JH-ACU-8A

FRAM & RAM Memory Map
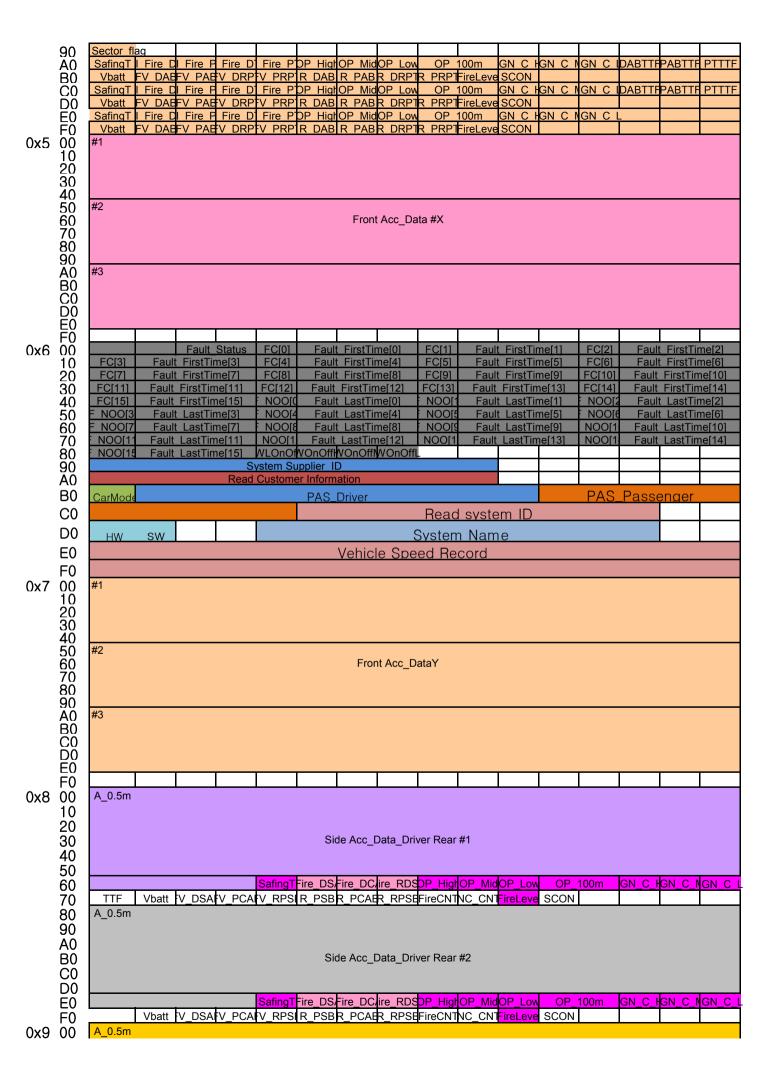

Version	Date	Description	Editor
1.0	2009.6.19		Wangchaosheng
1.1	2009.6.23		Wangchaosheng
1.2	2010.01.26	FRAM 增加了0xC0`~0xDF内容	Wangchaosheng
1.3	2011.03.08	RAM 增加了： 1、 Vihicle Option :0X20C6 2、 Para_squib :0X2200	Wangchaosheng
1.4	2011.04,04	1、修改了DFLASH_MAP中 Option Section	wangchaosheng
1.5	2011.04.20	1、修改了DFLASH_MAP中 Squib Section	wangchaosheng
1.6	2011.04.28	1、修改了DFLASH_MAP中 Squib Section	wangchaosheng
1.7	2011.07.19	1、修改了FRAM_MAP,增加了 "SCON"	wangchaosheng
	2011.08.05	2、修改了 FRAM_MAP,与生产线 有关的数据地址	wangchaosheng

1.8	2011.08.08	3、重新定义了OEM_ID information	
1.9	2011.11.23	1、修改了RAM_MAP 中WD2和WD3的地址 2、修改了DFLASH_MAP SideAlgo的地址	wangchaosheng
2	2011.12.12	1、修改了FRAM的碰撞数据的记录方式 2．.FRAM增加了Injection config	wangchaosheng
2.1	2011.12.18	1.对RAM区的ALGO Vabiale进行修改	wangchaosheng
22	2013.04.02	增加了CAN RAM定义	wangchaosheng
23	2013.07.23	增加了 生产日期 新的模块地址	wangchaosheng
24	2014.06.25	1.DFLASH增加了ID写入地址 2.RAM规范了变量地址	wangchaosheng
25	2014.10,30	1.FRAM 中增加了 00E0地址开始定义，主要是关于FAULT	wangchaosheng

JH-ACU-8A FRAM Memory Map (2014.10.30)

Addr	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0x0 00	Firestate1Value		Firestate2	FaultContinuousTime		Empty	DABCur	PABCur	DPTCur	PPTCur	DSABCur	PSABCur	DCABCur	PCABCur	RDABCur	RPABCur
10	Firestate1Value		Firestate2	FaultContinuousTime		Empty	DABCur	PABCur	DPTCur	PPTCur	DSABCur	PSABCur	DCABCur	PCABCur	RDABCur	RPABCur
20	Firestate1Value		Firestate2	FaultContinuousTime		Empty	DABCur	PABCur	DPTCur	PPTCur	DSABCur	PSABCur	DCABCur	PCABCur	RDABCur	RPABCur
30	Firestate1Value		Firestate2	FaultContinuousTime		LC_F	DABCur	PABCur	DPTCur	PPTCur	DSABCur	PSABCur	DCABCur	PCABCur	RDABCur	RPABCur
40	FiredValue		FstFire	PT_FireN	LC_F		LC_SD			LC_SP						
50–90	Front Crash Info															
A0	P-Loss	NOT USED														
B0	Front Crash Info. (PT)															
C0	Fault_Config		CG10X-ADC					Diag_cu	WD_Fir	WD_Se	VER_Fi	VER_S	VER_th	VER_Four		
D0	VER_Fir	VER_S	VER_th	VER_Four												
E0	FC[0]	Fault_FirstTime[0]			FFI-ML[0]		FC[1]	Fault_FirstTime[1]			FFI-ML[1]		FC[2]	Fault_FirstTime[2]		
F0	FFI-ML[2]		FC[3]	Fault_FirstTime[3]			FFI-ML3		FC[4]	Fault_FirstTime[4]			FFI-ML[4]			FRcnt
0x1 00–50	A_0.5m / Side Acc_Data_Driver Front #1															
60						SafingT	Fire_DSA	Fire_DCA	ire_RDS	OP_High	OP_Mid	OP_Low	OP_100m		GN_C_H	GN_C_N GN_C_L
70	TTF	Vbatt	V_DSA	V_DCA	V_RDS	R_DSB	R_DCA	R_RDSE	FireCNT	NC_CNT	FireLeve	SCON				
0x1 80–D0	A_0.5m / Side Acc_Data_Driver Front #2															
E0						SafingT	Fire_DSA	Fire_DCA	ire_RDS	OP_High	OP_Mid	OP_Low	OP_100m		GN_C_H	GN_C_N GN_C_L
F0		Vbatt	V_DSA	V_DCA	V_RDS	R_DSB	R_DCA	R_RDSE	FireCNT	NC_CNT	FireLeve	SCON				
0x2 00	ICT	ICT	ICT	ICT	ICT	ICT	ICT	ICT	ICT	ICT	ICT	Load_O	Unld_O	Shk_Ok	PreFnl	FnL_Ok
10	ACCX1	ACCX2	ACCX3	ACCX4	ACCX5	ACCY1	ACCY2	ACCY3	ACCY4	ACCY5						
20	ECU Serial No.				Label ver.			MLFB			Param. Ver.					
30	OPCOUNT				OP_Help				ATCNT				Vehicle Produce Data			
40	Manufacture(YYMMDD) ASCII						Last service Data									
50	vehicle ID Number(VIN)															
60	Customer Part number												Manufacture(YYMD)			
70	U_Option[0]	V_Option[1]	DF_Option[2]	PF_Option[3]	DR_Option[4]	PR_Option[5]	U_Chan[0]	V_Chan[1]	DF_Chan[2]	PF_Chan[3]	DR_Chan[4]	PR_Chan[5]	U_Logic[0]	V_Logic[1]	DF_Logic[2]	PF_Logic[3]
80	DF_Logic[4]	PF_Logic[5]	U_Offset[0]	V_Offse[1]	DF_Offse[2]	PF_Offse[3]	DR_Offse[4]	PR_Offse[5]	checksum							
A0	FrtCr_rcd	CNT	PTCr_rcd	CNT	DSCr_rcd	CNT	PSCr_rcd	CNT		F_POR	N_CapF	F_Cap	PDCNT0	PDCNT1	PDCNT2	PDCNT3
B0	IGN_C_H	IGN_C_N	IGN_C_	Checksum	IGN_CYCLE W/ WL On				Clr_CNT		Last_Clr_OPC					
D0			AUT_F						SBL_F	SBL_Spd						
E0	Pmode_U	RunInM														
0x3 00–50	A_0.5m / Side Acc_Data_Passenger Front #1															
60						SafingT	Fire_PSA	Fire_PCA	ire_RPS	OP_High	OP_Mid	OP_Low	OP_100m		GN_C_H	GN_C_N GN_C_L
70	TTF	Vbatt	V_PSA	V_PCA	V_RPS	R_DSB	R_DCA	R_RDSE	FireCNT	NC_CNT	FireLeve	SCON				
0x3 80–D0	A_0.5m / Side Acc_Data_Passenger Front #2															
E0						SafingT	Fire_PSA	Fire_PCA	ire_RPS	OP_High	OP_Mid	OP_Low	OP_100m		GN_C_H	GN_C_N GN_C_L
F0		Vbatt	V_PSA	V_DCA	V_RDS	R_DSB	R_DCA	R_RDSE	FireCNT	NC_CNT	FireLeve	SCON				
0x4 00	Driver Front Side Crash Info.															
10	NOT USED															
20																
30	Driver Rear Side Crash Info.												UOT USED			
40																
50	Passenger Front Side Crash Info.															
60	NOT USED															
70																
80	Passenger Rear Side Crash Info.												NOT USED			

0x5 region (offsets 90–F0)

Offset	Col1	Col2	Col3	Col4	Col5	Col6	Col7	Col8	Col9	Col10	Col11	Col12	Col13	Col14	Col15	Col16	Col17
90	Sector_flag																
A0	SafingT	I	Fire_D	Fire_P	Fire_D	Fire_P	OP_High	OP_Mid	OP_Low	OP_100m	GN_C	GN_C	GN_C	L	DABTTF	PABTTF	PTTTF
B0	Vbatt	FV_DAB	FV_PAB	V_DRP	V_PRP	R_DAB	R_PAB	R_DRP	R_PRP	FireLeve	SCON						
C0	SafingT	I	Fire_D	Fire_P	Fire_D	Fire_P	OP_High	OP_Mid	OP_Low	OP_100m	GN_C	GN_C	GN_C	L	DABTTF	PABTTF	PTTTF
D0	Vbatt	FV_DAB	FV_PAB	V_DRP	V_PRP	R_DAB	R_PAB	R_DRP	R_PRP	FireLeve	SCON						
E0	SafingT	I	Fire_D	Fire_P	Fire_D	Fire_P	OP_High	OP_Mid	OP_Low	OP_100m	GN_C	GN_C	GN_C	L			
F0	Vbatt	FV_DAB	FV_PAB	V_DRP	V_PRP	R_DAB	R_PAB	R_DRP	R_PRP	FireLeve	SCON						

0x5 (00–F0): Front Acc_Data #X — #1 (00), #2 (50), #3 (A0)

0x6 region

Offset								
00	Fault_Status	FC[0]	Fault_FirstTime[0]	FC[1]	Fault_FirstTime[1]	FC[2]	Fault_FirstTime[2]	
10	FC[3]	Fault_FirstTime[3]	FC[4]	Fault_FirstTime[4]	FC[5]	Fault_FirstTime[5]	FC[6]	Fault_FirstTime[6]
20	FC[7]	Fault_FirstTime[7]	FC[8]	Fault_FirstTime[8]	FC[9]	Fault_FirstTime[9]	FC[10]	Fault_FirstTime[10]
30	FC[11]	Fault_FirstTime[11]	FC[12]	Fault_FirstTime[12]	FC[13]	Fault_FirstTime[13]	FC[14]	Fault_FirstTime[14]
40	FC[15]	Fault_FirstTime[15]	NOO[0]	Fault_LastTime[0]	NOO[1]	Fault_LastTime[1]	NOO[2]	Fault_LastTime[2]
50	NOO[3]	Fault_LastTime[3]	NOO[4]	Fault_LastTime[4]	NOO[5]	Fault_LastTime[5]	NOO[6]	Fault_LastTime[6]
60	NOO[7]	Fault_LastTime[7]	NOO[8]	Fault_LastTime[8]	NOO[9]	Fault_LastTime[9]	NOO[10]	Fault_LastTime[10]
70	NOO[11]	Fault_LastTime[11]	NOO[12]	Fault_LastTime[12]	NOO[13]	Fault_LastTime[13]	NOO[14]	Fault_LastTime[14]
80	NOO[15]	Fault_LastTime[15]	WLOnOff	WOnOff	WOnOff	WOnOffL		
90	System Supplier ID							
A0	Read Customer Information							
B0	CarMode	PAS_Driver					PAS_Passenger	
C0	(PAS_Passenger)		Read system ID					
D0	HW	SW		System Name				
E0	Vehicle Speed Record							
F0								

0x7 (00–F0): Front Acc_DataY — #1 (00), #2 (50), #3 (A0)

0x8 region

A_0.5m — Side Acc_Data_Driver Rear #1 (00–50)

Offset												
60	SafingT	Fire_DS	Fire_DC	ire_RDS	OP_High	OP_Mid	OP_Low	OP_100m	GN_C	GN_C	GN_C	L
70	TTF	Vbatt	V_DSA	FV_PCA	V_RPS	R_PSB	R_PCAB	R_RPSB	FireCNT	NC_CNT	FireLeve	SCON

A_0.5m — Side Acc_Data_Driver Rear #2 (80–D0)

Offset												
E0	SafingT	Fire_DS	Fire_DC	ire_RDS	OP_High	OP_Mid	OP_Low	OP_100m	GN_C	GN_C	GN_C	L
F0		Vbatt	V_DSA	FV_PCA	V_RPS	R_PSB	R_PCAB	R_RPSB	FireCNT	NC_CNT	FireLeve	SCON

0x9 (00): A_0.5m

	Side Acc_Data_Passenger Rear #1														
10															
20															
30															
40															
50															
60					SafingT	Fire_PSA	Fire_PCA	ire_RPS	OP_High	OP_Mid	OP_Low	OP_100m	GN_C_H	GN_C_M	GN_C_L
70	TTF	Vbatt	V_PSA	V_PCA	V_RPS	R_PSB	R_PCA	R_RPSB	FireCNT	NC_CNT	FireLevel	SCON			
80	A_0.5m														
90															
A0								Side Acc_Data_Passenger Rear #2							
B0															
C0															
D0															
E0					SafingT	Fire_PSA	Fire_PCA	ire_RPS	OP_High	OP_Mid	OP_Low	OP_100m	GN_C_H	GN_C_M	GN_C_L
F0		Vbatt	V_PSA	V_PCA	V_RPS	R_PSB	R_PCA	R_RPSB	FireCNT	NC_CNT	FireLevel	SCON			

0xA															
00															
10															
20															
30															
40															
50															
60															
70															
80															
90															
A0															
B0															
C0															
D0															
E0															
F0															

0xB															
00															
10															
20															
30															
40															
50															
60															
70															
80															
90															
A0															
B0															
C0															
D0															
E0															
F0															

0xC															
00															
10															
20															
30															
40															
50															
60															
70															
80															
90															
A0															
B0															
C0															
D0															
E0															
F0															

0xD															
00															
10															
20															
30															
40															

| 50 |
| 60 |
| 70 |
| 80 |
| 90 |
| A0 |
| B0 |
| C0 |
| D0 |
| E0 |
| F0 |
| 0xE 00 |
| 10 |
| 20 |
| 30 |
| 40 |
| 50 |
| 60 |
| 70 |
| 80 |
| 90 |
| A0 |
| B0 |
| C0 |
| D0 |
| E0 |
| F0 |
| 0xF 00 |
| 10 |
| 20 |
| 30 |
| 40 |
| 50 |
| 60 |
| 70 |
| 80 |
| 90 |
| A0 |
| B0 |
| C0 |
| D0 |
| E0 |
| F0 |

JH-ACU-8A DFLASH Memory Map (2013.5.7)

	0	1	2	3	4	5	6	7	8	9	A	B	C	D
0x8 00														
10	COUT	Squib_Opt		WL_Opt	BPT/STP	SIS_Opt	SIS_Typ	Assign[0]	Assign[1]	Assign[2]	Assign[3]	Assign[4]	Assign[5]	Assign[6]
20	Assign[9]	RIS_Position		AccS_Op	ACCID	CG10X	F_mode	WL_Logi	WL_Logi	Belt_Loci	Belt_Loci	Belt_Loci	Belt_Loci	Belt_Loci
30	Belt_Cha	WL_Cha	WL_Cha	nn_Direct	Empty	Empty	CHKSUM							
40														
50														
60														
70														
80														
90														
A0														
B0														
C0														
D0														
E0														
F0														
0x9 00	Squib_Res[0]				Squib_Res[1]				Squib_Res[2]				Squib	
10	Squib_Res[4]				Squib_Res[5]				Squib_Res[6]				Squib	
20	Squib_Res[8]				Squib_Res[9]				Belt_R_D				Belt	
30	Belt_C_D				Belt_C_P				PADS_C_P				PADS	
40	COUT_NORMAL		COUT_CRASH		COUT		WL_C	CHKSUM						
50														
60														
70														
80														
90														
A0														
B0														
C0														
D0														
E0														
F0														

0xA 00 – 0xB 30: Front Crash Algo_Parameters (Checksum)

0xC 00 – 0xC 60: Side Crash Algo_Parameters

| 0xB | 40 50 60 70 80 90 A0 B0 C0 D0 E0 F0 |
| 0xC | 70 80 |

	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
0xD 00	CANMod	CANCTL1	CANBTR	CANBTR	CANIDAC	CANIDAR	CANIDAR	CANIDAR	CANIDAR	CANIDAR	CANIDAR	CANIDAR	CANIDAR	CANIDMR		
10	CANIDMR	CANIDMR	CANIDMR	CANIDMR	CANIDMR	RcvPhysicalID		RcvPhysicalID		RcvESPID		RcvICID		SendPh		
20	ID	ESPDiagDelayTime		ICDiagDelayTime		Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty		
30	Empty	Empty	Empty	Empty	Empty	CHKSUM										

	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
0xE 00	ECU Serial No.															

E	F
Assign[7] Belt_Cha	Assign[8] Belt_Chan[1]
Res[3]	
Res[7]	
R P	
R P	
	CHKSUM

CANIDMR	CANIDMR2
ysicalID	SendSignal
Empty	Empty

JH-ACU-8A RAM Memory Map (2014.06.25)

0x20

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
00	AccX	AccY	AccX_z	AccY_z	SISAcc0	SISAcc1	SISAcc2	SISAcc3	SISAz0	SISAz1	SISAz2	SISAz3	SIS_OK			IGN
10	DSB	PSB	PADS	WL_STB	WL_STG	VL2_STG	VL2_STB		FV_DAB	FV_PAB	FV_DBP	FV_PBP	FV_DSA	FV_PSA	FV_DCA	FV_PCAB
20	V_RDSA	FV_RPSA	TB_DAB	TB_PAB	TB_DBP	TB_PBP	TB_DSA	TB_PSA	TB_DCA	TB_PCA	TB_RDS	TB_RPS	TG_DAB	TG_PAB	TG_DBP	TG_PBPT
30	TG_DSA	TG_PSA	TG_DCA	TG_PCA	TG_RDS	TG_RPS	SQ_DAB	SQ_PAB	SQ_DBP	SQ_PBP	SQ_DSA	SQ_PSA	SQ_DCA	SQ_PCA	SQ_RDS	SQ_RPSAB
40	LS_DAB	LS_PAB	LS_DBP	LS_PBP	LS_DSA	LS_PSA	LS_DCA	LS_PCA	LS_RDS	LS_RPSA	HS_DAB	HS_PAB	HS_DBP	HS_PBP	HS_DSA	HS_PSA
50	HS_DCA	HS_PCAB	LS_RDS	LS_RPSA	LS_DSA	LS_PSA	LS_DCA	LS_PCA	LS_RDS	LS_RPSA	HS_DAB	HS_PAB	79	80	81	82
60	83	84	85	86	87	89	90									
70																
80	OP_H	OP_M	OP_L	OP_Flag	IGN CNT				IGN_CNT_WL_ON							
90	Vbatt	FV_DAB	FV_PAB	FV_DRP	FV_PRP	FV_DSA	FV_PSA	FV_DCA	FV_PCA	FV_RDS	FV_RPS	VAS	R_DAB	R_PAB	R_DPT	R_PPT
A0	R_DSAB	R_PSAB	R_DCAB	R_PCAB	R_RDSA	R_RPSA	STPS/B									
B0												CSMask_D_BU		CSMask_P_BU		
C0	WL2	FireStates1		FStat2	WD_St		COUT		Squib_Opt	WL_Opt	BPT/STP	SIS_Opt	SIS_Typ	Assign[0]	Assign[1]	Assign[2]
D0	Assign[3]	Assign[4]	Assign[5]	Assign[6]	Assign[7]	Assign[8]	Assign[9]	RIS_Position		AccS_Op	ACCID	CG10X	F_mode	WL_Log	WL_Log	Belt_Logic[0]
E0	Belt_Lo	Belt_Logic	Belt_Lo	Belt_Lo	Belt_Ch	Belt_Ch	Belt_Ch	WL_Ch	WL_Ch	n_Direc	Empty	Empty	CHKSUM			
F0																

0x21

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
00																
10																
20																
30																
40																
50						Crash_Data										
60																
70																
80																
90																
A0																
B0																
C0	ver_First	ver_Sec	ver_Third	ver_Four												
D0																
E0																
F0				CKSM_E	crsh_rcdd											

0x22

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
00	Squib_Res[0]				Squib_Res[1]				Squib_Res[2]				Squib_Res[3]			
10	Squib_Res[4]				Squib_Res[5]				Squib_Res[6]				Squib_Res[7]			
20	Squib_Res[8]				Squib_Res[9]				Belt_R_D				Belt_R_P			
30	Belt_C_D				Belt_C_P				PADS_C_P				PADS_R_P			
40	COUT		WL_C	CHKSUM												
50																
60																
70																
80																
90																
A0																
B0																
C0																
D0																
E0																
F0																

0x23

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
00																
10																
20																
30																
40																
50																
60																
70																
80			idle_tmp	idle_time	idle_max	idle_min		TEST								
90																
A0																
B0																
C0																
D0																
E0																
F0																

0x24 00															
10															
20															
30															
40															
50															
60						Front Algo. Variables									
70															
80															
90															
A0															
B0															
C0															
D0															
E0															
F0															
0x25 00															
10															
20															
30															
40															
50															
60															
70															
80															
90															
A0															
B0															
C0	WD2	WD3													
D0															
E0															
F0															
0x26 00															
10															
20															
30															
40															
50															
60															
70															
80						Front Algo. Parameters									
90															
A0															
B0															
C0															
D0															
E0															
F0															
0x27 00															
10															
20															
30														cs	
40															
50															
60															
70	Flag_PAS_Init[0]	Flag_PAS_Init[1]	Flag_PAS_Init[2]	Flag_PAS_Init[3]											
80															
90															
A0															
B0															
C0															
D0															
E0															
F0															
0x28 00															
10															
20															
30															

					Side Algo. Variables									

0x29 — Side Algo. Parameters (rows 00–60), with **CS** in the last column of row 60.

0x2A (rows 00–10): NoFault

	CANMo	CANCTL1	CANBTR	CANBTR	CANIDA	ANIDAR	ANIDAR	ANIDAR	ANIDAR	ANIDAR	ANIDAR	ANIDAR	ANIDMR	ANIDMR	ANIDMR2
90	ANIDMR	CANIDMR	ANIDMR	ANIDMR	ANIDMR	RcvPhysicalID		RcvPhysicalID		RcvESPID		RcvICID		SendPhysicalID	endSignal
A0	ID	ESPDiagDelayTime	CDiagDelayTime	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty
B0	Empty	Empty	Empty	Empty	Empty	CHKSUM									

80															
90															
A0															
B0															
C0															
D0															
E0															
F0															

0]