**Integration Manual**

**For**

**CF14 PSA Torque Arbitrator**

**VERSION: 1.0**

**DATE: 10-Mar-2015**

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**Revision History**

|  |  |  |  |  |
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| **Sl. No.** | **Description** | **Author** | **Version** | **Date** |
| 1 | Initial version | Sankardu Varadapureddi | 1.0 | 10-Mar-2015 |
|  |  |  |  |  |

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# Abbrevations And Acronyms

|  |  |
| --- | --- |
| **Abbreviation** | **Description** |
| DFD | Design functional diagram |
| MDD | Module design Document |
|  |  |
|  |  |

# References

This section lists the title & version of all the documents that are referred for development of this document

|  |  |  |
| --- | --- | --- |
| **Sr. No.** | **Title** | **Version** |
| 1 | MDD Guidelines | 1.3 |
| 2 | Software Naming Conventions | 1.2 |
| 3 | Software Design and Coding Standards | 2.1 |
| 4 | FDD - CF14 PSA Torque Arbitrator | 1.1.0 |
| 5 | Integration Manual Template.doc | 1.2 |

# Dependencies

## SWCs

|  |  |
| --- | --- |
| **Module** | **Required Feature** |
| **None** |  |

## Global Functions(Non RTE) to be provided to Integration Project

None

# Configuration REQUIREMeNTS

## Build Time Config

|  |  |  |
| --- | --- | --- |
| **Modules** | **Notes** |  |
| **None** |  |  |

## Configuration Files to be provided by Integration Project

None

## Da Vinci Parameter Configuration Changes

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Notes** | **SWC** |
| **None** |  |  |

## DaVinci Interrupt Configuration Changes

|  |  |  |  |
| --- | --- | --- | --- |
| **ISR Name** | **VIM #** | **Priority Dependency** | **Notes** |
| **None** |  |  |  |

## Manual Configuration Changes

|  |  |  |
| --- | --- | --- |
| **Constant** | **Notes** | **SWC** |
| **None** |  |  |

# Integration DATAFLOW REQUIREMENTS

## Required Global Data Inputs

HwTorque\_HwNm\_f32

PosSrvoCmd\_MtrNm\_f32

PosSrvoEnable\_Cnt\_lgc

VehicleSpeed\_Kph\_f32

## Required Global Data Outputs

OpTrqOv\_MtrNm\_f32

PosSrvoNTC\_Cnt\_lgc

## Specific Include Path present

No

# Runnable Scheduling

This section specifies the required runnable scheduling.

|  |  |  |
| --- | --- | --- |
| **Init** | **Scheduling Requirements** | **Trigger** |
| **PSATA\_Init1** | None | RTE( Init) |

|  |  |  |
| --- | --- | --- |
| **Runnable** | **Scheduling Requirements** | **Trigger** |
| **PSATA\_Per1** | None | RTE (2ms) |

**.**

# Memory Map REQUIREMENTS

## Mapping

|  |  |  |
| --- | --- | --- |
| **Memory Section** | **Contents** | **Notes** |
| **PSATA\_START\_SEC\_VAR\_CLEARED\_BOOLEAN**  **PSATA \_START\_SEC\_VAR\_CLEARED\_16**  **PSATA \_START\_SEC\_VAR\_CLEARED\_32**  **PSATA\_START\_SEC\_VAR\_CLEARED\_UNSPECIFIED** |  |  |
|  |  |  |

\* Each …START\_SEC… constant is terminated by a …STOP\_SEC… constant as specified in the AUTOSAR Memory Mapping requirements.

## Usage

|  |  |  |
| --- | --- | --- |
| **Feature** | **RAM** | **ROM** |
| **<Memmap usuage info>** |  |  |

Table 1: ARM Cortex R4 Memory Usage

## Non RTE NvM Blocks

|  |
| --- |
| **Block Name** |
| **None** |

## RTE NvM Blocks

|  |
| --- |
| **Block Name** |
| **None** |

# Compiler Settings

## Preprocessor MACRO

None.

## Optimization Settings

None

# Appendix