Featured

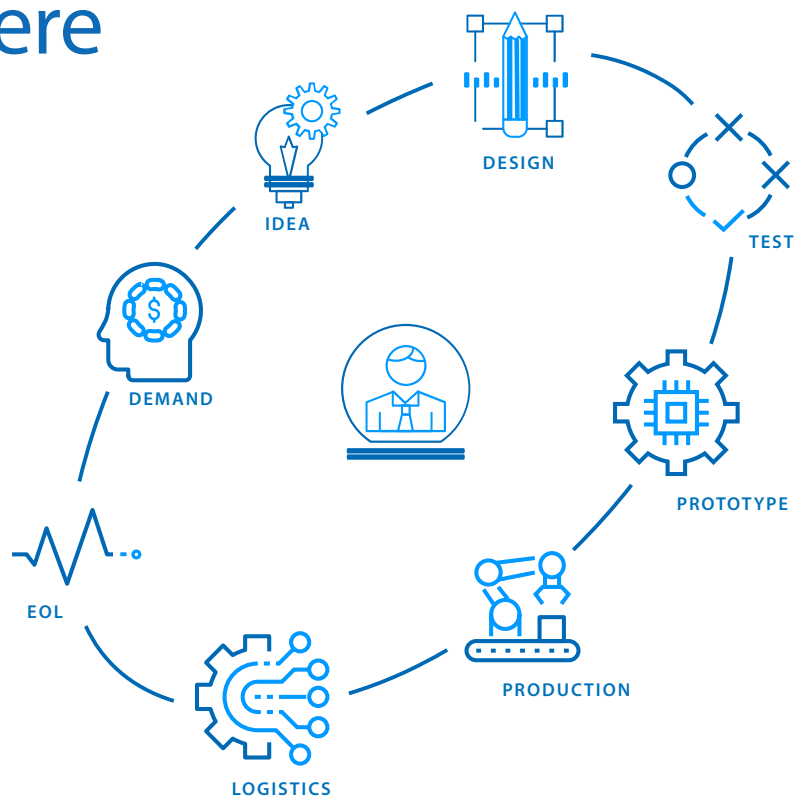*A diverse array of sustainable semiconductor solutions*

nuvoTon

Nuvoton
& Alcom

Nuvoton focuses on the developments of microcontroller, microprocessor, smart home, cloud security, battery monitoring, component, visual sensing and IoT with security ICs and has strong market share in Industrial, Automotive, Communication, Consumer and Computer markets. Nuvoton owns wafer fabs equipped with diversified processing technologies to provide professional wafer foundry services. Nuvoton provides products with a high performance/cost ratio for its customers by leveraging flexible technology, advanced design capability, and integration of digital and analog technologies. Combine the Nuvoton products with our highly educated and experienced team of Alcom's engineers and let us guide you through your next project.

Co-creation
starts here

DESIGN

TEST

IDEA

PROTOTYPE

DEMAND

PRODUCTION

EOL

LOGISTICS

Alcom considers everybody an indispensable added value in the collaborative chain with all of its partners.

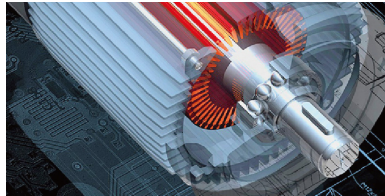# Applications

AUDIO / VIDEO

AUTOMOTIVE

COMPUTING
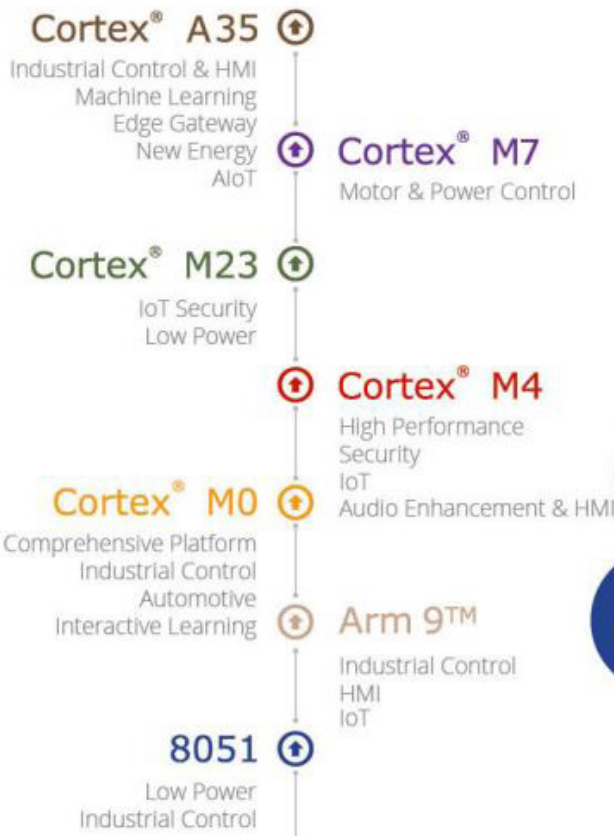
CONSUMER

INDUSTRIAL

IOT SECURITY

MEDICAL

PORTABLE DEVICES

SMART HOME APPLIANCES

NuMicro® Ecosystem - Microcontroller Platform

Cortex® A35
Industrial Control & HMI
Machine Learning
Edge Gateway
New Energy
AIoT

Cortex® M7
Motor & Power Control

Cortex® M23
IoT Security
Low Power

Cortex® M4
High Performance
Security
IoT
Audio Enhancement & HMI

Cortex® M0
Comprehensive Platform
Industrial Control
Automotive
Interactive Learning

Arm 9™
Industrial Control
HMI
IoT

8051
Low Power
Industrial Control

Arm® Cortex® M4

Arm® Cortex® M0

Arm® Cortex® M23

Arm® Cortex® M7

Arm9

Arm® Cortex® A35

8051

Product Overview

Microcontrollers:
- 8bit 8051 MCUs
- 8bit KM101 MCUs
- Arm Cortex-M0 MCUs
- Arm Cortex-M23 MCUs
- Arm Cortex-M4 MCUs
- Arm Cortex-M7 MCUs
- 32bit KM103 MCUs

Microprocessors:
- Arm Cortex-A35 MPUs
- ARM9 MPUs
- ARM7 MPUs

Battery Management:
- Battery Monitoring ICs

Cloud Computing:
- EC for Portable Applications
- Hardware Monitors
- I/O
- Security
- Voltage Level Shifters
- iBMC

Smart Home Audio:
- Audio SoCs
- ISD ChipCorder
- Audio Converters
- Audio Amplifiers
- Audio Enhancement
- Audio & Speech Controllers

Power Management:
- Power Switch
- Voltage Regulators

GUI Solutions:
- GUI Reference Design
- GUI Platform

IoT Solutions:
- IoT Platform
- Alexa Connect Kit Platform
- IoT Engine Platform
- Arduino Compatible Platform
- LoRa Platform

AI Solutions

NuEzAI-M55M1:
Development board equipped with NuMicro® M55M1 series microcontroller, offering powerful digital signal processing and on-device machine learning inference capabilities.

NuMaker-M55M1:
Series Microcontrollers equipped with an Arm® Cortex®-M55 processor running up to 200 MHz
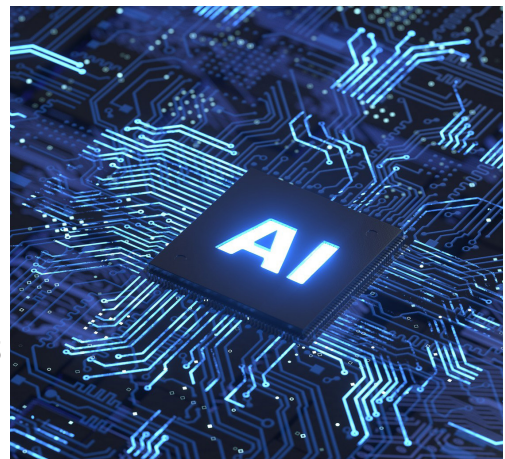
NuMaker-HMI-MA35D1-S1:
development board, equipped with the NuMicro® MA35D1 series microprocessor and the Linux operating system, is currently the fastest microprocessor unit by Nuvoton

NuMaker-IoT-M467:
Development platform based on the NuMicro® M467 Ethernet/Crypto series microcontroller (MCU)
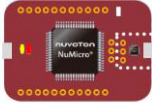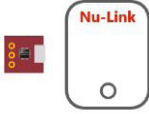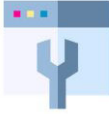
NuMaker-HMI-M467:
Development board, equipped with NuMicro® M467 Ethernet/Crypto series microcontroller

Product Overview

Security Development

| Evaluation Board (NuMaker) | Debugger & Programmer (Nu-Link) | Software Tool (NuTool) | Embedded Software (BSP & Mbed & RT-T) | IDE and Driver |

General
NuMaker-PFM-M2351
NuMaker-M2354

Application Specific
NuMaker-M2351SF
NuMaker-IoT-M2354
NuMaker-HMI-M2354

1 to 1 Debugger & Programmer
Nu-Link
Nu-Link-Pro
Nu-Link2-Pro
Nu-Link-Me
Nu-Link2-Me

MP Programmer
Nu-Link-Gang

Programming
ICP
ISP
Nu-Link Command

General
PinConfigure
PinView
ClockConfigure

Board Support Package
Library
Reference Guide
ThirdParty
Security

Mbed
M2354
M2351

MCU

Keil MDK
IAR EWARM
NuEclipse
Env (RT-Thread)

General
PinConfigure
PinView
ClockConfigure

Security Solutions

Smart home security - Secure short-range communication
Device: M2351, M2354, M261/M262/M263

Industrial IoT Security
Device: M2351, M2354, M463, M467, M485, M487

End-to-end cloud security
Device: M2351, M2354, M463, M467, M485, M487

Smart grid security
Device: M2354, M463, M467, M485, M487, NUC980

Cybersecurity - Secure personal Dongle
Device: M2351, M2354

New product releases

INDUSTRIAL 48V DIRECT DRIVE MOTOR DRIVER IC

KA44370A is a gate driver IC for driving single-phase motors. The output stage, which can directly drive an external power MOSFET at 48V, is assembled in a small 4mm x 4mm QFN package, making it possible to mount the IC on a small motor despite the 48V requirement. The motor current waveform can be selected from a sinusoidal or a trapezoidal wave, which is generated by our unique Auto Phase Control technology.

DUAL-CORE 64-BIT ARM CORTEX-A35 MPU

The NuMicro® MA35H0 series is a high-performance microprocessor specifically designed for industrial HMI applications. It is based on dual 64/32-bit Arm® Cortex®-A35 cores. The high-performance cores run up to 650 MHz and include 32/32 KB I/D L1 cache for each core, along with a 512 KB shared L2 cache.

SMALL-SIZED MCU ENHANCED WITH HIGH PRECISION OP AMPLIFIER

The NuMicro M091 series 32-bit microcontroller is designed for analog sensor applications. It features rich analog peripherals including up to 4 sets of 8 MHz gain bandwidth (GBW) with 50 μV input offset voltage operational amplifier (OPA), 4 sets of 12-bit DAC, up to 16 channels of 2 MSPS 12-bit SAR ADC, built-in temperature sensor with ±1.6°C deviation from 0°C to 70°C and ±2°C deviation from -40°C to 105°C.

HIGHLY ADAPTABLE CAN/USB FS SERIES

The NuMicro® M433 CAN/USB FS series is a high performance, low power microcontroller powered by the Arm® Cortex®-M4F core with DSP instruction and single-precision floating-point unit (FPU) extension. The NuMicro® M433 CAN/USB FS series runs at speeds up to 144 MHz, and the power consumption in the deep power-down mode drops to 350 nA, offering excellent energy efficiency tailored for IoT, industrial, and consumer applications.

DEVELOPMENT BOARD OFFERING SEAMLESS AND EASY-TO-USE ENDPOINT AI DEVELOPMENT

The NuEzAI-M55M1 development board, powered by the NuMicro® M55M1 microcontroller, based on the Arm® Cortex®-M55 core. Paired with an online model training tool, developers no longer need extensive programming skills or a deep understanding of complex algorithms. Users can easily capture data in real-time using devices like cameras, and in as little as three minutes, train an image recognition model. Once training is complete, the online model training tool outputs the model in tflite int8 format, which can be directly deployed on the NuEzAI-M55M1 development board.

NEW ARM CORTEX-M23 M2L31 MICROCONTROLLER SERIES

Designed to meet the growing demand for sustainable high-performance embedded computing power, the M2L31 series stands out for its low power consumption and efficiency, with its running speed of up to 72MHz still providing great processing capability.

Alcom product portfolio

ELECTRONIC COMPONENT SOLUTIONS	WIRELESS EMBEDDED CONNECTIVITY & SENSORS	WIRELESS & INDUSTRIAL CONTROLS NETWORKING	DISPLAY & TOUCH

LED & SOLID STATE LIGHTING	POWER & EMC	RUGGED MOBILE COMPUTING	EMBEDDED SYSTEMS, AI & EDGE COMPUTING

Electronic Component Solutions
- Semiconductors
- Frequency & timing
- Power management
- Circuit protection & discretes
- Magnetics
- Passives & electromechanical
- Connectors & cable assemblies
- Photonics

Wireless Embedded Connectivity & Sensors
- Wireless modules
- Antenna's
- Sensors

Wireless & Industrial Controls Networking
- Routers & gateways
- Wireless embedded computers
- Industrial ethernet and IP variations
- Wired & wireless machine networking
- Antenna's
- Device to cloud solutions
- Connectivity & remote management services
- Networking & connectivity

Display & Touch
- Displays
- Touch screens
- Optical bonding
- Total display solutions

LED & Solid State Lighting
- LED light sources
- Optics
- Thermal management
- Power & intelligent controls
- LED modules

Power & EMC
- AC/DC power supplies
- DC/DC converters
- Power management modules
- Wireless charging
- E-mobility solutions
- Transformers & power inductors
- UPS
- EMC filters

Rugged Mobile Computing
- Tablets
- PDA's
- Vehicle mount computers
- Accessories

Embedded Systems, AI & Edge Computing
- Computer-on-modules
- Embedded boards
- Industrial PC & automation
- System integration

Bridging the gap between technology, people and business with a human interface.

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Get to know us

ALCOM PROVIDES THE WORLD'S MOST AD-VANCED TECHNOLOGIES.

With a team of like-minded entrepreneurs, Alcom will continue to inspire its valued customers to use advanced innovative building blocks in vertical markets. The importance of providing high-level services and a human interface based on specialism, knowledge and design-in expertise will remain key differentiators.

Alcom is positioned for growth. We invite all our customers to discuss their current and future concepts and designs. Let's connect, work and grow together.

OCTOBER 2024