

# G3

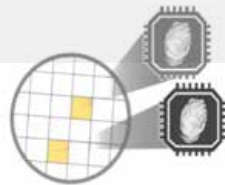
## IoT Authenticator

### Introduction

G3 is a family of ICTK Holdings VIA-PUF enhanced secure ICs. It provides secure authentication with strong cryptographic algorithms and Public Key Infrastructure (PKI), protecting firmware, anti-counterfeiting, and storing secure data with Symmetric/ Asymmetric- Key algorithm.

G3 support hardware accelerated cryptographic algorithms and TLS protocol with very low power consumption, which makes it suitable for various IoT applications.

ICTK Holdings VIA-PUF (Physical unclonable function) greatly enhances H/W security against an attacker's high-level hacking techniques.



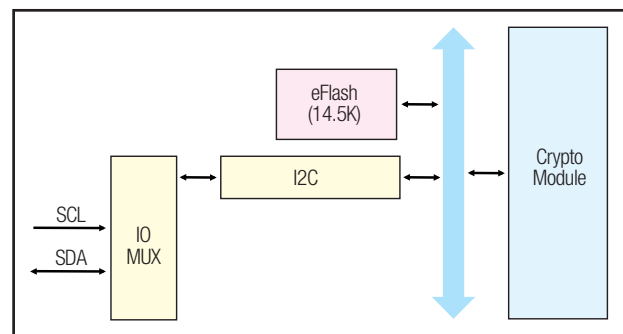
### Key features

- VIA PUF based Key generation
- ICTK Holdings Secure OS
- TRNG
- Asymmetric Algorithm
  - ECC, ECDSA, ECDH
  - SM2
- Symmetric Algorithm
  - AES
  - SM4
- Hash Algorithm
  - SHA2
  - SM3
- Anti-Tampering H/W security
  - Active shield layer
  - PUF-enhanced memory scrambling
- 14.5KB User memory
- Operating voltage: 1.8~3.3V
- Operation Temperature: - -40°C to 85°C
- Low power

### Interface

- Standard I2C slave interface up to 400 kbps
- SPI

### Block Diagram



### Package

- 8 pin UDFN package

### Major Applications

- IoT end point Security
  - PKI Authentication
  - Secure Boot
  - Secure Update
  - Data integrity
  - Data Security/TLS
- Anti- Counterfeit
- Storing Secure data

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