Starting with ATM34/e

Quick Start Guide

SUMMARY: This document provides direction for a new user to start the evaluation of the ATM34/e Wireless SoC and its EVK reference designs.

Atmosic™

Table of Contents

1.   Overview

This document provides direction for a new user to start the evaluation of the ATM34/e Wireless SoC and its EVK reference designs. It directs hardware and software engineers to the basic information to familiarize themselves with the Atmosic offerings. This guide is not intended to be advanced material guidance for the user.

2.   Evaluation Kits (EVK)

EVK	SoC Package	SoC Part Number	Kit Part Number	-Software Example Preloaded -Flag(s) Used
Evaluation Kit for ATM3405	40-pin 5x5 mm QFN	ATM3405-2PCAQK	ATMEVK-3405-PQK	-ble_adv -REF_BCN=power_profile
Evaluation Kit for ATM3425	40-pin 5x5 mm QFN	ATM3425-2PCAQK	ATMEVK-3425-PQK	-ble_adv -REF_BCN=power_profile
Evaluation Kit for ATM3430e	56-pin 7x7 mm QFN	ATM3430E-2WCAQN	ATMEVK-3430e-WQN	-ble_harv_adv

3. For High-Level General Information

Users must be logged in to access most of the below-linked materials.

3.1   General Documentation

Please **select the +** to expand the different sections for more materials.

ATM34/e SoC Documentation	+
EVK	+

- In the [ATM34/e SoC Documentation](#) section

- ○ Product Briefs
  - ■ [ATM Series Product Brief](#)
  - ■ [ATM34/e Series Product Brief](#)
- ○ Datasheets
  - ■ [ATM34/e Series Datasheet](#)
- ○ White Papers
  - ■ Please **select the +** to expand to view different White Papers

3.2 Power Profiler Tools

- [ADV (Advertising) Beacon Profiler](#)
- [Connection Interval (CI) Profiler](#)

4. For Hardware Engineers

All EVKs are shipped with software preloaded (with debug console output disabled) as shown in the table above. This allows the hardware engineers to measure the low power consumption demonstrated by the Atmosic ATM34/e Wireless SoCs. Only the ATMEVK-3430e-WQN EVK supports energy harvesting measurements. The default board configuration is with a coin cell (Please insert a coin cell or read the hardware documents listed below to configure for other power supplies, like USB).

4.1 Hardware-Related Documentation

- [ATM34/e Series Evaluation Kit User Guide](#)
- [ATM34/e Series EVK Power Consumption Evaluation User Guide](#)
- [ATM33e Series and ATM34e Series Energy Harvesting EVK User Guide](#)

4.2 Hardware Design Files

Please **select the +** to expand the different sections for more materials.

ATM34/e SoC Documentation   +

EVK   ⊞

- In the EVK section
  - Hardware design files
    - ATMEVK-3405
    - ATMEVK-3425
    - ATMEVK-3430e

5.   For Software Engineers

It is recommended that software engineers start with a basic setup and avoid starting to use other tools (IDEs) to get a baseline understanding of the build/load of the binaries, software examples, and SDK package directory structures.

5.1   Software-Related Documentation

- SDK User Guide (Released with SDK 6.0.0)
- SDK 6.0.0 Release Notes

5.2   Latest SDK

SDK Releases
- Following are the officially supported SDK releases
- Contact Atmosic Technical support team for previous releases
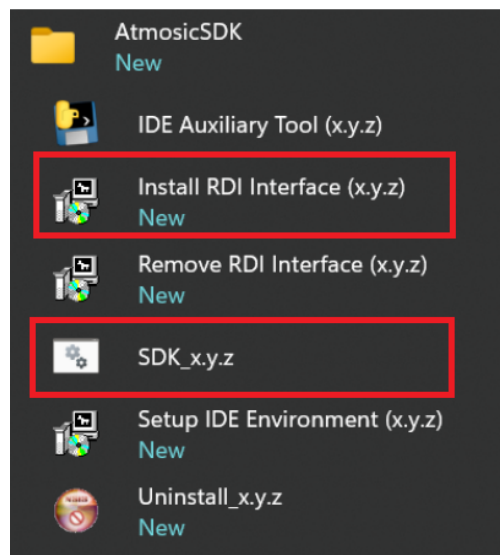
6.0.0   +

5.5.x   +

5.4.x   +

- In the SDK Releases section
  - Please **select the +** to expand the different sections for more materials.

SDK Releases

- Following are the officially supported SDK releases
- Contact Atmosic Technical support team for previous releases

6.0.0	+
5.5.x	+
5.4.x	+

- ○
- List of OSes supported on the ATM34/e
  - ○ Bare Metal

5.3 Basic Installation Instruction for the Development Platform

- From the SDK Releases above (for BareMetal)
  - ○ Windows
    - ■ Execute the installer after download
    - ■ Launch the SDK_xy.z

    - ■ Plug the EVK into the PC through the USB cable
    - ■ Install the RDI Driver. This must be done after the PC/EVK connection
  - ○ Linux
    - ■ Untar the package after download
      - Follow instructions from \SDKversion\tools\README
  - ○ MacOS

- ■ Untar the package after download
  - ● Follow instructions from
    \SDKversion\tools\README.macOS

5.4 Basic Build

- ● Go to the examples directory
  - ○ \SDKversion\platform\atm34\ATM34xx-2\examples\BLE_adv\
  - ○ make BOARD=<chip> run_all
    - ■ This will build and load the image into the EVK
      - ● Valid <chip> usage is specific to EVK shown below. Review the label on the back of the EVK to match the list.
        - ○ ATMEVK_3405_PQK_2
        - ○ ATMEVK_3425_PQK_2
        - ○ ATMEVK_3430e_WQN_2
    - ■ Enable a terminal to connect to the COM PORT to view console messages
      - ● NOTE: Multiple COM PORTs will show up from the EVK
        - ○ Open a terminal window for each to see which is the correct COM PORT

Revision History

Date	Version	Description
October 14, 2024	0.10	Initial Release

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