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# CALISTO-BCM1500/1510
PRODUCT Brief

CALISTO-BCM1500/1510   SOFTWARE   DEVELOPMENT   KIT

S D K   +   E V M   F E A T U R E S

● **Integrated Development Environment (IDE) composed of:**
  - Industry-leading optimizing C compiler
  - Assembler
  - Linker
  - Debugger with cycle-accurate simulator and profiler
  - Unique multichannel, multiservice debug paradigm
  - Remote debug capability

● **Evaluation Module (EVM) board**
  - PC-compatible, full-size PCI card with the BCM1500/1510 IC
  - Supports standard telephony interfaces: T1, E1, MVIP
  - Supplied with all necessary Windows NT drivers

S U M M A R Y   O F   B E N E F I T S

● **SpiceIDE lets you:**
  - Create and compile services
  - Build application stacks for the CALISTO platform
  - Run and debug a small number of channels in real time
  - View and modify the state of services running in sockets
  - Set breakpoints and watchpoints

● **SpiceIDE talks to a variety of backends:**
  - Full-chip simulator
  - Partial-chip simulator
  - Live chip on an EVM board

BCM1500/1510 SDK Components
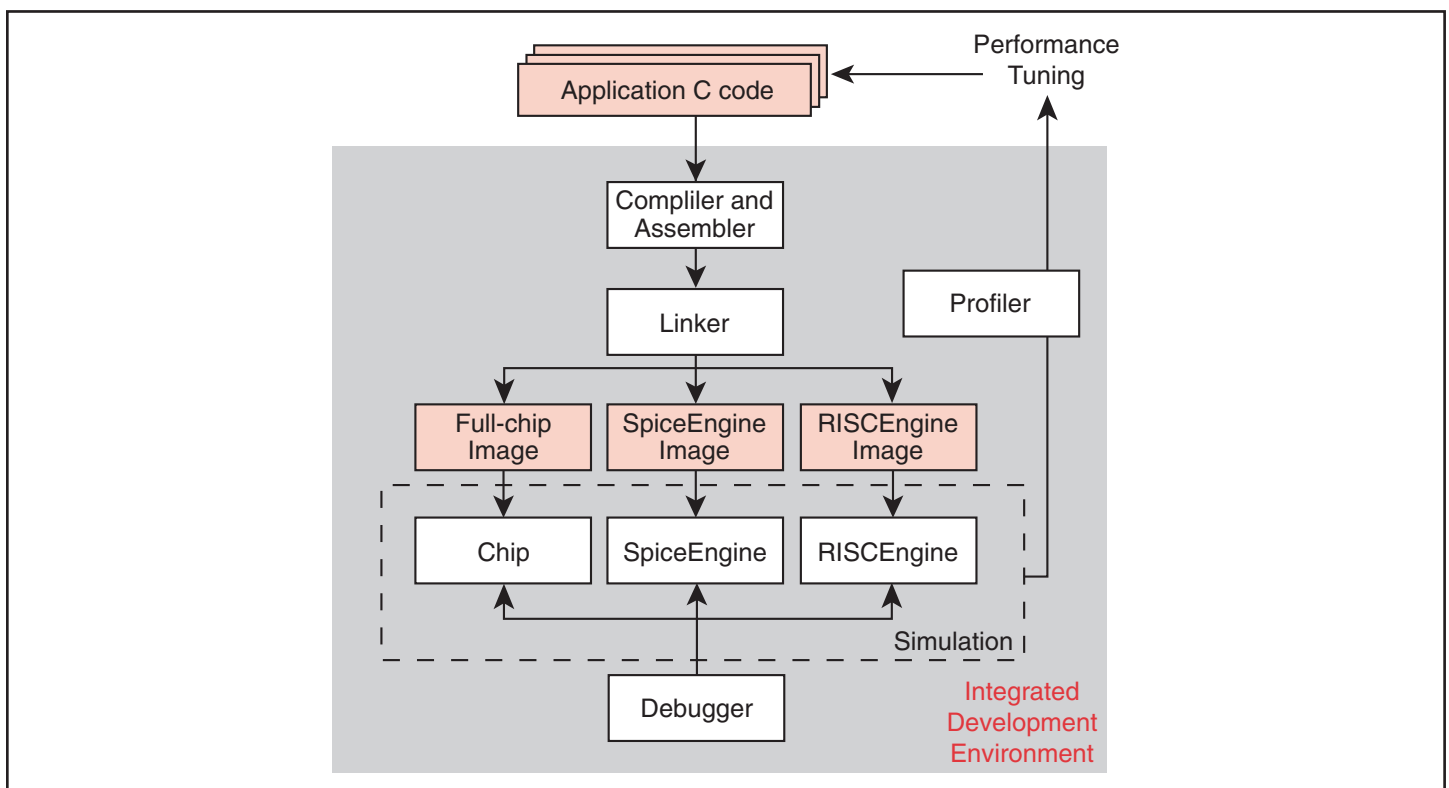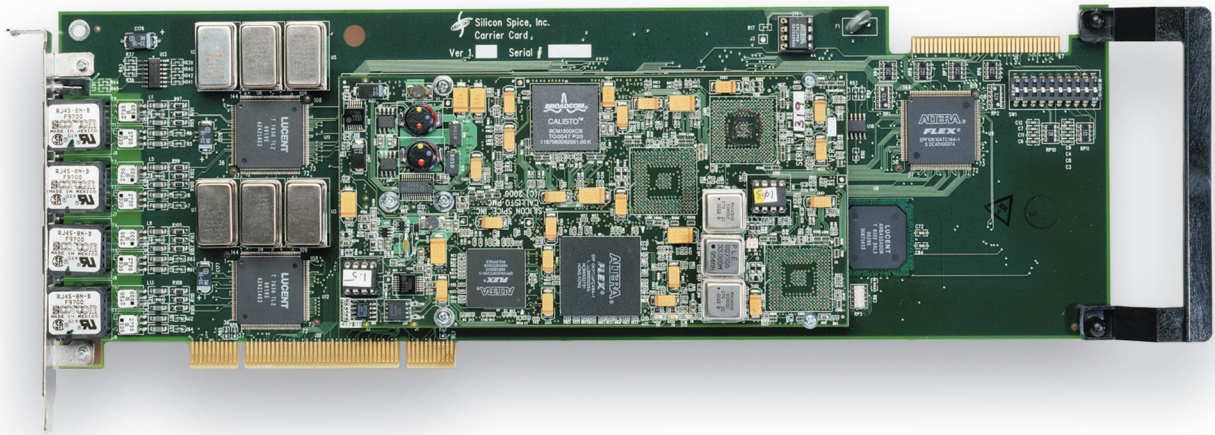
The **CALISTO SDK** consists of an integrated development environment (SpiceIDE) and an EVM (evaluation module) board.

Using Broadcom's C compiler and SpiceIDE shortens the product development cycle dramatically. You can directly compile these applications from C code and rapidly achieve high performance levels. HausWare Framework—CALISTO's real-time operating system (RTOS)—enables voice and data service providers to dynamically provision CALISTO for Any Service Any Port (ASAP) configurations ranging from 240 channels of carrier class G.711 packet telephony to 60 channels of full Universal Port.

SpiceIDE comes complete with a debugger, a simulator, and a profiler. It can be used alone or in conjunction with the EVM board to develop and debug multichannel, multiservice (MCMS) applications on the CALISTO platform.

The debugger takes full advantage of the unique MCMS features of the architecture and of the HausWare Framework. It lets you communicate with the operating system running on a chip and to debug one or more services or sockets while the chip continues to run. When debugging, there are a number of features available that make the task easier than is typically found in IDEs.

The full-chip, cycle-accurate simulator lets you load and run an application as if it were running on the chip. All of the features and capabilities inherent in the chip are available through the simulator.

The profiler lets you collect statistics from a simulation. It can return information about basic block hit counts, cache misses, idle time, function call counts, and so on.

The compiler, assembler, and linker work together to produce an efficient executable from ANSI C source code and from linked object files and libraries.

The compiler is fully ANSI C compliant. It generates efficient assembly from both scalar and vector (loop) source, thus eliminating, in most cases, the need to write directly in assembly.

Furthermore, the compiler is designed to accept hints about aliasing, variable value ranges, and vector file usage.

The link path can create individual service files, or it can create a final image file that contains both the operating system and any pre-loaded services.

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