Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
Author: t.loureiro-hp

Procedure Summary

Objectives

This Herschel OBSM nominal procedure is used to perform CDMU and ACC memory ground images update from memory dump. The procedure is to be used for updating the OBSM ground images on the Launch Pad.The procedures assumes that the ground image updates are conducted in Retrieval.

The procedure assumes that full dumps of code and constant memory areas (no variable areas) are dumped for the following CDMU and ACC memory devices:
- CDMU PM PROM
- CDMU PM EEPROM1&2
- CDMU CPU RAM (OBS image)
- CDMU TTR SGM A&B
- ACC PM PROM
- ACC PM EEPROM1&2
- ACC CPU RAM (OBS image)
- ACC RM SGM A&B

The memory dump is commanded using TC(6,5) and the memory locations content is received on ground in TM(6,6) packets.

The memory dumps are commanded using the TC sequence generated from this procedure, and not OBSM generated command stacks.

Summary of Constraints

CDMU in Operational Mode
- ACC in Operational Mode

The CDMU and ACC CPU RAM dump requests may not cross the border between Write Protected (WP) and Not Protected (NP) areas. If the border is violated, the command is rejected.

The CDMU and ACC SGM dump requests may not cross the border between: BSW Write Protected (BSW WP), ASW Write Protected (ASW WP), BSW Not Protected (BSW NP) and ASW Not Protected (ASW NP) areas. If a border is violated, the corresponding command is rejected.

The CDMU and ACC SGM dump requests shall observe the 32-bit alignment of the SGM devices. The maximum number of SAUs in a dump command shall be FFFC hex, instead of FFFF hex.

Memory areas are dumped through TC(6,5); this TC will be delayed when there is an ongoing:
- TC(6,2) Load Memory Using Absolute Addresses
- TC(6,5) Dump Memory Using Absolute Addresses
- TC(6,9) Check Memory Using Absolute Addresses
- TC(8,4,1,1) Copy Memory

Spacecraft Configuration

Start of Procedure

CDMU in Operational Mode
- ACC in Operational Mode

End of Procedure

Same as start except:
- CDMU and ACC memory dump sequence executed

Reference File(s)

Input Command Sequences

Output Command Sequences

OFCPLPAT

Referenced Displays

ANDs **GRDs** **SLDs**

Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
05/03/09	2.1	1	Created	lstefanov-hp	
25/03/09	2.2	2	Modified CPU RAM dumps due to updated OBSW. CDMU 3.8.2.1 ACC 4.0.4	t.loureiro-hp	
14/04/09		3	Modified CPU RAM dumps due to updated OBSW. CDMU 3.10.0.0	t.loureiro-hp	
14/04/09	2.3	4	Corrected typo on step 4 comment (no seq. generated).	t.loureiro-hp	

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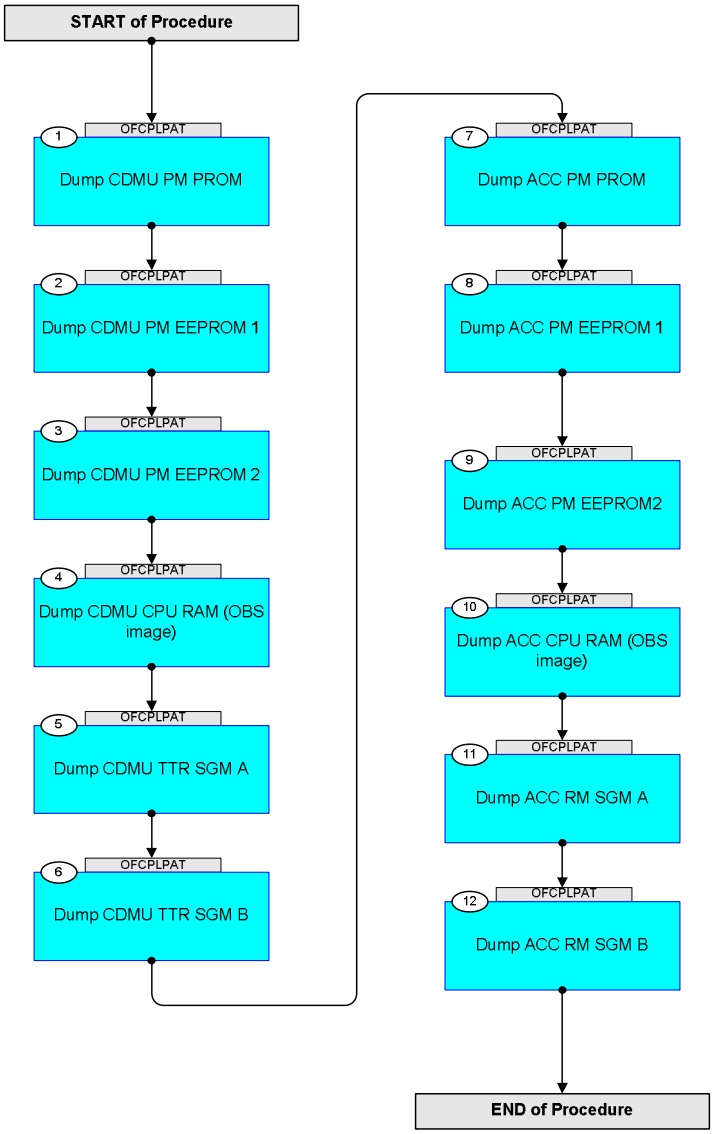
Procedure Flowchart Overview



Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
Author: t.loureiro-hp

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
Beginning of Procedure					
	OFCPLPAT	*TC Seq. Name :* OFCPLPAT (CDMU&ACC Mem Dump) CDMU and ACC memories dump (code and constants) *TimeTag Type: N* *Sub Schedule ID:*			
1		Dump CDMU PM PROM		Next Step: 2	
		For a **full** CDMU PM PROM **dump** (**Memory ID** = **0000** included in the address): **Start Address** = **0000.0000 hex** **End Address = 0000.FFFF hex** **Length = 10000 hex**			
		Uplink the memory dump commands with **ARM-GO**			
		IMPORTANT: **All commands** in the sequence have delta release times and **will be dispatched** by the **ARM-GO**			
		Note: **Ground image updates** or dump data **monitoring** against already existing OBSM ground images will be done **in Retrieval** mode. This can be done in paralel with memory dump commands uplink.			
		2 TCs for CDMU PM PROM dump			
		Execute Telecommand **DumpMem_AbsAddr** **DC602180** *Command Parameter(s) :* **Memory_ID DH003180 0000 <hex>** **Start_Address DH004180 0000 <hex>** **N DH105180 FFFF <hex>** *TC Control Flags :* **GBM IL DSE** **--Y -- ---** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses		**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** **DC602180** *Command Parameter(s) :* **Memory_ID DH003180 0000 <hex>** **Start_Address DH004180 FFFF <hex>** **N DH105180 1 <hex>** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses		**TC**	
2		Dump CDMU PM EEPROM 1		Next Step: 3	
		For a **full** CDMU PM EEPROM1 **dump** (**Memory ID** = **008** included in the address): **Start Address** = **0080.0000 hex** **End Address = 008F.FFFF hex** **Length = 100000 hex**			
		17 TCs for CDMU PM EEPROM1 dump			

Dump of CDMU and ACC memories (code and constants) (for AIT)
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Author: t.loureiro-hp

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
	ET=+ UT=+00.00.20	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0080 <hex>** **0000 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0080 <hex>** **FFFF <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0081 <hex>** **FFFE <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0082 <hex>** **FFFD <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0083 <hex>** **FFFC <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0084 <hex>** **FFFB <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0085 <hex>** **FFFA <hex>** **FFFF <hex>**	**TC**	

Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
Author: t.loureiro-hp

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0086 <hex>** **FFF9 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0087 <hex>** **FFF8 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0088 <hex>** **FFF7 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0089 <hex>** **FFF6 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **008A <hex>** **FFF5 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **008B <hex>** **FFF4 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **008C <hex>** **FFF3 <hex>** **FFFF <hex>**	**TC**	

Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
Author: t.loureiro-hp

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **008D <hex>** **FFF2 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **008E <hex>** **FFF1 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **008F <hex>** **FFF0 <hex>** **10 <hex>**	**TC**	
3		Dump CDMU PM EEPROM 2		Next Step: 4	
		For a **full** CDMU PM EEPROM2 **dump** (**Memory ID** = **009** included in the address): **Start Address** = **0090.0000 hex** **End Address** = **009F.FFFF hex** **Length** = **100000 hex**			
		17 TCs for CDMU PM EEPROM2 dump			
	ET=+ UT=+00.00.20	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0090 <hex>** **0000 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0090 <hex>** **FFFF <hex>** **FFFF <hex>**	**TC**	

Dump of CDMU and ACC memories (code and constants) (for AIT)
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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0091 <hex>** **FFFE <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0092 <hex>** **FFFD <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0093 <hex>** **FFFC <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0094 <hex>** **FFFB <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0095 <hex>** **FFFA <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0096 <hex>** **FFF9 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0097 <hex>** **FFF8 <hex>** **FFFF <hex>**	**TC**	

Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0098 <hex>** **FFF7 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0099 <hex>** **FFF6 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **009A <hex>** **FFF5 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **009B <hex>** **FFF4 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **009C <hex>** **FFF3 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **009D <hex>** **FFF2 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **009E <hex>** **FFF1 <hex>** **FFFF <hex>**	**TC**	

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File: H_FCP_OBS_LPAT.xls
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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **009F <hex>** **FFF0 <hex>** **10 <hex>**	**TC**	
4		Dump CDMU CPU RAM (OBS image)		Next Step: 5	
		For a **dump** of the CDMU CPU RAM **OBS image** (**Memory ID** = **02** included in the address): **Start Address** = **0200.0000 hex** **End Address** = **020F.FFBF hex** **Length** = **FFFC0 hex**			
		IMPORTANT: The CDMU CPU RAM dump request may not cross the border between Write Protected (WP) and Not Protected (NP) areas. If the border is violated, the command is rejected. The allocation of CPU RAM between WP and NP memory is defined at link time. The BSW constant, WriteProtectedRamEndAddr_C, points to the first byte of the unprotected RAM. For **Herschel CDMU OBS v.3.10.0.0** **WriteProtectedRamEndAddr_C** = **020C.BAE0 hex**			
		17 TCs for CDMU CPU RAM (OBS image only) dump			
	ET=+ UT=+00.00.20	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0200 <hex>** **0000 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0200 <hex>** **FFFF <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0201 <hex>** **FFFE <hex>** **FFFF <hex>**	**TC**	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0202 <hex>** **FFFD <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0203 <hex>** **FFFC <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0204 <hex>** **FFFB <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0205 <hex>** **FFFA <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0206 <hex>** **FFF9 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0207 <hex>** **FFF8 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0208 <hex>** **FFF7 <hex>** **FFFF <hex>**	**TC**	

Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
Author: t.loureiro-hp

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **0209 <hex>** **FFF6 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **020A <hex>** **FFF5 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **020B <hex>** **FFF4 <hex>** **BAEC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **020C <hex>** **BAE0 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **020D <hex>** **BADF <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **020E <hex>** **BADE <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **020F <hex>** **BADD <hex>** **44E3 <hex>**	**TC**	

Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
Author: t.loureiro-hp

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
5		Dump CDMU TTR SGM A		Next Step: 6	
		IMPORTANT: - On each SGM A and B, the memory **area** is split in **two parts** where the **first part** is **write protected** and **second part** is **unprotected**. - **Each** protected and unprotected area is divided into **one part** allocated to the **ASW** and **one part** allocated to the **BSW**			
		For CDMU **ASW v.3.10** and **BSW v.2.4**,the definitions of the 4 **SGM A** memory areas are (**Memory ID = 00B hex** included): **SGM BSW WP** Start Address = **00B0.0000** hex Length = **80** hex **SGM ASW WP** Start Address = **00B0.0080** hex Length = **3FF80** hex			
		SGM BSW NP Start Address = **00B4.0000** hex Length = **46100** hex **SGM ASW NP** Start Address = **00B8.6100** hex Length = **39F00** hex			
		IMPORTANT: All **accesses to SGM** memory must be **32-bit** transfers, **aligned** to **32-bit** boundaries.			
		14 TCs for CDMU TTR SGM A dump			
5.1		Dump CDMU SGM A BSW Write Protected area			
		For a **full** CDMU SGM A BSW WP area **dump** (**Memory ID = 00B hex** included): **Start Address = 00B0.0000 hex** **End Address = 00B0.007F hex** **Length = 80 hex**			
		1 TC for CDMU SGM A BSW WP area dump			
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **00B0 <hex>** **0000 <hex>** **80 <hex>**	**TC**	
5.2		Dump CDMU SGM A ASW Write Protected area			

Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
Author: t.loureiro-hp

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
		For a **full** CDMU SGM A ASW WP area **dump(Memory ID = 00B hex** included): **Start Address = 00B0.0080 hex** **End Address = 00B3.FFFF hex** **Length = 3FF80 hex**			
		4 TCs for CDMU SGM A ASW WP area dump			
	ET=+ UT=+00.00.20	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **00B0 <hex>** **0080 <hex>** **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **00B1 <hex>** **007C <hex>** **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **00B2 <hex>** **0078 <hex>** **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **00B3 <hex>** **0074 <hex>** **FF8C <hex>**	**TC**	
5.3		Dump CDMU SGM A BSW Not Protected area			
		For a **full** CDMU SGM A BSW NP area **dump** (**Memory ID = 00B hex** included): **Start Address = 00B4.0000 hex** **End Address = 00B8.60FF hex** **Length = 46100 hex**			
		5 TCs for CDMU SGM A BSW NP area dump			

Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
Author: t.loureiro-hp

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **00B4 <hex>** **0000 <hex>** **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **00B4 <hex>** **FFFC <hex>** **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **00B5 <hex>** **FFF8 <hex>** **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **00B6 <hex>** **FFF4 <hex>** **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **00B7 <hex>** **FFF0 <hex>** **6110 <hex>**	**TC**	
5.4		Dump CDMU SGM A ASW Not Protected area			
		For a **full** CDMU SGM A ASW NP area **dump** (**Memory ID** = **00B hex** included): **Start Address** = **00B8.6100 hex** **End Address = 00BB.FFFF hex** **Length = 39F00 hex**			
		4 TCs for CDMU SGM A ASW NP area dump			

Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
Author: t.loureiro-hp

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID** **DH003180** **Start_Address** **DH004180** **N** **DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **00B8 <hex>** **6100 <hex>** **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID** **DH003180** **Start_Address** **DH004180** **N** **DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **00B9 <hex>** **60FC <hex>** **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID** **DH003180** **Start_Address** **DH004180** **N** **DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **00BA <hex>** **60F8 <hex>** **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID** **DH003180** **Start_Address** **DH004180** **N** **DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **00BB <hex>** **60F4 <hex>** **9F0C <hex>**	**TC**	
6		Dump CDMU TTR SGM B		Next Step: 7	
		IMPORTANT: - On each SGM A and B, the memory **area** is split in **two parts** where the **first part** is **write protected** and **second part** is **unprotected**. - **Each** protected and unprotected area is divided into **one part** allocated to the **ASW** and **one part** allocated to the **BSW**			
		For CDMU **ASW v.3.10** and **BSW v.2.4**,the definitions of the 4 **SGM B** memory areas are (**Memory ID** = **00E hex** included): **SGM BSW WP** Start Address = **00E0.0000** hex Length = **80** hex **SGM ASW WP** Start Address = **00E0.0080** hex Length = **3FF80** hex			

Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
Author: t.loureiro-hp

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
		SGM BSW NP Start Address = **00E4.0000** hex Length = **46100** hex **SGM ASW NP** Start Address = **00E8.6100** hex Length = **39F00** hex			
		IMPORTANT: All **accesses to SGM** memory must be **32-bit** transfers, **aligned** to **32-bit** boundaries.			
		14 TCs for CDMU TTR SGM B dump			
6.1		Dump CDMU SGM B BSW Write Protected area			
		For a **full** CDMU SGM B BSW WP area **dump** (**Memory ID** = **00E hex** included): **Start Address** = **00E0.0000 hex** **End Address = 00E0.007F hex** **Length = 80 hex**			
		1 TC for CDMU SGM B BSW WP area dump			
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **00E0 <hex>** **0000 <hex>** **80 <hex>**	**TC**	
6.2		Dump CDMU SGM B ASW Write Protected area			
		For a **full** CDMU SGM B ASW WP area **dump**(**Memory ID** = **00E hex** included): **Start Address** = **00E0.0080 hex** **End Address = 00E3.FFFF hex** **Length = 3FF80 hex**			
		4 TCs for CDMU SGM B ASW WP area dump			
	ET=+ UT=+00.00.20	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **00E0 <hex>** **0080 <hex>** **FFFC <hex>**	**TC**	

Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
Author: t.loureiro-hp

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **00E1 <hex>** **007C <hex>** **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **00E2 <hex>** **0078 <hex>** **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **00E3 <hex>** **0074 <hex>** **FF8C <hex>**	**TC**	
6.3		Dump CDMU SGM B BSW Not Protected area			
		For a **full** CDMU SGM B BSW NP area **dump** (**Memory ID** = **00E hex** included): **Start Address = 00E4.0000 hex** **End Address = 00E8.60FF hex** **Length = 46100 hex**			
		5 TCs for CDMU SGM B BSW NP area dump			
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **00E4 <hex>** **0000 <hex>** **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **00E4 <hex>** **FFFC <hex>** **FFFC <hex>**	**TC**	

Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
Author: t.loureiro-hp

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **00E5 <hex>** **FFF8 <hex>** **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **00E6 <hex>** **FFF4 <hex>** **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **00E7 <hex>** **FFF0 <hex>** **6110 <hex>**	**TC**	
6.4		Dump CDMU SGM B ASW Not Protected area			
		For a **full** CDMU SGM B ASW NP area **dump** (**Memory ID** = **00E hex** included): **Start Address = 00E8.6100 hex** **End Address = 00EB.FFFF hex** **Length = 39F00 hex**			
		4 TCs for CDMU SGM B ASW NP area dump			
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **00E8 <hex>** **6100 <hex>** **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **00E9 <hex>** **60FC <hex>** **FFFC <hex>**	**TC**	

Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
Author: t.loureiro-hp

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **00EA <hex>** **60F8 <hex>** **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **DumpMem_AbsAddr** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *Subsch. ID : 10* Det. descr. : Dump Memory Using Absolute Addresses	**DC602180** **00EB <hex>** **60F4 <hex>** **9F0C <hex>**	**TC**	
7		Dump ACC PM PROM		Next Step: 8	
		For a **full** ACC PM PROM **dump** (**Memory ID** = **0000** included in the address): **Start Address** = **0000.0000 hex** **End Address = 0000.FFFF hex** **Length = 10000 hex**			
		2 TCs for ACC PM PROM dump			
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0000 <hex>** (Def) **0000 <hex>** (Def) **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0000 <hex>** (Def) **FFFF <hex>** **1 <hex>**	**TC**	
8		Dump ACC PM EEPROM 1		Next Step: 9	
		For a **full** ACC PM EEPROM1 **dump** (**Memory ID** = **008** included in the address): **Start Address** = **0080.0000 hex** **End Address = 008F.FFFF hex** **Length = 100000 hex**			
		17 TCs for ACC PM EEPROM1 dump			

Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
Author: t.loureiro-hp

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
	ET=+ UT=+00.00.20	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0080 <hex>** **0000 <hex>** (Def) **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0080 <hex>** **FFFF <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0081 <hex>** **FFFE <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0082 <hex>** **FFFD <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0083 <hex>** **FFFC <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0084 <hex>** **FFFB <hex>** **FFFF <hex>**	**TC**	

Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
Author: t.loureiro-hp

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0085 <hex>** **FFFA <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0086 <hex>** **FFF9 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0087 <hex>** **FFF8 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0088 <hex>** **FFF7 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0089 <hex>** **FFF6 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **008A <hex>** **FFF5 <hex>** **FFFF <hex>**	**TC**	

Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
Author: t.loureiro-hp

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **008B <hex>** **FFF4 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **008C <hex>** **FFF3 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **008D <hex>** **FFF2 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **008E <hex>** **FFF1 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **008F <hex>** **FFF0 <hex>** **10 <hex>**	**TC**	
9		Dump ACC PM EEPROM2		Next Step: 10	
		For a **full** ACC PM EEPROM2 **dump** (**Memory ID** = **009** included in the address): **Start Address** = **0090.0000 hex** **End Address** = **009F.FFFF hex** **Length** = **100000 hex**			
		17 TCs for ACC PM EEPROM2 dump			

Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
Author: t.loureiro-hp

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
	ET=+ UT=+00.00.20	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0090 <hex>** **0000 <hex>** (Def) **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0090 <hex>** **FFFF <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0091 <hex>** **FFFE <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0092 <hex>** **FFFD <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0093 <hex>** **FFFC <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0094 <hex>** **FFFB <hex>** **FFFF <hex>**	**TC**	

Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
Author: t.loureiro-hp

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0095 <hex>** **FFFA <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0096 <hex>** **FFF9 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0097 <hex>** **FFF8 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0098 <hex>** **FFF7 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0099 <hex>** **FFF6 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **009A <hex>** **FFF5 <hex>** **FFFF <hex>**	**TC**	

Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
Author: t.loureiro-hp

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **009B <hex>** **FFF4 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **009C <hex>** **FFF3 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **009D <hex>** **FFF2 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **009E <hex>** **FFF1 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **009F <hex>** **FFF0 <hex>** **10 <hex>**	**TC**	
10		Dump ACC CPU RAM (OBS image)		Next Step: 11	
		Note: For a **dump** of the ACC CPU RAM **OBS image** (**Memory ID** = **02** included in the address): **Start Address** = **0200.0000 hex** **End Address** = **020F.FFBF hex** **Length** = **FFFC0 hex**			

Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
Author: t.loureiro-hp

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
		IMPORTANT: The ACC CPU RAM dump request may not cross the border between Write Protected (WP) and Not Protected (NP) areas. If the border is violated, the command is rejected. The allocation of ACC RAM between WP and NP memory is defined at link time. The BSW constant, WriteProtectedRamEndAddr_C, points to the first byte of the unprotected RAM. For **Herschel ACC OBS v.4.0.4 AAE** **WriteProtectedRamEndAddr_C = 020A.CB98 hex**			
		17 TCs for ACC PM RAM dump			
	ET=+ UT=+00.00.20	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0200 <hex>** **0000 <hex>** (Def) **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0200 <hex>** **FFFF <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0201 <hex>** **FFFE <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0202 <hex>** **FFFD <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0203 <hex>** **FFFC <hex>** **FFFF <hex>**	**TC**	

Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
Author: t.loureiro-hp

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0204 <hex>** **FFFB <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0205 <hex>** **FFFA <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0206 <hex>** **FFF9 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0207 <hex>** **FFF8 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0208 <hex>** **FFF7 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **0209 <hex>** **FFF6 <hex>** **CBA2 <hex>**	**TC**	

Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
Author: t.loureiro-hp

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **020A <hex>** **CB98 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **020B <hex>** **CB97 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **020C <hex>** **CB96 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **020D <hex>** **CB95 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **020E <hex>** **CB94 <hex>** **FFFF <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **020F <hex>** **CB93 <hex>** **342D <hex>**	**TC**	

Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
Author: t.loureiro-hp

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
11		Dump ACC RM SGM A		Next Step: 12	
		IMPORTANT: - On each SGM A and B, the memory **area** is split in **two parts** where the **first part** is **write protected** and **second part** is **unprotected**. - **Each** protected and unprotected area is divided into **one part** allocated to the **ASW** and **one part** allocated to the **BSW**			
		For ACMS **ASW v.4.0** and **BSW v.2.0**,the definitions of the 4 SGM memory areas are (**Memory ID = 00B hex** included): **SGM BSW WP** Start Address = **00B0.0000** hex Length = **80** hex **SGM ASW WP** Start Address = **00B0.0080** hex Length = **3FF80** hex			
		SGM BSW NP Start Address = **00B4.0000** hex Length = **46100** hex **SGM ASW NP** Start Address = **00B8.6100** hex Length = **39F00** hex			
		IMPORTANT: All **accesses to SGM** memory must be **32-bit** transfers, **aligned** to **32-bit** boundaries.			
		14 TCs for ACC RM SGM A dump			
11.1		Dump ACC SGM A BSW Write Protected area			
		For a **full** ACC SGM A BSW WP area **dump** (**Memory ID** = **00B hex** included): **Start Address = 00B0.0000 hex** **End Address = 00B0.007F hex** **Length = 80 hex**			
		1 TC for ACC SGM A BSW WP area dump			
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **00B0 <hex>** **0000 <hex>** (Def) **80 <hex>**	**TC**	
11.2		Dump ACC SGM A ASW Write Protected area			

Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
Author: t.loureiro-hp

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
		For a **full** ACC SGM A ASW WP area **dump**(**Memory ID** = **00B hex** included): **Start Address** = **00B0.0080 hex** **End Address = 00B3.FFFF hex** **Length = 3FF80 hex**			
		4 TCs for ACC SGM A ASW WP area dump			
	ET=+ UT=+00.00.20	Execute Telecommand **Dump Memory** **AC063109** *Command Parameter(s) :* **Memory ID AH6M0109 00B0 <hex>** **Start Address AH6M1109 0080 <hex>** **Length SAU AH6M3109 FFFC <hex>** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses		**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** **AC063109** *Command Parameter(s) :* **Memory ID AH6M0109 00B1 <hex>** **Start Address AH6M1109 007C <hex>** **Length SAU AH6M3109 FFFC <hex>** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses		**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** **AC063109** *Command Parameter(s) :* **Memory ID AH6M0109 00B2 <hex>** **Start Address AH6M1109 0078 <hex>** **Length SAU AH6M3109 FFFC <hex>** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses		**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** **AC063109** *Command Parameter(s) :* **Memory ID AH6M0109 00B3 <hex>** **Start Address AH6M1109 0074 <hex>** **Length SAU AH6M3109 FF8C <hex>** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses		**TC**	
11.3		Dump ACC SGM A BSW Not Protected area			
		For a **full** ACC SGM A BSW NP area **dump** (**Memory ID** = **00B hex** included): **Start Address** = **00B4.0000 hex** **End Address = 00B8.60FF hex** **Length = 46100 hex**			
		5 TCs for ACC SGM A BSW NP area dump			

Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
Author: t.loureiro-hp

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **00B4 <hex>** **0000 <hex>** (Def) **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **00B4 <hex>** **FFFC <hex>** **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **00B5 <hex>** **FFF8 <hex>** **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **00B6 <hex>** **FFF4 <hex>** **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **00B7 <hex>** **FFF0 <hex>** **6110 <hex>**	**TC**	
11.4		Dump ACC SGM A ASW Not Protected area			
		For a **full** ACC SGM A ASW NP area **dump** (**Memory ID** = **00B hex** included): **Start Address** = **00B8.6100 hex** **End Address** = **00BB.FFFF hex** **Length** = **39F00 hex**			
		4 TCs for ACC SGM A ASW NP area dump			

Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
Author: t.loureiro-hp

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **00B8 <hex>** **6100 <hex>** **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **00B9 <hex>** **60FC <hex>** **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **00BA <hex>** **60F8 <hex>** **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **00BB <hex>** **60F4 <hex>** **9F0C <hex>**	**TC**	
12		Dump ACC RM SGM B		Next Step: END	
		IMPORTANT: - On each SGM A and B, the memory **area** is split in **two parts** where the **first part** is **write protected** and **second part** is **unprotected**. - **Each** protected and unprotected area is divided into **one part** allocated to the **ASW** and **one part** allocated to the **BSW**			
		For ACMS **ASW v.4.0** and **BSW v.2.0**,the definitions of the 4 SGM memory areas are (**Memory ID** = **00E hex** included): **SGM BSW WP** Start Address = **00E0.0000** hex Length = **80** hex **SGM ASW WP** Start Address = **00E0.0080** hex Length = **3FF80** hex			

Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
Author: t.loureiro-hp

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
		SGM BSW NP Start Address = **00E4.0000** hex Length = **46100** hex **SGM ASW NP** Start Address = **00E8.6100** hex Length = **39F00** hex			
		IMPORTANT: All **accesses to SGM** memory must be **32-bit** transfers, **aligned** to **32-bit** boundaries.			
		14 TCs for ACC RM SGM B dump			
12.1		Dump ACC SGM B BSW Write Protected area			
		For a **full** ACC SGM B BSW WP area **dump** (**Memory ID** = **00E hex** included): **Start Address** = **00E0.0000 hex** **End Address** = **00E0.007F hex** **Length** = **80 hex**			
		1 TC for ACC SGM B BSW WP area dump			
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **00E0 <hex>** **0000 <hex>** (Def) **80 <hex>**	**TC**	
12.2		Dump ACC SGM B ASW Write Protected area			
		For a **full** ACC SGM B ASW WP area **dump**(**Memory ID** = **00E hex** included): **Start Address** = **00E0.0080 hex** **End Address** = **00E3.FFFF hex** **Length** = **3FF80 hex**			
		4 TCs for ACC SGM B ASW WP area dump			
	ET=+ UT=+00.00.20	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **00E0 <hex>** **0080 <hex>** **FFFC <hex>**	**TC**	

Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
Author: t.loureiro-hp

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **00E1 <hex>** **007C <hex>** **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **00E2 <hex>** **0078 <hex>** **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **00E3 <hex>** **0074 <hex>** **FF8C <hex>**	**TC**	
12.3		Dump ACC SGM B BSW Not Protected area			
		For a **full** ACC SGM B BSW NP area **dump** (**Memory ID** = **00E hex** included): **Start Address** = **00E4.0000 hex** **End Address** = **00E8.60FF hex** **Length** = **46100 hex**			
		5 TCs for ACC SGM B BSW NP area dump			
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **00E4 <hex>** **0000 <hex>** (Def) **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID** **AH6M0109** **Start Address** **AH6M1109** **Length SAU** **AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **00E4 <hex>** **FFFC <hex>** **FFFC <hex>**	**TC**	

Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
Author: t.loureiro-hp

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **00E5 <hex>** **FFF8 <hex>** **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **00E6 <hex>** **FFF4 <hex>** **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **00E7 <hex>** **FFF0 <hex>** **6110 <hex>**	**TC**	
12.4		Dump ACC SGM B ASW Not Protected area			
		For a **full** ACC SGM B ASW NP area **dump** (**Memory ID** = **00E hex** included): **Start Address** = **00E8.6100 hex** **End Address = 00EB.FFFF hex** **Length = 39F00 hex**			
		4 TCs for ACC SGM B ASW NP area dump			
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **00E8 <hex>** **6100 <hex>** **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **00E9 <hex>** **60FC <hex>** **FFFC <hex>**	**TC**	

Dump of CDMU and ACC memories (code and constants) (for AIT)
File: H_FCP_OBS_LPAT.xls
Author: t.loureiro-hp

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **00EA <hex>** **60F8 <hex>** **FFFC <hex>**	**TC**	
	ET=+ UT=+00.00.40	Execute Telecommand **Dump Memory** *Command Parameter(s) :* **Memory ID AH6M0109** **Start Address AH6M1109** **Length SAU AH6M3109** *Subsch. ID : 20* Det. descr. : TC(6,5) Dump Memory Using Absolute Addresses	**AC063109** **00EB <hex>** **60F4 <hex>** **9F0C <hex>**	**TC**	
		End of Sequence			
		End of Procedure			