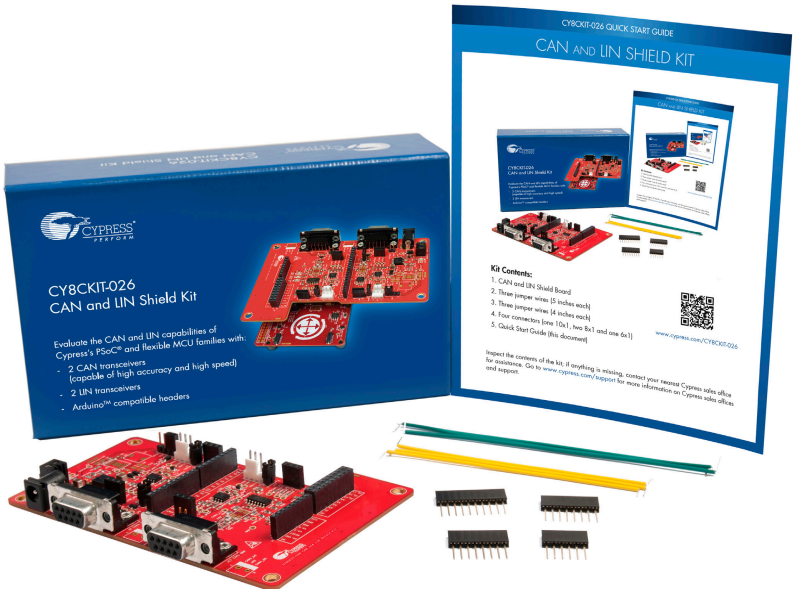
CAN AND LIN SHIELD KIT

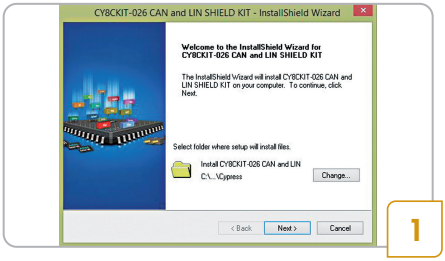


Kit Contents:

1. CAN and LIN Shield Board
2. Three jumper wires (5 inches each)
3. Three jumper wires (4 inches each)
4. Four connectors (one 10x1, two 8x1 and one 6x1)
5. Quick Start Guide (this document)

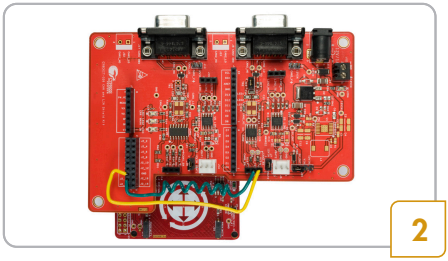
www.cypress.com/CY8CKIT-026

Inspect the contents of the kit; if anything is missing, contact your nearest Cypress sales office for assistance. Go to www.cypress.com/support for more information on Cypress sales offices and support.



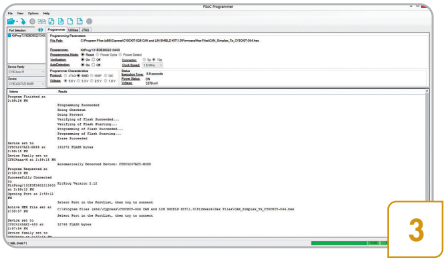
1

- Download and Install the CY8CKIT026Setup.exe for the CY8CKIT-026 CAN and LIN Shield Kit from www.cypress.com/CY8CKIT-026
- This installs the PSoC Creator™ IDE, CAN and LIN Shield Kit code examples, documents and hardware design files
- The example in this guide uses a CY8CKIT-044 PSoC 4 M-Series Pioneer Kit as the base board. Any Cypress kit that supports CAN or LIN through Arduino compatible headers may be used



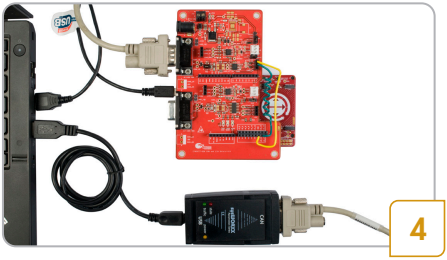
2

- The CY8CKIT-044 PSoC 4 M-Series Pioneer Kit needs to be configured to work at 5.0 V. This can be done using Jumper J9 on the CY8CKIT-044 PSoC 4 M-Series Pioneer Kit
- Connect the CY8CKIT-026 CAN and LIN Shield Kit to the CY8CKIT-044 PSoC 4 M-Series Pioneer Kit
- Connect the following pins on the CY8CKIT-026 using the given wires
  CAN2_RX connected to J2_13
  CAN2_TX connected to J2_15
- This completes the connection of the CAN2 transceiver to the Arduino header (J2)



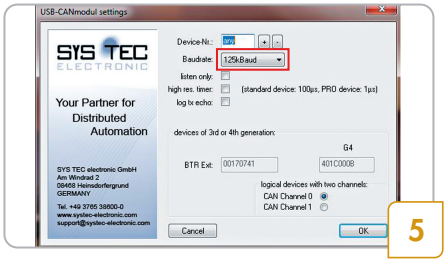
3

- Connect the CY8CKIT-044 PSoC 4 M-Series Pioneer Kit to a PC through a USB cable
- Launch PSoC Programmer from the Start menu. Using the 'File Load' button, navigate to the Hex Files folder in the following path: <Install_Directory>\CY8CKIT-026 CAN and LIN SHIELD KIT\<version>\Firmware\Hex Files
- Select the hex file 'CAN_Simplex_Tx_CY8CKIT-044.hex'
- Click the 'Program' button on PSoC Programmer



4

- A CAN analyzer is required to perform these steps (Refer to the user guide if you don't have a CAN analyzer)
- Connect the CY8CKIT-026 to a CAN analyzer using the DB9 female connector for CAN2
- Connect the CAN analyzer to the PC through a USB cable



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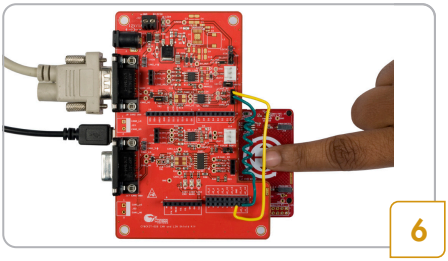
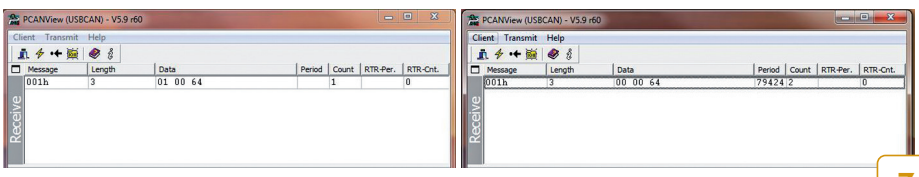
- This project 'CAN_Simplex_Tx_CY8CKIT-044.hex' transmits a 3 byte CAN message with a baud rate of 125 Kbps. Set up the CAN analyzer (using the analyzer's software) accordingly



6

- Touch on the center of the Gesture Pad of the CY8CKIT-044
- The blue LED on the CY8CKIT-044 glows



7

- A 3 byte CAN message is transmitted to the CAN analyzer
  The 3 byte data can be seen on the CAN analyzer software on your PC
  Byte1: 0x01
  Byte2: 0x00
  Byte3: 0x64
- Touch again on the center of the Gesture Pad to see the blue LED turn off, and values on the CAN analyzer software change to
  Byte1: 0x00
  Byte2: 0x00
  Byte3: 0x64

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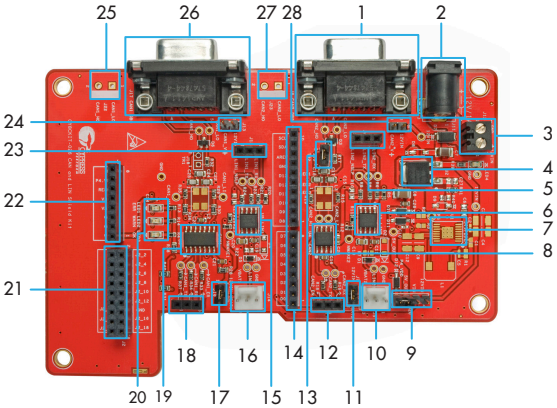

1. DB9 female connector for CAN2
2. 12 V Power jack
3. 12 V input screw terminal
4. 12 V – 5 V power regulator
5. LIN2 I/O connector
6. LIN2 transceiver TJA1020T/CM
7. Cypress PMIC S6BP202A*
8. CAN2 transceiver TJA1051T/3
9. Power selection jumper
10. 3-Pin male connector for LIN2
11. 12 V power jumper (from LIN2)
12. CAN2 I/O connector
13. CAN2 termination resistor jumper
14. Arduino™ compatible main board I/O header (J3 and J4)
15. LIN1 transceiver TJA1020
16. 3-Pin male connector for LIN1
17. 12 V power jumper (from LIN1)
18. CAN1 I/O connector
19. CAN1 transceiver TJA1055T/3C
20. Status LEDs
21. Arduino compatible main board I/O header (J2)
22. Arduino compatible main board power header (J1)
23. LIN1 I/O connector
24. 12 V power jumper (from CAN1)*
25. CAN1 screw terminal*
26. DB9 female connector for CAN1
27. CAN2 screw terminal*
28. 12 V power jumper (from CAN2)*

*Not populated

CY8CKIT-026 CAN and LIN Shield Kit Features:

- Evaluate the CAN and LIN capabilities of Cypress's PSoC and Flexible MCU families
- 2 CAN transceivers (capable of high accuracy and high speed)
- 2 LIN transceivers
- Arduino compatible headers

For the latest information about this Kit and to download Kit Software and Hardware files, visit www.cypress.com/CY8CKIT-026

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