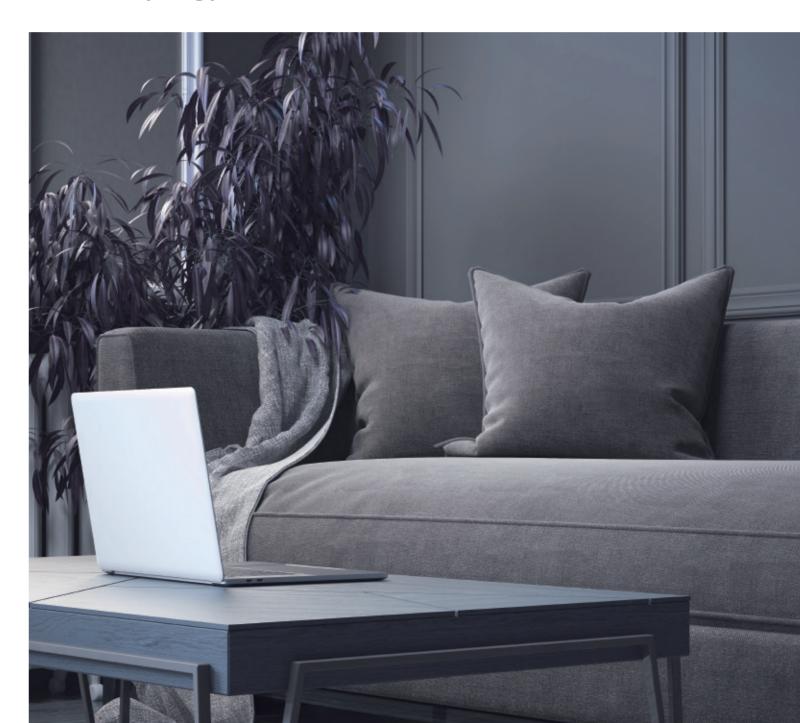




## **Smart Home Solutions**

Everything you need to know.





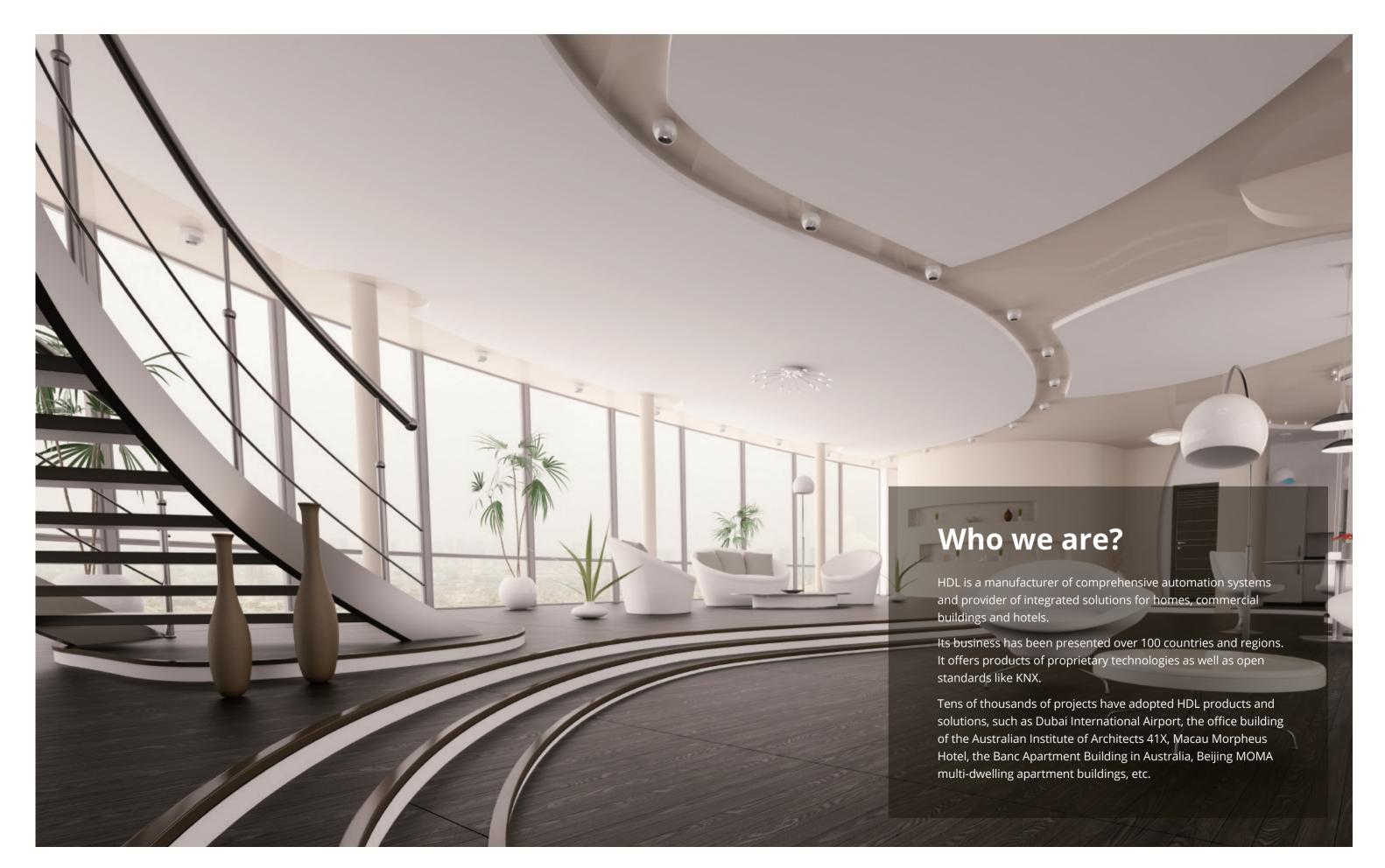




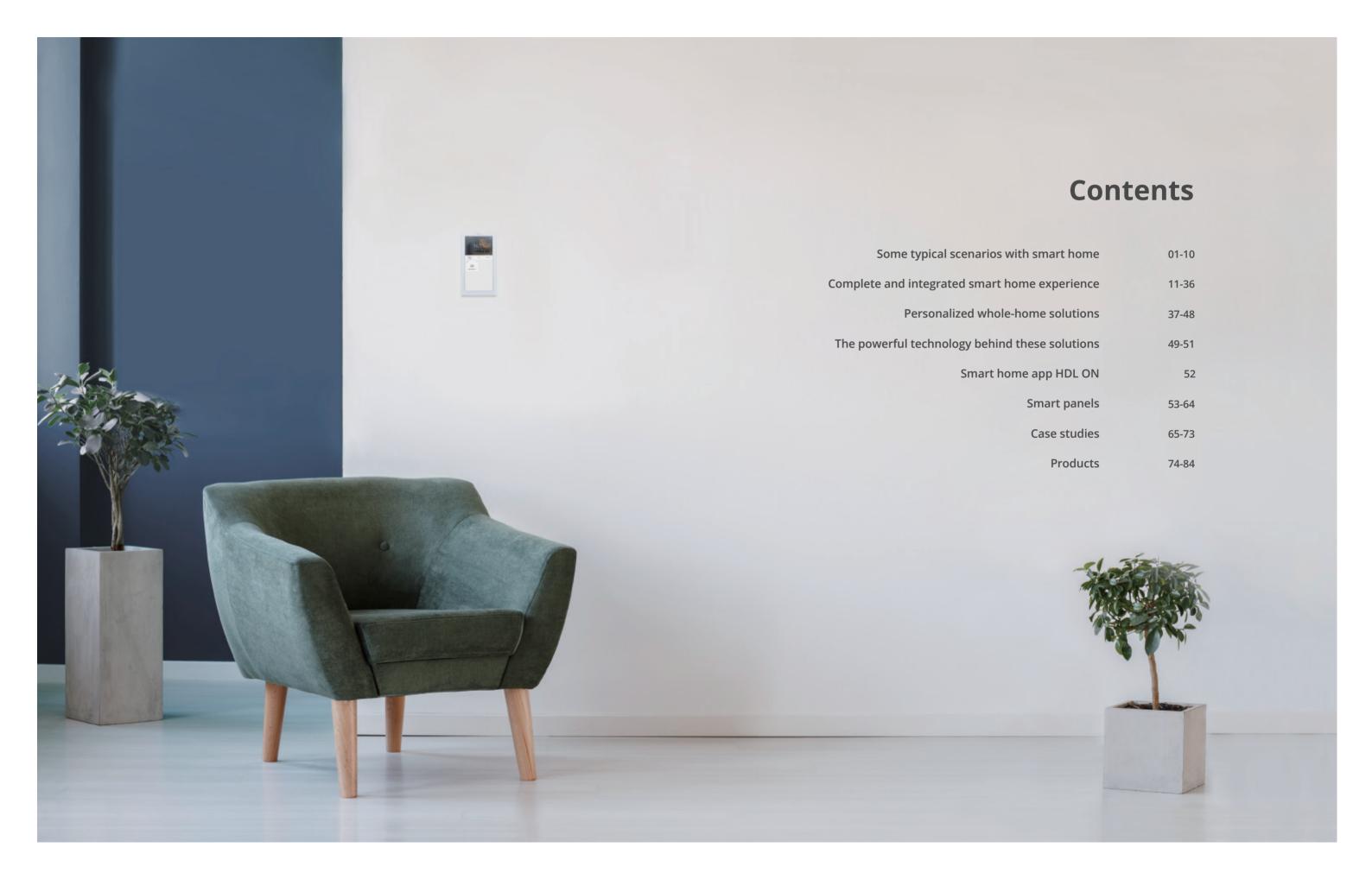








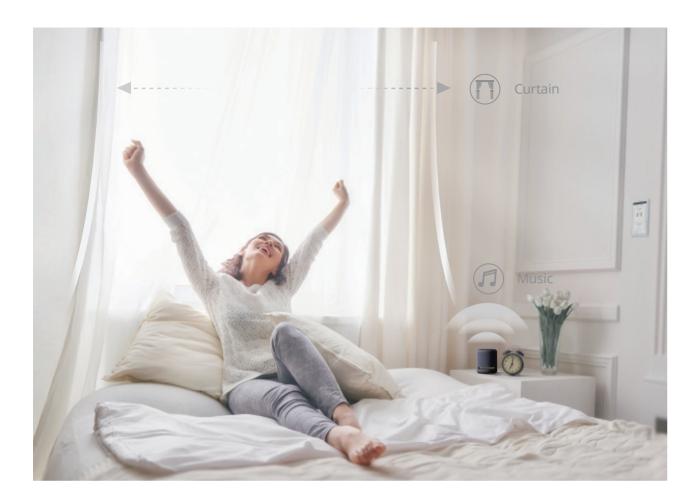












## 7:00 a.m. Get up

The beautiful music sounds out in air as the curtains slowly open. The sunshine spreads on your bed and wakes you up...Welcome to a brand-new day.

## 

#### 8:00 a.m. Go to work

Ready to go? Press the "Away" button on the smart panel, your garage door will open while the system is shutting down the air-conditioner and other devices.

The entire home will be on "Armed" mode. You just go to work in a peaceful mind and won't be bothered by any concerns.

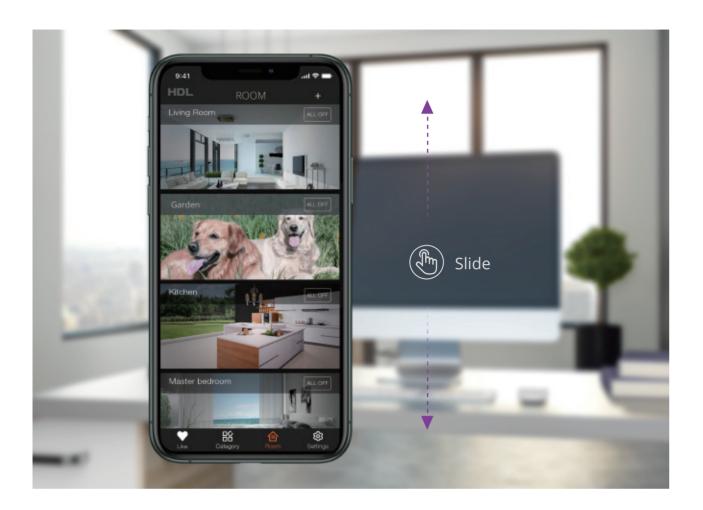
#### Air Conditioner:Closed











## 10:00 a.m. Check up on your home during a break

It's time for a break. Open the HDL smart home app on your phone and see if everything is good at home. Seeing your cute puppy is enjoying the sunshine in the garden, you forget about work pressure and feel relieved.

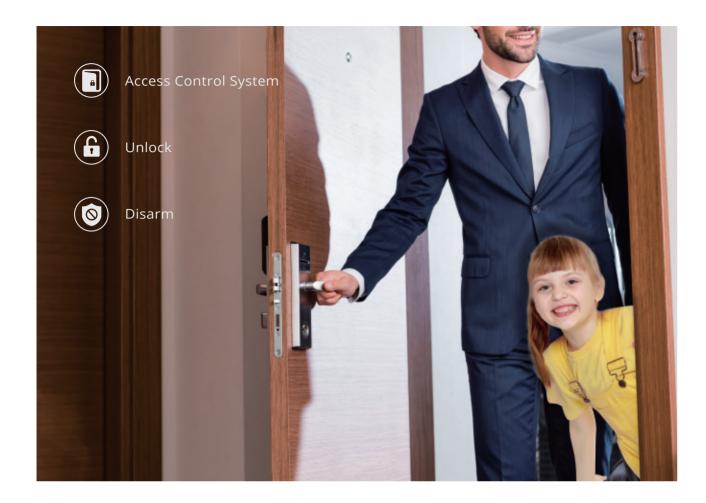
## 5:00 p.m. Set the temperature before home

It's about to leave work. You take out your phone to turn on the air-conditioner in the living room, and set it to the right temperature. But if it's in winter, you can remotely turn on the heating system. When you walk into your home, the indoor temperature is already at a comfortable level.









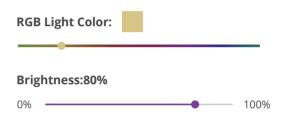
## 6:00 p.m. Back home

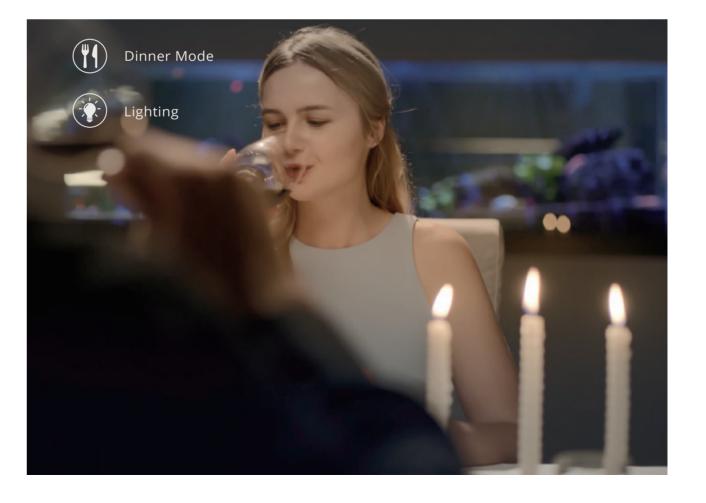
Pick up your kid from school and drive back home. The garage door automatically opens. The lights in the garage and along the doorway are also turned by the system. You unlock the front door with your fingerprint. A personalized Back Home mode is triggered as the Armed mode is disabled. You happily watch your kid run into this comfortable home.

# Garage: Open Close Access Control System: Open Close

## 7:00 p.m. Dinner

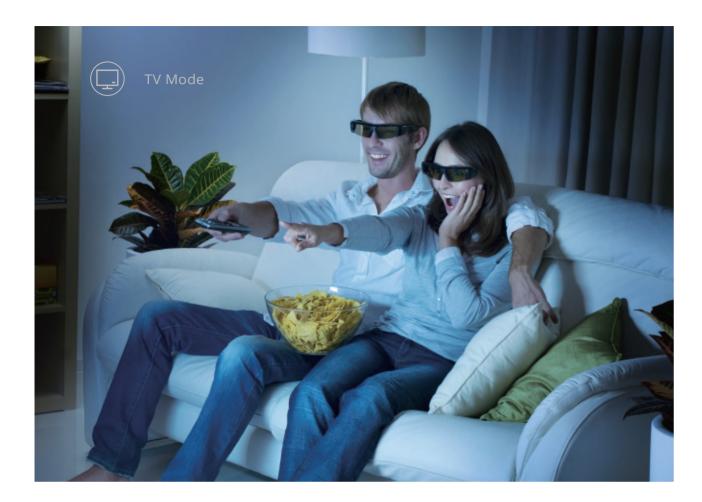
Prepare a big dinner under the pleasant background music. Select the Dinner Mode. Then the light over the table turns soft and warm as the curtains automatically close. Sit down with your loved ones to enjoy the delicious food with cheerful chats.





Some typical scenarios with smart home





### 9:00 p.m. Recreation

There are various ways to spend the time at home. You may have fun with your family, or invite some friends over for a get-together. Regardless what activities are undergoing at home, you just need to press one button to set everything into the right ambience: Meeting Mode, Dinner Mode, Party Mode, TV Mode, Movie Mode, etc.

#### Curtain: 0%

**—** 100%

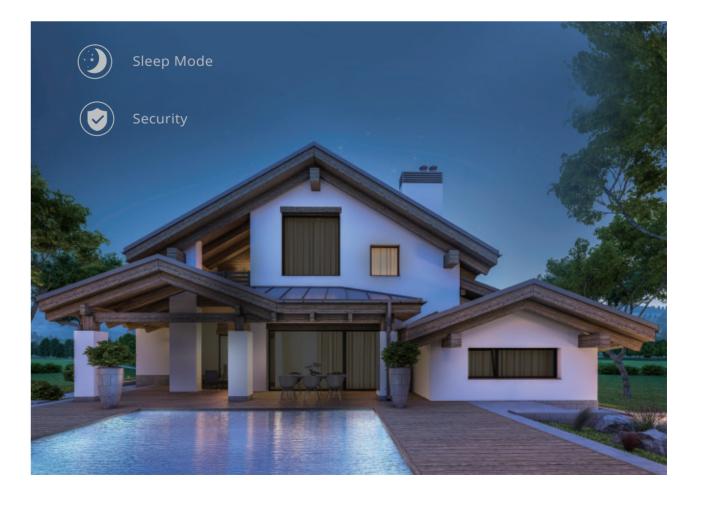
RGB Light Color:



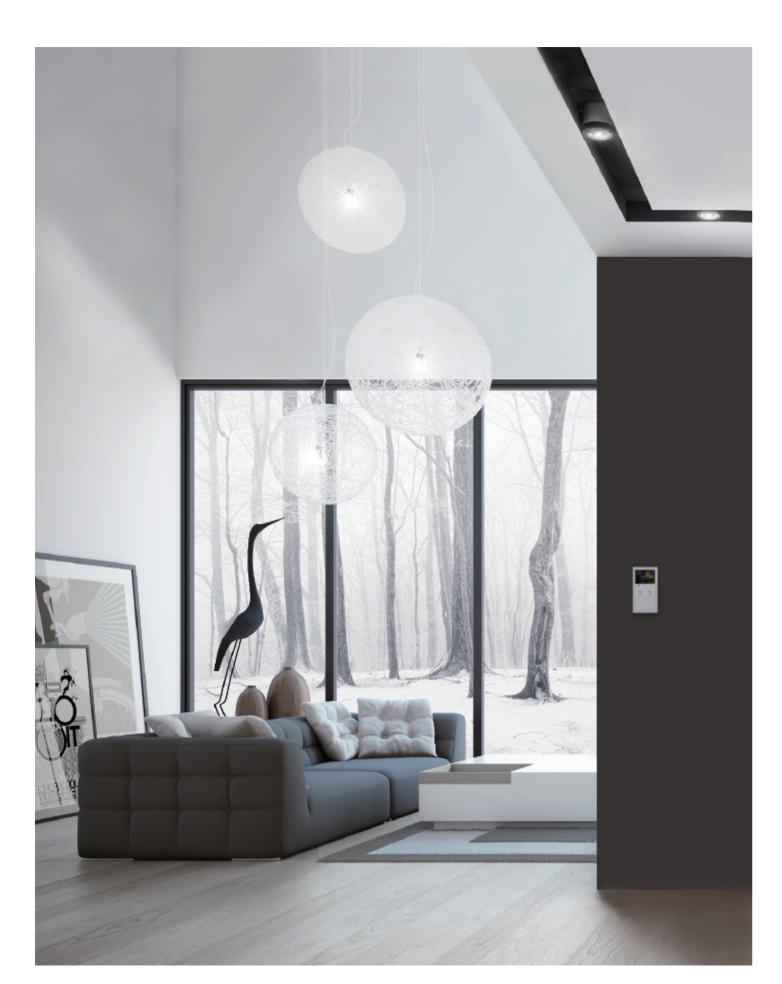
### 11:00 p.m. Go to bed

When the kid falls asleep, select the "Reading Mode" and the reading lamp is on. Read a few pages of your favorite book. Press the "Good Night" button when you feel tired. The lights gradually dim down to dark, the air-conditioner switch to Sleep Mode, and the system enables the "Night Security" mode. You start the sweet dream under such cozy ambience.

#### Brightness:10% 0% — Armed Mode: Open Close







Shading

Climate Control

Music

Scene control

Safety and Security

**Automatic control** 

## Complete and integrated smart home experience

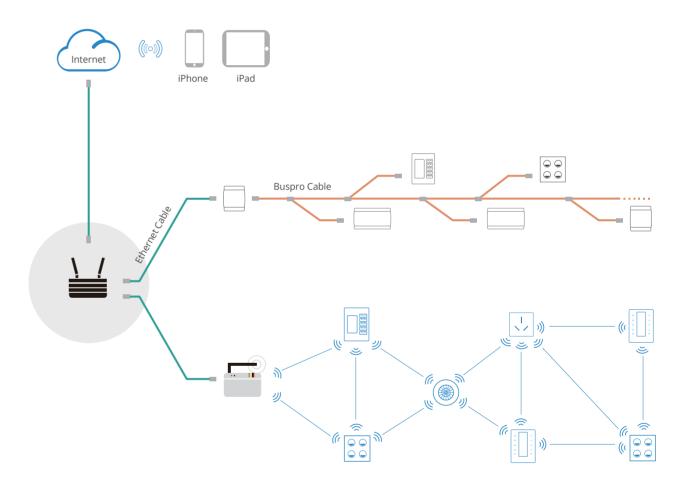
HDL connects your lights, curtains, air-conditioners and other devices into the system, and allows you to control them on a mobile phone, tablet or wall panel. For example, you can turn off the lights with a phone on the way to work. With the settings of sensors and logic conditions, the system can also run the tasks automatically. We offer you smart home solutions that are able to integrate various functions and cover every area of your home.





buspro + buspro

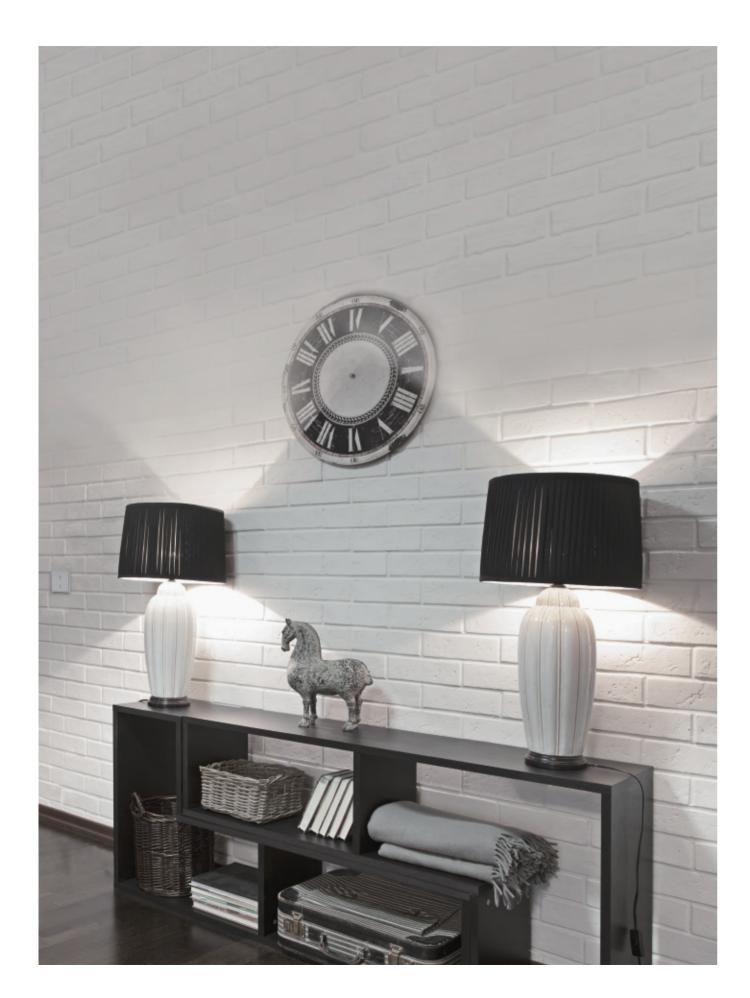
Mixed Application of Wired and Wireless Systems



Being smart means your home somehow knows what you need and takes care of you. When you arrive home in the day time, it opens the curtains for you. But when you come back in the evening, it will turn on the lights for you. It ensures that every time you are walking into a properly lit room.

We have both wired and wireless solutions. Tell us what you need. We will design personalized solutions right for you. You can choose what rooms to automate and what functions to implement. It's that simple.









Shading



Climate Control



Music



Scene control



Safety and Security



Automatic control









#### Brightness: 53%

100%



RGB Light Color:



#### **Brightness**



Apart from turning ON/OFF the lights, you can adjust the brightness as well with HDL. The interface on our wall panel or mobile app shows you the brightness in percentage. Drag the slider on the interface and you will get the exact light for your ongoing activity.

In some cases, you can set the fade-in and fade-out time of brightness change to make the process smooth and comfortable.



#### Colors

HDL offers you full control of light colors. Whether you are having a romantic dinner or a cheerful party, you can always easily set the perfect lighting effect with colors.



#### **Color temperatures**

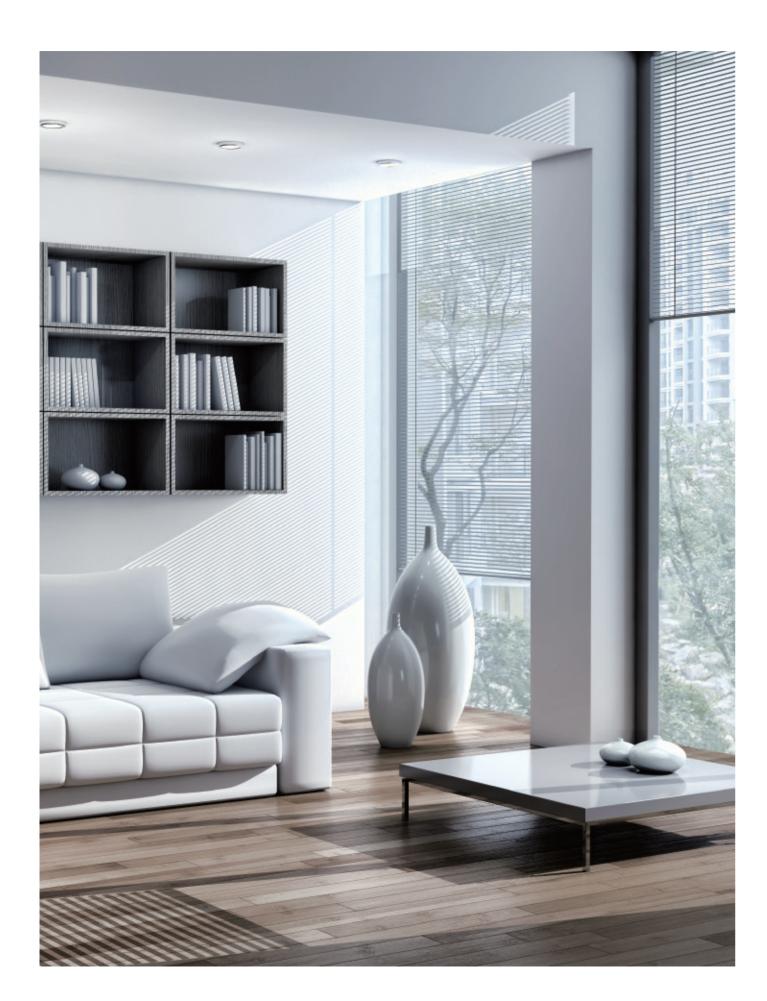
From cold to warm, different color temperatures of light may give us a different mood. We need cold light in the hot summer to cool us down. Warm light on foods can increase our appetite... Set your mood with HDL.





**Granite Display** 





## Shading



Climate Control



Music



Scene control



Safety and Security

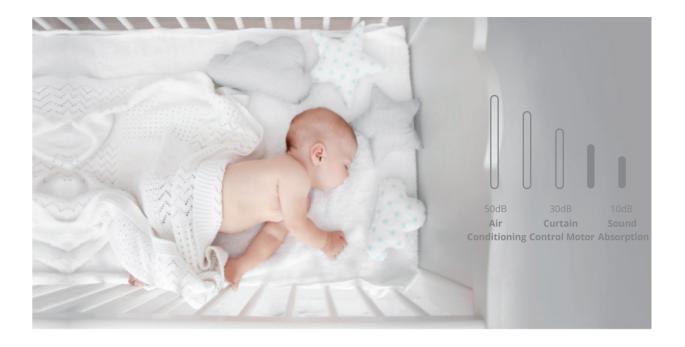


X

Automatic control







#### **Curtains or blinds**

HDL smart home system is able to control curtains and blinds. You can always find the right solution for your windows.

#### Stop at any position

In the home automated with HDL, your curtains don't have to be fully open or closed, they can be stopped at any position to let in perfect amount of light.

#### Super quiet

The sound made by the curtain motor is lower than 35dB. It won't disturb your sleeping baby.







Shading



## **Climate Control**



Music



Scene control



Safety and Security



Automatic control

HDL smart home can automatically run the air-conditioning, heating and ventilation system. It keeps the ambience healthy and comfortable for your family. It also gives you intuitive and convenient ways to do it manually. For example, you can set your AC temperature with a mobile phone, or simply touch the wall panel right beside you.





## Save energy by automating climate control

If your windows are left open for a certain period, say 60 seconds, your HDL smart home can automatically shut down the air conditioning or heating systems to avoid wasting energy. In the meantime, you will be notified on your phone.







Shading



Climate Control



## Music



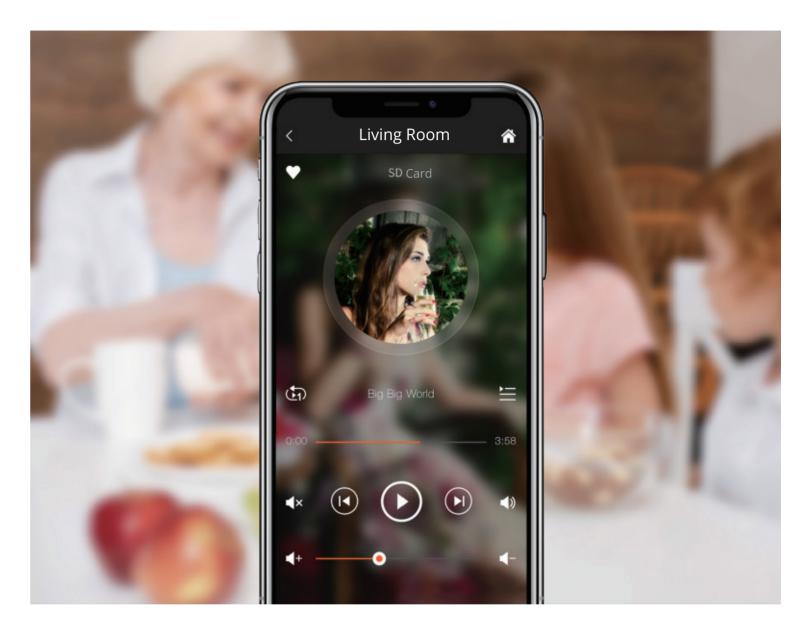
Scene control



Safety and Security



Automatic control



Your background music can also link with Scenes. For example, Dinner Mode can go with a piece soft music while controlling the lights over dining room.









Control Panel

HDL On App







Shading



Climate Control



Music



## **Scene control**



Safety and Security

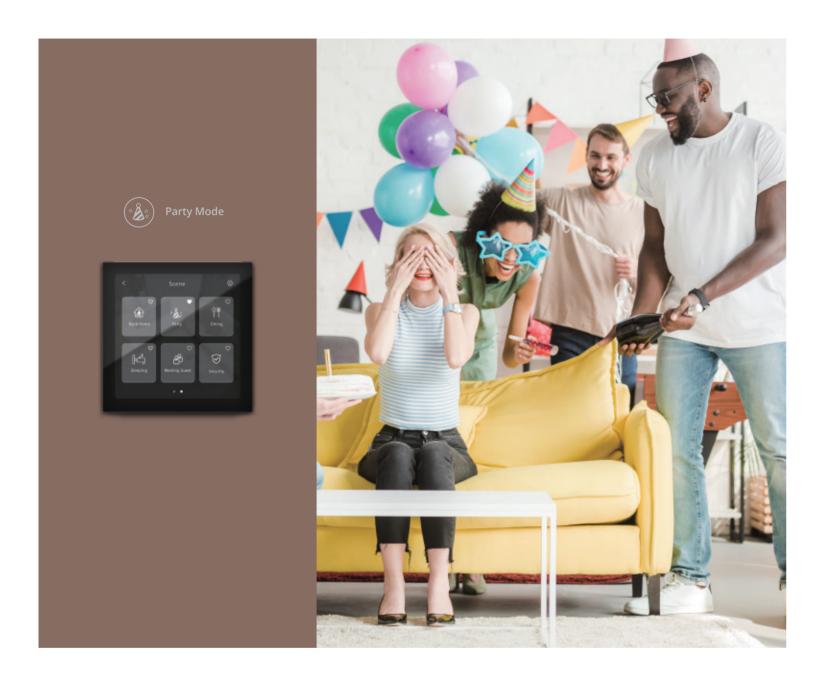


Automatic control



Scene control provides great convenience to control multiple devices. Just one button away to set the perfect ambience for your activity. For example, we can create a "Romantic" mode, which when you select it, the system will close curtains, turn on color lights and play soft music.





You can select a Scene on a wall panel, mobile phone or the door lock with your fingerprints. What's more, different finger prints can be linked to different Scenes.















Dinner Mode Party Mode Romantic Mode TV Mode Sleep Mode Home Mode More...









Shading



Climate Control



Music



Scene control



**Safety and Security** 



Automatic control





When smoke is detected, the system will trigger alarms in the house. Meanwhile, notifications will be pushed to your phone.















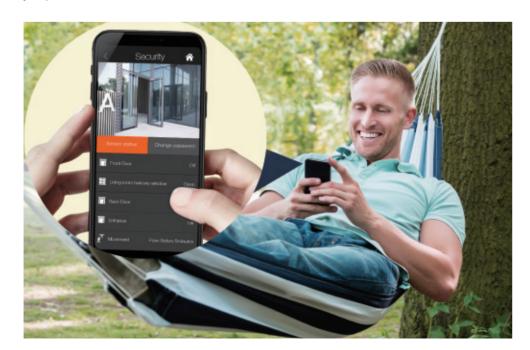


#### **Intruder detection**

You can enable the "Armed" mode to protect your home from intruders. When your doors or windows are opened without permission, your HDL smart home will scare away the intruder by alarms, turning on lights or other devices. You will be notified via your phone so that you can take any actions needed.

#### **Security cameras**

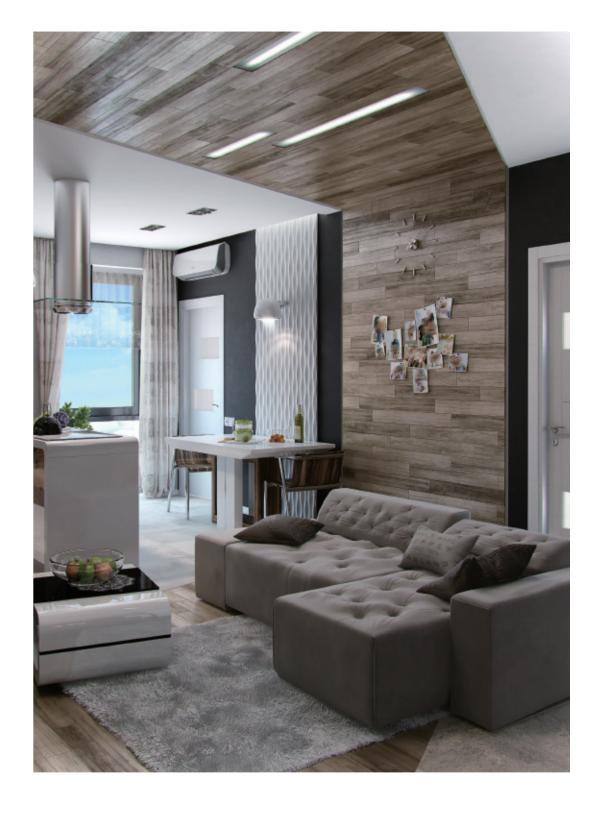
Wherever you are, you can always learn about the situation of your home by viewing video images on your phone.











#### **Scene simulation**

Turn on lights, play music, open and close curtains like someone's at home. Prevent possible intrusion when you are away from home.







Shading



Climate Control



Music



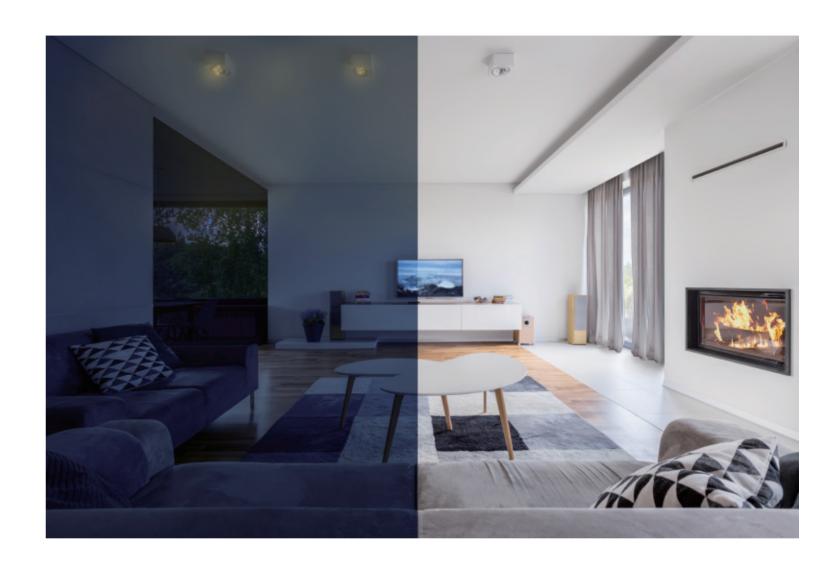
Scene control



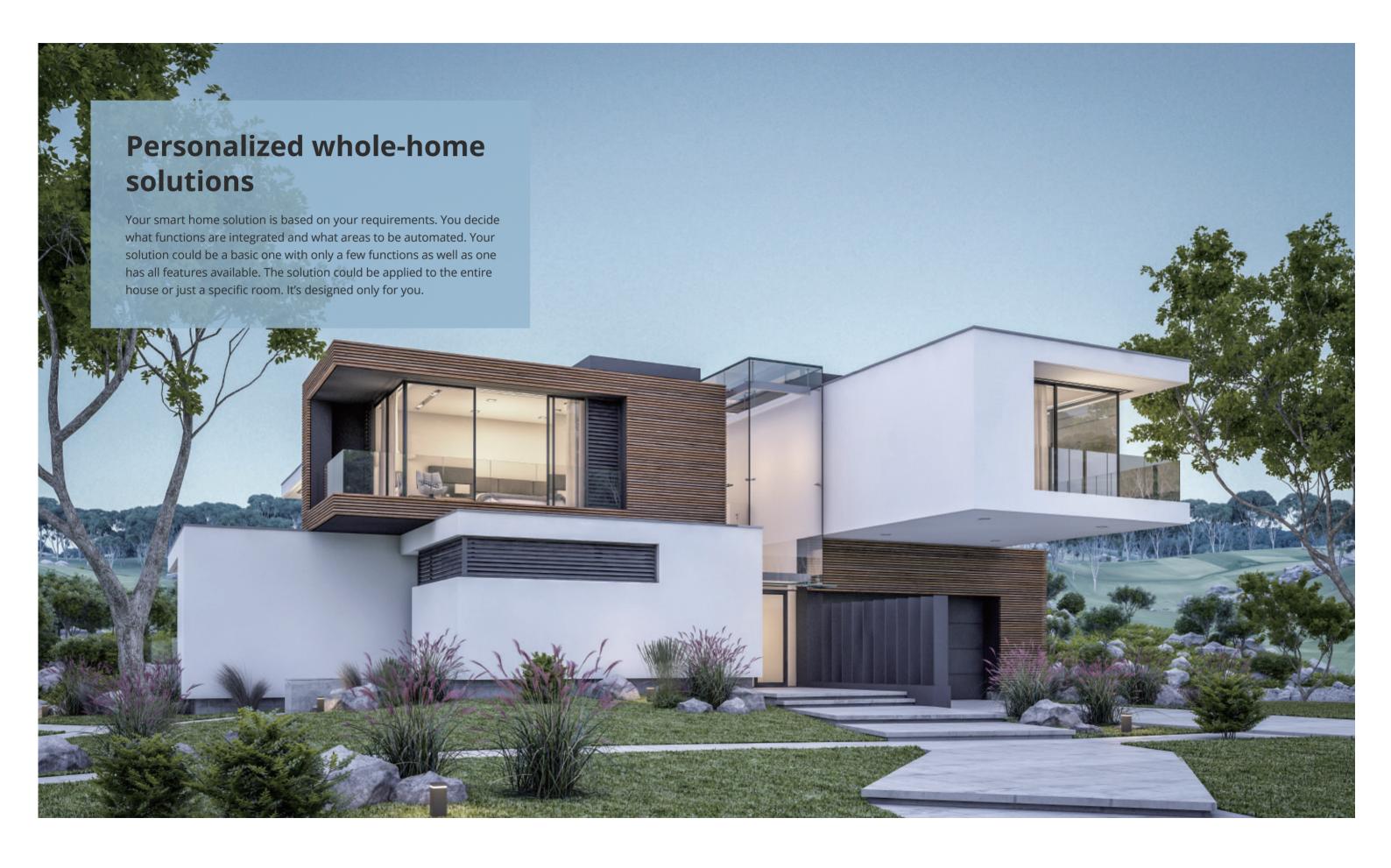
Safety and Security



## **Automatic control**







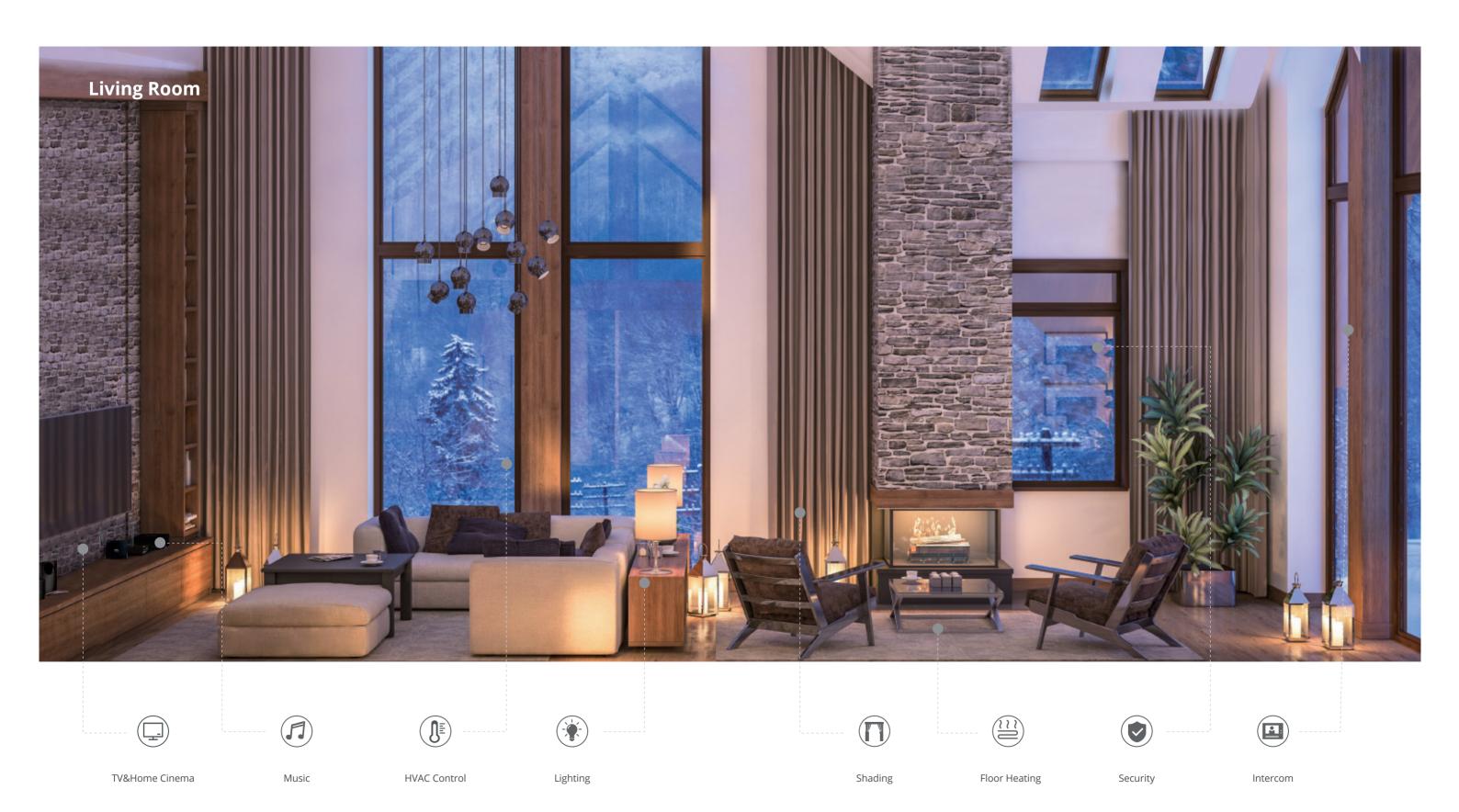


## **Solutions for condo**

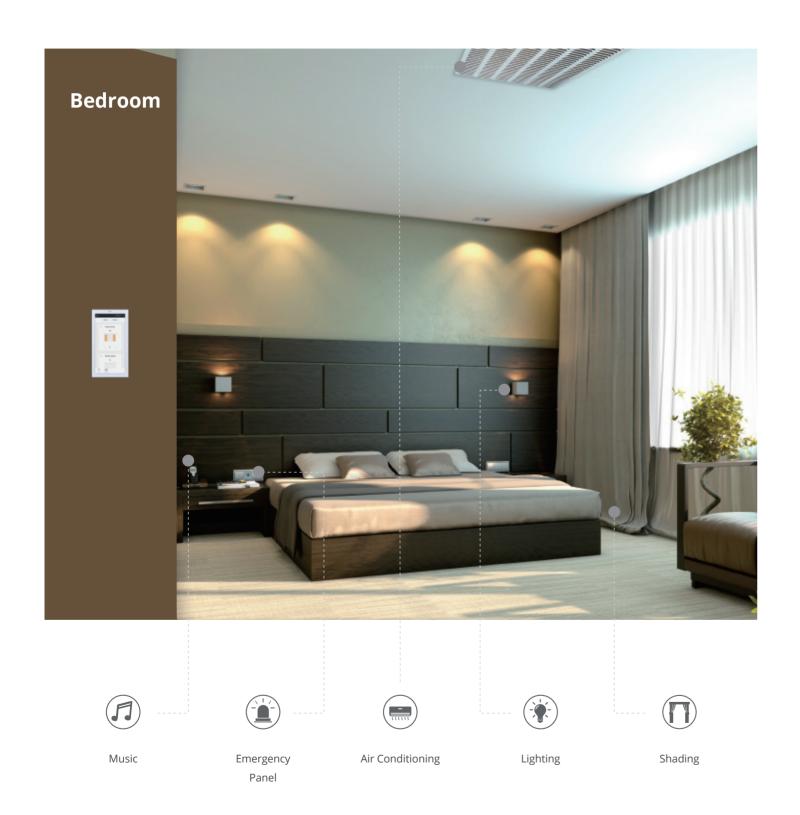
## **Solutions for apartments**

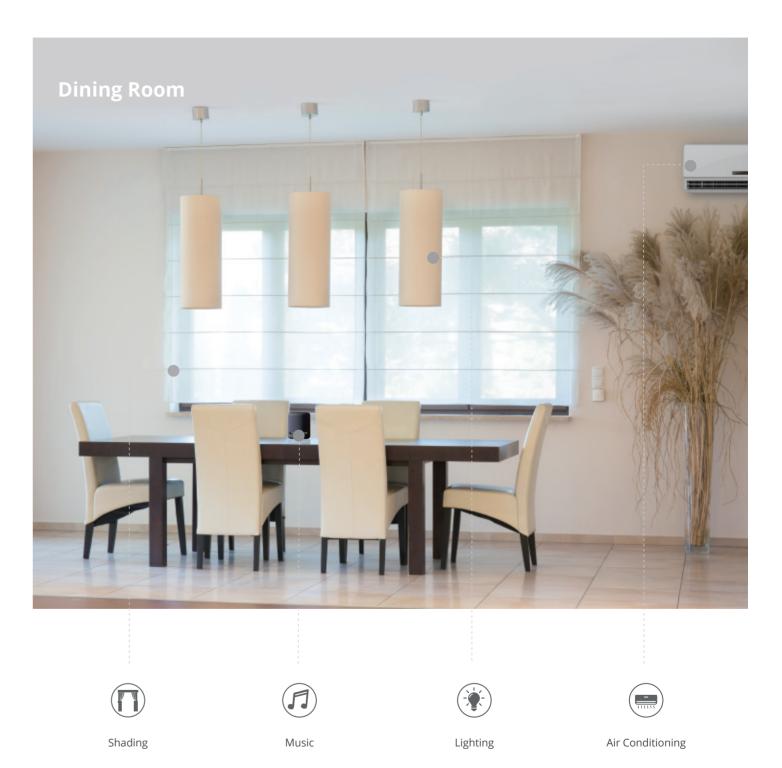












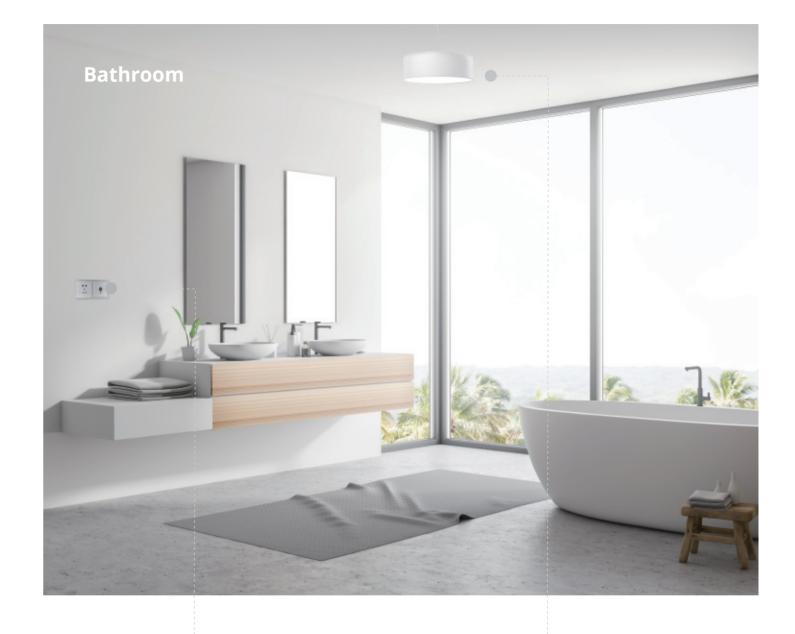


Gas Leakage Detection





Control





Emergency Panel



Lighting





Garage Door Control



Lighting





Lighting



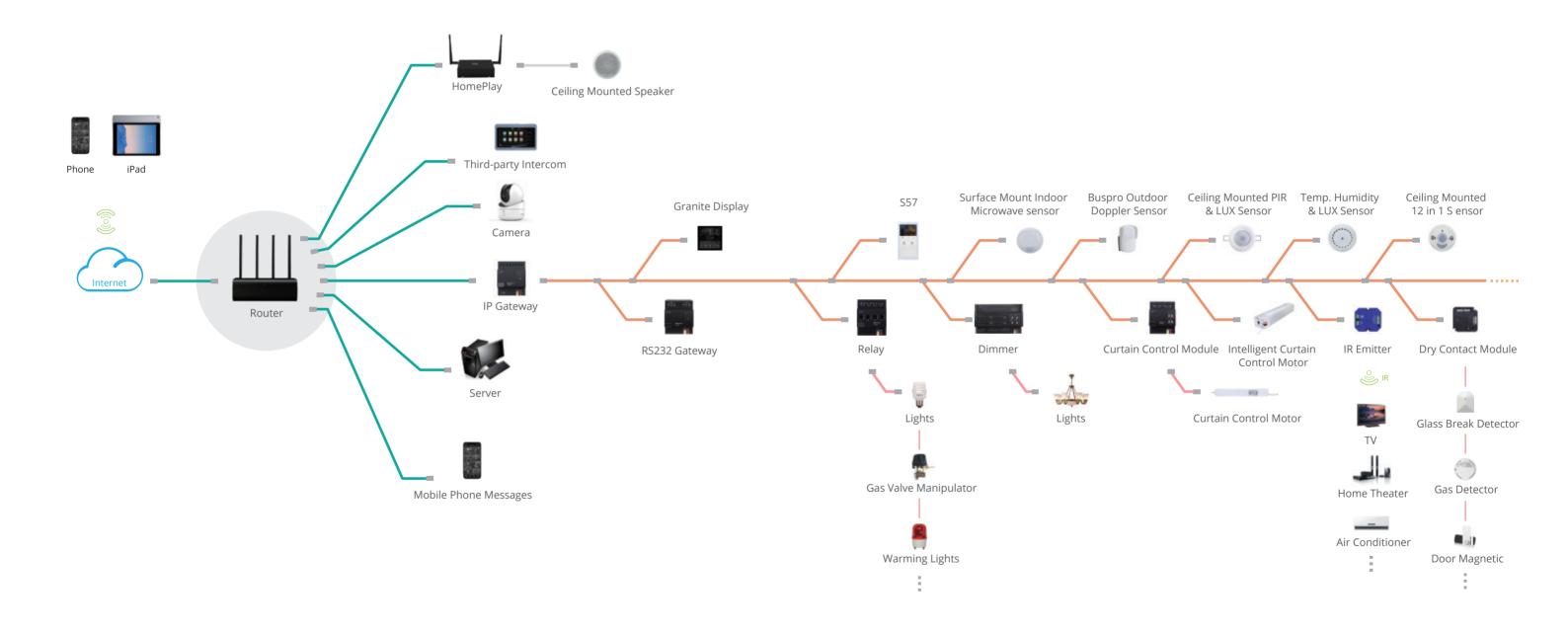
Irrigation





## The powerful technology behind the solutions





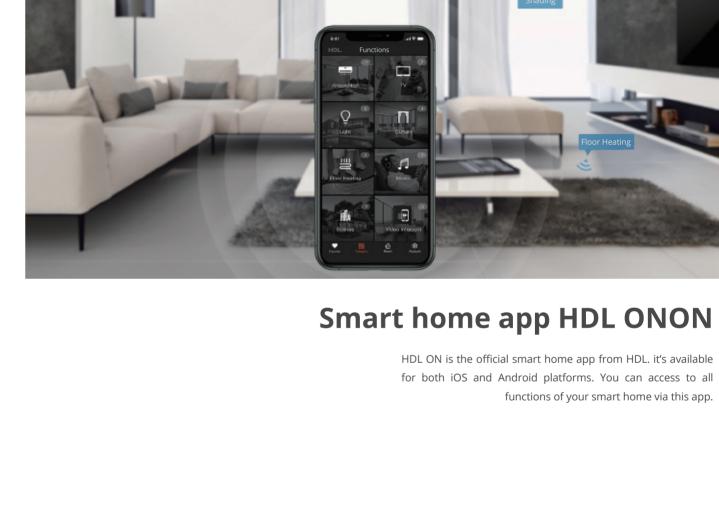
HDL has provided numerous of smart home projects with products and solutions. Most of the solutions are based on our proprietary technology Buspro, which consists of wall panels, controllers, sensors, software and other components.

Buspro, based on RS485, is distributed system that able to connect with various devices and appliances such as lighting devices, air-conditioners, motorized curtains, etc. It allows users to control or manage their home with a smart phone, tablet or wall-mounted smart panels. With sensors and logic settings, automatic control is also available. Smart home solutions are designed with Buspro to meet different requirements.





Buspro can integrate with Amazon Alexa and Google Assistant. Add HDL Smart Home to your Skills and control your home by speaking.





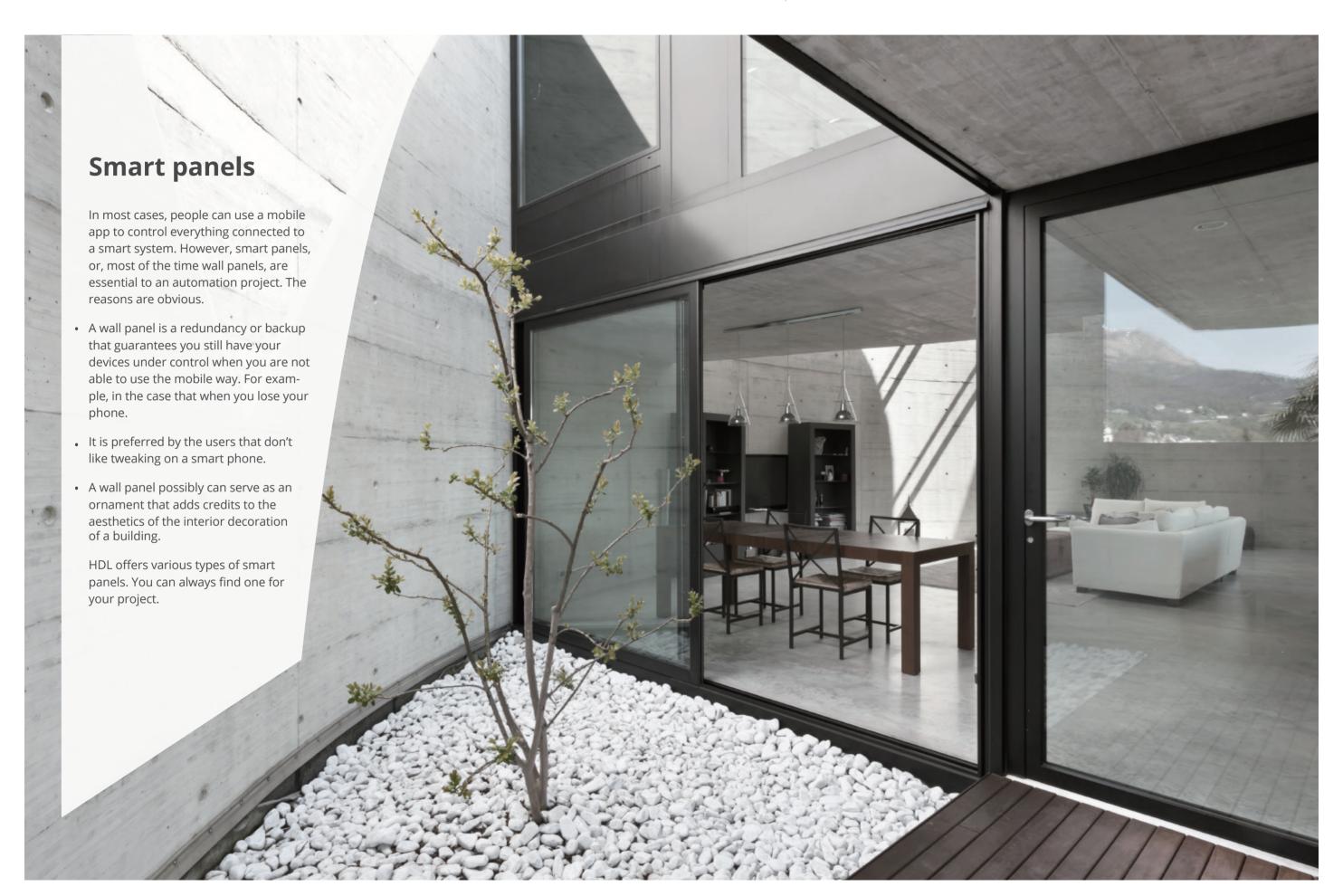








Smart panels 53-54



HDL®

Smart panels 55-5

### **Granite Display**



- Built-in proximity sensor
- Built-in temperature and humidity sensor
- Adjustable screen backlight brightness
- Colors: Space Gray
   Arctic Silver
- 4-inch 720 x 720P HD touch display
- Available for: buspro knx



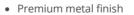
#### **Granite**



Granite is a push-button panel with premium metal finish. The RGB indicators, icons and the firm button feedback all together make your control comfortable and intuitive.

#### Available for:

- 4 Buttons Smart Panel (EU)
- 6 Buttons Smart Panel (US)



- Natural and comfortable push feedback
- Endures at least 100,000 times of pushes
- Power supply: DC 24V
- Color: Arctic silver space gray rose gold rose gold
- Dimensions: 86 x 86 mm (EU), 86 x 116.5 mm (US)
- Available for: buspro KNX



Lighting







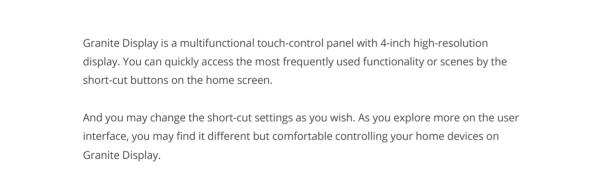
Scenes





Music Dresser

More



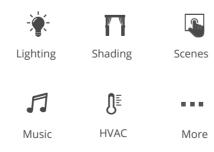
HDL® Smart panels 57-58

#### **S10**

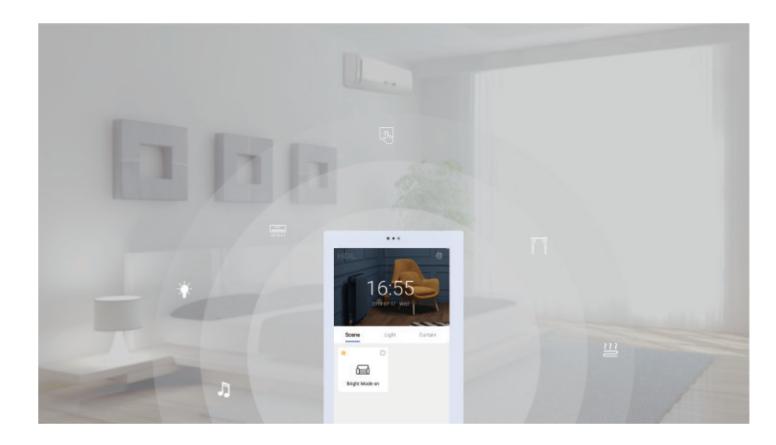


S10 is a touch panel equipped with a 10.1-inch 800 x 1280P HD display and a dedicated user interface. With the excellent industrial design and UI, a panel of such size will just make your building more beautiful apart from its tech features.

- 10.1-inch 800X1280P display
- Built-in real-time clock (RTC)
- Built-in proximity sensor, temperature sensor
- Power supply: DC 9 ~ 25V
- Available for: IP buspro



#### **S57**



S57 is a multifunctional touch-control panel with a 5.7-inch display. It is equipped with high performance CPU and uses WallApp as the default user interface. You can easily control every device connected to the smart system just by flipping your fingers on the screen.

- 5.7-inch 1280 x 640P display with 18:9 aspect ratio
- Built-in proximity sensor, brightness sensor
- Built-in microphone and speaker
- Power supply: DC 24V or PoE
- Available for: \* WIFI IP



Smart panels

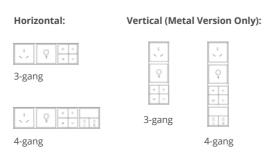
#### Tile



The basic unit of Tile is a keypad or socket panel in EU standard. You can use just one unit if it meets your requirement, or combine multiple units to serve more functions in a specific area. Tile series comes with two versions of different materials: metal and plastic. Each one is able to give you a sense of premium quality, either with the refined sandblasting finishes on the metal one or the skin-like touch feeling on the plastic one.

- Supports various types of control targets
- Flexible combinations for required functions
- RGB icon backlight
- Customizable button icons
- Users are allowed to set the colors of icon backlight
- Available in two materials Plastic:86×86×11(mm) Metal:90×90×11(mm)

#### Available for: buspro Available in four colors: Metal: Space Gray Champagne Gold Plastic: Ash Gray Ivory White



#### **Enviro**



Enviro is a touch-control panel equipped with a 4.3-inch display. It allows you to control lighting, curtains, HVAC, music and more functions effortlessly on its graphic user interface. What you need to do is just a touch on the screen.

Available for: DUSPTO KNX



Dimensions: 86 x 116.5 mm (US)

Available in two colors: Black White

- Color capacitive touch display
- Customizable UI
- Built-in proximity sensor
- Built-in temperature sensor
- Built-in IR receiver
- Built-in real-time clock
- Aluminum frame
- Power supply: DC 24V





#### **DLP Touch**



DLP Touch is designed to offer you a quick and simple touch-control experience. Its face is entirely covered by one piece of glass.

With the LCD in the middle, you can have the icons or text customized. Every time you touch the panel, you clearly know what to control. Not a single thought is needed.









Shading









Available for: buspro KNX

Dimensions: 86 x 116.5 mm (US)

Available in two colors: Black White

- Mono-color LCD
- Customizable icons and captions
- Built-in temperature sensor, proximity sensor, IR receiver
- Aluminum frame
- Power supply: DC 24V

Smart panels 61-62

#### DLP





If you prefer physical buttons but want to have a display to indicate the control targets, then the DLP panel is here for you.



- Mono-color LCD
- Supports 147 languages
- Customizable icons or captions
- Built-in temperature sensor
- Aluminum frame
- Power supply: DC 24V





**Dimensions:** 86 x 86 mm (EU), 86 x 116.5 mm (US)

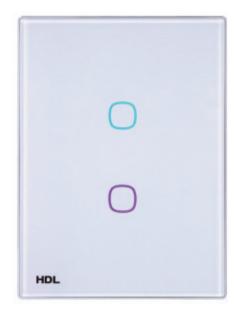
Available in two colors: Black White





#### iTouch





iTouch is always a great option if you are looking for a beautiful keypad of minimal design. Its body is enclosed by a fine aluminum frame, while the face is a piece of glass with touch buttons. It perfectly matches any interior decoration.

Available for(EU)

Available for(US)

• 2 Buttons

- 2 Buttons
- 4 Buttons
- 4 Buttons
- 6 Buttons

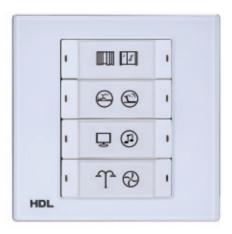
- Touch button with RGB backlight
- Aluminum frame
- Supports online upgrade
- Power supply: DC 24V
- Dimensions: 86 x 86 mm (EU), 86 x 116.5 mm (US)

Available for: DUSPTO KNX buspro WIRELESS

Available in two colors: Black White

Smart panels 63-64

#### iFlex





What do you think is the easiest way to put an icon or caption on a button? Right, we can draw an icon or write a caption on a piece of paper, and place it on the button. And we call that piece of paper a tag. This is the idea of HDL iFlex.

#### Available for(EU) Available for(US)

- 2 Buttons
  - 4 Buttons • 8 Buttons
- 4 Buttons
- 6 Buttons • 8 Buttons

• Push button with removable tags

- Aluminum frame
- Power supply: DC 24V
- Dimensions: 86 x 86 mm (EU) 86 x 116.5 mm (US)

Available for: buspro KNX







- - -

Lighting





Music





More

HDL<sup>®</sup> Case Studies 65-66



## Banc Apartment, Australia

As an impressively designed building, Banc was regarded as one of the premier apartment buildings in Brisbane. HDL installed a fully automated smart home system for the 34 high-end apartments, including lighting control, HVAC control and music control and intercom system.





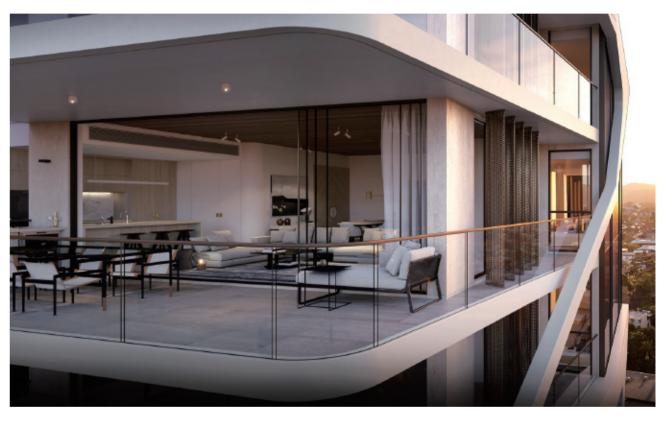








Floor Heating Music







HDL® 67-68

### **Beijing MOMA Apartment Buildings**

Located in the Chaoyang District of Beijing, the MOMA Apartment buildings accommodate most of the families of diplomats. HDL Buspro system was installed in 119 apartments of T7 and T8 buildings for lighting control and background music control.









To prepare for the 2010 Guangzhou Asian Games, the government built the Asian Games Village where 60 apartments were for technical officials. HDL intelligent control system was installed in these 60 apartments for lighting control, AC control and security.







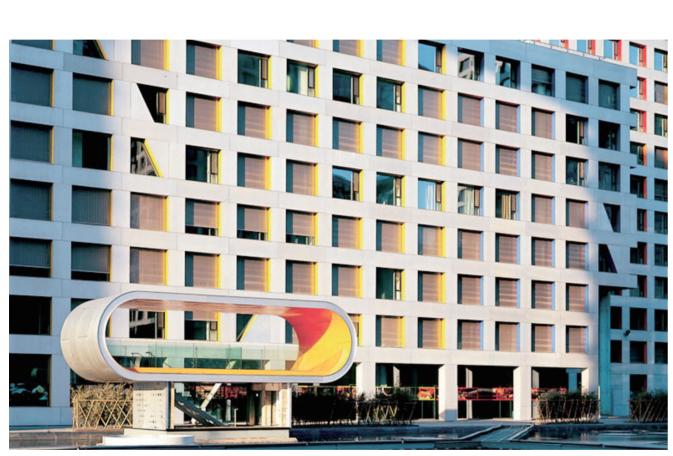


















HDL® Case Studies 69-70

## Tianyue Project of Poly Real Estate in Nanjing, China

Tianyue is one of the most expensive real estate projects in Nanjing City. HDL Buspro system was installed in 516 apartments of Tianyue to control lights, air-conditioners, ventilation, floor heating and the video intercom system.









Lighting Floor Heating HVAC

## Tianlu St. Regis Holiday Villa, Lijiang, China

This villa adopted the HDL KNX intelligent control system, which can be connected to the conventional electrical devices and appliances of the villa, such as lights, air conditioners, curtains and so on. With the logic settings and sensors, the system can perform many functions automatically to satisfy the actual needs of this villa.























71-72

## A 3-floor house, Vancouver

HDL®

This is a 3-floor house in the north of Vancouver, Canada. HDL engineers designed a smart home solution for the owner covering lighting, shading, HVAC, irrigating, safety, security and background music.











Floor Heating HVAC Music

### A 3-Floor Villa in Dubai

HDL Buspro intelligent control system was installed in this villa for lighting control and climate control. Its 5 bedrooms, dining room, living room, office, meeting room, lobby, kitchen, gym and garden were all covered with HDL Buspro.























HDL® 73-74 Products

## Seaside Holiday Villa in Croatia

HDL Buspro system was installed in this seaside villa. All the lights, blinds, air-conditioners and security cameras were connected to Buspro. Users can easily control the system by HDL wall panels or their mobile phones.



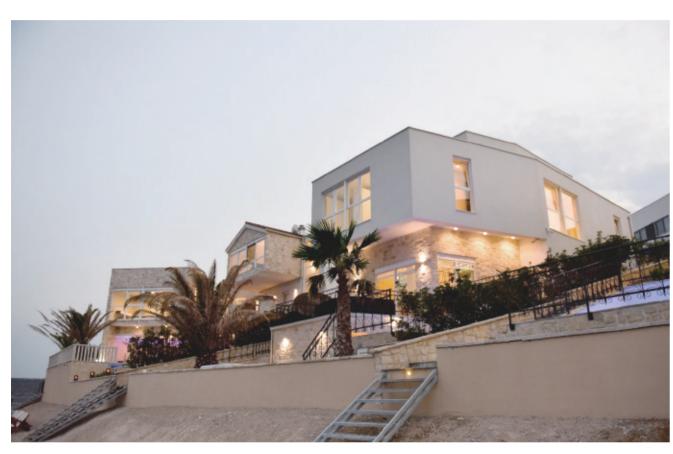






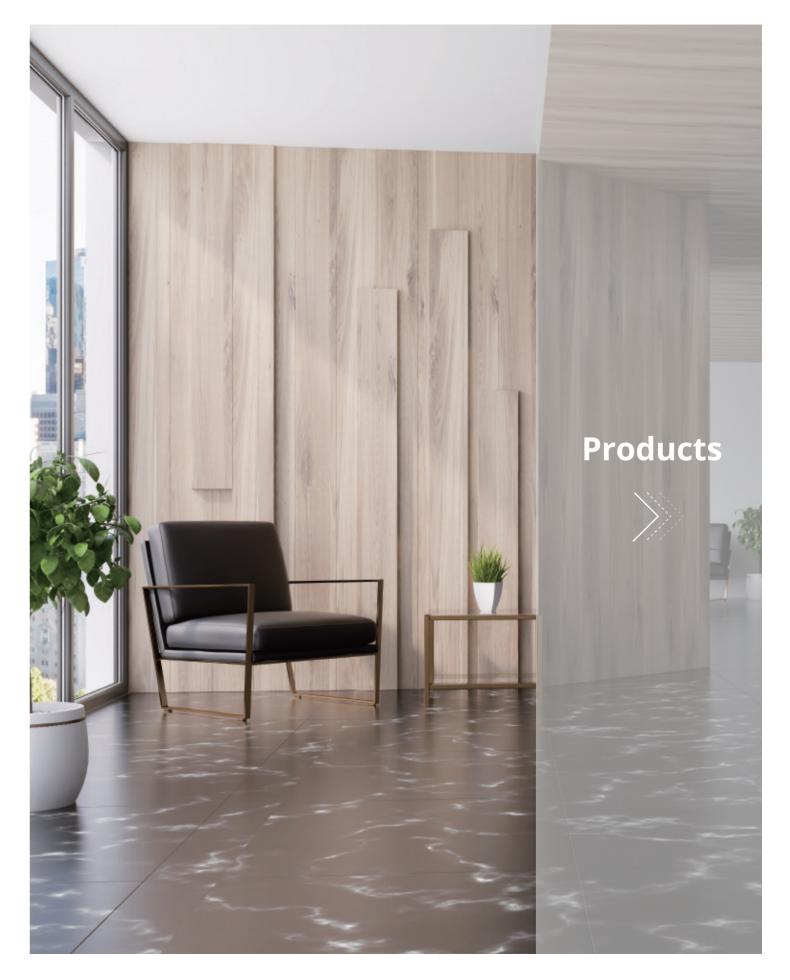












## **Control Panel**











Granite Display

Granite(EU)

Tile Series OLED Panel

Tile Series Buttons Panel









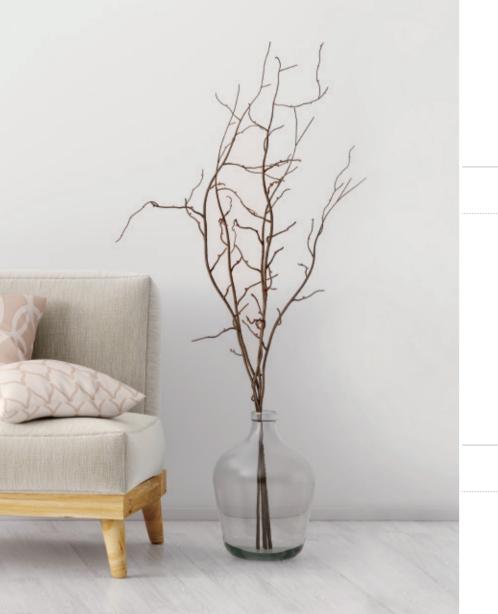
S57 Touch Panel Enviro Touch Panel Modern Series DLP Touch Panel(US) Modern Series DLP Smart Panel(US)







S10 Touch Panel iTouch Series Buttons Touch Panel(EU) iFlex Series Buttons Panel(EU)





#### **Dimmers**















4CH 3A Leading Edge Dimming Actuator

4CH 1.5A Trailing Edge Dimming Actuator

2CH 10A Mosfet Power Amplifier

Traic Constant Current Module

4CH 10A High Power Switch Actuator

4CH 16A High Power Switch Actuator

#### **DMX Controller**















64CH DALI Ballast Dimming Actuator

6CH 10A 0-10V Ballast Dimming Actuator

6CH 5A Intelligent LED Dimming Actuator

6CH input & output Module

3CH 650mA LED Driver

48CH DMX Scene Controller

512CH DMX Scene Controller

# -



## Shading









6CH 20A High Power Leading Edge Dimming Actuator

6CH 10A High Power Trailing Edge Dimming Actuator

2Ch Motorized Curtain Control Module

Buspro Blind Motor

Buspro Curtain Motor

Curtain Remote Controller



#### **Climate Controller**









Sensor





4CH Electric Fan Controller

6CH Floor Heating Module

Air Conditioning Control Module

Wall Mount Outdoor Microwave Sensor

Surface Mount Indoor Microwave sensor

Reccess Mount Ultrasonic Sensor

## **IR Emitter / Dry Contact**













Smart IR Transmitter with Current Detection

Infrared Code Learner

4 Zone Dry Contact Module with Temp. Sensor

Reccess Mount PIR & LUX Sensor

Surface Mount Temp. Humidity & LUX Sensor

Surface Mount Lux & Air Quality Sensor

#### Auido











24 Zone Dry Contact Module

HomePlay Network Player

Surface Mount 7in1 Sensor

Surface Mount 8in1 Sensor

Surface Mount 12in1 Sensor



### **buspro** Gateway/Security/System Device

## **Gateway**







1 Port Programming Gateway

RS232/RS485 Gateway

HDL-BUS and KNX-EIB
Interface Converter

## Security





Security Command Module

Logic Automation Module

## **System Device**







HDL 6 Ports Switch

750mA Power Supply Module

2400mA Power Supply Module



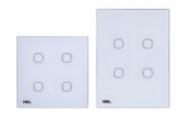






#### **Control Panel**





DLP Series Panel(EU/US) iTouch Series Panel(EU/US)

#### **Power Interface**









Wireless Power Interface EU

3CH Wireless Dimming Power Interface EU

3CH Wireless Switch Power Interface EU

3CH Wireless Dimming Power Interface EU

#### Sensor









**IR Emitter** 

Surface Mount Wireless Ultrasonic & PIR Sensor **Shading** 



Wireless Curtain Control Motor

**Actuator** 



1CH Wireless **Dimming Actuator** 



4CH Wireless Ballast Dimming Actuator



1CH Wireless Relay Actuator



2CH Wireless Relay Actuator

## **Gateway**







Wireless IR Emitter



1CH Wireless Curtain Actuator



4CH Wireless Dry Contact Module

Wireless Mesh Gateway

Buspro/ Wireless Gateway