

# AN5371NS, AN5379NS

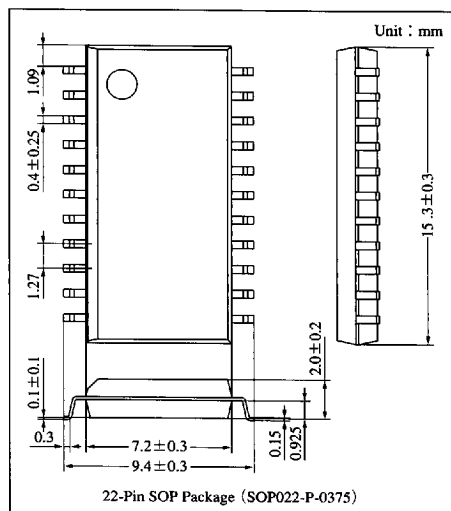
## RGB Signal Output IC for LCD TV

### Overview

The AN5371NS and the AN5379NS are RGB signal output ICs for LCD TV. They can also output texts to be displayed. They can be directly connected to a signal processor IC of AN5372S. The AN5371NS is normal black, and the AN5379NS is normal white. Select one of them according to the LCD-type of a TV.

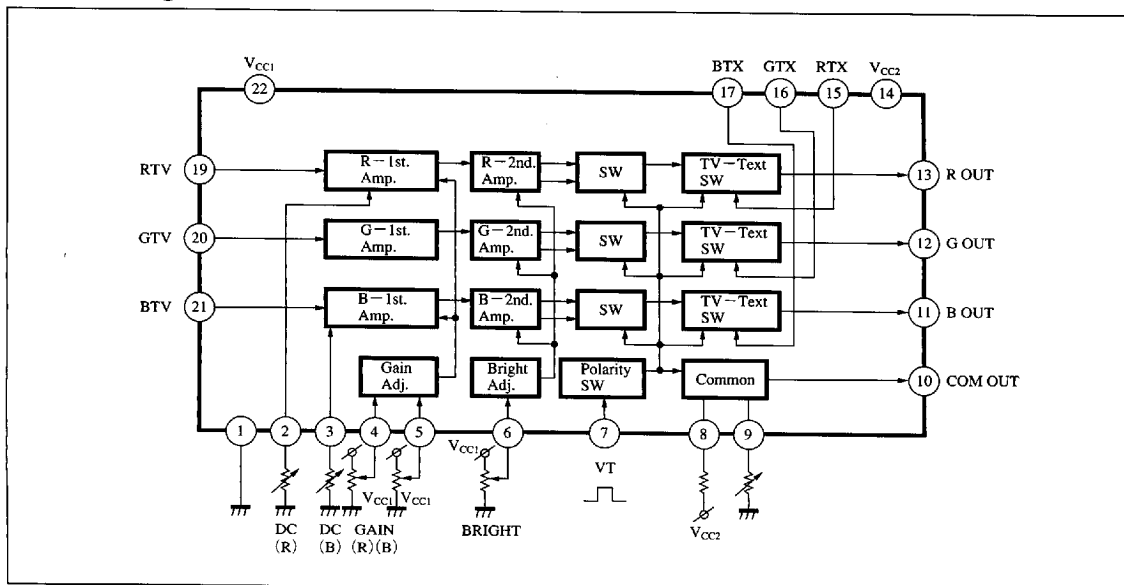
### Features

- Low operating voltage :  $V_{CC1}=5V$ , and  $V_{CC2}=10V$  typ.
- Including a brightness control circuit
- Gain and DC adjustment available for R and B signals (G signal is the reference)
- Responding to text input (RGB)
- Common-voltage output



ICs for  
TV

### Block Diagram



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Pin Descriptions

| Pin No. | Pin name                        | Pin No. | Pin name                       |
|---------|---------------------------------|---------|--------------------------------|
| 1       | GND                             | 12      | G output                       |
| 2       | R adjustment                    | 13      | R output                       |
| 3       | B adjustment                    | 14      | Power supply ( $V_{CC2}=10V$ ) |
| 4       | R voltage gain adj.             | 15      | $R_{TX}$ input                 |
| 5       | B voltage gain adj.             | 16      | $G_{TX}$ input                 |
| 6       | Brightness adjustment           | 17      | $B_{TX}$ input                 |
| 7       | Polarity switching              | 18      | NC                             |
| 8       | Common voltage high level input | 19      | R input                        |
| 9       | Common voltage low level input  | 20      | G input                        |
| 10      | Common voltage output           | 21      | B input                        |
| 11      | B output                        | 22      | Power supply ( $V_{CC1}=5V$ )  |

Absolute Maximum Ratings

| Parameter                                      | Symbol    | Rating        | Unit |
|------------------------------------------------|-----------|---------------|------|
| Supply voltage                                 | $V_{CC}$  | $V_{22}=5.5$  | V    |
|                                                |           | $V_{14}=11.0$ |      |
| Supply current                                 | $I_{CC}$  | $I_{22}=5$    | mA   |
|                                                |           | $I_{14}=20$   |      |
| Power dissipation                              | $P_D$     | 247.5 *       | mW   |
| Operating ambient temperature <sup>Note)</sup> | $T_{opr}$ | -20 to +70    | °C   |
| Storage temperature <sup>Note)</sup>           | $T_{stg}$ | -55 to +125   | °C   |

Note)  $T_a=25^{\circ}C$  except operating ambient temperature and storage temperature.

\* For AN5371NS, the value at  $P_D=5000mW$

Recommended Operating Range ( $T_a=25^{\circ}C$ )

| Parameter                      | Symbol   | Range                    |
|--------------------------------|----------|--------------------------|
| Operating supply voltage range | $V_{CC}$ | $V_{22}$ 4.55V to 5.45V  |
|                                |          | $V_{14}$ 9.1V to 10.9V * |

\* For AN5371NS, the value at  $V_{14}=9.5$  to 10.9V

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