

# INTEGRATION DEVICE

## PDI (POWER DISTRIBUTION INDICATOR)

PDI shows distributed power consumption of up to 128 indoor units.



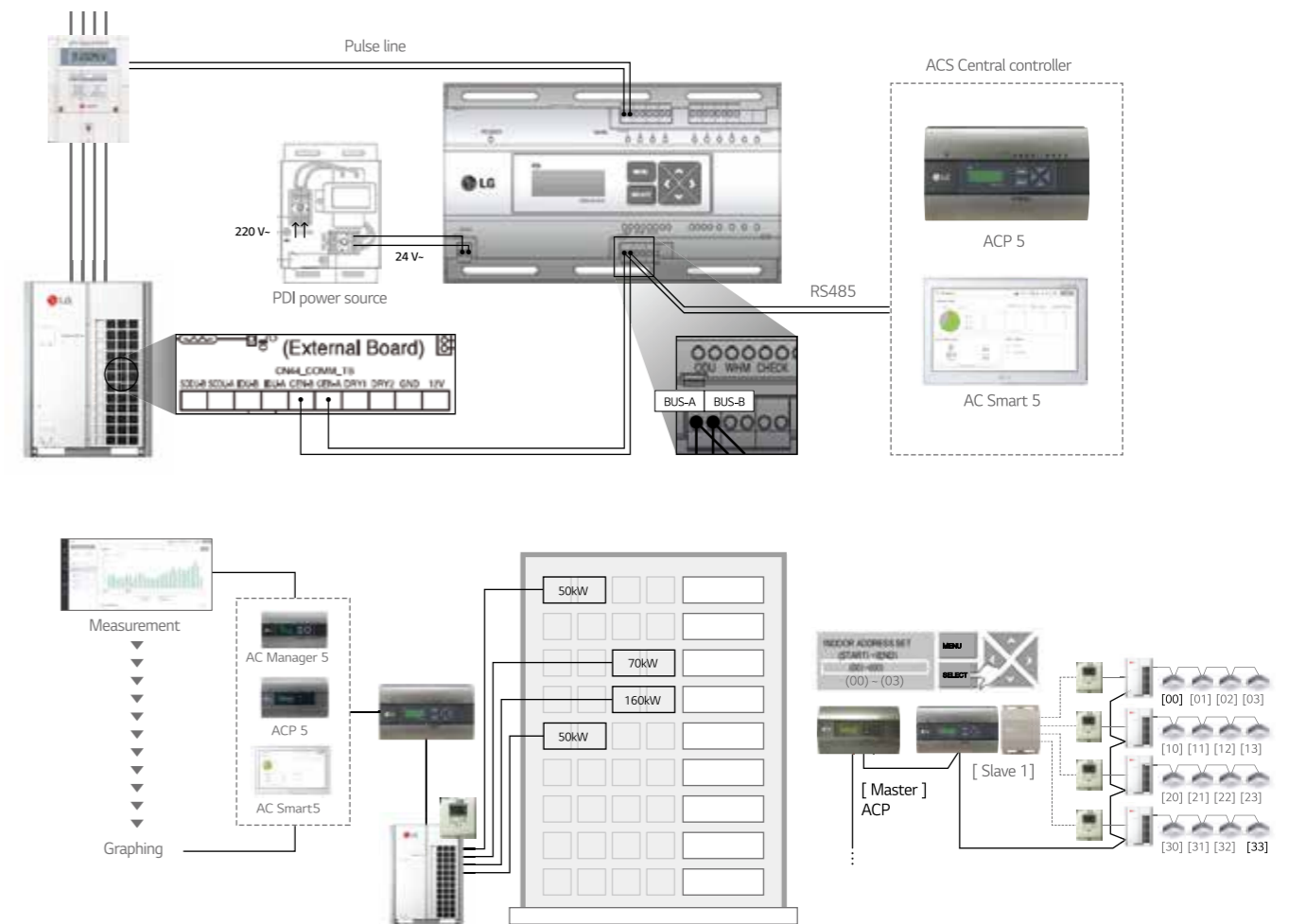
PQNUD1S40 (Premium, 8 port)  
PPWRDB000 (Standard, 2 port)

Model Name	PQNUD1S40	PPWRDB000
Size (W x H x D, mm)	270 x 155 x 65	
Interfaceable Products	Air conditioner, ERV DX	
Maximum Number of Power Meters	EHP : 8 Watt meter GHP : 4 Watt meter / 4 Gas meter	EHP : 2 Watt meter GHP : 1 Watt meter / 1 Gas meter
Maximum Number of Indoor Units	MULTI V : 128	
Data Backup when Power Outage	○	
Power Input	PDI : AC 24V, Transformer : AC 220V	

※ ○ : Applied, - : Not Applied

### Features & Benefits

- Enables total and indoor power consumption monitoring
- With LG central control connectivity, energy monitoring, energy savings operations and target usage setting functions are enabled
- Enables gas consumption and electricity distribution



Note : 1. Power cable and type could be different from this scene depending on the Outdoor unit's specification.  
2. Measured power consumption could be different between PDI and Watt meter.  
3. Applicable Central Controller : ACP 5, ACP Lonworks, AC Smart 5, AC Ez Touch  
(Combination : we recommend to connect separated watt meter for Outdoor units to have correct power distribution value.)

# ACS IO MODULE

This module can be connected with ACP 5 or AC Smart 5 controller if additional I/O points such as DI/DO and AI/AO for 3<sup>rd</sup> party devices control and monitoring are needed.



PEXPMB000

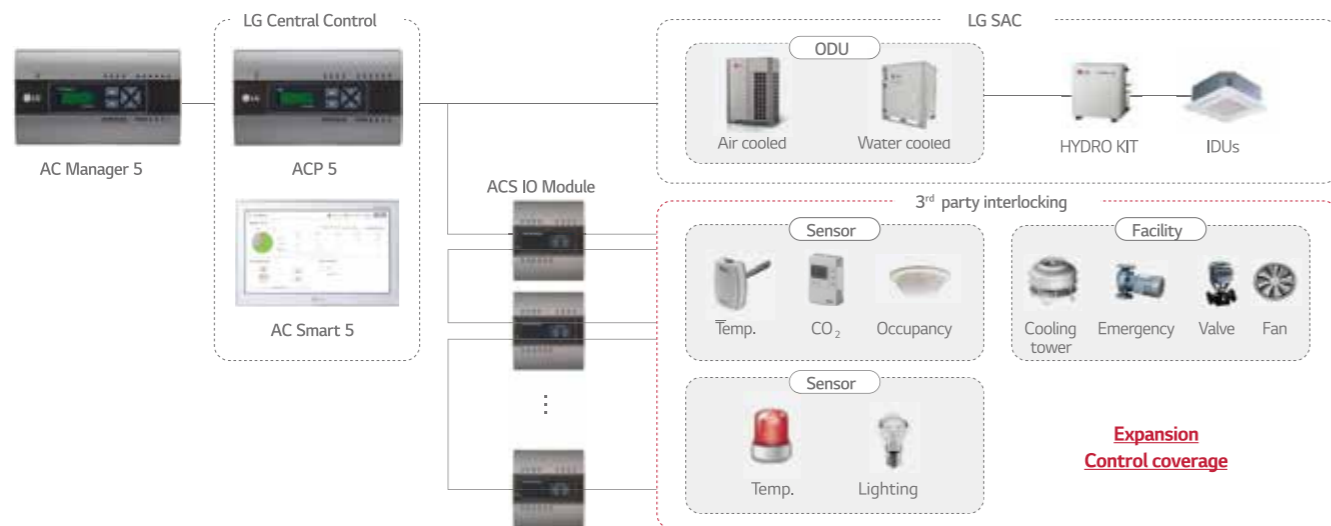
Model Name	PEXPMB000		
Linkable Products	PACS4B000 PACP4B000 PACSA000 PACP5A000		
Communication	RS-485	1 ch.	
I/O	Digital Input	3 port	
	Digital Output	3 port	
	Universal Input <sup>1)</sup>	4 port	
	Analog Output	4 port	
Analog Input	Value Spec	Min.	Max.
	NTC 10k	0.68kΩ	177kΩ
	PT 1000	803kΩ	1,573kΩ
	Ni 1000	871.7kΩ	1,675.2kΩ
	DC (Voltage)	0V	10V
Analog Output	DC (Current)	0mA	20mA
	-	0V	10V
Digital Input	Binary Input (Non Voltage)	-	-
Digital Output	Normal open	-	30VAC / 30VDC, 2A

※ ○ : Applied, - : Not Applied  
1) The type of UI (Universal Input) is selectable among Digital Input and Analog Input

## Features & Benefits

- Interlocking with 3<sup>rd</sup> party equipment LG Central controller can make operation scenario with 3<sup>rd</sup> party equipment by ACS IO Module.
- Control coverage is expanded. (Air conditioner only → Sensors, Fans, Pumps, Switches...)

## Key Application



\* DI : Digital Input, DO : Digital Output, UI : Universal Input, AO : Analog Output / Please contact our regional office to have connectable relay specification for analog output.

# ACU IO MODULE

This module can be connected with ACP 5 or AC Smart 5 controller if additional I/O points such as UIO / UI / UO for 3<sup>rd</sup> party devices control and monitoring are needed.

ACU.UIO



PEXPMB300

ACU.UO



PEXPMB200

ACU.UI



PEXPMB100

Module Name	PEXPMB300	PEXPMB200	PEXPMB100
Linkable Products	PACSA000, PACP5A000		
Communication RS-485	2 ch. <sup>1)</sup>	1 ch.	1 ch.
Digital Input	-	-	3 port
Digital Output	2 port	6 port	-
Universal Input <sup>2)</sup>	4 port	-	6 port
Analog Output	2 port	4 port	-
Analog Input	Value Spec	Min.	Max.
	DC (Voltage)	0V	10V
Analog Output	DC (Voltage)	0V	10V
	DC (Current)	-	-
Digital Input	Binary Input (Non Voltage)	-	-
Digital Output	Normal Open	-	30VDC, 1A

※ ○ : Applied, - : Not Applied  
1) 1ch is reserved for internal communication  
2) The type of UI (Universal Input) is selectable among Digital Input and Analog Input

## Features & Benefits

- Interlocking with 3<sup>rd</sup> party equipment LG Central controller can make operation scenario with 3<sup>rd</sup> party equipment by ACU IO Module.
- Applicable devices are expanded. (Air conditioner only → Sensors, Fans, Pumps, Switches...)

# CHILLER OPTION KIT

LG central controller 5 series with Chiller Option Kit can provide LG chiller remote control and cycle monitoring



PCHLLN000

Model Name	PCHLLN000
Monitoring Points	Evaporator status / Compressor status (Scroll, Screw, Centrifugal chiller only) / Condenser status / Generator status (Abs. chiller only)
On / Off	○
Target Temp. setting	○
Mode Change	Scroll chiller only
Schedule	○
Interfaceable Products	Scroll, Screw, Centrifugal, Absorption (LG Only)

※ ○ : Applied, - : Not Applied

## Cycle Display Example



## Installation Scene





- Chiller Option Kit installation of LG HVAC Solution product should be conducted by a specialized installation service engineer.
- Chiller Option Kit installation can be achieved with a SD Card.
- The SD Card can install Chiller Option Kit in one LG HVAC Solution product.

Insert the SD Card in the LG HVAC Solution product. If a backup SD Card is inserted, replace it with a Chiller Option Kit SD Card.



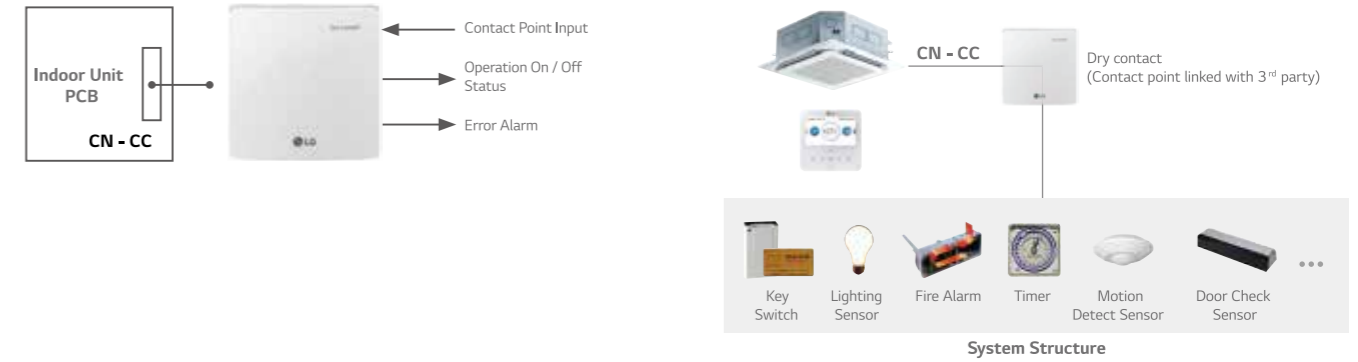
# DRY CONTACT

Connection between an indoor unit and external devices to control various functions.

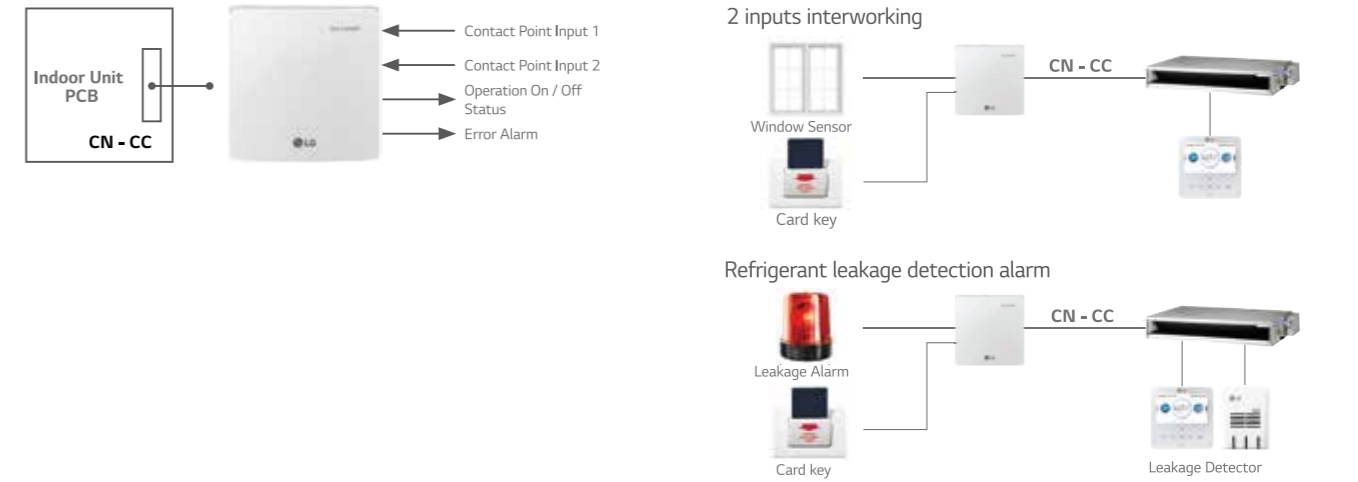
Model Name	PDRYCB000	PDRYCB400	PDRYCB300	PDRYCB500
				
Case	○	○	○	○
Input Port	1	2	8	-
Universal Input port	-	-	-	-
Comm. Protocol	-	-	-	Modbus RTU
Power	AC 220V	Connect to Indoor unit PCB (CN_CC)		
On / Off	○	○	○	○
Oper Mode	-	○	○	○
Set Temp.	-	(Select & Fix)	(Select & Fix)	○
Aircon				
Fan Speed	-	-	○	○
Thermo-Off	-	(Select & Fix)	○	-
Energy Saving	-	(Select & Fix)	-	-
Lock/Unlock	-	(Select & Fix)	-	-
Control				
On / Off	○	-	○	-
DHW On / Off	-	-	○	-
AWHP				
Thermo-Off	-	-	○	-
Oper Mode	-	-	○	-
Silent Mode	-	-	○	-
Emergency Mode	-	-	○	-
Vent				
On / Off	○	-	-	○
Oper Mode	-	-	-	○
Aircon Mode	-	-	-	○
Additional Mode	-	-	-	○
Fan Speed	-	-	-	○
Output				
Operation Status	○	○	○	○
Error	○	○	○	○
Room Temp.	-	-	-	○

※ ○ : Applied, - : Not Applied  
 Note : 1. Compatibility of PDRYCB300 / PDRYCB320  
 - Can use with all types of aircon indoor units after 2010. (Cassette, Ducted, Convertible, Applied PAC, Wall mounted, Console)  
 - Can not use with Single package models.  
 - AWHP : 3 series split and monobloc models.  
 2. Compatibility of PDRYCB400  
 - Can use with all types of aircon indoor units after 2010. (Cassette, Ducted, Convertible, Applied PAC, Wall mounted, Console)  
 - Can not use with single package models.  
 - Can not use with AWHP, Hydrokit models.  
 3. (Select & Fix) : This function is preset by rotary switch.

## PDRYCB000



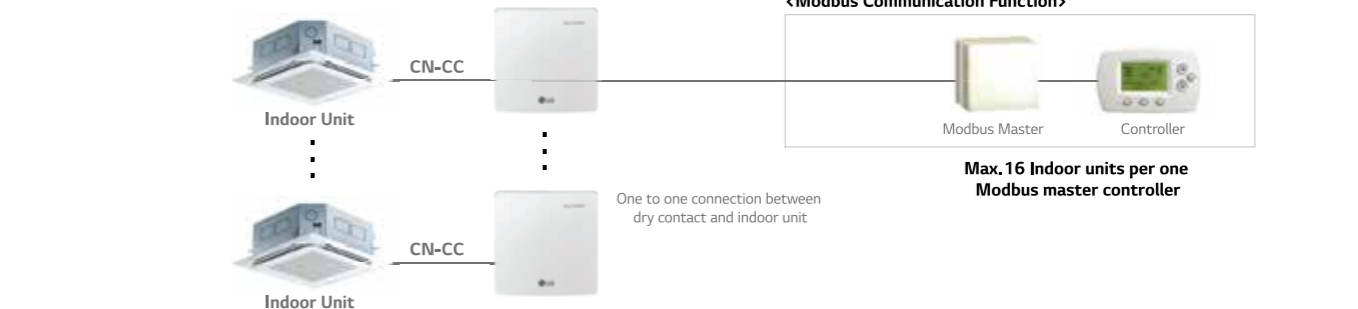
## PDRYCB400



## PDRYCB300



## PDRYCB500



※ Please contact our regional office to check the compatibility with 3<sup>rd</sup> party room controller.

## GROUP CONTROL WIRE

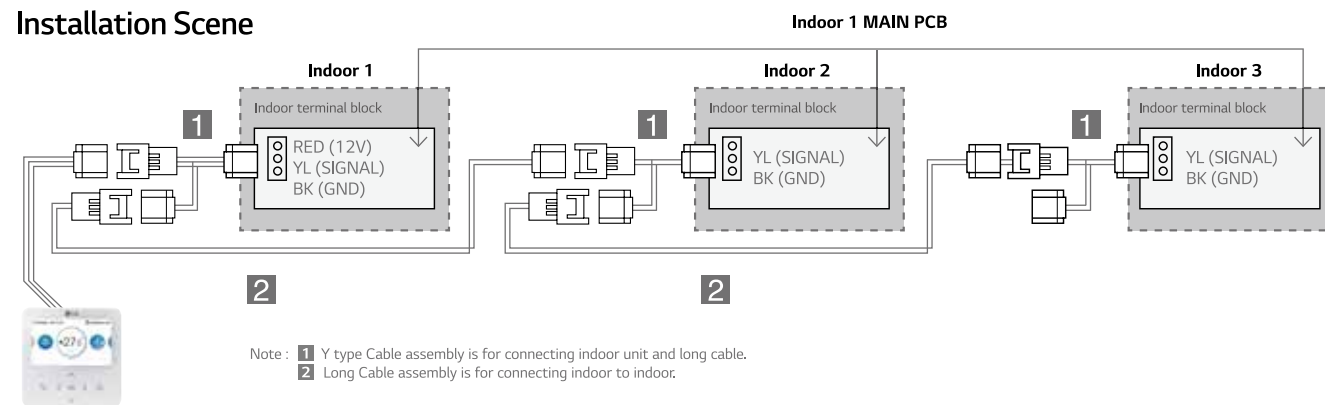
Cables used to connect a wired remote controller up to 16 indoor units.



PZCWRCG3

Model Name	PZCWRCG3
Y-type Cable	0.25m Length
Long Cable	9.6m Length

### Installation Scene



## REMOTE TEMPERATURE SENSOR

Sensor for detecting the room temperature.



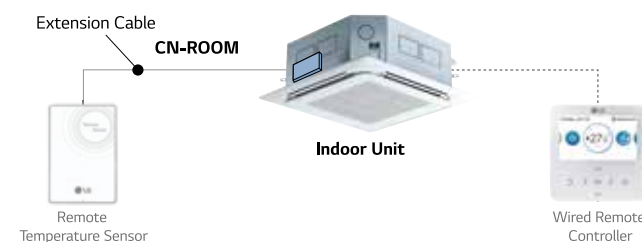
PQRSTAO

### Features & Benefits

- It detects the exact room temperature instead of indoor unit's air temperature sensor.
- Applied to Ceiling Mounted Cassette, Ceiling Concealed Duct, THERMA V and HYDRO KIT.
- Extension cable (15m) is included.

### Installation Scene

1. Wire to the control box in the door unit by removing the existing thermistor and connect the extension cable its place.
2. Cut the extension cable to the appropriate length and connect the screw terminal of the remote sensor.



## LOW PROFILE REMOTE TEMPERATURE BUTTON SENSOR

Allows for easy and discreet installation as well as connection to an indoor unit.



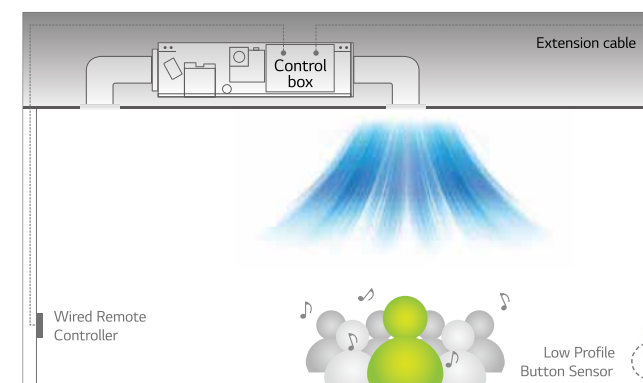
ZRTBS01

Model Name	ZRTBS01	
Operation Range	-40°C to 85°C (0 to 100%RH, Non-condensing)	
Sensing Element	Thermistor	
Sensing Element Accuracy	0.2°C (0 to 70°C)	
Wire Leads	Material	Etched Teflon
	Length	15m
	Thickness	0.33mm <sup>2</sup>
Mounting	10mm hole, push in plastic sheath with peel off tape strip	
Enclosure Material Ratings	Plastic, NEMA 1, UL94	

### Features & Benefits

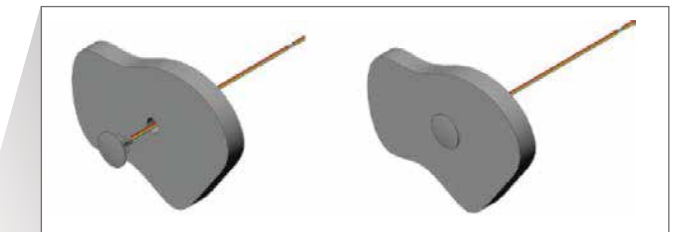
- Ideal for locations where aesthetics are as important as the temperature measurement.
- Inconspicuous wall sensor that mounts easily by pushing through a 10mm hole and secured with a peel off tape strip.
- Small flush sensor mounting.
- Accurate direct air measurement.
- Paintable with latex or oil base.

### Key Application

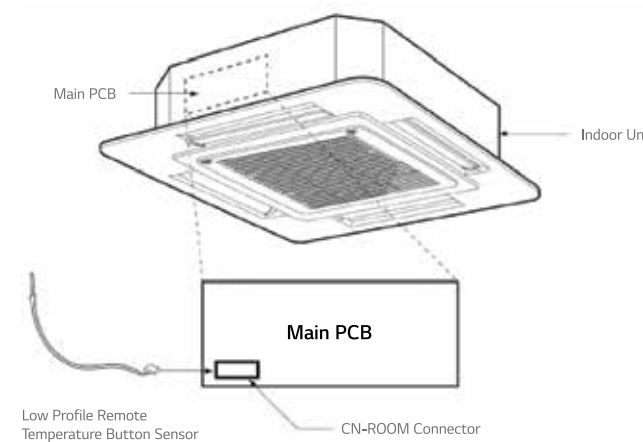


### Models Applied

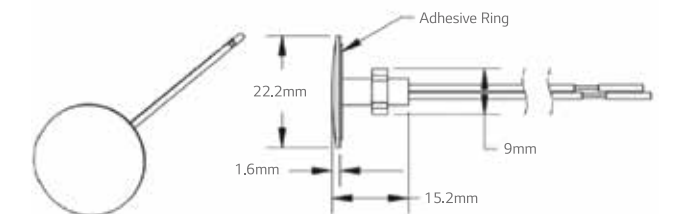
- LG indoor units excluding Wall - Mounted Type



### Installation Scene



### Drawing



# ZONE CONTROLLER

Controls air conditioning in up to 4 zones by external thermostat.



ABZCA

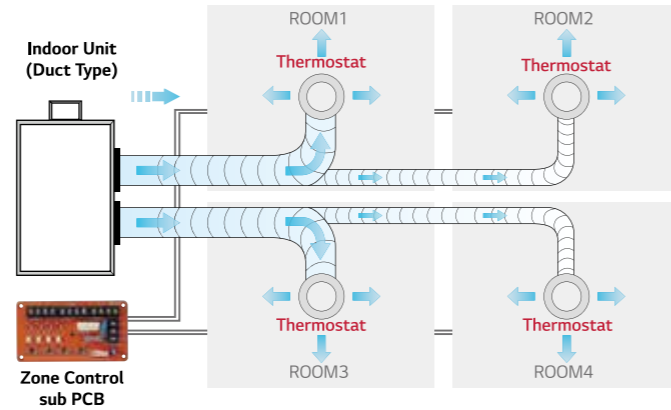
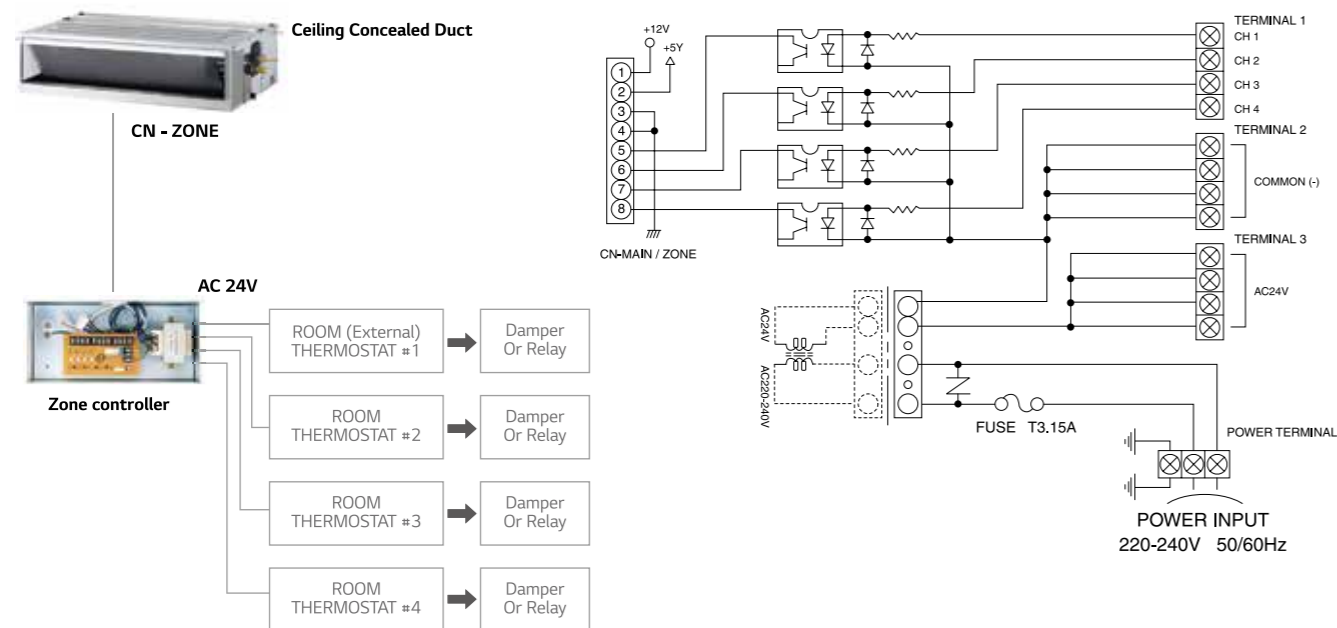
## Features & Benefits

- Controls different zones (up to 4 zones) by external thermostat (AC 24V)
- Maintain proper air volume of each zone
- Auto variation of dampers
- Auto control of fan speed and On / Off operation

## Models Applied

- Ceiling Concealed Duct (Refer to Product Data Book for applicable models)

## Wiring Diagram



# IO MODULE

Interface module between system air conditioner's outdoor unit and external device.



PVDSMN000

## Features

- Demand control
- Low noise operation
- Output outdoor or indoor unit operation status
- Output error status

## Description

- IO Module is communication interface module for connection between MULTI V 5 and external IO (Input / Output Module) devices.

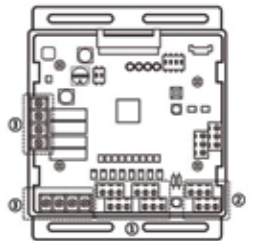
Note : IO Module is not compatible for MULTI V III

## Models Applied

- MULTI V 5
- MULTI V S
- MULTI V WATER IV

## Part Description

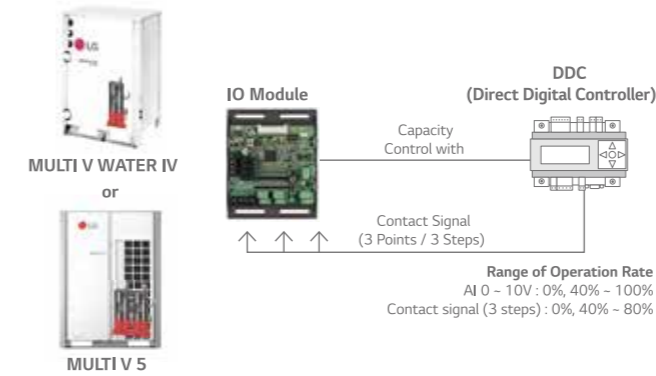
- 1) Digital Input Part (DI : Dry Contact Input)
  - Demand control by contact input (3 Step)
  - Low Noise Operation input
  - Priority Setting input : Setting the priority of demand control command (Capacity control for external signal from DDC vs Peak control by LG Central controller)
  - Open : External signal has priority to central controller (Default)
  - Close : Central controller has priority to external signal
- 2) Analog Input Part (AI : DC 0 ~ 10V)
  - Demand control by analog input (10 Step)
- 3) Digital Output Part (DO : AC 250V, Max. 1A)
  - Error status relay output
  - Operation status relay output
  - Valve control



## Key Application

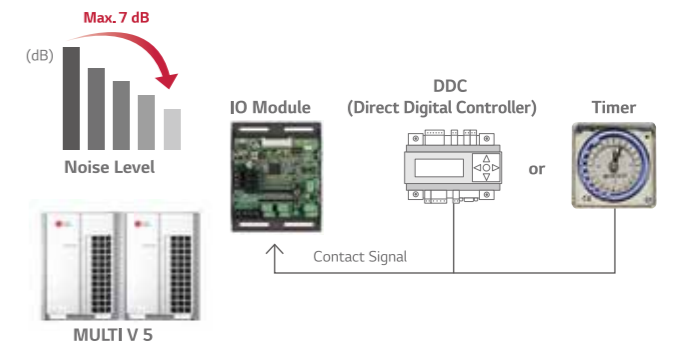
### Demand Control

Provides variable setting for demand control according to input method to reduce power consumption. This function supports 2 types of input signal : AI (0 ~ 10V, 10 Step) and contact signal (3 Step).



### Low Noise Operation

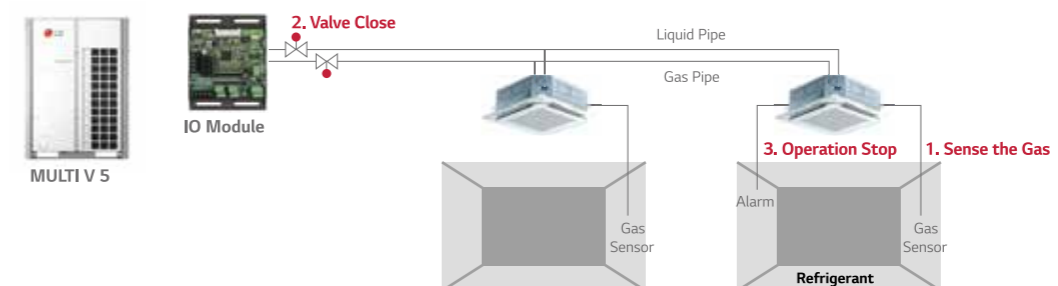
To reduce noise level, control outdoor unit's fan speed by dry contact input.



※ 8HP (22.4kW) model, Sound power level can be changed by outdoor unit operation status and low noise operation input signal.

### Refrigerant Leakage detection with Pump-down

For safety, IO module close refrigerant valve when Pump-down operation.



# COOL / HEAT SELECTOR

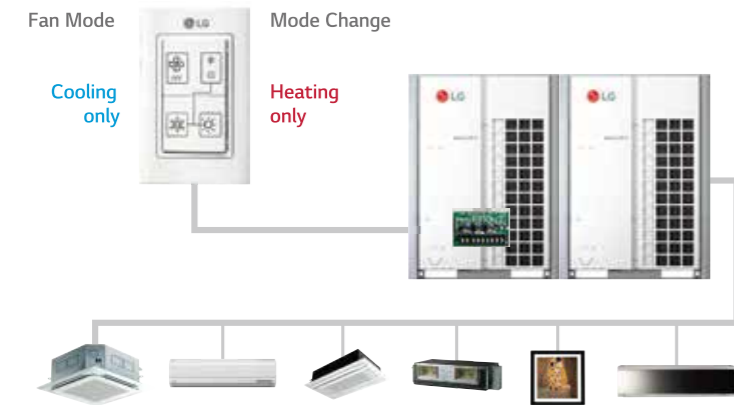
Cooling only, heating only, and fan mode can be selected.



PRDSBM

## Features

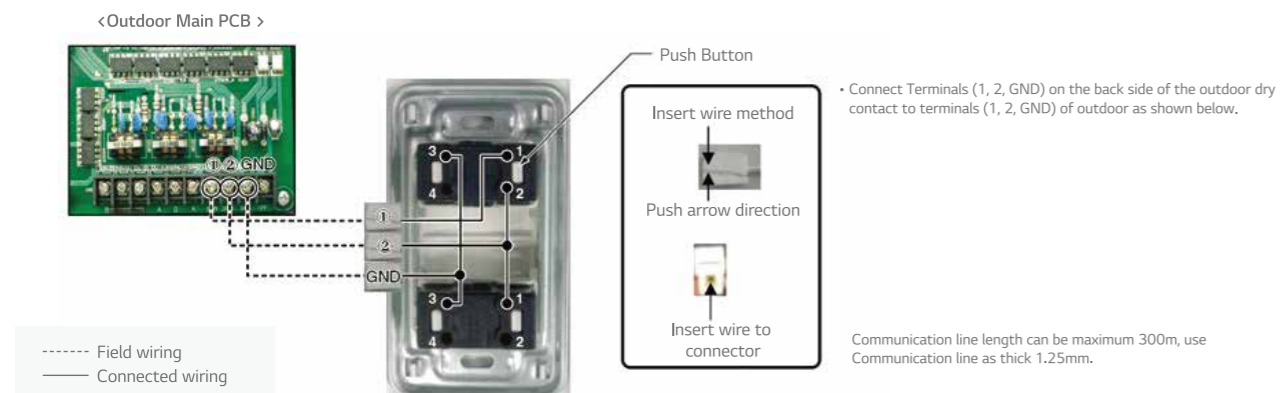
- Indoor unit mode control without central controller
- Select operation mode : Cooling, Heating, Fan mode
- Mode lock for cooling & heating mixing error-proof during the change of season



## Models Applied

- MULTI V 5
- MULTI V IV
- MULTI V WATER S
- MULTI V WATER II
- MULTI V S
- MUL TI V PLUS II, MULTI V PLUS
- MULTI V WATER IV

## Wiring Diagram



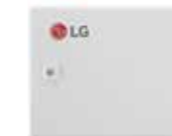
# AHU KITS

A solution to connect LG's high efficiency system to the DX coil of an air handling unit for the maximum energy savings.

## COMMUNICATION KIT



PAHCMR000



PAHCMS000

## NEW CONTROL KIT



PAHCNM000

## EEV KIT



PRLK048A0  
PRLK096A0

## NEW CONTROLLER MODULE



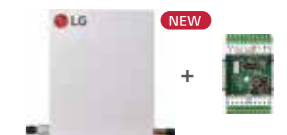
PAHCMM000



PAHCMC000



PRLK396A0



PRLK594A0

## Specifications

### Control Application Kit

Type	Model	Dimensions (mm)			Power Supply	IP Rating	Description
		W	H	D			
Communication Kit	PAHCMR000	300	300	155	1Ø, 220~240 V, 50/60 Hz	IP66	Return / Room air temperature control by DDC or LG individual / centralized controller.
	PAHCMS000	380	300	155	1Ø, 220~240 V, 50/60 Hz	IP66	Discharge air / Supply air temperature control by DDC or LG individual / centralized controller
Controller Module	PAHCMM000	162	90	61	DC 12V	IP20	Main Controller module
	PAHCMC000	108	90	61	DC 12V	IP20	Communication Controller module
Control Kit	PAHCNM000	500	500	210	1Ø, 220~240 V, 50/60 Hz		Various AHU control functions with multiple DX coils (Maximum connectable ODU is 3 units)

### Expansion Application Kit

Type	Model	Dimensions (mm)			Pipe Diameter (mm)	Capacity Index Range
		W	H	D	Liquid	
EEV Kit	PRLK048A0	217	404	83	12.7	3.6 ~ 28 kW
	PRLK096A0	217	404	83	12.7	28.1 ~ 56 kW
	PRLK396A0	349.5	345.5	180	19.05	56.1 ~ 112 kW
	PRLK594A0	409.5	345.5	180	19.05	112.1 ~ 168 kW

# AHU KITS

## Communication Kit

### HIGH ENERGY EFFICIENCY

LG's DX AHU solutions' superior performance provides a highly efficient heat source system.

- High energy efficiency inverter system
- Large range of expansion application Kit : Max. 168 kW EEV Kit<sup>1)</sup>
- Connected to various heat sources : MULTI V, MULTI V WATER IV, MULTI V S, SINGLE SPLIT

1) Maximum connectable EEV capacity for PAHCMR000, PAHCMC000 is 112 kW.

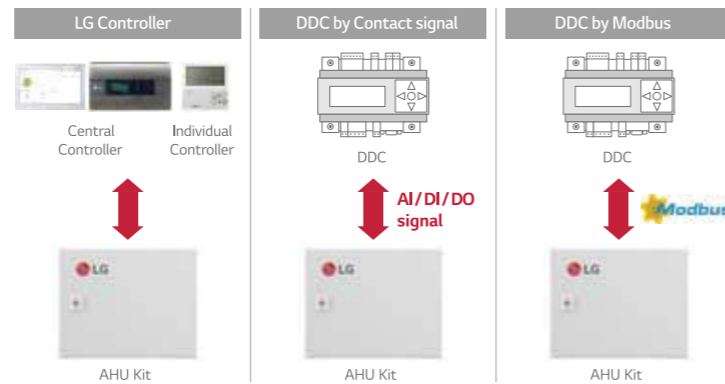


### DIVERSE OPTIONS FOR CONTROL

AHU communication kit can be connected to various control systems such as LG individual / central controller and DDC<sup>1)</sup>. It can be directly connected to DDC without separated controller, so DDC can receive product control and monitor information through contact signal or Modbus protocol.

- LG Individual / Central controller supported
  - LG controller stand alone or combination with DDC
- Direct wiring between DDC and AHU communication kit
  - Embedded Digital I/O and Analog Input
  - Modbus RTU protocol supported

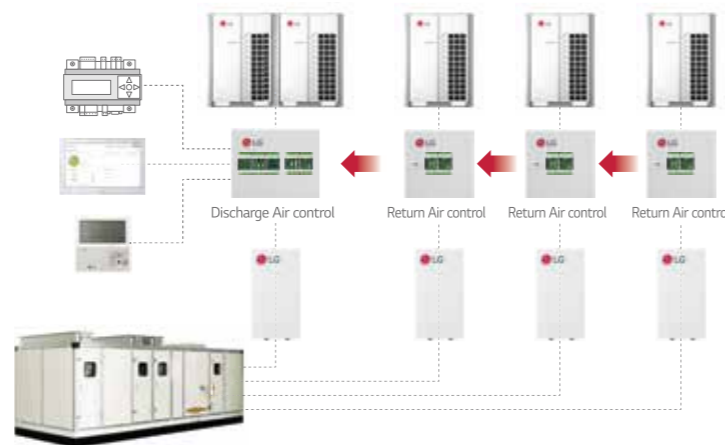
1) DDC : Direct Digital Controller



### EXPANDABLE SYSTEM DESIGN

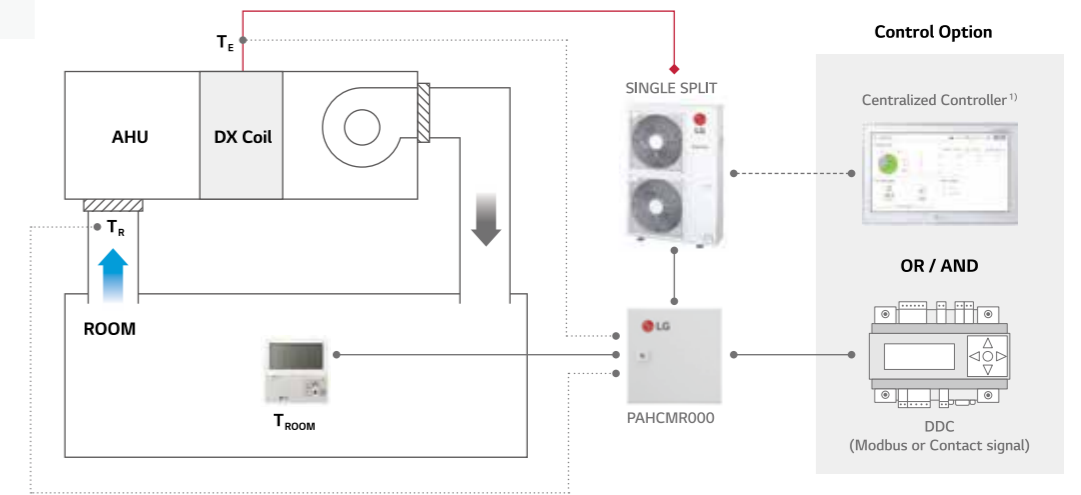
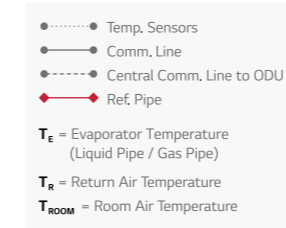
LG AHU system can be a suitable solution for various sites due to its application flexibility and wide range of line up with large capacity models. According to the required capacity, a single or multiple module combination is possible due to the AHU communication kit's modular design.

- Multiple module combination for large capacity AHU

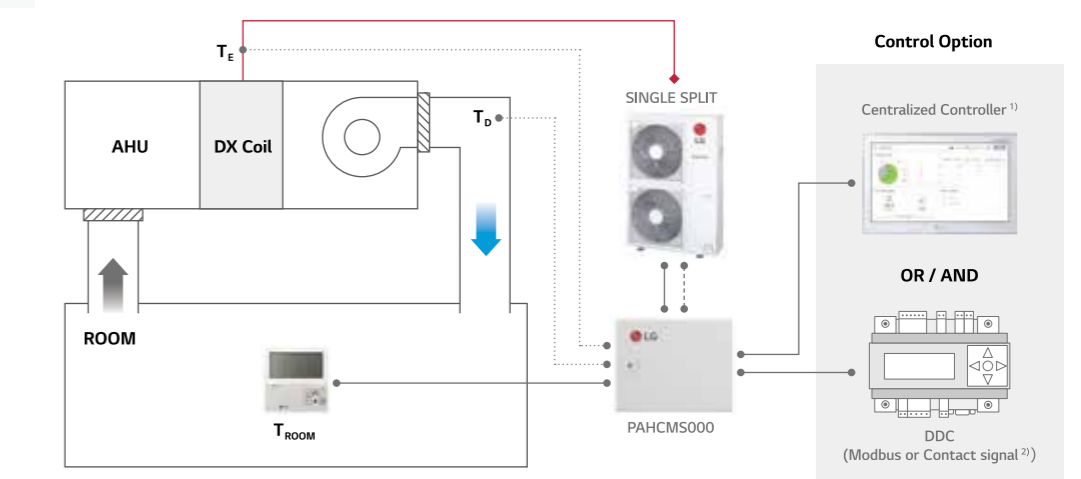
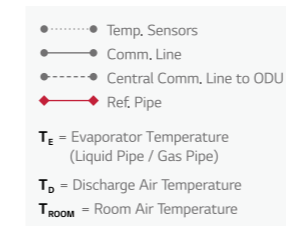


## Single Split Application (Communication Kit & Controller Module)

### Single Split + Return / Room Air Temperature Control



### Single Split + Discharge Air Temperature Control



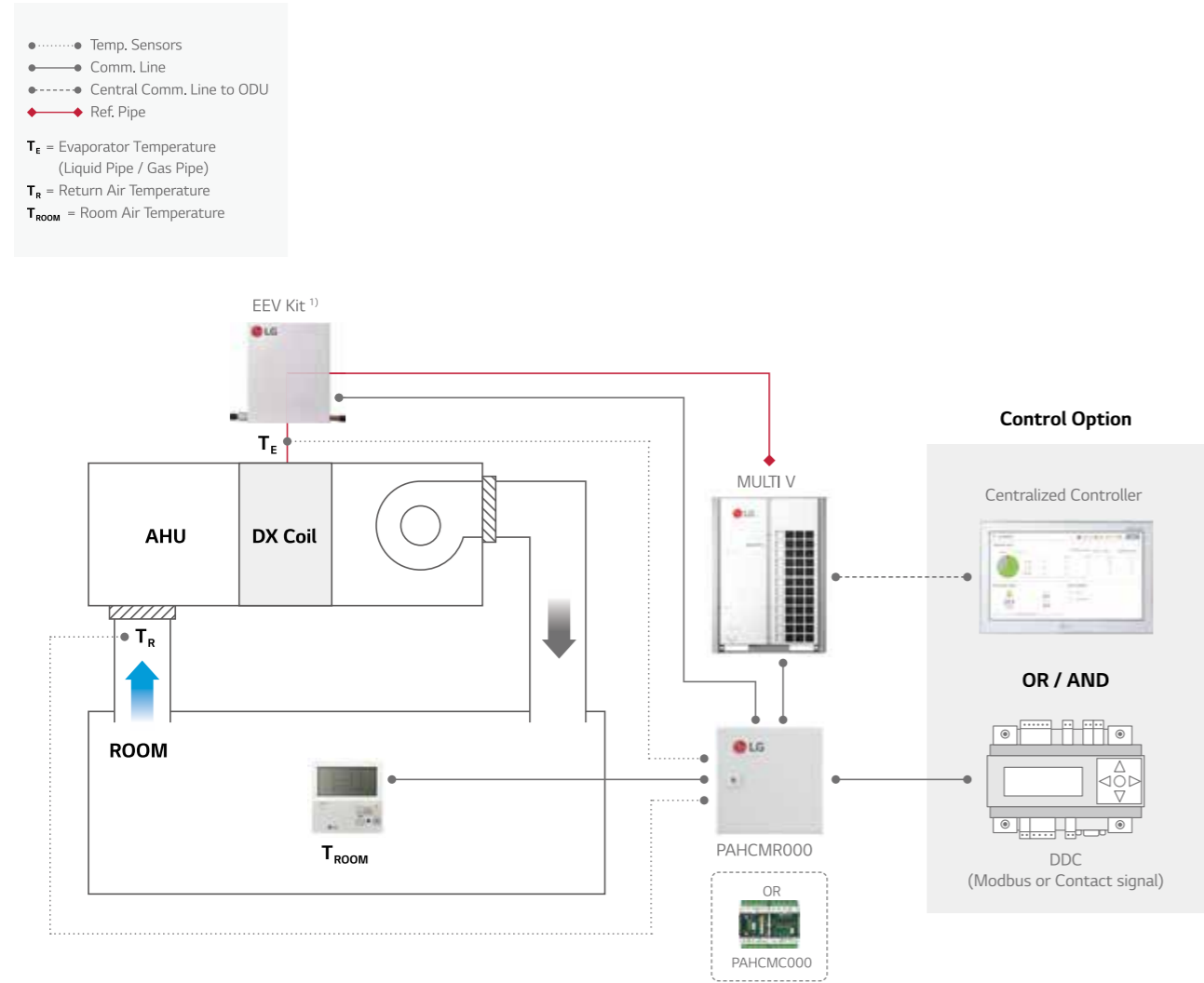
1) PI485 (PMNFP14A1) is required for centralized controller.

2) In case of applying DDC with contact signal, discharge air temperature should be measured and controlled by DDC.  
 Note : For more detail, please refer to the PDB.

# AHU KITS

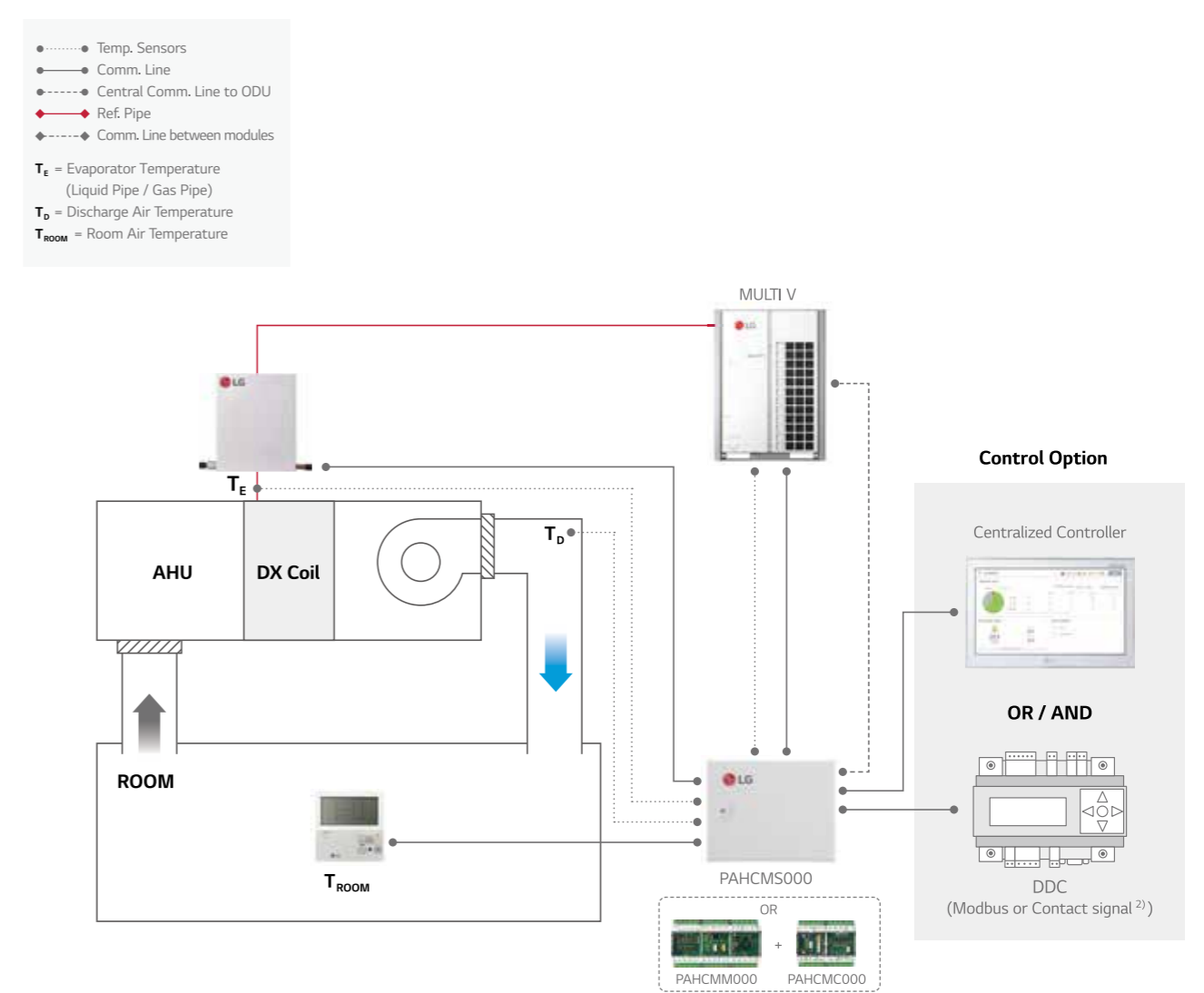
## MULTI V Application (Communication Kit & Controller Module)

MULTI V + EEV Kit + IDU + Return / Room Air Temperature Control



1) Multiple EEV kits can be applicable with multiple DX Coils and PAHCMR000s.  
 2) In case of applying DDC with contact signal, discharge air temperature should be measured and controlled by DDC.  
 Note : For more detail, please refer to the PDB.

MULTI V + EEV Kit + Discharge Air Temperature Control



1) Multiple EEV kits can be applicable with multiple DX Coils and PAHCMR000s.  
 2) In case of applying DDC with contact signal, discharge air temperature should be measured and controlled by DDC.  
 Note : For more detail, please refer to the PDB.



# AHU KITS

## Communication Kit Function

### Communication with DDC via Contact Signal

Function List	PAHCMR000 (PAHCMC000)	PAHCMS000 (PAHCMM000 + PAHCMC000)	Type	Note
Operation On / Off	On / Off	On / Off	Digital Input (Non Voltage)	-
Operation Mode	Cooling / Heating	Cooling / Heating	Digital Input (Non Voltage)	Available operation mode can vary depending on the settings of Communication Kit
Return (Room) Air Temperature <sup>2)</sup>	16 ~ 30°C	-	Analog Input (DC 0 ~ 10 V / 20mA)	-
Discharge Air Temperature <sup>2)</sup>	-	-	-	Discharge air temperature should be controller directly by DDC using 'ODU Capacity Control'
Fan Speed <sup>3)</sup>	-	High / Middle / Low	Digital Input (Non Voltage)	-
Forced Thermal	On / Off	-	Digital Input (Non Voltage)	-
ODU Capacity	-	40 ~ 100%	Analog Input (DC 0 ~ 10 V / 20mA)	-
Emergency Stop	-	Stop / Normal	Digital Input (Non Voltage)	-
Operation	On / Off	On / Off	Digital Output (Max. : DC 30 V / 1 A, AC 250V / 1 A)	For PACHMR000, dip sw1-3 DO Type should be set 'Off' (Status). In this case, 'fan speed' cannot monitored by DO ports
Operation Mode	-	-	-	It needs to be checked through control signal
Fan Speed	High / Middle / Low	High / Middle / Low	Digital Output (Max. : DC 30 V / 1 A, AC 250V / 1 A)	For PACHMR000, dip sw1-3 DO Type should be set 'On' (Fan Mode). In this case, 'On/Off, defrost, error Status' cannot monitored by DO ports
Defrost Operation	Defrost / Normal	Defrost / Normal	Digital Output (Max. : DC 30 V / 1 A, AC 250V / 1 A)	For PACHMR000, dip sw1-3 DO Type should be set 'Off' (Status). In this case, 'fan speed' cannot monitored by DO ports
Error Alarm	Error / Normal	Error / Normal	Digital Output, Relay C contact (Max. : DC 30 V / 1 A, AC 250V / 1 A)	For PACHMR000, dip sw1-3 DO Type should be set 'Off' (Status). In this case, 'fan speed' cannot monitored by DO ports
Compressor On / Off	-	On / Off	Digital Output, (Max. : DC 30 V / 1 A, AC 250V / 1 A)	-

1) Control functions for LG individual and central controller are not available in case of using together with DDC via contact signal.

2) The range of temp. is differ depending on the type of the controller.

3) To control fan speeds, DO port of the fan speed status should be connected to the fan control panel.

Note : For more detail information, please refer to the product data book.

### Communication with DDC via Modbus protocol

Function List	PAHCMR000 (PAHCMC000)	PAHCMS000 (PAHCMM000 + PAHCMC000)	Note
Operation On/Off	On / Off	On / Off	
Operation Mode	Cooling / Heating / Fan	Cooling / Heating / Fan	
Return (Room) Air Temperature	16 ~ 30°C	-	
Discharge Air Temperature <sup>2)</sup>	-	12 ~ 50°C	Dip SW1-2 Discharge Temp. Control Type should be set 'On'
Fan Speed <sup>3)</sup>	High / Middle / Low	-	
Forced Thermal On/Off	-	-	
ODU Capacity Control <sup>2)</sup>	-	40 ~ 100%	Dip SW1-2 Discharge Temp. Control Type should be set 'On'
Emergency Stop	-	-	
Operation	On / Off	On / Off	
Operation Mode	Cooling / Heating / Fan	Cooling / Heating / Fan	
Return (Room) Air Temperature	○	-	Corresponding air temperature sensor connected to AHU Comm. Kit is required
Discharge Air Temperature	-	○	
Fan Speed	High / Middle / Low	High / Middle / Low	
Defrost Operation	Defrost/Normal	Defrost/Normal	
Error Alarm	Error / Normal, Error code	Error / Normal, Error code	
Compressor On / Off	On / Off	On / Off	

※ ○ : Applied, - : Not Applied

1) Control functions for LG individual and central controller are not available in case of using together with DDC via contact signal.

2) In case of PAHCMS000, control type between "Discharge Air Temperature" and "ODU Capacity Control" is selectable.

3) To control fan speeds, DO port of the fan speed status should be connected to the fan control panel.

Note : For the Modbus memory map and more detail information, please refer to the product data book.

## Communication Kit Function

### With LG Control system (Individual & Centralized Controller)

Function List	PAHCMR000 (PAHCMC000)	PAHCMS000 (PAHCMM000 + PAHCMC000)	Note
Operation On/Off	On / Off	On / Off	-
Operation Mode	Cooling / Heating / Fan	Cooling / Heating / Fan	Available operation mode can vary depending on the settings of Communication Kit
Return (Room) Air Temperature <sup>2)</sup>	16 ~ 30°C	-	-
Discharge Air Temperature <sup>2)</sup>	-	12 ~ 50°C	Standard II : 16 ~ 30°C Standard III : 12 ~ 50°C Central Controllers : 12 ~ 50°C
Fan Speed <sup>3)</sup>	High / Mid / Low	High / Mid / Low	To control the AHU fan, dip switch 1-3 'DO type' should be set 'On (Fan Speed)' (PAHCMR000)
Operation	On / Off	On / Off	-
Operation Mode	Cooling / Heating / Fan	Cooling / Heating / Fan	-
Return (Room) Air Temperature	○	○	-
Discharge Air Temperature	-	○	-
Fan Speed	High / Middle / Low	High / Middle / Low	-
Defrost Operation	On / Off	On / Off	Only with Individual Controller
Error Alarm	Error Code	Error Code	Error code will be displayed on the screen
Compressor On/Off	On / Off	On / Off	Only with Individual Controller

※ ○ : Applied, - : Not Applied

1) Control functions for LG individual and central controller are not available in case of using together with DDC via contact signal.

2) The range of setting temperature is different depending on the type of the controllers. And operation may different from setting range.

3) To control fan speeds, DO port of the fan speed status should be connected to the fan control panel.

Note : For more detail information, please refer to the product data book.

### Compatibility with LG HVAC Controllers

Controller	Individual Controller			Centralized Controller				BMS Gateway	PDI	
	Premium	Standard III	Standard II	AC Ez	AC Ez Touch	AC Smart 5	ACP 5	AC Manager 5 <sup>1)</sup>	ACP Lonworks	Premium Standard
										
Model no.	PREMTA000 PREMTA000A PREMTA000B	PREMTB100 PREMTBB10	PREMTB001	PQCSZ250S0	PACEZA000	PACS5A000	PACP5A000	PACM5A000	PLNWKB000	PQNUD1S40 PPWRDB000
PAHCMR000	○	○	○	○	○	○	○	○	○	○
PAHCMS000	-	○	○	-	-	○	○	○	-	-

※ ○ : Applied, - : Not Applied

1) AC Manager 5 is an integrator, so the installation with AC Smart 5 or ACP 5 is required.

Note : 1. Dry contact for indoor unit (PDRYCB000 / 400 / 300 / 500) is not applied.

2. For more details, please refer to the product data book.

# HOTEL

## Hotel Control Solution



**Guest Rooms**

- Air conditioner automatically switches off when guests depart 
- Integrated control of air conditioner with the hotel room controller 
- Air conditioner can be controlled with existing hotel thermostat 
- Prioritizes guest safety with refrigerant leak detection 

**Lobby**

- Air conditioner control in conjunction with check-in or check out 

**Public Areas**

- Centralized management of the public areas 

# SHOPPING MALL

## Shopping Mall Control Solution



**Retail**

- Proportionally distribute and manage the power consumption by tenants 
- Real-time system issue detection and alert 






**Maintenance Office**

- Reduces energy by checking operational trends 

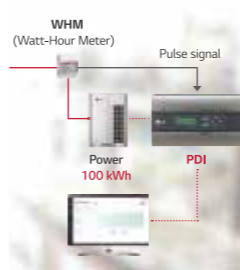

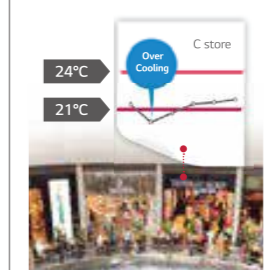
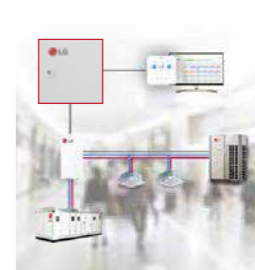

**Atrium**

- Integrated management of AHU applied to large spaces 
- Chiller and VRF integrated control  + 

## Design Proposal

Guest Room				Lobby / Public Areas	
<p>The air conditioner automatically turns off when guests leave</p> 	<p>Integrated control of air conditioner with the hotel room controller</p> 	<p>Control with existing hotel thermostat</p> 	<p>Guest safety is the first priority</p> 	<p>Air conditioner control in conjunction with check-in or check out</p> 	
<p><b>PDRYCB400</b> 2 contact point</p> <p><b>Input</b></p> <ul style="list-style-type: none"> <li>Operation On / Off</li> </ul> <p><b>Output</b></p> <ul style="list-style-type: none"> <li>Operation On / Off status</li> <li>Error alarm</li> </ul>	<p><b>PDRYCB500</b> Modbus RTU (9,600bps)</p> <p><b>Function</b></p> <ul style="list-style-type: none"> <li>Operation</li> <li>Indoor temperature</li> <li>Error alarm</li> <li>Set run mode</li> <li>Set temperature</li> <li>Set fan speed</li> </ul>	<p><b>PDRYCB300</b> <b>NEW</b> PDRYCB320 8 contact point</p> <p><b>Input</b></p> <ul style="list-style-type: none"> <li>Universal Input</li> <li>Operation On / Off</li> <li>Thermo On / Off</li> <li>Operation mode (Fan / Heat / Cool)</li> <li>Fan speed (Low / Middle / High)</li> </ul> <p><b>Output</b></p> <ul style="list-style-type: none"> <li>Operation On / Off status</li> <li>Error alarm</li> </ul>	<p><b>PRLDNV50</b> Refrigerant leakage detector • 6,000ppm</p> <p><b>PREMTB100</b> Wired remote controller</p> <ul style="list-style-type: none"> <li>• 4.3 inch color LCD</li> <li>• Touch button</li> </ul>	<p><b>PAC5SA000</b> AC Smart 5</p> <ul style="list-style-type: none"> <li>• BMS Integration (BACnet IP, Modbus TCP)</li> </ul> <p><b>PACP5A000</b> ACP 5</p> <ul style="list-style-type: none"> <li>• BMS Integration (BACnet IP, Modbus TCP)</li> </ul>	

## Design Proposal

Retail	Maintenance Office	Atrium		
<p>Proportionally distribute and manage power consumption by the tenant</p> 	<p>Fast problem detection and alarms</p> 	<p>Reduces energy by checking operational trends</p> 	<p>Integrated management of AHU applied to large spaces</p> 	<p>Chiller and VRF integrated control</p> 
<p><b>PPWRDB000</b> PDI Standard (2 port)</p> <ul style="list-style-type: none"> <li>• Max. 128 IDU</li> </ul> <p><b>PQNUD1S40</b> PDI Premium (8 port)</p> <ul style="list-style-type: none"> <li>• Max. 128 IDU</li> </ul>	<p><b>PAC5SA000</b> AC Smart 5</p> <ul style="list-style-type: none"> <li>• BMS Integration (BACnet IP, Modbus TCP)</li> </ul> <p><b>PACP5A000</b> ACP 5</p> <ul style="list-style-type: none"> <li>• BMS Integration (BACnet IP, Modbus TCP)</li> </ul>	<p><b>PAHCMR000</b> AHU Comm. Kit</p> <ul style="list-style-type: none"> <li>• Return air</li> </ul> <p><b>PAHCMS000</b> AHU Comm. Kit</p> <ul style="list-style-type: none"> <li>• Discharge air</li> </ul>	<p><b>PCHLLN000</b> Chiller option kit</p> <p>+ Chiller option kit (S/W)</p> <p><b>PACP5A000</b> ACP 5</p> <p><b>PAC5SA000</b> AC Smart 5</p>	

# HOSPITAL

## Hospital Control Solution

**Hospital Ward**

Proper airflow management for patients

Monitor the comfort level for each hospital ward

Control fan speed and air volume

**Service Zone**

Energy savings based on flexible scheduling

**Lobby**

Centralized management of AHU for large spaces

Wired remote controller

Central controller (Comfort level)

Dry contact

Central controller (Schedule)

Comm. Kit

## Design Proposal

Hospital Ward	Service Zone	Lobby
Proper airflow management for patients	Energy savings based on flexible scheduling	Centralized management of AHU for large space
<p>PTVSA00 Human detection sensor</p>	<p>PACS5A000 AC Smart 5</p> <ul style="list-style-type: none"> <li>BMS Integration (BACnet IP, Modbus TCP)</li> </ul>	<p>PAHCMR000 AHU Comm. Kit</p> <ul style="list-style-type: none"> <li>Return air</li> </ul>
<p>PAC5A000 ACP 5</p> <ul style="list-style-type: none"> <li>BMS Integration (BACnet IP, Modbus TCP)</li> </ul>	<p>PACS5A000 AC Smart 5</p> <ul style="list-style-type: none"> <li>BMS Integration (BACnet IP, Modbus TCP)</li> </ul>	<p>PAHCMS000 AHU Comm. Kit</p> <ul style="list-style-type: none"> <li>Discharge air</li> </ul>
<p>PREMTB100 Wired remote controller</p> <ul style="list-style-type: none"> <li>4.3 inch color LCD</li> <li>Touch button</li> </ul>	<p><b>Input</b></p> <ul style="list-style-type: none"> <li>Operation On / Off</li> </ul> <p><b>Output</b></p> <ul style="list-style-type: none"> <li>Operation On / Off status</li> <li>Error alarm</li> </ul>	

# ACADEMIC INSTITUTION

## Academic Institution Control Solution

**Class Room**

Automatically save energy in the absence of students

Central controls prevent students from arbitrary control

**Lecture Hall**

Schedule management according to academic plan

**Maintenance Office**

Integrated management of distributed buildings

Centralized management with multiple interfaces

Wired remote controller

Central controller (Lock)

Central controller (Schedule)

Central controller (Multiple management)

Central controller (HTML5)

## Design Proposal

Class Room	Lecture Hall	Maintenance Office
Automatically save energy in the absence of students	Schedule management according to academic plan	Integrated management of distributed buildings
<p>PTVSA00 Human detection sensor</p>	<p>PAC5A000 ACP 5</p> <ul style="list-style-type: none"> <li>BMS Integration (BACnet IP, Modbus TCP)</li> </ul>	<p>PACM5A000 AC Manager 5</p>
<p>PREMTB100 Wired remote controller</p> <ul style="list-style-type: none"> <li>4.3 inch color LCD</li> <li>Touch button</li> </ul>	<p>PACS5A000 AC Smart 5</p> <ul style="list-style-type: none"> <li>BMS Integration (BACnet IP, Modbus TCP)</li> </ul>	<p>PACM5A000 AC Manager 5</p>
		<p>Centralized management with multiple interfaces</p>

# OFFICE

## Office Control Solution

<p><b>Maintenance Office</b></p> <p>Energy savings and management throughout the building</p> <p>Integrated management of HVAC with BMS system</p> <p>Reduce costs by replacing BMS</p>	  +
<p><b>Office Room</b></p> <p>Reasonable power distribution to tenants</p>	
<p><b>Server Room</b></p> <p>24-hour backup management</p>	
<p><b>Meeting Room</b></p> <p>Energy savings based on occupancy detection</p>	

## Design Proposal

Maintenance Office	Office Room	Server Room	Meeting Room
<p>Energy savings and management throughout the building</p> <p>Integrated management of HVAC with BMS system</p> <p>Reduce costs by replacing BMS</p>	<p>Reasonable power distribution to tenants</p>	<p>Main equipment 24 hours back up management</p>	<p>Energy savings based on occupancy detection</p>
<p><b>PACS5A000</b> AC Smart 5</p> <p>• BMS Integration (BACnet IP, Modbus TCP)</p> <p><b>PAC5A000</b> ACP 5</p> <p>• BMS Integration (BACnet IP, Modbus TCP)</p>	<p><b>PLNWKB000</b> LonWorks gateway ACS IO Module</p> <p><b>PMBUSB00A</b> Modbus RTU gateway</p>	<p><b>PEXPMB000</b></p> <p><b>PEXPM300</b> <b>PEXPM200</b> <b>PEXPM100</b> ACU IO Module</p>	<p><b>PPWRDB000</b> PDI Standard (2 port)</p> <p>• Max. 128 IDU</p> <p><b>PQNUD1S40</b> PDI Premium (8 port)</p> <p>• Max. 128 IDU</p>
<p><b>PACS5A000</b> AC Smart</p> <p>• BMS Integration (BACnet IP, Modbus TCP)</p>	<p><b>PTV5AA0</b> 5Human detection sensor</p> <p><b>PREMTB100</b> Wired remote controller</p> <p>• 4.3 inch color LCD • Touch button</p>	<p><b>PACS5A000</b> AC Smart</p> <p>• BMS Integration (BACnet IP, Modbus TCP)</p> <p><b>PAC5A000</b> ACP 5</p> <p>• BMS Integration (BACnet IP, Modbus TCP)</p>	

# RESIDENTIAL

## Residential Control Solution

<p><b>Home</b></p> <p>Anytime, anywhere air conditioner control and access</p> <p>Integrate systems for smart connectivity throughout</p>	 
<p><b>Bed Room</b></p> <p>Use a familiar residential thermostat</p> <p>Simple interlocking control by remote control</p>	 
<p><b>Apartment / Residence</b></p> <p>Stable system operation</p>	

## Design Proposal

Home	Bed Room	Apartment
<p>Control your home air conditioner anytime, anywhere</p> <p>Build a Smart house</p>	<p>Use a familiar residential thermostat</p> <p>Simple interlocking control by remote control</p>	<p>Stable system operation when indoor unit power is lost</p>
<p><b>PWFMD200</b> LG Wi-Fi modem</p> <p><b>Function</b></p> <ul style="list-style-type: none"> <li>• On / Off</li> <li>• Fan speed</li> <li>• Operation mode</li> <li>• Vane control</li> <li>• Reservation (Sleep, Weekly On / Off)</li> <li>• Error check</li> </ul>	<p><b>PDRYCB500</b> Modbus RTU (9,600bps)</p> <p><b>Function</b></p> <ul style="list-style-type: none"> <li>• Operation</li> <li>• Indoor temperature</li> <li>• Error alarm</li> <li>• Set operation mode</li> <li>• Set temperature</li> <li>• Set fan speed</li> </ul>	<p><b>PREMTB100</b> Wired remote controller</p> <p>• 4.3 inch color LCD • Touch button</p>
<p><b>PDRYCB300</b> <b>NEW PDRYCB320</b> 8 contact point</p> <p><b>Input</b></p> <ul style="list-style-type: none"> <li>• Universal Input</li> <li>• Operation On / Off</li> <li>• Thermo On / Off</li> <li>• Operation mode (Fan / Heat / Cool)</li> <li>• Fan speed (Low / Middle / High)</li> </ul> <p><b>Output</b></p> <ul style="list-style-type: none"> <li>• Operation On / Off status</li> <li>• Error alarm</li> </ul>	<p><b>PRIP0</b> Independent power module</p> <p>• EEV full close function</p>	