PoE Interface Controller and
DC/DC Converter Module

HanRun®
Electronics Company Limited

HR836002

Features :

IEEE802.3af compliant
Support 100M/1000M power on Ethernet system
Integral high efficiency DC/DC converter.
Low output ripple and noise
Short-circuit protection
1500Vdc isolation (input to output)
RoHS Compliant (Pb Free)

Applications:

Wireless access point
Security and alarm systems
VOIP telephone
Point of sale network terminal equipment

Electrical Specification

Output	DC Volatage	5Vdc
	Current Range	0.2 ~ 1Adc
	Rated Power	5W
	Ripple & Noise (note 2)	100mVp-p Max. @ BW=DC to 20MHz
	Line Regulation	-
	Load Regulation	-
	Voltage Accuracy	±5% @ Io from 0.2 to 1Adc
	Switching Frequcy	170KHz Typ.
Input	PoE Voltage Range	40 ~ 57VDC
	Efficiency	80% min;82.5% typ. @ 57Vin, full load
	DC Current	127mA typ. @ 48Vin Full Load
Protection	Outout short Circuit	Recovers automatically after fault condition is removed
	Input surge	58V tranaient voltage suppressor
Environment	Working Temp., Humidity	0 ~ +60°C , 20% ~ 80% RH non-condensing, altitude of 1000 feet Max.
	Storage Temp., Humidity	-40 ~ +85°C, 10 ~ 90% RH , altitude of 3000 feet Max.
Safety	Withstand Voltage	Input to output :1500VDC Min. , 1mA Max. , 60 senonds
	Isolation Resistance	Input to output :1000M Ohms @ 500VDC 25°C 70% RH
Others	Dimensions	55*14*17.0 mm (L*W*H)
	Weight	about 8.2g

Note :

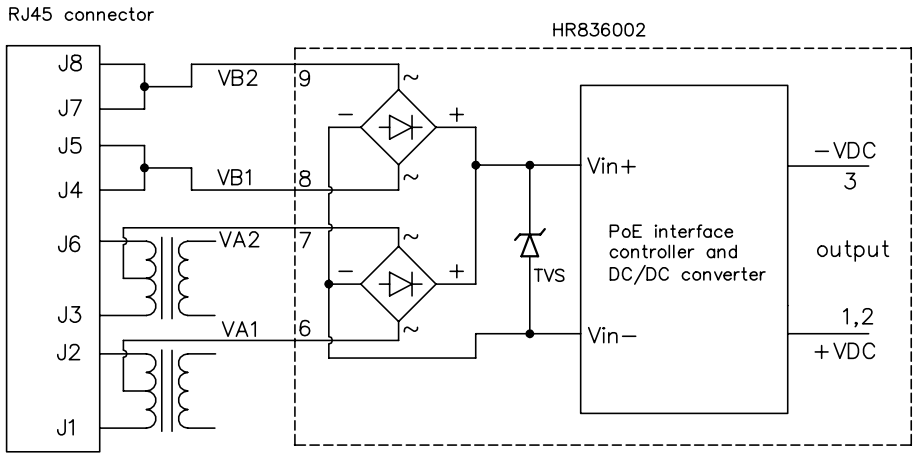
1. All parameters are specified at normal input, rated load, 25°C ambient.
2. Ripple & noise are measured by using a probe terminated with a 0.1uf & 47uf capacitors .
3. Please prevent the converter from operating in overload or short circuit condition for more than 60 seconds.
4. This part is not designed for parallel operation.
5. The module are designed to extract power from a conventional twisted pair Category 5 Ethernet cable, conforming to the IEEE 802.3af .

Address: No.16, Industrial Road Central, Industrial Zone, Xiaolan Town,
Zhongshan City, Guangdong Province, China
Tel: (0760)86103511 86103508 Fax: (0760)86103686 Post code: 528416
E-Mail: sales@hanrun.com http: //www.hanrun.com

Pin Description

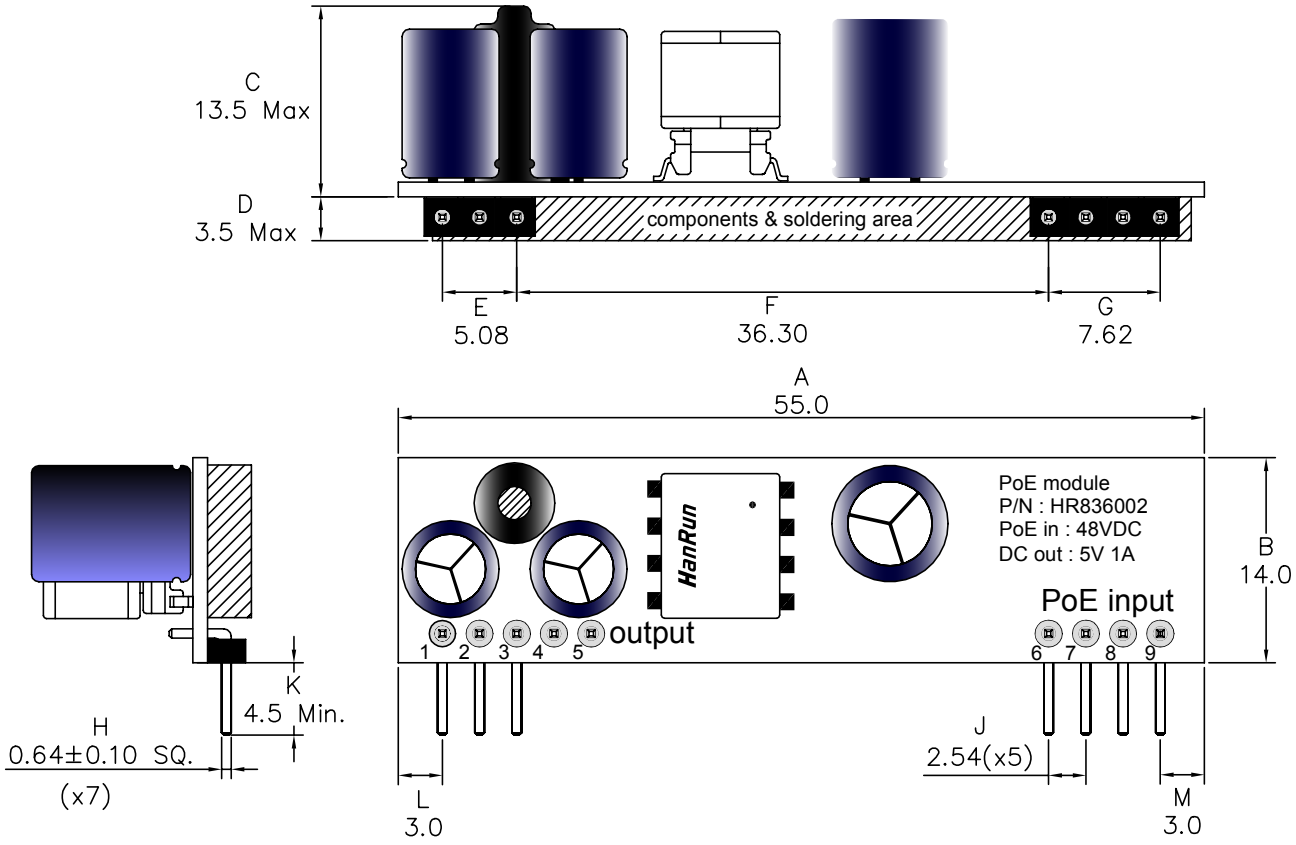
Pin No.	Symbol	description
1,2	+VDC	DC Output. This pin provides the regulated output from the DC/DC converter.
3	−VDC	Ground. The ground return for the +VDC output.
4,5	NC	NC
6	VA1	This input pin is used in conjunction with VA2 and connects to the centre tap of the transformer connected to pins 1 & 2 of the RJ45 connector . VA1 and VA2 are not polarity sensitive.
7	VA2	This input pin is used in conjunction with VA1 and connects to the centre tap of the transformer connected to pins 3 & 6 of the RJ45 connector . VA1 and VA2 are not polarity sensitive.
8	VB1	This input pin is used in conjunction with VB2 and connects to pin 4 & 5 of the RJ45 connector .VB1 and VB2 are not polarity sensitive.
9	VB2	This input pin is used in conjunction with VB1 and connects to pin 7 & 8 of the RJ45 connector .VB1 and VB2 are not polarity sensitive.

Typical Connection Diagram



Address: No.16, Industrial Road Central, Industrial Zone, Xiaolan Town,
Zhongshan City, Guangdong Province, China
Tel: (0760)86103511 86103508 Fax: (0760)86103686 Post code: 528416
E-Mail: sales@hanrun.com http: //www.hanrun.com

Mechanical Dimensions



Unless otherwise specified,
Tol.: .x ± 0.5; .xx ± 0.25 (mm)

Address: No.16, Industrial Road Central, Industrial Zone, Xiaolan Town,
Zhongshan City, Guangdong Province, China
Tel: (0760)86103511 86103508 Fax: (0760)86103686 Post code: 528416
E-Mail: sales@hanrun.com http: //www.hanrun.com