MC-ISAR_AS42x_TC3xx_CD_1.30.0

Release Notes
Product name: MC_AURIX2G_SW_MCAL
Release number: 1.30.0
Type of release: PR*
Release method: via Release Area
AUTOSAR specification: 4.2.2
Compiler support: Tasking 6.2r2p2, HighTec GNU 4.9.2.0
Processor platform: TC39xBA, TC39xBB, TC39xBC, TC38xAA, TC38xAB, TC38xAC, TC38xAD, TC37xEDAA, TC37xEDAB, TC37xAA and TC35xAA
Date: 2019-10-24
Previous release number: 1.30.0-rc

About this document

Scope and purpose

This release notes, for the 1.30.0 delivery of TC3xx_SW_MCAL complex drivers, details the release contents, all known issues in this release and the changes from the last release. This document also provides information on tools, compiler options and support packages.

New issues identified since the last release of this document are detailed first, followed by all issues identified in previous versions of this release.

The modules supported in this release are:

- Dma (10.30.0)
- Dsadc (10.30.1)
- FlsLoader (10.30.1)
- Smu (10.30.0)
- Uart (10.30.0)

Further generic references to Modules are indicated as <Mod>, where <Mod> represents the above module short names.

*Note: * This release is intended for production use.*

Attention: Refer to the Limitations and deviations section before using the software for integration.

Intended audience

This document is intended for anyone using the TC3xx_SW_MCAL software.

Reference documents

None.

Table of contents

1 Release contents

1.1 Release overview

This release is of PR quality. Section 1.4 provides module-wise quality information.

TC36x and TC33x plug-in support is available in the current 1.30.0 release. However, customer should not use this release with TC36x and TC33x as validity of this release is limited to TC39xBA, TC39xBB, TC39xBC, TC38xAA, TC38xAB, TC38xAC, TC38xAD, TC37xEDAA, TC37xEDAB, TC37xAA and TC35xAA.

1.2 Released items

The release is contained in the `MC-ISAR_AS42x_TC3xx_CD_1.30.0.zip` file. The contents of this file include MCAL software, EB tresos plugin files (BMD included), User Manuals and Release Notes.

Note: *The package also includes Build Environment and Demo Application, which are not attached with any quality but provided for demonstration purpose only.*

Table 1 **Release zip contents**

Package content	Description
`MC-ISAR_AS42x_TC3xx_CD_1.30.0.exe`	Product installer to be used with AUTOSAR Version 4.2.2
User Manuals	Contains the MCAL User Manual and MCAL Configuration Verification User Manual
`Releasenote_MC-ISAR_AS42x_TC3xx_CD_1.30.0.pdf`	Contains the Release Notes

1.2.1 Driver files

Table 2 **Driver file description**

File name	Description
`<Mod>_<Ie>.c`	Contains the <Mod>_<Ie> source files located in `\McIsar\Src\Mcal\Tricore\<Mod>\ssc\src.`
`<Mod>_<Ie>.h`	Contains the <Mod>_<Ie> header files located in `\McIsar\Src\Mcal\Tricore\<Mod>\ssc\inc.`

Note: *In the above table, `Ie` stands for implementation specific.*

1.2.2 Common files

Refer to the `MC-ISAR_AS42x_TC3xx_BASIC_<yyy>-<zzzz>` for details on the common files, where <yyy> and <zzzz> represent the corresponding release numbers.

1.2.3 EB tresos plugin files

Note: *Resource_Aurix2G contains the properties for the TC39xBA, TC39xBB, TC39xBC, TC38xAA, TC38xAB, TC38xAC, TC38xAD, TC37xEDAA, TC37xEDAB, TC37xAA and TC35xAA.*

Release contents

Table 3   **Plugin files**

Folder name	Description
Autosar	Contains the BMD files for the module located in `\McIsar\PluginsTresos\eclipse\Plugins\<Mod>_Aurix2G`
Config	Contains the XDM tresos plugin files for the module located in `\McIsar\PluginsTresos\eclipse\Plugins\<Mod>_Aurix2G`
Generate	Contains the template for the generated files for the module located in `\McIsar\PluginsTresos\eclipse\Plugins\<Mod>_Aurix2G`
plugin.properties	Contains the plugin property for the module located in `\McIsar\PluginsTresos\eclipse\Plugins\<Mod>_Aurix2G`
plugin.xml anchors.xml	Contains the plug-in information, located in `\McIsar\PluginsTresos` `\eclipse\Plugins\<Mod>_Aurix2G`

1.3   Safety

For information on safety, refer to the Safety Case Report document.

1.4   Module-wise quality

Table 4   **Module-wise quality**

Module	Release quality
Dma	PR
Dsadc	PR *Note:* *This driver is not supported in TC35x device.*
FlsLoader	PR
Smu	PR
Uart	PR

1.5   Compatibility

This release is tested with the following SFR packages:

- TC37xPD: REG_TC37xPD_UM_V1.2.0.R0
- TC37xED: REG_TC37xED_UM_V1.2.0.R0
- TC35xA: REG_TC35XA_UM_V1.2.0.R0
- TC38x: REG_TC38XA_UM_V1.1.0.R0
- TC39xB: REG_TC39XB_UM_V1.1.0.R0

Release contents

Note: *TC38x and TC39x SFR files were generated using UM 1.1. Changes between HW UM 1.1 and 1.2 were analyzed. No impact to SFR files due to the changes. Hence HW UM 1.2 is valid for TC38x and TC39x SFR files.*

2   Tool information

Table 5   Tool information

Tool description	Version details
Compiler	TASKING TriCore 6.2r2p2
	HighTec TriCore 4.9.2.0
Processor platform	TC39xBA, TC39xBB, TC39xBC, TC38xAA, TC38xAB, TC38xAC, TC38xAD, TC37xEDAA, TC37xEDAB, TC37xAA and TC35xAA
Evaluation hardware	TriBoard TC3x9
	TriBoard TC3x7
Code configuration and generation tool	EB tresos Studio 23.0.0 Build Nr. b170330-0431

*Note: For more information on WibuKey issue related to the EB Tresos installation, refer to **https://www.wibu.com/us/support/user/downloads-user-software.html**. The WibuKey issue numbers are: CVE-2018-3989, CVE-2018-3990 and CVE-2018-3991. The Tresos license provided by Infineon Technologies does not require WibuKey software.*

Table 6   AURIX^{TM}2G umbrella device support

AURIX^{TM} 2G umbrella device	Name displayed in Tresos tool	Tresos property file
SAK-TC399XE-256F300S	TC399	AURIX2G_TC399.properties
SAK-TC397XE-256F300S	TC397	AURIX2G_TC397.properties
SAK-TC397XT-256F300S	TC397_ADAS	AURIX2G_TC397_ADAS.properties
SAL-TC389QP-160F300S	TC389	AURIX2G_TC389.properties
SAL-TC387QP-160F300S	TC387	AURIX2G_TC387.properties
SAK-TC389QP-160F300S	TC389	AURIX2G_TC389.properties
SAK-TC387QP-160F300S	TC387	AURIX2G_TC387.properties
SAL-TC377TP-96F300S	TC377	AURIX2G_TC377.properties
SAL-TC375TP-96F300W	TC375	AURIX2G_TC375.properties
SAL-TC377DP-96F300S	TC377	AURIX2G_TC377.properties
SAL-TC377TX-96F300S	TC377_ED_EX	AURIX2G_TC377_ED_EX.properties
SAL-TC377TE-96F300S	TC377_ED	AURIX2G_TC377_ED.properties
SAL-TC375TE-96F300W	TC375_ED	AURIX2G_TC375_ED.properties
SAK-TC377TP-96F300S	TC377	AURIX2G_TC377.properties
SAK-TC375TP-96F300W	TC375	AURIX2G_TC375.properties
SAK-TC377DP-96F300S	TC377	AURIX2G_TC377.properties
SAK-TC356TA-64F300S	TC356_ADAS	AURIX2G_TC356_ADAS.properties
SAK-TC357TT-64F300S	TC357_ADAS	AURIX2G_TC357_ADAS.properties

Tool information

Table 7   **AURIX^TM 2G marking option device support[1)]**

AURIX^TM 2G marking option device	Name displayed in Tresos tool	Tresos property file
SAL-TC399XX-256F300S	TC399	AURIX2G_TC399.properties
SAL-TC399XP-256F300S	TC399	AURIX2G_TC399.properties
SAL-TC397XP-256F300S	TC397	AURIX2G_TC397.properties
SAK-TC399XP-256F300S	TC399	AURIX2G_TC399.properties
SAK-TC399XX-256F300S	TC399	AURIX2G_TC399.properties
SAK-TC397XP-256F300S	TC397	AURIX2G_TC397.properties
SAK-TC397XA-256F300S	TC397	AURIX2G_TC397.properties
SAK-TC397QA-160F300S	TC397	AURIX2G_TC397.properties
SAK-TC397XX-256F300S	TC397	AURIX2G_TC397.properties
SAK-TC397QP-192F300S	TC397	AURIX2G_TC397.properties
SAK-TC397QP-256F300S	TC397	AURIX2G_TC397.properties
SAK-TC397XZ-256F300S	TC397	AURIX2G_TC397.properties
SAK-TC397XM-256F300S	TC397	AURIX2G_TC397.properties
SAL-TC380QP-160F300S	TC389	AURIX2G_TC389.properties
SAK-TC387TP-128F300S	TC387	AURIX2G_TC387.properties
SAL-TC387TP-128F300S	TC387	AURIX2G_TC387.properties
SAK-TC387TP-160F300S	TC387	AURIX2G_TC389.properties
SAL-TC387TP-160F300S	TC387	AURIX2G_TC389.properties
SAK-TC387QN-160F300S	TC387	AURIX2G_TC387.properties
SAK-TC389QN-160F300S	TC389	AURIX2G_TC389.properties
SAL-TC370TP-96F300S	TC377	AURIX2G_TC377.properties
SAK-TC377TX-96F300S	TC377_ED_EX	AURIX2G_TC377_ED_EX.properties
SAK-TC357TA-64F300S	TC357_ADAS	AURIX2G_TC357_ADAS.properties
SAK-TC357TH-64F300S	TC357_ADAS	AURIX2G_TC357_ADAS.properties
SAK-TC356TH-64F300S	TC356_ADAS	AURIX2G_TC356_ADAS.properties

Note: ***1.***   *For TC38x, TC39x, TC37x, TC37xEXT and TC35x marking option device support, range check has to be imposed by user, and not in the MCAL code.*

2.1   Compiler options

Table 8   **TASKING compiler options used**

Options	Description
Compiler options	`--core=tc1.6.2 --iso=99 -O2 --eabi-compliant -AGKpvX --switch=auto --integer-enumeration --default-near-size=0 --fp-model=1`

Tool information

Table 8	TASKING compiler options used (continued)
Options	**Description**
Assembler options	`--core=tc1.6.2 --list-format=1 --optimize=gs`
Linker options	`-OcLtXY --core=mpe:vtc`

Table 9	HighTec compiler options used
Options	**Description**
Compiler options	`-Wall -std=c99 -O2 -mtc162 -meabi -fno-short-enums -ffunction-sections -fdata-sections -fstrict-volatile-bitfields`
Assembler options	`-Wall -std=c99 -O2 -mtc162 -meabi -fno-short-enums -ffunction-sections -fdata-sections -fstrict-volatile-bitfields`
Linker options	`-Wl,--mcpu=tc162 -Wl,--gc-sections -nostartfiles -Wl,-n`

Note: *Compiler options which influence code generation and are not listed, should be left to the default compiler settings. All the above-listed compiler options are mandatory.*

Attention: **If the compiler options are changed by the user, and if the generated binary output is different than the one generated by the usage of the mandatory compiler options, the functionality and reliability of the drivers cannot be ensured.**

3 Summary of changes

Configuration changes

Table 10   Configuration changes from 1.30.0-rc to 1.30.0

Compatibility check	Result
Are there any change in parameters supplied from previous version?	Yes
Added parameters	None
Deleted parameters	None
Modified parameters	**Dsadc, FlsLoader:** Modules SwPatchVersion parameter default value is modified.
Can the previously saved configuration be reused?	Yes

3.1 Issues fixed in release 1.30.0

Table 11   Summary of changes from 1.30.0-rc to 1.30.0

Module	Issue number	Description
Dsadc	0000053912-7631	The detailed dependency of DsadcAccessMode/DsadcTriggerSelect need to be mentioned for the APIs in SAS.
	0000053912-7728	UM update for the safety error deviation.
	0000053912-7757	Invalid ISR safety error and BUSY DET/Safety error during normal operation.
	0000053912-8513	Invalid ISR reported during Dsadc_StartModulation() API call.
	0000053912-8586	Unexpected conversion reported before Window open in ERU Trigger.
FlsLoader	0000053912-8081	Delay to be added after program and erase command sequence as per HW UM V1.2.0.
	0000053912-8089	OPER needs to be checked as per prog/erase sequence in HW ITS.
Smu	0000053912-7759	Smu_RegisterMonitor() returns E_OK even when fault is detected in a safety flip-flop protected register
	0000053912-8261	Smu_RegisterMonitor() does not take care of the AoU ESM[SW]:SMU:REG_MONITOR_TEST
	0000053912-8463	Register Monitor Test Timeout for different IOM frequency

Note: Generic ones are to be referred from BASIC Release notes.

3.2 Issues fixed in release 1.30.0-rc

Due to the modifications/enhancements to add new device(s) and features in the configuration structure, all configurations generated with 1.20.0-beta/1.30.0-alpha are not compatible with the 1.30.0-rc product.

Configuration changes

Summary of changes

Table 12   **Configuration changes from 1.20.0-beta/1.30.0-alpha to 1.30.0-rc**

Compatibility check	Result
Are there any change in parameters supplied from previous version?	Yes
Added parameters	No
Deleted parameters	No
Modified parameters	**Dsadc:** • Configuration rule is added for DsadcRuntimeApiMode parameter • Configuration rule is updated for DsadcDemEventParameterRefs and DsadcFifoFailureNotification • DsadcBitReversePwmGeneration parameter is renamed to DsadcPwmGenerationMode **Uart:** • UartClockRef parameter reference path is modified • UartChanBaudOverSampling range check is modified **General:** • For all modules, the default value of the SwMinorVersion parameter is modified
Can the previously saved configuration be reused?	Yes

Table 13   **Summary of changes from 1.20.0-beta/1.30.0-alpha to 1.30.0-rc**

Module	Issue number	Description
Generic	0000053912-7100	<Mod>_Bswmd.arxml file enum data type is updated.
Dma	0000053912-7130	Multiple error interrupts observed in case of ME errors. This information is updated in the User Manual.
	0000053912-6937	Dma_GetRemainingData() API does not differentiate the return value between DET and successful completion of DMA data transfer.
	0000053912-6935	GHS compiler warnings needs to be fixed for Dma_PBcfg.c file.
	0000053912-6918	Compilation error is observed when source and destination buffer addresses are defined as variable during configuration.
	0000053912-6852	Bit wise access in the DMA driver is updated to 32-bit write access as per hardware errata suggestion.
	0000053912-6560	A new API is added for querying the DMA events.
Dsadc	0000053912-6272	Service ID reported for DET and safety error by the Dsadc_ReadResult() and Dsadc_GetTimestamp() APIs are incorrect.
	0000053912-6317	The circular buffer read does not correspond to the applied voltage in the second request of modulation on/off cycle.

Table 13   Summary of changes from 1.20.0-beta/1.30.0-alpha to 1.30.0-rc (continued)

Module	Issue number	Description
	0000053912-6316	No error observed for following configuration: • Set DsadcRuntimeApiMode = DSADC_MCAL_SUPERVISOR and DsadcInitDeInitApiMode=DSADC_MCAL_USER1 • Check DsadcSafetyEnable default value
	0000053912-7411	Wrong safety error reported for the Eru and Gtm Isr with invalid status flags.
	0000053912-7161	Dsadc_InitCheck API functionality not working.
	0000053912-6099	Wrong conversion value when Linear Buffer access, Window Mode + Timestamp Enable (Eru as Trigger Source).
	0000053912-7581	Incorrect pointer used in Dsadc_InitCheck API does not return E_NOT_OK but returns E_OK .
	0000053912-7421	When the Dsadc_isr API is called with invalid Hardware channel ID wrong safety error is reported.
	0000053912-6317	Circular buffer read failing in the 2nd round of modulation on/off cycle.
	0000053912-6690	Get version info API is added.
	0000053912-6449	Configuration dependency for some of the parameters corrected.
	0000053912-7634	Function prototype of Dsadc_SetupResultBuffer has wrong prototype when DSADC_ALL_CH_RESULT_HANDLING_DMA is STD_OFF.
	0000053912-7686	Spurious interrupts not reporting safety error for Dsadc_Isr.
FlsLoader	0000053912-7530	FlsLoader_Write() is failing for DFlash when Executed with McuFSIFrequency at 20 MHz.
	0000053912-6782	Errata workaround added for maximum program flash erase time per multi-sector command.
Smu	0000053912-7184	Smu_coreAliveTest() Api does not check if test is successful.
	0000053912-6843	AoU added to ensure source of SMU alarms are cleared before Smu_Init.
	0000053912-6766	SMU alarms may not be cleared even though SMU driver explicitly clears the alarm in the Smu_Init or Smu_ClearAlarmStatus API.
Uart	0000053912-6703	Over sampling supported added as per hardware (3-15).

3.3   Issues fixed in release 1.30.0-alpha

This is the first Alpha delivery for the product.

3.4   Enhancements and issues fixed from 1.10.0 to 1.30.0-rc

This chapter describes the enhancements and issues fixed from 1.10.0 to 1.30.0-rc.

Summary of changes

Table 14 **Enhancements and issues fixed from 1.10.0 to 1.30.0-rc**

Module	Issue number	Description
Dma	0000053912-7130	Multiple error interrupts observed in case of ME errors. This information is updated in the User Manual.
	0000053912-6937	Dma_GetRemainingData() API does not differentiate the return value between DET and successful completion of DMA data transfer.
	0000053912-6560	A new API is added for querying the DMA events.
FlsLoader	0000053912-6782	Errata workaround added for maximum program flash erase time per multi-sector command.
Smu	0000053912-7184	Smu_coreAliveTest() Api does not check if test is successful.
	0000053912-6843	AoU added to ensure source of SMU alarms are cleared before Smu_Init.
	0000053912-6766	SMU alarms may not be cleared even though SMU driver explicitly clears the alarm in the Smu_Init or Smu_ClearAlarmStatus API.

4 Known issues

No known issues.

Note: *Generic ones are to be referred from BASIC Release notes.*

5 Limitations and deviations

This chapter describes the limitations and deviations due to software/hardware design constraints.

5.1 Limitations

Table 15 **Known limitations**

Reference	Limitation
Enum input parameter	MCAL does not support negative values for enumeration type. User shall ensure that valid enumeration values are passed for the APIs where arguments of enumeration type are accepted.

Note: *For driver specific Deviations and limitations refer to Deviations and limitations section in the respective driver chapters of MCAL User Manual.*

5.2 Deviations

Table 16 **Known deviations**

Module name	Description	Impact on module
Tresos Tool/BMD	The BMD files provided in the package are not fully compliant to AS4.2.2.	Following warnings are observed in the plugin files: • Software version check: No corresponding BSW-IMPLEMENTATION node for component MOD found • Vendor ID check: No corresponding BSW-IMPLEMENTATION node for component MOD found • BSW-IMPLEMENTATION node should exist but was not found. ArMajorVersion/ArMinorVersion/ArPatchVersion/SwMajorVersion/SwMinorVersion/SwPatchVersion/VendorId/VendorApiInfix should not be set in the CommonPublishedInformation container in AUTOSAR Version 3.x or higher. • Parameter maximum value should not be set with the value 'INF' in VSMD
	Limited variation point support	Configuration testing with Variation Point Support is limited due to EB tresos tool issue. The tool hangs randomly with the variation points added.
Generic	MCAL treats the DET services to be of "void" return type.	• MCAL treats the DET services Det_ReportError() and Det_ReportRuntimeError() to be of "void" return type. This is an AUTOSAR deviation as AUTOSAR requires the return type to be "Std_ReturnType". • As per AUTOSAR SWS, E_OK shall be the only return value for DET services. For MCAL, MISRA Rule 17.7 violation will be reported for the modules calling the DET services. No functional impact seen.

Limitations and deviations

5.2.1   HIS-MISRA violations

Table 17   **MISRA violations**

MISRA_2012_Rule	Rule description	Justification for deviation	Modules applicable
1.3	There shall be no occurrence of undefined or critical unspecified behavior	This rule violation is agreed as we need to store the address passed in the called function in many scenarios.	Dma
2.2	There shall be no dead code	Values are assigned in assembly instructions. Therefore, they are actually used and not dead code.	Dsadc
2.7	There should be no unused parameters in functions	Parameters are used in assembly instructions. Therefore, they are actually used.	Dsadc
4.9	A function should be used in preference to a function-like macro where they are interchangeable	Allowed violations in cases where function like macro, '*_GetVersionInfo', and intrinsic macros.	Dma, FlsLoader, Uart, Smu, Dsadc
4.10	Precautions shall be taken in order to prevent the contents of a header file being included more than once	Allowed violations in case where Mod_Memmap.h is repeatedly included without include guard. This is as per AUTOSAR.	Dma, Smu, Uart, Dsadc, FlsLoader
5.1	External identifiers shall be distinct	Allowed violations in cases where external identifiers are going beyond 32 chars (some due to AS naming conventions, some due to module design, but mostly in the generated code.)	Dma, FlsLoader, Smu, Uart, Dsadc
5.2	Identifiers declared in the same scope and name space shall be distinct	Allowed violations in cases where external identifiers are going beyond 32 chars (some due to AS naming conventions, some due to module design, but mostly in the generated code.)	Dma, FlsLoader, Smu, Uart, Dsadc
5.4	Macro identifiers shall be distinct	Allowed violations in cases where external identifiers are going beyond 32 chars (some due to AS naming conventions, some due to module design, but mostly in the generated code.)	Dma, FlsLoader, Smu, Uart, Dsadc

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Limitations and deviations

Table 17 **MISRA violations (continued)**

MISRA_2012_Rule	Rule description	Justification for deviation	Modules applicable
5.5	Identifiers shall be distinct from macro names	Allowed violations in cases where external identifiers are going beyond 32 chars (some due to AS naming conventions, some due to module design, but mostly in the generated code.)	Dma, FlsLoader, Smu, Uart, Dsadc
8.9	An object should be defined at block scope if its identifier only appears in a single function	Global constants not declared within block scope, but used only in one function. Declaring const in an API scope may lead to confusion.	Dma, FlsLoader
11.3	A cast shall not be performed between a pointer to object type and a pointer to a different object type	Cast performed between a pointer to object type and a pointer to a different object type due to SFR access.	Dma, FlsLoader, Smu
11.4	A conversion should not be performed between a pointer to object and an integer type	Allowed violations in cases where rule is violated for SFR access only.	Dma, FlsLoader
11.5	A conversion should not be performed from pointer to void into pointer to object	Allowed violations as internal function performs initialization at 1 byte at a time. For such operations, the pointer type conversion is required.	FlsLoader
11.6	A cast shall not be performed between pointer to void and an arithmetic type	Allowed violations for SFR access only.	Dma, FlsLoader
11.8	A cast shall not remove any const or volatile qualification from the type pointed to by a pointer	Allowed violation for SFR access only and the solution gives compile time warning with different compilers.	Dma, FlsLoader, Dsadc
18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand	The timer values are read from status register and, therefore, the value of timer is within range.	Smu
18.2	Subtraction between pointers shall only be applied to pointers that	Buffer address comparison is used to identify the Result buffer range within	Dsadc

Limitations and deviations

Table 17   **MISRA violations (continued)**

MISRA_2012_Rule	Rule description	Justification for deviation	Modules applicable
	address elements of the same array	the channel buffer range. Validated and no side effects are foreseen.	
18.3	The relational operators >, >=, < and <= shall not be applied to objects of pointer type except where they point into the same object	Buffer address comparison is used to identify the Result buffer range within the channel buffer range. Validated and no side effects are foreseen.	Dsadc
18.4	The +, -, += and -= operators should not be applied to an expression of pointer type	Allowed violation in cases where pointer arithmetic other than array indexing is used.	FlsLoader, Dsadc
19.2	The union keyword should not be used	Allowed violation in cases where pointer arithmetic other than array indexing is used for SFR access.	Dma, FlsLoader
20.1	#include directives should only be preceded by pre-processor directives or comments	Allowed violations in cases where declaration before #include memap.h as per AUTOSAR.	Dma, FlsLoader, Smu, Uart, Dsadc

6 Support packages

Attention: ***The following information is given for evaluation purposes only. Modifications to these packages are made at your own risk.***

6.1 Example demo application

These files contain the TC3xx demo routines. The following table describes the different folders/files.

Table 18 **Demo workspace**

Folder / file name	Description
`\DemoWorkspace\McalDemo\<device>\0_Src`	Contains the source files needed to run the Demo application
`\DemoWorkspace\McalDemo\<device>\1_ToolEnv`	Contains the tools necessary to build the Demo application

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