POWER OVER ETHERNET

Installation Guide

1. Product Description

To introduces a revolutionary product - Power Over Ethernet (PoE) Module. It is designed to deliver data and electrical power over standard Category 5 Ethernet cable to the electronic equipment required 12Vdc.

Easy to install, no tools or software required, light weight and compact in size are just among some of the great features of this product. This PoE system does not required manual adjustment and still work properly. The Power Injector Module "inject" the DC power into the Cat.5 Ethernet Cable carrying the data. The Power Splitter Module "split" the DC electrical power from the data and connected to the power input to the equipment.
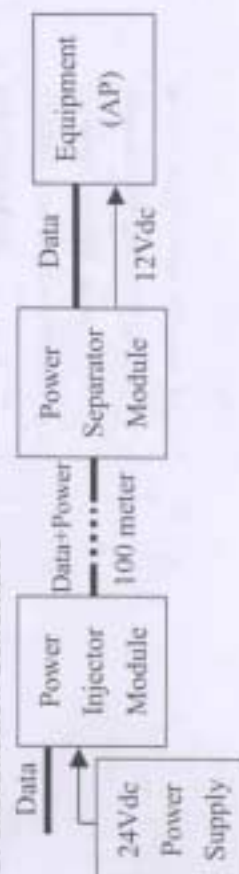
2. Technical Background

For Wireless LAN (WLAN) application, most of the Access Point (AP) will be installed in special location where the transmission and reception has to be the best. But at the same time, it is always hard to get electrical power in such location. Hence, location vs. Power supply becomes a big constraint to the engineering personnel. It is not cost effective to lay extra power line to provide the required power to the electronic equipment. However, all these problems can be solved by using PoE.

This system transfers data on Category 5 Ethernet cable pairs 1/2 and 3/6. Power is transmitted on unused Ethernet pairs 4/5 and 7/8. It has an operational range of up to 328 ft./100m, which is a requirement of the Fast Ethernet standard.

With the power supply, the Power Injector Module "inject" the 24Vdc current into the Cat.5 Ethernet Cable. The Power Splitter module will "Extract" the electrical power from the cable and provide the required electricity to the equipment.

3. Installation Schematic

4. Hardware Installation

- Connect the cable from the PC/Hub/Switch to the Injector Module "Data In"

- Connect the Power Adapter to the Injector Module "DC 24V IN."

- The green LED on the Injector Module should light up.

- Connect the cable from the Injector Module "Data + Power Out" to the "Data + Power IN" of the Splitter Module. (max cable length up to 328ft/100m, as defined by IEEE 802.3)

- Connect an Ethernet cable from the Terminal Unit "Data Out" to the LAN port of the Wireless Access Point (AP).

- Connect the "DC 12V OUT" from the Splitter Module to the DC 12V input port of the AP using the power cable provided.

- The green PWR LED of the Splitter Module should light up.

- Operate the Wireless Access Point normally.

5. Ports, Labels and Indicators

Power Injector Module:

Color:	Black
Ports:	Data In, Power In, Data + Power Out
LED:	Yellow when Power In

Power Splitter Module:

Color:	Blue
Ports:	Data + Power In, Data Out, Power Out
LED:	Green when Power In

6. Specification

Category 5 pin power usages: 4/5 , 7/8

Ethernet Connector: RJ-45

Ethernet Data Rate: 10/100 Mbps

Number of Equipment to power: 1

Ethernet Data Cable: TIA/EIA-568, Category 5 Cable

Device Weight (pair): 470 Grams

Dimensions: 22cm x 19cm x 3.8cm

Power Supply

Input Voltage:	AC 100~240V
Output Voltage:	DC 24V
Output Current (Max):	800mA
Operating Temperature:	-10°C ~ 40°C
Compliance Standard:	CE, CSA, EMC

Power Splitter Module

Input Voltage:	DC 24V
Output Voltage:	DC 12V ±5%

Part List

Item	Part Name	Quantity
1	Switching Power Supply	1 pc
2	Power Cord for Switching Power Supply	1 pc
3	Power Injector Module	1 pc
4	Power Separator Module	1 pc
5	Power Jumper Cord	1 pc
6	LAN Patch Cord	2 pc
7	User Manual	1 pc
8	Mounting Screws	4 pc

This device complies with Part 15 of the FCC Rules.   Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.