1. Installing and Starting the SPU HLSW (ANB on 31.08.04)

(PACS-TW-TN-015)

1.1 EEPROM

To install and start the HLSW from SPU EEPROM, please follow these steps:

1- Use the TC packets loader tool (from IFSI-Gavazzi) to load SPU SW TC packets dedicated for EEPROM (Commands to SPU SUSW). These TC packets are uploaded, then, for both SPUs.

2- Running confidence check on EEPROM(Commands to SUSW) and comparing to checksums Table on SW User Manual.

3- Copy the program from EEPROM to RAM (3 Commands to SPU SUSW) as follows:

Command 1: startfunc command to copy runtime header segment from EEPROM to PRAM

Command ID (2 Bytes):	0x04
Spare (2 Bytes):	0x00
Activity ID (2 Bytes):	0x65 (Load SPU_ASW from EEPROM)
SID (2 Bytes):	0x05
Parameter1 (4 Bytes):	0x03 (Memory ID for EEPROM)
Parameter2 (4 Bytes):	0x100 (Start address of SPU_ASW in EEPROM)
Parameter3 (4 Bytes):	0x01 (Memory ID for PRAM)
Parameter4 (4 Bytes):	0x100 (Start address in target RAM)
Parameter5 (4 Bytes):	0x1E0 (Length of SAUs to transfer referred to target Memory)

Command 2: startfunc command to copy initialisation segment from EEPROM to PRAM

Command ID (2 Bytes):	0x04
Spare (2 Bytes):	0x00
Activity ID (2 Bytes):	0x65 (Load SPU_ASW from EEPROM)
SID (2 Bytes):	0x05
Parameter1 (4 Bytes):	0x03 (Memory ID for EEPROM)
Parameter2 (4 Bytes):	0x300 (Start address of SPU_ASW in EEPROM)
Parameter3 (4 Bytes):	0x01 (Memory ID for PRAM)
Parameter4 (4 Bytes):	0x300 (Start address in target RAM)
Parameter5 (4 Bytes):	0x700 (Length of SAUs to transfer referred to target Memory)

Command 3: startfunc command to copy program memory code from EEPROM to PRAM

Command ID (2 Bytes):	0x04
Spare (2 Bytes):	0x00
Activity ID (2 Bytes):	0x65 (Load SPU_ASW from EEPROM)
SID (2 Bytes):	0x05
Parameter1 (4 Bytes):	0x03 (Memory ID for EEPROM)
Parameter2 (4 Bytes):	0xA00 (Start address of SPU_ASW in EEPROM)
Parameter3 (4 Bytes):	0x01 (Memory ID for PRAM)
Parameter4 (4 Bytes):	0xA00 (Start address in target RAM)
Parameter5 (4 Bytes):	0xA600 (Length of SAUs to transfer referred to target Memory)

4- Running confidence check on RAM (Commands to SUSW) and comparing to checksums Table on SW User Manual.

5- Starting the HLSW

One command should be sent to the SPU SUSW

Command ID (2 Bytes):	`0x04`
Spare (2 Bytes):	`0x00`
Activity ID (2 Bytes):	`0x66` (Give the control to SPU_ASW)
SID (2 Bytes):	`0x02`
Parameter1 (4 Bytes):	`0x01` (Memory ID for PRAM)
Parameter2 (4 Bytes):	`0xA02` (Start address in RAM of the SPU_ASW)

☞ The SPU starts sending HK after establishing connection with DPU.

1.2 RAM

To install and start the HLSW from SPU RAM, please follow these steps:

1- Use the TC packets loader tool (from IFSI-Gavazzi) to load SPU SW TC packets dedicated for RAM (Commands to SPU SUSW). These TC packets are uploaded, then, for both SPUs.

2- Running confidence check on RAM (Commands to SUSW) and comparing to checksums Table on SW User Manual.

3- Starting the HLSW

One command should be sent to the SPU SUSW

Command ID (2 Bytes):	`0x04`
Spare (2 Bytes):	`0x00`
Activity ID (2 Bytes):	`0x66` (Give the control to SPU_ASW)
SID (2 Bytes):	`0x02`
Parameter1 (4 Bytes):	`0x01` (Memory ID for PRAM)
Parameter2 (4 Bytes):	`0xA02` (Start address in RAM of the SPU_ASW)

☞ The SPU starts sending HK after establishing connection with DPU.

4- Copying the HLSW from RAM to EEPROM (Command to HLSW: copy data from RAM to EEPROM)

Command ID (2 Bytes):	0x04
Spare (2 Bytes):	0x00
Activity ID (2 Bytes):	0x04 (CP_DATA_RAM_EEPROM)
SID (2 Bytes):	0x05
Parameter1 (4 Bytes):	spare
Parameter2 (4 Bytes):	0x01 (Memory ID for PRAM)
Parameter3 (4 Bytes):	0x100 (Start Address in PRAM)
Parameter4 (4 Bytes):	0xE0100 (Start address in EEPROM)
Parameter5 (4 Bytes):	0x16B00 (Data Length in 16bit words)

☞ It is recommended to send this copy command for SPU stopped mode (no compression).

☞ All modifications via write commands are not recorded in the EEPROM SW copy.

☞ Modifications via generic load commands in program memory might be recorded in the EEPROM SW copy. However, all HLSW versions do not load into program memory.

5- Running the confidence check on EEPROM could only be performed while SUSW has handover SPU.