



Innovative **Technology** for a **Connected** World

OVERVIEW

This document is designed as a quick start guide for the Laird Technologies OEM ZB2430 family System Developer Kit (SDK). This guide will take you through the basics of reading the radio's configuration and performing a data throughput test between the Coordinator and a Router. For more detailed information on these steps refer to the SDK User Manual or the radio User Manual.

INSTALL SOFTWARE

Insert the Laird Technologies CD which came with the SDK into a Windows XP PC.

Install the OEM Configuration Utility under Design Kits and Software and follow the on-screen instructions.

CONNECT THE RADIOS TO THE PC

Connect the Coordinator to the PC with the provided USB cable. Make sure the power switch on the SDK board is on and allow Windows to automatically install the appropriate drivers. If using a module with a U.FL connector, connect the antenna.

Connect the AC power adapter to the Router eval board and power on the board with the power switch. Place the J9 Jumper to Loopback Mode. If using a module with a U.FL connector, connect the antenna. Place the Router board at least 5 feet from the Coordinator board.

At this point, the application should be installed on the associated PCs, the SDK board(s) should be properly connected to the PC(s), and the jumpers and power switch should be properly positioned.

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QUICK START GUIDE

RADIO CONFIGURATION

- 1. Launch the Laird OEM software application by navigating to and selecting the product as follows: Start>All Programs>Laird Tech Wireless>Laird OEM.exe.
- 2. Click on the PC Settings tab at the top of the application window.
- 3. Locate the Product drop-down menu and select the ZB2430.
- 4. Locate and click on the Find Ports button.
- 5. A dialog box will appear with notification of the number of ports found. Click the OK button.
- 6. Locate the Port field and select the AeroComm Wireless USB port.
- 7. Change the Baud Rate to 38400.

PC SETTINGS TAB

🗷 ZB2430 Configuration/Test Utility										
7	Configu		Range Test		erminal/Chat		Command			
┝	Contigu	re	Range Test		erminal/Chat		Command	PC Settings		
	Port1 Settings			Options						
	USB / COM C TCP/ IP Por		Add Find Open Port orts Ports Close Port		Settings on Exit /Vrite with AT Commar	nda				
	Port Status:		ons Fons Close Port		uto Baud/Port	lus				
	Port:	COM7: Aero	Comm Wireless USB (C 💌		Archive EEPROM Settin					
	Baud Rate:	38400	•	Monito	r UDP for new device	s				
	Parity:	None (recor	nmended)	Product						
	Handshaking:	Hardware (i	recommended)	Product:	ZB2430	-				
	Data Bits:	8 💌	Stop Bits: 1							
	Port2 Settings									
	Enabled:									
	C TCP/IP Por		Add Find Open Port orts Ports Close Port							
	Port Status:	Unavailable		– Radio Upda	te					
	Port:		<u></u>	Load	Read Flash Er	rase all				
	Baud Rate:	57600	v		K	bages				
	P <u>a</u> rity:	None (recor	nmended)	Eilename:						
	Handshaking:	Hardware (i	recommended)							
	<u>D</u> ata Bits:	8 🔻	Stop Bits: 1	L			1			
						About				
F	ort1: Open [COM7] [38,400] [8-	N-1] RTS Port1: High	CTS	Port1: Low Port2	2: Unavailab	le RTS Port2: H	igh CTS Port2: High		
Co	Communications idle									

QUICK START GUIDE

RADIO CONFIGURATION

- 8. Click on the Configure tab.
- 9. Click on the Read Radio button; this will display the modules internal configuration.
- You can use this screen to make changes and write those changes to the module.
- 10. A dialog box will appear and will display one of two messages:
 - a. If "Read Successful" is displayed, click on OK and continue to step 12.
 - b. If "Unable to enter command mode. Would you like to try using Auto Baud?" is displayed, follow these steps: 1) Move the J9 jumper to the Force 9600 Baud position.
 - 2) Reset the radio module with the Reset button on the SDK
 - 3) In the OEM software go to the PC Settings Tab and change the baud rate to 9600
 - 4) Change back to the Configure Tab
 - 5) Click on the Read Radio button again.
 - 6) The Interface Baud field will now display the Baud setting of the module.
 - 7) Move the J9 jumper back to the Normal Operation position.
 - 8) Click on the PC Settings tab.
 - 9) Locate the Baud Rate field and set it to match the Baud setting of the module.
 - 10) Click on the Configure tab.
 - 11) Go back to step 10.

CONFIGURE TAB

🗷 ZB2430 Configuration/Test Utility											
Configure	Range Test	Terminal/Chat	Command	PC Settings							
Radio Interface	Radio Interface		•	Radio Features							
Interface Timeout:	9 Hex	RF Channel Number:	B Hex	Auto Channel							
RF Packet Size:	00 54 Hex	RF Channel Mask:	07 FF F8 00 Hex	Full Duplex							
CTS On:	01 90 Hex	PAN ID:	00 01 Hex	Transmit API							
CTS Off:	01 80 Hex		Full Power 💌	Receive API							
MAC Retries:	3 Hex		E0 Hex	_ 🗖 RTS Enable							
NWK Retries:	2 Hex		03 E8 Hex	Modern Mode							
APS Retries:	3 Hex		00 64 Hex	Modify Wake Upon RX							
	4 Hex	End Device wake time.	00 32 Hex	✓ Reload Sleep ✓ NV Restore							
Broadcast Attempts:		Awake Pull Rate.	42 Hex	End-to-End Ack							
Stop Bit Delay:		Parent Hold Message:	42 HOX								
Info Center	Info Center		Radio Other								
Copyright [28]: Address: 0x00	Copyright [28]:		▼ Calc Baud								
Version: All			Hex								
		Type: Coordinator MAC Address: 00 00 00 50 67 48 93 41									
	D.O.B.: 2/25/2008 Full Part Number: ZE2430-003A-TTL-01										
EEPROM											
	GUI View Editor View										
Port 1 Port 2 Show Default Compare EE Load File Save to File Print Write Radio Read Radio											
Port1: Unavailable RTS Port1: High CTS Port1: High Port2: Unavailable RTS Port2: High CTS Port2: High											
Communications idle											

QUICK START GUIDE

RANGE TEST

- 11. Click on the Range Test tab.
- 12. Select the desired Port 1 Loopback in the Test Selection field.
- 13. Click on the Create Data button in the Transmit Packet Selection field. Enter the desired data.
- 14. Make sure that Continuous is selected in the Test Type field.
- 15. Set the TX Delay to 1000 and the RX Timeout to 2000 in the Timing field.
- 16. Click on the Run button or press F10 on the keyboard.
- 17. Range test, and radio setup is now complete.

RANGE TEST TAB

🕮 ZB2430 Configuration/Test Utility								
Configure Range Test Terminal/Chat Command PC	Settings							
Test Selection Port 1 > Port 1 Send Only Port 1 > Port 2 > Port 1 Contineers Port 1 = Port 1 Receive Only Port 1 -> Port 2 · Port 1 Loopback D123456789ABCDEFGHUKLMNOPQRSTUVWXYZabcde/ghijklmnopqrsturwxyzd Transmit Packet Selecton	×							
	S Port2: High							
Communications idle								

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