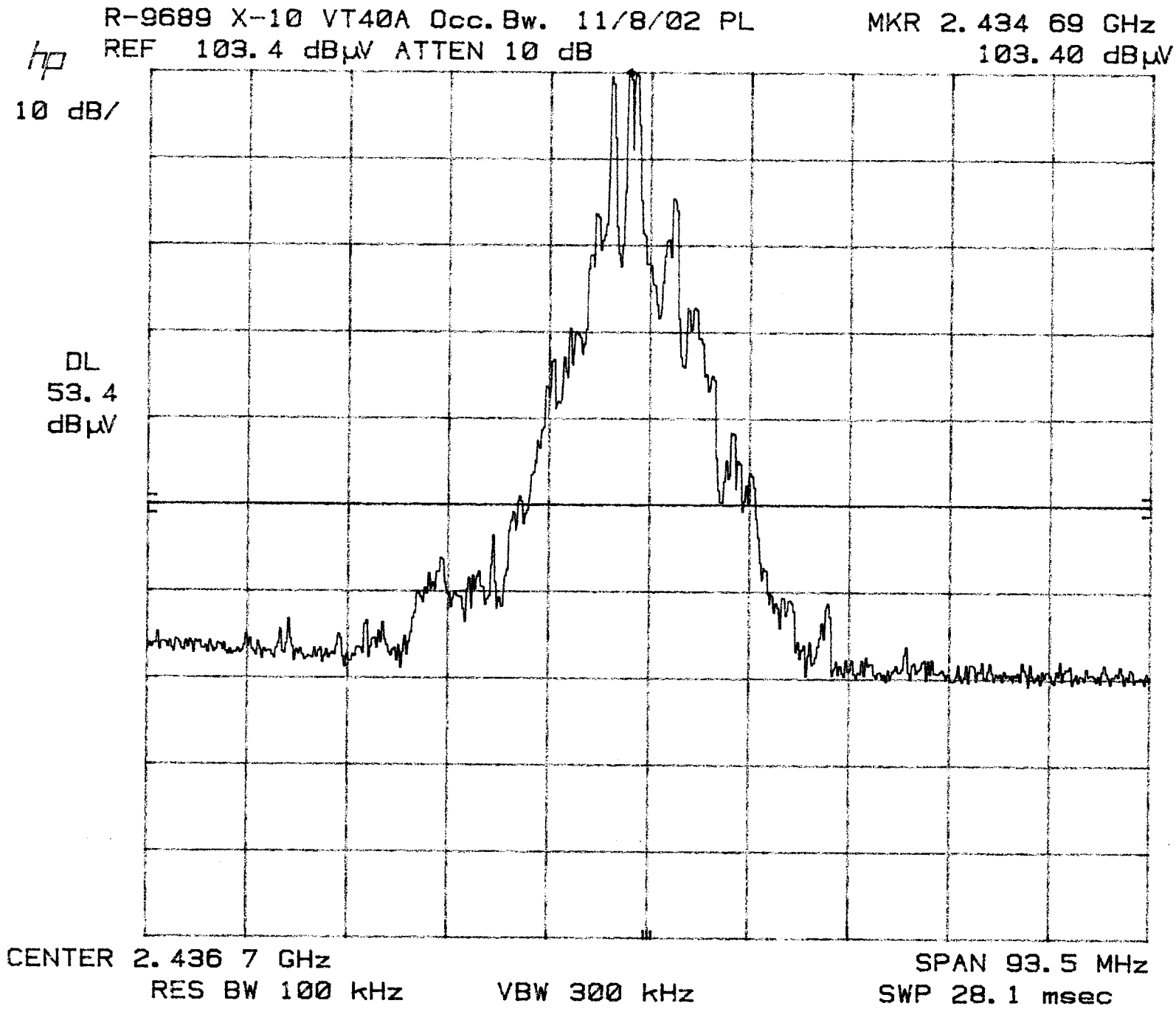

| | |
|---|---|
| Customer: | X-10 (USA), Inc. |
| Test Sample: | 2.4GHz FM Transmitter |
| Model No.: | VT40A FCC ID.: B4SVT40A |
| Test Method: | FCC 15.249(c) Occupied Bandwidth, 2.4GHz to 2.4835GHz |
| Notes: | Channel = A 2.411GHz<br>Emissions of center frequency not attenuated by 50dB(c), see Spurious Emissions data sheet page 1 for outerband measure. |

Date: Nov. 11, 2002 Tech: Peter Lananna Sheet 1 of 4

**Retlif Testing Laboratories**

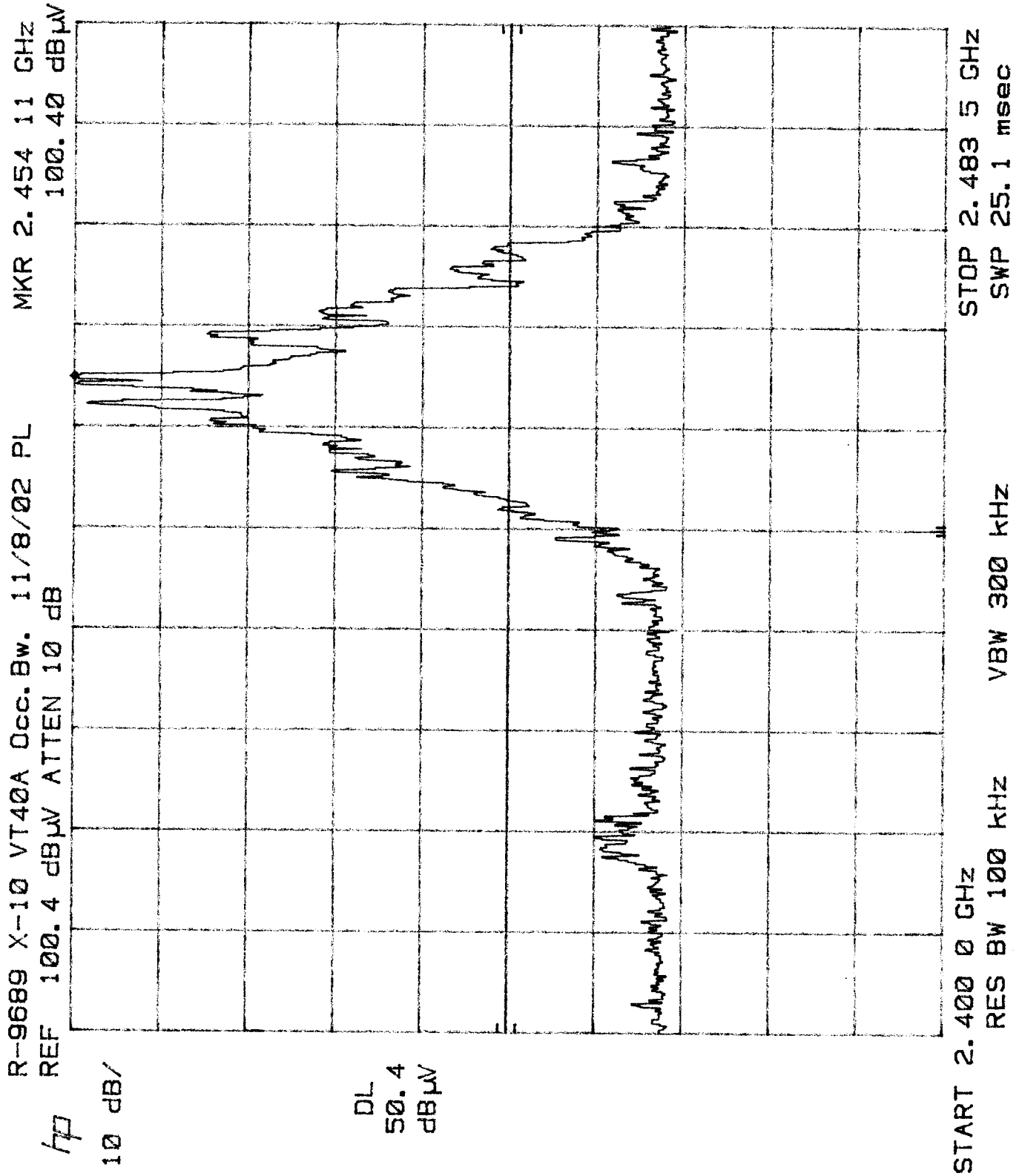
Report No. R-9689-1

| | |
|---|---|
| Customer: | X-10 (USA), Inc. |
| Test Sample: | 2.4GHz FM Transmitter |
| Model No: | VT40A FCC ID:. B4SVT40A |
| Test Method: | FCC 15.249(c) Occupied Bandwidth, 2.4GHz to 2.4835GHz |
| Notes: | Channel =B 2.435GHz<br>Emissions of center frequency attenuated by 50dB(c) at the band edges. |
| Date: | Nov. 11, 2002 |
| Tech: | Peter Lananna |
| Sheet: | 2 of 4 |




**Retlif Testing Laboratories**

Report No. R-9689-1

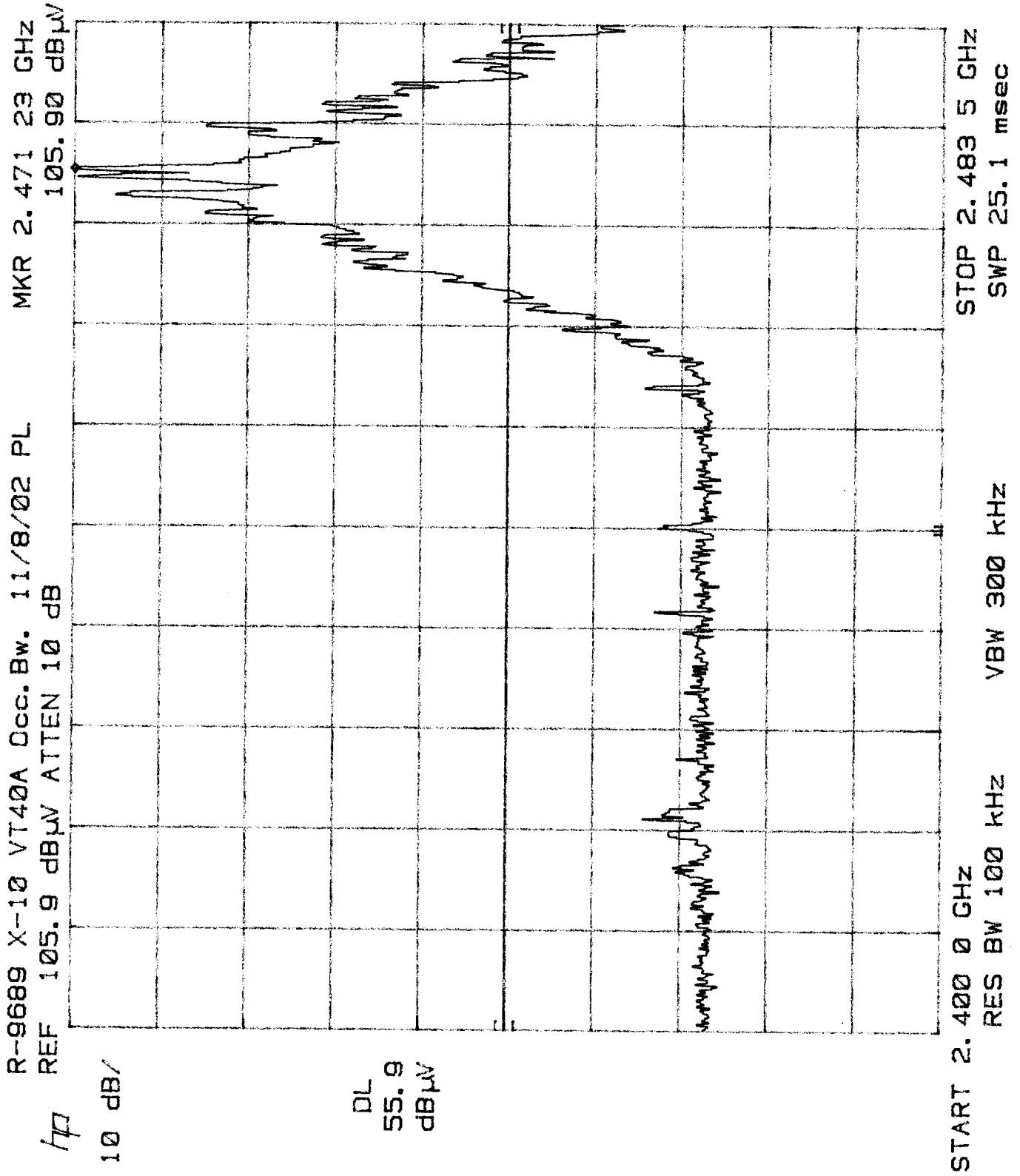



| | |
|---|---|
| Customer: | X-10 (USA), Inc. |
| Test Sample: | 2.4GHz FM Transmitter |
| Model No.: | VT40A FCC ID.: B4SVT40A |
| Test Method: | FCC 15.249(c) Occupied Bandwidth, 2.4GHz to 2.4835GHz |
| Notes: | Channel =C 2.454GHz<br>Emissions of center frequency attenuated by 50dB(c) at the band edges. |

Date: Nov. 11, 2002 Tech: Peter Lananna Sheet 3 of 4

**Retlif Testing Laboratories**

Report No. R-9689-1




| | |
|---|---|
| Customer: | X-10 (USA), Inc. |
| Test Sample: | 2.4GHz FM Transmitter |
| Model No: | VT40A FCC ID.: B4SVT40A |
| Test Method: | FCC 15.249(c) Occupied Bandwidth, 2.4GHz to 2.4835GHz |
| Notes: | Channel = D 2.471GHz<br>Emissions of center frequency not attenuated by 50dB(c), see Spurious Emissions data sheet page 3 for outerband measure. |

Date: Nov. 11, 2002 Tech: Peter Lananna Sheet 4 of 4

**Retlif Testing Laboratories**

Report No. R-9689-1

| | | | |
|---|---|---|---|
| **Test Method:** | FCC Part 15 Subpart C Radiated Emissions, Fundamental & Harmonic Emissions | | |
| **Customer:** | X-10 (USA), Inc. | **Job No.** | R-9689-1 |
| **Test Sample:** | 2.4GHz FM Transmitter | **Paragraph:** | 15.249 |
| **Model No.:** | VT40A | **FCC ID:** | B4SVT40A |
| **Operating Mode:** | Continuously transmitting a 2.411GHz FM signal, channel A | | |
| **Technician:** | Peter Lananna | **Date:** | November 11, 2002 |

**Notes:** Test Distance: 3 Meters **=Readings taken @ 1 meter, correction factors includes test distance correction.
Detector: Peak, Unless otherwise specified

| Test Freq. | Antenna Pol./Height | EUT Orientation | Meter Reading | Correction Factor | Corrected Reading | Converted Reading | Average Limit |
|---|---|---|---|---|---|---|---|
| GHz | (V/H)/Meters | X / Y / Z | dBuV | dB | dBuV/m | uV/m | uV/m |
| 2.411 | H / 2.0 | X | 84.9 | 3.0 | 87.9 | 24831.3 | 50000 |
| \| | H / 2.3 | Y | 83.7 | 3.0 | 86.7 | 21627.2 | \| |
| \| | H / 2.8 | Z | 83.0 | 3.0 | 86.0 | 19952.6 | \| |
| \| | V / 1.3 | X | 79.6 | 3.0 | 82.6 | 13489.6 | \| |
| \| | V / 1.8 | Y | 78.4 | 3.0 | 81.4 | 11749.0 | \| |
| 2.411 | V / 1.5 | Z | 79.8 | 3.0 | 82.8 | 13803.8 | 50000 |
| | | | | | | | |
| 4.822 | H / 1.0 | X | 40.7 | 3.4 | 44.1 | 160.3* | 500 |
| \| | H / 1.0 | Y | 40.7 | 3.4 | 44.1 | 160.3* | \| |
| \| | H / 1.0 | Z | 40.7 | 3.4 | 44.1 | 160.3* | \| |
| \| | V / 1.0 | X | 40.7 | 3.4 | 44.1 | 160.3* | \| |
| \| | V / 1.0 | Y | 40.7 | 3.4 | 44.1 | 160.3* | \| |
| 4.822 | V / 1.0 | Z | 40.7 | 3.4 | 44.1 | 160.3* | 500 |
| | | | | | | | |
| 7.233 | H / 1.0 | X | 42.2 | 8.4 | 50.6 | 338.8* | 500 |
| \| | H / 1.0 | Y | 42.2 | 8.4 | 50.6 | 338.8* | \| |
| \| | H / 1.0 | Z | 42.2 | 8.4 | 50.6 | 338.8* | \| |
| \| | V / 1.0 | X | 42.2 | 8.4 | 50.6 | 338.8* | \| |
| \| | V / 1.0 | Y | 42.2 | 8.4 | 50.6 | 338.8* | \| |
| 7.233 | V / 1.0 | Z | 42.2 | 8.4 | 50.6 | 338.8* | 500 |
| | | | | | | | |
| 9.644 | H / 1.0 | X | 41.9 | -1.3 | 40.6 | 107.2* | 500 |
| \| | H / 1.0 | Y | 41.9 | -1.3 | 40.6 | 107.2* | \| |
| \| | H / 1.0 | Z | 41.9 | -1.3 | 40.6 | 107.2* | \| |
| \| | V / 1.0 | X | 41.9 | -1.3 | 40.6 | 107.2* | \| |
| \| | V / 1.0 | Y | 41.9 | -1.3 | 40.6 | 107.2* | \| |
| 9.644 | V / 1.0 | Z | 41.9 | -1.3 | 40.6 | 107.2* | 500 |
| | | | | | | | |
| 12.055 | H / 1.0 | X | 42.4 | 2.2 | 44.6 | 169.8* | 500 |
| \| | H / 1.0 | Y | 42.4 | 2.2 | 44.6 | 169.8* | \| |
| \| | H / 1.0 | Z | 42.4 | 2.2 | 44.6 | 169.8* | \| |
| \| | V / 1.0 | X | 42.4 | 2.2 | 44.6 | 169.8* | \| |
| \| | V / 1.0 | Y | 42.4 | 2.2 | 44.6 | 169.8* | \| |
| 12.055 | V / 1.0 | Z | 42.4 | 2.2 | 44.6 | 169.8* | 500 |
| | The frequency range was scanned from 30 MHz to 25 GHz. All emissions not recorded were more | | | | | | |
| | Than 10 dB below the specified limit. Emissions from the EUT do not exceed the specified limits. | | | | | | |
| | *=Noise Floor Measurements (Minimum system sensitivity) | | | | | | |

| | | | |
|---|---|---|---|
| **Test Method:** | FCC Part 15 Subpart C Radiated Emissions, Fundamental & Harmonic Emissions | | |
| **Customer:** | X-10 (USA), Inc. | **Job No.** | R-9689-1 |
| **Test Sample:** | 2.4GHz FM Transmitter | **Paragraph:** | 15.249 |
| **Model No.:** | VT40A | **FCC ID:** | B4SVT40A |
| **Operating Mode:** | Continuously transmitting a 2.411GHz FM signal, channel A | | |
| **Technician:** | Peter Lananna | **Date:** | November 11, 2002 |

**Notes:** Test Distance: 3 Meters **=Readings taken @ 1 meter, correction factors includes test distance correction.
Detector: Peak, Unless otherwise specified

| Test Freq. | Antenna Pol./Height | EUT Orientation | Meter Reading | Correction Factor | Corrected Reading | Converted Reading | Average Limit |
|---|---|---|---|---|---|---|---|
| GHz | (V/H)/Meters | X / Y / Z | dBuV | dB | dBuV/m | uV/m | uV/m |
| 14.466 | H / 1.0 | X | 44.8 | 4.7 | 49.5 | 298.5* | 500 |
| \| | H / 1.0 | Y | 44.8 | 4.7 | 49.5 | 298.5* | \| |
| \| | H / 1.0 | Z | 44.8 | 4.7 | 49.5 | 298.5* | \| |
| \| | V / 1.0 | X | 44.8 | 4.7 | 49.5 | 298.5* | \| |
| \| | V / 1.0 | Y | 44.8 | 4.7 | 49.5 | 298.5* | \| |
| 14.466 | V / 1.0 | Z | 44.8 | 4.7 | 49.5 | 298.5* | 500 |
| | | | | | | | |
| 16.877 | H / 1.0 | X | 44.9 | 4.5 | 49.4 | 295.1* | 500 |
| \| | H / 1.0 | Y | 44.9 | 4.5 | 49.4 | 295.1* | \| |
| \| | H / 1.0 | Z | 44.9 | 4.5 | 49.4 | 295.1* | \| |
| \| | V / 1.0 | X | 44.9 | 4.5 | 49.4 | 295.1* | \| |
| \| | V / 1.0 | Y | 44.9 | 4.5 | 49.4 | 295.1* | \| |
| 16.877 | V / 1.0 | Z | 44.9 | 4.5 | 49.4 | 295.1* | 500 |
| | | | | | | | |
| 19.288 | H / 1.0 | X | 30.8 | 22.9 | 53.7 | 484.2** | 500 |
| \| | H / 1.0 | Y | 30.8 | 22.9 | 53.7 | 484.2** | \| |
| \| | H / 1.0 | Z | 30.8 | 22.9 | 53.7 | 484.2** | \| |
| \| | V / 1.0 | X | 30.8 | 22.9 | 53.7 | 484.2** | \| |
| \| | V / 1.0 | Y | 30.8 | 22.9 | 53.7 | 484.2** | \| |
| 19.288 | V / 1.0 | Z | 30.8 | 22.9 | 53.7 | 484.2** | 500 |
| | | | | | | | |
| 21.699 | H / 1.0 | X | 30.0 | 23.2 | 53.2 | 457.1** | 500 |
| \| | H / 1.0 | Y | 30.0 | 23.2 | 53.2 | 457.1** | \| |
| \| | H / 1.0 | Z | 30.0 | 23.2 | 53.2 | 457.1** | \| |
| \| | V / 1.0 | X | 30.0 | 23.2 | 53.2 | 457.1** | \| |
| \| | V / 1.0 | Y | 30.0 | 23.2 | 53.2 | 457.1** | \| |
| 21.699 | V / 1.0 | Z | 30.0 | 23.2 | 53.2 | 457.1** | 500 |
| | | | | | | | |
| 24.110 | H / 1.0 | X | 29.3 | 23.4 | 52.7 | 431.5** | 500 |
| \| | H / 1.0 | Y | 29.3 | 23.4 | 52.7 | 431.5** | \| |
| \| | H / 1.0 | Z | 29.3 | 23.4 | 52.7 | 431.5** | \| |
| \| | V / 1.0 | X | 29.3 | 23.4 | 52.7 | 431.5** | \| |
| \| | V / 1.0 | Y | 29.3 | 23.4 | 52.7 | 431.5** | \| |
| 24.110 | V / 1.0 | Z | 29.3 | 23.4 | 52.7 | 431.5** | 500 |
| | The frequency range was scanned from 30 MHz to 25 GHz. All emissions not recorded were more | | | | | | |
| | Than 10 dB below the specified limit. Emissions from the EUT do not exceed the specified limits. | | | | | | |
| | *=Noise Floor Measurements (Minimum system sensitivity) | | | | | | |

| | | | |
|---|---|---|---|
| **Test Method:** | FCC Part 15 Subpart C Radiated Emissions, Fundamental & Harmonic Emissions | | |
| **Customer:** | X-10 (USA), Inc. | **Job No.** | R-9689-1 |
| **Test Sample:** | 2.4GHz FM Transmitter | **Paragraph:** | 15.249 |
| **Model No.:** | VT40A | **FCC ID:** | B4SVT40A |
| **Operating Mode:** | Continuously transmitting a 2.454GHz FM signal, channel C | | |
| **Technician:** | Peter Lananna | **Date:** | November 11, 2002 |

**Notes:** Test Distance: 3 Meters
Detector: Peak, Unless otherwise specified

| Test Freq. | Antenna Pol./Height | EUT Orientation | Meter Reading | Correction Factor | Corrected Reading | Converted Reading | Average Limit |
|---|---|---|---|---|---|---|---|
| GHz | (V/H)/Meters | X / Y / Z | dBuV | dB | dBuV/m | uV/m | uV/m |
| 2.454 | H / 2.0 | X | 78.9 | 3.0 | 81.9 | 12445.1 | 50000 |
| \| | H / 2.3 | Y | 81.3 | 3.0 | 84.3 | 16405.9 | \| |
| \| | H / 2.8 | Z | 84.4 | 3.0 | 87.4 | 23442.3 | \| |
| \| | V / 1.8 | X | 79.9 | 3.0 | 82.9 | 13963.7 | \| |
| \| | V / 2.3 | Y | 81.9 | 3.0 | 84.9 | 17579.2 | \| |
| 2.454 | V / 2.3 | Z | 73.7 | 3.0 | 76.7 | 6839.1 | 50000 |
| | | | | | | | |
| 4.908 | H / 1.0 | X | 40.7 | 3.4 | 44.1 | 160.3* | 500 |
| \| | H / 1.0 | Y | 40.7 | 3.4 | 44.1 | 160.3* | \| |
| \| | H / 1.0 | Z | 40.7 | 3.4 | 44.1 | 160.3* | \| |
| \| | V / 1.0 | X | 40.7 | 3.4 | 44.1 | 160.3* | \| |
| \| | V / 1.0 | Y | 40.7 | 3.4 | 44.1 | 160.3* | \| |
| 4.908 | V / 1.0 | Z | 40.7 | 3.4 | 44.1 | 160.3* | 500 |
| | | | | | | | |
| 7.362 | H / 1.0 | X | 42.2 | 8.4 | 50.6 | 338.8* | 500 |
| \| | H / 1.0 | Y | 42.2 | 8.4 | 50.6 | 338.8* | \| |
| \| | H / 1.0 | Z | 42.2 | 8.4 | 50.6 | 338.8* | \| |
| \| | V / 1.0 | X | 42.2 | 8.4 | 50.6 | 338.8* | \| |
| \| | V / 1.0 | Y | 42.2 | 8.4 | 50.6 | 338.8* | \| |
| 7.362 | V / 1.0 | Z | 42.2 | 8.4 | 50.6 | 338.8* | 500 |
| | | | | | | | |
| 9.816 | H / 1.0 | X | 41.9 | -1.3 | 40.6 | 107.2* | 500 |
| \| | H / 1.0 | Y | 41.9 | -1.3 | 40.6 | 107.2* | \| |
| \| | H / 1.0 | Z | 41.9 | -1.3 | 40.6 | 107.2* | \| |
| \| | V / 1.0 | X | 41.9 | -1.3 | 40.6 | 107.2* | \| |
| \| | V / 1.0 | Y | 41.9 | -1.3 | 40.6 | 107.2* | \| |
| 9.816 | V / 1.0 | Z | 41.9 | -1.3 | 40.6 | 107.2* | 500 |
| | | | | | | | |
| 12.270 | H / 1.0 | X | 42.4 | 2.2 | 44.6 | 169.8* | 500 |
| \| | H / 1.0 | Y | 42.4 | 2.2 | 44.6 | 169.8* | \| |
| \| | H / 1.0 | Z | 42.4 | 2.2 | 44.6 | 169.8* | \| |
| \| | V / 1.0 | X | 42.4 | 2.2 | 44.6 | 169.8* | \| |
| \| | V / 1.0 | Y | 42.4 | 2.2 | 44.6 | 169.8* | \| |
| 12.270 | V / 1.0 | Z | 42.4 | 2.2 | 44.6 | 169.8* | 500 |
| | The frequency range was scanned from 30 MHz to 25 GHz. All emissions not recorded were more | | | | | | |
| | Than 10 dB below the specified limit. Emissions from the EUT do not exceed the specified limits. | | | | | | |
| | *=Noise Floor Measurements (Minimum system sensitivity) | | | | | | |

| | | | |
|---|---|---|---|
| **Test Method:** | FCC Part 15 Subpart C Radiated Emissions, Fundamental & Harmonic Emissions | | |
| **Customer:** | X-10 (USA), Inc. | **Job No.** | R-9689-1 |
| **Test Sample:** | 2.4GHz FM Transmitter | **Paragraph:** | 15.249 |
| **Model No.:** | VT40A | **FCC ID:** | B4SVT40A |
| **Operating Mode:** | Continuously transmitting a 2.454GHz FM signal, channel C | | |
| **Technician:** | Peter Lananna | **Date:** | November 11, 2002 |

**Notes:** Test Distance: 3 Meters **=Readings taken @ 1 meter, correction factors includes test distance correction.
Detector: Peak, Unless otherwise specified

| Test Freq. | Antenna Pol./Height | EUT Orientation | Meter Reading | Correction Factor | Corrected Reading | Converted Reading | Average Limit |
|---|---|---|---|---|---|---|---|
| GHz | (V/H)/Meters | X / Y / Z | dBuV | dB | dBuV/m | uV/m | uV/m |
| 14.724 | H / 1.0 | X | 44.8 | 4.7 | 49.5 | 298.5* | 500 |
| \| | H / 1.0 | Y | 44.8 | 4.7 | 49.5 | 298.5* | \| |
| \| | H / 1.0 | Z | 44.8 | 4.7 | 49.5 | 298.5* | \| |
| \| | V / 1.0 | X | 44.8 | 4.7 | 49.5 | 298.5* | \| |
| \| | V / 1.0 | Y | 44.8 | 4.7 | 49.5 | 298.5* | \| |
| 14.724 | V / 1.0 | Z | 44.8 | 4.7 | 49.5 | 298.5* | 500 |
| | | | | | | | |
| 17.178 | H / 1.0 | X | 44.9 | 4.5 | 49.4 | 295.1* | 500 |
| \| | H / 1.0 | Y | 44.9 | 4.5 | 49.4 | 295.1* | \| |
| \| | H / 1.0 | Z | 44.9 | 4.5 | 49.4 | 295.1* | \| |
| \| | V / 1.0 | X | 44.9 | 4.5 | 49.4 | 295.1* | \| |
| \| | V / 1.0 | Y | 44.9 | 4.5 | 49.4 | 295.1* | \| |
| 17.178 | V / 1.0 | Z | 44.9 | 4.5 | 49.4 | 295.1* | 500 |
| | | | | | | | |
| 19.632 | H / 1.0 | X | 30.8 | 22.9 | 53.7 | 484.2** | 500 |
| \| | H / 1.0 | Y | 30.8 | 22.9 | 53.7 | 484.2** | \| |
| \| | H / 1.0 | Z | 30.8 | 22.9 | 53.7 | 484.2** | \| |
| \| | V / 1.0 | X | 30.8 | 22.9 | 53.7 | 484.2** | \| |
| \| | V / 1.0 | Y | 30.8 | 22.9 | 53.7 | 484.2** | \| |
| 19.632 | V / 1.0 | Z | 30.8 | 22.9 | 53.7 | 484.2** | 500 |
| | | | | | | | |
| 22.086 | H / 1.0 | X | 30.0 | 23.2 | 53.2 | 457.1** | 500 |
| \| | H / 1.0 | Y | 30.0 | 23.2 | 53.2 | 457.1** | \| |
| \| | H / 1.0 | Z | 30.0 | 23.2 | 53.2 | 457.1** | \| |
| \| | V / 1.0 | X | 30.0 | 23.2 | 53.2 | 457.1** | \| |
| \| | V / 1.0 | Y | 30.0 | 23.2 | 53.2 | 457.1** | \| |
| 22.086 | V / 1.0 | Z | 30.0 | 23.2 | 53.2 | 457.1** | 500 |
| | | | | | | | |
| 24.540 | H / 1.0 | X | 29.3 | 23.4 | 52.7 | 431.5** | 500 |
| \| | H / 1.0 | Y | 29.3 | 23.4 | 52.7 | 431.5** | \| |
| \| | H / 1.0 | Z | 29.3 | 23.4 | 52.7 | 431.5** | \| |
| \| | V / 1.0 | X | 29.3 | 23.4 | 52.7 | 431.5** | \| |
| \| | V / 1.0 | Y | 29.3 | 23.4 | 52.7 | 431.5** | \| |
| 24.540 | V / 1.0 | Z | 29.3 | 23.4 | 52.7 | 431.5** | 500 |
| | The frequency range was scanned from 30 MHz to 25 GHz. All emissions not recorded were more | | | | | | |
| | Than 10 dB below the specified limit. Emissions from the EUT do not exceed the specified limits. | | | | | | |
| | *=Noise Floor Measurements (Minimum system sensitivity) | | | | | | |

| | | | |
|---|---|---|---|
| **Test Method:** | FCC Part 15 Subpart C Radiated Emissions, Fundamental & Harmonic Emissions | | |
| **Customer:** | X-10 (USA), Inc. | **Job No.** | R-9689-1 |
| **Test Sample:** | 2.4GHz FM Transmitter | **Paragraph:** | 15.249 |
| **Model No.:** | VT40A | **FCC ID:** | B4SVT40A |
| **Operating Mode:** | Continuously transmitting a 2.471GHz FM signal, channel D | | |
| **Technician:** | Peter Lananna | **Date:** | November 11, 2002 |

**Notes:** Test Distance: 3 Meters
Detector: Peak, Unless otherwise specified

| Test Freq. | Antenna Pol./Height | EUT Orientation | Meter Reading | Correction Factor | Corrected Reading | Converted Reading | Average Limit |
|---|---|---|---|---|---|---|---|
| GHz | (V/H)/Meters | X / Y / Z | dBuV | dB | dBuV/m | uV/m | uV/m |
| 2.471 | H / 2.5 | X | 77.7 | 3.0 | 80.7 | 10839.3 | 50000 |
| \| | H / 3.0 | Y | 78.2 | 3.0 | 81.2 | 11481.5 | \| |
| \| | H / 2.5 | Z | 83.1 | 3.0 | 86.1 | 20183.7 | \| |
| \| | V / 1.5 | X | 83.5 | 3.0 | 86.5 | 21134.9 | \| |
| \| | V / 1.5 | Y | 83.1 | 3.0 | 86.1 | 20183.7 | \| |
| 2.471 | V / 2.0 | Z | 74.2 | 3.0 | 77.2 | 7244.4 | 50000 |
| | | | | | | | |
| 4.942 | H / 1.0 | X | 40.7 | 3.4 | 44.1 | 160.3* | 500 |
| \| | H / 1.0 | Y | 40.7 | 3.4 | 44.1 | 160.3* | \| |
| \| | H / 1.0 | Z | 40.7 | 3.4 | 44.1 | 160.3* | \| |
| \| | V / 1.0 | X | 40.7 | 3.4 | 44.1 | 160.3* | \| |
| \| | V / 1.0 | Y | 40.7 | 3.4 | 44.1 | 160.3* | \| |
| 4.942 | V / 1.0 | Z | 40.7 | 3.4 | 44.1 | 160.3* | 500 |
| | | | | | | | |
| 7.413 | H / 1.0 | X | 42.2 | 8.4 | 50.6 | 338.8* | 500 |
| \| | H / 1.0 | Y | 42.2 | 8.4 | 50.6 | 338.8* | \| |
| \| | H / 1.0 | Z | 42.2 | 8.4 | 50.6 | 338.8* | \| |
| \| | V / 1.0 | X | 42.2 | 8.4 | 50.6 | 338.8* | \| |
| \| | V / 1.0 | Y | 42.2 | 8.4 | 50.6 | 338.8* | \| |
| 7.413 | V / 1.0 | Z | 42.2 | 8.4 | 50.6 | 338.8* | 500 |
| | | | | | | | |
| 9.884 | H / 1.0 | X | 41.9 | -1.3 | 40.6 | 107.2* | 500 |
| \| | H / 1.0 | Y | 41.9 | -1.3 | 40.6 | 107.2* | \| |
| \| | H / 1.0 | Z | 41.9 | -1.3 | 40.6 | 107.2* | \| |
| \| | V / 1.0 | X | 41.9 | -1.3 | 40.6 | 107.2* | \| |
| \| | V / 1.0 | Y | 41.9 | -1.3 | 40.6 | 107.2* | \| |
| 9.884 | V / 1.0 | Z | 41.9 | -1.3 | 40.6 | 107.2* | 500 |
| | | | | | | | |
| 12.355 | H / 1.0 | X | 42.4 | 2.2 | 44.6 | 169.8* | 500 |
| \| | H / 1.0 | Y | 42.4 | 2.2 | 44.6 | 169.8* | \| |
| \| | H / 1.0 | Z | 42.4 | 2.2 | 44.6 | 169.8* | \| |
| \| | V / 1.0 | X | 42.4 | 2.2 | 44.6 | 169.8* | \| |
| \| | V / 1.0 | Y | 42.4 | 2.2 | 44.6 | 169.8* | \| |
| 12.355 | V / 1.0 | Z | 42.4 | 2.2 | 44.6 | 169.8* | 500 |
| | The frequency range was scanned from 30 MHz to 25 GHz. All emissions not recorded were more | | | | | | |
| | Than 10 dB below the specified limit. Emissions from the EUT do not exceed the specified limits. | | | | | | |
| | *=Noise Floor Measurements (Minimum system sensitivity) | | | | | | |

| | | | |
|---|---|---|---|
| **Test Method:** | FCC Part 15 Subpart C Radiated Emissions, Fundamental & Harmonic Emissions | | |
| **Customer:** | X-10 (USA), Inc. | **Job No.** | R-9689-1 |
| **Test Sample:** | 2.4GHz FM Transmitter | **Paragraph:** | 15.249 |
| **Model No.:** | VT40A | **FCC ID:** | B4SVT40A |
| **Operating Mode:** | Continuously transmitting a 2.471GHz FM signal, channel D | | |
| **Technician:** | Peter Lananna | **Date:** | November 11, 2002 |

**Notes:** Test Distance: 3 Meters **=Readings taken @ 1 meter, correction factors includes test distance correction.
Detector: Peak, Unless otherwise specified

| Test Freq. | Antenna Pol./Height | EUT Orientation | Meter Reading | Correction Factor | Corrected Reading | Converted Reading | Average Limit |
|---|---|---|---|---|---|---|---|
| GHz | (V/H)/Meters | X / Y / Z | dBuV | dB | dBuV/m | uV/m | uV/m |
| 14.826 | H / 1.0 | X | 44.8 | 4.7 | 49.5 | 298.5* | 500 |
| \| | H / 1.0 | Y | 44.8 | 4.7 | 49.5 | 298.5* | \| |
| \| | H / 1.0 | Z | 44.8 | 4.7 | 49.5 | 298.5* | \| |
| \| | V / 1.0 | X | 44.8 | 4.7 | 49.5 | 298.5* | \| |
| \| | V / 1.0 | Y | 44.8 | 4.7 | 49.5 | 298.5* | \| |
| 14.826 | V / 1.0 | Z | 44.8 | 4.7 | 49.5 | 298.5* | 500 |
| | | | | | | | |
| 17.297 | H / 1.0 | X | 44.9 | 4.5 | 49.4 | 295.1* | 500 |
| \| | H / 1.0 | Y | 44.9 | 4.5 | 49.4 | 295.1* | \| |
| \| | H / 1.0 | Z | 44.9 | 4.5 | 49.4 | 295.1* | \| |
| \| | V / 1.0 | X | 44.9 | 4.5 | 49.4 | 295.1* | \| |
| \| | V / 1.0 | Y | 44.9 | 4.5 | 49.4 | 295.1* | \| |
| 17.297 | V / 1.0 | Z | 44.9 | 4.5 | 49.4 | 295.1* | 500 |
| | | | | | | | |
| 19.768 | H / 1.0 | X | 30.8 | 22.9 | 53.7 | 484.2** | 500 |
| \| | H / 1.0 | Y | 30.8 | 22.9 | 53.7 | 484.2** | \| |
| \| | H / 1.0 | Z | 30.8 | 22.9 | 53.7 | 484.2** | \| |
| \| | V / 1.0 | X | 30.8 | 22.9 | 53.7 | 484.2** | \| |
| \| | V / 1.0 | Y | 30.8 | 22.9 | 53.7 | 484.2** | \| |
| 19.768 | V / 1.0 | Z | 30.8 | 22.9 | 53.7 | 484.2** | 500 |
| | | | | | | | |
| 22.239 | H / 1.0 | X | 30.0 | 23.2 | 53.2 | 457.1** | 500 |
| \| | H / 1.0 | Y | 30.0 | 23.2 | 53.2 | 457.1** | \| |
| \| | H / 1.0 | Z | 30.0 | 23.2 | 53.2 | 457.1** | \| |
| \| | V / 1.0 | X | 30.0 | 23.2 | 53.2 | 457.1** | \| |
| \| | V / 1.0 | Y | 30.0 | 23.2 | 53.2 | 457.1** | \| |
| 22.239 | V / 1.0 | Z | 30.0 | 23.2 | 53.2 | 457.1** | 500 |
| | | | | | | | |
| 24.710 | H / 1.0 | X | 29.3 | 23.4 | 52.7 | 431.5** | 500 |
| \| | H / 1.0 | Y | 29.3 | 23.4 | 52.7 | 431.5** | \| |
| \| | H / 1.0 | Z | 29.3 | 23.4 | 52.7 | 431.5** | \| |
| \| | V / 1.0 | X | 29.3 | 23.4 | 52.7 | 431.5** | \| |
| \| | V / 1.0 | Y | 29.3 | 23.4 | 52.7 | 431.5** | \| |
| 24.710 | V / 1.0 | Z | 29.3 | 23.4 | 52.7 | 431.5** | 500 |
| | The frequency range was scanned from 30 MHz to 25 GHz. All emissions not recorded were more | | | | | | |
| | Than 10 dB below the specified limit. Emissions from the EUT do not exceed the specified limits. | | | | | | |
| | *=Noise Floor Measurements (Minimum system sensitivity) | | | | | | |

| | | | |
|---|---|---|---|
| **Test Method:** | FCC Part 15 Subpart C, Spurious Case Radiated Emissions, Paragraph 15.209(a) | | |
| **Customer:** | X-10 (USA), Inc. | **Job No.** | R-9689-1 |
| **Test Sample:** | 2.4GHz FM Transmitter | | |
| **Model No.:** | VT40A | **FCC ID.:** | B4SVT40A |
| **Operating Mode:** | Continuously transmitting an FM signal at 2.411GHz, channel A | | |
| **Technician:** | Peter Lananna | **Date:** | November 11, 2002 |

**Notes:** Test Distance: 3 Meters Temp:16C Humidity:92%
Detector: Quasi-Peak Below 30 MHz to 1 GHz, Peak above 1 GHz

| Test Freq. | Antenna Position | EUT Orientation | Meter Readings | Correction Factor | Corrected Reading | Converted Reading | **LIMIT** |
|---|---|---|---|---|---|---|---|
| MHz | (V/H) / Meters | Degrees | dBuV | dB | dBuV/m | uV/m | uV/m |
| | | | | | | | |
| 30.00 | | | | | | | 100 |
| 57.3 | V/1.0 | 338 | 13 | 6.6 | 19.6 | 9.5 | |
| 88.00 | | | | | | | 100 |
| 88.00 | | | | | | | 150 |
| 216.00 | | | | | | | 150 |
| 216.00 | | | | | | | 200 |
| 402.8 | V/1.3 | 202 | 12 | 13.3 | 25.3 | 18.4 | |
| 435.5 | V/1.5 | 202 | 11 | 13.4 | 24.4 | 16.6 | |
| 960.00 | | | | | | | 200 |
| 960.00 | | | | | | | 500 |
| 1205.0 | V/1.3 | 292 | 48.7 | -1.6 | 47.1 | 226.5 | |
| 2400.0 | H/2.0 | 022 | 46.7 | 2.9 | 49.6 | 302.0 | |
| 25000.0 | | | | | | | 500 |

The EUT was scanned from 30 MHz to 25 GHz
The emissions observed from the EUT do not exceed the specified limits. Emissions not recorded were more than 10dB under the specified limit

**Retlif Testing Laboratories**

Retlif Job Number R-9689-1

| | | | |
|---|---|---|---|
| **Test Method:** | FCC Part 15 Subpart C, Spurious Case Radiated Emissions, Paragraph 15.209(a) | | |
| **Customer:** | X-10 (USA), Inc. | **Job No.** | R-9689-1 |
| **Test Sample:** | 2.4GHz FM Transmitter | | |
| **Model No.:** | VT40A | **FCC ID.:** | B4SVT40A |
| **Operating Mode:** | Continuously transmitting an FM signal at 2.454GHz, channel C | | |
| **Technician:** | Peter Lananna | **Date:** | November 11, 2002 |

**Notes:** Test Distance: 3 Meters Temp:16C Humidity:92%
Detector: Quasi-Peak Below 30 MHz to 1 GHz, Peak above 1 GHz

| Test Freq. | Antenna Position | EUT Orientation | Meter Readings | Correction Factor | Corrected Reading | Converted Reading | **LIMIT** |
|---|---|---|---|---|---|---|---|
| MHz | (V/H) / Meters | Degrees | dBuV | dB | dBuV/m | uV/m | uV/m |
| 30.00 | | | | | | | 100 |
| 57.3 | V/1.0 | 338 | 13 | 6.6 | 19.6 | 9.5 | |
| 88.00 | | | | | | | 100 |
| 88.00 | | | | | | | 150 |
| 216.00 | | | | | | | 150 |
| 216.00 | | | | | | | 200 |
| 402.8 | V/1.3 | 202 | 12 | 13.3 | 25.3 | 18.4 | |
| 435.5 | V/1.5 | 202 | 11 | 13.4 | 24.4 | 16.6 | |
| 960.00 | | | | | | | 200 |
| 960.00 | | | | | | | 500 |
| 1227.0 | V/1.5 | 022 | 49.5 | -1.3 | 48.2 | 257.0 | |
| 25000.0 | | | | | | | 500 |

The EUT was scanned from 30 MHz to 25 GHz
The emissions observed from the EUT do not exceed the specified limits. Emissions not recorded were more than 10dB under the specified limit

**Retlif Testing Laboratories**

Retlif Job Number R-9689-1

| | | | |
|---|---|---|---|
| **Test Method:** | FCC Part 15 Subpart C, Spurious Case Radiated Emissions, Paragraph 15.209(a) | | |
| **Customer:** | X-10 (USA), Inc. | **Job No.** | R-9689-1 |
| **Test Sample:** | 2.4GHz FM Transmitter | | |
| **Model No.:** | VT40A | **FCC ID.:** | B4SVT40A |
| **Operating Mode:** | Continuously transmitting an FM signal at 2.471GHz, channel D | | |
| **Technician:** | Peter Lananna | **Date:** | November 11, 2002 |

**Notes:** Test Distance: 3 Meters Temp:16C Humidity:92%
Detector: Quasi-Peak Below 30 MHz to 1 GHz, Peak above 1 GHz

| Test Freq. | Antenna Position | EUT Orientation | Meter Readings | Correction Factor | Corrected Reading | Converted Reading | **LIMIT** |
|---|---|---|---|---|---|---|---|
| MHz | (V/H) / Meters | Degrees | dBuV | dB | dBuV/m | uV/m | uV/m |
| | | | | | | | |
| 30.00 | | | | | | | 100 |
| | | | | | | | \| |
| | | | | | | | \| |
| | | | | | | | \| |
| 57.3 | V/1.0 | 338 | 13 | 6.6 | 19.6 | 9.5 | \| |
| | | | | | | | \| |
| | | | | | | | \| |
| | | | | | | | \| |
| 88.00 | | | | | | | 100 |
| 88.00 | | | | | | | 150 |
| | | | | | | | \| |
| | | | | | | | \| |
| | | | | | | | \| |
| 216.00 | | | | | | | 150 |
| 216.00 | | | | | | | 200 |
| | | | | | | | \| |
| | | | | | | | \| |
| 402.8 | V/1.3 | 202 | 12 | 13.3 | 25.3 | 18.4 | \| |
| 435.5 | V/1.5 | 202 | 11 | 13.4 | 24.4 | 16.6 | \| |
| | | | | | | | \| |
| | | | | | | | \| |
| 960.00 | | | | | | | 200 |
| 960.00 | | | | | | | 500 |
| | | | | | | | \| |
| | | | | | | | \| |
| 1235.0 | V/1.5 | 203 | 49.9 | -1.2 | 48.7 | 272.3 | \| |
| 2483.5 | H/1.0 | 180 | 39.9 | 3.8 | 43.7 | 153.1 | \| |
| | | | | | | | \| |
| 25000.0 | | | | | | | 500 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

The EUT was scanned from 30 MHz to 25 GHz

The emissions observed from the EUT do not exceed the specified limits. Emissions not recorded were more than 10dB under the specified limit

**Retlif Testing Laboratories**

Retlif Job Number R-9689-1