



# Smart Home Solution Guide

## **Accelerate your business with smart solutions**

In this day and age of modern technology, IoT is becoming the new norm. Bring greater convenience in offices and better experience of domestic living with Avnet's design capabilities for smart homes, smart offices, and smart buildings.

Leverage on a wide variety of hardware products, which includes ToF sensor, radar, and intelligent switch, to offer homeowner the automation they expect.

Combining technical expertise with end-users' demand for optimal convenience and security, Avnet works with our partners to enhance product development life-cycles and accelerate the time-to-market.

Get in touch with the Avnet team today to find the right application for your business and harness growth opportunities within the Internet of Things.



## Partnering the best

With more consumers seeking the comfort and convenience enabled by a fully automated home, our partnerships with industry-leading suppliers enable shorter time to market to capitalize on the booming growth of the smart home sector.

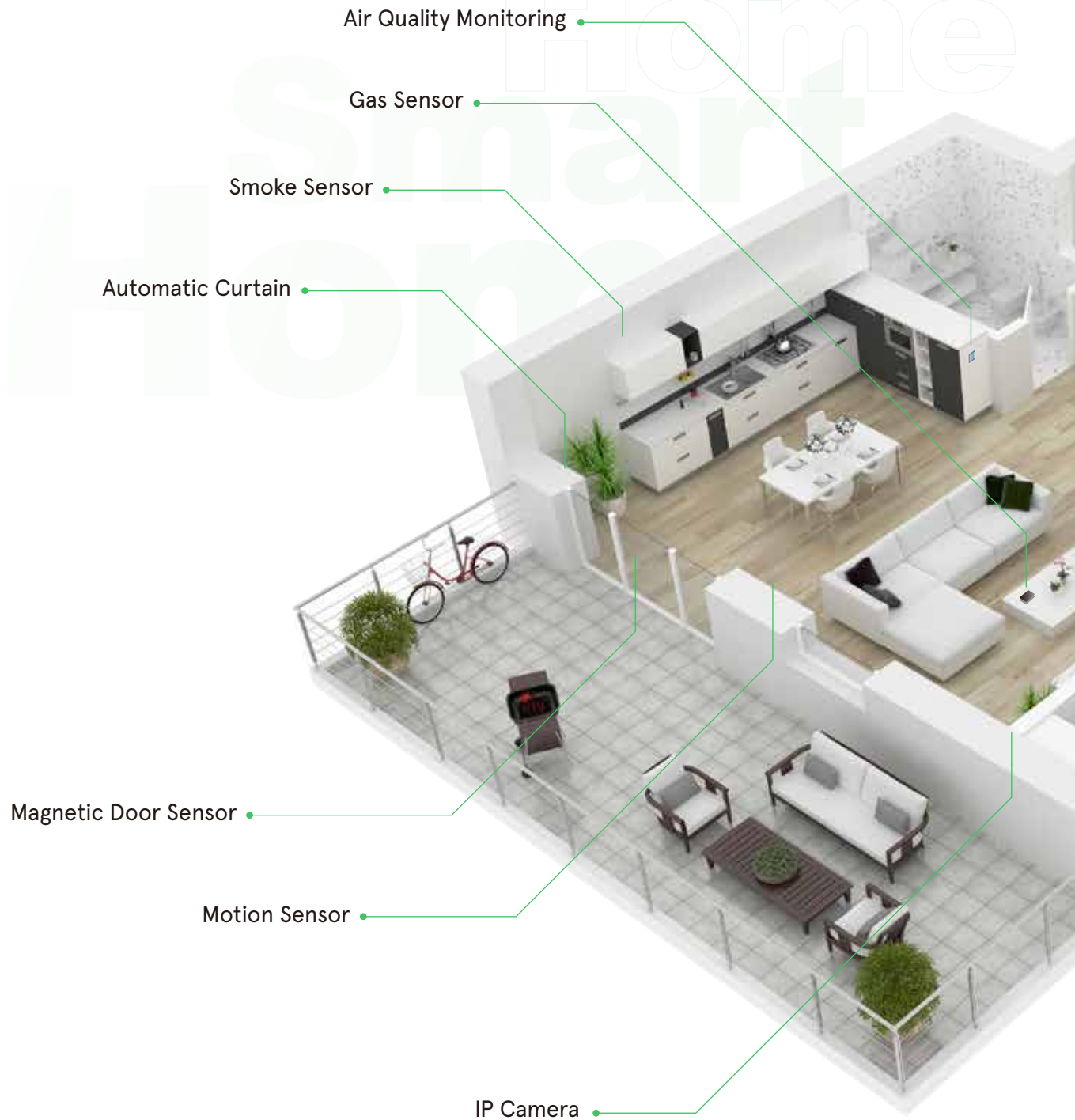
		Infineon	Microchip/Atmel	Nordic	NXP	Renesas Electronics	ROHM	STMicroelectronics	Xilinx	ams OSRAM	BOURNS	EPCOS	Intersil (Renesas)	InvenSense	Panasonic*	TE	Vishay	Amphenol	onsemi
Processor	8bit		•		•		•	•											
	16bit	•	•		•		•	•											
	32bit	•	•		•		•	•											
	32bit ARM Cortex(M0)		•	•	•			•											
	32bit ARM Cortex (M3)		•		•			•											
	32bit ARM Cortex (M4)		•	•	•			•											
	32bit ARM Cortex (A series)				•	•		•	•										
Sensor	Accelerator				•		•	•						•					
	Bio-Sensing									•				•					
	MEMS microphone	•						•				•		•					
	MEMS oscillator		•					•						•					
	Inertial modules						•	•				•		•					
	Proximity						•	•		•		•		•			•		
	Touch		•				•							•					
	Magneto						•			•		•							
	E-compass						•												
	Light	•					•			•				•				•	
	Temp	•	•		•			•		•		•		•		•	•		
	Humidity	•						•			•	•		•		•			
	Pressure	•			•			•			•	•		•	•	•			
	Gyro							•						•	•				
	Image									•			•						
Connectivity	BLE	•	•	•	•		•	•							•	•		•	•
	WiFi	•	•		•			•							•			•	•
	Zigbee			•	•		•											•	
	2.4GHz RF	•		•				•										•	
	5.0GHz RF	•																•	
	3G/4G Module																	•	
	5G Module																	•	
	NFC			•	•			•									•	•	
	RFID	•			•													•	
	Sub-GHz RF			•	•	•							•					•	•

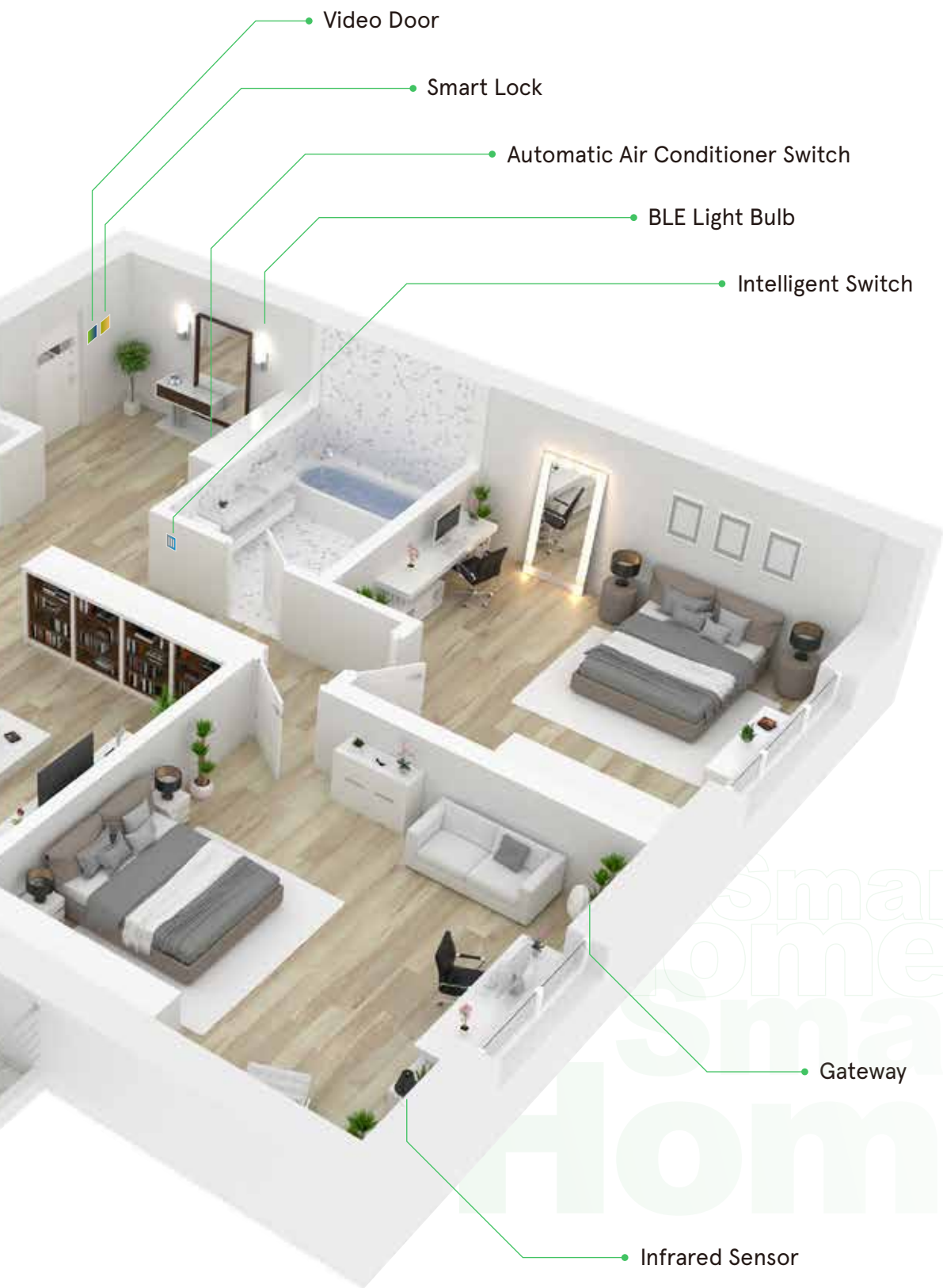
\* Only available in selected countries.

The above information is an illustration of Avnet's solutions for reference purposes. It does not represent the entire portfolio of Avnet or our suppliers.

## A spectrum of solutions we are able to offer

Avnet's wide range of IoT solutions delivers high-performance applications so you can maximize the full potential of IoT.





Smart  
Home  
Smart  
Home

## Avnet Design Services Solutions

Ensure that your products are always market-ready with our design centers that tailor product designs according to your requirements and shorten the design cycle.

Solution	Features	Main Platform
<b>ToF measurement</b> There are many application scenario to use ToF sensor for smart home. This low-power AMS ToF sensor series is good for liquid level monitoring for home appliances, such as coffee machine, humidifier and water dispensers. With good reputation in response time, accuracy and anti-vibration, it also enables host systems to measure distances accurately and at very high speed, thus this solution with AMS ToF sensor is also widely used for human presence detection in refrigerator, air conditioner, smart lock and etc.	<ul style="list-style-type: none"><li>• Privacy</li><li>• Accuracy</li><li>• Strong anti-interference: anti-vibration, anti-light interference, dustproof, anti-fog</li></ul>	<ul style="list-style-type: none"><li>• Dialog: DA14681</li><li>• ams OSRAM: TMF8701/TMI</li></ul>
<b>60GHz mmWave radar monitoring</b> 60GHz mmWave radar can be used in vital sensing, it can detect the respiration rate and heart rate of the people that located in the field of vision of mmWave radar. It can be used for baby monitoring and eldly people caring in an indoor space.	<ul style="list-style-type: none"><li>• Privacy-conserve</li><li>• Accuracy</li><li>• No requirement on the light</li></ul>	<ul style="list-style-type: none"><li>• Infineon: BGT60TR13C</li><li>• Microchip: ATSAMS70J2</li></ul>
<b>Smart lock solution</b> The smart lock solution powered by STmicroelectronics MCU is a cost effective design that allows users to unlock doors via BLE, touch panel, fingerprint, NFC or a temporary password created by registered smart phone. It features STM STSAFE-A100, a highly secure solution that provides authentication and data management services to a local or remote host. This low cost solution works with Cloud and Android APP.	<ul style="list-style-type: none"><li>• Audio prompt</li><li>• Cloud server support</li><li>• Android compatible</li></ul>	<ul style="list-style-type: none"><li>• STM: STM32L476</li><li>• STM: BLUENRG-1</li><li>• STM: ST25R3911B</li><li>• STM: STSPIN240</li><li>• Microchip: PIC16LF1559/ML</li><li>• STM: STSAFE-A100</li></ul>
<b>Indoor air monitoring solution</b> The solution powered by Renesas MCU and IDT sensor is to monitor indoor air quality, by measuring TVOC (Total Volatile Organic Compounds) and estimating Carbon Dioxide correlation. It can be widely used in indoor air monitoring applications to monitor home, office, personal environment or public spaces to ensure good air quality and a healthy condition.	<ul style="list-style-type: none"><li>• General indoor use</li><li>• High accuracy</li></ul>	<ul style="list-style-type: none"><li>• IDT(REN): ZMOD4410</li><li>• REN: R5F1036AASP</li><li>• NXP: PCA9617ADPJ</li></ul>





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