



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# DATA SHEET

Part No.	AN15861A
Package Code No.	QFP044-P-1010F

Maintenance/Discontinued includes following lifecycle stage.  
planned maintenance type  
maintenance type  
planned discontinued type  
discontinued type  
Please visit following URL about latest information.  
<http://www.semicon.panasonic.co.jp/en/>

## Contents

■ Features .....	3
■ Applications .....	3
■ Package .....	3
■ Application Circuit Example .....	4
■ Block Diagram .....	5
■ Pin Description .....	6
■ Absolute Maximum Ratings .....	7
■ Operating Supply Voltage Range .....	7

Maintenance/Discontinued includes four Product lifecycle stage.  
Discontinued  
planned maintenance type  
maintenance type  
planned discontinued type  
discontinued type  
Please visit following URL about latest information.  
<http://www.semicon.panasonic.co.jp/en/>

# AN15861A

## AV Switch IC

### ■ Features

- 12-input 4-output channel audio switch IC

### ■ Application

- Color TV

### ■ Package

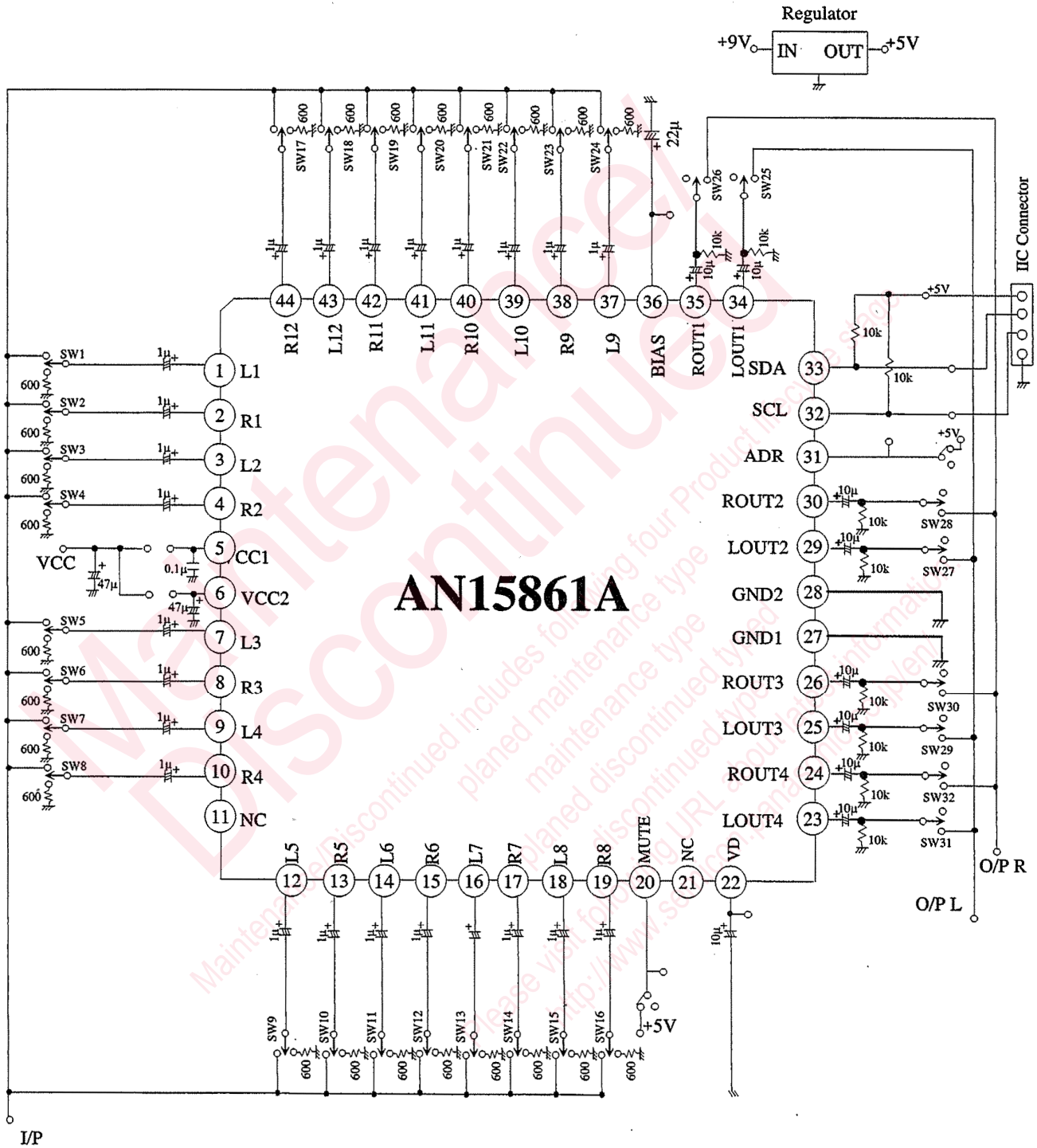
- Quad 44-pin plastic package (QFP type)

Maintenance/Discontinued

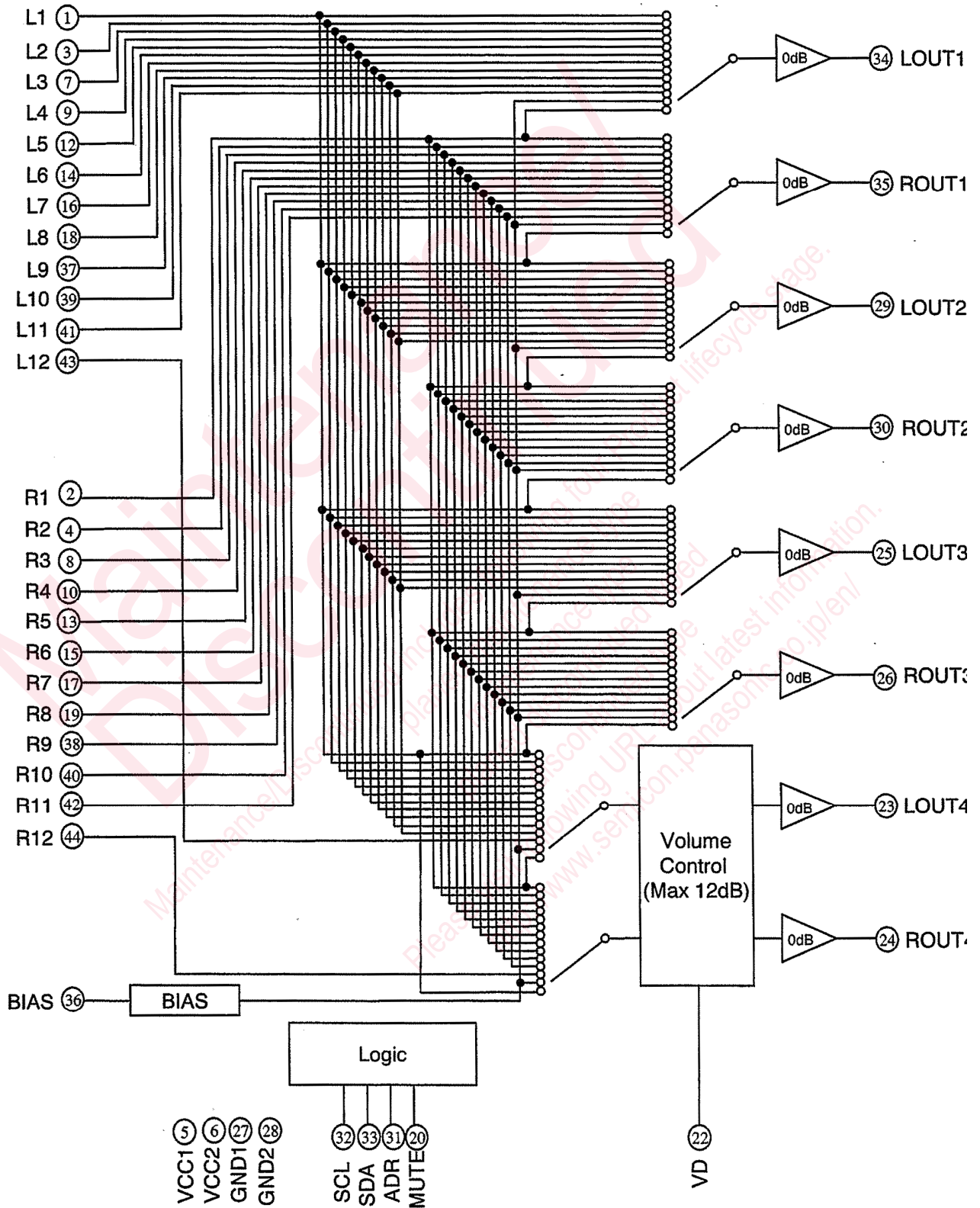
Maintenance/Discontinued includes following four Product lifecycle stage.  
planned maintenance type  
maintenance type  
planned discontinued type  
discontinued type  
Please visit following URL about latest information.  
<http://www.semicon.panasonic.co.jp/en/>



Application Circuit Example



■ Block Diagram



## ■ Pin Descriptions

Pin No.	Description	Pin No.	Description
1	L1	23	L-out4
2	R1	24	R-out4
3	L2	25	L-out3
4	R2	26	R-out3
5	V <sub>CC1</sub>	27	GND1
6	V <sub>CC2</sub>	28	GND2
7	L3	29	L-out2
8	R3	30	R-out2
9	L4	31	ADR
10	R4	32	SCL
11	N.C.	33	SDA
12	L5	34	L-out1
13	R5	35	R-out1
14	L6	36	BIAS
15	R6	37	L9
16	L7	38	R9
17	R7	39	L10
18	L8	40	R10
19	R8	41	L11
20	Mute	42	R11
21	N.C.	43	L12
22	VD	44	R12

### ■ Absolute Maximum Ratings

No.	Parameter	Symbol	Rating	Unit	Note
1	Supply voltage	$V_{CC1}$	14	V	—
2		$V_{CC2}$	14		—
3	Supply current	$I_{CC}$	—	mA	—
4	Power dissipation	$P_D$	448	mW	*1
5	Storage temperature	$T_{stg}$	-55 to +125	°C	*2
6	Operating ambient temperature	$T_{opr}$	-20 to +75	°C	*2
7	Operating ambient atmospheric pressure	$P_{opr}$	$1.013 \times 10^5 \pm 0.61 \times 10^5$	Pa	—
8	Operating constant gravity	$G_{opr}$	9 810	m/s <sup>2</sup>	—
9	Operating shock	$S_{opr}$	4 900	m/s <sup>2</sup>	—

Note) \*1: The above power dissipation shows the package power dissipation for this IC mounted on PCB at  $T_a = 75^\circ\text{C}$ , in free-air.

\*2: Except for the storage temperature and operating ambient temperature, all ratings are for  $T_a = 25^\circ\text{C}$ .

### ■ Operating Supply Voltage Range

Parameter	Symbol	Range	Unit	Note
Operating Supply Voltage Range	$V_{CC1}$	8.1 to 9.9	V	—
	$V_{CC2}$	8.1 to 9.9		—



## Request for your special attention and precautions in using the technical information and semiconductors described in this book

- (1) If any of the products or technical information described in this book is to be exported or provided to non-residents, the laws and regulations of the exporting country, especially, those with regard to security export control, must be observed.
- (2) The technical information described in this book is intended only to show the main characteristics and application circuit examples of the products, and no license is granted under any intellectual property right or other right owned by our company or any other company. Therefore, no responsibility is assumed by our company as to the infringement upon any such right owned by any other company which may arise as a result of the use of technical information described in this book.
- (3) The products described in this book are intended to be used for standard applications or general electronic equipment (such as office equipment, communications equipment, measuring instruments and household appliances).  
Consult our sales staff in advance for information on the following applications:
  - Special applications (such as for airplanes, aerospace, automobiles, traffic control equipment, combustion equipment, life support systems and safety devices) in which exceptional quality and reliability are required, or if the failure or malfunction of the products may directly jeopardize life or harm the human body.
  - Any applications other than the standard applications intended.
- (4) The products and product specifications described in this book are subject to change without notice for modification and/or improvement. At the final stage of your design, purchasing, or use of the products, therefore, ask for the most up-to-date Product Standards in advance to make sure that the latest specifications satisfy your requirements.
- (5) When designing your equipment, comply with the range of absolute maximum rating and the guaranteed operating conditions (operating power supply voltage and operating environment etc.). Especially, please be careful not to exceed the range of absolute maximum rating on the transient state, such as power-on, power-off and mode-switching. Otherwise, we will not be liable for any defect which may arise later in your equipment.
  - Even when the products are used within the guaranteed values, take into the consideration of incidence of break down and failure mode, possible to occur to semiconductor products. Measures on the systems such as redundant design, arresting the spread of fire or preventing glitch are recommended in order to prevent physical injury, fire, social damages, for example, by using the products.
- (6) Comply with the instructions for use in order to prevent breakdown and characteristics change due to external factors (ESD, EOS, thermal stress and mechanical stress) at the time of handling, mounting or at customer's process. When using products for which damp-proof packing is required, satisfy the conditions, such as shelf life and the elapsed time since first opening the packages.
- (7) This book may be not reprinted or reproduced whether wholly or partially, without the prior written permission of Matsushita Electric Industrial Co., Ltd.