8bit 12ch D/A converter

BH2221FV

BH2221FV is an 8bit D/A converter for electronic adjustment. The 12-channel DC output voltage can be independently controlled by three-wire serial interface from micro-controller. The D/A converter can generate without loss by Rail-to-Rail output within the setting voltage. The built-in power ON reset circuit keeps the output state Low after the power is ON and prevents the unstable output state.

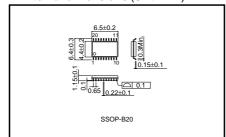
Applications

The voltage adjustment for DVC, DSC etc.

Features

- 1) 8bit 12-channel D/A converters adopting R-2R system.
- 2) The full scale output voltage range : $2.7V\sim5.5V$.
- 3) 3-wire 12-bit serial interface.
- 4) POWER ON RESET circuit.
- 5) SSOP-B20 package.

●External dimensions (Unit : mm)



● Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit	
Power supply voltage	Vcc	-0.3~+7.0	V	
Maximum output voltage	Vin	-0.3~Vcc	V	
Storage temperature	Tstg	−55~+125	°C	
Power dissipation	Pd	400 *	mW	

^{*}Reduced by 4mW for each increase in Ta of 1°C over 25°C.

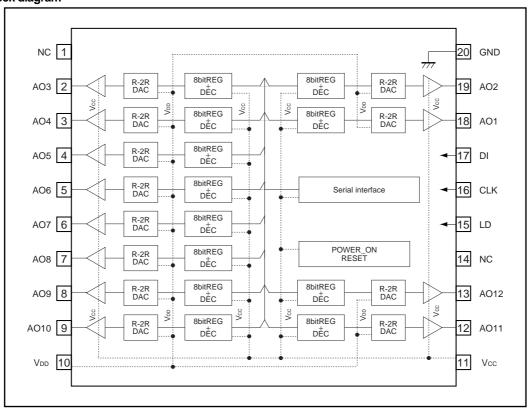
● Recommended operating conditions (Ta=25°C)

Parameter	Symbol	Min.	Тур.	Max.	Unit
Vcc supply voltage	Vcc	2.7	_	5.5	V
V _{DD} supply voltage	V _{DD}	2.7	_	Vcc	V
Analog output source current	lol	_	_	1.0	mA
Analog output sink current	Іон	_	_	1.0	mA
Operating temperature range	Topr	-20	_	85	°C
Clock frequency	FSCLK	-	1.0	_	MHz
Limit load capacitance	CL	-	-	0.1	μF

Please set to $Vcc \ge Vdd$.

This product is not designed for protection against radioactive rays.

●Block diagram



Pin descriptions

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Pin No.	Pin name	In / Out	Functions	
1	NC	-	No connected	
2	AO3	OUT	Analog output pins	
3	AO4	OUT		
4	AO5	OUT		
5	AO6	OUT		
6	A07	OUT		
7	AO8	OUT		
8	AO9	OUT		
9	AO10	OUT		
10	V _{DD}	-	Power supply pin	
11	Vcc	-	Power supply pin	
12	AO11	OUT	Analog output pins	
13	AO12	OUT		
14	NC	-	No connected	
15	LD	IN	Serial Load input pin	
16	CLK	IN	Serial Clock input pin	
17	DI	IN	Serial Data input pin	
18	AO1	OUT	Analog output pins	
19	AO2	OUT		
20	GND	-	Common GND pin	

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