

Components – North America

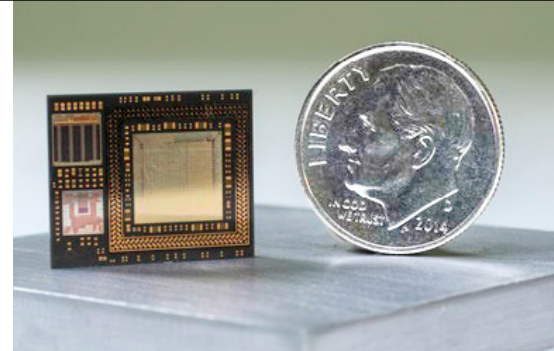
SCM-i.MX 6Dual/6Quad – Product Brief

Arrow SCM Exclusive SCM-i.MX 6Dual/6Quad

Arrow's exclusive SCM partnership with NXP has created a new Single Chip System Module (SCM) integrating NXP's flagship i.MX 6 series applications processors to simplify designing into IoT devices, wearables, and smart-home technology.

The Arrow SCM i.MX 6Dual/6Quad modules contain high-performing applications processors, power management, system passives, and are designed to support zero footprint memory via package-on-package technology. These single chip modules are designed and enabled by expert system designers to maximize your product's capabilities, simplify your design and optimize your product's form factor.

| Features | Benefits |
|--|--|
| Majority of the components intergrated inside the module | Reduce your hardware design time by up to 25% - bring your products to market faster |
| Unprecedented, ultra-small form factor (17 x 14 x 1.7mm) | >50% PCB area reduction over comparable discrete solutions |
| Enabled for LPDDR2 PoP memory and embedded power managment | Reduces your design complexity and cost of integrating and validating DDR memory and power management sub-system |
| Complete module with options for HW/SW customization and support | Reduces your supply chain complexity and provides proven options to improve your product time to market |



SCM Technology Inside SCM

- NXP i.MX 6Dual/6Quad processor based on ARM® Cortex®-A9, operating up to 800 MHz per core
- NXP MMPF0100 for system power management
- 16 MB SPI NOR flash
- Over 100 discrete components

Memory

- Delivered for 2x32-bit 1GByte or 2GByte LPDDR2 Package-on-Package (PoP) memory, 2 16-ball 0.4mm FBGA

i.MX 6Dual/6Quad features

- CPU Complex: 2-4 ARM® Cortex®-A9, operating up to 800 MHz per core
- Multimedia: 2D/3D GPU, 1080p video encode/decode
- HMI: MIPI display/camera, LVDS, HDMI
- Connectivity: Ethernet, PCIe, SATA, USB 2.0, SD/MMC, audio
- Security: High assurance boot, hardware ciphers, tamper detection

Software

- Linux and Android Board Support Packages (BSPs) are available at www.nxp.com/scm

Package and temperature

- 14mm x 17mm 0.65 pitch FCBGA PoP
- Consumer and industrial products are available

Development Kits and Tool Detail

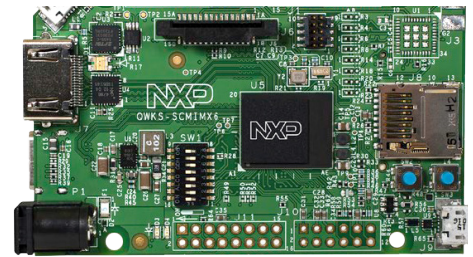
The NXP Quick Start board for the SCM-i.MX 6Dual/6Quad introduces customers to high-performance processing and showcases the size advantage and design simplification that can be achieved with Single Chip System Modules. This board has many features including a wide variety of on-board interfaces that provide access to many user interface and connectivity options. It is also form-factor compatible with the Arduino™ R3 pin layout. The hardware reference design files together with Linux and Android Board Support Packages (BSPs) are available. The board is populated with the superset SCM-i.MX 6Quad device with 1GByte LPDDR2, which can also be used to evaluate the SCM-i.MX 6Dual device.

Ordering Information

| i.MX6 Dual | Type | NXP Base | Micron Memory | Module Temp Range (Tj) |
|----------------------|-----------------------|-----------------|----------------------|----------------------------------|
| MSCMMX6DZDK08AB1G0AA | i.MX6 Dual 1GB LPDDR2 | MSCMMX6DZDK08AB | EDB8164B4PT-1DAT-F-D | Commercial: 0C – 85C |
| MSCMMX6DZDK08AB2G0AA | i.MX6 Dual 2GB LPDDR2 | MSCMMX6DZDK08AB | EDBA164B2PR-1D-F-D | Commercial: 0C – 85C |
| MSCMMX6DZCK08AB1G0AA | i.MX6 Dual 1GB LPDDR2 | MSCMMX6DZCK08AB | EDB8164B4PT-1DAT-F-D | Industrial: -40C – +105C |
| MSCMMX6DZCK08AB2G0AA | i.MX6 Dual 2GB LPDDR2 | MSCMMX6DZCK08AB | EDBA164B2PR-1D-F-D | Extended Commercial: -30C – +85C |
| i.MX6 Quad | Type | NXP Base | Micron Memory | Module Temp Range (Tj) |
| MSCMMX6QZDK08AB1G0AA | i.MX6 Quad 1GB LPDDR2 | MSCMMX6QZDK08AB | EDB8164B4PT-1DAT-F-D | Commercial: 0C – 85C |
| MSCMMX6QZDK08AB2G0AA | i.MX6 Quad 2GB LPDDR2 | MSCMMX6QZDK08AB | EDBA164B2PR-1D-F-D | Commercial: 0C – 85C |
| MSCMMX6QZCK08AB1G0AA | i.MX6 Quad 1GB LPDDR2 | MSCMMX6QZCK08AB | EDB8164B4PT-1DAT-F-D | Industrial: -40C – +105C |
| MSCMMX6QZCK08AB2G0AA | i.MX6 Quad 2GB LPDDR2 | MSCMMX6QZCK08AB | EDBA164B2PR-1D-F-D | Extended Commercial: -30C – +85C |

Component Datasheets are available on www.nxp.com/scm and www.micron.com

SCM i.MX 6Dual/6Quad Quick Start Board



Part # QWKS-SCMiMX6DQ

<https://www.arrow.com/en/products/qwks-scmimx6dq/nxp-semiconductors>

Quick start board kit contents

- SCM-i.MX 6Quad Quick Start Board
- Power supply
- Quick start guide
- Bootable SD card with Linux image
- 1GB LPDDR2 memory
- Accessory board sold separately



For more information

<https://www.arrow.com/en/campaigns/nxp-single-chip-module>

In Person

Please contact your local Arrow account manager or 800-833-3557

Online

www.arrow.com

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