



## DESCRIPTION

The AA8674 is a low power, 3V operation video amplifier with Y/C mixer and 75  $\Omega$  driver, which connect TV monitor directly. The AA8674 has mute function, and suitable for energy save products and any low power system.

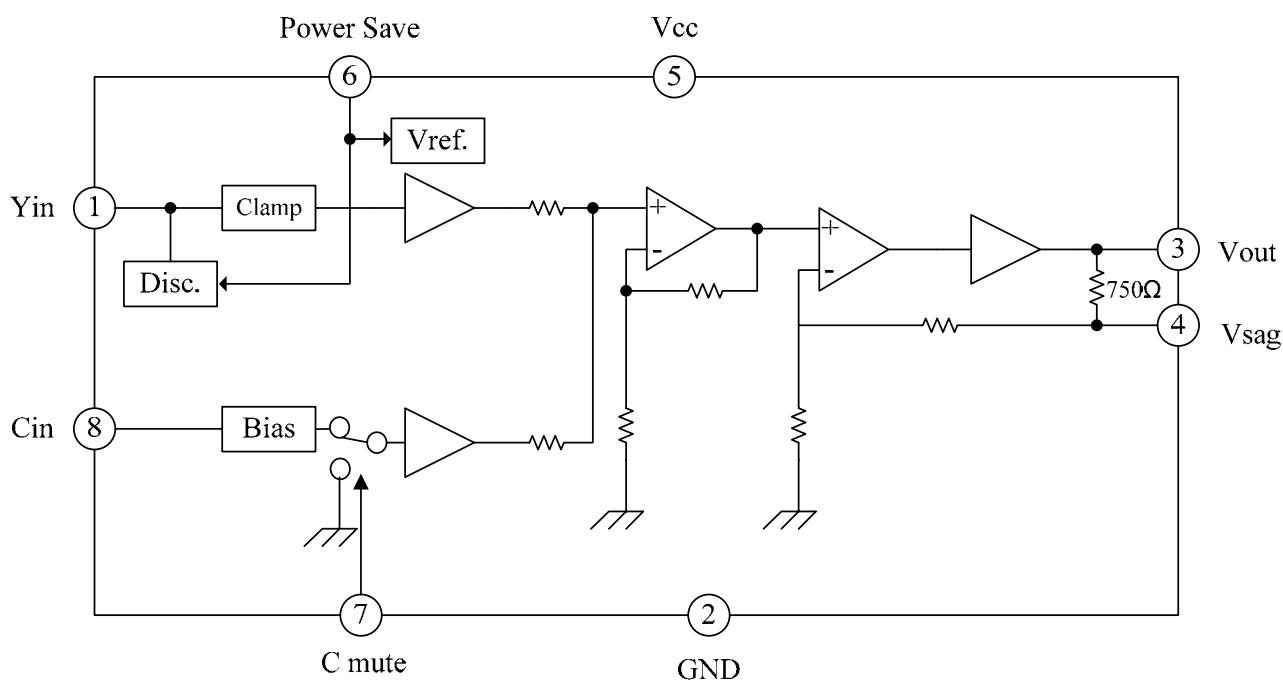
## FEATURES

- Low Operating Voltage: 3.0 to 5.5V
- Internal Y/C MIX Circuit
- Y-input: Clamp, C-input: Bias
- Operating Current: 9.3mA typ. at V+=3.0V
- Operating Current at Power Save: 0.9mA typ. at V+=3.0V
- Bipolar Technology
- Package Outline: DFN 3\*3 8L

## APPLICATION

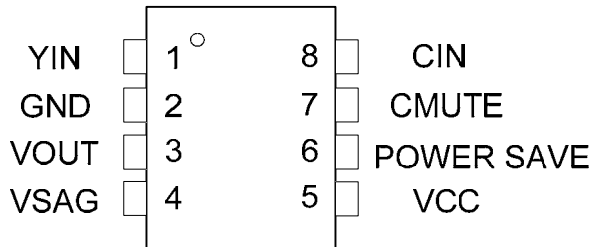
Digital Camera, DVC and other video amplifier system

## BLOCK DIAGRAM





■ PIN DESCRIPTION



TOP VIEW

PIN NO.	PIN NAME	PIN FUNCTION
1	YIN	Composite Y input signal is clamped input
2	GND	Ground
3	VOUT	Y/C mix output.
4	VSAG	SAG correction to reduce the capacitance of output coupling capacitor
5	VCC	Power supply
6	POWER SAVE	Output is muted as this pin is set to low
7	CMUTE	Only chrominance output signal is muted as this pin is set to high
8	CIN	Chrominance C input signal is bias input

■ ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	RATING	UNIT
Supply Voltage	V+	7.0	V
Power Dissipation	PD	320	mW
Operating Temperature Range	Topr	-40 ~ +85	°C
Storage Temperature Range	Tstg	-40 ~ +125	°C

Ta=25°C

NOTE: Stress above those listed under “Absolute Maximum Rating” may cause permanent damage to the device. This is a stress rating only and functional operation of the device at these or any other conditions above those indicated in the operational section of this specification is not implied. Exposure to absolute maximum rating conditions for the extended periods of time may affect device reliability.



■ ELECTRICAL CHARACTERISTICS

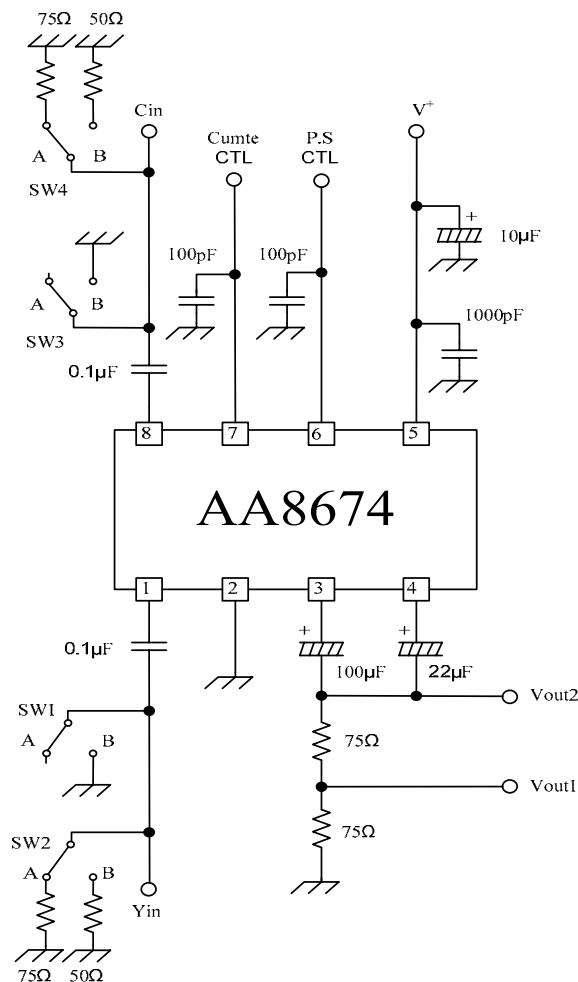
V<sup>+</sup>=3.0V, Ta=25°C

SYMBOL	PARAMETER	CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
Vopr	Operating Voltage		3.0		5.5	V
Iccq	Operating Current	No Signal	-	9.3	14.0	mA
Iccs	Operating Current	Power Save Mode	-	0.9	1.4	mA
Vom	Maximum Output Voltage	f=1kHz, THD=1%	2.2	-	-	Vpp
Gv	Voltage Gain	Yin=100kHz, 0.52Vpp	11.9	12.4	12.9	dB
Gf	Frequency Characteristic	Yin=10MHz/100kHz, 0.52Vpp	-1.0	0	+1.0	dB
DG	Differential Gain	Yin=0.52Vpp, 10Step Video Signal	-	2.5	-	%
DP	Differential Phase	Yin=0.52Vpp, 10Step Video Signal	-	1.0	-	deg
CT	Chroma Mute Cross talk	Cin=4.43MHz, 0.1Vpp	-	-65	-	dB
SNv	S/N	Yin=0.52Vpp, 100% White Video Signal, Cin=AC gnd Wide Band 100kHz to 6MHz, RL=75ohm	-	-60	-	dB
Hv	Second Distortion	Yin=0.52Vpp, 3.58MHz Red Field Video Signal, Cin=AC gnd RL=75ohm	-	-40	-	dB
Zinc	Input Resistance	Chroma Input	12	20	24	k
VthMH	Mute witch Change Voltage		1.4	-	V+	V
VthML			0	-	0.6	
VthPH	Power Save Switch Change Voltage		1.4	-	V+	V
VthPL			0	-	0.6	

## CONTROL TERMINAL EXPLANATION

PARAMETER	STATUS	NOTE
Chroma Mute	H	Chroma Mute : ON
	L	Chroma Mute : OFF
	OPEN	Chroma Mute : OFF
Power Save	H	Power Save : OFF
	L	Power Save : ON
	OPEN	Power Save : ON

## TEST CIRCUIT

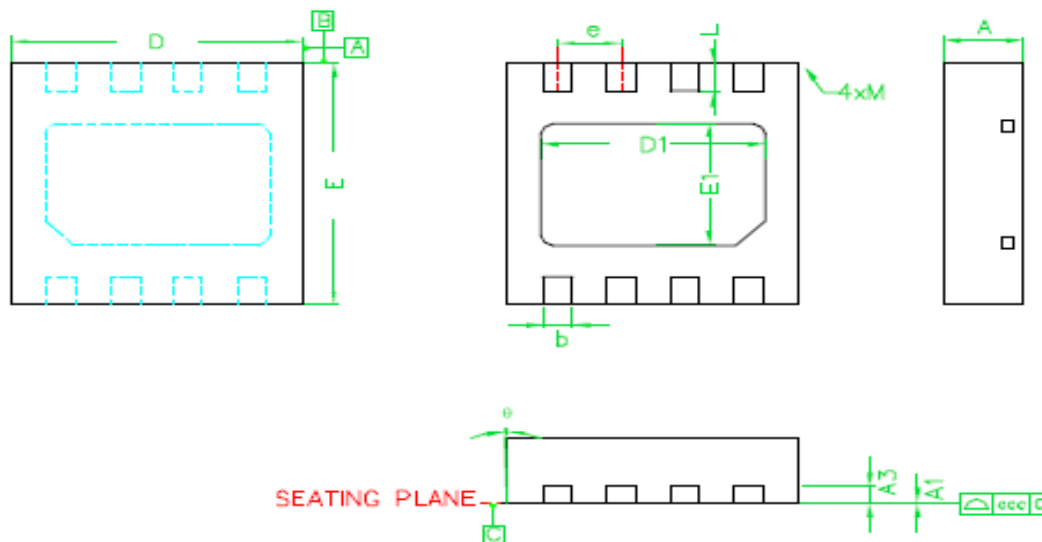


ORDERING INFORMATION

ORDER NO.	PACKAGE	PACKING	ONE REEL Q'TY	MARK CHART	
AA8674D	DFN 3*3 8L	Tape & Reel	2,500ea	<table border="1"> <tr> <td>8674 XXXX D</td> </tr> </table>	8674 XXXX D
8674 XXXX D					

PACKAGE DIMENSION

DFN 3\*3 8L



SYMBOLS	DIMENSIONS IN MILLIMETERS		
	MIN	NOM	MAX
A	0.80	0.85	0.90
A1	0	0.010	0.030
A3	---	0.20REF.	---
b	0.25	0.3	0.35
D	2.95	3.00	3.03
D1	---	2.30BSC	---
E	2.95	3.00	3.03
E1	---	1.50BSC	---
e	---	0.65BSC	---
L	0.30	0.35	0.40
ccc	---	0.08	---
M	---	---	0.05
θ	-12	---	0
Burr	0.00	0.03	0.06

1. ALL DIMENSIONS ARE IN MILLIMETERS, θ IS IN DEGREES.
2. M : THE MAXIMUM ALLOWABLE CORNER ON THE MOLDED PLASTIC BODY CORNERS.
3. DIMENSION D DOES NOT INCLUDE MOLD PROTRUSIONS OR GATE BURRS. MOLD PROTRUSIONS AND GATE BURRS SHALL NOT EXCEED 0.15mm PER SIDE.
4. DIMENSION E DOES NOT INCLUDE INTERTERMINAL MOLD PROTRUSIONS OR TERMINAL PROTRUSIONS. INTERTERMINAL MOLD PROTRUSIONS AND/OR TERMINAL PROTRUSIONS SHALL NOT EXCEED 0.20mm PER SIDE.
5. DIMENSION b APPLIES TO PLATED TERMINALS. DIMENSION A1 IS PRIMARILY Y TERMINAL PLATING, BUT MAY OR MAY NOT INCLUDE A SMALL PROTRUSION OF TERMINAL BELOW THE BOTTOM SURFACE OF THE PACKAGE.
6. JEDEC MO-229