

# Video signal switcher for AV amplifiers

## BA7625

The BA7625 is a video signal switch that contains two five-channel analog multiplexers and wide-band 6dB amplifiers. It is designed for use in video cassette recorders. By simply adding transistor buffers to the outputs, it is possible to construct a record / playback switch for two record / playback VCRs, and three video playback machines (eg. laser disk players). Input switching and VCR record switching can be done independently. The BA7625 has sync-tip clamp inputs which are ideal for switching video signals.

### ● Applications

AV amplifiers and video selectors

### ● Features

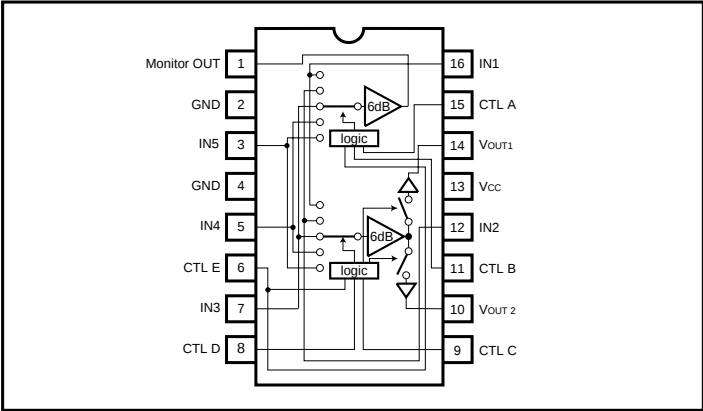
- 1) 5-input / 3-output switches.
- 2) Sync-tip clamp inputs.
- 3) Built-in 6dB amplifiers.
- 4) 5V supply voltage.

### ● Absolute maximum ratings (Ta = 25°C)

| Parameter             | Symbol           | Limits       | Unit |
|-----------------------|------------------|--------------|------|
| Power supply voltage  | V <sub>CC</sub>  | 9            | V    |
| Power dissipation     | P <sub>d</sub>   | 500*         | mW   |
| Operating temperature | T <sub>opr</sub> | – 25 ~ + 70  | °C   |
| Storage temperature   | T <sub>stg</sub> | – 55 ~ + 125 | °C   |

\* Reduced by 5mW for each increase in Ta of 1°C over 25°C.

●Block diagram



●Truth table

| A | B | E | Monitor OUT |
|---|---|---|-------------|
| L | L | * | IN1         |
| H | L | * | IN2         |
| L | H | * | IN3         |
| H | H | L | IN4         |
| H | H | H | IN5         |

Note 1: \* indicates "don't care" (H or L).

| C | D | E | V <sub>OUT1</sub> |
|---|---|---|-------------------|
| L | L | * | —                 |
| H | L | * | IN2               |
| L | H | * | IN3               |
| H | H | L | IN4               |
| H | H | H | IN5               |

| C | D | E | V <sub>OUT2</sub> |
|---|---|---|-------------------|
| L | L | * | IN1               |
| H | L | * | —                 |
| L | H | * | IN3               |
| H | H | L | IN4               |
| H | H | H | IN5               |

## ●Equivalent input / output circuits

| Input circuit       | Waveform |
|---------------------|----------|
| <p>IN1 ~ IN5</p>    |          |
| <p>CTLA ~ CTLE</p>  |          |
| <p>Monitor OUT</p>  |          |
| <p>VOUT1, VOUT2</p> |          |

●Electrical characteristics (unless otherwise noted, Ta = 25°C and VCC = 5V)

| Parameter                | Symbol          | Min. | Typ. | Max. | Unit             | Conditions                                        |
|--------------------------|-----------------|------|------|------|------------------|---------------------------------------------------|
| Operating voltage        | V <sub>CC</sub> | 4.5  | 5.0  | 5.5  | V                | —                                                 |
| Supply current           | I <sub>CC</sub> | —    | 15.0 | 20.0 | mA               | —                                                 |
| Maximum output level     | V <sub>om</sub> | 2.6  | 2.9  | —    | V <sub>P-P</sub> | f = 1kHz, THD = 0.5%                              |
| Voltage gain             | G <sub>V</sub>  | 5.7  | 6.2  | 6.7  | dB               | f = MHz, V <sub>IN</sub> = 1V <sub>P-P</sub>      |
| Interchannel crosstalk   | C <sub>T</sub>  | —    | − 65 | − 45 | dB               | f = 4.43MHz, V <sub>IN</sub> = 1V <sub>P-P</sub>  |
| Mute level               | CTM             | —    | − 35 | − 25 | dB               | f = 4.43MHz, V <sub>IN</sub> = 1V <sub>P-P</sub>  |
| Frequency characteristic | G <sub>f</sub>  | − 3  | 0    | 3    | dB               | 10MHz / 1MHz, V <sub>IN</sub> = 1V <sub>P-P</sub> |
| CTL pin switch level     | V <sub>TH</sub> | 2.2  | —    | 3.3  | V                | —                                                 |

○Not designed for radiation resistance.

- Measurement circuit

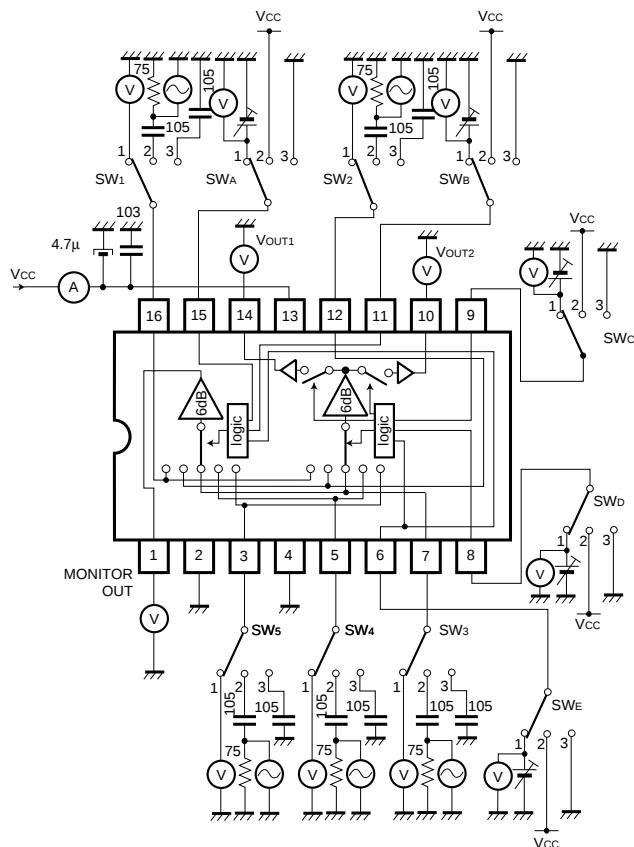


Fig.1

## ● Measurement conditions

| Parameter                              | Symbol                | Switch settings |                 |                 |                 |                 |                 |                 |                 |                 |                 | Measurement method |
|----------------------------------------|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--------------------|
|                                        |                       | SW <sub>1</sub> | SW <sub>2</sub> | SW <sub>3</sub> | SW <sub>4</sub> | SW <sub>5</sub> | SW <sub>A</sub> | SW <sub>B</sub> | SW <sub>C</sub> | SW <sub>D</sub> | SW <sub>E</sub> |                    |
| Current dissipation                    | I <sub>CC</sub>       | 3               | 3               | 3               | 3               | 3               | 2               | 2               | 2               | 2               | 2               | —                  |
| Monitor OUT maximum output level       | V <sub>om</sub> 1MON  | 2               | 3               | 3               | 3               | 3               | 3               | 3               | *               | *               | *               | Note 1             |
|                                        | V <sub>om</sub> 2MON  | 3               | 2               | ↓               | ↓               | ↓               | 2               | 3               | ↓               | ↓               | ↓               |                    |
|                                        | V <sub>om</sub> 3MON  | ↓               | 3               | 2               | ↓               | ↓               | 3               | 2               | ↓               | ↓               | ↓               |                    |
|                                        | V <sub>om</sub> 4MON  | ↓               | ↓               | 3               | 2               | ↓               | 2               | 2               | ↓               | ↓               | 3               |                    |
|                                        | V <sub>om</sub> 5MON  | ↓               | ↓               | ↓               | 3               | 2               | 2               | 2               | ↓               | ↓               | 2               |                    |
| Monitor OUT voltage gain               | G <sub>v</sub> 1MON   | 2               | 3               | 3               | 3               | 3               | 3               | 3               | *               | *               | *               | Note 2             |
|                                        | G <sub>v</sub> 2MON   | 3               | 2               | ↓               | ↓               | ↓               | 2               | 3               | ↓               | ↓               | ↓               |                    |
|                                        | G <sub>v</sub> 3MON   | ↓               | 3               | 2               | ↓               | ↓               | 3               | 2               | ↓               | ↓               | ↓               |                    |
|                                        | G <sub>v</sub> 4MON   | ↓               | ↓               | 3               | 2               | ↓               | 2               | 2               | ↓               | ↓               | 3               |                    |
|                                        | G <sub>v</sub> 5MON   | ↓               | ↓               | ↓               | 3               | 2               | 2               | 2               | ↓               | ↓               | 2               |                    |
| Monitor OUT interchannel crosstalk     | C <sub>T1</sub> -2MON | 2               | 3               | 3               | 3               | 3               | 2               | 3               | *               | *               | *               | Note 3             |
|                                        | C <sub>T1</sub> -3MON | ↓               | ↓               | ↓               | ↓               | ↓               | 3               | 2               | ↓               | ↓               | ↓               |                    |
|                                        | C <sub>T1</sub> -4MON | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 2               | ↓               | ↓               | 3               |                    |
|                                        | C <sub>T1</sub> -5MON | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 2               | ↓               | ↓               | 2               |                    |
|                                        | C <sub>T2</sub> -1MON | 3               | 2               | 3               | 3               | 3               | 3               | 3               | *               | *               | *               |                    |
|                                        | C <sub>T2</sub> -3MON | ↓               | ↓               | ↓               | ↓               | ↓               | 3               | 2               | ↓               | ↓               | ↓               |                    |
|                                        | C <sub>T2</sub> -4MON | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 2               | ↓               | ↓               | 3               |                    |
|                                        | C <sub>T2</sub> -5MON | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 2               | ↓               | ↓               | 2               |                    |
|                                        | C <sub>T3</sub> -1MON | 3               | 3               | 2               | 3               | 3               | 3               | 3               | *               | *               | *               |                    |
|                                        | C <sub>T3</sub> -2MON | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 3               | ↓               | ↓               | ↓               |                    |
|                                        | C <sub>T3</sub> -4MON | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 2               | ↓               | ↓               | 3               |                    |
|                                        | C <sub>T3</sub> -5MON | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 2               | ↓               | ↓               | 2               |                    |
|                                        | C <sub>T4</sub> -1MON | 3               | 3               | 3               | 2               | 3               | 3               | 3               | *               | *               | *               |                    |
|                                        | C <sub>T4</sub> -2MON | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 3               | ↓               | ↓               | ↓               |                    |
|                                        | C <sub>T4</sub> -3MON | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 2               | ↓               | ↓               | 3               |                    |
|                                        | C <sub>T4</sub> -5MON | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 2               | ↓               | ↓               | 3               |                    |
|                                        | C <sub>T5</sub> -1MON | 3               | 3               | 3               | 3               | 2               | 3               | 3               | *               | *               | *               |                    |
|                                        | C <sub>T5</sub> -2MON | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 3               | ↓               | ↓               | ↓               |                    |
|                                        | C <sub>T5</sub> -3MON | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 2               | ↓               | ↓               | ↓               |                    |
|                                        | C <sub>T5</sub> -4MON | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 2               | ↓               | ↓               | 2               |                    |
| Monitor OUT frequency characteristic   | G <sub>f</sub> 1MON   | 2               | 3               | 3               | 3               | 3               | 3               | 3               | *               | *               | *               | Note 4             |
|                                        | G <sub>f</sub> 2MON   | 3               | 2               | ↓               | ↓               | ↓               | 2               | 3               | ↓               | ↓               | ↓               |                    |
|                                        | G <sub>f</sub> 3MON   | ↓               | 3               | 2               | ↓               | ↓               | 3               | 2               | ↓               | ↓               | ↓               |                    |
|                                        | G <sub>f</sub> 4MON   | ↓               | ↓               | 3               | 2               | ↓               | 2               | 2               | ↓               | ↓               | 3               |                    |
|                                        | G <sub>f</sub> 5MON   | ↓               | ↓               | ↓               | 3               | 2               | 2               | 2               | ↓               | ↓               | 2               |                    |
| V <sub>OUT1</sub> maximum output level | V <sub>om</sub> 2OUT1 | 3               | 2               | 3               | 3               | 3               | *               | *               | 2               | 3               | *               | Note 1             |
|                                        | V <sub>om</sub> 3OUT1 | ↓               | 3               | 2               | ↓               | ↓               | ↓               | ↓               | 3               | 2               | ↓               |                    |
|                                        | V <sub>om</sub> 4OUT1 | ↓               | ↓               | 3               | 2               | 3               | ↓               | ↓               | 2               | 2               | 3               |                    |
|                                        | V <sub>om</sub> 5OUT1 | ↓               | ↓               | ↓               | 3               | 2               | ↓               | ↓               | 2               | 2               | 2               |                    |

| Parameter                                 | Symbol                 | Switch settings |                 |                 |                 |                 |                 |                 |                 |                 |                 | Measure-<br>ment<br>method |
|-------------------------------------------|------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------------------|
|                                           |                        | SW <sub>1</sub> | SW <sub>2</sub> | SW <sub>3</sub> | SW <sub>4</sub> | SW <sub>5</sub> | SW <sub>A</sub> | SW <sub>B</sub> | SW <sub>C</sub> | SW <sub>D</sub> | SW <sub>E</sub> |                            |
| $V_{OUT1}$<br>voltage gain                | G <sub>V</sub> 2OUT1   | 3               | 2               | 3               | 3               | 3               | *               | *               | 2               | 3               | *               | Note 2                     |
|                                           | G <sub>V</sub> 3OUT1   | ↓               | 3               | 2               | ↓               | ↓               | ↓               | ↓               | 3               | 2               | ↓               |                            |
|                                           | G <sub>V</sub> 4OUT1   | ↓               | ↓               | 3               | 2               | 3               | ↓               | ↓               | 2               | 2               | 3               |                            |
|                                           | G <sub>V</sub> 5OUT1   | ↓               | ↓               | ↓               | 3               | 2               | ↓               | ↓               | 2               | 2               | 2               |                            |
| $V_{OUT1}$<br>interchannel<br>crosstalk   | C <sub>T1</sub> -2OUT1 | 2               | 3               | 3               | 3               | 3               | *               | *               | 3               | 3               | *               | Note 3                     |
|                                           | C <sub>T1</sub> -3OUT1 | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 3               | 2               | ↓               |                            |
|                                           | C <sub>T1</sub> -4OUT1 | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 2               | 3               |                            |
|                                           | C <sub>T1</sub> -5OUT1 | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 2               | 2               |                            |
|                                           | C <sub>T2</sub> -1OUT1 | 3               | 2               | 3               | 3               | 3               | *               | *               | 3               | 3               | *               |                            |
|                                           | C <sub>T2</sub> -3OUT1 | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 3               | 2               | ↓               |                            |
|                                           | C <sub>T2</sub> -4OUT1 | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 2               | 3               |                            |
|                                           | C <sub>T2</sub> -5OUT1 | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 2               | 2               |                            |
|                                           | C <sub>T3</sub> -1OUT1 | 3               | 3               | 2               | 3               | 3               | *               | *               | 3               | 3               | *               |                            |
|                                           | C <sub>T3</sub> -2OUT1 | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 3               | ↓               |                            |
|                                           | C <sub>T3</sub> -4OUT1 | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 2               | 3               |                            |
|                                           | C <sub>T3</sub> -5OUT1 | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 2               | 2               |                            |
|                                           | C <sub>T4</sub> -1OUT1 | 3               | 3               | 3               | 2               | 3               | *               | *               | 3               | 3               | *               |                            |
|                                           | C <sub>T4</sub> -2OUT1 | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 3               | 3               | ↓               |                            |
|                                           | C <sub>T4</sub> -3OUT1 | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 3               | 2               | ↓               |                            |
|                                           | C <sub>T4</sub> -5OUT1 | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 2               | 2               |                            |
|                                           | C <sub>T5</sub> -1OUT1 | 3               | 3               | 3               | 3               | 2               | *               | *               | 3               | 3               | *               |                            |
|                                           | C <sub>T5</sub> -2OUT1 | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 3               | ↓               |                            |
|                                           | C <sub>T5</sub> -3OUT1 | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 3               | 2               | ↓               |                            |
|                                           | C <sub>T5</sub> -4OUT1 | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 2               | 3               |                            |
| $V_{OUT1}$<br>frequency<br>characteristic | G <sub>f</sub> 2OUT1   | 3               | 2               | 3               | 3               | 3               | *               | *               | 2               | 3               | *               | Note 4                     |
|                                           | G <sub>f</sub> 3OUT1   | ↓               | 3               | 2               | ↓               | ↓               | ↓               | ↓               | 3               | 2               | ↓               |                            |
|                                           | G <sub>f</sub> 4OUT1   | ↓               | ↓               | 3               | 2               | ↓               | ↓               | ↓               | 2               | 2               | 3               |                            |
|                                           | G <sub>f</sub> 5OUT1   | ↓               | ↓               | ↓               | 3               | 2               | ↓               | ↓               | 2               | 2               | 2               |                            |
| $V_{OUT2}$<br>maximum<br>output level     | V <sub>om</sub> 1OUT2  | 2               | 3               | 3               | 3               | 3               | *               | *               | 3               | 3               | *               | Note 1                     |
|                                           | V <sub>om</sub> 3OUT2  | 3               | 2               | ↓               | ↓               | ↓               | ↓               | ↓               | 3               | 2               | ↓               |                            |
|                                           | V <sub>om</sub> 4OUT2  | ↓               | 3               | ↓               | 2               | ↓               | ↓               | ↓               | 2               | 2               | 3               |                            |
|                                           | V <sub>om</sub> 5OUT2  | ↓               | ↓               | ↓               | 3               | 2               | ↓               | ↓               | 2               | 2               | 2               |                            |
| $V_{OUT2}$<br>voltage gain                | G <sub>V</sub> 1OUT2   | 2               | 3               | 3               | 3               | 3               | *               | *               | 3               | 3               | *               | Note 2                     |
|                                           | G <sub>V</sub> 3OUT2   | 3               | 2               | ↓               | ↓               | ↓               | ↓               | ↓               | 3               | 2               | ↓               |                            |
|                                           | G <sub>V</sub> 4OUT2   | ↓               | 3               | ↓               | 2               | ↓               | ↓               | ↓               | 2               | 2               | 3               |                            |
|                                           | G <sub>V</sub> 5OUT2   | ↓               | ↓               | ↓               | 3               | 2               | ↓               | ↓               | 2               | 2               | 2               |                            |

| Parameter                                  | Symbol                 | Switch settings |                 |                 |                 |                 |                 |                 |                 |                 |                 | Measurement method |
|--------------------------------------------|------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--------------------|
|                                            |                        | SW <sub>1</sub> | SW <sub>2</sub> | SW <sub>3</sub> | SW <sub>4</sub> | SW <sub>5</sub> | SW <sub>A</sub> | SW <sub>B</sub> | SW <sub>C</sub> | SW <sub>D</sub> | SW <sub>E</sub> |                    |
| V <sub>OUT2</sub> interchannel crosstalk   | C <sub>T1</sub> -2OUT2 | 2               | 3               | 3               | 3               | 3               | *               | *               | 2               | 3               | *               | Note 3             |
|                                            | C <sub>T1</sub> -3OUT2 | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 3               | 2               | ↓               |                    |
|                                            | C <sub>T1</sub> -4OUT2 | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 2               | 3               |                    |
|                                            | C <sub>T1</sub> -5OUT2 | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 2               | 2               |                    |
|                                            | C <sub>T2</sub> -1OUT2 | 3               | 2               | 3               | 3               | 3               | *               | *               | 3               | 3               | *               |                    |
|                                            | C <sub>T2</sub> -3OUT2 | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 3               | 2               | ↓               |                    |
|                                            | C <sub>T2</sub> -4OUT2 | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 2               | 3               |                    |
|                                            | C <sub>T2</sub> -5OUT2 | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 2               | 2               |                    |
|                                            | C <sub>T3</sub> -1OUT2 | 3               | 3               | 2               | 3               | 3               | *               | *               | 3               | 3               | *               |                    |
|                                            | C <sub>T3</sub> -2OUT2 | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 3               | ↓               |                    |
|                                            | C <sub>T3</sub> -4OUT2 | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 2               | 3               |                    |
|                                            | C <sub>T3</sub> -5OUT2 | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 2               | 2               |                    |
|                                            | C <sub>T4</sub> -1OUT2 | 3               | 3               | 3               | 2               | 3               | *               | *               | 3               | 3               | *               |                    |
|                                            | C <sub>T4</sub> -2OUT2 | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 3               | ↓               |                    |
|                                            | C <sub>T4</sub> -3OUT2 | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 3               | 2               | ↓               |                    |
|                                            | C <sub>T4</sub> -5OUT2 | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 2               | 2               |                    |
|                                            | C <sub>T5</sub> -1OUT2 | 3               | 3               | 3               | 3               | 2               | *               | *               | 3               | 3               | *               |                    |
|                                            | C <sub>T5</sub> -2OUT2 | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 3               | ↓               |                    |
|                                            | C <sub>T5</sub> -3OUT2 | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 3               | 2               | ↓               |                    |
|                                            | C <sub>T5</sub> -4OUT2 | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | 2               | 3               |                    |
| V <sub>OUT2</sub> frequency characteristic | G <sub>f</sub> 1OUT1   | 2               | 3               | 3               | 3               | 3               | *               | *               | 3               | 3               | *               | Note 4             |
|                                            | G <sub>f</sub> 3OUT1   | 3               | 3               | 2               | ↓               | ↓               | ↓               | ↓               | 3               | 2               | ↓               |                    |
|                                            | G <sub>f</sub> 4OUT1   | ↓               | ↓               | 3               | 2               | ↓               | ↓               | ↓               | 2               | 2               | 3               |                    |
|                                            | G <sub>f</sub> 5OUT1   | ↓               | ↓               | ↓               | 3               | 2               | ↓               | ↓               | 2               | 2               | 2               |                    |
| Mute level                                 | CTM V <sub>OUT1</sub>  | 2               | 3               | 3               | 3               | 3               | *               | *               | 3               | 3               | *               | Note 5             |
|                                            | CTM V <sub>OUT2</sub>  | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | ↓               | 2               | ↓               | ↓               |                    |
| CTL switching level                        | V <sub>TH</sub> A      | 2               | 3               | 3               | 3               | 3               | 1               | 3               | *               | *               | *               | Note 6             |
|                                            | V <sub>TH</sub> B      | 3               | ↓               | 2               | ↓               | ↓               | 3               | 1               | ↓               | ↓               | ↓               |                    |
|                                            | V <sub>TH</sub> C      | 2               | ↓               | 3               | ↓               | ↓               | *               | *               | 1               | 3               | ↓               |                    |
|                                            | V <sub>TH</sub> D      | 3               | ↓               | 2               | ↓               | ↓               | ↓               | ↓               | 3               | 1               | ↓               |                    |
|                                            | V <sub>TH</sub> E      | ↓               | ↓               | 3               | 2               | ↓               | 2               | 2               | *               | *               | 1               |                    |

Note 1: Connect a distortion meter to the output, and input a  $f = 1\text{kHz}$  sine wave. Adjust the input level until the output distortion is 0.5%.

This output voltage at this time is the maximum output level  $V_{om}$  (V<sub>P-P</sub>).

Note 2: Input a 1V<sub>P-P</sub>, 1MHz sine wave. The voltage gain (in dB) is given by  $G_v = 20 \log (V_{OUT} / V_{IN})$ .

Note 3: Input a 1V<sub>P-P</sub>, 4.43MHz sine wave. The interchannel crosstalk (in dB) is given by  $CT = 20 \log (V_{OUT} / V_{IN}) + 6$ .

Note 4: Input 1V<sub>P-P</sub>, 1MHz and 10MHz sine waves. The frequency characteristic (in dB) is given by  $G_f = 20 \log (V_{OUT} (f = 10\text{MHz}) / V_{OUT} (f = 1\text{MHz}))$ .

Note 5: Input a 1V<sub>P-P</sub>, 4.43MHz sine wave. The mute level is given by  $CTM = 20 \log (V_{OUT} / V_{IN}) + 6$  (dB).

Note 6: Input a 1V<sub>P-P</sub>, 1MHz sine wave. Reduce the CTL pin voltage from V<sub>CC</sub>.

The CTL pin switching level (V<sub>TH</sub>) is the CTL pin voltage at which the V<sub>OUT</sub> level drops below 10mV<sub>P-P</sub>.

## ●Application example

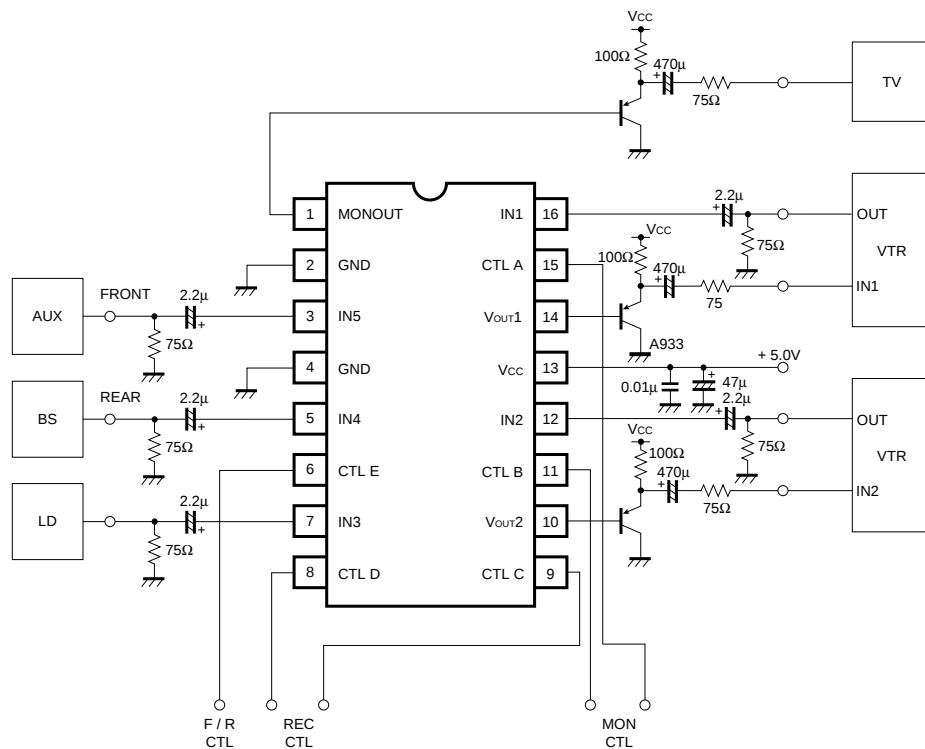


Fig.2

## ●External dimensions (Units: mm)

