



### Relevant Device

This application note applies to the following device:

[PM-1625MUA](#), [PM-1625MU](#), [PM-1625SL](#), [PM-1625MDU](#), [PM-1625MD](#)

### Introduce

We have launched the PM-XXXX series .It is a high-efficiency, low-power voltage regulator module. And it includes five different module, they are PM-1625MUA, PM-1625MU, PM-1625SL, PM-1625MDU, PM-1625MD.

**PM-1625MUA** module is a DC/DC boost regulator, the main chip is XU9223. It is commonly used where need of efficient and high output current circuit.






**PM-1625MU** is a high efficient, low ripple, high-frequency PFM boost module, the main chip is XZ9218. The module is high performance, low power consumption, high precision of the output voltage. It can turn a low-input-voltage stability to 5V.

**PM-1625SL** is a high-efficient PWM synchronous boost DC/DC converter module, the main chip is XZ3400. The module operating voltage between 0.9V to 5V and the circuit structure is simple.

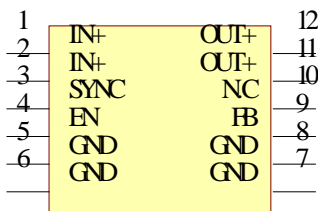
**PM-1625MDU** is a efficient, fixed frequency, Buck-Boost DC/DC converter module, the main chip is XZ3440. It can be operate in the condition that the input voltage above, below or equal to the output voltage. It is suitable for single-cell lithium -ion battery, multi-cell alkaline batteries or NiMH battery applications which the output voltage is within the battery voltage range.

**PM-1625MD** is a buck regulator module, the master chip is 1410. Current mode operation provides fast transient response and eases loop stabilization

### Module Comparison

NO	Type	Module	Input voltage	Output voltage	Maximum power	Application	Picture show
1	PM-1625MUA	Boost	0.9V	6.5V	78%	Mobile power, backup power, wireless mouse	
2	PM-1625MU	Boost	1.2V	5V	88%	The power supply section for GPS/mobile phone and other portable devices	
3	PM-1625SL	Boost	0.9V	5V	96%	Digital camera, cordless telephone	
4	PM-1625MDU	Buck-Boost	1.8V	5.5V	95%	Handheld devices, Pad	
5	PM-1625MD	Buck	4.75V	16V	95%	DSL Modems, Distributed Power Systems	

### Pins:



Pin	Pin name	Function
1	IN+	Input
2	IN+	Input
3	SYNC	Internal oscillator synchronization(Only for PM-1625MDU)
4	EN	Enable pin ( PM-1625MU does not have the pin )
5	GND	Ground pin
6	GND	Ground pin
7	GND	Ground pin
8	GND	Ground pin
9	FB	Feedback pin(PM-1625MU does not have the pin)
10	N.C	No function
11	OUT+	Output
12	OUT+	Output



# Datasheet

## PM-1625 serial DC/DC Module



IN(Pin 1、 2): Voltage input. Enter a starting voltage from IN pin, The system will start working when the VIN reach the minimum start voltage.

SYNC(Pin 3): SYNC=External clock, that is the external clock synchronization with the internal clock。 It is only for PM-1625MDU.

EN(Pin 4): Enable pin. When EN is logical high, the system is in working condition. When EN is a logical low, the chip is turned off, the system is not work.

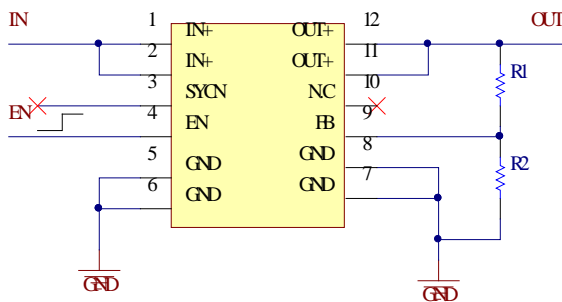
GND(Pin 5、 6、 7、 8): Ground pin。

FB(Pin 9): Feedback pin. The voltage input of the internal feedback circuit. There is two resistors between output and GND to divide voltage, then the voltage divider is connected to FB pin.

N.C(Pin 10):The pin has no function.

Parametric	Unit	PM-1625MUA		PM-1625MU		PM-1625SL		PM-1625MDU		PM-1625MD	
		low	high	low	high	low	high	low	high	low	high
Input voltage	V	0.9	6	0.7	8	0.9	5	1.8	5.5	4.7	23
Out voltage	V	0.98	6.5	0.9	5	2.5	5	2.5	5.5	1.222	16
EN voltage	V	0.4	1.2	0.4*OUT	0.2	0.35	1	0.4	1.5	0.7	1.3
Rated current	A	3		1.5		260(600)mA		600mA		2	

### Application Circuit Example :



The picture shows a typical application of the PM-XXXX series. It is not every module has SYNC pin and FB pin, they should be connected depending on the application. The other pins are connected in the same way.

### Data link address:

Our Web site : <http://www.inhaos.com>:

DataSheet for chip :

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