

# AN8140S

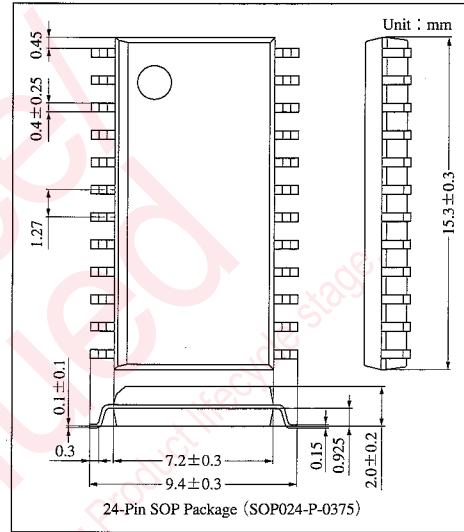
## 10-Bit D/A Converter IC

### Overview

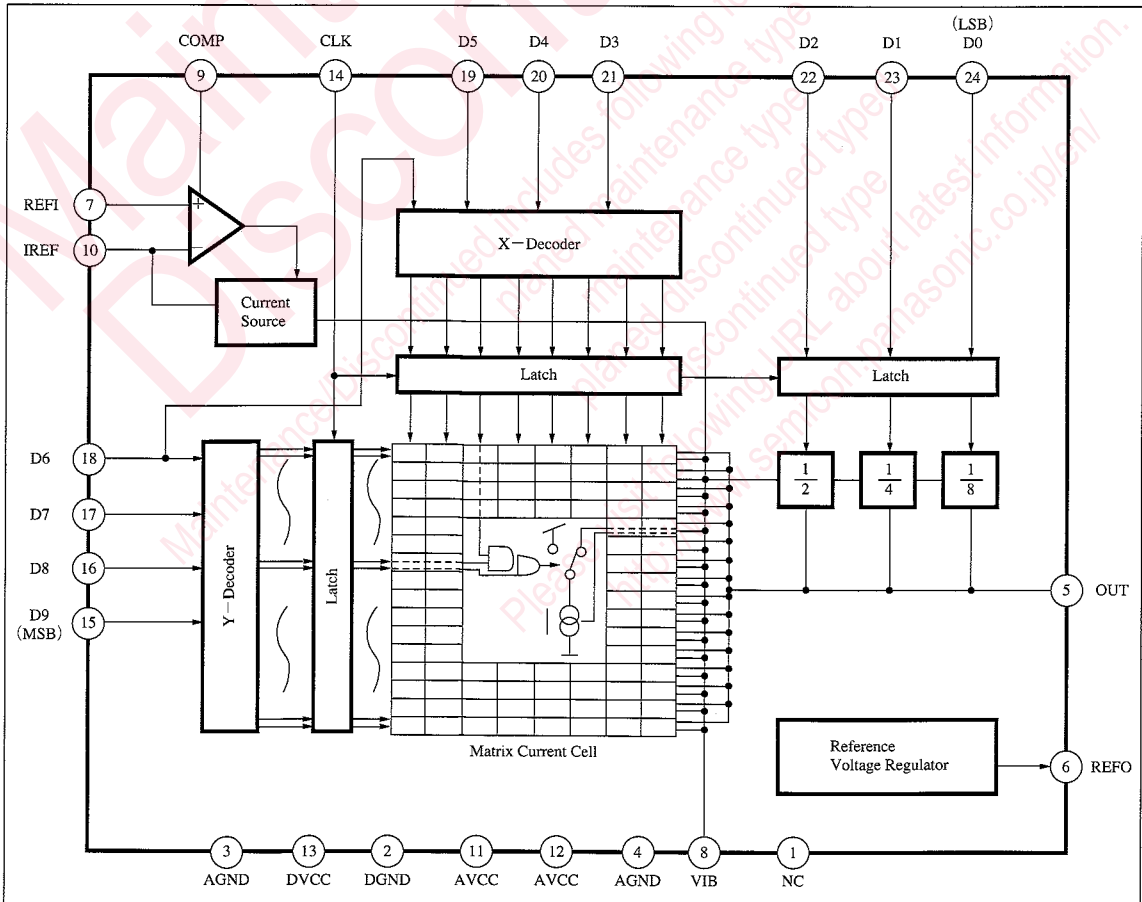
The AN8140S is a 10-bit D/A converter IC for TV image processing. It is a Bi-CMOS IC featuring low power consumption. It is suitable for high-definition TV and a monitor.

### Features

- High-speed conversion rate : 50MSPS
- Low power consumption : 150mW
- Input level : Compatible with TTL level
- Single power supply : 5V
- A built-in reference voltage source



### Block Diagram



## Pin Descriptions

Pin No.	Pin name	Pin No.	Pin name
1	NC	13	Digital power supply (DV <sub>CC</sub> )
2	Digital GND	14	Clock input
3	Analog GND	15	Digital input 1 bit (MSB)
4	Analog GND	16	Digital input 2 bit
5	Analog output	17	Digital input 3 bit
6	Reference voltage output	18	Digital input 4 bit
7	Reference voltage input	19	Digital input 5 bit
8	Stabilizing capacitor	20	Digital input 6 bit
9	Compensation capacitor	21	Digital input 7 bit
10	Reference resistor	22	Digital input 8 bit
11	Analog power supply (AV <sub>CC</sub> )	23	Digital input 9 bit
12	Analog power supply (AV <sub>CC</sub> )	24	Digital input 10 bit (LSB)

## Absolute Maximum Ratings

Parameter	Symbol	Rating	Unit
Supply voltage	V <sub>CC</sub>	-0.3 to +7.0	V
Supply current	I <sub>CC</sub>	100	mA
Power dissipation	P <sub>D</sub>	700	mW
Operating ambient temperature <sup>Note 1)</sup>	T <sub>opr</sub>	-20 to +70	°C
Storage temperature <sup>Note 1)</sup>	T <sub>stg</sub>	-55 to +125	°C

Note 1) Ta = 25°C except operating ambient temperature and storage temperature.

## Recommended Operating Range (Ta = 25°C)

Parameter	Symbol	Range
Operating supply voltage range	V <sub>CC</sub>	4.75V to 5.25V

ICs for  
TV

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