DIGI CONNECTCORE® PRODUCT COMPARISON

DIGI

COMING SOON

	ConnectCore® 6UL	ConnectCore® 6	ConnectCore® 6+	ConnectCore® 8M Nano	ConnectCore® 8M Mini*	ConnectCore® 8X
Form Factor L x W x H	SMTplus® 29 mm x 29 mm x 3.5 mm 76-pad castellated vias, or LGA-245	SMTplus® 50 mm x 50 mm x 5 mm LGA-400		SMTplus® 40 mm x 45 mm x 3.5 mm 118-pad castellated vias, or LGA-474		SMTplus® 40 mm x 45 mm x 3.5 mm 118-pad castellated vias, or LGA-474
Processor Cores	NXP® i.MX 6UL 1x Cortex®-A7 @ 528 MHz	NXP® i.MX 6 2-4x Cortex®-A9 @ 1.2 GHz	NXP® i.MX 6Plus 2-4x Cortex®-A9 @ 1.2 GHz	NXP® i.MX 8M Nano 1-4x Cortex®-A53 cores @ 1.4 GHz 1x Cortex®-M7 core @ 600 MHz	NXP® i.MX 8M Mini 1-4x Cortex®-A53 cores @ 1.6 GHz 1x Cortex®-M4 core @ 400 MHz	NXP® i.MX 8X 2-4x Cortex®-A35 cores @ 1.2 GHz 1x Cortex®-M4F core @ 264 MHz
Network Connectivity	802.11 a/b/g/n/ac (1x1), Bluetooth® 5, 2x 10/100 Ethernet	802.11 a/b/g/n (1x1), Bluetooth® 4.0, 10/100/1000 Gigabit Ethernet	802.11 a/b/g/n/ac (1x1), Bluetooth® 5, 10/100/1000 Gigabit Ethernet	802.11 a/b/g/n/ac (1x1), Bluetooth® 5, 10/100/1000 Gigabit Ethernet		802.11 a/b/g/n/ac (2x2), Bluetooth® 5, 2x 10/100/1000 Gigabit Ethernet
Memory	Up to 1 GB SLC NAND flash, Up to 1 GB DDR3	Up to 8 GB eMMC flash, Up to 2 GB DDR3		Up to 8 GB eMMC flash, Up to 2 GB LPDDR4		Up to 16 GB eMMC flash, Up to 2 GB LPDDR4
Graphics and Video	2D Pixel Processing Pipeline (PXP), 8/10/16/24-bit parallel LCD display	Up to two displays, 1080p, LVDS, parallel,HDMI, 2D/3D GPU acceleration	LVDS, MIPI display port, MIPI camera port, HDMI v1.4, 3D video playback in high definition	One display, LCDIF display controller, 1080p display through MIPI DSI, GPU available - GC7000UL (2-shader), OpenGL/CL, ext. LVDS ref, design	One display, LCDIF display controller, 1080p display through MIPI DSI, GPU-GC NanoUltra 3D (1-shader) + GC320 2D, VPU-1080p60 HEVC H.265 (decode), VP9, H.264, VP8 (encode/decode)	Up to two HD + one parallel WXGA displays, 1080p, MIPI-DSI/LVDS, 2D/3D acceleration, GPU-GC7000Lite (2-/4-shader), OpenGL/CL VPU available - 4K H.265 (decode), 1080p H.264 (encode/decode)
OS Support	Yocto Project® Linux®	Yocto Project® Linux®, Android™	Yocto Project® Linux®, Android™	Yocto Project® Linux®, FreeRTOS™	Yocto Project® Linux®, Android™, FreeRTOS™	Yocto Project® Linux®, Android™, FreeRTOS™
Wireless Certifications	US, Canada, EU, Japan, Australia, New Zealand	US, Canada, EU, Japan, Australia, New Zealand	US, Canada, EU, Australia, New Zealand	US, Canada, EU, Japan, Australia, New Zealand		US, Canada, EU, Japan, Australia, New Zealand
Environmental	Temperature: IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-78; Vibration/Shock: IEC 60068-2-6, IEC 60068-2-64, IEC 60068-2-27, HALT	Temperature: IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-78; Vibration/Shock: IEC 60068-2-6, IEC 60068-2-64, IEC 60068-2-27, HALT		Temperature: EC 60068-2-1, IEC 60068-2-2, IEC 60068-2-78; Vibration/Shock: IEC 60068-2-6		Temperature: IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-78; Vibration/Shock: IEC 60068-2-6, IEC 60068-2-64, IEC 60068-2-27, HALT
Operating Temperature	-40° C to 85° C (-40° F to 185° F)	-40° C to 85° C (-40° F to 185° F)		-40° C to 85° C (-40° F to 185° F)		-40° C to 85° C (-40° F to 185° F)
Development Kits	CC-WMX6UL-KIT, Optional LCD kits - CC-ACC-LCDW-10, CC-ACC-LCD-70WV	CC-WMX6-KIT, Optional LCD kit - CC-ACC-LCDH-10		CC-WMX8MN-KIT, Optional LCD kit - CC-ACC-LCDH-10	CC-WMX8MM-KIT, Optional LCD kit - CC-ACC-LCDH-10	CC-WMX8-KIT, Optional LCD kit - CC-ACC-LCDH-10

*The information provided is preliminary and may be subject to change without notice.

DIGI CONNECTCORE® VALUE PROPOSITION

DIGI.

Digi offers a selection of ultra-compact and highly integrated embedded system-on-modules (SOMs) and single board computers (SBC) for building intelligent and secure connected devices that require long-term availability. Develop and deploy diagnostics, logging, monitoring and control applications within a variety of demanding industries, including medical device, transportation, industrial, energy and smart cities.

HOW TO DECIDE WHEN TO BUY VS. BUILD

Using a system-on-module (SOM) or single board computer (SBC) is a common way to connect a product to the Internet of Things (IoT). The major benefit is the reuse of Digi's development and wireless connectivity expertise reducing design complexity and accelerating time-to-market.

Questions to Consider:

- What are the development cost and risk (NRE)?
- What certifications and approvals are required (testing and validation)?
- How much does is cost to maintain and stay current (Moore's Law)?
- What are the production and production management cost (supply chain)?
- What is the core competency of your organization (opportunity cost)?

TIME TO MARKET

06 Months
SBC

12 Months
SOM

30 Months
Chip Down
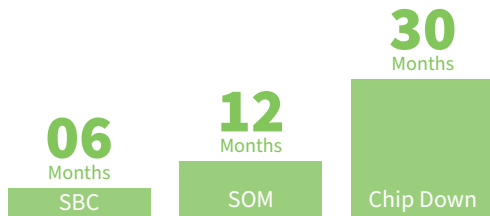
Using an SBC can reduce average deployment times by 80%

*Source: Digi International

Embedded SOMs and SBCs enables original equipment manufacturers to achieve:

Faster Time to Market - Wireless connectivity and certification hurdles lengthen product-development cycles. Smart, connected device makers want proven components so they can bring products to market faster.

Connected - Smart devices need to be connected—in most cases wirelessly. Connectivity enables OEMs to access and manage devices remotely. Digi offers a wide array of short and long range wireless connectivity options that integrate with our SOMs and SBCs.

Simplicity - Sophisticated devices require simpler interfaces. Arcane codes and keypads are shifting to visual displays and touchscreens—requiring greater computing power.

Reliability and Longevity - Embedded devices must withstand daily intensive use in critical situations over a period of years. Manufacturers need stable, long-term availability of components and parts to ensure a lengthy product lifecycle.

Digi International has many SBC options ready to deploy. Need something customized or build-to-suit, our Wireless Design Services has years of experience and a library of proven IP to build exactly to your specs.

Worldwide Deployment & Connectivity Options

- Pre-certified for use in various regions of the world
- Optional dual-band 802.11a/b/g/n/ac, Bluetooth® 5, and integrated dual 10/100/1000M Ethernet connectivity
- Seamless Digi XBee® integration to extend wireless connectivity to a variety of popular IoT protocols

Remote Management and Embedded Software

The IoT is bringing software to devices not typically thought of as computers. Secure remote management through Digi Remote Manager®, and Integration with Yocto Project® Linux® and Android™ offer flexibility and scalability for deployment and configuration.

GLOBAL DEPLOYMENT

WiFi® Bluetooth® yocto PROJECT NXP GOLD PARTNER

Digi Wireless Design Services

Digi Wireless Design Services (WDS) helps companies solve business problems by embedded SOMs and wireless technologies to create innovative IoT products with a dedicated team of creative designers and engineers who take your product from concept to production.

Digi TrustFence®

Digi TrustFence is a complete device security framework that simplifies building secure connected products. Designed for the long product life cycles of embedded devices, TrustFence allows you to easily integrate device security, device identity, and data privacy capabilities, resulting in dramatically accelerated time-to-market and continued focus on performance and scalability. Digi TrustFence is engineering security into IoT devices that can grow and adapt with new and evolving threats.

DIGI. TRUSTFENCE

Digi TrustFence delivers built-in security with a full range of production-ready features including:

Secure Boot - Ensures only signed software images can run on a device.

Encrypted Storage - Local file system encryption keeps internal device data safe.

Protected Ports - Access-controlled internal and external ports prevent unwanted "back doors."

Tamper Detection - Detect unauthorized attempts to access the system.

Configuration - Best practices, monitoring support and guidelines for properly securing a device. Furthermore, Digi monitors security threats and issues alerts and notifications.

Secure Firmware Updates - Secure remote updates of devices with signed firmware images.