

DC ±15V Dual Output Power Converter Module

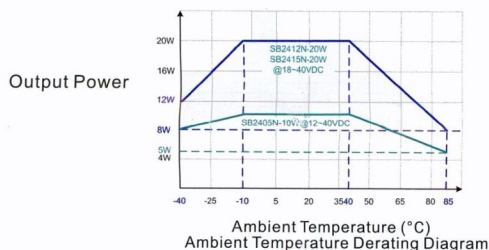
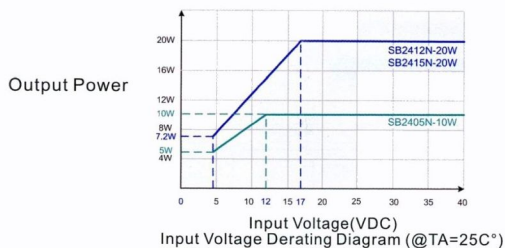
Introduction:

This module is a non-isolated boost buck converter board that can convert single power input (4.8~35VDC) to the positive-negative power output (±15V). Suitable for sensor, operational amplifier, audio and other devices that need positive-negative power output.

Module Parameters:

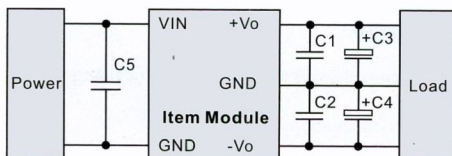
Parameters	Minimum value	Typical value	Maximum value	Note
Input Voltage	4.8VDC	24VDC	40VDC	For low voltage input, refer to the output derating diagram below.
Output Voltage		±15VDC		
Operating Temperature	-40°C		+85°C	Refer to the output derating diagram below.
Minimum Load		30mA		When the auxiliary circuit has heavy load, the main circuit can't be no-load.
No-load Power Consumption		530mW	550mW	
Rated Current		660mA		
Conversion Efficiency		88%		Tested on 24V input.
Ripple Noise	+Vo	90mV		On bare mental
	-Vo	80mV		
	+Vo	35mV		
	-Vo	30mV		
Dimensions		64 x 27.5 x 12.5 mm		L x W x H

Output Derating Diagram:

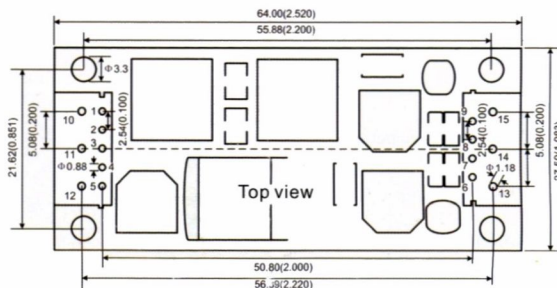


Typical Application:

- General application:



Terminal Function:



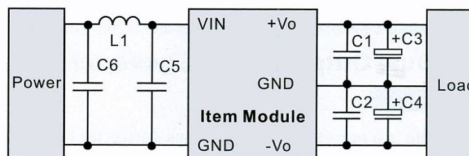
Mechanical Dimension Drawing

VIN (port No. 1, 2, 10): positive of 4.8~35VDC voltage input
GND (port No. 3, 4, 7, 8, 11, 14): input and output common ground
+Vo (port No. 6, 13): output +
-Vo (port No. 9, 15): output -
EN (port No. 5, 12): Module enables: VEN<0.8V, module doesn't work; 1.4V<VEN<VIN or when EN doesn't connect to any wire, module works normally.

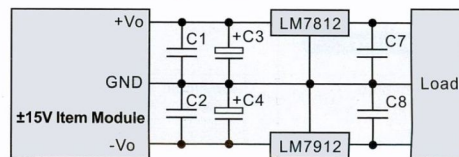
Installation:

- Pin-type welding of embedded PCB board (welding hole 1~9 are pin connectors)
- Lead terminal installation.

- Reduce interface of external switching power supply:



- ±12V low ripple noise application:



Devices parameters:

- General application (parameters of circuit test for ripple noise data)
 C1, C2, C5: 10uF, 25V, X7R, 1206, low ESR
 C3, C4: electrolytic capacitor 220uF, 25V, low ESR
- Typical application 2. & 3.
 C1, C2, C7, C8: 10~33uF, X7R, 1206, low ESR
 C5, C6: ceramic capacitors or electrolytic capacitor, capacity>22uF
 C3, C4 (must add): electrolytic capacitor 100~470uF, low ESR
 L1: CD54, 6.8uH

Note:

- Voltage of EN and voltage of VIN should be different, or it may cause unstable output.
- Mixed use of ceramic capacitors and electrolytic capacitor can get better overall performance.