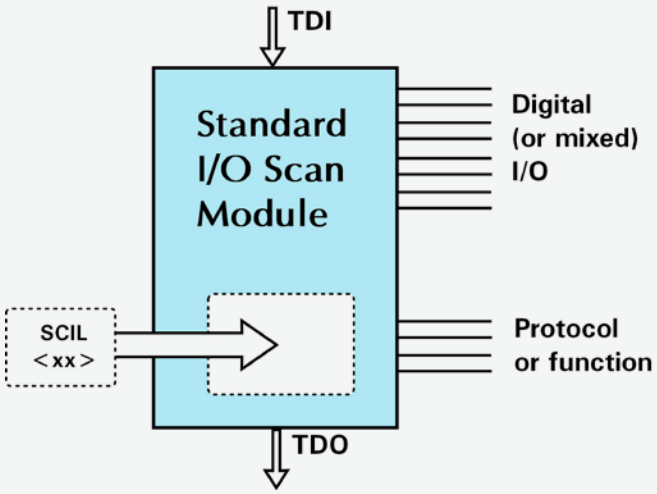
Factsheet

SCIL - SCAN CONFIGURED INTERFACE LOGIC

Logic IP for Custom Test and Interface Functions



Key features

- Add new functions to your existing I/O module
- Enabling technology for functional testing
- Simplifies interfacing to different protocols
- Supports programming of non-JTAG parts
- Enhance your boundary-scan test system with additional interface and measurement capabilities

Introduction

SCIL modules are needed to overcome timing constraints of the JTAG interface to allow communication with, or testing of, specific hardware.

SCILs are supplied a functional IP block that can be applied to a 'customisable' JTAG Technologies hardware such as the JT2149/MPV unit. In its basic -SCIL-001 format the JT 2149/MPV operates as a 32 channel DIOS (Digital IO Scan) unit within one of the four pod slots of a DataBlaster QuadPod interface, however reconfiguring the JT 2149/MPV with a specific SCIL IP block allows the module to function in a number of different ways. For example as a BDM (background debug mode) interface, SWD (single wire debug) interface, counter/timer interface etc..
Other hardware modules that can also be configured with SCIL IP blocks are: JT 2149/MPV and JT 2149/MPVe, JT 5112 MIOS, and the JT 5705/USB controller although it must be noted that not all SCIL module options are valid across all platforms - contact your local sales office for details

While SCIL functions are usually factory set, it is possible to reconfigure units in the field upon request. Additional SCIL modules are also under development and may also be designed up on request. Therefore if the interface or function you are seeking does not yet appear in the above list then do please contact your local sales office or representative.

Currently available SCIL modules are listed below - alternative applications are always considered.
001 - 32 channels DIOS
006 - low voltage TAP interface for Intel (Atom etc..)
011 - programming adapter Renesas micros
017 - programming adapter HC08/HCS08/HCS12
018 - programming adapter (BDM) MPC500 series
019 - programming adapter ARM SWD
034 - protocol engine - Microchip
035 - protocol engine - SPI
036 - protocol engine - I2C (to 3.6 MHz)
037 - protocol engine - Dallas 1 wire
067 - instrument pattern generator
071 - instrument pattern generator/comparator

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SCIL and SCIP combinations
Several of the SCIL functions listed are denoted as 'programming adapters'. Since embedded memories with micro-controllers and SOCs are generally programmed via the embedded processor core, it is required to access the core's emulation function. Most processor cores use the JTAG (IEEE Std 1149.1) interface as the access system, however in some instances, such as devices that utilise BDM or SWD, a hardware adapter must be used. These SCIL modules are used in conjunction with a SCIP (Scan Controlled IC Programming) package to enable the programming of non-JTAG processors etc..

CoreCommander
SCIL modules can also be used in conjunction with CoreCommander device control routines to aid the testing of PCBs with advanced procesors (e.g. ARM core based) that are neither fitted with JTAG boundary-scan nor even with a JTAG emulation mode interface. Several examples of boards featuring SWD-equipped processors have been tested through use of SCIL module hardware CoreCommander and Python JFT.

SCIL function host options

JT 5112 64 Channel MIOS

JT 5705/FXT Controller/MIOS

JT 2149 DIOS for QuadPod

JT 5705/USB Controller/MIOS

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• **North America**	Toll free - 877 FOR JTAG Western US - 949 454 9040	info@jtag.com
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