



# Silicon Labs is the one-stop resource for developing smart home solutions.

Our complete smart home technology portfolio combines feature-rich, low-power hardware with secure, easy-to-use software, simplifying device production and allowing you to get to market and scale quickly. We are making it possible to bring the latest technology to the largest home ecosystems that are driving IoT growth today. We offer the widest range of best-in-class wireless connectivity options and provide an array of resources to support production, from hubs to wearables and everything in between, including development tools, engineering support, an active user community, technical documentation, reference designs, certified modules, and accessories.

## The industry's broadest portfolio of wireless products offer



- Low-power architecture
- Security-enabled hardware and software throughout product lifecycle
- Productivity design tools and software development kits (SDKs)
- Robust software and operating system
- Design reuse and flexibility
- Multiprotocol connectivity
- Solutions designed exclusively for smart home

## Selecting the Right Protocol

Protocol	Mesh Protocols				Bluetooth Low-Energy	Proprietary	WiFi
	WAVE	zigbee	Bluetooth Mesh	THREAD			
Existing Ecosystem	Broad	Broad	Limited	Limited	Broad	No	Broad
Interoperability	Full, Cross-Brand, Backward Compatible	By Application and Profile	Full, Cross-Brand, Backward Compatible	Defined by Application Layer	Full, Cross-Brand	N/A	Partial, not all features
Mature Smart Home Application Layer Command Class	Yes	Yes	Yes	No	No	No	No
Topology	Mesh Routing	Mesh Routing	Mesh Managed flooding	Mesh with Border Routers	Point to Point	Point to Point	Star
Band	Sub-GHz	2.4 GHz	2.4 GHz	2.4 GHz	2.4 GHz	142-1050 MHz + 2.4 GHz dual-band	2.4GHz
IPv6	Yes/Z/IP	No	No	Yes	No	No	Yes
Battery-Friendly Energy Draw	Yes	Yes	Yes	Yes	Yes	By Application	Yes
Direct Node-to-Node Range (Indoor)*	50-60 meters	40-50 meters	30-40 meters	40-50 meters	20-30 meters	By Application	50 meters
Maximum Number of Nodes Per Network**	100 verified, 232 theoretical	250 verified, 65,536 theoretical	1,000 verified, 32,767 theoretical	300 verified, >65,536 theoretical	7	By Application	250 theoretical
Automated Setup	Yes, SmartStart	Yes, proprietary implementation	Yes	No	No	No	Proprietary only
Silicon Labs Products	EFR32ZG / ZGM	EFR32MG / MGM	EFR32BG / BGM	EFR32MG / MGM	EFR32BG / BGM	EFR32FG	WF200, WFM200S, WGM160P

\*Indoor range numbers are only indicative and depend on the environment and RF output power

\*\*Verified in practice and tested max number of nodes in network – can theoretically be higher

	Protocol	HW Products	Kits	Software
 <b>In-home smart display</b>	Mesh	ZGM EFR32MG / MGM	<a href="#">SLWSTK6050A</a> <a href="#">SLWSTK6000B, SLWSTK6006A</a>	<a href="#">Z-Wave</a> <a href="#">Zigbee, Thread</a>
 <b>Home security systems</b>	Mesh	ZGM EFR32MG / MGM	<a href="#">SLWSTK6050A</a> <a href="#">SLWSTK6000B, SLWSTK6006A</a>	<a href="#">Z-Wave</a> <a href="#">Zigbee, Thread</a>
 <b>Lighting</b>	Mesh	ZGM EFR32MG / MGM EFR32BG / BGM	<a href="#">SLWSTK6050A</a> <a href="#">SLWSTK6000B, SLWSTK6006A</a> <a href="#">SLWSTK6101C, SLWSTK6020B,</a> <a href="#">SLWSTK6006A</a>	<a href="#">Z-Wave</a> <a href="#">Zigbee, Thread</a> <a href="#">Bluetooth</a>
 <b>Sensors</b>	Mesh	ZGM EFR32MG / MGM EFR32BG / BGM	<a href="#">SLWSTK6050A</a> <a href="#">SLWSTK6000B, SLWSTK6006A</a> <a href="#">SLWSTK6101C, SLWSTK6020B,</a> <a href="#">SLWSTK6006A</a> <a href="#">SLWSTK606xx</a>	<a href="#">Z-Wave</a> <a href="#">Zigbee, Thread</a> <a href="#">Bluetooth</a>  Proprietary
 <b>Water sensors</b>	Mesh	ZGM EFR32MG / MGM	<a href="#">SLWSTK6050A</a> <a href="#">SLWSTK6000B, SLWSTK6006A</a>	<a href="#">Z-Wave</a> <a href="#">Zigbee, Thread</a>
 <b>Window shades</b>	Mesh	ZGM	<a href="#">SLWSTK6050A</a>	<a href="#">Z-Wave</a>
 <b>Door locks</b>	Mesh Bluetooth Low-Energy	ZGM EFR32MG / MGM EFR32BG / BGM	<a href="#">SLWSTK6050A</a> <a href="#">SLWSTK6000B, SLWSTK6006A</a> <a href="#">SLWSTK6101C, SLWSTK6020B,</a> <a href="#">SLWSTK6006A</a>	<a href="#">Z-Wave</a> <a href="#">Zigbee, Thread</a> <a href="#">Bluetooth</a>
 <b>Hubs &amp; gateways</b>	Mesh Bluetooth Low-Energy Wi-Fi	EFR32ZG EFR32MG / MGM EFR32BG / BGM	<a href="#">SLWSTK6050A</a> <a href="#">SLWSTK6000B, SLWSTK6006A</a> <a href="#">SLWSTK6101C, SLWSTK6020B,</a> <a href="#">SLWSTK6006A</a>  <a href="#">WF200</a> <a href="#">WGM160</a>  <a href="#">SLEXP8022A</a> <a href="#">SLWSTK6121A</a>	<a href="#">Z-Wave</a> <a href="#">Zigbee, Thread</a> <a href="#">Bluetooth WF200</a>     <a href="#">WGM160</a>
 <b>Smart speakers</b>	Mesh Bluetooth Low-Energy	ZGM EFR32MG / MGM EFR32BG / BGM	<a href="#">SLWSTK6050A</a> <a href="#">SLWSTK6000B, SLWSTK6006A</a> <a href="#">SLWSTK6101C, SLWSTK6020B,</a> <a href="#">SLWSTK6006A</a>	<a href="#">Z-Wave</a> <a href="#">Zigbee, Thread</a> <a href="#">Bluetooth</a>
 <b>Thermostats &amp; sensors</b>	Mesh Wi-Fi	ZGM EFR32MG / MGM EFR32BG / BGM	<a href="#">SLWSTK6050A</a> <a href="#">SLWSTK6000B, SLWSTK6006A</a> <a href="#">SLWSTK6101C, SLWSTK6020B,</a> <a href="#">SLWSTK6006A</a>  <a href="#">WF200</a> <a href="#">WGM160P</a>  <a href="#">SLEXP8022A</a> <a href="#">SLWSTK6121A</a>	<a href="#">Z-Wave</a> <a href="#">Zigbee, Thread</a> <a href="#">Bluetooth</a>     <a href="#">WF200</a> <a href="#">WGM160P</a>
 <b>Garage door openers</b>	Wi-Fi  Sub GHz Bluetooth Low-Energy	EFR32BG / BGM  WF200 WGM160P EFR32FG	<a href="#">SLWSTK6101C, SLWSTK6020B,</a> <a href="#">SLWSTK6006A</a>  <a href="#">SLEXP8022A</a> <a href="#">SLWSTK6121A</a> <a href="#">SLWSTK606xx</a>	<a href="#">Bluetooth</a>     <a href="#">WF200</a> <a href="#">WGM160P</a> <a href="#">Proprietary</a>
 <b>Home health devices</b>	Bluetooth Low-Energy Wi-Fi	EFR32BG / BGM WF200 WGM160P	<a href="#">SLWSTK6101C, SLWSTK6020B</a> <a href="#">SLEXP8022A</a> <a href="#">SLWSTK6121A</a>	<a href="#">Bluetooth</a> <a href="#">WF200</a> <a href="#">WGM160P</a>
 <b>Wearables</b>	Bluetooth Low-Energy Wi-Fi	EFR32BG / BGM WF200 WGM160P	<a href="#">SLWSTK6101C, SLWSTK6020B</a> <a href="#">SLEXP8022A</a> <a href="#">SLWSTK6121A</a>	<a href="#">Bluetooth</a> <a href="#">WF200</a> <a href="#">WGM160P</a>
 <b>White Goods/Appliances</b>	Bluetooth Low-Energy Wi-Fi	EFR32BG / BGM  WF200 WGM160P	<a href="#">SLWSTK6101C, SLWSTK6020B,</a> <a href="#">SLWSTK6006A</a>  <a href="#">SLEXP8022A</a> <a href="#">SLWSTK6121A</a>	<a href="#">Bluetooth</a>    <a href="#">WF200</a> <a href="#">WGM160P</a>
 <b>Ordering buttons</b>	Wi-Fi	WF200 WGM160P	<a href="#">SLEXP8022A</a> <a href="#">SLWSTK6121A</a>	<a href="#">WF200</a> <a href="#">WGM160P</a>
 <b>Video cameras</b>	Wi-Fi	WF200 WGM160P	<a href="#">SLEXP8022A</a> <a href="#">SLWSTK6121A</a>	<a href="#">WF200</a> <a href="#">WGM160</a>
 <b>Video doorbells</b>	Wi-Fi	WF200 WGM160P	<a href="#">SLEXP8022A</a> <a href="#">SLWSTK6121A</a>	<a href="#">WF200</a> <a href="#">WGM160P</a>