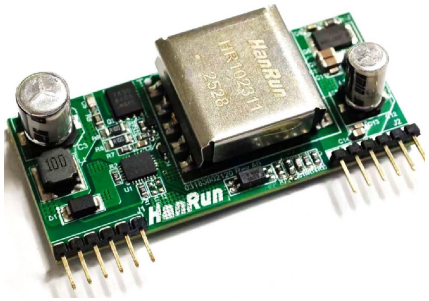
PoE Interface Controller and
DC/DC Converter Module

HanRun®
Electronics Company Limited

HR836021C

Features :



IEEE802.3af/at compliant
Support 10M/100M/1000M power on Ethernet system
Integral high efficiency DC/DC converter.
Low output ripple and noise
Short-circuit protection
Transformer isolation ,1500Vdc isolation (input to output)
RoHS Compliant (Pb Free)

Applications:

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

Electrical Specification

Output	DC Volatage	12V
	Current Range	2.1A
	Rated Power	25.5W Max
	Ripple & Noise (note 2)	150mVp-p Max. @ BW=DC to 20MHz
	Line Regulation	±1%
	Load Regulation	±1%
	Voltage Accuracy	±2%
	Switching Frequcy	250KHz Typ.
Input	Voltage Range	44 ~ 57VDC (local adapter input 12VDC)
	Efficiency Min	87% typ @ full load
	DC Current (Typ.)	12mA typ. @ No Load ; 600mA typ. @ Full Load
Protection	Outout short Circuit	Recovers automatically after fault condition is removed
	Input overvoltage	58V tranaient voltage suppressor
Environment	Working Temp., Humidity	-25 ~ +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	62*27*17.5 mm (L*W*H)
	Weight	about 30g

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 and IEEE 802.3at (PoE) standard .

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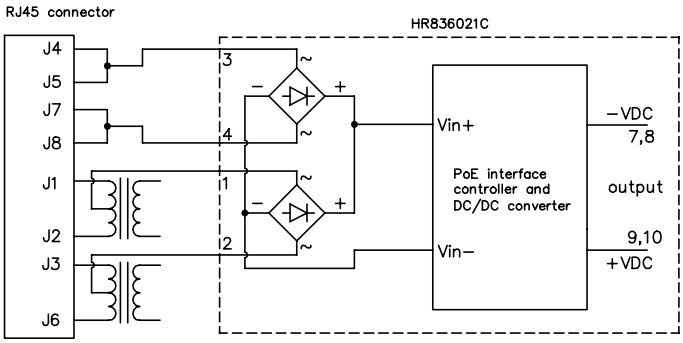
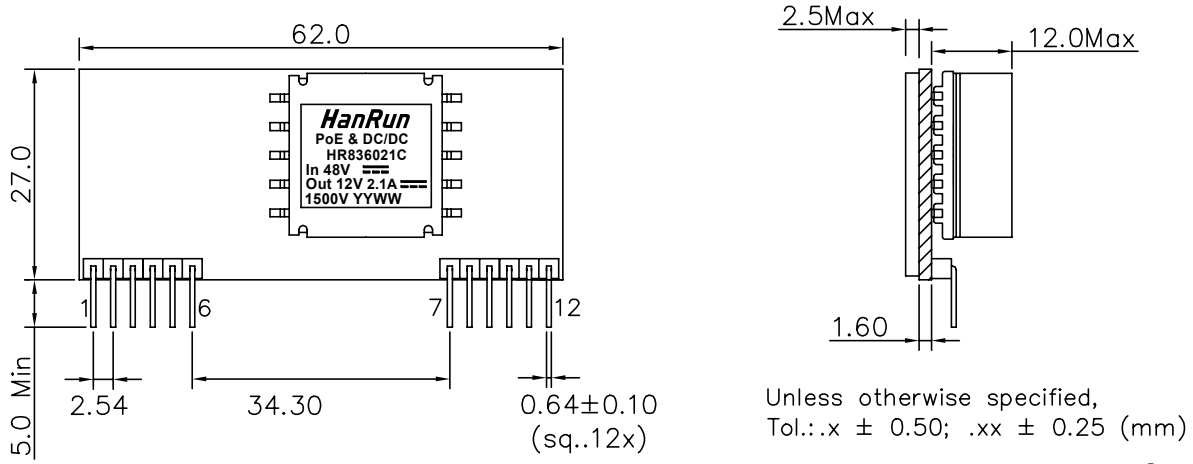
Pin Description

Pin No.	Pin	description
1	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
2	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
3	VB1	This input pin is used in conjunction with VB2 and connects to pin 4 & 5 of the RJ45 connector
4	VB2	This input pin is used in conjunction with VB1 and connects to pin 7 & 8 of the RJ45 connector
5	NC	Not Connect to any pins, for assembly only
6	NC	Not Connect to any pins, for assembly only
7,8	−VDC	Ground. The ground return for the +VDC output
9,10	+VDC	DC Output. This pin provides the regulated output from the DC/DC converter
11,12	NC	Not Connect to any pins, for assembly only

Typical Connection Diagram



Mechanical Dimensions



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