

# IP2 Specifications

iPanel

IP2 Remote Controllers

## General

Item	Description
CPU/ Clock	PIC 18/ 20MHz
Network/ Speed/ Response	CAN Fieldbus/ 125kbps/ 100ms
Cabling/ Distance	2P STP 18awg/ 1,200 meters
Power Supply	6VAC 0.5A, 50/ 60 Hz
Ambient/ Storage Temperature	0 to 50 oC/ -20 to +50 oC
Remote Terminal	Master PLC (Panasonic/ Omron/ IDEC)

## I/O Configuration

Model	IP2-RIO	IP2-RIO2	IP2-RIO3
Digital Input	8 Channels	8 Channels	16 Channels
Digital Output	8 Channels	16 Channels	16 Channels
Analog Input	4 Channels	NA	NA
Analog Output	4 Channels	NA	NA

## Accessories

Item	Description
IP2-ISO (for IP2-RIO)	Opto Isolation Board (8 DI 230VAC/ 8 DO Relay)
IP2-ISO2 (for IP2-RIO2)	Opto Isolation Board (16 DI 230VAC/ 8 DO - 2 Relay and 6 NPN TR)
IP2-GW	Isolated RS232/ Fieldbus Gateway
IP2-RF Router	Wireless RF/ Fieldbus Gateway

## PID Control

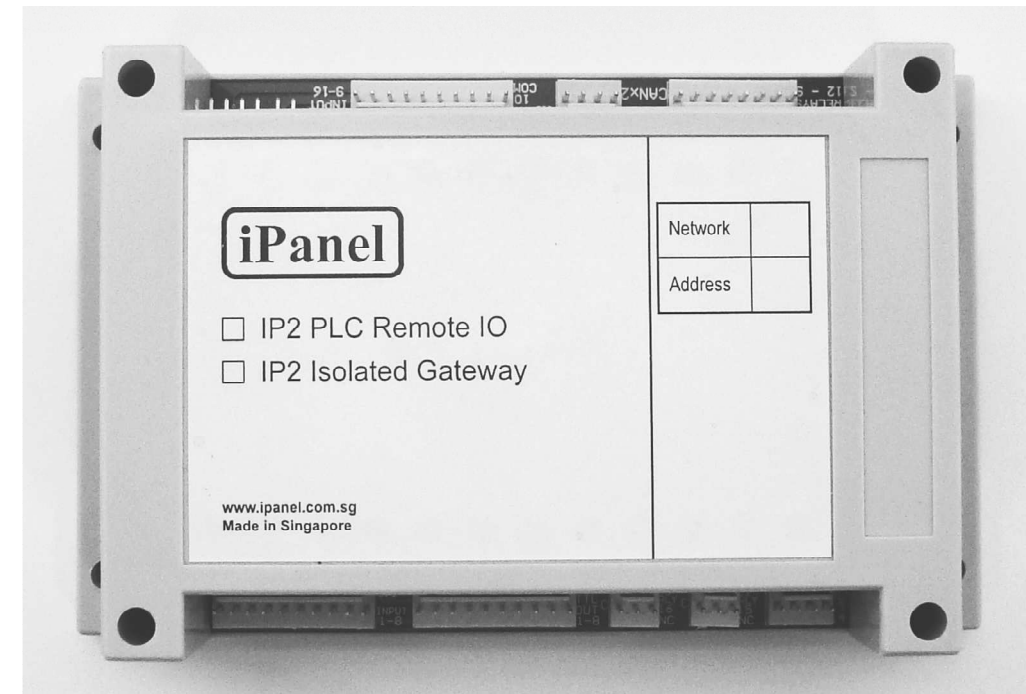
Item	Description
IP2-ANA (for IP2-RIO)	Analog Isolation Board (4 AD DE Input, 4 DA Output)
IP2-TH (for IP2-RIO)	Expansion Card for Thermister (2.2k, 5k, 10k Ohms)
Number	4 x PID Loops
Setup	Windows-Based Setup Software from PC

## Applications

- 2-Wire Remote Panel
- PLC-Based Starter Panel (Car Park MV Fan System)
- Building Automation System
- Lift & Elevator Monitoring System
- Pump Monitoring System
- Remote Terminal For Master PLC (Panasonic/ Omron)

# IP2

## Remote Controllers



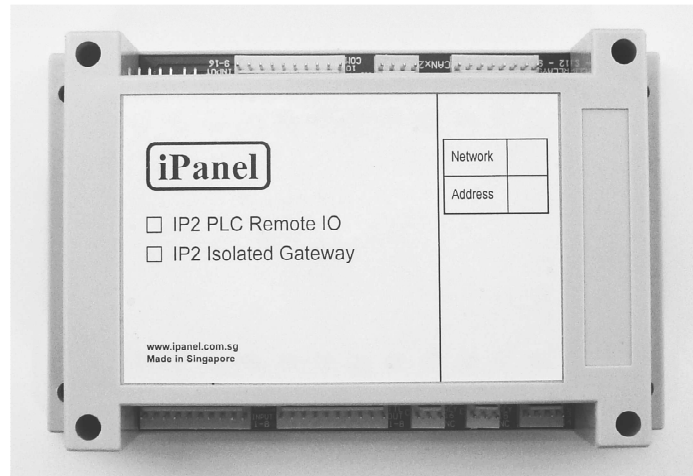
*Advanced Fieldbus System For Remote Monitoring & Control Applications*

Please Contact...

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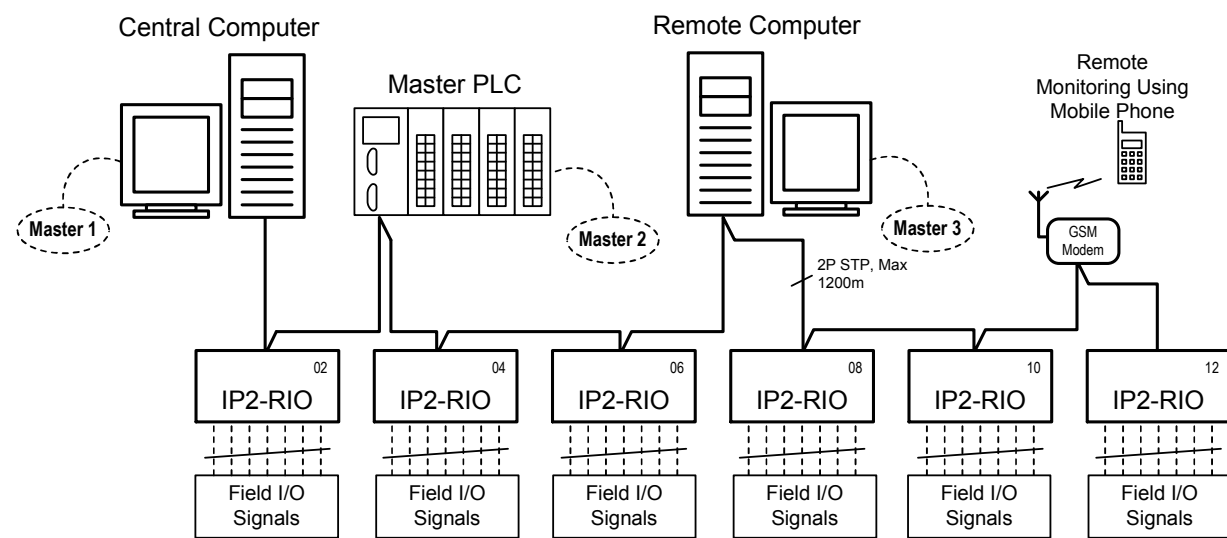
# IP2 Fieldbus Solution



- Peer-To-Peer Fieldbus Network
- Simple And Efficient
- Cost Effective
- Applications as — Remote I/O Terminal for Remote Control Applications Or I/O Repeaters

The use of *fault* tolerant fieldbus network provides reliable and efficient communication between IP2 Remote Controllers with the Central Computer or Master PLC. The cable requirements for fieldbus is 2P STP of 18awg. Up to 32 x IP2 Remote Controllers can be linked in a single network with cabling distance of 1,200 meters. The IP2-RIO can be used as *Remote Terminals* for Control applications using Central Computer or Master PLC. Or, as *I/O Repeaters* as illustrated.

## Application — Remote Terminals

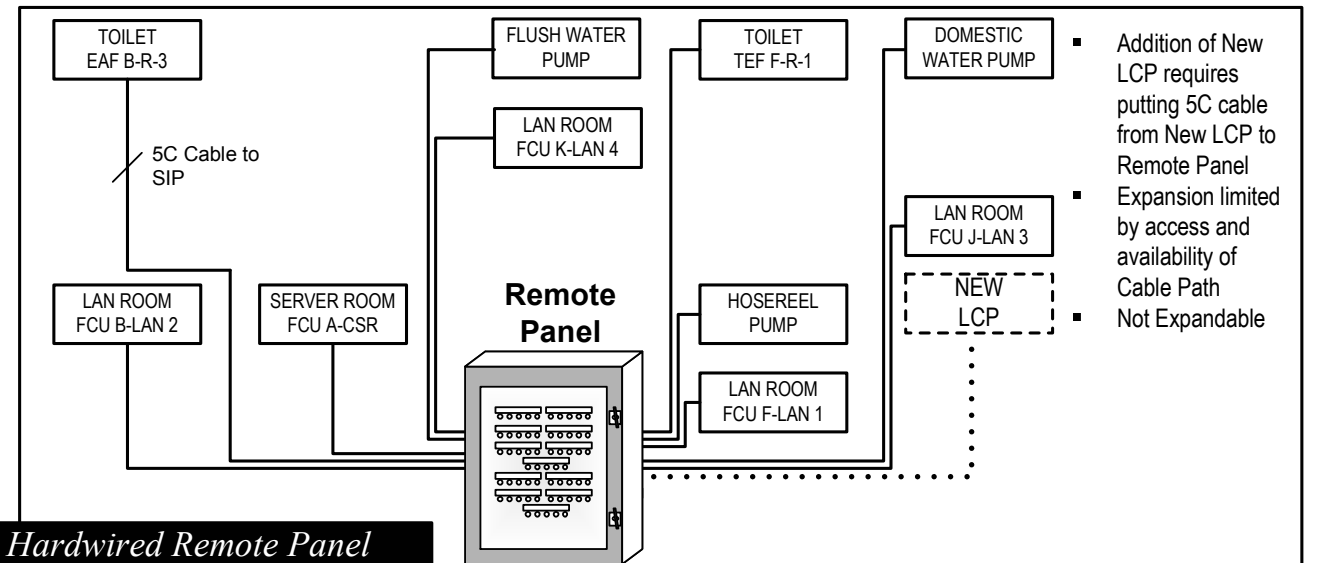


The IP2-RIO operates over peer to peer fieldbus network that allows for integration with *Multiple Masters*. Such as Central Computers, PLC and GSM modem gateways.

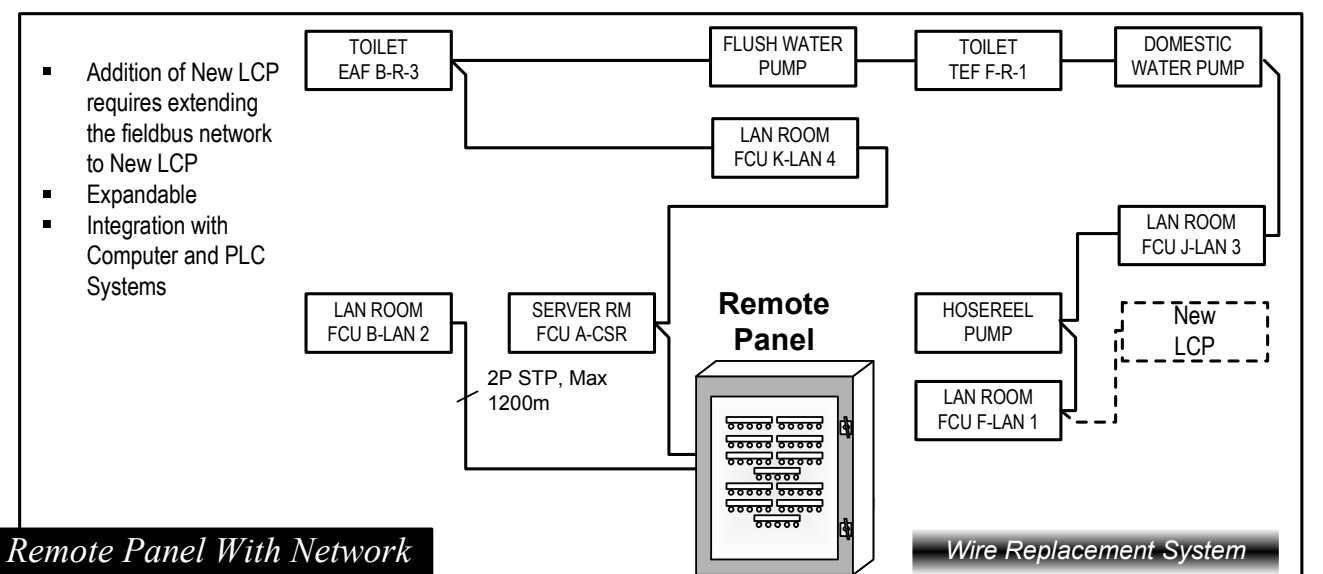
# IP2 Fieldbus Solution

## Application — I/O Repeaters

As I/O Repeaters, IP2-RIO are used in pairs to digitized I/O signals for transmission using 2-wire over long distances. Wire Replacement System, ideal for use in Remote Panel. I/O signals from one IP2 RIO is automatically transmitted in real-time to another over the fieldbus network. For example, DI/DO to DO/DI, AD/DA to DA/AD and vice versa.



*Hard Wired Remote Panel - Implementation requires putting of 5C cables from Local Control Panels (LCP) to the Status Indicating Panel (SIP) for I/O signals. If there are 10 Local Control Panels, the incoming tray of the Remote Panel would have 10 x 5C cables - Inefficient and Expensive.*



*2-Wire Remote Panel - Cabling requirement is only 1 x 2P STP 20awg cable linking the Remote Panel to all the remote Local Control Panels - Cost saving and easily expandable. Compared with above hard wired implementation, the IP2 RIO system saves in overall implementation cost. Requires NO programming.*