DATA SHEET

Part No.	AN15867A
Package Code No.	QFH064-P-1414H

Contents

AN15867A

Video SW for TV with Multi-signal 13 Inputs and 6 Outputs

■ Overview

AN15867A has video switch portion which consists of a six-channel output in a thirteen-channel input, Low-pass filter function and a 75 Ω-driver output function. It contributes to the rationalization design of a television system.

■ Features

- 75 Ω-driver output for YCV (Output 3)
- Output 1 & Output 2 can be switched between LPF (6.75 MHz or 13.5 MHz) & through
- Output 3 can be switched between LPF (6.75 MHz) & through
- Output can be switched among 0 dB, 6 dB or mute
- Various input mode can be selected by using flexible internal switch
- Comparators for S-Pin detection × 3
- Comparators for D-Pin detection × 2
- High frequency (0 dB at 30 MHz)
- Support the I^2C BUS

■ Applications

- For color TV

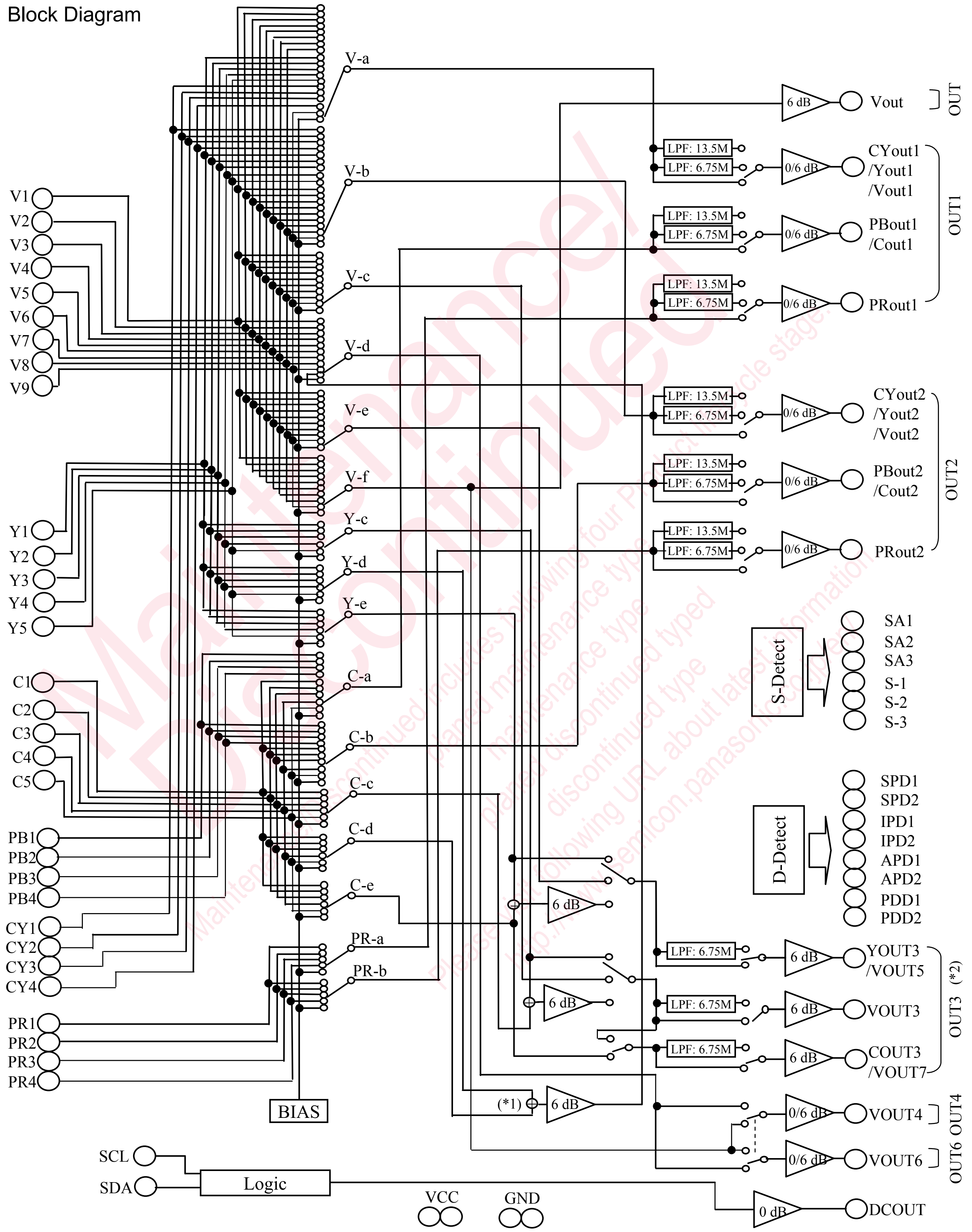
■ Package

- Quad 64-pin plastic package (QFH type)

■ Type

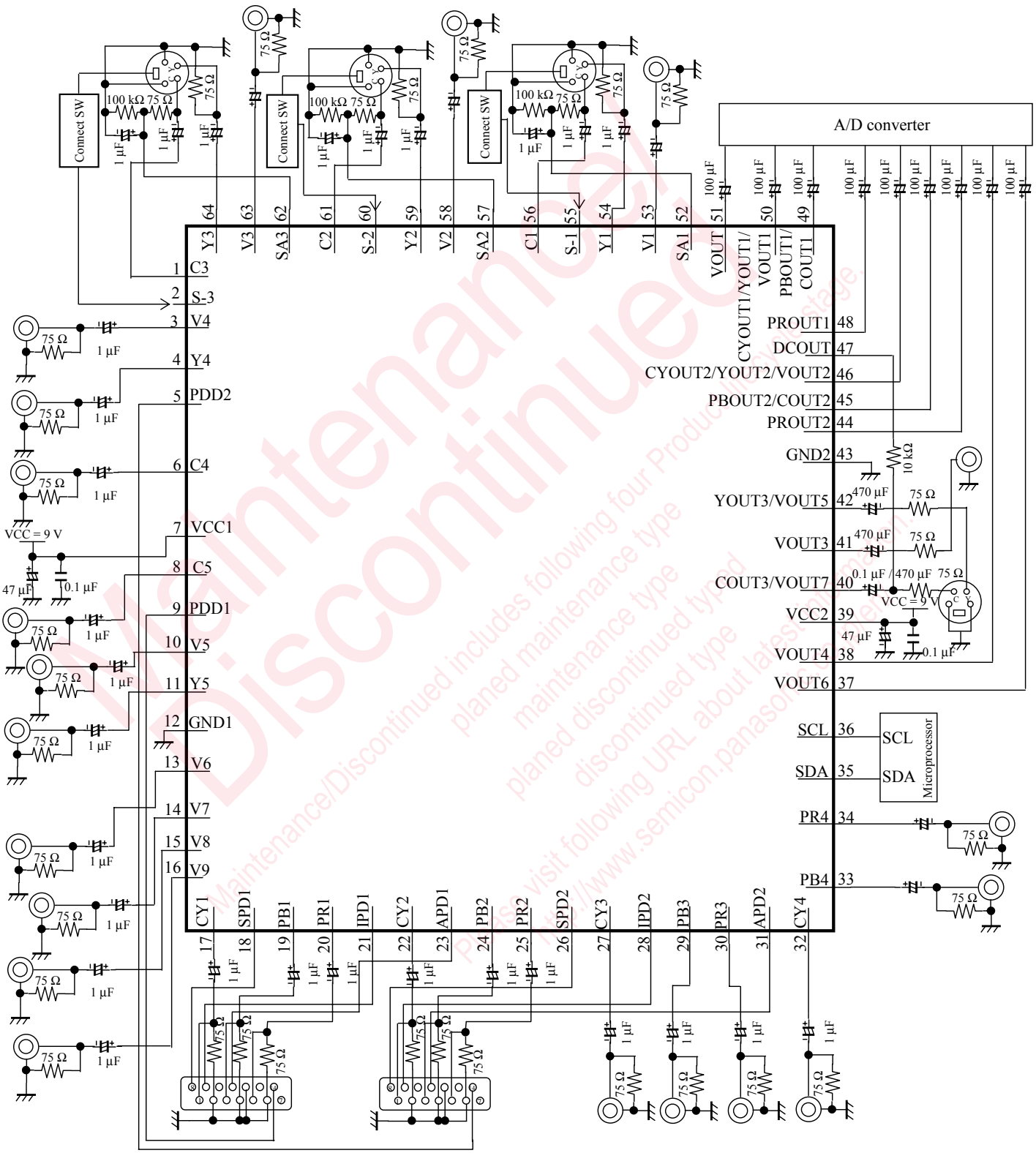
- Silicon monolithic BICMOS IC

■ Block Diagram



Note) *1: ⊕ Mixer with 6 dB attenuation
*2: 75 Ω-driver output

■ Application Circuit Example



■ Pin Descriptions

Pin No.	Pin name	Type	Description
1	C3	Input	Chrominance signal input 3
2	S-3	Input	S pin detect for input 3
3	V4	Input	Video composite signal input 4
4	Y4	Input	Luminance signal input 4
5	PDD2	Input	PDD detect input 2
6	C4	Input	Chrominance signal input 4
7	VCC1	Power supply	9.0 V power supply
8	C5	Input	Chrominance signal input 4
9	PDD1	Input	PDD detect input 1
10	V5	Input	Video composite signal input 5
11	Y5	Input	Luminance signal input 5
12	GND1	Ground	Ground
13	V6	Input	Video composite signal input 6
14	V7	Input	Video composite signal input 7
15	V8	Input	Video composite signal input 8
16	V9	Input	Video composite signal input 9
17	CY1	Input	CY1 signal input
18	SPD1	Input	SPD scan line detect for input 1
19	PB1	Input	PB1 signal input
20	PR1	Input	PR1 signal input
21	IPD1	Input	IPD detect for input 1
22	CY2	Input	CY2 signal input
23	APD1	Input	APD aspect ratio detect for input 1
24	PB2	Input	PB2 signal input
25	PR2	Input	PR2 signal input
26	SPD2	Input	SPD scan line detect for input 2
27	CY3	Input	CY3 signal input
28	IPD2	Input	IPD detect for input 2
29	PB3	Input	PB3 signal input
30	PR3	Input	PR3 signal input
31	APD2	Input	APD aspect ratio detect for input 2
32	CY4	Input	CY4 signal input

■ Pin Descriptions (continued)

Pin No.	Pin name	Type	Description
33	PB4	Input	PB4 signal input
34	PR4	Input	PR4 signal input
35	SDA	Input/Output	I^2C bus clock input
36	SCL	Input	I^2C bus data input
37	VOUT6	Output	VOUT6 signal output
38	VOUT4	Output	VOUT4 signal output
39	VCC2	Power supply	9.0 V power supply
40	COUT3/VOUT7	Output	COUT3/VOUT7 signal output
41	VOUT3	Output	VOUT3 signal output
42	YOUT3/VOUT5	Output	YOUT3/VOUT5 signal output
43	GND2	Ground	Ground
44	PRout2	Output	PRout2 signal output
45	PBout2/Cout2	Output	PRout2/Cout2 signal output
46	CYout2/Yout2/Vout2	Output	CYout2/Yout2/Vout2 signal output
47	DCOUT	Input	Output DC voltage corresponding to S2
48	PRout1	Output	PRout1 signal output
49	PBout1/Cout1	Output	PBout1/Cout1 signal output
50	CYout1/Yout1/Vout1	Output	CYout1/Yout1/Vout1 signal output
51	VOUT	Output	VOUT signal output
52	SA1	Output	SA aspect ratio detect for input 1
53	V1	Input	Video composite signal input 1
54	Y1	Input	Luminance signal input 1
55	S-1	Input	S pin detect for input 1
56	C1	Input	Chrominance signal input 1
57	SA2	Input	SA aspect ratio detect for input 2
58	V2	Input	Video composite signal input 2
59	Y2	Input	Luminance signal input 2
60	S-2	Input	S pin detect for input 2
61	C2	Input	Chrominance signal input 2
62	SA3	Input	SA aspect ratio detect for input 3
63	V3	Input	Video composite signal input 3
64	Y3	Input	Luminance signal input 3

■ Absolute Maximum Ratings

A No.	Parameter	Symbol	Rating	Unit	Note
1	Supply voltage	V_{CC}	12.0	V	*1
2	Supply current	I_{CC}	—	A	
3	Power dissipation	P_D	532	mW	*2
4	Operating ambient temperature	T_{opr}	−20 to +75	°C	*3
5	Storage temperature	T_{stg}	−55 to +125	°C	*3

Note) *1: The values under the condition not exceeding the above absolute maximum ratings and the power dissipation.
*2: The power dissipation shown is the value at T_a = 75°C for the independent (unmounted) IC package without a heat sink.
*3: Except for the power dissipation, operating ambient temperature, and storage temperature, all ratings are for T_a = 25°C.

■ Operating Supply Voltage Range

Parameter	Symbol	Range	Unit	Note
Supply voltage range	V_{CC}	8.5 to 9.5	V	*
I/O Terminal Voltage Range	—	GND − 0.2 to V_{CC} + 0.2	V	

Note) *: The values under the condition not exceeding the above absolute maximum ratings and the power dissipation.

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