

**Power over Ethernet(PoE)**

**In Security Industry**

**Company Profile**

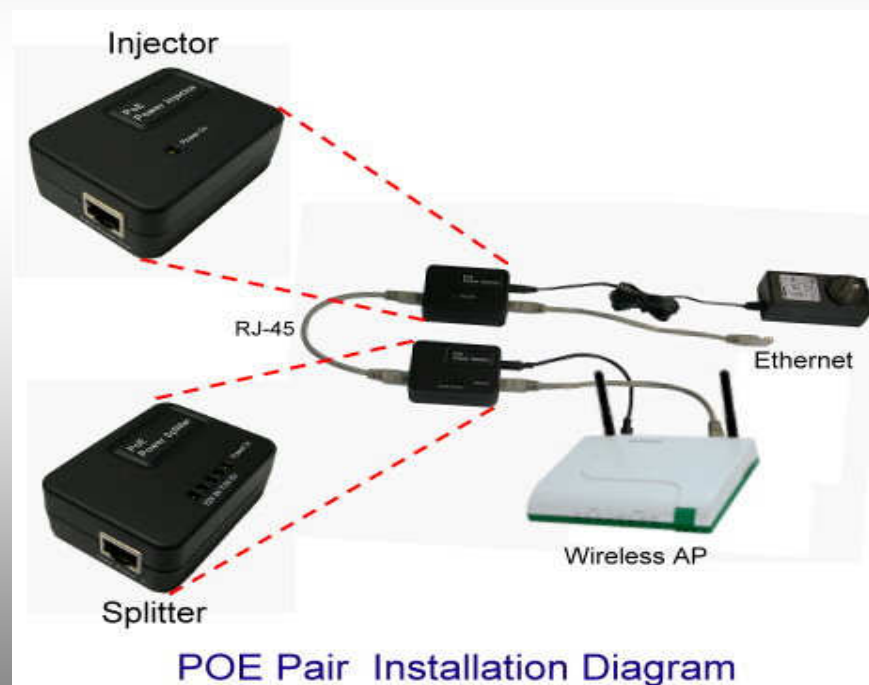
***YOMA***

## Customers' Voices

- Extends Cat.5/6/7 Cable Network beyond 100 Meters
- Forwards Power Over Ethernet (PoE) to Remote Devices
- No Power Cable wiring Required, No local power supplier
- Fully Transparent - No Restriction to Network Traffic
- Simple to Install – Plug and Play, Works Instantly
- Supports All Network Devices
- With No Degradation in Network Speed or Latency
- Requires outdoor facility for outdoor application
- Compatible with IEEE 802.3af PoE Standard

## What is PoE? How does PoE work?

Power over LAN cable in between PoE-PSE and PoE-PD.  
Power input over pin 1,2,3,6(end-point) or 4,5,7,8(mid-span).  
Cables in the Ethernet network are limited to 100m in length.



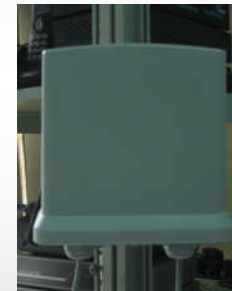
## What is PR100?

Cables in the Ethernet network are limited to 100m in length. Frequently network equipment must be connected over greater distance. PR100 is the one for the solution.

## How it works?

### PoE forwarding

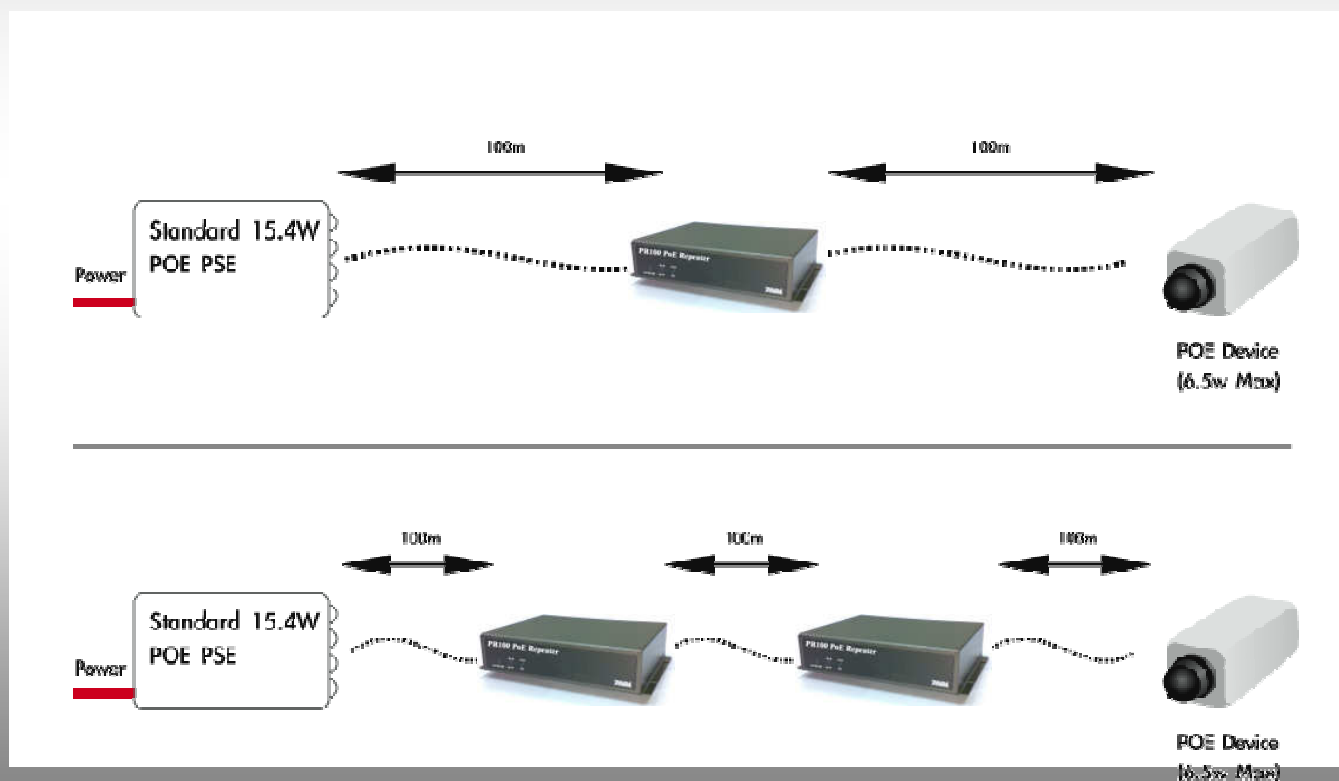
PR100 forwards LAN power via network cable by Power Over Ethernet technology and **requires no local power supply** to be installed for the purpose. It can also forward Ethernet packets onto connected device such as IP camera, wireless AP or IP phone Which embedded with PoE-PD (client PoE).



# Daisy-Chaining

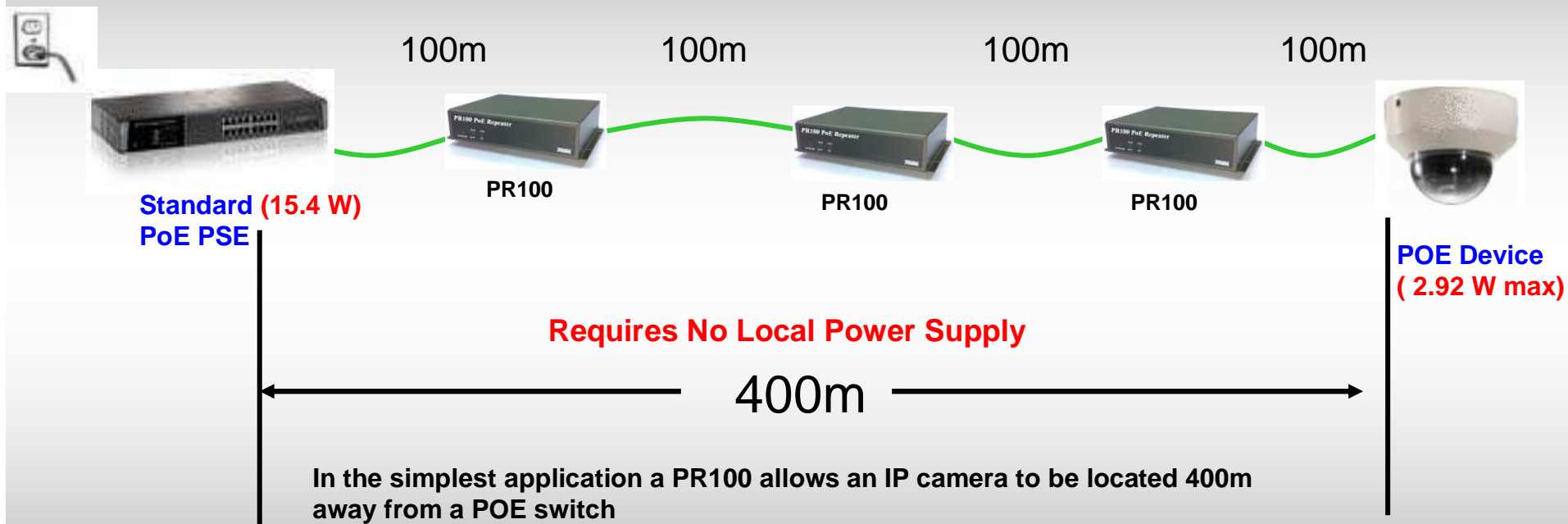
It's possible to connect two or more **PR100** in a chain, with up to 100 meters of cable between each **PR100** or device. Links may be extended up to 600 meters maximal, subject to the power requirements of the connected PoE device, and RJ45 cable quality, etc.

- Basic applications **PR100** doubled the network distance to 200 meters in between



- Extends the network connection further 100 meters by making use of **daisy-chaining** capability

# Practical Applications with any IP Cam

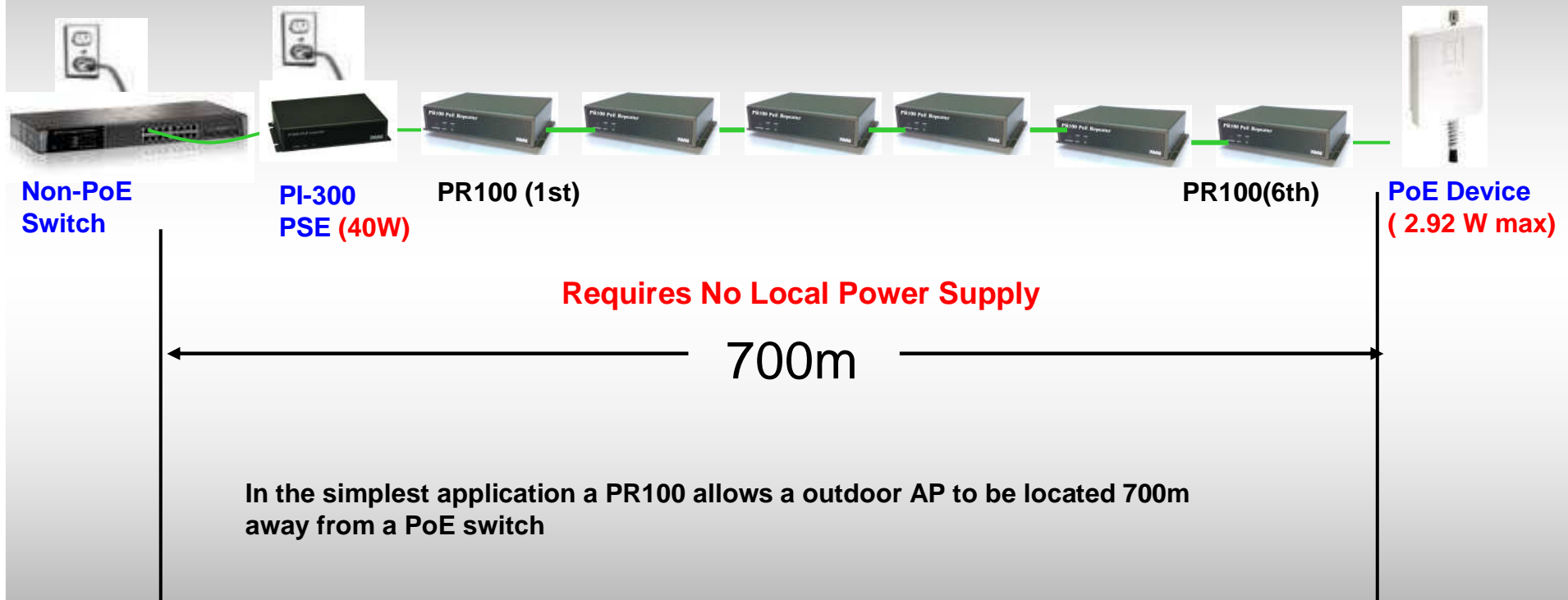


The target market is :

1. any wifi AP
2. any IP Cam
3. any LAN devices

Noted a standard 24AWG Cat5 cable with 18~19Ω impedance is used.

# Practical Applications with any wifi Outdoor AP



The target market is :

1. Outdoor AP
2. Outdoor IP-Cam

**Noted that standard 18~19Ω (line impedance) 24AWG Cat5 Cable is used.**

# Maximum Range

## Connect with Standard 15.4W PSE

End to end distance	100m	200m	300m	400m	500m
Daisy-Chaining ( PR100)	0	1	2	3	N/A
Power Available		≤10.9 W	≤6.5 W	≤3.84 W	Data only No power

## Connect with Hi-Power 30W PSE

End to end distance	100m	200m	300m	400m	500m	600m	700m	800m
Daisy-Chaining ( PR100)	0	1	2	3	4	5	6	7
Power Available		≤ 25.5W	≤ 21W	≤ 16.5W	≤ 12W	≤ 7.5W	≤ 3.84W	Data only No Power

## Connect with Hi-Power 40W PSE






End to end distance	100m	200m	300m	400m	500m	600m	700m	800m	900m
Daisy-Chaining ( PR100)	0	1	2	3	4	5	6	7	8
Power Available		≤ 28W	≤ 25.5W	≤ 21W	≤ 16.5W	≤ 12W	≤ 7.5W	≤ 3.84W	Data only No Power

**Note: These distances are typical results when used with 18~19Ω 24AWG Cat5 Cable.**



# PR100 works w/ any Outdoor AP





## Internal Testing Based on 15.4 W Standard PoE (PSE)

Model Name	Photo (PD Device)	Class	Daisy-Chaining (PR100)			Power Consumption	Maximum Distance		
			15.4 W	30W	40W		15.4 W	30 W	40w
		0	x 2	x 4	x5	9.23 W	300m	500m	600m
		0	x 2	x 5	x6	5.85 W	300m	600m	700m
		0	x 2	x 5	x6	4.3 W	300m	600m	700m
		0	x 2	x 5	x6	5.28 W	300m	600m	700m
		0	x 2	x 5	x6	N/A	300m	600m	700m

Note: These distances are typical results when used with 18-19Ω 24AWG Cat5/6/7 Cables.

# PR100 works w/ any IP Cam

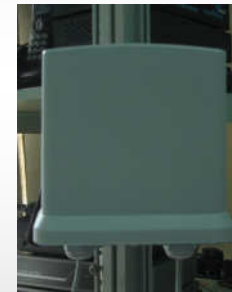
Internal Testing Based On High-Power 30/40 W Standard PoE ( PSE )

Model Name	Photo	Class	Daisy-Chaining ( PR100 )			Power Consumption	Maximum Distance		
			15.4 W	30 W	40W		15W	30W	40W
		0	x 2	x 5	x7	3.61 W	300m	600m	800m
		0	x 2	x 5	x7	4.13 W	300m	600m	800m
		3	x 2	x 5	x7	5.79 W	300m	600m	800m
		0	x 3	x 6	x7	2.92 W	300m	700m	900m

Note: These distances are typical results when used with 18~19Ω 24AWG Cat5/6/7 Cables.

## What is PR102?

PR102 can support upto 2 ports PoE repeater for special project installation.

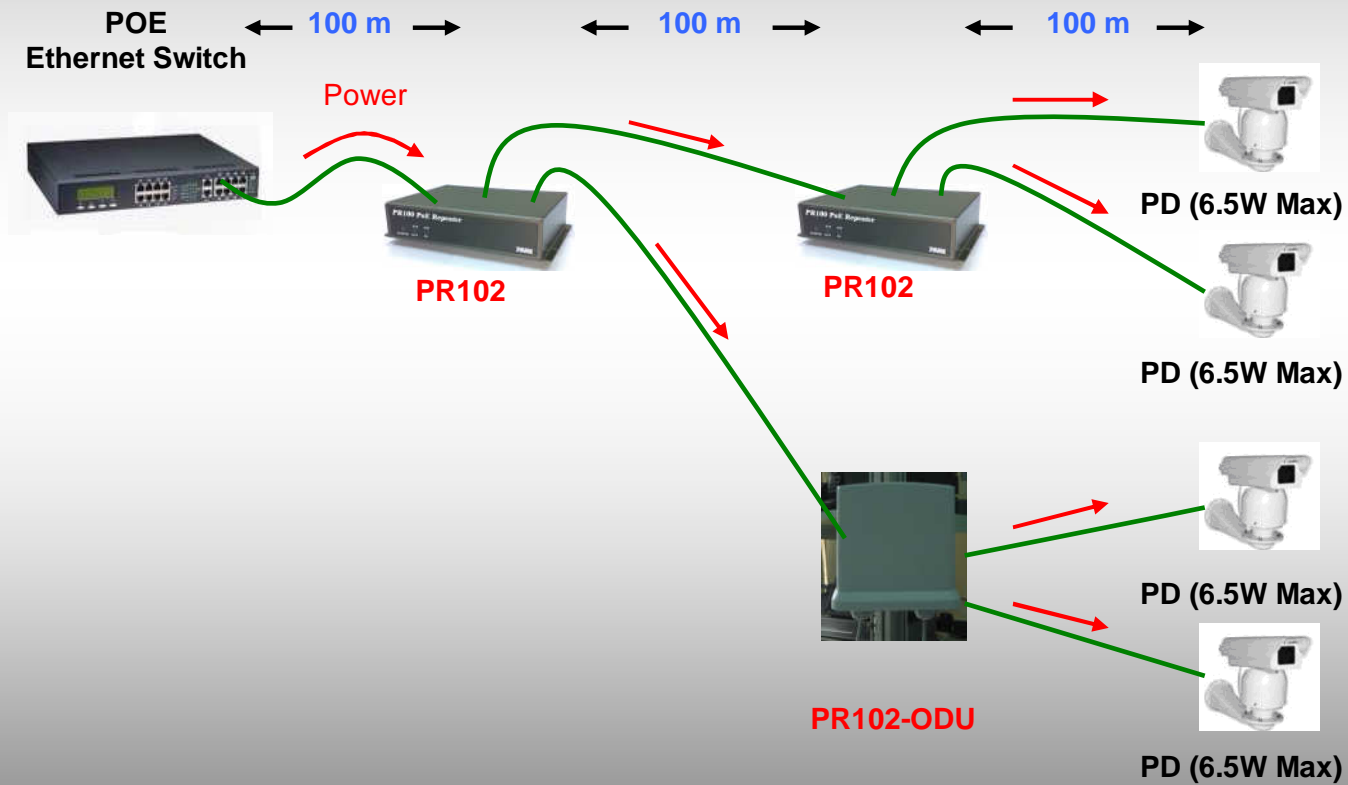


## How it works?

### PoE forwarding

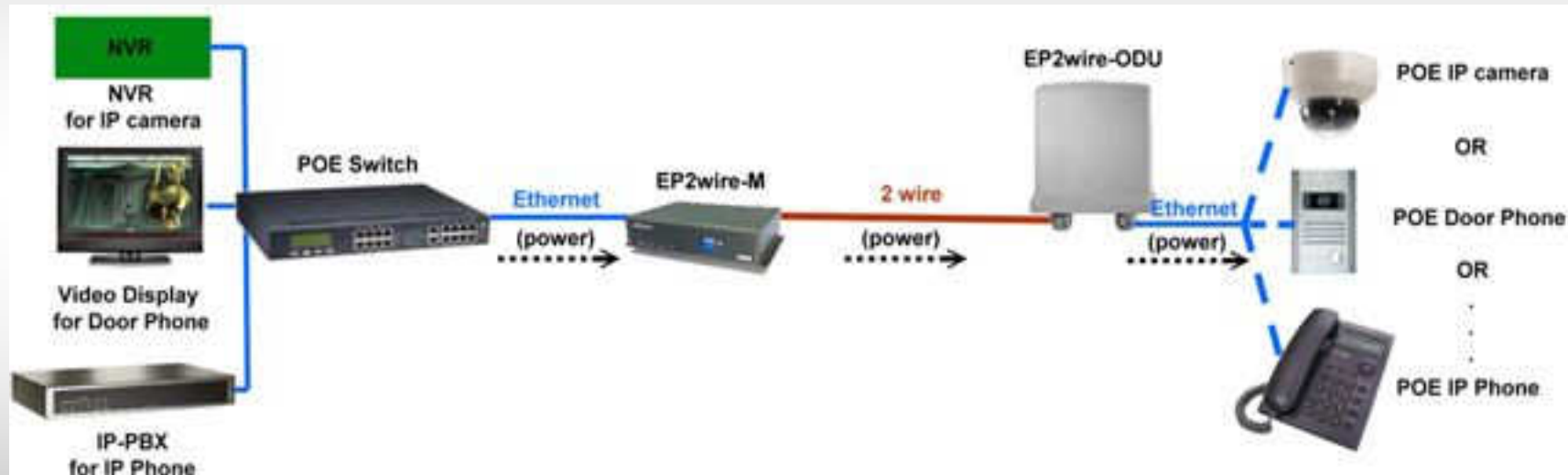
PR102 forwards LAN power via network cable by Power Over Ethernet technology and **requires no local power supply** to be installed for the purpose. It can also forward Ethernet packets onto connected device such as IP camera, wireless AP or IP phone Which embedded with PoE-PD (client PoE).

# PoE Repeater PR102

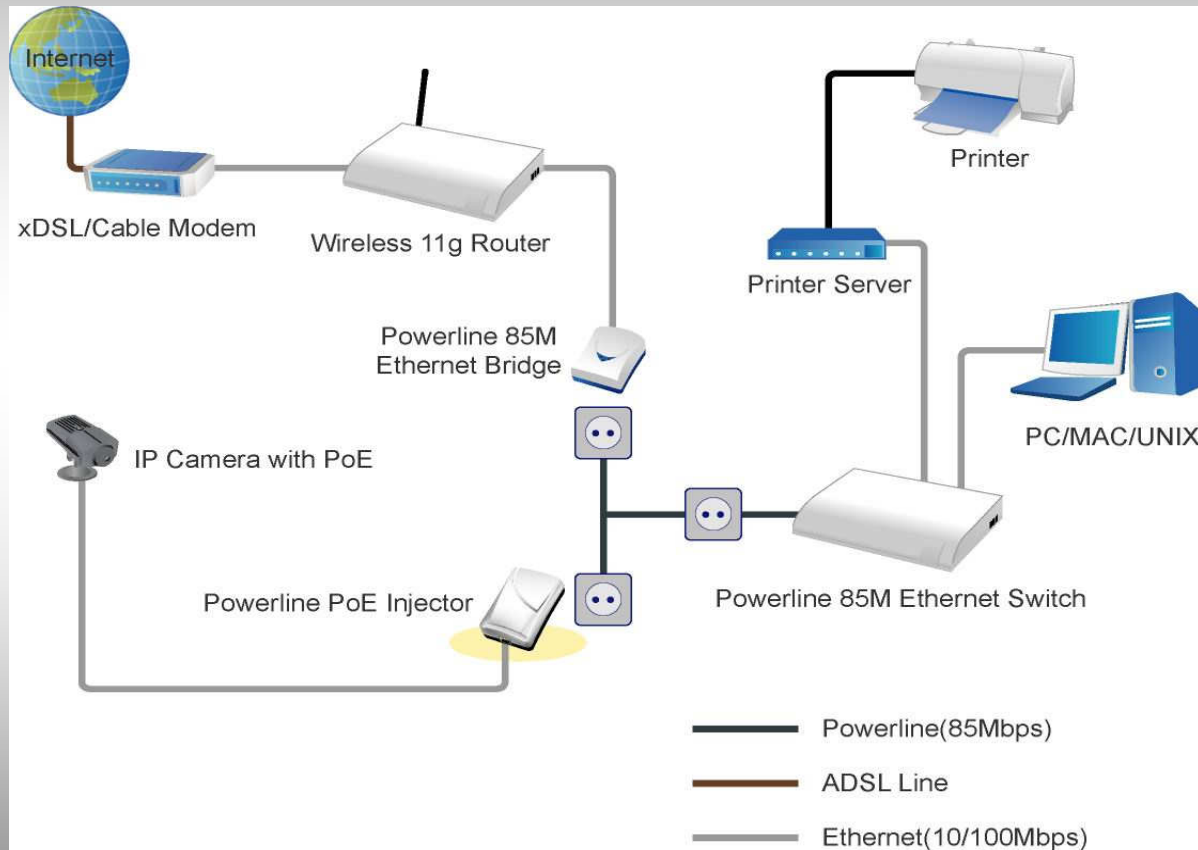


# 2-wire PoE Repeater

\* PoE Input : 802.3af (15.4w) or High-power (50w)



# PoE over In-house Powerline Network



# Business Development

## **\*High-end Surveillance System Provider**

- **ODM PM300 high power splitter into Outdoor housing of Box IP Cam**



## **If total solution is considered:**

- **OEM PR100 Repeater**
- **OEM PI300 high power injector**
- **OEM 2 wire PoE repeater**
- **OEM V102 Modem series(300m)**
- **OEM LRE Modem up to 3km**



H301A



Coming Soon....

- **PW541M** : one port uplink, 4-port PoE mid-span with PoE selectable
- **PR101** : “PR100” with one more splitter for 5/7/9/12V output



- **PW541HI** : 2p High Power PoE Injector
- **Universal PPS (PoE Power Station)** : 19' cabinet with total 8 slots for --
  - \*PW541M Injector midspan
  - \*PI300 High power injector