

IOT CONFERENCE 2014 | ASIA

IOT 505 Embedded Roadmap, Product Detail, Product Promotions

ht 2014 Digi International Inc

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11/11/2014

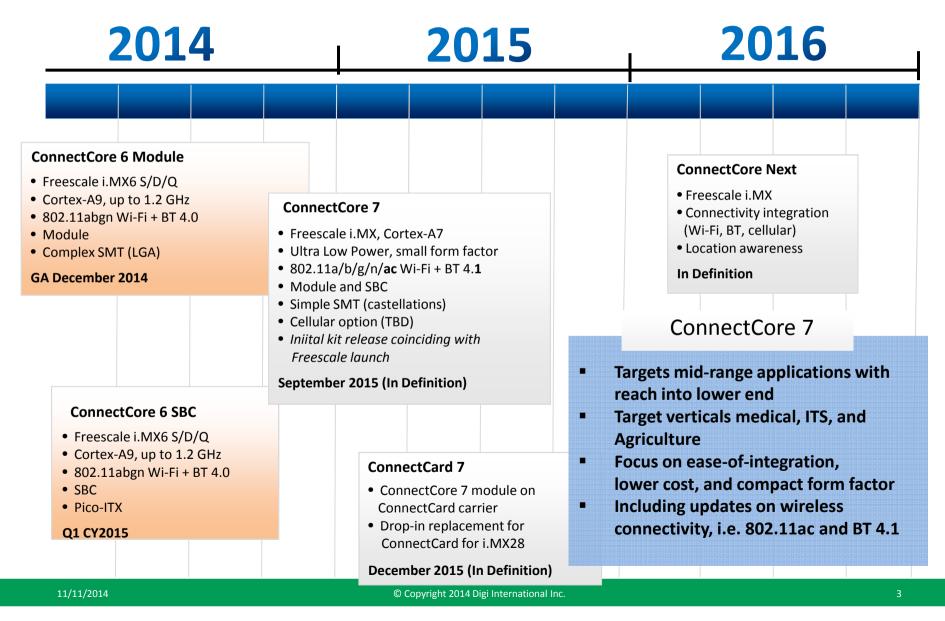


Agenda

- Embedded Roadmap
- ConnectCore 6 Status
- ConnectCore 6 SBC Overview
- ConnectCore 6 Accessories
- Product Promotions
- Q&A

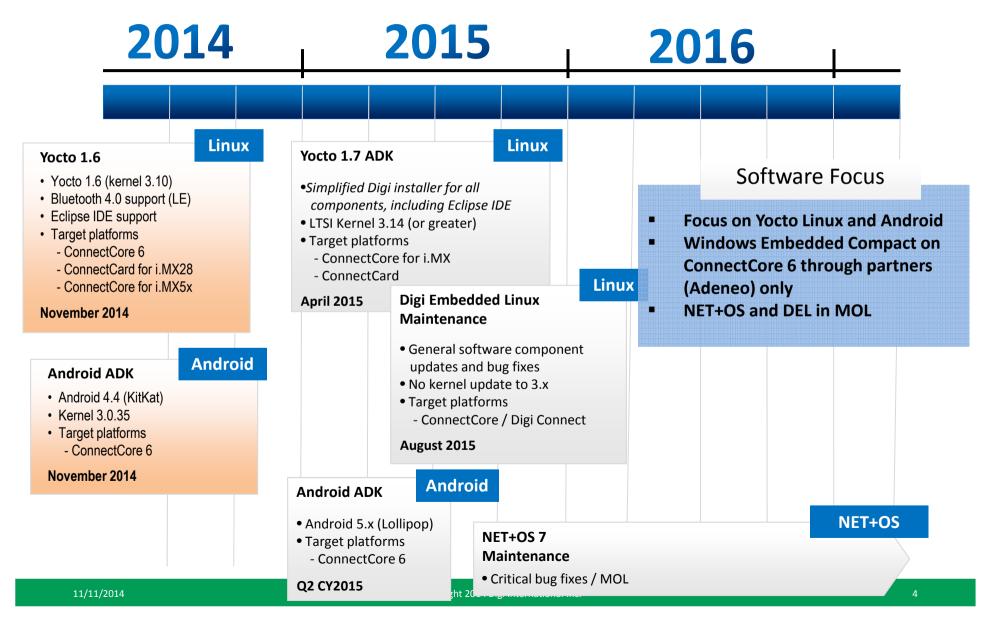


ARM Embedded Roadmap: Modules





ARM Embedded Roadmap: Software





ConnectCore 6: Variant Releases

P/N	Description
CC-WMX-J97C-TN	ConnectCore 6 module, i.MX6Quad, 1.2 GHz, 0 to 70°C, 4 GB flash, 1 GB DDR3, Microcontroller Assist (MKL14Z32VFT4), 802.11a/b/g/n, Bluetooth 4.0, Ethernet
CC-WMX-L96C-TE	ConnectCore 6 module, i.MX6Quad, 850 MHz, -40 to 85°C, 4 GB flash, 512 MB DDR3, 802.11a/b/g/n, Bluetooth 4.0, Ethernet
CC-WMX-L76C-VE	ConnectCore 6 module, i.MX6DualLite, 800 MHz, -40 to 85°C, 4 GB flash, 512 MB DDR3, 802.11a/b/g/n, Ethernet
CC-WMX-K650-VE	ConnectCore 6 module, i.MX6Solo, 1 GHz, 0 to 70°C, no flash, 256 MB DDR3, 802.11a/b/g/n, Ethernet
CC-WMX-L87C-TE	ConnectCore 6 module, i.MX6Dual, 800 MHz, -40 to 85°C, 4 GB flash, 1 GB DDR3, 802.11a/b/g/n, Bluetooth 4.0, Ethernet
СС-WMX-К86С-ТЕ	ConnectCore 6 module, i.MX6Dual, 1 GHz, 0 to 70°C, 4 GB flash, 512 MB DDR3, 802.11a/b/g/n, Bluetooth 4.0, Ethernet
СС-МХ-К86С-Z1	ConnectCore 6 module, i.MX6Dual, 1 GHz, 0 to 70°C, 4 GB flash, 512 MB DDR3, Ethernet
CC-MX-K650-Z1	ConnectCore 6 module, i.MX6Solo, 1 GHz, 0 to 70°C, no flash, 256 MB DDR3, Ethernet

Production orders based on –B parts delivered in 100-unit trays

- Final EA/GA release schedule for all variants available by end of October 2014
- Remaining effort primarily related to manufacturing test completion of module variants



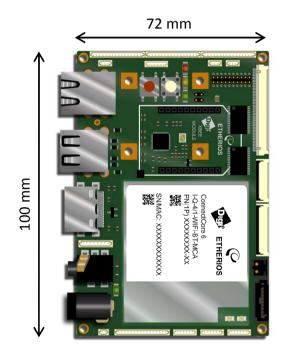
ConnectCore 6: Final Shield Design and Temp Rating



- Final shield design provides heat dissipation surface with internal thermal compound and venting holes for unassisted thermal management
- Shield also provides uniform surface to attach thermal management options such as heat sinks or heat spreaders
- Commercial modules are rated 0 to 70°C and industrial modules are rated
 -40 to 85°C still very use-case dependent based on end device attributes



ConnectCore 6: SBC Approach



- Included in ConnectCore 6 dev kits
 - Carrier board with ConnectCore 6 module
 - Complete design files available (Altium 14) to customers online for reference/customization
- Also sold to customers as a Digi product
 - Selected variants will be available
 - Industrial temperature options
 - With product reliability testing
 - Reference enclosure design files posted online
- Extends reach into new opportunities
 - Prototyping, proof-of-concept for module
 - New SBC-only opportunities (100 to 1,000 units)
- Fully connected platform design capabilities
 - Wi-Fi, Bluetooth, XBee, Cellular, Ethernet



ConnectCore 6: Development Board and SBC



Development Board + productization-ready SBC design

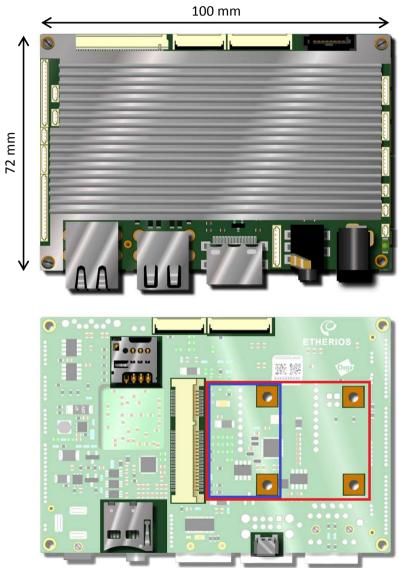
- Standard Pico-ITX (100 mm x 72 mm) SBC / motherboard form factor
- Designed for mass production off-the-shelf or customization
- FCC Class B pre-scan and product reliability reports (temp/shock/vibe) available
- Digi customization and design services



- Etherios WDS offering customer-specific end-to-end design services
- Standard interface availability
 - HDMI, Gigabit Ethernet, dual USB 2.0 Host, USB OTG, pin header for addt'l USB 2.0 host, SATA w/power, audio, USB OTG, CAN header, dual-camera (MIPI/parallel), multi-display (LVDS/MIPI/parallel/HDMI), LEDs, Micro SD card slot, PCI Express Mini Card slot (3G/4G cellular, SSD, etc.), Micro SIM card slot, XBee socket, I2C, SPI, GPIO, UART, console, JTAG, SWD, boot source options, coin cell connector, battery-in, 5V DC-in
- Integration flexibility and cost-efficiency through population options (headers vs. connectors)



ConnectCore 6: SBC At A Glance



- ConnectCore 6
- Power
 - 4V to 5.5V DC In
 - Coin cell battery connector
 - Power & Reset button
 - Boot configuration
- Debug
 - JTAG & SWD
 - Console
- Storage
 - SATA with Power - microSD
- Communication
 - Gigabit Ethernet
 - USB OTG
 - Two USB Host
 - PCI Express Mini Card
 - XBee socket

- Multimedia
 - 24-bit parallel display
 - LVDS0
 - HDMI
 - MIPI Display
 - 8-bit Parallel camera
 - MIPI Camera
 - Audio head phone jack
- Expansion
 - Two CAN interfaces
 - I2C
 - SPI
 - 8-bit parallel camera
 - Audio line-in, line-out, Mic
 - GPIO and User LEDs
 - USB Host
 - LVDS1
 - Two RS232 and one TTL UART



ConnectCore 6: SBC Variant Releases

P/N	Description	
CC-SB-WMX-K650	ConnectCore 6 SBC, i.MX6Solo, 1 GHz, 0 to 70, no flash, 256 MB DDR3, Wi-Fi, no Bluetooth	
CC-SB-WMX-L76C	ConnectCore 6 SBC, i.MX6DualLite, 800 MHz, -40 to 85, 4 GB flash, 512 MB DDR3, Wi-Fi, no Bluetooth	
CC-SB-WMX-J97C	ConnectCore 6 SBC, i.MX6Quad, 1.2 GHz, 0 to 70, 4 GB flash, 1 GB DDR3, Wi-Fi, Bluetooth 4.0	

- CC-SB-WMX-J97C is equivalent to the development board included in the kits
- Initial EA release of CC-SB-WMX-J97C planned for Q4CY2014
- Final EA/GA release schedule for all variants available by end of November 2014
- Remaining effort related to manufacturing test completion of SBC variants



ConnectCore 6: Accessories

Third Party Reference Options

MIPI-CSI 5MP HD Camera Module



e-con Systems e-CAM50IMX6

- Omnivision <u>OV5640</u> 1/4 " 5MP CMOS image sensor
- 1080p @ 30 fps (cropped), 720p @ 60 fps, VGA @ 60 fps
- Focus Type Auto Focus (VCM driven)
- Directly supported through connector on development board / SBC

Application Kits

10" LCD Application Kit

- <u>TPK LCD display</u> (LVDS) with integrated multi-touch interface
- 10.1" TFT Active Matrix, WLED backlight, 16:9, 1024x600 (WSVGA)
- Projected Capacitive (PCAP) multi-touch with two (2) unambiguous points, minimum 7 mm diameter, supporting finger and thin glove
- Includes adapter PCB for TPK and <u>Freescale 10" i.MX display</u> (FSL P/N MCIMX-LVDS1)
- Digi P/N CC-ACC-LCDW-10





ConnectCore 6: Accessories

Digi Reference Designs

Design files posted on Digi support site only, not available for purchase as application kit

Parallel Camera (CSI)

- Adapter board design demonstrating integration of parallel camera
- Based on <u>UCTronics OV5642</u> off-the-shelf camera module
- Omnivision OV5640 5MP CMOS image sensor
- 1080p @ 30 fps , 720p @ 60 fps, VGA @ 60 fps
- 8-/10-bit with RAW, RGB, YUV, JPEG output support

Parallel to HDMI Display Interface

- Adapter board design demonstrating parallel display port to HDMI implementation
- Allows development board/SBC to drive two HDMI displays

Development Board / SBC Enclosure

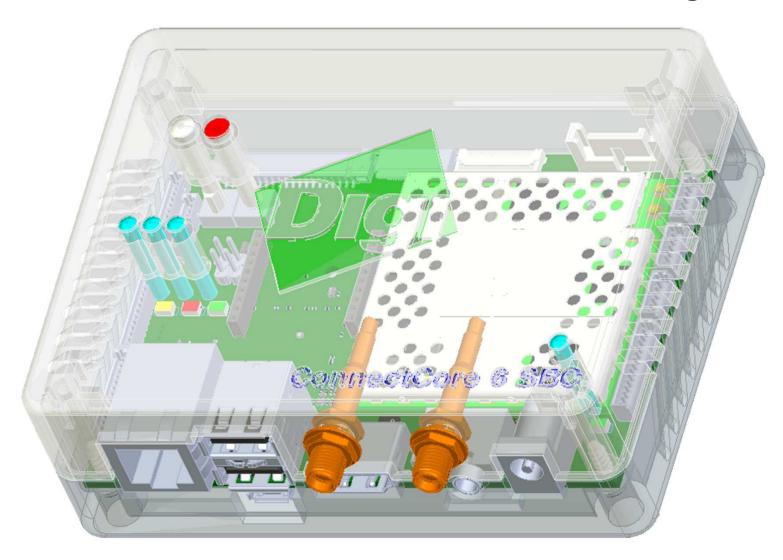
- Professional enclosure design (top/bottom), complete EASM and STL files
- Customization through standard CAD tools such as SOLIDWORKS
- STL files ready for 3D Printing without modifications necessary
- Including off-the-shelf component references such as light pipes for LEDs







ConnectCore 6: Reference Enclosure Design

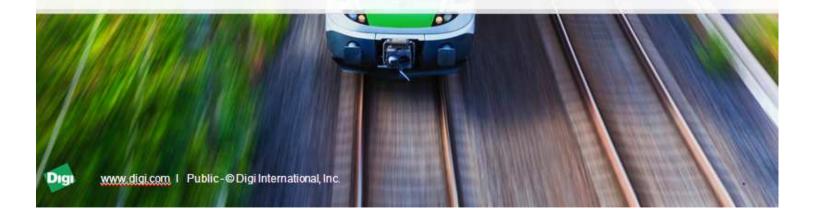






ConnectCore 6 SOM

Marketing Guidelines, Assets and Go-to-Market Plans For the ConnectCore 6 System on Module





ConnectCore 6 Promotions

Full set of marketing tools and creative campaigns to enable every partner to co-brand and share with your customers and prospects.

- Go-to-market communications
- Email and landing pages
- Direct mail/post cards
- Digital marketing banners
- Sample press release
- Images/diagrams
- Customer-facing slides
- White paper
- Buy/Build calculator

All these items will be available via Digi's Partner Portal by December 1, 2015



Market Background and Market-Ready Copy

		ConnectCore 6 System on Module	Marketing Guidelines
ConnectCore 6 System on Module	Marketing Guidelines		
		Product Description (web catalog version): System on Module	
Product Description: System on Module The ConnectCore 6 is an ultra-compact and highly integrated system-on-module solution based on the Freescale i.MX6 Cortex-A9 processor family.		Simplify and shorten your design cycle. With the Digi ConnectCore [®] family of system-on-modules (SOMs) you get bulk-in, pre-certified wrieless and Bluetooth connectivity – and access to all Prescale [®] processor features. Leverage our library of software and design examples along with the expert advice and extensive software and hardware design services from Digi and Freescale.	atics
With processor speeds up to 1.2 GHz and fully pin-compatible single-/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 and Bluetooth 4.0, including Bluetooth Low Energy, connectivity.		ConnectCore 6 System on Module	Marketing Guidelines
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 Linux and Android software platform support offers secure remote management and web services capabilities through the scalable Device Cloud.		Key Features: System on Module •Freescale LMK6 (Solo/Dual/Quad) <u>Multichip</u> Module • Cortex-A9 running at up to 1.2 GHz (2.4 DMPS/MH2) • 8021 Liah/V/40 microcontroller assist option • Up to 4 digbbs, 2/203 GPU, Ligbbs PMD, dual camera • CAN, USB, UART, SPI, L2, CL3, SD/MMC, SATA, PCIB, GPIO • Low-profile Sonm X50 mm	
org: www.digi.com I Public-⊜Digi International, Inc.	4	ConnectCore6 System on Module	Marketing Guidelines
Copy can be used on your web promotional materials such as	•	Addition of the second seco	specially at early stages ity. of compliance which latory or efficient latory scrutiny, this has factures pay particular o land speed to market. ctCore 6) increase s and improves customer

www.digi.com I Public-@Digi International, Inc.



Email: PDF and Customizable HTML Versions





Accelerate time to market with compact Digi ConnectCore® 6 System-on-Module design flexibility.

Digi ConnectCore 6* is an ultra-compact, highly-integrated system-on-module (SOM) solution based on the scalable Freescale i.MX6 Cortex-A9 multicore processor family.

With built-in, pre-certified wireless and Bluetooth connectivity, the ConnectCore 6 SOM is an ideal solution for a broad range of demanding M2M applications and performance requirements.



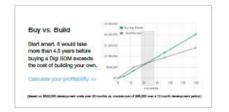


Customizable Landing Page



Digi ConnectCore 6[®] is an ultra-compact, highly-integrated system-on-module (SOM) solution based on the scalable Freescale i.MX8 Cortex-A9 multicore processor family.

Designed for long-term availability, ConnectCore 8 offers built-in wireless network connectivity and system design flexibility in a low-profile, connector-less surface mount module. Secure, scalable and energy efficient, the ConnectCore 6 SOM is an ideal solution for a broad range of demanding applications and performance requirements.





Offer options

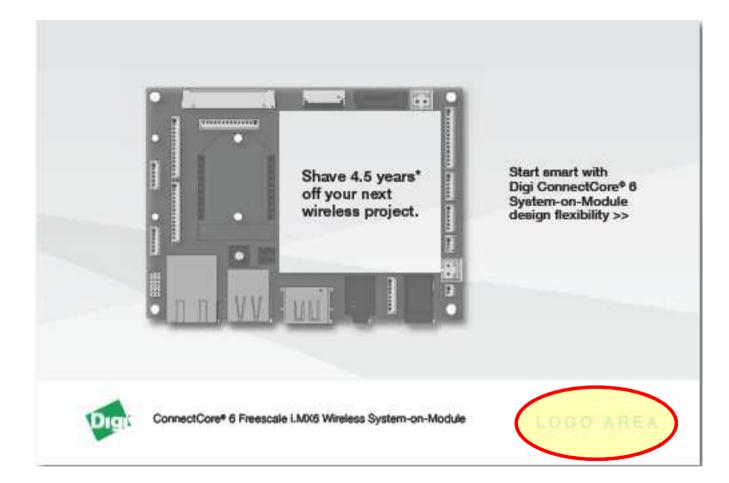


Offer Options

Create a webinar	Offer the whitepaper	Free sample to qualified buyer	
How to bring wireless devices to market faster. Register Today	Take the fastest route to wireless.	See what See what you can do. Image: Comparison of the second	
FIRST NAME	FIRST NAME	FIRST NAME	
LAST NAME	LAST NAME	LAST NAME	
COMPANY	COMPANY	COMPANY	
EMAIL	EMAIL	EMAIL	
PHONE	PHONE	PHONE	
SUBMIT	SUBMIT	SUBMIT	

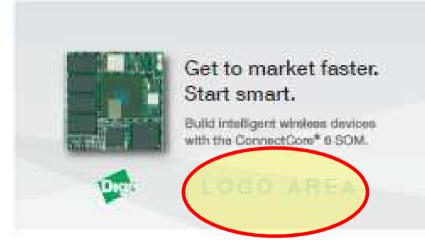


Direct Mail Card





Digital Advertisement





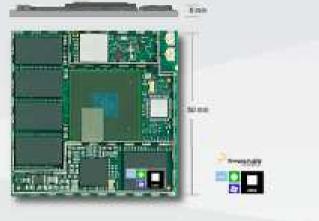


Print Advertising

Accelerate time to market with built-in, pre-certified wireless M2M connectivity.

Add wheless to any device with a compact, connector-less **Digi ConnectCore* 6** module. Take a closer look at the latest in surface-mount SOM design flexibility.

Let us show you what you can do with the ConnectCore 6 SOM.



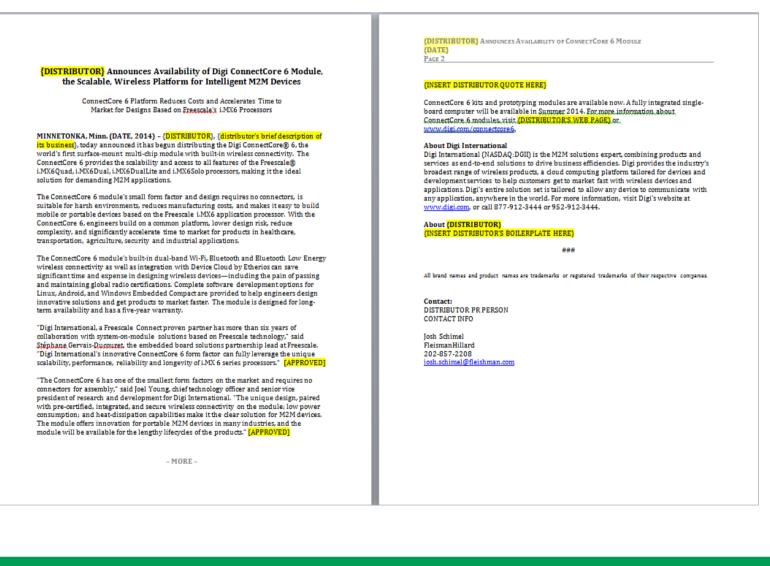


ConnectCore® 6 Freescale i.MX6 Wireless System-on-Module



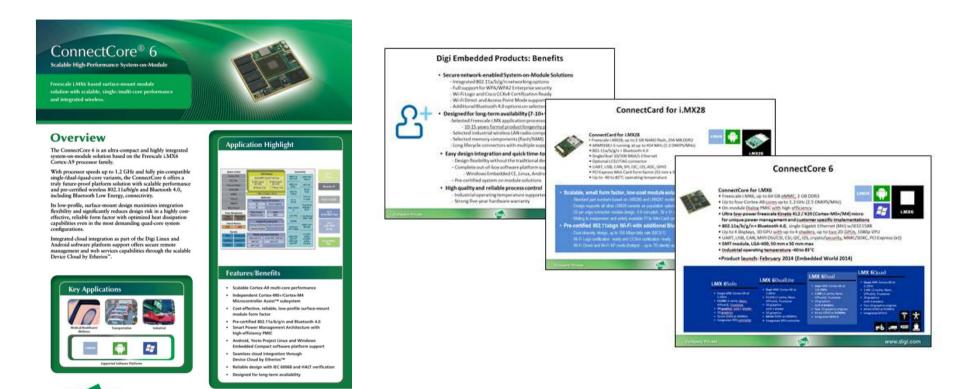


Customizable Press Release





Sell Sheet and Customer-Facing Slides

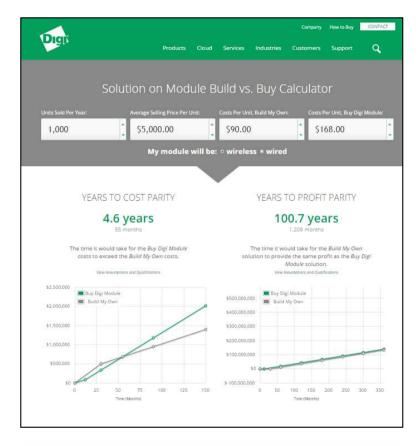


www.digi.com

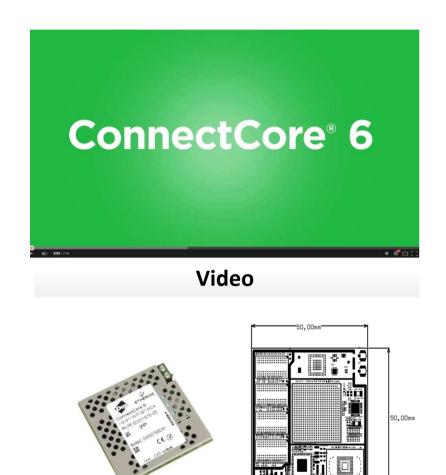
Digi



Marketing assets on Digi.com



Buy vs Build Calculator



Photos and Illustrations

8H1



Social Media

Social Media

On a regular basis, we will be sharing content and social posts related to ConnectCore 6. We will also be sharing posts from our partners' networks related to the ConnectCore 6.

Follow Digi's social media properties
 Customize and share posts from Digi's social accounts







Social Media



Ideas for TWITTER social content

Get to market faster. Go to market smarter with the Digi ConnectCore 6 powered by @freescale:

Faster. Smarter. On board. The ConnectCore 6 powered by @freescale: [LINK]

A future-proof platform to design products for #wireless connectivity: Landing Page

The ConnectCore 6 offers #wireless flexibility for your design with support for BLE, Wi-Fi and even cellular: #IoT Remember : use hashtags and handles

Hashtags: #<u>loT</u> #Wireless #Cloud Handles: @DigiDotCom



Social Media



Ideas for social outlet content.



Wireless design can be a complicated and time-consuming process. Reduce barriers and find a new, smarter way to add wireless connectivity:

Get to market faster with the ConnectCore6. The most robust solution for embedded wireless design gives engineers the tools necessary to create products for the future:

New trends in embedded design such as wireless technology, security, and scalability are changing single board computers(SBCs). Here are a few key requirements for the SBC of the future: **Mike R's Blog Post**



Market Your Way to Success

- Get registered to use Digi's Partner Portal
- Access and use the marketing materials provided
- Look at options to use MDF funds
- Digi's In-Region Marketing Contact
 - Kristin Lee Kristin.lee@digi.com

Happy Selling!

