Spectra Product Suite Overview

Spectra is an extensive line of software products and services targeting Software Defined Radio (SDR) using the Software Communications Architecture (SCA). The Spectra product suite for radio system developers and integrators provides Commercial-off-the-Shelf (COTS) development tools, software infrastructure and development &test platforms. The Spectra product suite includes:

- Spectra CX4 – *a model-driven development tool that greatly simplifies, accelerates, and validates the SDR / SCA development process.*
- Spectra CF - *a high performance, ultra-low footprint, COTS SCA Core Framework.*
- Spectra CDB - *a fully integrated and optimized SDR middleware stack running across a wide range of Field Programmable Gate Array (FPGA), Digital Signal Processor (DSP) and General Purpose Processor (GPP) elements.*
- Spectra DTP - *a wideband, high performance, baseband and Radio Frequency (RF) SDR development and test platform.*

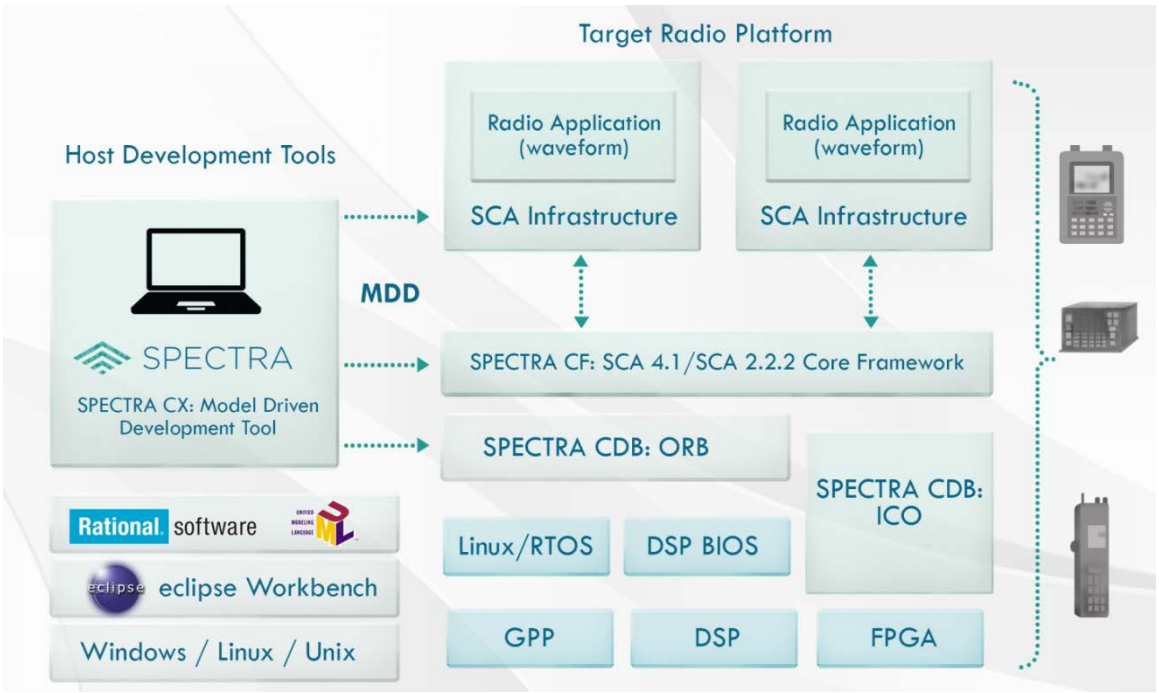


Figure 1 – Spectra Product Suite Overview

Spectra Key Features and Benefits

- Faster SDR waveform development independent of radio platform.
- Higher productivity and quality from auto-generation of all SCA 4 component code.
- Reduced time and expense for testing with tools supporting off target test.
- Lower customer and 3rd party waveform support costs with tools delivering full radio platform development environments.
- Rapid development of high performance, small form factor operating environments.
- Radio waveform development environments accelerating radio customer development efforts.

Spectra CX4

The Spectra CX4 tool allows the user to work at all stages of the development life cycle: Model, Develop, Execute, Validate, Generate and Test.

Spectra CX4 provides visual modeling for all project stakeholders. Powerful visual representation of SCA 4.1 concepts ensures that every project team member has a global understanding of the system and can produce correct SCA 4.1 artifacts. Spectra CX4 supports modeling of components, applications (waveforms), devices, platforms, and deployment of waveforms on target platforms. Modeling deployments throughout the development cycle with Spectra CX4 allows the project team to specify and track the deployment explicitly, and ensure that untested deployments are never accidentally deployed.

De-risk projects by validating early on, and throughout the development cycle. Spectra CX4 allows developers to produce SCA 4.1 compliant software from day one. Validation is built right into Spectra CX4 providing automatic identification of errors in SCA 4.1 compliant radio platforms and waveform applications. In addition to checking the syntax of the Document Type Definition (DTD), Spectra CX4 validates the semantic correctness of the model. Errors are presented along with a hyperlink to the model construct that violates the SCA 4.1 standard. Spectra CX4 also provides suggestions for correcting the violation.

Spectra CBD and Spectra CF

The Spectra Common Data Bus (CDB) is a fully integrated and optimized SDR SCA v2.2.2 and v4.1 compliant Middleware stack.

Spectra CDB runs across a wide range of GPP, DSP and FPGA processing elements. Spectra CDB embedded software solutions are specifically optimized for high performance with minimal footprint on any processor choice and offer radio software infrastructure components called Spectra ORB (for GPP and DSP) and Spectra ICO (for FPGA and ASIC).

The Spectra Core Framework (CF) is a high-performance, ultra-low footprint, COTS implementation of the latest SCA version 4.1 and also SCA version 2.2.2 standard's Framework Control and Service Interfaces and is part of our rapidly growing family of advanced SDR technologies. Spectra CF is designed specifically to support the implementation and deployment of the next-generation of complex SCA-compliant networking waveforms required for military, homeland security and commercial SDRs. Spectra CF supports the deployment of waveform components on any mix GPP, DSP and FPGA processing elements.

Spectra DTP-4700

The Spectra DTP4700 is a wideband, high-performance baseband and RF SDR development and test platform. Spectra DTP-4700 supports the implementation and deployment of the next-generation of complex SCA compliant networking waveforms required for military, homeland security and commercial SDRs. Spectra DTP-4700 is an optimized small form-factor platform with low power consumption that enables the development, testing and deployment of waveforms.

Spectra DTP-4700 is an ideal platform for:

- Waveform and application development / test teams in major radio OEMs and their end customers.
- Enabling both in-house and third-party development of SCA waveforms and applications for later deployment on target production radio platforms.
- Advanced wireless communications (government and defense) laboratories conducting research in fields such as cognitive radio, electronic warfare, and secure SDR waveforms.
- Internal research and development (IR&D) and collaborative research projects in advanced wireless communications.
- Academic and laboratory use.
- Independent waveform and application developers creating software IP for the SDR market.

For further information regarding Spectra products please e-mail: ist_info@adlinktech.com or visit: ist.adlinktech.com

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