



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

🗷 ZB 24 30 Configuration/Test Utility								
C	onfigure	Range Test		Terminal/Chat		Command	PC Settings	
-Radio In	Radio Interface		Radio RF				Radio Features	
Int	erface Timeout:	9 +	ex	RF Channel Number:	в	Hex	Auto Channel	
	RF Packet Size:	00 54 +	ex	RF Channel Mask:	07 FF F8 00	Hex	Full Duplex	
		01 90 +	ex	PAN ID:	00 01	Hex	Transmit API	
	CTS Off:	01 80 +	ex	Transmit Power:	Full Power	•	Receive API Send Data Complete	
	MAC Retries:	3 +	ex	RSSI Threshold:	EO	Hex	RTS Enable	
	NWK Retries:	2 +	ex	End Device Poll Rate:	03 E8	Hex	Modern Mode 485 DE/RE	
		, 3 F	ex	End Device Wake Time:	00 64	Hex	Modify Wake Upon RX	
Dues	dcast Attempts:	4 +	ex	Avvake Poll Rate:	00 32	Hex	✓ Reload Sleep ✓ NV Restore	
Drua	Stop Bit Delay:	, 0 +	ex		42	Hex	End-to-End Ack	
	Stop Bit Delay:	J• .		Parent Hold Message:		-		
Info Cer	Info Center			Radio Other				
	Copyright [28]:			Interface Baud: 2400 Calc Baud		Calc Baud		
Versio				Dest Addr: 00 01		Hex		
				Type: Coordinator				
			MAC Address: 00 00 00 50 67 48 93 41 Firmware Version: V 1.8-0					
	D O B : 2252008							
	Full Part Number: ZB2430-003A-TTL-01							
GUI Vie	GUI View EEPROM Archive Window							
Port 1	Port 2	SI	iow Defa	ault Compare EE Lo	ad File Save t	o File Print	VVrite Radio Read Radio	
Port1: Unavai	able RTS	S Port1: High	CTS P	ort1: High Port2: Ur	navailable	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 2 ○ Port 1 Send Only ○ Port 2 → Port 1 ○ Port 1 Receive Only ○ Port 1 < > Port 1 ○ Port 1 ○ Port 1 Loopback Transmit Packet Selection ○ ○ Create Data 64 ○ Load File Ellename: Isst Type: ○ ○ Continuous ○ ○ Number of Runs ○ ○ Number of Runs ○ ○ Single Step □ ○ Break on Error ○ Test Results Errors: 0 Errors: 0 Percentage Goot: 100% Approx. 0 bps Time Remaining: 0	Port 1: © Viev 0123456789ABCDEFGHIJKLMND Port 2: 0123456789ABCDEFGHIJKLMND		ropgrstuvvxyz01					
	s	ave to File Clear	Stop Run (F10)					
Port1: Unavailable RTS Port1: High CTS Port1: High Port2: Unavailable RTS Port2: High CTS Port2: High								
Communications idle								

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