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### Freescale - 1322XNSK-DBG - Microcontroller Development

Tool

### **Product Overview:**

Freescale has created the most complete set of hardware platforms for evaluating the MC1322x Platform in Package™ (PiP), allowing the developer to select the hardware and software platform that best meets their needs. The development boards include LEDs, push buttons, connectors, header pins and a programming/debug port. The boards can be powered by batteries, a DC adapter or the USB port. The JTAG port allows easy programming of the MC1322x flash memory via the J-link JTAG debugger, which enables the users to program the MCU with a variety of sample applications included with the BeeKit



software. The MC1322x development kits are the ideal platform for more complex IEEE® 802.15.4 and ZigBee applications by providing plenty of memory and expansion capabilities.

### Kit Contents:

The1322X Network Starter Kit contains the hardware essentials you will need to use the 1322x-USB, 1322x-SRB, 1322x-NCB and 1322x-LPB module. The items in the Development Kit and their use are as follows.

- 1322x-SRB (Sensor Reference Board)
- 1322x-NCB (Network Coordinator Board)
- 1322x-LPB (Low Power Board)
- 1322x-USB (USB dongle and 802.15.4/ZigBee packet sniffer)
- J-Link JTAG Debugger
- 1322XNSK-IAR
- Batteries, Cables and Power Adapters

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### Key Features:

- MC13224 802.15.4 2.4 GHz PiP
- MMA7260Q three-axis acceleration sensor (1322X-SRB only)
- MPXV5010G pressure sensor (1322X-SRB only)
- Temperature sensor (1322X-SRB only)
- Printed F antenna
- SMA connector (1322X-NCB only)
- Color graphic LCD display (1322X-NCB only)
- Speaker
- Joystick, buttons and LEDs
- J-TAG interface for debug and programming
- Nexus debug interface (1322X-NCB only)
- Supports on-chip buck converter (1322XLPB only)
- Onboard expansion capabilities for external application-specific development
- LEDs and switches for demonstration monitoring and control
- Connections for battery or external power supply
- USB port to interface with PC
- Cables, batteries and power adapters
- Scalable software support for easy
- development of customer-specific
- network topologies

### **Ordering Information:**

#### **Products:**

Part Number	Manufacturer	Farnell P/N	Newark P/N
1322XNSK-DBG	Freescale	<u>1749014</u>	<u>09P7848</u>

### **Associated Products:**

Part Number	Manufacturer	Description	Farnell P/N	Newark P/N
		MC13224V Advanced ZigBee™- Compliant		
MC13224VR2	Freescale	Platform-in-Package (PiP) for	<u>1693484</u>	<u>12N7146</u>
		the 2.4 GHz IEEE® 802.15.4		
		Standard		

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MC13224V.	Freescale	MC13224V Advanced ZigBee™- Compliant Platform-in-Package (PiP) for the 2.4 GHz IEEE® 802.15.4 Standard	<u>1693483</u>	<u>12N7145</u>
MC33204DTBG	ON Semiconductor	Low Voltage, Rail-to-Rail Operational Amplifiers	<u>1703205</u>	<u>42K0597</u>
DAC101S101CIMK	NS	10-BitMicroPowerDigital-to-AnalogConverterwithRail-to-Rail Output	<u>1101196</u>	<u>65K5280</u>
FT232RL	FTDI	USB UART I.C.	<u>1146032</u>	<u>91K9918</u>

### Similar Products:

Part Number	Manufacturer	Description	Support Device	Farnell P/N	Newark P/N
1322XNSK-IAR	Freescale	1322X ZigBee EVK	1322X	1693481	09P7849

### **Document List:**

#### **Datasheets:**

Part Number	Description		
MC1222X	MC13224V Advanced ZigBee <sup>™</sup> - Compliant Platform-in-Package	2441/0	
MC1322X	(PiP) for the 2.4 GHz IEEE® 802.15.4 Standard	341KB	
MC33204DTBG	Low Voltage, Rail-to-Rail Operational Amplifiers	265KB	
	10-Bit Micro Power Digital-to-Analog Converter with		
DAC101S101CIMK	Rail-to-Rail Output	437KB	
FT232RL	USB UART I.C.	797KB	

### **Application Notes:**

File Name	Size
Methods for Upgrading Freescale BeeStack® Codebases	503KB
Running Freescale IEEE <sup>™</sup> 802.15.4 Boards on MAC OS X Based Computers	
MC1322x Flash Loader Utility (Second Stage Loader)	
Reference Oscillator Crystal Requirements for the MC1319x, MC1320x, MC1321x, and	
<u>MC1322x</u>	

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Compact Integrated Antennas: Designs and Applications for the MC1319x, MC1320x, and	551KB
<u>MC1321x</u>	
Radio Frequency Module Land Grid Array	468KB

### Hardware & Software:

File Name	Size
1322x Network Node Reference Manual	1889KB
1322x USB Dongle Reference Manual	624KB
1322x Sensor Node Reference Manual	1667KB
MC1322x Advanced ZigBee™- Compliant SoC Platform for the 2.4 GHz IEEE® 802.15.4	6253KB
Standard Reference Manual	
1322x Low Power Node Reference Manual	1354KB
1322x-USB Sniffer Firmware	1186KB
Reference design for the 1322x Network Coordinator Board	5682KB
Reference design for the 1322x Low Power Board	2398KB
Reference design for the 1322x USB board	1793KB
Reference design for the 1322x Sensor Reference Board	4410KB

### **Others Resources:**

File Name	Size
Freescale IEEE® 802.15.4 Development Kits Brochure	383KB



