FlexRay STACK FOR MODERN AUTOMOTIVE APPLICATIONS

—FACT-SHEET—

MEMORY REQUIREMENTS:

The memory requirement of the FlexRay Protocol Stack depends on the configuration of the Tx and Rx messages for the FlexRay interface layer and buffers size configured in FlexRay TP

ROM: 20KB **RAM: 6KB**

APPLICATIONS OF THE FlexRay SOFTWARE STACK IN AUTOMOTIVE INDUSTRY

FlexRay protocol caters to the requirements of modern automotive applications that need enhanced quantity, reliability and speed of data communication between ECUs.

Applications that are based on drive-by-wire and steer-by-wire technology also require performance capabilities that cannot be fulfilled by existing protocols such as CAN and LIN. ISO 26262 compliant safety critical applications are further additions to those applications.

BUSINESS ENGAGEMENT MODEL AND OVERVIEW

We offer our pre-tested and read-to-integrate FlexRay software solution under a one-time licensing fee model. This engagement model has been designed to offer a plethora of benefits for our customers. The following are value-adds:

- Once you purchase the software, your organization will own the Source Code as well as the IP rights of the FlexRay Software Stack.
- The one-time license model entitles you to deploy this FlexRay Stack Solution across multiple series production programs.

Our entire library of automotive protocol stack is available under this one-time license model. By the virtue of being ready-to-deploy, these software stacks are able to save months of man hours for the customers.

DETAILS OF THE SOFTWARE PACKAGE : FLEXRAY STACK

Our FlexRay stack software package consists of the FlexRay Stack Source Code and all the APIs, required to enable stack integration with the customer application.

This FlexRay Stack has been developed in compliance with the ISO 10681-1:2010 standard.

Important components of our ready-to-integrate FlexRay stack:

- **FlexRay Driver:** Responsible for data abstraction between physical layer and the upper layers of the software solution. Also performs hardware filtering of messages and signals.

- **FlexRay IF:** FlexRay Interface comes as a ready-to-deploy layer which can be configured based on the FIBEX file provided by the customer.

- **FlexRay Transport Layer:** The transport layer is the hardware independent layer and is used for segmentation and reassembly of the messages that do not fit into one data frame which is 254 bytes in size.
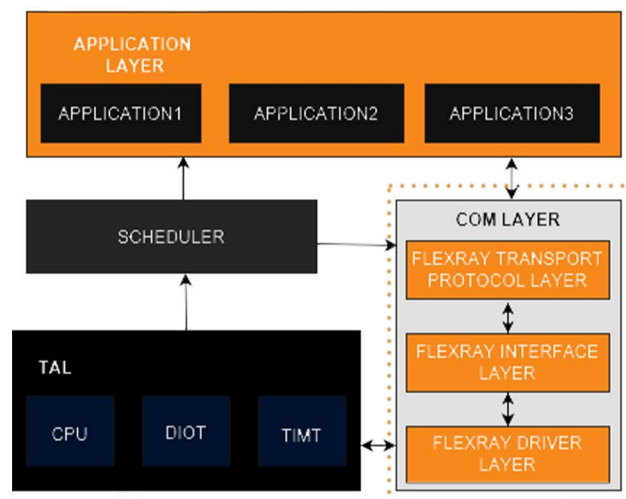
OUR FlexRay STACK HAS BEEN DESIGNED TO POWER MODERN AUTOMOTIVE APPLICATIONS INCLUDING

- Body Control Module
- Battery Management System
- Powertrain ECUs
- Advanced Driver Assistance System
- Electronic Power Steering
- Antilock Braking System

FEATURES

- Designed to support data rate of 10 Mbps
- Supports a data field containing up to 254 bytes
- Supports both asynchronous and synchronous message transmission
- Our FlexRay stack is fully configurable using the Fibex file
- MISRA C compliant code
- Configurable Hardware Filtering mechanism and message buffers
- Built-in error handling feature
- Designed to handle both segmented and unsegmented messages

FlexRay STACK INTEGRATION AND SUPPORT SERVICRS

- Support for development and Integration of FlexRay Device Drivers for automotive-grade Microcontrollers like Renesas – RH850 and NXP 5748G

- FlexRay Interface layer configuration with Tx and Rx message from the FIBEX file

- Configurable Skeleton code for FlexRay Interface layer is provided with the stack

- Unit, Integration and Functional Testing support using Tessy and Vector FlexRay tool

- FlexRay Protocol Stack Support and Maintenance Services

- Integration and configuration of FlexRay TP Layer as per ISO 10681-2

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