vault*IC* 184

Secure Element for Sigfox Networks

WIS@key
Building Trust in the Connected World

YOUR DATA IS GOLD

Whatever your application, its value comes from the acquisition and treatment of constantly received data sent by numerous devices operating over the Sigfox network. However insignificant a data message on itself might be, its interpretation mobilizes resources and eventually provokes decisions and actions that have impact on the environment of the application.

Would you want this to happen for fake or altered messages, or data coming from rogue devices?

The bottom line is this: without insurance of the authenticity of your data, what is you service worth?

SECURITY FOR SIGFOX NETWORK

Sigfox understands these issues and has gathered best practices to deploy security measures in devices and on their network, based on the level of security required by the application.

Message authentication and integrity, based on a unique device dependent secret key and replay avoidance, using a protected sequence number. Optionally, data can be encrypted with a unique application key, thus guaranteeing the confidentiality of the data.

At the highest level of these security schemes comes the Secure Element VaultIC184.

Proud of decades of expertise in the design and production of tamper resistant chips, WISeKey developed VaultIC184 to be supplementary to the security protocol by Sigfox. Based on standard industry interface standards and packages, VaultIC184 is the choice if it comes to protecting the assets of a device against physical attacks.

KEY FEATURES

- Tamper resistant hardware, based on a highly secure Common Criteria EAL5+ silicon design
- Hardware crypto accelerators
- Seamlessly integrated in Sigfox Library
- Sigfox specific algorithms and protocol
- QFN20 (now)/DFN6 (Q3 2020)
- Operating Range: 1.62V to 5.5V
- Low consumption overhead: max 10mA during operation; less than 5% of radio power budget
- Interface: I2C @ 400 kbps
- Provisioning of Sigfox specific secret data on chip in Common Criteria EAL5+ certified production center
- Sigfox-Verified certification
- Easy to add-on your design
- Sample available now

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