

● **PLC-610: G3-PLC-Street Light Controller**



Order Information:
 Model No.: PLC-610

● **FEATURES**

- Built in TI's G3-PLC Modem
- Built in G3-PLC AC Coupler
- AC 90~240V full range power input
- Digital Input x 2
- AC Digital Input x 1
- Relay Output x 1/ 5A
- RS485 x 1
- Ethernet Port x 1
- Support Modbus RTU

● **APPLICATIONS**

- Smart Grid
- AMR / AMI
- Smart Lighting Control
- Smart Home
- Smart Building
- Smart Office
- Sensors IoT
- Solar

● **GENERAL DESCRIPTIONS**

PLC-610 使用 G3-PLC 的通訊技術，內置 TI's G3-PLC Modem，TI's Modem 的 T 使用 OFDM 調變，符合 Prime, G3, IEEE P1901.2, 的標準，可以提供 CENELEC, FCC, ARIB 的調變需求，如下圖

使用電力線作為通訊傳輸線，在應用上不必另外拉線，也適合用在智能建築及智慧家居的應用上，PLC-610 有 RS-485 介面，可以連接到感測裝置或控制設備，感測裝置的數據資料可以透過電力線傳送到資料收集器 ADC-2000，遠端控制器也可透過電力線控制設備動作。

Parameter	IEC61334 5-FSK	PRIME(OFDM)	G3(OFDM)	P1901.2(OFDM)
Modulation Size	Spread Frequency Shift Keying	DBPSK / DQPSK/DBPSK	DBPSK / DQPSK/(DBPSK)	DBPSK/DQPSK/DBPSK/ Coherent Modulation
Forward Error Correction	N/A	Rate 1/2 Convolutional Code	Outer RS + inner rate 1/2 convolutional code	Outer RS + inner rate 1/2 convolutional code
Data Rate	2.4Kbps	21, 42, 64, 84, 64Kbps (w/ coding)	20.36/34.76/(46) Kbps (with coding)	Scalable up to 250Kbps
Band plan	CENELEC-A	Continuous 42-89 KHz (defined for LV scenario)	36-91 KHz with tone masking for 5FSK	CENELEC-A, FCC band
ROBO Mode	No	No	Yes	Yes
Tone Mask	No	No	Yes	Yes
Adaptive Tone Map	No	Yes	Yes	Yes
MAC	IEC61334 MAC	PRIME MAC	802.15.4/G3 profile	802.15.4 based
Convergence Layer	IEC61334-4-32	IEC61334-4-32/IPv4	6LoWPAN/IPv6	6LoWPAN/IPv6
Meter Application	COSEM/DLMS	COSEM/DLMS, IP	COSEM/DLMS, IP	COSEM/DLMS, IP

• PLC-610 內置 Built in G3-PLC AC Coupler，提供 AC 90~240V full range power input，不須再外掛電源供應器供應 DC 電源，另外 PLC-610 也提供 2 組 Digital Input, 1 組 AC Digital Input, 1 組 5A 容量的繼電器接點, 1 組 RS485 通訊介面, 1 組 RJ45 乙太通訊介面，也提供許多的 LED 指示燈，可以顯示電源，通訊狀態, I/O 接點狀態 等，PLC-610 非常適合用在 Smart Grid 上，也適合用在太陽能發電系統上，PLC-610

● **SPECIFICATION**

• **Serial Interface**

Number of Ports	5
Serial Standards	RS485
Connectors	Terminal Block
ESD Protection	15 kV for all signals
RS-485 Data Direction Control	automatic data direction control

• **Serial Communication Parameters**

Data Bits	7, 8
Stop Bits	1, 2
Parity	None, Even, Odd, Space, Mark
Flow Control	-
Baud rate	300 bps to 921.6 kbps, option to 50 bps ~ 921.6 kbps

• **Serial Signals**

RS-232	-
RS-422	-
RS-485-2w	Data+, Data-

• **Software**

Configuration Options	HTTP Web Console, Windows Setup Utility
Utilities	Setup Utility for Windows

• **Physical Characteristics**

Housing	PC ,
Weight	
Dimensions	

• **Environmental Limits**

Operating Temperature	0 to 60°C (32 to 140°F)
Storage Temperature	-40 to 85 °C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)
Altitude	Up to 2000 m (795 hPa), higher altitudes on demand

Note

• Power Requirements

Input Voltage	90~240VAC
Power Connector	Terminal block
Power Consumption	-
Isolation	-

• Standards and Certifications

EMC	CE
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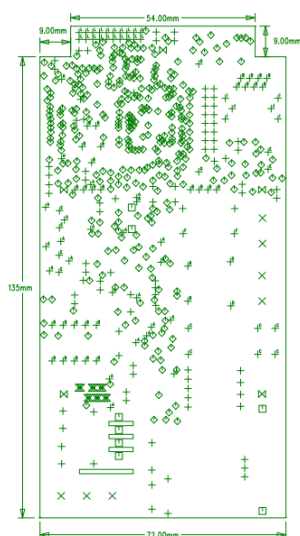
• Reliability

MTBF (mean time between failures)

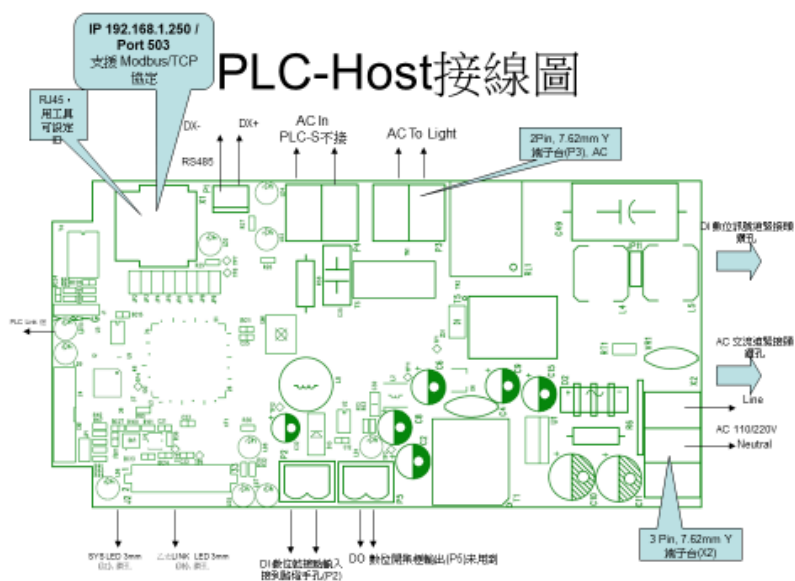
• Warranty

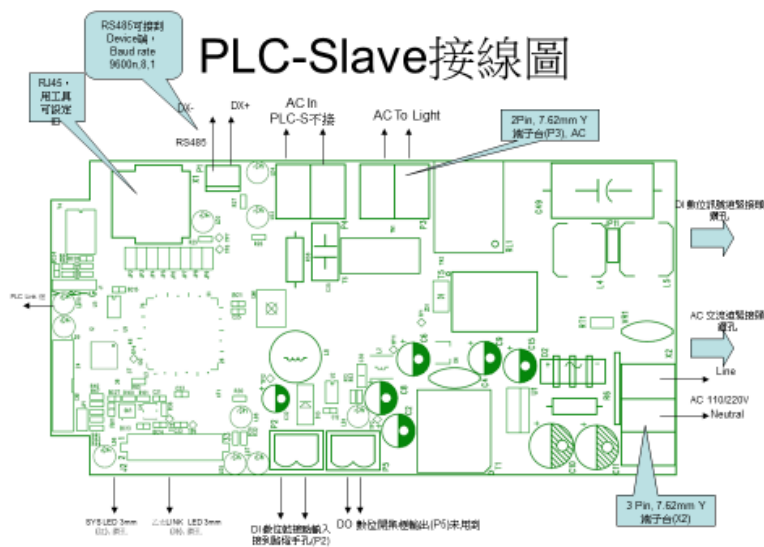
Warranty Period	1 year
Details	See http://www.infosystem.com.tw

● Dimension



● Connection





● **Configuration**

Web Browser or Setup tool

● **Installation**

Wall Mount

Din Rail (Optional Din Rail Kit)