AVAQ

Crypto-Authentication™ 8-Pin UDFN EP T/R

Manufacturer:	Microchip Technology, Inc
Package/Case:	UDFN8
Product Type:	Embedded Processors & Controllers
RoHS:	RoHS Compliant/Lead free
Lifecycle:	NRND

ATECC608A-MAHDA-S Image

Images are for reference only

Inquiry

General Description

The Microchip ATECC608A integrates ECDH (Elliptic Curve Diffie Hellman) security protocol an ultra-secure method to provide key agreement for encryption/decryption, along with ECDSA (Elliptic Curve Digital Signature Algorithm) sign-verify authentication for the Internet of Things (IoT) market including home automation, industrial networking, medical,as well as accessories and consumables authentication and more. In addition, the ATECC608A offer an integrated AES hardware accelerator strengthening hardware based security for LoRaWAN applications and enable secure boot capabilities for very small microcontrollers. The ATECC608A is a secure element from the Microchip CryptoAuthenticationTM portfolio with advanced Elliptic Curve Cryptography (ECC) capabilities. With ECDH and ECDSA being built right in, this device is ideal for the rapidly growing IoT market by easily supplying the full range of security such as confidentiality, data integrity, and authentication to systems with MCU or MPUs running encryption/decryption algorithms.Similar to all Microchip CryptoAuthentication products, the new ATECC608A employs ultra-secure hardware-based cryptographic key storage and cryptographic countermeasures which eliminate potential backdoors linked to software weaknesses.The device is agnostic of any microprocessor (MPU) or microcontroller (MCU) and compatible with Microchip AVR/ARM MCUs or MPUs.As with all CryptoAuthentication devices, the ATECCC608A delivers extremely low-power consumption, requires only a single GPIO over a wide voltage range, and has a tiny form factor making it ideal for a variety of applications that require longer battery life and flexible form factors.

Take a look at the various use casesincluding :

- Cloud authentication for AWS IoT (32-bit)
- Cloud Authentication for AWS IoT Greengrass (Linux)
- Cloud Authentication for Google Cloud IoT Core
- LoRa Authentication for The Things Industries (TTI)
- Secure Boot implementation with an ATSAMD21 Cortex-M0+

Key Features

Cryptographic co-processor with secure hardware-based key storage

Protected storage for up to 16 Keys, certificates or data

Hardware support for asymmetric sign, verify, key agreement - ECDSA: FIPS186-3 Elliptic Curve Digital Signature

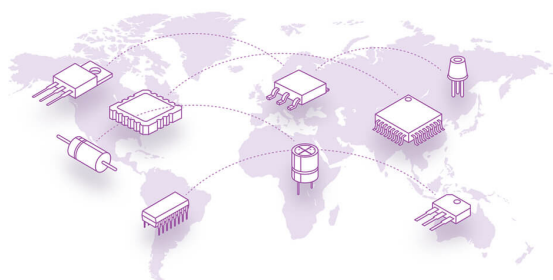Hardware support for symmetric algorithms

Networking key management support

Secure boot support

Internal high-quality FIPS 800-90 A/B/C Random Number Generator (RNG)

Two high-endurance monotonic counters

Guaranteed unique 72-bit serial number

Recommended For You

ATECC508A-MAHDA-S	**ATSHA204A-SSHDA-B**	**ATECC608B-SSHDA-B**
Microchip Technology, Inc	Microchip Technology, Inc	Microchip Technology, Inc
UDFN8	SOP8	SOP8
ATECC508A-SSHDA-B	**ATECC608A-SSHDA-B**	**ATECC608A-SSHDA-T**
Microchip Technology, Inc	Microchip Technology, Inc	Microchip Technology, Inc
SOP8	SOP8	SOP-8

ATECC608A-MAHDA-T	**ATSHA204-SH-DA-T**	**ATECC608B-MAHDA-S**
Microchip Technology, Inc	Microchip Technology, Inc	Microchip Technology, Inc
UDFN8	SOP-8	UDFN8
ATECC508A-SSHDA-T	**ATSHA204A-MAHCZ-T**	**ATECC608B-SSHDA-T**
Microchip Technology, Inc	Microchip Technology, Inc	Microchip Technology, Inc
SOP8	UDFN-8	SOP8
ATECC608A-SSHCZ-T	**ATSHA204A-SSHCZ-T**	**ATECC108A-MAHDA-T**
Microchip Technology, Inc	Microchip Technology, Inc	Microchip Technology, Inc
SOIC-8	SOIC-8	UDFN-8
ATECC608A-MAHDA-T	**ATSHA204-SH-DA-T**	**ATECC608B-MAHDA-S**
Microchip Technology, Inc	Microchip Technology, Inc	Microchip Technology, Inc