

## Isolation Amplifier 8-Channel Embedded Card

This Isolation Amplifier 8-Channel embedded Card is built-in 8 units of Isolation Buffer Amplifiers 8Z01 B and 1 unit of High-Frequency Oscillator PS-2Z.

Input Ports are

isolated channel to channel and Output Ports(Power supply) too. Usually, Multi-Channel Isolation Amplifiers suffer bigger beat noise than signal which is caused by disordered of units, unmatched frequency from oscillators. This kind of problem is partly prevented by PCB design. However, it is not ultimate solution. AIKOH ELECTRIC' embedded cards are highly considered as below points:

(1)Using single oscillator

Built-in high efficiency oscillator PS-2Z

(2)Attempt low power consumption

Intermodulation is proportional to the circuit power (current), is inversely proportional to the square value of distance between two points, thus using isolation amplifier which is low power wherever possible.

Regarding (1), using C-MOS IC, also regarding (2), Using 2-port Isolation Amplifier 2Z-01H with buffered amplifier. Total current of the card is +15V for 20mA, -15V for less or equal 5mA.

AIKOH ELECTRIC' embedded cards, there are two types of interface connectors.

◆Type C: Card edge connector Pitch 3.96mm, 22-pole x 2 (44-poles). Suitable for multi-channel

◆Type D: 2 D-sub connectors

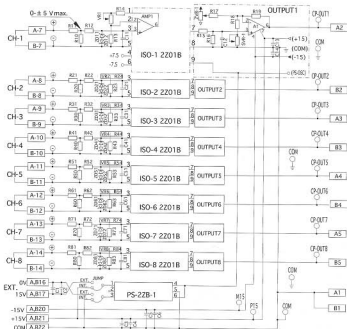
◆AIKOH ELECTRIC provides custom made embedded cards as per customer's specifications.

◆AIKOH ELECTRIC supply oscillator PS-2Z for those who bought cards or 2Z01 B.

PARAMETER	UNIT	RATINGS	
		2B-09C	2B-08D
1. Input			
Voltage Range	V	~ ±10	
Input Impedance	kΩ min.	180	
Maximum Input Voltage	V	100	
2. Output			
Voltage Range	V	0~ ±10	
Output Impedance	Ω max.	0.5	
Transmission Rate	V/V	0.94~1.05	
The above Temperature Drift	ppm/°C	100	
Offset Voltage	mV (typ.)	±10	
The above Temperature Drift	μV/°C	100	
Nonlinearity	% FS	0.1	
Frequency Response	kHz	1	
Output Ripple Voltage	mV	10	
3. Isolation Characteristic			
Connector (max.)	CVrms	1800	1000
Connector (rated)	ACVrms	500	300
I/O Withstand Voltage (1 min.)	ACVrms	1500	
I/O Capacitance	pF(typ.)	10	
Common-Mode Rejection Ratio	dB	120	
4. Power Supply (Input 0V)			
Operating Voltage Range	V	14~16	
Power Consumption +15V	mA(typ.)	11	
-15V	A(typ.)	5	
5. Ambient Temperature			
Operating Temperature Range	°C	-25~85	
Storage Temperature	°C	-30~85	
6. Weight	g	250	

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## 部品定数表 (標準) Parts (constant) List

Ch1 (see the IC pin)

ISO-n	2Z01B
Cn2	471k
Cn3,4	104Z
Rn0	13kF
Rn1	20kF
Rn2	ショート short
Rn3	ADJ.
Rn4	20kF
Rn5	22kF
Rn6	なし nil
Rn7	1000kF
Rn8	8.0kF
Rn9	10kF
ZVR-n	100k
SVR-n	2k
VR n	ショート short

## 電源部 Power Supply

PS1	PS-2ZB-1
C1,3,5	47 $\mu$ F/35WV
C2	104k
C4,6	1.5 $\mu$ FZ/25V

チェック端子 ケル工業(株) #248

Check Terminal: KEL #248

## ●端子番号に就いて Part Number

部品面 — A1~A22 mounting side  
ハンダ面 — B1~B22 soldering side

## ●定数は変更する場合があります。

The Constant may be changed