

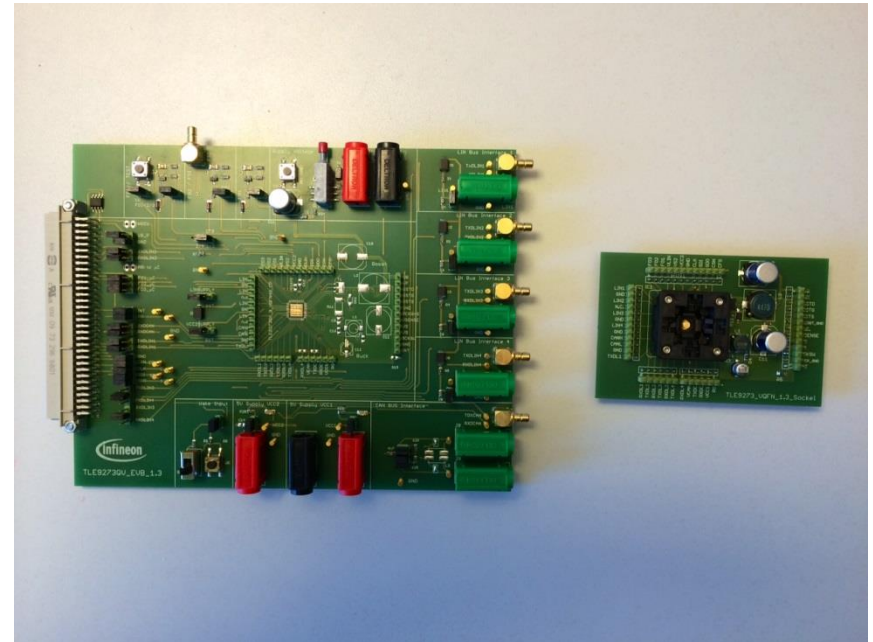
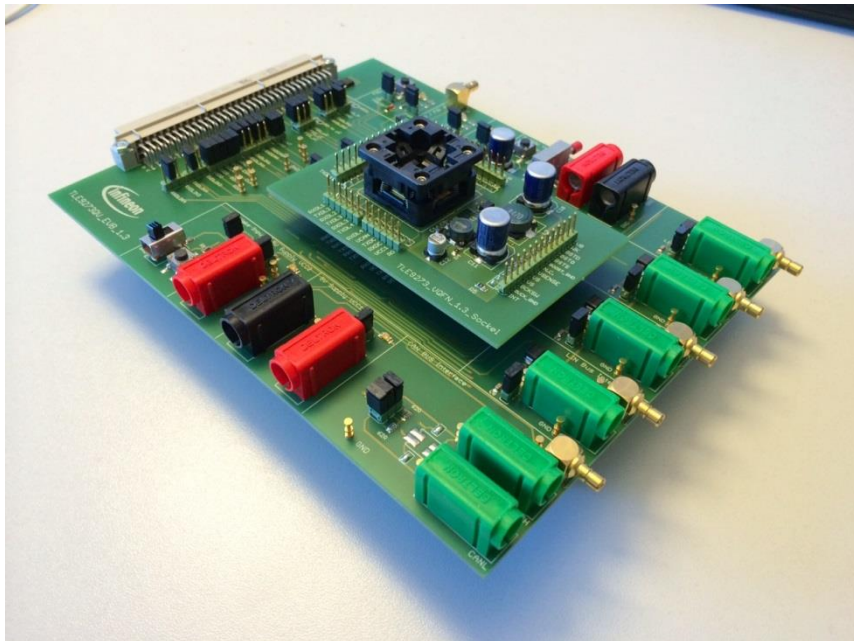
# Introduction to DCDC SBC Demo-Board

# Tool Chain

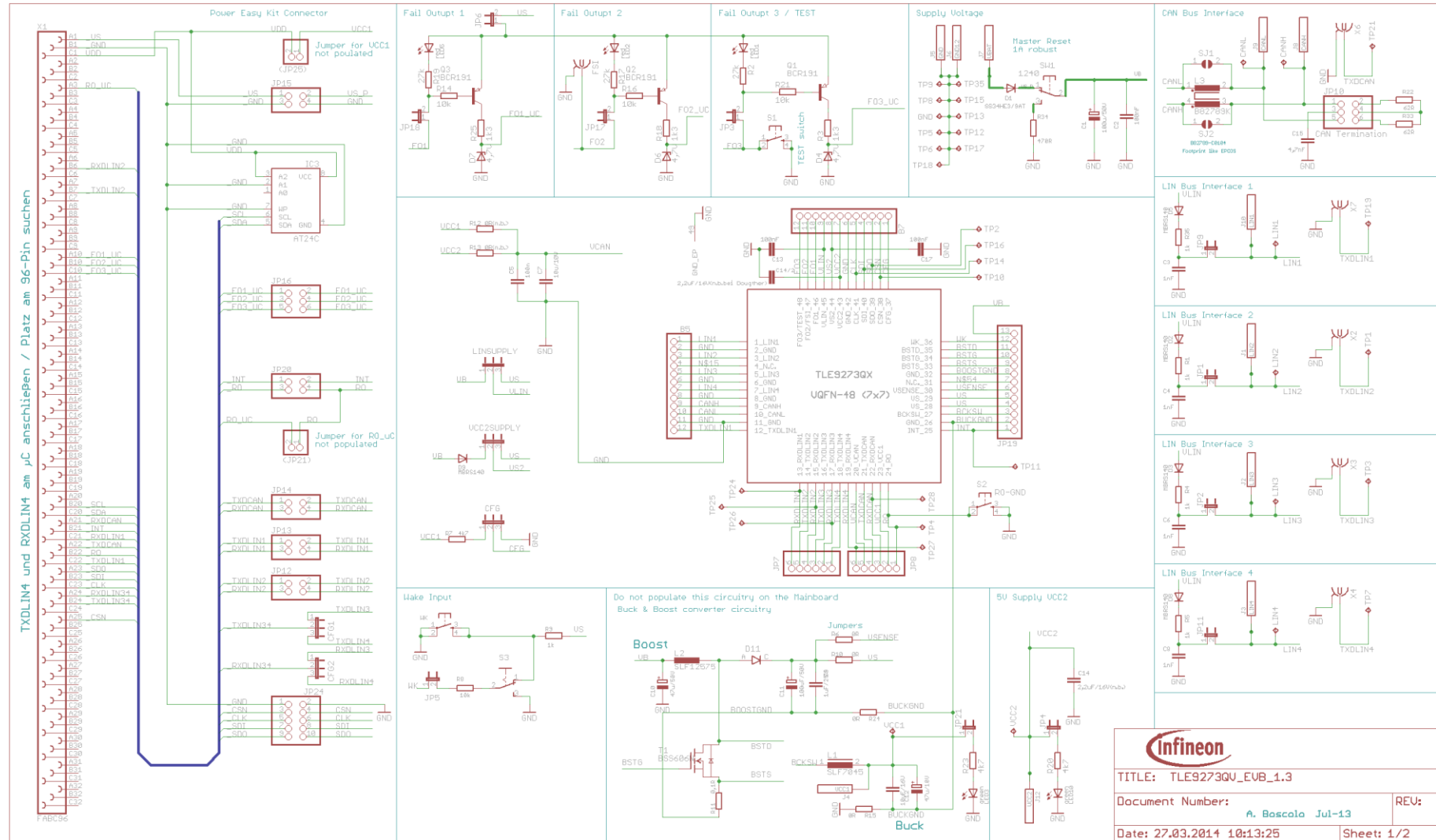
- To get in to the TLE9273QX IFX System Basis Chip, Infineon provides a complete tool chain composed:
  - Evaluation Board;
  - Graphical User Interface (GUI) to explore the SBC functionalities and to check SPI routine.
- The hardware and software is compatible with Infineon Power Easy Kit (PEK) already used for other IFX product.

# Evaluation Board: Overview

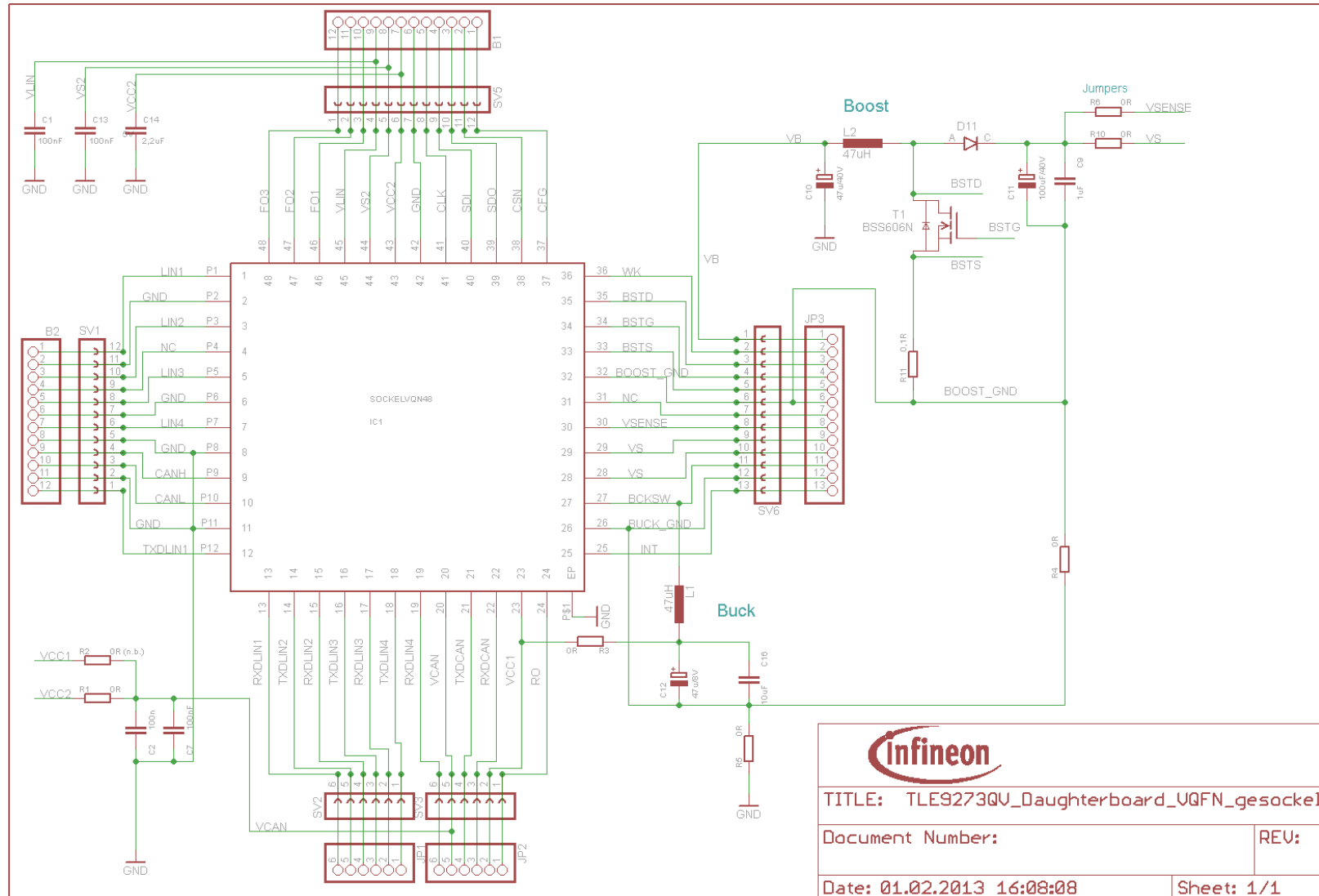
- The Evaluation Board is made up two parts:
  - One Base board where power supply, transceiver, digital I/O connections are present
  - One daughter Board where the socket and test pin are placed



# Evaluation Board: Base Board Schematic

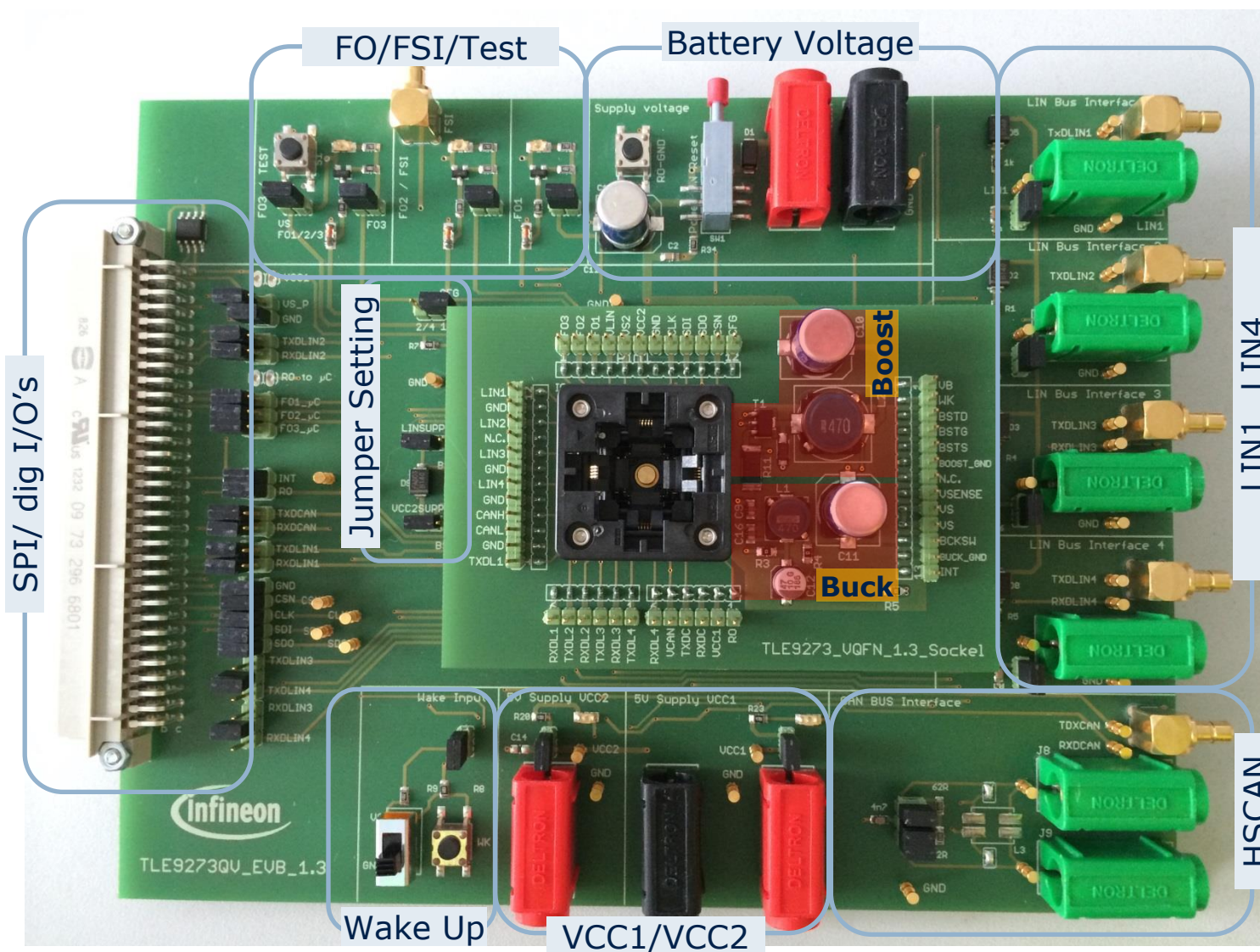


# Evaluation Board: Daughter Board Schematic





# Evaluation Board: Base Board Layout

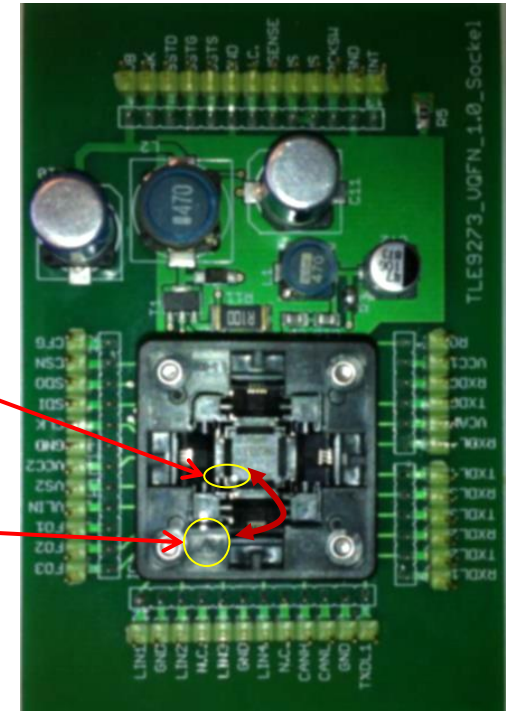


# Evaluation Board Getting Started

- Inserting the device properly into the socket:

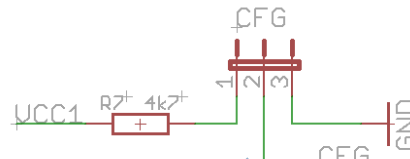
Pin 1 can be  
recognized by dot on  
corner of package

Device is inserted properly  
when the dot on package is at  
the same position than the  
triangle mark on the socket



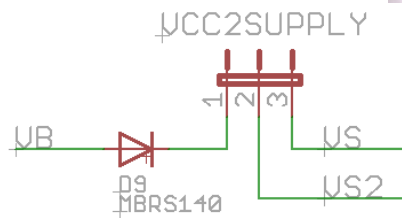
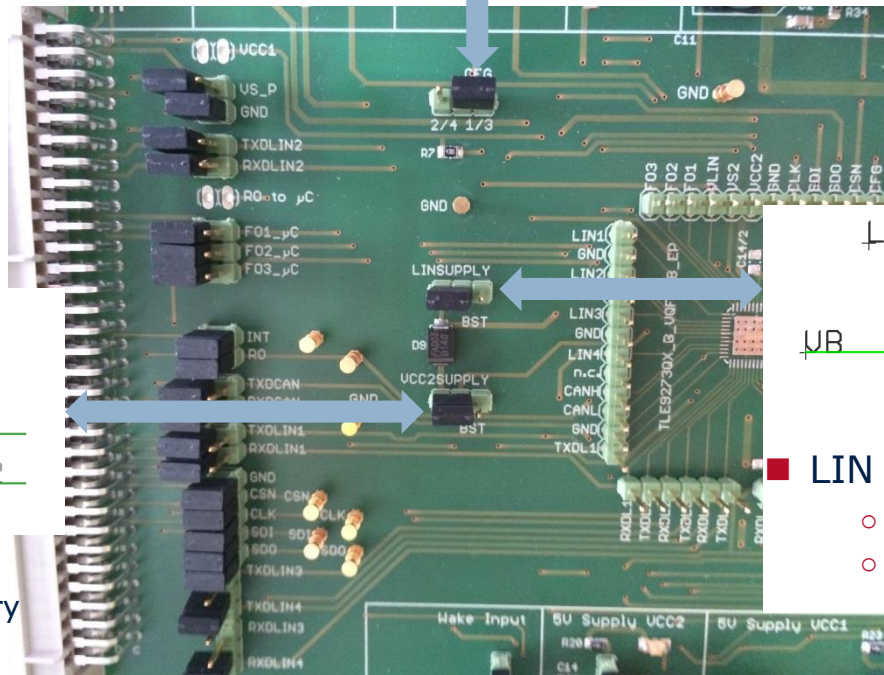
Please contact your local Field Application Engineer  
for technical support and for obtaining the latest  
User Guide software, which works in combination  
with the Power Easy Kit uC

# Evaluation Board: Jumper Setting



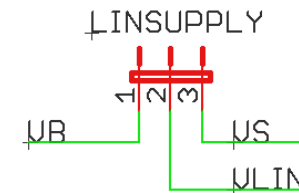
## ■ Configuration selection:

- Config 1/3 with pull-up to Vcc1
- Config 2/4 to GND



## ■ VCC2 supply pin:

- From the battery
- From the Boost output voltage

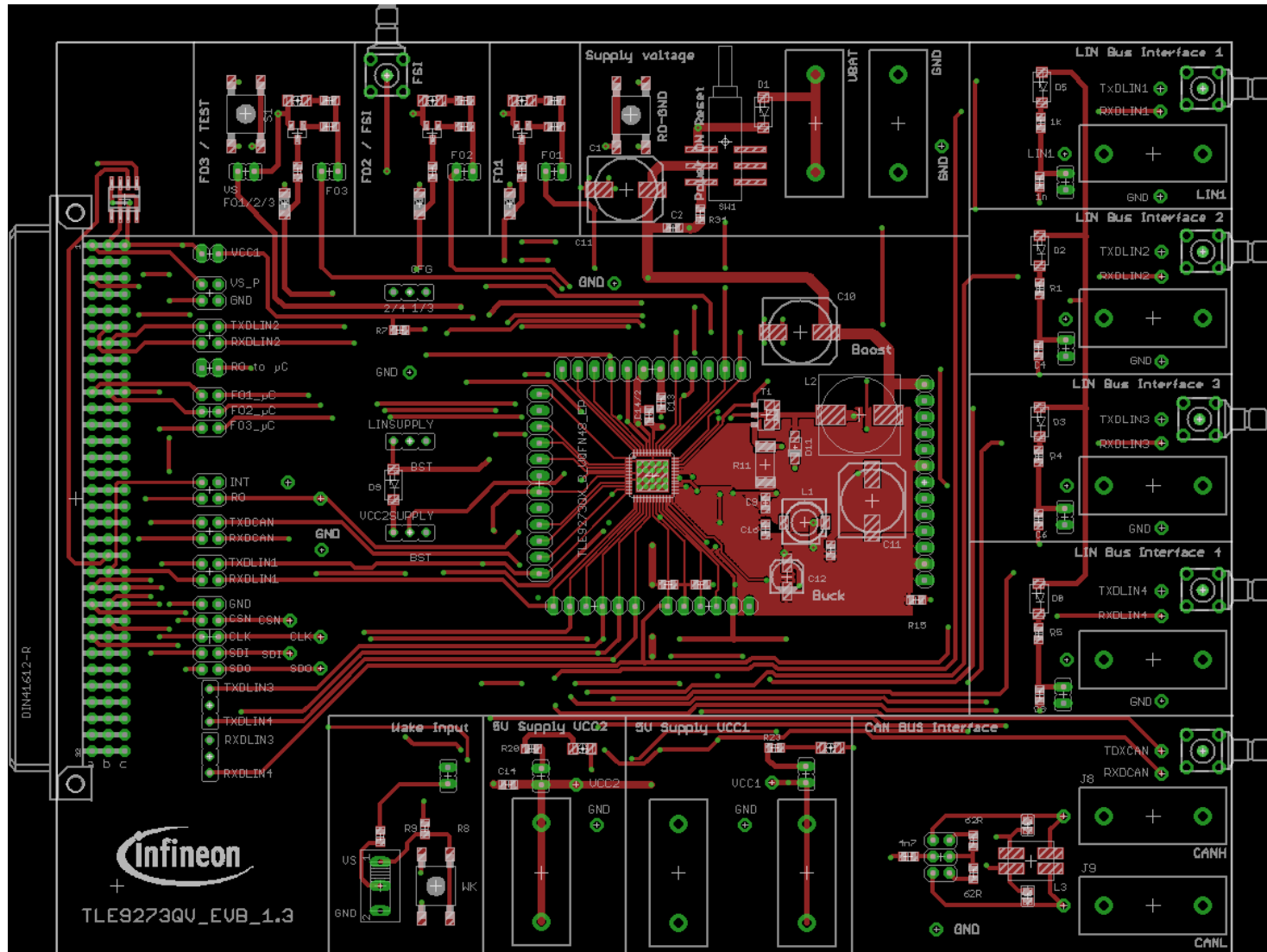


## ■ LIN supply pin:

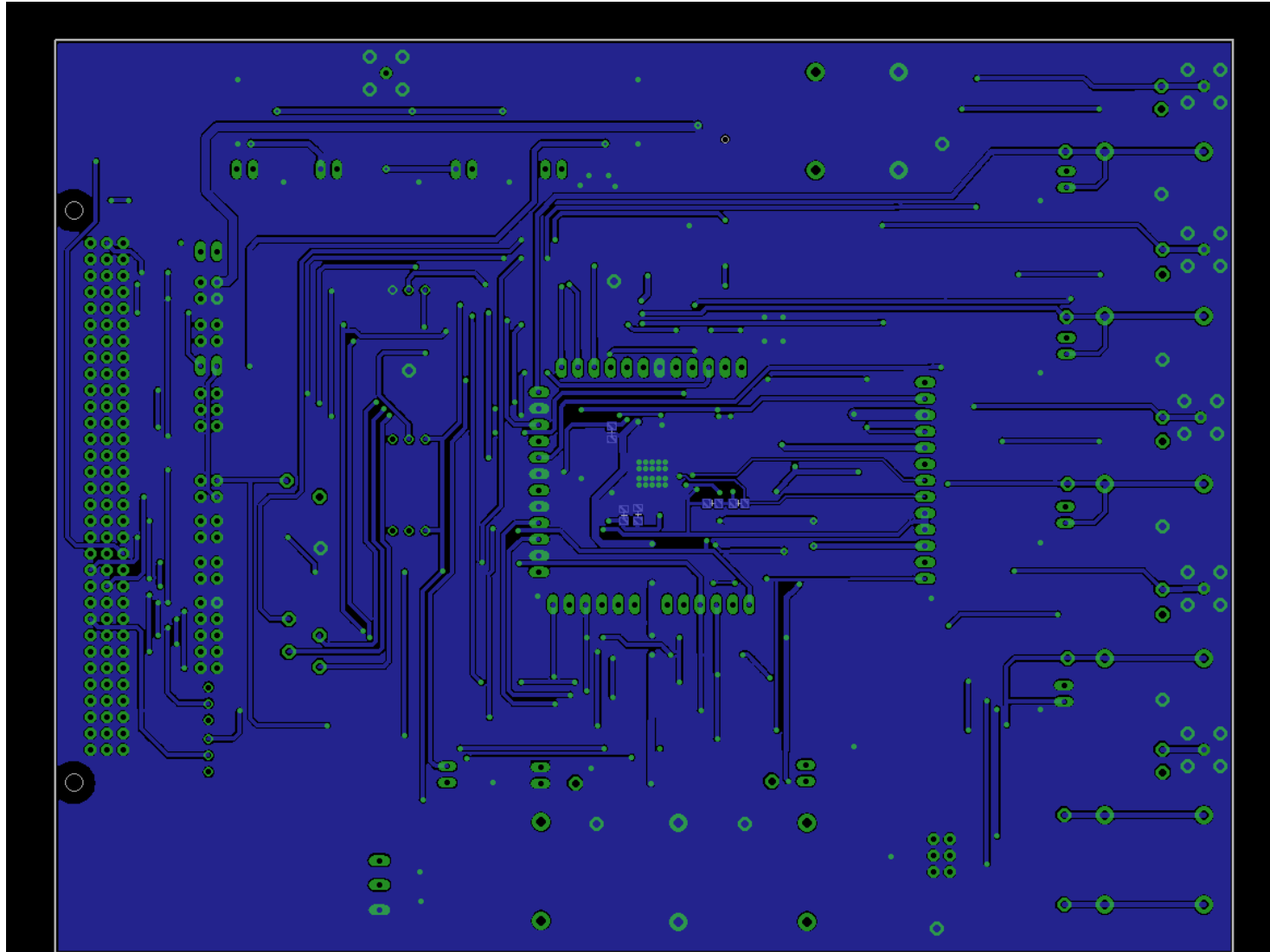
- From the battery
- From the Boost output voltage



# Evaluation Board Top Layout Routing



# Evaluation Board Bottom Layout Routing



# GUI (Beta): Functional test

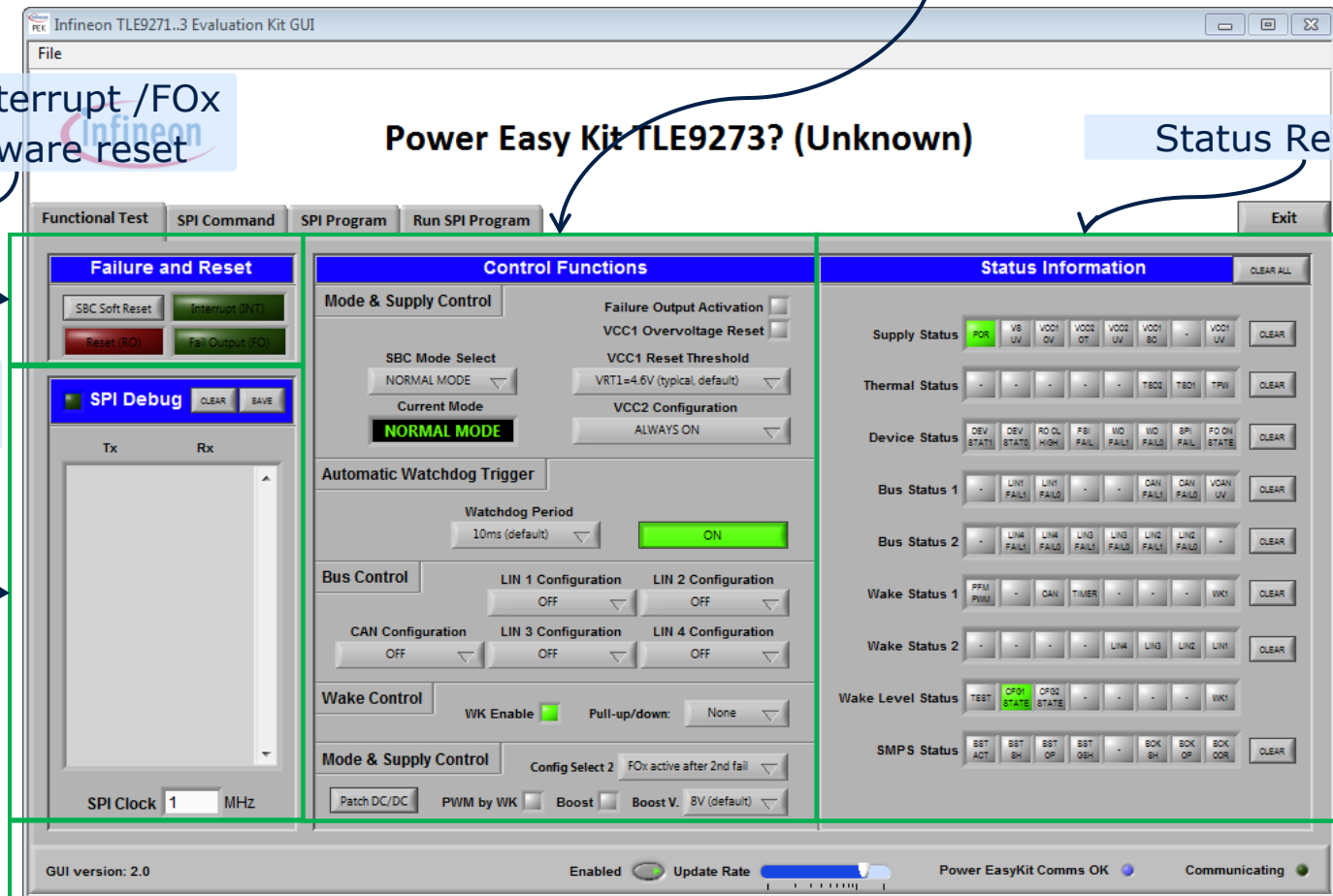
Main Feature controls

Reset / Interrupt /FOx and software reset

Power Easy Kit TLE9273? (Unknown)

Status Registers

SPI info and debugging

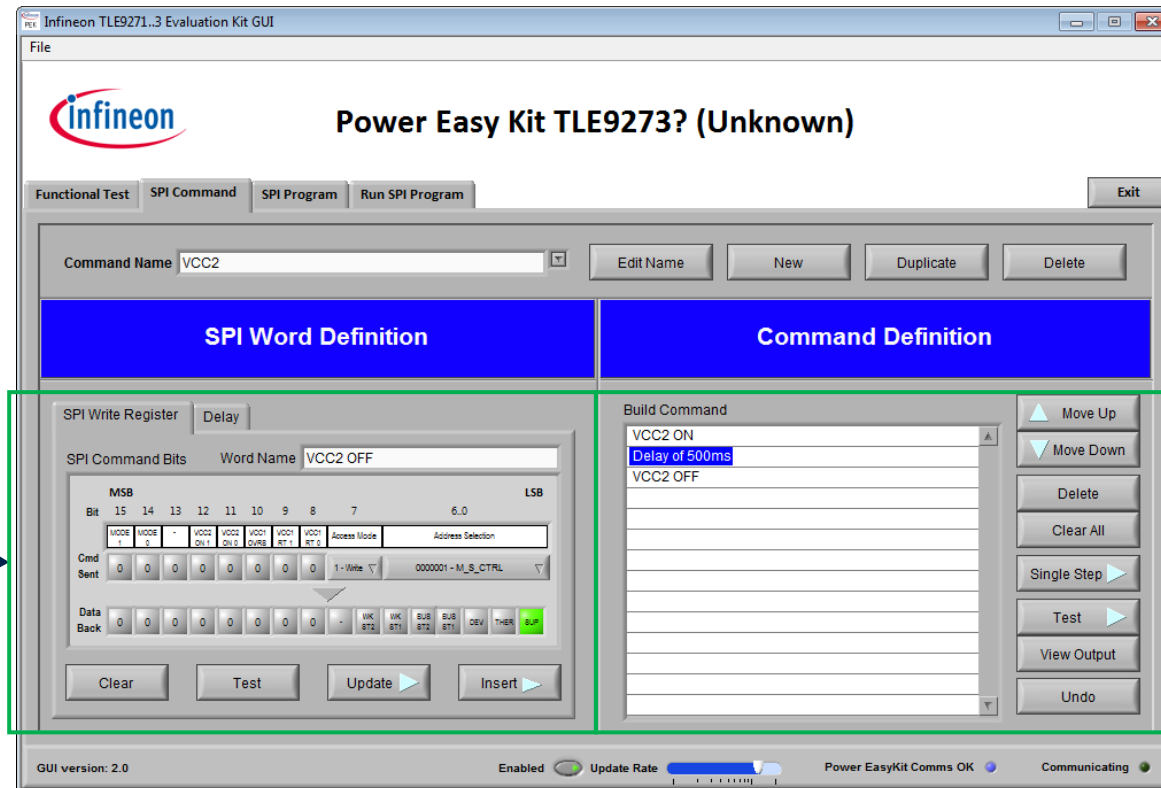


Status registers refresh

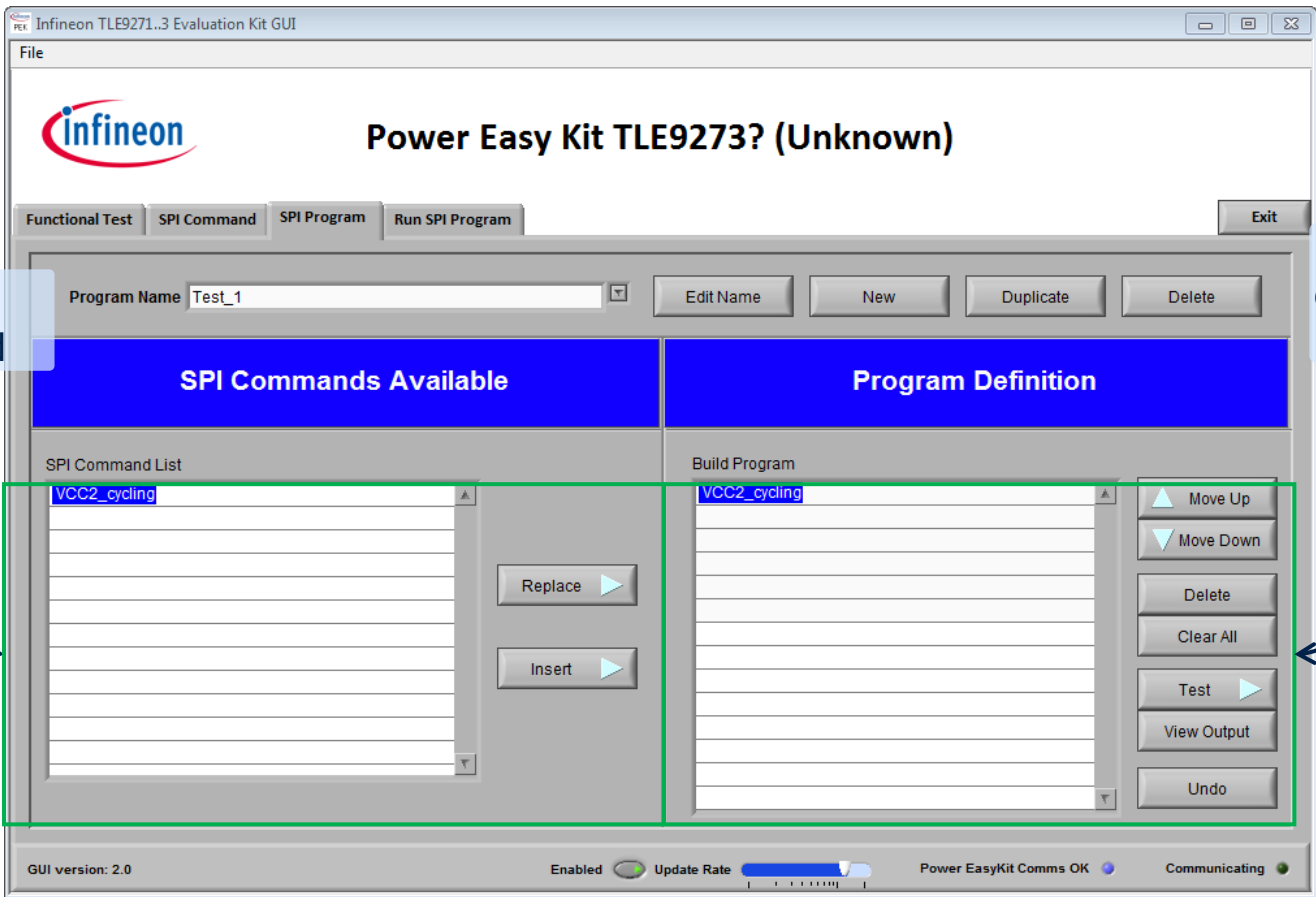
# GUI (Beta): Detailed SPI commands

Detailed SPI Registers

SPI command



# GUI (Beta): Detailed SPI commands



The screenshot shows the 'Infineon TLE9271...3 Evaluation Kit GUI' window. The title bar indicates the device is 'Power Easy Kit TLE9273? (Unknown)'. The interface has tabs for 'Functional Test', 'SPI Command', 'SPI Program', and 'Run SPI Program'. The 'SPI Command' tab is active.

At the top, there's a 'Program Name' field set to 'Test\_1' and buttons for 'Edit Name', 'New', 'Duplicate', and 'Delete'. Below this are two main panels:

- SPI Commands Available:** Contains an 'SPI Command List' with 'VCC2\_cycling' selected. Below the list are 'Replace' and 'Insert' buttons.
- Program Definition:** Contains a 'Build Program' list with 'VCC2\_cycling' selected. To the right of the list are buttons: 'Move Up', 'Move Down', 'Delete', 'Clear All', 'Test', 'View Output', and 'Undo'.

At the bottom, there's a status bar with 'GUI version: 2.0', an 'Enabled' checkbox, an 'Update Rate' slider, 'Power EasyKit Comms OK', and a 'Communicating' indicator.

Two external text boxes with arrows point to the GUI elements:

- A box on the left labeled 'SPI command' points to the 'SPI Commands Available' panel.
- A box on the right labeled 'Script based on the defined SPI command' points to the 'Program Definition' panel.





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