

General Failure Analysis

Isolation amplifier module products

Phenomenon	Possible Causes	Solutions
No output signal	<p>Input power supply is abnormal</p> <ol style="list-style-type: none"> 1. Input voltage is too low, which can not meet the power supply of the retral circuit. 2. Reversed power polar. 3. the product is likely to be damaged by thunder, surge or voltage rush from signal input end 4. Input voltage last high voltage for a long time, damaging the inner switch circuit. 	<ol style="list-style-type: none"> 1. Check if the input voltage is too lower than lowest limit of data sheet. 2. Check if there is reversed polar. 3. Replace with a new product, add input end surge protection (link a TVS tube) 4. Replace with a new product, check if input voltage is too higher than highest limit of 15%.
	<p>Signal Input loop is abnormal</p> <ol style="list-style-type: none"> 1 The real input signal type is different from product's input signal type. 2 the product is likely to be damaged by thunder, surge or voltage rush from signal input end 	<ol style="list-style-type: none"> 1 To check if the designed input signal type is the same to the product input signal. 2 To change the new product, and add the protection from surge at input end (such as add TVS clamping)
	<p>Signal output loop is abnormal</p> <ol style="list-style-type: none"> 1. External output loop is open circuit or short circuit. 2. Using operating wrong 3. the product is likely to be damaged by thunder, surge or voltage rush from signal output end 	<ol style="list-style-type: none"> 1 To check if the external output loop is open circuit or short circuit. 2 Refer to data sheet's application circuit. 3 To change the new product, and add the protection from surge at output end (such as add TVS clamping)
Output error	<ol style="list-style-type: none"> 1. Signal output polar is in reverse 2. For current output the product Load is too large the external load total amount is more than the requested resistance value. 3. For power supply product, external load resistance total amount will be less the standard resistance. 4. Voltage is too low, not enough for normal driver 	<ol style="list-style-type: none"> 1. To check if signal output polar is in reverse. 2. To check if load surpass the request in the datasheet. Ensure external total load resistance value is less than requested ohm value while the current is output. While voltage is output, the external load total resistance is above the requested ohm value. 3. To check if input voltage is too low. 4. Open NC pin, stop using NC pin.

Phenomenon	Possible Causes	Solutions
	Using NC pin	
Unstable Output	<ol style="list-style-type: none"> The input signal is instability For voltage input products, especially when it is the small signal input, because of the large input impedance, it is easier to introduce interference An unstable power supply. 	<ol style="list-style-type: none"> Check the stability of the input signal ① input and output wiring should be as short as possible; ② Pay attention to the system alignment of the PCB layout, strong power and weak alignment should be strictly separated; ③ Product should be avoid interference from the strong radiation source, such as motors, inverter, magnetic field, controllable silicon and so on. If environmental conditions limited, it can not be away from radiation source , it need to set electromagnetic shielding; To check the stability of power supply

Note: Please contact our FAE department if above solutions did not solve your problems well.

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