



# ACE5201LA

## Dual 300mA High PSRR Linear Regulator

### Description

ACE5201LA dual, low-noise, low-dropout regulator delivers at least 300mA of continuous output current. The output voltage for each regulator is set independently by trimming. Output voltages are selectable in 100mV steps within a range of 1.2V to 3.5V. Typical output noise is 47uVrms, and PSRR is 70dB at 100Hz. The ACE5201LA includes two independent logic-controlled shutdown inputs and allows the output of each regulator to be turned on independently.

ACE5201LA includes high accuracy voltage reference, error amplifier, current limit circuit and output driver module. ACE5201LA has excellent load and line transient response and good temperature characteristics, which can assure the stability of chip and power system. And it uses trimming technique to guarantee output voltage accuracy within  $\pm 2\%$ . ACE5201LA is available in SOT-23-6 package which is lead(Pb)-free.

### Features

- Two low dropout voltage regulators
- 300mA output current for each LDO
- 25uA operating supply current per LDO
- Low 47uVRMS output noise
- Standby Mode: 0.1uA
- Low 160mV dropout at 300mA load
- 70dB PSRR at 100Hz
- Excellent Line regulation: 0.05%/V
- Independent Shutdown controls
- 1.2V to 3.5V Factory-Preset Output
- Output Current Limit
- Highly Accurate:  $\pm 2\%$  ( $\pm 1\%$  customized)

### Application

- Cellular phones
- Cordless phones and radio communication equipment
- Battery Powered equipment
- Notebook and hand-hold equipment
- Wireless LAN
- GPS receivers



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### Absolute Maximum Ratings

Parameter	Value	Unit
Max Input Voltage	7	V
Operating Junction Temperature(T <sub>j</sub> )	125	°C
Ambient Temperature(T <sub>a</sub> )	-40 to 85	°C
Power Dissipation: SOT-23-6	250	mW
Storage Temperature(T <sub>s</sub> )	-40 to 150	°C
Lead Temperature & Time	260	°C/10S

Note: Exceed these limits to damage to the device. Exposure to absolute maximum rating conditions may affect device reliability.

### Recommended Work Conditions

Parameter	Min	Max	Unit
Input Voltage Range		6	V
Ambient Temperature	-40	85	°C

### Ordering Information

ACE5201LA X XXX + H

Halogen - free	
Pb - free	
DGM : SOT-23-6D	
EGM : SOT-23-6E	
Output Voltage :	
B : 1.5V(Output1) ,2.8V(Output2)	a : 1.2V(Output1) ,2.5V(Output2)
C : 1.5V(Output1) ,3.0V(Output2)	b : 2.8V(Output1) ,1.2V(Output2)
D : 1.5V(Output1) ,3.3V(Output2)	c : 2.8V(Output1) ,1.3V(Output2)
E : 1.5V(Output1) ,4.0V(Output2)	d : 2.5V(Output1) ,2.8V(Output2)
G : 1.8V(Output1) ,2.5V(Output2)	e : 2.5V(Output1) ,3.3V(Output2)
H : 1.8V(Output1) ,2.8V(Output2)	f : 2.8V(Output1) ,3.3V(Output2)
I : 1.8V(Output1) ,3.0V(Output2)	g : 1.3V(Output1) ,2.8V(Output2)
J : 1.8V(Output1) ,3.3V(Output2)	
M : 2.8V(Output1) ,1.8V(Output2)	
O : 2.8V(Output1) ,2.8V(Output2)	
P : 2.8V(Output1) ,3.0V(Output2)	
Q : 3.0V(Output1) ,2.5V(Output2)	
R : 3.0V(Output1) ,3.0V(Output2)	
S : 3.0V(Output1) ,3.3V(Output2)	
T : 3.3V(Output1) ,1.8V(Output2)	
U : 3.3V(Output1) ,3.3V(Output2)	



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### Notes

ACE does not assume any responsibility for use as critical components in life support devices or systems without the express written approval of the president and general counsel of ACE Technology Co., LTD. As sued herein:

1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury to the user.
2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.