

ChrgMngt_ComCnvTx_T | 2022-10-17

ChrgMngt_ComCnvTx_T

[COMP]

RB Internal

2022-10-17 This document contains confidential information.
Disclosure is prohibited without the written consent of Robert Bosch GmbH.
Robert Bosch GmbH reserves all rights even in the event of industrial property rights.
We reserve all rights of disposal such as copying and passing on to third parties.

ChrgMngt_ComCnvTx_T



I [ChrgMngt_ComCnvTx_T]

1 Function Definition

1.1 Purpose

Charge Management Communication Conversion of Transmit Signal

1.2 Introduction

Charge Management Communication Conversion of Transmit Signal



ChrgMngt_ComCnvTx_T



2 Function Description

2.1 Behavior in normal mode

Figure 1 ChrgMngt_ComCnvTx [ChrgMngt_ComCnvTx]

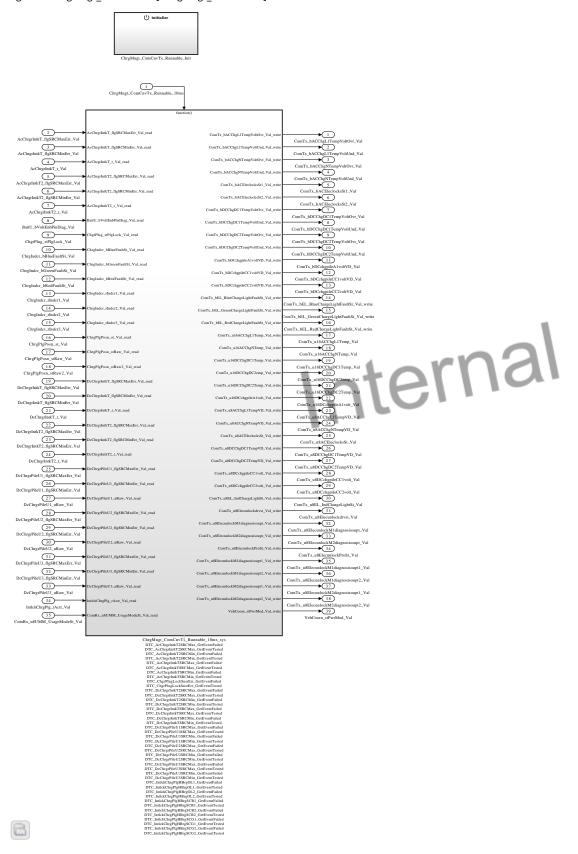
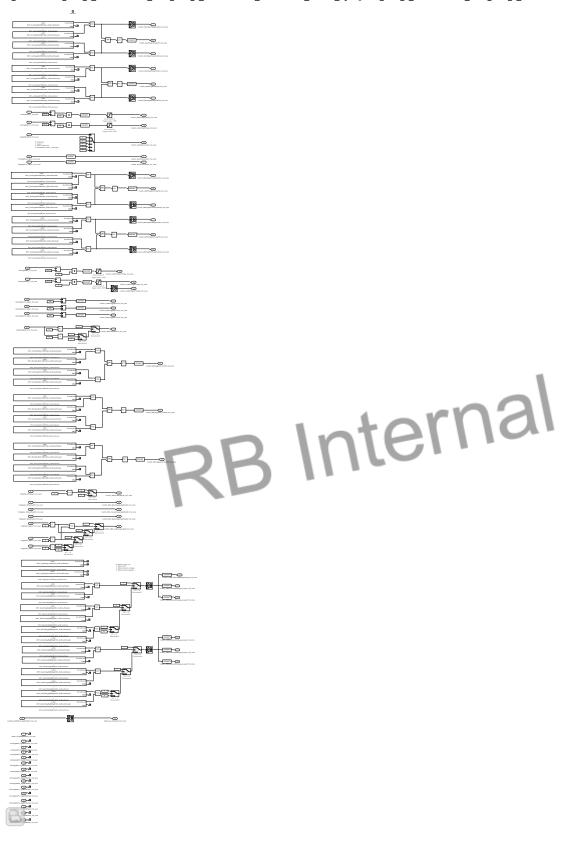




Figure 2 ChrgMngt_ComCnvTx_ChrgMngt_ComCnvTx_Runnable_10ms_sys [ChrgMngt_ComCnvTx_ChrgMngt_ComCnvTx_Runnable_10ms_sys]



 $Figure\ 3\ ChrgMngt_ComCnvTx_ChrgMngt_ComCnvTx_Runnable_Init\ [ChrgMngt_ComCnvTx_ChrgMngt_ComCnvTx_Runnable_Init\]$



ChrgMngt_ComCnvTx_T



Table 1 Data Types for port interfaces [PortInterfaceDataTypes]

Table 1 Data Types for port interfaces [PortInterfaceDataTypes]					
Port	AccessMode	Interface	DE	Datatype	
AcChrgrIntkT_flgSRCMaxErr	ImplicitReceive	AcChrgrIntkT_flgSRCMaxErr	Val	boolean	
AcChrgrIntkT_flgSRCMinErr	ImplicitReceive	AcChrgrIntkT_flgSRCMinErr	Val	boolean	
AcChrgrIntkT_t	ImplicitReceive	AcChrgrIntkT_t	Val	T_q0p1_o273p14_DegC_s16	
AcChrgrIntkT2_flgSRCMa- xErr	ImplicitReceive	AcChrgrIntkT2_flgSRCMa- xErr	Val	boolean	
AcChrgrIntkT2_flgSRCMinEr-r	ImplicitReceive	AcChrgrIntkT2_flgSRCMinEr-r	Val	boolean	
AcChrgrIntkT2_t	ImplicitReceive	AcChrgrIntkT2_t	Val	T_q0p1_o273p14_DegC_s16	
BattU_bVoltEnbPinDiag	ImplicitReceive	BattU_bVoltEnbPinDiag	Val	boolean	
ChgrPlug_stPlgLock	ImplicitReceive	ChgrPlug_stPlgLock	Val	uint8	
ChrgIndcr_bBlueFaultSt	ImplicitReceive	ChrgIndcr_bBlueFaultSt	Val	boolean	
ChrgIndcr_bGreenFaultSt	ImplicitReceive	ChrgIndcr_bGreenFaultSt	Val	boolean	
ChrgIndcr_bRedFaultSt	ImplicitReceive	ChrgIndcr_bRedFaultSt	Val	boolean	
ChrgIndcr_rIndcr1	ImplicitReceive	ChrgIndcr_rIndcr1	Val	Perc_q0p0122_Perc_s16	
ChrgIndcr_rIndcr2	ImplicitReceive	ChrgIndcr_rIndcr2	Val	Perc_q0p0122_Perc_s16	
ChrgIndcr_rIndcr3	ImplicitReceive	ChrgIndcr_rIndcr3	Val	Perc_q0p0122_Perc_s16	
ChrgPlgPosn_st	ImplicitReceive	ChrgPlgPosn_st	Val	uint8	
ChrgPlgPosn_stRaw	ImplicitReceive	ChrgPlgPosn_stRaw	Val	uint8	
ChrgPlgPosn_stRaw2	ImplicitReceive	ChrgPlgPosn_stRaw2	Val	uint8	
DcChrgrIntkT_flgSRCMaxErr	ImplicitReceive	DcChrgrIntkT_flgSRCMaxErr	Val	boolean	
DcChrgrIntkT_flgSRCMinErr	ImplicitReceive	DcChrgrIntkT_flgSRCMinErr	Val	boolean	
DcChrgrIntkT_t	ImplicitReceive	DcChrgrIntkT_t	Val	T_q0p1_o273p14_DegC_s16	
DcChrgrIntkT2_flgSRCMa- xErr	ImplicitReceive	DcChrgrIntkT2_flgSRCMa- xErr	Val	boolean	
DcChrgrIntkT2_flgSRCMi- nErr	ImplicitReceive	DcChrgrIntkT2_flgSRCMi- nErr	Val	boolean	
DcChrgrIntkT2_t	ImplicitReceive	DcChrgrIntkT2_t	Val	T_q0p1_o273p14_DegC_s16	
DcChrgrPileU1_flgSRCMa- xErr	ImplicitReceive	DcChrgrPileU1_flgSRCMa- xErr	Val	boolean	
DcChrgrPileU1_flgSRCMi- nErr	ImplicitReceive	DcChrgrPileU1_flgSRCMi- nErr	Val	boolean	
DcChrgrPileU1_uRaw	ImplicitReceive	DcChrgrPileU1_uRaw	Val	U_q1_mV_u16	
DcChrgrPileU2_flgSRCMa- xErr	ImplicitReceive	DcChrgrPileU2_flgSRCMa- xErr	Val	boolean	
DcChrgrPileU2_flgSRCMi- nErr	ImplicitReceive	DcChrgrPileU2_flgSRCMi- nErr	Val	boolean	
DcChrgrPileU2_uRaw	ImplicitReceive	DcChrgrPileU2_uRaw	Val	U_q1_mV_u16	
DcChrgrPileU3_flgSRCMa- xErr	ImplicitReceive	DcChrgrPileU3_flgSRCMa- xErr	Val	boolean	
DcChrgrPileU3_flgSRCMi- nErr	ImplicitReceive	DcChrgrPileU3_flgSRCMi- nErr	Val	boolean	
DcChrgrPileU3_uRaw	ImplicitReceive	DcChrgrPileU3_uRaw	Val	U_q1_mV_u16	
IntlckChrgPlg_rActr	ImplicitReceive	IntlckChrgPlg_rActr	Val	Perc_q0p0122_Perc_s16	
ComRx_u8UMM_UsageModeSt	ImplicitReceive	ComRx_u8UMM_UsageModeSt	Val	uint8	
ComTx_bACChgL1TempVol- tOvr	ImplicitSend	ComTx_bACChgL1TempVol- tOvr	Val	boolean	
ComTx_bACChgL1TempVoltUnd	ImplicitSend	ComTx_bACChgL1TempVol-tUnd	Val	boolean	
ComTx_bACChgNTempVol- tOvr	ImplicitSend	ComTx_bACChgNTempVol- tOvr	Val	boolean	



Port	AccessMode	Interface	DE	Datatype
ComTx_bACChgNTempVol-	ImplicitSend	ComTx_bACChgNTempVol-	Val	boolean
tUnd		tUnd		
ComTx_bACEleclocksSt1	ImplicitSend	ComTx_bACEleclocksSt1	Val	boolean
ComTx_bACEleclocksSt2	ImplicitSend	ComTx_bACEleclocksSt2	Val	boolean
ComTx_bDCChgDC1Tem- pVoltOvr	ImplicitSend	ComTx_bDCChgDC1Tem- pVoltOvr	Val	boolean
ComTx_bDCChgDC1Tem- pVoltUnd	ImplicitSend	ComTx_bDCChgDC1Tem- pVoltUnd	Val	boolean
ComTx_bDCChgDC2Tem- pVoltOvr	ImplicitSend	ComTx_bDCChgDC2Tem- pVoltOvr	Val	boolean
ComTx_bDCChgDC2Tem- pVoltUnd	ImplicitSend	ComTx_bDCChgDC2Tem- pVoltUnd	Val	boolean
ComTx_bDCchgpileA1voltVD	ImplicitSend	ComTx_bDCchgpileA1voltVD	Val	boolean
ComTx_bDCchgpileCC1vol-tVD	ImplicitSend	ComTx_bDCchgpileCC1vol-tVD	Val	boolean
ComTx_bDCchgpileCC2vol-tVD	ImplicitSend	ComTx_bDCchgpileCC2vol-tVD	Val	boolean
ComTx_bEL_BlueChargeLi-ghtFaultSt	ImplicitSend	ComTx_bEL_BlueChargeLi- ghtFaultSt	Val	Inherit: auto
ComTx_bEL_GreenChargeLightFaultSt	ImplicitSend	ComTx_bEL_GreenChargeLightFaultSt	Val	Inherit: auto
ComTx_bEL_RedChargeLi- ghtFaultSt	ImplicitSend	ComTx_bEL_RedChargeLi- ghtFaultSt	Val	Inherit: auto
ComTx_u16ACChgL1Temp	ImplicitSend	ComTx_u16ACChgL1Temp	Val	uint16
ComTx_u16ACChgNTemp	ImplicitSend	ComTx_u16ACChgNTemp	Val	uint16
ComTx_u16DCChgDC1Temp	ImplicitSend	ComTx_u16DCChgDC1Temp	Val	uint16
ComTx_u16DCChgDC2emp	ImplicitSend	ComTx_u16DCChgDC2emp	Val	uint16
ComTx_u16DCChgDC2Temp	ImplicitSend	ComTx_u16DCChgDC2Temp	Val	uint16
ComTx_u16DCchgpileA1volt	ImplicitSend	ComTx_u16DCchgpileA1volt	Val	uint16
ComTx_u8ACChgL1TempVD	ImplicitSend	ComTx_u8ACChgL1TempVD	Val	uint8
ComTx_u8ACChgNTempVD	ImplicitSend	ComTx_u8ACChgNTempVD	Val	uint8
ComTx_u8ACEleclocksSt	ImplicitSend	ComTx_u8ACEleclocksSt	Val	uint8
ComTx_u8DCChgDC1Tem- pVD	ImplicitSend	ComTx_u8DCChgDC1Tem- pVD	Val	uint8
ComTx_u8DCChgDC2Tem- pVD	ImplicitSend	ComTx_u8DCChgDC2Tem- pVD	Val	uint8
ComTx_u8DCchgpi- leCC1volt	ImplicitSend	ComTx_u8DCchgpi- leCC1volt	Val	uint8
ComTx_u8DCchgpi- leCC2volt	ImplicitSend	ComTx_u8DCchgpi- leCC2volt	Val	uint8
ComTx_u8EL_IndChargeLightSt	ImplicitSend	ComTx_u8EL_IndChargeLightSt	Val	uint8
ComTx_u8Elecunlockdrvst	ImplicitSend	ComTx_u8Elecunlockdrvst	Val	uint8
ComTx_u8Elecunloc- kM1diagnosisoupt	ImplicitSend	ComTx_u8Elecunloc- kM1diagnosisoupt	Val	uint8
ComTx_u8Elecunloc- kM2diagnosisoupt	ImplicitSend	ComTx_u8Elecunloc- kM2diagnosisoupt	Val	uint8
ComTx_u8ElecunlockProSt	ImplicitSend	ComTx_u8ElecunlockProSt	Val	uint8
ComTx_u8Elecunloc- kM1diagnosisoupt1	ImplicitSend	ComTx_u8Elecunloc- kM1diagnosisoupt1	Val	uint8
ComTx_u8Elecunloc- kM1diagnosisoupt2	ImplicitSend	ComTx_u8Elecunloc- kM1diagnosisoupt2	Val	uint8
ComTx_u8Elecunloc- kM2diagnosisoupt1	ImplicitSend	ComTx_u8Elecunloc- kM2diagnosisoupt1	Val	uint8



Port	AccessMode	Interface	DE	Datatype
ComTx_u8Elecunloc- kM2diagnosisoupt2	ImplicitSend	ComTx_u8Elecunloc- kM2diagnosisoupt2	Val	uint8
VehCoorn_stPwrMod	ImplicitSend	VehCoorn_stPwrMod	Val	uint8

Table 2 Data Types for ADT [ApplicationDataTypes]

Name	Length	IsSigned	CompuMethod
Perc_q0p0122_Perc_s16	16	true	CM_Perc_q0p0122_Perc
T_q0p1_o273p14_DegC_s16	16	true	CM_T_q0p1_o273p14_DegC
U_q1_mV_u16	16	false	CM_U_q1_mV

3 Conversion forms

Table 3 Conversion forms				
Name	Category	Unit	Contents int	
CM_Fac_q0p001	LINEAR		f(phys) := 1000phys	
CM_Frq_q0p1_Hz	LINEAR	Hz	f(phys) := 10phys	
CM_I_q0p25_mA	LINEAR	mA	f(phys) := 4phys	
CM_N_q1_rpm	LINEAR		f(phys) := 1phys	
CM_P_q2_hPa	LINEAR	hPa	f(phys) := 1phys / 2	
CM_Perc_q0p0122_Perc	LINEAR	%	f(phys) := 81.92phys	
CM_T_q0p1_o273p14_DegC	LINEAR	DegC	f(phys) := (10phys2731.399999999999)	
CM_Ti_q0p001_s	LINEAR		f(phys) := 1000phys	
CM_Ti_q1_us	LINEAR	us	f(phys) := 1phys	
CM_U_q1_mV	LINEAR	mV	f(phys) := 1phys	
CM_boolean	TEXTTABLE	<u> </u>	(FALSE, 0), (TRUE, 1)	
Dem_DTCFormatType	TEXTTABLE	ろし	(DEM_DTC_FORMAT_OBD, 0), (DEM_DTC_FORMAT_UDS, 1), (DEM_DTC_FORMAT_J1939, 2)	
Dem_DebounceResetStatusTy-pe	TEXTTABLE		(DEM_DEBOUNCE_STATUS_FREEZE, 0), (DEM_DEBOUNCE_STATUS_RESET, 1)	
Dem_EventStatusType	TEXTTABLE		(DEM_EVENT_STATUS_PASSED, 0), (DEM_EVENT_STATUS_FAILED, 1), (DEM_EVENT_STATUS_PREPASSED, 2), (DEM_EVENT_STATUS_PREFAILED, 3), (DEM_EVENT_STATUS_FDC_THRESHOLD_REACHED, 4), (DEM_EVENT_STATUS_PASSED_CONDITIONS_NOT_FULFILLED, 5), (DEM_EVENT_STATUS_FAILED_CONDITIONS_NOT_FULFILLED, 6), (DEM_EVENT_STATUS_PREPASSED_CONDITIONS_NOT_FULFILLED, 7), (DEM_EVENT_STATUS_PREFAILED_CONDITIONS_NOT_FULFILLED, 8)	
Dem_UdsStatusByteType	SCALE_LINE- AR_AND_TEXT- TABLE			
Identcl	IDENTICAL			
boolean_CompuMethod	TEXTTABLE		(FALSE, 0), (TRUE, 1)	

Production Note



II Production Note

Table 4 Configuration chosen for DocuNG

Parameter	Value
User	
Project Name	GAC_ZCUT_FRM_C0Sample
Generator Mode	Continue on non-fatal error
Ascet graphic generator engine	UnifiedGraphicGenerator
Matlab graphic generator engine	UnifiedGraphicGenerator
DocType	CDGBookAllDetailed
Condition Evaluation	true
Title Page Logo	
Print Algorithms To Review	true
Support Fallback Language	true
Print List Of Converted System Constants	true
Create Label Alias Mapping	true
HTML	false
PDF	true
PDF: Language	EN - English
PDF: Links in Graphics	true
PDF: Line Numbers	false
PDF: Confidential Level 2	true
PDF: Docu Security Option	false
Table 5 Version Information	- Intelliar

Table 5 Version Information

Program Module		Version
Product	K	AEEE-Pro 2020.2.0
	_	