

TEST CONDITIONS AND DATA
Output Signal Level Measurements

Test Equipment Used

| <u>Model Name</u> | <u>Manufacturer</u> | <u>Description</u> | <u>Next Cal. Date</u> |
|-------------------|---------------------|--------------------|-----------------------|
| 8566B | Hewlett Packard | Spectrum Analyzer | Jul. 13, 2002 |
| 85685A | Hewlett Packard | RF preselector | Jul. 13, 2002 |
| RAM | Rohde & Schwarz | Matching Pad | Sep. 21, 2002 |

External Peripherals

| <u>Device Description</u> | <u>Model Name</u> | <u>Manufacture</u> | <u>FCC Compliance Information</u> |
|---------------------------|-------------------|--------------------|-----------------------------------|
| TV Receiver | F19430 | Daewoo | Verification |

Test Program Playback and record mode

Test Area Compact Chamber

Note : Limit Calculations

For Video Signal

$$346.4 \times 75^{1/2} = 2999\mu\text{V} = 69.54\text{dBuV} = -37.46 \text{ dBm}$$

For Audio Signal

$$77.5 \times 75^{1/2} = 671.17\mu\text{V} = 56.53\text{dBuV} = -50.46 \text{ dBm}$$

The test were performed with color bar as VITS. The VITS signals, 1V and 5V peak-to-peak, were used for channel 3 and channel 4 with alternate. The above test program were employed for each channel.

Find the test data in following page(s) 52 to 76.

Output Signal Level Measurements

| TV CH. | Freq. (MHz) | Level (dBuV) | Limit (dBuV) | Mode | Margin (dB) |
|---------|-------------|--------------|--------------|----------|-------------|
| 3 (Pix) | 61.28 | 59.6 | 69.54 | Playback | -9.94 |
| 3 (Aud) | 57.70 | 26.7 | 56.53 | Playback | -29.83 |
| 3 (Pix) | 61.28 | 57.6 | 69.54 | Record | -11.94 |
| 3 (Aud) | 56.77 | 27.1 | 56.53 | Record | -29.43 |
| 4 (Pix) | 67.28 | 57.4 | 69.54 | Playback | -12.14 |
| 4 (Aud) | 62.77 | 43.2 | 56.53 | Playback | -13.33 |
| 4 (Pix) | 67.27 | 57.5 | 69.54 | Record | -12.04 |
| 4 (Aud) | 62.75 | 43.2 | 56.53 | Record | -13.33 |

Output Signal Tabulated Data with Tuner
(LG Innotek Co., Ltd. Model: **LGTMI-US2-S**)

Output Signal Level Measurements

| TV CH. | Freq. (MHz) | Level (dBuV) | Limit (dBuV) | Mode | Margin (dB) |
|---------|-------------|--------------|--------------|----------|-------------|
| 3 (Pix) | 61.28 | 59.9 | 69.54 | Playback | -9.64 |
| 3 (Aud) | 65.81 | 41.6 | 56.53 | Playback | -14.93 |
| 3 (Pix) | 61.29 | 56.6 | 69.54 | Record | -12.94 |
| 3 (Aud) | 65.80 | 41.5 | 56.53 | Record | -15.03 |
| 4 (Pix) | 67.26 | 56.6 | 69.54 | Playback | -12.94 |
| 4 (Aud) | 62.73 | 41.8 | 56.53 | Playback | -14.73 |
| 4 (Pix) | 67.26 | 56.8 | 69.54 | Record | -12.74 |
| 4 (Aud) | 62.75 | 41.7 | 56.53 | Record | -14.83 |

Output Signal Tabulated Data with Tuner

(Korea Alps Model: **ALTMI-US3-S**)

Output Signal Level Measurements

| TV CH. | Freq. (MHz) | Level (dBuV) | Limit (dBuV) | Mode | Margin (dB) |
|---------|-------------|--------------|--------------|----------|-------------|
| 3 (Pix) | 61.28 | 57.6 | 69.54 | Playback | -11.94 |
| 3 (Aud) | 65.81 | 43.4 | 56.53 | Playback | -13.13 |
| 3 (Pix) | 61.27 | 57.4 | 69.54 | Record | -12.14 |
| 3 (Aud) | 65.81 | 43.5 | 56.53 | Record | -13.03 |
| 4 (Pix) | 67.27 | 57.7 | 69.54 | Playback | -11.84 |
| 4 (Aud) | 62.74 | 43.5 | 56.53 | Playback | -13.03 |
| 4 (Pix) | 67.27 | 57.7 | 69.54 | Record | -11.84 |
| 4 (Aud) | 62.75 | 43.5 | 56.53 | Record | -13.03 |

Output Signal Tabulated Data with Tuner
(LG Innotek Co., Ltd. Model: **LGTMI-US4-S**)

Output Signal Level Measurements

| TV CH. | Freq. (MHz) | Level (dBuV) | Limit (dBuV) | Mode | Margin (dB) |
|---------|-------------|--------------|--------------|----------|-------------|
| 3 (Pix) | 61.28 | 59.4 | 69.54 | Playback | -10.14 |
| 3 (Aud) | 56.76 | 42.7 | 56.53 | Playback | -13.83 |
| 3 (Pix) | 61.28 | 59.5 | 69.54 | Record | -10.04 |
| 3 (Aud) | 65.80 | 42.5 | 56.53 | Record | -14.03 |
| 4 (Pix) | 67.27 | 59.4 | 69.54 | Playback | -10.14 |
| 4 (Aud) | 62.76 | 42.7 | 56.53 | Playback | -13.83 |
| 4 (Pix) | 67.27 | 59.3 | 69.54 | Record | -10.24 |
| 4 (Aud) | 62.75 | 42.7 | 56.53 | Record | -13.83 |

Output Signal Tabulated Data with Tuner
(Samsung Electric Co., Ltd. Model: **SSTMI-US3-S**)

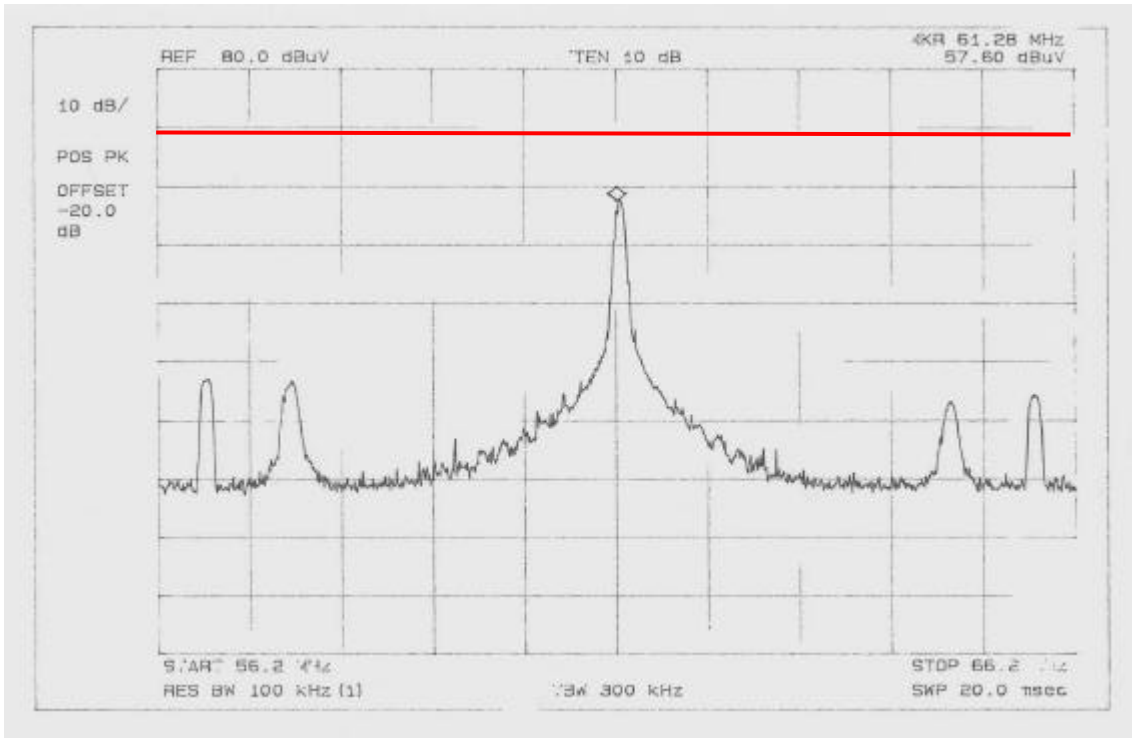
Output Signal Level Measurements

| TV CH. | Freq. (MHz) | Level (dBuV) | Limit (dBuV) | Mode | Margin (dB) |
|---------|-------------|--------------|--------------|----------|-------------|
| 3 (Pix) | 61.27 | 59.0 | 69.54 | Playback | -10.54 |
| 3 (Aud) | 56.74 | 43.5 | 56.53 | Playback | -13.03 |
| 3 (Pix) | 61.28 | 60.2 | 69.54 | Record | -9.34 |
| 3 (Aud) | 56.76 | 44.6 | 56.53 | Record | -11.93 |
| 4 (Pix) | 67.28 | 59.6 | 69.54 | Playback | -9.94 |
| 4 (Aud) | 62.76 | 44.2 | 56.53 | Playback | -12.33 |
| 4 (Pix) | 67.28 | 59.7 | 69.54 | Record | -9.84 |
| 4 (Aud) | 62.77 | 43.8 | 56.53 | Record | -12.73 |

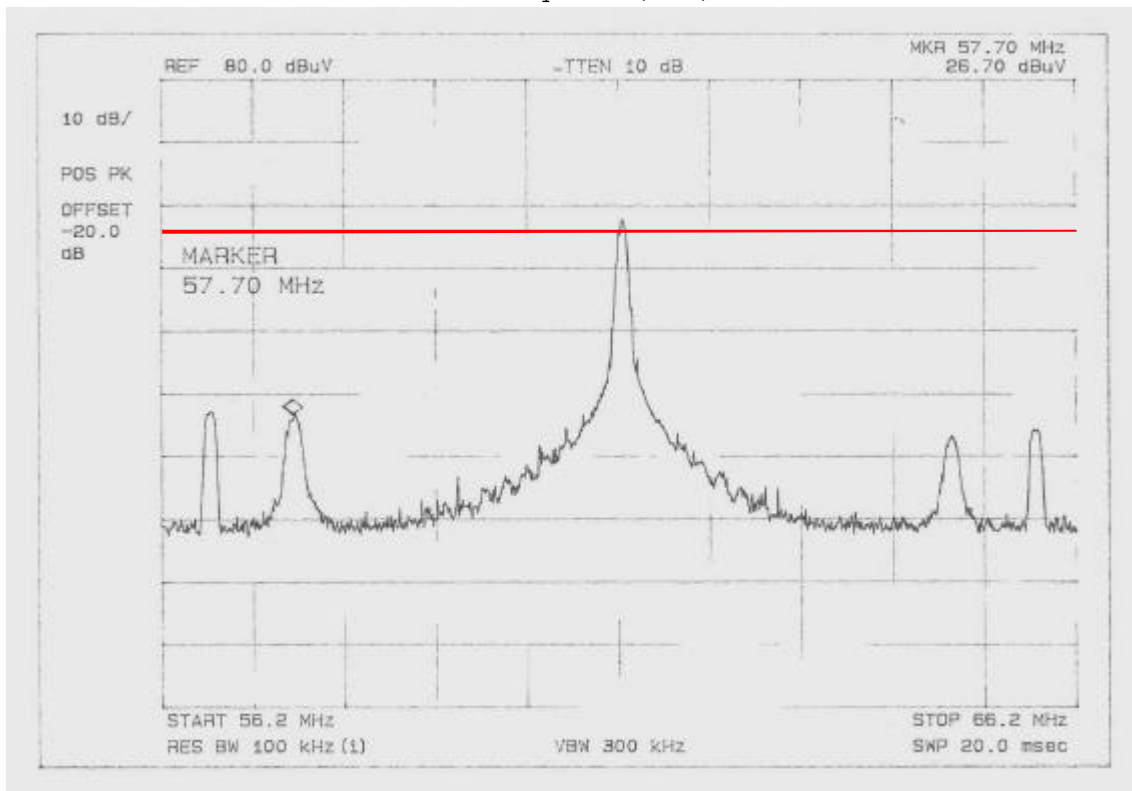
Output Signal Tabulated Data with Tuner
(Sanyo Electronic Co., Ltd. Model: **SATMI-US4-S**)

Output Signal Level Measurements

Tuner: LGTMI-US2-S



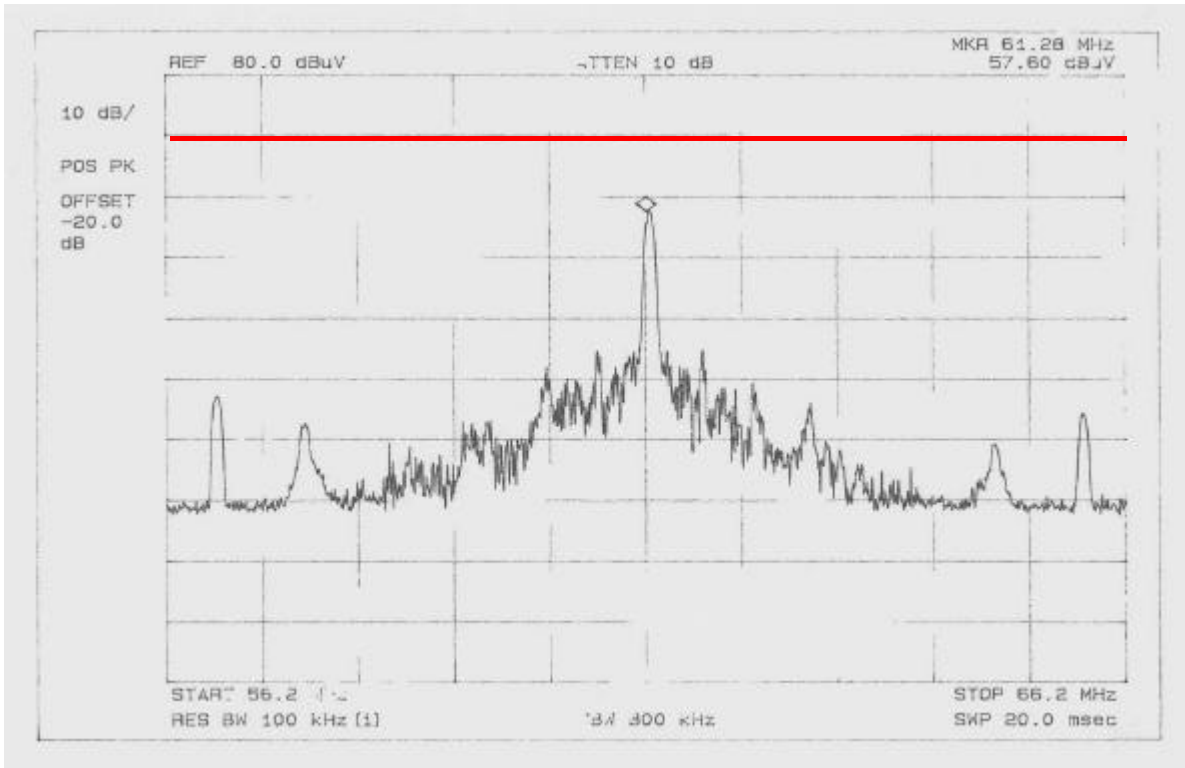
CH3 Playback (Pix)



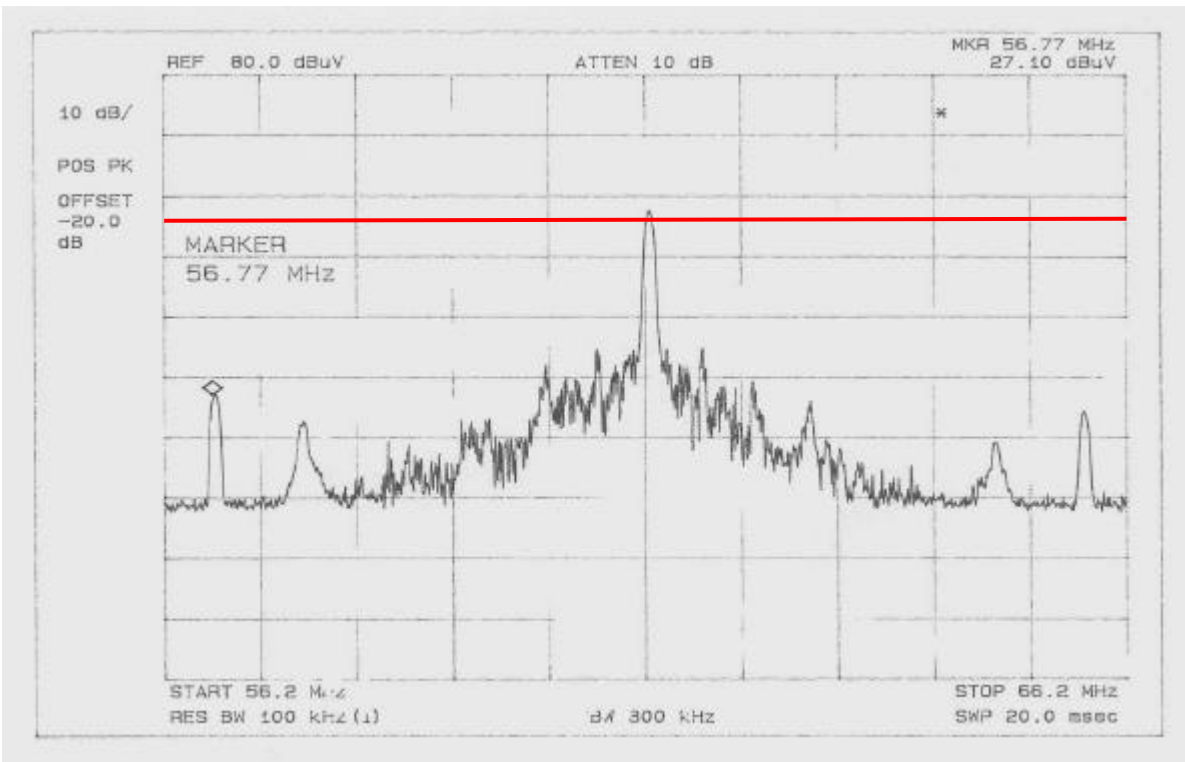
CH3 Playback (Aud)

Output Signal Level Measurements

Tuner: LGTMI-US2-S



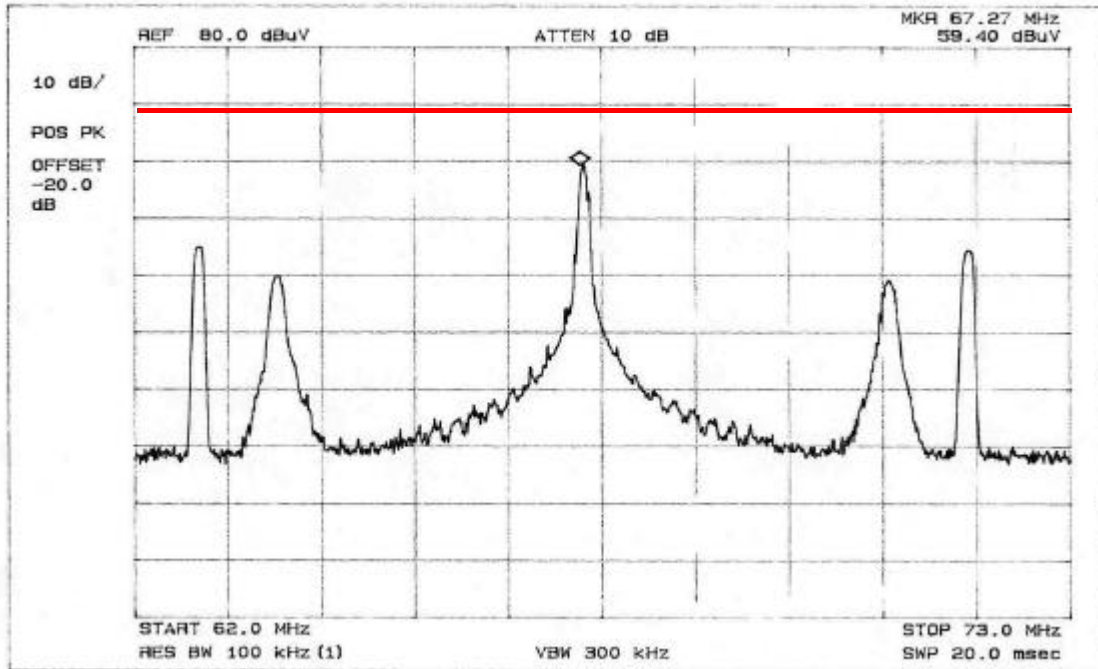
CH3 Record (Pix)



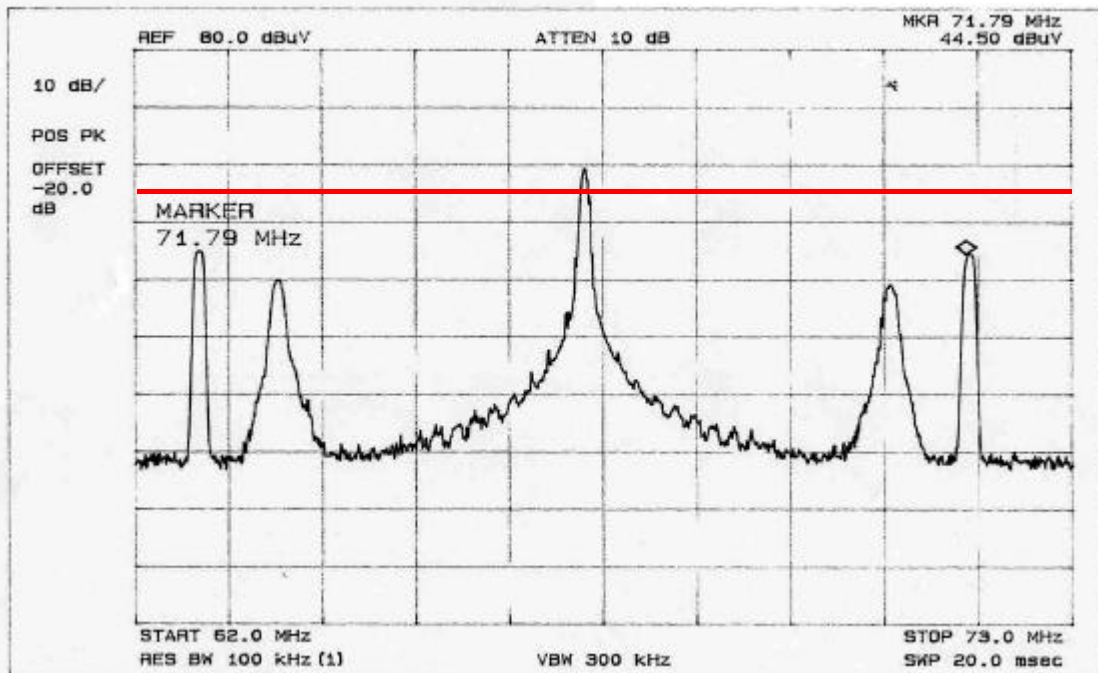
CH3 Record (Aud)

Output Signal Level Measurements

Tuner: LGTMI-US2-S



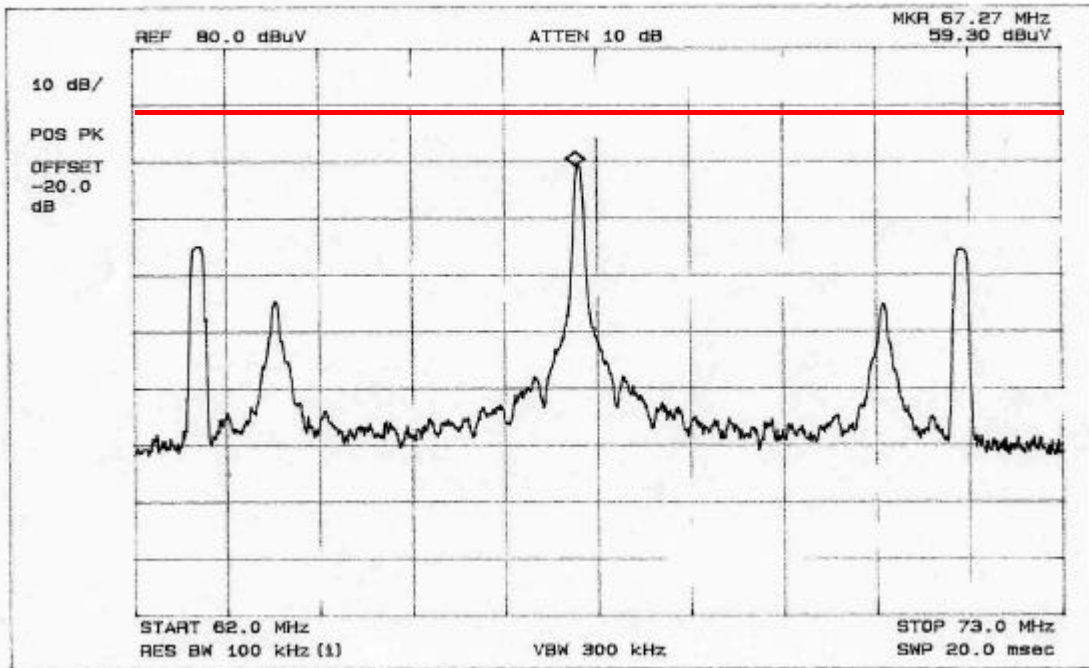
CH4 Playback (Pix)



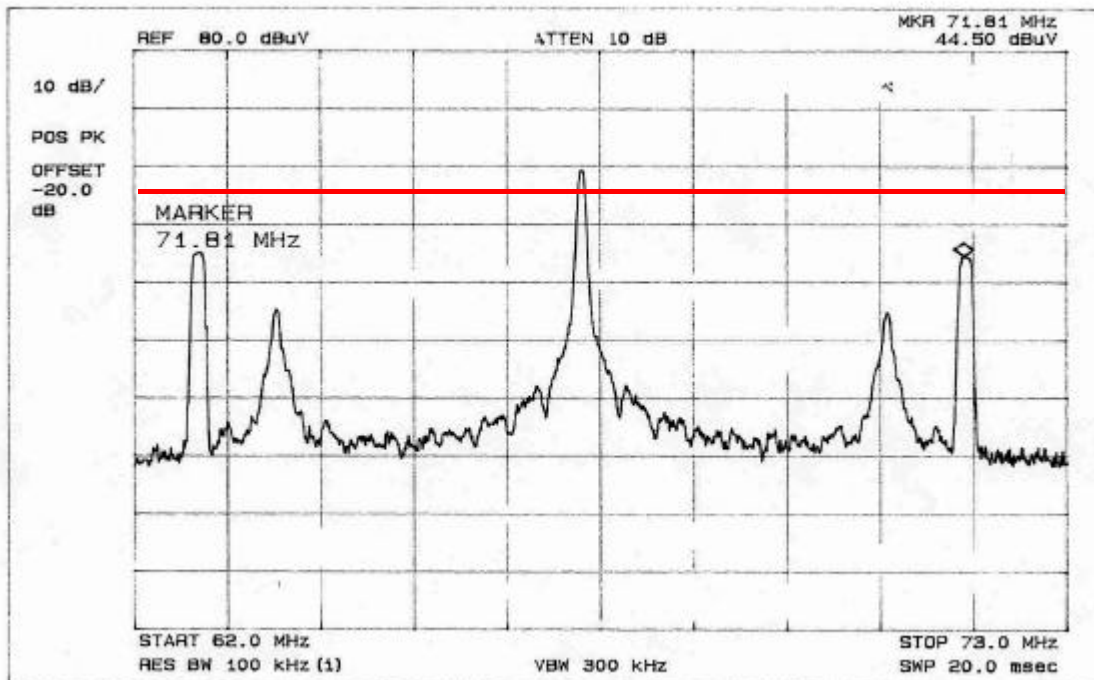
CH4 Playback (Aud)

Output Signal Level Measurements

Tuner: LGTMI-US2-S



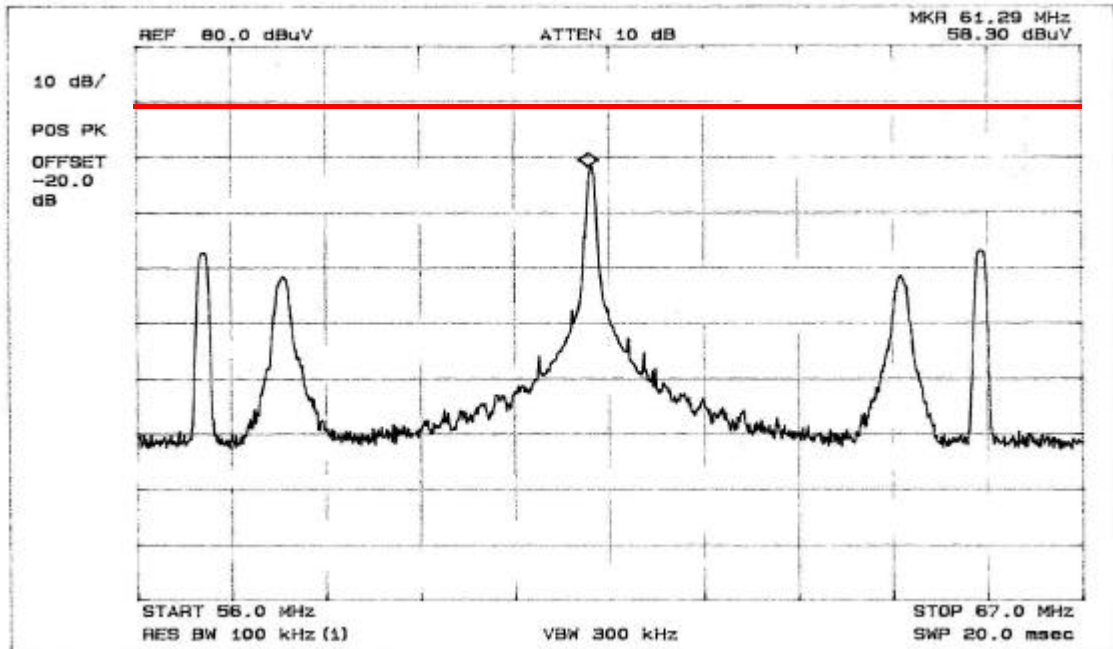
CH4 Record (Pix)



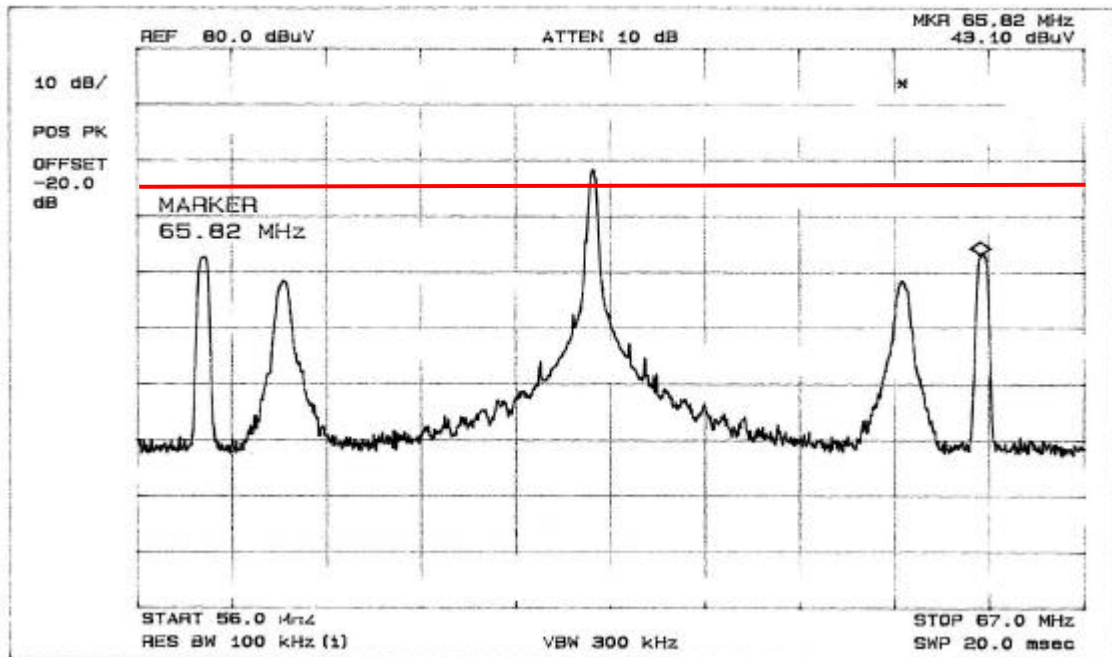
CH4 Record (Aud)

Output Signal Level Measurements

Tuner: ALTMI-US3-S



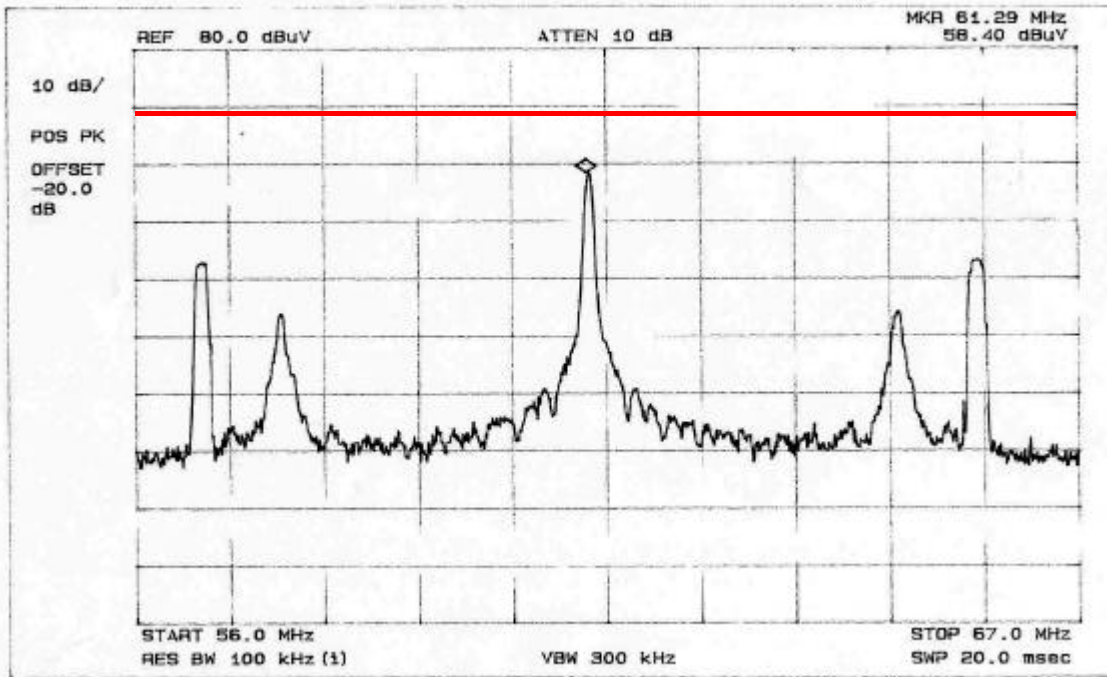
CH3 Playback (Pix)



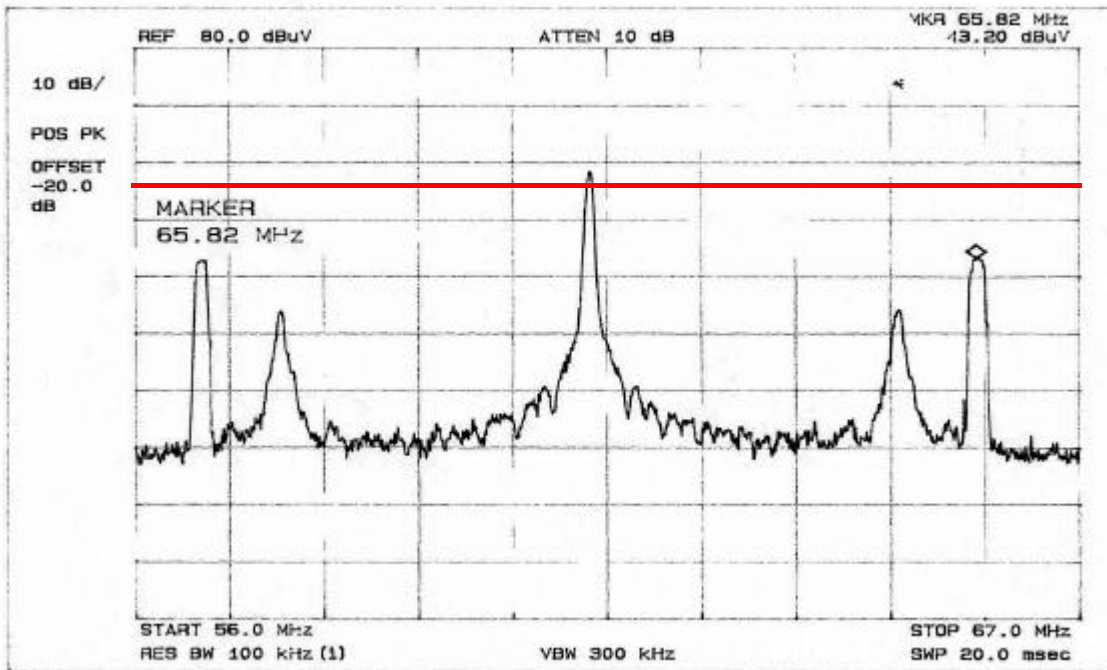
CH3 Playback (Aud)

Output Signal Level Measurements

Tuner: ALTMI-US3-S



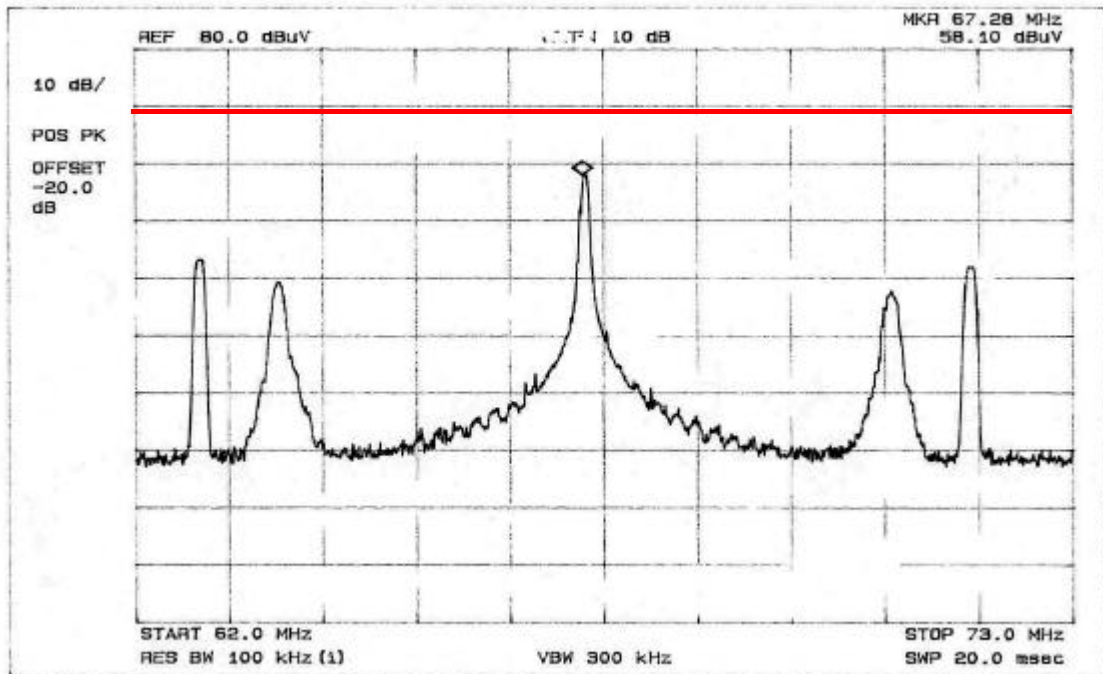
CH3 Record (Pix)



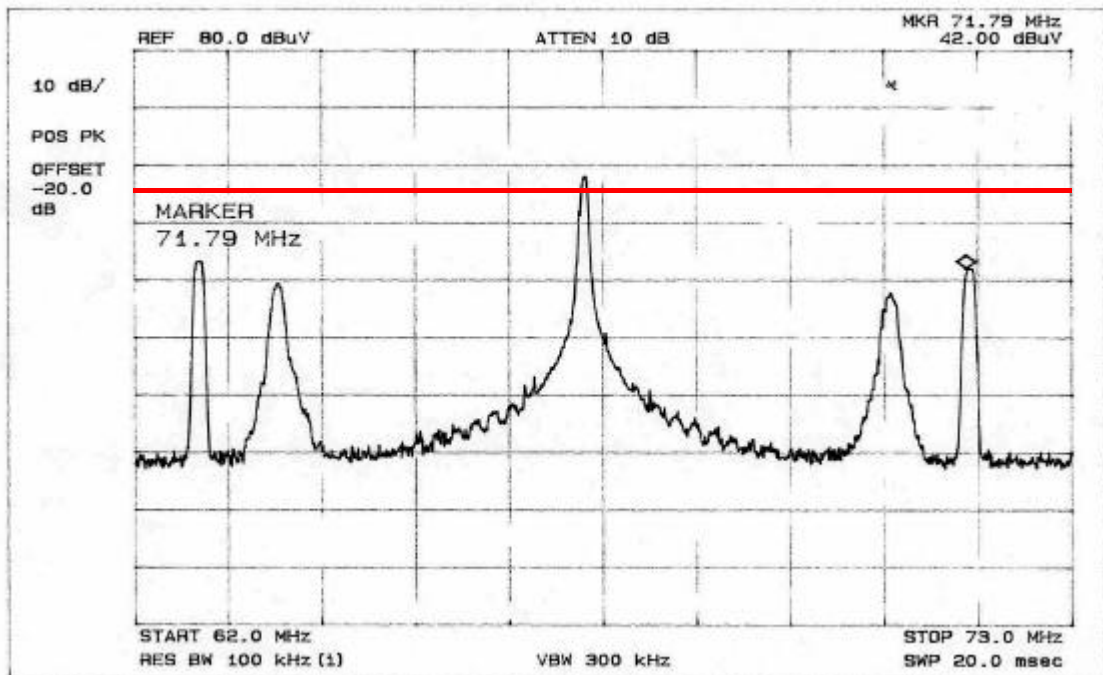
CH3 Record (Aud)

Output Signal Level Measurements

Tuner: ALTMI-US3-S



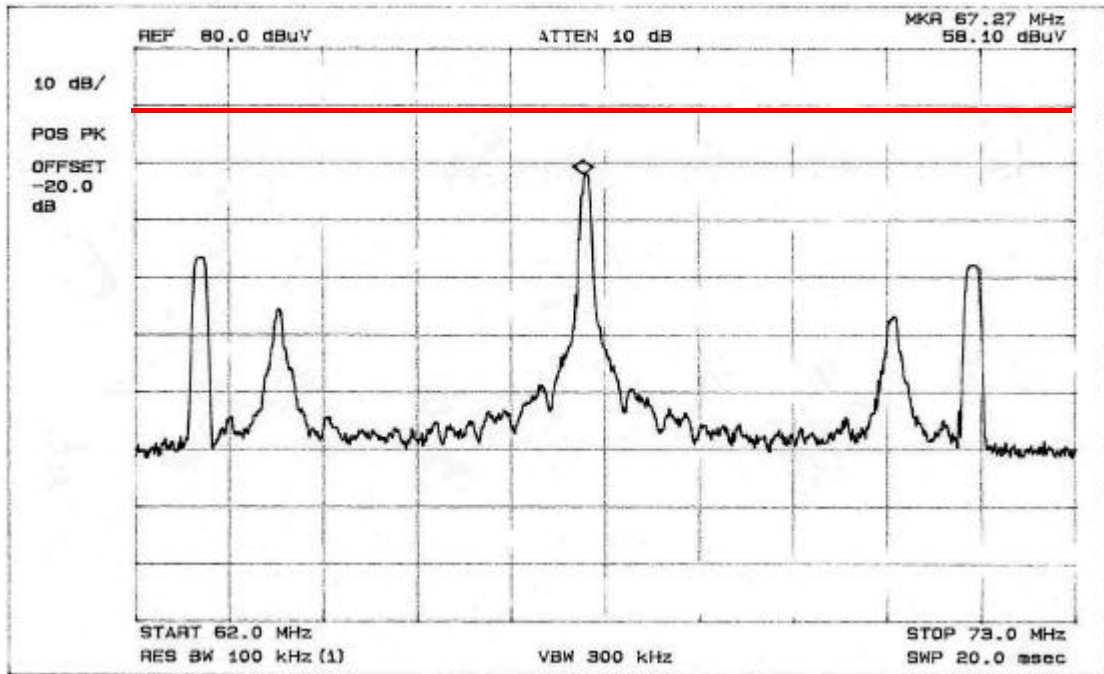
CH4 Playback (Pix)



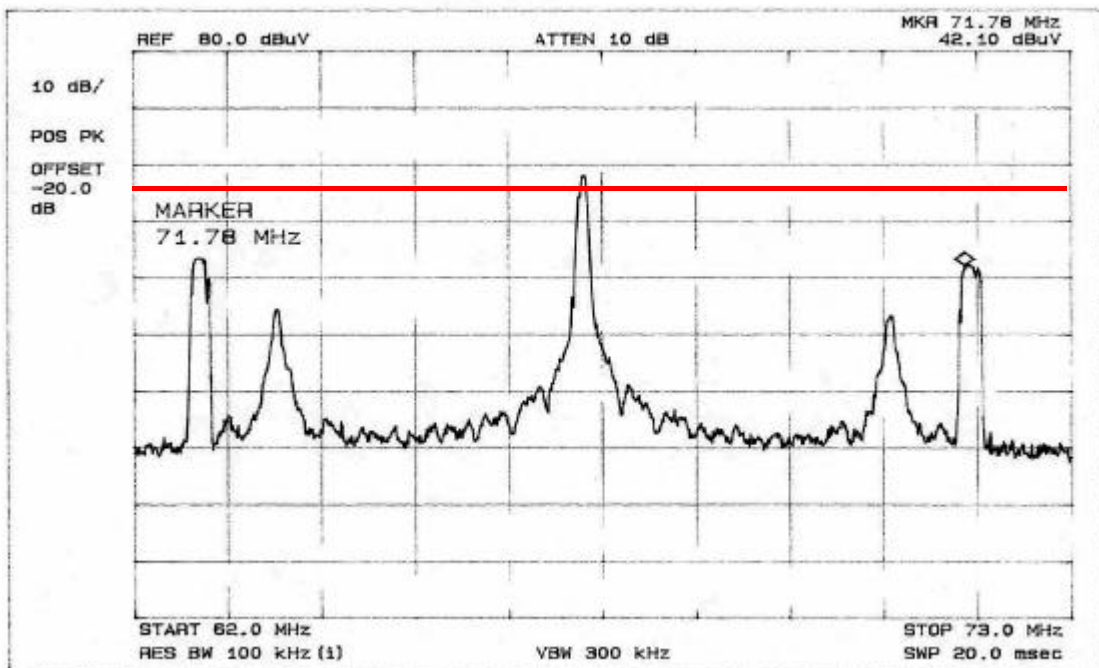
CH4 Playback (Aud)

Output Signal Level Measurements

Tuner: ALTMI-US3-S



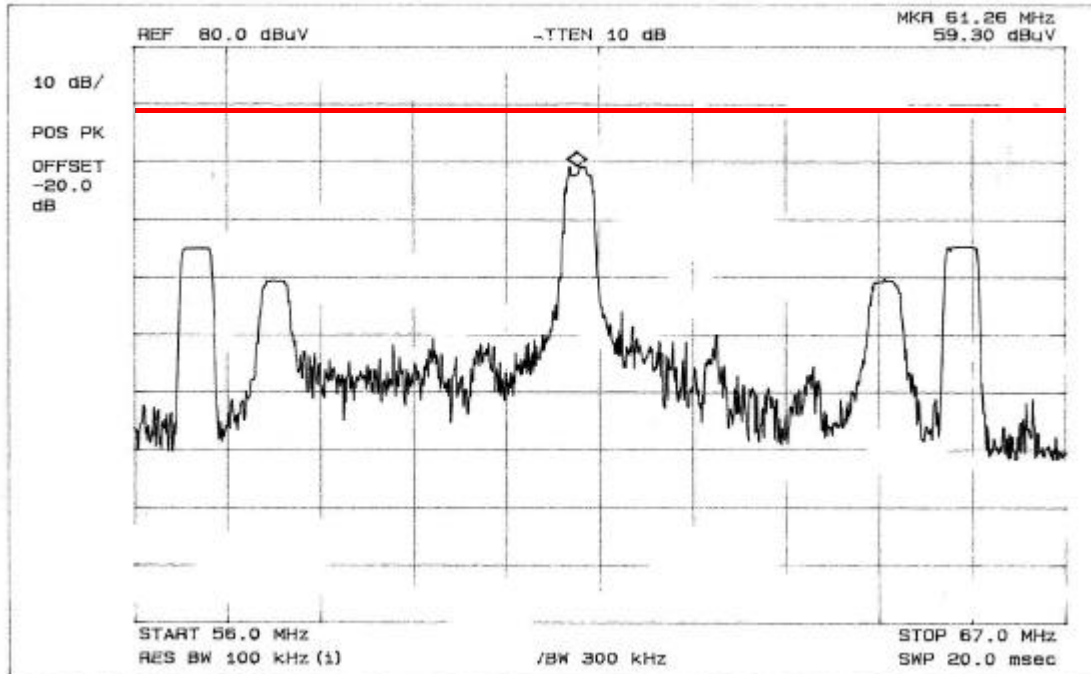
CH4 Record (Pix)



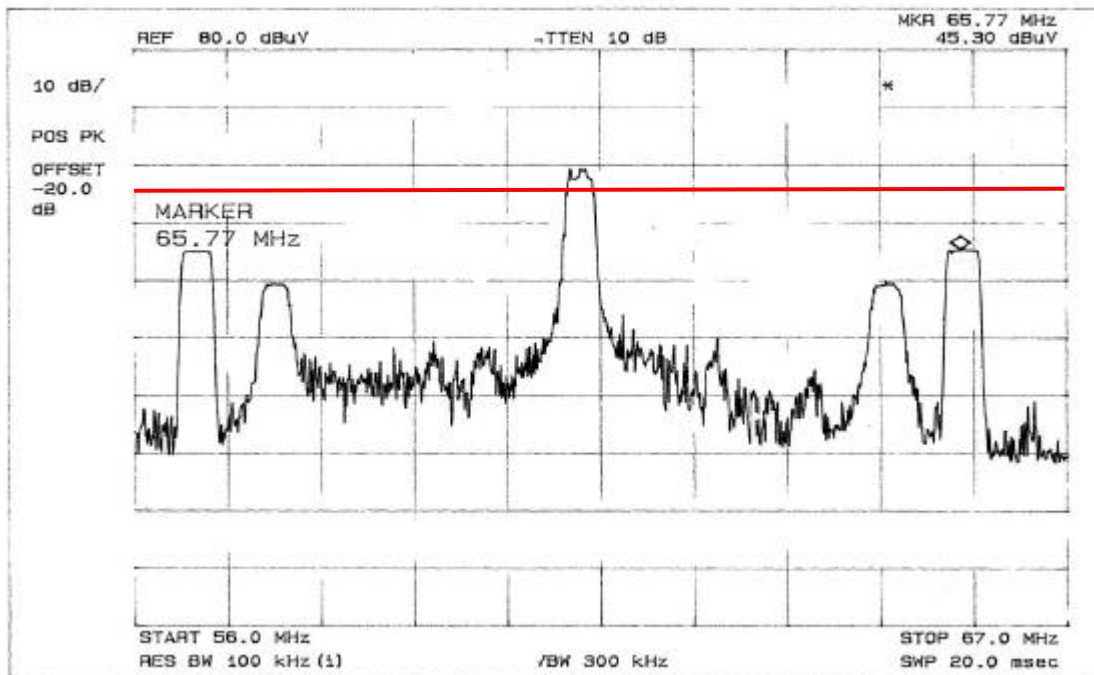
CH4 Record (Aud)

Output Signal Level Measurements

Tuner: LGTMI-US4-S



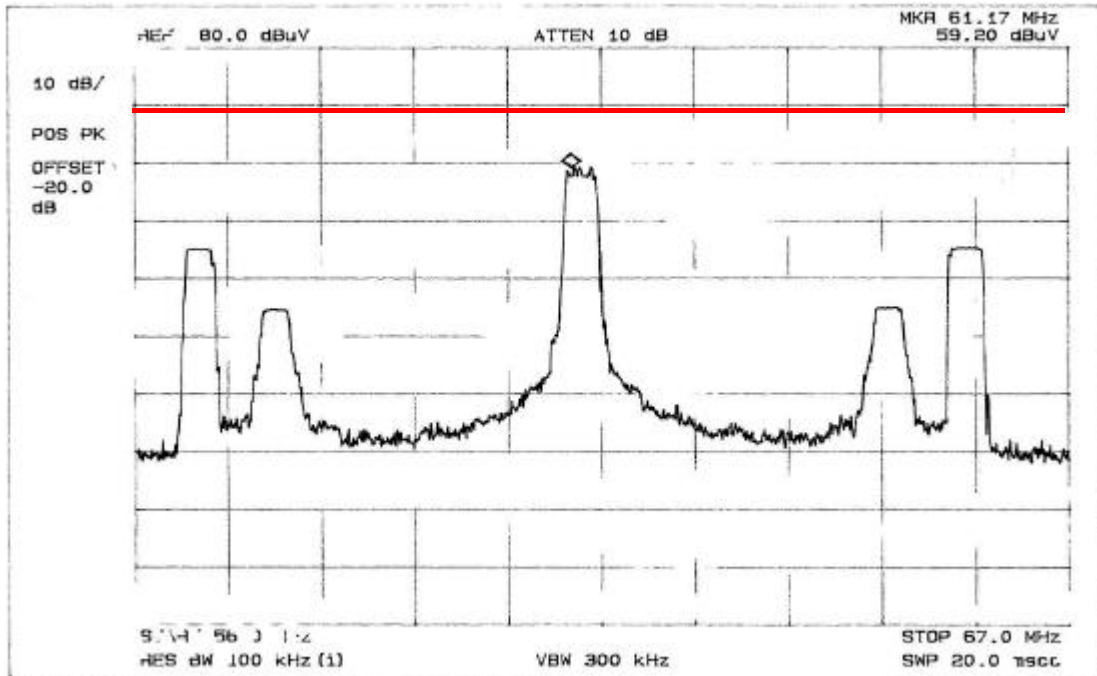
CH3 Playback (Pix)



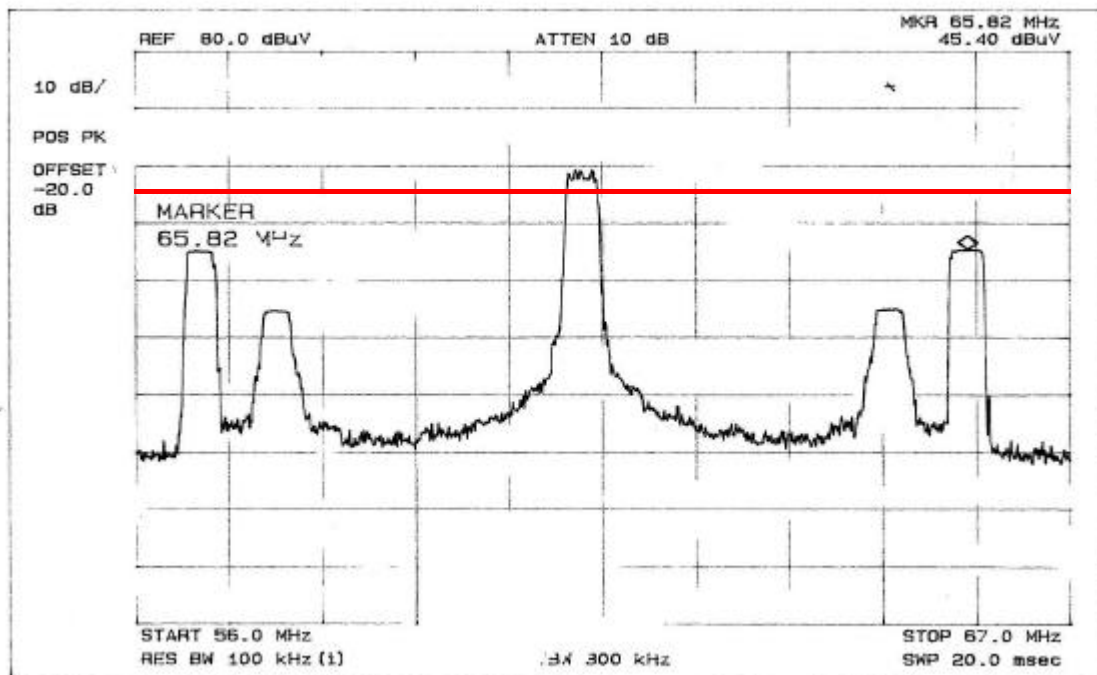
CH3 Playback (Aud)

Output Signal Level Measurements

Tuner: LGTMI-US4-S



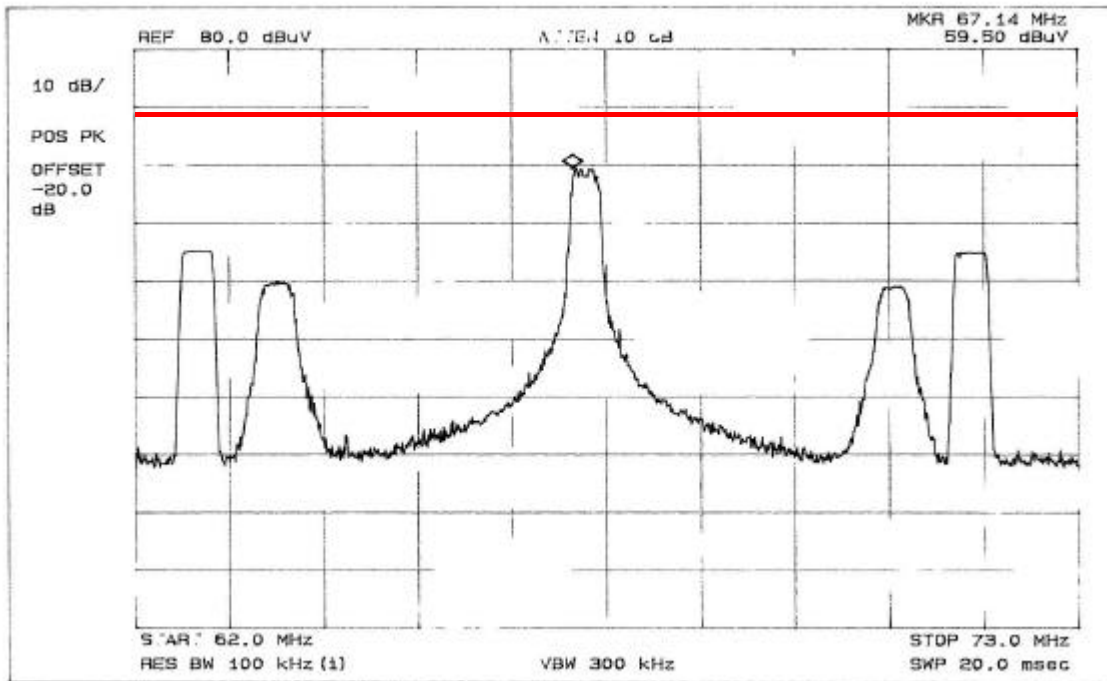
CH3 Record (Pix)



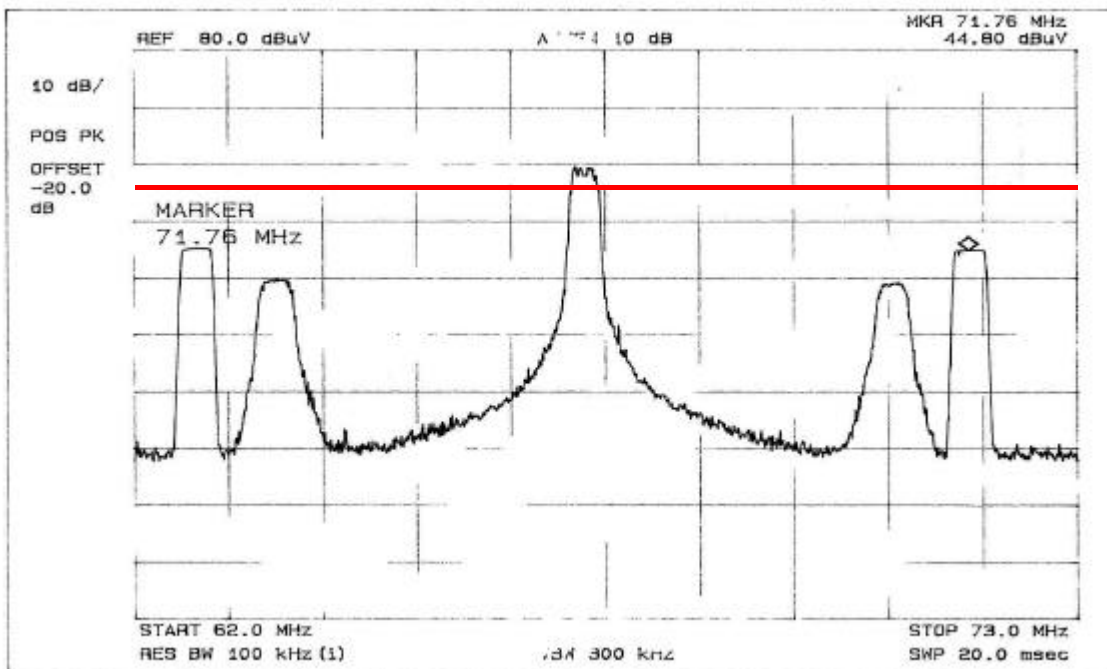
CH3 Record (Aud)

Output Signal Level Measurements

Tuner: LGTMI-US4-S



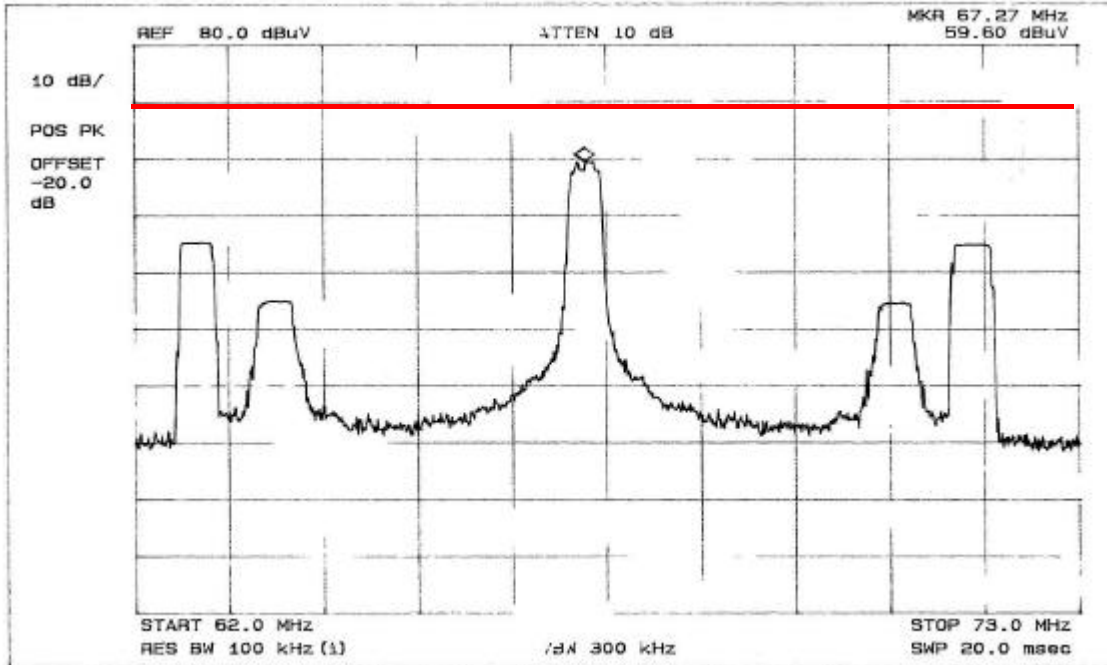
CH4 Playback (Pix)



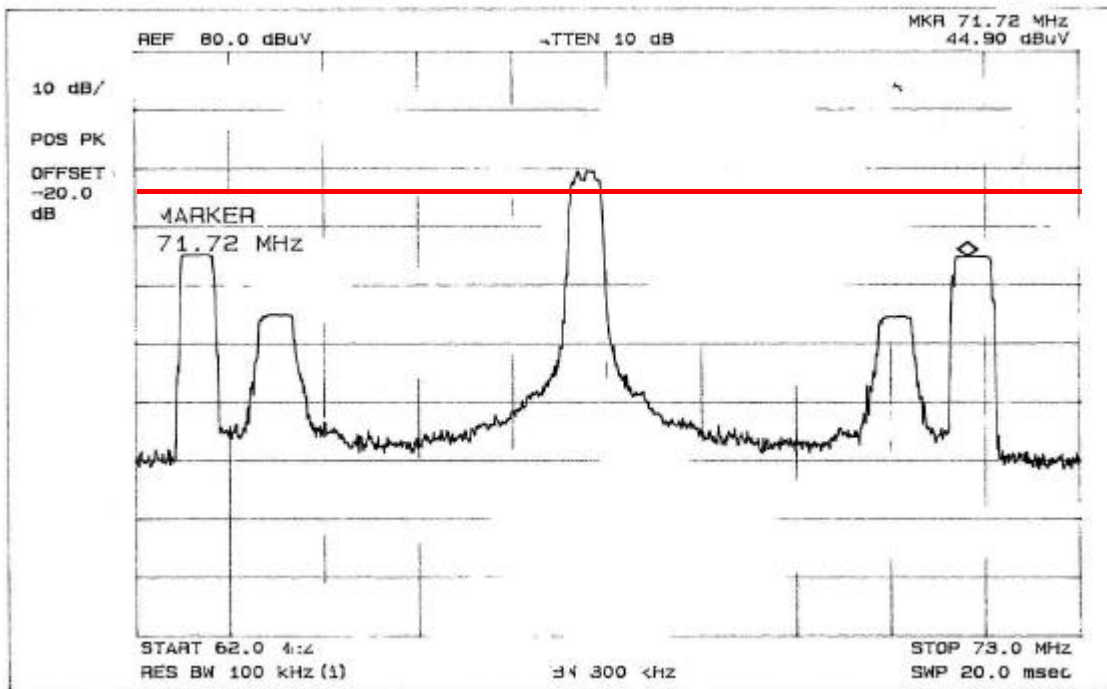
CH4 Playback (Aud)

Output Signal Level Measurements

Tuner: LGTMI-US4-S



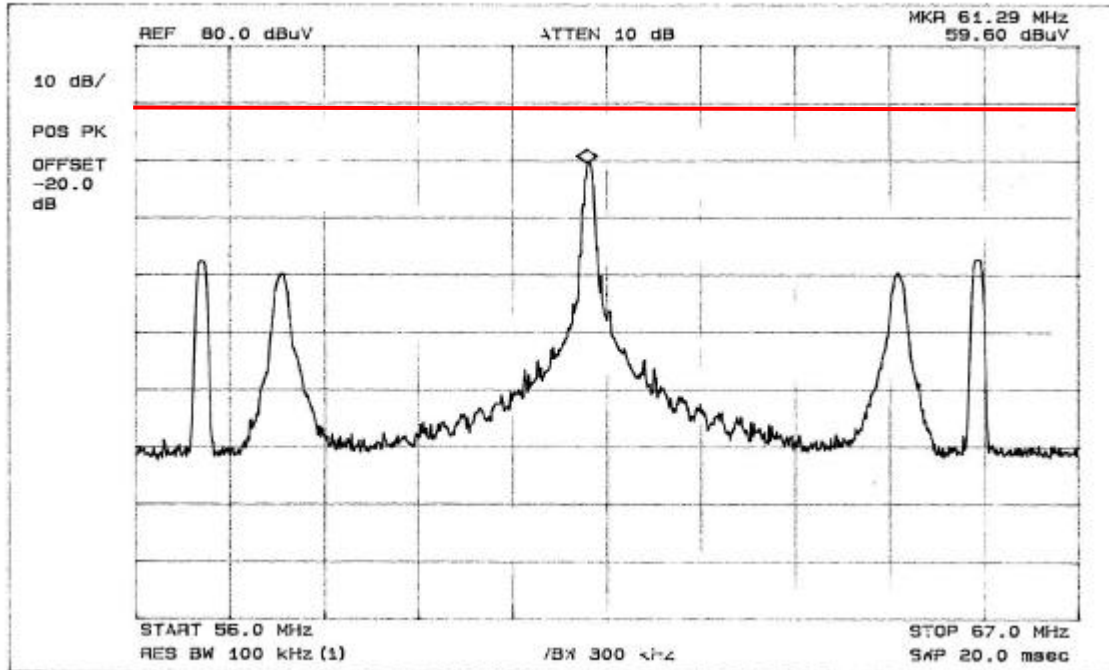
CH4 Record (Pix)



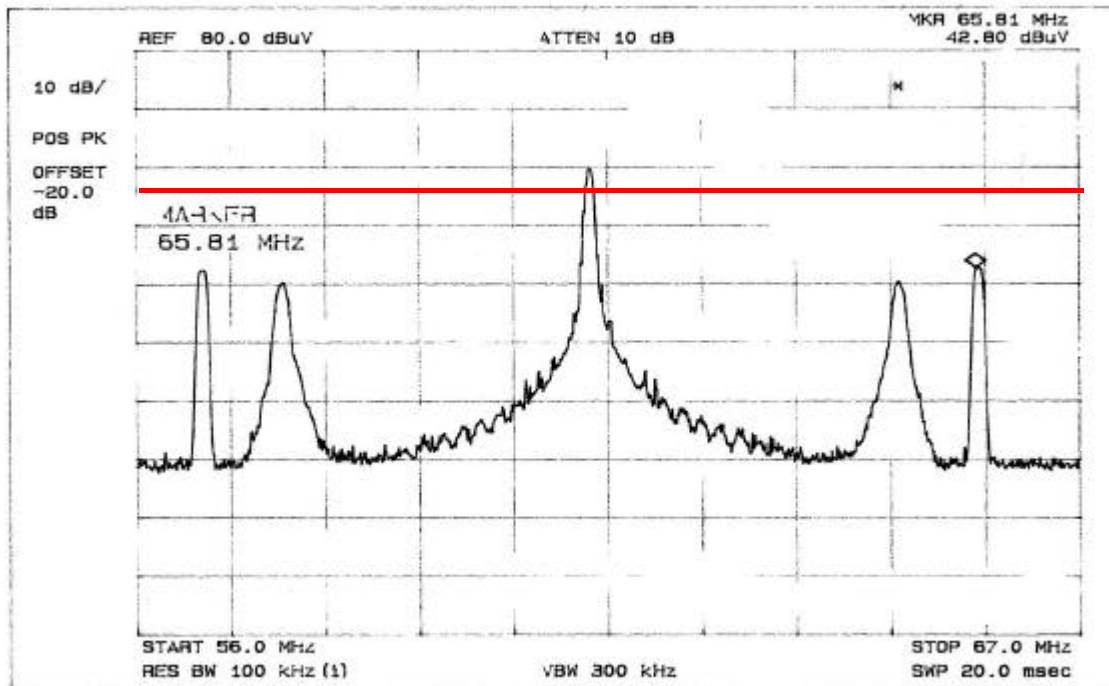
CH4 Record (Aud)

Output Signal Level Measurements

Tuner: SSTMI-US3-S



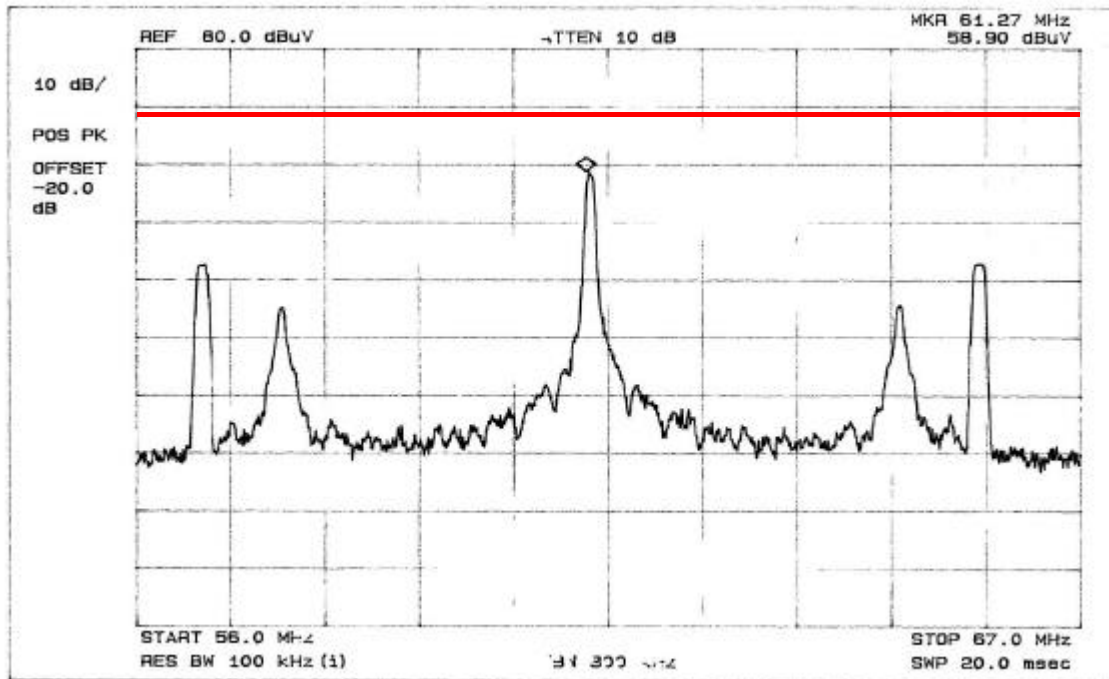
CH3 Playback (Pix)



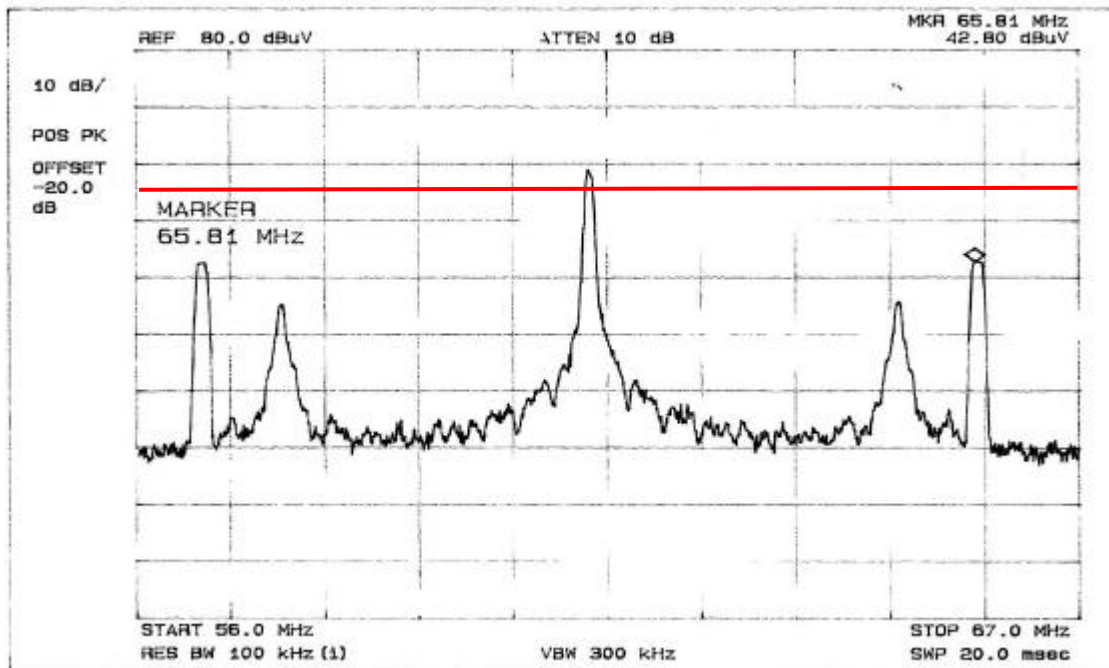
CH3 Playback (Aud)

Output Signal Level Measurements

Tuner: SSTMI-US3-S



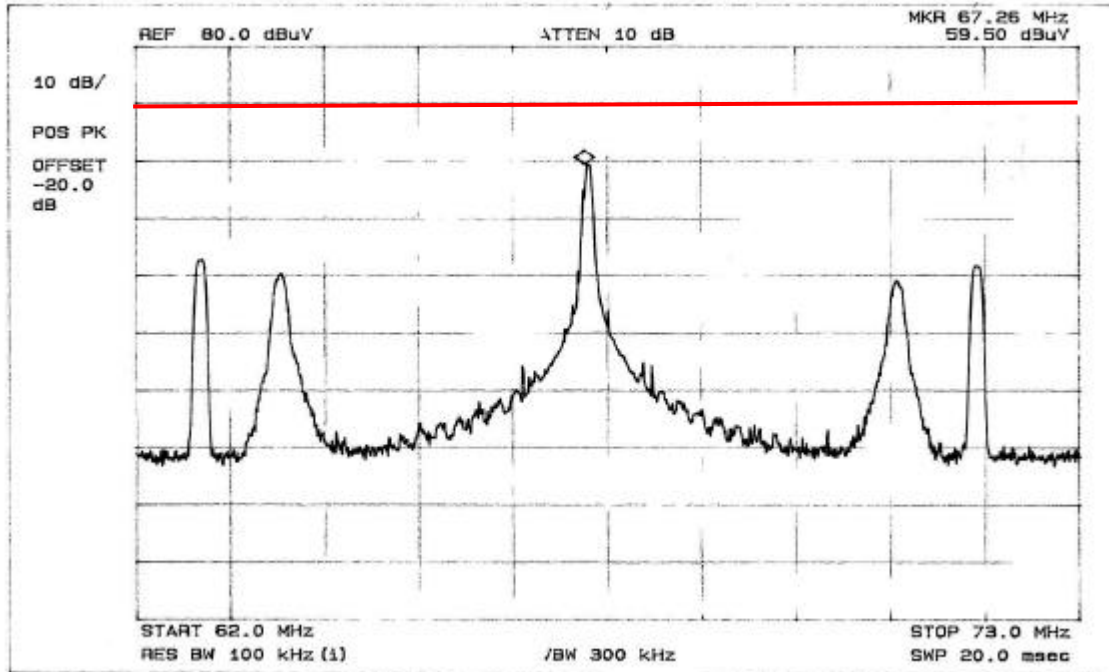
CH3 Record (Pix)



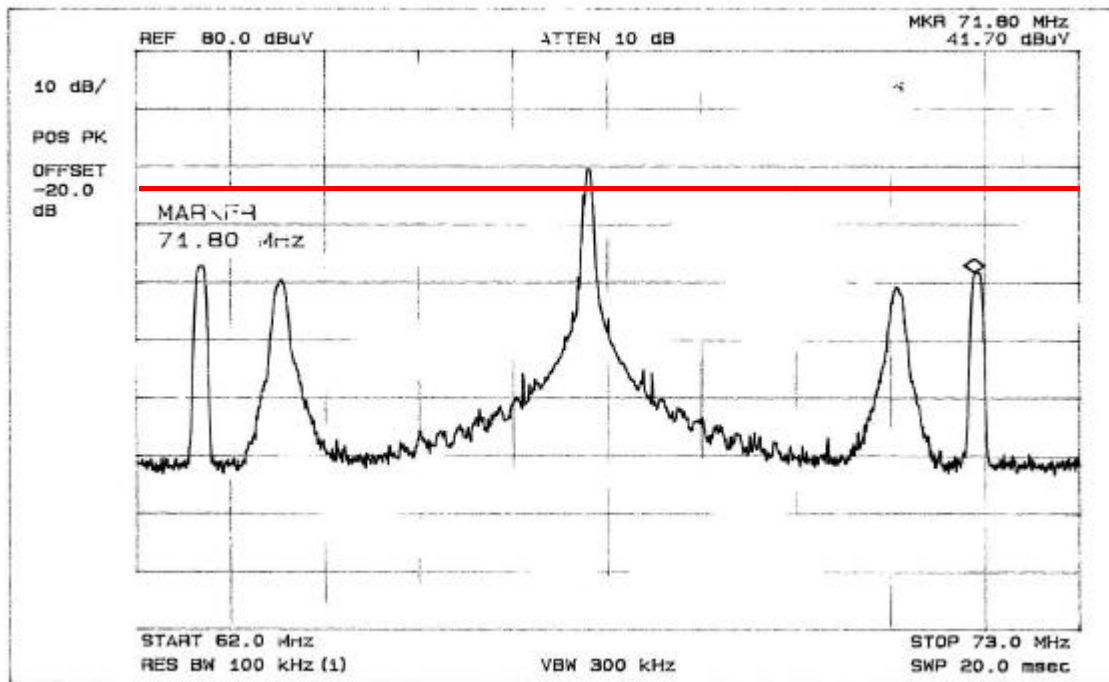
CH3 Record (Aud)

Output Signal Level Measurements

Tuner: SSTMI-US3-S



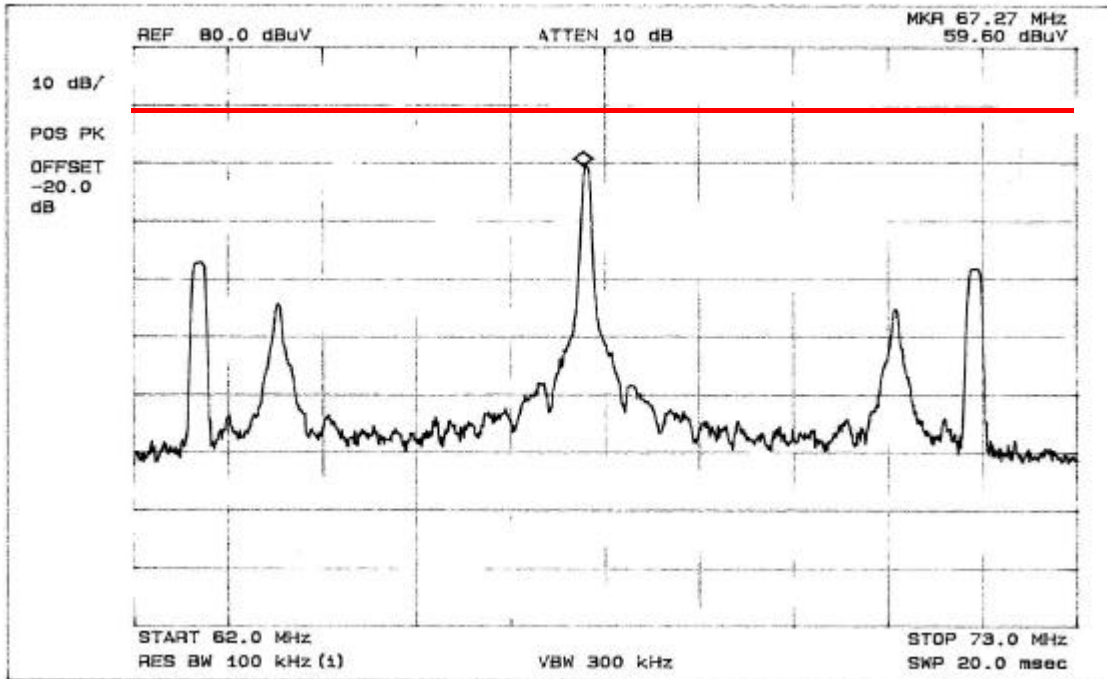
CH4 Playback (Pix)



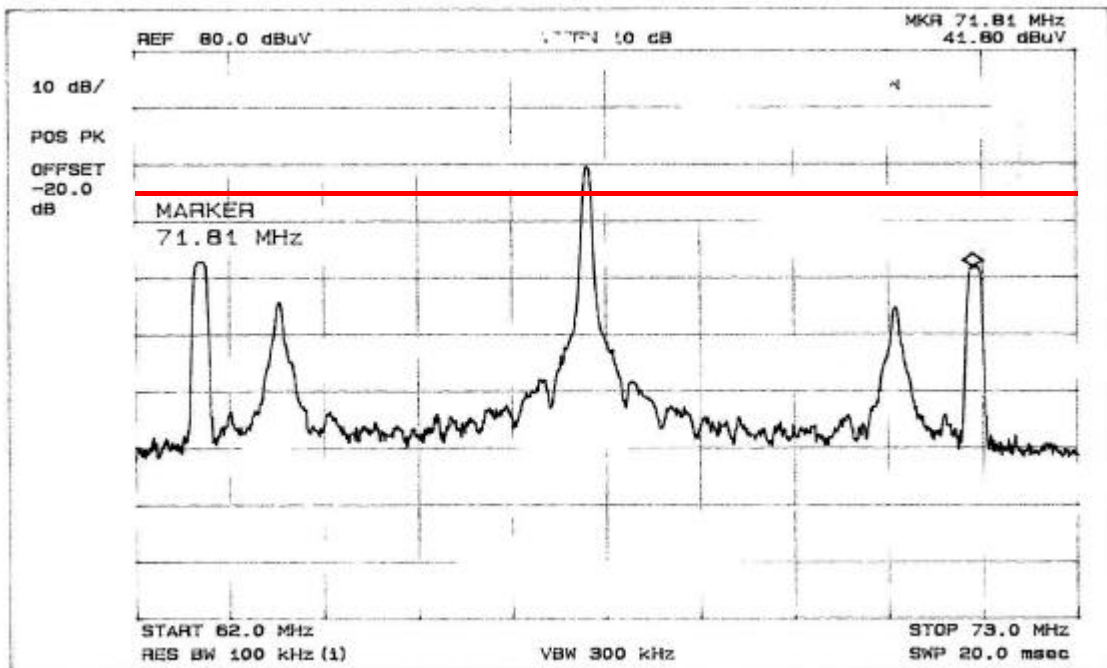
CH4 Playback (Aud)

Output Signal Level Measurements

Tuner: SSTMI-US3-S



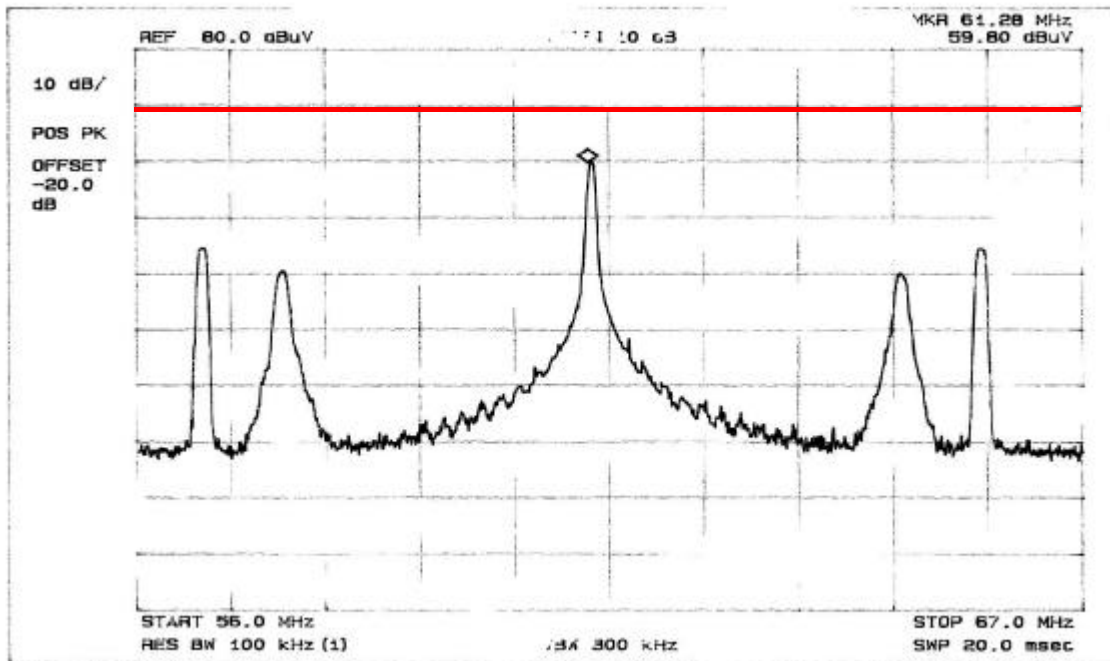
CH4 Record (Pix)



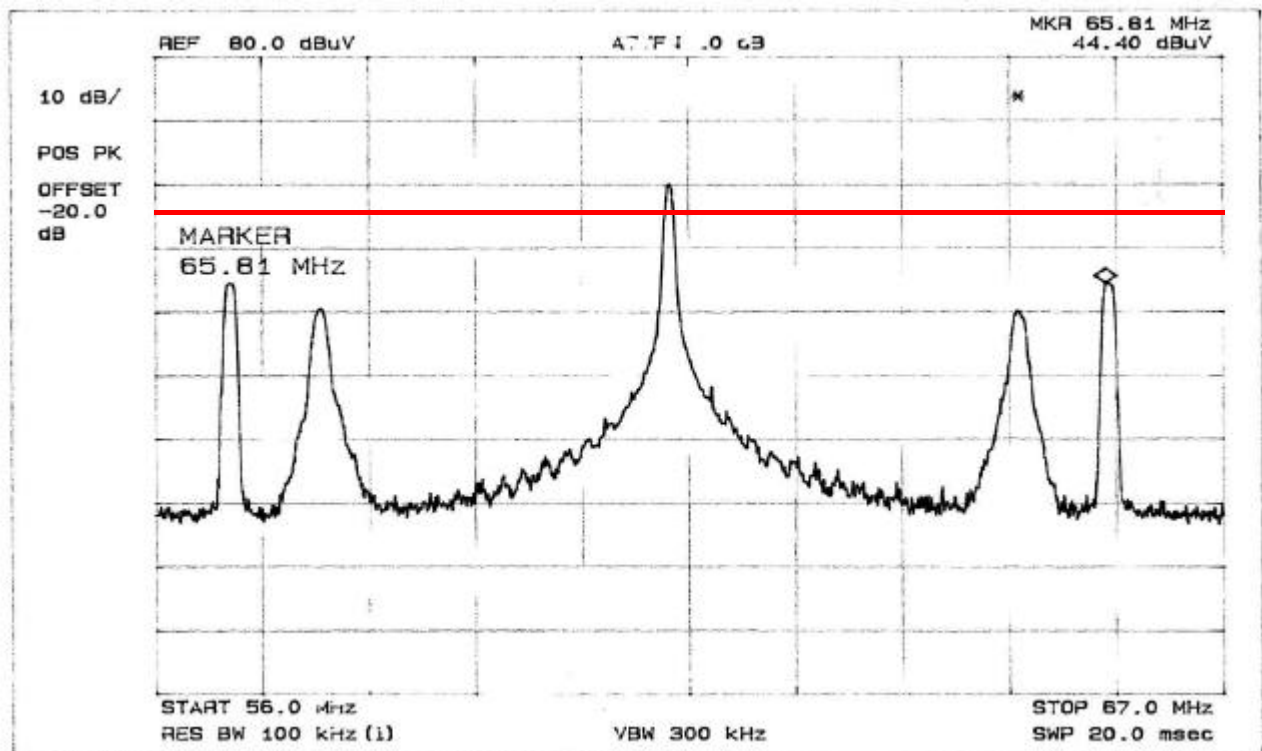
CH4 Record (Aud)

Output Signal Level Measurements

Tuner: SATMI-US4-S



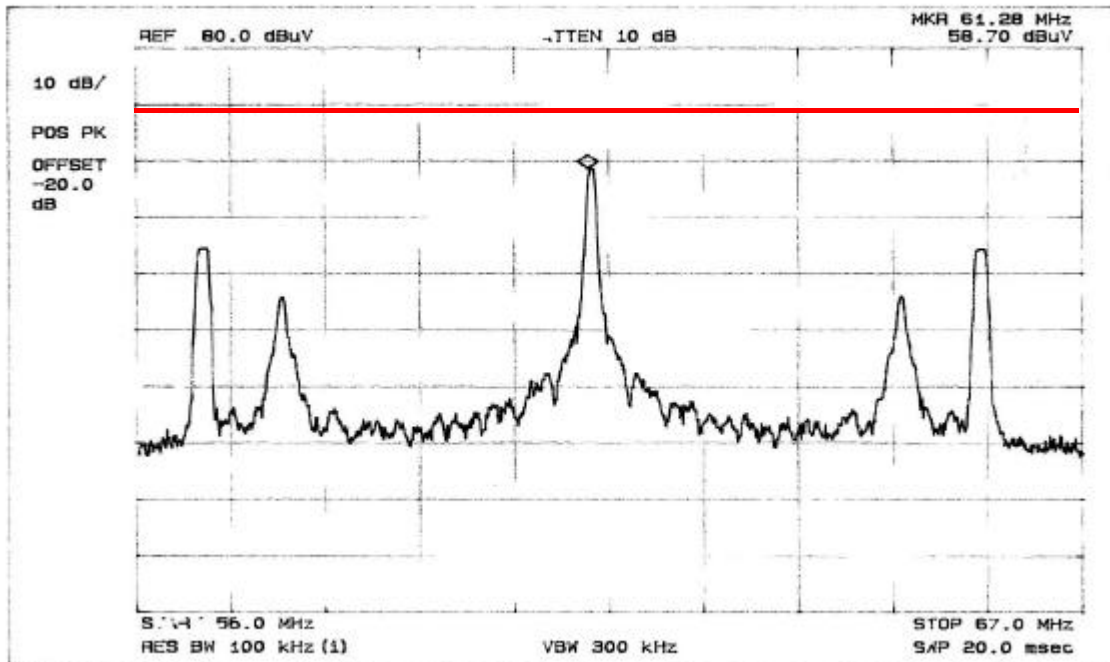
CH3 Playback (Pix)



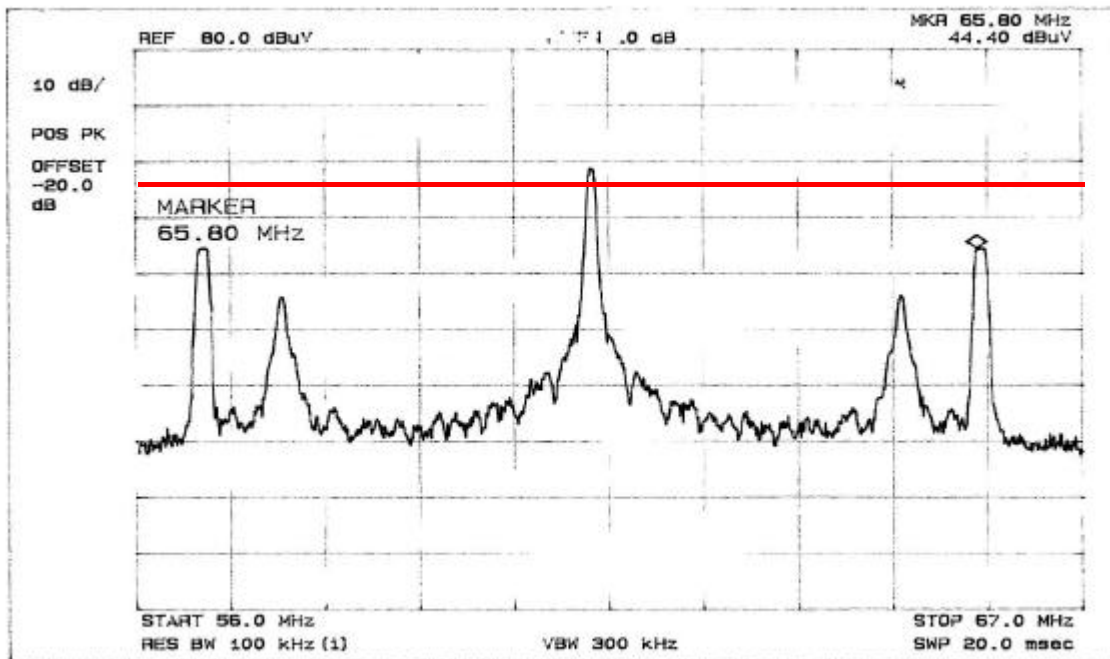
CH3 Playback (Aud)

Output Signal Level Measurements

Tuner: SATMI-US4-S



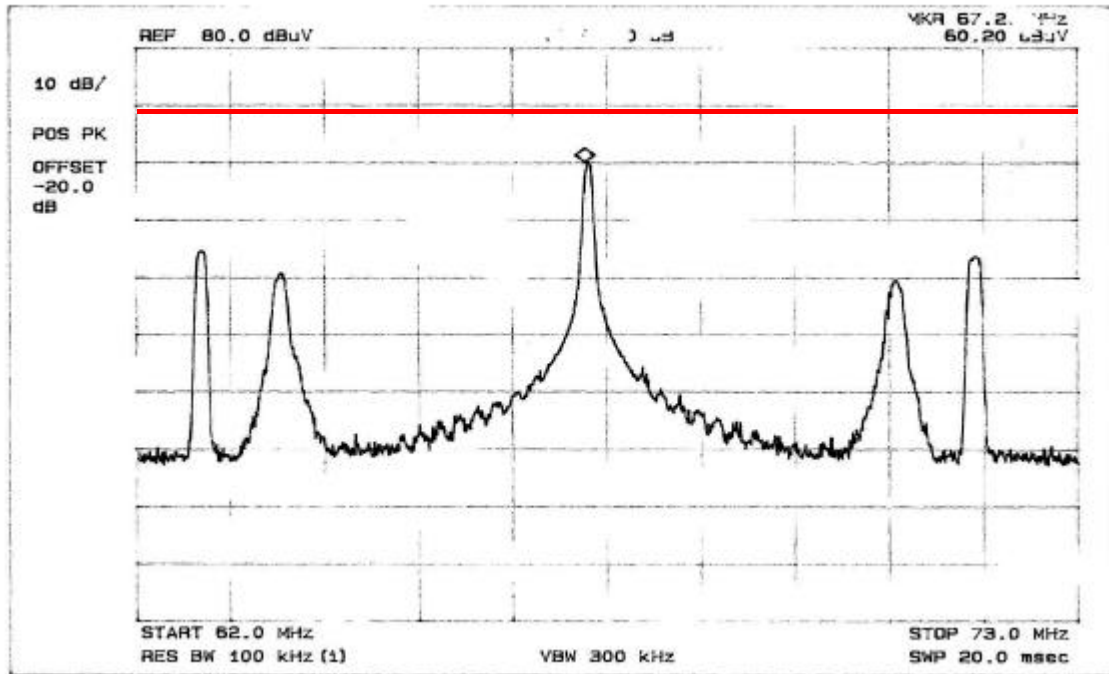
CH3 Record (Pix)



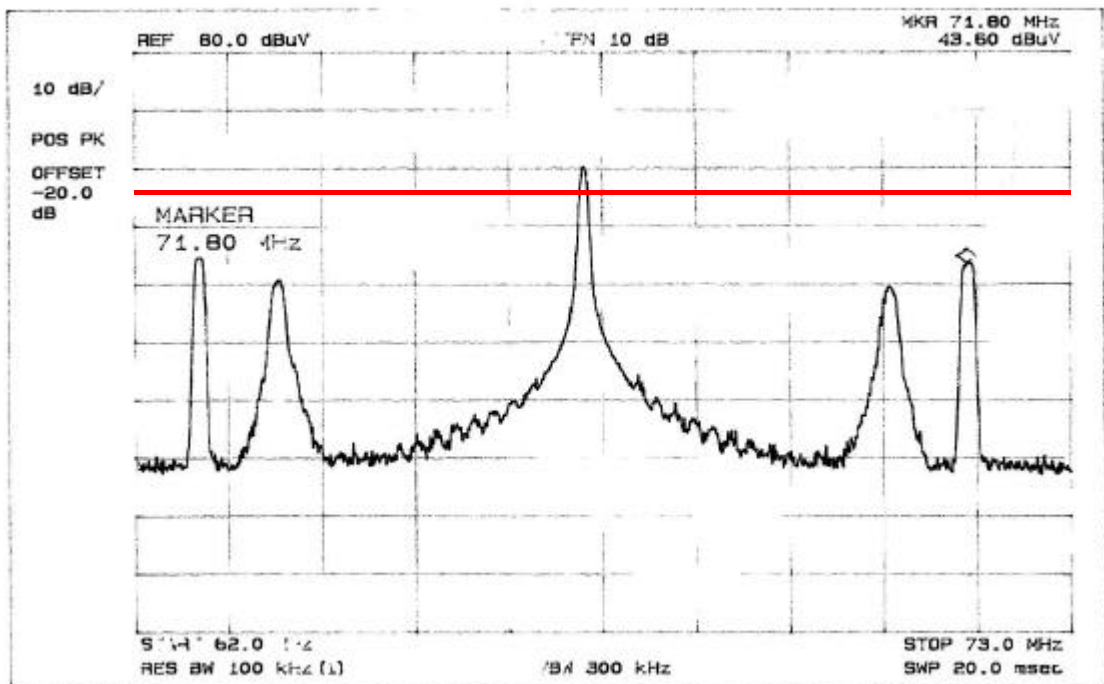
CH3 Record (Aud)

Output Signal Level Measurements

Tuner: SATMI-US4-S



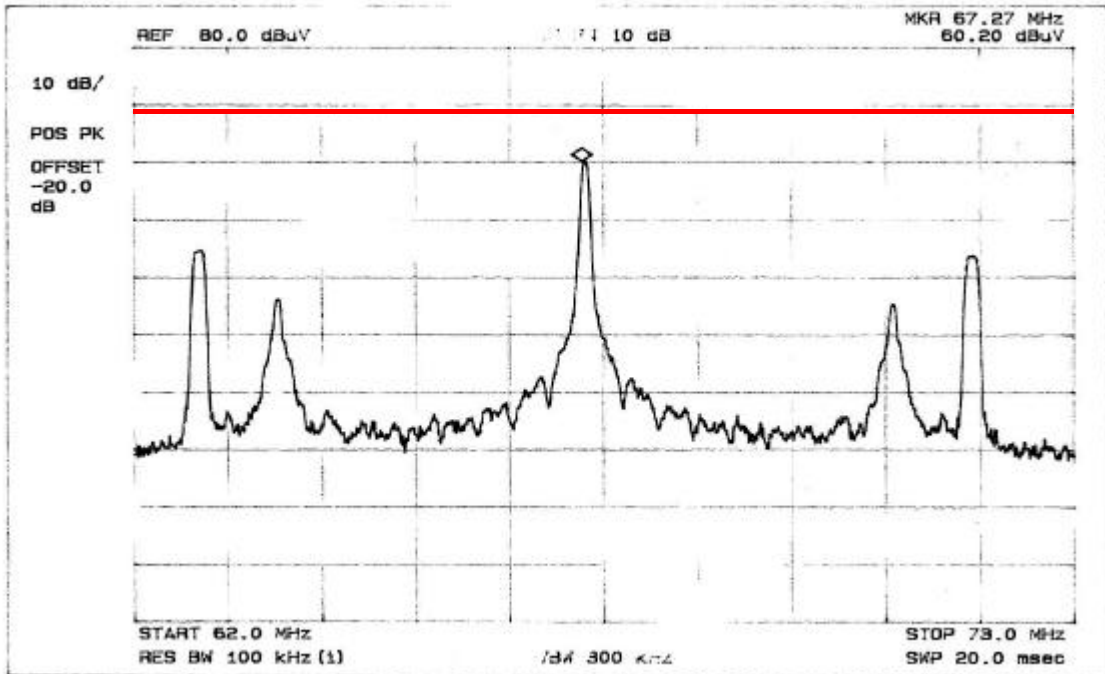
CH4 Playback (Pix)



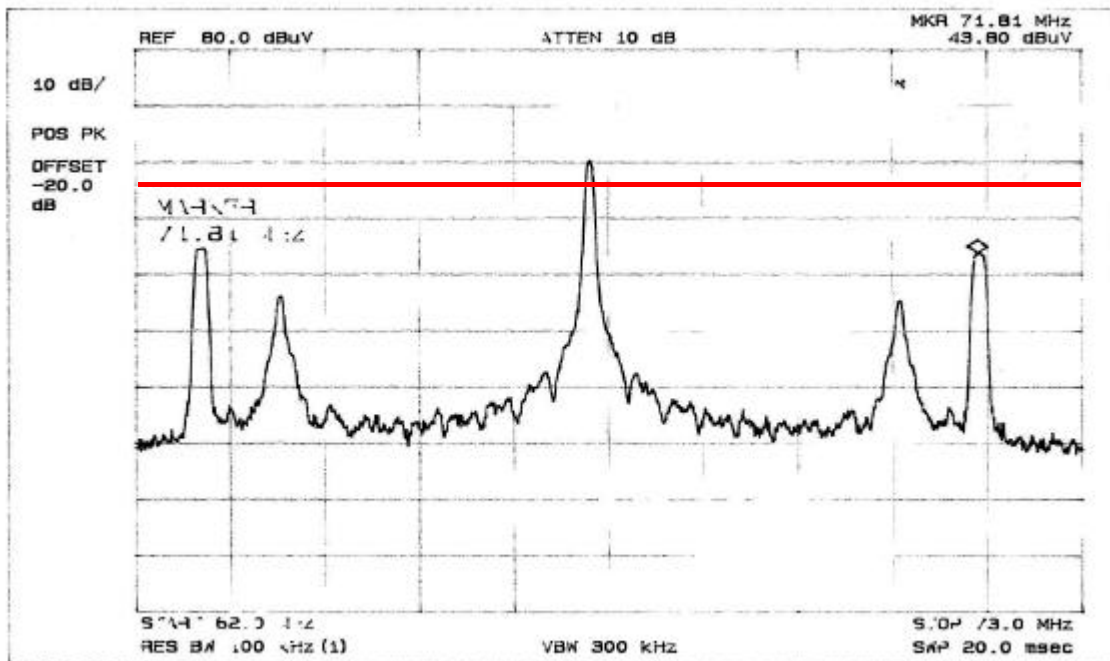
CH4 Playback (Aud)

Output Signal Level Measurements

Tuner: SATMI-US4-S



CH4 Record (Pix)



CH4 Record (Aud)

TEST CONDITIONS AND DATA
Output Terminal Conducted Spurious Emission

Test Equipment Used

| <u>Model Name</u> | <u>Manufacturer</u> | <u>Description</u> | <u>Next Cal. Date</u> |
|-------------------|---------------------|--------------------|-----------------------|
| 8566B | Hewlett Packard | Spectrum Analyzer | Jul. 13, 2002 |
| 85685A | Hewlett Packard | RF preselector | Jul. 13, 2002 |
| RAM | Rohde & Schwarz | Matching Pad | Sep. 21, 2002 |
| PM5515 | Philips | Pattern Generator | Jun. 20, 2002 |

External Peripherals

| <u>Device Description</u> | <u>Model Name</u> | <u>Manufacture</u> | <u>FCC Compliance Information</u> |
|---------------------------|-------------------|--------------------|-----------------------------------|
| TV Receiver | F19430 | Daewoo | Verification |

Test Program Playback and record mode

Test Area Compact Chamber

Note : Limit Calculation (Sec 15.115(b)(2)(ii))

$$10.95 \times 75^{1/2} \text{ uV} = 95\text{uV} = 39.55 \text{ dBuV}$$

$$\text{plus } 30\text{dB} = 69.55\text{dBuV} = -37.45\text{dBm}$$

Above plus 30dB means the test result(Plots) include the modulated video and audio signal. You can see there was no significant emission more than 39.55dBuV in following test plots except the modulated signals.

The test were performed with color bar as VITS. The VITS signals, 1V and 5V peak-to-peak, were used for channel 3 and channel 4 with alternate. The above test program were employed for each channel.

Find the test data in following page(s) 79 to 89.

Output Terminal Conducted Spurious Emission

| TV CH | Freq.(MHz) | Level(dBuV) | Limit(dBuV) | Mode | Margin(dB) |
|-------|------------|-------------|-------------|----------|------------|
| 3 | 61.00 | 58.2 | 69.55 | Playback | -11.35 |
| 3 | 61.00 | 58.3 | 69.55 | Record | -11.25 |
| 4 | 66.90 | 57.7 | 69.55 | Playback | -11.85 |
| 4 | 66.90 | 56.4 | 69.55 | Record | -13.15 |

Spurious Emission Tabulated Data with Tuner
(LG Innotek Co., Ltd. Model: **LGTMI-US2-S**)

| TV CH | Freq.(MHz) | Level(dBuV) | Limit(dBuV) | Mode | Margin(dB) |
|-------|------------|-------------|-------------|----------|------------|
| 3 | 61.00 | 52.7 | 69.55 | Playback | -16.85 |
| 3 | 61.00 | 53.1 | 69.55 | Record | -16.45 |
| 4 | 66.90 | 41.4 | 69.55 | Playback | -28.15 |
| 4 | 66.90 | 41.2 | 69.55 | Record | -28.35 |

Spurious Emission Tabulated Data with Tuner
(Korea Alps Model: **ALTM1-US3-S**)

| TV CH | Freq.(MHz) | Level(dBuV) | Limit(dBuV) | Mode | Margin(dB) |
|-------|------------|-------------|-------------|----------|------------|
| 3 | 61.00 | 54.4 | 69.55 | Playback | -15.15 |
| 3 | 61.00 | 54.9 | 69.55 | Record | -14.65 |
| 4 | 66.90 | 43.1 | 69.55 | Playback | -26.45 |
| 4 | 66.90 | 43.1 | 69.55 | Record | -26.45 |

Spurious Emission Tabulated Data with Tuner
(LG Innotek Co., Ltd. Model: **LGTMI-US4-S**)

| TV CH | Freq.(MHz) | Level(dBuV) | Limit(dBuV) | Mode | Margin(dB) |
|-------|------------|-------------|-------------|----------|------------|
| 3 | 61.00 | 56.7 | 69.55 | Playback | -12.85 |
| 3 | 61.00 | 55.9 | 69.55 | Record | -13.65 |
| 4 | 66.90 | 42.3 | 69.55 | Playback | -27.25 |
| 4 | 66.90 | 42.4 | 69.55 | Record | -27.15 |

Spurious Emission Tabulated Data with Tuner
(Samsung Electronic Co., Ltd. Model: **SSTMI-US3-S**)

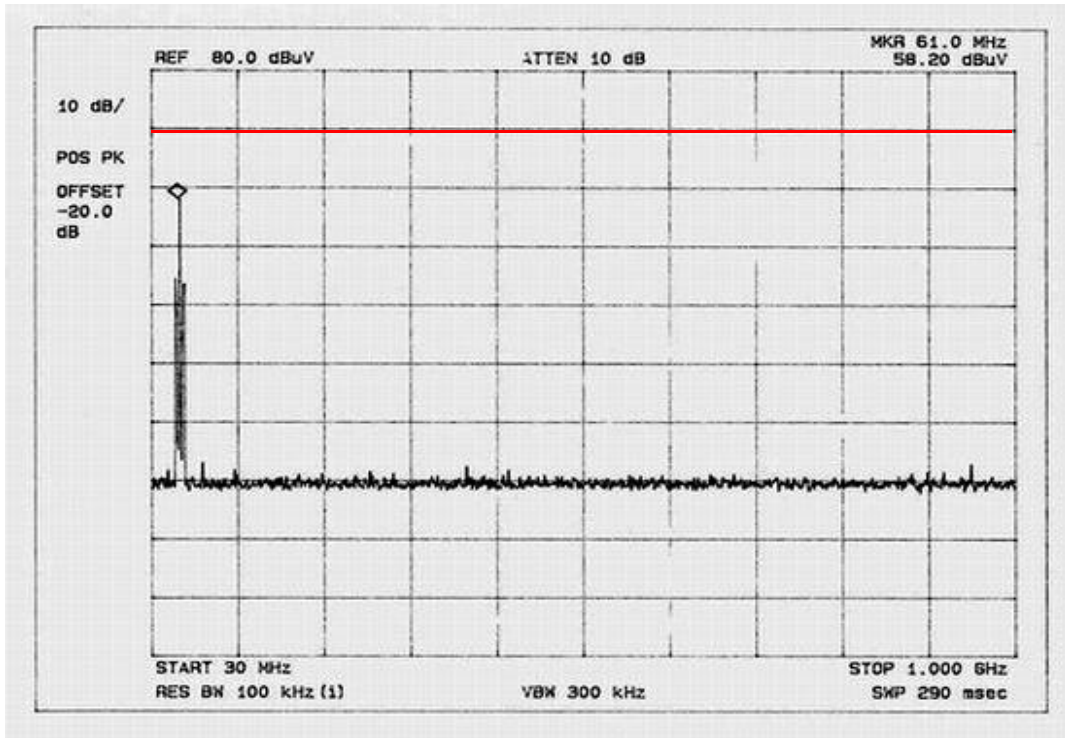
Output Terminal Conducted Spurious Emission

| TV CH | Freq.(MHz) | Level(dBuV) | Limit(dBuV) | Mode | Margin(dB) |
|-------|------------|-------------|-------------|----------|------------|
| 3 | 61.00 | 57.1 | 69.55 | Playback | -12.45 |
| 3 | 61.00 | 57.2 | 69.55 | Record | -12.35 |
| 4 | 66.90 | 56.8 | 69.55 | Playback | -12.75 |
| 4 | 66.90 | 57.0 | 69.55 | Record | -12.55 |

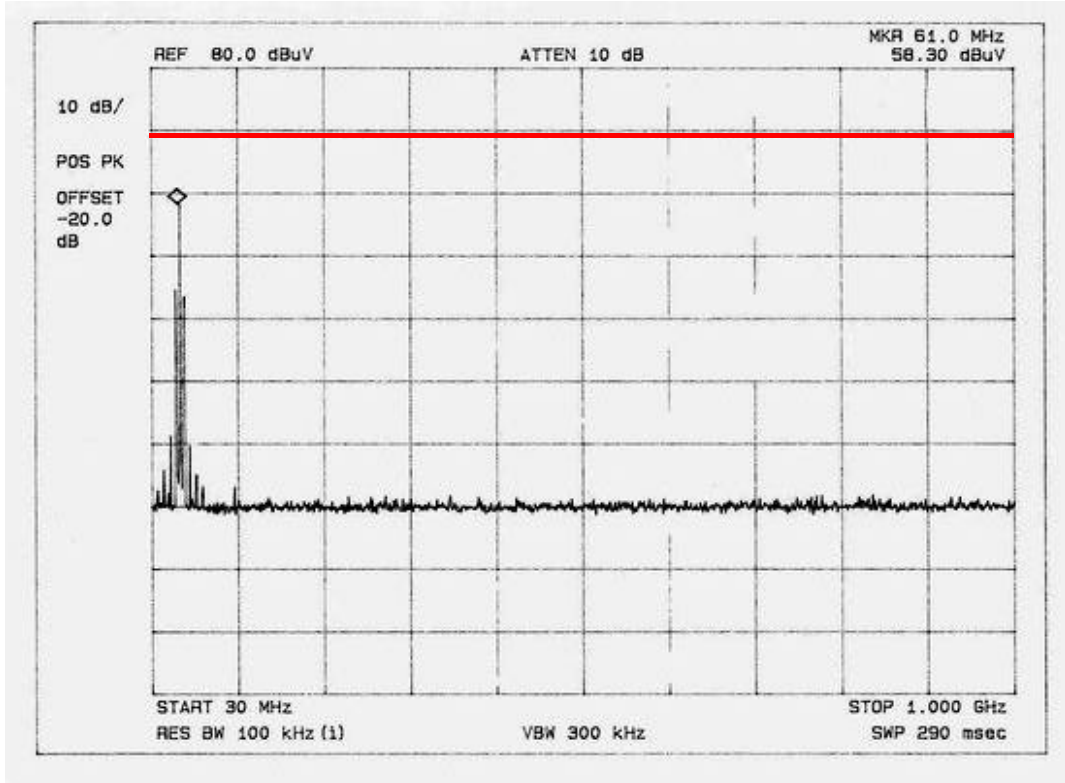
Spurious Emission Tabulated Data with Tuner
(Sanyo Electronic Co., Ltd. Model: **SATMI-US4-S**)

Output Terminal Conducted Spurious Emission

Tuner: LGTMI-US2-S



CH3 Playback



CH3 Record