

DC JACK
DC42~57V

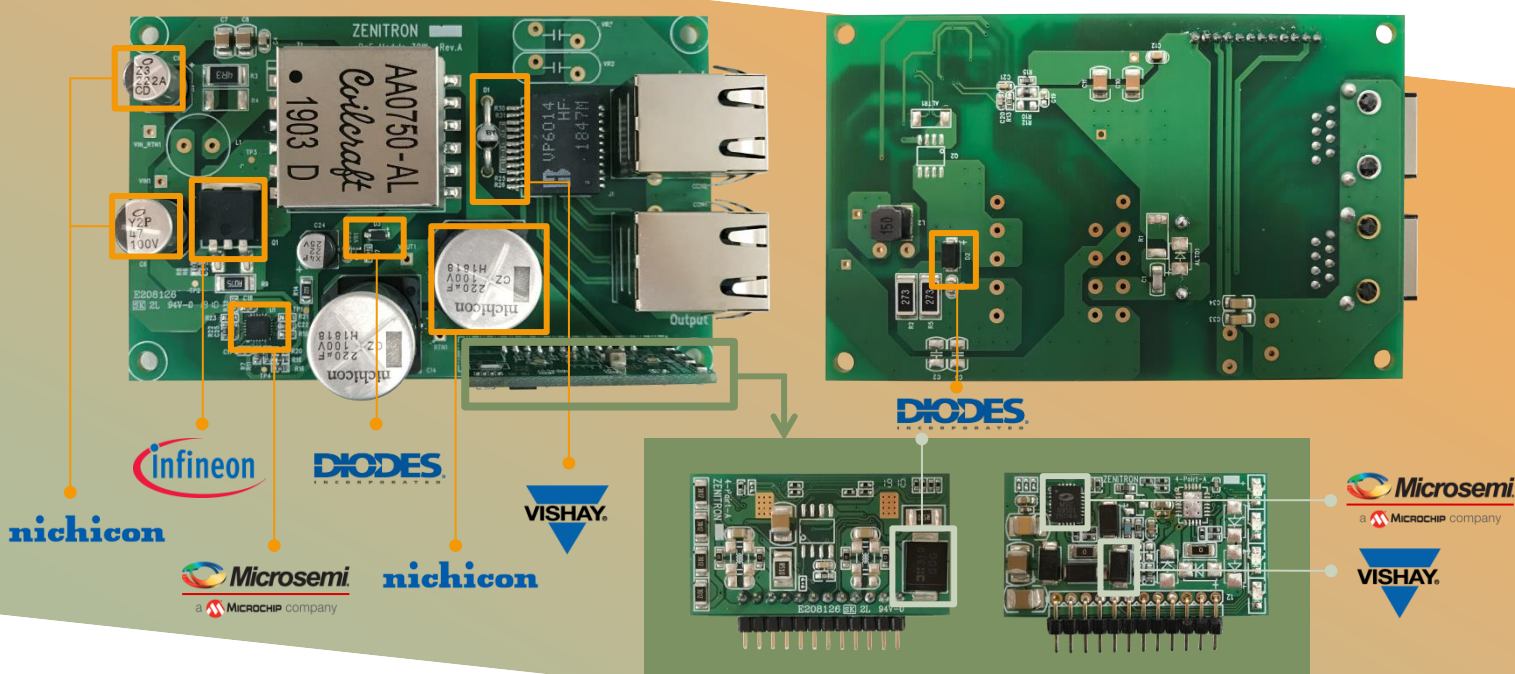
Input filter
EC Cap
nichicon

DC to DC converter
Transformer
LV MOSFET
DC/DC Controller
Infineon
Microsemi
DIODES
nichicon

Output Rectifier/filter
Schottky Diode
EC Cap
nichicon
VISHAY

PoE function
PSE
TVS
Varistor
Microsemi
Surge Protect
DIODES
VISHAY

RJ-45(30W)
55Vdc/0.6A



1. 37V to 57V Input range Non-isolated Flyback converter with 30W of output power
2. VIN UVLO configured to 42V (rising edge), 36V (falling edge)
3. The evaluation board is configured to operate at 200kHz switching frequency
4. 54V at 0.6A output
5. Efficiency up to 86% @54V 0.6A
6. Fully IEEE802.3af-2003 and IEEE802.3at-2009 compliant
7. Supports 2 Pairs and 4 Pairs (Data and Spare Power Feeding)
8. Over-temperature protection
9. Wide temperature range: -40° to +85° C

1. IEEE802.3at and IEEE802.3af powered devices such as IP phones, WLAN Access Points and Network Cameras.
2. 48V Input Telecom/Networks Hot Swappable Power Supply.

1. 37V to 57V Input range
2. 54V at 0.6A output
3. Fully IEEE802.3af-2003 and IEEE802.3at-2009 compliant
4. Configurable AT/AF modes
5. Option : for 7W power limit



Zenitron DC/DC PoE Module 30W

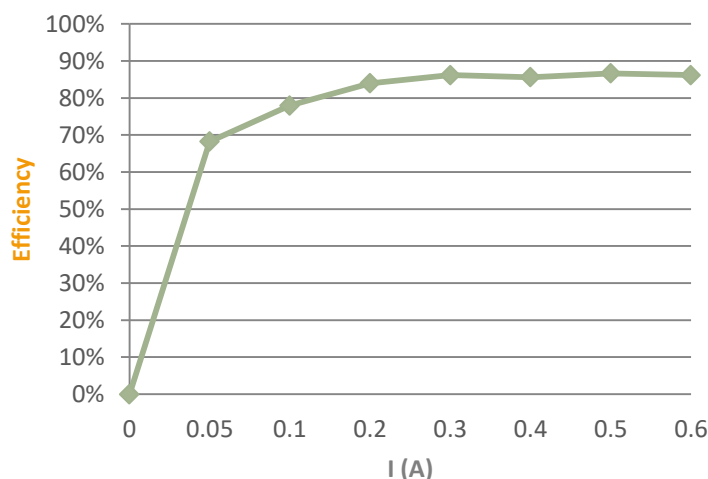
Part List

Block	Vendor	Part number	Description
Input filter		UUX2A470MNL1GS	Cap Aluminum Lytic 47uF 100V 20% (10 X 10mm) SMD 230mA 2000h 105°C Automotive T/R
		UCD2A220MNL1GS	22uF 100 V dc Aluminium Electrolytic Capacitor; CD Series 2000h 8 (Dia.) x 10mm
DC to DC		LX7309	IC, PWM Controller, 24 pin 4mm x 4mm QFN ,LX7309
		UWT1E220MCL1GB	Cap Aluminum 22uF 25V 20% (6.3 X 5.4mm) SMD 38mA 1000 hr 105°C T/R
		IRFS4620PBF	MOSFET N-CH 200V 24A D2PAK , IRFS4620PBF
		BZT52C15T-7	Diode, Zener, 15V, 100mW, SOD-523
		D-SD103AW-7-F	DIODE SCHOTTKY 350mA 40V SOD323
		ES1C-13-F	DIODE FAST REC 1A 150V DO214AC
Output Rectifier/filter		UCZ2A221MNQ1MS	CAP ALUM 220UF 20% 100V SMD (16 X 21.5)
		BYV28-200	DIODE ULTRA FAST 200V 3.5A SOD64
PoE		SI2301BDS	P-Channel 2.5-V (G-S) MOSFET SOT23 (Option : for 7W power limit used)
		PD69101	Meidan, 1 Port PSE IC
Surge Protect		SS1H10-E3/61T	High-Voltage Surface Mount Schottky Rectifier 100V 1A
		D-SMCJ58A-13-F	Surface Mount TRANSZORB Transient Voltage Suppressors

Efficiency Test

I _{in} (A)	Pin (W)	V _{out} (V)	I _{out} (A)	P _{out} (W)	Efficiency (%)
0	0	52.4	0	0	0%
0.08	3.84	52.4	0.05	2.62	68%
0.14	6.72	52.4	0.1	5.24	78%
0.26	12.48	52.4	0.2	10.48	84%
0.38	18.24	52.4	0.3	15.72	86%
0.51	24.48	52.4	0.4	20.96	86%
0.63	30.24	52.4	0.5	26.2	87%
0.76	36.48	52.4	0.6	31.44	86%

POE efficiency test report



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