ARM Cortex processors

The world’s most power efficient processors

Performance and scalability for enterprise, mobile and embedded solutions

May 2017
ARM® Cortex-A® portfolio

**ARMv7-A**
- **Cortex-A15/A17**
  - Infrastructure performance; mobile efficiency
  - 32-bit

**ARMv8-A**
- **Cortex-A57**
  - Proven infrastructure performance
  - 64/32-bit
- **Cortex-A53**
  - Balanced performance and efficiency
  - 64/32-bit
- **Cortex-A55**
  - Highest efficiency mid-range processor
  - 64/32-bit

**ARM-DYNAMIQ**
- **Cortex-A35**
  - Smallest, lowest power ARMv8-A
  - 64/32-bit
- **Cortex-A32**
  - Smallest, lowest power 32-bit ARMv8-A
  - 32-bit

**ARM-DYNAMIQ Series**
- **A7x Series**
- **A5x Series**
- **A3x Series**

Year of IP release, volume devices in the subsequent year

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ARM® Cortex®-R portfolio

Cortex-R7
High performance 4G modem and storage

Cortex-R8
Highest performance 5G modem and storage

Storage & modem

Cortex-R4
Real-time performance

Cortex-R5
Real-time performance with functional safety

ARMv7-R

Cortex-R52
Most advanced processor for functional safety

ARMv8-R

Functional safety
ARM® Cortex®-M and SecurCore® portfolio

- **Cortex-M3**
  - Performance efficiency

- **Cortex-M4**
  - Mainstream control and DSP

- **Cortex-M7**
  - Maximum performance, control and DSP

- **Cortex-M33**
  - Flexibility, control and DSP with TrustZone

- **Cortex-M0**
  - Lowest cost, low power
  - Available via DesignStart

- **Cortex-M0+**
  - Highest energy efficiency

- **Cortex-M23**
  - TrustZone in smallest area, lowest power

- **SC000**
  - Optimized area, anti-tampering

- **SC300**
  - Performance, anti-tampering

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Performance efficiency

Lowest power & area

SecurCore

ARMv8-M
### Performance and scalability for a diverse range of applications

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- **ARMv6**
  - ARM11MPCore
  - ARM1136J(F)-S
  - ARM1156T2(F)-S

- **ARMv7**
  - Cortex-A
    - Cortex-A17
    - Cortex-A15
  - Cortex-R
    - Cortex-R8
    - Cortex-R7
    - Cortex-R5
    - Cortex-R4
  - Cortex-M
    - Cortex-M0+
    - Cortex-M0

- **ARMv8**
  - Cortex-A
    - Cortex-A73
    - Cortex-A75
    - Cortex-A57
    - Cortex-A72
  - Cortex-R
    - Cortex-R52
  - Cortex-M
    - Cortex-M33
    - Cortex-M3
    - Cortex-M23

- **Categories**
  - High performance
  - High efficiency
  - Ultra high efficiency
  - Real Time
  - Performance efficiency
  - Lowest power and area
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