



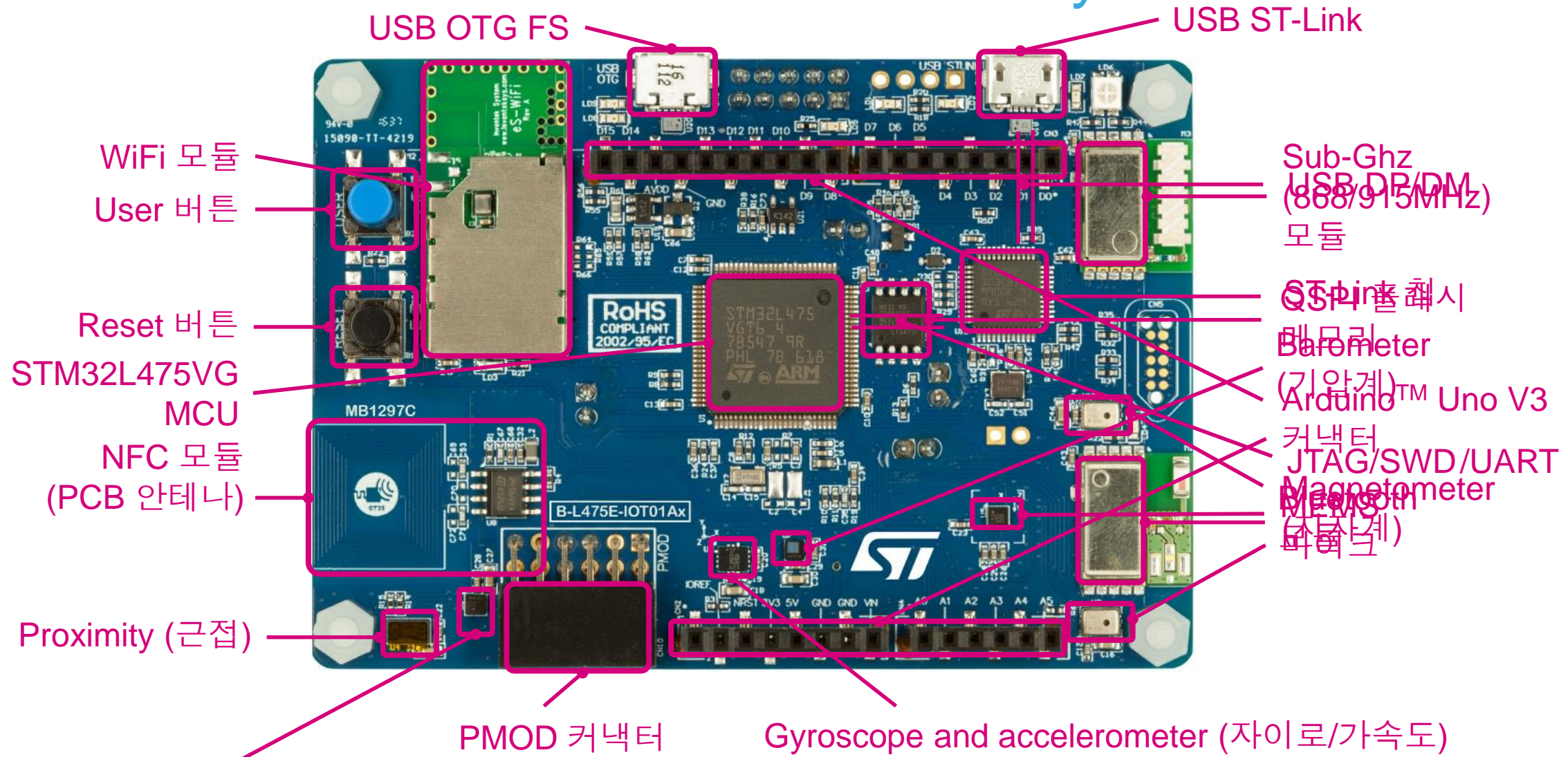
# STM32 IoT 키트로 클라우드 서비스 이용하기

- 쉽게 따라하는 아마존 AWS IoT 노드 만들기

STMicroelectronics



# B-L475E-IOT01A Discovery Kit



USB OTG FS

USB ST-Link

WiFi 모듈

User 버튼

Reset 버튼

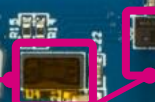
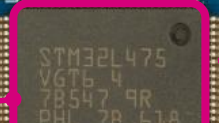
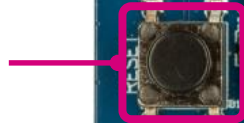
STM32L475VG  
MCU

NFC 모듈  
(PCB 안테나)

Proximity (근접)

PMOD 커넥터

Humidity and Temperature  
(온습도)



Sub-GHz  
USB DP/DMz  
모듈

STM32L475VG  
Barometer  
(기압계)

Arduino™ Uno V3

커넥터  
JTAG/SWD/UART

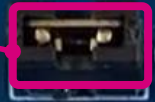
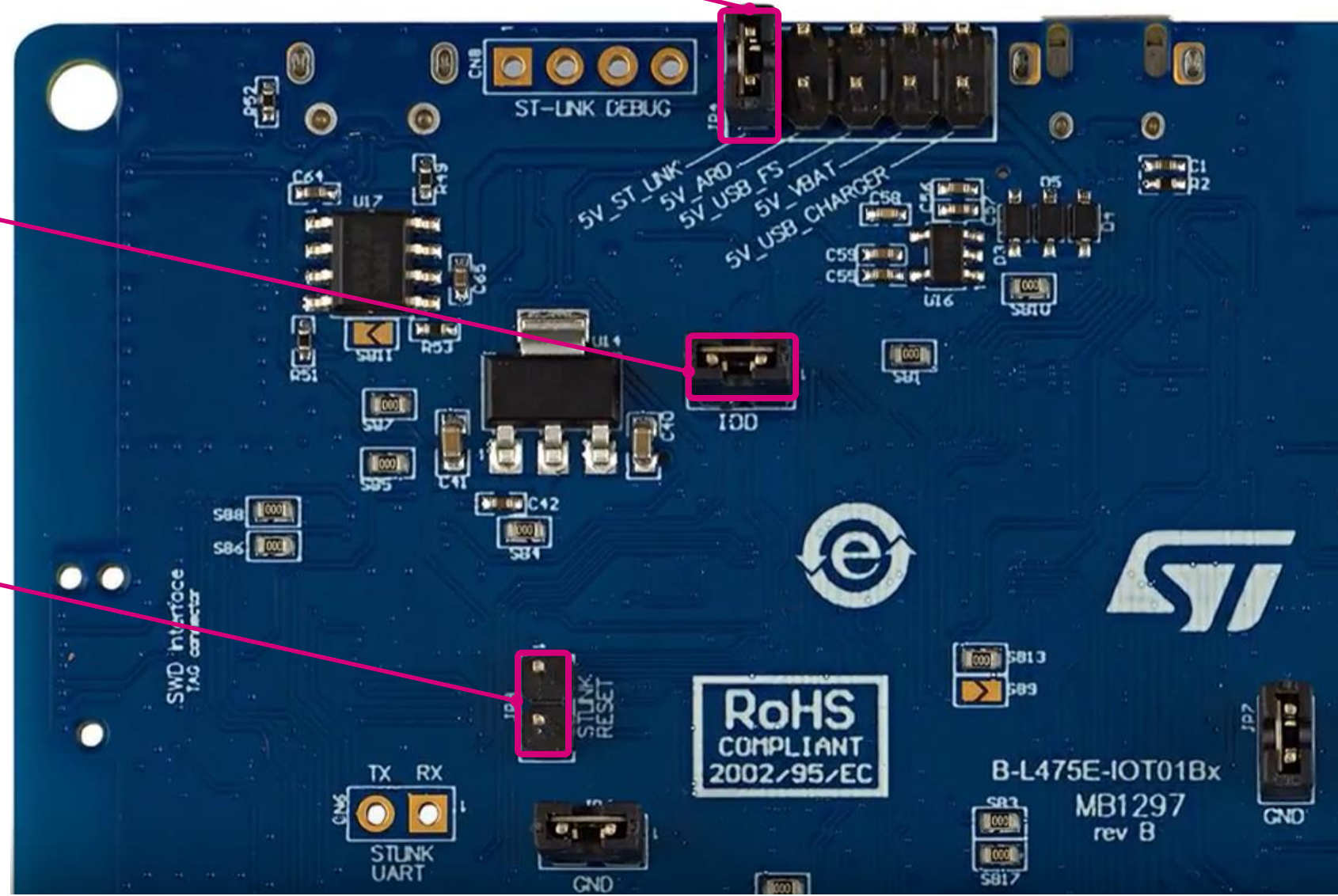
Magnetometer  
(자력계)  
피해크

Gyroscope and accelerometer (자이로/가속도)

JP4 (제일 왼쪽만 닫힘)

JP5 (닫힘)

JP8 (열림)





Search



# STM8S MCUs now on 8 pins

## Affordable performance

▶ Order samples for your prototype



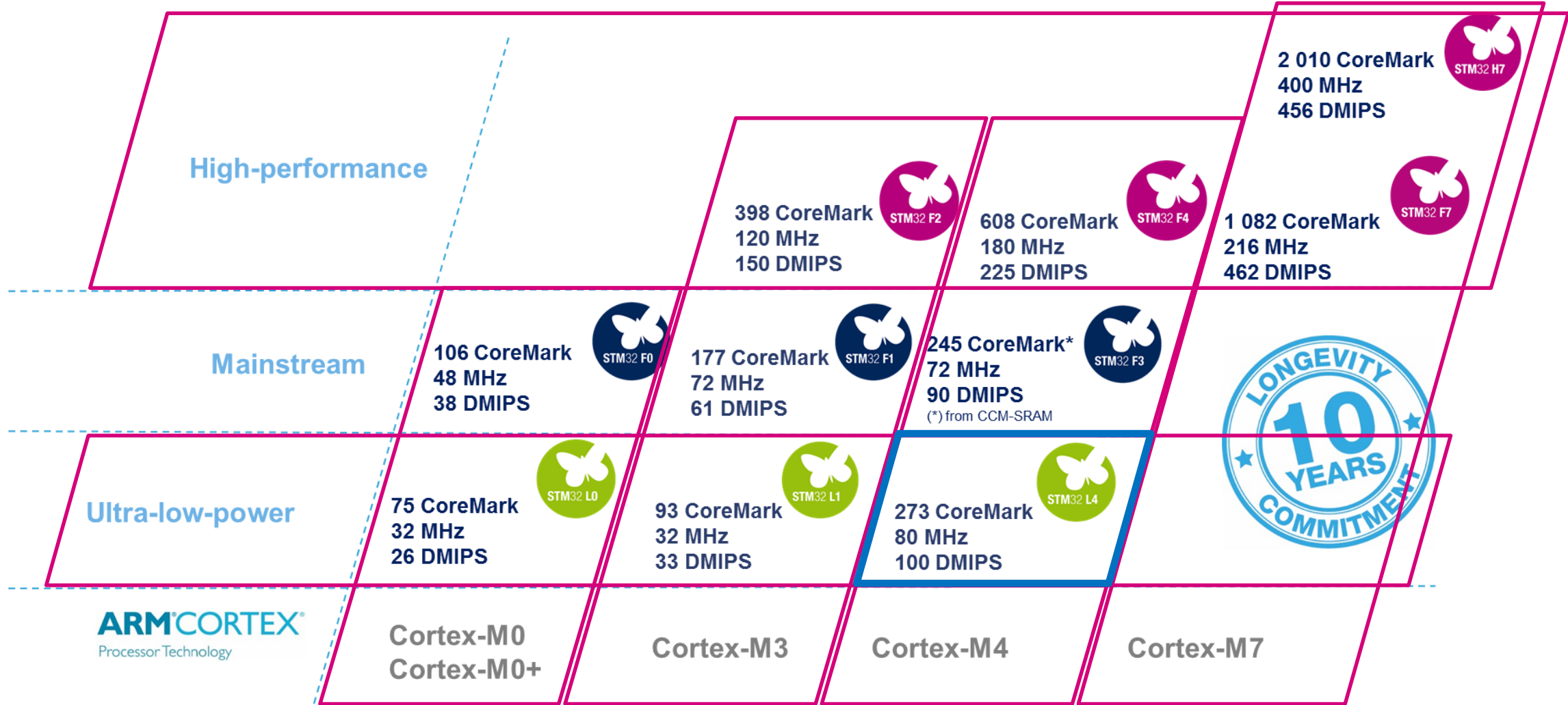
Give Feedback

Leads to Insight



# STM32L4 continuity in STM32 portfolio

10 product series / more than 32 product lines  
STM32L4 benefits from pin-to-pin compatibility across the family

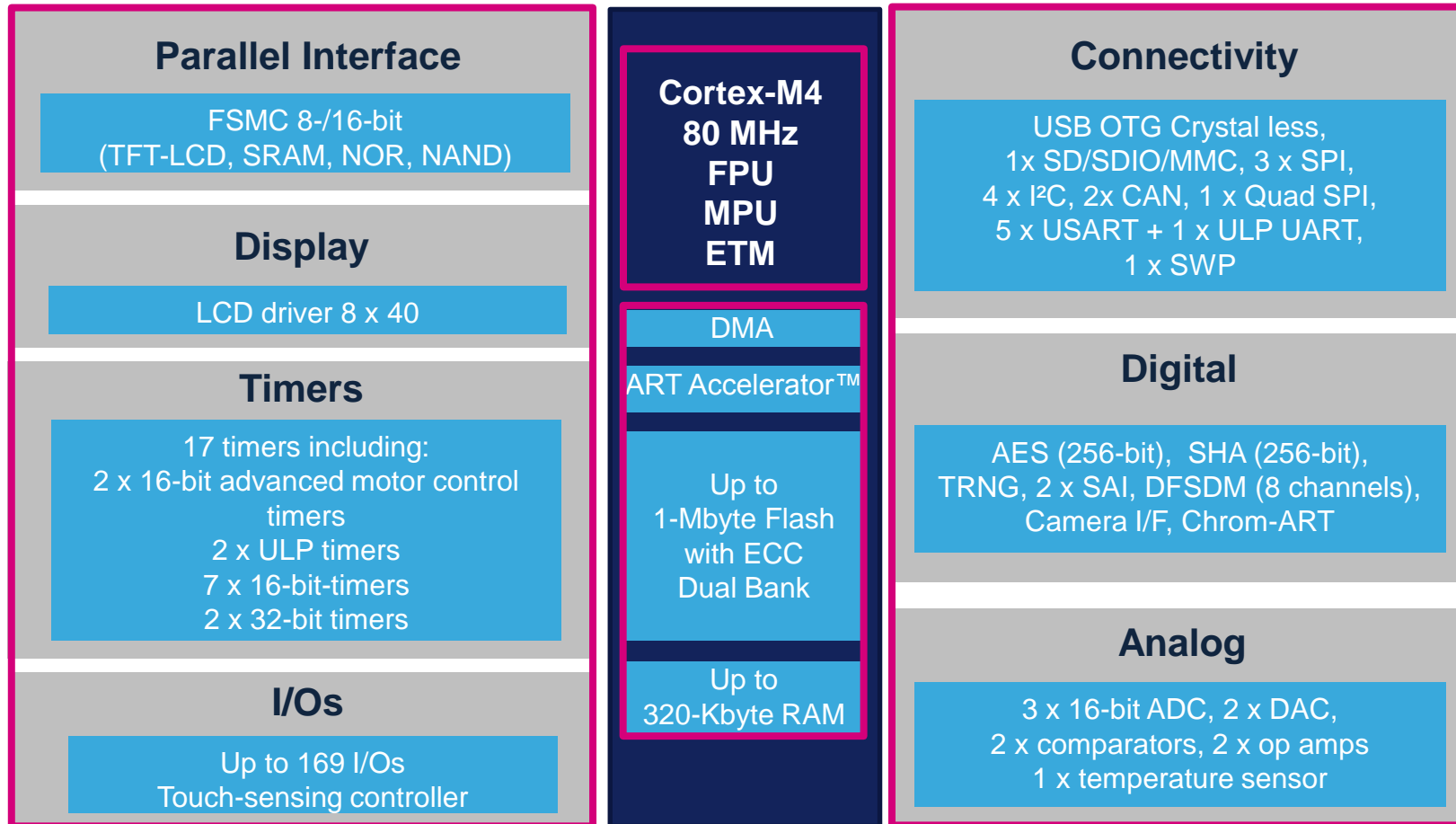




# High integration



High integration with high memory size in small packages



Package size down  
to 3.13 x 3.14 mm



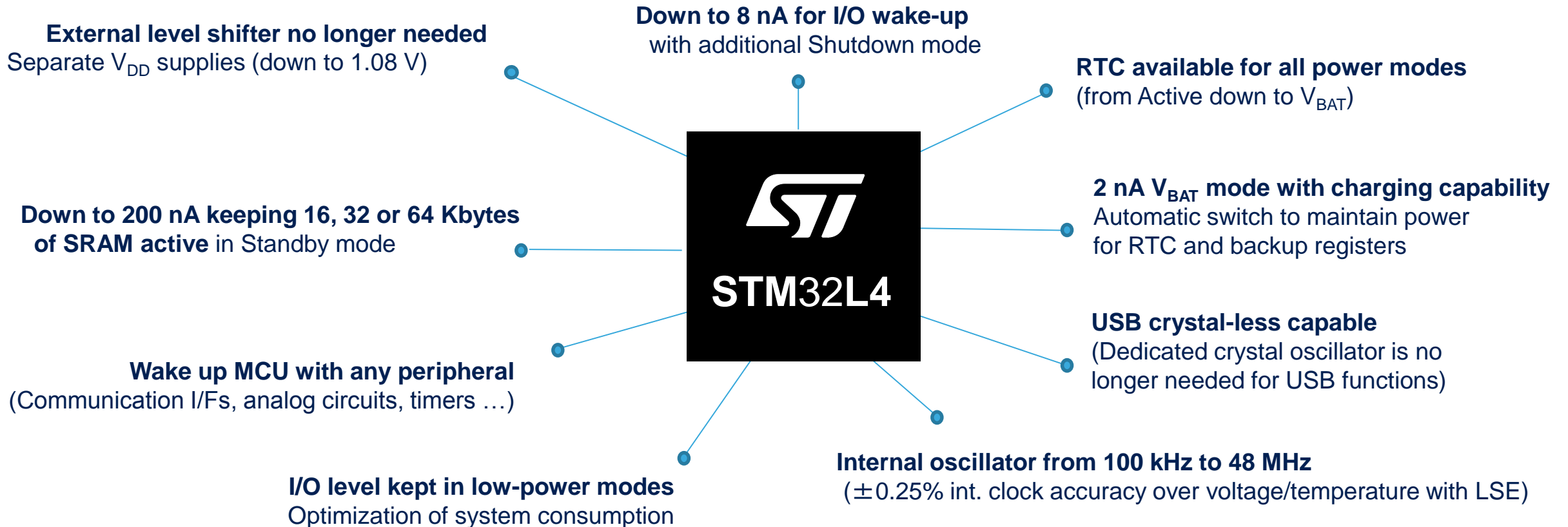


# Ultra-low-power and flexibility



## FlexPowerControl

STM32L4 is based on a new platform optimized to reduce power consumption and increase flexibility





Project - IAR Embedded Workbench IDE - ARM 7.70.2

File Edit View Project ST-Link Tools Window Help

Workspace

B-L475E-IOT01

Files

- Project - B-L475E-IOT01
  - Application
  - Doc
  - Drivers
  - Middlewares
  - Output

main.c

```
/**
 * @file    main.c
 * @author  MCD Application Team
 * @version V1.1.0
 * @date    04-September-2017
 * @brief   Main program body.
 */
*****
* @attention
*
* <h2><center>&copy; Copyright (c) 2017 STMicroelectronics Internati
* All rights reserved.</center></h2>
*
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* modification, are permitted, provided that the following condition
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```

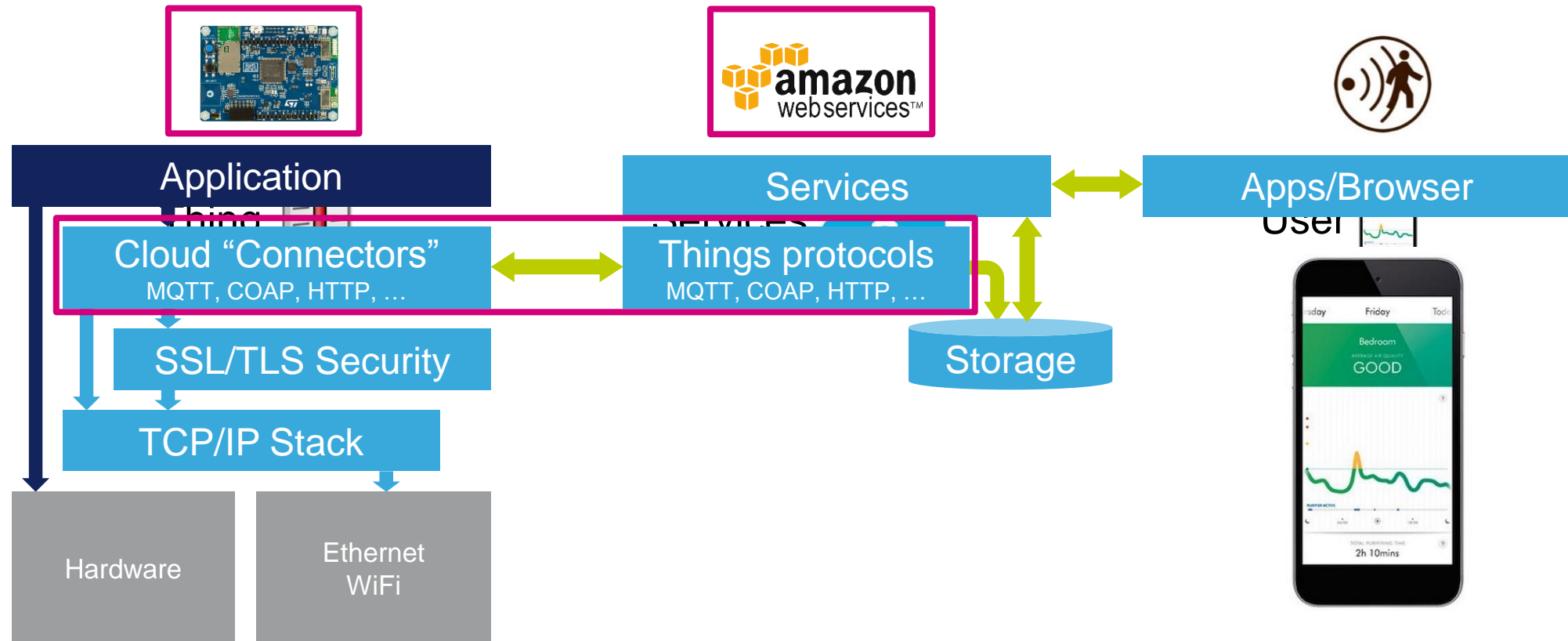
Ready

Ln 1, Col 4

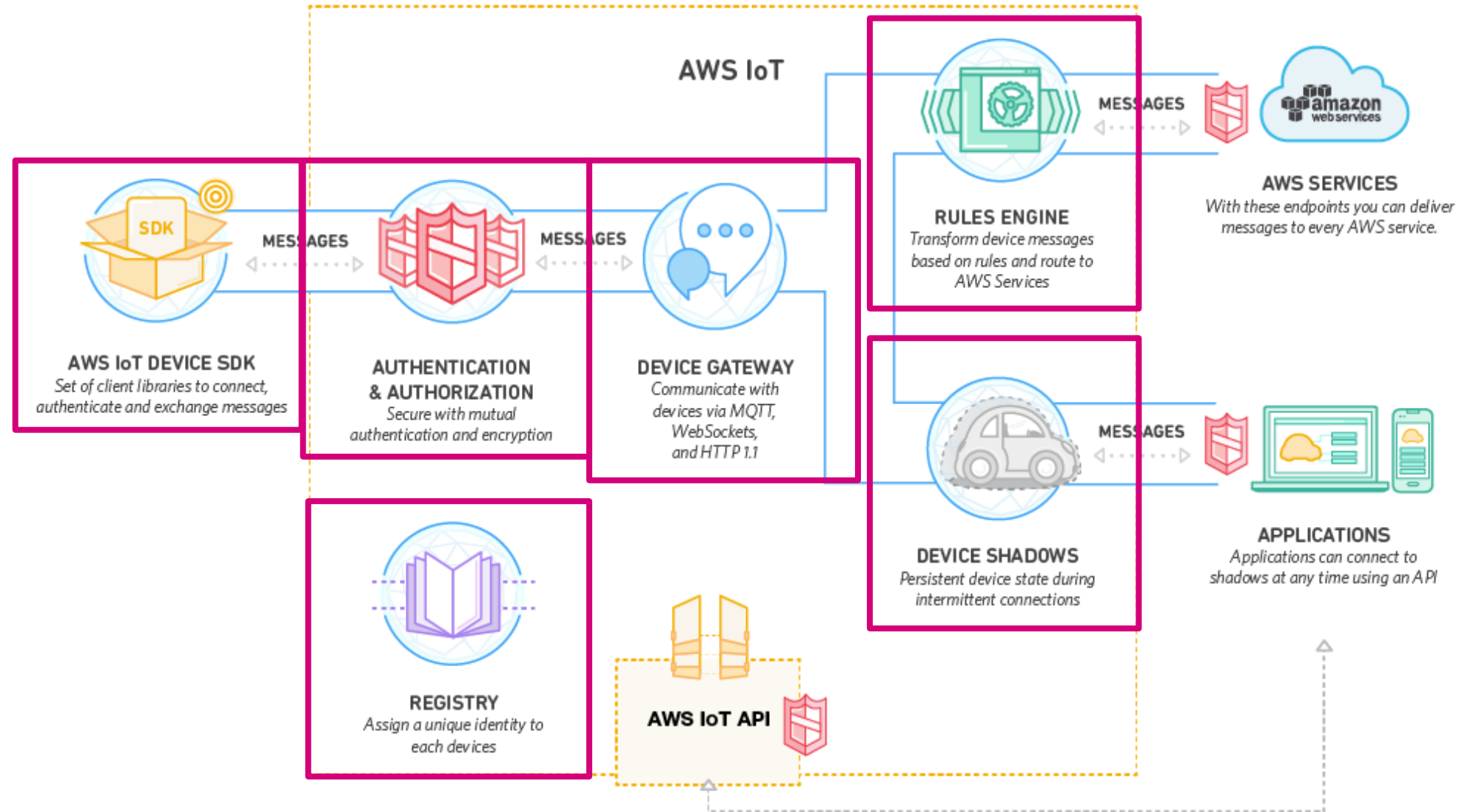
System

US

# IoT Ecosystem



# AWS (Amazon Web Services)





IoT node

Shadow

IoT application



Subscribe  
to IoT node topic



IoT node topic



Subscribe  
to IoT node topic

Update sensors data  
to IoT node topic



Sensor data  
- Temperature  
- Pressure  
- Position  
- ...

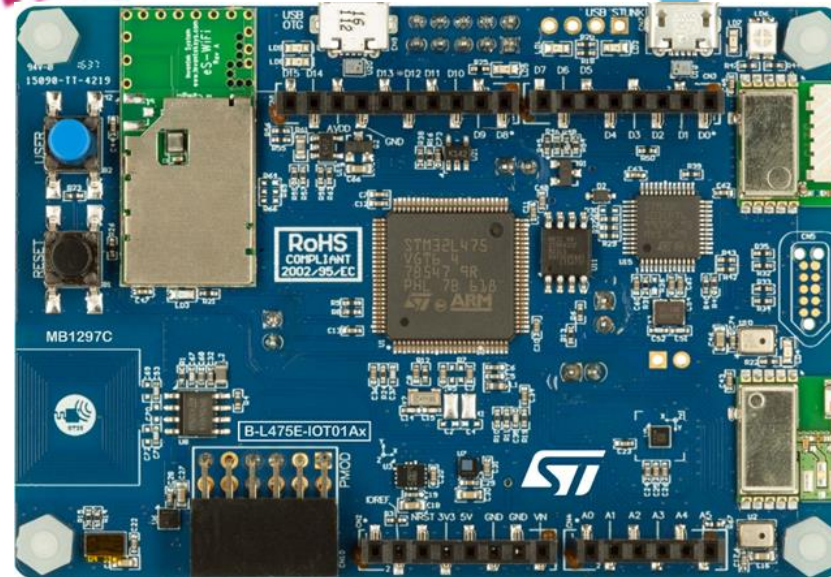


Get sensors data  
from IoT node topic

# Setup Environment

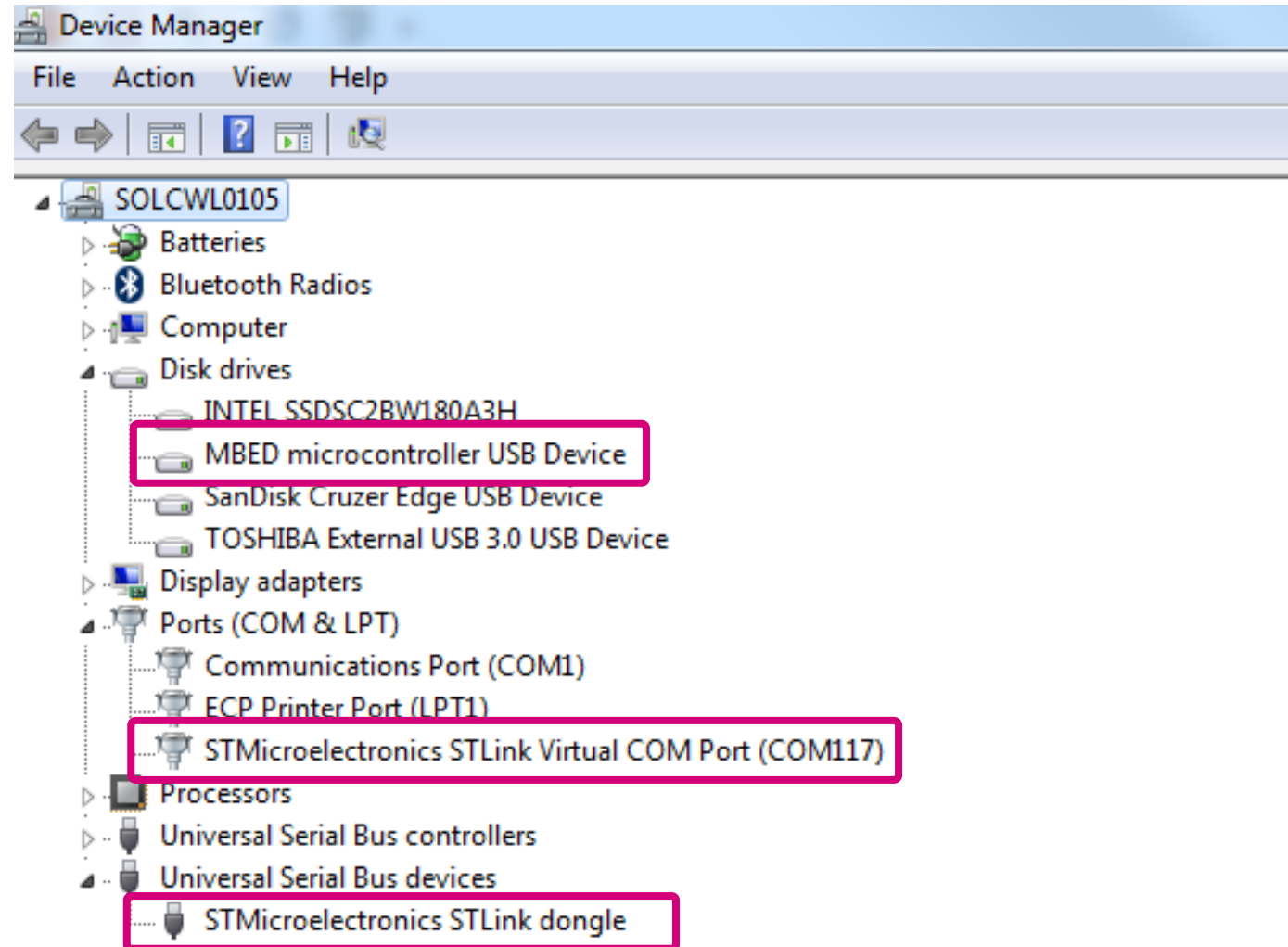


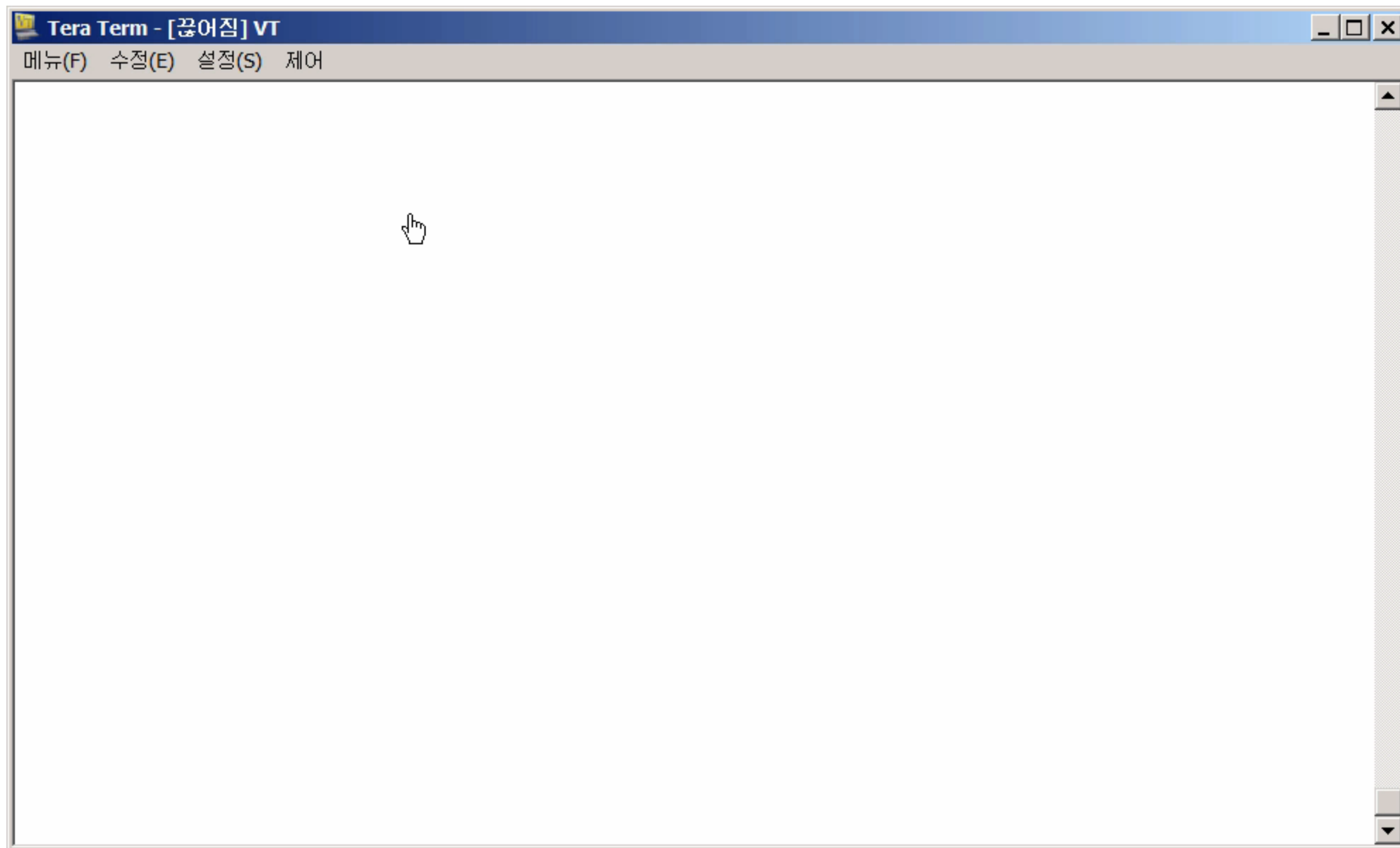
Wi-Fi  
Access Point



USB  
connection

# Setup Environment





클라우드 서비스 | 클라우드 x 설정

← → ↻ 🏠 🔒 안전함 | <https://aws.amazon.com/ko/> ☆ ⋮

☰ 메뉴 제품 솔루션 더 보기 ▼ 한국어 ▼ 내 계정 ▼ [계정 생성하기](#)

# AWS와 시작하기

컴퓨팅 파워, 데이터베이스 스토리지, 콘텐츠 전송 및 기타 기능을 원하는 사용자를 위해 AWS는 유연성, 확장성 및 안전성을 갖춘 애플리케이션을 구축할 수 있도록 돕고 있습니다.

[무료 계정 신청](#)

[무료 AWS계정 신청 자세히 보기 ▶](#)

과버이하 프레임    주요 사례    헛시이 소드    크르버 이표리



## AWS services

Find a service by name or feature (for example, EC2, S3 or VM, storage).



### Recently visited services

### All services



#### Compute

- EC2
- EC2 Container Service
- Lightsail [↗](#)
- Elastic Beanstalk
- Lambda
- Batch



#### Developer Tools

- CodeStar
- CodeCommit
- CodeBuild
- CodeDeploy
- CodePipeline
- X-Ray



#### Internet of Things

- AWS IoT
- AWS Greengrass



#### Contact Center

- Amazon Connect



#### Storage

- S3
- EFS



#### Management Tools

- CloudWatch
- CloudFormation



#### Game Development

- Amazon GameLift

## Helpful tips



### Manage your costs

Get real-time billing alerts based on your cost and usage budgets. [Start now](#)



### Create an organization

Use AWS Organizations for policy-based management of multiple AWS accounts. [Start now](#)

## Explore AWS

### Apache MXNet

Get started with the most scalable framework for deep learning in the cloud. [Learn more](#) [↗](#)

# Releasing your creativity



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