NS9360 Development Board Reference

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NS9360 Development Board Reference

formerly *NS9360 Jumpers and Components*
Part number/version: 90000678_C
Release date: March 2006
www.digi.com

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Contents

NS9360 Development Board Reference 1
NS9360 development board 2
Jumper blocks 3
Connector blocks 5
Switches 6
Schematics 6

Using This Guide

Review this section for basic information about this guide, as well as for general support contact information.

About this guide

This guide provides information about the jumpers, components, and configuration of the NS9360 development board. The NS9360, part of the NET+ARM line of SoC (System-on-Chip) products, supports any type of high bandwidth application in Intelligent Networked Devices.

The NET+ARM is part of the NET+Works integrated product family, which includes the NET+OS network software suite.

Who should read this guide

This guide is for hardware developers, system software developers, and application programmers who want to use the NS9360 for development.

To complete the tasks described in this guide, you must:

- Understand the basics of hardware and software design, operating systems, and microprocessor design.
- Understand the NS9360 architecture.

What's in this guide

The *NS9360 Development Board Reference* (formerly *Jumpers and Components*) describes the use and configuration of the NS9360 development board.

Conventions used in this guide

This table describes the typographic conventions that may be used in this guide:

This convention	Is used for
italic type	Emphasis, new terms, variables, and document titles.
bold, sans serif type	Menu commands, dialog box components, and other items that appear on-screen.
Select **Menu → option**	Menu commands. The first word is the menu name; the words that follow are menu selections.
`monospaced type`	Filenames, pathnames, and code examples.

Related documentation

- For information on the chip you are using, see the *NS9360 Hardware Reference*.
- For NS9360 schematics and BOM, review the documentation CD-ROM that came with your development kit.
- See the NET+OS software documentation for information appropriate to the chip you are using.

Documentation updates

Digi occasionally provides documentation updates on the Web site.

Be aware that if you see differences between the documentation you received in your NET+Works package and the documentation on the Web site, the Web site content is the latest version.

Customer support

To get help with a question or technical problem with this product, or to make comments and recommendations about our products or documentation, use the contact information listed in this table:

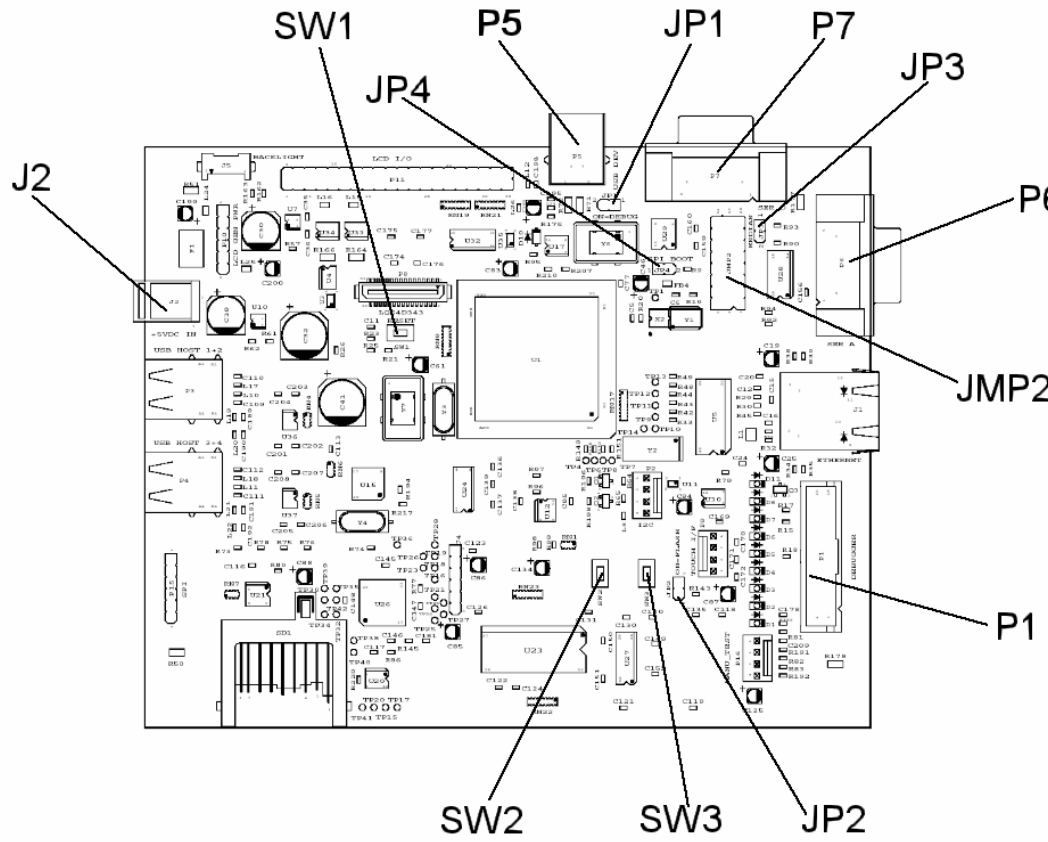
For	Contact information
Technical support	United States: +1 877 912-3444 Other locations: +1 952 912-3444 www.digi.com/support www.digi.com

NS9360 Development Board Reference

The *NS9360 Development Board Reference* (formerly *Jumpers and Components*) describes the jumpers, connectors, and switches for the NS9360 development board.

NS9360 development board

This image shows the NS9360 development board. Jumper blocks are labeled JP1-JP4 and JMP2. Connectors are labeled J2, P1, and P5-P7. Switches are labeled SW1-SW3.



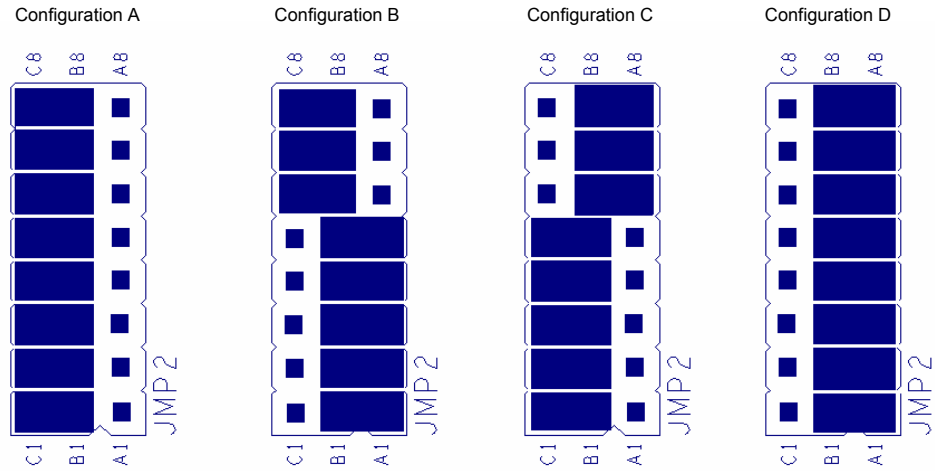
Be aware that the marking on the board for JP1 is incorrect. The text should be `OFF = DEBUG`**.**

Jumper blocks

This table describes the jumpers in the NS9360 development board.

Jumper block description	Pin	Pin description
JP1: 2-pin jumper block	1 + 2	■ Production mode. ■ No jumper: debug mode (default) For the JTAG to operate, the board must be in debug mode. JP1 text on the board is incorrect; it should read OFF = DEBUG.
JP2: 2-pin jumper block	1 + 2	■ Flash enable (default). ■ No jumper: flash disable.
JP3: 2-pin jumper block	1 + 2	■ Big endian (default). ■ No jumper: little endian.
JP4: 2-pin jumper block	1 + 2	■ Boot from SPI ROM. ■ No jumper: boot from flash ROM (default).
JMP2: 8x3 jumper block	See the four function settings in the next section.	

JMP2 jumper block pins and function settings



The large, rectangular blocks indicate the jumper pins; the small, square blocks indicate open pins.

- Use configuration A for compact flash and USB Device settings. Configuration A uses jumper pins C8 through C1 and B8 through B1.
- Use configuration B (default) for serial port A and USB Device settings. Configuration B uses jumper pins C8 through C6, B8 through B1, and A5 through A1.
- Use configuration C for compact flash and serial port D settings. Configuration C uses jumper pins C5 through C1, B8 through B1, and A8 through A6.
- Use configuration D for serial port A and serial port D settings. Configuration D uses jumper pins B8 through B1 and A8 through A1.

Connector blocks

This table describes the connectors in the NS9360 development board.

Connector block	Description	
J2: DC power jack	■ External power supply 5VDC@3.0A ■ Barrel connector, 5.5mm center+	
P1: 10x2 four wall header	Connect to debugger	
P5: USB type B connector	USB device port	
P6: DB9 right angle connector	Serial port A: full modem port	
	P6 pin number	RS232 signal name
	1	DCD
	2	RXD
	3	TXD
	4	DTR
	5	GND
	6	DSR
	7	RTS
	8	CTS
	9	RI
	Shell	Chassis ground
P7: DB9 right angle connector	Serial port D: data in/out and handshake in/out	
	P7 pin number	RS232 signal name
	1	
	2	RXD
	3	TXD
	4	
	5	GND
	6	
	7	RTS
	8	CTS
	9	
	Shell	Chassis ground

Switches

This table describes the switches used in the NS9360 development board.

Switch	Description
SW1: Push button	■ Master reset switch Similar to a cold start. Resets the entire board.
SW2: Push button	■ User switch 0 Connected to an I^2C expander and defined by the code.
SW3: Push button	■ User switch 1 Connected to an I^2C expander and defined by the code.

Schematics

To see NS9360 schematics, go to this website:

`http://www.digi.com/support/documentation/hwtoolkit_ns9360schem.pdf`

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