3. Installing The Ember Desktop Software

The Ember Desktop software only runs on Windows 7 or Windows XP and requires Java 1.6 or later.

1. Insert the Ember Desktop CD into CD-ROM drive.

   If Setup doesn't start automatically, browse to emberSetup.exe in the CD's root directory and run it.

2. Follow on-screen instructions to install the Ember Desktop software.

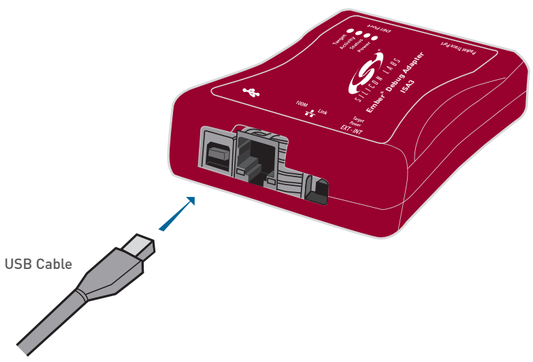
4. Configuring Static IP Addresses (optional)

By default, Ember Debug Adapters are configured to acquire IP addresses using DHCP. If your network environment instead requires use of static IP addresses, configure each Ember Debug Adapter as follows.

1. Browse to the Utilities folder of the Ember Desktop CD and run ISA3_Utilities.exe.

2. Disconnect one Ember Debug Adapter entirely from PoE switch.

3. Connect one end of USB cable to the Ember Debug Adapter.



4. Connect other end of USB cable to the PC.

5. Open a command window and change directory to

   C:\Program Files\Ember\ISA3 Utilities\bin (the default).

6. Run em3xx_isa.exe with these parameters to configure static IP settings:

   em3xx_isa.exe --admin "ip static IPADDR NETMASK GATEWAY"

   Replace IPADDR, NETMASK, and GATEWAY with your desired settings.

   Example
   The following command line changes settings to a static IP address of 192.168.1.100 with a netmask of 255.255.255.0 and a gateway of 192.168.1.1.

   C:\Program Files\Ember\ISA3 Utilities>
   em3xx_isa.exe --admin "ip static 192.168.1.100 255.255.255.0 192.168.1.1"

   Result
   Success: ip: (after reboot) Static 192.168.1.100 255.255.255.0 192.168.1.1

7. Run em3xx_isa.exe one more time with these parameters to disable DHCP:

   C:\Program Files\Ember\ISA3 Utilities>em3xx_isa.exe --admin "ip dhcp off"

   Result
   Success: ip: (after reboot) DHCP off

8. Unplug the Ember Debug Adapter from the USB cable, and reconnect the Ember Debug Adapter to the PoE Switch per "Connecting the Hardware" section.

9. Repeat steps 2–8 for the two other Ember Debug Adapters.

5. Running The Ember Desktop First-Time Setup Wizard to Verify Installation

Once you have connected the hardware and installed the software, run the Ember Desktop setup wizard to verify the installation.

1. Launch the Ember Desktop software:
   Start | All Programs | Ember | InSight Desktop | InSight Desktop.

2. Enter the Ember ZigBee support portal username obtained from Silicon Labs support and click Save username and continue. If you don't have a username, click Continue without registration. Once you have a username, you can register with Help | Register.

3. Launch the Ember Desktop first-time setup wizard:
   Click Start First-time Setup button or select Help | First-time setup wizard.

4. Click Next and follow the on-screen instructions.

   The first-time setup wizard will search your network for attached Debug Adapters. When done, you will have connected the Debug Adapters and loaded application images on them. You are now ready to capture network traffic from the Debug Adapters. CONGRATULATIONS!

5. Click Finish.

6. Doing Custom Development

You must be a registered user of the Ember ZigBee Support Portal to obtain support, download the latest Silicon Labs development software and receive automatic updates for the Ember Desktop software. To create an account, go to http://www.silabs.com/zigbee-support and follow the instructions there before continuing. You will need to provide the software serial number on the hardware identification list attached to this guide.

A. IAR Workbench

1. Insert IAR Embedded Workbench CD into the CD-ROM drive.

   If the setup doesn't start automatically, browse to autorun.exe in the CD's root directory and run it.

2. Follow the on-screen instructions to install IAR Embedded Workbench.

Licenses and support are provided separately and can be obtained from IAR Systems at http://www.iar.com.

B. EmberZNet PRO ZigBee Protocol Stack

1. Go to the Silicon Labs ZigBee Support Portal at http://www.silabs.com/zigbee-support
2. Log in with your username and password.
3. Select the Software Releases tab, then select one of the EM35x stack installers in the View pull down menu.

7. For More Information

If you have any installation issues, refer to the EM35x User Guide. You can also use the Ember ZigBee Support Portal at http://www.silabs.com/zigbee-support

CSI, 500, September 2012 RevA ZIG-QSG

Place Hardware Identification List here

SILICON LABS

Enhancing Products Through Connectivity

EM35x Development Kit Quick Start Guide

Please read this quick start guide to get up and running quickly. If you have any issues, refer to the "For More Information" section at the end of this guide.

EM35X-DEV 120-4031-000D

1. Unpacking the Contents

ATTENTION: Observe precautions for handling electrostatic sensitive devices.

A Remove visible components from their packaging:

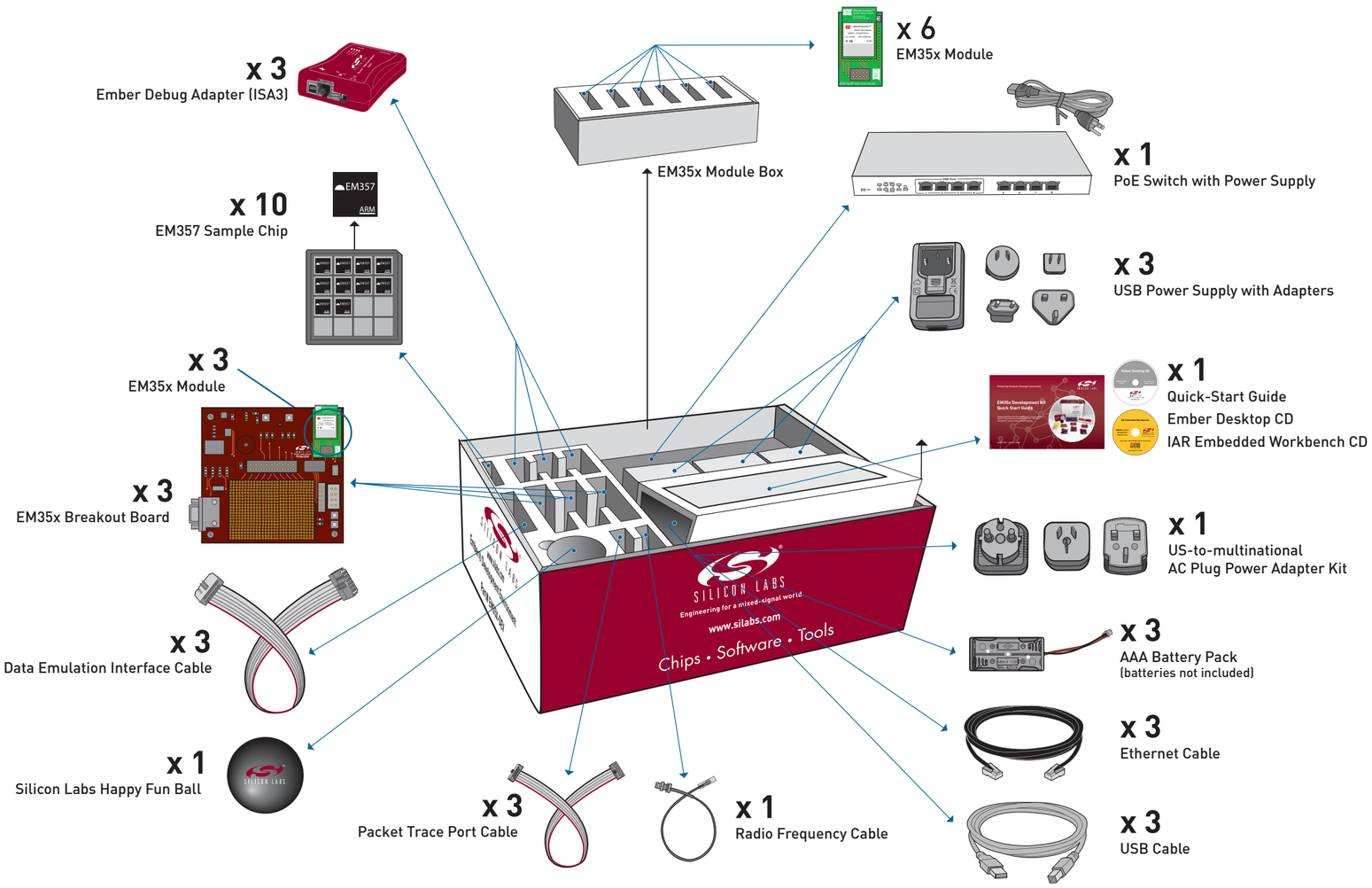
- Ember Debug Adapters (ISA3)
- EM357 sample chips
- EM35x breakout boards
- EM35x modules
- Data emulation interface (DEI) cables
- Silicon Labs happy fun ball
- Packet Trace Port cables
- Radio frequency cable

Place all components on a clean, dry surface.

B Remove seal on EM35x module box. Count six EM35x modules. Set EM35x module box aside.

C Remove USB power supplies with adapters and PoE switch.

D Remove quick start guide,
Ember Desktop CD,
IAR Embedded Workbench CD,
US-to-multinational ac plug power adapter kit,
AAA battery packs, Ethernet cables
and USB cables. Set them aside.



2. Connecting the Hardware

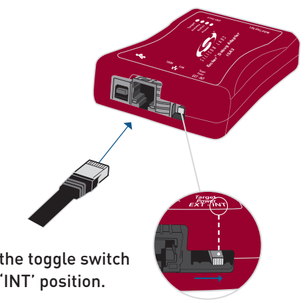
32.288

A Power over Ethernet (PoE) Switch

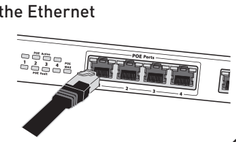
1. Remove PoE switch from box.
2. Connect ac power supply and insert it into a wall outlet. If needed, use an ac plug power adapter.

B Ember Debug Adapters

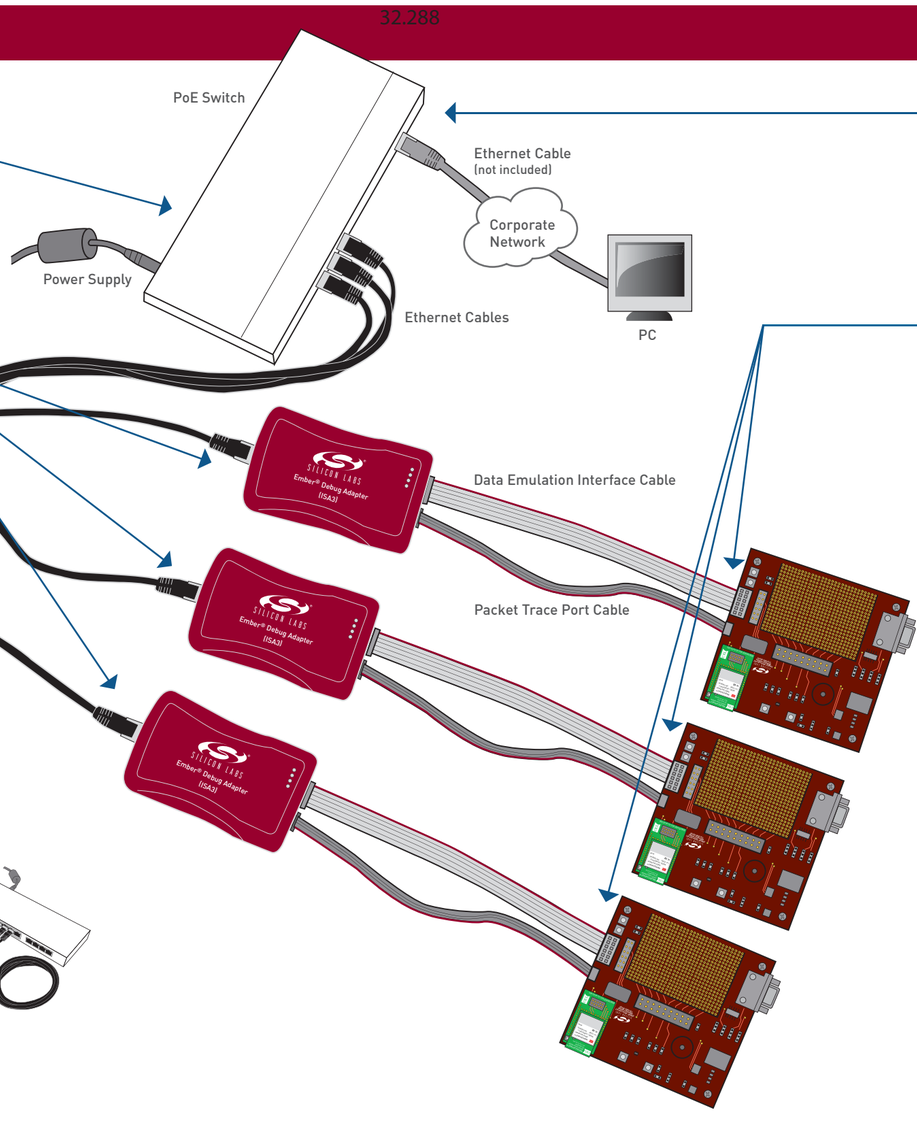
1. Insert one end of the Ethernet cable (black) into the Ethernet port of the Debug Adapter.



2. Confirm the toggle switch is set to 'INT' position.
3. Insert the other end of the Ethernet cable into port 1 of the PoE switch.

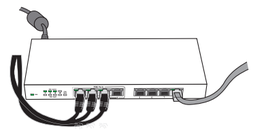


4. Repeat steps 1–3 for the two other debug adapters and PoE ports 2 and 3. This completes the Debug Adapter to PoE switch setup.



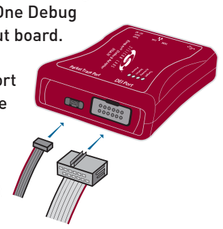
C Corporate Network

Connect customer-supplied Ethernet cable to PoE port 8 of PoE switch and **either** a corporate network (using static or DHCP addresses) **or** to a developer's PC (must use static IP addresses).

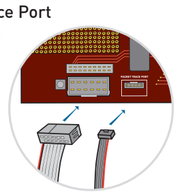


D EM35x Breakout Boards

One Packet Trace Port cable and one data emulation interface (DEI) cable are used to connect one Debug Adapter to one EM35x breakout board. One Debug Adapter is powering one EM35x breakout board.



1. Insert one end of the Packet Trace Port cable into the Packet Trace Port of the Debug Adapter.
2. Insert one end of the data emulation interface (DEI) cable into the DEI port of the Debug Adapter.
3. Attach the other end of the Packet Trace Port cable into the Packet Trace Port on the EM35x breakout board.



4. Attach the other end of the data emulation interface cable to the DEI port on the EM35x breakout board.
5. Repeat steps 1–4 for the two other debug adapters and two EM35x breakout boards. This completes the Debug Adapter to EM35x breakout board setup.