

# Silicon Labs ZigBee Onboarding Roadmap for beginners

## ZigBee Network Basics:

UG103.01 Wireless Networking Application Development Fundamentals  
UG103.2: Zigbee Fundamentals  
UG103.3: Software Design Fundamentals  
Mesh Networking: Zigbee Training and Development Resources

## Bootloader:

UG103.6: Bootloader Fundamentals  
UG266: Silicon Labs Gecko Bootloader User's Guide  
AN1084: Using the Gecko Bootloader with EmberZNet and Silicon Labs Thread  
AN1218: Series 2 Secure Boot with RTSL

## EmberZNet Serial Protocol (EZSP):

UG100: EZSP Reference Guide  
UG101: UART-EZSP Gateway Protocol Reference  
AN706: EZSP-UART Host Interfacing Guide  
AN711: SPI Host Interfacing Guide for Zigbee  
AN1125: Creating and Using a Secure EZSP Host-to-NCP Interface

## NCP (network coprocessor):

AN1010: Building a Customized NCP Application

## Over-the-air upgrade:

AN716: Instructions for Using ImageBuilder  
AN728: Over-the-Air Bootload Server and Client Setup

## Dynamic Multiprotocol:

UG103.16: Multiprotocol Fundamentals  
UG305: Dynamic Multiprotocol User's Guide  
AN1133: Dynamic Multiprotocol Development with Bluetooth® and Zigbee  
QSG155: Using the Silicon Labs Dynamic Multiprotocol Demonstration Applications

## Coexistence:

AN1017: Zigbee® and Silicon Labs® Thread Coexistence with Wi-Fi

## Debug and Test:

UG104: Testing and Debugging Applications for the Silicon Labs EM35x and Mighty Gecko (EFR32MG) Platforms  
AN718: Manufacturing Test Overview  
AN1019: Using the NodeTest Application  
AN1138: Zigbee Mesh Network Performance  
AN1142: Mesh Network Performance Comparison

## EFR32 Microcontroller:

UG103.4: HAL Fundamentals  
AN961: Bringing Up Custom Devices for the Mighty Gecko and Flex Gecko Families  
AN1115: Configuring Peripherals for 32-Bit Devices in Simplicity Studio

## Application framework:

UG391: Zigbee Application Framework Developer's Guide  
UG105: Advanced Application Programming with the Stack and HAL APIs  
AN724: Designing for Multiple Networks on a Single Zigbee Chip  
Zigbee - Application Framework API Reference

## Nonvolatile memory and tokens :

UG103.7: Non-Volatile Data Storage Fundamentals  
AN703: Using Simulated EEPROM Version 1 and Version 2 for the EM35x and EFR32 Series 1 SoC Platforms  
AN1135: Using Third Generation NonVolatile Memory (NVM3) Data Storage  
AN1154: Using Tokens for Non-Volatile Data Storage

## ZigBee Security:

UG103.5: Application Security Fundamentals  
AN1089: Using Installation Codes with Zigbee Devices

## Touchlinking:

UG103.9: ZLL FUNDAMENTALS

## Smart Energy:

AN708: Setting Smart Energy Certificates for Zigbee Devices  
AN714: Smart Energy ECC-Enabled Device Setup Process

## Green power:

UG103.15: Silicon Labs Green Power Fundamentals  
UG392: Using Silicon Labs Green Power with EmberZNet PRO

## Certification:

AN1118: Certifying Zigbee® 3.0 Devices

## Silicon Labs ZigBee solution:

QSG106: Getting Started with EmberZNet PRO  
UG103.8: Silicon Labs Tools Fundamentals  
UG162: Simplicity Commander Reference Guide

## More resources:

ZigBee Alliance Document:  
<https://zigbee.org/zigbee-for-developers/zigbee-3-0>  
Silicon Labs Community:  
<https://www.silabs.com/community/wireless/zigbee-and-thread>