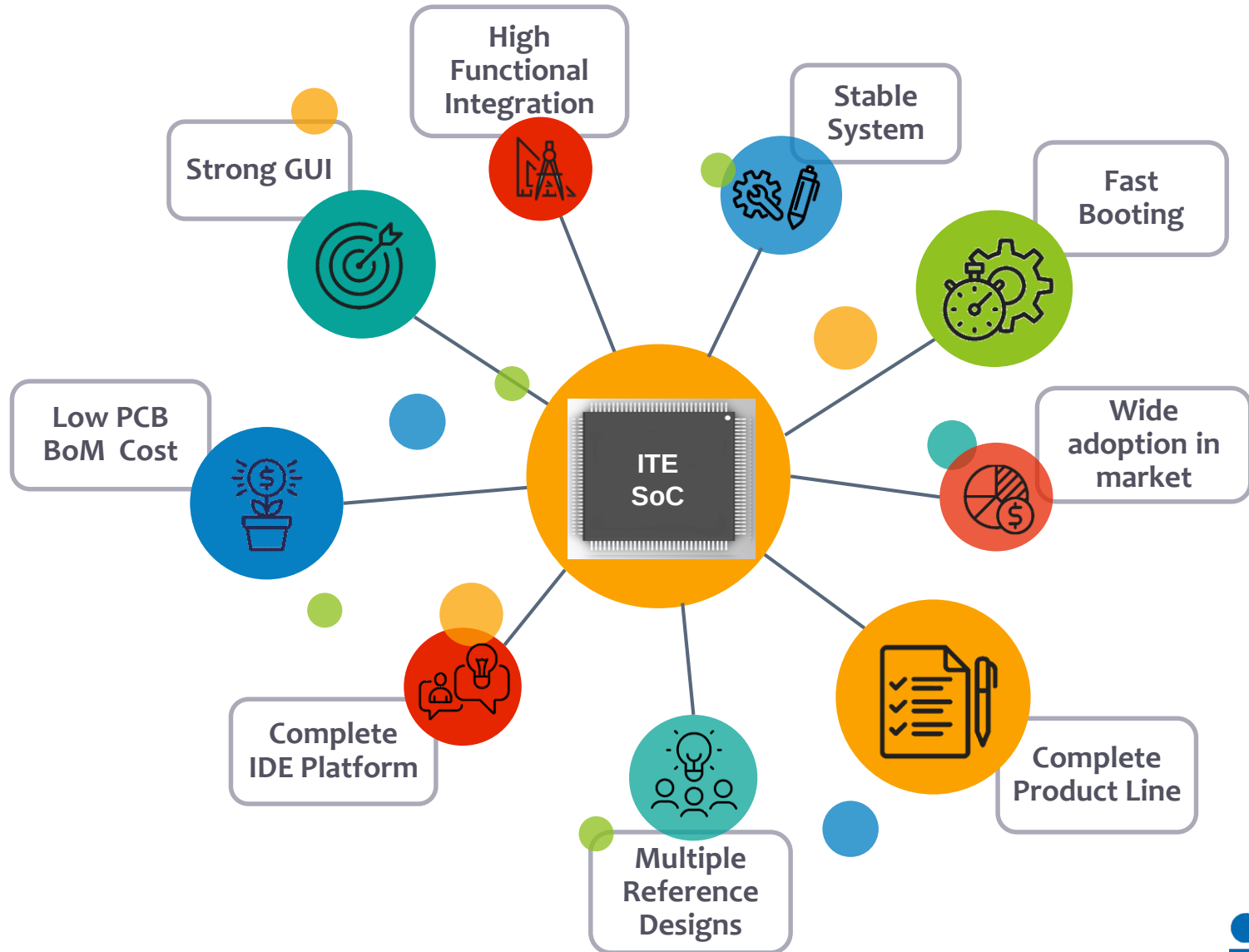


Introduction to ITE SoC Platform

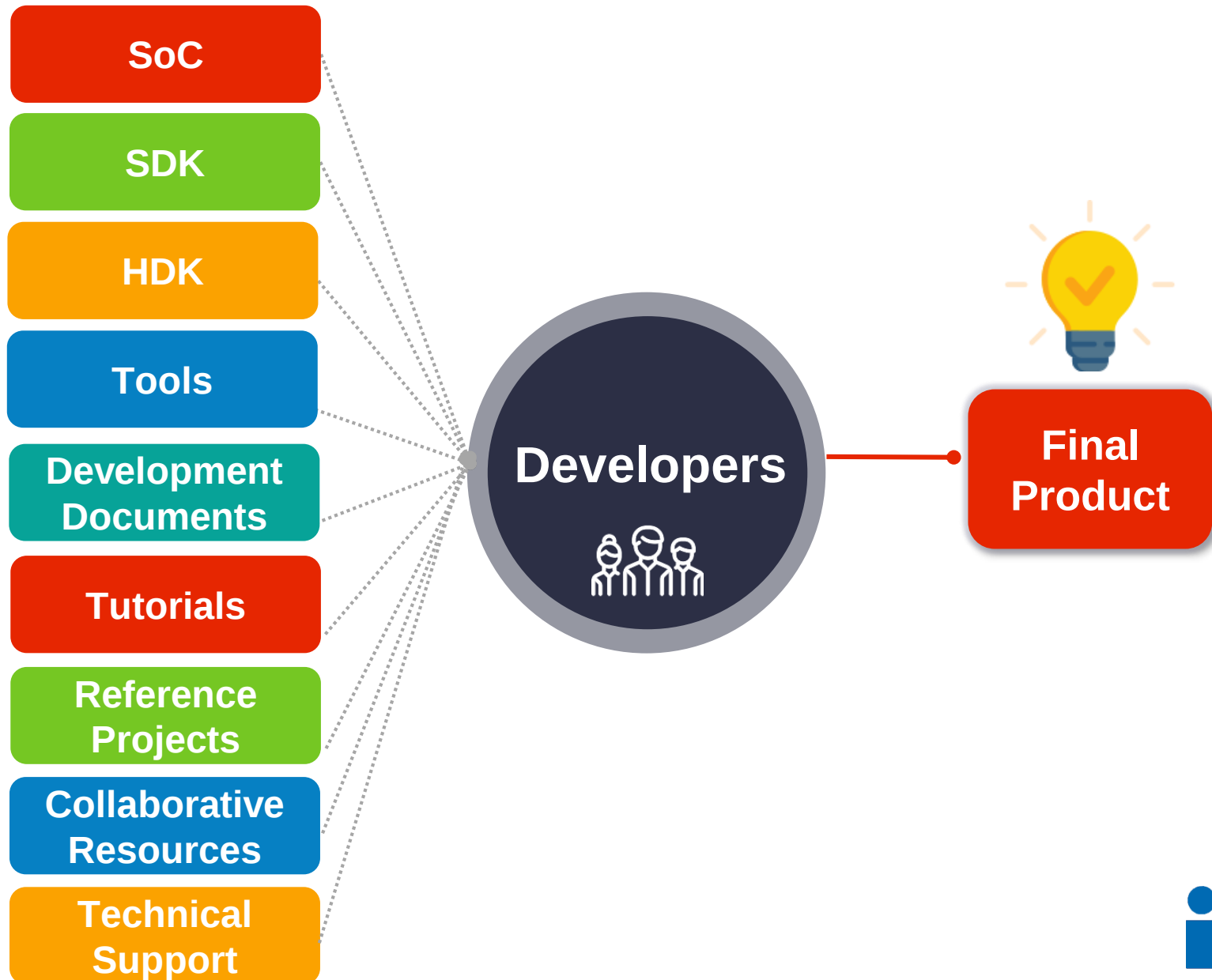
SoC: System on chip
IDE: Integrated Development Environment



ITE SoC Product Line Features



ITE SoC Developer Resources



ITE SoC (Industrial Grade) Roadmap

Function

MP
ES
In Dev.
Planning

IT97x series

IT978

- . ARM926 CPU 800MHz
- . Dual RISC 300MHz
- . H.264 Video CODEC
- . Graphic Engine
- . RGB/ MIPI/ LVDS/ CPU
- . Two USB ports
- . Boot ≈1 sec
- . 128 pins LQFP

IT986x series

IT9867
IT9869

- . Dual ARM926 CPU
- . Main CPU 800MHz
- . H.264 Video Decoder
- . Audio CODEC
- . Graphic Engine
- . RGB/ MIPI/ LVDS/ CPU
- . Boot ≈1 sec
- . 128 pins LQFP

IT988x series

IT988x

- . Dual 1GHz RISC-V CPU

IT983x series

IT9833
IT9837

- . Dual RISC-V CPU
- . Main CPU 500MHz
- . Graphic Engine
- . MIPI/ RGB/ CPU/ SPI/ LVDS
- . Audio DAC, DMIC
- . CAN Bus Controllers
- . Boot ≈ 1 sec
- . 76 pins QFN

2018

2019

2020

2021

2022

2023

2024

2025

ITE SoC (Automotive Grade) Roadmap

Function

MP
ES
In Dev.
Planning

IT9867-AT
IT9869-AT

- . AEC Q100
- . Dual ARM926 CPU
- . Main CPU 800MHz
- . Second CPU 400MHz
- . H.264 Video Decoder
- . Audio CODEC
- . Graphic Engine
- . RGB/ MIPI/ LVDS/ CPU
- . Two FD CAN Bus Controllers
- . Boot $\approx$ 1~2 sec
- . 128 pins LQFP

IT9837-AT

- . AEC Q100
- . Dual 500MHz RISC-V CPU
- . Graphic Engine
- . MIPI/ RGB/ CPU/ SPI/ LVDS
- . Audio DAC, DMIC
- . FD CAN Bus Controller
- . Boot $\approx$ 1 sec
- . 76 pins QFN

IT988x-AT

- . Dual 1GHz RISC-V CPU
- . AEC Q100
- . ASIL-B

2021

2022

2023

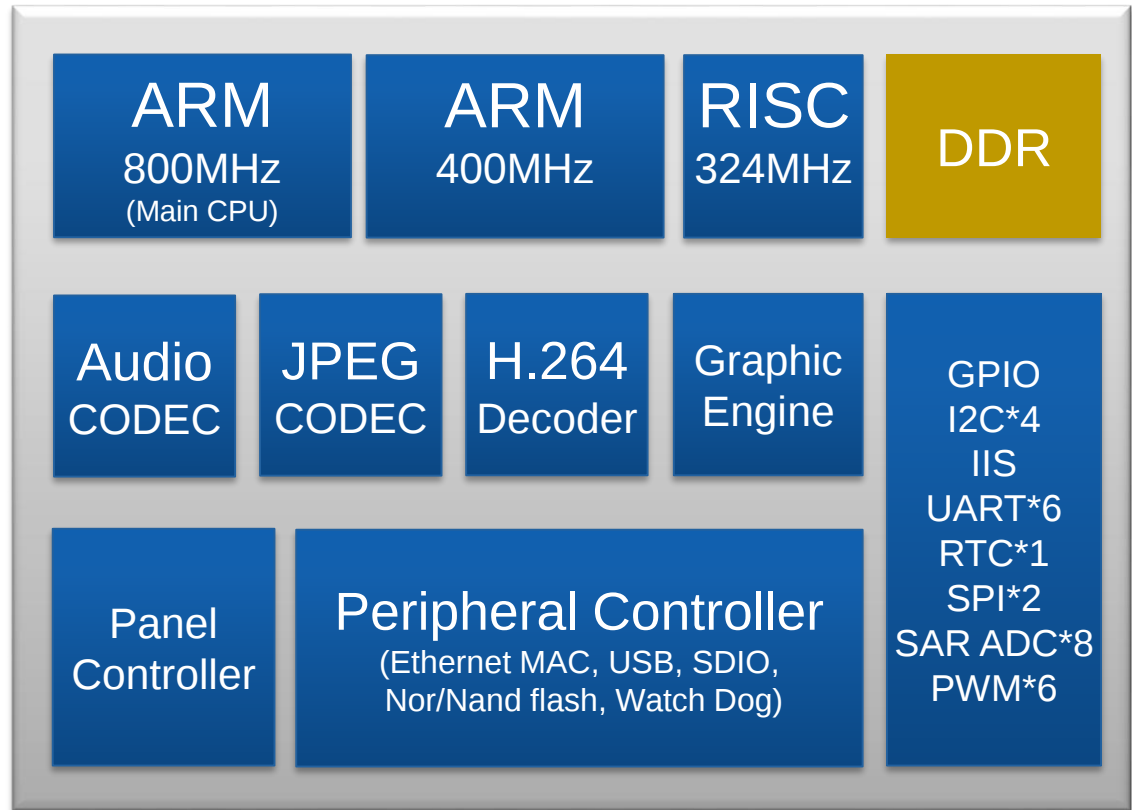
2024

2025

Time

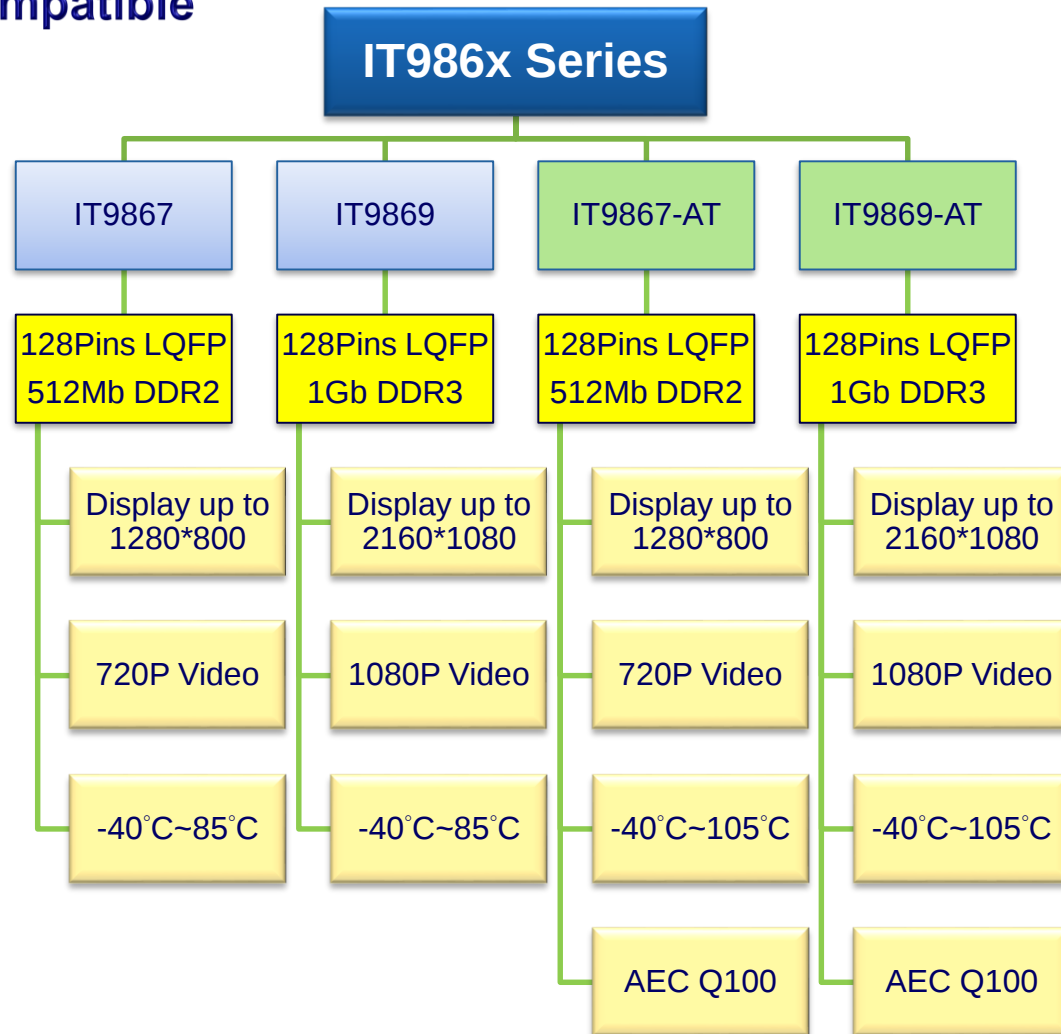
IT986x Function Block

- Dual ARM CPU
- Main CPU 800MHz
- H.264 Decoder Up to 1080P
- Panel Interface:
RGB/ MIPI/ LVDS/
CPU
- Panel resolution up to
2160*1080
- Graphic Engine
- 2 CAN Bus Controllers
- 128 Pins LQFP



IT986x SoC Series Application

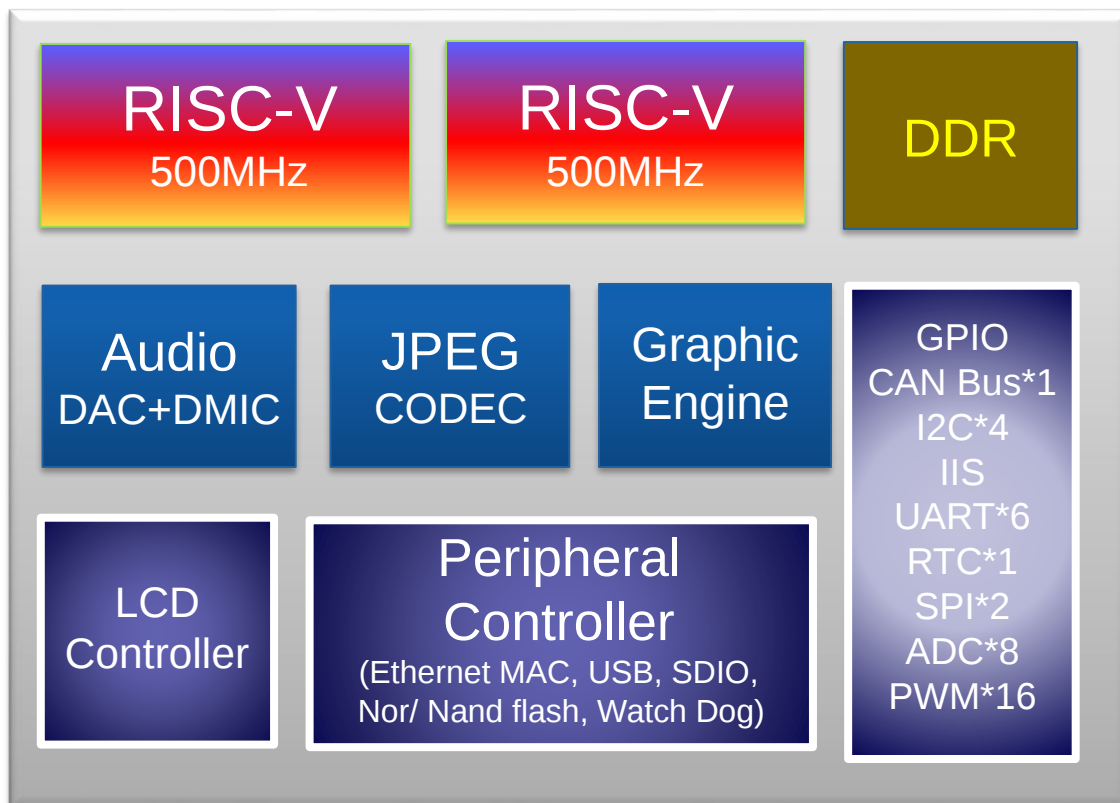
IT986x All Pin compatible



※ Resolution depends on the complexity of UI design.

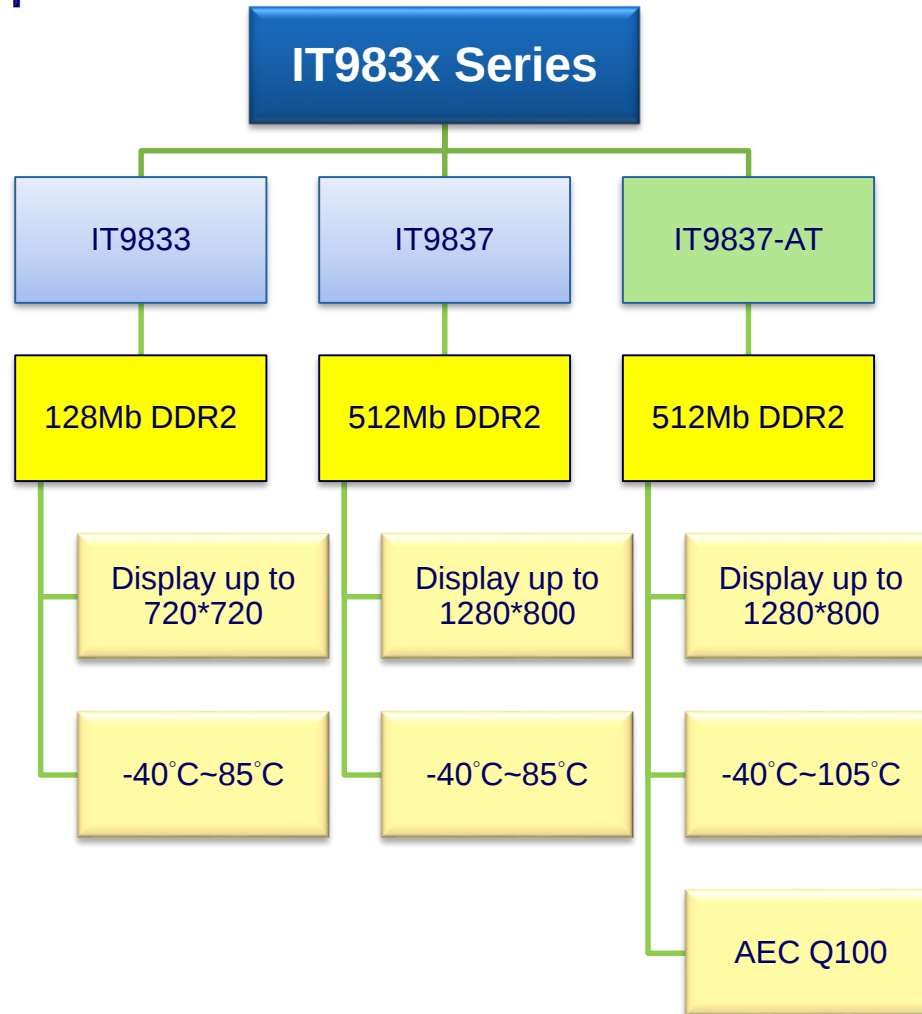
IT983x Function Block

- Dual CPU
- Panel Interface:
MIPI / RGB / SPI/ CPU/LVDS
- Panel resolution up to
1280*800
- Panel longer side resolution
up to 2560
- Graphic Engine
- 1 CAN Bus Controller
- eFuse for security
- 76 Pins QFN



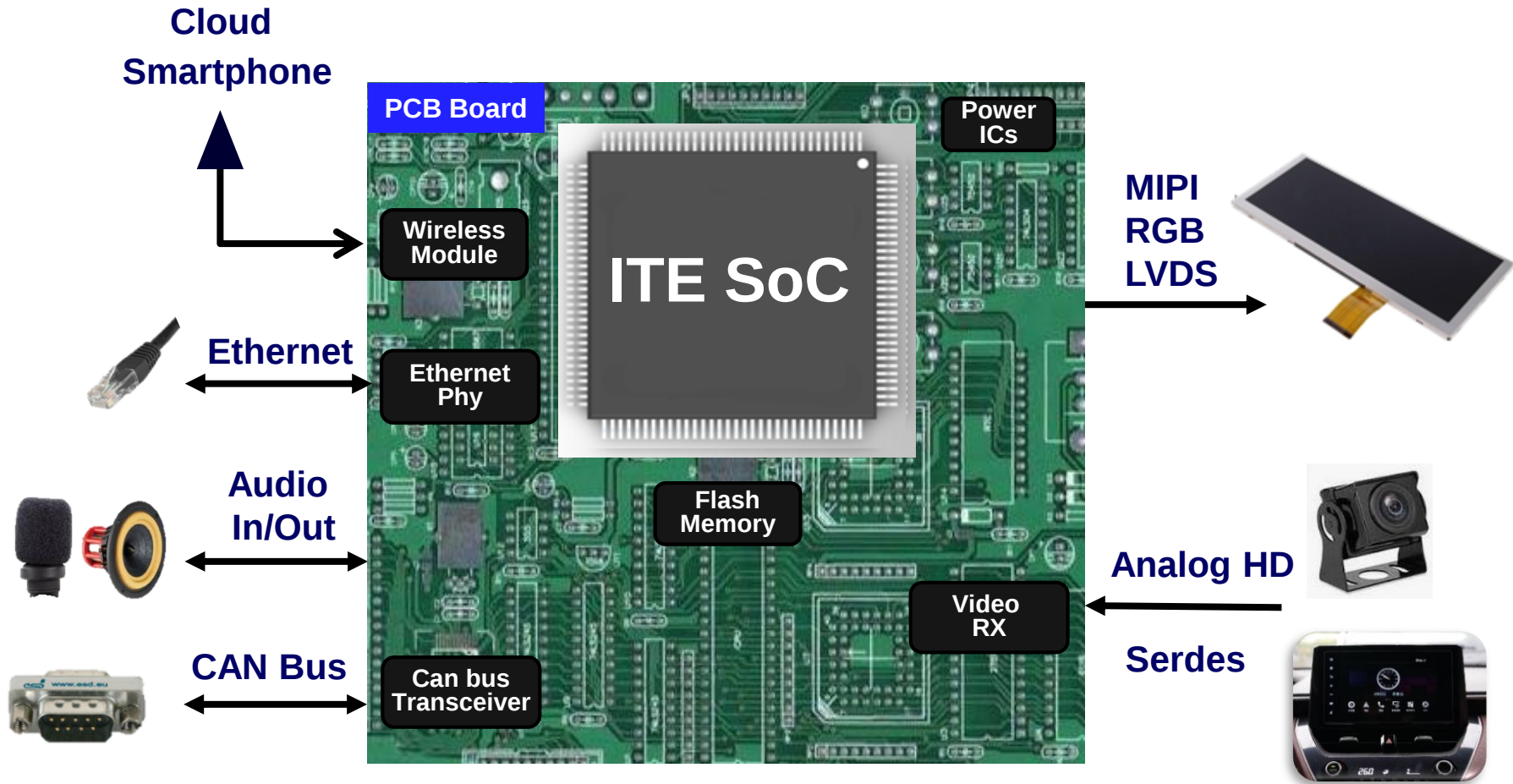
IT983x SoC Series Application

IT983x All Pin compatible



*Panel resolution will be determined by the complexity of the UI interface.

ITE SoC: General Architecture



※ The photos are for reference only

Application(1): Home Appliances

Major Appliances



Washing Machine



Refrigerator



Thermostat

Household Appliances



Water Dispenser



Vacuum Cleaner

Kitchen Appliances



Microwave



Food Processor



Rice Cooker

Application(2): Automotive Smart Display

Rear Seat Control



Instrument Cluster



HUD



Motorcycle



E-Bikes



Car



Truck



Bus



Engineering Vehicle

Application(3): Others



Exercise Bike



Standard HMI Module



Color Screen Printer



**Video Intercom
(Indoor Phone)**



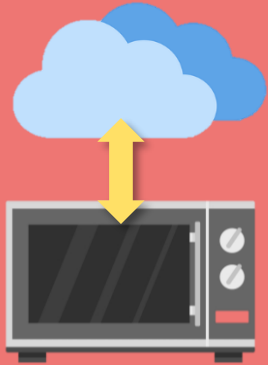
Massage Chair



AD Displayer

Advanced Functions

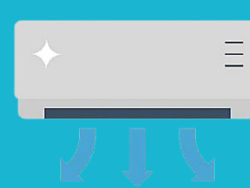
Cloud Service



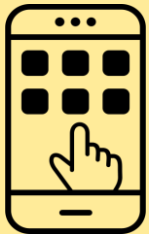
OTA
Data &
Image Transfer

Speech Recognition

Online & Offline
Speech Recognition



Smartphone Connections



Mirroring
APP



Apple
Carplay

...more

Dewarping



Fisheye
Dewarping



HUD Dewarping

ITE SoC IDE Introduction

HDK

- Reference circuit & guide
- Reference layout & guide
- Component reference
- Mass production guide

SDK

- RTOS
- Driver, API
- Middleware, Protocol
- Functional reference project
- AP reference project

Tools

- Drawrocker
- Panel script generator
- Debug tool
- Emulator

Documents

- Register spec
- SDK documents
- HDK documents
- Tooling documents
- Reference project guide

ITE SoC IDE Highlight

- **One-stop service**
- **Full functionality SDK**
- **Comprehensive Tools**
- **Various reference projects**

Training

- Tutorial videos
- Documents

ITE SoC Advantages

High Performance, Low Cost

Fast Booting (≈ 1 to 2 sec)

Panel Interfaces (MIPI, RGB, LVDS, SPI)

Operating temperature (Industrial Standard): $-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$

Operating temperature (AEC Q100 Grade 2): $-40^{\circ}\text{C} \sim 105^{\circ}\text{C}$

Supporting wireless modules (WiFi, Bluetooth, 4G...)

Powerful Graphic Engine

Complete IDE, Easy to develop

ITE SoC Customers

Whirlpool

TOSHIBA

ACSmith®

DAIKIN

Haier

Panasonic



美的 Midea

HITACHI
Inspire the Next

Hisense
创新就是生活
海信

E-LEAD
怡利电子



BYD

HSAE 航盛

东风小康

GIANT®

NIU

雅迪

QJMOTOR

Segway-Ninebot
九号机器人

OGAWA
奥佳华

星星充电
Star Charge

GIGABYTE

ROTAI
荣泰

JOHNSON®
喬山健康科技

KOMATSU®

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Thank You

