

Secure IoT Core

Hardware

- ST Cortex M7 480 MHz
- Secure Boot/Memory
- Low Power
- Application Protection
- Industrial Temp -40° to 85°

Chipsets



100 LQFP

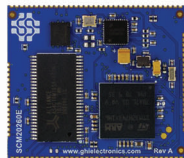


265 BGA

Modules



Pluggable



Solderable

Single Board Computers



Software

TinyCLR OS

Improve productivity with .NET C# programming thanks to TinyCLR OS.

C#

.NET



Visual Studio

Use the same tool you already love!



Secure at Heart

- Secure Boot
- Secure Networking
- Application Protection
- Secure In-Field Update

High-End Features

- Multithreading
- Reflections
- Collections
- And More!

.NET for Hardware

- Productive
- C# Programming
- Develop Using Microsoft Visual Studio

Pro Debugging

- USB or Serial Debug
- Set Breakpoints
- Step Through Code
- Examine Variables



Longevity Policy

10-Year Commitment
with World Class Support

Global Distribution



Arrow



DigiKey



Mouser

A Complete Secure IoT Feature Set



CORE FEATURES

Productivity Enhancements

- Debugging
- Memory Management
- Unmanaged Heap
- NuGet Based Libraries
- Mass Production Tools

Modern OS Features

- Multithreading
- Reflection
- Collections
- Serialization
- Encoding & Decoding
- Application Domain



HARDWARE CONTROL

Pin Level Control

- GPIO
- PWM
- Analog In/Out
- Signal Control

Data Buses

- SPI
- I2C
- UART
- USB
- CAN/CAN-FD
- 1-Wire



CLOUD & NETWORKING

Networking

- Core Protocols
- HTTP/HTTPS
- MQTT
- PPP
- TLS 1.3

Interfaces

- Wi-Fi
- Ethernet
- Cellular

Cloud Support

- Azure, AWS, Google
- IFTTT



WORLD CLASS SECURITY

Application Security

- IP Protection
- Encrypted In-field Update
- Secure Storage Area
- Secure Boot

Data Security

- TLS 1.3
- Cryptography
- Hashing



MULTIMEDIA READY

- Versatile Display Options
- Touch Screen Support
- Powerful UI Framework
- Native Graphics
- Image Decoders
- Font Support
- Camera Interface
- MJPEG Video
- Audio Playback



ADDITIONAL FEATURES

- USB CDC/WinUSB
- SQLite Database
- File System
- SD/MMC Cards
- Modbus
- Power Management
- Watchdog Timer
- Real-Time
- Timers
- Resources

Real World Applications



Agriculture



Human Machine Interface



Automotive



Industrial



Smart Cities & Homes