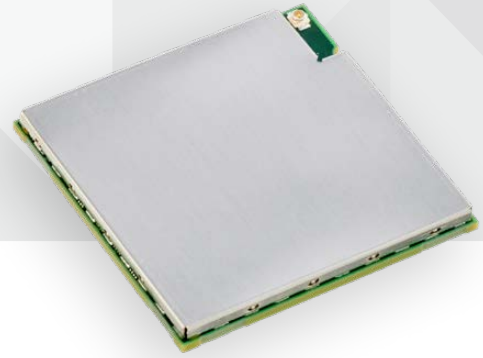




SCALABLE HIGH-  
PERFORMANCE  
SYSTEM-ON-MODULE



# DIGI CONNECTCORE 6+

NXP i.MX6Plus based surface-mount module solution with scalable, quad-core performance and integrated wireless

The Digi ConnectCore® 6+ is an ultra-compact and highly integrated system-on-module solution based on the NXP i.MX6Plus Cortex-A9 processor family.

With processor speeds up to 1.2 GHz and fully pin-compatible dual-/quad-core variants, the ConnectCore 6+ offers a truly future-proof platform solution with scalable performance and pre-certified wireless 802.11a/b/g/n/ac and Bluetooth 4.2, including Bluetooth Low Energy, connectivity.

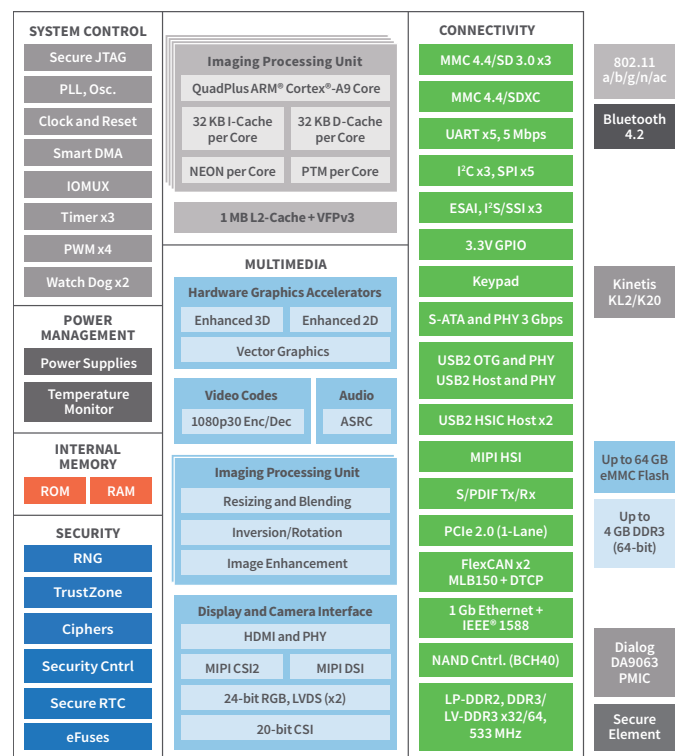
Its low-profile, surface-mount design maximizes integration flexibility and significantly reduces design risk in a highly cost effective, reliable form factor with optimized heat dissipation capabilities even in the most demanding quad-core system configurations.

Integrated cloud integration as part of the Digi Yocto Linux and Android software platform support offers secure remote management and web services capabilities through the scalable Digi Remote Manager®.

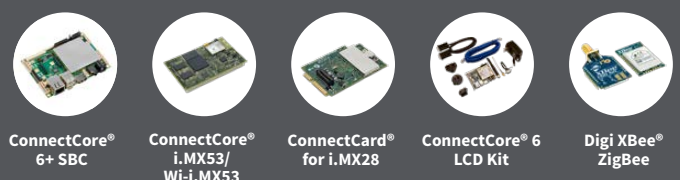
## BENEFITS

- Scalable Cortex-A9 multi-core performance
- Independent Cortex-M0+/Cortex-M4 Microcontroller Assist™ subsystem
- Cost-effective, reliable, low-profile surface-mount module form factor
- Pre-certified 802.11a/b/g/n/ac and Bluetooth 4.2
- Smart Power Management Architecture with PMIC
- Android and Yocto Project Linux software platform support
- Reliable design with IEC 60068 and HALT verification
- Dedicated on-module security + authentication controller
- Designed for long-term availability

## BLOCK DIAGRAM



## KEY APPLICATIONS



| SPECIFICATIONS                   | Digi ConnectCore® 6+                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FEATURES                         |                                                                                                                                                                                                                                                                                                                                                                                                      |
| APPLICATION PROCESSOR            | NXP i.MX6Plus encompasses a dual or quad-core Arm® Cortex®-A9 platform running up to 1.2 GHz with 1 MB of L2 cache, and optimized 64-bit DDR3 or 2-ch., 32-bit LPDDR2 support. Integrated FlexCAN, MLB busses, PCI Express® and SATA-2 provide excellent connectivity                                                                                                                                |
| MEMORY                           | 8 GB flash, 2 GB DDR3                                                                                                                                                                                                                                                                                                                                                                                |
| PMIC                             | Dialog DA9063                                                                                                                                                                                                                                                                                                                                                                                        |
| GRAPHICS                         | LVDS, MIPI display port, MIPI camera port and HDMI v1.4                                                                                                                                                                                                                                                                                                                                              |
| SECURITY                         | RNG, TrustZone, Ciphers, Security Cntrl, Secure RTC, Secure JTAG, eFuses (OTP)                                                                                                                                                                                                                                                                                                                       |
| PERIPHERALS/INTERFACES           | MMC 4.4/SD 3.0 x3MMC 4.4/SDXC, UART x5 (5 Mbps), MIPI HSI, S/PDIF Tx/Rx, I2C x3, SPI x5, ESAI, I2S/SSI x3, FlexCAN x2, MLB150 + DTCP, S-ATA and PHY (3 Gbps), USB2 OTG and PHY, USB 2.0 Host and PHY, USB 2.0 HSIC Host x2, PWM, 3.3V GPIO, Keypad, PCIe 2.0 (x1 lane), HDMI and PHY, MIPI DSI, MIPI CSI2, 20-bit CSI, 24-bit RGB, LVDS (x2), RTC, External address/data bus, Watchdog, Timers, JTAG |
| EXTERNAL BUS                     | 26-bit address / up to 32-bit data (multiplexed and non-multiplexed modes)                                                                                                                                                                                                                                                                                                                           |
| ETHERNET                         | 1 Gigabit Ethernet                                                                                                                                                                                                                                                                                                                                                                                   |
| WI-FI                            | 802.11a/b/g/n/ac                                                                                                                                                                                                                                                                                                                                                                                     |
| BLUETOOTH                        | Bluetooth 4.2                                                                                                                                                                                                                                                                                                                                                                                        |
| ON-MODULE MICROCONTROLLER ASSIST | Microcontroller Assist (MKL14Z32VFT4)                                                                                                                                                                                                                                                                                                                                                                |
| OPERATING TEMPERATURE            | -40° C to +85° C                                                                                                                                                                                                                                                                                                                                                                                     |
| STORAGE TEMPERATURE              | -50° C to +125° C (-58° F to +257° F)                                                                                                                                                                                                                                                                                                                                                                |
| RELATIVE HUMIDITY                | 5% to 90% (non-condensing)                                                                                                                                                                                                                                                                                                                                                                           |
| ALTITUDE                         | 12,000 feet (3,658 meters)                                                                                                                                                                                                                                                                                                                                                                           |
| RADIO APPROVALS                  | US, Canada, EU, Australia/New Zealand                                                                                                                                                                                                                                                                                                                                                                |
| EMISSIONS / IMMUNITY / SAFETY    | FCC Part 15 Class B, EN 55022 Class B, EN 61000-3-2, EN 61000-3-3, ICES-003 Class B, VCCI Class II, AS 3548, FCC Part 15 Subpart C Section 15.247, IC (Industry Canada), RSS- 210 Issue 5 Section 6.2.2(o), EN 300 328, EN 301 489-17, EN 55024, EN 301 489-3, Safety UL/UR (or equivalent)                                                                                                          |
| DESIGN VERIFICATION              | Temperature: IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-78<br>Vibration/Shock: IEC 60068-2-6, IEC 60068-2-64, IEC 60068-2-27, HALT                                                                                                                                                                                                                                                                    |
| MECHANICAL DIMENSIONS            | LGA-400, 2 mm pitch, fully shielded (heat-spreading)                                                                                                                                                                                                                                                                                                                                                 |
| PRODUCT WARRANTY                 | 3 years                                                                                                                                                                                                                                                                                                                                                                                              |

| PART NUMBERS   | DESCRIPTION                                                                                                                  |
|----------------|------------------------------------------------------------------------------------------------------------------------------|
| CC-WMX-KK8D-TN | ConnectCore 6+ module, i.MX6QuadPlus, 1.0 GHz, -40 to 85°C, 8 GB flash, 2 GB DDR3, 802.11a/b/g/n/ac, Bluetooth 4.2, Ethernet |

| ACCESSORIES  | DESCRIPTION                                 |
|--------------|---------------------------------------------|
| CC-WMX6P-KIT | ConnectCore 6+ professional development kit |



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