

Introducing the New Alexa Connect Kit SDK for Smart Home Devices

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Build your own module and silicon solutions for smart home devices with ACK SDK

Today, we are excited to announce **Alexa Connect Kit SDK (ACK SDK)**, a software package that enables Original Design Manufacturers (ODMs) and System Integrators (SIs) to build their own ACK-based modules and differentiated Alexa-compatible smart device solutions without having to worry about managing cloud services, building an app, or writing an Alexa skill. Since the launch of Alexa Connect Kit in 2019, dozens of leading consumer product brands have used [ACK Modules](#) to build Alexa-compatible products ranging from lighting products to fans, air purifiers, coffee makers, microwaves, and even Christmas trees.

This new SDK enables you to build your own Alexa-compatible solutions with the same benefits as ACK, and with more control over costs and features. ODMs and SI solution providers such as Leedarson, Tonly, Innotech, and Linkplay are developing solutions with ACK SDK on Espressif hardware, and leading device makers like Globe Electric and Jasco are creating devices utilizing ACK SDK based solutions.

“Our consumer demand is moving so quickly, and our product margins are thin; with this new ACK SDK, we are able to build a low-cost module that meets the thermal, size, and cost requirements for smart home devices like lighting products, switches, dimmer switches, plugs, and air purifiers. All of this is possible without compromising the set-up experience or the convenience of lifetime device management enabled by ACK. We value the flexibility, hardware and cost optimization options that the new ACK SDK provides for our scale,” said Kellen Yang, Global VP of Sales & Marketing,

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How the New ACK SDK Works

You can prototype your product using ACK SDK, and design your hardware module with an Amazon-qualified SoC for mass manufacturing. ACK SDK uses the same connectivity and device management software components from [Amazon Common Software](#) that many of our Amazon devices use today. You can choose the level of customization for your device, and implement simple applications with just a few managed callbacks and APIs. ACK SDK comes pre-integrated with components for Alexa control ([Smart Home Skill APIs](#)), [Frustration Free Setup](#), security, log and metric collection, and firmware updates – managed by Amazon. Further, since ACK SDK is available as source code, it allows you to customize even more, such as fine-tuning power profiles by taking advantage of the SoCs low-power modes and having better control over peripherals. Example applications included with ACK SDK, as well as the device-side test suite for different device types, help developers catch programming errors and troubleshoot issues during prototyping. The development experience is supported by a set of robust program guidelines and certification processes to enable building secure and high-quality connected device solutions.

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Get More Control Over Hardware and Costs

With the new ACK SDK, solution providers can now build device solutions to fit their design, manufacturing, and cost needs, while leveraging the ACK managed cloud. This new SDK works with any Amazon-qualified SoC, or you can apply to bring your own SoC. Additionally, unlike the existing [ACK Modules](#) which are designed to run the device application on a MCU separate from the connectivity module, ACK SDK allows you to run the device application on the same hardware module, enabling single-chip designs that open up lower cost use cases.

Offer Secure and Reliable Products

Solutions built with ACK SDK are backed by the ACK managed cloud service, built on AWS IoT, and benefit from using the same secure and reliable infrastructure Amazon leverages for its own products.

“We’re excited to leverage the ACK SDK through Amazon’s Solution Providers to develop a whole suite of low-cost products such as LED smart bulbs and smart lighting controls, which we weren’t previously able to enable with ACK,” said Mitchell Davis, VP of Connected Home at Jasco. “We appreciate the reliability and security of ACK’s managed cloud and infrastructure, and are excited to extend it to more products in our portfolio using this technology.”

Create Solutions for High-Quality Products

Customers love their ACK devices because these devices offer the benefits of the [Smart Home Skill API](#), as well as [Frustration Free Setup](#), and [Amazon Dash Replenishment](#). Plus, the ACK managed cloud service is built on AWS IoT, so ACK-built devices will automatically meet the cloud service reliability requirements necessary for [Works with Alexa \(WWA\)](#) and [Certified for Humans \(CFH\)](#) certifications, subject to the testing and other requirements set forth in the program guidelines for [WWA](#) and [CFH](#). After your device is certified, you can feature the WWA or CFH badges in the [Amazon Smart Home Store](#) and on product packaging, opening new marketing opportunities and increasing customer confidence that your devices work seamlessly with Alexa.

Easy for Silicon Vendors

Amazon is working with silicon vendors to grow the selection of ACK SDK compatible hardware for ODMs and SIs to choose from.

“We are pleased to be part of the ACK SDK program, and excited to partner with Amazon to announce our first ACK SDK-compatible development kit. Espressif’s ACK SDK-compatible development kit is going to make it even easier for solution providers and device makers to use our products to build innovative connected-devices using the best-in-class ACK SDK,” says Espressif’s Director of Technical Marketing, Mr. Amey Inamdar.

Silicon vendors can apply below to get their SoCs qualified for the program.

Start Building with Alexa Connect Kit SDK Today

To build solutions and reference device designs with ACK SDK, apply to be an ACK partner today and get access to ACK SDK Developer Preview by signing up below.

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