

*Contributes to a rationalized TV system*

## Video and Audio Switching IC for TV AN15887A

### ■ Overview

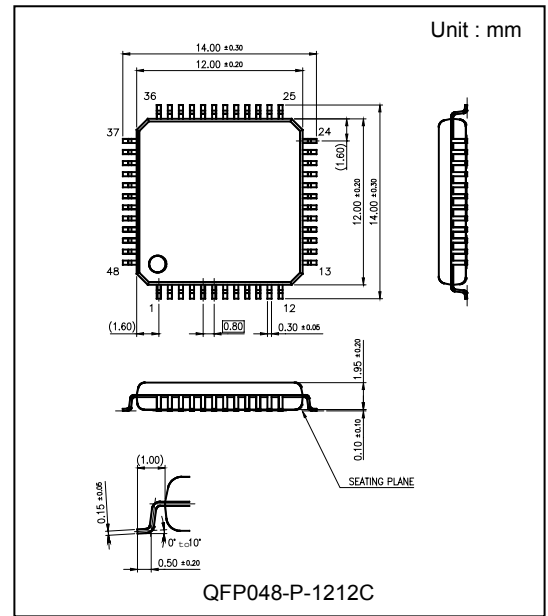
AN15887A is an I<sup>2</sup>C bus-embedded IC for switching video 6-channel input and 2-channel output, and audio 5-channel input and 2-channel output. A SAG-compensating video output 75Ω driver, and a circuit switching gain of 6.0 dB for video signals and audio gain of 0/-6 dB for audio output, etc. are embedded to contribute to rationalized TV system design

### ■ Feature

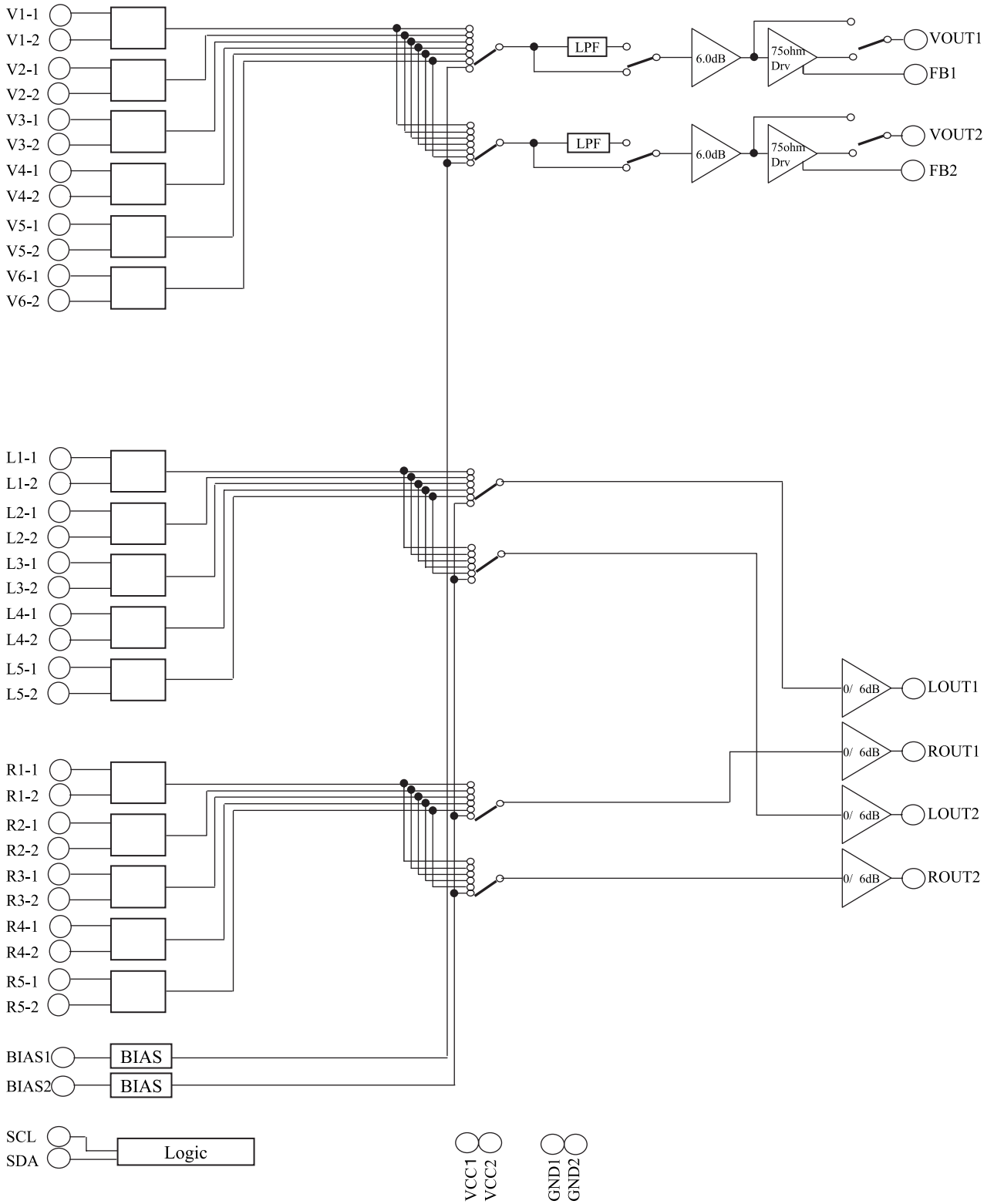
- Frequency can be output through LPF (6.75 MHz) or directly.
- -3 dB at 25MHz in wide-band video frequency through-mode.
- Gain of 6.0 dB for video signals
- Selectable output driver between a 75Ω load and a 10kΩ load.
- Isolator function individually embedded for each of audio and video inputs
- Various input modes (audio and video) can be selected by the use of multi-purpose built-in switch

### ■ Applications

TV, Car navigation, etc



# ■ Block Diagram



## ■ Pin Description

Pin No.	Pin name	Type	Description
1	VCC1	Power supply	9.0 V Video power supply
2	BIAS1	Output	Video bias voltage 1
3	GND1	Ground	Video ground 1
4	L1-1	Input	Left audio signal input 1-1
5	L1-2	Input	Left audio signal input 1-2
6	R1-1	Input	Right audio signal input 1-1
7	R1-2	Input	Right audio signal input 1-2
8	L2-1	Input	Left audio signal input 2-1
9	L2-2	Input	Left audio signal input 2-2
10	VCC2	Power supply	9.0 V Audio power supply
11	BIAS2	Output	Audio bias voltage 2
12	GND2	Ground	Audio ground 2
13	R2-1	Input	Right audio signal input 2-1
14	R2-2	Input	Right audio signal input 2-2
15	L3-1	Input	Left audio signal input 3-1
16	L3-2	Input	Left audio signal input 3-2
17	R3-1	Input	Right audio signal input 3-1
18	R3-2	Input	Right audio signal input 3-2
19	L4-1	Input	Left audio signal input 4-1
20	L4-2	Input	Left audio signal input 4-2
21	R4-1	Input	Right audio signal input 4-1
22	R4-2	Input	Right audio signal input 4-2
23	L5-1	Input	Left audio signal input 5-1
24	L5-2	Input	Left audio signal input 5-2
25	R5-1	Input	Right audio signal input 5-1
26	R5-2	Input	Right audio signal input 5-2
27	ROUT1	Output	Right audio signal output 1
28	LOUT1	Output	Left audio signal output 1
29	ROUT2	Output	Right audio signal output 2
30	LOUT2	Output	Left audio signal output 2
31	FB2	Input	VOUT2 signal Sag correction input
32	VOUT2	Output	VOUT2 signal output
33	FB1	Input	VOUT1 signal Sag correction input
34	VOUT1	Output	VOUT1 signal output
35	SDA	Input/Output	I <sup>2</sup> C bus data input/output

## ■ Pin Description

Pin No.	Pin name	Type	Description
36	SCL	Input	I <sup>2</sup> C bus clock input
37	V1-1	Input	Video composite signal input 1-1
38	V1-2	Input	Video composite signal input 1-2
39	V2-1	Input	Video composite signal input 2-1
40	V2-2	Input	Video composite signal input 2-2
41	V3-1	Input	Video composite signal input 3-1
42	V3-2	Input	Video composite signal input 3-2
43	V4-1	Input	Video composite signal input 4-1
44	V4-2	Input	Video composite signal input 4-2
45	V5-1	Input	Video composite signal input 5-1
46	V5-2	Input	Video composite signal input 5-2
47	V6-1	Input	Video composite signal input 6-1
48	V6-2	Input	Video composite signal input 6-2

## ■ Absolute Maximum Ratings

Parameter	Symbol	Rating	Unit	Note
Supply voltage	$V_{CC}$	12		*1
Supply current	$I_{CC}$	—	mA	
Power dissipation	$P_D$	340	mW	*2
Operating ambient temperature	$T_{opr}$	-20 to +85	°C	*3
Storage temperature	$T_{stg}$	-55 to +125	°C	*3

Notes) \*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  $T_a = 85\text{ °C}$  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  $T_a = 25\text{ °C}$ .

## ■ Operating supply voltage range

Parameter	Symbol	Range	Unit	Note
Supply voltage	$V_{CC}$	7.5 to 9.5	V	*

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