



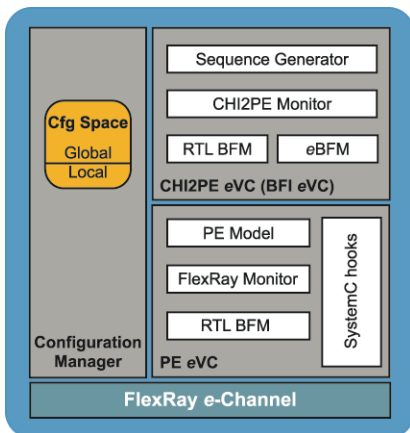
With backing from all the leading car manufacturers and their electronics suppliers, the FlexRay vehicle network standard is now being widely implemented. It brings together functionality that was mutually exclusive in earlier protocols; being fast and flexible without giving up the reliability or deterministic behavior required by safety critical applications such as brake-by-wire.

To complement our FRCC2100 FlexRay implementation IP, IPextreme now offers a comprehensive FlexRay eVC verification environment developed by NXP (formerly Philips) Semiconductors. It enables engineers to validate their System-on-Chip (SoC) designs in a FlexRay network, testing all corners of the FlexRay protocol and ensuring interoperability. This robust test solution enables designers to proactively validate their FlexRay chip design before submitting a chip for FlexRay conformance testing, ensuring first-time-right results and faster time-to-market.

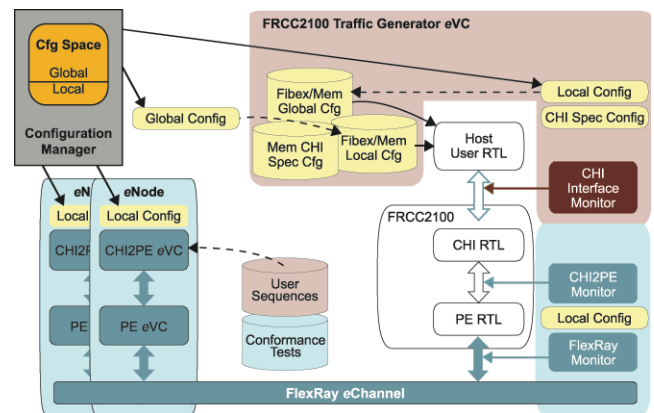
The FlexRay eVC Kit, developed on the Cadence® Incisive® verification platform, has validated the FlexRay executable reference model that also serves as the basis for the FlexRay conformance test. It completes our FRCC2100 FlexRay implementation IP and enables customers to create differentiated FlexRay products, while ensuring full FlexRay compliance. This verification solution integrates easily into all verification environments and is compatible with all major simulators and design languages.

The FlexRay standard defines many options that yield thousands of possible communication configurations. The FlexRay eVC Kit enables you to do constrained random verification on defined configuration ranges, to ensure correct behavior of your implementation.

FlexRay controllers usually consist of two main blocks, a Control Host Interface (CHI) and the Protocol Engine (PE). The CHI gives the host processor access to FlexRay setup, control, monitor and transmit/receive services, and the Protocol Engine (PE) handles all the FlexRay traffic and protocol functionality.



The FlexRay eVC Kit

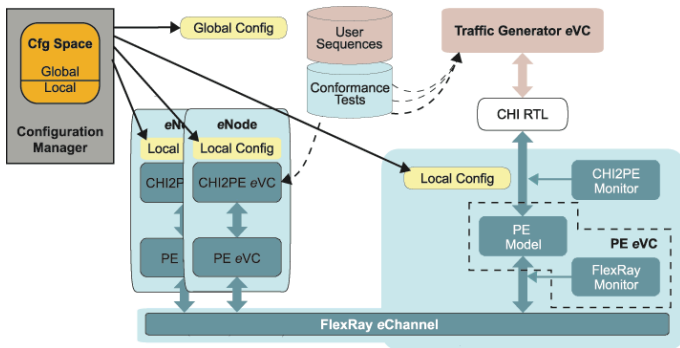


Verifying a FRCC2100 Based System

In most systems, the CHI is customized to allow for end product differentiation, while the PE is never modified to ensure compliance on the FlexRay network.

The IPextreme FRCC2100 IP comes with the PE and a pre-verified CHI interface that supports the requirements of most FlexRay applications such as:

- the use of individual receive and transmit buffers, with single and double buffered transmit
- state or event transmission mode
- receive FIFO functionality
- message buffer filtering
- monitoring frames
- dual-channel mode



Verifying a Custom Control Host Interface (CHI)

However, some applications can benefit from a customized CHI that provides special features that differentiate the end product. The FRCC2100 is cleanly partitioned such that customers can add their own CHI to the proven PE and the FlexRay eVC Kit can easily support verifying the custom CHI as well as the entire FlexRay system by nature of its modular architecture, yielding a powerful and comprehensive, self-checking test environment.

Engineers can also test their hardware against a virtual network of FlexRay nodes completely implemented as eVCs.

The Customer Experience

The IPextreme engineering team has been creating quality IP for a decade, such as the first fully synthesizable ARM processor, the Infineon C166S, MPEG decoders, and Bluetooth. Our engineers understand integration challenges, and so rework and package the design for maximum ease of use. They will typically limit parameters to those most important, simplify interfaces, bundle software, supply suites that verify connectivity, and generally transfer just the necessary knowledge from the original designers.



IPextreme, Inc.

307 Orchard City Drive
 M.S. 202
 Campbell, CA 95008
 800-289-6412 (toll-free)
 408-608-0421 (fax)

www.ip-extreme.com

IPextreme is a registered trademark and XPack is a trademark of IPextreme Inc. of Campbell, CA. All other trademarks are the property of their respective owners. Copyright ©2006 IPextreme Inc. All rights reserved.