

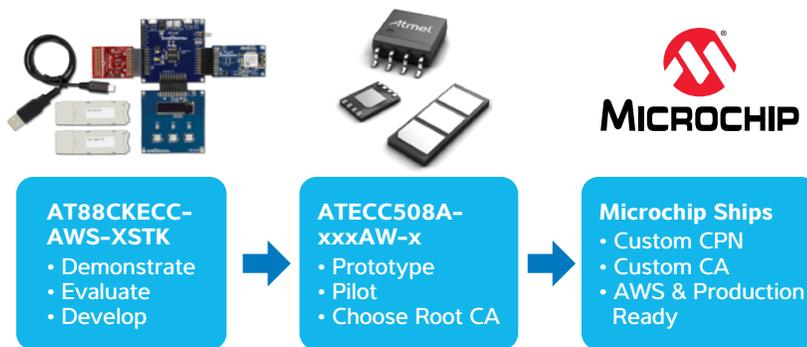
# AWS Zero Touch Secure Provisioning



## AWS Zero Touch Secure Provisioning Platform

Microchip's AWS Zero Touch Secure Provisioning Platform offers the industry's first end-to-end security solution for IoT devices that connect to the Amazon Web Services IoT (AWS IoT) cloud. This platform was developed jointly with AWS to help designers quickly and easily develop IoT devices that are in compliance with AWS's mutual authentication IoT. Mutual authentication requires generation of a unique IoT device identity that must remain secure for its entire life from manufacturing to end use. Securing this identity is by far the greatest challenge designers must overcome.

Microchip's end-to-end security solution handles this process during three production steps. First, it offers an AT88CKECC-AWS-XSTK kit that will allow customers to meet AWS's mutual authentication model and easily connect to the AWS IoT cloud during the evaluation and engineering phase. Second, it offers an AWS IoT pre-configured ATECC508A crypto element device that assists with meeting security standards during the prototyping and pre-production phase. Finally, devices will be customized for production stages to ensure information security in customer applications. Customers simply solder the device on the board and connect it over I2C to the host microcontroller (MCU) which runs an AWS Software Development Kit (SDK) leveraging the AWS-ECC508 device. This process eliminates the need to load and protect unique keys and certificates as all the information is contained in a small (3x2 mm), easy to deploy crypto companion device.



## Applications

The Zero Touch Provisioning platform applies to all IoT solutions hosted through AWS IoT services that require secure connectivity for new or existing products.

## Key Features

- Seamless integration of AWS IoT into any IoT product
- Easy to use: simply solder preconfigured ECC508 secure crypto device on a PCB
- Developed collaboratively with AWS to comply with AWS IoT security policies
- No human intervention required; automatic onboarding to AWS servers upon initial connection
- Tamper-resistant, secure crypto element provides key storage and secure execution environment for strong authentication
- Internally generates and keeps private keys secret to ease large-scale manufacturing logistics and chain of trust management
- Flexible packages and interface communications options
- Root Certificate Authority options to include self-signed root or 3rd party Certification Authorities

## AWS Zero Touch Secure Provisioning Platform

Device	Description	Availability
ATECC508A-MAHAW-S	ATECC508A pre-provisioned with AWS security policies. 8-lead UDFN in 3K units Tape and Reel	Now
ATECC508A-SSHAW-T	ATECC508A pre-provisioned with AWS security policies. 8-lead SOIC in 4K units Tape and Reel	Now

## AWS Zero Touch Secure Provisioning Kit

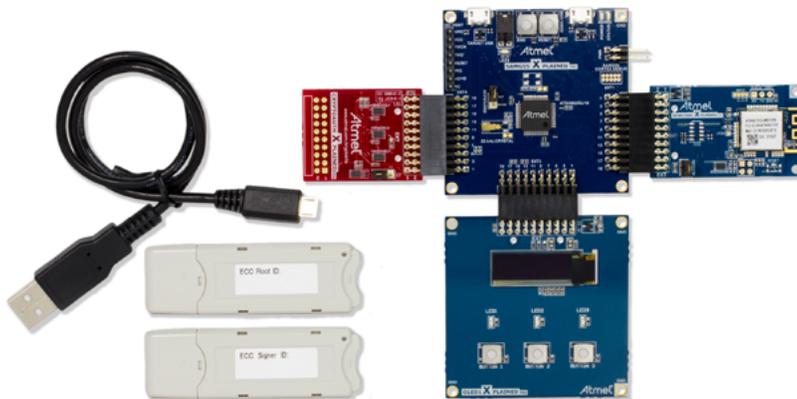
Developed jointly with Amazon Web Services (AWS), the Microchip AWS Zero Touch Secure Provisioning Kit enables developers of IoT devices to quickly and easily comply with the new AWS's mutual authentication IoT security model, requiring that a device must use mutual authentication with a remote server to be authorized on the AWS cloud. Incorporating the preconfigured ECC508 device and software kit into your system provides you with the simplest and most secure method to connect your design to the AWS IoT service.

### Key Features

- Complete development and prototyping platform for AWS IoT device provisioning
- Includes unique, preconfigured, self-signed Root Module for evaluating certificate root operations prior to engaging a Root Certificate Authority
- Includes Signer Module for generating Signer Certificates (CA Certificates) and registering them to AWS servers, as well as provisioning IoT devices with unique certificates
- Includes three CryptoAuth Xplained Pro (ATCRYPTOAUTH-XPRO) add-on boards, each containing an ECC508 for in-situ provisioning by the signer module
- Built on the modular Xplained PRO platform to enable experimentation with different processor, connectivity, and human interactivity interface modules
- Demonstrates zero-touch AWS secure device onboarding

### AT88CKECC-AWS-XSTK Kit Manifest

- 3X ATCRYPTOAUTH-XPRO
- 1X ATSAMG55-XPRO
- 1X ATWINC1500-XSTK
- 1X ATOLED1-XPRO
- 1X AT88CKECCROOT
- 1X AT88CKECCSIGNER
- 1X USB Cable



### Ordering Code: AT88CKECC-AWS-XSTK

For more information: [www.atmel.com/tools/at88ckecc-aws-xstk.aspx](http://www.atmel.com/tools/at88ckecc-aws-xstk.aspx)



Atmel Corporation 1600 Technology Drive, San Jose, CA 95110 USA T: (+1)(408) 441.0311 F: (+1)(408) 436.4200 | [www.atmel.com](http://www.atmel.com)

© 2016 Atmel Corporation.

Atmel, Atmel logo and combinations thereof, Enabling Unlimited Possibilities, and others are registered trademarks or trademarks of Atmel Corporation in U. S. and other countries. Other terms and product names may be trademarks of others.

Disclaimer: The information in this document is provided in connection with Atmel products. No license, express or implied, by estoppel or otherwise, to any intellectual property right is granted by this document or in connection with the sale of Atmel products. EXCEPT AS SET FORTH IN THE ATMEL TERMS AND CONDITIONS OF SALES LOCATED ON THE ATMEL WEBSITE, ATMEL ASSUMES NO LIABILITY WHATSOEVER AND DISCLAIMS ANY EXPRESS, IMPLIED OR STATUTORY WARRANTY RELATING TO ITS PRODUCTS INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT. IN NO EVENT SHALL ATMEL BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE, SPECIAL OR INCIDENTAL DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS AND PROFITS, BUSINESS INTERRUPTION, OR LOSS OF INFORMATION) ARISING OUT OF THE USE OR INABILITY TO USE THIS DOCUMENT, EVEN IF ATMEL HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Atmel makes no representations or warranties with respect to the accuracy or completeness of the contents of this document and reserves the right to make changes to specifications and products descriptions at any time without notice. Atmel does not make any commitment to update the information contained herein. Unless specifically provided otherwise, Atmel products are not suitable for, and shall not be used in, automotive applications. Atmel products are not intended, authorized, or warranted for use as components in applications intended to support or sustain life.

DS00002233A