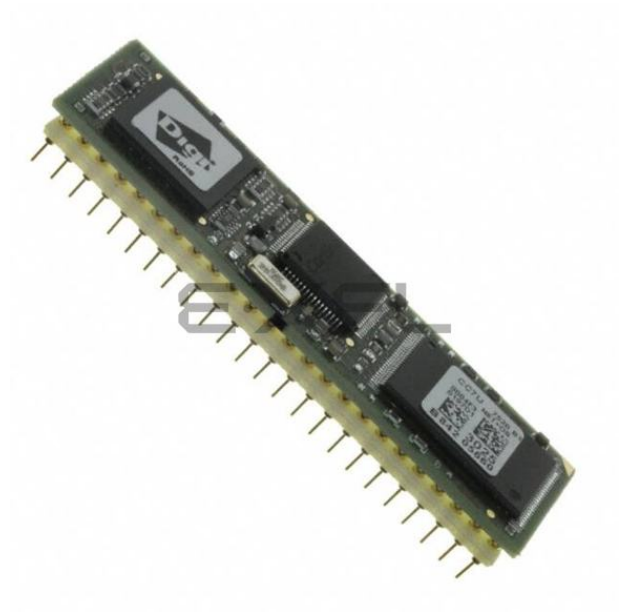
Digi - CC-7U-Z111-Z1 Datasheet



Welcome to E-XFL.COM

Understanding Embedded - Microcontroller, Microprocessor, FPGA Modules

Embedded - Microcontroller, Microprocessor, and FPGA Modules are fundamental components in modern electronic systems, offering a wide range of functionalities and capabilities. Microcontrollers are compact integrated circuits designed to execute specific control tasks within an embedded system. They typically include a processor, memory, and input/output peripherals on a single chip. Microprocessors, on the other hand, are more powerful processing units used in complex computing tasks, often requiring external memory and peripherals. FPGAs (Field Programmable Gate Arrays) are highly flexible devices that can be configured by the user to perform specific logic functions, making them invaluable in applications requiring customization and adaptability.

Applications of Embedded - Microcontroller,

Details	
Product Status	Obsolete
Module/Board Type	MPU Core
Core Processor	ARM7TDMI, NS7520
Co-Processor	-
Speed	55MHz
Flash Size	2MB
RAM Size	16MB
Connector Type	48-DIP
Size / Dimension	2.48" x 0.73" (62.9mm x 18.5mm)
Operating Temperature	0°C ~ 70°C
Purchase URL	https://www.e-xfl.com/product-detail/digi-international/cc-7u-z111-z1

ConnectCore® 7U

Universal ARM7 Core Module

Embedded ARM core processor module offers a wide range of connectivity options and integrated networking support in a compact DIP form factor.

Overview

The ConnectCore 7U core processor module utilizes Digi's high-performance NS7520 NET+ARM microprocessor, providing the ideal core processor platform for product designs demanding an additional level of performance, connectivity and flexibility. Combining core processing capabilities with long-term product availability, it is suited for applications including transportation, security/access control, building and industrial automation, retail, warehousing and others.

The module offers 16 MB of SDRAM and up to 8 MB of on-board Flash memory, an integrated 10/100 Mbit Ethernet MAC/PHY, up to two configurable UART/SPI ports, an I2C bus interface option, 16 shared GPIO ports for application-specific use, and an external 10-bit address/8-bit data bus interface for component integration flexibility.

The Digi JumpStart Kit® for NET+OS® delivers a ThreadX-based, IPv6-ready, royalty-free turnkey solution with all of the integrated building blocks needed for secure network-enabled embedded software development.

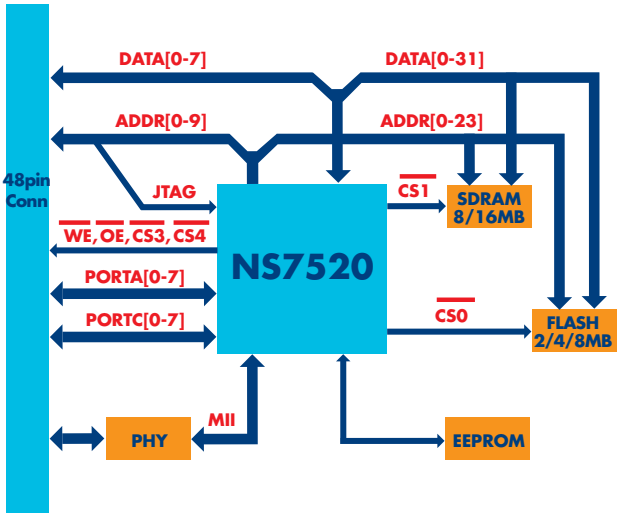
Platforms and Services

Supported Software Platform

Support


Design Services

Block Diagram



Features/Benefits

- Compact and versatile 48-pin DIP form factor
- Powerful 32-bit Digi NS7520 (ARM7) processor
- Integrated on-chip 10/100 Ethernet networking
- Peripheral interface flexibility
- Digi processor technology for true long-term product availability
- Complete IPv6-ready NET+OS development platform
- Seamless migration path to fully integrated Digi NET+ARM system-on-chip solution

Digi JumpStart Kit® Overview

Digi JumpStart Kit® for NET+OS®

This royalty-free turnkey solution for embedded software development is based on the ThreadX Real-Time Operating System (RTOS), one of the most reliable and field-proven RTOS solutions available. In addition to ThreadX, NET+OS provides the integrated building blocks needed to create product solutions with leading network security using Digi embedded modules and microprocessors.

For professional NET+OS software development, the Eclipse based Digi ESP™ Integrated Development Environment (IDE) with graphical user interface and high-speed USB 2.0 hardware debugger is provided out-of-the-box.

- Royalty-free turn-key solution for embedded development
- Built on field-proven and compact ThreadX RTOS
- Fully integrated support for secure, IPv4/IPv6 networking applications
- Professional software development using Windows-based Digi ESP IDE

Please refer to the feature specs on our website for detailed information about the specific software platform capabilities.

Digi JumpStart Kit® Contents

Software Platform	NET+OS®
Module	ConnectCore 7U w/ 8 MB Flash, 16 MB SDRAM, Ethernet MAC/PHY
Development Board	2 serial ports (RS-232, TTL), 2 user push-buttons, 2 user LEDs, Prototyping area, User/Application header, Status LEDs, Character display connector, Reset button, JTAG connector, 5VDC power supply
CD/DVD	Digi NET+OS CD: NET+OS 7.x, Digi ESP IDE, BSP Source code, Sample code, Support, Documentation
Documentation	Quick start guide, Digi ESP tutorial, NET+OS porting guide, NET+OS API documentation, Advanced Web Server, Hardware reference manual, Development board schematics
Power Supplies and Accessories	External wall power supply (110/240VAC) with interchangeable outlet adapters (North America, EU, UK and Australia), JTAG adapter, Ethernet cable, Serial cable
Other	Digi JTAG Link USB 2.0 hardware debugger
Part Numbers (worldwide)	CC-7U-NET

ConnectCore™ 7U

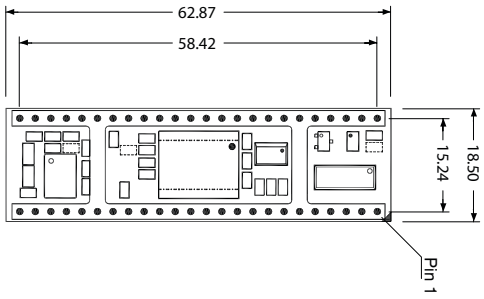
Hardware

Processor Type	32-bit NS7520 processor
ARM Core	ARM7TDMI
Processor Speed	55 MHz
Memory Base Population	2/8 MB NOR flash
	16 MB SDRAM
Serial EEPROM	8 KB
UART	Up to 230 Kbps
GPIO	Up to 16 shared GPIO ports
SPI	Master mode
I^2C	Standard mode (100 kHz)
External Memory Bus	10-bit address / 8-bit data; 2 external chip selects

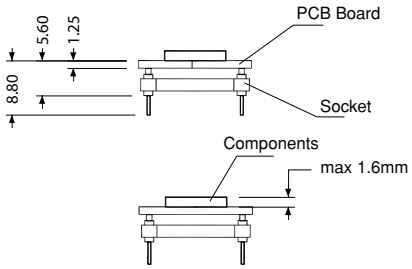
ConnectCore™ 7U

Hardware (continued)	
Timers/PWM	2 independent 27-bit timers; IRQ/FIQ, 2 microseconds to 20 hours
JTAG	•
Form Factor	48-Pin Dual In-Line Package (DIP)
Dimensions (L x W x H)	2.475 in (62.87 mm) x 0.728 in (18.50 mm)
Network Interface	
Standard	IEEE 802.3
Physical Layer	10/100Base-T
Data Rate	10/100 Mbps (auto-sensing)
Mode	Full or Half duplex (auto-sensing)
Integrated MAC/PHY	•
Environmental	
Operating Temperature	0° C to +70° C (+32° F to +158° F)
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)
Power Requirements (3.3V)	
Maximum	280 mA
Regulatory Approvals	
EN55022:2005, Class B	•
IEC/CISPR 24:1997, modified + A1:2001+ A2:2002	•

Bottom View



Side View



Visit www.digiembedded.com for part numbers.

THREADX®

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