Demonstrating the CC-Link IE Field Basic Master and Slave Reference Design with Processor SDK RTOS

TI Design: http://www.ti.com/tool/tidep-0089

CC-Link IE Field Basic Master and Slave Reference Design

TIDesigns

(ACTIVE) TIDEP-0089

Description & Features Technical Documents Support & Training Order Now

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Key Document

- CC-Link IE Field Basic Master and Slave Reference Design for Sitara™ AM335x
  (PDF 2957 KB)
  31 Jul 2017 129 views

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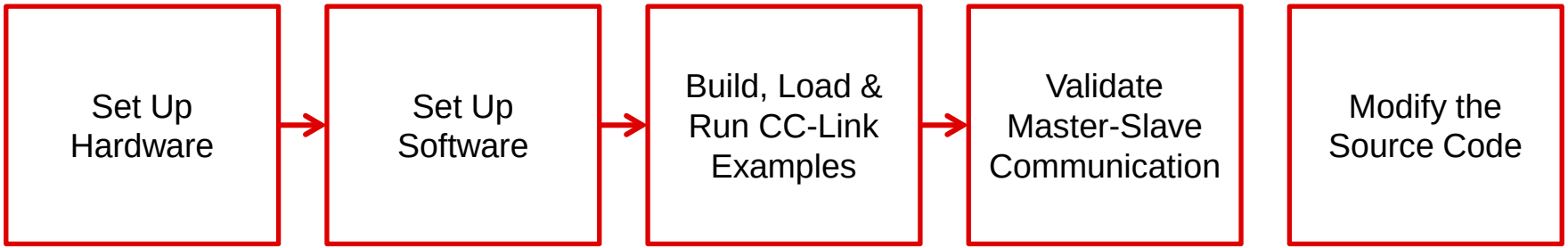
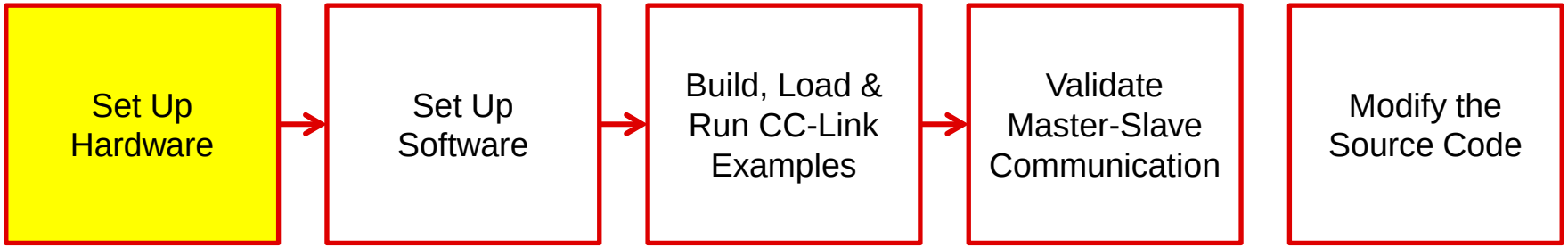
TIDEP-0089 CC-Link IE Field Basic Master and Slave Reference Design Board Image

Description

This reference design details a CCLink IE Field Basic implementation operating on the Sitara™ AM335x processor, with both Processor SDK RTOS and Processor SDK Linux. For RTOS, the

Device	EVM	IEF Basic on EMAC (CPSW)		IEF Basic on PRU-ICSS	
		Linux	RTOS	Linux	RTOS
AM572x	AM572x GP EVM	✓	✓		
	AM572x IDK	✓	✓	✓	✓
AM571x	AM571x IDK	✓	✓	✓	✓
AM437x	AM437x GP EVM	✓	✓		
	AM437x SK	✓	✓		
	AM437x IDK	✓	✓	✓	✓
AM335x	AM335x GP EVM	✓	✓		
	AM335x BeagleBone Black	✓	✓		
	AM335x SK	✓	✓		
	AM335x ICE	✓	✓	✓	✓
K2G	K2G GP EVM	✓	✓		
	K2G ICE EVM	✓	✓	✓	✓


Set Up Hardware
Set Up Software
Build, Load & Run CC-Link Examples
Validate Master-Slave Communication
Modify the Source Code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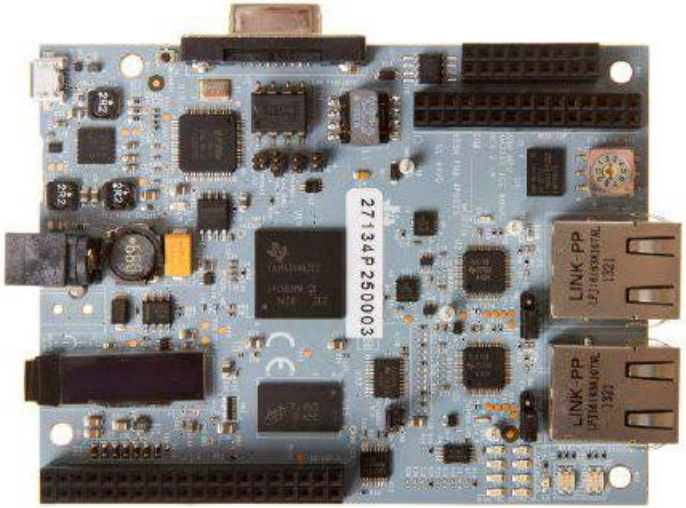
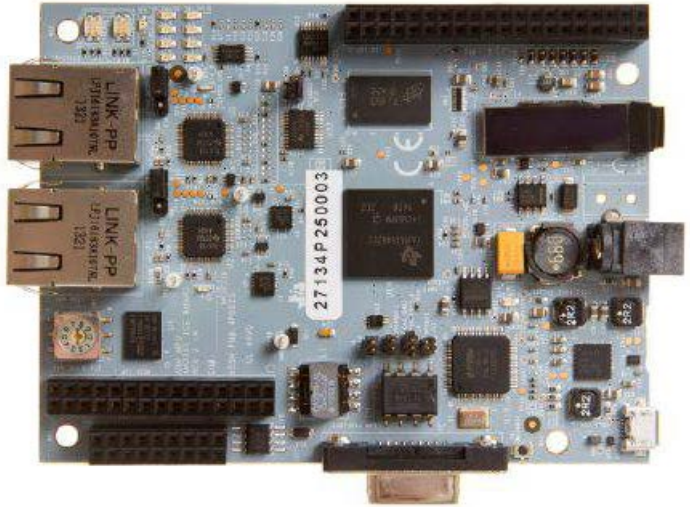
Hardware setup

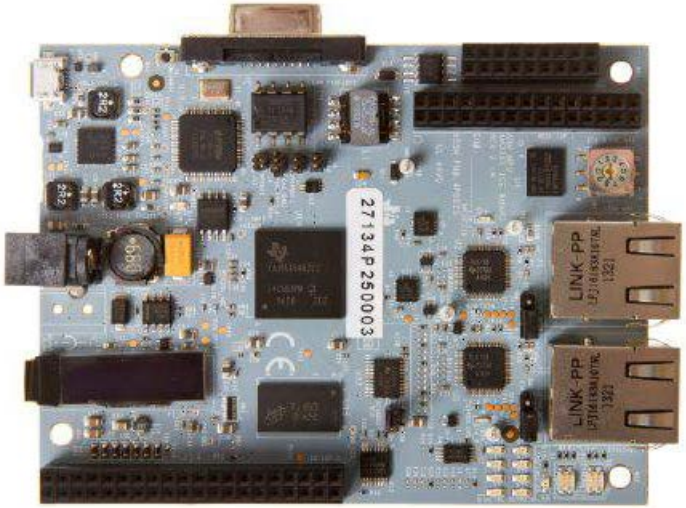


AM3359 ICE

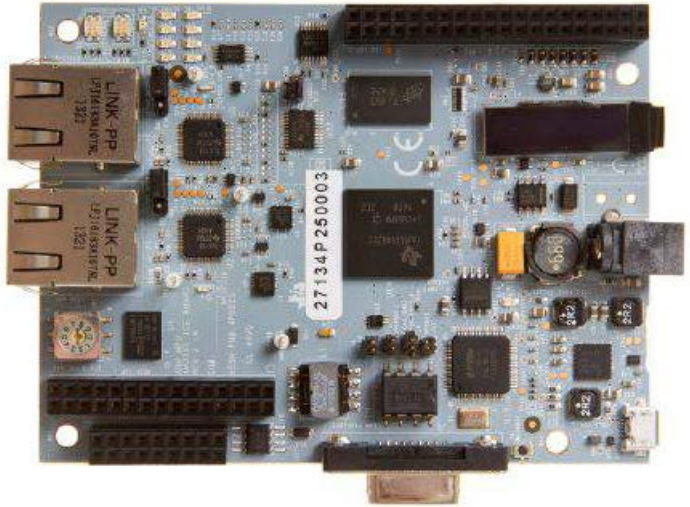


AM3359 ICE

Hardware setup

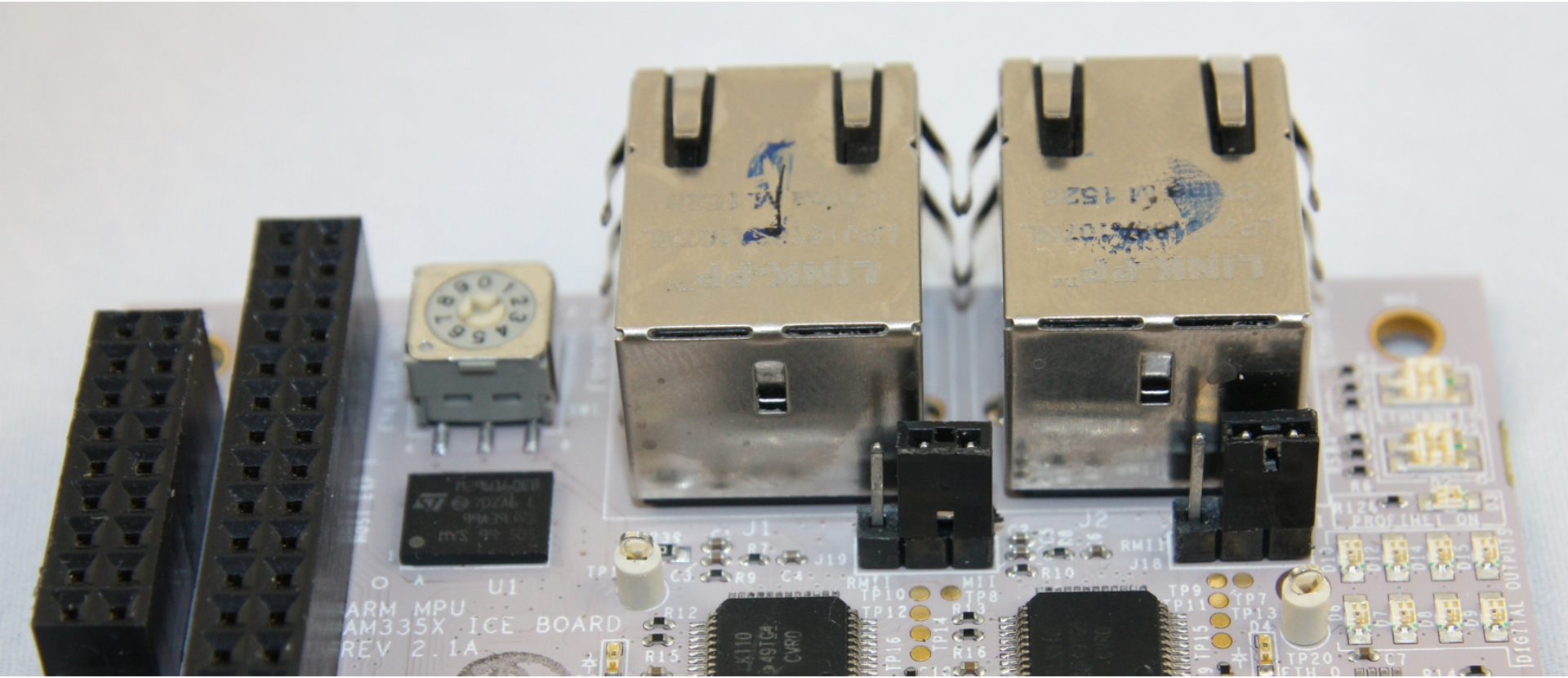


AM3359 ICE

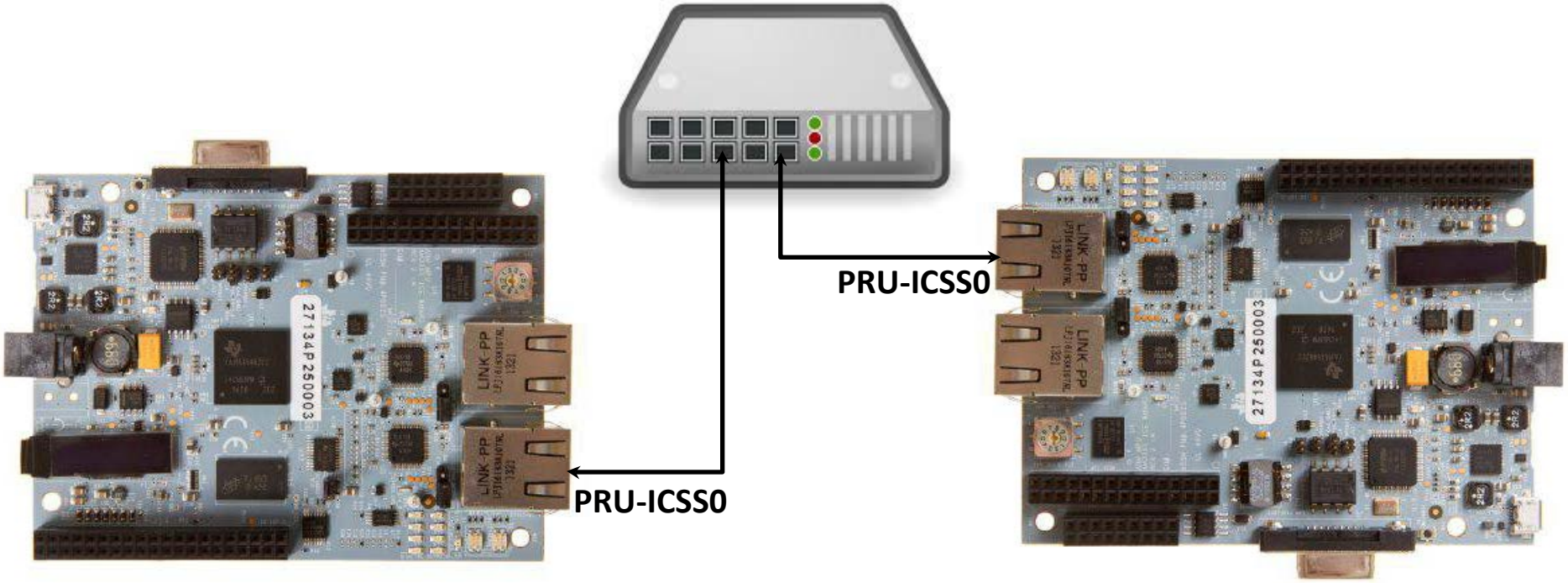


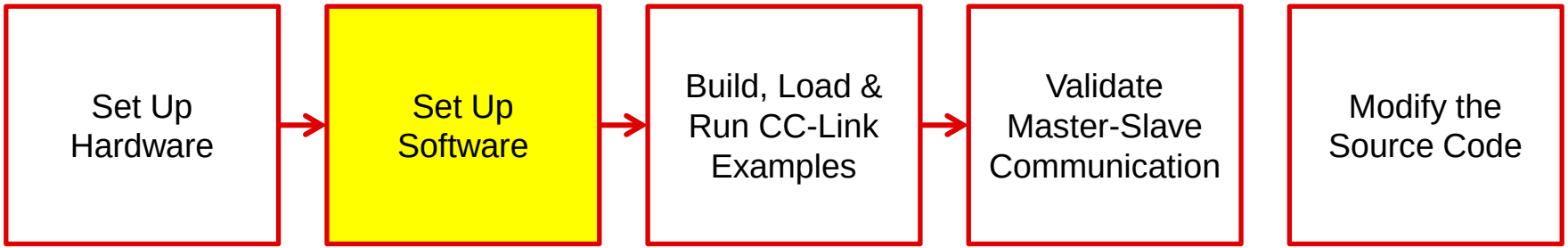
AM3359 ICE

Hardware setup



Hardware setup

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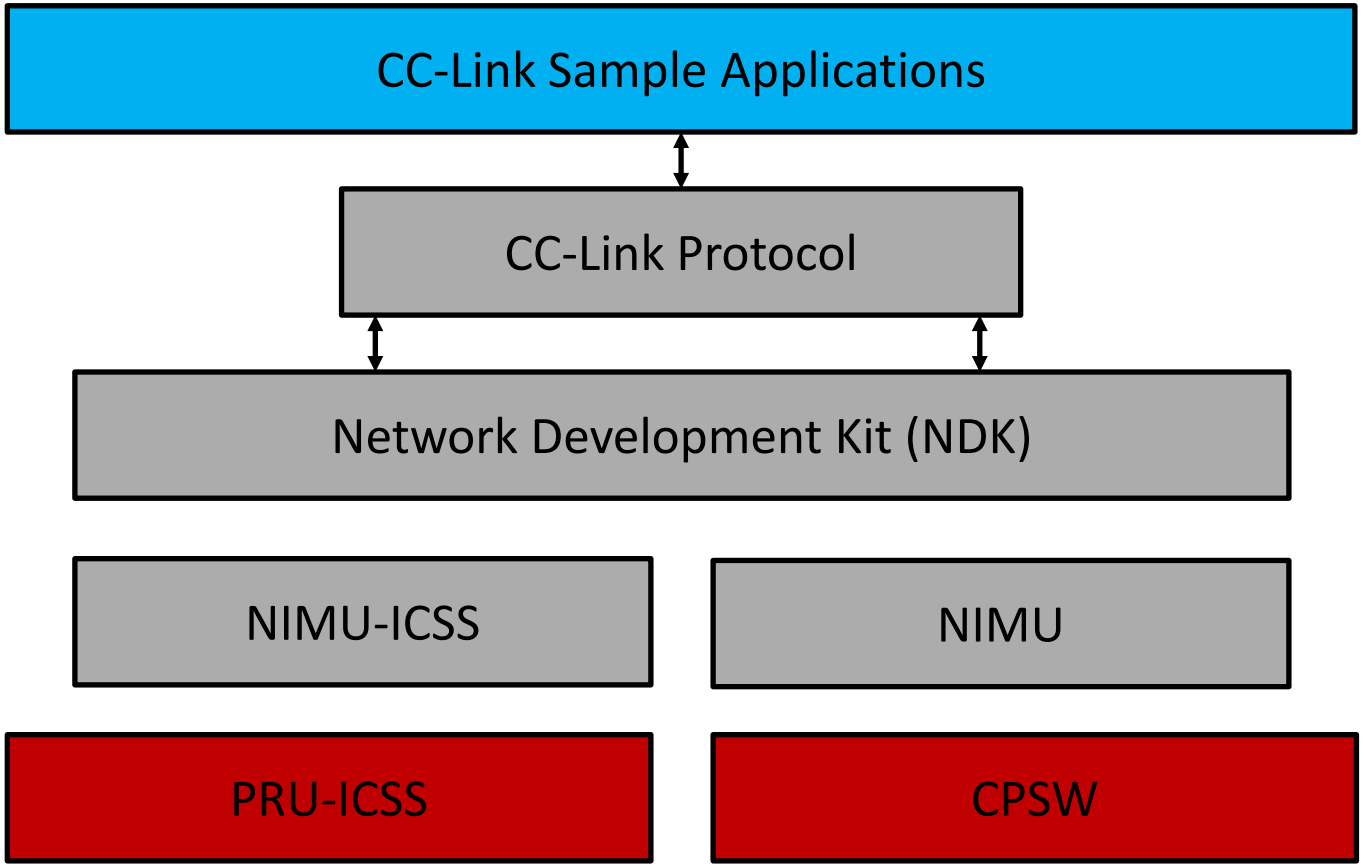
CC-Link IEF Basic Software Stack



Console:

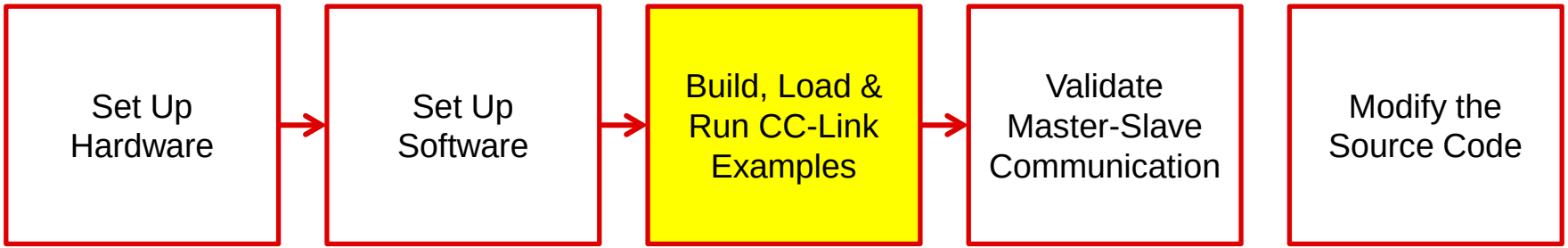
Navigate to /packages

Run pdksetupenv.sh

Console: Create CCS project for CC-Link

./pdkProjectCreate.sh

AM335x icev2AM335x little nimu_icss all arm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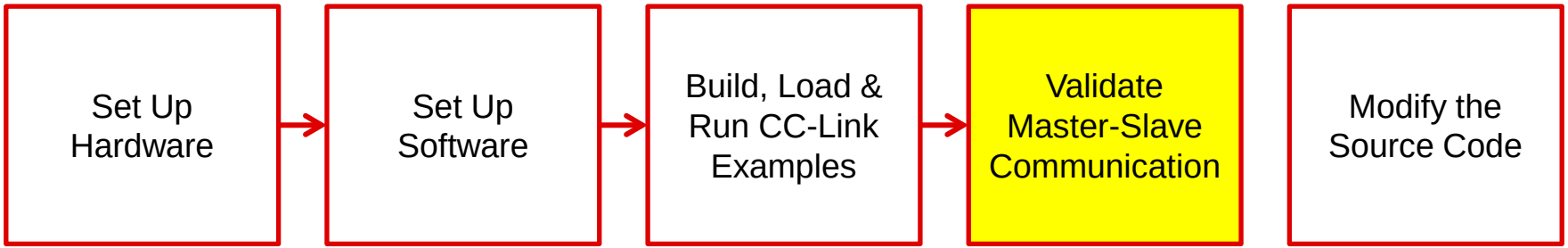
CCS:

Import project
Build images
Launch target configuration

CCS:

Connect cores
Load gel
Load master binary
Load slave binary
Run the demo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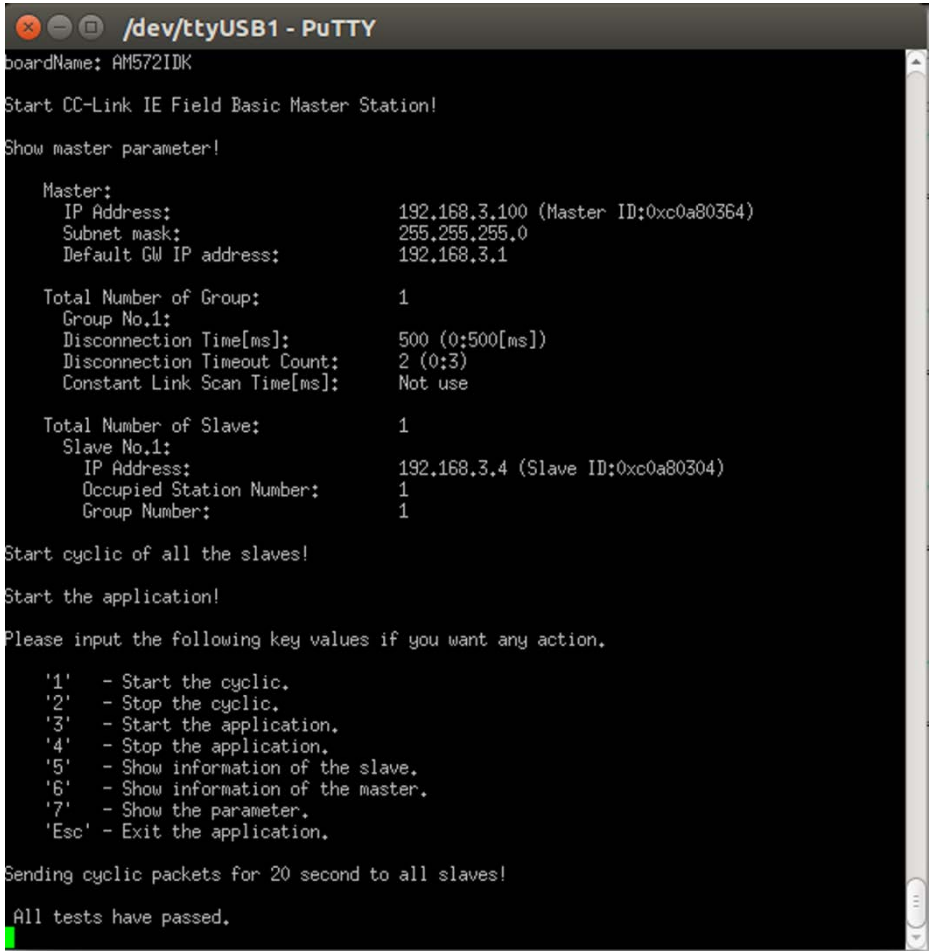
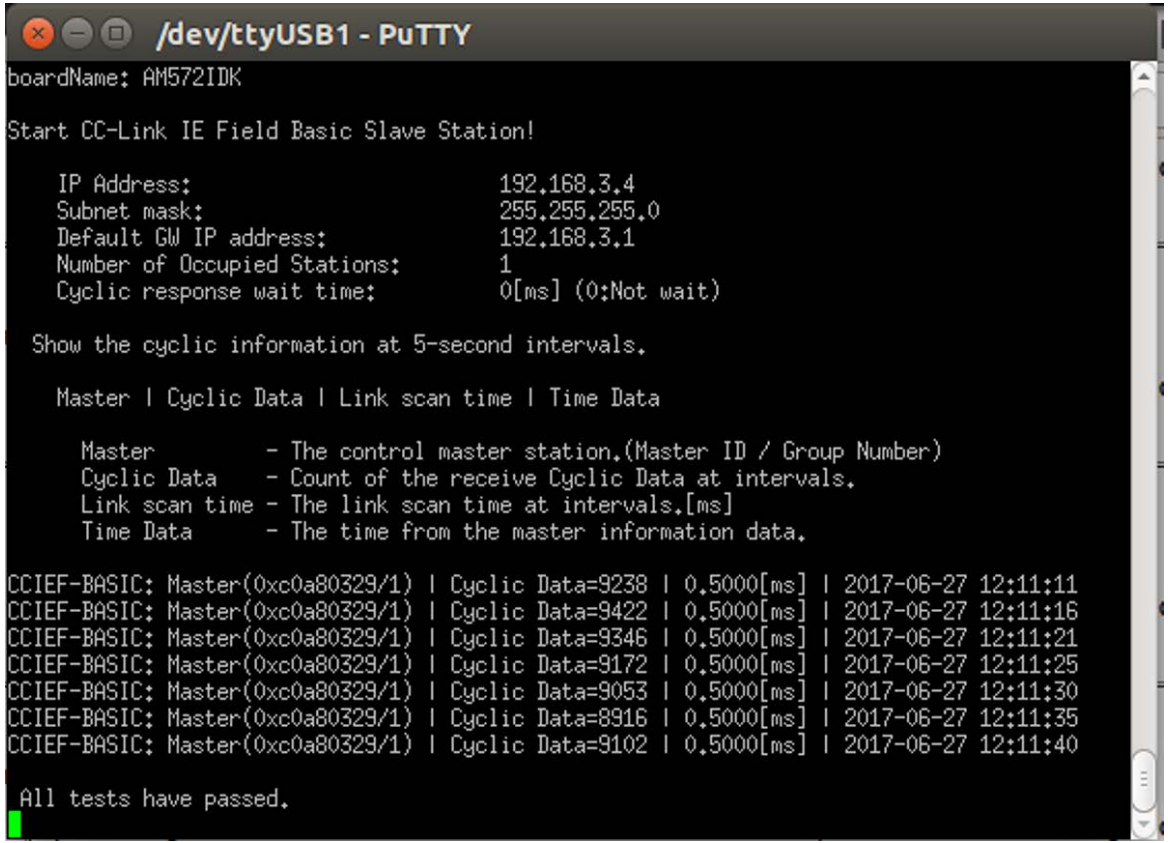
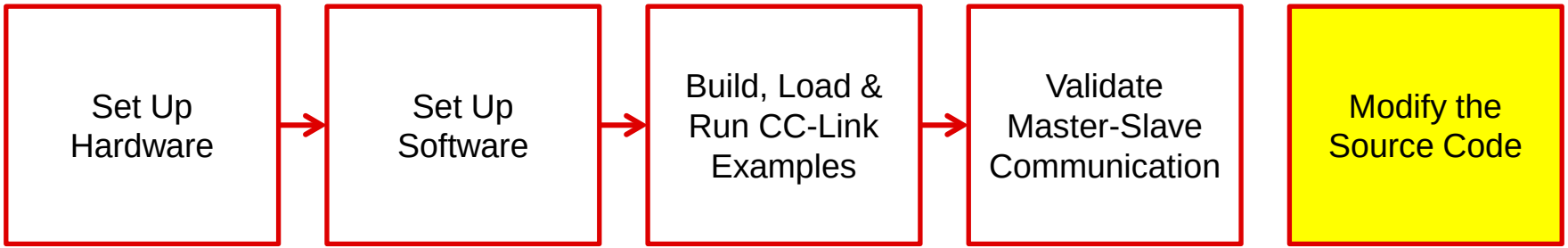
UART Console: Master



UART Console: Slave




Set Up Hardware
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Build, Load & Run CC-Link Examples
Validate Master-Slave Communication
Modify the Source Code

Modify Source code:

Change ip adress.

Check the source code.

For More Information

- CC-Link IE Field Basic Master and Slave Reference Design: http://www.ti.com/tool/tidep-0089
- Sitara Processors Product Overview: http://www.ti.com/sitara
- AM3359 Industrial Communications Engine: http://www.ti.com/tool/tmdsice3359
- Processor SDK for AM335x Sitara Processors: http://www.ti.com/tool/processor-sdk-am335x
- Processor SDK Boot: http://processors.wiki.ti.com/index.php/Processor_SDK_RTOS_Boot
- Processor SDK Training Series: https://training.ti.com/processor-sdk-training-series
- Code Composer Studio (CCS) Integrated Development Environment (IDE): http://www.ti.com/tool/CCSTUDIO
- For questions about this training, refer to the E2E Community Forums for Sitara Processors at http://e2e.ti.com/support/arm/sitara_arm/f/791/t/277411