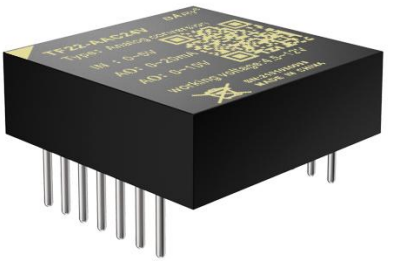
TF22-AAC24V Product Specifications

0 ~ 5V to 0 ~ 20mA/0 ~ 10V

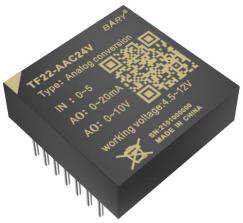
Analog signal conversion module



LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Ⅰ Product Description

1.1. Introduction



TF22-AAC24V is an active module with pre-stage voltage/PWM signal input and post-stage voltage/current signal output. The module integrates a high-efficiency micro-power power supply, which can supply power to the internal signal processing circuit and also provide external power. The circuit outputs a 24Vdc/50mA power supply.

1.2. Features

- 25.4*25.4*8mm；Ultra-small size: 25.4*25.4*8mm;
- Fast transmission response;
- Wide working voltage range;
- Independent dual channel 2 into 2;
- Low operating temperature and fast heat dissipation;
- Low temperature drift (≤50PPM/℃, within the range of -40℃ to +85℃)
- One 24V/50mA power output 1.2W;
- Working temperature: -40～+85℃;

Ⅱ Specifications

2.1. Limit parameters

Serial Number	Limit parameters	Minimum	Maximum	Remark
1	Input voltage	4.5	15	Vdc (about 6V output when no load)
2	Output voltage	24	24.5	V
3	Maximum output current	0	50	mA
4	Operating temperature	-40	+85	℃
5	Voltage/PWM signal	0	5	V
6	Current signal output	0	23	mA

Copyright ©2012–2021，成都亿佰特电子科技有限公司

LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

2.2. Working parameters

Serial Number	Main Parameters	Minimum	Typical value	Maximum	Remark
Input	Input voltage	4.5	-	12.5V	Vdc (not recommended to input more than 5.25V)
	Input ripple	-	-	<350	mV
	Input power	3	-	-	W is recommended to be greater than 3W
	Voltage signal input	0	-	5	V
	PWM signal input	0	-	100	%(5V Level)
Output	Current signal output	0	-	20	mA
	Voltage signal output	0	-	10	V(5V = 250R, 10V = 500R)
	Power Output	24	24.2	25	V maximum current 50mA
	Power Output	0	-	50	mA
Environment	Operating temperature	-40	25	+85	℃
	Working humidity	20	-	90	% no condensation
	Storage temperature	-40	+25	+85	℃ dry storage at room temperature
	Storage humidity	20	-	90	% Dry storage at room temperature
Ohter	Product Size	25.4*25.4*8mm			
	Product weight	-	7.5	-	g

Ⅲ Basic operation

3.1. Matters needing attention

- Before use, please read the technical manual carefully, if you have any questions, please contact the technical support of our company;
- The maximum input voltage of the power supply voltage must not exceed 13Vdc, otherwise the module will be permanently damaged;
- The voltage signal/PWM signal input is not recommended to exceed 5V;
- The maximum current output signal is 23mA, Sin = 5.3V;
- During routine maintenance, the input power should be disconnected first;
- Please do not install the product in hazardous areas;
- The power supply of the product adopts DC power supply, and it is strictly forbidden to use AC power supply;

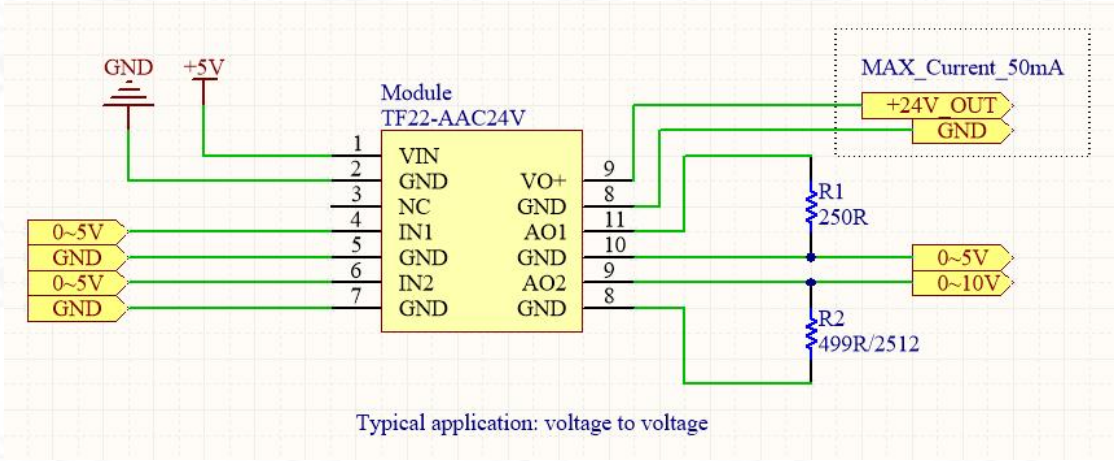
Copyright ©2012–2021，成都亿佰特电子科技有限公司

LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

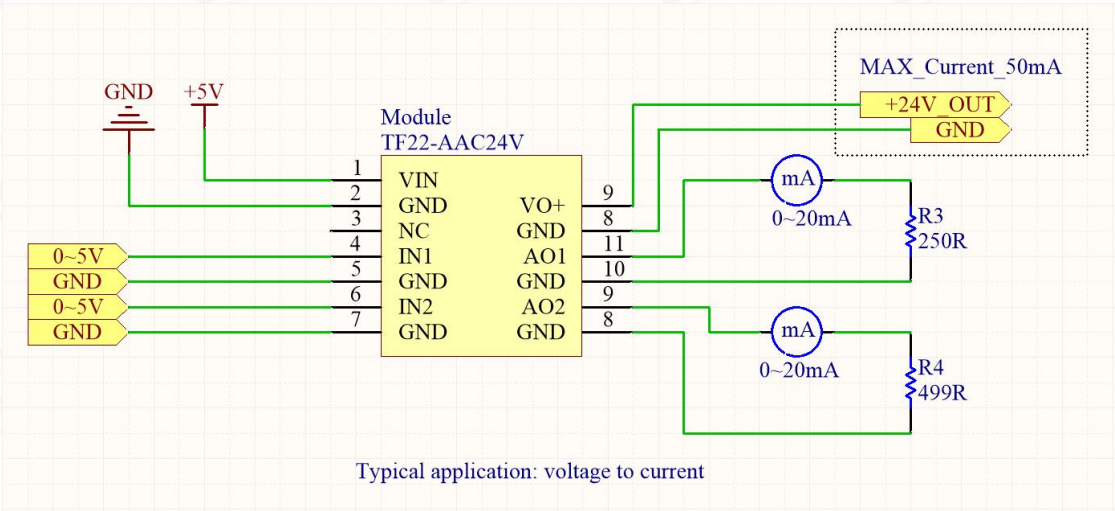
- It is strictly forbidden to disassemble the product without permission to prevent the equipment from failing or malfunctioning;
- The operation of this module requires certain professional skills, and rigorous non-professional life can operate it!
- This product has no power reverse connection protection, please pay attention to the positive and negative poles, the reverse connection of the positive and negative poles will cause permanent damage to the module;
- The products have been strictly inspected and quality controlled before leaving the factory. If there is any abnormal work or suspected internal module failure, please contact the nearest agent or our company's technical support in time.

3.2. Analog signal input and output curve

3.3. Typical application



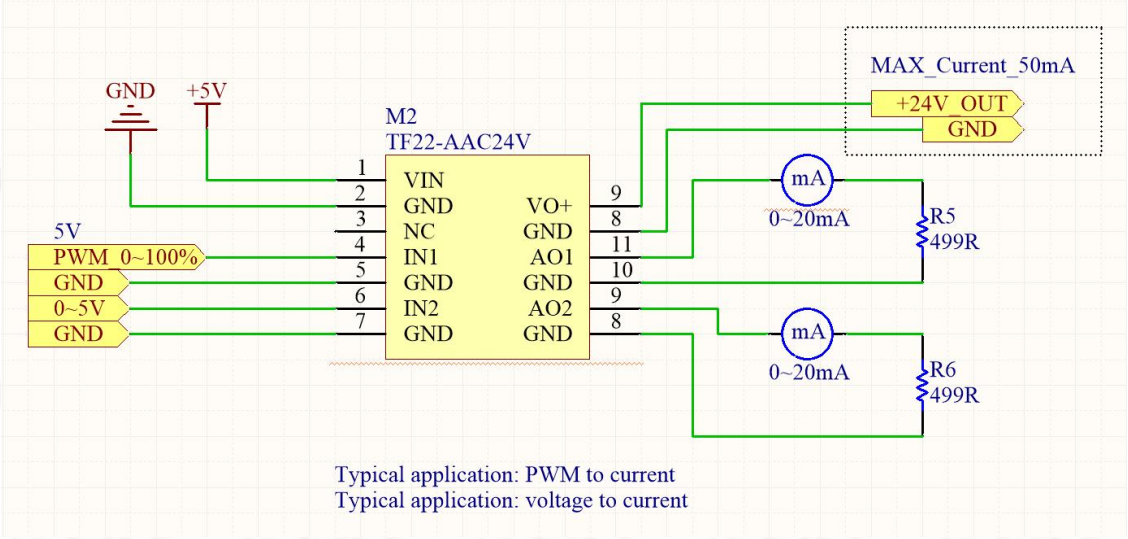
Typical application: voltage to voltage



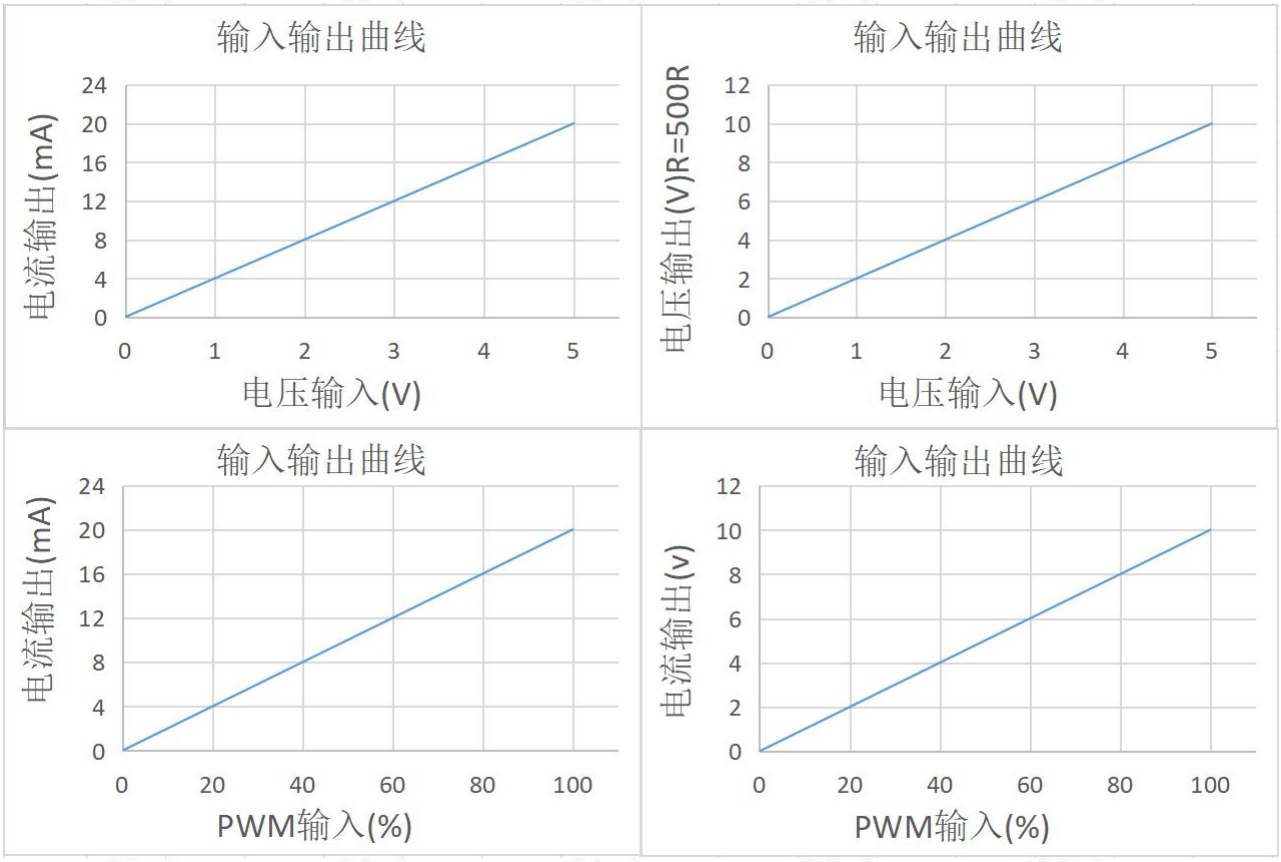
Typical application: voltage to current

Copyright ©2012–2021，成都亿佰特电子科技有限公司

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000



3.4. Schematic diagram of the corresponding relationship between signal input and signal output

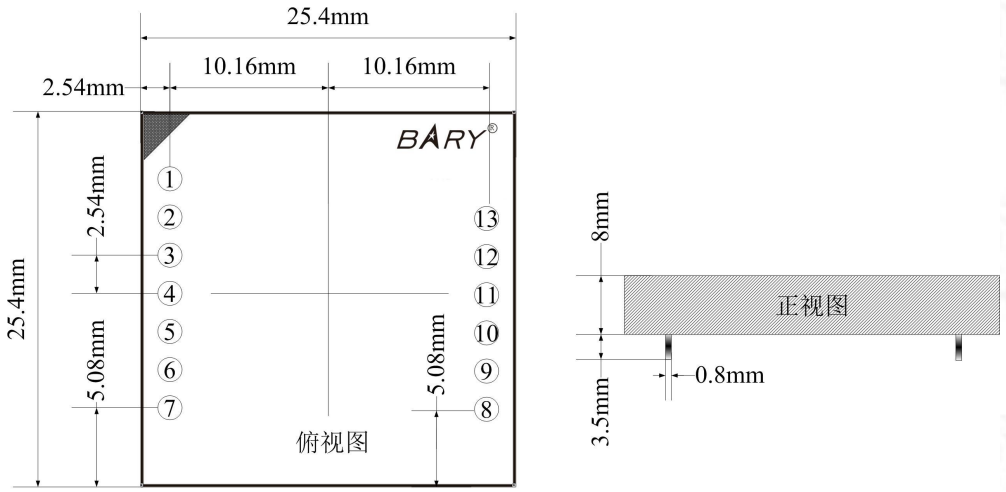


Copyright ©2012–2021，成都亿佰特电子科技有限公司

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Ⅳ Mechanical Characteristics and Pin Definition

4.1. Product Dimensions



4.2. Pin definition

Serial Number	Pin definition	Direction	Application
1	VIN	Input	DC power input positive
2	GND	Input	DC power input negative
3	NC	None	Reserved, not linked to circuit
4	IN1	Input	1-channel analog voltage or PWM input positive
5	GND	Input	1-channel analog voltage input reference ground
6	IN2	Input	2-channel analog voltage or PWM input positive
7	GND	Input	2-channel analog voltage input reference ground
8	GND	Output	2-channel analog signal output reference ground
9	AO2	Output	2-channel analog voltage/current output positive
10	GND	Output	1-channel analog signal output reference ground
11	AO1	Output	1-channel analog voltage/current output positive
12	GND	Output	Module output power reference ground
13	VO+	Output	Module power output is positive

Ⅴ Product selection

Product Model	Input voltaga	Output Voltaga	Output Current	Installation method
TF22-AAC24V	4.5~12V	24V	50mA	Plastic plug-in

Copyright ©2012–2021，成都亿佰特电子科技有限公司

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Revise History

Serial number	Version	Revise Date	Revision Notes	Maintainer
1	V1.0	20211228	first edition, first release	LJ

5. About us

Technical support: support@cdebyte.com
Documents and RF Setting download link: www.ebyte.com
Thank you for using Ebyte products! Please contact us with any questions or suggestions: info@cdebyte.com
---
Fax: 028-64146160 ext. 821
Web: www.ebyte.com
Address: Innovation Center D347, 4# XI-XIN Road,Chengdu, Sichuan, China

Chengdu Ebyte Electronic Technology Co.,Ltd.

Copyright ©2012–2021，成都亿佰特电子科技有限公司

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000