



# MT793X IoT SDK for SHA User Guide

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**MT793X IoT SDK for  
SHA User Guide****Version History**

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Version	Date	Description
1.0	2021-07-29	Official release

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## 1 Getting Started

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This chapter introduces the SHA (Secure Hash Algorithm) feature and gives you an idea of what you need to prepare to get started.

### 1.1 Overview

Support SHA-1, SHA-224, and SHA-256.

### 1.2 Code Layout

```
driver\chip\mt7933\src\hal_sha.c  
driver\chip\inc\hal_sha.h  
driver\chip\mt7933\inc\hal_gcpu_internal.h
```

### 1.3 SHA APIs

```
hal_sha1_append  
hal_sha1_end  
hal_sha1_init  
hal_sha224_append  
hal_sha224_end  
hal_sha224_init  
hal_sha256_append  
hal_sha256_end  
hal_sha256_init
```

## 2 SHA Sample Use Cases

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- \* - Use SHA1 to encrypt.
- \* - Step 1. Call #hal\_sha1\_init() to initialize the module.
- \* - Step 2. Call #hal\_sha1\_append() to encrypt.
- \* - Step 3. Call #hal\_sha1\_end() to get data.
- \* - sample code:
  - \* @code
  - \* uint8\_t \*data = "abcdefghijklmnopqrstuvwxyz1234567";
  - \* uint8\_t digest[HAL\_SHA1\_DIGEST\_SIZE] = {0};
  - \* hal\_sha1\_context\_t context = {0};
  - \* hal\_sha1\_init(&context);
  - \* hal\_sha1\_append(&context, data, strlen(data));
  - \* hal\_sha1\_end(&context, digest);
  - \* @endcode
  - \*
- \* - The procedures for SHA-224 and SHA-256 are similar to the one for SHA-1.

**MT793X IoT SDK for  
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