

MCAL Configuration Verification Manual for Fr_17_Eray

32-bit TriCore™ AURIX™ TC3xx microcontroller family

About this document

Scope and purpose

This Configuration Data Reference document is applicable to all TC3xx devices in the TriCore™ AURIX™ family of 32-bit microcontrollers.

The purpose of this document is to facilitate the integrator to verify the generated code based on the input configuration parameters. This document describes details of structures, defines, macros and variables generated from the configuration parameters.

Intended audience

This document is intended for integrators who need to understand the logic of the generated configuration code of AURIX™ AUTOSAR MCAL.

Reference documents

This document should be read in conjunction with the following documents:

AURIX™ TC3XX MCAL User Manual Fr_17_Eray

MCAL Configuration Verification Manual for Fr_17_Eray



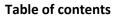




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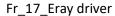
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1 Fr_17_Eray driver

This chapter describes the details of the configuration data generated from the FR driver.

1.1 File: Fr_17_Eray_Cfg.h

The generated header file contains all pre-compile configuration parameters. Pre-compile time configuration allows decoupling of the static configuration from implementation. The file is generated in 'inc' folder.

1.1.1 Macro: FR_17_ERAY_AR_RELEASE_MAJOR_VERSION

Table 1 FR_17_ERAY_AR_RELEASE_MAJOR_VERSION

Name	FR_17_ERAY_AR_RELEASE_MAJOR_VERSION	
Description	Major version number of AUTOSAR release on which the Fr_17_Eray implementation is based on.	
Verification method	The macro is generated with the value present in 'CommonPublishedInformation/ArMajorVersion'. Note: The macro is not user configurable.	
Example(s)	Action	Generated output
	Generate Fr_17_Eray_Cfg.h file with ArMajorVersion 4	#define FR_17_ERAY_AR_RELEASE_MAJOR_VERSION (4U)

1.1.2 Macro: FR_17_ERAY_AR_RELEASE_MINOR_VERSION

Table 2 FR 17 ERAY AR RELEASE MINOR VERSION

Table 2 FR_11	able 2 FR_17_ERAY_AR_RELEASE_MINOR_VERSION		
Name	FR_17_ERAY_AR_RELEASE_MINOR_VERSION		
Description	Minor version number of AUTOSAR release on which the Fr_17_Eray implementation is based on.		
Verification method	The macro is generated with the value present in 'CommonPublishedInformation/ArMinorVersion'. Note: The macro is not user configurable.		
Example(s)	Action	Generated output	
	Generate Fr_17_Eray_Cfg.h file with ArMinorVersion 2	#define FR 17 FRAY AR RELEASE MINOR VERSION (2U)	

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1.1.3 Macro: FR_17_ERAY_AR_RELEASE_REVISION_VERSION

Table 3 FR_17_ERAY_AR_RELEASE_REVISION_VERSION

Name	FR_17_ERAY_AR_RELEASE_I	FR_17_ERAY_AR_RELEASE_REVISION_VERSION	
Description	Revision version number of a based on.	Revision version number of AUTOSAR release on which the Fr_17_Eray implementation is based on.	
Verification method	The macro is generated with the value present in 'CommonPublishedInformation/ArPatchVersion'. Note: The macro is not user configurable.		
Example(s)	Action	Generated output	
	Generate Fr_17_Eray_Cfg.h file with ArPatchVersion 2	#define FR_17_ERAY_AR_RELEASE_REVISION_VERSION (2U)	

1.1.4 Macro: FR_17_ERAY_SW_MAJOR_VERSION

Table 4 FR_17_ERAY_SW_MAJOR_VERSION

Name	FR_17_ERAY_SW_MAJOR_VERSION		
Description	Major version number of the Fr_17_Eray module.		
Verification method	The macro is generated with the value present in 'CommonPublishedInformation/SwMajorVersion'. Note: The macro is not user configurable.		
Example(s)	Action	Generated output	
	Generate Fr_17_Eray_Cfg.h file with SwMajorVersion 10	#define FR_17_ERAY_SW_MAJOR_VERSION (10U)	

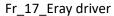
1.1.5 Macro: FR_17_ERAY_SW_MINOR_VERSION

Table 5 FR_17_ERAY_SW_MINOR_VERSION

Name	FR_17_ERAY_SW_MINOR_VERSION	
Description	Minor version number of the Fr_17_Eray module.	
Verification method	The macro is generated with the value present in	
	'CommonPublishedInformation/SwMinorVersion'.	
	Note: The macro is not user configurable.	
Example(s)	Action	Generated output
	Generate Fr_17_Eray_Cfg.h file with SwMinorVersion 10	#define FR_17_ERAY_SW_MINOR_VERSION (10U)

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1.1.6 Macro: FR_17_ERAY_SW_PATCH_VERSION

Table 6 FR_17_ERAY_SW_PATCH_VERSION

Name	FR_17_ERAY_SW_PATCH_VERSION	
Description	Patch level version number of the Fr_17_Eray module.	
Verification method	The macro is generated with the value present in	
	'CommonPublishedInformation/SwPatchVersion'.	
	Note: The macro is not user configurable.	
Example(s)	Action	Generated output
	Generate Fr_17_Eray_Cfg.h file with SwPatchVersion 0	#define FR_17_ERAY_SW_PATCH_VERSION (0U)

1.1.7 Macro: FR_17_ERAY_INIT_API_MODE

Table 7 FR_17_ERAY_INIT_API_MODE

	– – – –		
Name	FR_17_ERAY_INIT_API_MODE		
Description	Decides the mode of execution of Init API.		
Verification method	The macro is generated as FR_17_ERAY_MCAL_USER1 if configuration parameter FrInitApiMode is set to 'FR_MCAL_USER1' else the macro is generated as FR_17_ERAY_MCAL_SUPERVISOR.		
Example(s)	Action	Generated output	
	Set FrInitApiMode as FR_MCAL_USER1	#define FR_17_ERAY_INIT_API_MODE (FR_17_ERAY_MCAL_USER1)	

1.1.8 Macro: FR_17_ERAY_DEV_ERROR_DETECT

Table 8 FR_17_ERAY_DEV_ERROR_DETECT

Name	FR_17_ERAY_DEV_ERROR_DETECT	
Description	Enables/disables the Development Error Detection.	
Verification method	The macro is generated as STD_ON if FrDevErrorDetect configuration parameter is set to 'True' else the macro is generated as STD_OFF.	
Example(s)	Action	Generated output
	Set FrDevErrorDetect as True	#define FR_17_ERAY_DEV_ERROR_DETECT

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	(STD_ON)
Set FrDevErrorDetect as False	#define FR_17_ERAY_DEV_ERROR_DETECT (STD_OFF)

1.1.9 Macro: FR_17_ERAY_VERSION_INFO_API

Table 9 FR 17 ERAY VERSION INFO API

Name	FR_17_ERAY_VERSION_INFO_API	
Description	Enables/disables Fr_17_Eray_GetVersionInfo API	
Verification method	The macro is generated as STD_ON if FrVersionInfoApi configuration parameter is set to 'True' else the macro is generated as STD_OFF.	
Example(s)	Action Generated output	
	Set FrVersionInfoApi as True	#define FR_17_ERAY_VERSION_INFO_API (STD_ON)
	Set FrVersionInfoApi as False	#define FR_17_ERAY_VERSION_INFO_API (STD_OFF)

1.1.10 Macro: FR_17_ERAY_PREPARE_LPDU

Table 10 FR_17_ERAY_PREPARE_LPDU

Name	FR_17_ERAY_PREPARE_LPDU	
Description	Enables/disables Fr_17_Eray_ PrepareLPdu API	
Verification method	The macro is generated as STD_ON if 'FrPrepareLPduSupport' configuration parameter is set to 'True' else the macro is generated as STD_OFF.	
Example(s)	Action Generated output	
	Set FrPrepareLPduSupport as True	#define FR_17_ERAY_PREPARE_LPDU (STD_ON)
	Set FrPrepareLPduSupport as False	#define FR_17_ERAY_PREPARE_LPDU (STD_OFF)

1.1.11 Macro: FR_17_ERAY_RECONFIG_LPDU

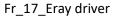
Table 11 FR_17_ERAY_RECONFIG_LPDU

Name	FR_17_ERAY_RECONFIG_LPDU	
Description	Enable/disables Fr_17_Eray_ReconfigLPdu API.	
Verification method	The macro is generated as STD_ON if 'FrReconfigLPduSupport' configuration parameter is set to 'True' else the macro is generated as STD_OFF.	
Example(s)	Action Generated output	

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Set FrReconfigLPduSupport as True	#define FR_17_ERAY_RECONFIG_LPDU (STD_ON)
Set FrReconfigLPduSupport as False	#define FR_17_ERAY_RECONFIG_LPDU (STD_OFF)

1.1.12 Macro: FR_17_ERAY_DISABLE_LPDU

Table 12 FR_17_ERAY_DISABLE_LPDU

Name	FR_17_ERAY_DISABLE_LPDU		
Description	Enable/disables Fr_17_Eray_DisableLPdu API.		
Verification method	The macro is generated as STD_ON if 'FrDisableLPduSupport' configuration parameter is set to 'True' else the macro is generated as STD_OFF.		
Example(s)	Action Generated output		
	Set FrDisableLPduSupport as True	#define FR_17_ERAY_DISABLE_LPDU (STD_ON)	
	Set FrDisableLPduSupport as False	#define FR_17_ERAY_DISABLE_LPDU (STD_OFF)	

1.1.13 Macro: FR_17_ERAY_NMVECTOR_ENABLE

Table 13 FR_17_ERAY_NMVECTOR_ENABLE

Name	FR_17_ERAY_NMVECTOR_ENABLE	
Description	Enable/disables Fr_17_Eray_GetNmVector API.	
Verification method	The macro is generated as STD_ON if 'FrNmVectorEnable' configuration parameter is set to 'True' else the macro is generated as STD_OFF.	
	Action Generated output	
Example(s)	Action	Generated output
Example(s)	Action Set FrNmVectorEnable as True	#define FR_17_ERAY_NMVECTOR_ENABLE (STD_ON)

1.1.14 Macro: FR_17_ERAY_INDEX

Table 14 FR_17_ERAY_INDEX

Name	FR_17_ERAY_INDEX
Description	Instance ID of FR module.
Verification method	The macro is generated as a numeric value set in the configuration parameter 'FrGeneral/FrIndex'

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Fr_17_Eray driver

Example(s)	Action	Generated output
	Set FrIndex as 0	#define FR_17_ERAY_INDEX (0U)
	Set FrIndex as 240	#define FR_17_ERAY_INDEX (240U)

1.1.15 Macro: FR_17_ERAY_TIMEOUT_DURATION

Table 15 FR_17_ERAY_TIMEOUT_DURATION

. date 15		
Name	FR_17_ERAY_TIMEOUT_DURATION	
Description	Specifies the maximum time in nanoseconds for blocking function until a timeout is raised in short term wait loops.	
Verification method	The macro is generated as a numeric value set in the configuration parameter 'FrGeneral/FrTimeoutDurationFactor'	
Example(s)	Action Generated output	
	Set FrTimeoutDurationFactor as 1000	#define FR_17_ERAY_TIMEOUT_DURATION (1000U)
	Set FrTimeoutDurationFactor as 240000	#define FR_17_ERAY_TIMEOUT_DURATION (240000U)

1.1.16 Macro: Fr_17_ErayConf_FrController_<Name>

Table 16 Fr_17_ErayConf_FrController_<Name>

Example(s)	Action	Generated output	
	Macro name is generated as Fr_17_ErayConf_FrController_ <name>, <name> is string configured in parameter 'FrController/Name' for individual controller.</name></name>		
method	'FrController/FrCtrlIdx'.	'FrController/FrCtrlIdx'.	
Verification		The macro is generated as a numeric value set in the configuration parameter	
Description	Symbolic name definitions for FI	Symbolic name definitions for FR controllers.	
Name	Fr_17_ErayConf_FrController_<	Fr_17_ErayConf_FrController_ <name></name>	

	8	
Example(s)	Action	Generated output
	 Configure 2 FR controllers (FrController_0, FrController_1). Set FrController_0/FrCtrlldx as 0 Set FrController_1/FrCtrlldx as 1 	#define Fr_17_ErayConf_FrController_FrController_0 (0U) #define Fr_17_ErayConf_FrController_FrController_1 (1U)
	 Configure 1 FR controller (FrController_0). Set FrController_0/FrCtrlldx 	#define Fr_17_ErayConf_FrController_FrController_0 (0U)

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Fr_17_Eray driver

as 0	

Macro: Fr_17_ErayConf_FrAbsoluteTimer_<Name> 1.1.17

Table 17	Fr_17_ErayConf_FrAbsoluteTime	r_ <name></name>		
Name	Fr_17_ErayConf_FrAbsoluteTin	Fr_17_ErayConf_FrAbsoluteTimer_ <name></name>		
Description	Symbolic name definitions of absolute timers for FR controller.			
Verification method	'FrController/FrAbsoluteTimer, Macro name generated as Fr_1 <name> is string configured in Note: The value of par</name>	The macro is generated as a numeric value set in the configuration parameter 'FrController/FrAbsoluteTimer/FrAbsTimerIdx'. Macro name generated as Fr_17_ErayConf_FrController_ <name>. <name> is string configured in parameter 'FrController/Name' for individual controller. Note: The value of parameter FrAbsTimerIdx can be set to 0 only as only one absolute timer is supported by the individual FR controller.</name></name>		
Example(s)	ActionConfigure 2 FR controllers (FrController_0, FrController_1).	#define Fr_17_ErayConf_FrAbsoluteTimer_FrController_0 (0U)		
	 Set 'FrController_0/ FrAbsTimerIdx' as 0 and Name as FrController_0 	#define Fr_17_ErayConf_FrAbsoluteTimer_FrController_1 (0U)		
	 Set 'FrController_1/ FrAbsTimerIdx' as 0 and Name as FrController_1 			
	 Configure 1 FR controller (FrController_0). Set 'FrController_0/ FrAbsTimerIdx' to 0 	#define Fr_17_ErayConf_FrAbsoluteTimer_FrController_0 (0U)		
	 Set Name as FrController_0 			

1.1.18 Macro: FR_17_ERAY_CTRL_TEST_COUNT

Table 18 FR_17_ERAY_CTRL_TEST_COUNT

Name	FR_17_ERAY_CTRL_TEST_COUNT
Description Specifies the maximum number of iterations the FlexRay controller hardware	
	performed during controller initialization.

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Fr_17_Eray driver

Verification method	The macro is generated as a numeric value set in the configuration parameter 'FrGeneral/FrCtrlTestCount'.	
Example(s)	Action	Generated output
	Set FrCtrltestCount as 2	#define FR_17_ERAY_CTRL_TEST_COUNT (2U)
	Set FrCtrltestCount as 1	#define FR_17_ERAY_CTRL_TEST_COUNT (1U)

1.1.19 Macro: FR_17_ERAY_NUM_CTRL_SUPPORTED

Table 19 FR_17_ERAY_NUM_CTRL_SUPPORTED

Name	FR_17_ERAY_NUM_CTRL_SUPPORTED	
Description	Specifies the maximum number of communication controllers that the driver supports.	
Verification method	The macro is generated as a numeric value set in the configuration parameter 'FrGeneral/FrNumCtrlSupported'.	
Example(s)	Action	Generated output
	Set FrNumCtrlSupported as 2	#define FR_17_ERAY_NUM_CTRL_SUPPORTED (2U)
	Set FrNumCtrlSupported as 1	#define FR_17_ERAY_NUM_CTRL_SUPPORTED (1U)

1.1.20 Macro: FR_17_ERAY_RX_STRINGENT_CHECK

Table 20 FR_17_ERAY_RX_STRINGENT_CHECK

Name	FR_17_ERAY_RX_STRINGENT_CHECK	
Description	Enables/disables slot status error detection. If stringent check is enabled (true), received frames are only accepted if slot status error has not occurred.	
Verification method	The macro is generated as STD_ON if 'FrGeneral/FrRxStringentCheck' configuration parameter is set to 'True' else the macro is generated as STD_OFF.	
Example(s)	Action	Generated output
. 1	riction	ocheratea output
	Set FrRxStringentCheck as True	#define FR_17_ERAY_RX_STRINGENT_CHECK (STD_ON)

1.1.21 Macro: FR_17_ERAY_RX_STRINGENT_LENGTH_CHECK

Table 21 FR_17_ERAY_RX_STRINGENT_LENGTH_CHECK

Name

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Fr_17_Eray driver

Description	Enables/disables received frame length check. If length check is enabled then received frames are only accepted when the received payload length matches the configured payload length.	
Verification method	The macro is generated as STD_ON if 'FrGeneral/ FrRxStringentLengthCheck' configuration parameter is set to 'True' else the macro is generated as STD_OFF.	
Example(s)	Action	Generated output
	Set FrRxStringentLengthCheck as True	#define FR_17_ERAY_RX_STRINGENT_LENGTH_CHECK (STD_ON)
	Set FrRxStringentLengthCheck as False	#define FR_17_ERAY_RX_STRINGENT_LENGTH_CHECK (STD_OFF)

1.1.22 Macio	. I K_II_EKAI_CELAK_KAI	M3_11ME001
Table 22 FR_17_	ERAY_CLEAR_RAMS_TIMEOUT	
Name	FR_17_ERAY_CLEAR_RAMS_TIMEOUT	
Description	Specifies the timeout duration in nanoseconds until a timeout is raised after initialization of the E-Ray internal RAM blocks. The initialization of the E-Ray internal RAM blocks requires minimum	
	2048 fCLC_ERAY cycles. 5 percen	t margin (102 cycles) is added to the value.
Verification method	The macro is generated as a numeric value which is calculated with formula (2150 * 1000000000)/FrClockCLCERAY.	
	FrClockCLCERAY: (SPBFrequency)/(FrClockDivider)	
	FrClockDivider is value configured in parameter 'Fr/FrClockConfiguration/FrClockDivider'. SPBFrequency is the value configured in the MCU driver for the parameter 'McuClockReferencePointConfig/McuPllDistributionSettingConfig/McuSPBFrequency'	
Example(s)	Action	Generated output
	Configure following params for FR controller.	#define FR_17_ERAY_CLEAR_RAMS_TIMEOUT (21500U)
	Set FrClockDivider as 1	
	 Set McuSPBFrequency as 100MHz 	
	• Configure following params for FR controller.	#define FR_17_ERAY_CLEAR_RAMS_TIMEOUT (43000U)

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Fr_17_Eray driver

1.1.23 Macro: FR_17_ERAY_POC_BUSY_TIMEOUT

Table 23 FR 17 ERAY POC BUSY TIMEOUT

Table 23 FR_17_ERAY_POC_BUSY_TIMEOUT				
Name	FR_17_ERAY_POC_BUSY_TIMEOUT			
Description	Specifies the timeout duration in nanoseconds for the POC to exit the busy state during initialization until a timeout is raised.			
	It takes a maximum of 1024 fCLC_ERAY cycles for the POC to exit busy state.			
	5 percent margin (51 cycles) is a	5 percent margin (51 cycles) is added to the value.		
Verification method	The macro is generated as a nun 10000000000)/FrClockCLCERAY.	The macro is generated as a numeric value which is calculated with formula (1075 * 100000000)/FrClockCLCERAY.		
	Where:	Where:		
	FrClockCLCERAY: (SPBFrequency)/(FrClockDivider)			
FrClockDivider is value configured in parameter 'Fr/FrClockConfiguration/FrClockDivider'. SPBFrequency is the value configured in the MCU driv 'McuClockReferencePointConfig/McuPllDistributionS		kDivider'.		
Example(s)	Action	Generated output		
	 Configure following params for FR controller. Set FrClockDivider as 1 	#define FR_17_ERAY_CLEAR_RAMS_TIMEOUT (10750U)		
	Set McuSPBFrequency as 100MHz			
	Configure following params for FR controller.	#define FR_17_ERAY_POC_BUSY_TIMEOUT (21500U)		
	• Set FrClockDivider as 2			
	 Set McuSPBFrequency as 			

1.1.24 Macro: FR_17_ERAY_MBF_TO_OBF_TRNSF_TIMEOUT

Table 24 FR_17_ERAY_MBF_TO_OBF_TRNSF_TIMEOUT

100MHz

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Description	Specifies the worst case timeout	duration in nanoseconds for the data transfer from	
	Message Buffer RAM to Output Buffer.		
It takes a maximum of 435 fCLC_ERAY cycles for thi		ERAY cycles for this data transfer.	
	5 percent margin (22 cycles) is added to this value.		
Verification method	The macro is generated as a numeric value which is calculated with formula (457 * 1000000000)/FrClockCLCERAY. Where: FrClockCLCERAY: (SPBFrequency)/(FrClockDivider) FrClockDivider is value configured in parameter 'Fr/FrClockConfiguration/FrClockDivider'. SPBFrequency is the value configured in the MCU driver for the parameter 'McuClockReferencePointConfig/McuPllDistributionSettingConfig/McuSPBFrequence		
Example(s)	Action	Generated output	
	• Configure following params for FR controller.	#define FR_17_ERAY_MBF_TO_OBF_TRNSF_TIMEOUT	
	Set FrClockDivider as 1	(4570U)	
	Set McuSPBFrequency as 100MHz		
	Configure following params for FR controller.	#define FR_17_ERAY_MBF_TO_OBF_TRNSF_TIMEOUT	
	Set FrClockDivider as 2	(9140U)	
	Set McuSPBFrequency as 100MHz		

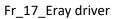
1.1.25 Macro: FR_17_ERAY_MSG_BUFF_COUNT_MAX_<x>

Table 25 FR_17_ERAY_MSG_BUFF_COUNT_MAX_<x>

Name	FR_17_ERAY_MSG_BUFF_COUNT_MAX_ <x></x>	
Description	Macro specifies maximum number of message buffers used per controller.	
Verification method	The macro is generated as a numeric value which corresponds to the number of LPdu configured in the 'FrIf/FrIfCluster/FrIfController/FrIfController_ <frctrlidx>/FrIfLPdu'. If the number of LPdus configured is greater than 128 then macro value is generated as 128. The macro name is generated as FR_17_ERAY_MSG_BUFF_COUNT_MAX_<frctrlidx>,</frctrlidx></frctrlidx>	
Example(s)	FrCtrlldx is FR controller index configured in parameter 'FrCtrlldx'. Action Generated output Configure following params #define FR_17_ERAY_MSG_BUFF_COUNT_MAX_0	
,		

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for FR controller in FrIf.	(9U)
Configure cluster 'FrIfCluster_0'	#define FR_17_ERAY_MSG_BUFF_COUNT_MAX_1 (9U)
 Configure 2 Fr controllers (FrIfController_0, FrIfController_1). Configure 9 LPdus for each FR controller (FrIfLPdu_0 to 	
FrlfLPdu_8).	
• Configure following params for FR controller in 'FrIf'.	#define FR_17_ERAY_MSG_BUFF_COUNT_MAX_0 (128U)
Configure cluster 'FrIfCluster_0'	
 Configure 1 Fr controller (FrlfController_0). 	
 Configure 129 LPdus for FR controller (FrIfLPdu_0 to FrIfLPdu_128). 	

1.1.26 Macro: FR_17_ERAY_CONTROLLER0_CONFIGURED

Table 26 FR_17_ERAY_CONTROLLERO_CONFIGURED

Table 25 TR_17_ERAT_CONTROLLERO_CONTIONED			
Name	FR_17_ERAY_CONTROLLER0_CO	FR_17_ERAY_CONTROLLER0_CONFIGURED	
Description	Indicates whether controller0 is	Indicates whether controller0 is configured or not.	
Verification method	The macro is generated as STD_ON if FR controller 0 is configured in 'Fr/FrController/FrCtrlIdx' else it is generated as STD_OFF.		
Example(s)	Action	Generated output	
	 Configure following params for FR controller. 	#define FR_17_ERAY_CONTROLLER0_CONFIGURED (STD_ON)	
	 Configure cluster 'FrIfCluster_0' 		
	 Configure 1 Fr controller in Fr module (FrController_0). 		
	Set FrCtrlldx as 0		
	Configure following parameters for FR controller.	#define FR_17_ERAY_CONTROLLER0_CONFIGURED (STD_OFF)	
	 Configure cluster 'FrIfCluster_0' 		
	Configure 1 Fr controller in		

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Fr_17_Eray driver

	Fr module (FrController_0).	
•	Set FrCtrlIdx as 1	

1.1.27 Macro: FR_17_ERAY_CONTROLLER1_CONFIGURED

Table 27 FR_17_ERAY_CONTROLLER1_CONFIGURED

	-	
Name	FR_17_ERAY_CONTROLLER1_CONFIGURED	
Description	Indicates whether controller1 is configured or not.	
Verification method	The macro is generated as STD_ON if FR controller 1 is configured in 'Fr/FrController/FrCtrlIdx' else it is generated as STD_OFF.	
Example(s)	Action Generated output	
	 Configure following parameters for FR controller. Configure 1 Fr controller in Fr module (FrController_1). Set FrCtrlldx as 1 	#define FR_17_ERAY_CONTROLLER1_CONFIGURED (STD_ON)
	 Configure following parameters for FR controller. Configure 1 Fr controller in Fr module (FrController_1). Set FrCtrlldx as 0 	#define FR_17_ERAY_CONTROLLER1_CONFIGURED (STD_OFF)

1.1.28 Macro: FR_17_ERAY_NUM_CONTROLLERS_IN_DEVICE

Table 28 FR_17_ERAY_NUM_CONTROLLERS_IN_DEVICE

Name	FR_17_ERAY_NUM_CONTROLLERS_IN_DEVICE	
Description	Specifies number of ERAY Controllers available in the device.	
	Note: This macro is not configurable by the user.	
Verification method	The macro is generated as a numeric value that specifies the number of ERAY controllers available in the device.	
Example(s)	Action Generated output	
	Generate Fr_17_Eray_Cfg.h	/* Number of ERAY Controllers available in the device */
	#define	

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FR_17_ERAY_NUM_CONTROLLERS_IN_DEVICE (2U)

1.1.29 Macro: FR_17_ERAY_FIFO_CONFIGURED

Table 29 FR_17_ERAY_FIFO_CONFIGURED

Name	FR_17_ERAY_FIFO_CONFIGURED	FR_17_ERAY_FIFO_CONFIGURED	
Description	Specifies whether FIFO is configured or not.		
Verification method	The macro is generated as a STD_ON if FIFO is configured in container 'FrController/ FrFifo/*' else it is generated as a STD_OFF.		
Example(s)	Action Generated output		
	 Configure 1 FrController (FrController_0) Configure 1 FIFO for FrController_0 (FrFifo_0). 	#define FR_17_ERAY_FIFO_CONFIGURED (STD_ON)	
	Configure 2 FrControllers (FrController_0, FrController_2)	#define FR_17_ERAY_FIFO_CONFIGURED (STD_OFF)	
	• Don't configure FIFO for both controllers.		

1.1.30 Macro: FR_17_ERAY_INSTANCE_ID

Table 30 FR_17_ERAY_INSTANCE_ID

Name	FR_17_ERAY_INSTANCE_ID	
Description	Instance ID of FR module.	
Verification method	The macro is generated as a numeric value set in the configuration parameter 'FrGeneral/FrIndex'	
Example(s)	Action Generated output	
	Set FrIndex as 0	#define FR_17_ERAY_INSTANCE_ID (0U)
	Set FrIndex as 240	#define FR_17_ERAY_INSTANCE_ID (240U)

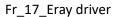
1.1.31 Macro: FR_17_ERAY_TX_CONFLICT_DETECTION

Table 31 FR_17_ERAY_TX_CONFLICT_DETECTION

Name	FR_17_ERAY_TX_CONFLICT_DETECTION	
Description	Enables/ disables the detection of the transmission conflict occurrence by the Fr_17_Eray_CheckTxLPduStatus API.	

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Verification method	The macro is generated as STD_ON if 'FrTxConflictDetection' configuration parameter is set to 'True' else the macro is generated as STD_OFF.	
Example(s)	Action	Generated output
	Set FrTxConflictDetection as True	#define FR_17_ERAY_TX_CONFLICT_DETECTION (STD_ON)
	Set FrTxConflictDetection as False	#define FR_17_ERAY_TX_CONFLICT_DETECTION (STD_OFF)

1.1.32 Macro: FR_17_ERAY_RUNTIME_ERROR_DETECT

Table 32 FR_17_ERAY_RUNTIME_ERROR_DETECT

TABLE 32 TR_11_ERAT_ROWTHINE_ERROR_BETECT			
Name	FR_17_ERAY_RUNTIME_ERROR_DETECT		
Description	Enables/disables the Runtime Error Detection.		
Verification method	The macro is generated as STD_ON if 'FrRunTimeErrorDetect' configuration parameter is set to 'True' else the macro is generated as STD_OFF. This MACRO is applicable only for AUTOSAR 4.4.0 version.		
Example(s)	e(s) Action Generated output		
	Set FrRunTimeErrorDetect as True	#define FR_17_ERAY_RUNTIME_ERROR_DETECT (STD_ON)	
	Set FrRunTimeErrorDetect as	#define FR_17_ERAY_RUNTIME_ERROR_DETECT	

1.1.33 Macro: FR_17_ERAY_EXTENDED_LPDU_REPORTING

Table 33 FR_17_ERAY_EXTENDED_LPDU_REPORTING

Name	FR_17_ERAY_EXTENDED_LPDU_REPORTING			
Description	Enables/disables the Extended L	Enables/disables the Extended LPdu Reporting.		
Verification method	The macro is generated as STD_ON if 'FrExtendedLPduReporting' configuration parameter is set to 'True' else the macro is generated as STD_OFF. This MACRO is applicable only for AUTOSAR 4.4.0 version.			
Example(s)	Action Generated output			
	Set FrExtendedLPduReporting as True	#define FR_17_ERAY_EXTENDED_LPDU_REPORTING (STD_ON)		
	Set FrExtendedLPduReporting as False	#define FR_17_ERAY_EXTENDED_LPDU_REPORTING (STD_OFF)		

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1.2 File: Fr_17_Eray[_<variant>]_PBcfg.c

The generated source file contains all post-build configuration parameters. Post-build time configuration mechanism allows configurable functionality of FR driver that is deployed as object code. The file is generated in 'src' folder.

1.2.1 Structure: Fr_17_Eray_Config[_<variant>]

Table 34 Fr_17_Eray_Config[_<variant>]

Table 34	-1_11_Eray_Conng[_ <variant>]</variant>		
Name	Fr_17_Eray_Config[_ <variant>]</variant>		
Туре	Fr_17_Eray_ConfigType		
Description	Root configuration structure of FR	driver which will be used during initialization.	
Verification method	The generated structure is present in Fr_17_Eray[_ <variant>]_PBcfg.c file. The <variant> indicates the name of the post-build variant. For a variant-aware configuration the structure name is appended with the variant name. For variant-unaware configuration <variant> is ignored.</variant></variant></variant>		
Example(s)	Action	Generated output	
	 Configure 2 FR controllers Set FrMultipleConfiguration/Nam e to 'FrMultipleConfiguration' (variant-unaware) 	<pre>const Fr_17_Eray_ConfigType Fr_17_Eray_Config = { &Fr_17_Eray_FrMultipleConfiguration_CC[0], &Fr_17_Eray_FrMultipleConfiguration_CCMap[0] };</pre>	
	 Configure 2 FR controllers Set FrMultipleConfiguration/Nam e to 'FrMultipleConfiguration' (variant-aware. Variant name is 'Petrol') 	<pre>const Fr_17_Eray_ConfigType Fr_17_Eray_Config_Petrol = { &Fr_17_Eray_FrMultipleConfiguration_CC[0], &Fr_17_Eray_FrMultipleConfiguration_CCMap[0] };</pre>	
	 Configure 1 FR controller with FrCtrlldx to 0 Set FrMultipleConfiguration/Nam e as 'FrMultipleConfiguration_0' (variant-unaware) 	<pre>const Fr_17_Eray_ConfigType Fr_17_Eray_Config = { &Fr_17_Eray_FrMultipleConfiguration_0_CC[0], &Fr_17_Eray_FrMultipleConfiguration_0_CCMap[0] };</pre>	

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Fr_17_Eray driver

1.2.1.1 Member: CfgPtr

Tabl	le 35	CfgPtr
I abi	le 55	CIEPU

	igeti		
Name	CfgPtr		
Туре	Fr_17_Eray_CCType *		
Description	Pointer to the data structure controller.	containing the initialization data for the individual FlexRay	
Verification method	The generated structure member is present in the Fr_17_Eray_Config[_ <variant>] structure. Address is generated as &Fr_17_Eray_< ConfigShortName>_CC[0].</variant>		
Example(s)	Action	configured in parameter 'FrMultipleConfiguration/Name'. Generated output	
	 Configure 2 (Number of FR controller available in device) FR controllers Set Name as 'FrMultipleConfiguration' 	&Fr_17_Eray_FrMultipleConfiguration_CC[0]	
	 Configure 2 (Number of FR controller available in device) FR controllers Set Name as 'MyConfig' 	&Fr_17_Eray_MyConfig_CC[0]	
	 Configure 1 FR controller with FrCtrlIdx to 0 Set Name as 'FrMultipleConfiguration_ 0' 	&Fr_17_Eray_FrMultipleConfiguration_0_CC[0]	

1.2.1.2 Member: Phy2LogIdxPtr

Table 36 Phy2LogIdxPtr

Name	Phy2LogIdxPtr	
Туре	uint8 *	
Description Pointer to Physical to Logical Indexing map array.		
Verification method	The generated structure member is present in the Fr_17_Eray_Config[_ <variant>] structure. Address is generated as &Fr_17_Eray_< ConfigShortName >_CCMap[0].</variant>	
	< ConfigShortName > is string configured in parameter 'FrMultipleConfiguration/Name'.	

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Fr_17_Eray driver

Example(s)	Action	Generated output
	Configure 2 (Number of FR controller available in device) FR controllers	&Fr_17_Eray_FrMultipleConfiguration_CCMap[0]
	 Set Name as 'FrMultipleConfiguration' 	
	Configure 2 (Number of FR controller available in device) FR controllers	&Fr_17_Eray_MyConfig_CCMap[0]
	 Set Name as 'MyConfig' 	
	Configure 1 FR controller with FrCtrlIdx set to 0	&Fr_17_Eray_FrMultipleConfiguration_0_CCMap[0]
	 Set Name as 'FrMultipleConfiguratio n_0' 	

1.2.2 Structure: Fr_17_Eray_< ConfigShortName >_CCMap

Table 37 Fr_17_Eray_< ConfigShortName >_CCMap

	If FR controller is not configured then logical index is generated as 255 (not configured) else i is generated as logical index configured.		
	< ConfigShortName> is string configured in parameter 'FrMultipleConfiguration/Name'.		
method	'Fr_17_Eray_ <configshortname>_CCMap', size of array is depends on number of FR controllers supported by device.</configshortname>		
Verification	The generated file has this array. Array name is generated as		
Description	Array which contains the mapping of physical to logical index		
Туре	uint8		
Name	Fr_17_Eray_< Config	ShortName >_CCMap	

	Action	Generated output	
	Configure 2(Number of FR controller available in device) Controllers.	static const uint8 Fr_17_Eray_FrMultipleConfiguration_CCMap[FR_17_ERAY_NUM_CONTR OLLERS_IN_DEVICE] = { 0U,	
	(FrController_0, FrController_1)	10	

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Fr_17_Eray driver

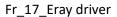
 Configure FrController_0/F rCtrlldx as 0 Configure FrController_1/F rCtrlldx as 1 Set Name as 'FrMultipleConfiguration' 	};
Controller. (FrController_0) Configure FrController_0/F rCtrlldx as 1 Set Name as	static const uint8 Fr_17_Eray_FrMultipleConfiguration_0_CCMap[FR_17_ERAY_NUM_CONT ROLLERS_IN_DEVICE] = { 255U, 0U };

1.2.3 Structure: Fr_17_Eray_< ConfigShortName >_CC

Table 38 Fr_17_Eray_< ConfigShortName >_CC

	onfigShortName >_CC	
Fr_17_Eray_CCT	ype	
Array of FlexRay data structure which contains configuration of individual communication controller.		
The generated file has array as Fr_17_Eray_< ConfigShortName >_CC which contains configuration of individual FR controller. Number of array members depends on number of FR controllers configured under 'FrController/'. <configshortname> is string configured in parameter 'FrMultipleConfiguration/Name'</configshortname>		
• Configure 1 FR controller with 2 LPdus and	<pre>static const Fr_17_Eray_CCType Fr_17_Eray_FrMultipleConfiguration_CC[] = {</pre>	
	controller. The generated ficonfiguration of Number of array 'FrController/'. <configshortna 1="" 2<="" action="" configure="" controller="" fr="" th="" with=""></configshortna>	

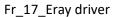
MCAL Configuration Verification Manual for Fr_17_Eray





```
FrCtrlIdx as
               /* Pointer to configuration of Communication Controller */
0
               &Fr_17_Eray_FrMultipleConfiguration_kCCCfg_0,
Set Name as
FrMultipleC
               /* Pointer to array of LPDU configurations */
onfiguration
               Fr_17_Eray_FrMultipleConfiguration_kLPduConfig_0,
               #if (FR_17_ERAY_FIFO_CONFIGURED == STD_ON)
               &Fr_17_Eray_FrMultipleConfiguration_RxFifoConfig_0,
               #endif
               /* Pointer to array of FR parameters accessed by Fr_ReadCCConfig */
               Fr_17_Eray_FrMultipleConfiguration_CCConfigArray_0,
               /* Pointer to LPDU to message buffer mapping array */
               Fr_17_Eray_FrMultipleConfiguration_LPduIdx2MsgBuff_0,
               /* Pointer to Data pointer offsets */
               Fr_17_Eray_FrMultipleConfiguration_DataPointerOffset_0,
               /* Number of LPDUs configured */
               2U,
               /* ERAY Module clock configuration : Runtime Mode Control setting */
               1U,
               /* Buffer Reconfiguration Status */
               0U,
               /*DEM Id for FlexRay controller hardware test failure.*/
               FR_17_ERAY_DEM_REPORT_DISABLED,
               /* Number of HW message buffers required */
               2U
```

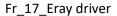
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```
}
              };
Configure 2
              static const Fr_17_Eray_CCType Fr_17_Eray_FrMultipleConfiguration_CC[] =
FR
controllers.
(FrControlle
r_0,
FrController
               /* Pointer to configuration of Communication Controller */
_1)
               &Fr_17_Eray_FrMultipleConfiguration_kCCCfg_0,
Configure
FrController
_0/FrCtrlIdx
               /* Pointer to array of LPDU configurations */
as 0 and
               Fr_17_Eray_FrMultipleConfiguration_kLPduConfig_0,
FrController
_1/FrCtrlIdx
as 1.
                #if (FR_17_ERAY_FIFO_CONFIGURED == STD_ON)
Set Name as
                NULL_PTR,
FrMultipleC
                #endif
onfiguration
               /* Pointer to array of FR parameters accessed by Fr_ReadCCConfig */
               Fr_17_Eray_FrMultipleConfiguration_CCConfigArray_0,
               /* Pointer to LPDU to message buffer mapping array */
               Fr_17_Eray_FrMultipleConfiguration_LPduIdx2MsgBuff_0,
               /* Pointer to Data pointer offsets */
               Fr_17_Eray_FrMultipleConfiguration_DataPointerOffset_0,
               /* Number of LPDUs configured */
               2U,
               /* ERAY Module clock configuration : Runtime Mode Control setting */
                1U,
               /* Buffer Reconfiguration Status */
                0U,
```

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```
/*DEM Id for FlexRay controller hardware test failure.*/
FR_17_ERAY_DEM_REPORT_DISABLED,
/* Number of HW message buffers required */
2U
},
/* Pointer to configuration of Communication Controller */
&Fr_17_Eray_FrMultipleConfiguration_kCCCfg_1,
/* Pointer to array of LPDU configurations */
Fr_17_Eray_FrMultipleConfiguration_kLPduConfig_1,
#if (FR_17_ERAY_FIFO_CONFIGURED == STD_ON)
NULL_PTR,
 #endif
/* Pointer to array of FR parameters accessed by Fr_ReadCCConfig */
Fr_17_Eray_FrMultipleConfiguration_CCConfigArray_1,
/* Pointer to LPDU to message buffer mapping array */
Fr_17_Eray_FrMultipleConfiguration_LPduIdx2MsgBuff_1,
/* Pointer to Data pointer offsets */
Fr_17_Eray_FrMultipleConfiguration_DataPointerOffset_1,
/* Number of LPDUs configured */
2U,
/* ERAY Module clock configuration : Runtime Mode Control setting */
 1U,
```

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/* Buffer Reconfiguration Status */
0U,
/*DEM Id for FlexRay controller hardware test failure.*/
DemConf_DemEventParameter_Fr_17_ErayCtrlTestResult_Ctrl0,
/* Number of HW message buffers required */
2U
}
} ;

1.2.3.1 Member: CCCfgPtr

Table 39 CCCfgPti	Table	39	CCCfgPti
-------------------	--------------	----	----------

Table 39 C	CCIGPTI	
Name	CCCfgPtr	
Туре	Fr_17_Eray_CCConfigType *	
Description	Pointer to configuration of Co	ommunication Controller.
Verification method	The structure member is generated as &Fr_17_Eray_ <configshortname>_kCCCfg_<frctrlidx>.</frctrlidx></configshortname>	
	< ConfigShortName > is string configured in parameter 'FrMultipleConfiguration/Name' <frctrlidx> is FR index configured in parameter 'FrController/FrCtrlIdx' for individual FR controller.</frctrlidx>	
Example(s)	Action	Generated output
	• Configure 1 FR controller (FrController_0).	/* Pointer to configuration of Communication Controller */
	Set FrCtrlldx as 0Set Name as FrMultipleConfiguration	&Fr_17_Eray_FrMultipleConfiguration_kCCCfg_0,
	• Configure 1 FR controller (FrController_0).	/* Pointer to configuration of Communication Controller */
	Set FrCtrlldx as 1Set Name as MyConfig	&Fr_17_Eray_MyConfig_kCCCfg_1,

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Fr_17_Eray driver

1.2.3.2 Member: LPduConfigPtr

Table 40	LPduConfigPtr
----------	---------------

Name	LPduConfigPtr	
Туре	Fr_17_Eray_LPduConfigType *	
Description	Pointer to array of LPdu co	nfigurations
Verification method	The structure member is the generated address of the array which contains the LPdu configurations, structure member is generated as Fr_17_Eray_< ConfigShortName>_kLPduConfig_ <frctrlidx>.</frctrlidx>	
		ing configured in parameter 'FrMultipleConfiguration/Name'. figured for individual FR controller in 'FrController/FrCtrlIdx'.
Example(s)	Action	Generated output
	 Configure 1 FR controller (FrController_0). Set FrCtrlldx as 0 Set Name as FrMultipleConfiguration 	/* Pointer to array of LPDU configurations */ Fr_17_Eray_FrMultipleConfiguration_kLPduConfig_0,
	 Configure 1 FR controller (FrController_0). Set FrCtrlldx as 1 Set Name as MyConfig 	/* Pointer to array of LPDU configurations */ Fr_17_Eray_MyConfig_kLPduConfig_1,

1.2.3.3 Member: RxFifoConfigPtr

Table 41 RxFifoConfigPtr

Name	RxFifoConfigPtr
Туре	Fr_17_Eray_RxFifoConfigType *
Description	Pointer to array of Receive FIFO configuration.
Verification method	The structure member is generated FIFO configuration array address for individual FR controller, Structure member is generated as Fr_17_Eray_< ConfigShortName >_ RxFifoConfig_< FrCtrlIdx>. If FIFO is not configured in 'FrController/FrFifo' for FR controller then member is generated as a NULL_PTR.

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		g configured in parameter 'FrMultipleConfiguration/Name'. ured for individual FR controller in 'FrController/FrCtrlIdx'.
Example(s)	Action	Generated output
	 Configure 1 FR controller (FrController_0). Configure FIFO for FR controller (FrFifo_0) Set FrCtrlldx as 1 Set Name as MyConfig 	#if (FR_17_ERAY_FIFO_CONFIGURED == STD_ON) &Fr_17_Eray_MyConfig_RxFifoConfig_1, #endif
	 Configure 1 FR controller (FrController_0). Set FrCtrlldx as 1 Set Name as MyConfig Do not configure FIFO. 	#if (FR_17_ERAY_FIFO_CONFIGURED == STD_ON) NULL_PTR, #endif

1.2.3.4 Member: ConfigParamPtr

Table 42	ConfigParamPtr

Name	ConfigParamPtr	
Туре	uint32 *	
Description	Pointer to array of Flex	Ray protocol configuration parameters for a particular FlexRay controller.
Verification method	The structure member is generated as pointer to protocol configuration for individual FR controller, Structure member is generated as Fr_17_Eray_< ConfigShortName>_CCConfigArray_< FrCtrlIdx>. <pre>< ConfigShortName > is string configured in parameter 'FrMultipleConfiguration/Name'.</pre> <frctrlidx> is FR index configured for individual FR controller in 'FrController/FrCtrlIdx'.</frctrlidx>	
Example(s) Action Generated output		Generated output
	Configure 1 FR controller (FrController_0).	/* Pointer to array of FR parameters accessed by Fr_ReadCCConfig */ Fr_17_Eray_FrMultipleConfiguration_CCConfigArray_0,

1.2.3.5 Member: LPduIdx2MsgBuffIdxPtr

Fr Multiple Configur

Set Name as

Table 43 LPduIdx2MsgBuffIdxPtr

ation

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Name	LPduldx2MsgBuffldxPtr	
Туре	uint8 *	
Description	Pointer to LPdu to messa	age buffer mapping array.
Verification method	The structure member is generated as pointer to LPdu to message buffer mapping array for individual FR controller, Structure member generated as Fr_17_Eray_< ConfigShortName>_LPduIdx2MsgBuff_< FrCtrlIdx>.	
Example(s)	<pre>< ConfigShortName > is string configured in parameter 'FrMultipleConfiguration/Name'. </pre> <pre><frctrlidx> is FR index configured for individual FR controller in 'FrController/FrCtrlIdx'.</frctrlidx></pre> <pre>Action</pre> <pre>Generated output</pre>	
F - (,)	 Configure 1 FR controller (FrController_0). Set FrCtrlIdx as 0 Set Name as FrMultipleConfigurat ion 	/* Pointer to LPDU to message buffer mapping array */ Fr_17_Eray_FrMultipleConfiguration_LPduIdx2MsgBuff_0,

1.2.3.6 Member: DataPointerOffsetPtr

Table 44	DataPointerOffsetPtr
I avie 44	DataPullterUllsetPti

Table 44	DataPointerOffsetPtr	
Name	DataPointerOffsetPtr	
Туре	uint16 *	
Description	Pointer to array of data of	offsets of message buffers.
Verification method	The structure member is generated as pointer to array which contain mapping of data offset configuration for individual FR controller, Structure member generated as Fr_17_Eray_< ConfigShortName > _LPduIdx2MsgBuff_< FrCtrlIdx>. <pre></pre> <pre><</pre>	
Example(s)	 Action Configure 1 FR controller (FrController_0). Set FrCtrlldx as 0 Set Name as FrMultipleConfigurat 	/* Pointer to LPDU to message buffer mapping array */ Fr_17_Eray_FrMultipleConfiguration_LPduIdx2MsgBuff_0,

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	ion	
1.2.3.7	Member: LPduCount	
Table 45	LPduCount	
Name	LPduCount	
Туре	uint16	
Description	Number of LPdus configu	red for individual FR controller.
Verification method	The structure member is generated as numeric value. Value is generated as number of LPdus configured in 'FrIf/FrIfConfig/FrIfCluster/FrIfController/FrIfLPdu/*' for individual controller.	
Example(s)	Action	Generated output
1.2.3.8	 Configure 1 FR control 'FrIf' module under FrIfController containe (FrController_0). Set FrIfCtrlIdx as 0 Configure 9 LPdus for FrController_0. Set FrIfFrCtrlRef as /Fr/Fr/MyConfig/FrCor r_0 Member: FrClockDivi 	er. 9U,
Table 46	FrClockDivider	
Name	FrClockDivider	
Туре	uint8	
Description		
Verification method	The structure member is generated as a numeric value which is configured in 'FrMultipleConfiguration/FrClockDivider'.	
Example(s)	Action	Generated output
	Configure 1 FR controller in 'Fr' module.	/* ERAY Module clock configuration : Runtime Mode Control setting */ 1U,

module.

as 1

(FrController_0).
Set FrClockDivider

Configure 1 FR

module.

controller in 'Fr'

3U,

/* ERAY Module clock configuration : Runtime Mode Control setting */

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	(FrController_0).
•	Set FrClockDivider
	as 3

1.2.3.9 Member: FrIsBuffReconfigOn

Table 47 FrisBuffReconfigOn

Name	FrIsBuffReconfigOn
Туре	uint8
Description	Flag to indicate whether the Buffer reconfiguration is enabled for individual FR controller.
Verification method	The structure member is generated as numeric value. If number of LPdus configured for FR controller is greater than 128 or If all the configured LPdus do not fit within the message RAM (8k) of the FR controller, then value is generated as 1 else 0 is generated.

Example(s)	Action	Generated output
	Configure 1 FR controller in 'Fr' module. (FrController_0).	/* Buffer Reconfiguration Status */ 0U,
	Configure 2 LPdus each with FrlfLSduLength as 4	
	Configure 1 FR controller in 'Fr' module. (FrController_0).	/* Buffer Reconfiguration Status */ 1U,
	• Configure 130 LPdus	

1.2.3.10 Member: FrDemCtrlTestResultId

(FrlfLPdu_0 to FrlfLPdu_129)

Table 48 FrDemCtrlTestResultId

Name	FrDemCtrlTestResultId	
Туре	Dem_EventIdType	
Description	ription DEM Id for FlexRay controller hardware test failure.	
Verification method	The structure member is generated as FR_17_ERAY_DEM_REPORT_DISABLED when DEM event is not configured in FrController/FrControllerDemEventParameterRefs/*[1]/FR_E_CTRL_TESTRESULT/*[1].	

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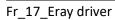
Fr_17_Eray driver

	'FrController/FrControllerDemEventParameterRefs/*[1]/FR_E_CTRL_TESTRESULT/*[1]' then member is generated as DemConf_DemEventParameter_< FrControllerDemEventParameterRefs/*[1]/FR_E_CTRL_TESTRESULT/*[1]>			
Example(s)	Action	Generated output		
	 Configure 1 FR controll in 'Fr' module. (FrController_0). FR_E_CTRL_TESTRESUT/* = Fr_17_ErayCtrlTestResut_Ctrl0 	er /*DEM Id for FlexRay controller hardware test failure.*/ DemConf_DemEventParameter_Fr_17_ErayCtrlTestResult_Ctrl0,		
	 Configure 1 FR controll in 'Fr' module. (FrController_0). DEM is not configured 	/*DEM Id for FlexRay controller hardware test failure.*/ FR_17_ERAY_DEM_REPORT_DISABLED,		
1.2.3.11 Table 49	Member: MsgBuffCoun MsgBuffCountMax	tMax		
Name	MsgBuffCountMax			
Туре	uint8			
Description	Number of Message buffers configured.			
Verification method	The structure member is generated as a numeric value which corresponds to the number of elements in the list 'FrIf/FrIfCluster/ FrIfController/FrIfLPdu/*' for individual FR controller whe message buffer reconfiguration is disabled. If message buffer reconfiguration is enabled, then the structure member is generated as a numeric value which corresponds to the actual numb of hardware message buffers used within the individual FR controller.			
Example(s)	Action	enerated output		
	• Configure 1 FR /	* Number of HW message buffers required */		

Example(s)	Action	Generated output
	 Configure 1 FR controller. (FrController_0). Configure 9 LPdus (FrIfLPdu_0 to FrIfLPdu_8) 	/* Number of HW message buffers required */ 9U
	 Configure 1 FR controller. (FrController_0). Configure 130 LPdus. 	/* Number of HW message buffers required */ 128U

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(F	rIfLPdu_0 to			
١, ١,	mer da_o to			
Fr	lfLPdu_129)			
	11L1 dd_123/			

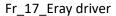
1.2.4 Structure: Fr_17_Eray_< ConfigShortName >_kCCCfg_<FrIfCtrlldx >

Table 50 Fr_17_Eray_< ConfigShortName >_kCCCfg_<FrIfCtrlldx>

Name	Fr_17_Eray_< ConfigShortName >_kCCCfg_ <frifctrlldx></frifctrlldx>	
Туре	Fr_17_Eray_CCConfigType	
Description	Structure containing configuration parameters for a FlexRay communication controller.	
Verification method	The structure is generated as Fr_17_Eray_ <configshortname>_kCCCfg_<frlfctrlldx>.</frlfctrlldx></configshortname>	
	< ConfigShortName> is string configured in parameter 'FrMultipleConfiguration/Name'.	
	<pre><frctrlidx> is FR index configured for individual FR controller in 'FrController/FrCtrlIdx'.</frctrlidx></pre>	

	<frctrlidx> is FR index configured for individual FR controller in 'FrController/FrCtrlIdx'.</frctrlidx>			
Example(s)	Action	Generated output		
	• Configure 1 FR controller	static const Fr_17_Eray_CCConfigType		
	Set Name as MyConfig	Fr_17_Eray_MyConfig_kCCCfg_0 =		
	Set FrCtrlldx as 0	{		
		/* SUCC1 register configuration */		
		/*		
		0U - CmdPOCBusy (Unused member)		
		1U - pKeySlotUsedForStartup		
		1U - pKeySlotUsedForSync		
		0U - Reserved bit		
		0x1fU - FrIfGColdStartAttempts		
		7U - FrPAllowPassiveToActive		
		0U - FrPWakeupChannel		
		0U - FrPKeySlotOnlyEnabled in FlexRay Protocol 2.1 Rev. A		
		1U - FrPAllowHaltDueToClock		
		0U - pChannelsMTS (Unused), 0 means no channels selected		
		3U - FrPChannels, add 0x1 as the hw regs take ChannelA = 1, ChannelB = 2 and ChannelAB = 3		
		*/		
		0x0c87fb00U,		
		/* SUCC2 register settings */		
		/*		

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```
0x13972U - FrPdListenTimeout
0xfU - (FrlfGListenNoise - 1)
*/
0x0f013972U,
/* SUCC3 register settings */
0x1U - FrIfGMaxWithoutClockCorrectPassive
0x1U - FrIfGMaxWithoutClockCorrectFatal
*/
0x0000011U,
/* NEMC register settings */
0x2U - FrlfGNetworkManagementVectorLength
*/
0x00000002U,
/* PRTC1 register settings */
0xaU - FrlfGdTSSTransmitter
0x61U - FrIfGdCasRxLowMax
0U - Strobe Point Position. Always zero (default)
0U - BRP. Always zero as driver supports only 10Mbps
rate
0x4cU - FrlfgdWakeupRxWindow
0x2U - FrPWakeupPattern
*/
0x084c061aU,
/* PRTC2 register settings */
0x12U - FrIfgdWakeupRxIdle
0x12U - FrlfgdWakeupRxLow
0xb4U - FrIfGdWakeupTxIdle
0x3cU - FrIfGdWakeupTxActive
0x3cb41212U,
```

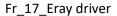
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```
/* MHDC register settings */
0x4U - FrIfGPayloadLengthStatic
0x3fU - FrPLatestTx
*/
0x003f0004U,
/* GTUC01 register settings */
0x9c40U - UT: FrPMicroPerCycle
*/
0x00009c40U,
/* GTUC02 register settings */
0x3e8U - FrIfGMacroPerCycle
0x4U - FrlfGSyncFrameIDCountMax maps to
FrIfGSyncNodeMax FR Pr 2.1
*/
0x000403e8U,
/* GTUC03 register settings */
0x18U - FrPMicroInitialOffsetA [A]
0x18U - FrPMicroInitialOffsetB [B]
0xaU - FrPMacroInitialOffsetA [A]
0xaU - FrPMacroInitialOffsetB [B]
*/
0x0a0a1818U,
/* GTUC04 register settings */
0x38eU - NetworkIdleTimeStart = (FrIfGMacroPerCycle -
FrlfGdNit - 1)
0x393U - Range: 8 -15998, maps to
(FrPOffsetCorrectionStart - 1)
*/
0x0393038eU,
```

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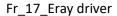




```
/* GTUC05 register settings */
0x4U - FrPDelayCompensationA
0x4U - FrPDelayCompensationB
0x1U - FrPClusterDriftDamping
0x34U - FrPDecodingCorrection
*/
0x34010404U,
/* GTUC06 register settings */
0x81U - FrPdAcceptedStartupRange
0xd2U - is same as FrPdMaxDrift
0x00d20081U,
/* GTUC07 register settings */
0x32U - FrIfGdStaticSlot
0xc - FrIfGNumberOfStaticSlots
*/
0x000c0032U,
/* GTUC08 register settings */
0x4U - FrIfGdMinislot
0x4bU - FrIfGNumberOfMinislots
*/
0x004b0004U,
/* GTUC09 register settings */
0x8U - FrlfgdActionPointOffset
0x3U-FrIfgdMinislotActionPointOffset\\
0x1U - FrIfgdDynamicSlotIdlePhase
*/
0x00010308U,
```

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```
/* GTUC10 register settings */
0x32U - FrPOffsetCorrectionOut
0xd2U - FrPRateCorrectionOut
*/
0x00d20032U,
 /* GTUC11 register settings */
0x0000U - Unused (FrPExternOffsetControl,
FrPExternRateControl
0U - FrPExternOffsetCorrection is not present in AS40
0U - FrPExternRateCorrection is not present in AS40
*/
0x0000000U,
/* CUST1 register settings */
0x00U - Unused
0x00U - Reserved
FR_RXSEL0 - FrRxInputSelection Channel A
FR_RXSEL0 - FrRxInputSelection Channel B
0x00U - Unused
*/
0x0000000U
};
```

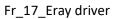
1.2.4.1 Member: Succ1CfgVal

Table 51 Succ1CfgVal

Name	Succ1CfgVal	
Туре	Type uint32	
Description	Configuration value for register SUCC1.	
Verification The structure member is generated as numeric value aligned to members of SUCC		
method	register based on value of the configuration parameters FrIfSlotId, FrIfBaseCycle,	

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	FrIfCycleRepetition, FrIfChannel and FrIfPayloadPreamble.		
Example(s)	Action	Generated output	
	 Configure 1 FR controller and 1 FRIfCluster. (FrController_0, FrIfCluster_0) 	/* SUCC1 register configuration */ /* 0U - CmdPOCBusy (Unused member)	
	 Configure following parameters in FrlfCluster_0 and FrController_0: 	1U - pKeySlotUsedForStartup1U - pKeySlotUsedForSync0U - Reserved bit	
	 Set FrPKeySlotUsedForStartup as True Set FrPKeySlotUsedForSync as True 	0U - FrPWakeupChannel 0U - FrPKeySlotOnlyEnabled in FlexRay Protocol 2.1 Rev. A	
	Set FrIfGColdStartAttempts as 31	1U - FrPAllowHaltDueToClock 0U - pChannelsMTS (Unused), 0 means no channels selected	
	 Set FrPAllowPassiveToActive as 7 Set FrPWakeupChannel as FR_CHANNEL_A 	3U - FrPChannels, add 0x1 as the hw regs take ChannelA = 1, ChannelB = 2 and ChannelAB = 3 */ 0x0c87fb00U,	
	 Set FrPKeySlotOnlyEnabled as False 		
	 Set FrPAllowHaltDueToClock as True Set FrPChannels as FR_CHANNEL_AB 		

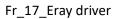
1.2.4.2 Member: Succ2CfgVal

Table 52 Succ2CfgVal

Name	Succ2CfgVal		
Туре	uint32		
Description	Configuration value for register SUCC2.		
Verification method	The structure member is generated as numeric value aligned to members of SUCC2 register based on value of the configuration parameters FrPdListenTimeout and FrIfGListenNoise.		

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Example(s)	Action	Generated output
	 Configure 1 FR controller and 1 FRIfCluster. (FrController_0, FrIfCluster_0) 	/* SUCC2 register settings */ /* 0x13972U - FrPdListenTimeout
	 Configure following parameters in FrIfCluster_0 and FrController_0: 	0xfU - (FrIfGListenNoise - 1) */ 0x0f013972U,
	• Set FrPdListenTimeout as 80242	
	Set FrlfGListenNoise as 16	

1.2.4.3 Member: Succ3CfgVal

Table 53 Succ3CfgVal

Name	Succ3CfgVal		
Туре	uint32		
Description	Configuration value for register SUCC3.		
Verification method	The structure member is generated as numeric value aligned to members of SUCC3 register based on value of the configuration parameters FrIfGMaxWithoutClockCorrectPassive, FrIfGMaxWithoutClockCorrectFatal.		
Example(s)	Action	Generated output	
	 Configure 1 FR controller and 1 FRIfCluster. (FrController_0, FrIfCluster_0) Configure following parameters in FrIfCluster_0 and FrController_0: Set FrIfGMaxWithoutClockCorrectPassive as 1 Set FrIfGMaxWithoutClockCorrectFatal as 1 	/* SUCC3 register settings */ /* 0x1U - FrIfGMaxWithoutClockCorrectPassive 0x1U - FrIfGMaxWithoutClockCorrectFatal */ 0x00000011U,	

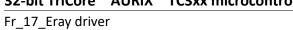
1.2.4.4 Member: NemcCfgVal

Table 54 NemcCfgVal

Name	NemcCfgVal
Туре	uint32
Description Configuration value for register NEMC.	
Verification	The structure member is generated as numeric value aligned to members of NEMC register

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method	based on value of the configuration parameters FrIfGNetworkManagementVectorLength.	
Example(s)	Action Configure 1 FR controller and 1 FRIfCluster. (FrController_0, FrIfCluster_0) Configure following parameters in	### details Friff Network Management Vector Length ### details Friff Network Management Vector Length #### details Friff Network Management Vector Length
	FrIfCluster_0 and FrController_0: Set FrIfGNetworkManagementVectorLen gth as 2	*/ 0x00000002U,

1.2.4.5 Member: Prtc1CfgVal

Table 55	Prtc1CfgVal
----------	-------------

Table 55 Prtc	e 55 Prtc1CfgVal		
Name	Prtc1CfgVal		
Туре	uint32		
Description	Configuration value for register	r PRTC1.	
Verification method	The structure member is generated as numeric value aligned to members of PRTC1 register based on value of the configuration parameters FrIfGdTSSTransmitter, FrIfGdCasRxLowMax, FrIfgdWakeupRxWindow and FrPWakeupPattern.		
Example(s)	Action	Generated output	
	 Configure 1 FR controller and 1 FRIfCluster. (FrController_0, FrIfCluster_0) Configure following parameters in FrIfCluster_0 and FrController_0: Set FrIfGdTSSTransmitter as 10 Set FrIfGdCasRxLowMax as 97 Set FrIfgdWakeupRxWindow as 76 Set FrPWakeupPattern as 2 	/* PRTC1 register settings */ /* 0xaU - FrlfGdTSSTransmitter 0x61U - FrlfGdCasRxLowMax 0U - Strobe Point Position. Always zero (default) 0U - BRP. Always zero as driver supports only 10Mbps rate 0x4cU - FrlfgdWakeupRxWindow 0x2U - FrPWakeupPattern */ 0x084c061aU,	

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1.2.4.6 Member: Prtc2CfgVal

Table 56	Prtc2CfgVal	
Name	Prtc2CfgVal	
Type Description	uint32 Configuration value for register	r PRTC2.
Verification method	register based on value of the c	rated as numeric value aligned to members of PRTC2 configuration parameters FrIfgdWakeupRxIdle, akeupTxIdle and FrIfGdWakeupTxActive.
Example(s)	Action	Generated output
	 Configure 1 FR controller and 1 FRIfCluster. (FrController_0, FrIfCluster_0) Configure following parameters in FrIfCluster_0 and FrController_0: Set FrIfgdWakeupRxIdle as 18 	/* PRTC2 register settings */ /* 0x12U - FrIfgdWakeupRxIdle 0x12U - FrIfgdWakeupRxLow 0xb4U - FrIfGdWakeupTxIdle 0x3cU - FrIfGdWakeupTxActive */ 0x3cb41212U,
	 Set FrlfGdWakeupRxLow as 18 Set FrlfGdWakeupTxIdle as 180 Set FrlfGdWakeupTxActive as 60 	

1.2.4.7 Member: MHDC

Table 57	MHDC	
Name	MHDC	
Туре	uint32	
Description	Configuration value for registe	er MHDC.
Verification method		rated as numeric value aligned to members of MHDC configuration parameters FrIfGPayloadLengthStatic and
Example(s)	Action	Generated output
	 Configure 1 FR controller and 1 FRIfCluster. (FrController_0, 	/* MHDC register settings */ /*

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	FrIfCluster_0)	0x4U - FrIfGPayloadLengthStatic
•	Configure following parameters:	0x3fU - FrPLatestTx
•	Set FrIfGPayloadLengthStatic as 4	0x003f0004U,
•	Set FrPLatestTx as 63	

1.2.4.8 Member: GTUC01

Table 58 GTUC01

Name	GTUC01	
Туре	uint32	
Description	Configuration value for registe	r GTUC01.
Verification method		rated as numeric value aligned to members of GTUC01 configuration parameter FrPMicroPerCycle.
Example(s)	Action	Generated output
	 Configure 1 FR controller and 1 FRIfCluster. (FrController_0) Configure following parameters: Set FrPMicroPerCycle as 40000 	/* GTUC01 register settings */ /* 0x9c40U - UT: FrPMicroPerCycle */ 0x00009c40U,

1.2.4.9 Member: GTUC02

Table 59 GTUC02

Name	GTUC02	
Туре	uint32	
Description	Configuration value for registe	r GTUC02.
Verification method	C .	rated as numeric value aligned to members of GTUC02 configuration parameters FrIfGMacroPerCycle and
Example(s)	Action	Generated output
	 Configure 1 FR controller and 1 FRIfCluster. (FrController_0, FrIfCluster_0) 	/* GTUC02 register settings */ /* 0x3e8U - FrIfGMacroPerCycle
	 Configure following parameters: 	0x4U - FrIfGSyncFrameIDCountMax maps to FrIfGSyncNodeMax FR Pr 2.1
	• Set FrIfGMacroPerCycle as	

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Fr_17_Eray driver

	1000	*/
•	Set	0x000403e8U,
	${\sf FrlfGSyncFrameIDCountMax}$	
	as 4	

1.2.4.10 **Member: GTUC03**

Table 60 (GΤl	JC03
------------	-----	------

Table 60	GTUC03	
Name	GTUC03	
Туре	uint32	
Description	Configuration value for register 0	GTUC03.
Verification method	register based on value of the co	ted as numeric value aligned to members of GTUC03 infiguration parameters FrPMicroInitialOffsetA, plnitialOffsetA and FrPMacroInitialOffsetB from.
Example(s)	Action	Generated output
	 (FrController_0, FrlfCluster_0) Configure following parameters: Set FrPMicroInitialOffsetA as 24 Set FrPMicroInitialOffsetB 	/* GTUC03 register settings */ /* 0x18U - FrPMicroInitialOffsetA [A] 0x18U - FrPMicroInitialOffsetB [B] 0xaU - FrPMacroInitialOffsetA [A] 0xaU - FrPMacroInitialOffsetB [B] */ 0x0a0a1818U,

1.2.4.11 **Member: GTUC04**

Table 61 GTUC04

	•
Name	GTUC04
Туре	uint32
Description	Configuration value for register GTUC04.
Verification method	The structure member is generated as numeric value aligned to members of GTUC04 register based on value of the configuration parameters FrIfGMacroPerCycle, FrIfGdNit and FrPOffsetCorrectionStart.

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	NIT (Network idle time) = (FrlfGMacroPerCycle - FrlfGdNit - 1) OCS (Offset correction start) = (FrPOffsetCorrectionStart - 1)	
Example(s)	Action	Generated output
	 Configure 1 FR controller and 1 FRIfCluster. (FrController_0, FrIfCluster_0) Configure following parameters: Set FrIfGMacroPerCycle as 1000 Set FrIfGdNit as 89 Set FrPOffsetCorrectionStart as 916 	/* GTUC04 register settings */ /* 0x38eU - NetworkIdleTimeStart = (FrIfGMacroPerCycle - FrIfGdNit - 1) 0x393U - Range: 8 -15998, maps to (FrPOffsetCorrectionStart - 1) */ 0x0393038eU,

1.2.4.12 Member: GTUC05

Table 62 GTUC05

Table 62 GT	UC05	
Name	GTUC05	
Туре	uint32	
Description	Configuration value for registe	r GTUC05.
Verification method	register based on value of the	rated as numeric value aligned to members of GTUC05 configuration parameters FrPDelayCompensationA, ClusterDriftDamping and FrPDecodingCorrection.
Example(s)	Action	Generated output
	 Configure 1 FR controller and 1 FRIfCluster. (FrController_0, FrIfCluster_0) Configure following parameters: Set FrPDelayCompensationA as 4 Set FrPDelayCompensationB as 4 Set FrPDelayCompensationB as 4 	/* GTUC05 register settings */ /* 0x4U - FrPDelayCompensationA 0x4U - FrPDelayCompensationB 0x1U - FrPClusterDriftDamping 0x34U - FrPDecodingCorrection */ 0x34010404U,

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	1
•	Set
	FrPDecodingCorrection as
	52

1.2.4.13 Member: GTUC06

Tahl	le 63	GTUC06
Iav	IE 03	01000

Name	GTUC06		
Туре	uint32	uint32	
Description	Configuration value for register	GTUC06.	
Verification method	The structure member is generated as numeric value aligned to members of GTUC06 register based on value of the configuration parameters FrPdAcceptedStartupRange and FrPdMaxDrift.		
Example(s) Action Generated output		Generated output	
	 Configure 1 FR controller and 1 FRIfCluster. (FrController_0, FrIfCluster_0) Configure following parameters: Set FrPdAcceptedStartupRang 	/* GTUC06 register settings */ /* 0x81U - FrPdAcceptedStartupRange 0xd2U - is same as FrPdMaxDrift */ 0x00d20081U,	
	e as 129Set FrPdMaxDrift as 210		

1.2.4.14 Member: GTUC07

Table 64 GTUC07

Name	GTUC07		
Туре	uint32		
Description	Configuration value for registe	Configuration value for register GTUC07.	
Verification method	The structure member is generated as numeric value aligned to members of GTUC07 register based on value of the configuration parameters FrIfGdStaticSlot and FrIfGNumberOfStaticSlots.		
Example(s)	Action Generated output		
	 Configure 1 FR controller and 1 FRIfCluster. (FrController_0, FrIfCluster_0) 	/* GTUC07 register settings */ /* 0x32U - FrIfGdStaticSlot	

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Configure following	0xc - FrIfGNumberOfStaticSlots
parameters:	*/
• Set FrIfGdStaticSlot as 50	0x000c0032U,
• Set	,
FrIfGNumberOfStaticSlots	
 as 12	

1.2.4.15 Member: GTUC08

Table 65 G	TUC08
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Name	GTUC08		
Туре	uint32		
Description	Configuration value for register	Configuration value for register GTUC08.	
Verification method	The structure member is generated as numeric value aligned to members of GTUC08 register based on value of the configuration parameters FrIfGdMinislot and FrIfGNumberOfMinislots.		
Example(s)	e(s) Action Generated output		
	 Configure 1 FR controller and 1 FRIfCluster. (FrController_0, FrIfCluster_0) 	/* GTUC08 register settings */ /* 0x4U - FrIfGdMinislot	
	 Configure following parameters: 	0x4bU - FrIfGNumberOfMinislots */	
	 Set FrlfGdMinislot as 4 Set FrlfGNumberOfMinislots as 	0x004b0004U,	

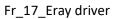
1.2.4.16 Member: GTUC09

Table 66 GTUC09

Name	GTUC09	GTUC09	
Туре	uint32		
Description	Configuration value for register GTUC09.		
Verification method	The structure member is generated as numeric value aligned to members of GTUC09 register based on value of the configuration parameters FrIfgdActionPointOffset, FrIfgdMinislotActionPointOffset and FrIfgdDynamicSlotIdlePhase.		
Example(s)	Action Generated output		
	• Configure 1 FR controller and 1 FRIfCluster. (FrController_0,	/* GTUC09 register settings */	

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	FrIfCluster_0)	/*
•	Configure following	0x8U - FrIfgdActionPointOffset
	parameters:	0x3U - FrIfgdMinislotActionPointOffset
•	Set FrlfgdActionPointOffset as 8	0x1U - FrIfgdDynamicSlotIdlePhase
•	Set	*/
	FrlfgdMinislotActionPointOffset as 3	0x00010308U,
•	Set FrIfgdDynamicSlotIdlePhase as	

1.2.4.17 Member: GTUC10

Table 67	GTUC10
rable 67	GIOCTO

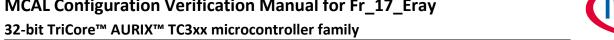
Name	GTUC10	GTUC10	
Туре	uint32	uint32	
Description	Configuration value for register 0	Configuration value for register GTUC10.	
Verification method	The structure member is generated as numeric value aligned to members of GTUC10 register based on value of the configuration parameters FrPOffsetCorrectionOut and FrPRateCorrectionOut.		
Example(s)	(s) Action Generated output		
	and 1 FRIfCluster. (FrController_0, FrIfCluster_0)	/* GTUC10 register settings */ /* 0x32U - FrPOffsetCorrectionOut 0xd2U - FrPRateCorrectionOut	
	parameters:	*/ 0x00d20032U,	
	Set FrPRateCorrectionOut as 210		

1.2.4.18 Member: GTUC11

Table 68 GTUC11

Name	GTUC11	
Туре	uint32	
Description	Configuration value for register GTUC11.	

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Fr_17_Eray driver

Verification method	The structure member is generated as numeric value 0. Note: The member is not user configurable.	
Example(s)	Configure 1 FR controller and 1 FRIfCluster. (FrController_0, FrIfCluster_0) Generate configuration.	/* GTUC11 register settings */ /* 0x0000U - Unused (FrPExternOffsetControl, FrPExternRateControl 0U - FrPExternOffsetCorrection is not present in AS40 0U - FrPExternRateCorrection is not present in AS40 */ 0x00000000U,

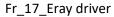
Member: CUST1 1.2.4.19

Table 69	CUST1
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Table 69 COS	911	
Name	CUST1	
Туре	uint32	
Description	Configuration value for registe	r CUST1.
Verification method	-	rated as numeric value aligned to members of CUST1 configuration parameters FrRxInputSelectionA and
Example(s)	Action	Generated output
	 Configure 1 FR controller and 1 FRIfCluster. (FrController_0, FrIfCluster_0) Configure following parameters: Set FrRxInputSelectionA as FR_RXSEL0_PORT14_8 Set FrRxInputSelectionB as FR_RXSEL0_PORT14_7 	/* CUST1 register settings */ /* 0x00U - Unused 0x00U - Reserved FR_RXSEL0 - FrRxInputSelection Channel A FR_RXSEL0 - FrRxInputSelection Channel B 0x00U - Unused */ 0x00000000U

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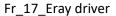


1.2.5 Structure: Fr_17_Eray_< ConfigShortName >_kLPduConfig_< FrIfCtrlldx>[<LPduCount>]

Table 70 Fr_17_Eray_< ConfigShortName >_kLPduConfig_<FrIfCtrlldx>[<LPduCount>]

Fr_17_Eray_< ConfigSI	hortName >_kLPduConfig_ <frifctrlidx>[<lpducount>]</lpducount></frifctrlidx>
Fr_17_Eray_LPduConf	igType
Array of LPdus configu	ration for the individual FlexRay controller.
	array Fr_17_Eray_< ConfigShortName >_kLPduConfig_ <frifctrlldx> contains configuration of the LPdus of individual FR controller.</frifctrlldx>
< ConfigShortName > i	s string configured in parameter 'FrMultipleConfiguration/Name'.
<frctrlidx> is FR index</frctrlidx>	configured for individual FR controller in 'FrController/FrCtrlIdx'.
<lpducount>: Numbe</lpducount>	r of LPdu configured in container 'FrIfLPdu/*'
Action	Generated output
controller with 2 Lpdus and Set FrCtrlldx as 0 Set Name as MyConfig	/*************************************
	Fr_17_Eray_LPduConferray of LPdus configurate generated file has [<lpducount>] which configshortName > i configShortName > i configShortName > i configure 1 FR controller with 2 Lpdus and Set FrCtrlIdx as 0 configure as configure set Name as configure as configure set Name as configure set Name as configure as configure set Name</lpducount>

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```
0U - FrIfAllowDynamicLSduLength
 0x000207c7U,
 FR_17_ERAY_LPDU_NOT_RECONFIGURABLE,
 /*DEM Id for FlexRay Slot Status Error. */
 FR_17_ERAY_DEM_REPORT_DISABLED
},
   -----*/
 {
 4U - Slot ID
 1U - Cycle code
 3U, - FrPChannels, add 0x1 as the hw regs take ChannelA = 1, ChannelB =
2
   and ChannelAB = 3
 0U - Message Buffer Direction: 0 - Receive, 1 - Transmit
 1U, - PPIT: 0 - Disable, 1 - Enable
 1U, - Transmission Mode: 1 - Single shot - always single shot
 0U - Message Buffer Service Request - always set to 0
 0x1b010004U,
 0x0U - Header CRC
 2U - Payload Length Configured
 0U - FrIfAllowDynamicLSduLength
 */
 0x00020000U,
 FR_17_ERAY_LPDU_RECONFIGURABLE,
 /*DEM Id for FlexRay Slot Status Error. */
 FR_17_ERAY_DEM_REPORT_DISABLED
}
};
```

MCAL Configuration Verification Manual for Fr_17_Eray





Member: Wrhs1CfgVal 1.2.5.1

Table 71	Wrhs1CfgVal

Table 11	MILISTCIENAL	
Name	Wrhs1CfgVal	
Туре	uint32	
Description	Configuration value for registe	er WRHS1.
Verification method		erated as numeric value aligned to members of WRHS1 configuration parameters FrIfSlotId, FrIfBaseCycle, nel and FrIfPayloadPreamble.
Example(s)	Action	Generated output
	 Configure 1 FR controller (FrlfController_0). Configured 1 LPdu. Following parameters configure in FrlfFrameTriggering container: Set FrlfSlotId as 3 Set FrlfChannel as FRIF_CHANNEL_AB Set FrlfBaseCycle as 0 Set FrlfPayloadPreamble as True Set FrlfCycleRepetition as 1 	/* 3U - Slot ID 1U - Cycle code 3U, - FrPChannels, add 0x1 as the hw regs take ChannelA = 1, ChannelB = 2 and ChannelAB = 3 1U - Message Buffer Direction: 0 - Receive, 1 - Transmit 1U, - PPIT: 0 - Disable, 1 - Enable 1U, - Transmission Mode: 1 - Single shot - always single shot 0U - Message Buffer Service Request - always set to 0 */ 0x1f010003U,

Member: Wrhs2CfgVal 1.2.5.2

Table 72 Wrhs2CfgVal

Table 12	willszeigvat		
Name	Wrhs2CfgVal		
Туре	uint32		
Description	Configuration value for register	Configuration value for register WRHS2.	
Verification method		red as numeric value aligned to members of WRHS2 Evalue and one bit is allocated to indicate the value of	
Example(s)	Action	Generated output	
	 Configure 1 FR controller (FrIfController_0). Configured 1 LPdu. 	/* 0x7c7U - Header CRC	

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 Following parameters 	2U - Payload Length Configured
configured in	0U - FrIfAllowDynamicLSduLength
FrlfFrameTriggering	*/
container:	1
• Set	0x000207c7U,
FrIfAllowDynamicLSduLength	
as False	

1.2.5.3 Member: LpduReconfigurable

Table 73 LpduReconfigurable

Name	LpduReconfigurable	LpduReconfigurable	
Туре	uint8		
Description	Indicates whether an LPdu is	Indicates whether an LPdu is dynamically reconfigurable or not.	
Verification method	parameter 'FrlfLPdu/FrlfReco	The structure member is generated as FR_17_ERAY_LPDU_NOT_RECONFIGURABLE If parameter 'FrIfLPdu/FrIfReconfigurable' is configured as 'True' else as FR_17_ERAY_LPDU_RECONFIGURABLE.	
Example(s)	Action	Generated output	
	Set FrIfReconfigurable as False	FR_17_ERAY_LPDU_NOT_RECONFIGURABLE,	
	Set FrIfReconfigurable as True	FR_17_ERAY_LPDU_RECONFIGURABLE,	

1.2.5.4 Member: FrDemFTSlotStatusErrId

Table 74 FrDemFTSlotStatusErrId

Table 14	FrDemF i SlotStatusErria	
Name	FrDemFTSlotStatusErrId	
Туре	Dem_EventIdType	
Description	DEM Id for FlexRay Slot Status error.	
Verification method The structure member is generated as FR_17_ERAY_DEM_REPORT_DISABLED If paramete 'FrIfController/FrIfFrameTriggering/ FrIfFrameTriggeringDemEventParameterRefs' is not configured else generate as a DemConf_DemEventParameter_ <frifframetriggeringdemeventparameterrefs *[1]="" frif_du_slotstatus="">.</frifframetriggeringdemeventparameterrefs>		ggeringDemEventParameterRefs' is not
Example(s)	Action	Generated output
	Configure 1 LPdu and do not configure DEM id in FrlfFrameTriggeringDemEventParameterRefs	FR_17_ERAY_LPDU_NOT_RECONFIGURABLE,
	Configure 1 LPdu and Configure the DEM Id FrIfFrameTriggeringDemEventParameterRef.	/*DEM Id for FlexRay Slot Status Error. */ DemConf_DemEventParameter_Fr_17_EraySl

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Fr_17_Eray driver

FI_1/_Eray ur	r_17_Eray driver		
	Set FrIfFrameTriggeringDemEventParameterRefs /*[1]/FRIF_E_LPDU_SLOTSTATUS/* as Fr_17_EraySlotStatusErr_Lpdu1 otStatusErr_Lpdu1		
1.2.6	Structure:Fr_	17_Eray_ <configshortname>_RxFifoConfig_<frifctrlldx></frifctrlldx></configshortname>	
Table 75	Fr_17_Eray_< C	onfigShortName >_RxFifoConfig_ <frifctrlldx></frifctrlldx>	
Name	Fr_17_Eray_< Cor	figShortName >_RxFifoConfig_ <frifctrlldx></frifctrlldx>	
Туре	Fr_17_Eray_RxFif	oConfigType	
Description	FR receive FIFO co	onfiguration.	
Verification method	generated.	ed in 'FrController/FrFifo/*' then this structure is generated else it is not enerated as Fr_17_Eray_< ConfigShortName >_RxFifoConfig_ <frifctrlldx> for</frifctrlldx>	
	individual FR controller. < ConfigShortName > is string configured in parameter 'FrMultipleConfiguration/Name'. <frctrlldx> is FR index configured for individual FR controller in 'FrController/FrCtrlldx'.</frctrlldx>		
Example(s)	Action	Generated output	
	 Configure 1 FR controller with 2 LPdus and set FrCtrlldx as 0 Set Name as MyConfig		
		270333U, /* FIFO Rejection Filter Mask */ 0U, /* Fifo Depth. It is the number of FIFO Lpdus/FrFifoDepth which is lower */ 0U };	

1.2.6.1 Member: FrFifoFrfCfg

Table 76 FrFifoFrfCfg

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Name	FrFifoFrfCfg	
Туре	uint32	
Description	Configuration value fo	r Fifo Rejection Filter criteria.
Verification method	FrFrameIdRejectionFile RejectNullFrames usin FIFO rejection filter cri	ris generated as numeric value based on parameters ter, FrCycleRepetition, FrBaseCycle, RejectStaticSegment and g following formula: teria = Fr Channel Value (FrFrameIdRejectionFilter << 2) BaseCycle) << 16U) (RejectStaticSegment << 23) (RejectNullFrames <<
Example(s)	Action	Generated output
	 Configure following parameters in FrFifo: Set FrFrameIdRejectio nFilter as 2047 Set FrCycleRepetition as 4 Set FrBaseCycle as 2 Set FrBaseCycle as	/* Fifo Rejection Filter criteria FrChannels (FrFid<<2) ((FrCycleRepetition FrBaseCycle)<<16U) (RSS<23) (RNF<24) */ 401405U,
	 Configure following parameters in FrFifo: Set FrFrameIdRejectio nFilter as 2047 Set FrCycleRepetition as 4 Set FrBaseCycle as 	/* Fifo Rejection Filter criteria FrChannels (FrFid<<2) ((FrCycleRepetition FrBaseCycle)<<16U) (RSS<23) (RNF<24) */ 25567229U,

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	2
•	Set
	RejectStaticSegm
	ent as True
•	Set
	RejectNullFrames
	as True

1.2.6.2 Member: FrFifoFrfm

Ta	ble	77	FrFifoFrfm	
ıa	Dle	11	Freitoerim	

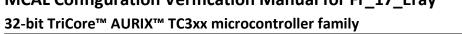
Tuble 11 1	11110111111			
Name	FrFifoFrfm	FrFifoFrfm		
Туре	uint16	uint16		
Description	FIFO Rejection Filter Mask.	FIFO Rejection Filter Mask.		
Verification method	The structure member is generated as numeric value which is configured in parameter 'FrController/FrFifo/FrameIdRejectionFilterMask'.			
Example(s)	Action	Generated output		
	 Configure following parameters in FrFifo: 	/* FIFO Rejection Filter Mask */		
	 Set FrameIdRejectionFilterMas k as 2 	20,		

1.2.6.3 Member: FrFifoDepth

Table 78 FrFifoDepth

Name	FrFifoDepth		
Туре	uint8		
Description	Fifo Depth.		
Verification method	The structure member is generated as a numeric value which is the minimum of the below 2 parameter values: Configured value in parameter 'Fr/FrController/FrFifo/FrFifoDepth'. Numbers of LPdus which are satisfy the FIFO criteria.		
Example(s)	Action	Generated output	
	 Set FrFifoDepth as 1 Configure 6 LPdus which are not satisfying FIFO criteria. 	/* Fifo Depth. It is the number of FIFO Lpdus/FrFifoDepth which is lower */	
	Set FrFifoDepth as 1	/* Fifo Depth. It is the number of FIFO Lpdus/FrFifoDepth	

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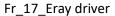




 Configure 8 LPdus, Out of 	which is lower */
that 1 LPdu is satisfying FIFO criteria.	1U

1.2.7	Array:			
	Fr_17_Eray_ <c< th=""><th>onfigShortName>_CCConfigArray_<frifctrlldx>[63]</frifctrlldx></th></c<>	onfigShortName>_CCConfigArray_ <frifctrlldx>[63]</frifctrlldx>		
Table 79	Fr_17_Eray_< Conf	figShortName >_RxFifoConfig_ <frifctrlldx>[63]</frifctrlldx>		
Name	Fr_17_Eray_ <confi< th=""><th>gShortName>_CCConfigArray_<frifctrlidx>[63]</frifctrlidx></th></confi<>	gShortName>_CCConfigArray_ <frifctrlidx>[63]</frifctrlidx>		
Туре	uint32			
Description	FlexRay protocol co	onfiguration parameters for a individual FlexRay controller		
Verification method	The array is genera for individual FR co	ted as Fr_17_Eray_< ConfigShortName >_CCConfigArray_ <frifctrlidx>[63] ontroller.</frifctrlidx>		
	< ConfigShortName	e> is string configured in parameter 'FrMultipleConfiguration/Name'.		
	<frctrlidx> is FR index configured for individual FR controller in 'FrController/FrCtrlIdx'.</frctrlidx>			
Example(s)	Action	Generated output		
	 Configure 1 FR controller with 2 LPdus and set FrCtrlldx as 0 Set as Name as MyConfig 	static const uint32 Fr_17_Eray_MyConfig_CCConfigArray_0[63] = { 0x000f4240U, /* FrIfGdCycle */ 0x00009c40U, /* UT: FrPMicroPerCycle */ 0x00013972U, /* FrPdListenTimeout */ 0x000003e8U, /* FrIfGMacroPerCycle */ 0x000003e8U, /* FrIfGdMacrotick */		
		0x0000004bU, /* FrIfGNumberOfMinislots */ 0x0000000cU, /* FrIfGNumberOfStaticSlots */ 0x00000059U, /* FrIfGdNit */ 0x00000032U, /* FrIfGdStaticSlot */ 0x0000004cU, /* FrIfgdWakeupRxWindow */ 0x0000003U, /* FrPKeySlotId */ 0x0000003fU, /* FrPLatestTx */ 0x00000032U, /* FrPOffsetCorrectionOut */ 0x000000394U, /* FrPOffsetCorrectionStart */		
		0x000000d2U, /* FrPRateCorrectionOut */ 0x0000000U, /* Second Keyslot ID */ 0x00000081U, /* FrPdAcceptedStartupRange */		

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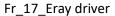




```
0x0000001fU, /* FrIfGColdStartAttempts */
0x000003fU, /* FrIfGCycleCountMax */
0x0000010U, /*FrlfGListenNoise */
0x0000001U, /* FrIfGMaxWithoutClockCorrectFatal */
0x0000001U, /* FrlfGMaxWithoutClockCorrectPassive */
0x00000002U, /* FrIfGNetworkManagementVectorLength */
0x0000004U, /* FrIfGPayloadLengthStatic */
0x00000004U, /* FrlfGSyncFrameIDCountMax maps to FrlfGSyncNodeMax
FR Pr 2.1 */
0x0000008U, /* FrlfgdActionPointOffset */
0x0000000U, /* FrIfGdBit */
0x00000061U, /* FrlfGdCasRxLowMax */
0x0000001U, /* FrlfgdDynamicSlotIdlePhase */
0x0000003U, /* FrIfgdMinislotActionPointOffset */
0x0000004U, /* FrIfGdMinislot */
0x0000000U, /* 0 - T12_5NS -> 10 Mbps */
0x0000000U, /* FrIfGdSymbolWindow */
0x0000008U, /* FrlfgdActionPointOffset */
0x000000aU, /* FrIfGdTSSTransmitter */
0x0000012U, /* FrIfgdWakeupRxIdle */
0x00000012U, /* FrIfgdWakeupRxLow */
0x0000003cU, /* FrlfGdWakeupTxActive */
0x000000b4U, /* FrIfGdWakeupTxIdle */
0x0000007U, /* FrPAllowPassiveToActive */
0x0000002U, /* FrPChannels */
0x0000001U, /* FrPClusterDriftDamping */
0x00000034U, /* FrPDecodingCorrection */
0x0000004U, /* FrPDelayCompensationA */
0x0000004U, /* FrPDelayCompensationB */
0x000000aU, /* FrPMacroInitialOffsetA */
0x000000aU, /* FrPMacroInitialOffsetB */
0x0000018U, /* FrPMicroInitialOffsetA */
0x0000018U, /* FrPMicroInitialOffsetB */
0x0000007fU, /* FrPPayloadLengthDynMax */
```

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0x00000001U, /* 1 - N2SAMPLES - Fixed at N2 samples as the baudrate supported is 10Mbit/s */
supported is tombit/s /
0x0000000U, /* FrPWakeupChannel -> 0 - FR_CHANNEL_A */
0x00000002U, /* FrPWakeupPattern */
0x00000001U, /* FrPdMicrotick -> 1 - T25NS */
0x00000000U, /* FrlfGdlgnoreAfterTx - Set to 0 for FR Pr 2.1 */
0x00000001U, /* FrPAllowHaltDueToClock */
0x00000000U, /* FrPExternalSync - Set to 0 for FR Pr 2.1 */
0x00000000U, /* FrPFallBackInternal - Set to 0 for FR Pr 2.1 */
0x00000000U, /* FrPKeySlotOnlyEnabled */
0x00000001U, /* FrPKeySlotUsedForStartup */
0x00000001U, /* FrPKeySlotUsedForSync */
0x00000000U, /* FrPNmVectorEarlyUpdate - Set to 0 for FR Pr 2.1 */
0x00000000U /* FrPTwoKeySlotMode - Set to 0 for FR Pr 2.1 */
};

1.2.7.1 Member: Fr_17_Eray_<ConfigShortName>_CCConfigArray_<FrIfCtrlldx>[0]

Table 80 Fr_17_Eray_< ConfigShortName >_CCConfigArray_<FrIfCtrlldx>[0]

Name	Fr_17_Eray_< ConfigShortName >_CCConfigArray_ <frifctrlidx>[0]</frifctrlidx>		
Туре	uint32		
Description	Configuration value	of FrIfGdCycle.	
Verification method	The array member is generated as numeric value based on parameter 'FrIfCluster/FrIfGdCycle' with following formula:		
	Generated Value = FrIfGdCycle * 1000000000		
Example(s)	Action	Generated output	
	Set FrlfGdCycle as 0.001	0x000f4240U, /* FrIfGdCycle */	

1.2.7.2 Member: Fr_17_Eray_<ConfigShortName>_CCConfigArray_<FrIfCtrlldx>[1]

Table 81 Fr_17_Eray_< ConfigShortName >_CCConfigArray_<FrIfCtrlldx>[1]

Name	Fr_17_Eray_< ConfigShortName >_CCConfigArray_ <frifctrlldx>[1]</frifctrlldx>
Туре	uint32

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,			
Description	Configuration value	of FrPMicroPerCycle.	
Verification method	The array member is generated as numeric value which is configured in parameter 'FrIfCluster/ FrPMicroPerCycle'.		
Example(s)	Action	Generated output	
	Set FrPMicroPerCycl e as 40000	0x00009c40U, /* UT: FrPMicroPerCycle */	
1.2.7.3	Member: Fr_17_E	Eray_ <configshortname>_CCConfigArray_<frifctrlldx>[2]</frifctrlldx></configshortname>	
Table 82	Fr_17_Eray_< Con	nfigShortName >_CCConfigArray_ <frifctrlldx>[2]</frifctrlldx>	
Name	Fr_17_Eray_< Config	ShortName >_CCConfigArray_ <frifctrlidx>[2]</frifctrlidx>	
Туре	uint32		
Description	Configuration value	of FrPdListenTimeout.	
Verification method	The array member is FrPdListenTimeout'.	generated as numeric value which is configured in parameter 'FrIfC	Cluster/
Example(s)	Action	Generated output	
	Set FrPdListenTime out as 80242	0x00013972U, /* FrPdListenTimeout */	
1.2.7.4 Table 83	Member: Fr_17_Eray_ <configshortname>_CCConfigArray_<frifctrlldx>[3] Fr_17_Eray_< ConfigShortName >_CCConfigArray_<frifctrlldx>[3]</frifctrlldx></frifctrlldx></configshortname>		
Name	Fr_17_Eray_< Config	ShortName >_CCConfigArray_ <frifctrlidx>[3]</frifctrlidx>	
Туре	uint32		
Description	Configuration value	of FrIfGMacroPerCycle.	
Verification method	The array member is 'FrIfCluster/FrIfGMad	generated as numeric value which is configured in parameter croPerCycle'.	
Example(s)	Action	Generated output	
	Set FrifGMacroPerCy cle as 1000	0x000003e8U, /* FrIfGMacroPerCycle */	
1.2.7.5	Member: Fr_17_E	Eray_ <configshortname>_CCConfigArray_<frifctrlldx>[4]</frifctrlldx></configshortname>	
Table 84	Fr_17_Eray_< Cor	nfigShortName >_CCConfigArray_ <frifctrlldx>[4]</frifctrlldx>	
Name	Fr_17_Eray_< ConfigShortName >_CCConfigArray_ <frifctrlidx>[4]</frifctrlidx>		
Туре	uint32		
Description	Configuration value	of FrIfGdMacrotick.	
Configuration Da	ata Reference	63 of 89	Version 4

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Vorification	The array means her is			
method	The array member is generated as numeric value based on parameter 'FrIfCluster/FrIfGdMacrotick' with following formula:			
	Generated value = Fr	fGdMacrotick * 1000000000		
Example(s)	Action	Generated output		
	Set FrlfGdMacrotick as 1.0E-6	0x000003e8U, /* FrIfGdMacrotick */		
1.2.7.6	Member: Fr_17_E	ray_ <configshortname>_CCConfigArray_<frifctrlldx>[5]</frifctrlldx></configshortname>		
Table 85	Fr_17_Eray_< Con	figShortName >_CCConfigArray_ <frifctrlldx>[5]</frifctrlldx>		
Name	Fr_17_Eray_< Config	ShortName >_CCConfigArray_ <frifctrlidx>[5]</frifctrlidx>		
Туре	uint32			
Description	Configuration value of	of FrIfGNumberOfMinislots.		
Verification method	The array member is 'FrIfCluster/FrIfGNun	generated as numeric value which is configured in parameter berOfMinislots'.		
Example(s)	Action	Generated output		
	Set FrIfGNumberOfMi ots as 75	0x0000004bU, /* FrIfGNumberOfMinislots */		
1.2.7.7	Member: Fr_17_E	ray_ <configshortname>_CCConfigArray_<frifctrlldx>[6]</frifctrlldx></configshortname>		
Table 86	Fr_17_Eray_< Con	figShortName >_CCConfigArray_ <frifctrlldx>[6]</frifctrlldx>		
Name	1	ShortName >_CCConfigArray_ <frifctrlidx>[6]</frifctrlidx>		
Туре	uint32			
Description		of FrIfGNumberOfStaticSlots.		
Verification method	The array member is generated as numeric value which is configured in parameter 'F FrIfCluster/FrIfGNumberOfStaticSlots'.			
Example(s)	Action	Generated output		
	Set FrlfGNumberOfSta ots as 12	0x000000cU, /* FrIfGNumberOfStaticSlots */		
1.2.7.8	Member: Fr_17_E	ray_ <configshortname>_CCConfigArray_<frifctrlldx>[7]</frifctrlldx></configshortname>		
Table 87	Fr 17 Erav < Con	figShortName >_CCConfigArray_ <frifctrlldx>[7]</frifctrlldx>		
I able o i		Fr_17_Eray_< ConfigShortName >_CCConfigArray_ <frifctrlldx>[7]</frifctrlldx>		
Name	1	ShortName >_CCConfigArray_ <frifctrlidx>[7]</frifctrlidx>		
	1	ShortName >_CCConfigArray_ <frifctrlidx>[7]</frifctrlidx>		

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_=: _=: 3, 5			
Description	Configuration value of FrIfGdNit.		
Verification method	The array member is generated as numeric value which is configured in parameter 'FrIfCluster/FrIfGdNit'.		
Example(s)	Action	Generated output	
	Set FrlfGdNit as 89	0x00000059U, /* FrlfGdNit */	
1.2.7.9	Member: Fr_17_E	Eray_ <configshortname>_CCConfigArray_<frifctrlldx>[8]</frifctrlldx></configshortname>	
Table 88	Fr_17_Eray_< Con	nfigShortName >_CCConfigArray_ <frifctrlldx>[8]</frifctrlldx>	
Name	Fr_17_Eray_< Config	ShortName >_CCConfigArray_ <frifctrlidx>[8]</frifctrlidx>	
Туре	uint32		
Description	Configuration value	of FrIfGdStaticSlot.	
Verification method	The array member is 'FrIfCluster/FrIfGdSt	generated as numeric value which is configured in parameter aticSlot'.	
Example(s)	Action	Generated output	
F (*/			
	• Set FrlfGdStaticSlot as 50 Member: Fr_17_E	0x00000032U, /* FrIfGdStaticSlot */ Eray_ <configshortname>_CCConfigArray_<frifctrlldx>[9]</frifctrlldx></configshortname>	
1.2.7.10 Table 89	FrIfGdStaticSlot as 50 Member: Fr_17_E Fr_17_Eray_< Con		
1.2.7.10 Table 89 Name	FrIfGdStaticSlot as 50 Member: Fr_17_E Fr_17_Eray_< Con	Eray_ <configshortname>_CCConfigArray_<frifctrlidx>[9] ofigShortName >_CCConfigArray_<frifctrlidx>[9]</frifctrlidx></frifctrlidx></configshortname>	
1.2.7.10 Table 89 Name Type	FrIfGdStaticSlot as 50 Member: Fr_17_E Fr_17_Eray_< Con Fr_17_Eray_< Config uint32	Eray_ <configshortname>_CCConfigArray_<frifctrlidx>[9] ofigShortName >_CCConfigArray_<frifctrlidx>[9]</frifctrlidx></frifctrlidx></configshortname>	
1.2.7.10 Table 89 Name Type Description Verification	FrIfGdStaticSlot as 50 Member: Fr_17_E Fr_17_Eray_< Config uint32 Configuration value	Eray_ <configshortname>_CCConfigArray_<frifctrlidx>[9] IfigShortName>_CCConfigArray_<frifctrlidx>[9] ShortName>_CCConfigArray_<frifctrlidx>[9] of FrIfgdWakeupRxWindow. Is generated as numeric value which is configured in parameter 'FrIfCluster/</frifctrlidx></frifctrlidx></frifctrlidx></configshortname>	
1.2.7.10 Table 89 Name Type Description Verification method	FrIfGdStaticSlot as 50 Member: Fr_17_E Fr_17_Eray_< Config uint32 Configuration value The array member is	Eray_ <configshortname>_CCConfigArray_<frifctrlldx>[9] IfigShortName>_CCConfigArray_<frifctrlldx>[9] ShortName>_CCConfigArray_<frifctrlldx>[9] of FrIfgdWakeupRxWindow. If generated as numeric value which is configured in parameter 'FrIfCluster/</frifctrlldx></frifctrlldx></frifctrlldx></configshortname>	
1.2.7.10 Table 89 Name Type Description	FrIfGdStaticSlot as 50 Member: Fr_17_E Fr_17_Eray_< Config uint32 Configuration value The array member is FrIfgdWakeupRxWin	Eray_ <configshortname>_CCConfigArray_<frifctrlldx>[9] IfigShortName>_CCConfigArray_<frifctrlldx>[9] ShortName>_CCConfigArray_<frifctrlldx>[9] of FrIfgdWakeupRxWindow. If generated as numeric value which is configured in parameter 'FrIfCluster/dow'. Generated output 0x0000004cU, /* FrIfgdWakeupRxWindow */</frifctrlldx></frifctrlldx></frifctrlldx></configshortname>	
1.2.7.10 Table 89 Name Type Description Verification method Example(s)	FrIfGdStaticSlot as 50 Member: Fr_17_E Fr_17_Eray_< Configuration value of the array member is FrIfgdWakeupRxWine Action Set FrIfgdWakeupRxWine Action Set FrIfgdWakeupRxWine Action	Eray_ <configshortname>_CCConfigArray_<frifctrlidx>[9] IfigShortName>_CCConfigArray_<frifctrlidx>[9] ShortName>_CCConfigArray_<frifctrlidx>[9] of FrIfgdWakeupRxWindow. If generated as numeric value which is configured in parameter 'FrIfCluster/dow'. Generated output 0x0000004cU, /* FrIfgdWakeupRxWindow */</frifctrlidx></frifctrlidx></frifctrlidx></configshortname>	
1.2.7.10 Table 89 Name Type Description Verification method Example(s)	FrIfGdStaticSlot as 50 Member: Fr_17_E Fr_17_Eray_< Configuration value of the array member is FrIfgdWakeupRxWindAction Set FrIfgdWakeupRxWindAction FrIfgdWakeupRxWindAction Member: Fr_17_E	Eray_ <configshortname>_CCConfigArray_<frifctrlidx>[9] InfigShortName>_CCConfigArray_<frifctrlidx>[9] InfigShortName=_CCConfigArray_<frifctrlidx>[9] InfigShortName=_CCConfigArray_<frifctrlidx>[9] InfigShortName=_CCConfigArray_<frifctrlidx>[9] InfigShortName=_CCConfi</frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></frifctrlidx></configshortname>	
1.2.7.10 Table 89 Name Type Description Verification method	FrIfGdStaticSlot as 50 Member: Fr_17_E Fr_17_Eray_< Configuration value of the array member is FrIfgdWakeupRxWindexton Set FrIfgdWakeupRxWindexton Set FrIfgdWakeupRxWindexton Fr_17_Eray_< Configuration value of the array member is FrIfgdWakeupRxWindexton Fr_17_Eray_< Configuration value of the array member is FrIfgdWakeupRxWindexton	Eray_ <configshortname>_CCConfigArray_<frifctrlldx>[9] InfigShortName>_CCConfigArray_<frifctrlldx>[9] ShortName>_CCConfigArray_<frifctrlldx>[9] of FrIfgdWakeupRxWindow. If generated as numeric value which is configured in parameter 'FrIfCluster/dow'. Generated output Ox0000004cU, /* FrIfgdWakeupRxWindow */ Wind Eray_<configshortname>_CCConfigArray_<frifctrlldx>[10]</frifctrlldx></configshortname></frifctrlldx></frifctrlldx></frifctrlldx></configshortname>	
1.2.7.10 Table 89 Name Type Description Verification method Example(s) 1.2.7.11 Table 90	FrIfGdStaticSlot as 50 Member: Fr_17_E Fr_17_Eray_< Configuration value of the array member is FrIfgdWakeupRxWindexton Set FrIfgdWakeupRxWindexton Set FrIfgdWakeupRxWindexton Fr_17_Eray_< Configuration value of the array member is FrIfgdWakeupRxWindexton Fr_17_Eray_< Configuration value of the array member is FrIfgdWakeupRxWindexton	Eray_ <configshortname>_CCConfigArray_<frifctrlldx>[9] InfigShortName>_CCConfigArray_<frifctrlldx>[9] InfigShortName>_CCConfigArray_<frifctrlldx>[9] InfigShortName>_CCConfigArray_<frifctrlldx>[9] InfigShortName>_CCConfigArray_<frifctrlldx>[9] InfigShortName>_CCConfigArray_<frifctrlldx>[10] InfigShortName>_CCConfigArray_<frifctrlldx>[10]</frifctrlldx></frifctrlldx></frifctrlldx></frifctrlldx></frifctrlldx></frifctrlldx></frifctrlldx></configshortname>	

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	The array member is generated as numeric value which is configured in parameter		
method	'FrController/FrPKey	Slotid'.	
Example(s)	Action	Generated output	
	Set FrPKeySlotId	0x0000003U, /* FrPKeySlotId */	
	as 3		
1.2.7.12	Member: Fr_17_E	ray_ <configshortname>_CCConfigArray_<frifctrlidx>[11]</frifctrlidx></configshortname>	
Table 91	Fr_17_Eray_< Con	figShortName >_CCConfigArray_ <frifctrlidx>[11]</frifctrlidx>	
Name	Fr_17_Eray_< Config	ShortName>_CCConfigArray_ <frifctrlidx>[11]</frifctrlidx>	
Туре	uint32		
Description	Configuration value	of FrPLatestTx.	
Verification	The array member is	generated as numeric value which is configured in parameter	
method	'FrController/FrPLate	estTx'.	
Example(s)	Action	Generated output	
	Set FrPLatestTx	0x0000003fU, /* FrPLatestTx */	
	as 63		
1.2.7.13	Member: Fr_17_E	ray_ <configshortname>_CCConfigArray_<frifctrlidx>[12]</frifctrlidx></configshortname>	
Table 92	Fr_17_Eray_< Con	figShortName >_CCConfigArray_ <frifctrlidx>[12]</frifctrlidx>	
Name	Fr_17_Eray_< Config	ShortName >_CCConfigArray_ <frlfctrlidx>[12]</frlfctrlidx>	
Туре	uint32		
Description	Configuration value	of FrPOffsetCorrectionOut.	
Verification	The array member is	generated as numeric value which is configured in parameter	
method	'FrController/FrPOffs	setCorrectionOut'.	
Example(s)	Action	Generated output	
	• Set	0x0000032U, /* FrPOffsetCorrectionOut */	
	FrPOffsetCorrecti	onO	
	ut as 50		
1.2.7.14	Member: Fr_17_E	ray_ <configshortname>_CCConfigArray_<frifctrlidx>[13]</frifctrlidx></configshortname>	
Table 93	Fr 17 Erav < Con	figShortName > _CCConfigArray _ < FrIfCtrlIdx > [13]	
Name	-	ShortName >_CCConfigArray_ <frifctrlldx>[13]</frifctrlldx>	
Туре	uint32		
Description			
Verification	The array member is generated as numeric value which is configured in parameter		
method	'FrController/FrPOffsetCorrectionStart'.		
Example(s)	Action	Generated output	
Configuration Da	ata Reference	66 of 89 Version 4.0	

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11_17_L1dy u	TIVE		
	Set FrPOffsetCorrection tart as 916	0x00000394U, /* FrPOffsetCorrectionStart */	
1.2.7.15	Member: Fr_17_Era	ny_ <configshortname>_CCConfigArray_<frifctrlldx>[14]</frifctrlldx></configshortname>	
Table 94	Fr_17_Eray_< Config	gShortName >_CCConfigArray_ <frifctrlidx>[14]</frifctrlidx>	
Name	Fr_17_Eray_< ConfigShortName >_CCConfigArray_ <frifctrlldx>[14]</frifctrlldx>		
Туре	uint32		
Description	Configuration value of FrPRateCorrectionOut.		
Verification method	The array member is generated as numeric value which is configured in parameter 'FrController/FrPRateCorrectionOut'.		
Example(s)	Action	Generated output	
	• Set FrPRateCorrection Out as 210	0x00000d2U, /* FrPRateCorrectionOut */	
1.2.7.16		ny_ <configshortname>_CCConfigArray_<frifctrlldx>[15]</frifctrlldx></configshortname>	
Table 95	1	gShortName >_CCConfigArray_ <frifctrlldx>[15]</frifctrlldx>	
Name	Fr_11_Eray_< ConfigSr	ortName >_CCConfigArray_ <frifctrlidx>[15]</frifctrlidx>	
Туре	uint32		
Description	Configuration value of Second Keyslot ID.		
Verification	The array member is go	enerated as numeric value 0.	
method	Note: Array member is not configurable by user		
Example(s)	Action G	enerated output	
	Generate configuration.	0x0000000U, /* Second Keyslot ID */	
1.2.7.17	Member: Fr_17_Era	ny_ <configshortname>_CCConfigArray_<frifctrlidx>[16]</frifctrlidx></configshortname>	
Table 96	Fr_17_Eray_< Config	gShortName >_CCConfigArray_ <frifctrlidx>[16]</frifctrlidx>	
Name	Fr_17_Eray_< ConfigSh	ortName >_CCConfigArray_ <frifctrlidx>[16]</frifctrlidx>	
Туре	uint32		
Description	Configuration value of	FrPdAcceptedStartupRange.	
Verification method	The array member is go 'FrController/FrPdAcce	enerated as numeric value which is configured in parameter eptedStartupRange'.	
Configuration 5	ota Dafarana	67 of 90	

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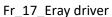
Fr_17_Eray driver

Example(s)	Action	Generated output
	 Set FrPdAcceptedStartup nge as 129 	0x00000081U, /* FrPdAcceptedStartupRange */
1.2.7.18		 _ <configshortname>_CCConfigArray_<frifctrlldx>[17]</frifctrlldx></configshortname>
Table 97	Fr 17 Fray < ConfigS	hortName >_CCConfigArray_ <frifctrlidx>[17]</frifctrlidx>
Name	Fr_17_Eray_< ConfigShortName > _CCConfigArray_ <frifctrlldx>[17]</frifctrlldx>	
Туре	uint32	
Description		
<u> </u>	The array member is generated as numeric value which is configured in parameter 'FrIfCluster/FrIfGColdStartAttempts'.	
Example(s)	Action	Generated output
	• FrIfGColdStartAttemp = 31	0x0000001fU, /* FrIfGColdStartAttempts */
1.2.7.19	Member: Fr 17 Eray	<configshortname> CCConfigArray <frifctrlldx>[18]</frifctrlldx></configshortname>
		_ <configshortname>_CCConfigArray_<frifctrlldx>[18]</frifctrlldx></configshortname>
1.2.7.19 Table 98	Fr_17_Eray_< ConfigS	hortName >_CCConfigArray_ <frifctrlidx>[18]</frifctrlidx>
	Fr_17_Eray_< ConfigS Fr_17_Eray_< ConfigSho	
Table 98 Name Type	Fr_17_Eray_< ConfigS Fr_17_Eray_< ConfigSho uint32	rtName >_CCConfigArray_ <frifctrlidx>[18] rtName >_CCConfigArray_<frifctrlidx>[18]</frifctrlidx></frifctrlidx>
Table 98 Name	Fr_17_Eray_< ConfigS Fr_17_Eray_< ConfigSho	hortName >_CCConfigArray_ <frifctrlidx>[18] rtName >_CCConfigArray_<frifctrlidx>[18]</frifctrlidx></frifctrlidx>
Table 98 Name Type	Fr_17_Eray_< ConfigSho Fr_17_Eray_< ConfigSho uint32 Configuration value of Fr	hortName >_CCConfigArray_ <frifctrlidx>[18] rtName >_CCConfigArray_<frifctrlidx>[18] IfGCycleCountMax. erated as numeric value which is configured in parameter</frifctrlidx></frifctrlidx>
Table 98 Name Type Description Verification	Fr_17_Eray_< ConfigSho Fr_17_Eray_< ConfigSho uint32 Configuration value of Fr The array member is gen 'FrIfCluster/FrIfGCycleCo	hortName >_CCConfigArray_ <frifctrlidx>[18] rtName >_CCConfigArray_<frifctrlidx>[18] IfGCycleCountMax. erated as numeric value which is configured in parameter</frifctrlidx></frifctrlidx>
Table 98 Name Type Description Verification method	Fr_17_Eray_< ConfigSho Fr_17_Eray_< ConfigSho uint32 Configuration value of Fr The array member is gen 'FrIfCluster/FrIfGCycleCo	chortName >_CCConfigArray_ <frifctrlldx>[18] rtName >_CCConfigArray_<frifctrlldx>[18] IfGCycleCountMax. erated as numeric value which is configured in parameter untMax'.</frifctrlldx></frifctrlldx>
Table 98 Name Type Description Verification method	Fr_17_Eray_< ConfigS Fr_17_Eray_< ConfigSho uint32 Configuration value of Fr The array member is gen 'FrIfCluster/FrIfGCycleCo Action • Set FrIfGCycleCountM ax as 63	chortName >_CCConfigArray_ <frifctrlidx>[18] rtName >_CCConfigArray_<frifctrlidx>[18] IfGCycleCountMax. erated as numeric value which is configured in parameter untMax'. Generated output</frifctrlidx></frifctrlidx>
Table 98 Name Type Description Verification method Example(s)	Fr_17_Eray_< ConfigS Fr_17_Eray_< ConfigSho uint32 Configuration value of Fr The array member is gen 'FrIfCluster/FrIfGCycleCo Action • Set FrIfGCycleCountM ax as 63 Member: Fr_17_Eray	chortName >_CCConfigArray_ <frifctrlidx>[18] rtName >_CCConfigArray_<frifctrlidx>[18] IfGCycleCountMax. erated as numeric value which is configured in parameter untMax'. ienerated output 0x0000003fU, /* FrIfGCycleCountMax */</frifctrlidx></frifctrlidx>
Table 98 Name Type Description Verification method Example(s) 1.2.7.20 Table 99	Fr_17_Eray_< ConfigS Fr_17_Eray_< ConfigSho uint32 Configuration value of Fr The array member is gen 'FrIfCluster/FrIfGCycleCo Action • Set FrIfGCycleCountM ax as 63 Member: Fr_17_Eray Fr_17_Eray_< ConfigS	chortName >_CCConfigArray_ <frifctrlldx>[18] rtName >_CCConfigArray_<frifctrlldx>[18] IfGCycleCountMax. erated as numeric value which is configured in parameter untMax'. ienerated output 0x0000003fU, /* FrIfGCycleCountMax */ _<configshortname>_CCConfigArray_<frifctrlldx>[19]</frifctrlldx></configshortname></frifctrlldx></frifctrlldx>
Table 98 Name Type Description Verification method Example(s) 1.2.7.20 Table 99 Name	Fr_17_Eray_< ConfigS Fr_17_Eray_< ConfigSho uint32 Configuration value of Fr The array member is gen 'FrIfCluster/FrIfGCycleCo Action • Set FrIfGCycleCountM ax as 63 Member: Fr_17_Eray Fr_17_Eray_< ConfigS	chortName >_CCConfigArray_ <frifctrlldx>[18] rtName >_CCConfigArray_<frifctrlldx>[18] IfGCycleCountMax. erated as numeric value which is configured in parameter untMax'. ienerated output 0x0000003fU, /* FrIfGCycleCountMax */ _<configshortname>_CCConfigArray_<frifctrlldx>[19] chortName >_CCConfigArray_<frifctrlldx>[19]</frifctrlldx></frifctrlldx></configshortname></frifctrlldx></frifctrlldx>
Table 98 Name Type Description Verification method Example(s)	Fr_17_Eray_< ConfigS Fr_17_Eray_< ConfigSho uint32 Configuration value of Fr The array member is gen 'FrIfCluster/FrIfGCycleCo Action • Set FrIfGCycleCountM ax as 63 Member: Fr_17_Eray Fr_17_Eray_< ConfigSho	chortName >_CCConfigArray_ <frifctrlldx>[18] rtName >_CCConfigArray_<frifctrlldx>[18] IfGCycleCountMax. erated as numeric value which is configured in parameter untMax'. ienerated output 0x0000003fU, /* FrIfGCycleCountMax */ <configshortname>_CCConfigArray_<frifctrlldx>[19] chortName >_CCConfigArray_<frifctrlldx>[19]</frifctrlldx></frifctrlldx></configshortname></frifctrlldx></frifctrlldx>
Table 98 Name Type Description Werification method Example(s) 1.2.7.20 Table 99 Name Type Description	Fr_17_Eray_< ConfigS Fr_17_Eray_< ConfigSho uint32 Configuration value of Fr The array member is gen 'FrIfCluster/FrIfGCycleCo Action • Set FrIfGCycleCountM ax as 63 Member: Fr_17_Eray Fr_17_Eray_< ConfigS Fr_17_Eray_< ConfigSho uint32 Configuration value of Fr	chortName >_CCConfigArray_ <frifctrlidx>[18] rtName >_CCConfigArray_<frifctrlidx>[18] IfGCycleCountMax. erated as numeric value which is configured in parameter untMax'. Generated output 0x0000003fU, /* FrIfGCycleCountMax */ _<configshortname>_CCConfigArray_<frifctrlidx>[19] rtName >_CCConfigArray_<frifctrlidx>[19] IfGListenNoise erated as numeric value which is configured in parameter</frifctrlidx></frifctrlidx></configshortname></frifctrlidx></frifctrlidx>

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Fr_17_Eray d	river		
	Set FrlfGListenNoise as 16 Ox00000010	U, /*FrIfGListenNoise */	
1.2.7.21	Member: Fr_17_Eray_ <configsh< th=""><th>nortName>_CCConfigArray_<frifctrlidx>[20]</frifctrlidx></th></configsh<>	nortName>_CCConfigArray_ <frifctrlidx>[20]</frifctrlidx>	
Table 100	Fr_17_Eray_< ConfigShortName >	_CCConfigArray_ <frifctrlldx>[20]</frifctrlldx>	
Name	Fr_17_Eray_< ConfigShortName >_CCConfigArray_ <frifctrlldx>[20]</frifctrlldx>		
Туре	uint32		
Description	Configuration value of FrIfGMaxWithoutClockCorrectFatal.		
Verification method	The array member is generated as numeric value which is configured in parameter 'FrIfCluster/FrIfGMaxWithoutClockCorrectFatal'.		
Example(s)	Action	Generated output	
	Set FrIfGMaxWithoutClockCorrectFa tal as 1	0x0000001U, /* FrIfGMaxWithoutClockCorrectFatal */	
1.2.7.22 Table 101		nortName>_CCConfigArray_ <frifctrlidx>[21]CCConfigArray_<frifctrlidx>[21]</frifctrlidx></frifctrlidx>	
Name	Fr_17_Eray_< ConfigShortName >_CC	CConfigArray_ <frifctrlldx>[21]</frifctrlldx>	
Туре	uint32		
Description	Configuration value of FrIfGMaxWitho	outClockCorrectPassive.	
Verification method	The array member is generated as nu 'FrIfCluster/FrIfGMaxWithoutClockCo	meric value which is configured in parameter rrectPassive'.	
Example(s)	Action	Generated output	
	Set FrIfGMaxWithoutClockCorrectPas sive as 1	0x00000001U, /* FrIfGMaxWithoutClockCorrectPassive */	
1.2.7.23	Member: Fr_17_Eray_ <configsh< th=""><th>nortName>_CCConfigArray_<frifctrlidx>[22]</frifctrlidx></th></configsh<>	nortName>_CCConfigArray_ <frifctrlidx>[22]</frifctrlidx>	
Table 102	Fr_17_Eray_< ConfigShortName >	_CCConfigArray_ <frifctrlldx>[22]</frifctrlldx>	
Name	Fr_17_Eray_< ConfigShortName >_CC	CConfigArray_ <frifctrlidx>[22]</frifctrlidx>	
Туре	uint32		
Description	Configuration value of FrIfGNetwork	ManagementVectorLength.	
Verification method	The array member is generated as nu 'FrIfCluster/FrIfGNetworkManagemer	meric value which is configured in parameter	
Example(s)	Action	Generated output	
	• Set	0x0000002U, /*	

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Fr_1/_Eray d	river		
	FrlfGNetworkManagem gth as 2	nentVectorLen FrlfGNetworkManagementVectorLength */	
1.2.7.24	-	<pre><configshortname>_CCConfigArray_<frifctrlldx>[23]</frifctrlldx></configshortname></pre>	
Table 103		ortName > CCConfigArray < FrlfCtrlldx>[23]	
Name	Fr_17_Eray_< ConfigShortName >_CCConfigArray_ <frifctrlldx>[23]</frifctrlldx>		
Туре	uint32		
Description	Configuration value of FrIfGPayloadLengthStatic.		
Verification method	The array member is generated as numeric value which is configured in parameter 'FrIfCluster/FrIfGPayloadLengthStatic'.		
Example(s)	Action	Generated output	
	Set FrIfGPayloadLengthSt atic as 4	0x00000004U, /* FrIfGPayloadLengthStatic */	
1.2.7.25 Table 104		<pre><configshortname>_CCConfigArray_<frifctrlidx>[24] ortName >_CCConfigArray_<frifctrlidx>[24]</frifctrlidx></frifctrlidx></configshortname></pre>	
Name	Fr_17_Eray_< ConfigShort	:Name >_CCConfigArray_ <frifctrlidx>[24]</frifctrlidx>	
Туре	uint32		
Description	Configuration value of FrIf	GSyncFrameIDCountMax.	
Verification method	The array member is gene 'FrIfCluster/FrIfGSyncFram	rated as numeric value which is configured in parameter neIDCountMax'.	
Example(s)	Action	Generated output	
	Set FrIfGSyncFrameIDCour Max as 4	0x00000004U, /* FrIfGSyncFrameIDCountMax maps to FrIfGSyncNodeMax FR Pr 2.1 */	
1.2.7.26	Member: Fr_17_Eray_	<configshortname>_CCConfigArray_<frifctrlldx>[25]</frifctrlldx></configshortname>	
Table 105	Fr_17_Eray_< ConfigSh	ortName >_CCConfigArray_ <frifctrlidx>[25]</frifctrlidx>	
Name	Fr_17_Eray_< ConfigShort	:Name >_CCConfigArray_ <frifctrlidx>[25]</frifctrlidx>	
Туре	uint32		
Description	Configuration value of FrIf	gdActionPointOffset.	
Verification method	The array member is gene 'FrIfCluster/FrIfgdActionPo	rated as numeric value which is configured in parameter ointOffset'.	
Example(s)	Action	Generated output	
	• Set	0x0000008U, /* FrIfgdActionPointOffset */	

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1.2.7.27 Member: Fr_17_Eray_<ConfigShortName>_CCConfigArray_<FrIfCtrlldx>[26]

Table 106	Fr_17_Eray_< ConfigShortName >_CCConfigArray_ <frifctrlldx>[26]</frifctrlldx>	
Name	Fr_17_Eray_< ConfigShortName >_CCConfigArray_ <frifctrlidx>[26]</frifctrlidx>	
Туре	uint32	
Description	Configuration value of FrIfGdBit.	
Verification method	Array member is generated as numeric value 0. Note: Array member is not configurable to user	
Example(s)	Action	Generated output

Example(s)	Action	Generated output
	Generate configuration	0x0000000U, /* FrIfGdBit */

1.2.7.28 Member: Fr_17_Eray_<ConfigShortName>_CCConfigArray_<FrIfCtrlldx>[27]

Table 107 Fr_17_Eray_< ConfigShortName > _CCConfigArray_<FrIfCtrlldx>[27]

Name	Fr_17_Eray_< ConfigShortName >_CCConfigArray_ <frifctrlidx>[27]</frifctrlidx>	
Туре	uint32	
Description	Configuration value of FrIfGdCasRxLowMax.	
Verification method	The array member is generated as numeric value which is configured in parameter 'FrIfCluster/FrIfGdCasRxLowMax'.	
Example(s)	Action	Generated output
	Set FrIfGdCasRxLowMax as 0x61	0x00000061U, /* FrIfGdCasRxLowMax */

1.2.7.29 Member: Fr_17_Eray_<ConfigShortName>_CCConfigArray_<FrIfCtrlldx>[28]

Table 108 Fr_17_Eray_< ConfigShortName >_CCConfigArray_<FrIfCtrlldx>[28]

Name	Fr_17_Eray_< ConfigShortNa	me >_CCConfigArray_ <frifctrlidx>[28]</frifctrlidx>
Туре	uint32	
Description	Configuration value of FrIfgd	DynamicSlotIdlePhase.
Verification	The array member is generat	ed as numeric value which is configured in parameter
method	'FrIfCluster/FrIfgdDynamicSlo	otIdlePhase'.
Example(s)	Action	Generated output
	• Set	0x0000001U, /* FrIfgdDynamicSlotIdlePhase */
	FrIfgdDynamicSlotIdlePh	

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	ase as 1		
1.2.7.30	Member: Fr_17_Eray_ <configshortname>_CCConfigArray_<frifctrlidx>[29]</frifctrlidx></configshortname>		
Table 109	Fr_17_Eray_< ConfigS	ShortName >_CCConfigArray_ <frifctrlldx>[29]</frifctrlldx>	
Name	Fr_17_Eray_< ConfigShortName >_CCConfigArray_ <frifctrlidx>[29]</frifctrlidx>		
Туре	uint32		
Description	Configuration value of FrIfgdMinislotActionPointOffset.		
Verification method	The array member is gen 'FrIfCluster/FrIfgdMinislo	nerated as numeric value which is configured in parameter otActionPointOffset'.	
Example(s)	Action	Generated output	
	Set FrIfgdMinislotActionP fset as 3	0x00000003U, /* FrIfgdMinislotActionPointOffset */	
1.2.7.31	Member: Fr_17_Eray	y_ <configshortname>_CCConfigArray_<frifctrlldx>[30]</frifctrlldx></configshortname>	
Table 110	Fr_17_Eray_ <configs< td=""><td>ShortName >_CCConfigArray_<frifctrlldx>[30]</frifctrlldx></td></configs<>	ShortName >_CCConfigArray_ <frifctrlldx>[30]</frifctrlldx>	
Name		ortName >_CCConfigArray_ <frifctrlidx>[30]</frifctrlidx>	
Гуре	uint32		
Description	Configuration value of Fr	rIfGdMinislot.	
Verification method	The array member is gen 'FrIfCluster/FrIfGdMinislo	nerated as numeric value which is configured in parameter ot'.	
Example(s)	Action	Generated output	
	Set FrIfGdMinislot as 4	0x0000004U, /* FrIfGdMinislot */	
1.2.7.32	Member: Fr_17_Eray	y_ <configshortname>_CCConfigArray_<frifctrlldx>[31]</frifctrlldx></configshortname>	
Γable 111	Fr 17 Fray < ConfigS	ShortName >_CCConfigArray_ <frifctrlldx>[31]</frifctrlldx>	
Name	Fr_17_Eray_< ConfigShortName >_CCConfigArray_ <frifctrlldx>[31]</frifctrlldx>		
Гуре	uint32		
Description	Configuration value of 0	for speed 10 Mbps.	
	Array member is generated as numeric value 0.		
		ember is not configurable to user	
Verification method Example(s)	Note: Array mei	ember is not configurable to user Generated output	

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1.2.7.33 Member: Fr_17_Eray_<ConfigShortName>_CCConfigArray_<FrIfCtrlldx>[32]

Table 112 Fr 17 Eray	< ConfigShortName >	CCConfigArray	<frifctrlldx>[</frifctrlldx>	321
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Name	Fr_17_Eray_< ConfigShortName >_CCConfigArray_ <frifctrlidx>[32]</frifctrlidx>		
Туре	uint32		
Description	Configuration value of FrIfGdSymbolWindow.		
Verification method	The array member is generated as numeric value which is configured in parameter 'FrIfCluster/FrIfGdSymbolWindow'.		
Example(s)	Action Generated output		
	Set FrIfGdSymbolWindo w as 0	0x0000000U, /* FrIfGdSymbolWindow */	

1.2.7.34 Member: Fr_17_Eray_<ConfigShortName>_CCConfigArray_<FrIfCtrlldx>[33]

Table 113 Fr_17_Eray_< ConfigShortName >_CCConfigArray_<FrIfCtrlldx>[33]

Name	Fr_17_Eray_< ConfigShortName >_CCConfigArray_ <frifctrlldx>[33]</frifctrlldx>		
Туре	uint32		
Description	Configuration value of FrIfgdActionPointOffset.		
Verification method	The array member is generated as numeric value which is configured in parameter 'FrIfCluster/ FrIfgdActionPointOffset'.		
Example(s)	Action Generated output		
	Set FrIfgdActionPointOffs et as 8	0x0000008U, /* FrIfgdActionPointOffset */	

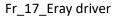
1.2.7.35 Member: Fr_17_Eray_<ConfigShortName>_CCConfigArray_<FrIfCtrlldx>[34]

Table 114 Fr_17_Eray_< ConfigShortName >_CCConfigArray_<FrIfCtrlldx>[34]

Name	Fr_17_Eray_< ConfigShortName >_CCConfigArray_ <frifctrlldx>[34]</frifctrlldx>		
Туре	uint32		
Description	Configuration value of FrIfGdTSSTransmitter.		
Verification method	The array member is generated as numeric value which is configured in parameter 'FrIfCluster/FrIfGdTSSTransmitter'.		
Example(s)	Action Generated output		
	Set FrlfGdTSSTransmitte r as 10	0x000000aU, /* FrlfGdTSSTransmitter */	

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1.2.7.36 Member: Fr_17_Eray_<ConfigShortName>_CCConfigArray_<FrIfCtrlldx>[35]

Table 115 TI_II_ETay_ \ Collingshorthame \ _CccollingArray_ \ Thetriax [55	Table 115	Fr_17_Eray_< Config	gShortName >_CCConfi	gArray_ <frifctrlldx>[35]</frifctrlldx>
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Name	Fr_17_Eray_< ConfigShortName > _CCConfigArray_ <frifctrlldx>[35]</frifctrlldx>	
Туре	uint32	
Description	Configuration value of FrIfgdWakeupRxIdle.	
Verification method	The array member is generated as numeric value which is configured in parameter 'FrIfCluster/FrIfgdWakeupRxIdle'.	
Example(s)	Action Generated output	
	Set FrifgdWakeupRxidle as 18	0x0000012U, /* FrIfgdWakeupRxIdle */

1.2.7.37 Member: Fr_17_Eray_<ConfigShortName>_CCConfigArray_<FrIfCtrlldx>[36]

Table 116 Fr_17_Eray_< ConfigShortName >_CCConfigArray_<FrIfCtrlldx>[36]

Name	Fr_17_Eray_< ConfigShortName >_CCConfigArray_ <frifctrlldx>[36]</frifctrlldx>	
Туре	uint32	
Description	Configuration value of FrIfgdWakeupRxLow.	
Verification method	The array member is generated as numeric value which is configured in parameter 'FrIfCluster/FrIfgdWakeupRxLow'.	
Example(s)	Action Generated output	
	Set FrlfgdWakeupRxLow as 18	0x0000012U, /* FrIfgdWakeupRxLow */

1.2.7.38 Member: Fr_17_Eray_<ConfigShortName>_CCConfigArray_<FrIfCtrlldx>[37]

Table 117 Fr_17_Eray_< ConfigShortName > _CCConfigArray_<FrIfCtrlldx>[37]

Name	Fr_17_Eray_< ConfigShortName >_CCConfigArray_ <frifctrlidx>[37]</frifctrlidx>		
Туре	uint32		
Description	Configuration value of FrIfGdWakeupTxActive.		
Verification method	The array member is generated as numeric value which is configured in parameter 'FrIfCluster/FrIfGdWakeupTxActive'.		
Example(s)	Action Generated output		
	Set FrlfGdWakeupTxActiv e as 0x3c	0x0000003cU, /* FrIfGdWakeupTxActive */	

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1.2.7.39 Member: Fr_17_Eray_<ConfigShortName>_CCConfigArray_<FrIfCtrlldx>[38]

Table 118	Fr_17_Eray_< ConfigS	hortName >_CCConfigArray_	_ <frifctrlidx>[38]</frifctrlidx>
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Name	Fr_17_Eray_< ConfigShortName >_CCConfigArray_ <frifctrlidx>[38]</frifctrlidx>		
Туре	uint32		
Description	Configuration value of FrIfGdWakeupTxIdle.		
Verification method	The array member is generated as numeric value which is configured in parameter 'FrIfCluster/FrIfGdWakeupTxIdle'.		
Example(s)	Action Generated output		
	Set FrlfGdWakeupTxIdle as 0xb4	0x000000b4U, /* FrIfGdWakeupTxIdle */	

1.2.7.40 Member: Fr_17_Eray_<ConfigShortName>_CCConfigArray_<FrIfCtrlldx>[39]

Table 119 Fr_17_Eray_< ConfigShortName >_CCConfigArray_<FrIfCtrlldx>[39]

Name	Fr_17_Eray_< ConfigShortName >_CCConfigArray_ <frifctrlidx>[39]</frifctrlidx>		
Туре	uint32		
Description	Configuration value of FrPAllowPassiveToActive.		
Verification method	The array member is generated as numeric value which is configured in parameter 'FrController/FrPAllowPassiveToActive'.		
Example(s)	Action Generated output		
	Set FrPAllowPassiveToAc tive as 7	0x00000007U, /* FrPAllowPassiveToActive */	

1.2.7.41 Member: Fr_17_Eray_<ConfigShortName>_CCConfigArray_<FrIfCtrlldx>[40]

Table 120 Fr_17_Eray_< ConfigShortName > _CCConfigArray_<FrIfCtrlldx>[40]

Name	Fr_17_Eray_< ConfigShortName >_CCConfigArray_ <frifctrlidx>[40]</frifctrlidx>	
Туре	uint32	
Description	Configuration value of FrPChannels.	
Verification method	The array member is generated as numeric value based on 'FrController/FrPChannels' as follows: If FrPChannels is configured as FR_CHANNEL_AB then value is generated as 2 If FrPChannels is configured as FR_CHANNEL_B then value is generate das 1 If FrPChannels is configured as FR_CHANNEL_A then value is generated as 0	
Example(s)	Action Generated output	
	Set FrPChannels as	0x00000002U, /* FrPChannels */

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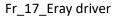


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	FR_CHANNEL_AB	
1.2.7.42	Member: Fr_17_Eray	_ <configshortname>_CCConfigArray_<frifctrlldx>[41]</frifctrlldx></configshortname>
Table 121	Fr_17_Eray_< ConfigS	hortName >_CCConfigArray_ <frifctrlldx>[41]</frifctrlldx>
Name	Fr_17_Eray_< ConfigShor	tName >_CCConfigArray_ <frifctrlidx>[41]</frifctrlidx>
Туре	uint32	
Description	Configuration value of Fri	PClusterDriftDamping.
Verification method	The array member is generated as numeric value which is configured in parameter 'FrController/FrPClusterDriftDamping'.	
Example(s)	Action	Generated output
	Set FrPClusterDriftDampi ng as 1	0x0000001U, /* FrPClusterDriftDamping */
1.2.7.43	Member: Fr_17_Eray	_ <configshortname>_CCConfigArray_<frifctrlldx>[42]</frifctrlldx></configshortname>
Table 122	Fr_17_Eray_< ConfigSi	hortName >_CCConfigArray_ <frifctrlldx>[42]</frifctrlldx>
Name	Fr_17_Eray_< ConfigShor	tName >_CCConfigArray_ <frifctrlidx>[42]</frifctrlidx>
Туре	uint32	
Description	Configuration value of Fri	PDecodingCorrection.
Verification method	The array member is gene 'FrController/FrPDecodin	erated as numeric value which is configured in parameter gCorrection'.
Example(s)	Action	Generated output
	Set FrPDecodingCorrecti on as 0x34	0x00000034U, /* FrPDecodingCorrection */
1.2.7.44	Member: Fr_17_Eray	_ <configshortname>_CCConfigArray_<frifctrlldx>[43]</frifctrlldx></configshortname>
Table 123	Fr 17 Eray < ConfigS	hortName >_CCConfigArray_ <frifctrlldx>[43]</frifctrlldx>
Name	Fr_17_Eray_< ConfigShor	tName >_CCConfigArray_ <frifctrlidx>[43]</frifctrlidx>
Гуре	uint32	
Description	Configuration value of Fri	PDelayCompensationA.
Verification method	The array member is gene 'FrController/FrPDelayCo	erated as numeric value which is configured in parameter mpensationA'.
Example(s)	Action	Generated output
	Set FrPDelayCompensati onA as 4	0x00000004U, /* FrPDelayCompensationA */
	<u>.</u>	

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1.2.7.45 Member: Fr_17_Eray_<ConfigShortName>_CCConfigArray_<FrIfCtrlldx>[44]

Table 124	Fr_17_Eray_< ConfigShortName >_CCConfigArray_ <frifctrlidx>[44]</frifctrlidx>
	Fr. 17. Francis Confiedham (Ad)

Name	Fr_17_Eray_< ConfigShort	tName >_CCConfigArray_ <frifctrlidx>[44]</frifctrlidx>
Туре	uint32	
Description	Configuration value of FrPDelayCompensationB.	
Verification method	The array member is generated as numeric value which is configured in parameter 'FrController/FrPDelayCompensationB'.	
Example(s)	Action	Generated output
	Set FrPDelayCompensati onB as 4	0x0000004U, /* FrPDelayCompensationB */

1.2.7.46 Member: Fr_17_Eray_<ConfigShortName>_CCConfigArray_<FrIfCtrlldx>[45]

Table 125 Fr_17_Eray_< ConfigShortName > _CCConfigArray_<FrIfCtrlldx>[45]

Name	Fr_17_Eray_< ConfigShor	tName >_CCConfigArray_ <frifctrlidx>[45]</frifctrlidx>
Туре	uint32	
Description	Configuration value of FrPMacroInitialOffsetA.	
Verification method	The array member is generated as numeric value which is configured in parameter 'FrController/FrPMacroInitialOffsetA'.	
Example(s)	Action	Generated output
	Set FrPMacroInitialOffset A as 10	0x000000aU, /* FrPMacroInitialOffsetA */

1.2.7.47 Member: Fr_17_Eray_<ConfigShortName>_CCConfigArray_<FrIfCtrlldx>[46]

Table 126 Fr_17_Eray_<ConfigShortName>_CCConfigArray_<FrIfCtrlldx>[46]

Name	Fr_17_Eray_ <configshort< th=""><th>:Name>_CCConfigArray_<frifctrlidx>[46]</frifctrlidx></th></configshort<>	:Name>_CCConfigArray_ <frifctrlidx>[46]</frifctrlidx>
Туре	uint32	
Description	Configuration value of FrPMacroInitialOffsetB.	
Verification method	The array member is generated as numeric value which is configured in parameter 'FrController/FrPMacroInitialOffsetB'.	
Example(s)	Action	Generated output
	Set FrPMacroInitialOffset B as 10	0x000000aU, /* FrPMacroInitialOffsetB */

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1.2.7.48 Member: Fr_17_Eray_<ConfigShortName>_CCConfigArray_<FrIfCtrlldx>[47]

Table 127	Fr_17_Eray_< ConfigSI	hortName >_CCConfigArray_ <frifctrlidx>[47]</frifctrlidx>	
Name	Fr_17_Eray_< ConfigShor	Fr_17_Eray_< ConfigShortName >_CCConfigArray_ <frifctrlidx>[47]</frifctrlidx>	
Туре	uint32		
Description	Configuration value of Fr	PMicroInitialOffsetA.	
Verification method	The array member is generated as numeric value which is configured in parameter 'FrController/FrPMicroInitialOffsetA'.		
Example(s)	Action	Generated output	
	Set FrPMicroInitialOffset A as 0v18	0x00000018U, /* FrPMicroInitialOffsetA */	

1.2.7.49 Member: Fr_17_Eray_<ConfigShortName>_CCConfigArray_<FrIfCtrlldx>[48]

Table 128 Fr_17_Eray_< ConfigShortName >_CCConfigArray_<FrIfCtrlldx>[48]

Name	Fr_17_Eray_< ConfigShor	tName >_CCConfigArray_ <frifctrlidx>[48]</frifctrlidx>
Туре	uint32	
Description	Configuration value of FrPMicroInitialOffsetB.	
Verification method	The array member is generated as numeric value which is configured in parameter 'FrController/FrPMicroInitialOffsetB'.	
Example(s)	Action	Generated output
	Set FrPMicroInitialOffset B as 0x18	0x00000018U, /* FrPMicroInitialOffsetB */

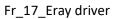
1.2.7.50 Member: Fr_17_Eray_<ConfigShortName>_CCConfigArray_<FrIfCtrlldx>[49]

Table 129 Fr_17_Eray_< ConfigShortName >_CCConfigArray_<FrIfCtrlldx>[49]

Name	Fr_17_Eray_< ConfigShortN	Name >_CCConfigArray_ <frifctrlidx>[49]</frifctrlidx>
Туре	uint32	
Description	Configuration value of FrPPayloadLengthDynMax.	
Verification method	The array member is generated as numeric value which is configured in parameter 'FrController/FrPPayloadLengthDynMax'.	
Example(s)	Action	Generated output
	Set FrPPayloadLengthDyn Max as 0x7F	0x0000007fU, /* FrPPayloadLengthDynMax */

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1.2.7.51 Member: Fr_17_Eray_<ConfigShortName>_CCConfigArray_<FrIfCtrlldx>[50]

Table 130	,_	configSnortName	
Name	Fr_17_Eray_< ConfigShortName >_CCConfigArray_ <frifctrlidx>[50]</frifctrlidx>		
Туре	uint32		
Description	Configuration value of FrP supported is 10Mbit/s.	SamplesPerMicrotick which is fixed as N2 samples, as the baudrate	
Verification method	Array member is generated as numeric value 1. Note: Array member is not configurable by user		
Example(s)	Action Generated output		
Example(3)	• Generate 0x	00000001U, /* 1 - N2SAMPLES - Fixed at N2 samples as the baudrate pported is 10Mbit/s */	
1.2.7.52	Member: Fr_17_Eray_ <configshortname>_CCConfigArray_<frifctrlldx>[51]</frifctrlldx></configshortname>		
Table 131		ortName >_CCConfigArray_ <frifctrlidx>[51]</frifctrlidx>	
Name	Fr_17_Eray_< ConfigShort	:Name >_CCConfigArray_ <frifctrlldx>[51]</frifctrlldx>	
Туре	uint32		
Description	Configuration value of FrP	WakeupChannel.	
Verification method			
	·	onfigured as FR_CHANNEL_B then value is generated as delete 1U	
Example(s)	Action	Generated output	
1.4(4)	Set FrPWakeupChannel as FR_CHANNEL_A	0x0000000U, /* FrPWakeupChannel -> 0 - FR_CHANNEL_A */	
	Set FrPWakeupChannel as FR_CHANNEL_B	0x00000001U, /* FrPWakeupChannel -> 1 - FR_CHANNEL_B */	
1.2.7.53		<pre><configshortname>_CCConfigArray_<frifctrlldx>[52]</frifctrlldx></configshortname></pre>	
Table 132		ortName >_CCConfigArray_ <frifctrlldx>[52] :Name >_CCConfigArray_<frifctrlldx>[52]</frifctrlldx></frifctrlldx>	
Name			
Туре	uint32		
Description	Configuration value of FrP	WakeupPattern.	

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	-	enerated as numeric value which is configured in parameter	
method	'FrController/FrPWake		
Example(s)	Action	Generated output	
	Set FrPWakeupPatt	ern 0x0000002U, /* FrPWakeupPattern */	
	as 2		
1.2.7.54	Member: Fr_17_Era	ay_ <configshortname>_CCConfigArray_<frifctrlldx>[53]</frifctrlldx></configshortname>	
Table 133	Fr_17_Eray_< Config	gShortName >_CCConfigArray_ <frifctrlldx>[53]</frifctrlldx>	
Name	Fr_17_Eray_< ConfigSh	nortName >_CCConfigArray_ <frifctrlidx>[53]</frifctrlidx>	
Туре	uint32		
Description	Configuration value of FrPdMicrotick which is fixed value 1 (T25NS).		
	Array member is generated as numeric value 1.		
method	Note: Array recomber is not configurable by year		
	Note: Array m	nember is not configurable by user	
	Action	Generated output	
Example(s)	71011	•	
Example(s)	Generate configuration	0x0000001U, /* FrPdMicrotick -> 1 - T25NS */	
	Generate configuration	0x0000001U, /* FrPdMicrotick -> 1 - T25NS */	
1.2.7.55	Generate configuration Member: Fr_17_Era	0x00000001U, /* FrPdMicrotick -> 1 - T25NS */ ay_ <configshortname>_CCConfigArray_<frifctrlldx>[54]</frifctrlldx></configshortname>	
1.2.7.55	Generate configuration Member: Fr_17_Era Fr_17_Eray_< Configuration	0x00000001U, /* FrPdMicrotick -> 1 - T25NS */ ay_ <configshortname>_CCConfigArray_<frifctrlldx>[54] gShortName >_CCConfigArray_<frifctrlldx>[54]</frifctrlldx></frifctrlldx></configshortname>	
1.2.7.55 Table 134	Generate configuration Member: Fr_17_Era Fr_17_Eray_< Configuration	0x00000001U, /* FrPdMicrotick -> 1 - T25NS */ ay_ <configshortname>_CCConfigArray_<frifctrlldx>[54]</frifctrlldx></configshortname>	
1.2.7.55 Table 134 Name	Generate configuration Member: Fr_17_Era Fr_17_Eray_< Configuration	0x00000001U, /* FrPdMicrotick -> 1 - T25NS */ ay_ <configshortname>_CCConfigArray_<frifctrlldx>[54] gShortName >_CCConfigArray_<frifctrlldx>[54]</frifctrlldx></frifctrlldx></configshortname>	
1.2.7.55 Table 134 Name Type	Generate configuration Member: Fr_17_Era Fr_17_Eray_< ConfigSh uint32	0x00000001U, /* FrPdMicrotick -> 1 - T25NS */ ay_ <configshortname>_CCConfigArray_<frifctrlldx>[54] gShortName >_CCConfigArray_<frifctrlldx>[54]</frifctrlldx></frifctrlldx></configshortname>	
1.2.7.55 Table 134 Name Type Description	Generate configuration Member: Fr_17_Era Fr_17_Eray_< ConfigSh uint32 Configuration value of specification 2.1	0x00000001U, /* FrPdMicrotick -> 1 - T25NS */ ay_ <configshortname>_CCConfigArray_<frifctrlidx>[54] gShortName>_CCConfigArray_<frifctrlidx>[54] nortName>_CCConfigArray_<frifctrlidx>[54]</frifctrlidx></frifctrlidx></frifctrlidx></configshortname>	
1.2.7.55 Table 134 Name Type Description	Generate configuration Member: Fr_17_Era Fr_17_Eray_< ConfigSh uint32 Configuration value of specification 2.1 Array member is generation.	0x00000001U, /* FrPdMicrotick -> 1 - T25NS */ ay_ <configshortname>_CCConfigArray_<frifctrlidx>[54] gShortName>_CCConfigArray_<frifctrlidx>[54] nortName>_CCConfigArray_<frifctrlidx>[54] FrIfGdIgnoreAfterTx which is fixed value 0 to support FR protocol ated as numeric value 0.</frifctrlidx></frifctrlidx></frifctrlidx></configshortname>	
1.2.7.55 Table 134 Name Type Description Verification	Generate configuration Member: Fr_17_Era Fr_17_Eray_< ConfigSh uint32 Configuration value of specification 2.1 Array member is generation.	0x00000001U, /* FrPdMicrotick -> 1 - T25NS */ ay_ <configshortname>_CCConfigArray_<frifctrlidx>[54] gShortName>_CCConfigArray_<frifctrlidx>[54] nortName>_CCConfigArray_<frifctrlidx>[54] FrIfGdIgnoreAfterTx which is fixed value 0 to support FR protocol</frifctrlidx></frifctrlidx></frifctrlidx></configshortname>	
1.2.7.55 Table 134 Name Type Description Verification method	Generate configuration Member: Fr_17_Era Fr_17_Eray_< ConfigSh uint32 Configuration value of specification 2.1 Array member is generation.	0x00000001U, /* FrPdMicrotick -> 1 - T25NS */ ay_ <configshortname>_CCConfigArray_<frifctrlidx>[54] gShortName>_CCConfigArray_<frifctrlidx>[54] nortName>_CCConfigArray_<frifctrlidx>[54] FrIfGdIgnoreAfterTx which is fixed value 0 to support FR protocol ated as numeric value 0.</frifctrlidx></frifctrlidx></frifctrlidx></configshortname>	
1.2.7.55 Table 134 Name Type Description Verification method	Generate configuration Member: Fr_17_Era Fr_17_Eray_< ConfigSh uint32 Configuration value of specification 2.1 Array member is general Note: Array member is general Note: Array member is general Note: Array member is general Note: Array member is general Note: Array member is general Note: Array member is general Note: Array member is general Note: Array member is general Note:	0x00000001U, /* FrPdMicrotick -> 1 - T25NS */ ay_ <configshortname>_CCConfigArray_<frifctrlldx>[54] gShortName>_CCConfigArray_<frifctrlldx>[54] nortName>_CCConfigArray_<frifctrlldx>[54] FrIfGdIgnoreAfterTx which is fixed value 0 to support FR protocol ated as numeric value 0. nember is not configurable by user</frifctrlldx></frifctrlldx></frifctrlldx></configshortname>	
1.2.7.55 Table 134 Name Type Description Verification method	Generate configuration Member: Fr_17_Era Fr_17_Eray_< ConfigSh uint32 Configuration value of specification 2.1 Array member is gener Note: Array m Action	0x00000001U, /* FrPdMicrotick -> 1 - T25NS */ ay_ <configshortname>_CCConfigArray_<frifctrlldx>[54] gShortName>_CCConfigArray_<frifctrlldx>[54] nortName>_CCConfigArray_<frifctrlldx>[54] FrIfGdIgnoreAfterTx which is fixed value 0 to support FR protocol ated as numeric value 0. member is not configurable by user Generated output</frifctrlldx></frifctrlldx></frifctrlldx></configshortname>	
1.2.7.55 Table 134 Name Type Description Verification method Example(s)	Generate configuration Member: Fr_17_Era Fr_17_Eray_< Config Fr_17_Eray_< ConfigSh uint32 Configuration value of specification 2.1 Array member is gener Note: Array m Action Generate configuration	0x00000001U, /* FrPdMicrotick -> 1 - T25NS */ ay_ <configshortname>_CCConfigArray_<frifctrlldx>[54] gShortName>_CCConfigArray_<frifctrlldx>[54] nortName>_CCConfigArray_<frifctrlldx>[54] FrIfGdIgnoreAfterTx which is fixed value 0 to support FR protocol ated as numeric value 0. member is not configurable by user Generated output</frifctrlldx></frifctrlldx></frifctrlldx></configshortname>	
1.2.7.55 Table 134 Name Type Description Verification method Example(s)	Generate configuration Member: Fr_17_Era Fr_17_Eray_< ConfigSh uint32 Configuration value of specification 2.1 Array member is gener Note: Array m Action Generate configuration Member: Fr_17_Era	0x00000001U, /* FrPdMicrotick -> 1 - T25NS */ ay_ <configshortname>_CCConfigArray_<frifctrlidx>[54] gShortName>_CCConfigArray_<frifctrlidx>[54] nortName>_CCConfigArray_<frifctrlidx>[54] FrIfGdIgnoreAfterTx which is fixed value 0 to support FR protocol ated as numeric value 0. member is not configurable by user Generated output 0x00000000U, /* FrIfGdIgnoreAfterTx - Set to 0 for FR Pr 2.1 */ ay_<configshortname>_CCConfigArray_<frifctrlidx>[55]</frifctrlidx></configshortname></frifctrlidx></frifctrlidx></frifctrlidx></configshortname>	
1.2.7.55 Table 134 Name Type Description Verification method	Generate configuration Member: Fr_17_Era Fr_17_Eray_< ConfigSh uint32 Configuration value of specification 2.1 Array member is gener Note: Array m Action Generate configuration Member: Fr_17_Era Fr_17_Eray_< Config	0x00000001U, /* FrPdMicrotick -> 1 - T25NS */ ay_ <configshortname>_CCConfigArray_<frifctrlidx>[54] gShortName>_CCConfigArray_<frifctrlidx>[54] nortName>_CCConfigArray_<frifctrlidx>[54] FrIfGdIgnoreAfterTx which is fixed value 0 to support FR protocol ated as numeric value 0. member is not configurable by user Generated output 0x00000000U, /* FrIfGdIgnoreAfterTx - Set to 0 for FR Pr 2.1 */</frifctrlidx></frifctrlidx></frifctrlidx></configshortname>	
1.2.7.55 Table 134 Name Type Description Verification method Example(s) 1.2.7.56 Table 135	Generate configuration Member: Fr_17_Era Fr_17_Eray_< ConfigSh uint32 Configuration value of specification 2.1 Array member is gener Note: Array m Action Generate configuration Member: Fr_17_Era Fr_17_Eray_< Config	0x00000001U, /* FrPdMicrotick -> 1 - T25NS */ ay_ <configshortname>_CCConfigArray_<frifctrlldx>[54] gShortName>_CCConfigArray_<frifctrlldx>[54] nortName>_CCConfigArray_<frifctrlldx>[54] FrIfGdIgnoreAfterTx which is fixed value 0 to support FR protocol ated as numeric value 0. nember is not configurable by user Generated output 0x00000000U, /* FrIfGdIgnoreAfterTx - Set to 0 for FR Pr 2.1 */ ay_<configshortname>_CCConfigArray_<frifctrlldx>[55] gShortName>_CCConfigArray_<frifctrlldx>[55]</frifctrlldx></frifctrlldx></configshortname></frifctrlldx></frifctrlldx></frifctrlldx></configshortname>	

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,		
Description	Configuration value of FrPA	AllowHaltDueToClock.
Verification method	The array member is general parameter 'FrController/Fr	ated as numeric value which is depends on configuration of PAllowHaltDueToClock'.
	If FrPAllowHaltDueToClock generated as 0U.	is configured as 'True' then array index is generated as 1U else it is
Example(s)	Action	Generated output
	Set FrPAllowHaltDueToClo ck as True	0x0000001U, /* FrPAllowHaltDueToClock */
	Set FrPAllowHaltDueToClo ck as False	0x0000000U, /* FrPAllowHaltDueToClock */
1.2.7.57	Member: Fr_17_Eray_<	ConfigShortName>_CCConfigArray_ <frifctrlidx>[56]</frifctrlidx>
Table 136	Fr_17_Eray_< ConfigSho	ortName >_CCConfigArray_ <frifctrlldx>[56]</frifctrlldx>
Name		Name >_CCConfigArray_ <frifctrlidx>[56]</frifctrlidx>
Туре	uint32	
Description	Configuration value of FrPE 2.1	externalSync which is fixed value 0 to support FR protocol specification
	Array member is generated	as numeric value 0.
method	Note: Array memb	per is not configurable by user
Example(s)	Action	Generated output
	Generate configuration	0x00000000U, /* FrPExternalSync - Set to 0 for FR Pr 2.1 */
1.2.7.58	Member: Fr_17_Eray_<	ConfigShortName>_CCConfigArray_ <frifctrlidx>[57]</frifctrlidx>
Table 137		ortName > CCConfigArray <frifctrlidy>[57]</frifctrlidy>
I anie 191	Fr_17_Eray_< ConfigShortName > _CCConfigArray_ <frifctrlldx>[57] Fr_17_Eray_< ConfigShortName > _CCConfigArray_<frifctrlldx>[57]</frifctrlldx></frifctrlldx>	
Name		
Name		
	Fr_17_Eray_< ConfigShort uint32	
Name Type	Fr_17_Eray_< ConfigShort uint32 Configuration value of FrP	Name >_CCConfigArray_ <frifctrlidx>[57] FallBackInternal which is fixed value 0 to support FR protocol</frifctrlidx>

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Example(s)	Action	Generated output
	Generate configuration	0x00000000U, /* FrPFallBackInternal - Set to 0 for FR Pr 2.1 */
1.2.7.59		 -ConfigShortName>_CCConfigArray_ <frifctrlldx>[58]</frifctrlldx>
1.2.1.33	Member. 11_11_Llay_	comiganor tvames_cccomigarray_1 metrituxs[36]
Table 138		ortName >_CCConfigArray_ <frifctrlidx>[58]</frifctrlidx>
Name	Fr_17_Eray_< ConfigShort	Name >_CCConfigArray_ <frifctrlidx>[58]</frifctrlidx>
Туре	uint32	
Description	Configuration value of FrPKeySlotOnlyEnabled.	
Verification method	The array member is generated as numeric value which depends on configuration of pa 'FrController/FrPKeySlotOnlyEnabled'.	
	If FrPKeySlotOnlyEnabled generated as 0U.	is configured as 'True' then array index is generated as 1U else it is
Example(s)	Action	Generated output
	 Set FrPKeySlotOnlyEnabl ed as True 	0x0000001U, /* FrPKeySlotOnlyEnabled */
	 Set FrPKeySlotOnlyEnabl ed as False 	0x0000000U, /* FrPKeySlotOnlyEnabled */
1.2.7.60	Member: Fr_17_Eray_<	ConfigShortName>_CCConfigArray_ <frifctrlldx>[59]</frifctrlldx>
Table 139	Fr 17 Erav < ConfigSho	ortName >_CCConfigArray_ <frifctrlldx>[59]</frifctrlldx>
Name		Name >_CCConfigArray_ <frifctrlidx>[59]</frifctrlidx>
Туре	uint32	
Description	Configuration value of FrP	KeySlotUsedForStartup.
Verification method	The array member is general forcer in the series of the se	rated as numeric value which depends on configuration of paramete sedForStartup'.
-		
	If FrPKeySlotUsedForStart generated as 0U.	cup is configured as 'True' then array index is generated as 1U else it i
	=	cup is configured as 'True' then array index is generated as 1U else it i Generated output
Example(s)	generated as 0U.	0x0000001U, /* FrPKeySlotUsedForStartup */

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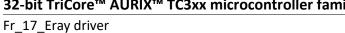


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rr_17_cray u			
	tup as False		
2.7.61	Member: Fr_17_Eray_ <configshortname>_CCConfigArray_<frifctrlldx>[60]</frifctrlldx></configshortname>		
able 140	Fr_17_Eray_< ConfigShortName >_CCConfigArray_ <frifctrlldx>[60]</frifctrlldx>		
lame	Fr_17_Eray_< ConfigShortName >_CCConfigArray_ <frifctrlldx>[60]</frifctrlldx>		
уре	uint32		
escription	Configuration value of FrPKeySlotUsedForSync.		
/erification nethod	The array member is generated as numeric value which depends on configuration of parameter 'FrController/ FrPKeySlotUsedForSync'. If FrPKeySlotUsedForSync is configured as 'True' then array index is generated as 1U else it is generated as 0U.		
Example(s)	Action	Generated output	
	 Set FrPKeySlotUsedForSy nc as True 	0x0000001U, /* FrPKeySlotUsedForSync */	
	 Set FrPKeySlotUsedForSy nc as False 	0x0000000U, /* FrPKeySlotUsedForSync */	
1.2.7.62	Member: Fr_17_Eray_<	ConfigShortName>_CCConfigArray_ <frifctrlidx>[61]</frifctrlidx>	
Table 141	Fr_17_Eray_< ConfigShe	ortName >_CCConfigArray_ <frifctrlldx>[61]</frifctrlldx>	
Name	Fr_17_Eray_< ConfigShortName >_CCConfigArray_ <frifctrlldx>[61]</frifctrlldx>		
Гуре	uint32		
Description	Configuration value of FrPNmVectorEarlyUpdate which is fixed value 0 to support FR protocol specification 2.1		
Verification	ion Array member is generated as numeric value 0. Note: Array member is not configurable by user		
method			
Example(s)	Action	Generated output	
	Generate configuration	0x00000000U, /* FrPNmVectorEarlyUpdate - Set to 0 for FR Pr 2.1 */	
1.2.7.63	Member: Fr_17_Eray_<	ConfigShortName>_CCConfigArray_ <frifctrlidx>[62]</frifctrlidx>	
Table 142	Fr_17_Eray_< ConfigShe	ortName >_CCConfigArray_ <frifctrlidx>[62]</frifctrlidx>	
Name		Name >_CCConfigArray_ <frifctrlidx>[62]</frifctrlidx>	
Туре	uint32		
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Description Configuration value of FrPTwoKeySlotMode which is fixed value 0 to support FR protoco specification 2.1		TwoKeySlotMode which is fixed value 0 to support FR protocol
Verification method	Array member is generated as numeric value 0. Note: Array member is not configurable by user	
Example(s)	Action	Generated output
	Generate configuration	0x00000000U /* FrPTwoKeySlotMode - Set to 0 for FR Pr 2.1 */

Array: Fr_17_Eray_< 1.2.8 ConfigShortName>_LPduIdx2MsgBuff_<FrIfCtrlIdx>[<LpduCount>]

Fr 17 Eray < ConfigShortName > LPduldx2MsgBuff <FrIfCtrlldx>[<LpduCount>] **Table 143**

Table 173	11_17_LTay_ Comigation traine > _LF dulux2m3gbun_ 1 Thethax [1_Lpducounts]
Name	Fr_17_Eray_< ConfigShortName >_LPduIdx2MsgBuff_ <frifctrlidx>[<lpducount>]</lpducount></frifctrlidx>
Туре	uint8
Description	LPdu to message buffer index mapping for individual FR controller.
Verification method	The array is generated as Fr_17_Eray_< ConfigShortName>_LPduIdx2MsgBuff_ <frifctrlidx>[<lpducount>] for Individual FR controller. < ConfigShortName> is string configured in parameter 'FrMultipleConfiguration/Name'.</lpducount></frifctrlidx>
	<frctrlldx> is FR index configured for individual FR controller in 'FrController/FrCtrlldx'. <lpducount> is number of LPdus configured for FR controller. Array member is generated as the message buffer index value from the</lpducount></frctrlldx>

'FrIf/FrIfCluster/FrIfController/FrIfFrameTriggering/Index' in case LPdu is not configured as FIFO.

If LPdu is configured as FIFO then message buffer index is generates as 255U.

E

Example(s)	Action	Generated output
	Configure 1 FR controller with 9 LPdus and set FrCtrlldx as 0	static const uint8 Fr_17_Eray_FrMultipleConfiguration_LPduIdx2MsgBuff_0[9] = {0U, 1U, 2U, 3U, 4U, 5U, 6U, 7U, 8U};
	 Set Name as FrMultipleCo nfiguration 	
	 None of the configured 	

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Fr_17_Eray driver

	LPdus match the receive FIFO filter criteria	
,	FR controller with 9 LPdus and set FrCtrlIdx as 0	static const uint8 Fr_17_Eray_FrMultipleConfiguration_LPduIdx2MsgBuff_0[9] = {0U, 1U, 2U, 3U, 4U, 5U, 6U, 255U, 7U};
	 Set Name as FrMultipleCo nfiguration 	
,	 The LPdu with index 7 matches the FIFO criteria. 	

Table 144 FI_II_ETay_ Colligation (Name >_DataPointerOffSet_\FiftCtritux/[LPduCount	Table 144	Fr_17_Eray_< ConfigShortName > DataPointerOffset_ <frifctrlldx>[LPduCount]</frifctrlldx>
---	-----------	--

Name Type	uint16	lfigShortName >_DataPointerOffset_ <frifctrlidx>[LPduCount]</frifctrlidx>	
Description	Array of data poin	Array of data pointer offsets of the message buffers within the message RAM.	
Verification method	The array is generated as Fr_17_Eray_ <configshortname>_LPduIdx2MsgBuff_<frifctrlidx>[<lpducount>] for individual FR controller.</lpducount></frifctrlidx></configshortname>		
	< ConfigShortName> is string configured in parameter 'FrMultipleConfiguration/Name'. <frctrlidx> is FR index configured for individual FR controller in 'FrController/FrCtrlIdx'. <lpducount> is number of LPdus configured for FR controller.</lpducount></frctrlidx>		
Array member is generated value using parameter 'FrIfController/FrIfFrameTriggering/FrIfLSduLength' configured for LPdu. First generated as size of header information (Number of LPdu * 4). Further array is generated based on length configured for LPdus.		fFrameTriggering/FrlfLSduLength' configured for LPdu. First array member is of header information (Number of LPdu * 4). Further array members are	
Example(s)	Action	Generated output	

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Configure 1 FR controller with 9 LPdus.	static const uint16 Fr_17_Eray_FrMultipleConfiguration_DataPointerOffset_0[9] = {36U, 37U, 38U, 39U, 40U, 41U, 42U, 43U, 44U};
(FrIfLPdu_0	
to	
FrIfLPdu_8)	
Set FrCtrlIdx as 0	
Set Name as FrMultipleCo nfiguration	
FrIfLSduLengt h as 4 for all configured LPdus.	
	FR controller with 9 LPdus. (FrIfLPdu_0 to FrIfLPdu_8) Set FrCtrlIdx as 0 Set Name as FrMultipleCo nfiguration Set FrIfLSduLengt h as 4 for all configured

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Fr_17_Eray driver



1.3 File: Fr_17_Eray[_<variant>]_PBcfg.h

The generated header file contains the declaration of the root configuration structure. Post-build time configuration mechanism allows configurable functionality of FR driver that is deployed as object code. The file is generated in 'inc' folder.

1.3.1 Structure: Fr_17_Eray_Config[_<variant>]

Table 145 Fr_17_Eray_Config[_<varaint>]

Name	Fr_17_Eray_Config[_ <variant>]</variant>		
Туре	Fr_17_Eray_ConfigType		
Description	Declaration of root configuration structure of FR driver which will be used during initialization.		
Verification method	<variant> indicates the name of t</variant>	nt in Fr_17_Eray[_ <variant>]_PBcfg.h file. The the post-build variant. For a variant-aware is appended with the variant name. For varianting is ignored.</variant>	
Example(s)	Action	Generated output	
	Configure and generate FR driver (variant-unaware).	extern const Fr_17_Eray_ConfigType Fr_17_Eray_Config;	
	Configure and generate FR driver (variant-aware, variant name is 'Petrol').	extern const Fr_17_Eray_ConfigType Fr_17_Eray_Config_Petrol;	

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Revision history

Major changes since the last revision

Date	Version	Description
2020-11-09	V4.0	Document moved to Released state
2020-10-29	V3.1	Fr_17_Eray driver chapter moved from MC- ISAR_TC3xx_Config_Verification_Manual_COM-E.pdf to this document
		 Added the macros FR_17_ERAY_RUNTIME_ERROR_DETECT and FR_17_ERAY_EXTENDED_LPDU_REPORTING.
		Updated CUST1 register settings
2019-07-11	V3.0	Document moved to Released state.
2019-07-11	V2.1	Added the macro: FR_17_ERAY_TX_CONFLICT_DETECTION.
2019-02-28	V1.10.0_2.0	Added PBcfg.h file. Added Instance ID.
2019-02-27	V1.10.0_1.0	Released.
2019-02-27	V1.10.0_0.3	Review comments fixed.
2019-02-27	V1.10.0_0.2	Initial review comments fixed.
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Trademarks

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